class casadi::AlpaqaInterface

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
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'.	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 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 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

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'.	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 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.	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	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::AmplInterface

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 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

		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	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	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
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

Group: plugin_Nlpsol_AmplInterface

List of available options

Id	Type	Description
solver	OT_STRING	AMPL solver binary

Group: general_AmplInterface

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 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	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	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

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	casadi::FunctionInternal

		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
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	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	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::BSplineInterpolant
linear_solver_options	OT_DICT	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_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
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.	casadi::BSplineInterpolant
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_bspline

List of available options

Id	Type	Description
algorithm	OT_STRING	Algorithm used for fitting the data: 'not_a_knot' (default, same as Matlab), 'smooth_linear'.
degree	OT_INTVECTOR	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 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
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	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	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
linear_solver	OT_STRING	Solver used for constructing the coefficient tensor.	casadi::BSplineInterpolant
linear_solver_options	OT_DICT	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_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
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.	casadi::BSplineInterpolant
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::Blocksqp

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
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'.	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 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	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	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
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	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 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

Group: plugin_Nlpsol_blocksqp

List of available options

Id	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_DOUBLE	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_DOUBLE	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)
kappa_f	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper
kappa_minus	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	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper
linsol	OT_STRING	The linear solver to be used by the QP method
max_consec_reduced_steps	OT_INT	Maximum number of consecutive 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_iter	OT_INT	Maximum number of SQP iterations
max_line_search	OT_INT	Maximum number of steps in line search
max_soc_iter	OT_INT	Maximum 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
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
restore_feas	OT_BOOL	Use feasibility restoration phase
rho	OT_DOUBLE	Feasibility restoration phase parameter
s_f	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper
s_theta	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper
schur	OT_BOOL	Use qpOASES Schur compliment approach
skip_first_globalization	OT_BOOL	No globalization strategy in first iteration
theta_max	OT_DOUBLE	Filter line search parameter, cf. IPOPT paper
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

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	casadi::FunctionInternal

		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
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'.	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 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	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
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	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 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.	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	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	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': 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	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	casadi::FunctionInternal

		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).	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	casadi::FunctionInternal

		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	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().	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

Id	Type	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_constraints	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	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

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
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': 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	casadi::Nlpsol

		'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
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.	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
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().	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

class casadi::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.	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
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]	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
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

		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
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
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

Group: plugin_Conic_cbc

List of available 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.	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
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]	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.	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	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 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_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

class casadi::ClangCompiler

List of available options

Id	Type	Description	Used in
flags	OT_STRINGVECTOR	Compile flags for the JIT compiler. Default: None	casadi::ClangCompiler
include_path	OT_STRING	Include paths for the JIT compiler. The include directory shipped with CasADi will be automatically appended.	casadi::ClangCompiler
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

Id	Type	Description	Used in
flags	OT_STRINGVECTOR	Compile flags for the JIT compiler. Default: None	casadi::ClangCompiler
include_path	OT_STRING	Include paths for the JIT compiler. The include directory shipped with CasADi will be automatically appended.	casadi::ClangCompiler
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ImporterInternal

class casadi::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.	casadi::FunctionInternal
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
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_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.	casadi::FunctionInternal
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
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_options	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

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.	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	casadi::FunctionInternal

		(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]	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	[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	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	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]	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_elements	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::ImplicitFixedStepIntegrator
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver	casadi::ImplicitFixedStepIntegrator
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

Group: plugin_Integrator_collocation

List of available options

Id	Type	Description
collocation_scheme	OT_STRING	Collocation scheme: radau|legendre
interpolation_order	OT_INT	Order of the interpolating polynomials
number_of_finite_elements	OT_INT	Target number of finite elements. The actual number may be higher to accommodate all output times
rootfinder	OT_STRING	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

simplify_options	OT_DICT	Any options to pass to simplified form Function constructor

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.	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
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 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	[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	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_elements	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::ImplicitFixedStepIntegrator
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver	casadi::ImplicitFixedStepIntegrator
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::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.	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	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_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.	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	casadi::FunctionInternal

		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
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_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

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.	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 [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
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]	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
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_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
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	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.	casadi::CplexInterface
warm_start	OT_BOOL	Use warm start with simplex methods (affects only the simplex methods).	casadi::CplexInterface

Group: plugin_Conic_cplex

List of available options

Id	Type	Description
cplex	OT_DICT	Options to be passed to CPLEX
dep_check	OT_INT	Detect redundant constraints.
dump_filename	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_DOUBLEVECTORVECTOR	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.
warm_start	OT_BOOL	Use warm start with simplex methods (affects only the simplex methods).

Group: general_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.	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]	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
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_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
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	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.	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.	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
always_recalculate_jacobian	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	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_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	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,	casadi::OracleFunction

		overwriting the defaults from common_options. Nested dictionary.	
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

Group: plugin_Integrator_cvodes

List of available options

Id	Type	Description
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
fsens_err_con	OT_BOOL	include the forward sensitivities in all error controls
interpolation_type	OT_STRING	Type of interpolation for the adjoint sensitivities
linear_multistep_method	OT_STRING	Integrator scheme: BDF|adams
linear_solver	OT_STRING	A custom linear solver creator function [default: qr]
linear_solver_options	OT_DICT	Options to be passed to the linear solver
max_krylov	OT_INT	Maximum Krylov subspace size
max_multistep_order	OT_INT	Maximum order for the (variable-order) multistep method
max_num_steps	OT_INT	Maximum number of integrator steps
max_order	OT_DOUBLE	Maximum order
max_step_size	OT_DOUBLE	Max step size [default: 0/inf]
min_step_size	OT_DOUBLE	Min step size [default: 0/0.0]
newton_scheme	OT_STRING	Linear solver scheme in the Newton method: DIRECT|gmres|bcgstab|tfqmr
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
reltol	OT_DOUBLE	Relative tolerence for the IVP solution
scale_abstol	OT_BOOL	Scale absolute tolerance by nominal value
second_order_correction	OT_BOOL	Second order correction in the augmented system Jacobian [true]
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 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	casadi::FunctionInternal

		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_jacobian	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 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	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 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	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::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.	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,	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	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
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_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_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.	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	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	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
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_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

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: 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	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_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_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: 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
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_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

class casadi::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.	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	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
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	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_options	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_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
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.	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	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	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_options	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_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
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::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.	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	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, 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|	casadi::FunctionInternal
		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
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
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_fatrop

List of available options

Id	Type	Description
N	OT_INT	OCP horizon
fatrop	OT_DICT	Options to be passed to fatrop
ng	OT_INTVECTOR	Number of non-dynamic constraints, length N+1
nu	OT_INTVECTOR	Number of controls, length N
nx	OT_INTVECTOR	Number of states, length N+1

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.	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	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, 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|	casadi::FunctionInternal
		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
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
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

class casadi::Feasiblesqpmethod

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
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	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'.	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 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 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 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	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::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::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	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

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	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_value	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	OT_DOUBLEVECTOR	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.

Group: general_Feasiblesqpmethod

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
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	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'.	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 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 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.	
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	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::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::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	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
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	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

class casadi::FiniteDiff

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 nf and na are estimates of the number of forward/ reverse mode directional derivatives needed. By default,	casadi::FunctionInternal

		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	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	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	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_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	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

class casadi::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)*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.	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	[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_elements	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::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

Group: general_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)*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.	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	[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_elements	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::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	casadi::FixedStepIntegrator

		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.	casadi::FunctionInternal
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]	
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'	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
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	OT_STRINGVECTOR	Names of the inputs in the scheme	casadi::FmuFunction
scheme_out	OT_STRINGVECTOR	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	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	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::Function

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	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	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::GurobiInterface

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
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
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 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
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

Id	Type	Description
gurobi	OT_DICT	Options to be passed to gurobi.
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.
vtype	OT_STRINGVECTOR	Type of variables: [CONTINUOUS|binary|integer|semicont|semiint]

Group: general_GurobiInterface

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
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
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	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_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

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 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]	
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
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_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_highs

List of available options

Id	Type	Description
highs	OT_DICT	Options to be passed to HiGHS.

Group: general_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 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	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	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
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::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

		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	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
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	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::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	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_hpipm

List of available options

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

Group: general_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 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	casadi::FunctionInternal

		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	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
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	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::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	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 matrices are used.	casadi::FunctionInternal
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

		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
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
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	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	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_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_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

Id	Type	Description
N	OT_INT	OCP horizon
blasfeo_target	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_INTVECTOR	Number of non-dynamic constraints, length N+1
nu	OT_INTVECTOR	Number of controls, length N
nx	OT_INTVECTOR	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

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	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
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	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
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	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	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_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_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

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_DOUBLEVECTOR	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)*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.	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::IdasInterface
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::IdasInterface
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
first_time	OT_DOUBLE	First requested time as a fraction of the time interval	casadi::IdasInterface
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	[DEPRECATED] Time grid	casadi::Integrator
init_xdot	OT_DOUBLEVECTOR	Initial values for the state derivatives	casadi::IdasInterface
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 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::IdasInterface
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_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	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::IdasInterface
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

List of available options

Id	Type	Description
abstol	OT_DOUBLE	Absolute tolerence for the IVP solution
abstolv	OT_DOUBLEVECTOR	Absolute tolerarance for each component
calc_ic	OT_BOOL	Use IDACalcIC to get consistent initial conditions.
calc_icB	OT_BOOL	Use IDACalcIC to get consistent initial conditions for backwards system [default: equal to calc_ic].
cj_scaling	OT_BOOL	IDAS scaling on cj for the user-defined linear solver module
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.
disable_internal_warnings	OT_BOOL	Disable SUNDIALS internal warning messages
first_time	OT_DOUBLE	First requested time as a fraction of the time interval
fsens_err_con	OT_BOOL	include the forward sensitivities in all error controls
init_xdot	OT_DOUBLEVECTOR	Initial values for the state derivatives
interpolation_type	OT_STRING	Type of interpolation for the adjoint sensitivities
linear_solver	OT_STRING	A custom linear solver creator function [default: qr]
linear_solver_options	OT_DICT	Options to be passed to the linear solver
max_krylov	OT_INT	Maximum Krylov subspace size
max_multistep_order	OT_INT	Maximum order for the (variable-order) multistep method
max_num_steps	OT_INT	Maximum number of integrator steps
max_order	OT_DOUBLE	Maximum order
max_step_size	OT_DOUBLE	Maximim step size
newton_scheme	OT_STRING	Linear solver scheme in the Newton method: DIRECT|gmres|bcgstab|tfqmr
nonlin_conv_coeff	OT_DOUBLE	Coefficient in the nonlinear convergence test
quad_err_con	OT_BOOL	Should the quadratures affect the step size control
reltol	OT_DOUBLE	Relative tolerence for the IVP solution
scale_abstol	OT_BOOL	Scale absolute tolerance by nominal value
second_order_correction	OT_BOOL	Second order correction in the augmented system Jacobian [true]
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

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	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)*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.	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::IdasInterface
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::IdasInterface
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	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::IdasInterface
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	[DEPRECATED] Time grid	casadi::Integrator
init_xdot	OT_DOUBLEVECTOR	Initial values for the state derivatives	casadi::IdasInterface
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 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
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::IdasInterface
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_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	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::IdasInterface
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::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-*	casadi::FunctionInternal

		*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
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	[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_elements	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	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::ImplicitFixedStepIntegrator
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver	casadi::ImplicitFixedStepIntegrator
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

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)*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.	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	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
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	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_elements	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::ImplicitFixedStepIntegrator
rootfinder_options	OT_DICT	Options to be passed to the NLP Solver	casadi::ImplicitFixedStepIntegrator
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

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	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	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_options	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
nlpsol	OT_STRING	Name of solver.	casadi::ImplicitToNlp
nlpsol_options	OT_DICT	Options to be passed to solver.	casadi::ImplicitToNlp
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
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_nlp

List of available options

Id	Type	Description
nlpsol	OT_STRING	Name of solver.
nlpsol_options	OT_DICT	Options 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	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	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_options	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
nlpsol	OT_STRING	Name of solver.	casadi::ImplicitToNlp
nlpsol_options	OT_DICT	Options to be passed to solver.	casadi::ImplicitToNlp
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
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::ImporterInternal

List of available options

Id	Type	Description	Used in
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ImporterInternal

Group: general_ImporterInternal

List of available options

Id	Type	Description	Used in
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ImporterInternal

class casadi::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.	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	[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_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
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
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.	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.	casadi::FunctionInternal

		[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	[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_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
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
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::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.	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 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	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
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_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.	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 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
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. 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
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

class casadi::IpoptInterface

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
clip_inactive_lam	OT_BOOL	Explicitly set Lagrange multipliers to 0 when bound is deemed inactive (default: false).	casadi::IpoptInterface
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::IpoptInterface
con_numeric_md	OT_DICT	Numeric metadata (a dictionary with lists of reals) about constraints to be passed to IPOPT	casadi::IpoptInterface
con_string_md	OT_DICT	String metadata (a dictionary with lists of strings) about constraints to be passed to IPOPT	casadi::IpoptInterface
convexify_margin	OT_DOUBLE	When using a convexification strategy, make sure that the smallest eigenvalue is at least this (default: 1e-7).	casadi::IpoptInterface
convexify_strategy	OT_STRING	NONE|regularize|eigen-reflect|eigen-clip. Strategy to convexify the Lagrange Hessian before passing it to the solver.	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) (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	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
grad_f	OT_FUNCTION	Function for calculating the gradient of the objective (column, autogenerated by default)	casadi::IpoptInterface
hess_lag	OT_FUNCTION	Function for calculating the Hessian of the Lagrangian (autogenerated by default)	casadi::IpoptInterface
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	casadi::Nlpsol
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::IpoptInterface
inactive_lam_value	OT_DOUBLE	Value used in inactive_lam_strategy (default: 10).	casadi::IpoptInterface
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::IpoptInterface
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::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, 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_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	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_variables	OT_BOOL	Pass list of variables entering nonlinearly to IPOPT	casadi::IpoptInterface
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::IpoptInterface
var_numeric_md	OT_DICT	Numeric metadata (a dictionary with lists of reals)	casadi::IpoptInterface

		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::IpoptInterface
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_ipopt

List of available options

Id	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	Function for calculating the gradient of the objective (column, autogenerated by default)
hess_lag	OT_FUNCTION	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	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	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 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
clip_inactive_lam	OT_BOOL	Explicitly set Lagrange multipliers to 0 when bound is deemed inactive (default: false).	casadi::IpoptInterface
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::IpoptInterface
con_numeric_md	OT_DICT	Numeric metadata (a dictionary with lists of reals) about constraints to be passed to IPOPT	casadi::IpoptInterface
con_string_md	OT_DICT	String metadata (a dictionary with lists of strings) about constraints to be passed to IPOPT	casadi::IpoptInterface
convexify_margin	OT_DOUBLE	When using a convexification strategy, make sure that the smallest eigenvalue is at least this (default: 1e-7).	casadi::IpoptInterface
convexify_strategy	OT_STRING	NONE|regularize|eigen-reflect|eigen-clip. Strategy to convexify the Lagrange Hessian before passing it to the solver.	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) (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	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
grad_f	OT_FUNCTION	Function for calculating the gradient of the objective (column, autogenerated by default)	casadi::IpoptInterface
hess_lag	OT_FUNCTION	Function for calculating the Hessian of the Lagrangian (autogenerated by default)	casadi::IpoptInterface
ignore_check_vec	OT_BOOL	If set to true, the input shape of F will not be checked.	casadi::Nlpsol
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::IpoptInterface
inactive_lam_value	OT_DOUBLE	Value used in inactive_lam_strategy (default: 10).	casadi::IpoptInterface
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::IpoptInterface
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::IpoptInterface
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	casadi::FunctionInternal

		exceeded.	
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	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_variables	OT_BOOL	Pass list of variables entering nonlinearly to IPOPT	casadi::IpoptInterface
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::IpoptInterface
var_numeric_md	OT_DICT	Numeric metadata (a dictionary with lists of reals) about variables to be passed to IPOPT	casadi::IpoptInterface
var_string_md	OT_DICT	String metadata (a dictionary with lists of strings) about variables to be passed to IPOPT	casadi::IpoptInterface
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 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	casadi::FunctionInternal

		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::Ipqp
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::Ipqp
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
linear_solver	OT_STRING	A custom linear solver creator function [default: ldl]	casadi::Ipqp
linear_solver_options	OT_DICT	Options to be passed to the linear solver	casadi::Ipqp
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::Ipqp
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::Ipqp
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::Ipqp
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_info	OT_BOOL	Print info [true].	casadi::Ipqp
print_iter	OT_BOOL	Print iterations [true].	casadi::Ipqp
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_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

		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
constr_viol_tol	OT_DOUBLE	Constraint violation tolerance [1e-8].	casadi::Ipqp
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::Ipqp
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	casadi::FunctionInternal

		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: ldl]	casadi::Ipqp
linear_solver_options	OT_DICT	Options to be passed to the linear solver	casadi::Ipqp
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::Ipqp
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::Ipqp
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::Ipqp
print_in	OT_BOOL	Print numerical values of inputs [default: false]	casadi::FunctionInternal
print_info	OT_BOOL	Print info [true].	casadi::Ipqp
print_iter	OT_BOOL	Print iterations [true].	casadi::Ipqp
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::JitFunction

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
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: 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	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
hess	OT_STRING	Function body for Hessian	casadi::JitFunction
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	OT_STRING	Function body for Jacobian	casadi::JitFunction
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	
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

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_warnings	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	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	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	casadi::FunctionInternal

		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	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	Type	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

use_preconditioner	OT_BOOL	Precondition an iterative solver

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_warnings	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]]	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	casadi::OracleFunction

		[false]	
external_transform	OT_VECTORVECTOR	List of external_transform instruction arguments. Default: empty	casadi::FunctionInternal
f_scale	OT_DOUBLEVECTOR	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	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_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	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

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	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	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 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	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 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	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	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

Id	Type	Description
complem_variables	OT_INTVECTORVECTOR	List of complementary constraints on simple bounds. Pair (i, j) encodes complementarity between the bounds on variable i and variable j.
contype	OT_INTVECTOR	Type of constraint
detect_linear_constraints	OT_BOOL	Detect type of constraints
knitro	OT_DICT	Options to be passed to KNITRO
options_file	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 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	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. 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 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	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	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.	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
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	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.	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_failure	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	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
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	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	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

Id	Type	Description
allow_equilibration_failure	OT_BOOL	Non-fatal error when equilibration fails
equilibration	OT_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_failure	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]	casadi::FunctionInternal
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	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	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 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	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_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_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_lapackqr

List of available options

Id	Type	Description

max_nrhs OT_INT Maximum number of right-hand-sides that get processed in a single pass [default:10].

Group: general_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 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	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_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_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

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.	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
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	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	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)*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
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	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	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_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

class casadi::LinsolLdl

List of available options

Id	Type	Description	Used in
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
incomplete	OT_BOOL	Incomplete factorization, without any fill-in	casadi::LinsolLdl
preordering	OT_BOOL	Approximate minimal degree (AMD) preordering	casadi::LinsolLdl
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
verbose	OT_BOOL	Verbose 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_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
incomplete	OT_BOOL	Incomplete factorization, without any fill-in	casadi::LinsolLdl
preordering	OT_BOOL	Approximate minimal degree (AMD) preordering	casadi::LinsolLdl
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
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::LinsolQr

List of available options

Id	Type	Description	Used in
cache	OT_DOUBLE	Amount of factorisations to remember (thread-local) [0]	casadi::LinsolQr
eps	OT_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

Id	Type	Description	Used in
cache	OT_DOUBLE	Amount of factorisations to remember (thread-local) [0]	casadi::LinsolQr
eps	OT_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_names	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_DOUBLEVECTOR	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]	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
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
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.	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	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 exceptions when function evaluation fails (default true).	casadi::ProtoFunction
posdef	OT_BOOL	Positive definite	casadi::MumpsInterface
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
symmetric	OT_BOOL	Symmetric matrix	casadi::MumpsInterface
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

Group: plugin_Linsol_mumps

List of available options

Id	Type	Description
posdef	OT_BOOL	Positive definite
symmetric	OT_BOOL	Symmetric matrix

Group: general_MumpsInterface

List of available options

Id	Type	Description	Used in
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
posdef	OT_BOOL	Positive definite	casadi::MumpsInterface
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
symmetric	OT_BOOL	Symmetric matrix	casadi::MumpsInterface
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::Newton

List of available options

Id	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	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	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|	casadi::FunctionInternal
		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
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_options	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_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_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	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_newton

List of available options

Id	Type	Description
abstol	OT_DOUBLE	Stopping criterion tolerance on max(|F|)
abstolStep	OT_DOUBLE	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

Id	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	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	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
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_options	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_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_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	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::Nlpsol

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 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	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

		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]	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 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
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

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 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	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.	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	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 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
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 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
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	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
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_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_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().	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_ooqp

List of available options

Id	Type	Description
artol	OT_DOUBLE	tolerance as provided with setArTol to OOQP
mutol	OT_DOUBLE	tolerance as provided with setMuTol to OOQP
print_level	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.	casadi::FunctionInternal
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 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
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_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_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().	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::OracleFunction

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	casadi::FunctionInternal

		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
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
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
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
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

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	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.	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
osqp	OT_DICT	const Options to be passed to osqp.	casadi::OsqpInterface
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:	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
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

Id	Type	Description
osqp	OT_DICT	const 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 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	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
osqp	OT_DICT	const Options to be passed to osqp.	casadi::OsqpInterface
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	casadi::FunctionInternal

		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

Id	Type	Description	Used in
error_on_fail	OT_BOOL	Throw exceptions when function evaluation fails (default true).	casadi::ProtoFunction
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
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::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)*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
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_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
proxqp	OT_DICT	const proxqp options.	casadi::ProxqpInterface
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
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)*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
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_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
proxqp	OT_DICT	const proxqp options.	casadi::ProxqpInterface
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
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

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	casadi::FunctionInternal

		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	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
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_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_nlpsol

List of available options

Id	Type	Description
nlpsol	OT_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.	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	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

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_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

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)*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
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
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.	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
epsLITests	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	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
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().	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

schur	OT_BOOL	Use Schur Complement Approach [false]	casadi::QpoasesInterface
sparse	OT_BOOL	Formulate the QP using sparse matrices. [false]	casadi::QpoasesInterface
terminationTolerance	OT_DOUBLE	Relative termination tolerance to stop homotopy.	casadi::QpoasesInterface
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_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.
initialRamping	OT_DOUBLE	Start value for ramping strategy.
initialStatusBounds	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	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)*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
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
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.	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
epsLITests	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	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
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().	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
schur	OT_BOOL	Use Schur Complement Approach [false]	casadi::QpoasesInterface
sparse	OT_BOOL	Formulate the QP using sparse matrices. [false]	casadi::QpoasesInterface
terminationTolerance	OT_DOUBLE	Relative termination tolerance to stop homotopy.	casadi::QpoasesInterface
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::Qrqp

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
constr_viol_tol	OT_DOUBLE	Constraint violation tolerance [1e-8].	casadi::Qrqp
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::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	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:	casadi::FunctionInternal

		'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_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

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_DOUBLE	Dual feasibility violation tolerance [1e-8]
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].
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 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	casadi::FunctionInternal

		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::Qrqp
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::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	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_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

class casadi::Qrsqp

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	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'.	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 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
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().	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

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
hessian_approximation	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

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	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'.	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	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	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	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	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().	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

class casadi::Rootfinder

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	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	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_options	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_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
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: general_Rootfinder

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	casadi::FunctionInternal

		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.	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_options	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_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
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 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	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'.	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 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.	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_iter	OT_INT	Maximum number of iterations	casadi::SLEQPInterface
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
max_wall_time	OT_DOUBLE	maximum wall time allowed	casadi::SLEQPInterface
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_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 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.	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	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	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 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_iter	OT_INT	Maximum number of iterations	casadi::SLEQPInterface
max_num_dir	OT_INT	Specify the maximum number of directions for derivative functions. Overrules the builtin optimized_num_dir.	casadi::FunctionInternal
max_wall_time	OT_DOUBLE	maximum wall time allowed	casadi::SLEQPInterface
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_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 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.	casadi::OracleFunction

		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 UBX	casadi::Nlpsol

class casadi::SXFunction

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_names	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_DOUBLEVECTOR	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]	
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
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 or pass additional information	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::Scpgen

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	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'.	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 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	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	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
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

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_approximation	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	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

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	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'.	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 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	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::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

List of available options

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	Alias for 'compiler_flags'	casadi::ShellCompiler
compiler_output_flag	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	List of suffixes for extra files that the compiler may generate. Default: None	casadi::ShellCompiler
flags	OT_STRINGVECTOR	Compile flags for the JIT compiler. Default: None	casadi::ShellCompiler
linker	OT_STRING	Linker command	casadi::ShellCompiler
linker_flags	OT_STRINGVECTOR	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

		names. This is desired for thread-safety. This behaviour may 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_STRINGVECTOR	Alias for 'compiler_flags'
compiler_output_flag	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_STRINGVECTOR	List of suffixes for extra files that the compiler may generate. Default: None
flags	OT_STRINGVECTOR	Compile flags for the JIT compiler. Default: None
linker	OT_STRING	Linker command
linker_flags	OT_STRINGVECTOR	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

List of available options

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	Alias for 'compiler_flags'	casadi::ShellCompiler
compiler_output_flag	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	List of suffixes for extra files that the compiler may generate. Default: None	casadi::ShellCompiler
flags	OT_STRINGVECTOR	Compile flags for the JIT compiler. Default: None	casadi::ShellCompiler
linker	OT_STRING	Linker command	casadi::ShellCompiler
linker_flags	OT_STRINGVECTOR	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)*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	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
linear_solver	OT_STRING	User-defined linear solver class. Needed for sensitivities.	casadi::SlicotDple
linear_solver_options	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_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
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

Id	Type	Description
linear_solver	OT_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	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
linear_solver	OT_STRING	User-defined linear solver class. Needed for sensitivities.	casadi::SlicotDple
linear_solver_options	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_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
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

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 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	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	casadi::ProtoFunction

		(default true).	
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 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
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

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*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'.	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 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 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	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.	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::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.	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	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	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 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::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::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

Group: plugin_Nlpsol_sqpmethod

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
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	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	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	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	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	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'.	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 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	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 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::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::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.	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	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 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_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	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 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 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	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_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	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

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.	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.	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_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	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 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
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_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	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 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
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	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

Id	Type	Description
superscs	OT_DICT	Options to be passed to superscs.

Group: general_SuperscsInterface

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	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
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_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

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.	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	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	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	casadi::FunctionInternal
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 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	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	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	casadi::FunctionInternal
verbose	OT_BOOL	Verbose evaluation – for debugging	casadi::ProtoFunction

class casadi::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*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,	casadi::FunctionInternal

		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 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	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	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	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
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*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'.	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 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 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
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