Legend/Explanations

Blue boxes represent the classes which can directly accessed in Python by e.g. *from kadmos.graph import KadmosGraph*. Yellow boxes are mixins that are generally included in some KADMOS classes although they are not required for the core functionalities of KADMOS. White boxes represent base or helper classes.

inheritance link

mixin link

networkx.DiGraph

+ graph: type
+ node: str
+ edge: tuple
+ ...

+ add_node()
+ add_edge()
+ add_path()
+ ...

KadmosGraph
kadmos.graph.graph_kadmos.KadmosGraph

+ ARCHITECTURE_ROLES_FUN: list
+ GRAPH_IS_CONTRACTED: bool
+ GRAPH_PROPERTIES: list
+ ...

+ cleancopy()
+ check()
+ save()
+ inspect()
+ get_function_graph()
+ split_variables()
+ ...

kadmos.graph.mixin_vispack.VispackMixin

+ vispack_add()
+ vispack_create()
- _vispack_assertions()
- _vispack_make()
- _vispack_make_json()

kadmos.graph.graph_data.DataGraph

kadmos.graph.graph_process.ProcessGraph

RepositoryConnectivtyGraph
kadmos.graph.graph_data.RepositoryConnectivityGraph

+ PATHS_LIMIT: int
+ WARNING_LIMIT: int
+ ...

+ select_function_combination_from()
+ get_function_paths_by_objective()
+ get_path_combinations()
+ get_fpg_by_function_nodes()
+ get_fpg_based_on_sinks()
+ get_fpg_based_on_list_functions()
+ get_fpg_based_on_function_nodes()
+ ...

FundamentalProblemGraph
kadmos.graph.graph_data.FundamentalProblemGraph

+ OPTIONS_FUNCTION_ORDER_METHOD: list
+ ...

+ mark_as_design_variable()
+ mark_as_objective()
+ mark_as_objective()
+ mark_as_qoi()
+ add_function_problem_roles()
+ get_coupling_matrix()
+ get_mg_function_ordering()
+ create_mpg()
+ create_mdg()
+ ...

MdaoDataGraph
kadmos.graph.graph_data.MdaoDataGraph

+ copy_node_as()
+ connect_qoi_nodes_as_input()
+ connect_nodes_as_output()
+ connect_coordinator()
+ connect_converger()
+ connect_optimizer()
+ connect_doe_block()
+ manipulate_coupling_nodes()
+ ...

MdaoProcessGraph
kadmos.graph.graph_process.MdaoProcessGraph

+ ARCHITECTURE_CATS: list

+ inspect_process()
+ add_simple_sequential_process()
+ add_parallel_process()
+ connect_nested_iterators()
+ get_node_text()
+ get_process_list()
+ get_nested_process_ordering()
+ ...

RceGraph
kadmos.graph.graph_process.RceGraph

+ RCE_ROLES_CATS: list
+ RCE_WF_FILENAME: str
+ RCE_WORKING_DIR: str

+ add_diagonal_positions()
+ add_uxpath_uids()
+ get_var_name()
+ create_rce_wf()
+ write_rce_wf_files()
+ write_coor_xml_files()
+ write_filter_json_files()

kadmos.graph.mixin_rce.RceMixin

+ get_rce_graph()

kadmos.graph.mixin_mdao.MdaoMixin

+ remove_node_from_diagonal()
+ insert_node_on_diagonal()