class casadi::AlpaqaInterface

List of available options			
ld	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
alpaqa	OT_DICT	Options to be passed to Alpaqa	casadi::AlpaqaInterface
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	t casadi::Nlpsol
detect_simple_bounds_is_simple	le OT_BOOLVECTOR	For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x	OT_INTVECTOR	For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal

dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	casadi::Nlpsol
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching	casadi::FunctionInternal

		compiler wrappers. Default: true	
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	. casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	. casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol

Group: general_AlpaqaInterface

List of available option	ns		
Id	Туре	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal

alpaqa	OT_DICT	Options to be passed to Alpaqa	casadi::AlpaqaInterface
always_inline bound_consistency	OT_BOOL OT_BOOL	Force inlining. Ensure that primal-dual solution is consistent with	casadi::FunctionInternal casadi::Nlpsol
cache	OT_DICT	the bounds Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the NIpsol base class	casadi::Nlpsol
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calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with	casadi::FunctionInternal
custom_jacobian	O1_I GINCTION	'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadii unctioninternat
der_options	OT_DICT	Default options to be used to populate	casadi::FunctionInternal
		forward_options, reverse_options, and jacobian_options before those options are merged in	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The	
derivative_or	OI_I ONCTION	type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi direttoriinternat
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (defaul	t casadi::Nlpsol
, , , , , , , , , , , , , , , , , , ,		false). This is hopefully beneficial to speed and	
		robustness but may also have adverse affects: 1)	
		Subtleties in heuristics and stopping criteria may	
		change the solution, 2) IPOPT may lie about	
		multipliers of simple equality bounds unless	
		'fixed_variable_treatment' is set to 'relax_bounds'.	
detect_simple_bounds_is_simpl	e OT_BOOLVECTOR	For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x		For internal use only.	casadi::Nlpsol
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discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
discrete		Indicates which of the variables are discrete, i.e. integer-valued	·
discrete	OT_BOOLVECTOR OT_BOOL	Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false]	casadi::Nlpsol casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the	casadi::Nlpsol
discrete dump dump_dir	OT_BOOLVECTOR OT_BOOL OT_STRING	Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::Nlpsol casadi::FunctionInternal casadi::FunctionInternal
discrete	OT_BOOLVECTOR OT_BOOL	Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See	casadi::Nlpsol casadi::FunctionInternal
discrete dump dump_dir	OT_BOOLVECTOR OT_BOOL OT_STRING	Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::Nlpsol casadi::FunctionInternal casadi::FunctionInternal
discrete dump dump_dir dump_format	OT_BOOLVECTOR OT_BOOL OT_STRING OT_STRING	Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx]	casadi::Nlpsol casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
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discrete dump dump_dir dump_format dump_in dump_out enable_fd	OT_BOOLVECTOR OT_BOOL OT_STRING OT_BOOL OT_BOOL OT_BOOL	Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false] Enable derivative calculation by finite differencing.	casadi::Nlpsol casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
discrete dump dump_dir dump_format dump_in dump_out	OT_BOOLVECTOR OT_BOOL OT_STRING OT_STRING OT_BOOL OT_BOOL	Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false] Enable derivative calculation by finite differencing. [default: false]] Enable derivative calculation using generated	casadi::Nlpsol casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
discrete dump dump_dir dump_format dump_in dump_out enable_fd	OT_BOOLVECTOR OT_BOOL OT_STRING OT_BOOL OT_BOOL OT_BOOL	Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false] Enable derivative calculation by finite differencing. [default: false]] Enable derivative calculation using generated functions for Jacobian-times-vector products -	casadi::Nlpsol casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
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discrete dump dump_dir dump_format dump_in dump_out enable_fd enable_forward	OT_BOOLVECTOR OT_BOOL OT_STRING OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false] Enable derivative calculation by finite differencing. [default: false]] Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::Nlpsol casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
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discrete dump dump_dir dump_format dump_in dump_out enable_fd enable_forward	OT_BOOLVECTOR OT_BOOL OT_STRING OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false] Enable derivative calculation by finite differencing. [default: false]] Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true] Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true] Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if	casadi::Nlpsol casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
discrete dump dump_dir dump_format dump_in dump_out enable_fd enable_forward	OT_BOOLVECTOR OT_BOOL OT_STRING OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false] Enable derivative calculation by finite differencing. [default: false]] Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true] Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true] Enable derivative calculation using generated functions for transposed Jacobian-times-vector	casadi::Nlpsol casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
discrete dump dump_dir dump_format dump_in dump_out enable_fd enable_forward	OT_BOOLVECTOR OT_BOOL OT_STRING OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false] Enable derivative calculation by finite differencing. [default: false]] Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true] Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true] Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true] Throw exceptions when function evaluation fails	casadi::Nlpsol casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
discrete dump dump_dir dump_format dump_in dump_out enable_fd enable_forward enable_iacobian enable_reverse	OT_BOOLVECTOR OT_BOOL OT_STRING OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false] Enable derivative calculation by finite differencing. [default: false]] Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true] Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true] Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::Nlpsol casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
discrete dump dump_dir dump_format dump_in dump_out enable_fd enable_forward enable_iacobian enable_reverse	OT_BOOLVECTOR OT_BOOL OT_STRING OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false] Enable derivative calculation by finite differencing. [default: false]] Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true] Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true] Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true] Throw exceptions when function evaluation fails (default true). When errors occur during evaluation of f,g,,stop	casadi::Nlpsol casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
discrete dump dump_dir dump_format dump_in dump_out enable_fd enable_forward enable_jacobian enable_reverse	OT_BOOLVECTOR OT_BOOL OT_STRING OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false] Enable derivative calculation by finite differencing. [default: false]] Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true] Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true] Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true] Throw exceptions when function evaluation fails (default true). When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
discrete dump dump_dir dump_format dump_in dump_out enable_fd enable_forward enable_jacobian enable_reverse	OT_BOOLVECTOR OT_BOOL OT_STRING OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false] Enable derivative calculation by finite differencing. [default: false]] Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true] Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true] Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true] Throw exceptions when function evaluation fails (default true). When errors occur during evaluation of f,g,,stop	casadi::Nlpsol casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal

formulation [false]

		Tormulation [raise]	
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	casadi::Nlpsol
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies	casadi::ProtoFunction
		record_time.	

record_time	OT_BOOL	record information about execution time, for retrieval casadi::ProtoFunction with stats().	
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi:: Function Internal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol

class casadi::AmplInterface

List of available options			
ld	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is	casadi::FunctionInternal

detect_simple_bounds	OT_BOOL	inferred from the function name. Automatically detect simple bounds (lbx/ubx) (default	casadi:·Nlpsol
detect_simple_bounds	01_5002	false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about	. casauiivipsot
		multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	
detect_simple_bounds_is_simpl	e OT_BOOLVECTOR	For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x	OT_INTVECTOR	For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	
forward_options	OT_DICT	Options to be passed to a forward mode constructor	
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable. A function that will be called at each iteration with	
iteration_callback	OT_FUNCTION	the solver as input. Check documentation of Callback.	
iteration_callback_ignore_errors		If set to true, errors thrown by iteration_callback will be ignored.	·
iteration_callback_step	OT_INT OT_DOUBLE	Only call the callback function every few iterations. When requested for a number of forward/reverse	casadi::Nlpsol casadi::FunctionInternal
jac_penalty	O1_DOUBLE	directions, it may be cheaper to compute first the full	casaui uncuommemat

		jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
iit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	
,			
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::Functioninternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies	casadi::ProtoFunction
record_time	OT_BOOL	record_time. record information about execution time, for retrieval	
		with stats().	
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	•	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
solver	OT_STRING	AMPL solver binary	casadi::AmplInterface
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol

Group: plugin_Nlpsol_AmplInterface

List of available options

Id Type Description solver OT_STRING AMPL solver binary

Group: general_Amplinterface

List of available options			
ld	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	: casadi::Nlpsol
detect_simple_bounds_is_simple		For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x	OT_INTVECTOR	For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol

dump dump_dir	OT_BOOL OT_STRING	Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	casadi::Nlpsol
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	•	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation $% \left(\frac{1}{2}\right) =\left(\frac{1}{2}\right) \left(\frac{1}{2}\right)$	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include	casadi::FunctionInternal

		extensions. Default: 'jit_tmp'	
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion Default: empty	. casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	. casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
solver	OT_STRING	AMPL solver binary	casadi::AmplInterface
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol

class casadi::BSplineInterpolant

List of available options

IdTypeDescriptionUsed inad_weightOT_DOUBLEWeighting factor for derivative calculation.When there is an casadi::FunctionInternal

option of either using forward or reverse mode directional derivatives, the condition ad_weightnf<=(1-ad_weight)\(\) na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be

ad_weight_sp	OT_DOUBLE	overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics. Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored	casadi::FunctionInternal
algorithm	OT_STRING	and dense matrices are used. Algorithm used for fitting the data: 'not_a_knot' (default, same as Matlab), 'smooth_linear'.	casadi::BSplineInterpolant
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
batch_x	OT_INT	Evaluate a batch of different inputs at once (default 1).	casadi::Interpolant
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
degree	OT_INTVECTOR	Sets, for each grid dimension, the degree of the spline.	casadi::BSplineInterpolant
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail external_transform	OT_BOOL OT_VECTORVECTOR	Throw exceptions when function evaluation fails (default true). It List of external_transform instruction arguments. Default: empty	casadi::ProtoFunction casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
inline	OT_BOOL	Implement the lookup table in MX primitives. Useful when you need derivatives with respect to grid and/or coefficients. Such derivatives are fundamentally dense, so use with caution.	casadi::Interpolant
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic	casadi::FunctionInternal

		to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
linear_solver	OT_STRING	Solver used for constructing the coefficient tensor.	casadi:: BSpline Interpolant
linear_solver_option		Options to be passed to the linear solver.	casadi::BSplineInterpolant
lookup_mode	OT_STRINGVECTOR	Specifies, for each grid dimension, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; (default when #knots<=100), 'exact' uses floored division (only for uniform grids), 'binary' uses a binary search. (default when #knots>100).	casadi::Interpolant
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check			
reverse_options	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
·	OT_BOOL OT_DICT	Throw exceptions when NaN or Inf appears during evaluation Options to be passed to a reverse mode constructor	casadi::ProtoFunction casadi::FunctionInternal
smooth_linear_frac			
·	OT_DICT	Options to be passed to a reverse mode constructor When 'smooth_linear' algorithm is active, determines sharpness between 0 (sharp, as linear interpolation) and 0.5	casadi::FunctionInternal casadi::BSplineInterpolant

Group: plugin_Interpolant_bspline

List of available options

ziot oi araitable optio		
Id	Type	Description
algorithm	OT_STRING	Algorithm used for fitting the data: 'not_a_knot' (default, same as Matlab), 'smooth_linear'.
degree	OT_INTVECTOR	R Sets, for each grid dimension, the degree of the spline.
linear_solver	OT_STRING	Solver used for constructing the coefficient tensor.
linear_solver_options	OT_DICT	Options to be passed to the linear solver.
smooth_linear_frac	OT_DOUBLE	When 'smooth_linear' algorithm is active, determines sharpness between 0 (sharp, as linear interpolation) and 0.5 (smooth).Default value is 0.1.

Group: general_BSplineInterpolant

List of available optic	ons		
ld	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)\text{ha} is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
algorithm	OT_STRING	Algorithm used for fitting the data: 'not_a_knot' (default, same as Matlab), 'smooth_linear'.	casadi::BSplineInterpolant
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
batch_x	OT_INT	Evaluate a batch of different inputs at once (default 1).	casadi::Interpolant
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
degree	OT_INTVECTOR	Sets, for each grid dimension, the degree of the spline.	casadi::BSplineInterpolant
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform		List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal

inline	OT_BOOL	Implement the lookup table in MX primitives. Useful when you need derivatives with respect to grid and/or coefficients. Such derivatives are fundamentally dense, so use with caution.	casadi::Interpolant
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in is_diff_out jac_penalty	OT_BOOLVECTOR OT_BOOLVECTOR OT_DOUBLE	Indicate for each input if it should be differentiable. Indicate for each output if it should be differentiable. When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default true	casadi::FunctionInternal :
linear_solver	OT_STRING	Solver used for constructing the coefficient tensor.	casadi::BSplineInterpolant
linear_solver_option	s OT_DICT	Options to be passed to the linear solver.	casadi::BSplineInterpolant
linear_solver_option lookup_mode		Options to be passed to the linear solver. Specifies, for each grid dimension, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; (default when #knots<=100), 'exact' uses floored division (only for uniform grids), 'binary' uses a binary search. (default when #knots>100).	casadi::Interpolant
·		Specifies, for each grid dimension, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; (default when #knots<=100), 'exact' uses floored division (only for uniform grids), 'binary' uses a binary search. (default when	casadi::Interpolant
lookup_mode	OT_STRINGVECTOR	Specifies, for each grid dimension, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; (default when #knots<=100), 'exact' uses floored division (only for uniform grids), 'binary' uses a binary search. (default when #knots>100).	casadi::Interpolant
max_io max_num_dir never_inline	OT_STRINGVECTOR OT_INT OT_INT OT_BOOL	Specifies, for each grid dimension, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; (default when #knots<=100), 'exact' uses floored division (only for uniform grids), 'binary' uses a binary search. (default when #knots>100). Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining.	casadi::Interpolant casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
lookup_mode max_io max_num_dir	OT_STRINGVECTOR OT_INT OT_INT OT_BOOL OT_STRINGVECTOR	Specifies, for each grid dimension, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; (default when #knots<=100), 'exact' uses floored division (only for uniform grids), 'binary' uses a binary search. (default when #knots>100). Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored)	casadi::Interpolant casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
max_io max_num_dir never_inline output_scheme post_expand	OT_STRINGVECTOR OT_INT OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL	Specifies, for each grid dimension, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; (default when #knots<=100), 'exact' uses floored division (only for uniform grids), 'binary' uses a binary search. (default when #knots>100). Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False	casadi::Interpolant casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
max_io max_num_dir never_inline output_scheme	OT_STRINGVECTOR OT_INT OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL s OT_DICT	Specifies, for each grid dimension, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; (default when #knots<=100), 'exact' uses floored division (only for uniform grids), 'binary' uses a binary search. (default when #knots>100). Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty	casadi::Interpolant casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
max_io max_num_dir never_inline output_scheme post_expand post_expand_option print_in	OT_STRINGVECTOR OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL S OT_DICT OT_BOOL	Specifies, for each grid dimension, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; (default when #knots<=100), 'exact' uses floored division (only for uniform grids), 'binary' uses a binary search. (default when #knots>100). Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false]	casadi::Interpolant casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
max_io max_num_dir never_inline output_scheme post_expand post_expand_option print_in print_out	OT_STRINGVECTOR OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL S OT_DICT OT_BOOL OT_BOOL	Specifies, for each grid dimension, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; (default when #knots<=100), 'exact' uses floored division (only for uniform grids), 'binary' uses a binary search. (default when #knots>100). Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false]	casadi::Interpolant casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
max_io max_num_dir never_inline output_scheme post_expand post_expand_option print_in print_out print_time	OT_STRINGVECTOR OT_INT OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL S OT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Specifies, for each grid dimension, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; (default when #knots<=100), 'exact' uses floored division (only for uniform grids), 'binary' uses a binary search. (default when #knots>100). Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time.	casadi::Interpolant casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::PunctionInternal casadi::PunctionInternal
max_io max_num_dir never_inline output_scheme post_expand post_expand_option print_in print_out	OT_STRINGVECTOR OT_INT OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL S OT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Specifies, for each grid dimension, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; (default when #knots<=100), 'exact' uses floored division (only for uniform grids), 'binary' uses a binary search. (default when #knots>100). Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time. record information about execution time, for retrieval with stats().	casadi::Interpolant casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
max_io max_num_dir never_inline output_scheme post_expand post_expand_option print_in print_out print_time record_time regularity_check	OT_STRINGVECTOR OT_INT OT_INT OT_BOOL OT_BOOL SOT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Specifies, for each grid dimension, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; (default when #knots<=100), 'exact' uses floored division (only for uniform grids), 'binary' uses a binary search. (default when #knots>100). Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time. record information about execution time, for retrieval with stats(). Throw exceptions when NaN or Inf appears during evaluation	casadi::Interpolant casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ProtoFunction casadi::ProtoFunction casadi::ProtoFunction
max_io max_num_dir never_inline output_scheme post_expand post_expand_option print_in print_out print_time record_time regularity_check reverse_options	OT_STRINGVECTOR OT_INT OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Specifies, for each grid dimension, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; (default when #knots<=100), 'exact' uses floored division (only for uniform grids), 'binary' uses a binary search. (default when #knots>100). Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time. record information about execution time, for retrieval with stats(). Throw exceptions when NaN or Inf appears during evaluation Options to be passed to a reverse mode constructor	casadi::Interpolant casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ProtoFunction casadi::ProtoFunction casadi::ProtoFunction casadi::FunctionInternal
max_io max_num_dir never_inline output_scheme post_expand post_expand_option print_in print_out print_time record_time regularity_check	OT_STRINGVECTOR OT_INT OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Specifies, for each grid dimension, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; (default when #knots<=100), 'exact' uses floored division (only for uniform grids), 'binary' uses a binary search. (default when #knots>100). Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time. record information about execution time, for retrieval with stats(). Throw exceptions when NaN or Inf appears during evaluation Options to be passed to a reverse mode constructor When 'smooth_linear' algorithm is active, determines sharpness between 0 (sharp, as linear interpolation) and 0.5 (smooth).Default value is 0.1.	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ProtoFunction casadi::ProtoFunction casadi::ProtoFunction casadi::FunctionInternal casadi::ProtoFunction
max_io max_num_dir never_inline output_scheme post_expand post_expand_option print_in print_out print_time record_time regularity_check reverse_options	OT_STRINGVECTOR OT_INT OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Specifies, for each grid dimension, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; (default when #knots<=100), 'exact' uses floored division (only for uniform grids), 'binary' uses a binary search. (default when #knots>100). Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time. record information about execution time, for retrieval with stats(). Throw exceptions when NaN or Inf appears during evaluation Options to be passed to a reverse mode constructor When 'smooth_linear' algorithm is active, determines sharpness between 0 (sharp, as linear interpolation) and 0.5	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ProtoFunction casadi::ProtoFunction casadi::ProtoFunction casadi::FunctionInternal casadi::ProtoFunction

class casadi::Blocksqp

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	U	νu	u	U	ıe	u	lα	ш	ď	d٧	OΙ	.ISL	L

List of available options			
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
block_hess	OT_INT	Blockwise Hessian approximation?	casadi::Blocksqp
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
col_eps	OT_DOUBLE	Epsilon for COL scaling strategy	casadi::Blocksqp
col_tau1	OT_DOUBLE	tau1 for COL scaling strategy	casadi::Blocksqp
col_tau2	OT_DOUBLE	tau2 for COL scaling strategy	casadi::Blocksqp
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
conv_strategy	OT_INT	Convexification strategy	casadi::Blocksqp
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with	casadi::FunctionInternal
castoni_jacobian	OI_I ONCTION	'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi directoriinterriat
delta	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
delta_h0	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	casadi::Nlpsol
detect_simple_bounds_is_simpl	e OT_BOOLVECTOR	For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x		For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal

dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
eps	OT_DOUBLE	Values smaller than this are regarded as numerically zero	casadi::Blocksqp
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eta	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fallback_scaling	OT_INT	If indefinite update is used, the type of fallback strategy	casadi::Blocksqp
fallback_update	OT_INT	If indefinite update is used, the type of fallback strategy	casadi::Blocksqp
fd_method	OT_STRING	J	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gamma_f	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
gamma_theta	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
globalization	OT_BOOL	Enable globalization	casadi::Blocksqp
hess_damp	OT_INT	Activate Powell damping for BFGS	casadi::Blocksqp
hess_damp_fac	OT_DOUBLE	Damping factor for BFGS Powell modification	casadi::Blocksqp
hess_lim_mem	OT_INT	Full or limited memory	casadi::Blocksqp
hess_memsize	OT_INT	Memory size for L-BFGS updates	casadi::Blocksqp
hess_scaling	OT_INT	Scaling strategy for Hessian approximation	casadi::Blocksqp
hess_update	OT_INT	Type of Hessian approximation	casadi::Blocksqp
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	·
ini_hess_diag	OT_DOUBLE	Initial Hessian guess: diagonal matrix diag(iniHessDiag)	casadi::Blocksqp
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol

iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse	casadi::FunctionInternal
		directions, it may be cheaper to compute first the full	
		jacobian and then multiply with seeds, rather than	
		obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is	
		cheaper. A high value of 'jac_penalty' makes it less	
		likely for the heurstic to chose the full Jacobian	
		strategy. The special value -1 indicates never to use	
		the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
, jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates.	
, = 1	_	Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file	casadi::FunctionInternal
		names used depend on 'jit_temp_suffix' and include	
		extensions. Default: 'jit_tmp'	
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function:	casadi::FunctionInternal
		SOURCE link embed.	
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix	casadi::FunctionInternal
		for generated code and libraries. This is desired for	
		thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	
kanna f	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
kappa_f	OT_DOUBLE OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
kappa_minus			••
kappa_plus	OT_DOUBLE OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
kappa_plus_max		Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
kappa_soc	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
linsol	OT_STRING	The linear solver to be used by the QP method	casadi::Blocksqp
max_consec_reduced_steps	OT_INT	Maximum number of consecutive reduced steps	casadi::Blocksqp
max_consec_skipped_updates	OT_INT	Maximum number of consecutive skipped updates	casadi::Blocksqp
max_conv_qp	OT_INT	How many additional QPs may be solved for convexification per iteration?	casadi::Blocksqp
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_it_qp	OT_INT	Maximum number of QP iterations per SQP iteration	casadi::Blocksqp
max_iter	OT_INT	Maximum number of SQP iterations	casadi::Blocksqp
max_line_search	OT_INT	Maximum number of steps in line search	casadi::Blocksqp
max_num_dir	OT_INT	Specify the maximum number of directions for	casadi::FunctionInternal
		derivative functions. Overrules the builtin	
		optimized_num_dir.	
max_soc_iter	OT_INT	Maximum number of SOC line search iterations	casadi::Blocksqp
max_time_qp	OT_DOUBLE	Maximum number of time in seconds per QP solve per SQP iteration	casadi::Blocksqp
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor		Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
nlinfeastol	OT_DOUBLE	Nonlinear feasibility tolerance	casadi::Blocksqp
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
obj_lo	OT_DOUBLE	Lower bound on objective function [-inf]	casadi::Blocksqp
obj_up	OT_DOUBLE	Upper bound on objective function [inf]	casadi::Blocksqp
opttol	OT_DOUBLE	Optimality tolerance	casadi::Blocksqp
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	. casadi::FunctionInternal
print_header	OT_BOOL	Print solver header at startup	casadi::Blocksqp
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
		in a second second second second	

print_iteration	OT_BOOL	Print SQP iterations	casadi::Blocksqp
print_maxit_reached	OT_BOOL	Print error when maximum number of SQP iterations reached	casadi::Blocksqp
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
qp_init	OT_BOOL	Use warmstarting	casadi::Blocksqp
qpsol	OT_STRING	The QP solver to be used by the SQP method	casadi::Blocksqp
qpsol_options	OT_DICT	Options to be passed to the QP solver	casadi::Blocksqp
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
restore_feas	OT_BOOL	Use feasibility restoration phase	casadi::Blocksqp
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
rho	OT_DOUBLE	Feasibility restoration phase parameter	casadi::Blocksqp
s_f	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
s_theta	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
schur	OT_BOOL	Use qpOASES Schur compliment approach	casadi::Blocksqp
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
skip_first_globalization	OT_BOOL	No globalization strategy in first iteration	casadi::Blocksqp
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
theta_max	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
theta_min	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warmstart	OT_BOOL	Use warmstarting	casadi::Blocksqp
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol
which_second_derv	OT_INT	For which block should second derivatives be provided by the user	casadi::Blocksqp
zeta	OT_DOUBLE	Feasibility restoration phase parameter	casadi::Blocksqp

Group: plugin_Nlpsol_blocksqp

List of available options

ld	Type	Description		
block_hess	OT_INT	Blockwise Hessian approximation?		
col_eps	OT_DOUBLE Epsilon for COL scaling strategy			
col_tau1	OT_DOUBLE tau1 for COL scaling strategy			
col_tau2	OT_DOUBLE tau2 for COL scaling strategy			
conv_strategy	OT_INT	Convexification strategy		
delta	OT_DOUBL	E Filter line search parameter, cf. IPOPT paper		
delta_h0	OT_DOUBLE Filter line search parameter, cf. IPOPT paper			
eps	OT_DOUBLE Values smaller than this are regarded as numerically zero			
eta	OT_DOUBL	E Filter line search parameter, cf. IPOPT paper		
fallback_scaling	OT_INT	If indefinite update is used, the type of fallback strategy		
fallback_update	OT_INT	If indefinite update is used, the type of fallback strategy		

gamma_f OT_DOUBLE Filter line search parameter, cf. IPOPT paper gamma_theta OT_DOUBLE Filter line search parameter, cf. IPOPT paper

globalization OT_BOOL Enable globalization

hess_damp OT_INT Activate Powell damping for BFGS

hess_damp_fac OT_DOUBLE Damping factor for BFGS Powell modification

hess_lim_mem OT_INT Full or limited memory

hess_memsize OT_INT Memory size for L-BFGS updates

hess_scaling OT_INT Scaling strategy for Hessian approximation

hess_update OT_INT Type of Hessian approximation

ini_hess_diag OT_DOUBLE Initial Hessian guess: diagonal matrix diag(iniHessDiag)

OT_DOUBLE Filter line search parameter, cf. IPOPT paper kappa_f kappa_minus OT_DOUBLE Filter line search parameter, cf. IPOPT paper OT_DOUBLE Filter line search parameter, cf. IPOPT paper kappa_plus OT_DOUBLE Filter line search parameter, cf. IPOPT paper kappa_plus_max OT_DOUBLE Filter line search parameter, cf. IPOPT paper kappa_soc linsol OT_STRING The linear solver to be used by the QP method OT_INT Maximum number of consecutive reduced steps max_consec_reduced_steps $max_consec_skipped_updates\ OT_INT$ Maximum number of consecutive skipped updates

max_conv_qp OT_INT How many additional QPs may be solved for convexification per iteration?

max_it_qp OT_INT Maximum number of QP iterations per SQP iteration

max_iterOT_INTMaximum number of SQP iterationsmax_line_searchOT_INTMaximum number of steps in line searchmax_soc_iterOT_INTMaximum number of SOC line search iterations

max_time_qp OT_DOUBLE Maximum number of time in seconds per QP solve per SQP iteration

nlinfeastol OT_DOUBLE Nonlinear feasibility tolerance

obj_lo OT_DOUBLE Lower bound on objective function [-inf]
obj_up OT_DOUBLE Upper bound on objective function [inf]

opttol OT_DOUBLE Optimality tolerance

print_header OT_BOOL Print solver header at startup

print_iteration OT_BOOL Print SQP iterations

print_maxit_reached OT_BOOL Print error when maximum number of SQP iterations reached

qp_init OT_BOOL Use warmstarting

OT_STRING The QP solver to be used by the SQP method **qpsol** Options to be passed to the QP solver qpsol_options OT_DICT restore_feas OT_BOOL Use feasibility restoration phase OT_DOUBLE Feasibility restoration phase parameter rho s f OT_DOUBLE Filter line search parameter, cf. IPOPT paper OT_DOUBLE Filter line search parameter, cf. IPOPT paper s_theta OT_BOOL Use qpOASES Schur compliment approach schur skip_first_globalization OT_BOOL No globalization strategy in first iteration OT_DOUBLE Filter line search parameter, cf. IPOPT paper theta_max theta min OT_DOUBLE Filter line search parameter, cf. IPOPT paper

warmstart OT_BOOL Use warmstarting

which_second_derv OT_INT For which block should second derivatives be provided by the user

zeta OT_DOUBLE Feasibility restoration phase parameter

Group: general_Blocksqp

List of available options

IdTypeDescriptionUsed inad_weightOT_DOUBLEWeighting factor for derivative calculation. When there is an option of either using forward or reversecasadi::FunctionInternal there is an option of either using forward or reverse

mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be

		overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is	casadi::FunctionInternal
		completely ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
block_hess	OT_INT	Blockwise Hessian approximation?	casadi::Blocksqp
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
col_eps	OT_DOUBLE	Epsilon for COL scaling strategy	casadi::Blocksqp
col_tau1	OT_DOUBLE	tau1 for COL scaling strategy	casadi::Blocksqp
col_tau2	OT_DOUBLE	tau2 for COL scaling strategy	casadi::Blocksqp
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
conv_strategy	OT_INT	Convexification strategy	casadi::Blocksqp
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
delta	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
delta_h0	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	t casadi::Nlpsol
detect_simple_bounds_is_simpl	e OT_BOOLVECTOR	For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x	OT_INTVECTOR	For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products -	casadi::FunctionInternal

		typically using forward mode AD - if available. [default: true]	
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
eps	OT_DOUBLE	Values smaller than this are regarded as numerically zero	casadi::Blocksqp
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eta	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fallback_scaling	OT_INT	If indefinite update is used, the type of fallback strategy	casadi::Blocksqp
fallback_update	OT_INT	If indefinite update is used, the type of fallback strategy	casadi::Blocksqp
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gamma_f	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
gamma_theta	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
globalization	OT_BOOL	Enable globalization	casadi::Blocksqp
hess_damp	OT_INT	Activate Powell damping for BFGS	casadi::Blocksqp
hess_damp_fac	OT_DOUBLE	Damping factor for BFGS Powell modification	casadi::Blocksqp
hess_lim_mem	OT_INT	Full or limited memory	casadi::Blocksqp
hess_memsize	OT_INT	Memory size for L-BFGS updates	casadi::Blocksqp
hess_scaling	OT_INT	Scaling strategy for Hessian approximation	casadi::Blocksqp
hess_update	OT_INT	Type of Hessian approximation	casadi::Blocksqp
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	casadi::Nlpsol
ini_hess_diag	OT_DOUBLE	Initial Hessian guess: diagonal matrix diag(iniHessDiag)	casadi::Blocksqp
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step jac_penalty	OT_INT OT_DOUBLE	Only call the callback function every few iterations. When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::Nlpsol casadi::FunctionInternal

jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
kappa_f	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
kappa_minus	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
kappa_plus	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
kappa_plus_max	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
kappa_soc	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
linsol	OT_STRING	The linear solver to be used by the QP method	casadi::Blocksqp
max_consec_reduced_steps	OT_INT	Maximum number of consecutive reduced steps	casadi::Blocksqp
max_consec_skipped_updates	OT_INT	Maximum number of consecutive skipped updates	casadi::Blocksqp
max_conv_qp	OT_INT	How many additional QPs may be solved for convexification per iteration?	casadi::Blocksqp
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_it_qp	OT_INT	Maximum number of QP iterations per SQP iteration	casadi::Blocksqp
max_iter	OT_INT	Maximum number of SQP iterations	casadi::Blocksqp
max_line_search	OT_INT	Maximum number of steps in line search	casadi::Blocksqp
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
max_soc_iter	OT_INT	Maximum number of SOC line search iterations	casadi::Blocksqp
max_time_qp	OT_DOUBLE	Maximum number of time in seconds per QP solve per SQP iteration	casadi::Blocksqp
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
nlinfeastol	OT_DOUBLE	Nonlinear feasibility tolerance	casadi::Blocksqp
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
obj_lo	OT_DOUBLE	Lower bound on objective function [-inf]	casadi::Blocksqp
obj_up	OT_DOUBLE	Upper bound on objective function [inf]	casadi::Blocksqp
opttol	OT_DOUBLE	Optimality tolerance	casadi::Blocksqp
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	. casadi::FunctionInternal
print_header	OT_BOOL	Print solver header at startup	casadi::Blocksqp
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_iteration	OT_BOOL	Print SQP iterations	casadi::Blocksqp
print_maxit_reached	OT_BOOL	Print error when maximum number of SQP iterations reached	casadi::Blocksqp
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
qp_init	OT_BOOL	Use warmstarting	casadi::Blocksqp
qpsol	OT_STRING	The QP solver to be used by the SQP method	casadi::Blocksqp
qpsol_options	OT_DICT	Options to be passed to the QP solver	casadi::Blocksqp

record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
restore_feas	OT_BOOL	Use feasibility restoration phase	casadi::Blocksqp
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
rho	OT_DOUBLE	Feasibility restoration phase parameter	casadi::Blocksqp
s_f	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
s_theta	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
schur	OT_BOOL	Use qpOASES Schur compliment approach	casadi::Blocksqp
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
skip_first_globalization	OT_BOOL	No globalization strategy in first iteration	casadi::Blocksqp
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
theta_max	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
theta_min	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper	casadi::Blocksqp
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warmstart	OT_BOOL	Use warmstarting	casadi::Blocksqp
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol
which_second_derv	OT_INT	For which block should second derivatives be provided by the user	casadi::Blocksqp
zeta	OT_DOUBLE	Feasibility restoration phase parameter	casadi::Blocksqp

class casadi::BonminInterface

List of available options			
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
bonmin	OT_DICT	Options to be passed to BONMIN	casadi::BonminInterface
bound_consistency	OT_BOOL	Ensure that primal-dual solution is	casadi::Nlpsol

		consistent with the bounds	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
		•	•
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	·
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
con_integer_md	OT_DICT	Integer metadata (a dictionary with lists of integers) about constraints to be passed to BONMIN	casadi::BonminInterface
con_numeric_md	OT_DICT	Numeric metadata (a dictionary with lists of reals) about constraints to be passed to BONMIN	casadi::BonminInterface
con_string_md	OT_DICT	String metadata (a dictionary with lists of strings) about constraints to be passed to BONMIN	casadi::BonminInterface
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	casadi::Nlpsol
detect_simple_bounds detect_simple_bounds_is_simp		ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to	
detect_simple_bounds_is_simp	le OT_BOOLVECTOR	ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'. For internal use only.	casadi::Nlpsol
detect_simple_bounds_is_simp detect_simple_bounds_parts	le OT_BOOLVECTOR OT_FUNCTION	ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'. For internal use only. For internal use only.	casadi::Nlpsol casadi::Nlpsol
detect_simple_bounds_is_simp	le OT_BOOLVECTOR OT_FUNCTION	ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'. For internal use only.	casadi::Nlpsol casadi::Nlpsol casadi::Nlpsol
detect_simple_bounds_is_simp detect_simple_bounds_parts detect_simple_bounds_target_)	le OT_BOOLVECTOR OT_FUNCTION OT_INTVECTOR	ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'. For internal use only. For internal use only. Indicates which of the variables are discrete,	casadi::Nlpsol casadi::Nlpsol casadi::Nlpsol casadi::Nlpsol
detect_simple_bounds_is_simp detect_simple_bounds_parts detect_simple_bounds_target_x discrete	le OT_BOOLVECTOR OT_FUNCTION OT_INTVECTOR OT_BOOLVECTOR	ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'. For internal use only. For internal use only. For internal use only. Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation.	casadi::Nlpsol casadi::Nlpsol casadi::Nlpsol casadi::Nlpsol
detect_simple_bounds_is_simp detect_simple_bounds_parts detect_simple_bounds_target_x discrete dump	le OT_BOOLVECTOR OT_FUNCTION OT_INTVECTOR OT_BOOLVECTOR OT_BOOL	ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'. For internal use only. For internal use only. For internal use only. Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make	casadi::Nlpsol casadi::Nlpsol casadi::Nlpsol casadi::Nlpsol casadi::FunctionInternal
detect_simple_bounds_is_simp detect_simple_bounds_parts detect_simple_bounds_target_x discrete dump dump_dir	le OT_BOOLVECTOR OT_FUNCTION OT_INTVECTOR OT_BOOLVECTOR OT_BOOL OT_STRING	ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'. For internal use only. For internal use only. For internal use only. Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See	casadi::Nlpsol casadi::Nlpsol casadi::Nlpsol casadi::Nlpsol casadi::FunctionInternal casadi::FunctionInternal
detect_simple_bounds_is_simp detect_simple_bounds_parts detect_simple_bounds_target_x discrete dump dump_dir dump_format	le OT_BOOLVECTOR OT_FUNCTION OT_INTVECTOR OT_BOOLVECTOR OT_BOOL OT_STRING OT_STRING	ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'. For internal use only. For internal use only. For internal use only. Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file	casadi::Nlpsol casadi::Nlpsol casadi::Nlpsol casadi::Nlpsol casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
detect_simple_bounds_is_simple_bounds_parts detect_simple_bounds_target_odiscrete dump dump_dir dump_format dump_in dump_out enable_fd	le OT_BOOLVECTOR OT_FUNCTION OT_INTVECTOR OT_BOOLVECTOR OT_STRING OT_STRING OT_BOOL OT_BOOL OT_BOOL OT_BOOL	ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'. For internal use only. For internal use only. For internal use only. Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable derivative calculation by finite differencing. [default: false]]	casadi::Nlpsol casadi::Nlpsol casadi::Nlpsol casadi::Nlpsol casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
detect_simple_bounds_is_simp detect_simple_bounds_parts detect_simple_bounds_target_discrete dump dump_dir dump_format dump_in dump_out	le OT_BOOLVECTOR OT_FUNCTION OT_INTVECTOR OT_BOOLVECTOR OT_BOOL OT_STRING OT_STRING OT_BOOL OT_BOOL	ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'. For internal use only. For internal use only. For internal use only. Indicates which of the variables are discrete, i.e. integer-valued Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false] Enable derivative calculation by finite	casadi::Nlpsol casadi::Nlpsol casadi::Nlpsol casadi::Nlpsol casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal

enable_reverse	OT_BOOL	generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true] Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
grad_f	OT_FUNCTION	Function for calculating the gradient of the objective (column, autogenerated by default	casadi::BonminInterface)
grad_f_options	OT_DICT	Options for the autogenerated gradient of the objective.	casadi::BonminInterface
hess_lag	OT_FUNCTION	Function for calculating the Hessian of the Lagrangian (autogenerated by default)	casadi::BonminInterface
hess_lag_options	OT_DICT	Options for the autogenerated Hessian of the Lagrangian.	casadi::BonminInterface
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	casadi::Nlpsol
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_g	OT_FUNCTION	Function for calculating the Jacobian of the constraints (autogenerated by default)	casadi::BonminInterface
jac_g_options	OT_DICT	Options for the autogenerated Jacobian of the constraints.	casadi::BonminInterface
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy.	casadi::FunctionInternal

The special value -1 indicates never to use

		the full less him strategy	
jacobian_options	OT_DICT	the full Jacobian strategy Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
pass_nonlinear_constraints	OT_BOOL	Pass list of constraints entering nonlinearly to BONMIN	casadi::BonminInterface
pass_nonlinear_variables	OT_BOOL	Pass list of variables entering nonlinearly to BONMIN	casadi::BonminInterface
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	r casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
sos1_groups	OT_INTVECTORVECTOR	Options for the autogenerated gradient of the objective.	casadi::BonminInterface
sos1_priorities	OT_INTVECTOR	Options for the autogenerated gradient of the objective.	casadi::BonminInterface

sos1_weights	OT_DOUBLEVECTORVECTOR	Options for the autogenerated gradient of the objective.	casadi::BonminInterface
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
var_integer_md	OT_DICT	Integer metadata (a dictionary with lists of integers) about variables to be passed to BONMIN	casadi::BonminInterface
var_numeric_md	OT_DICT	Numeric metadata (a dictionary with lists of reals) about variables to be passed to BONMIN	casadi::BonminInterface
var_string_md	OT_DICT	String metadata (a dictionary with lists of strings) about variables to be passed to BONMIN	casadi::BonminInterface
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol

Group: plugin_Nlpsol_bonmin

List of available options	-	5
ld , .	Туре	Description
bonmin	OT_DICT	Options to be passed to BONMIN
con_integer_md	OT_DICT	Integer metadata (a dictionary with lists of integers) about constraints to be passed to BONMIN
con_numeric_md	OT_DICT	Numeric metadata (a dictionary with lists of reals) about constraints to be passed to BONMIN
con_string_md	OT_DICT	String metadata (a dictionary with lists of strings) about constraints to be passed to BONMIN
grad_f	OT_FUNCTION	Function for calculating the gradient of the objective (column, autogenerated by default)
grad_f_options	OT_DICT	Options for the autogenerated gradient of the objective.
hess_lag	OT_FUNCTION	Function for calculating the Hessian of the Lagrangian (autogenerated by default)
hess_lag_options	OT_DICT	Options for the autogenerated Hessian of the Lagrangian.
jac_g	OT_FUNCTION	Function for calculating the Jacobian of the constraints (autogenerated by default)
jac_g_options	OT_DICT	Options for the autogenerated Jacobian of the constraints.
pass_nonlinear_constraint	s OT_BOOL	Pass list of constraints entering nonlinearly to BONMIN
pass_nonlinear_variables	OT_BOOL	Pass list of variables entering nonlinearly to BONMIN
sos1_groups	OT_INTVECTORVECTOR	Options for the autogenerated gradient of the objective.
sos1_priorities	OT_INTVECTOR	Options for the autogenerated gradient of the objective.
sos1_weights	OT_DOUBLEVECTORVECTOR	R Options for the autogenerated gradient of the objective.
var_integer_md	OT_DICT	Integer metadata (a dictionary with lists of integers) about variables to be passed to BONMIN
var_numeric_md	OT_DICT	Numeric metadata (a dictionary with lists of reals) about variables to be passed to BONMIN
var_string_md	OT_DICT	String metadata (a dictionary with lists of strings) about variables to be passed to BONMIN

Group: general_BonminInterface

ns

Id	Туре	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight n <= (1-ad_weight) na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
bonmin	OT_DICT	Options to be passed to BONMIN	casadi::BonminInterface
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam $_x$ ' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
con_integer_md	OT_DICT	Integer metadata (a dictionary with lists of integers) about constraints to be passed to BONMIN	casadi::BonminInterface
con_numeric_md	OT_DICT	Numeric metadata (a dictionary with lists of reals) about constraints to be passed to BONMIN	casadi::BonminInterface
con_string_md	OT_DICT	String metadata (a dictionary with lists of strings) about constraints to be passed to BONMIN	casadi::BonminInterface
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': O. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless	casadi::Nlpsol

		'fixed_variable_treatment' is set to 'relax_bounds'.	
detect_simple_bounds_is_simpl	e OT_BOOLVECTOR	For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x	OT_INTVECTOR	For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-timesvector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
grad_f	OT_FUNCTION	Function for calculating the gradient of the objective (column, autogenerated by default)	casadi::BonminInterface)
grad_f_options	OT_DICT	Options for the autogenerated gradient of the objective.	casadi::BonminInterface
hess_lag	OT_FUNCTION	Function for calculating the Hessian of the Lagrangian (autogenerated by default)	casadi::BonminInterface
hess_lag_options	OT_DICT	Options for the autogenerated Hessian of the Lagrangian.	casadi::BonminInterface
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	casadi::Nlpsol
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal

is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_g	OT_FUNCTION	Function for calculating the Jacobian of the constraints (autogenerated by default)	casadi::BonminInterface
jac_g_options	OT_DICT	Options for the autogenerated Jacobian of the constraints.	casadi::BonminInterface
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
pass_nonlinear_constraints	OT_BOOL	Pass list of constraints entering nonlinearly to BONMIN	
pass_nonlinear_variables	OT_BOOL	Pass list of variables entering nonlinearly to BONMIN	
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal

post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
sos1_groups	OT_INTVECTORVECTOR	Options for the autogenerated gradient of the objective.	casadi::BonminInterface
sos1_priorities	OT_INTVECTOR	Options for the autogenerated gradient of the objective.	casadi::BonminInterface
sos1_weights	OT_DOUBLEVECTORVECTO	R Options for the autogenerated gradient of the objective.	casadi::BonminInterface
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
var_integer_md	OT_DICT	Integer metadata (a dictionary with lists of integers) about variables to be passed to BONMIN	casadi::BonminInterface
var_numeric_md	OT_DICT	Numeric metadata (a dictionary with lists of reals) about variables to be passed to BONMIN	casadi::BonminInterface
var_string_md	OT_DICT	String metadata (a dictionary with lists of strings) about variables to be passed to BONMIN	casadi::BonminInterface
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol

class casadi::CbcInterface

List of available options

Id Type Description Used in

ad_weight OT_DOUBLE Weighting factor for derivative calculation. When there is casadi::FunctionInternal an option of either using forward or reverse mode directional derivatives, the condition ad weight nf<=(1-

an option of either using forward or reverse mode directional derivatives, the condition ad_weightnf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.

ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely	casadi::FunctionInternal
		ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
cbc	OT_DICT	Options to be passed to CBC. Three sets of options are supported. The first can be found in OsiSolverParameters. hpp. The second can be found in CbcModel. hpp. The third are options that can be passed to CbcMain1.	casadi::CbcInterface
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0 Note: Highly experimental. Syntax may break often.	. casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (defaul true).	t casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
hot_start	OT_BOOL	Hot start with x0 [Default false].	casadi::CbcInterface
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than	casadi::FunctionInternal

		manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely	
		for the heurstic to chose the full Jacobian strategy. The	
		special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sos_groups	OT_INTVECTORVECTOR	Definition of SOS groups by indices.	casadi::CbcInterface
sos_types	OT_INTVECTOR	Specify 1 or 2 for each SOS group.	casadi::CbcInterface
sos_weights	OT_DOUBLEVECTORVECTOR	Weights corresponding to SOS entries.	casadi::CbcInterface
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

obtain the requested directions in a straightforward

Group: plugin_Conic_cbc

List of available options

List of availa	able options			
Id	Type	Description		
cbc	OT_DICT	Options to be passed to CBC. Three sets of options are supported. The first can be found in OsiSolverParameters.hpp. The second can be found in CbcModel.hpp. The third are options that can be passed to CbcMain1.		
hot_start	OT_BOOL	Hot start with x0 [Default false].		
sos_groups	OT_INTVECTORVECTOR	Definition of SOS groups by indices.		
sos_types	OT_INTVECTOR	Specify 1 or 2 for each SOS group.		
sos_weights OT_DOUBLEVECTORVECTOR Weights corresponding to SOS entries.				

Group: general_CbcInterface

List of available options					
Id	Type	Description	Used in		
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.			
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal		
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal		
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal		
cbc	OT_DICT	Options to be passed to CBC.Three sets of options are supported. The first can be found in OsiSolverParameters.hpp. The second can be found in CbcModel.hpp. The third are options that can be passed to CbcMain1.	casadi::CbcInterface		
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal		
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': Onto: Highly experimental. Syntax may break often.). casadi::FunctionInternal		
der_options	OT_DICT	Default options to be used to populate forward_options reverse_options, and jacobian_options before those options are merged in.	, casadi::FunctionInternal		
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.			
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	- casadi::Conic		
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal		
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal		
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal		
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal		
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]			
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal		
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal		
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]			
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal		
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (defaul true).	t casadi::ProtoFunction		
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments.	casadi::FunctionInternal		

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fd mathad	OT CTDING	Default: empty	and discounting lateral
fd_method fd_options	OT_STRING OT_DICT	Method for finite differencing [default 'central'] Options to be passed to the finite difference instance	casadi::FunctionInternal casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to the finite difference instance Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always	casadi::FunctionInternal
		collected.	
hot_start	OT_BOOL	Hot start with x0 [Default false].	casadi::CbcInterface
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	ns OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sos_groups	OT_INTVECTORVECTOR	Definition of SOS groups by indices.	casadi::CbcInterface
sos_types	OT_INTVECTOR	Specify 1 or 2 for each SOS group.	casadi::CbcInterface
sos_weights		Weights corresponding to SOS entries.	casadi::CbcInterface
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::ClangCompiler

List of available options

IdTypeDescriptionUsed inflagsOT_STRINGVECTOR Compile flags for the JIT compiler. Default: Nonecasadi::ClangCompilerinclude_path OT_STRINGInclude paths for the JIT compiler. The include directory shipped withcasadi::ClangCompiler

CasADi will be automatically appended.

verbose OT_BOOL Verbose evaluation – for debugging casadi::ImporterInternal

Group: plugin_Importer_clang

List of available options

Id Type Description

flags OT_STRINGVECTOR Compile flags for the JIT compiler. Default: None

include_path OT_STRING Include paths for the JIT compiler. The include directory shipped with CasADi will be automatically

appended.

Group: general_ClangCompiler

List of available options

IdTypeDescriptionUsed inflagsOT_STRINGVECTOR Compile flags for the JIT compiler. Default: Nonecasadi::ClangCompilerinclude_path OT_STRINGInclude paths for the JIT compiler. The include directory shipped withcasadi::ClangCompiler

CasADi will be automatically appended.

verbose OT_BOOL Verbose evaluation – for debugging casadi::ImporterInternal

class casadi::ClpInterface

OT_STRING

compiler

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.		
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
clp	OT_DICT	Options to be passed to CLP. A first set of options can be found in ClpParameters.hpp. eg. 'PrimalTolerance'. There are other options in additions. 'AutomaticScaling' (bool) is recognised. 'initial_solve' (default off) activates the use of Clp's initialSolve. 'initial_solve_options' takes a dictionary with following keys (see ClpSolve.hpp): SolveType (string), PresolveType (string), NumberPasses, SpecialOptions (intvectorvector), IndependentOptions (intvectorvector).	casadi::ClpInterface	

Just-in-time compiler plugin to be used.

casadi::FunctionInternal

custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	RList of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide	casadi::FunctionInternal
		which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal

never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options OT_DICT		Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	.casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Conic_clp

List of available options

Id Type Description

clp OT_DICT Options to be passed to CLP. A first set of options can be found in ClpParameters.hpp. eg. 'PrimalTolerance'. There are other options in additions. 'AutomaticScaling' (bool) is recognised. 'initial_solve' (default off) activates the use of Clp's initialSolve. 'initial_solve_options' takes a dictionary with following keys (see ClpSolve.hpp): SolveType (string), PresolveType (string), NumberPasses, SpecialOptions (intvectorvector), IndependentOptions (intvectorvector).

Group: general_ClpInterface

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight $nf <= (1-ad_weight)$ na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.		
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
clp	OT_DICT	Options to be passed to CLP. A first set of options can be found in ClpParameters.hpp. eg. 'PrimalTolerance'. There are other options in additions. 'AutomaticScaling' (bool) is recognised. 'initial_solve' (default off) activates the use of Clp's initialSolve. 'initial_solve_options' takes a dictionary with following keys (see ClpSolve.hpp): SolveType (string), PresolveType (string), NumberPasses, SpecialOptions (intvectorvector), IndependentOptions (intvectorvector).	n casadi::ClpInterface	
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal	
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal	

derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't	
mputs_eneek	01_0000	make sense	casaai anctioninternat
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it	casadi::FunctionInternal
, , ,		may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions	
		in a straightforward manner. Casadi uses a heuristic to decide	
		which is cheaper. A high value of 'jac_penalty' makes it less likely	
		for the heurstic to chose the full Jacobian strategy. The special	
		value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default:	casadi::FunctionInternal

		empty	
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	.casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::Collocation

Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
augmented_options	OT_DICT	Options to be passed down to the augmented integrator, if one is constructed.	casadi::Integrator
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
collocation_scheme	OT_STRING	Collocation scheme: radau legendre	casadi::Collocation
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file	casadi::FunctionInternal

		(readable with DM from file) [default false]	
enable_fd	OT_BOOL	(readable with DM.from_file) [default: false] Enable derivative calculation by finite	casadi::FunctionInternal
		differencing. [default: false]]	
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::Integrator
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
grid		[DEPRECATED] Time grid	casadi::Integrator
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
interpolation_order	OT_INT	Order of the interpolating polynomials	casadi::Collocation
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/ reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	$\label{lem:conditional} \mbox{Acceptable number of inputs and outputs. Warn}$	casadi::FunctionInternal

		if exceeded.	
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
monitor	OT STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
nadj	OT_INT	Number of adjoint sensitivities to be calculated [0]	
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
nfwd	OT_INT	Number of forward sensitivities to be calculated [0]	casadi::Integrator
number_of_finite_element	ts OT_INT	Target number of finite elements. The actual number may be higher to accommodate all output times	casadi::FixedStepIntegrator
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
output_t0	OT_BOOL	[DEPRECATED] Output the state at the initial time	casadi::Integrator
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_stats	OT_BOOL	Print out statistics after integration	casadi::Integrator
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
rootfinder	OT_STRING	An implicit function solver	casadi:: Implicit Fixed Step Integrator
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver	casadi:: Implicit Fixed Step Integrator
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
simplify	OT_BOOL	Implement as MX Function (codegeneratable/serializable) default: false	casadi::FixedStepIntegrator
simplify_options	OT_DICT	Any options to pass to simplified form Function constructor	casadi::FixedStepIntegrator
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	
tO	OT_DOUBLE	[DEPRECATED] Beginning of the time horizon	casadi::Integrator
tf	OT_DOUBLE	[DEPRECATED] End of the time horizon	casadi::Integrator
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	-
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Integrator_collocation

ld [']	Type	Description
collocation_scheme	OT_STRING	G Collocation scheme: radau legendre
interpolation_order	OT_INT	Order of the interpolating polynomials
number_of_finite_elemen	ts OT_INT	Target number of finite elements. The actual number may be higher to accommodate all output times
rootfinder	OT_STRING	G An implicit function solver
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver
simplify	OT_BOOL	Implement as MX Function (codegeneratable/serializable) default: false

Group: general_Collocation

List of available options			
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
augmented_options	OT_DICT	Options to be passed down to the augmented integrator, if one is constructed.	casadi::Integrator
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
collocation_scheme	OT_STRING	Collocation scheme: radau legendre	casadi::Collocation
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal

enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if	casadi::FunctionInternal
		available. [default: true]	
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::Integrator
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
grid	OT_DOUBLEVECTOR	[DEPRECATED] Time grid	casadi::Integrator
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
interpolation_order	OT_INT	Order of the interpolating polynomials	casadi::Collocation
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/ reverse directions, it may be cheaper to	casadi::FunctionInternal
		compute first the full jacobian and then multiply with seeds, rather than obtain the requested	
		directions in a straightforward manner. Casadi	
		uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for	
		the heurstic to chose the full Jacobian strategy.	
		The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is	casadi::FunctionInternal
		desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
monitor	OT STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
nadj	OT_INT	Number of adjoint sensitivities to be calculated [0]	
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
nfwd	OT_INT	Number of forward sensitivities to be calculated	
		[0]	-

number_of_finite_elemen	its OT_INT	Target number of finite elements. The actual number may be higher to accommodate all output times	casadi::FixedStepIntegrator
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
output_t0	OT_BOOL	[DEPRECATED] Output the state at the initial time	casadi::Integrator
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_stats	OT_BOOL	Print out statistics after integration	casadi::Integrator
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
rootfinder	OT_STRING	An implicit function solver	casa di:: Implicit Fixed Step Integrator
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver	casadi:: Implicit Fixed Step Integrator
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
simplify	OT_BOOL	Implement as MX Function (codegeneratable/serializable) default: false	casadi::FixedStepIntegrator
simplify_options	OT_DICT	Any options to pass to simplified form Function constructor	casadi::FixedStepIntegrator
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	
t0	OT_DOUBLE	[DEPRECATED] Beginning of the time horizon	casadi::Integrator
tf	OT_DOUBLE	[DEPRECATED] End of the time horizon	casadi::Integrator
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::Conic

Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)\text{ha} is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\" When set to -1, sparsity is completely ignored and dense matrice are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal

der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform		R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal

output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	.casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: general_Conic

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.		
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrice are used.		
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal	
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal	
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic	
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal	
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal	
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal	
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal	
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal	
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal	
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal	
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all	casadi::FunctionInternal	

		differentiable inputs - if available. [default: true]	
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for	casadi::FunctionInternal
		transposed Jacobian-times-vector products - typically using	
		reverse mode AD - if available. [default: true]	
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform		R List of external_transform instruction arguments. Default: empty	
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::Functioninternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then	casadi::FunctionInternal
		multiply with seeds, rather than obtain the requested directions	
		in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely	
		for the heurstic to chose the full Jacobian strategy. The special	
		value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety.	casadi::FunctionInternal
		This behaviour may defeat caching compiler wrappers. Default: true	
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	ns OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	. casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::CplexInterface

List of available options

Id Type Description Used in

ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	s casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
cplex	OT_DICT	Options to be passed to CPLEX	casadi::CplexInterface
		·	•
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0 Note: Highly experimental. Syntax may break often.	
dep_check	OT_INT	Detect redundant constraints.	casadi::CplexInterface
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_filename	OT_STRING	The filename to dump to.	casadi::CplexInterface
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	•
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_to_file	OT_BOOL	Dumps QP to file in CPLEX format.	casadi::CplexInterface
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	t casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always	casadi::FunctionInternal
gather_stats	01_0001	collected.	casaa anctioninternat

input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the	casadi::FunctionInternal
ic diff in	OT POOLVECTOR	inputs don't make sense Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	•	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full	casadi::FunctionInternal
		jacobian and then multiply with seeds, rather than	
		obtain the requested directions in a straightforward	
		manner. Casadi uses a heuristic to decide which is	
		cheaper. A high value of 'jac_penalty' makes it less likely	
		for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian	
		strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
, jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates.	casadi::FunctionInternal
		Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file	casadi::FunctionInternal
		names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function:	casadi::FunctionInternal
,		SOURCE link embed.	
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for	casadi::FunctionInternal
		generated code and libraries. This is desired for thread-	
		safety. This behaviour may defeat caching compiler wrappers. Default: true	
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if	casadi::FunctionInternal
_	_	exceeded.	
max_num_dir	OT_INT	Specify the maximum number of directions for derivative	e casadi::FunctionInternal
and a stant	OT DOOL	functions. Overrules the builtin optimized_num_dir.	diCulaluka.ufa
mip_start never_inline	OT_BOOL OT_BOOL	Hot start integers with x0 [Default false].	casadi::CplexInterface casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Forbid inlining. Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	
post_expand_option		Options to be passed to post-construction expansion.	casadi::FunctionInternal
bos-Tewbarra-Tobare		Default: empty	
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies	casadi::ProtoFunction
.1 1	OT 11/1T	record_time.	l: C C
qp_method	OT_INT OT_BOOL	Determines which CPLEX algorithm to use. record information about execution time, for retrieval	casadi::CplexInterface casadi::ProtoFunction
record_time	O1_BOOL	with stats().	Casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during	casadi::ProtoFunction
<i>y</i> ,=	_	evaluation	
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sos_groups	OT_INTVECTORVECTOR	Definition of SOS groups by indices.	casadi::CplexInterface
sos_types	OT_INTVECTOR	Specify 1 or 2 for each SOS group.	casadi::CplexInterface
sos_weights		R Weights corresponding to SOS entries.	casadi::CplexInterface
tol	OT_DOUBLE	Tolerance of solver	casadi::CplexInterface
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
version_suffix	OT_STRING	Specify version of cplex to load. We will attempt to load	casadi::CplexInterface
	- -	libcplex <version_suffix>.[so dll dylib]. Default value is</version_suffix>	r
	OT BOOL	taken from CPLEX_VERSION env variable.	and the Colonia
warm_start	OT_BOOL	Use warm start with simplex methods (affects only the simplex methods).	casadi::CplexInterface

Group: plugin_Conic_cplex

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Id	Туре	Description
cplex	OT_DICT	Options to be passed to CPLEX
dep_check	OT_INT	Detect redundant constraints.
dump_filenam	e OT_STRING	The filename to dump to.
dump_to_file	OT_BOOL	Dumps QP to file in CPLEX format.
mip_start	OT_BOOL	Hot start integers with x0 [Default false].
qp_method	OT_INT	Determines which CPLEX algorithm to use.
sos_groups	OT_INTVECTORVECTOR	Definition of SOS groups by indices.
sos_types	OT_INTVECTOR	Specify 1 or 2 for each SOS group.
sos_weights	OT_DOUBLEVECTORVECTO	R Weights corresponding to SOS entries.
tol	OT_DOUBLE	Tolerance of solver
version_suffix	OT_STRING	Specify version of cplex to load. We will attempt to load libcplex <version_suffix>.[so dll dylib]. Default value is taken from CPLEX_VERSION env variable.</version_suffix>
warm_start	OT_BOOL	Use warm start with simplex methods (affects only the simplex methods).

Group: general_CplexInterface

List of available opti	List of available options					
Id	Туре	Description	Used in			
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	s casadi::FunctionInternal			
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal			
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal			
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal			
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal			
cplex	OT_DICT	Options to be passed to CPLEX	casadi::CplexInterface			
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0 Note: Highly experimental. Syntax may break often.	. casadi::FunctionInternal			
dep_check	OT_INT	Detect redundant constraints.	casadi::CplexInterface			
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal			
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal			
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic			
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal			
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal			
dump_filename	OT_STRING	The filename to dump to.	casadi::CplexInterface			
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file	casadi::FunctionInternal			

		[mtx]	
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_to_file	OT_BOOL	Dumps QP to file in CPLEX format.	casadi::CplexInterface
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (defaul true).	t casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for threadsafety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	e casadi::FunctionInternal
mip_start	OT_BOOL	Hot start integers with x0 [Default false].	casadi::CplexInterface
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal

post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
qp_method	OT_INT	Determines which CPLEX algorithm to use.	casadi::CplexInterface
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sos_groups	OT_INTVECTORVECTOR	Definition of SOS groups by indices.	casadi::CplexInterface
sos_types	OT_INTVECTOR	Specify 1 or 2 for each SOS group.	casadi::CplexInterface
sos_weights	OT_DOUBLEVECTORVECTOR	R Weights corresponding to SOS entries.	casadi::CplexInterface
tol	OT_DOUBLE	Tolerance of solver	casadi::CplexInterface
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
version_suffix	OT_STRING	Specify version of cplex to load. We will attempt to load libcplex <version_suffix>.[so dll dylib]. Default value is taken from CPLEX_VERSION env variable.</version_suffix>	casadi::CplexInterface
warm_start	OT_BOOL	Use warm start with simplex methods (affects only the simplex methods).	casadi::CplexInterface

class casadi::CvodesInterface

List of available options			
Id	Type	Description	Used in
abstol	OT_DOUBLE	Absolute tolerence for the IVP solution	casadi::SundialsInterface
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
always_recalculate_jacob	ian OT_BOOL	Recalculate Jacobian before factorizations, even if Jacobian is current [default: true]	casadi::CvodesInterface
augmented_options	OT_DICT	Options to be passed down to the augmented integrator, if one is constructed.	casadi::Integrator
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those	casadi::FunctionInternal

		options are merged in.	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
disable_internal_warnings	OT_BOOL	Disable SUNDIALS internal warning messages	casadi::SundialsInterface
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::Integrator
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
fsens_all_at_once	OT_BOOL	Calculate all right hand sides of the sensitivity equations at once	casadi::CvodesInterface
fsens_err_con	OT_BOOL	include the forward sensitivities in all error controls	casadi::SundialsInterface
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
grid		[DEPRECATED] Time grid	casadi::Integrator
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
interpolation_type	OT_STRING	Type of interpolation for the adjoint sensitivities	casadi::SundialsInterface
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal

jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
linear_multistep_method	OT_STRING	Integrator scheme: BDF adams	casadi::CvodesInterface
linear_solver	OT_STRING	A custom linear solver creator function [default: qr]	casadi::SundialsInterface
linear_solver_options	OT_DICT	Options to be passed to the linear solver	casadi::SundialsInterface
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_krylov	OT_INT	Maximum Krylov subspace size	casadi::SundialsInterface
max_multistep_order	OT_INT	Maximum order for the (variable-order) multistep method	casadi::SundialsInterface
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
max_num_steps	OT_INT	Maximum number of integrator steps	casadi::SundialsInterface
max_order	OT_DOUBLE	Maximum order	casadi::SundialsInterface
max_step_size	OT_DOUBLE	Max step size [default: 0/inf]	casadi::SundialsInterface
min_step_size	OT_DOUBLE	Min step size [default: 0/0.0]	casadi::CvodesInterface
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
nadj	OT_INT	Number of adjoint sensitivities to be calculated [0]	casadi::Integrator
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
newton_scheme	OT_STRING	Linear solver scheme in the Newton method: DIRECT gmres bcgstab tfqmr	casadi::SundialsInterface
nfwd	OT_INT	Number of forward sensitivities to be calculated [0]	casadi::Integrator
nonlin_conv_coeff	OT_DOUBLE	Coefficient in the nonlinear convergence test	casadi::SundialsInterface
nonlinear_solver_iteration	OT_STRING	Nonlinear solver type: NEWTON functional	casadi::CvodesInterface
number_of_finite_elements	OT_INT	Target number of finite elements. The actual number may be higher to accommodate all output times	casadi::Integrator
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
output_t0	OT_BOOL	[DEPRECATED] Output the state at the initial time	casadi::Integrator
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_stats	OT_BOOL	Print out statistics after integration	casadi::Integrator
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
quad_err_con	OT_BOOL	Should the quadratures affect the step size control	casadi::SundialsInterface
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reltol	OT_DOUBLE	Relative tolerence for the IVP solution	casadi::SundialsInterface
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
rootfinder	OT_STRING	An implicit function solver	casadi::Integrator
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver	casadi::Integrator
scale_abstol	OT_BOOL	Scale absolute tolerance by nominal value	casadi::SundialsInterface
second_order_correction	OT_BOOL	Second order correction in the augmented system Jacobian [true]	casadi::SundialsInterface
sensitivity_method	OT_STRING	Sensitivity method: SIMULTANEOUS staggered	casadi::SundialsInterface
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
simplify	OT_BOOL	Implement as MX Function (codegeneratable/serializable) default: false	·
simplify_options	OT_DICT	Any options to pass to simplified form Function constructor	casadi::Integrator
specific_options	OT_DICT	Options for specific auto-generated functions,	casadi::OracleFunction

overwriting the defaults from common_options. Nested

Description

casadi::FunctionInternal

dictionary.

OT_DOUBLE initial step size [default: 0/estimated] casadi::SundialsInterface step0 OT INT Number of steps between two consecutive checkpoints casadi::SundialsInterface steps_per_checkpoint casadi::SundialsInterface stop_at_end OT_BOOL [DEPRECATED] Stop the integrator at the end of the

OT_DOUBLE t0 [DEPRECATED] Beginning of the time horizon casadi::Integrator OT_DOUBLE [DEPRECATED] End of the time horizon casadi::Integrator OT_BOOL Precondition the iterative solver [default: true] casadi::SundialsInterface use_preconditioner

user_data OT_VOIDPTR A user-defined field that can be used to identify the

function or pass additional information

verbose OT BOOL Verbose evaluation – for debugging casadi::ProtoFunction

Group: plugin_Integrator_cvodes

Type

List of available options

Id

abstol OT_DOUBLE Absolute tolerence for the IVP solution

always_recalculate_jacobian OT_BOOL Recalculate Jacobian before factorizations, even if Jacobian is current [default: true]

disable_internal_warnings OT_BOOL Disable SUNDIALS internal warning messages

fsens all at once OT BOOL Calculate all right hand sides of the sensitivity equations at once

OT_BOOL include the forward sensitivities in all error controls fsens_err_con OT_STRING Type of interpolation for the adjoint sensitivities interpolation_type

linear_multistep_method OT_STRING Integrator scheme: BDF|adams

linear_solver OT_STRING A custom linear solver creator function [default: gr]

OT_DICT Options to be passed to the linear solver linear_solver_options

OT INT Maximum Krylov subspace size max_krylov

OT_INT Maximum order for the (variable-order) multistep method max_multistep_order

OT_INT Maximum number of integrator steps max_num_steps

OT_DOUBLE Maximum order max_order

OT_DOUBLE Max step size [default: 0/inf] max_step_size min_step_size OT_DOUBLE Min step size [default: 0/0.0]

OT_STRING Linear solver scheme in the Newton method: DIRECT|gmres|bcgstab|tfqmr newton_scheme

nonlin_conv_coeff OT_DOUBLE Coefficient in the nonlinear convergence test nonlinear_solver_iteration OT_STRING Nonlinear solver type: NEWTON|functional quad_err_con OT_BOOL Should the quadratures affect the step size control

OT DOUBLE Relative tolerence for the IVP solution reltol scale_abstol OT_BOOL Scale absolute tolerance by nominal value

Second order correction in the augmented system Jacobian [true] second_order_correction OT_BOOL

sensitivity_method OT_STRING Sensitivity method: SIMULTANEOUS|staggered

step0 OT_DOUBLE initial step size [default: 0/estimated]

steps_per_checkpoint OT_INT Number of steps between two consecutive checkpoints stop_at_end OT_BOOL [DEPRECATED] Stop the integrator at the end of the interval

use_preconditioner OT BOOL Precondition the iterative solver [default: true]

Group: general_CvodesInterface

List of available options

	Id	Type	Description	Used in
abstol		OT_DOUBLE	Absolute tolerence for the IVP solution	casadi::SundialsInterface
ad_weight		OT_DOUBLE	Weighting factor for derivative calculation. When there is	casadi::FunctionInternal

an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional

		derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
always_recalculate_jacobiar	nOT_BOOL	Recalculate Jacobian before factorizations, even if Jacobian is current [default: true]	casadi::CvodesInterface
augmented_options	OT_DICT	Options to be passed down to the augmented integrator, if one is constructed.	casadi::Integrator
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
disable_internal_warnings	OT_BOOL	Disable SUNDIALS internal warning messages	casadi::SundialsInterface
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::Integrator
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default empty	: casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
fsens_all_at_once	OT_BOOL	Calculate all right hand sides of the sensitivity equations at once	casadi::CvodesInterface
fsens_err_con	OT_BOOL	include the forward sensitivities in all error controls	casadi::SundialsInterface
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
grid	OT_DOUBLEVECTOR	[DEPRECATED] Time grid	casadi::Integrator

input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
interpolation_type	OT_STRING	Type of interpolation for the adjoint sensitivities	casadi::SundialsInterface
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
linear_multistep_method	OT_STRING	Integrator scheme: BDF adams	casadi::CvodesInterface
linear_solver	OT_STRING	A custom linear solver creator function [default: qr]	casadi::SundialsInterface
linear_solver_options	OT_DICT	Options to be passed to the linear solver	casadi::SundialsInterface
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_krylov	OT_INT	Maximum Krylov subspace size	casadi::SundialsInterface
max_multistep_order 	OT_INT	Maximum order for the (variable-order) multistep method	casadi::SundialsInterface
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	
max_num_steps	OT_INT	Maximum number of integrator steps	casadi::SundialsInterface
max_order	OT_DOUBLE	Maximum order	casadi::SundialsInterface
max_step_size min_step_size	OT_DOUBLE OT_DOUBLE	Max step size [default: 0/inf] Min step size [default: 0/0.0]	casadi::SundialsInterface casadi::CvodesInterface
monitor		Set of user problem functions to be monitored	casadi::OracleFunction
nadj	OT_INT	Number of adjoint sensitivities to be calculated [0]	casadi::Integrator
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
newton_scheme	OT_STRING	Linear solver scheme in the Newton method: DIRECT gmres bcgstab tfqmr	casadi::SundialsInterface
nfwd	OT_INT	Number of forward sensitivities to be calculated [0]	casadi::Integrator
nonlin_conv_coeff	OT_DOUBLE	Coefficient in the nonlinear convergence test	casadi::SundialsInterface
nonlinear_solver_iteration	OT_STRING	Nonlinear solver type: NEWTON functional	casadi::CvodesInterface
number_of_finite_elements	OT_INT	Target number of finite elements. The actual number may be higher to accommodate all output times	casadi::Integrator
output_scheme	OT_STRINGVECTOR		casadi::FunctionInternal
output_t0	OT_BOOL	[DEPRECATED] Output the state at the initial time	casadi::Integrator
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_stats	OT_BOOL	Print out statistics after integration	casadi::Integrator

print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
quad_err_con	OT_BOOL	Should the quadratures affect the step size control	casadi::SundialsInterface
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reltol	OT_DOUBLE	Relative tolerence for the IVP solution	casadi::SundialsInterface
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
rootfinder	OT_STRING	An implicit function solver	casadi::Integrator
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver	casadi::Integrator
scale_abstol	OT_BOOL	Scale absolute tolerance by nominal value	casadi::SundialsInterface
second_order_correction	OT_BOOL	Second order correction in the augmented system Jacobian [true]	casadi::SundialsInterface
sensitivity_method	OT_STRING	Sensitivity method: SIMULTANEOUS staggered	casadi::SundialsInterface
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
simplify	OT_BOOL	Implement as MX Function (codegeneratable/serializable default: false	e) casadi::Integrator
simplify_options	OT_DICT	Any options to pass to simplified form Function constructor	casadi::Integrator
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
step0	OT_DOUBLE	initial step size [default: 0/estimated]	casadi::SundialsInterface
steps_per_checkpoint	OT_INT	Number of steps between two consecutive checkpoints	casadi::SundialsInterface
stop_at_end	OT_BOOL	[DEPRECATED] Stop the integrator at the end of the interval	casadi::SundialsInterface
t0	OT_DOUBLE	[DEPRECATED] Beginning of the time horizon	casadi::Integrator
tf	OT_DOUBLE	[DEPRECATED] End of the time horizon	casadi::Integrator
use_preconditioner	OT_BOOL	Precondition the iterative solver [default: true]	casadi::SundialsInterface
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the	casadi::FunctionInternal
		function or pass additional information	

class casadi::Dple

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.		
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal	
const_dim	OT_BOOL	Assume constant dimension of P	casadi::Dple	
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal	
der_options	OT_DICT	Default options to be used to populate forward_options,	casadi::FunctionInternal	

		reverse_options, and jacobian_options before those options are merged in.	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
eps_unstable	OT_DOUBLE	A margin for unstability detection	casadi::Dple
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
error_unstable	OT_BOOL	Throw an exception when it is detected that Product(A_i, i=N 1)has eigenvalues greater than 1-eps_unstable	casadi::Dple
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: $empty$	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions	casadi::FunctionInternal
		in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used	
Jic_Harrie	01_311(110	depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadii direttoriinterriat
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal

never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
pos_def	OT_BOOL	Assume P positive definite	casadi::Dple
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	.casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: general_Dple

List of available opt	ions		
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
const_dim	OT_BOOL	Assume constant dimension of P	casadi::Dple
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for	casadi::FunctionInternal

		Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
eps_unstable	OT_DOUBLE	A margin for unstability detection	casadi::Dple
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
error_unstable	OT_BOOL	Throw an exception when it is detected that Product(A_i, i=N 1) has eigenvalues greater than 1-eps_unstable	casadi::Dple
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_BOOL OT_STRING	The file name used to write out code. The actual file names used	
jit_name	OI_SIKING	depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	Casauli unctionimernat
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
pos_def	OT_BOOL	Assume P positive definite	casadi::Dple
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	.casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::Expm

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal	
const_A	OT_BOOL	Assume A is constant. Default: false.	casadi::Expm	
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note:	casadi::FunctionInternal	
		Highly experimental. Syntax may break often.		
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal	
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal	
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal	
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal	
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal	
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal	
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal	
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal	
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal	
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal	
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction	
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal	
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal	
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal	
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal	
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal	
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal	
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal	
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal	
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal	
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions	casadi::FunctionInternal	

		in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	. casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Infappears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: general_Expm

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.		
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal	
const_A	OT_BOOL	Assume A is constant. Default: false.	casadi::Expm	
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal	
der_options	OT_DICT	Default options to be used to populate forward_options,	casadi::FunctionInternal	

		reverse_options, and jacobian_options before those options are	
	OT FUNCTION	merged in.	P. E
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	RList of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit 	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal

post_expand_option	ns OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats(.casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::FastNewton

List of available optio	ns		
ld	Type	Description	Used in
abstol	OT_DOUBLE	Stopping criterion tolerance on g inf)	casadi::FastNewton
abstolStep	OT_DOUBLE	Stopping criterion tolerance on step size	casadi::FastNewton
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi:: Function Internal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi:: Function Internal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi:: Function Internal
constraints	OT_INTVECTOR	Constrain the unknowns. 0 (default): no constraint on ui, 1: ui >= 0.0, -1: ui <= 0.0, 2: ui > 0.0, -2: ui < 0.0.	casadi::Rootfinder
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi:: Function Internal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi:: Function Internal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for	casadi:: Function Internal

		Jacobians of all differentiable outputs with respect to all	
enable_reverse	OT_BOOL	differentiable inputs - if available. [default: true] Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using	casadi::FunctionInternal
		reverse mode AD - if available. [default: true]	
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform		List of external_transform instruction arguments. Default: empty	
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
implicit_input	OT_INT	Index of the input that corresponds to the actual root-finding	casadi::Rootfinder casadi::Rootfinder
implicit_output input_scheme	OT_INT	Index of the output that corresponds to the actual root-finding Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't	
·		make sense	
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special	casadi::FunctionInternal
		value -1 indicates never to use the full Jacobian strategy	
jacobian_function	OT_FUNCTION	Function object for calculating the Jacobian (autogenerated by default)	casadi::Rootfinder
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default:	casadi::FunctionInternal
		true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
linear_solver	OT_STRING	User-defined linear solver class. Needed for sensitivities.	casadi::Rootfinder
linear_solver_option		Options to be passed to the linear solver.	casadi::Rootfinder
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_iter	OT_INT	Maximum number of Newton iterations to perform before returning.	casadi::FastNewton
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction

reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Rootfinder_fast_newton

List of available options

 Id
 Type
 Description

 abstol
 OT_DOUBLE Stopping criterion tolerance on ||g||_inf)

 abstolStep OT_DOUBLE Stopping criterion tolerance on step size

 max_iter
 OT_INT
 Maximum number of Newton iterations to perform before returning.

Group: general_FastNewton

List of available options			
Id	Type	Description	Used in
abstol	OT_DOUBLE	Stopping criterion tolerance on g _inf)	casadi::FastNewton
abstolStep	OT_DOUBLE	Stopping criterion tolerance on step size	casadi::FastNewton
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
constraints	OT_INTVECTOR	Constrain the unknowns. 0 (default): no constraint on ui, 1: ui >= 0.0, -1: ui <= 0.0, 2: ui > 0.0, -2: ui < 0.0.	casadi::Rootfinder
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal

enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
implicit_input	OT_INT	Index of the input that corresponds to the actual root-finding	casadi::Rootfinder
implicit_output	OT_INT	Index of the output that corresponds to the actual root-finding	casadi::Rootfinder
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_function	OT_FUNCTION	Function object for calculating the Jacobian (autogenerated by default)	casadi::Rootfinder
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
linear_solver	OT_STRING	User-defined linear solver class. Needed for sensitivities.	casadi::Rootfinder
linear_solver_option	s OT_DICT	Options to be passed to the linear solver.	casadi::Rootfinder
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_iter	OT_INT	Maximum number of Newton iterations to perform before returning.	casadi::FastNewton
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal

print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Infappears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
show_eval_warnings	s OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::FatropConicInterface

List of available optic	ons		
Id	Type	Description	Used in
N	OT_INT	OCP horizon	casadi::FatropConicInterface
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal

enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fatrop	OT_DICT	Options to be passed to fatrop	casadi::FatropConicInterface
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme	OT STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions,	casadi::FunctionInternal
, , ,		it may be cheaper to compute first the full jacobian and then	
		multiply with seeds, rather than obtain the requested	
		directions in a straightforward manner. Casadi uses a	
		heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the	
		full Jacobian strategy. The special value -1 indicates never to	
		use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
ng	OT_INTVECTOR	Number of non-dynamic constraints, length N+1	casadi:: Fatrop Conic Interface
nu	OT_INTVECTOR	Number of controls, length N	casadi:: Fatrop Conic Interface
nx	OT_INTVECTOR	Number of states, length N+1	casadi:: Fatrop Conic Interface
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option		Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction

reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function	casadi::FunctionInternal
		or pass additional information	
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Conic_fatrop

List of available options

Id Type Description

N OT_INT OCP horizon

fatrop OT_DICT Options to be passed to fatrop

 $ng \qquad {\rm OT_INTVECTOR} \ Number \ of \ non-dynamic \ constraints, \ length \ N+1$

 $\begin{array}{ll} \text{nu} & \text{OT_INTVECTOR Number of controls, length N} \\ \text{nx} & \text{OT_INTVECTOR Number of states, length N+1} \end{array}$

Group: general_FatropConicInterface

List of available options					
Id	Type	Description	Used in		
N	OT_INT	OCP horizon	casadi::FatropConicInterface		
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.			
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.			
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal		
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal		
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal		
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal		
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal		
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal		
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integervalued	casadi::Conic		
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal		
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal		
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal		
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal		
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal		
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal		

enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform		List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fatrop	OT_DICT	Options to be passed to fatrop	casadi::FatropConicInterface
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
•	OT_DICT	·	casadi::FunctionInternal
forward_options		Options to be passed to a forward mode constructor	
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to	casadi::FunctionInternal
to a ktom outland	OT DICT	use the full Jacobian strategy	and Foundation Internal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit 	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
ng	OT_INTVECTOR	Number of non-dynamic constraints, length N+1	casadi::FatropConicInterface
nu	OT_INTVECTOR	Number of controls, length N	casadi::FatropConicInterface
nx	OT_INTVECTOR	Number of states, length N+1	casadi::FatropConicInterface
		· •	casadi::FunctionInternal
output_scheme		Deprecated option (ignored)	
post_expand post_expand_options	OT_BOOL SOT_DICT	After construction, expand this Function. Default: False Options to be passed to post-construction expansion.	casadi::FunctionInternal casadi::FunctionInternal
	OT DOO!	Default: empty	re e e
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction

record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Infappears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::Feasiblesqpmethod

List of available options			
ld	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
anderson_memory	OT_INT	Anderson memory. If Anderson is used default is 1 else default is 0.	, casadi::Feasiblesqpmethod
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	n casadi::Nlpsol
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
contraction_acceptance_value	OT_DOUBLE	If the empirical contraction rate in the feasibility iterations is above this value in the heuristics the iterations are aborted.	casadi::Feasiblesqpmethod
convexify_margin	OT_DOUBLE	When using a convexification strategy, make sure that the smallest eigenvalue4 is at least this (default: 1e-7).	casadi::Feasiblesqpmethod
convexify_strategy	OT_STRING	NONE regularize eigen-reflect eigen-clip. Strategy to convexify the Lagrange Hessian before passing it to the solver.	casadi::Feasiblesqpmethod
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function.	casadi::FunctionInternal

		The type of derivative (directional derivative, Jacobian) is inferred from the function name.	
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about	
		multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	
detect_simple_bounds_is_simple	OT_BOOLVECTOR	For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x	OT_INTVECTOR	For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal :
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
f	OT_FUNCTION	Function for calculating the objective function (autogenerated by default)	casadi::Feasiblesqpmethod
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference	casadi::FunctionInternal
feas_tol	OT_DOUBLE	instance Feasibility tolerance. Below this tolerance an iterate is considered to be feasible.	casadi::Feasiblesqpmethod
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
g	OT_FUNCTION	Function for calculating the constraints (autogenerated by default)	casadi::Feasiblesqpmethod
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
grad_f	OT_FUNCTION	Function for calculating the gradient of the objective (autogenerated by default)	casadi::Feasiblesqpmethod
hess_lag	OT_FUNCTION	Function for calculating the Hessian of the Lagrangian (autogenerated by default)	casadi::Feasiblesqpmethod

hessian_approximation ignore_check_vec	OT_STRING OT_BOOL	limited-memory exact If set to true, the input shape of F will not be	casadi::Feasiblesqpmethod casadi::Nlpsol
init_feasible	OT_BOOL	checked. Initialize the QP subproblems with a feasible	casadi::Feasiblesqpmethod
		initial value (default: false).	
input_scheme inputs_check	OT_STRINGVECTOR OT_BOOL	Deprecated option (ignored) Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_g	OT_FUNCTION	Function for calculating the Jacobian of the constraints (autogenerated by default)	casadi::Feasiblesqpmethod
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
lbfgs_memory	OT_INT	Size of L-BFGS memory.	casadi::Feasiblesqpmethod
max_inner_iter	OT_DOUBLE	Maximum number of inner iterations.	casadi::Feasiblesqpmethod
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	
max_iter	OT_INT	Maximum number of SQP iterations	casadi::Feasiblesqpmethod
max_iter_eig	OT_DOUBLE	Maximum number of iterations to compute an eigenvalue decomposition (default: 50).	casadi::Feasiblesqpmethod
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
merit_memory	OT_INT	Size of memory to store history of merit function values	casadi::Feasiblesqpmethod
min_iter	OT_INT	Minimum number of SQP iterations	casadi::Feasiblesqpmethod
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor		Set of user problem functions to be monitored	casadi::OracleFunction
never_inline no_nlp_grad	OT_BOOL OT_BOOL	Forbid inlining. Prevent the creation of the 'nlp_grad' function	casadi::FunctionInternal casadi::Nlpsol
no_ntp_grau	O1_DOOL	revent the creation of the htp_grad function	casauiพเ ม รบเ

optim_tol	OT_DOUBLE	Optimality tolerance. Below this value an iterate is considered to be optimal.	casadi::Feasiblesqpmethod
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_header	OT_BOOL	Print the header with problem statistics	casadi::Feasiblesqpmethod
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_iteration	OT_BOOL	Print the iterations	casadi::Feasiblesqpmethod
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_status	OT_BOOL	Print a status message after solving	casadi::Feasiblesqpmethod
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
qpsol	OT_STRING	The QP solver to be used by the SQP method [qpoases]	casadi::Feasiblesqpmethod
qpsol_options	OT_DICT	Options to be passed to the QP solver	casadi::Feasiblesqpmethod
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
solve_type	OT_STRING	The solver type: Either SQP or SLP. Defaults to SQP	casadi::Feasiblesqpmethod
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
tol_du	OT_DOUBLE	Stopping criterion for dual infeasability	casadi::Feasiblesqpmethod
tol_pr	OT_DOUBLE	Stopping criterion for primal infeasibility	casadi::Feasiblesqpmethod
tr_acceptance	OT_DOUBLE	Is the trust-region ratio above this value, the step is accepted.	casadi::Feasiblesqpmethod
tr_alpha1	OT_DOUBLE	Lower alpha in trust-region size criterion.	casadi::Feasiblesqpmethod
tr_alpha2	OT_DOUBLE	Upper alpha in trust-region size criterion.	casadi::Feasiblesqpmethod
tr_eta1	OT_DOUBLE	Lower eta in trust-region acceptance criterion.	casadi::Feasiblesqpmethod
tr_eta2	OT_DOUBLE	Upper eta in trust-region acceptance criterion.	casadi::Feasiblesqpmethod
tr_rad0	OT_DOUBLE	Initial trust-region radius.	casadi::Feasiblesqpmethod
tr_rad_max	OT_DOUBLE	Maximum trust-region radius.	casadi::Feasiblesqpmethod
tr_rad_min	OT_DOUBLE	Minimum trust-region radius.	casadi::Feasiblesqpmethod
tr_scale_vector	OT_DOUBLEVECTOR	R Vector that tells where trust-region is applied.	casadi::Feasiblesqpmethod
tr_tol	OT_DOUBLE	Trust-region tolerance. Below this value another scalar is equal to the trust region radius.	casadi::Feasiblesqpmethod
use_anderson	OT_BOOL	Use Anderson Acceleration. (default false)	casadi::Feasiblesqpmethod
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol
watchdog	OT_INT	Number of watchdog iterations in feasibility iterations. After this amount of iterations, it is checked with the contraction acceptance value, if iterations are converging.	casadi::Feasiblesqpmethod

Group: plugin_Nlpsol_feasiblesqpmethod

List of available options		
Id	Type	Description
anderson_memory	OT_INT	Anderson memory. If Anderson is used default is 1, else default is 0.
contraction_acceptance_val	ue OT_DOUBLE	If the empirical contraction rate in the feasibility iterations is above this value in the heuristics the iterations are aborted.
convexify_margin	OT_DOUBLE	When using a convexification strategy, make sure that the smallest eigenvalue4 is at least this (default: 1e-7).
convexify_strategy	OT_STRING	NONE regularize eigen-reflect eigen-clip. Strategy to convexify the Lagrange Hessian before passing it to the solver.
f	OT_FUNCTION	Function for calculating the objective function (autogenerated by default)
feas_tol	OT_DOUBLE	Feasibility tolerance. Below this tolerance an iterate is considered to be feasible.
g	OT_FUNCTION	Function for calculating the constraints (autogenerated by default)
grad_f	OT_FUNCTION	Function for calculating the gradient of the objective (autogenerated by default)
hess_lag	OT_FUNCTION	Function for calculating the Hessian of the Lagrangian (autogenerated by default)
hessian_approximation	OT_STRING	limited-memory exact
init_feasible	OT_BOOL	Initialize the QP subproblems with a feasible initial value (default: false).
jac_g	OT_FUNCTION	Function for calculating the Jacobian of the constraints (autogenerated by default)
lbfgs_memory	OT_INT	Size of L-BFGS memory.
max_inner_iter	OT_DOUBLE	Maximum number of inner iterations.
max_iter	OT_INT	Maximum number of SQP iterations
max_iter_eig	OT_DOUBLE	Maximum number of iterations to compute an eigenvalue decomposition (default: 50).
merit_memory	OT_INT	Size of memory to store history of merit function values
min_iter	OT_INT	Minimum number of SQP iterations
optim_tol	OT_DOUBLE	Optimality tolerance. Below this value an iterate is considered to be optimal.
print_header	OT_BOOL	Print the header with problem statistics
print_iteration	OT_BOOL	Print the iterations
print_status	OT_BOOL	Print a status message after solving
qpsol	OT_STRING	The QP solver to be used by the SQP method [qpoases]
qpsol_options	OT_DICT	Options to be passed to the QP solver
solve_type	OT_STRING	The solver type: Either SQP or SLP. Defaults to SQP
tol_du	OT_DOUBLE	Stopping criterion for dual infeasability
tol_pr	OT_DOUBLE	Stopping criterion for primal infeasibility
tr_acceptance	OT_DOUBLE	Is the trust-region ratio above this value, the step is accepted.
tr_alpha1	OT_DOUBLE	Lower alpha in trust-region size criterion.
tr_alpha2	OT_DOUBLE	Upper alpha in trust-region size criterion.
tr_eta1	OT_DOUBLE	Lower eta in trust-region acceptance criterion.
tr_eta2	OT_DOUBLE	Upper eta in trust-region acceptance criterion.
tr_rad0	OT_DOUBLE	Initial trust-region radius.
tr_rad_max	OT_DOUBLE	Maximum trust-region radius.
tr_rad_min	OT_DOUBLE	Minimum trust-region radius.
tr_scale_vector		R Vector that tells where trust-region is applied.
tr_tol	OT_DOUBLE	Trust-region tolerance. Below this value another scalar is equal to the trust region radius.
use_anderson	OT_BOOL	Use Anderson Acceleration. (default false)
watchdog	OT_INT	Number of watchdog iterations in feasibility iterations. After this amount of iterations, it is checked with the contraction acceptance value, if iterations are converging.
		converging.

Group: general_Feasiblesqpmethod

Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight n<=(1-ad_weight) na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
anderson_memory	OT_INT	Anderson memory. If Anderson is used default is 1 else default is 0.	, casadi::Feasiblesqpmethod
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	n casadi::Nlpsol
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
contraction_acceptance_value	OT_DOUBLE	If the empirical contraction rate in the feasibility iterations is above this value in the heuristics the iterations are aborted.	casadi::Feasiblesqpmethod
convexify_margin	OT_DOUBLE	When using a convexification strategy, make sure that the smallest eigenvalue4 is at least this (default: 1e-7).	casadi::Feasiblesqpmethod
convexify_strategy	OT_STRING	NONE regularize eigen-reflect eigen-clip. Strategy to convexify the Lagrange Hessian before passing it to the solver.	casadi::Feasiblesqpmethod
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'	
detect_simple_bounds_is_simpl		For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x	OT_INTVECTOR	For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e.	casadi::Nlpsol
		integer-valued	

dump	OT_BOOL	Dump function to file upon first evaluation. [false]	
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	. casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	RList of external_transform instruction arguments. Default: empty	
f	OT_FUNCTION	Function for calculating the objective function (autogenerated by default)	casadi::Feasiblesqpmethod
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
feas_tol	OT_DOUBLE	Feasibility tolerance. Below this tolerance an iterate is considered to be feasible.	casadi::Feasiblesqpmethod
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
g	OT_FUNCTION	Function for calculating the constraints (autogenerated by default)	casadi::Feasiblesqpmethod
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
grad_f	OT_FUNCTION	Function for calculating the gradient of the objective (autogenerated by default)	casadi::Feasiblesqpmethod
hess_lag	OT_FUNCTION	Function for calculating the Hessian of the Lagrangian (autogenerated by default)	casadi::Feasiblesqpmethod
hessian_approximation	OT_STRING	limited-memory exact	casadi::Feasiblesqpmethod
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	casadi::Nlpsol
init_feasible	OT_BOOL	Initialize the QP subproblems with a feasible initial value (default: false).	casadi::Feasiblesqpmethod
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of	casadi::Nlpsol

Callback.

		Callback.	
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_g	OT_FUNCTION	Function for calculating the Jacobian of the constraints (autogenerated by default)	casadi::Feasiblesqpmethod
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options jit	OT_DICT OT_BOOL	Options to be passed to a Jacobian constructor Use just-in-time compiler to speed up the	casadi::FunctionInternal casadi::FunctionInternal
jit_cleanup	OT_BOOL	evaluation Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
lbfgs_memory	OT_INT	Size of L-BFGS memory.	casadi::Feasiblesqpmethod
max_inner_iter	OT_DOUBLE	Maximum number of inner iterations.	casadi::Feasiblesqpmethod
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_iter	OT_INT	Maximum number of SQP iterations	casadi:: Feasible sqpmethod
max_iter_eig	OT_DOUBLE	Maximum number of iterations to compute an eigenvalue decomposition (default: 50).	casadi::Feasiblesqpmethod
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
merit_memory	OT_INT	Size of memory to store history of merit function values	casadi::Feasiblesqpmethod
min_iter	OT_INT	Minimum number of SQP iterations	casadi::Feasiblesqpmethod
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor		Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
optim_tol	OT_DOUBLE	Optimality tolerance. Below this value an iterate is considered to be optimal.	casadi::Feasiblesqpmethod
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_header	OT_BOOL	Print the header with problem statistics	casadi::Feasiblesqpmethod
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_iteration	OT_BOOL	Print the iterations	casadi::Feasiblesqpmethod
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_status	OT_BOOL	Print a status message after solving	casadi::Feasiblesqpmethod

print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
qpsol	OT_STRING	The QP solver to be used by the SQP method [qpoases]	casadi::Feasiblesqpmethod
qpsol_options	OT_DICT	Options to be passed to the QP solver	casadi::Feasiblesqpmethod
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	g casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
solve_type	OT_STRING	The solver type: Either SQP or SLP. Defaults to SQP	casadi::Feasiblesqpmethod
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
tol_du	OT_DOUBLE	Stopping criterion for dual infeasability	casadi::Feasiblesqpmethod
tol_pr	OT_DOUBLE	Stopping criterion for primal infeasibility	casadi::Feasiblesqpmethod
tr_acceptance	OT_DOUBLE	Is the trust-region ratio above this value, the step is accepted.	casadi::Feasiblesqpmethod
tr_alpha1	OT_DOUBLE	Lower alpha in trust-region size criterion.	casadi::Feasiblesqpmethod
tr_alpha2	OT_DOUBLE	Upper alpha in trust-region size criterion.	casadi::Feasiblesqpmethod
tr_eta1	OT_DOUBLE	Lower eta in trust-region acceptance criterion.	casadi::Feasiblesqpmethod
tr_eta2	OT_DOUBLE	Upper eta in trust-region acceptance criterion.	casadi::Feasiblesqpmethod
tr_rad0	OT_DOUBLE	Initial trust-region radius.	casadi::Feasiblesqpmethod
tr_rad_max	OT_DOUBLE	Maximum trust-region radius.	casadi::Feasiblesqpmethod
tr_rad_min	OT_DOUBLE	Minimum trust-region radius.	casadi::Feasiblesqpmethod
tr_scale_vector	OT_DOUBLEVECTOR	R Vector that tells where trust-region is applied.	casadi::Feasiblesqpmethod
tr_tol	OT_DOUBLE	Trust-region tolerance. Below this value another scalar is equal to the trust region radius.	casadi::Feasiblesqpmethod
use_anderson	OT_BOOL	Use Anderson Acceleration. (default false)	casadi::Feasiblesqpmethod
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol
watchdog	OT_INT	Number of watchdog iterations in feasibility iterations. After this amount of iterations, it is checked with the contraction acceptance value, if	casadi::Feasiblesqpmethod

class casadi::FiniteDiff

List of available options

List of available options				
Id	Type	Description	Used in	
abstol	OT_DOUBLE	Accuracy of function outputs [default: query object]	casadi::FiniteDiff	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) na is used where of and na are estimates of the number of forward.	casadi::FunctionInternal	

reverse mode directional derivatives needed. By default,

iterations are converging.

		ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
h	OT_DOUBLE	Step size [default: computed from abstol]	casadi::FiniteDiff
h_iter	OT_INT	Number of iterations to improve on the step-size [default: 1 if error estimate available, otherwise 0]	casadi::FiniteDiff
h_max 	OT_DOUBLE	Maximum step size [default 0]	casadi::FiniteDiff
h_min	OT_DOUBLE	Minimum step size [default inf]	casadi::FiniteDiff
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOLVECTOR	Throw exceptions when the numerical values of the inputs don't make sense	
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less	casadi::FunctionInternal

		likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
iit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	l casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reltol	OT_DOUBLE	Accuracy of function inputs [default: query object]	casadi::FiniteDiff
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
second_order_stepsize	e OT_DOUBLE	Second order perturbation size [default: 1e-3]	casadi::FiniteDiff
smoothing	OT_DOUBLE	Smoothing regularization [default: machine precision]	casadi::FiniteDiff
u_aim	OT_DOUBLE	Target ratio of roundoff error to truncation error [default: 100.]	casadi::FiniteDiff
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

${\bf class\ casadi::} {\bf FixedStepIntegrator}$

List of available options			
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal

augmented_options	OT_DICT	Options to be passed down to the augmented integrator, if one is constructed.	casadi::Integrator
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::Integrator
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
grid	OT_DOUBLEVECTOR	R [DEPRECATED] Time grid	casadi::Integrator
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal

jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
nadj	OT_INT	Number of adjoint sensitivities to be calculated [0]	casadi::Integrator
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
nfwd	OT_INT	Number of forward sensitivities to be calculated [0]	casadi::Integrator
number_of_finite_elemen		Target number of finite elements. The actual number may be higher to accommodate all output times	casadi::FixedStepIntegrator
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
output_t0	OT_BOOL	[DEPRECATED] Output the state at the initial time	casadi::Integrator
post_expand	OT_BOOL	After construction, expand this Function. Default: False	
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_stats	OT_BOOL	Print out statistics after integration	casadi::Integrator
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
rootfinder	OT_STRING	An implicit function solver	casadi::FixedStepIntegrator
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver	casadi::FixedStepIntegrator
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
simplify	OT_BOOL	Implement as MX Function (codegeneratable/ serializable) default: false	casadi::FixedStepIntegrator
simplify_options	OT_DICT	Any options to pass to simplified form Function constructor	casadi::FixedStepIntegrator
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
t0	OT_DOUBLE	[DEPRECATED] Beginning of the time horizon	casadi::Integrator
tf	OT_DOUBLE	[DEPRECATED] End of the time horizon	casadi::Integrator
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

${\bf Group: general_FixedStepIntegrator}$

List of available options

ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
augmented_options	OT_DICT	Options to be passed down to the augmented integrator, if one is constructed.	casadi::Integrator
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::Integrator
external_transform		List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	collected.	casadi::FunctionInternal
grid	OT_DOUBLEVECTOR	R [DEPRECATED] Time grid	casadi::Integrator

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input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
		•	
is_diff_out ·	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full	casadi::FunctionInternal
		jacobian and then multiply with seeds, rather than	
		obtain the requested directions in a straightforward	
		manner. Casadi uses a heuristic to decide which is	
		cheaper. A high value of 'jac_penalty' makes it less	
		likely for the heurstic to chose the full Jacobian	
		strategy. The special value -1 indicates never to use the	
	0.T. D.I.O.T.	full Jacobian strategy	
jacobian_options 	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit 	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file	casadi::FunctionInternal
jic_name	01_311(110	names used depend on 'jit_temp_suffix' and include	casadii diletioninternat
		extensions. Default: 'jit_tmp'	
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function:	casadi::FunctionInternal
		SOURCE link embed.	
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for	
		generated code and libraries. This is desired for thread- safety. This behaviour may defeat caching compiler	
		wrappers. Default: true	
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if	casadi::FunctionInternal
<u>u., _</u>	⊙ . <u>_</u>	exceeded.	
max_num_dir	OT_INT	Specify the maximum number of directions for	casadi::FunctionInternal
		derivative functions. Overrules the builtin	
	OT CTD11161/56TOD	optimized_num_dir.	
monitor		Set of user problem functions to be monitored	casadi::OracleFunction
nadj 	OT_INT	Number of adjoint sensitivities to be calculated [0]	casadi::Integrator
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
nfwd	OT_INT	Number of forward sensitivities to be calculated [0]	casadi::Integrator
number_of_finite_element		Target number of finite elements. The actual number may be higher to accommodate all output times	casadi::FixedStepIntegrator
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
output_t0	OT_BOOL	[DEPRECATED] Output the state at the initial time	casadi::Integrator
post_expand	OT_BOOL	After construction, expand this Function. Default: False	
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_stats	OT_BOOL	Print out statistics after integration	casadi::Integrator
print_time	OT_BOOL	print information about execution time. Implies	casadi::ProtoFunction
print_time	01_5001	record_time.	casaami rotor anetion
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
rootfinder	OT_STRING	An implicit function solver	casadi::FixedStepIntegrator
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver	casadi::FixedStepIntegrator
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations	casadi::OracleFunction
		[true]	
simplify	OT_BOOL	Implement as MX Function (codegeneratable/ serializable) default: false	casadi::FixedStepIntegrator
simplify_options	OT_DICT	Any options to pass to simplified form Function	casadi::FixedStepIntegrator
5py_options	35.61	, species to pass to simplified form function	assaum measteprinegrator

		constructor	
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
t0	OT_DOUBLE	[DEPRECATED] Beginning of the time horizon	casadi::Integrator
tf	OT_DOUBLE	[DEPRECATED] End of the time horizon	casadi::Integrator
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::FmuFunction

List of available options				
Id	Type	Description	Used in	
abstol	OT_DOUBLE	Absolute error tolerance, scaled by nominal value	casadi::FmuFunction	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.		
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
aux	OT_STRINGVECTOR	Auxilliary variables	casadi::FmuFunction	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
check_hessian	OT_BOOL	Symmetry check for Hessian	casadi::FmuFunction	
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal	
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal	
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal	
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal	
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal	
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal	
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal	
enable_ad	OT_BOOL	Calculate first order derivatives using FMU directional derivative support	casadi::FmuFunction	
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal	
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal	
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal	
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for	casadi::FunctionInternal	

transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]

		reverse mode AD - if available. [default: true]	
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	$List\ of\ external_transform\ instruction\ arguments.\ Default:\ empty$	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
hessian_coloring	OT_BOOL	Enable the use of graph coloring (star coloring) for Hessian calculation. Note that disabling the coloring can improve symmetry check diagnostics.	casadi::FmuFunction
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
make_symmetric	OT_BOOL	Ensure Hessian is symmetric	casadi::FmuFunction
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
new_hessian	OT_BOOL	Use Hessian implementation in class	casadi::FmuFunction
new_jacobian	OT_BOOL	Use Jacobian implementation in class	casadi::FmuFunction
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
parallelization	OT_STRING	Parallelization [SERIAL openmp thread]	casadi::FmuFunction
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_progress	OT_BOOL	Print progress during Jacobian/Hessian evaluation	casadi::FmuFunction
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reltol	OT_DOUBLE	Relative error tolerance	casadi::FmuFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
scheme	OT_DICT	Definitions of the scheme variables	casadi::FmuFunction
scheme_in		Names of the inputs in the scheme	casadi::FmuFunction
scheme_out		Names of the outputs in the scheme	casadi::FmuFunction
step	OT_DOUBLE	Step size, scaled by nominal value	casadi::FmuFunction

user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
validate_ad	OT_BOOL	Compare analytic derivatives with finite differences for validation	casadi::FmuFunction
validate_ad_file	OT_STRING	Redirect results of Hessian validation to a file instead of generating a warning	casadi::FmuFunction
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::FunctionInternal

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight $nf <= (1-ad_weight)$ na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal	
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal	
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal	
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal	
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal	
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal	
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal	
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal	
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal	
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal	
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal	
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction	
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal	
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal	
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal	
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal	
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal	

input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	is OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	.casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::Function

List of available op	otions		
Id	Туре	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	

always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	e casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal

max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()). casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::GurobiInterface

OT_BOOL

dump_out

List of available options

Id	Туре	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight/nf<=(1-ad_weight/na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0 Note: Highly experimental. Syntax may break often.	. casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options reverse_options, and jacobian_options before those options are merged in.	, casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer- valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with	casadi::FunctionInternal

DM.from_file) [default: false]

DM.from_file) [default: false]

Dump numerical values of outputs to file (readable with casadi::FunctionInternal

enable_forward enable_forward enable_facobian	enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
for Jacobians of all differentiable outputs with respect to a differentiable (default true) casadic-functioninternal for transposed Jacobian-ilman-vector products - typically using reverse mode AD - if available. [default true] crors of true) control of true). externa_transform	enable_forward	OT_BOOL	for Jacobian-times-vector products - typically using	casadi::FunctionInternal
for transposed Jacobian-times-vector products true error_on_fail	enable_jacobian	OT_BOOL	for Jacobians of all differentiable outputs with respect to	
true). Sexternal_transform OT_VECTORVECTOR List of eventand_transform instruction arguments. Casadi:FunctionInternal Default: empty	enable_reverse	OT_BOOL	for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default:	casadi::FunctionInternal
Independent of Method OT_STRING Method for finite differencing [default 'central'] casadii:FunctionInternal casadii:Funct	error_on_fail	OT_BOOL	•	t casadi::ProtoFunction
fd_options OT_DICT Options to be passed to the finite difference instance forward_options casadii:FunctionInternal part of p	external_transform	OT_VECTORVECTOR		casadi::FunctionInternal
Forward_options gather_stats OT_BOOL Deprecated option (ignored): Statistics are now always collected.	fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
gather_stats QT_BOOL Deprecated option (ignored): Statistics are now always collected. OT_DICT Options to be passed to gurobi. Deprecated option (ignored): Casadi::FunctionInternal collected. OT_BOOL Throw exceptions when the numerical values of the inputs don't make sense Is_diff_in OT_BOOLVECTOR Indicate for each input if it should be differentiable. Is_diff_out OT_BOOLVECTOR Indicate for each output if it should be differentiable. Is_diff_out OT_BOOLVECTOR Indicate for each output if it should be differentiable. Is_diff_out OT_DOUBLE When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of jiac_penalty makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the f	fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
gurobi OT_DICT Options to be passed to gurobi. Casadi::FunctionInternal casadi::FunctionInte	forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
Input_scheme OT_STRINGVECTOR Deprecated option (ignored) casadi::FunctionInternal candus of the inputs check CT_BOOL Throw exceptions when the numerical values of the inputs don't make sense Casadi::FunctionInternal candus of the inputs of the inputs of the inputs don't make sense Casadi::FunctionInternal candus of the inputs of the inputs of the inputs of the input so of incurs of the input so of input so of incurs of its the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value - 1 indicates never to use the full Jacobian strategy. The special value - 1 indicates never to use the full Jacobian strategy. The special value - 1 indicates never to use the full Jacobian strategy. The special value - 2 indicates never to use the full Jacobian strategy. The special value - 1 indicates never to use the full Jacobian strategy. The special value - 2 indicates never to use the full Jacobian strategy. The special value - 2 indicates never to use the full Jacobian strategy. The special value - 2 indicates never to use the full Jacobian strategy. The special value - 2 indicates never to use the full Jacobian strategy. The special value - 2 indicates never to use the full Jacobian strategy. The special value - 2 indicates never to use the full Jacobian strategy. The special value - 2 indicates never to use the full Jacobian strategy. The special value - 2 indicate for each other than the special val	gather_stats	OT_BOOL		casadi::FunctionInternal
inputs_check OT_BOOL Throw exceptions when the numerical values of the inputs don't make sense casadi::FunctionInternal inputs don't make sense is_diff_in OT_BOOLVECTOR Indicate for each input if it should be differentiable. casadi::FunctionInternal casadi::Fu	gurobi	OT_DICT	Options to be passed to gurobi.	casadi::GurobiInterface
is_diff_out OT_BOOLVECTOR Indicate for each input if it should be differentiable. is_diff_out OT_BOOLVECTOR Indicate for each output if it should be differentiable. Jac_penalty OT_DOUBLE When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. Jacobian_options OT_DICT Options to be passed to a Jacobian constructor casadi::FunctionInternal casadi::FunctionIn	input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
Indicate for each output if it should be differentiable. Casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straighforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of jac_penalty makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy. The special value of pace and indicates never to use the full Jacobian strategy. The special value of indicates never to use the full Jacobian strategy. The special value of indicates never to use the full Jacobian strategy. The special value of indicates never to use the full Jacobian strategy. The special value of indicates never to use the full Jacobian strategy. The special value of indicates never to use the full Jacobian strategy. The special value of indicates never to use the full Jacobian strategy. The special va	inputs_check	OT_BOOL		casadi::FunctionInternal
Jac_penalty	is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
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jit OT_BOOL Use just-in-time compiler to speed up the evaluation Default: Function pit_cleanup casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal pit_name jit_leanup OT_STRING The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' casadi::FunctionInternal pit_temp_suffix' and include extensions. Default: 'jit_tmp' casadi::FunctionInternal pit_temp_suffix' and include extensions. Default: 'jit_tmp' casadi::FunctionInternal pit_temp_suffix' pit_			directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
Cleanup up the temporary source file that jit creates. Default: true	jacobian_options	OT_DICT	·	casadi::FunctionInternal
Default: true jit_name OT_STRING The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' jit_options OT_DICT Options to be passed to the jit compiler. SOURCE link embed. jit_temp_suffix OT_BOOL Default: 'jit_tmp' Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true max_io OT_INT Acceptable number of inputs and outputs. Warn if exceeded. max_num_dir OT_INT Specify the maximum number of directions for derivative casadi::FunctionInternal functions. Overrules the builtin optimized_num_dir. never_inline OT_BOOL OT_BOOL Forbid inlining. OT_BOOL post_expand OT_BOOL After construction, expand this Function. Default: False casadi::FunctionInternal casadi::F	jit		, , , ,	
names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' jit_options OT_DICT Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function: casadi::FunctionInternal SOURCE link embed. jit_temp_suffix OT_BOOL Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true max_io OT_INT Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative casadi::FunctionInternal functions. Overrules the builtin optimized_num_dir. never_inline OT_BOOL Forbid inlining. casadi::FunctionInternal post_expand OT_BOOL After construction, expand this Function. Default: False post_expand_options OT_DICT Options to be passed to post-construction expansion. Default: empty print_in OT_BOOL Print numerical values of inputs [default: false] casadi::FunctionInternal casa	jit_cleanup		Default: true	
jit_serialize OT_STRING Specify behaviour when serializing a jitted function: Casadi::FunctionInternal SOURCE link embed. jit_temp_suffix OT_BOOL Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for threadsafety. This behaviour may defeat caching compiler wrappers. Default: true max_io OT_INT Acceptable number of inputs and outputs. Warn if exceeded. max_num_dir OT_INT Specify the maximum number of directions for derivative casadi::FunctionInternal functions. Overrules the builtin optimized_num_dir. never_inline OT_BOOL Forbid inlining. casadi::FunctionInternal output_scheme OT_STRINGVECTOR Deprecated option (ignored) casadi::FunctionInternal post_expand OT_BOOL After construction, expand this Function. Default: False post_expand_options OT_DICT Options to be passed to post-construction expansion. Default: empty print_in OT_BOOL Print numerical values of inputs [default: false] casadi::FunctionInternal casadi::FunctionInterna	jit_name	OT_STRING	names used depend on 'jit_temp_suffix' and include	casadi::FunctionInternal
SOURCE link embed. jit_temp_suffix OT_BOOL Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true max_io OT_INT Acceptable number of inputs and outputs. Warn if exceeded. max_num_dir OT_INT Specify the maximum number of directions for derivative casadi::FunctionInternal functions. Overrules the builtin optimized_num_dir. never_inline OT_BOOL Forbid inlining. casadi::FunctionInternal output_scheme OT_STRINGVECTOR Deprecated option (ignored) casadi::FunctionInternal post_expand OT_BOOL After construction, expand this Function. Default: False post_expand_options OT_DICT Options to be passed to post-construction expansion. Default: empty print_in OT_BOOL Print numerical values of inputs [default: false] casadi::FunctionInternal	jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
generated code and libraries. This is desired for thread- safety. This behaviour may defeat caching compiler wrappers. Default: true max_io OT_INT Acceptable number of inputs and outputs. Warn if exceeded. max_num_dir OT_INT Specify the maximum number of directions for derivative casadi::FunctionInternal functions. Overrules the builtin optimized_num_dir. never_inline OT_BOOL Forbid inlining. casadi::FunctionInternal output_scheme OT_STRINGVECTOR Deprecated option (ignored) casadi::FunctionInternal post_expand OT_BOOL After construction, expand this Function. Default: False casadi::FunctionInternal Options to be passed to post-construction expansion. Default: empty print_in OT_BOOL Print numerical values of inputs [default: false] casadi::FunctionInternal c	•		SOURCE link embed.	
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never_inline OT_BOOL Forbid inlining. casadi::FunctionInternal output_scheme OT_STRINGVECTOR Deprecated option (ignored) casadi::FunctionInternal post_expand OT_BOOL After construction, expand this Function. Default: False post_expand_options OT_DICT Options to be passed to post-construction expansion. Default: empty print_in OT_BOOL Print numerical values of inputs [default: false] casadi::FunctionInternal casadi::F	max_io	OT_INT		casadi::FunctionInternal
output_schemeOT_STRINGVECTORDeprecated option (ignored)casadi::FunctionInternalpost_expandOT_BOOLAfter construction, expand this Function. Default: Falsecasadi::FunctionInternalpost_expand_options OT_DICTOptions to be passed to post-construction expansion. Default: emptycasadi::FunctionInternalprint_inOT_BOOLPrint numerical values of inputs [default: false]casadi::FunctionInternalprint_outOT_BOOLPrint numerical values of outputs [default: false]casadi::FunctionInternal	max_num_dir		functions. Overrules the builtin optimized_num_dir.	e casadi::FunctionInternal
post_expand OT_BOOL After construction, expand this Function. Default: False casadi::FunctionInternal post_expand_options OT_DICT Options to be passed to post-construction expansion. Default: empty print_in OT_BOOL Print numerical values of inputs [default: false] casadi::FunctionInternal casad	never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
post_expand_options OT_DICT Options to be passed to post-construction expansion. Default: empty print_in OT_BOOL print_out OT_BOOL Print numerical values of inputs [default: false] casadi::FunctionInternal casadi::Fun	output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
Default: empty print_in OT_BOOL Print numerical values of inputs [default: false] casadi::FunctionInternal print_out OT_BOOL Print numerical values of outputs [default: false] casadi::FunctionInternal	post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
print_out OT_BOOL Print numerical values of outputs [default: false] casadi::FunctionInternal	post_expand_option		Default: empty	
,			• -	
print_problem OT_BOOL Print a numeric description of the problem casadi::Conic	print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
	print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic

print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sos_groups	OT_INTVECTORVECTOR	Definition of SOS groups by indices.	casadi::GurobiInterface
sos_types	OT_INTVECTOR	Specify 1 or 2 for each SOS group.	casadi::GurobiInterface
sos_weights	OT_DOUBLEVECTORVECTOR	Weights corresponding to SOS entries.	casadi::GurobiInterface
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
vtype	OT_STRINGVECTOR	Type of variables: [CONTINUOUS binary integer semicont semiint]	casadi::GurobiInterface

Group: plugin_Conic_gurobi

List of available options

IdTypeDescriptiongurobiOT_DICTOptions to be passed to gurobi.sos_groupsOT_INTVECTORVECTORDefinition of SOS groups by indices.sos_typesOT_INTVECTORSpecify 1 or 2 for each SOS group.sos_weights OT_DOUBLEVECTORVECTORWeights corresponding to SOS entries.vtypeOT_STRINGVECTORType of variables: [CONTINUOUS|binary|integer|semicont|semiint]

Group: general_GurobiInterface

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L	_IST	от а	valla	able	options

Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': One: Highly experimental. Syntax may break often.). casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options reverse_options, and jacobian_options before those options are merged in.	, casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	- casadi::Conic

dump dump_dir	OT_BOOL OT_STRING	Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	t casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
gurobi	OT_DICT	Options to be passed to gurobi.	casadi::GurobiInterface
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative	e casadi::FunctionInternal

		functions. Overrules the builtin optimized_num_dir.	
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sos_groups	OT_INTVECTORVECTOR	Definition of SOS groups by indices.	casadi::GurobiInterface
sos_types	OT_INTVECTOR	Specify 1 or 2 for each SOS group.	casadi::GurobiInterface
sos_weights	OT_DOUBLEVECTORVECTOR	R Weights corresponding to SOS entries.	casadi::GurobiInterface
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
vtype	OT_STRINGVECTOR	Type of variables: [CONTINUOUS binary integer semicont semiint]	casadi::GurobiInterface

class casadi::HighsInterface

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrice are used.		
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal	
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal	
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic	
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal	
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal	
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal	
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with	casadi::FunctionInternal	

		DM.from_file) [default: false]	
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
highs	OT_DICT	Options to be passed to HiGHS.	casadi::HighsInterface
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	ns OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	. casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal

user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or	casadi::FunctionInternal
		pass additional information	
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Conic_highs

List of available options

Id Type Description

highs OT_DICT Options to be passed to HiGHS.

Group: general_HighsInterface

List of available opti			
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal

error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	RList of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
highs	OT_DICT	Options to be passed to HiGHS.	casadi::HighsInterface
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
Jit_options	OI_DICI	options to be passed to the jit compiler.	casauii unctionimemat
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	
		Specify behaviour when serializing a jitted function: SOURCE link	
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default:	casadi::FunctionInternal
jit_serialize jit_temp_suffix	OT_STRING OT_BOOL	Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
jit_serialize jit_temp_suffix max_io	OT_STRING OT_BOOL OT_INT	Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
jit_serialize jit_temp_suffix max_io max_num_dir	OT_STRING OT_BOOL OT_INT OT_INT OT_BOOL	Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
jit_serialize jit_temp_suffix max_io max_num_dir never_inline	OT_STRING OT_BOOL OT_INT OT_INT OT_BOOL	Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining.	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
jit_serialize jit_temp_suffix max_io max_num_dir never_inline output_scheme	OT_STRING OT_BOOL OT_INT OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL	Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored)	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
jit_serialize jit_temp_suffix max_io max_num_dir never_inline output_scheme post_expand	OT_STRING OT_BOOL OT_INT OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL	Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false]	casadi::FunctionInternal
jit_serialize jit_temp_suffix max_io max_num_dir never_inline output_scheme post_expand post_expand_option	OT_STRING OT_BOOL OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL SOT_DICT	Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
jit_serialize jit_temp_suffix max_io max_num_dir never_inline output_scheme post_expand post_expand print_in	OT_STRING OT_BOOL OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL	Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false]	casadi::FunctionInternal casadi::Conic
jit_serialize jit_temp_suffix max_io max_num_dir never_inline output_scheme post_expand post_expand_option print_in print_out	OT_STRING OT_BOOL OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL	Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] Print a numeric description of the problem print information about execution time. Implies record_time.	casadi::FunctionInternal casadi::PunctionInternal casadi::PunctionInternal casadi::PunctionInternal
jit_serialize jit_temp_suffix max_io max_num_dir never_inline output_scheme post_expand post_expand_option print_in print_out print_problem	OT_STRING OT_BOOL OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false]	casadi::FunctionInternal casadi::ProtoFunction .casadi::ProtoFunction
jit_serialize jit_temp_suffix max_io max_num_dir never_inline output_scheme post_expand post_expand porint_in print_out print_problem print_time	OT_STRING OT_BOOL OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] Print a numeric description of the problem print information about execution time. Implies record_time.	casadi::FunctionInternal casadi::PunctionInternal casadi::PunctionInternal casadi::PunctionInternal
jit_serialize jit_temp_suffix max_io max_num_dir never_inline output_scheme post_expand post_expand_option print_in print_out print_problem print_time record_time	OT_STRING OT_BOOL OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] Print a numeric description of the problem print information about execution time. Implies record_time. record information about execution time, for retrieval with stats()	casadi::FunctionInternal casadi::ProtoFunction .casadi::ProtoFunction
jit_serialize jit_temp_suffix max_io max_num_dir never_inline output_scheme post_expand post_expand_option print_in print_out print_problem print_time record_time regularity_check	OT_STRING OT_BOOL OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL	Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] Print a numeric description of the problem print information about execution time. Implies record_time. record information about execution time, for retrieval with stats() Throw exceptions when NaN or Inf appears during evaluation	casadi::FunctionInternal casadi::PunctionInternal casadi::PunctionInternal casadi::ProtoFunction casadi::ProtoFunction

class casadi::HpipmInterface

List of available options

Id	Type	Description	Used in
N	OT_INT	OCP horizon	casadi::HpipmInterface
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional	casadi::FunctionInternal

ad_weight_sp	OT_DOUBLE	derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics. Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note:	casadi::FunctionInternal
·		Highly experimental. Syntax may break often.	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL		casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: $empty$	
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
hpipm	OT_DICT	Options to be passed to hpipm	casadi::HpipmInterface
inf	OT_DOUBLE	Replace infinities by this amount [default: 1e8]	casadi::HpipmInterface
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal

jacobian_options	OT_DICT	•	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
ng	OT_INTVECTOR	Number of non-dynamic constraints, length N+1	casadi::HpipmInterface
nu	OT_INTVECTOR	Number of controls, length N	casadi::HpipmInterface
nx	OT_INTVECTOR	Number of states, length N+1	casadi::HpipmInterface
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	1 11 3	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Conic_hpipm

List of available options

Id	Type	Description
Ν	OT_INT	OCP horizon
hpipn	n OT_DICT	Options to be passed to hpipm
inf	OT_DOUBLE	Replace infinities by this amount [default: 1e8]
ng	OT_INTVECTOR	R Number of non-dynamic constraints, length N+1
nu	OT_INTVECTOR	R Number of controls, length N
nx	OT_INTVECTOR	R Number of states, length N+1

Group: general_HpipmInterface

List of available options

Id	Туре	Description	Used in
N	OT_INT	OCP horizon	casadi::HpipmInterface
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is	casadi::FunctionInternal

ad_weight_sp	OT_DOUBLE	calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics. Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
hpipm	OT_DICT	Options to be passed to hpipm	casadi::HpipmInterface
inf	OT_DOUBLE	Replace infinities by this amount [default: 1e8]	casadi::HpipmInterface
input_scheme inputs_check	OT_STRINGVECTOR OT_BOOL	Deprecated option (ignored) Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special	casadi::FunctionInternal
iacobian options	OT_DICT	value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options jit	OT_BOOL	Options to be passed to a Jacobian constructor Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal

jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
ng	OT_INTVECTOR	Number of non-dynamic constraints, length N+1	casadi::HpipmInterface
nu	OT_INTVECTOR	Number of controls, length N	casadi::HpipmInterface
nx	OT_INTVECTOR	Number of states, length N+1	casadi::HpipmInterface
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	. casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::HpmpcInterface

List of available options			
Id	Type	Description	Used in
N	OT_INT	OCP horizon	casadi::HpmpcInterface
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrice are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
blasfeo_target	OT_STRING	hpmpc target	casadi::HpmpcInterface
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are	casadi::FunctionInternal

derivative_of	OT_FUNCTION	merged in. The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory	casadi::FunctionInternal
aap_a	oo	exists [.]	
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with	casadi::FunctionInternal
· · · · · ·		DM.from_file) [default: false]	
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
inf	OT_DOUBLE	HPMPC cannot handle infinities. Infinities will be replaced by this option's value.	casadi::HpmpcInterface
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_iter	OT_INT	Max number of iterations	casadi::HpmpcInterface
max_num_dir	OT_INT	Specify the maximum number of directions for derivative	casadi::FunctionInternal
_		functions. Overrules the builtin optimized_num_dir.	

mu0	OT_DOUBLE	Max element in cost function as estimate of max multiplier	casadi::HpmpcInterface
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
ng	OT_INTVECTOR	Number of non-dynamic constraints, length N+1	casadi::HpmpcInterface
nu	OT_INTVECTOR	Number of controls, length N	casadi::HpmpcInterface
nx	OT_INTVECTOR	Number of states, length N+1	casadi::HpmpcInterface
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default:	casadi::FunctionInternal
		empty	
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_level	OT_INT	Amount of diagnostic printing [Default: 1].	casadi::HpmpcInterface
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	.casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
target	OT_STRING	hpmpc target	casadi::HpmpcInterface
tol	OT_DOUBLE	Tolerance in the duality measure	casadi::HpmpcInterface
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
warm_start	OT_BOOL	Use warm-starting	casadi::HpmpcInterface

Group: plugin_Conic_hpmpc

List of available options

List of available options

Id	Type	Description
N	OT_INT	OCP horizon
blasfeo_targe	t OT_STRING	hpmpc target
inf	OT_DOUBLE	HPMPC cannot handle infinities. Infinities will be replaced by this option's value.
max_iter	OT_INT	Max number of iterations
mu0	OT_DOUBLE	Max element in cost function as estimate of max multiplier
ng	OT_INTVECTO	R Number of non-dynamic constraints, length N+1
nu	OT_INTVECTO	R Number of controls, length N
nx	OT_INTVECTO	R Number of states, length N+1
print_level	OT_INT	Amount of diagnostic printing [Default: 1].
target	OT_STRING	hpmpc target
tol	OT_DOUBLE	Tolerance in the duality measure
warm_start	OT_BOOL	Use warm-starting

Group: general_HpmpcInterface

Id	Туре	Description	Used in
N	OT_INT	OCP horizon	casadi::HpmpcInterface
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional	casadi::FunctionInternal
		derivatives, the condition ad_weight <i>nf<=(1-ad_weight)</i> na is used	

derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.

ad_weight_sp OT_DOUBLE Weighting factor for sparsity pattern calculation casadi::FunctionInternal

calculation. Overrides default behavior. Set to 0 and 1 to force

forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.

		are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
blasfeo_target	OT_STRING	hpmpc target	casadi::HpmpcInterface
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform		List of external_transform instruction arguments. Default: empty	
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
		Options to be passed to the finite difference instance	casadi::FunctionInternal
fd_options	OT_DICT OT_DICT	Options to be passed to the fillite difference instance Options to be passed to a forward mode constructor	
forward_options	_	·	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
inf	OT_DOUBLE	HPMPC cannot handle infinities. Infinities will be replaced by this option's value.	casadi::HpmpcInterface
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	

jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi:: Function Internal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_iter	OT_INT	Max number of iterations	casadi::HpmpcInterface
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
mu0	OT_DOUBLE	Max element in cost function as estimate of max multiplier	casadi::HpmpcInterface
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
ng	OT_INTVECTOR	Number of non-dynamic constraints, length N+1	casadi::HpmpcInterface
nu	OT_INTVECTOR	Number of controls, length N	casadi::HpmpcInterface
nx	OT_INTVECTOR	Number of states, length N+1	casadi::HpmpcInterface
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_level	OT_INT	Amount of diagnostic printing [Default: 1].	casadi::HpmpcInterface
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	. casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Infappears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
target	OT_STRING	hpmpc target	casadi::HpmpcInterface
tol	OT_DOUBLE	Tolerance in the duality measure	casadi::HpmpcInterface
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
warm_start	OT_BOOL	Use warm-starting	casadi::HpmpcInterface

class casadi::IdasInterface

List of available options

Id	Type	Description	Used in
abstol	OT_DOUBLE	Absolute tolerence for the IVP solution	casadi::SundialsInterface
abstolv	OT_DOUBLEVECTO	OR Absolute tolerarance for each component	casadi::IdasInterface
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
augmented_options	OT_DICT	Options to be passed down to the augmented integrator, if one is constructed.	casadi::Integrator
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal

calc_ic	OT_BOOL	Use IDACalcIC to get consistent initial conditions.	casadi::IdasInterface
calc_icB	OT_BOOL	Use IDACalcIC to get consistent initial conditions for backwards system [default: equal to calc_ic].	casadi::IdasInterface
cj_scaling	OT_BOOL	IDAS scaling on cj for the user-defined linear solver module	casadi::ldasInterface
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
constraints	OT_INTVECTOR	Constrain the solution $y=[x,z]$. 0 (default): no constraint on y_i , 1: $y_i >= 0.0$, -1: $y_i <= 0.0$, 2: $y_i > 0.0$, -2: $y_i < 0.0$.	
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
disable_internal_warnings	OT_BOOL	Disable SUNDIALS internal warning messages	casadi::SundialsInterface
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the	casadi::FunctionInternal
·		directory exists [.]	
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::Integrator
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
first_time	OT_DOUBLE	First requested time as a fraction of the time interval	casadi::ldasInterface
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
fsens_err_con	OT_BOOL	include the forward sensitivities in all error controls	casadi::SundialsInterface
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always	casadi::FunctionInternal
•		collected.	
grid		[DEPRECATED] Time grid	casadi::Integrator
init_xdot	-	Initial values for the state derivatives	casadi::ldasInterface
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
interpolation_type	OT_STRING	Type of interpolation for the adjoint sensitivities	casadi::SundialsInterface
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full	casadi::FunctionInternal

		jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
linear_solver	OT_STRING	A custom linear solver creator function [default: qr]	casadi::SundialsInterface
linear_solver_options	OT_DICT	Options to be passed to the linear solver	casadi::SundialsInterface
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_krylov	OT_INT	Maximum Krylov subspace size	casadi::SundialsInterface
max_multistep_order	OT_INT	Maximum order for the (variable-order) multistep method	casadi::SundialsInterface
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
max_num_steps	OT_INT	Maximum number of integrator steps	casadi::SundialsInterface
max_order	OT_DOUBLE	Maximum order	casadi::SundialsInterface
max_step_size	OT_DOUBLE	Maximim step size	casadi::ldasInterface
monitor		Set of user problem functions to be monitored	casadi::OracleFunction
nadj	OT_INT	Number of adjoint sensitivities to be calculated [0]	casadi::Integrator
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
newton_scheme	OT_BOOL OT_STRING	Linear solver scheme in the Newton method: DIRECT	casadi::SundialsInterface
	OT_INT	gmres bcgstab tfqmr	
nfwd	-	Number of forward sensitivities to be calculated [0]	casadi::Integrator
nonlin_conv_coeff	OT_DOUBLE	Coefficient in the nonlinear convergence test	casadi::SundialsInterface
number_of_finite_element		Target number of finite elements. The actual number may be higher to accommodate all output times	•
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
output_t0	OT_BOOL	[DEPRECATED] Output the state at the initial time	casadi::Integrator
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_stats	OT_BOOL	Print out statistics after integration	casadi::Integrator
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
quad_err_con	OT_BOOL	Should the quadratures affect the step size control	casadi::SundialsInterface
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reltol	OT_DOUBLE	Relative tolerence for the IVP solution	casadi::SundialsInterface
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
rootfinder	OT_STRING	An implicit function solver	casadi::Integrator
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver	casadi::Integrator
scale_abstol	OT_BOOL	Scale absolute tolerance by nominal value	casadi::SundialsInterface
Scarc_abstor	31_B30L	State absolute tolerance by nominal value	casaasarialatsiittei late

second_order_correction	OT_BOOL	Second order correction in the augmented system Jacobian [true]	casadi::SundialsInterface
sensitivity_method	OT_STRING	Sensitivity method: SIMULTANEOUS staggered	casadi::SundialsInterface
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
simplify	OT_BOOL	Implement as MX Function (codegeneratable/serializable) default: false	casadi::Integrator
simplify_options	OT_DICT	Any options to pass to simplified form Function constructor	casadi::Integrator
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	g casadi::OracleFunction
step0	OT_DOUBLE	initial step size [default: 0/estimated]	casadi::SundialsInterface
steps_per_checkpoint	OT_INT	Number of steps between two consecutive checkpoints	casadi::SundialsInterface
stop_at_end	OT_BOOL	[DEPRECATED] Stop the integrator at the end of the interval	casadi::SundialsInterface
suppress_algebraic	OT_BOOL	Suppress algebraic variables in the error testing	casadi::ldasInterface
t0	OT_DOUBLE	[DEPRECATED] Beginning of the time horizon	casadi::Integrator
tf	OT_DOUBLE	[DEPRECATED] End of the time horizon	casadi::Integrator
use_preconditioner	OT_BOOL	Precondition the iterative solver [default: true]	casadi::SundialsInterface
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Integrator_idas

Type	Description
OT_DOUBLE	Absolute tolerence for the IVP solution
OT_DOUBLEVECTO	PR Absolute tolerarance for each component
OT_BOOL	Use IDACalcIC to get consistent initial conditions.
OT_BOOL	Use IDACalcIC to get consistent initial conditions for backwards system [default: equal to calc_ic].
OT_BOOL	IDAS scaling on cj for the user-defined linear solver module
OT_INTVECTOR	Constrain the solution $y=[x,z]$. 0 (default): no constraint on yi , 1: $yi >= 0.0$, -1: $yi <= 0.0$, 2: $yi > 0.0$, -2: $yi < 0.0$.
s OT_BOOL	Disable SUNDIALS internal warning messages
OT_DOUBLE	First requested time as a fraction of the time interval
OT_BOOL	include the forward sensitivities in all error controls
OT_DOUBLEVECTO	OR Initial values for the state derivatives
OT_STRING	Type of interpolation for the adjoint sensitivities
OT_STRING	A custom linear solver creator function [default: qr]
OT_DICT	Options to be passed to the linear solver
OT_INT	Maximum Krylov subspace size
OT_INT	Maximum order for the (variable-order) multistep method
OT_INT	Maximum number of integrator steps
OT_DOUBLE	Maximum order
OT_DOUBLE	Maximim step size
OT_STRING	Linear solver scheme in the Newton method: DIRECT gmres bcgstab tfqmr
OT_DOUBLE	Coefficient in the nonlinear convergence test
OT_BOOL	Should the quadratures affect the step size control
-	Relative tolerence for the IVP solution
	Scale absolute tolerance by nominal value
	Second order correction in the augmented system Jacobian [true]
	Sensitivity method: SIMULTANEOUS staggered
OT_DOUBLE	initial step size [default: 0/estimated]
	Number of steps between two consecutive checkpoints
OT_BOOL	[DEPRECATED] Stop the integrator at the end of the interval
	OT_DOUBLE OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_DOUBLE OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_STRING OT_STRING OT_STRING OT_DICT OT_INT OT_INT OT_INT OT_INT OT_DOUBLE OT_DOUBLE OT_DOUBLE OT_DOUBLE OT_DOUBLE OT_DOUBLE OT_DOUBLE OT_DOUBLE OT_DOUBLE OT_BOOL OT_DOUBLE OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_STRING

suppress_algebraic	OT_BOOL	Suppress algebraic variables in the error testing
use_preconditioner	OT_BOOL	Precondition the iterative solver [default: true]

Group: general_IdasInterface

List of available options			
Id	Type	Description	Used in
abstol	OT_DOUBLE	Absolute tolerence for the IVP solution	casadi::SundialsInterface
abstolv	OT_DOUBLEVECTOR	R Absolute tolerarance for each component	casadi::ldasInterface
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
augmented_options	OT_DICT	Options to be passed down to the augmented integrator, if one is constructed.	casadi::Integrator
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_ic	OT_BOOL	Use IDACalcIC to get consistent initial conditions.	casadi::IdasInterface
calc_icB	OT_BOOL	Use IDACalcIC to get consistent initial conditions for backwards system [default: equal to calc_ic].	casadi::ldasInterface
cj_scaling	OT_BOOL	IDAS scaling on cj for the user-defined linear solver module	casadi::ldasInterface
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
constraints	OT_INTVECTOR	Constrain the solution $y=[x,z]$. 0 (default): no constraint on yi, 1: yi >= 0.0, -1: yi <= 0.0, 2: yi > 0.0, -2: yi < 0.0.	casadi::ldasInterface
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
disable_internal_warnings	OT_BOOL	Disable SUNDIALS internal warning messages	casadi::SundialsInterface
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions	casadi::FunctionInternal

		for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::Integrator
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
first_time	OT_DOUBLE	First requested time as a fraction of the time interval	casadi::ldasInterface
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
fsens_err_con	OT_BOOL	include the forward sensitivities in all error controls	casadi::SundialsInterface
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
grid	OT_DOUBLEVECTOR	R [DEPRECATED] Time grid	casadi::Integrator
init_xdot		R Initial values for the state derivatives	casadi::ldasInterface
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
interpolation_type	OT_STRING	Type of interpolation for the adjoint sensitivities	casadi::SundialsInterface
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse	casadi::FunctionInternal
		directions, it may be cheaper to compute first the full	
		jacobian and then multiply with seeds, rather than obtain	
		the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high	
		value of 'jac_penalty' makes it less likely for the heurstic to)
		chose the full Jacobian strategy. The special value -1	
		indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function:	casadi::FunctionInternal
		SOURCE link embed.	
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
linear_solver	OT_STRING	A custom linear solver creator function [default: qr]	casadi::SundialsInterface
linear_solver_options	OT_DICT	Options to be passed to the linear solver	casadi::SundialsInterface
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_krylov	OT_INT	Maximum Krylov subspace size	casadi::SundialsInterface
max_multistep_order	OT_INT	Maximum order for the (variable-order) multistep method	
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
max_num_steps	OT_INT	Maximum number of integrator steps	casadi::SundialsInterface
max_order	OT_DOUBLE	Maximum order	casadi::SundialsInterface
max_step_size	OT_DOUBLE	Maximim step size	casadi::ldasInterface
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
nadj	OT_INT	Number of adjoint sensitivities to be calculated [0]	casadi::Integrator

never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
newton_scheme	OT_STRING	Linear solver scheme in the Newton method: DIRECT gmres bcgstab tfqmr	casadi::SundialsInterface
nfwd	OT_INT	Number of forward sensitivities to be calculated [0]	casadi::Integrator
nonlin_conv_coeff	OT_DOUBLE	Coefficient in the nonlinear convergence test	casadi::SundialsInterface
number_of_finite_element	s OT_INT	Target number of finite elements. The actual number may be higher to accommodate all output times	casadi::Integrator
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
output_t0	OT_BOOL	[DEPRECATED] Output the state at the initial time	casadi::Integrator
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_stats	OT_BOOL	Print out statistics after integration	casadi::Integrator
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
quad_err_con	OT_BOOL	Should the quadratures affect the step size control	casadi::SundialsInterface
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reltol	OT_DOUBLE	Relative tolerence for the IVP solution	casadi::SundialsInterface
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
rootfinder	OT_STRING	An implicit function solver	casadi::Integrator
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver	casadi::Integrator
scale_abstol	OT_BOOL	Scale absolute tolerance by nominal value	casadi::SundialsInterface
second_order_correction	OT_BOOL	Second order correction in the augmented system Jacobian [true]	casadi::SundialsInterface
sensitivity_method	OT_STRING	Sensitivity method: SIMULTANEOUS staggered	casadi::SundialsInterface
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
simplify	OT_BOOL	Implement as MX Function (codegeneratable/serializable) default: false	casadi::Integrator
simplify_options	OT_DICT	Any options to pass to simplified form Function constructor	casadi::Integrator
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
step0	OT_DOUBLE	initial step size [default: 0/estimated]	casadi::SundialsInterface
steps_per_checkpoint	OT_INT	Number of steps between two consecutive checkpoints	casadi::SundialsInterface
stop_at_end	OT_BOOL	[DEPRECATED] Stop the integrator at the end of the interval	casadi::SundialsInterface
suppress_algebraic	OT_BOOL	Suppress algebraic variables in the error testing	casadi::ldasInterface
t0	OT_DOUBLE	[DEPRECATED] Beginning of the time horizon	casadi::Integrator
tf	OT_DOUBLE	[DEPRECATED] End of the time horizon	casadi::Integrator
use_preconditioner	OT_BOOL	Precondition the iterative solver [default: true]	casadi::SundialsInterface
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

$class\ casa di:: Implicit Fixed Step Integrator$

List of available options			
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative	casadi::FunctionInternal
		calculation. When there is an option of either	

calculation.When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight.nf<=(1-

		ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In	
		particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
augmented_options	OT_DICT	Options to be passed down to the augmented integrator, if one is constructed.	casadi::Integrator
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products -typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::Integrator
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method fd_options	OT_STRING OT_DICT	Method for finite differencing [default 'central'] Options to be passed to the finite difference instance	casadi::FunctionInternal casadi::FunctionInternal

forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
grid	OT_DOUBLEVECTOR	R [DEPRECATED] Time grid	casadi::Integrator
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/ reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
nadj	OT_INT	Number of adjoint sensitivities to be calculated [0]	casadi::Integrator
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
nfwd	OT_INT	Number of forward sensitivities to be calculated [0]	casadi::Integrator
number_of_finite_element	s OT_INT	Target number of finite elements. The actual number may be higher to accommodate all output times	casadi::FixedStepIntegrator
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
output_t0	OT_BOOL	[DEPRECATED] Output the state at the initial time	casadi::Integrator
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_stats	OT_BOOL	Print out statistics after integration	casadi::Integrator
print_time	OT_BOOL	print information about execution time. Implies	casadi::ProtoFunction

		record_time.	
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
rootfinder	OT_STRING	An implicit function solver	casadi:: Implicit Fixed Step Integrator
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver	casadi:: Implicit Fixed Step Integrator
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
simplify	OT_BOOL	Implement as MX Function (codegeneratable/serializable) default: false	casadi::FixedStepIntegrator
simplify_options	OT_DICT	Any options to pass to simplified form Function constructor	casadi::FixedStepIntegrator
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	
t0	OT_DOUBLE	[DEPRECATED] Beginning of the time horizon	casadi::Integrator
tf	OT_DOUBLE	[DEPRECATED] End of the time horizon	casadi::Integrator
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: general_ImplicitFixedStepIntegrator

List of available options			
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
augmented_options	OT_DICT	Options to be passed down to the augmented integrator, if one is constructed.	casadi::Integrator
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function.	casadi::FunctionInternal

		The type of derivative (directional derivative, Jacobian) is inferred from the function name.	
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::Integrator
external_transform		List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
grid	OT_DOUBLEVECTOR	R [DEPRECATED] Time grid	casadi::Integrator
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/ reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual	casadi::FunctionInternal

		file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
nadj	OT_INT	Number of adjoint sensitivities to be calculated [0]	casadi::Integrator
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
nfwd	OT_INT	Number of forward sensitivities to be calculated [0]	casadi::Integrator
number_of_finite_element	ts OT_INT	Target number of finite elements. The actual number may be higher to accommodate all output times	casadi::FixedStepIntegrator
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
output_t0	OT_BOOL	[DEPRECATED] Output the state at the initial time	casadi::Integrator
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_stats	OT_BOOL	Print out statistics after integration	casadi::Integrator
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
rootfinder	OT_STRING	An implicit function solver	casadi:: Implicit Fixed Step Integrator
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver	casa di:: Implicit Fixed Step Integrator
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
simplify	OT_BOOL	Implement as MX Function (codegeneratable/serializable) default: false	casadi::FixedStepIntegrator
simplify_options	OT_DICT	Any options to pass to simplified form Function constructor	casadi::FixedStepIntegrator
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
t0	OT_DOUBLE	[DEPRECATED] Beginning of the time horizon	casadi::Integrator
tf	OT_DOUBLE	[DEPRECATED] End of the time horizon	casadi::Integrator
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::ImplicitToNlp

List of available options

List of available optic		December 1	11 a. d.S.
ld ما سينام	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)\text{na} is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
constraints	OT_INTVECTOR	Constrain the unknowns. 0 (default): no constraint on ui, 1: ui \geq 0.0, -1: ui \leq 0.0, 2: ui \geq 0.0, -2: ui \leq 0.0.	casadi::Rootfinder
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	RList of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
implicit_input	OT_INT	Index of the input that corresponds to the actual root-finding	casadi::Rootfinder
implicit_output	OT_INT	Index of the output that corresponds to the actual root-finding	casadi::Rootfinder
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal

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is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then	casadi::FunctionInternal
		multiply with seeds, rather than obtain the requested directions	
		in a straightforward manner. Casadi uses a heuristic to decide	
		which is cheaper. A high value of 'jac_penalty' makes it less likely	
		for the heurstic to chose the full Jacobian strategy. The special	
	OT FUNCTION	value -1 indicates never to use the full Jacobian strategy	l: D . C . I
jacobian_function	OT_FUNCTION	Function object for calculating the Jacobian (autogenerated by	casadi::Rootfinder
jacobian_options	OT_DICT	default) Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default:	casadi::FunctionInternal
Jit_cteanup	O1_BOOL	true	casadii diletioriiiiterriat
jit_name	OT_STRING	The file name used to write out code. The actual file names used	casadi::FunctionInternal
, –	_	depend on 'jit_temp_suffix' and include extensions. Default:	
		'jit_tmp'	
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for	casadi::FunctionInternal
		generated code and libraries. This is desired for thread-safety.	
		This behaviour may defeat caching compiler wrappers. Default: true	
linear_solver	OT_STRING	User-defined linear solver class. Needed for sensitivities.	casadi::Rootfinder
linear_solver_option		Options to be passed to the linear solver.	casadi::Rootfinder
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative	casadi::FunctionInternal
	_	functions. Overrules the builtin optimized_num_dir.	
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
nlpsol	OT_STRING	Name of solver.	casadi::ImplicitToNlp
nlpsol_options	OT_DICT	Options to be passed to solver.	casadi::ImplicitToNlp
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
show_eval_warnings		Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Rootfinder_nlp

List of available options

IdTypeDescriptionnlpsolOT_STRING Name of solver.nlpsol_options OT_DICTOptions to be passed to solver.

Group: general_ImplicitToNlp

List of available options					
Id	Type	Description	Used in		
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal		
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal		
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal		
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal		
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction		
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal		
constraints	OT_INTVECTOR	Constrain the unknowns. 0 (default): no constraint on ui, 1: ui >= 0.0, -1: ui <= 0.0, 2: ui > 0.0, -2: ui < 0.0.	casadi::Rootfinder		
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal		
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal		
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal		
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal		
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal		
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal		
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal		
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal		
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal		
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal		
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal		
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal		
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction		
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction		
external_transform	OT_VECTORVECTOR	RList of external_transform instruction arguments. Default: empty	casadi::FunctionInternal		
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal		
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal		
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal		
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal		
implicit_input	OT_INT	Index of the input that corresponds to the actual root-finding	casadi::Rootfinder		
implicit_output	OT_INT	Index of the output that corresponds to the actual root-finding	casadi::Rootfinder		
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal		

inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_function	OT_FUNCTION	Function object for calculating the Jacobian (autogenerated by default)	casadi::Rootfinder
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
linear_solver	OT_STRING	User-defined linear solver class. Needed for sensitivities.	casadi::Rootfinder
linear_solver linear_solver_option		User-defined linear solver class. Needed for sensitivities. Options to be passed to the linear solver.	casadi::Rootfinder casadi::Rootfinder
linear_solver_option	s OT_DICT	Options to be passed to the linear solver.	casadi::Rootfinder
linear_solver_option max_io	s OT_DICT OT_INT OT_INT	Options to be passed to the linear solver. Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative	casadi::Rootfinder casadi::FunctionInternal
linear_solver_option max_io max_num_dir	s OT_DICT OT_INT OT_INT	Options to be passed to the linear solver. Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::Rootfinder casadi::FunctionInternal casadi::FunctionInternal
linear_solver_option max_io max_num_dir monitor	s OT_DICT OT_INT OT_INT OT_STRINGVECTOR	Options to be passed to the linear solver. Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored	casadi::Rootfinder casadi::FunctionInternal casadi::FunctionInternal casadi::OracleFunction
linear_solver_option max_io max_num_dir monitor never_inline	S OT_DICT OT_INT OT_INT OT_STRINGVECTOR OT_BOOL	Options to be passed to the linear solver. Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining.	casadi::Rootfinder casadi::FunctionInternal casadi::FunctionInternal casadi::OracleFunction casadi::FunctionInternal
linear_solver_option max_io max_num_dir monitor never_inline nlpsol	S OT_DICT OT_INT OT_INT OT_STRINGVECTOR OT_BOOL OT_STRING OT_DICT	Options to be passed to the linear solver. Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Name of solver.	casadi::Rootfinder casadi::FunctionInternal casadi::FunctionInternal casadi::OracleFunction casadi::FunctionInternal casadi::ImplicitToNlp
linear_solver_option max_io max_num_dir monitor never_inline nlpsol nlpsol_options	S OT_DICT OT_INT OT_INT OT_STRINGVECTOR OT_BOOL OT_STRING OT_DICT	Options to be passed to the linear solver. Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Name of solver. Options to be passed to solver.	casadi::Rootfinder casadi::FunctionInternal casadi::FunctionInternal casadi::OracleFunction casadi::FunctionInternal casadi::ImplicitToNlp casadi::ImplicitToNlp
linear_solver_option max_io max_num_dir monitor never_inline nlpsol nlpsol_options output_scheme	S OT_DICT OT_INT OT_INT OT_STRINGVECTOR OT_BOOL OT_STRING OT_DICT OT_STRINGVECTOR OT_BOOL	Options to be passed to the linear solver. Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Name of solver. Options to be passed to solver. Deprecated option (ignored)	casadi::Rootfinder casadi::FunctionInternal casadi::GracleFunction casadi::FunctionInternal casadi::FunctionInternal casadi::ImplicitToNlp casadi::ImplicitToNlp casadi::FunctionInternal
linear_solver_option max_io max_num_dir monitor never_inline nlpsol nlpsol_options output_scheme post_expand	S OT_DICT OT_INT OT_INT OT_STRINGVECTOR OT_BOOL OT_STRING OT_DICT OT_STRINGVECTOR OT_BOOL	Options to be passed to the linear solver. Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Name of solver. Options to be passed to solver. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default:	casadi::Rootfinder casadi::FunctionInternal casadi::FunctionInternal casadi::OracleFunction casadi::FunctionInternal casadi::ImplicitToNlp casadi::ImplicitToNlp casadi::FunctionInternal casadi::FunctionInternal
linear_solver_option max_io max_num_dir monitor never_inline nlpsol nlpsol_options output_scheme post_expand post_expand_option	S OT_DICT OT_INT OT_INT OT_STRINGVECTOR OT_BOOL OT_STRING OT_DICT OT_STRINGVECTOR OT_BOOL STRINGVECTOR	Options to be passed to the linear solver. Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Name of solver. Options to be passed to solver. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty	casadi::Rootfinder casadi::FunctionInternal casadi::FunctionInternal casadi::OracleFunction casadi::FunctionInternal casadi::ImplicitToNlp casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
linear_solver_option max_io max_num_dir monitor never_inline nlpsol nlpsol_options output_scheme post_expand post_expand_option print_in	S OT_DICT OT_INT OT_INT OT_STRINGVECTOR OT_BOOL OT_STRING OT_DICT OT_STRINGVECTOR OT_BOOL S OT_DICT OT_BOOL OT_BOOL	Options to be passed to the linear solver. Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Name of solver. Options to be passed to solver. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false]	casadi::Rootfinder casadi::FunctionInternal casadi::FunctionInternal casadi::OracleFunction casadi::FunctionInternal casadi::ImplicitToNlp casadi::ImplicitToNlp casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
linear_solver_option max_io max_num_dir monitor never_inline nlpsol nlpsol_options output_scheme post_expand post_expand print_in print_out	S OT_DICT OT_INT OT_INT OT_STRINGVECTOR OT_BOOL OT_STRING OT_DICT OT_STRINGVECTOR OT_BOOL S OT_DICT OT_BOOL OT_BOOL OT_BOOL	Options to be passed to the linear solver. Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Name of solver. Options to be passed to solver. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false]	casadi::Rootfinder casadi::FunctionInternal casadi::FunctionInternal casadi::OracleFunction casadi::FunctionInternal casadi::ImplicitToNlp casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
linear_solver_option max_io max_num_dir monitor never_inline nlpsol nlpsol_options output_scheme post_expand post_expand_option print_in print_out print_time	S OT_DICT OT_INT OT_INT OT_STRINGVECTOR OT_BOOL OT_STRING OT_DICT OT_STRINGVECTOR OT_BOOL S OT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Options to be passed to the linear solver. Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Name of solver. Options to be passed to solver. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time. record information about execution time, for retrieval with	casadi::Rootfinder casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ImplicitToNlp casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
linear_solver_option max_io max_num_dir monitor never_inline nlpsol nlpsol_options output_scheme post_expand post_expand print_in print_out print_time record_time	S OT_DICT OT_INT OT_INT OT_STRINGVECTOR OT_BOOL OT_STRING OT_DICT OT_STRINGVECTOR OT_BOOL S OT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Options to be passed to the linear solver. Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Name of solver. Options to be passed to solver. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time. record information about execution time, for retrieval with stats().	casadi::Rootfinder casadi::FunctionInternal casadi::FunctionInternal casadi::OracleFunction casadi::FunctionInternal casadi::ImplicitToNlp casadi::ImplicitToNlp casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ProtoFunction casadi::ProtoFunction
linear_solver_option max_io max_num_dir monitor never_inline nlpsol nlpsol_options output_scheme post_expand post_expand port_expand_option print_in print_out print_time record_time regularity_check	S OT_DICT OT_INT OT_INT OT_STRINGVECTOR OT_BOOL OT_STRING OT_DICT OT_STRINGVECTOR OT_BOOL S OT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Options to be passed to the linear solver. Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Name of solver. Options to be passed to solver. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time. record information about execution time, for retrieval with stats(). Throw exceptions when NaN or Inf appears during evaluation	casadi::Rootfinder casadi::FunctionInternal casadi::FunctionInternal casadi::OracleFunction casadi::FunctionInternal casadi::ImplicitToNlp casadi::ImplicitToNlp casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ProtoFunction casadi::ProtoFunction
linear_solver_option max_io max_num_dir monitor never_inline nlpsol nlpsol_options output_scheme post_expand post_expand_option print_in print_out print_time record_time regularity_check reverse_options	S OT_DICT OT_INT OT_INT OT_STRINGVECTOR OT_BOOL OT_STRING OT_DICT OT_STRINGVECTOR OT_BOOL S OT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Options to be passed to the linear solver. Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Name of solver. Options to be passed to solver. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time. record information about execution time, for retrieval with stats(). Throw exceptions when NaN or Inf appears during evaluation Options to be passed to a reverse mode constructor	casadi::Rootfinder casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ImplicitToNlp casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ProtoFunction casadi::ProtoFunction casadi::ProtoFunction casadi::FunctionInternal
linear_solver_option max_io max_num_dir monitor never_inline nlpsol nlpsol_options output_scheme post_expand post_expand post_expand_option print_in print_out print_time record_time regularity_check reverse_options show_eval_warnings	S OT_DICT OT_INT OT_INT OT_STRINGVECTOR OT_BOOL OT_STRING OT_DICT OT_STRINGVECTOR OT_BOOL S OT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Options to be passed to the linear solver. Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Name of solver. Options to be passed to solver. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time. record information about execution time, for retrieval with stats(). Throw exceptions when NaN or Inf appears during evaluation Options to be passed to a reverse mode constructor Show warnings generated from function evaluations [true] Options for specific auto-generated functions, overwriting the	casadi::Rootfinder casadi::FunctionInternal casadi::FunctionInternal casadi::OracleFunction casadi::FunctionInternal casadi::ImplicitToNlp casadi::ImplicitToNlp casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ProtoFunction casadi::ProtoFunction casadi::ProtoFunction casadi::FunctionInternal

class casadi::ImporterInternal

List of available options

IdTypeDescriptionUsed inverbose OT_BOOL Verbose evaluation – for debugging casadi::ImporterInternal

Group: general_ImporterInternal

List of available options

IdTypeDescriptionUsed inverbose OT_BOOL Verbose evaluation – for debugging casadi::ImporterInternal

class casadi::Integrator

List of available options	T	Danasinstan	Heed in
Id ad_weight	Type OT_DOUBLE	Description Weighting factor for derivative calculation.When there is	Used in casadi::FunctionInternal
J		an option of either using forward or reverse mode	
		directional derivatives, the condition ad_weight nf<=(1- ad_weight)na is used where nf and na are estimates of the	
		number of forward/reverse mode directional derivatives	
		needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In	
		particular, 0 means forcing forward mode and 1 forcing	
	07.00.00.5	reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation.Overrides default behavior. Set to 0 and 1 to	casadi::FunctionInternal
		force forward and reverse mode respectively. Cf. option	
		\"ad_weight\". When set to -1, sparsity is completely	
always_inline	OT_BOOL	ignored and dense matrices are used. Force inlining.	casadi::FunctionInternal
augmented_options	OT_DICT	Options to be passed down to the augmented integrator, if	
J - 1		one is constructed.	•
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::Functioninternal
der_options	OT_DICT	Default options to be used to populate forward_options,	casadi::FunctionInternal
		reverse_options, and jacobian_options before those options are merged in.	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the	casadi::FunctionInternal
uup_u	01 <u>-</u> 011	directory exists [.]	
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal

error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::Integrator
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
•		·	
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
grid	OT_DOUBLEVECTOR	R [DEPRECATED] Time grid	casadi::Integrator
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse	casadi::FunctionInternal
Jac_penalty	O1_DOOBLE	directions, it may be cheaper to compute first the full	Casauii unctioninternat
		jacobian and then multiply with seeds, rather than obtain	
		the requested directions in a straightforward manner.	
		Casadi uses a heuristic to decide which is cheaper. A high	
		value of 'jac_penalty' makes it less likely for the heurstic to	
		chose the full Jacobian strategy. The special value -1	
		indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates.	casadi::FunctionInternal
, = 1	_	Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names	casadi::FunctionInternal
, –	_	used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function:	casadi::FunctionInternal
•		SOURCE link embed.	casadii diictioiiiiteiiiat
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for	casadi::FunctionInternal
		generated code and libraries. This is desired for thread-	
		safety. This behaviour may defeat caching compiler	
		wrappers. Default: true	
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if	casadi::FunctionInternal
		exceeded.	
max_num_dir	OT_INT	Specify the maximum number of directions for derivative	casadi::FunctionInternal
		functions. Overrules the builtin optimized_num_dir.	
monitor		Set of user problem functions to be monitored	casadi::OracleFunction
nadj	OT_INT	Number of adjoint sensitivities to be calculated [0]	casadi::Integrator
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
nfwd	OT_INT	Number of forward sensitivities to be calculated [0]	casadi::Integrator
number_of_finite_element	s OT_INT	Target number of finite elements. The actual number may	casadi::Integrator
		be higher to accommodate all output times	•
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
output_t0	OT_BOOL	[DEPRECATED] Output the state at the initial time	casadi::Integrator
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion.	casadi::FunctionInternal
		Default: empty	
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_stats	OT_BOOL	Print out statistics after integration	casadi::Integrator
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with	casadi::ProtoFunction
		stats().	

regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
rootfinder	OT_STRING	An implicit function solver	casadi::Integrator
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver	casadi::Integrator
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
simplify	OT_BOOL	Implement as MX Function (codegeneratable/serializable) default: false	casadi::Integrator
simplify_options	OT_DICT	Any options to pass to simplified form Function constructor	casadi::Integrator
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
t0	OT_DOUBLE	[DEPRECATED] Beginning of the time horizon	casadi::Integrator
tf	OT_DOUBLE	[DEPRECATED] End of the time horizon	casadi::Integrator
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: general_Integrator

List of available options			
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
augmented_options	OT_DICT	Options to be passed down to the augmented integrator, if one is constructed.	f casadi::Integrator
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing.	casadi::FunctionInternal

	OT 0001	[default: false]]	
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::Integrator
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
grid	OT_DOUBLEVECTOR	R [DEPRECATED] Time grid	casadi::Integrator
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse	casadi::FunctionInternal
		directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
nadj	OT_INT	Number of adjoint sensitivities to be calculated [0]	casadi::Integrator
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
nfwd	OT_INT	Number of forward sensitivities to be calculated [0]	casadi::Integrator
number_of_finite_elemen			casadi::Integrator
	-	be higher to accommodate all output times	5 ·
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
output_t0	OT_BOOL	[DEPRECATED] Output the state at the initial time	casadi::Integrator

post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_stats	OT_BOOL	Print out statistics after integration	casadi::Integrator
print_time	OT_BOOL	<pre>print information about execution time. Implies record_time.</pre>	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
rootfinder	OT_STRING	An implicit function solver	casadi::Integrator
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver	casadi::Integrator
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
simplify	OT_BOOL	Implement as MX Function (codegeneratable/serializable) default: false	casadi::Integrator
simplify_options	OT_DICT	Any options to pass to simplified form Function constructor	casadi::Integrator
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
tO	OT_DOUBLE	[DEPRECATED] Beginning of the time horizon	casadi::Integrator
tf	OT_DOUBLE	[DEPRECATED] End of the time horizon	casadi::Integrator
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::Interpolant

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.		
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
batch_x	OT_INT	Evaluate a batch of different inputs at once (default 1).	casadi::Interpolant	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal	
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal	
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal	
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory	casadi::FunctionInternal	

		exists [.]	
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
inline	OT_BOOL	Implement the lookup table in MX primitives. Useful when you need derivatives with respect to grid and/or coefficients. Such derivatives are fundamentally dense, so use with caution.	casadi::Interpolant
input_scheme	OT_STRINGVECTOR		casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
lookup_mode	OT_STRINGVECTOR	Specifies, for each grid dimension, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; (default when #knots<=100), 'exact' uses floored division (only for uniform grids), 'binary' uses a binary search. (default when #knots>100).	casadi::Interpolant
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
and the state of t	OT POOL	Earhid inlining	cacadiuEunctionInternal

never_inline

post_expand

output_scheme

OT_BOOL

OT_BOOL

Forbid inlining.

After construction, expand this Function. Default: False

OT_STRINGVECTOR Deprecated option (ignored)

casadi::FunctionInternal

casadi::FunctionInternal

casadi::FunctionInternal

post_expand_options OT_DICT		Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	.casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: general_Interpolant

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.		
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
batch_x	OT_INT	Evaluate a batch of different inputs at once (default 1).	casadi::Interpolant	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal	
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal	
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal	
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal	
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal	
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal	
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal	
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal	
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal	
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal	
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal	

error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform		I List of external_transform instruction arguments. Default: empty	
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
·		·	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
inline	OT_BOOL	Implement the lookup table in MX primitives. Useful when you need derivatives with respect to grid and/or coefficients. Such	casadi::Interpolant
		derivatives are fundamentally dense, so use with caution.	
input_scheme	OT STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't	
mpues_eneek	01_5002	make sense	casaami anedomineeriae
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it	casadi::FunctionInternal
) = = <u></u> F = · · · · · · · · · · ·		may be cheaper to compute first the full jacobian and then	
		multiply with seeds, rather than obtain the requested directions	
		in a straightforward manner. Casadi uses a heuristic to decide	
		which is cheaper. A high value of 'jac_penalty' makes it less likely	
		for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
iscobian antions	OT_DICT		casadi::FunctionInternal
jacobian_options	OT_BOOL	Options to be passed to a Jacobian constructor Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit ::t alaanun	OT_BOOL	·	
jit_cleanup	OT_BOOL OT_STRING	Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used	
jit_name	OI_SIKING	depend on 'jit_temp_suffix' and include extensions. Default:	CasadiFunctioninternat
		'jit_tmp'	
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link	
, _	_	embed.	
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for	casadi::FunctionInternal
		generated code and libraries. This is desired for thread-safety.	
		This behaviour may defeat caching compiler wrappers. Default:	
La alicina i accada	OT CTDINGVECTOR	true	and Paternal and
lookup_mode	OI_STRINGVECTOR	Specifies, for each grid dimension, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; (default	casadi::Interpolant
		when #knots<=100), 'exact' uses floored division (only for	
		uniform grids), 'binary' uses a binary search. (default when	
		#knots>100).	
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative	casadi::FunctionInternal
		functions. Overrules the builtin optimized_num_dir.	
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default:	casadi::FunctionInternal
		empty	
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or	casadi::FunctionInternal
yorhoc-	OT DOO!	pass additional information	and disDesta Francis
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::IpoptInterface

List of available options			
ld	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight n <= (1-ad_weight) na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
_ calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base	casadi::Nlpsol
clip_inactive_lam	OT_BOOL	class Explicitly set Lagrange multipliers to 0 when bound is	·
·		deemed inactive (default: false).	casadi::OracleFunction
common_options	OT_DICT	Options for auto-generated functions	
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
con_integer_md	OT_DICT	Integer metadata (a dictionary with lists of integers) about constraints to be passed to IPOPT	casadi::lpoptInterface
con_numeric_md	OT_DICT	Numeric metadata (a dictionary with lists of reals) about constraints to be passed to IPOPT	casadi::lpoptInterface
con_string_md	OT_DICT	String metadata (a dictionary with lists of strings) about constraints to be passed to IPOPT	casadi::lpoptInterface
convexify_margin	OT_DOUBLE	When using a convexification strategy, make sure that the smallest eigenvalue is at least this (default: 1e-7).	casadi::lpoptInterface
convexify_strategy	OT_STRING	NONE regularize eigen-reflect eigen-clip. Strategy to convexify the Lagrange Hessian before passing it to the solver.	casadi::lpoptInterface
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	casadi::Nlpsol
detect_simple_bounds_is_simpl	e OT_BOOLVECTOR	For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x		For internal use only.	casadi::Nlpsol
_ ,		,	,

discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump dump_dir	OT_BOOL OT_STRING	Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
grad_f	OT_FUNCTION	Function for calculating the gradient of the objective (column, autogenerated by default)	casadi::lpoptInterface
hess_lag	OT_FUNCTION	Function for calculating the Hessian of the Lagrangian (autogenerated by default)	casadi::lpoptInterface
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	•
inactive_lam_strategy	OT_STRING	Strategy to detect if a bound is inactive. RELTOL: use solver-defined constraint tolerance * inactive_lam_value abstol: use inactive_lam_value	casadi::lpoptInterface
inactive_lam_value	OT_DOUBLE	Value used in inactive_lam_strategy (default: 10).	casadi::lpoptInterface
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
ipopt	OT_DICT	Options to be passed to IPOPT	casadi::lpoptInterface
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	·	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_g	OT_FUNCTION	Function for calculating the Jacobian of the constraints (autogenerated by default)	casadi::IpoptInterface
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full	casadi::FunctionInternal

jacobian and then multiply with seeds, obtain the requested directions in a str manner. Casadi uses a heuristic to dec cheaper. A high value of 'jac_penalty' r likely for the heurstic to chose the full stratogy. The special value -1 indicates	raightforward ide which is nakes it less Jacobian
strategy. The special value -1 indicates the full Jacobian strategy	never to use
the full Jacobian Strategy	

		strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation $% \left(\frac{1}{2}\right) =\left(\frac{1}{2}\right) \left(\frac{1}{2}\right)$	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_iter_eig	OT_DOUBLE	Maximum number of iterations to compute an eigenvalue decomposition (default: 50).	casadi::IpoptInterface
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor		Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
pass_nonlinear_variables	OT_BOOL	Pass list of variables entering nonlinearly to IPOPT	casadi::lpoptInterface
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
var_integer_md	OT_DICT	Integer metadata (a dictionary with lists of integers) about variables to be passed to IPOPT	casadi::lpoptInterface
var_numeric_md	OT_DICT	Numeric metadata (a dictionary with lists of reals)	casadi::lpoptInterface

		about variables to be passed to IPOPT	
var_string_md	OT_DICT	String metadata (a dictionary with lists of strings) about variables to be passed to IPOPT	casadi::lpoptInterface
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UE	BX casadi::Nlpsol

Group: plugin_Nlpsol_ipopt

List of available options	L	ist	of	avai	labl	le c	ptions
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ld	Type	Description
clip_inactive_lam	OT_BOOL	Explicitly set Lagrange multipliers to 0 when bound is deemed inactive (default: false).
con_integer_md	OT_DICT	Integer metadata (a dictionary with lists of integers) about constraints to be passed to IPOPT
con_numeric_md	OT_DICT	Numeric metadata (a dictionary with lists of reals) about constraints to be passed to IPOPT
con_string_md	OT_DICT	String metadata (a dictionary with lists of strings) about constraints to be passed to IPOPT
convexify_margin	OT_DOUBLE	When using a convexification strategy, make sure that the smallest eigenvalue is at least this (default: 1e-7).
convexify_strategy	OT_STRING	NONE regularize eigen-reflect eigen-clip. Strategy to convexify the Lagrange Hessian before passing it to the solver.
grad_f	OT_FUNCTION	N Function for calculating the gradient of the objective (column, autogenerated by default)
hess_lag	OT_FUNCTION	N Function for calculating the Hessian of the Lagrangian (autogenerated by default)
inactive_lam_strategy	OT_STRING	Strategy to detect if a bound is inactive. RELTOL: use solver-defined constraint tolerance * inactive_lam_value abstol: use inactive_lam_value
inactive_lam_value	OT_DOUBLE	Value used in inactive_lam_strategy (default: 10).
ipopt	OT_DICT	Options to be passed to IPOPT
jac_g	OT_FUNCTION	N Function for calculating the Jacobian of the constraints (autogenerated by default)
max_iter_eig	OT_DOUBLE	Maximum number of iterations to compute an eigenvalue decomposition (default: 50).
pass_nonlinear_variables	s OT_BOOL	Pass list of variables entering nonlinearly to IPOPT
var_integer_md	OT_DICT	Integer metadata (a dictionary with lists of integers) about variables to be passed to IPOPT
var_numeric_md	OT_DICT	Numeric metadata (a dictionary with lists of reals) about variables to be passed to IPOPT
var_string_md	OT_DICT	String metadata (a dictionary with lists of strings) about variables to be passed to IPOPT

Group: general_IpoptInterface

List of	avai	lable	options
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Iď	Туре	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol

calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
clip_inactive_lam	OT_BOOL	Explicitly set Lagrange multipliers to 0 when bound is deemed inactive (default: false).	s casadi::lpoptInterface
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
con_integer_md	OT_DICT	Integer metadata (a dictionary with lists of integers) about constraints to be passed to IPOPT	casadi::lpoptInterface
con_numeric_md	OT_DICT	Numeric metadata (a dictionary with lists of reals) about constraints to be passed to IPOPT	casadi::lpoptInterface
con_string_md	OT_DICT	String metadata (a dictionary with lists of strings) about constraints to be passed to IPOPT	casadi::lpoptInterface
convexify_margin	OT_DOUBLE	When using a convexification strategy, make sure that the smallest eigenvalue is at least this (default: 1e-7).	casadi::lpoptInterface
convexify_strategy	OT_STRING	NONE regularize eigen-reflect eigen-clip. Strategy to convexify the Lagrange Hessian before passing it to the solver.	o casadi::IpoptInterface
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (defaul false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	t casadi::Nlpsol
detect_simple_bounds_is_simpl	e OT_BOOLVECTOR	For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x		For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated	casadi::FunctionInternal

		functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
grad_f	OT_FUNCTION	Function for calculating the gradient of the objective (column, autogenerated by default)	casadi::lpoptInterface
hess_lag	OT_FUNCTION	Function for calculating the Hessian of the Lagrangian (autogenerated by default)	casadi::lpoptInterface
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	•
inactive_lam_strategy	OT_STRING	Strategy to detect if a bound is inactive. RELTOL: use solver-defined constraint tolerance * inactive_lam_value abstol: use inactive_lam_value	casadi::lpoptInterface
inactive_lam_value	OT_DOUBLE	Value used in inactive_lam_strategy (default: 10).	casadi::lpoptInterface
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
ipopt	OT_DICT	Options to be passed to IPOPT	casadi::lpoptInterface
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_g	OT_FUNCTION	Function for calculating the Jacobian of the constraints (autogenerated by default)	casadi::lpoptInterface
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if	casadi::FunctionInternal

		exceeded.	
max_iter_eig	OT_DOUBLE	Maximum number of iterations to compute an eigenvalue decomposition (default: 50).	casadi::lpoptInterface
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
pass_nonlinear_variables	OT_BOOL	Pass list of variables entering nonlinearly to IPOPT	casadi::lpoptInterface
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion Default: empty	. casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	l casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
var_integer_md	OT_DICT	Integer metadata (a dictionary with lists of integers) about variables to be passed to IPOPT	casadi::lpoptInterface
var_numeric_md	OT_DICT	Numeric metadata (a dictionary with lists of reals) about variables to be passed to IPOPT	casadi::lpoptInterface
var_string_md	OT_DICT	String metadata (a dictionary with lists of strings) about variables to be passed to IPOPT	casadi::lpoptInterface
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol

class casadi::Ipqp

List of available options

Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an	casadi::FunctionInternal

Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1

		forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation	casadi::FunctionInternal
aa_weigne_sp	01_000022	calculation.Overrides default behavior. Set to 0 and 1 to force	casaam anetommernat
		forward and reverse mode respectively. Cf. option \"ad_weight\".	
		When set to -1, sparsity is completely ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
constr_viol_tol	OT_DOUBLE	Constraint violation tolerance [1e-8].	casadi::lpqp
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are	casadi::FunctionInternal
derivative_of	OT_FUNCTION	merged in. The function is a derivative of another function. The type of	casadi::FunctionInternal
derivative_or	OI_I ONCTION	derivative (directional derivative, Jacobian) is inferred from the function name.	casadii diretionimemat
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dual_inf_tol	OT_DOUBLE	Dual feasibility violation tolerance [1e-8]	casadi::lpqp
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode	casadi::FunctionInternal
		AD - if available. [default: true]	
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for	casadi::FunctionInternal
		transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform		RList of external_transform instruction arguments. Default: empty	
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default:	casadi::FunctionInternal
		true	

jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
linear_solver	OT_STRING	A custom linear solver creator function [default: ldl]	casadi::lpqp
linear_solver_option	s OT_DICT	Options to be passed to the linear solver	casadi::lpqp
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_iter	OT_INT	Maximum number of iterations [1000].	casadi::lpqp
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
min_lam	OT_DOUBLE	Smallest multiplier treated as inactive for the initial active set [0].	casadi::lpqp
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_header	OT_BOOL	Print header [true].	casadi::lpqp
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_info	OT_BOOL	Print info [true].	casadi::lpqp
print_iter	OT_BOOL	Print iterations [true].	casadi::lpqp
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Conic_ipqp

List of available options

Id	Type	Description
constr_viol_tol	OT_DOUBLE	Constraint violation tolerance [1e-8].
dual_inf_tol	OT_DOUBLE	Dual feasibility violation tolerance [1e-8]
linear_solver	OT_STRING	A custom linear solver creator function [default: ldl]
linear_solver_options	OT_DICT	Options to be passed to the linear solver
max_iter	OT_INT	Maximum number of iterations [1000].
min_lam	OT_DOUBLE	Smallest multiplier treated as inactive for the initial active set [0].
print_header	OT_BOOL	Print header [true].
print_info	OT_BOOL	Print info [true].
print_iter	OT_BOOL	Print iterations [true].

Group: general_lpqp

List of available options

Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an	casadi::FunctionInternal

		option of either using forward or reverse mode directional derivatives, the condition ad_weightnf<=(1-ad_weight)\text{ha} is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
constr_viol_tol	OT_DOUBLE	Constraint violation tolerance [1e-8].	casadi::lpqp
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dual_inf_tol	OT_DOUBLE	Dual feasibility violation tolerance [1e-8]	casadi::lpqp
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely	casadi::FunctionInternal
		for the heurstic to chose the full Jacobian strategy. The special	

for the heurstic to chose the full Jacobian strategy. The special

		value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default:	casadi::FunctionInternal
)re_creamap	01_5001	true	casaami anetioninternat
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
linear_solver	OT_STRING	A custom linear solver creator function [default: ldl]	casadi::lpqp
linear_solver_option	s OT_DICT	Options to be passed to the linear solver	casadi::lpqp
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_iter	OT_INT	Maximum number of iterations [1000].	casadi::lpqp
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
		,	
min_lam	OT_DOUBLE	Smallest multiplier treated as inactive for the initial active set [0].	. casadi::lpqp
min_lam never_inline	OT_DOUBLE OT_BOOL	•	. casadi::Ipqp casadi::FunctionInternal
	OT_BOOL	Smallest multiplier treated as inactive for the initial active set [0].	
never_inline	OT_BOOL	Smallest multiplier treated as inactive for the initial active set [0]. Forbid inlining.	casadi::FunctionInternal
never_inline output_scheme	OT_BOOL OT_STRINGVECTOR OT_BOOL	Smallest multiplier treated as inactive for the initial active set [0]. Forbid inlining. Deprecated option (ignored)	casadi::FunctionInternal casadi::FunctionInternal
never_inline output_scheme post_expand	OT_BOOL OT_STRINGVECTOR OT_BOOL	Smallest multiplier treated as inactive for the initial active set [0]. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default:	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
never_inline output_scheme post_expand post_expand_option	OT_BOOL OT_STRINGVECTOR OT_BOOL s OT_DICT	Smallest multiplier treated as inactive for the initial active set [0]. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
never_inline output_scheme post_expand post_expand_option print_header	OT_BOOL OT_STRINGVECTOR OT_BOOL s OT_DICT OT_BOOL	Smallest multiplier treated as inactive for the initial active set [0]. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print header [true].	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::Ipqp
never_inline output_scheme post_expand post_expand_option print_header print_in	OT_BOOL OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL	Smallest multiplier treated as inactive for the initial active set [0]. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print header [true]. Print numerical values of inputs [default: false]	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::Ipqp casadi::FunctionInternal
never_inline output_scheme post_expand post_expand_option print_header print_in print_info	OT_BOOL OT_STRINGVECTOR OT_BOOL S OT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Smallest multiplier treated as inactive for the initial active set [0]. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print header [true]. Print numerical values of inputs [default: false] Print info [true].	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::Ipqp casadi::FunctionInternal casadi::Ipqp
never_inline output_scheme post_expand post_expand_option print_header print_in print_info print_iter	OT_BOOL OT_STRINGVECTOR OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Smallest multiplier treated as inactive for the initial active set [0]. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print header [true]. Print numerical values of inputs [default: false] Print info [true]. Print iterations [true].	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::Ipqp casadi::Ipqp casadi::Ipqp casadi::Ipqp casadi::Ipqp
never_inline output_scheme post_expand post_expand_option print_header print_in print_info print_iter print_out	OT_BOOL OT_STRINGVECTOR OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Smallest multiplier treated as inactive for the initial active set [0]. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print header [true]. Print numerical values of inputs [default: false] Print info [true]. Print iterations [true]. Print numerical values of outputs [default: false]	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::Ipqp casadi::Ipqp casadi::Ipqp casadi::Ipqp casadi::Ipqp casadi::Ipqp casadi::Ipqp
never_inline output_scheme post_expand post_expand_option print_header print_in print_info print_iter print_out print_problem	OT_BOOL OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Smallest multiplier treated as inactive for the initial active set [0]. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print header [true]. Print numerical values of inputs [default: false] Print info [true]. Print iterations [true]. Print numerical values of outputs [default: false] Print a numeric description of the problem	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::Ipqp casadi::Ipqp casadi::Ipqp casadi::Ipqp casadi::Ipqp casadi::FunctionInternal casadi::Conic
never_inline output_scheme post_expand post_expand_option print_header print_in print_info print_iter print_out print_problem print_time	OT_BOOL OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Smallest multiplier treated as inactive for the initial active set [0]. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print header [true]. Print numerical values of inputs [default: false] Print info [true]. Print iterations [true]. Print numerical values of outputs [default: false] Print a numeric description of the problem print information about execution time. Implies record_time. record information about execution time, for retrieval with	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::Ipqp casadi::Ipqp casadi::Ipqp casadi::Ipqp casadi::Ipqp casadi::FunctionInternal casadi::Conic casadi::ProtoFunction
never_inline output_scheme post_expand post_expand_option print_header print_in print_info print_iter print_out print_problem print_time record_time	OT_BOOL OT_STRINGVECTOR OT_BOOL	Smallest multiplier treated as inactive for the initial active set [0]. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print header [true]. Print numerical values of inputs [default: false] Print iterations [true]. Print iterations [true]. Print a numerical values of outputs [default: false] Print information about execution time. Implies record_time. record information about execution time, for retrieval with stats().	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::Ipqp casadi::Ipqp casadi::Ipqp casadi::Ipqp casadi::FunctionInternal casadi::ProtoFunction casadi::ProtoFunction
never_inline output_scheme post_expand post_expand_option print_header print_in print_info print_iter print_out print_problem print_time record_time regularity_check	OT_BOOL OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL	Smallest multiplier treated as inactive for the initial active set [0]. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print header [true]. Print numerical values of inputs [default: false] Print info [true]. Print iterations [true]. Print numerical values of outputs [default: false] Print a numeric description of the problem print information about execution time. Implies record_time. record information about execution time, for retrieval with stats(). Throw exceptions when NaN or Inf appears during evaluation	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::Ipqp casadi::Ipqp casadi::Ipqp casadi::Ipqp casadi::FunctionInternal casadi::ProtoFunction casadi::ProtoFunction

class casadi::JitFunction

List of available options	
Id	Туре

Id	Туре	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)\text{ha} is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	

always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
buffered	OT_BOOL	Buffer the calls, user does not need to	casadi::JitFunction
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note:	casadi::FunctionInternal
	⊙. <u>_</u> . ⊙⊙	Highly experimental. Syntax may break often.	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are	casadi::FunctionInternal
derivative_of	OT_FUNCTION	merged in. The function is a derivative of another function. The type of	casadi::FunctionInternal
derivative_or	OI_I ONCTION	derivative (directional derivative, Jacobian) is inferred from the function name.	casadii diletionimemat
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with	casadi::FunctionInternal
·	07.000	DM.from_file) [default: false]	
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error on fail	OT BOOL		casadi::ProtoFunction
error_on_fail external transform	OT_BOOL OT_VECTORVECTOR	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	Throw exceptions when function evaluation fails (default true). R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
external_transform fd_method	OT_VECTORVECTOR OT_STRING	Throw exceptions when function evaluation fails (default true). R List of external_transform instruction arguments. Default: empty Method for finite differencing [default 'central']	casadi::FunctionInternal casadi::FunctionInternal
external_transform fd_method fd_options	OT_VECTORVECTOR OT_STRING OT_DICT	Throw exceptions when function evaluation fails (default true). R List of external_transform instruction arguments. Default: empty Method for finite differencing [default 'central'] Options to be passed to the finite difference instance	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
external_transform fd_method fd_options forward_options	OT_VECTORVECTOR OT_STRING OT_DICT OT_DICT	Throw exceptions when function evaluation fails (default true). List of external_transform instruction arguments. Default: empty Method for finite differencing [default 'central'] Options to be passed to the finite difference instance Options to be passed to a forward mode constructor	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
external_transform fd_method fd_options forward_options gather_stats	OT_VECTORVECTOR OT_STRING OT_DICT OT_DICT OT_BOOL	Throw exceptions when function evaluation fails (default true). List of external_transform instruction arguments. Default: empty Method for finite differencing [default 'central'] Options to be passed to the finite difference instance Options to be passed to a forward mode constructor Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
external_transform fd_method fd_options forward_options gather_stats hess	OT_VECTORVECTOR OT_STRING OT_DICT OT_DICT OT_BOOL OT_STRING	Throw exceptions when function evaluation fails (default true). R List of external_transform instruction arguments. Default: empty Method for finite differencing [default 'central'] Options to be passed to the finite difference instance Options to be passed to a forward mode constructor Deprecated option (ignored): Statistics are now always collected. Function body for Hessian	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::JitFunction
external_transform fd_method fd_options forward_options gather_stats hess input_scheme	OT_VECTORVECTOR OT_STRING OT_DICT OT_DICT OT_BOOL OT_STRING OT_STRINGVECTOR	Throw exceptions when function evaluation fails (default true). It is of external_transform instruction arguments. Default: empty Method for finite differencing [default 'central'] Options to be passed to the finite difference instance Options to be passed to a forward mode constructor Deprecated option (ignored): Statistics are now always collected. Function body for Hessian Deprecated option (ignored)	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::JitFunction casadi::FunctionInternal
external_transform fd_method fd_options forward_options gather_stats hess input_scheme inputs_check	OT_VECTORVECTOR OT_STRING OT_DICT OT_DICT OT_BOOL OT_STRING OT_STRINGVECTOR OT_BOOL	Throw exceptions when function evaluation fails (default true). It is to f external_transform instruction arguments. Default: empty Method for finite differencing [default 'central'] Options to be passed to the finite difference instance Options to be passed to a forward mode constructor Deprecated option (ignored): Statistics are now always collected. Function body for Hessian Deprecated option (ignored) Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::JitFunction casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
external_transform fd_method fd_options forward_options gather_stats hess input_scheme inputs_check is_diff_in	OT_VECTORVECTOR OT_STRING OT_DICT OT_BOOL OT_STRING OT_STRINGVECTOR OT_BOOL OT_BOOL	Throw exceptions when function evaluation fails (default true). It is to f external_transform instruction arguments. Default: empty Method for finite differencing [default 'central'] Options to be passed to the finite difference instance Options to be passed to a forward mode constructor Deprecated option (ignored): Statistics are now always collected. Function body for Hessian Deprecated option (ignored) Throw exceptions when the numerical values of the inputs don't make sense Indicate for each input if it should be differentiable.	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::JitFunction casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
external_transform fd_method fd_options forward_options gather_stats hess input_scheme inputs_check	OT_VECTORVECTOR OT_STRING OT_DICT OT_BOOL OT_STRING OT_STRINGVECTOR OT_BOOL OT_BOOLVECTOR OT_BOOLVECTOR	Throw exceptions when function evaluation fails (default true). It is of external_transform instruction arguments. Default: empty Method for finite differencing [default 'central'] Options to be passed to the finite difference instance Options to be passed to a forward mode constructor Deprecated option (ignored): Statistics are now always collected. Function body for Hessian Deprecated option (ignored) Throw exceptions when the numerical values of the inputs don't make sense Indicate for each input if it should be differentiable. Indicate for each output if it should be differentiable.	casadi::FunctionInternal
external_transform fd_method fd_options forward_options gather_stats hess input_scheme inputs_check is_diff_in is_diff_out jac	OT_VECTORVECTOR OT_STRING OT_DICT OT_BOOL OT_STRING OT_STRINGVECTOR OT_BOOL OT_BOOL OT_BOOLVECTOR OT_BOOLVECTOR OT_BOOLVECTOR OT_STRING	Throw exceptions when function evaluation fails (default true). It is to feature in the function arguments. Default: empty Method for finite differencing [default 'central'] Options to be passed to the finite difference instance Options to be passed to a forward mode constructor Deprecated option (ignored): Statistics are now always collected. Function body for Hessian Deprecated option (ignored) Throw exceptions when the numerical values of the inputs don't make sense Indicate for each input if it should be differentiable. Indicate for each output if it should be differentiable. Function body for Jacobian	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::JitFunction casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::JitFunction
external_transform fd_method fd_options forward_options gather_stats hess input_scheme inputs_check is_diff_in is_diff_out	OT_VECTORVECTOR OT_STRING OT_DICT OT_BOOL OT_STRING OT_STRINGVECTOR OT_BOOL OT_BOOLVECTOR OT_BOOLVECTOR	Throw exceptions when function evaluation fails (default true). It is of external_transform instruction arguments. Default: empty Method for finite differencing [default 'central'] Options to be passed to the finite difference instance Options to be passed to a forward mode constructor Deprecated option (ignored): Statistics are now always collected. Function body for Hessian Deprecated option (ignored) Throw exceptions when the numerical values of the inputs don't make sense Indicate for each input if it should be differentiable. Indicate for each output if it should be differentiable.	casadi::FunctionInternal
external_transform fd_method fd_options forward_options gather_stats hess input_scheme inputs_check is_diff_in is_diff_out jac jac_penalty	OT_VECTORVECTOR OT_STRING OT_DICT OT_BOOL OT_STRING OT_STRINGVECTOR OT_BOOL OT_BOOL OT_BOOLVECTOR OT_BOOLVECTOR OT_BOOLVECTOR OT_STRING	Throw exceptions when function evaluation fails (default true). It is of external_transform instruction arguments. Default: empty Method for finite differencing [default 'central'] Options to be passed to the finite difference instance Options to be passed to a forward mode constructor Deprecated option (ignored): Statistics are now always collected. Function body for Hessian Deprecated option (ignored) Throw exceptions when the numerical values of the inputs don't make sense Indicate for each input if it should be differentiable. Indicate for each output if it should be differentiable. Function body for Jacobian When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::JitFunction casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::JitFunction
external_transform fd_method fd_options forward_options gather_stats hess input_scheme inputs_check is_diff_in is_diff_out jac	OT_VECTORVECTOR OT_STRING OT_DICT OT_DICT OT_BOOL OT_STRING OT_STRINGVECTOR OT_BOOL OT_BOOLVECTOR OT_BOOLVECTOR OT_STRING OT_STRING OT_DOUBLE	Throw exceptions when function evaluation fails (default true). It is of external_transform instruction arguments. Default: empty Method for finite differencing [default 'central'] Options to be passed to the finite difference instance Options to be passed to a forward mode constructor Deprecated option (ignored): Statistics are now always collected. Function body for Hessian Deprecated option (ignored) Throw exceptions when the numerical values of the inputs don't make sense Indicate for each input if it should be differentiable. Indicate for each output if it should be differentiable. Function body for Jacobian When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy Options to be passed to a Jacobian constructor	casadi::FunctionInternal casadi::JitFunction casadi::FunctionInternal
external_transform fd_method fd_options forward_options gather_stats hess input_scheme inputs_check is_diff_in is_diff_out jac jac_penalty jacobian_options jit	OT_VECTORVECTOR OT_STRING OT_DICT OT_BOOL OT_STRING OT_BOOL OT_BOOLVECTOR OT_BOOLVECTOR OT_STRING OT_STRING OT_STRING OT_DOUBLE OT_DOUBLE	Throw exceptions when function evaluation fails (default true). It is to fexternal_transform instruction arguments. Default: empty Method for finite differencing [default 'central'] Options to be passed to the finite difference instance Options to be passed to a forward mode constructor Deprecated option (ignored): Statistics are now always collected. Function body for Hessian Deprecated option (ignored) Throw exceptions when the numerical values of the inputs don't make sense Indicate for each input if it should be differentiable. Indicate for each output if it should be differentiable. Function body for Jacobian When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy Options to be passed to a Jacobian constructor Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
external_transform fd_method fd_options forward_options gather_stats hess input_scheme inputs_check is_diff_in is_diff_out jac jac_penalty	OT_VECTORVECTOR OT_STRING OT_DICT OT_DICT OT_BOOL OT_STRING OT_STRINGVECTOR OT_BOOL OT_BOOLVECTOR OT_BOOLVECTOR OT_STRING OT_STRING OT_DOUBLE	Throw exceptions when function evaluation fails (default true). It is of external_transform instruction arguments. Default: empty Method for finite differencing [default 'central'] Options to be passed to the finite difference instance Options to be passed to a forward mode constructor Deprecated option (ignored): Statistics are now always collected. Function body for Hessian Deprecated option (ignored) Throw exceptions when the numerical values of the inputs don't make sense Indicate for each input if it should be differentiable. Indicate for each output if it should be differentiable. Function body for Jacobian When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy Options to be passed to a Jacobian constructor	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::JitFunction casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
external_transform fd_method fd_options forward_options gather_stats hess input_scheme inputs_check is_diff_in is_diff_out jac jac_penalty jacobian_options jit jit_cleanup	OT_VECTORVECTOR OT_STRING OT_DICT OT_DICT OT_BOOL OT_STRING OT_STRINGVECTOR OT_BOOLVECTOR OT_BOOLVECTOR OT_STRING OT_DOUBLE OT_DICT OT_BOOL OT_BOOL	Throw exceptions when function evaluation fails (default true). It is of external_transform instruction arguments. Default: empty Method for finite differencing [default 'central'] Options to be passed to the finite difference instance Options to be passed to a forward mode constructor Deprecated option (ignored): Statistics are now always collected. Function body for Hessian Deprecated option (ignored) Throw exceptions when the numerical values of the inputs don't make sense Indicate for each input if it should be differentiable. Indicate for each output if it should be differentiable. Function body for Jacobian When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy Options to be passed to a Jacobian constructor Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function: SOURCE link	casadi::FunctionInternal
external_transform fd_method fd_options forward_options gather_stats hess input_scheme inputs_check is_diff_in is_diff_out jac jac_penalty jacobian_options jit jit_cleanup jit_name	OT_VECTORVECTOR OT_STRING OT_DICT OT_DICT OT_BOOL OT_STRINGVECTOR OT_BOOLVECTOR OT_BOOLVECTOR OT_STRING OT_STRING OT_DOUBLE OT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Throw exceptions when function evaluation fails (default true). It is to fexternal_transform instruction arguments. Default: empty Method for finite differencing [default 'central'] Options to be passed to the finite difference instance Options to be passed to a forward mode constructor Deprecated option (ignored): Statistics are now always collected. Function body for Hessian Deprecated option (ignored) Throw exceptions when the numerical values of the inputs don't make sense Indicate for each input if it should be differentiable. Indicate for each output if it should be differentiable. Function body for Jacobian When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy Options to be passed to a Jacobian constructor Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' Options to be passed to the jit compiler.	casadi::FunctionInternal

		generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	.casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Infappears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::KinsolInterface

List of available options			
Id	Type	Description	Used in
abstol	OT_DOUBLE	Stopping criterion tolerance	casadi::KinsolInterface
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
constraints	OT_INTVECTOR	Constrain the unknowns. 0 (default): no constraint on ui, 1: ui >= 0.0, -1: ui <= 0.0, 2: ui > 0.0, -2: ui < 0.0.	casadi::Rootfinder
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
disable_internal_warning	gs OT_BOOL	Disable KINSOL internal warning messages	casadi::KinsolInterface
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file	casadi::FunctionInternal

		[mtx]	
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
exact_jacobian	OT_BOOL	Use exact Jacobian information	casadi::KinsolInterface
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
f_scale	OT_DOUBLEVECTOR	R Equation scaling factors	casadi::KinsolInterface
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
implicit_input	OT_INT	Index of the input that corresponds to the actual root-finding	casadi::Rootfinder
implicit_output	OT_INT	Index of the output that corresponds to the actual root-finding	casadi::Rootfinder
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iterative_solver	OT_STRING	gmres bcgstab tfqmr	casadi::KinsolInterface
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the	
		full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_function	OT_FUNCTION	Function object for calculating the Jacobian (autogenerated by default)	casadi::Rootfinder
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize		Constitution to the constitution of the consti	casadi::FunctionInternal
	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for	casadii unctioninternat

		wrappers. Default: true	
linear_solver	OT_STRING	User-defined linear solver class. Needed for sensitivities.	casadi::Rootfinder
linear_solver_options	OT_DICT	Options to be passed to the linear solver.	casadi::Rootfinder
linear_solver_type	OT_STRING	dense banded iterative user_defined	casadi::KinsolInterface
lower_bandwidth	OT_INT	Lower bandwidth for banded linear solvers	casadi::KinsolInterface
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded	. casadi::FunctionInternal
max_iter	OT_INT	Maximum number of Newton iterations. Putting 0 sets the default value of KinSol.	casadi::KinsolInterface
max_krylov	OT_INT	Maximum Krylov space dimension	casadi::KinsolInterface
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
pretype	OT_STRING	Type of preconditioner	casadi::KinsolInterface
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_level	OT_INT	Verbosity level	casadi::KinsolInterface
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
strategy	OT_STRING	Globalization strategy	casadi::KinsolInterface
u_scale	OT_DOUBLEVECTOR	R Variable scaling factors	casadi::KinsolInterface
upper_bandwidth	OT_INT	Upper bandwidth for banded linear solvers	casadi::KinsolInterface
use_preconditioner	OT_BOOL	Precondition an iterative solver	casadi::KinsolInterface
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Rootfinder_kinsol

List of available options Id

ld	Туре	Description
abstol	OT_DOUBLE	Stopping criterion tolerance
disable_internal_warnings	OT_BOOL	Disable KINSOL internal warning messages
exact_jacobian	OT_BOOL	Use exact Jacobian information
f_scale	OT_DOUBLEVECTOR	Equation scaling factors
iterative_solver	OT_STRING	gmres bcgstab tfqmr
linear_solver_type	OT_STRING	dense banded iterative user_defined
lower_bandwidth	OT_INT	Lower bandwidth for banded linear solvers
max_iter	OT_INT	Maximum number of Newton iterations. Putting 0 sets the default value of KinSol.
max_krylov	OT_INT	Maximum Krylov space dimension
pretype	OT_STRING	Type of preconditioner
print_level	OT_INT	Verbosity level
strategy	OT_STRING	Globalization strategy
u_scale	OT_DOUBLEVECTOR	Variable scaling factors
upper_bandwidth	OT_INT	Upper bandwidth for banded linear solvers

Group: general_KinsolInterface

List of available options			
Id	Type	Description	Used in
abstol	OT_DOUBLE	Stopping criterion tolerance	casadi::KinsolInterface
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
constraints	OT_INTVECTOR	Constrain the unknowns. 0 (default): no constraint on ui, 1: ui >= 0.0, -1: ui <= 0.0, 2: ui > 0.0, -2: ui < 0.0.	casadi::Rootfinder
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
disable_internal_warning	gs OT_BOOL	Disable KINSOL internal warning messages	casadi::KinsolInterface
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
exact_jacobian	OT_BOOL	Use exact Jacobian information	casadi::KinsolInterface
expand	OT_BOOL	Replace MX with SX expressions in problem formulation	casadi::OracleFunction

[false]

		[false]	
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
f_scale	OT DOUBLEVECTOR	R Equation scaling factors	casadi::KinsolInterface
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to the finite difference instance Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always	casadi::FunctionInternal
gather_stats	O1_BOOL	collected.	CasadiFullCtioninternat
implicit_input	OT_INT	Index of the input that corresponds to the actual root-finding	casadi::Rootfinder
implicit_output	OT_INT	Index of the output that corresponds to the actual root-finding	casadi::Rootfinder
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iterative_solver	OT_STRING	gmres bcgstab tfqmr	casadi::KinsolInterface
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions	casadi::FunctionInternal
, , ,		it may be cheaper to compute first the full jacobian and then	
		multiply with seeds, rather than obtain the requested	
		directions in a straightforward manner. Casadi uses a	
		heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the	
		full Jacobian strategy. The special value -1 indicates never to	
		use the full Jacobian strategy	
jacobian_function	OT_FUNCTION	Function object for calculating the Jacobian (autogenerated	casadi::Rootfinder
, –	_	by default)	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names	casadi::FunctionInternal
		used depend on 'jit_temp_suffix' and include extensions.	
		Default: 'jit_tmp'	
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for	casadi::FunctionInternal
		generated code and libraries. This is desired for thread-	
		safety. This behaviour may defeat caching compiler	
linear_solver	OT_STRING	wrappers. Default: true User-defined linear solver class. Needed for sensitivities.	casadi::Rootfinder
linear_solver_options	OT_DICT	Options to be passed to the linear solver.	casadi::Rootfinder
linear_solver_type	OT_STRING	dense banded iterative user_defined	casadi::KinsolInterface
lower_bandwidth	=	Lower bandwidth for banded linear solvers	casadi::KinsolInterface
	OT_INT		
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	
max_iter	OT_INT	Maximum number of Newton iterations. Putting 0 sets the default value of KinSol.	
max_krylov	OT_INT	Maximum Krylov space dimension	casadi::KinsolInterface
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
pretype	OT_STRING	Type of preconditioner	casadi::KinsolInterface
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
		· · · · · · · · · · · · · · · · · · ·	

print_level	OT_INT	Verbosity level	casadi::KinsolInterface	
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal	
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction	
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction	
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction	
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal	
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction	
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction	
strategy	OT_STRING	Globalization strategy	casadi::KinsolInterface	
u_scale	OT_DOUBLEVECTOR	R Variable scaling factors	casadi::KinsolInterface	
upper_bandwidth	OT_INT	Upper bandwidth for banded linear solvers	casadi::KinsolInterface	
use_preconditioner	OT_BOOL	Precondition an iterative solver	casadi::KinsolInterface	
user_data	OT_VOIDPTR A user-defined field that can be used to identify the function c or pass additional information		casadi::FunctionInternal	
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction	

class casadi::KnitroInterface

List of available options			
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam $_x$ ' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
complem_variables	OT_INTVECTORVECTOR	R List of complementary constraints on simple bounds. Pair (i, j) encodes complementarity between the bounds on variable i and variable j.	casadi::KnitroInterface
contype	OT_INTVECTOR	Type of constraint	casadi::KnitroInterface
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental.	casadi::FunctionInternal

		Syntax may break often.	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_linear_constraints detect_simple_bounds	OT_BOOL OT_BOOL	Detect type of constraints Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	casadi::KnitroInterface casadi::Nlpsol
detect_simple_bounds_is_simpl		For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x	OT_INTVECTOR	For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]] casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	casadi::Nlpsol

input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	n casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy)
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
knitro	OT_DICT	Options to be passed to KNITRO	casadi::KnitroInterface
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
options_file	OT_STRING	Read options from file (solver specific)	casadi::KnitroInterface
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears	casadi::ProtoFunction

		during evaluation	
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol

Group: plugin_Nlpsol_knitro

List of available options

List of available options				
Id	Type	Description		
complem_variables C		List of complementary constraints on simple bounds. Pair (i, j) encodes complementarity between the bounds on variable i and variable j.		
contype C	OT_INTVECTOR	Type of constraint		
detect_linear_constraints C	DT_BOOL	Detect type of constraints		
knitro C	DT_DICT	Options to be passed to KNITRO		
options_file C	OT_STRING	Read options from file (solver specific)		

Group: general_KnitroInterface

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol	
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol	

calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base	casadi::Nlpsol
common_options	OT_DICT	class Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
complem_variables		R List of complementary constraints on simple bounds. Pair (i, j) encodes complementarity	casadi::KnitroInterface
	07.11.17.17.07.0	between the bounds on variable i and variable j.	11. 14. 15. 1
contype	OT_INTVECTOR	Type of constraint	casadi::KnitroInterface
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_linear_constraints	OT_BOOL	Detect type of constraints	casadi::KnitroInterface
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping	casadi::Nlpsol
		criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	
detect_simple_bounds_is_simpl	e OT_BOOLVECTOR	For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x		For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem	casadi::OracleFunction

		formulation [false]	
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	casadi::Nlpsol
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	n casadi::Nlpsol
iteration_callback_ignore_errors	S OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy.	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
knitro	OT_DICT	Options to be passed to KNITRO	casadi::KnitroInterface
max_io	OT_INT	Acceptable number of inputs and outputs. Warn is exceeded.	f casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
options_file	OT_STRING	Read options from file (solver specific)	casadi::KnitroInterface
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol

output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol

class casadi::LapackLu

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.		
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal	
allow_equilibration_fail	ure OT_BOOL	Non-fatal error when equilibration fails	casadi::LapackLu	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal	
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal s	
derivative of	OT FUNCTION	The function is a derivative of another function. The type of	casadi::FunctionInternal	

		derivative (directional derivative, Jacobian) is inferred from the function name.	
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	
equilibration	OT_BOOL	Equilibrate the matrix	casadi::LapackLu
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative	casadi::FunctionInternal

		functions. Overrules the builtin optimized_num_dir.	
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Linsol_lapacklu

List of available options

IdTypeDescriptionallow_equilibration_failure OT_BOOL Non-fatal error when equilibration failsequilibrationOT_BOOL Equilibrate the matrix

Group: general_LapackLu

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal	
allow_equilibration_failur	e OT_BOOL	Non-fatal error when equilibration fails	casadi::LapackLu	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal	
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal	
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal	

dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	
equilibration	OT_BOOL	Equilibrate the matrix	casadi::LapackLu
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal

post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	n casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::LapackQr

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrice are used.		
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal	
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal	
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal	
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal	
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal	
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal	
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal	
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal	
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal	
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal	

enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	RList of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for	casadi::FunctionInternal
		generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadiii diretoiiinternat
max_io	OT_INT	This behaviour may defeat caching compiler wrappers. Default:	casadi::FunctionInternal
max_io max_nrhs	OT_INT OT_INT	This behaviour may defeat caching compiler wrappers. Default: true	
-		This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Maximum number of right-hand-sides that get processed in a	casadi::FunctionInternal
max_nrhs	OT_INT	This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Maximum number of right-hand-sides that get processed in a single pass [default:10]. Specify the maximum number of directions for derivative	casadi::FunctionInternal casadi::LapackQr
max_nrhs max_num_dir	OT_INT OT_BOOL	This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Maximum number of right-hand-sides that get processed in a single pass [default:10]. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal casadi::LapackQr casadi::FunctionInternal
max_nrhs max_num_dir never_inline	OT_INT OT_BOOL	This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Maximum number of right-hand-sides that get processed in a single pass [default:10]. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining.	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
max_nrhs max_num_dir never_inline output_scheme	OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL	This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Maximum number of right-hand-sides that get processed in a single pass [default:10]. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored)	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
max_nrhs max_num_dir never_inline output_scheme post_expand	OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL	This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Maximum number of right-hand-sides that get processed in a single pass [default:10]. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default:	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
max_nrhs max_num_dir never_inline output_scheme post_expand post_expand_option	OT_INT OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL is OT_DICT	This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Maximum number of right-hand-sides that get processed in a single pass [default:10]. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
max_nrhs max_num_dir never_inline output_scheme post_expand post_expand_option print_in	OT_INT OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL	This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Maximum number of right-hand-sides that get processed in a single pass [default:10]. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false]	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
max_nrhs max_num_dir never_inline output_scheme post_expand post_expand_option print_in print_out	OT_INT OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL sOT_DICT OT_BOOL OT_BOOL	This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Maximum number of right-hand-sides that get processed in a single pass [default:10]. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false]	casadi::FunctionInternal casadi::PunctionInternal casadi::ProtoFunction
max_nrhs max_num_dir never_inline output_scheme post_expand post_expand_option print_in print_out print_time	OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL	This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Maximum number of right-hand-sides that get processed in a single pass [default:10]. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time.	casadi::FunctionInternal casadi::PunctionInternal casadi::ProtoFunction
max_nrhs max_num_dir never_inline output_scheme post_expand post_expand_option print_in print_out print_time record_time	OT_INT OT_BOOL OT_BOOL SOT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Maximum number of right-hand-sides that get processed in a single pass [default:10]. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time. record information about execution time, for retrieval with stats()	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ProtoFunction casadi::ProtoFunction
max_nrhs max_num_dir never_inline output_scheme post_expand post_expand_option print_in print_out print_time record_time regularity_check	OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Maximum number of right-hand-sides that get processed in a single pass [default:10]. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time. record information about execution time, for retrieval with stats() Throw exceptions when NaN or Inf appears during evaluation	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ProtoFunction casadi::ProtoFunction casadi::ProtoFunction

Group: plugin_Linsol_lapackqr

List of available options

Id Type

Group: general_LapackQr

List of available optic	ons		
ld	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)\(\) ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	RList of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal

jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_nrhs	OT_INT	Maximum number of right-hand-sides that get processed in a single pass [default:10].	casadi::LapackQr
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::LinearInterpolant

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.		
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
batch_x	OT_INT	Evaluate a batch of different inputs at once (default 1).	casadi::Interpolant	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	

compiler custom_jacobian	OT_STRING OT_FUNCTION	Just-in-time compiler plugin to be used. Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are	casadi::FunctionInternal
derivative_of	OT_FUNCTION	merged in. The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
inline	OT_BOOL	Implement the lookup table in MX primitives. Useful when you need derivatives with respect to grid and/or coefficients. Such derivatives are fundamentally dense, so use with caution.	casadi::Interpolant
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety.	casadi::FunctionInternal

		This behaviour may defeat caching compiler wrappers. Default: true	
lookup_mode	OT_STRINGVECTOR	Sets, for each grid dimenion, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; 'exact' uses floored division (only for uniform grids).	casadi::LinearInterpolant
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options OT_DICT		Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Interpolant_linear

List of available options

Id Type Description

lookup_mode OT_STRINGVECTOR Sets, for each grid dimenion, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; 'exact' uses floored division (only for uniform grids).

Group: general_LinearInterpolant

List of available options			
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
batch_x	OT_INT	Evaluate a batch of different inputs at once (default 1).	casadi::Interpolant
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal

derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of	casadi::FunctionInternal
		derivative (directional derivative, Jacobian) is inferred from the function name.	
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
inline	OT_BOOL	Implement the lookup table in MX primitives. Useful when you need derivatives with respect to grid and/or coefficients. Such derivatives are fundamentally dense, so use with caution.	casadi::Interpolant
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense $ \begin{tabular}{ll} \hline \end{tabular} $	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
lookup_mode	OT_STRINGVECTOR	Sets, for each grid dimenion, the lookup algorithm used to find the correct index. 'linear' uses a for-loop + break; 'exact' uses floored division (only for uniform grids).	casadi::LinearInterpolant
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal

max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::LinsolLdl

List of available options

Id	Type	Description	Used in
error_on_fail	OT_BOOLT	hrow exceptions when function evaluation fails (default true).	casadi::ProtoFunction
incomplete	OT_BOOL I	ncomplete factorization, without any fill-in	casadi::LinsolLdl
preordering	OT_BOOL A	Approximate minimal degree (AMD) preordering	casadi::LinsolLdl
print_time	OT_BOOL p	orint information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL r	ecord information about execution time, for retrieval with stats(). casadi::ProtoFunction
regularity_checl	OT_BOOLT	hrow exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
verbose	OT_BOOL V	/erbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_LinsolInternal_ldl

List of available options

Id Type Description
incomplete OT_BOOL Incomplete factorization, without any fill-in
preordering OT_BOOL Approximate minimal degree (AMD) preordering

Group: general_LinsolLdl

List of available options

Id	Type	Description	Used in
error_on_fail	OT_BOOLT	hrow exceptions when function evaluation fails (default true).	casadi::ProtoFunction
incomplete	OT_BOOL Ir	ncomplete factorization, without any fill-in	casadi::LinsolLdl
preordering	OT_BOOL A	pproximate minimal degree (AMD) preordering	casadi::LinsolLdl
print_time	OT_BOOL p	rint information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL re	ecord information about execution time, for retrieval with stats). casadi::ProtoFunction
regularity_chec	k OT_BOOL T	hrow exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
verbose	OT_BOOL V	erbose evaluation – for debugging	casadi::ProtoFunction

class casadi::LinsolQr

IdTypeDescriptionUsed incache OT_DOUBLE Amount of factorisations to remember (thread-local) [0] casadi::LinsolQrepsOT_DOUBLE Minimum R entry before singularity is declared [1e-12]casadi::LinsolQr

Group: plugin_LinsolInternal_qr

List of available options

Id Type Description

cache OT_DOUBLE Amount of factorisations to remember (thread-local) [0] eps OT_DOUBLE Minimum R entry before singularity is declared [1e-12]

Group: general_LinsolQr

List of available options

IdTypeDescriptionUsed incache OT_DOUBLE Amount of factorisations to remember (thread-local) [0] casadi::LinsolQrepsOT_DOUBLE Minimum R entry before singularity is declared [1e-12]casadi::LinsolQr

class casadi::MXFunction

List of available options			
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
allow_duplicate_io_nam	es OT_BOOL	Allow construction with duplicate io names (Default: false)	casadi::MXFunction
allow_free	OT_BOOL	Allow construction with free variables (Default: false)	casadi::MXFunction
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
cse	OT_BOOL	Perform common subexpression elimination (complexity is N*log(N) in graph size)	casadi::MXFunction
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
default_in	OT_DOUBLEVECTO	R Default input values	casadi::MXFunction
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal

dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
live_variables	OT_BOOL	Reuse variables in the work vector	casadi::MXFunction
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
	OT DOOL	Forbid inlining.	casadi::FunctionInternal
never_inline	OT_BOOL	•	
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
		•	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal

		Default: empty	
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_instructions	OT_BOOL	Print each operation during evaluation	casadi::MXFunction
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	n casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::MumpsInterface

List of available options

Id	Type	Description	Used in
error_on_fail	OT_BOOL Throw	v exceptions when function evaluation fails (default true).	casadi::ProtoFunction
posdef	OT_BOOL Positiv	ve definite	casadi::MumpsInterface
print_time	OT_BOOL print i	nformation about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL record	d information about execution time, for retrieval with stats(). casadi::ProtoFunction
regularity_checl	k OT_BOOL Throw	v exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
symmetric	OT_BOOL Symm	netric matrix	casadi::MumpsInterface
verbose	OT_BOOL Verbo	se evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Linsol_mumps

List of available options

IdTypeDescriptionposdefOT_BOOL Positive definitesymmetric OT_BOOL Symmetric matrix

Group: general_MumpsInterface

List of available options

Id	Type	Description	Used in
error_on_fail	OT_BOOL Thre	ow exceptions when function evaluation fails (default true).	casadi::ProtoFunction
posdef	OT_BOOL Pos	itive definite	casadi::MumpsInterface
print_time	OT_BOOL prin	t information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL reco	ord information about execution time, for retrieval with stats(). casadi::ProtoFunction
regularity_checl	k OT_BOOL Thre	ow exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
symmetric	OT_BOOL Sym	nmetric matrix	casadi::MumpsInterface
verbose	OT_BOOL Verl	oose evaluation – for debugging	casadi::ProtoFunction

class casadi::Newton

List of available options

	ld Type	Description	Used in
abstol	OT_DOUBLE	Stopping criterion tolerance on max(F)	casadi::Newton

abstolStep ad_weight	OT_DOUBLE OT_DOUBLE	Stopping criterion tolerance on step size Weighting factor for derivative calculation. When there is an	casadi::Newton casadi::FunctionInternal
		option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight/na is used where nf and na are estimates of the number of forward/reverse	
		mode directional derivatives needed. By default, ad_weight is	
		calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1	
ad_weight_sp	OT_DOUBLE	forcing reverse mode. Leave unset for (class specific) heuristics. Weighting factor for sparsity pattern calculation	casadi::FunctionInternal
77_ 79		calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
constraints	OT_INTVECTOR	Constrain the unknowns. 0 (default): no constraint on ui, 1: ui >= 0.0, -1: ui <= 0.0, 2: ui > 0.0, -2: ui < 0.0.	casadi::Rootfinder
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform		List of external_transform instruction arguments. Default: empty	
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
implicit_input	OT_INT	Index of the input that corresponds to the actual root-finding	casadi::Rootfinder
implicit_output	OT_INT	Index of the output that corresponds to the actual root-finding	casadi::Rootfinder
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense $ \label{eq:control} % \begin{center} centen$	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal

jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special	casadi::FunctionInternal
		value -1 indicates never to use the full Jacobian strategy	
jacobian_function	OT_FUNCTION	Function object for calculating the Jacobian (autogenerated by default)	casadi::Rootfinder
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
line_search	OT_BOOL	Enable line-search (default: true)	casadi::Newton
linear_solver	OT_STRING	User-defined linear solver class. Needed for sensitivities.	casadi::Rootfinder
linear_solver_option	s OT_DICT	Options to be passed to the linear solver.	casadi::Rootfinder
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_iter	OT_INT	Maximum number of Newton iterations to perform before returning.	casadi::Newton
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_iteration	OT_BOOL	Print information about each iteration	casadi::Newton
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
show_eval_warnings		Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Rootfinder_newton

List of available options

Id	Type	Description
abstol	OT_DOUBL	E Stopping criterion tolerance on max(F)
abstolStep	OT_DOUBL	E Stopping criterion tolerance on step size
line_search	OT_BOOL	Enable line-search (default: true)

max_iter OT_INT Maximum number of Newton iterations to perform before returning. print_iteration OT_BOOL Print information about each iteration

Group: general_Newton

List of available options	List	of	avail	lable	or	otions
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ld	Type	Description	Used in
abstol	OT_DOUBLE	Stopping criterion tolerance on max(F)	casadi::Newton
abstolStep	OT_DOUBLE	Stopping criterion tolerance on step size	casadi::Newton
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
constraints	OT_INTVECTOR	Constrain the unknowns. 0 (default): no constraint on ui, 1: ui >= 0.0, -1: ui <= 0.0, 2: ui > 0.0, -2: ui < 0.0.	casadi::Rootfinder
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform		R List of external_transform instruction arguments. Default: $empty$	
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal

forward_options gather_stats implicit_input implicit_output	OT_DICT OT_BOOL OT_INT OT_INT	Options to be passed to a forward mode constructor Deprecated option (ignored): Statistics are now always collected. Index of the input that corresponds to the actual root-finding Index of the output that corresponds to the actual root-finding	casadi::FunctionInternal casadi::FunctionInternal casadi::Rootfinder casadi::Rootfinder
input_scheme inputs_check	OT_STRINGVECTOR OT_BOOL	Deprecated option (ignored) Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out jac_penalty	OT_BOOLVECTOR OT_DOUBLE	Indicate for each output if it should be differentiable. When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal casadi::FunctionInternal
jacobian_function	OT_FUNCTION	Function object for calculating the Jacobian (autogenerated by default)	casadi::Rootfinder
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit 	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
line_search	OT_BOOL	Enable line-search (default: true)	casadi::Newton
linear_solver	OT_STRING	User-defined linear solver class. Needed for sensitivities.	casadi::Rootfinder
linear_solver_option		Options to be passed to the linear solver.	casadi::Rootfinder
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_iter	OT_INT	Maximum number of Newton iterations to perform before returning.	casadi::Newton
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
monitor		Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option		Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_iteration	OT_BOOL	Print information about each iteration	casadi::Newton
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
show_eval_warnings		Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::Nlpsol

List of available options					
ld	Type	Description	Used in		
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal		
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal		
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal		
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol		
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal		
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol		
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol		
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol		
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol		
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol		
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction		
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal		
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal		
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal		
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal		
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	t casadi::Nlpsol		
detect_simple_bounds_is_simple OT_BOOLVECTOR		For internal use only.	casadi::Nlpsol		
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol		
detect_simple_bounds_target_x	OT_INTVECTOR	For internal use only.	casadi::Nlpsol		
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol		
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal		
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal		
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal		
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal		
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable	casadi::FunctionInternal		

enable_fd	OT_BOOL	with DM.from_file) [default: false] Enable derivative calculation by finite differencing.	casadi::FunctionInternal
enable_id	01_0000	[default: false]]	casadii direttoriinterriat
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products -	casadi::FunctionInternal
		typically using forward mode AD - if available. [default: true]	
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform		List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	
forward_options	OT_DICT	Options to be passed to a forward mode constructor	
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit ::• -!	OT_BOOL	Use just-in-time compiler to speed up the evaluation	
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal

max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi:: Function Internal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi:: Function Internal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	. casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	. casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi:: Function Internal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol

Group: general_Nlpsol

List of available	options			
	ld	Type	Description	Used in
ad_weight		OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight n<= (1-ad_weight) na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp		OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline		OT_BOOL	Force inlining.	casadi::FunctionInternal

bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (defaul false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	t casadi::Nlpsol
detect_simple_bounds_is_simpl	e OT_BOOLVECTOR	For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x	OT_INTVECTOR	For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments.	casadi::FunctionInternal

		Default: empty	
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now	casadi::FunctionInternal
3 –	_	always collected.	
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	casadi::Nlpsol
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the	casadi::FunctionInternal
		inputs don't make sense	
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with	casadi::Nlpsol
		the solver as input. Check documentation of Callback.	
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will	casadi::Nlpsol
		be ignored.	
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse	casadi::FunctionInternal
		directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than	
		obtain the requested directions in a straightforward	
		manner. Casadi uses a heuristic to decide which is	
		cheaper. A high value of 'jac_penalty' makes it less	
		likely for the heurstic to chose the full Jacobian	
		strategy. The special value -1 indicates never to use	
	OT DIST	the full Jacobian strategy	10 = .0 .0 .
jacobian_options 	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file	casadi::FunctionInternal
Jit_Harrie	01_3111110	names used depend on 'jit_temp_suffix' and include	casadii diletioriiiiteriiat
		extensions. Default: 'jit_tmp'	
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function:	casadi::FunctionInternal
,		SOURCE link embed.	
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix	casadi::FunctionInternal
		for generated code and libraries. This is desired for	
		thread-safety. This behaviour may defeat caching	
may in	OT INT	compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if	casadi::FunctionInternal
max_io	OT_INT	exceeded.	Casadi::Functioninternat
max_num_dir	OT_INT	Specify the maximum number of directions for	casadi::FunctionInternal
max_nam_an	01_1111	derivative functions. Overrules the builtin	casadii diretionimeerilat
		optimized_num_dir.	
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default:	casadi::FunctionInternal
		False	
post_expand_options	OT_DICT	Options to be passed to post-construction expansion.	casadi::FunctionInternal
		Default: empty	
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies	casadi::ProtoFunction
1	OT DOO!	record_time.	
record_time	OT_BOOL	record information about execution time, for retrieval	casadi::ProtoFunction
		with stats().	

regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi:: Function Internal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol

class casadi::OoqpInterface

List of available opt	ions		
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight $nf <= (1-ad_weight)$ na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
artol	OT_DOUBLE	tolerance as provided with setArTol to OOQP	casadi::OoqpInterface
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for	casadi::FunctionInternal

		Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
mutol	OT_DOUBLE	tolerance as provided with setMuTol to OOQP	casadi::OoqpInterface
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option		Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_level	OT_INT	Print level. OOQP listens to print_level 0, 10 and 100	casadi::OoqpInterface
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Conic_ooqp

List of available options

Id	Type	Description
artol	OT_DOUBL	E tolerance as provided with setArTol to OOQP
mutol	OT_DOUBL	E tolerance as provided with setMuTol to OOQP
print_leve	el OT_INT	Print level. OOQP listens to print_level 0, 10 and 100

Group: general_OoqpInterface

List of available options			
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
artol	OT_DOUBLE	tolerance as provided with setArTol to OOQP	casadi::OoqpInterface
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction

external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions	casadi::FunctionInternal
		in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special	
		value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
mutol	OT_DOUBLE	tolerance as provided with setMuTol to OOQP	casadi::OoqpInterface
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_level	OT_INT	Print level. OOQP listens to print_level 0, 10 and 100	casadi::OoqpInterface
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::OracleFunction

Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional	casadi::FunctionInternal
		derivatives, the condition ad weight <i>nf<=(1-ad weight)</i> na is used	

		where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
			casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	
is_diff_in	OT_BOOLVECTOR		casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each input if it should be differentiable. Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal

jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	.casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::OsqpInterface

OT_FUNCTION

derivative_of

List of available options			
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrice are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal

The function is a derivative of another function. The type of

casadi::FunctionInternal

		derivative (directional derivative, Jacobian) is inferred from the function name.	
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
osqp	OT_DICT	const Options to be passed to osqp.	casadi::OsqpInterface
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default:	casadi::FunctionInternal

		empty	
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi:: Function Internal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi:: Function Internal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	. casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi:: Function Internal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
warm_start_dual	OT_BOOL	Use lam_a0 and lam_x0 input to warmstart [Default: truw].	casadi::OsqpInterface
warm_start_primal	OT_BOOL	Use x0 input to warmstart [Default: true].	casadi::OsqpInterface

Group: plugin_Conic_osqp

List of available options

IdTypeDescriptionosqpOT_DICTconst Options to be passed to osqp.

warm_start_dual OT_BOOL Use lam_a0 and lam_x0 input to warmstart [Default: truw].

warm_start_primal OT_BOOL Use x0 input to warmstart [Default: true].

Group: general_OsqpInterface

List of available options					
Id	Type	Description	Used in		
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal		
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrice are used.			
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal		
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal		
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal		
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal		
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal		
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal		
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic		
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal		
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal		
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal		
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal		

dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then	casadi::FunctionInternal
		multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
Jacobian_options	OI_DICI	Options to be passed to a Jacobian constructor	CasadiFunctioninternat
ii+	OT ROOL	·	
jit iit daanun	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
•		Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL OT_STRING OT_DICT	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default:	casadi::FunctionInternal
jit_cleanup jit_name	OT_BOOL OT_STRING	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal e casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
jit_cleanup jit_name jit_options	OT_BOOL OT_STRING OT_DICT	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function: SOURCE link	casadi::FunctionInternal e casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
jit_cleanup jit_name jit_options jit_serialize	OT_BOOL OT_STRING OT_DICT OT_STRING	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default:	casadi::FunctionInternal ecasadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
jit_cleanup jit_name jit_options jit_serialize jit_temp_suffix	OT_BOOL OT_STRING OT_DICT OT_STRING OT_BOOL	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal e casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
jit_cleanup jit_name jit_options jit_serialize jit_temp_suffix max_io	OT_BOOL OT_STRING OT_DICT OT_STRING OT_BOOL OT_INT	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
jit_cleanup jit_name jit_options jit_serialize jit_temp_suffix max_io max_num_dir	OT_BOOL OT_STRING OT_DICT OT_STRING OT_BOOL OT_INT OT_INT	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
jit_cleanup jit_name jit_options jit_serialize jit_temp_suffix max_io max_num_dir never_inline	OT_BOOL OT_STRING OT_DICT OT_STRING OT_BOOL OT_INT OT_INT OT_BOOL OT_DICT	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. const Options to be passed to osqp. Deprecated option (ignored)	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
jit_cleanup jit_name jit_options jit_serialize jit_temp_suffix max_io max_num_dir never_inline osqp	OT_BOOL OT_STRING OT_DICT OT_STRING OT_BOOL OT_INT OT_INT OT_BOOL OT_DICT	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. const Options to be passed to osqp.	casadi::FunctionInternal
jit_cleanup jit_name jit_options jit_serialize jit_temp_suffix max_io max_num_dir never_inline osqp output_scheme post_expand post_expand_option	OT_BOOL OT_STRING OT_DICT OT_STRING OT_BOOL OT_INT OT_INT OT_BOOL OT_DICT OT_STRINGVECTOR OT_BOOL SOT_DICT	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. const Options to be passed to osqp. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
jit_cleanup jit_name jit_options jit_serialize jit_temp_suffix max_io max_num_dir never_inline osqp output_scheme post_expand	OT_BOOL OT_STRING OT_DICT OT_STRING OT_BOOL OT_INT OT_INT OT_BOOL OT_DICT OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. const Options to be passed to osqp. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false]	casadi::FunctionInternal
jit_cleanup jit_name jit_options jit_serialize jit_temp_suffix max_io max_num_dir never_inline osqp output_scheme post_expand post_expand print_in print_out	OT_BOOL OT_STRING OT_DICT OT_STRING OT_BOOL OT_INT OT_INT OT_BOOL OT_DICT OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. const Options to be passed to osqp. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false]	casadi::FunctionInternal
jit_cleanup jit_name jit_options jit_serialize jit_temp_suffix max_io max_num_dir never_inline osqp output_scheme post_expand post_expand_option print_in	OT_BOOL OT_STRING OT_DICT OT_STRING OT_BOOL OT_INT OT_INT OT_BOOL OT_DICT OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. const Options to be passed to osqp. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] Print a numeric description of the problem	casadi::FunctionInternal
jit_cleanup jit_name jit_options jit_serialize jit_temp_suffix max_io max_num_dir never_inline osqp output_scheme post_expand post_expand porint_in print_out print_problem print_time	OT_BOOL OT_STRING OT_DICT OT_STRING OT_BOOL OT_INT OT_INT OT_BOOL OT_DICT OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. const Options to be passed to osqp. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] Print a numeric description of the problem print information about execution time. Implies record_time.	casadi::FunctionInternal casadi::PunctionInternal casadi::PunctionInternal casadi::PunctionInternal casadi::PunctionInternal casadi::PunctionInternal
jit_cleanup jit_name jit_options jit_serialize jit_temp_suffix max_io max_num_dir never_inline osqp output_scheme post_expand post_expand post_expand_option print_in print_out print_problem print_time record_time	OT_BOOL OT_STRING OT_DICT OT_STRING OT_BOOL OT_INT OT_INT OT_BOOL OT_DICT OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. const Options to be passed to osqp. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] Print a numeric description of the problem print information about execution time. Implies record_time. record information about execution time, for retrieval with stats()	casadi::FunctionInternal casadi::ProtoFunction .casadi::ProtoFunction
jit_cleanup jit_name jit_options jit_serialize jit_temp_suffix max_io max_num_dir never_inline osqp output_scheme post_expand post_expand_option print_in print_out print_out print_problem print_time record_time regularity_check	OT_BOOL OT_STRING OT_DICT OT_STRING OT_BOOL OT_INT OT_INT OT_BOOL OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. const Options to be passed to osqp. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] Print a numeric description of the problem print information about execution time. Implies record_time. record information about execution time, for retrieval with stats() Throw exceptions when NaN or Inf appears during evaluation	casadi::FunctionInternal casadi::ProtoFunction .casadi::ProtoFunction casadi::ProtoFunction
jit_cleanup jit_name jit_options jit_serialize jit_temp_suffix max_io max_num_dir never_inline osqp output_scheme post_expand post_expand post_expand_option print_in print_out print_problem print_time record_time	OT_BOOL OT_STRING OT_DICT OT_STRING OT_BOOL OT_INT OT_INT OT_BOOL OT_DICT OT_STRINGVECTOR OT_BOOL SOT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp' Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function: SOURCE link embed. Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true Acceptable number of inputs and outputs. Warn if exceeded. Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir. Forbid inlining. const Options to be passed to osqp. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] Print a numeric description of the problem print information about execution time. Implies record_time. record information about execution time, for retrieval with stats()	casadi::FunctionInternal casadi::ProtoFunction .casadi::ProtoFunction

		pass additional information	
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
warm_start_dual	OT_BOOL	Use lam_a0 and lam_x0 input to warmstart [Default: truw].	casadi::OsqpInterface
warm_start_primal	OT_BOOL	Use x0 input to warmstart [Default: true].	casadi::OsqpInterface

class casadi::ProtoFunction

List of available options

ld	Type	Description	Used in
error_on_fail	OT_BOOL1	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
print_time	OT_BOOL p	orint information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL r	ecord information about execution time, for retrieval with stats(.casadi::ProtoFunction
regularity_check	OT_BOOL1	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
verbose	OT_BOOL\	/erbose evaluation – for debugging	casadi::ProtoFunction

class casadi::ProxqpInterface

List of available options				
ld	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrice are used.		
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal	
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal	
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic	
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal	
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal	
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal	
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal	
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal	
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal	
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal	

enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all	casadi::FunctionInternal
enable_reverse	OT_BOOL	differentiable inputs - if available. [default: true] Enable derivative calculation using generated functions for	casadi::FunctionInternal
		transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform		R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup 	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	ns OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
proxqp	OT_DICT	const proxqp options.	casadi::ProxqpInterface
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
warm_start_dual	OT_BOOL	Use y and z input to warmstart [Default: true].	casadi::ProxqpInterface
warm_start_primal	OT_BOOL	Use x input to warmstart [Default: true].	casadi::ProxqpInterface

Group: plugin_Conic_proxqp

List of available options

Id Type Description

proxqp OT_DICT const proxqp options.

warm_start_dual OT_BOOL Use y and z input to warmstart [Default: true]. warm_start_primal OT_BOOL Use x input to warmstart [Default: true].

Group: general_ProxqpInterface

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal	
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal	
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic	
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal	
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal	
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal	
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal	
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal	
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal	
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal	
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal	
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal	
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction	
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal	
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal	
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal	

C 1	OT DICT		
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::Functioninternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it	casadi::FunctionInternal
		may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions	
		in a straightforward manner. Casadi uses a heuristic to decide	
		which is cheaper. A high value of 'jac_penalty' makes it less likely	
		for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
, jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used	
, –	_	depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for	casadi::FunctionInternal
		generated code and libraries. This is desired for thread-safety.	
		This behaviour may defeat caching compiler wrappers. Default: true	
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative	casadi::FunctionInternal
		functions. Overrules the builtin optimized_num_dir.	
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option		Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
proxqp	OT_DICT	const proxqp options.	casadi::ProxqpInterface
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
warm_start_dual	OT_BOOL	Use y and z input to warmstart [Default: true].	casadi::ProxqpInterface
warm_start_primal	OT_BOOL	Use x input to warmstart [Default: true].	casadi::ProxqpInterface

class casadi::QpToNlp

Id	Туре	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting	casadi::FunctionInternal

ad_weight_sp	OT_DOUBLE	this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics. Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: $empty$	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit iit daanun	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup jit_name	OT_BOOL OT_STRING	Cleanup up the temporary source file that jit creates. Default: true The file name used to write out code. The actual file names used	
ji _ name	01_51MIN0	depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casaaii uncuoiiinterridt

jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
nlpsol	OT_STRING	Name of solver.	casadi::QpToNlp
nlpsol_options	OT_DICT	Options to be passed to solver.	casadi::QpToNlp
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	. casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Conic_nlpsol

List of available options

IdTypeDescriptionnlpsolOT_STRING Name of solver.

nlpsol_options OT_DICT Options to be passed to solver.

Group: general_QpToNlp

List of available options					
Id	Type	Description	Used in		
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal		
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.			
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal		
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal		
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal		
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal		

der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal

nlpsol	OT_STRING	Name of solver.	casadi::QpToNlp
nlpsol_options	OT_DICT	Options to be passed to solver.	casadi::QpToNlp
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	. casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::QpoasesInterface

List of available options			
Id	Type	Description	Used in
CPUtime	OT_DOUBLE	The maximum allowed CPU time in seconds for the whole initialisation (and the actually required one on output). Disabled if unset.	casadi::QpoasesInterface
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
boundRelaxation	OT_DOUBLE	Initial relaxation of bounds to start homotopy and initial value for far bounds.	casadi::QpoasesInterface
boundTolerance	OT_DOUBLE	If upper and lower bounds differ less than this tolerance, they are regarded equal, i.e. as equality constraint.	casadi::QpoasesInterface
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal

dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enableCholeskyRefactorisatio	on OT_INT	Specifies the frequency of a full re-factorisation of projected Hessian matrix: 0: turns them off, 1: uses them at each iteration etc.	casadi::QpoasesInterface
enableDriftCorrection	OT_INT	Specifies the frequency of drift corrections: 0: turns them off.	casadi::QpoasesInterface
enableEqualities	OT_BOOL	Specifies whether equalities should be treated as always active (True) or not (False)	casadi::QpoasesInterface
enableFarBounds	OT_BOOL	Enables the use of far bounds.	casadi::QpoasesInterface
enableFlippingBounds	OT_BOOL	Enables the use of flipping bounds.	casadi::QpoasesInterface
enableFullLITests	OT_BOOL	Enables condition-hardened (but more expensive) LI test.	casadi::QpoasesInterface
enableInertiaCorrection	OT_BOOL	Should working set be repaired when negative curvature is discovered during hotstart.	casadi::QpoasesInterface
enableNZCTests	OT_BOOL	Enables nonzero curvature tests.	casadi::QpoasesInterface
enableRamping	OT_BOOL	Enables ramping.	casadi::QpoasesInterface
enableRegularisation	OT_BOOL	Enables automatic Hessian regularisation.	casadi::QpoasesInterface
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
epsDen	OT_DOUBLE	Denominator tolerance for ratio tests.	casadi::QpoasesInterface
epsFlipping	OT_DOUBLE	Tolerance of squared Cholesky diagonal factor which triggers flipping bound.	casadi::QpoasesInterface
epsIterRef	OT_DOUBLE	Early termination tolerance for iterative refinement.	casadi::QpoasesInterface
epsLlTests	OT_DOUBLE	Tolerance for linear independence tests.	casadi::QpoasesInterface
epsNZCTests	OT_DOUBLE	Tolerance for nonzero curvature tests.	casadi::QpoasesInterface
epsNum	OT_DOUBLE	Numerator tolerance for ratio tests.	casadi::QpoasesInterface
epsRegularisation	OT_DOUBLE	Scaling factor of identity matrix used for Hessian regularisation.	casadi::QpoasesInterface
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform		R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
finalRamping	OT_DOUBLE	Final value for ramping strategy.	casadi::QpoasesInterface
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
growFarBounds	OT_DOUBLE	Factor to grow far bounds.	casadi::QpoasesInterface
hessian_type	OT_STRING	Type of Hessian - see qpOASES documentation [UNKNOWN posdef semidef indef zero identity]]	casadi::QpoasesInterface
initialFarBounds	OT_DOUBLE	Initial size for far bounds.	casadi::QpoasesInterface
initialRamping	OT_DOUBLE	Start value for ramping strategy.	casadi::QpoasesInterface
initialStatusBounds	OT_STRING	Initial status of bounds at first iteration.	casadi::QpoasesInterface

input_scheme inputs_check	OT_STRINGVECTOR OT_BOOL	Deprecated option (ignored) Throw exceptions when the numerical values of the	casadi::FunctionInternal casadi::FunctionInternal
ta diff. ta	OT DOOLVECTOR	inputs don't make sense	and the Francisco de Laboure
is_diff_in is_diff_out	OT_BOOLVECTOR OT_BOOLVECTOR	Indicate for each input if it should be differentiable. Indicate for each output if it should be differentiable.	casadi::FunctionInternal casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
linsol_plugin	OT_STRING	Linear solver plugin	casadi::QpoasesInterface
maxDualJump	OT_DOUBLE	Maximum allowed jump in dual variables in linear independence tests.	casadi::QpoasesInterface
maxPrimalJump	OT_DOUBLE	Maximum allowed jump in primal variables in nonzero curvature tests.	casadi::QpoasesInterface
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
max_schur	OT_INT	Maximal number of Schur updates [75]	casadi::QpoasesInterface
nWSR	OT_INT	The maximum number of working set recalculations to be performed during the initial homotopy. Default is $5(nx + nc)$	casadi::QpoasesInterface
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
numRefinementSteps	OT_INT	Maximum number of iterative refinement steps.	casadi::QpoasesInterface
numRegularisationSteps	OT_INT	Maximum number of successive regularisation steps.	casadi::QpoasesInterface
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
printLevel	OT_STRING	Defines the amount of text output during QP solution, see Section 5.7	casadi::QpoasesInterface
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal

OT_BOOL Use Schur Complement Approach [false] casadi::QpoasesInterface schur OT_BOOL Formulate the QP using sparse matrices. [false] casadi::QpoasesInterface sparse Relative termination tolerance to stop homotopy. terminationTolerance OT_DOUBLE casadi::QpoasesInterface A user-defined field that can be used to identify the casadi::FunctionInternal user_data OT_VOIDPTR

function or pass additional information

verbose OT_BOOL Verbose evaluation – for debugging casadi::ProtoFunction

Group: plugin_Conic_qpoases

List of available options

Id Type Description

CPUtime OT_DOUBLE The maximum allowed CPU time in seconds for the whole initialisation (and the actually

required one on output). Disabled if unset.

boundRelaxation OT_DOUBLE Initial relaxation of bounds to start homotopy and initial value for far bounds.

boundTolerance OT_DOUBLE If upper and lower bounds differ less than this tolerance, they are regarded equal, i.e. as

equality constraint.

enableCholeskyRefactorisation OT_INT Specifies the frequency of a full re-factorisation of projected Hessian matrix: 0: turns

them off, 1: uses them at each iteration etc.

enableDriftCorrection OT_INT Specifies the frequency of drift corrections: 0: turns them off.

enableEqualities OT_BOOL Specifies whether equalities should be treated as always active (True) or not (False)

enableFarBounds OT_BOOL Enables the use of far bounds.
enableFlippingBounds OT_BOOL Enables the use of flipping bounds.

enableFullLITests OT_BOOL Enables condition-hardened (but more expensive) LI test.

enableInertiaCorrection OT_BOOL Should working set be repaired when negative curvature is discovered during hotstart.

enableNZCTests OT_BOOL Enables nonzero curvature tests.

enableRamping OT_BOOL Enables ramping.

enableRegularisation OT_BOOL Enables automatic Hessian regularisation. epsDen OT_DOUBLE Denominator tolerance for ratio tests.

epsFlipping OT_DOUBLE Tolerance of squared Cholesky diagonal factor which triggers flipping bound.

epsIterRef OT_DOUBLE Early termination tolerance for iterative refinement.

epsLITests OT_DOUBLE Tolerance for linear independence tests.
epsNZCTests OT_DOUBLE Tolerance for nonzero curvature tests.
epsNum OT_DOUBLE Numerator tolerance for ratio tests.

epsRegularisation OT_DOUBLE Scaling factor of identity matrix used for Hessian regularisation.

finalRamping OT_DOUBLE Final value for ramping strategy. growFarBounds OT_DOUBLE Factor to grow far bounds.

hessian_type OT_STRING Type of Hessian - see qpOASES documentation [UNKNOWN|posdef|semidef|indef|zero|

identity]]

initialFarBounds OT_DOUBLE Initial size for far bounds.

OT_DOUBLE Start value for ramping strategy.

OT_STRING Initial status of bounds at first iteration.

linsol_plugin OT_STRING Linear solver plugin

maxDualJump OT_DOUBLE Maximum allowed jump in dual variables in linear independence tests.

maxPrimalJump OT_DOUBLE Maximum allowed jump in primal variables in nonzero curvature tests.

max_schur OT_INT Maximal number of Schur updates [75]

nWSR OT_INT The maximum number of working set recalculations to be performed during the initial

homotopy. Default is 5(nx + nc)

numRefinementSteps OT_INT Maximum number of iterative refinement steps.

numRegularisationSteps OT_INT Maximum number of successive regularisation steps.

printLevel OT_STRING Defines the amount of text output during QP solution, see Section 5.7

schur OT_BOOL Use Schur Complement Approach [false]
sparse OT_BOOL Formulate the QP using sparse matrices. [false]
terminationTolerance OT_DOUBLE Relative termination tolerance to stop homotopy.

Group: general_QpoasesInterface

List of available options			
Id	Туре	Description	Used in
CPUtime	OT_DOUBLE	The maximum allowed CPU time in seconds for the whole initialisation (and the actually required one on output). Disabled if unset.	casadi::QpoasesInterface
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)\(\) ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
boundRelaxation	OT_DOUBLE	Initial relaxation of bounds to start homotopy and initial value for far bounds.	casadi::QpoasesInterface
boundTolerance	OT_DOUBLE	If upper and lower bounds differ less than this tolerance, they are regarded equal, i.e. as equality constraint.	casadi::QpoasesInterface
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enableCholeskyRefactorisati	on O1_IN1	Specifies the frequency of a full re-factorisation of projected Hessian matrix: 0: turns them off, 1: uses them at each iteration etc.	casadi::QpoasesInterface
enableDriftCorrection	OT_INT	Specifies the frequency of drift corrections: 0: turns them off.	casadi::QpoasesInterface
enableEqualities	OT_BOOL	Specifies whether equalities should be treated as always active (True) or not (False)	casadi::QpoasesInterface
enableFarBounds	OT_BOOL	Enables the use of far bounds.	casadi::QpoasesInterface
enableFlippingBounds	OT_BOOL	Enables the use of flipping bounds.	casadi::QpoasesInterface
enableFullLITests	OT_BOOL	Enables condition-hardened (but more expensive) LI test.	casadi::QpoasesInterface
enableInertiaCorrection	OT_BOOL	Should working set be repaired when negative curvature is discovered during hotstart.	casadi::QpoasesInterface
enableNZCTests	OT_BOOL	Enables nonzero curvature tests.	casadi::QpoasesInterface
enableRamping	OT_BOOL	Enables ramping.	casadi::QpoasesInterface

enableRegularisation	OT_BOOL	Enables automatic Hessian regularisation.	casadi::QpoasesInterface
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
epsDen	OT_DOUBLE	Denominator tolerance for ratio tests.	casadi::QpoasesInterface
epsFlipping	OT_DOUBLE	Tolerance of squared Cholesky diagonal factor which triggers flipping bound.	casadi::QpoasesInterface
epsIterRef	OT_DOUBLE	Early termination tolerance for iterative refinement.	casadi::QpoasesInterface
epsLlTests	OT_DOUBLE	Tolerance for linear independence tests.	casadi::QpoasesInterface
epsNZCTests	OT_DOUBLE	Tolerance for nonzero curvature tests.	casadi::QpoasesInterface
epsNum	OT_DOUBLE	Numerator tolerance for ratio tests.	casadi::QpoasesInterface
epsRegularisation	OT_DOUBLE	Scaling factor of identity matrix used for Hessian regularisation.	casadi::QpoasesInterface
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
finalRamping	OT_DOUBLE	Final value for ramping strategy.	casadi::QpoasesInterface
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
growFarBounds	OT_DOUBLE	Factor to grow far bounds.	casadi::QpoasesInterface
hessian_type	OT_STRING	Type of Hessian - see qpOASES documentation [UNKNOWN posdef semidef indef zero identity]]	casadi::QpoasesInterface
initialFarBounds	OT_DOUBLE	Initial size for far bounds.	casadi::QpoasesInterface
initialRamping	OT_DOUBLE	Start value for ramping strategy.	casadi::QpoasesInterface
initialStatusBounds	OT_STRING	Initial status of bounds at first iteration.	casadi::QpoasesInterface
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options 	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal

jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
linsol_plugin	OT_STRING	Linear solver plugin	casadi::QpoasesInterface
maxDualJump	OT_DOUBLE	Maximum allowed jump in dual variables in linear independence tests.	casadi::QpoasesInterface
maxPrimalJump	OT_DOUBLE	Maximum allowed jump in primal variables in nonzero curvature tests.	casadi::QpoasesInterface
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
max_schur	OT_INT	Maximal number of Schur updates [75]	casadi::QpoasesInterface
nWSR	OT_INT	The maximum number of working set recalculations to be performed during the initial homotopy. Default is 5(nx + nc)	casadi::QpoasesInterface
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
numRefinementSteps	OT_INT	Maximum number of iterative refinement steps.	casadi::QpoasesInterface
numRegularisationSteps	OT_INT	Maximum number of successive regularisation steps.	casadi::QpoasesInterface
output_scheme	OT STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
output_scriente	OI_SIKINGVECTOR	Deprecated option (ignored)	Casadi::Functioninternat
post_expand	OT_BOOL	After construction, expand this Function. Default: False	
·		•	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False Options to be passed to post-construction expansion.	casadi::FunctionInternal casadi::FunctionInternal
post_expand post_expand_options	OT_BOOL OT_DICT	After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Defines the amount of text output during QP solution,	casadi::FunctionInternal casadi::FunctionInternal
post_expand post_expand_options printLevel	OT_BOOL OT_DICT OT_STRING	After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Defines the amount of text output during QP solution, see Section 5.7	casadi::FunctionInternal casadi::FunctionInternal casadi::QpoasesInterface
post_expand post_expand_options printLevel print_in	OT_BOOL OT_DICT OT_STRING OT_BOOL	After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Defines the amount of text output during QP solution, see Section 5.7 Print numerical values of inputs [default: false]	casadi::FunctionInternal casadi::FunctionInternal casadi::QpoasesInterface casadi::FunctionInternal
post_expand post_expand_options printLevel print_in print_out	OT_BOOL OT_STRING OT_BOOL OT_BOOL	After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Defines the amount of text output during QP solution, see Section 5.7 Print numerical values of inputs [default: false] Print numerical values of outputs [default: false]	casadi::FunctionInternal casadi::FunctionInternal casadi::QpoasesInterface casadi::FunctionInternal casadi::FunctionInternal
post_expand post_expand_options printLevel print_in print_out print_problem	OT_BOOL OT_DICT OT_STRING OT_BOOL OT_BOOL OT_BOOL	After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Defines the amount of text output during QP solution, see Section 5.7 Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] Print a numeric description of the problem print information about execution time. Implies	casadi::FunctionInternal casadi::FunctionInternal casadi::QpoasesInterface casadi::FunctionInternal casadi::FunctionInternal casadi::Conic casadi::ProtoFunction
post_expand post_expand_options printLevel print_in print_out print_problem print_time	OT_BOOL OT_DICT OT_STRING OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Defines the amount of text output during QP solution, see Section 5.7 Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] Print a numeric description of the problem print information about execution time. Implies record_time. record information about execution time, for retrieval	casadi::FunctionInternal casadi::FunctionInternal casadi::QpoasesInterface casadi::FunctionInternal casadi::FunctionInternal casadi::Conic casadi::ProtoFunction
post_expand post_expand_options printLevel print_in print_out print_problem print_time record_time	OT_BOOL OT_STRING OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Defines the amount of text output during QP solution, see Section 5.7 Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] Print a numeric description of the problem print information about execution time. Implies record_time. record information about execution time, for retrieval with stats(). Throw exceptions when NaN or Inf appears during	casadi::FunctionInternal casadi::FunctionInternal casadi::QpoasesInterface casadi::FunctionInternal casadi::FunctionInternal casadi::Conic casadi::ProtoFunction casadi::ProtoFunction
post_expand post_expand_options printLevel print_in print_out print_problem print_time record_time regularity_check	OT_BOOL OT_DICT OT_STRING OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Defines the amount of text output during QP solution, see Section 5.7 Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] Print a numeric description of the problem print information about execution time. Implies record_time. record information about execution time, for retrieval with stats(). Throw exceptions when NaN or Inf appears during evaluation	casadi::FunctionInternal casadi::FunctionInternal casadi::GpoasesInterface casadi::FunctionInternal casadi::FunctionInternal casadi::Conic casadi::ProtoFunction casadi::ProtoFunction
post_expand post_expand_options printLevel print_in print_out print_problem print_time record_time regularity_check reverse_options	OT_BOOL OT_DICT OT_STRING OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Defines the amount of text output during QP solution, see Section 5.7 Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] Print a numeric description of the problem print information about execution time. Implies record_time. record information about execution time, for retrieval with stats(). Throw exceptions when NaN or Inf appears during evaluation Options to be passed to a reverse mode constructor	casadi::FunctionInternal casadi::FunctionInternal casadi::GpoasesInterface casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ProtoFunction casadi::ProtoFunction casadi::ProtoFunction casadi::FunctionInternal
post_expand post_expand_options printLevel print_in print_out print_problem print_time record_time regularity_check reverse_options schur	OT_BOOL OT_DICT OT_STRING OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Defines the amount of text output during QP solution, see Section 5.7 Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] Print a numeric description of the problem print information about execution time. Implies record_time. record information about execution time, for retrieval with stats(). Throw exceptions when NaN or Inf appears during evaluation Options to be passed to a reverse mode constructor Use Schur Complement Approach [false]	casadi::FunctionInternal casadi::FunctionInternal casadi::GpoasesInterface casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ProtoFunction casadi::ProtoFunction casadi::ProtoFunction casadi::FunctionInternal casadi::QpoasesInterface
post_expand post_expand_options printLevel print_in print_out print_problem print_time record_time regularity_check reverse_options schur sparse	OT_BOOL OT_DICT OT_STRING OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Defines the amount of text output during QP solution, see Section 5.7 Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] Print a numeric description of the problem print information about execution time. Implies record_time. record information about execution time, for retrieval with stats(). Throw exceptions when NaN or Inf appears during evaluation Options to be passed to a reverse mode constructor Use Schur Complement Approach [false] Formulate the QP using sparse matrices. [false]	casadi::FunctionInternal casadi::FunctionInternal casadi::QpoasesInterface casadi::FunctionInternal casadi::FunctionInternal casadi::Conic casadi::ProtoFunction casadi::ProtoFunction casadi::ProtoFunction casadi::GpoasesInterface casadi::QpoasesInterface

class casadi::Qrqp

List of available options

IdTypeDescriptionUsed inad_weightOT_DOUBLEWeighting factor for derivative calculation. When there is an casadi::FunctionInternal

option of either using forward or reverse mode directional derivatives, the condition ad_weightnf<=(1-ad_weight)ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.

always_inline OT_BOOL Force inlining. casadi::FunctionInternal casadi::F
cache OT_DICT Prepopulate the function cache. Default: empty casadi::FunctionInternal casadi::Fun
compiler OT_STRING Just-in-time compiler plugin to be used. casadi::FunctionInternal casadi::FunctionInternal casadi::Orap custom_jacobian OT_FUNCTION Override CasADi's AD. Use together with 'jac_penalty': O. Note: Highly experimental. Syntax may break often. casadi::FunctionInternal reverse_options, and jacobian_options before those options, are reverse_options, and jacobian_options before those options are merged in. casadi::FunctionInternal casadi::FunctionInternal reverse_options, and jacobian_options before those options are merged in. derivative_of OT_FUNCTION The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name. casadi::FunctionInternal casadi::FunctionInternal derivative, Jacobian) is inferred from the function to fle variables are discrete, i.e. integer-valued derivative of another function. The type of derivative of another function. The type of derivative of another function. The type of derivative function is a derivative of another function. The type of derivative of another function. The type of derivative casadi::FunctionInternal line function to fle upon first or derivative casadi::FunctionInternal branch function to fle upon first evaluation. [false] casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal punction to file format to dump matrices. See DM.from_file [mtx] casadi::FunctionInternal punction to file ferivative calculation by finite differencing. [default: false] casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
constr_viol_tol OT_DOUBLE Constraint violation tolerance [1e-8]. casadi::Grap custom_jacobian OT_FUNCTION Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often. casadi::FunctionInternal reverse_options, reverse_options, and jacobian_options before those options are merged in. casadi::FunctionInternal casadi::FunctionInternal reverse_options, and jacobian_options before those options are merged in. casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal derivative_of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name. casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal derivative_Jacobian is inferred from the function name. casadi::FunctionInternal casad
custom_jacobian OT_FUNCTION Override CasADI's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often. casadi::FunctionInternal reverse_options der_options OT_DICT Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in. casadi::FunctionInternal derivative. derivative_of OT_FUNCTION The function is a derivative of another function. The type of derivative (direction ald erivative, Jacobian) is inferred from the function name. casadi::FunctionInternal derivative. Jacobian is inferred from the function name. discrete OT_BOOLVECTOR Indicates which of the variables are discrete, i.e. integer-valued casadi::Grup derivative. Jacobian is inferred from the function name. casadi::Grup deadi::Grup deadi::G
der_options OT_DICT Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in. The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name. discrete OT_BOOLVECTOR Indicates which of the variables are discrete, i.e. integer-valued dual_inf_tol OT_DOUBLE Dual feasibility violation tolerance [1e-8] dump OT_BOOL Dump function to file upon first evaluation. [false] dump_dir OT_STRING Directory to dump inputs/outputs to. Make sure the directory exists [.] dump_format OT_STRING OT_BOOL Dump numerical values of inputs to file (readable with DM.from_file) [default: false] dump_out OT_BOOL Dump numerical values of outputs to file (readable with DM.from_file) [default: false] enable_fd OT_BOOL Enable derivative calculation by finite differencing. [default: casadi::FunctionInternal false]] enable_forward OT_BOOL Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true] enable_reverse OT_BOOL Enable derivative calculation using generated functions for Jacobian-of all differentiable outputs with respect to all differentiable inputs - if available. [default: true] enable_reverse OT_BOOL Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]
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enable_reverse OT_BOOL Enable derivative calculation using generated functions for casadi::FunctionInternal
reverse mode AD - if available. [default: true]
error_on_fail OT_BOOL Throw exceptions when function evaluation fails (default true). casadi::ProtoFunction
external_transform OT_VECTORVECTOR List of external_transform instruction arguments. Default: empty casadi::FunctionInternal
fd_method OT_STRING Method for finite differencing [default 'central'] casadi::FunctionInternal
fd_options OT_DICT Options to be passed to the finite difference instance casadi::FunctionInternal
_, _ ,
gather_stats OT_BOOL Deprecated option (ignored): Statistics are now always collected. casadi::FunctionInternal
input_scheme OT_STRINGVECTOR Deprecated option (ignored) casadi::FunctionInternal
inputs_check OT_BOOL Throw exceptions when the numerical values of the inputs don't casadi::FunctionInternal make sense
is_diff_in OT_BOOLVECTOR Indicate for each input if it should be differentiable. casadi::FunctionInternal
is_diff_out OT_BOOLVECTOR Indicate for each output if it should be differentiable. casadi::FunctionInternal
jac_penalty OT_DOUBLE When requested for a number of forward/reverse directions, it casadi::FunctionInternal may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely
for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy
jacobian_options OT_DICT Options to be passed to a Jacobian constructor casadi::FunctionInternal
jit OT_BOOL Use just-in-time compiler to speed up the evaluation casadi::FunctionInternal
jit_cleanup OT_BOOL Cleanup up the temporary source file that jit creates. Default: true casadi::FunctionInternal
jit_name OT_STRING The file name used to write out code. The actual file names used casadi::FunctionInternal depend on 'jit_temp_suffix' and include extensions. Default:

		'jit_tmp'	
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_iter	OT_INT	Maximum number of iterations [1000].	casadi::Qrqp
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
min_lam	OT_DOUBLE	Smallest multiplier treated as inactive for the initial active set [0].	casadi::Qrqp
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	ns OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_header	OT_BOOL	Print header [true].	casadi::Qrqp
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_info	OT_BOOL	Print info [true].	casadi::Qrqp
print_iter	OT_BOOL	Print iterations [true].	casadi::Qrqp
print_lincomb	OT_BOOL	Print dependant linear combinations of constraints [false]. Printed numbers are 0-based indices into the vector of [simple bounds;linear bounds]	casadi::Qrqp
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	.casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Conic_qrqp

List of available options

Id	Type	Description			
constr_viol_tol OT_DOUBLE Constraint violation tolerance [1e-8].					
dual_inf_tol	OT_DOUBL	E Dual feasibility violation tolerance [1e-8]			
max_iter	OT_INT	Maximum number of iterations [1000].			
min_lam	OT_DOUBL	E Smallest multiplier treated as inactive for the initial active set [0].			
print_header	OT_BOOL	Print header [true].			
print_info	OT_BOOL	Print info [true].			
print_iter	OT_BOOL	Print iterations [true].			
print_lincomb	OT_BOOL	Print dependant linear combinations of constraints [false]. Printed numbers are 0-based indices into the vector of [simple bounds;linear bounds]			

Group: general_Qrqp

List	of	avai	labl	le o	ptions

Id	Туре	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional	casadi::FunctionInternal
		derivatives, the condition ad_weight <i>nf<=(1-ad_weight)</i> na is used	

		where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting	
		this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force	casadi::FunctionInternal
		forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices	
		are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache 	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
constr_viol_tol	OT_DOUBLE	Constraint violation tolerance [1e-8].	casadi::Qrqp casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dual_inf_tol	OT_DOUBLE	Dual feasibility violation tolerance [1e-8]	casadi::Qrqp
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: $empty$	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely	casadi::FunctionInternal
		for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal

).c	01_5005	ose just in time compiler to speed up the evaluation	casaami anctioninternat
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_iter	OT_INT	Maximum number of iterations [1000].	casadi::Qrqp
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
min_lam	OT_DOUBLE	Smallest multiplier treated as inactive for the initial active set $[0]$.	casadi::Qrqp
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_header	OT_BOOL	Print header [true].	casadi::Qrqp
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_info	OT_BOOL	Print info [true].	casadi::Qrqp
print_iter	OT_BOOL	Print iterations [true].	casadi::Qrqp
print_lincomb	OT_BOOL	Print dependant linear combinations of constraints [false]. Printed numbers are 0-based indices into the vector of [simple bounds;linear bounds]	casadi::Qrqp
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Use just-in-time compiler to speed up the evaluation

casadi:: Function Internal

class casadi::Qrsqp

jit

OT_BOOL

List of available op	tions		
Id	Туре	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal

beta bound_consistency	OT_DOUBLE OT_BOOL	Line-search parameter, restoration factor of stepsize Ensure that primal-dual solution is consistent with	casadi::Qrsqp casadi::Nlpsol
c1	OT_DOUBLE	the bounds Armijo condition, coefficient of decrease in merit	casadi::Qrsqp
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (defaultialse). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	t casadi::Nlpsol
detect_simple_bounds_is_simpl	e OT BOOLVECTOR	For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x		For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e.	casadi::Nlpsol
		Integer-valued	
dump	OT BOOL	integer-valued Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump dump_dir	OT_BOOL OT_STRING	Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal casadi::FunctionInternal
		Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the	
dump_dir	OT_STRING	Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_dir dump_format	OT_STRING OT_STRING OT_BOOL OT_BOOL	Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
dump_dir dump_format dump_in dump_out enable_fd	OT_STRING OT_STRING OT_BOOL OT_BOOL OT_BOOL	Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false] Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
dump_dir dump_format dump_in dump_out	OT_STRING OT_STRING OT_BOOL OT_BOOL	Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false] Enable derivative calculation by finite differencing. [default: false]] Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available.	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
dump_dir dump_format dump_in dump_out enable_fd	OT_STRING OT_STRING OT_BOOL OT_BOOL OT_BOOL	Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false] Enable derivative calculation by finite differencing. [default: false]] Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true] Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available.	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
dump_dir dump_format dump_in dump_out enable_fd enable_forward	OT_STRING OT_STRING OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false] Enable derivative calculation by finite differencing. [default: false]] Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true] Enable derivative calculation using generated functions for Jacobians of all differentiable outputs	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
dump_dir dump_format dump_in dump_out enable_fd enable_forward enable_jacobian	OT_STRING OT_STRING OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false] Enable derivative calculation by finite differencing. [default: false]] Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true] Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true] Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
dump_dir dump_format dump_in dump_out enable_fd enable_forward enable_iacobian enable_reverse	OT_STRING OT_STRING OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	Dump function to file upon first evaluation. [false] Directory to dump inputs/outputs to. Make sure the directory exists [.] Choose file format to dump matrices. See DM.from_file [mtx] Dump numerical values of inputs to file (readable with DM.from_file) [default: false] Dump numerical values of outputs to file (readable with DM.from_file) [default: false] Enable derivative calculation by finite differencing. [default: false]] Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true] Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true] Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true] Throw exceptions when function evaluation fails	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal

formulation [false]

		formulation [false]	
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
hessian_approximation	OT_STRING	limited-memory exact	casadi::Qrsqp
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	. casadi::Nlpsol
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
lbfgs_memory	OT_INT	Size of L-BFGS memory.	casadi::Qrsqp
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_iter	OT_INT	Maximum number of SQP iterations	casadi::Qrsqp
max_iter_ls	OT_INT	Maximum number of linesearch iterations	casadi::Qrsqp
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
merit_memory	OT_INT	Size of memory to store history of merit function values	casadi::Qrsqp
min_iter	OT_INT	Minimum number of SQP iterations	casadi::Qrsqp
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
min_step_size	OT_DOUBLE	The size (inf-norm) of the step size should not become smaller than this.	casadi::Qrsqp
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol

output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion Default: empty	. casadi::FunctionInternal
print_header	OT_BOOL	Print the header with problem statistics	casadi::Qrsqp
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_iteration	OT_BOOL	Print the iterations	casadi::Qrsqp
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
qpsol	OT_STRING	The QP solver to be used by the SQP method [qrqp]	casadi::Qrsqp
qpsol_options	OT_DICT	Options to be passed to the QP solver	casadi::Qrsqp
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	l casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
regularize	OT_BOOL	Automatic regularization of Lagrange Hessian.	casadi::Qrsqp
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
tol_du	OT_DOUBLE	Stopping criterion for dual infeasability	casadi::Qrsqp
tol_pr	OT_DOUBLE	Stopping criterion for primal infeasibility	casadi::Qrsqp
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol

Group: plugin_Nlpsol_sqsqp

Id	Type	Description
beta	OT_DOUBLE	Line-search parameter, restoration factor of stepsize
c1	OT_DOUBLE	Armijo condition, coefficient of decrease in merit
hessian_approximation	n OT_STRING	limited-memory exact
lbfgs_memory	OT_INT	Size of L-BFGS memory.
max_iter	OT_INT	Maximum number of SQP iterations
max_iter_ls	OT_INT	Maximum number of linesearch iterations
merit_memory	OT_INT	Size of memory to store history of merit function values
min_iter	OT_INT	Minimum number of SQP iterations
min_step_size	OT_DOUBLE	The size (inf-norm) of the step size should not become smaller than this.
print_header	OT_BOOL	Print the header with problem statistics
print_iteration	OT_BOOL	Print the iterations
qpsol	OT_STRING	The QP solver to be used by the SQP method [qrqp]
qpsol_options	OT_DICT	Options to be passed to the QP solver
regularize	OT_BOOL	Automatic regularization of Lagrange Hessian.
tol_du	OT_DOUBLE	Stopping criterion for dual infeasability
tol_pr	OT_DOUBLE	Stopping criterion for primal infeasibility

Group: general_Qrsqp

List of available options			
ld	Туре	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight n <= (1-ad_weight) na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
beta	OT_DOUBLE	Line-search parameter, restoration factor of stepsize	casadi::Qrsqp
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol
c1	OT_DOUBLE	Armijo condition, coefficient of decrease in merit	casadi::Qrsqp
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	t casadi::Nlpsol
detect_simple_bounds_is_simpl	le OT_BOOLVECTOR	For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x		For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable	casadi::FunctionInternal

		with DM.from_file) [default: false]	
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
hessian_approximation	OT_STRING	limited-memory exact	casadi::Qrsqp
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	casadi::Nlpsol
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix	casadi::FunctionInternal

		for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	
lbfgs_memory	OT_INT	Size of L-BFGS memory.	casadi::Qrsqp
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_iter	OT_INT	Maximum number of SQP iterations	casadi::Qrsqp
max_iter_ls	OT_INT	Maximum number of linesearch iterations	casadi::Qrsqp
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
merit_memory	OT_INT	Size of memory to store history of merit function values	casadi::Qrsqp
min_iter	OT_INT	Minimum number of SQP iterations	casadi::Qrsqp
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
min_step_size	OT_DOUBLE	The size (inf-norm) of the step size should not become smaller than this.	casadi::Qrsqp
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	
print_header	OT_BOOL	Print the header with problem statistics	casadi::Qrsqp
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_iteration	OT_BOOL	Print the iterations	casadi::Qrsqp
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
qpsol	OT_STRING	The QP solver to be used by the SQP method [qrqp]	casadi::Qrsqp
qpsol_options	OT_DICT	Options to be passed to the QP solver	casadi::Qrsqp
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
regularize	OT_BOOL	Automatic regularization of Lagrange Hessian.	casadi::Qrsqp
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
tol_du	OT_DOUBLE	Stopping criterion for dual infeasability	casadi::Qrsqp
tol_pr	OT_DOUBLE	Stopping criterion for primal infeasibility	casadi::Qrsqp
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol

class casadi::Rootfinder

List of available optic			
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight $nf <= (1-ad_weight)$ na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
constraints	OT_INTVECTOR	Constrain the unknowns. 0 (default): no constraint on ui, 1: ui >= 0.0, -1: ui <= 0.0, 2: ui > 0.0, -2: ui < 0.0.	casadi::Rootfinder
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform		R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	
implicit_input	OT_INT	Index of the input that corresponds to the actual root-finding	casadi::Rootfinder
implicit_output	OT_INT	Index of the output that corresponds to the actual root-finding	casadi::Rootfinder
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't	
. –	_	make sense	

is_diff_in is_diff_out jac_penalty	OT_BOOLVECTOR OT_BOOLVECTOR OT_DOUBLE	Indicate for each input if it should be differentiable. Indicate for each output if it should be differentiable. When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
tracking for all or	OT FUNCTION	for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_function	OT_FUNCTION	Function object for calculating the Jacobian (autogenerated by default)	casadi::Rootfinder
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
linear_solver	OT_STRING	User-defined linear solver class. Needed for sensitivities.	casadi::Rootfinder
linear_solver_option	S OT_DICT	Options to be passed to the linear solver.	casadi::Rootfinder
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
max_num_dir monitor			casadi::FunctionInternal casadi::OracleFunction
		functions. Overrules the builtin optimized_num_dir.	
monitor	OT_STRINGVECTOR OT_BOOL	functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored	casadi::OracleFunction
monitor never_inline	OT_STRINGVECTOR OT_BOOL	functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining.	casadi::OracleFunction casadi::FunctionInternal
monitor never_inline output_scheme	OT_STRINGVECTOR OT_BOOL OT_STRINGVECTOR OT_BOOL	functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Deprecated option (ignored)	casadi::OracleFunction casadi::FunctionInternal casadi::FunctionInternal
monitor never_inline output_scheme post_expand	OT_STRINGVECTOR OT_BOOL OT_STRINGVECTOR OT_BOOL	functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default:	casadi::OracleFunction casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
monitor never_inline output_scheme post_expand post_expand_options	OT_STRINGVECTOR OT_BOOL OT_STRINGVECTOR OT_BOOL OT_DICT	functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty	casadi::OracleFunction casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
monitor never_inline output_scheme post_expand post_expand_options print_in	OT_STRINGVECTOR OT_BOOL OT_STRINGVECTOR OT_BOOL OT_DICT OT_BOOL	functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false]	casadi::OracleFunction casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
monitor never_inline output_scheme post_expand post_expand_options print_in print_out	OT_STRINGVECTOR OT_BOOL OT_STRINGVECTOR OT_BOOL OT_DICT OT_BOOL OT_BOOL	functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false]	casadi::OracleFunction casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
monitor never_inline output_scheme post_expand post_expand_option: print_in print_out print_time	OT_STRINGVECTOR OT_BOOL OT_BOOL OT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL	functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time. record information about execution time, for retrieval with	casadi::OracleFunction casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ProtoFunction
monitor never_inline output_scheme post_expand post_expand_options print_in print_out print_time record_time	OT_STRINGVECTOR OT_BOOL OT_STRINGVECTOR OT_BOOL OT_DICT OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time. record information about execution time, for retrieval with stats().	casadi::OracleFunction casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ProtoFunction casadi::ProtoFunction
monitor never_inline output_scheme post_expand post_expand_options print_in print_out print_time record_time regularity_check	OT_STRINGVECTOR OT_BOOL OT_STRINGVECTOR OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time. record information about execution time, for retrieval with stats(). Throw exceptions when NaN or Inf appears during evaluation	casadi::OracleFunction casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ProtoFunction casadi::ProtoFunction
monitor never_inline output_scheme post_expand post_expand_options print_in print_out print_time record_time regularity_check reverse_options	OT_STRINGVECTOR OT_BOOL OT_STRINGVECTOR OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time. record information about execution time, for retrieval with stats(). Throw exceptions when NaN or Inf appears during evaluation Options to be passed to a reverse mode constructor	casadi::OracleFunction casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ProtoFunction casadi::ProtoFunction casadi::ProtoFunction casadi::FunctionInternal
monitor never_inline output_scheme post_expand post_expand_options print_in print_out print_time record_time regularity_check reverse_options show_eval_warnings	OT_STRINGVECTOR OT_BOOL OT_STRINGVECTOR OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL OT_BOOL	functions. Overrules the builtin optimized_num_dir. Set of user problem functions to be monitored Forbid inlining. Deprecated option (ignored) After construction, expand this Function. Default: False Options to be passed to post-construction expansion. Default: empty Print numerical values of inputs [default: false] Print numerical values of outputs [default: false] print information about execution time. Implies record_time. record information about execution time, for retrieval with stats(). Throw exceptions when NaN or Inf appears during evaluation Options to be passed to a reverse mode constructor Show warnings generated from function evaluations [true] Options for specific auto-generated functions, overwriting the	casadi::OracleFunction casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal casadi::ProtoFunction casadi::ProtoFunction casadi::FunctionInternal casadi::OracleFunction

Group: general_Rootfinder

Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an	casadi::FunctionInternal
		option of either using forward or reverse mode directional	
		derivatives, the condition ad_weight nf<=(1-ad_weight)na is used	
		where nf and na are estimates of the number of forward/reverse	
		mode directional derivatives needed. By default, ad_weight is	

ad_weight_sp	OT_DOUBLE	calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics. Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
constraints	OT_INTVECTOR	Constrain the unknowns. 0 (default): no constraint on ui, 1: ui >= 0.0, -1: ui <= 0.0, 2: ui > 0.0, -2: ui < 0.0.	casadi::Rootfinder
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
implicit_input	OT_INT	Index of the input that corresponds to the actual root-finding	casadi::Rootfinder
implicit_output	OT_INT	Index of the output that corresponds to the actual root-finding	casadi::Rootfinder
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal

jacobian_function	OT_FUNCTION	Function object for calculating the Jacobian (autogenerated by default)	casadi::Rootfinder
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
linear_solver	OT_STRING	User-defined linear solver class. Needed for sensitivities.	casadi::Rootfinder
linear_solver_option	s OT_DICT	Options to be passed to the linear solver.	casadi::Rootfinder
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::SLEQPInterface

List of available op			
ld	Туре	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is	casadi::FunctionInternal

		completely ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with	casadi::FunctionInternal
custom_jacobian	O1_I GIVETION	'jac_penalty': O. Note: Highly experimental. Syntax may break often.	casadii unctioninternat
der_options	OT_DICT	Default options to be used to populate	casadi::FunctionInternal
		forward_options, reverse_options, and	
destruction of	OT FUNCTION	jacobian_options before those options are merged in	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (defaul	t casadi::Nlpsol
detect_simple_sounds	01_5001	false). This is hopefully beneficial to speed and	ic casaa ripsor
		robustness but may also have adverse affects: 1)	
		Subtleties in heuristics and stopping criteria may	
		change the solution, 2) IPOPT may lie about	
		multipliers of simple equality bounds unless	
		'fixed_variable_treatment' is set to 'relax_bounds'.	
detect_simple_bounds_is_simple		For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x	OT_INTVECTOR	For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the	casadi::FunctionInternal
		directory exists [.]	
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated	casadi::FunctionInternal
		functions for Jacobian-times-vector products -	
		typically using forward mode AD - if available.	
		[default: true]	
enable_jacobian	OT_BOOL	Enable derivative calculation using generated	casadi::FunctionInternal
		functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available.	
		[default: true]	
enable_reverse	OT_BOOL	Enable derivative calculation using generated	casadi::FunctionInternal
enable_reverse	O1_BOOL	functions for transposed Jacobian-times-vector	casadii diletioninternat
		products - typically using reverse mode AD - if	
		available. [default: true]	
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails	casadi::ProtoFunction
	<u>_</u> = 	(default true).	The state of the s
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop	casadi::Nlpsol
	- · ·	the iterations	Т
expand	OT_BOOL	Replace MX with SX expressions in problem	casadi::OracleFunction
•		,	

formulation [false]

print_in print_level	OT_BOOL OT_INT	Print numerical values of inputs [default: false] Print level of SLEQP (default: 2/SLEQP_LOG_WARN)	casadi::FunctionInternal casadi::SLEQPInterface
post_expand_options		Options to be passed to post-construction expansion. Default: empty	
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
max_wall_time	OT_DOUBLE	maximum wall time allowed	casadi::SLEQPInterface
max_num_dir		derivative functions. Overrules the builtin optimized_num_dir.	
max_iter	-	Specify the maximum number of directions for	casadi::SLEQPInterrace
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded. Maximum number of iterations	casadi::FunctionInternal casadi::SLEQPInterface
		for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	
jit_temp_suffix		SOURCE link embed. Use a temporary (seemingly random) filename suffix	
jit_options jit_serialize	OT_DICT OT_STRING	Options to be passed to the jit compiler. Specify behaviour when serializing a jitted function:	casadi::FunctionInternal casadi::FunctionInternal
•	_	names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	
jit_name		Default: true	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates.	
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	
jacobian_options	OT_DICT	the full Jacobian strategy	casadi::FunctionInternal
		jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use	
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full	casadi::FunctionInternal
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
inputs_check		inputs don't make sense	casadi::FunctionInternal
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	casadi::Nlpsol
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
external_transform		List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
		formulation [false]	

print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	. casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
sleqp	OT_DICT	Options to be passed to SLEQP	casadi::SLEQPInterface
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol

Group: general_SLEQPInterface

List of available options			
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate	casadi::FunctionInternal

		forward_options, reverse_options, and jacobian_options before those options are merged in.	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless	casadi::Nlpsol
	OT DOOLVECTOR	'fixed_variable_treatment' is set to 'relax_bounds'.	P. All. I
detect_simple_bounds_is_simple		For internal use only.	casadi::Nlpsol
<pre>detect_simple_bounds_parts detect_simple_bounds_target_x</pre>	OT_FUNCTION	For internal use only. For internal use only.	casadi::Nlpsol casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform		List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	
forward_options	OT_DICT	Options to be passed to a forward mode constructor	
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	
input_scheme inputs_check	OT_BOOL	Deprecated option (ignored) Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will	casadi::Nlpsol

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		be ignored.	
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse	casadi::FunctionInternal
		directions, it may be cheaper to compute first the full	
		jacobian and then multiply with seeds, rather than	
		obtain the requested directions in a straightforward	
		manner. Casadi uses a heuristic to decide which is	
		cheaper. A high value of 'jac_penalty' makes it less	
		likely for the heurstic to chose the full Jacobian	
		strategy. The special value -1 indicates never to use	
		the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates.	casadi::FunctionInternal
, – '	_	Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file	casadi::FunctionInternal
, = 4	_ ·	names used depend on 'jit_temp_suffix' and include	
		extensions. Default: 'jit_tmp'	
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function:	casadi::FunctionInternal
		SOURCE link embed.	
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix	casadi::FunctionInternal
		for generated code and libraries. This is desired for	
		thread-safety. This behaviour may defeat caching	
		compiler wrappers. Default: true	h =
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if	casadi::FunctionInternal
	OT INT	exceeded.	l' CLEODL . C
max_iter	OT_INT	Maximum number of iterations	casadi::SLEQPInterface
max_num_dir	OT_INT	Specify the maximum number of directions for	casadi::FunctionInternal
		derivative functions. Overrules the builtin	
	OT DOUBLE	optimized_num_dir.	l' CLEODI
max_wall_time	OT_DOUBLE	maximum wall time allowed	casadi::SLEQPInterface
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor		Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default:	casadi::FunctionInternal
. – .	_	False	
post_expand_options	OT_DICT	Options to be passed to post-construction expansion.	. casadi::FunctionInternal
F	-	Default: empty	
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_level	OT_INT	Print level of SLEQP (default: 2/SLEQP_LOG_WARN)	casadi::SLEQPInterface
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies	casadi::ProtoFunction
print_time	O1_BOOL	record_time.	CasadiFrotor unction
record time	OT BOOL		and divDrata Function
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
na avila situ i ala ali	OT DOOL		casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	Casadi::ProtoFunction
	OT DICT		diT
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities	casadi::Nlpsol
P. L. e	OT DICT	(default 'qr').	P. Atl. I
sens_linsol_options	OT_DICT	Linear solver options used for parametric	casadi::Nlpsol
	OT DOO!	sensitivities.	
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations	casadi::OracleFunction
	OT DIST	[true]	I CLEON . C
sleqp	OT_DICT	Options to be passed to SLEQP	casadi::SLEQPInterface
specific_options	OT_DICT	Options for specific auto-generated functions,	casadi::OracleFunction
		overwriting the defaults from common_options.	

		Nested dictionary.	
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn initial bounds	OT BOOL	Warn if the initial guess does not satisfy LBX and UB	X casadi::Nlpsol

class casadi::SXFunction

List of available options	T	Description	Hard Do
ld	Type OT_DOUBLE	Description	Used in
ad_weight		Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
allow_duplicate_io_nam	es OT_BOOL	Allow construction with duplicate io names (Default: false)	casadi::SXFunction
allow_free	OT_BOOL	Allow construction with free variables (Default: false)	casadi::SXFunction
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
cse	OT_BOOL	Perform common subexpression elimination (complexity is $N*log(N)$ in graph size)	casadi::SXFunction
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
default_in	OT_DOUBLEVECTO	DR Default input values	casadi::SXFunction
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for	casadi::FunctionInternal

		transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	ı
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme	OT STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse	casadi::FunctionInternal
		directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
just_in_time_opencl	OT_BOOL	Just-in-time compilation for numeric evaluation using OpenCL (experimental)	casadi::SXFunction
just_in_time_sparsity	OT_BOOL	Propagate sparsity patterns using just-in-time compilation to a CPU or GPU using OpenCL	casadi::SXFunction
live_variables	OT_BOOL	Reuse variables in the work vector	casadi::SXFunction
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal

user_data OT_VOIDPTR A user-defined field that can be used to identify the function casadi::FunctionInternal

or pass additional information

verbose OT_BOOL Verbose evaluation – for debugging casadi::ProtoFunction

class casadi::Scpgen

List of available options			
ld	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight n<= (1-ad_weight) na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
beta	OT_DOUBLE	Line-search parameter, restoration factor of stepsize	casadi::Scpgen
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol
c1	OT_DOUBLE	Armijo condition, coefficient of decrease in merit	casadi::Scpgen
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
codegen	OT_BOOL	C-code generation	casadi::Scpgen
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (defaultifalse). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	t casadi::Nlpsol
detect_simple_bounds_is_simp		For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_>		For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal

dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
hessian_approximation	OT_STRING	gauss-newton exact	casadi::Scpgen
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	casadi::Nlpsol
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL		casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation $% \left(1\right) =\left(1\right) \left(1\right) $	
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include	casadi::FunctionInternal

		automican Default (it tood	
jit_options	OT_DICT	extensions. Default: 'jit_tmp' Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function:	casadi::FunctionInternal
jit_Seridi.Ze	01_01110	SOURCE link embed.	casaami anetioninternat
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix	casadi::FunctionInternal
		for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching	
		compiler wrappers. Default: true	
lbfgs_memory	OT_INT	Size of L-BFGS memory.	casadi::Scpgen
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if	casadi::FunctionInternal
		exceeded.	
max_iter	OT_INT	Maximum number of SQP iterations	casadi::Scpgen
max_iter_ls	OT_INT	Maximum number of linesearch iterations	casadi::Scpgen
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
merit_memsize	OT_INT	Size of memory to store history of merit function values	casadi::Scpgen
merit_start	OT_DOUBLE	Lower bound for the merit function parameter	casadi::Scpgen
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor		Set of user problem functions to be monitored	casadi::OracleFunction
name_x		Names of the variables.	casadi::Scpgen
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion Default: empty	. casadi::FunctionInternal
print_header	OT_BOOL	Print the header with problem statistics	casadi::Scpgen
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
print_x	OT_INTVECTOR	Which variables to print.	casadi::Scpgen
qpsol	OT_STRING	The QP solver to be used by the SQP method	casadi::Scpgen
qpsol_options	OT_DICT	Options to be passed to the QP solver	casadi::Scpgen
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	l casadi::ProtoFunction
reg_threshold	OT_DOUBLE	Threshold for the regularization.	casadi::Scpgen
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
regularize	OT_BOOL	Automatic regularization of Lagrange Hessian.	casadi::Scpgen
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
tol_du	OT_DOUBLE	Stopping criterion for dual infeasability	casadi::Scpgen
tol_pr	OT_DOUBLE	Stopping criterion for primal infeasibility	casadi::Scpgen
tol_pr_step	OT_DOUBLE	Stopping criterion for the step size	casadi::Scpgen
tol_reg	OT_DOUBLE	Stopping criterion for regularization	casadi::Scpgen
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the	casadi::FunctionInternal
		function or pass additional information	

verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn initial bounds	OT BOOL	Warn if the initial guess does not satisfy LBX and UE	3X casadi::Nlpsol

Group: plugin_Nlpsol_scpgen

List of available options

Id	Type	Description
beta	OT_DOUBLE	Line-search parameter, restoration factor of stepsize
c1	OT_DOUBLE	Armijo condition, coefficient of decrease in merit
codegen	OT_BOOL	C-code generation
hessian_approximatio	n OT_STRING	gauss-newton exact
lbfgs_memory	OT_INT	Size of L-BFGS memory.
max_iter	OT_INT	Maximum number of SQP iterations
max_iter_ls	OT_INT	Maximum number of linesearch iterations
merit_memsize	OT_INT	Size of memory to store history of merit function values
merit_start	OT_DOUBLE	Lower bound for the merit function parameter
name_x	OT_STRINGVECTOR	R Names of the variables.
print_header	OT_BOOL	Print the header with problem statistics
print_x	OT_INTVECTOR	Which variables to print.
qpsol	OT_STRING	The QP solver to be used by the SQP method
qpsol_options	OT_DICT	Options to be passed to the QP solver
reg_threshold	OT_DOUBLE	Threshold for the regularization.
regularize	OT_BOOL	Automatic regularization of Lagrange Hessian.
tol_du	OT_DOUBLE	Stopping criterion for dual infeasability
tol_pr	OT_DOUBLE	Stopping criterion for primal infeasibility
tol_pr_step	OT_DOUBLE	Stopping criterion for the step size
tol_reg	OT_DOUBLE	Stopping criterion for regularization

Group: general_Scpgen

List of available options				
ld	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight n<= (1-ad_weight) ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
beta	OT_DOUBLE	Line-search parameter, restoration factor of stepsize	casadi::Scpgen	
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol	
c1	OT_DOUBLE	Armijo condition, coefficient of decrease in merit	casadi::Scpgen	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol	

calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam $_x$ ' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
codegen	OT_BOOL	C-code generation	casadi::Scpgen
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	t casadi::Nlpsol
detect_simple_bounds_is_simple		For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x		For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal

forward_options gather_stats	OT_DICT OT_BOOL	Options to be passed to a forward mode constructor Deprecated option (ignored): Statistics are now	casadi::FunctionInternal
•		always collected.	
hessian_approximation	OT_STRING	gauss-newton exact	casadi::Scpgen
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	·
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	
lbfgs_memory	OT_INT	Size of L-BFGS memory.	casadi::Scpgen
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_iter	OT_INT	Maximum number of SQP iterations	casadi::Scpgen
max_iter_ls	OT_INT	Maximum number of linesearch iterations	casadi::Scpgen
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
merit_memsize	OT_INT	Size of memory to store history of merit function values	casadi::Scpgen
merit_start	OT_DOUBLE	Lower bound for the merit function parameter	casadi::Scpgen
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
name_x	OT_STRINGVECTOR	Names of the variables.	casadi::Scpgen
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	. casadi::FunctionInternal
print_header	OT_BOOL	Print the header with problem statistics	casadi::Scpgen

print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
print_x	OT_INTVECTOR	Which variables to print.	casadi::Scpgen
qpsol	OT_STRING	The QP solver to be used by the SQP method	casadi::Scpgen
qpsol_options	OT_DICT	Options to be passed to the QP solver	casadi::Scpgen
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
reg_threshold	OT_DOUBLE	Threshold for the regularization.	casadi::Scpgen
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
regularize	OT_BOOL	Automatic regularization of Lagrange Hessian.	casadi::Scpgen
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
tol_du	OT_DOUBLE	Stopping criterion for dual infeasability	casadi::Scpgen
tol_pr	OT_DOUBLE	Stopping criterion for primal infeasibility	casadi::Scpgen
tol_pr_step	OT_DOUBLE	Stopping criterion for the step size	casadi::Scpgen
tol_reg	OT_DOUBLE	Stopping criterion for regularization	casadi::Scpgen
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX $$	casadi::Nlpsol

class casadi::ShellCompiler

Id	Type	Description	Used in
cleanup	OT_BOOL	Cleanup temporary files when unloading. Default: true	casadi::ShellCompiler
compiler	OT_STRING	Compiler command	casadi::ShellCompiler
compiler_flags	OT_STRINGVECTOR	R Alias for 'compiler_flags'	casadi::ShellCompiler
compiler_output_fla	g OT_STRING	Compiler flag to denote object output. Default: '-o '	casadi::ShellCompiler
compiler_setup	OT_STRING	Compiler setup command. Intended to be fixed. The 'flag' option is the prefered way to set custom flags.	casadi::ShellCompiler
directory	OT_STRING	Directory to put temporary objects in. Must end with a file separator.	casadi::ShellCompiler
extra_suffixes	OT_STRINGVECTOR	R List of suffixes for extra files that the compiler may generate. Default: None	casadi::ShellCompiler
flags	OT_STRINGVECTOR	R Compile flags for the JIT compiler. Default: None	casadi::ShellCompiler
linker	OT_STRING	Linker command	casadi::ShellCompiler
linker_flags	OT_STRINGVECTOR	R Linker flags for the JIT compiler. Default: None	casadi::ShellCompiler
linker_output_flag	OT_STRING	Linker flag to denote shared library output. Default: '-o '	casadi::ShellCompiler
linker_setup	OT_STRING	Linker setup command. Intended to be fixed. The 'flag' option is the prefered way to set custom flags.	casadi::ShellCompiler
name	OT_STRING	The file name used to write out compiled objects/libraries. The actual file names used depend on 'temp_suffix' and include extensions. Default: 'tmp_casadi_compiler_shell'	casadi::ShellCompiler
temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for file	casadi::ShellCompiler

defeat caching compiler wrappers. Default: true

verbose OT_BOOL Verbose evaluation – for debugging casadi::ImporterInternal

Group: plugin_Importer_shell

List of available options

Id	Type	Description
cleanup	OT_BOOL	Cleanup temporary files when unloading. Default: true
compiler	OT_STRING	Compiler command
compiler_flags	OT_STRINGVECTO	R Alias for 'compiler_flags'
compiler_output_fla	g OT_STRING	Compiler flag to denote object output. Default: '-o '
compiler_setup	OT_STRING	Compiler setup command. Intended to be fixed. The 'flag' option is the prefered way to set custom flags.
directory	OT_STRING	Directory to put temporary objects in. Must end with a file separator.
extra_suffixes	OT_STRINGVECTO	R List of suffixes for extra files that the compiler may generate. Default: None
flags	OT_STRINGVECTO	R Compile flags for the JIT compiler. Default: None
linker	OT_STRING	Linker command
linker_flags	OT_STRINGVECTO	R Linker flags for the JIT compiler. Default: None
linker_output_flag	OT_STRING	Linker flag to denote shared library output. Default: '-o '
linker_setup	OT_STRING	Linker setup command. Intended to be fixed. The 'flag' option is the prefered way to set custom flags.
name	OT_STRING	The file name used to write out compiled objects/libraries. The actual file names used depend on 'temp_suffix' and include extensions. Default: 'tmp_casadi_compiler_shell'
temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for file names. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true

Group: general_ShellCompiler

Id	Type	Description	Used in
cleanup	OT_BOOL	Cleanup temporary files when unloading. Default: true	casadi::ShellCompiler
compiler	OT_STRING	Compiler command	casadi::ShellCompiler
compiler_flags	OT_STRINGVECTO	R Alias for 'compiler_flags'	casadi::ShellCompiler
compiler_output_fla	g OT_STRING	Compiler flag to denote object output. Default: '-o '	casadi::ShellCompiler
compiler_setup	OT_STRING	Compiler setup command. Intended to be fixed. The 'flag' option is the prefered way to set custom flags.	casadi::ShellCompiler
directory	OT_STRING	Directory to put temporary objects in. Must end with a file separator.	casadi::ShellCompiler
extra_suffixes	OT_STRINGVECTO	R List of suffixes for extra files that the compiler may generate. Default: None	casadi::ShellCompiler
flags	OT_STRINGVECTO	R Compile flags for the JIT compiler. Default: None	casadi::ShellCompiler
linker	OT_STRING	Linker command	casadi::ShellCompiler
linker_flags	OT_STRINGVECTO	R Linker flags for the JIT compiler. Default: None	casadi::ShellCompiler
linker_output_flag	OT_STRING	Linker flag to denote shared library output. Default: '-o '	casadi::ShellCompiler
linker_setup	OT_STRING	Linker setup command. Intended to be fixed. The 'flag' option is the prefered way to set custom flags.	casadi::ShellCompiler
name	OT_STRING	The file name used to write out compiled objects/libraries. The actual file names used depend on 'temp_suffix' and include extensions. Default: 'tmp_casadi_compiler_shell'	casadi::ShellCompiler
temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for file names. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::ShellCompiler
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ImporterInternal

class casadi::SlicotDple

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight $nf <= (1-ad_weight)$ ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal	
const_dim	OT_BOOL	Assume constant dimension of P	casadi::Dple	
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal	
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal	
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal	
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal	
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal	
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal	
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal	
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal	
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal	
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal	
eps_unstable	OT_DOUBLE	A margin for unstability detection	casadi::Dple	
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction	
error_unstable	OT_BOOL	Throw an exception when it is detected that Product(A_i, i=N 1)has eigenvalues greater than 1-eps_unstable	casadi::Dple	
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal	
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal	
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal	
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal	
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal	
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal	
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal	

is_diff_in is_diff_out jac_penalty	OT_BOOLVECTOR OT_BOOLVECTOR OT_DOUBLE	Indicate for each input if it should be differentiable. Indicate for each output if it should be differentiable. When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal casadi::FunctionInternal casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
linear_solver	OT_STRING	User-defined linear solver class. Needed for sensitivities.	casadi::SlicotDple
linear_solver_option	s OT_DICT	Options to be passed to the linear solver.	casadi::SlicotDple
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
pos_def	OT_BOOL	Assume P positive definite	casadi::Dple
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
psd_num_zero	OT_DOUBLE	Numerical zero used in Periodic Schur decomposition with slicot. This option is needed when your systems has Floquet multiplierszero or close to zero	casadi::SlicotDple
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Dple_slicot

List of available options

IdTypeDescriptionlinear_solverOT_STRING User-defined linear solver class. Needed for sensitivities.

linear_solver_options OT_DICT Options to be passed to the linear solver.

psd_num_zero OT_DOUBLE Numerical zero used in Periodic Schur decomposition with slicot. This option is needed when your systems has Floquet multiplierszero or close to zero

Group: general_SlicotDple

List of available options						
Id	Type	Description	Used in			
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal			
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal			
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal			
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal			
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal			
const_dim	OT_BOOL	Assume constant dimension of P	casadi::Dple			
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal			
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal			
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal			
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal			
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal			
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal			
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal			
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal			
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal			
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal			
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal			
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal			
eps_unstable	OT_DOUBLE	A margin for unstability detection	casadi::Dple			
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction			
error_unstable	OT_BOOL	Throw an exception when it is detected that Product(A_i, i=N 1)has eigenvalues greater than 1-eps_unstable	casadi::Dple			
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: $empty$	casadi::FunctionInternal			
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal			
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal			
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal			
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.				
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal			
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense				
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal			
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal			

jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
linear_solver	OT_STRING	User-defined linear solver class. Needed for sensitivities.	casadi::SlicotDple
linear_solver_option	s OT_DICT	Options to be passed to the linear solver.	casadi::SlicotDple
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
pos_def	OT_BOOL	Assume P positive definite	casadi::Dple
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
psd_num_zero	OT_DOUBLE	Numerical zero used in Periodic Schur decomposition with slicot. This option is needed when your systems has Floquet multiplierszero or close to zero	casadi::SlicotDple
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::SnoptInterface

L	ist of available options

	Id	Type	Description	Used in
ad_weight		OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal

ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline bound_consistency	OT_BOOL OT_BOOL	Force inlining. Ensure that primal-dual solution is consistent with the bounds	casadi::FunctionInternal casadi::Nlpsol
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	t casadi::Nlpsol
detect_simple_bounds_is_simpl	e OT_BOOLVECTOR	For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x	OT_INTVECTOR	For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector	casadi::FunctionInternal
		products - typically using reverse mode AD - if available. [default: true]	

(default	true).

		(default true)	
eval_errors_fatal	OT_BOOL	(default true). When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance $% \left(x_{0}\right) =\left(x_{0}\right) +\left(x_{0}\right) =\left(x_{0}\right) +\left(x_{0$	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	. casadi::FunctionInternal

print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	l casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
snopt	OT_DICT	Options to be passed to SNOPT	casadi::SnoptInterface
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
start	OT_STRING	Warm-start options for Worhp: cold warm hot	casadi::SnoptInterface
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	Ccasadi::Nlpsol

Group: plugin_Nlpsol_snopt

List of available options

Id Type Description
snopt OT_DICT Options to be passed to SNOPT

start OT_STRING Warm-start options for Worhp: cold|warm|hot

Group: general_SnoptInterface

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight n<= (1-ad_weight) ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol	

calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the NIpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base	casadi::Nlpsol
common_options	OT_DICT	class Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	t casadi::Nlpsol
detect_simple_bounds_is_simpl	e OT_BOOLVECTOR	For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x		For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal

gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	casadi::Nlpsol
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL		casadi::FunctionInternal
mputs_eneek	01_5001	inputs don't make sense	casaami arrecioniireerriac
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with	casadi::Nlpsol
		the solver as input. Check documentation of Callback.	
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	
, jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates.	
, –		Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function:	casadi::FunctionInternal
		SOURCE link embed.	
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor		Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities	casadi::Nlpsol

		(default 'qr').	
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
snopt	OT_DICT	Options to be passed to SNOPT	casadi::SnoptInterface
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
start	OT_STRING	Warm-start options for Worhp: cold warm hot	casadi::SnoptInterface
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol

class casadi::Sqpmethod

List of available options			
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight) na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
beta	OT_DOUBLE	Line-search parameter, restoration factor of stepsize	casadi::Sqpmethod
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol
c1	OT_DOUBLE	Armijo condition, coefficient of decrease in merit	casadi::Sqpmethod
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam $_{x}$ ' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
convexify_margin	OT_DOUBLE	When using a convexification strategy, make sure that the smallest eigenvalue is at least this (default: 1e-7).	casadi::Sqpmethod
convexify_strategy	OT_STRING	NONE regularize eigen-reflect eigen-clip. Strategy to convexify the Lagrange Hessian before passing it to the solver.	casadi::Sqpmethod
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate	casadi::FunctionInternal

		forward_options, reverse_options, and jacobian_options before those options are merged in.	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	casadi::Nlpsol
detect_simple_bounds_is_simple	OT_BOOLVECTOR	For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x		For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
elastic_mode	OT_BOOL	Enable the elastic mode which is used when the QP is infeasible (default: false).	casadi::Sqpmethod
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance $% \left(x_{0}\right) =\left(x_{0}\right) +\left(x_{0}\right) $	
forward_options	OT_DICT	Options to be passed to a forward mode constructor	
gamma_0	OT_DOUBLE	Starting value for the penalty parameter of elastic mode (default: 1).	casadi::Sqpmethod
gamma_1_min	OT_DOUBLE	Minimum value for gamma_1 (default: 1e-5).	casadi::Sqpmethod
gamma_max	OT_DOUBLE	Maximum value for the penalty parameter of elastic mode (default: 1e20).	casadi::Sqpmethod
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
hess_lag	OT_FUNCTION	Function for calculating the Hessian of the Lagrangian (autogenerated by default)	casadi::Sqpmethod

hessian_approximation	OT_STRING	limited-memory exact	casadi::Sqpmethod
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	casadi::Nlpsol
init_feasible	OT_BOOL	Initialize the QP subproblems with a feasible initial	casadi::Sqpmethod
input_scheme	OT STRINGVECTOR	value (default: false). Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL		casadi::FunctionInternal
•		inputs don't make sense	
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable. A function that will be called at each iteration with	casadi::Functioninternal
iteration_callback	OT_FUNCTION	the solver as input. Check documentation of Callback.	•
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_fg	OT_FUNCTION	Function for calculating the gradient of the objective and Jacobian of the constraints (autogenerated by default)	casadi::Sqpmethod
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
lbfgs_memory	OT_INT	Size of L-BFGS memory.	casadi::Sqpmethod
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_iter	OT_INT	Maximum number of SQP iterations	casadi::Sqpmethod
max_iter_eig	OT_DOUBLE	Maximum number of iterations to compute an eigenvalue decomposition (default: 50).	casadi::Sqpmethod
max_iter_ls	OT_INT	Maximum number of linesearch iterations	casadi::Sqpmethod
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
merit_memory	OT_INT	Size of memory to store history of merit function values	casadi::Sqpmethod
min_iter	OT_INT	Minimum number of SQP iterations	casadi::Sqpmethod
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
min_step_size	OT_DOUBLE	The size (inf-norm) of the step size should not become smaller than this.	casadi::Sqpmethod
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal

post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion Default: empty	. casadi::FunctionInternal
print_header	OT_BOOL	Print the header with problem statistics	casadi::Sqpmethod
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_iteration	OT_BOOL	Print the iterations	casadi::Sqpmethod
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_status	OT_BOOL	Print a status message after solving	casadi::Sqpmethod
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
qpsol	OT_STRING	The QP solver to be used by the SQP method [qpoases]	casadi::Sqpmethod
qpsol_options	OT_DICT	Options to be passed to the QP solver	casadi::Sqpmethod
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi:: Function Internal
second_order_corrections	OT_BOOL	Enable second order corrections. These are used when a step is considered bad by the merit function and constraint norm (default: false).	casadi::Sqpmethod
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
tol_du	OT_DOUBLE	Stopping criterion for dual infeasability	casadi::Sqpmethod
tol_pr	OT_DOUBLE	Stopping criterion for primal infeasibility	casadi::Sqpmethod
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol

Group: plugin_Nlpsol_sqpmethod

Id	Type	Description
beta	OT_DOUBLE	Line-search parameter, restoration factor of stepsize
c1	OT_DOUBLE	Armijo condition, coefficient of decrease in merit
convexify_margin	OT_DOUBLE	When using a convexification strategy, make sure that the smallest eigenvalue is at least this (default: 1e-7).
convexify_strategy	OT_STRING	NONE regularize eigen-reflect eigen-clip. Strategy to convexify the Lagrange Hessian before passing it to the solver.
elastic_mode	OT_BOOL	Enable the elastic mode which is used when the QP is infeasible (default: false).
gamma_0	OT_DOUBLE	Starting value for the penalty parameter of elastic mode (default: 1).
gamma_1_min	OT_DOUBLE	Minimum value for gamma_1 (default: 1e-5).
gamma_max	OT_DOUBLE	Maximum value for the penalty parameter of elastic mode (default: 1e20).
hess_lag	OT_FUNCTION	N Function for calculating the Hessian of the Lagrangian (autogenerated by default)
hessian_approximation	OT_STRING	limited-memory exact
init_feasible	OT_BOOL	Initialize the QP subproblems with a feasible initial value (default: false).
jac_fg	OT_FUNCTION	N Function for calculating the gradient of the objective and Jacobian of the constraints

		(autogenerated by default)
lbfgs_memory	OT_INT	Size of L-BFGS memory.
max_iter	OT_INT	Maximum number of SQP iterations
max_iter_eig	OT_DOUBLE	Maximum number of iterations to compute an eigenvalue decomposition (default: 50).
max_iter_ls	OT_INT	Maximum number of linesearch iterations
merit_memory	OT_INT	Size of memory to store history of merit function values
min_iter	OT_INT	Minimum number of SQP iterations
min_step_size	OT_DOUBLE	The size (inf-norm) of the step size should not become smaller than this.
print_header	OT_BOOL	Print the header with problem statistics
print_iteration	OT_BOOL	Print the iterations
print_status	OT_BOOL	Print a status message after solving
qpsol	OT_STRING	The QP solver to be used by the SQP method [qpoases]
qpsol_options	OT_DICT	Options to be passed to the QP solver
second_order_corrections	s OT_BOOL	Enable second order corrections. These are used when a step is considered bad by the merit function and constraint norm (default: false).
tol_du	OT_DOUBLE	Stopping criterion for dual infeasability
tol_pr	OT_DOUBLE	Stopping criterion for primal infeasibility

Group: general_Sqpmethod

List of available options			
Id	Type	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
beta	OT_DOUBLE	Line-search parameter, restoration factor of stepsize	
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol
c1	OT_DOUBLE	Armijo condition, coefficient of decrease in merit	casadi::Sqpmethod
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
convexify_margin	OT_DOUBLE	When using a convexification strategy, make sure that the smallest eigenvalue is at least this (default: 1e-7).	casadi::Sqpmethod
convexify_strategy	OT_STRING	NONE regularize eigen-reflect eigen-clip. Strategy to convexify the Lagrange Hessian before passing it to the solver.	casadi::Sqpmethod
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax	casadi::FunctionInternal

		may break often.	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	t casadi::Nlpsol
detect_simple_bounds_is_simpl	e OT_BOOLVECTOR	For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x	OT_INTVECTOR	For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
elastic_mode	OT_BOOL	Enable the elastic mode which is used when the QP is infeasible (default: false).	casadi::Sqpmethod
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gamma_0	OT_DOUBLE	Starting value for the penalty parameter of elastic mode (default: 1).	casadi::Sqpmethod
gamma_1_min	OT_DOUBLE	Minimum value for gamma_1 (default: 1e-5).	casadi::Sqpmethod
gamma_max	OT_DOUBLE	Maximum value for the penalty parameter of elastic mode (default: 1e20).	casadi::Sqpmethod
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal

hess_lag	OT_FUNCTION	Function for calculating the Hessian of the Lagrangian (autogenerated by default)	casadi::Sqpmethod
hessian_approximation	OT_STRING	limited-memory exact	casadi::Sqpmethod
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	. casadi::Nlpsol
init_feasible	OT_BOOL	Initialize the QP subproblems with a feasible initial value (default: false).	casadi::Sqpmethod
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_fg	OT_FUNCTION	Function for calculating the gradient of the objective and Jacobian of the constraints (autogenerated by default)	casadi::Sqpmethod
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less	casadi::FunctionInternal
		likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
, – , jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
lbfgs_memory	OT_INT	Size of L-BFGS memory.	casadi::Sqpmethod
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_iter	OT_INT	Maximum number of SQP iterations	casadi::Sqpmethod
max_iter_eig	OT_DOUBLE	Maximum number of iterations to compute an eigenvalue decomposition (default: 50).	casadi::Sqpmethod
max_iter_ls	OT_INT	Maximum number of linesearch iterations	casadi::Sqpmethod
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
merit_memory	OT_INT	Size of memory to store history of merit function values	casadi::Sqpmethod
min_iter	OT_INT	Minimum number of SQP iterations	casadi::Sqpmethod
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
min_step_size	OT_DOUBLE	The size (inf-norm) of the step size should not become smaller than this.	casadi::Sqpmethod
monitor		Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol

oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion Default: empty	. casadi::FunctionInternal
print_header	OT_BOOL	Print the header with problem statistics	casadi::Sqpmethod
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_iteration	OT_BOOL	Print the iterations	casadi::Sqpmethod
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_status	OT_BOOL	Print a status message after solving	casadi::Sqpmethod
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
qpsol	OT_STRING	The QP solver to be used by the SQP method [qpoases]	casadi::Sqpmethod
qpsol_options	OT_DICT	Options to be passed to the QP solver	casadi::Sqpmethod
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	l casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
second_order_corrections	OT_BOOL	Enable second order corrections. These are used when a step is considered bad by the merit function and constraint norm (default: false).	casadi::Sqpmethod
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
tol_du	OT_DOUBLE	Stopping criterion for dual infeasability	casadi::Sqpmethod
tol_pr	OT_DOUBLE	Stopping criterion for primal infeasibility	casadi::Sqpmethod
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol

class casadi::SundialsInterface

List of available options			
Id	Type	Description	Used in
abstol	OT_DOUBLE	Absolute tolerence for the IVP solution	casadi::SundialsInterface
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option	casadi::FunctionInternal

		\"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
augmented_options	OT_DICT	Options to be passed down to the augmented integrator, if one is constructed.	casadi::Integrator
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
disable_internal_warnings	OT_BOOL	Disable SUNDIALS internal warning messages	casadi::SundialsInterface
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the	casadi::FunctionInternal
	_	directory exists [.]	
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::Integrator
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
fsens_err_con	OT_BOOL	include the forward sensitivities in all error controls	casadi::SundialsInterface
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
arid	OT DOUBLEVECTOR	collected. ! [DEPRECATED] Time grid	cacadiulptogrator
grid			casadi::Integrator casadi::FunctionInternal
input_scheme		Deprecated option (ignored)	
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	
interpolation_type	OT_STRING	Type of interpolation for the adjoint sensitivities	casadi::SundialsInterface
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high	casadi::FunctionInternal

		value of 'jac_penalty' makes it less likely for the heurstic to)
		chose the full Jacobian strategy. The special value -1	
insohinn ontions	OT DICT	indicates never to use the full Jacobian strategy	as and in Franchical Internal
jacobian_options	OT_DICT OT_BOOL	Options to be passed to a Jacobian constructor	casadi::FunctionInternal casadi::FunctionInternal
jit jit_cleanup	OT_BOOL	Use just-in-time compiler to speed up the evaluation Cleanup up the temporary source file that jit creates.	casadi::FunctionInternal
Jit_cteanup	O1_BOOL	Default: true	casadii difetioriiiterilat
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
linear_solver	OT_STRING	A custom linear solver creator function [default: qr]	casadi::SundialsInterface
linear_solver_options	OT_DICT	Options to be passed to the linear solver	casadi::SundialsInterface
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_krylov	OT_INT	Maximum Krylov subspace size	casadi::SundialsInterface
max_multistep_order	OT_INT	Maximum order for the (variable-order) multistep method	casadi::SundialsInterface
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
max_num_steps	OT_INT	Maximum number of integrator steps	casadi::SundialsInterface
max_order	OT_DOUBLE	Maximum order	casadi::SundialsInterface
max_step_size	OT_DOUBLE	Max step size [default: 0/inf]	casadi::SundialsInterface
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
nadj	OT_INT	Number of adjoint sensitivities to be calculated [0]	casadi::Integrator
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
newton_scheme	OT_STRING	Linear solver scheme in the Newton method: DIRECT gmres bcgstab tfqmr	casadi::SundialsInterface
nfwd	OT_INT	Number of forward sensitivities to be calculated [0]	casadi::Integrator
nonlin_conv_coeff	OT_DOUBLE	Coefficient in the nonlinear convergence test	casadi::SundialsInterface
number_of_finite_element	s OT_INT	Target number of finite elements. The actual number may be higher to accommodate all output times	casadi::Integrator
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
output_t0	OT_BOOL	[DEPRECATED] Output the state at the initial time	casadi::Integrator
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_stats	OT_BOOL	Print out statistics after integration	casadi::Integrator
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
quad_err_con	OT_BOOL	Should the quadratures affect the step size control	casadi::SundialsInterface
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reltol	OT_DOUBLE	Relative tolerence for the IVP solution	casadi::SundialsInterface
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
rootfinder	OT_STRING	An implicit function solver	casadi::Integrator
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver	casadi::Integrator
scale_abstol	OT_BOOL	Scale absolute tolerance by nominal value	casadi::SundialsInterface
second_order_correction	OT_BOOL	Second order correction in the augmented system Jacobian [true]	casadi::SundialsInterface
sensitivity_method	OT_STRING	Sensitivity method: SIMULTANEOUS staggered	casadi::SundialsInterface

show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
simplify	OT_BOOL	Implement as MX Function (codegeneratable/serializable) default: false	casadi::Integrator
simplify_options	OT_DICT	Any options to pass to simplified form Function constructor	casadi::Integrator
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
step0	OT_DOUBLE	initial step size [default: 0/estimated]	casadi::SundialsInterface
steps_per_checkpoint	OT_INT	Number of steps between two consecutive checkpoints	casadi::SundialsInterface
stop_at_end	OT_BOOL	[DEPRECATED] Stop the integrator at the end of the interval	casadi::SundialsInterface
t0	OT_DOUBLE	[DEPRECATED] Beginning of the time horizon	casadi::Integrator
tf	OT_DOUBLE	[DEPRECATED] End of the time horizon	casadi::Integrator
use_preconditioner	OT_BOOL	Precondition the iterative solver [default: true]	casadi::SundialsInterface
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

${\bf Group: general_SundialsInterface}$

List of available options			
Id	Type	Description	Used in
abstol	OT_DOUBLE	Absolute tolerence for the IVP solution	casadi::SundialsInterface
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
augmented_options	OT_DICT	Options to be passed down to the augmented integrator, if one is constructed.	casadi::Integrator
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
disable_internal_warnings	OT_BOOL	Disable SUNDIALS internal warning messages	casadi::SundialsInterface
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal

dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::Integrator
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to the finite directine instance	casadi::FunctionInternal
·	OT_BOOL	include the forward sensitivities in all error controls	casadi::SundialsInterface
fsens_err_con			
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
grid		R [DEPRECATED] Time grid	casadi::Integrator
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
interpolation_type	OT_STRING	Type of interpolation for the adjoint sensitivities	casadi::SundialsInterface
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
linear_solver	OT_STRING	A custom linear solver creator function [default: qr]	casadi::SundialsInterface
linear_solver_options	OT_DICT	Options to be passed to the linear solver	casadi::SundialsInterface
·	OT_INT	Acceptable number of inputs and outputs. Warn if	casadi::FunctionInternal
max_io		exceeded.	
max_krylov	OT_INT	Maximum Krylov subspace size	casadi::SundialsInterface
max_multistep_order 	OT_INT	Maximum order for the (variable-order) multistep method	
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadı::FunctionInternal

may num stons	OT_INT	Maximum number of integrator stans	casadi::SundialsInterface
max_num_steps max_order	OT_DOUBLE	Maximum number of integrator steps Maximum order	casadi::SundialsInterface
max_step_size	OT_DOUBLE	Max step size [default: 0/inf]	casadi::SundialsInterface
monitor		Set of user problem functions to be monitored	casadi::OracleFunction
nadj	OT_INT	Number of adjoint sensitivities to be calculated [0]	casadi::Integrator
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
newton_scheme	OT_STRING	Linear solver scheme in the Newton method: DIRECT	casadi::SundialsInterface
		gmres bcgstab tfqmr	
nfwd	OT_INT	Number of forward sensitivities to be calculated [0]	casadi::Integrator
nonlin_conv_coeff	OT_DOUBLE	Coefficient in the nonlinear convergence test	casadi::SundialsInterface
number_of_finite_element	ts O I_IN I	Target number of finite elements. The actual number may be higher to accommodate all output times	casadi::Integrator
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
output_t0	OT_BOOL	[DEPRECATED] Output the state at the initial time	casadi::Integrator
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_stats	OT_BOOL	Print out statistics after integration	casadi::Integrator
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
quad_err_con	OT_BOOL	Should the quadratures affect the step size control	casadi::SundialsInterface
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reltol	OT_DOUBLE	Relative tolerence for the IVP solution	casadi::SundialsInterface
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
rootfinder	OT_STRING	An implicit function solver	casadi::Integrator
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver	casadi::Integrator
scale_abstol	OT_BOOL	Scale absolute tolerance by nominal value	casadi::SundialsInterface
second_order_correction	OT_BOOL	Second order correction in the augmented system Jacobian [true]	casadi::SundialsInterface
sensitivity_method	OT_STRING	Sensitivity method: SIMULTANEOUS staggered	casadi::SundialsInterface
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations	casadi::OracleFunction
		[true]	
simplify	OT_BOOL	Implement as MX Function (codegeneratable/serializable) default: false	casadi::Integrator
simplify_options	OT_DICT	Any options to pass to simplified form Function constructor	casadi::Integrator
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
step0	OT_DOUBLE	initial step size [default: 0/estimated]	casadi::SundialsInterface
steps_per_checkpoint	OT_INT	Number of steps between two consecutive checkpoints	casadi::SundialsInterface
stop_at_end	OT_BOOL	[DEPRECATED] Stop the integrator at the end of the interval	casadi::SundialsInterface
t0	OT_DOUBLE	[DEPRECATED] Beginning of the time horizon	casadi::Integrator
tf	OT_DOUBLE	[DEPRECATED] End of the time horizon	casadi::Integrator
use_preconditioner	OT_BOOL	Precondition the iterative solver [default: true]	casadi::SundialsInterface
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::SuperscsInterface

List of	avai	labl	e options

Id	Ty	rpe D	Description	Used	in

ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less	casadi::FunctionInternal

		likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
superscs	OT_DICT	Options to be passed to superscs.	casadi::SuperscsInterface
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Conic_superscs

List of available options

IdTypeDescriptionsuperscs OT_DICT Options to be passed to superscs.

Group: general_SuperscsInterface

List of available options Used in Type Description ad_weight OT_DOUBLE Weighting factor for derivative calculation. When there is an casadi::FunctionInternal option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics. ad_weight_sp OT_DOUBLE Weighting factor for sparsity pattern calculation casadi::FunctionInternal calculation. Overrides default behavior. Set to 0 and 1 to force

		forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Conic
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense $ \\$	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal

jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_problem	OT_BOOL	Print a numeric description of the problem	casadi::Conic
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
superscs	OT_DICT	Options to be passed to superscs.	casadi::SuperscsInterface
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::SymbolicQr

List of available options				
Id	Type	Description	Used in	
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.		
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal	
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal	
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal	
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal	
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal	
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal	
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal	
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal	
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal	

dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
fopts	OT_DICT	Options to be passed to generated function objects	casadi::SymbolicQr
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option		Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in · · · ·	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal

user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or	casadi::FunctionInternal
		pass additional information	
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Linsol_symbolicqr

List of available options

Id Type Description

fopts OT_DICT Options to be passed to generated function objects

Group: general_SymbolicQr

List of available opt			
Id	Туре	Description	Used in
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight nf<=(1-ad_weight)na is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction

external_transform	OT_VECTORVECTOR	RList of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
fopts	OT_DICT	Options to be passed to generated function objects	casadi::SymbolicQr
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
input_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	casadi::FunctionInternal
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
output_scheme	OT_STRINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_option	s OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats()	. casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or	casadi::FunctionInternal
	O1_VOIDFTK	pass additional information	casadi anctioninternat

class casadi::WorhpInterface

List of available options

	ld	Туре	Description	Used in
ad_weight		OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight n<=(1-ad_weight) ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default.	casadi::FunctionInternal

	OT DOUBLE	ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is	casadi::FunctionInternal
		completely ignored and dense matrices are used.	
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol
cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	t casadi::Nlpsol
detect_simple_bounds_is_simpl	e OT_BOOLVECTOR	For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x	OT_INTVECTOR	For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated	casadi::FunctionInternal

		functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal
fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	casadi::FunctionInternal
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now always collected.	casadi::FunctionInternal
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	casadi::Nlpsol
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	Indicate for each input if it should be differentiable.	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with	casadi::Nlpsol
		the solver as input. Check documentation of Callback.	•
iteration_callback_ignore_errors		If set to true, errors thrown by iteration_callback will be ignored.	·
iteration_callback_step jac_penalty	OT_INT OT_DOUBLE	Only call the callback function every few iterations. When requested for a number of forward/reverse	casadi::Nlpsol casadi::FunctionInternal
		directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	
jacobian_options	OT_DICT	Options to be passed to a Jacobian constructor	casadi::FunctionInternal
jit	OT_BOOL	Use just-in-time compiler to speed up the evaluation	casadi::FunctionInternal
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	casadi::FunctionInternal
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor		Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_BOOL OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
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output_scheme	OI_SIKINGVECTOR	Deprecated option (ignored)	casadi::FunctionInternal

post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	. casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction
reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol
worhp	OT_DICT	Options to be passed to WORHP	casadi::WorhpInterface

Group: plugin_Nlpsol_worhp

List of available options

Id Type Description

worhp OT_DICT Options to be passed to WORHP

Group: general_WorhpInterface

List of available options					
Id	Type	Description	Used in		
ad_weight	OT_DOUBLE	Weighting factor for derivative calculation. When there is an option of either using forward or reverse mode directional derivatives, the condition ad_weight n<= (1-ad_weight) ha is used where nf and na are estimates of the number of forward/reverse mode directional derivatives needed. By default, ad_weight is calculated automatically, but this can be overridden by setting this option. In particular, 0 means forcing forward mode and 1 forcing reverse mode. Leave unset for (class specific) heuristics.	casadi::FunctionInternal		
ad_weight_sp	OT_DOUBLE	Weighting factor for sparsity pattern calculation calculation. Overrides default behavior. Set to 0 and 1 to force forward and reverse mode respectively. Cf. option \"ad_weight\". When set to -1, sparsity is completely ignored and dense matrices are used.	casadi::FunctionInternal		
always_inline	OT_BOOL	Force inlining.	casadi::FunctionInternal		
bound_consistency	OT_BOOL	Ensure that primal-dual solution is consistent with the bounds	casadi::Nlpsol		

cache	OT_DICT	Prepopulate the function cache. Default: empty	casadi::FunctionInternal
calc_f	OT_BOOL	Calculate 'f' in the Nlpsol base class	casadi::Nlpsol
calc_g	OT_BOOL	Calculate 'g' in the Nlpsol base class	casadi::Nlpsol
calc_lam_p	OT_BOOL	Calculate 'lam_p' in the Nlpsol base class	casadi::Nlpsol
calc_lam_x	OT_BOOL	Calculate 'lam_x' in the Nlpsol base class	casadi::Nlpsol
calc_multipliers	OT_BOOL	Calculate Lagrange multipliers in the Nlpsol base class	casadi::Nlpsol
common_options	OT_DICT	Options for auto-generated functions	casadi::OracleFunction
compiler	OT_STRING	Just-in-time compiler plugin to be used.	casadi::FunctionInternal
custom_jacobian	OT_FUNCTION	Override CasADi's AD. Use together with 'jac_penalty': 0. Note: Highly experimental. Syntax may break often.	casadi::FunctionInternal
der_options	OT_DICT	Default options to be used to populate forward_options, reverse_options, and jacobian_options before those options are merged in.	casadi::FunctionInternal
derivative_of	OT_FUNCTION	The function is a derivative of another function. The type of derivative (directional derivative, Jacobian) is inferred from the function name.	casadi::FunctionInternal
detect_simple_bounds	OT_BOOL	Automatically detect simple bounds (lbx/ubx) (default false). This is hopefully beneficial to speed and robustness but may also have adverse affects: 1) Subtleties in heuristics and stopping criteria may change the solution, 2) IPOPT may lie about multipliers of simple equality bounds unless 'fixed_variable_treatment' is set to 'relax_bounds'.	t casadi::Nlpsol
detect_simple_bounds_is_simpl		For internal use only.	casadi::Nlpsol
detect_simple_bounds_parts	OT_FUNCTION	For internal use only.	casadi::Nlpsol
detect_simple_bounds_target_x		For internal use only.	casadi::Nlpsol
discrete	OT_BOOLVECTOR	Indicates which of the variables are discrete, i.e. integer-valued	casadi::Nlpsol
dump	OT_BOOL	Dump function to file upon first evaluation. [false]	casadi::FunctionInternal
dump_dir	OT_STRING	Directory to dump inputs/outputs to. Make sure the directory exists [.]	casadi::FunctionInternal
dump_format	OT_STRING	Choose file format to dump matrices. See DM.from_file [mtx]	casadi::FunctionInternal
dump_in	OT_BOOL	Dump numerical values of inputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
dump_out	OT_BOOL	Dump numerical values of outputs to file (readable with DM.from_file) [default: false]	casadi::FunctionInternal
enable_fd	OT_BOOL	Enable derivative calculation by finite differencing. [default: false]]	casadi::FunctionInternal
enable_forward	OT_BOOL	Enable derivative calculation using generated functions for Jacobian-times-vector products - typically using forward mode AD - if available. [default: true]	casadi::FunctionInternal
enable_jacobian	OT_BOOL	Enable derivative calculation using generated functions for Jacobians of all differentiable outputs with respect to all differentiable inputs - if available. [default: true]	casadi::FunctionInternal
enable_reverse	OT_BOOL	Enable derivative calculation using generated functions for transposed Jacobian-times-vector products - typically using reverse mode AD - if available. [default: true]	casadi::FunctionInternal
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
eval_errors_fatal	OT_BOOL	When errors occur during evaluation of f,g,,stop the iterations	casadi::Nlpsol
expand	OT_BOOL	Replace MX with SX expressions in problem formulation [false]	casadi::OracleFunction
external_transform	OT_VECTORVECTOR	R List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
fd_method	OT_STRING	Method for finite differencing [default 'central']	casadi::FunctionInternal

fd_options	OT_DICT	Options to be passed to the finite difference instance	casadi::FunctionInternal
forward_options	OT_DICT	Options to be passed to a forward mode constructor	
gather_stats	OT_BOOL	Deprecated option (ignored): Statistics are now	casadi::FunctionInternal
		always collected.	
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	•
input_scheme		Deprecated option (ignored)	casadi::FunctionInternal
inputs_check	OT_BOOL	Throw exceptions when the numerical values of the inputs don't make sense	casadi::FunctionInternal
is_diff_in	OT_BOOLVECTOR	•	casadi::FunctionInternal
is_diff_out	OT_BOOLVECTOR	Indicate for each output if it should be differentiable.	
iteration_callback	OT_FUNCTION	A function that will be called at each iteration with the solver as input. Check documentation of Callback.	casadi::Nlpsol
iteration_callback_ignore_errors	OT_BOOL	If set to true, errors thrown by iteration_callback will be ignored.	casadi::Nlpsol
iteration_callback_step	OT_INT	Only call the callback function every few iterations.	casadi::Nlpsol
jac_penalty	OT_DOUBLE	When requested for a number of forward/reverse directions, it may be cheaper to compute first the full jacobian and then multiply with seeds, rather than obtain the requested directions in a straightforward manner. Casadi uses a heuristic to decide which is cheaper. A high value of 'jac_penalty' makes it less likely for the heurstic to chose the full Jacobian strategy. The special value -1 indicates never to use the full Jacobian strategy	casadi::FunctionInternal
jacobian_options	OT_DICT	- F	casadi::FunctionInternal
jit 	OT_BOOL	Use just-in-time compiler to speed up the evaluation	
jit_cleanup	OT_BOOL	Cleanup up the temporary source file that jit creates. Default: true	
jit_name	OT_STRING	The file name used to write out code. The actual file names used depend on 'jit_temp_suffix' and include extensions. Default: 'jit_tmp'	casadi::FunctionInternal
jit_options	OT_DICT	Options to be passed to the jit compiler.	casadi::FunctionInternal
jit_serialize	OT_STRING	Specify behaviour when serializing a jitted function: SOURCE link embed.	casadi::FunctionInternal
jit_temp_suffix	OT_BOOL	Use a temporary (seemingly random) filename suffix for generated code and libraries. This is desired for thread-safety. This behaviour may defeat caching compiler wrappers. Default: true	casadi::FunctionInternal
max_io	OT_INT	Acceptable number of inputs and outputs. Warn if exceeded.	casadi::FunctionInternal
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
min_lam	OT_DOUBLE	Minimum allowed multiplier value	casadi::Nlpsol
monitor	OT_STRINGVECTOR	Set of user problem functions to be monitored	casadi::OracleFunction
never_inline	OT_BOOL	Forbid inlining.	casadi::FunctionInternal
no_nlp_grad	OT_BOOL	Prevent the creation of the 'nlp_grad' function	casadi::Nlpsol
oracle_options	OT_DICT	Options to be passed to the oracle function	casadi::Nlpsol
output_scheme		Deprecated option (ignored)	casadi::FunctionInternal
post_expand	OT_BOOL	After construction, expand this Function. Default: False	casadi::FunctionInternal
post_expand_options	OT_DICT	Options to be passed to post-construction expansion. Default: empty	casadi::FunctionInternal
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_out	OT_BOOL	Print numerical values of outputs [default: false]	casadi::FunctionInternal
print_time	OT_BOOL	print information about execution time. Implies record_time.	casadi::ProtoFunction
record_time	OT_BOOL	record information about execution time, for retrieval with stats().	casadi::ProtoFunction
regularity_check	OT_BOOL	Throw exceptions when NaN or Inf appears during evaluation	casadi::ProtoFunction

reverse_options	OT_DICT	Options to be passed to a reverse mode constructor	casadi::FunctionInternal
sens_linsol	OT_STRING	Linear solver used for parametric sensitivities (default 'qr').	casadi::Nlpsol
sens_linsol_options	OT_DICT	Linear solver options used for parametric sensitivities.	casadi::Nlpsol
show_eval_warnings	OT_BOOL	Show warnings generated from function evaluations [true]	casadi::OracleFunction
specific_options	OT_DICT	Options for specific auto-generated functions, overwriting the defaults from common_options. Nested dictionary.	casadi::OracleFunction
user_data	OT_VOIDPTR	A user-defined field that can be used to identify the function or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction
verbose_init	OT_BOOL	Print out timing information about the different stages of initialization	casadi::Nlpsol
warn_initial_bounds	OT_BOOL	Warn if the initial guess does not satisfy LBX and UBX	casadi::Nlpsol
worhp	OT_DICT	Options to be passed to WORHP	casadi::WorhpInterface