stochastic_calibration

function_pool
append_new_line(file_name: str, text_to_append: str):
None

model_structure

pd.df

config_physics GRAVITY: 9.81 KINEMATIC_VISCOSITY: 10 ** -6 WATER_DENSITY: 10. ** 3 SED_DENSITY: 2650

UserDefs

CALIB_PAR_SET: dict CALIB_PTS: numpy CALIB_TARGETS: list init_runs: int init_run_sampling: str IT_LIMIT: int MC_SAMPLES: int MC_SAMPLES_AL: int AL_SAMPLES: int AL_STRATEGY: str score_method: str SIM_DIR: str BME: None RE: None al_BME: None al_RE: None assign_global_settings(all attributes): None check_user_input(None): None

${\bf Full Complexity Model}$

read_wb_range(read_range: str, sheet_name: str):

model_dir: os.path
control_file: str
collocation_file: str
res_dir: str

update_model_controls(new_parameter_values:
dict, simulation_id: int): None
run_simulation(None): None

telemac

config_telemac TM_TEMPLATE_DIR: os.path GAIA_PARAMETERS: pd.df TM2D_PARAMETERS: pd.df TM_TRANSLATOR: dict AL_RANGE = "A14:B22" MEASUREMENT_DATA_RANGE = "A23:B26" PRIOR_SCA_RANGE = "A32:B35"

PRIOR_VEC_RANGE = "A38:B40"
PRIOR_REC_RANGE = "A43:B44"
ZONAL_PAR_RANGE = "A47:A49"
RECALC_PARS: dict

TelemacUserDefs

N_CPUS: int
TM_CAS: str
tm_xD: str
GAIA_CAS: str
assign_calib_ranges(direct_par_df: pd.df,
vector_par_df: pd.df, recalc_par_df: pd.df): None
check_user_input(None): None
>> assign_global_settings

TelemacModel

calibration_parameters: dict
control_file: str
nproc: int
slf_input_file: str
tm_cas: str
tm_results_file: str
tm_xd: str
tm_xd_dict: dict
**gaia_cas: str
**gaia_results_file: str

create_cas_string(param_name: str, value: var.): None
get_variable_value(slf_file_name: str,
calibration_par: str, specific_nodes:
np.array, save_name: str): np.array
rename_selafin(old_name=".slf", new_name=".slf"): None

updated_string: str, steering_module="telemac"): int

rewrite_steering_file(param_name: str,

>> run_simulation

>> update_model_controls