

ifcOWL ontology (IFC4_ADD2_TC1)

IRI:

https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL

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Authors:

Pieter Pauwels (pipauwel.pauwels@ugent.be)
Walter Terkaj (walter.terkaj@itia.cnr.it)

Contributors:

Jakob Beetz (j.beetz@tue.nl)
María Poveda Villalón (mpoveda@fi.upm.es)
Aleksandra Sojic (aleksandra.sojic@itia.cnr.it)

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Abstract

This ifcOWL ontology is automatically generated from the EXPRESS schema 'IFC4_ADD2_TC1' using the 'IFC-to-RDF' converter developed by Pieter Pauwels (pipauwel.pauwels@ugent.be), based on the earlier versions from Jyrki Oraskari (jyrki.oraskari@aalto.fi) and Davy Van Deursen (davy.vandeursen@ugent.be). The ontology is identical to the ontology that is generated from the EXPRESS schema 'IFC4_ADD2_TC1.exp' using the 'genOnto' converter developed by Walter Terkaj (ITIA-CNR, walter.terkaj@itia.cnr.it).

Web address: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL Namespace: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL

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1. Introduction

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1.1. Namespace declarations

Table 1: Namespaces used in the document

| | |
|----------------|---|
| ifc | < https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL > |
| ns | < http://creativecommons.org/ns > |
| owl | < http://www.w3.org/2002/07/owl > |
| rdf | < http://www.w3.org/1999/02/22-rdf-syntax-ns > |
| xsd | < http://www.w3.org/2001/XMLSchema > |
| express | < https://w3id.org/express > |
| rdfs | < http://www.w3.org/2000/01/rdf-schema > |
| list | < https://w3id.org/list > |
| vann | < http://purl.org/vocab/vann > |
| dc | < http://purl.org/dc/elements/1.1 > |

1.2. IFC4_ADD2_TC1: Overview

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This ontology has the following classes and properties.

Classes

| | | | | | |
|---|--|--|--|--|---|
| ifc_absorbed_dose_measure | ifc_acceleration_measure | ifc_action_request | ifc_action_request_type_enum | ifc_action_source_type_enum | ifc_action_type_enum |
| ifc_actor | ifc_actor_role | ifc_actor_role_empty_list | ifc_actor_role_list | ifc_actor_select | ifc_actuator |
| ifc_address_empty_list | ifc_address_list | ifc_address_type_enum | ifc_advanced_brep | ifc_advanced_brep_with_voids | ifc_advanced_face |
| ifc_air_terminal_box | ifc_air_terminal_box_type | ifc_air_terminal_box_type_enum | ifc_air_terminal_type | ifc_air_terminal_type_enum | ifc_air_to_air_heat_recovery |
| ifc_air_to_air_heat_recovery_type | ifc_air_to_air_heat_recovery_type_enum | ifc_alarm | ifc_alarm_type | ifc_annotation_fill_area | ifc_annotation_fill_area |
| ifc_analysis_model_type_enum | ifc_analysis_theory_type_enum | ifc_arbitrary_profile_def | ifc_arbitrary_profile_def_with_voids | ifc_arbitrary_profile_def_with_voids | ifc_arbitrary_profile_def |
| ifc_arbitrary_open_profile_def | ifc_arbitrary_profile_def_with_voids | ifc_arc_index | ifc_area_density_measure | ifc_area_measure | ifc_arbitrary_profile_def |
| ifc_assembly_place_enum | ifc_asset | ifc_asymmetric_i_shape_profile_def | ifc_audio_visual_appliance | ifc_audio_visual_appliance | ifc_audio_visual_appliance_type |
| ifc_audio_visual_appliance_type_enum | ifc_axis1_placement | ifc_axis2_placement | ifc_axis2_placement2_d | ifc_axis2_placement3_d | ifc_axis2_placement3_d_empty_list |
| ifc_axis2_placement3_d_list | ifc_b_spline_curve | ifc_b_spline_curve_form | ifc_b_spline_curve_with_knots | ifc_b_spline_surface | ifc_b_spline_surface_form |
| ifc_b_spline_surface_with_knots | ifc_beam | ifc_beam_standard_case | ifc_beam_type | ifc_benchmark_enum | ifc_bending_parameter_select |
| ifc_bending_parameter_select_empty_list | ifc_bending_parameter_select_list | ifc_binary | ifc_binary_empty_list | ifc_binary_list | ifc_blob_texture |
| ifc_boiler_type | ifc_boiler_type_enum | ifc_boolean | ifc_boolean_clipping_result | ifc_boolean_operand | ifc_boolean_operator |
| ifc_boundary_curve | ifc_boundary_edge_condition | ifc_boundary_face_condition | ifc_boundary_node_condition | ifc_boundary_node_condition_warping | ifc_boundaries |
| ifc_bounded_surface | ifc_bounding_box | ifc_box_alignment | ifc_boxed_half_space | ifc_building | ifc_building_element |

ifc building element part type ifc building element part type enum ifc building element proxy ifc building element proxy type enum
 ifc building element type ifc building storey ifc building system ifc building system type enum ifc burner ifc burner type ifc burner type enum
 ifc c shape profile def ifc cable carrier fitting ifc cable carrier fitting type ifc cable carrier fitting type enum ifc cable carrier segment
 ifc cable carrier segment type ifc cable carrier segment type enum ifc cable fitting ifc cable fitting type ifc cable fitting type enum ifc cable segment
 ifc cable segment type ifc cable segment type enum ifc cardinal point reference ifc cartesian point ifc cartesian point empty list ifc cartesian point list
 ifc cartesian point list ifc cartesian point list empty list ifc cartesian point list list ifc cartesian point list2 d ifc cartesian point list3 d
 ifc cartesian transformation operator ifc cartesian transformation operator2 d ifc cartesian transformation operator2 dnon uniform
 ifc cartesian transformation operator3 d ifc cartesian transformation operator3 dnon uniform ifc center line profile def ifc change action enum ifc chiller
 ifc chiller type ifc chiller type enum ifc chimney ifc chimney type ifc chimney type enum ifc circle ifc circle hollow profile def ifc circle profile def
 ifc civil element ifc civil element type ifc classification ifc classification reference ifc classification reference select ifc classification select ifc closed shell
 ifc coil ifc coil type ifc coil type enum ifc colour ifc colour or factor ifc colour rgb ifc colour rgb list ifc colour specification ifc column
 ifc column standard case ifc column type ifc column type enum ifc communications appliance ifc communications appliance type
 ifc communications appliance type enum ifc complex number ifc complex property ifc complex property template ifc complex property template type enum
 ifc composite curve ifc composite curve on surface ifc composite curve segment ifc composite curve segment empty list ifc composite curve segment list
 ifc composite profile def ifc compound plane angle measure ifc compressor ifc compressor type ifc compressor type enum ifc condenser ifc condenser type
 ifc condenser type enum ifc conic ifc connected face set ifc connection curve geometry ifc connection geometry ifc connection point eccentricity
 ifc connection point geometry ifc connection surface geometry ifc connection type enum ifc connection volume geometry ifc constraint ifc constraint empty list
 ifc constraint enum ifc constraint list ifc construction equipment resource ifc construction equipment resource type ifc construction equipment resource type enum
 ifc construction material resource ifc construction material resource type ifc construction material resource type enum ifc construction product resource
 ifc construction product resource type ifc construction product resource type enum ifc construction resource ifc construction resource type ifc context
 ifc context dependent measure ifc context dependent unit ifc control ifc controller ifc controller type ifc conversion based unit
 ifc conversion based unit with offset ifc cooled beam ifc cooled beam type ifc cooled beam type enum ifc cooling tower ifc cooling tower type
 ifc cooling tower type enum ifc coordinate operation ifc coordinate reference system ifc coordinate reference system select ifc cost item
 ifc cost item type enum ifc cost schedule ifc cost schedule type enum ifc cost value ifc cost value empty list ifc cost value list ifc count measure
 ifc covering ifc covering type ifc covering type enum ifc crew resource ifc crew resource type ifc crew resource type enum ifc csg primitive3 d
 ifc csg select ifc csg solid ifc currency relationship ifc curtain wall ifc curtain wall type ifc curtain wall type enum ifc curvature measure ifc curve
 ifc curve bounded plane ifc curve bounded surface ifc curve font or scaled curve font select ifc curve interpolation enum ifc curve on surface
 ifc curve or edge curve ifc curve style ifc curve style font ifc curve style font and scaling ifc curve style font pattern ifc curve style font pattern empty list
 ifc curve style font pattern list ifc curve style font select ifc cylindrical surface ifc damper ifc damper type ifc damper type enum ifc data origin enum
 ifc date ifc day in month number ifc day in week number ifc definition select ifc derived measure value ifc derived profile def ifc derived unit
 ifc derived unit element ifc derived unit enum ifc descriptive measure ifc dimension count ifc dimensional exponents ifc direction ifc direction sense enum
 ifc discrete accessory ifc discrete accessory type ifc discrete accessory type enum ifc distribution chamber element ifc distribution chamber element type
 ifc distribution chamber element type enum ifc distribution circuit ifc distribution control element ifc distribution control element type ifc distribution element
 ifc distribution element type ifc distribution flow element ifc distribution flow element type ifc distribution port ifc distribution port type enum
 ifc distribution system ifc distribution system enum ifc document confidentiality enum ifc document information ifc document information relationship
 ifc document reference ifc document select ifc document status enum ifc door ifc door lining properties ifc door panel operation enum
 ifc door panel position enum ifc door panel properties ifc door standard case ifc door style ifc door style construction enum ifc door style operation enum
 ifc door type ifc door type enum ifc door type operation enum ifc dose equivalent measure ifc draughting pre defined colour
 ifc draughting pre defined curve font ifc duct fitting ifc duct fitting type ifc duct fitting type enum ifc duct segment ifc duct segment type
 ifc duct segment type enum ifc duct silencer ifc duct silencer type ifc duct silencer type enum ifc duration ifc dynamic viscosity measure ifc edge
 ifc edge curve ifc edge loop ifc electric appliance ifc electric appliance type ifc electric appliance type enum ifc electric capacitance measure
 ifc electric charge measure ifc electric conductance measure ifc electric current measure ifc electric distribution board ifc electric distribution board type
 ifc electric distribution board type enum ifc electric flow storage device ifc electric flow storage device type ifc electric flow storage device type enum
 ifc electric generator ifc electric generator type ifc electric generator type enum ifc electric motor ifc electric motor type ifc electric motor type enum
 ifc electric resistance measure ifc electric time control ifc electric time control type ifc electric time control type enum ifc electric voltage measure ifc element
 ifc element assembly ifc element assembly type ifc element assembly type enum ifc element component ifc element component type
 ifc element composition enum ifc element quantity ifc elementary surface ifc ellipse ifc ellipse profile def ifc energy conversion device
 ifc energy conversion device type ifc energy measure ifc engine ifc engine type ifc engine type enum ifc evaporative cooler ifc evaporative cooler type
 ifc evaporative cooler type enum ifc evaporator ifc evaporator type ifc evaporator type enum ifc event ifc event time ifc event trigger type enum
 ifc event type ifc event type enum ifc extended properties ifc external information ifc external reference ifc external reference relationship
 ifc external spatial element ifc external spatial element type enum ifc external spatial structure element ifc externally defined hatch style
 ifc externally defined surface style ifc externally defined text font ifc extruded area solid ifc extruded area solid tapered ifc face ifc face based surface model
 ifc face bound ifc face outer bound ifc face surface ifc faceted brep ifc faceted brep with voids ifc failure connection condition ifc fan ifc fan type
 ifc fan type enum ifc fastener ifc fastener type ifc fastener type enum ifc feature element ifc feature element addition ifc feature element subtraction
 ifc fill area style ifc fill area style hatching ifc fill area style tiles ifc fill style select ifc filter ifc filter type ifc filter type enum ifc fire suppression terminal
 ifc fire suppression terminal type ifc fire suppression terminal type enum ifc fixed reference swept area solid ifc flow controller ifc flow controller type
 ifc flow direction enum ifc flow fitting ifc flow fitting type ifc flow fitting instrument ifc flow instrument type ifc flow instrument type enum ifc flow meter
 ifc flow meter type ifc flow meter type enum ifc flow moving device ifc flow moving device type ifc flow segment ifc flow segment type ifc flow storage device
 ifc flow storage device type ifc flow terminal ifc flow terminal type ifc flow treatment device ifc flow treatment device type ifc font style ifc font variant
 ifc font weight ifc footing ifc footing type ifc footing type enum ifc force measure ifc frequency measure ifc furnishing element ifc furnishing element type
 ifc furniture ifc furniture type ifc furniture type enum ifc geographic element ifc geographic element type ifc geographic element type enum
 ifc geometric curve set ifc geometric projection enum ifc geometric representation context ifc geometric representation item
 ifc geometric representation sub context ifc geometric set ifc geometric set select ifc global or local enum ifc globally unique id ifc grid ifc grid axis
 ifc grid axis empty list ifc grid axis list ifc grid placement ifc grid placement direction select ifc grid type enum ifc group ifc half space solid
 ifc hatch line distance select ifc heat exchanger ifc heat exchanger type ifc heat exchanger type enum ifc heat flux density measure ifc heating value measure
 ifc humidifier ifc humidifier type ifc humidifier type enum ifc i shape profile def ifc identifier ifc identifier empty list ifc identifier list ifc illuminance measure
 ifc image texture ifc indexed colour map ifc indexed poly curve ifc indexed polygonal face ifc indexed polygonal face empty list ifc indexed polygonal face list
 ifc indexed polygonal face with voids ifc indexed texture map ifc indexed triangle texture map ifc inductance measure ifc integer ifc integer count rate measure
 ifc integer empty list ifc integer list ifc interceptor ifc interceptor type ifc interceptor type enum ifc internal or external enum ifc intersection curve
 ifc inventory ifc inventory type enum ifc ion concentration measure ifc irregular time series ifc irregular time series value
 ifc irregular time series value empty list ifc irregular time series value list ifc isothermal moisture capacity measure ifc junction box ifc junction box type
 ifc junction box type enum ifc kinematic viscosity measure ifc knot type ifc l shape profile def ifc label ifc label empty list ifc label list ifc labor resource
 ifc labor resource type ifc labor resource type enum ifc lag time ifc lamp ifc lamp type ifc lamp type enum ifc language id ifc layer set direction enum
 ifc layered item ifc length measure ifc length measure empty list ifc length measure list ifc length measure list empty list ifc length measure list list
 ifc library information ifc library reference ifc library select ifc light distribution curve enum ifc light distribution data ifc light distribution data empty list
 ifc light distribution data list ifc light distribution data select ifc light emission source enum ifc light fixture ifc light fixture type ifc light fixture type enum
 ifc light intensity distribution ifc light source ifc light source ambient ifc light source directional ifc light source goniometric ifc light source positional
 ifc light source spot ifc line ifc line index ifc linear force measure ifc linear moment measure ifc linear stiffness measure ifc linear velocity measure
 ifc load group type enum ifc local placement ifc logical ifc logical operator enum ifc loop ifc luminous flux measure
 ifc luminous intensity distribution measure ifc luminous intensity distribution measure empty list ifc luminous intensity distribution measure list
 ifc luminous intensity measure ifc magnetic flux density measure ifc magnetic flux measure ifc manifold solid brep ifc map conversion ifc mapped item
 ifc mass density measure ifc mass flow rate measure ifc mass measure ifc mass per length measure ifc material ifc material classification relationship
 ifc material constituent ifc material constituent set ifc material definition ifc material definition representation ifc material empty list ifc material layer
 ifc material layer empty list ifc material layer list ifc material layer set ifc material layer set usage ifc material layer with offsets ifc material list ifc material list
 ifc material profile ifc material profile empty list ifc material profile list ifc material profile set ifc material profile set usage ifc material profile set usage tapering
 ifc material profile with offsets ifc material properties ifc material relationship ifc material select ifc material usage definition ifc measure value
 ifc measure with unit ifc mechanical fastener ifc mechanical fastener type ifc mechanical fastener type enum ifc medical device ifc medical device type
 ifc medical device type enum ifc member ifc member standard case ifc member type ifc member type enum ifc metric ifc metric value select
 ifc mirrored profile def ifc modulus of elasticity measure ifc modulus of linear subgrade reaction measure ifc modulus of rotational subgrade reaction measure
 ifc modulus of rotational subgrade reaction select ifc modulus of subgrade reaction measure ifc modulus of subgrade reaction select
 ifc modulus of translational subgrade reaction select ifc moisture diffusivity measure ifc molecular weight measure ifc moment of inertia measure
 ifc monetary measure ifc monetary unit ifc month in year number ifc motor connection ifc motor connection type ifc motor connection type enum
 ifc named unit ifc non negative length measure ifc normalised ratio measure ifc normalised ratio measure empty list ifc normalised ratio measure list
 ifc normalised ratio measure list empty list ifc normalised ratio measure list list ifc null style ifc numeric measure ifc object ifc object definition
 ifc object definition empty list ifc object definition list ifc object placement ifc object reference select ifc object type enum ifc objective ifc objective enum
 ifc occupant ifc occupant type enum ifc offset curve2 d ifc offset curve3 d ifc open shell ifc opening element ifc opening element type enum
 ifc opening standard case ifc organization ifc organization relationship ifc oriented edge ifc oriented edge empty list ifc oriented edge list
 ifc outer boundary curve ifc outlet ifc outlet type ifc outlet type enum ifc owner history ifc p h measure ifc parameter value ifc parameter value empty list
 ifc parameter value list ifc parameter value list empty list ifc parameter value list list ifc parameterized profile def ifc path ifc pcurve ifc pcurve empty list
 ifc pcurve list ifc performance history ifc performance history type enum ifc permeable covering operation enum ifc permeable covering properties ifc permit

| | | | | | |
|--|--|--|---|---|------------------------------------|
| ifc_permit_type_enum | ifc_person | ifc_person_and_organization | ifc_physical_complex_quantity | ifc_physical_or_virtual_enum | ifc_physical_quantity |
| ifc_physical_quantity_empty_list | ifc_physical_quantity_list | ifc_physical_simple_quantity | ifc_pile | ifc_pile_construction_enum | ifc_pile_type |
| ifc_pipe_fitting | ifc_pipe_fitting_type | ifc_pipe_fitting_type_enum | ifc_pipe_segment | ifc_pipe_segment_type | ifc_pipe_segment_type_enum |
| ifc_placement | ifc_planar_box | ifc_planar_extent | ifc_planar_force_measure | ifc_plane | ifc_plane_angle_measure |
| ifc_plane_angle_measure_list | ifc_plate | ifc_plate_standard_case | ifc_plate_type | ifc_plate_type_enum | ifc_point |
| ifc_point_or_vertex_point | ifc_poly_loop | ifc_polygonal_bounded_half_space | ifc_polygonal_face_set | ifc_point_on_curve | ifc_point_on_surface |
| ifc_positive_integer_empty_list | ifc_positive_integer_list | ifc_positive_integer_list_empty_list | ifc_positive_integer_list_list | ifc_positive_length_measure | ifc_positive_integer |
| ifc_positive_plane_angle_measure | ifc_positive_ratio_measure | ifc_postal_address | ifc_power_measure | ifc_pre_defined_colour | ifc_pre_defined_curve_font |
| ifc_pre_defined_item | ifc_pre_defined_properties | ifc_pre_defined_property_set | ifc_pre_defined_text_font | ifc_preferred_surface_curve_representation | ifc_presentable_text |
| ifc_presentation_item | ifc_presentation_layer_assignment | ifc_presentation_layer_with_style | ifc_presentation_style | ifc_presentation_style_assignment | |
| ifc_presentation_style_select | ifc_pressure_measure | ifc_procedure | ifc_procedure_type_enum | ifc_process | ifc_process_select |
| ifc_product_definition_shape | ifc_product_representation | ifc_product_representation_select | ifc_product_select | ifc_profile_def | ifc_profile_def_empty_list |
| ifc_profile_def_list | ifc_profile_properties | ifc_profile_type_enum | ifc_project | ifc_project_library | ifc_project_order |
| ifc_projected_or_true_length_enum | ifc_projection_element | ifc_projection_element_type_enum | ifc_property | ifc_property_abstraction | ifc_property_bound_value |
| ifc_property_definition | ifc_property_dependency_relationship | ifc_property_enumerated_value | ifc_property_enumeration | ifc_property_list_value | |
| ifc_property_reference_value | ifc_property_set | ifc_property_set_definition | ifc_property_set_definition_select | ifc_property_set_definition_set | ifc_property_set_template |
| ifc_property_set_template_type_enum | ifc_property_single_value | ifc_property_table_value | ifc_property_template | ifc_property_template_definition | ifc_protective_device |
| ifc_protective_device_tripping_unit | ifc_protective_device_tripping_unit_type | ifc_protective_device_tripping_unit_enum | ifc_protective_device_tripping_unit_enum | ifc_protective_device_type | |
| ifc_protective_device_type_enum | ifc_proxy | ifc_pump | ifc_pump_type | ifc_pump_type_enum | ifc_quantity_area |
| ifc_quantity_set | ifc_quantity_time | ifc_quantity_volume | ifc_quantity_weight | ifc_radio_activity_measure | ifc_railing |
| ifc_ramp_flight | ifc_ramp_flight_type | ifc_ramp_flight_type_enum | ifc_ramp_type | ifc_ramp_type_enum | ifc_ratio_measure |
| ifc_ratio_measure_list | ifc_rational_b_spline_curve_with_knots | ifc_rational_b_spline_surface_with_knots | ifc_real | ifc_real_empty_list | ifc_real_list |
| ifc_real_list_list | ifc_rectangular_hollow_profile_def | ifc_rectangular_profile_def | ifc_rectangular_pyramid | ifc_rectangular_trimmed_surface | ifc_recurrence_pattern |
| ifc_recurrence_type_enum | ifc_reference | ifc_reflectance_method_enum | ifc_regular_time_series | ifc_reinforcement_bar | ifc_reinforcement_bar_properties |
| ifc_reinforcement_definition_properties | ifc_reinforcing_bar | ifc_reinforcing_bar_role_enum | ifc_reinforcing_bar_surface_enum | ifc_reinforcing_bar_type | |
| ifc_reinforcing_bar_type_enum | ifc_reinforcing_element | ifc_reinforcing_element_type | ifc_reinforcing_mesh | ifc_reinforcing_mesh_type | ifc_reinforcing_mesh_type_enum |
| ifc_rel_aggregates | ifc_rel_assigns_to_actor | ifc_rel_assigns_to_control | ifc_rel_assigns_to_group | ifc_rel_assigns_to_group_by_factor | |
| ifc_rel_assigns_to_process | ifc_rel_assigns_to_product | ifc_rel_assigns_to_resource | ifc_rel_associates | ifc_rel_associates_approval | ifc_rel_associates_classification |
| ifc_rel_associates_constraint | ifc_rel_associates_document | ifc_rel_associates_library | ifc_rel_associates_material | ifc_rel_connects | ifc_rel_connects_elements |
| ifc_rel_connects_path_elements | ifc_rel_connects_port_to_element | ifc_rel_connects_ports | ifc_rel_connects_structural_activity | ifc_rel_connects_structural_member | |
| ifc_rel_connects_with_eccentricity | ifc_rel_connects_with_realizing_elements | ifc_relContained_in_structural | ifc_rel_covers_bldg_elements | ifc_rel_covers_spaces | |
| ifc_rel_declares | ifc_rel_decomposes | ifc_rel_defines | ifc_rel_defines_by_object | ifc_rel_defines_by_properties | ifc_rel_defines_by_template |
| ifc_rel_fills_element | ifc_rel_flow_control_elements | ifc_rel_interferes_elements | ifc_rel_nests | ifc_rel_projects_element | ifc_rel_referenced_in_structural |
| ifc_rel_sequence | ifc_rel_services_buildings | ifc_rel_space_boundary | ifc_rel_space_boundary1st_level | ifc_rel_space_boundary2nd_level | ifc_rel_voids_element |
| ifc_relationship | ifc_reparametrised_composite_curve_segment | ifc_representation | ifc_representation_context | ifc_representation_empty_list | ifc_representation_item |
| ifc_representation_list | ifc_representation_map | ifc_representation_map_empty_list | ifc_representation_map_list | ifc_resource | ifc_resource_approval_relationship |
| ifc_resource_constraint_relationship | ifc_resource_level_relationship | ifc_resource_object_select | ifc_resource_select | ifc_resource_time | ifc_revolved_area_solid |
| ifc_revolved_area_solid_tapered | ifc_right_circular_cone | ifc_right_circular_cylinder | ifc_role_enum | ifc_roof | ifc_roof_type |
| ifc_rotational_frequency_measure | ifc_rotational_mass_measure | ifc_rotational_stiffness_measure | ifc_rotational_stiffness_select | ifc_rounded_rectangle | profile_def |
| ifc_s_i_prefix | ifc_s_i_unit | ifc_s_i_unit_name | ifc_sanitary_terminal | ifc_sanitary_terminal_type_enum | ifc_seam_curve |
| ifc_section_modulus_measure | ifc_section_properties | ifc_section_reinforcement_properties | ifc_section_reinforcement_properties | ifc_section_reinforcement_properties_empty_list | |
| ifc_section_reinforcement_properties_list | ifc_section_type_enum | ifc_sectional_area_integral_measure | ifc_sectioned_spine | ifc_segment_index | select |
| ifc_segment_index_select_empty_list | ifc_segment_index_select_list | ifc_sensor | ifc_sensor_type | ifc_sensor_type_enum | ifc_shading_device |
| ifc_shading_device_type | ifc_shading_device_type_enum | ifc_shape_aspect | ifc_shape_model | ifc_shape_model_empty_list | ifc_shape_model_list |
| ifc_shape_representation | ifc_shear_modulus_measure | ifc_shell | ifc_shell_based_surface_model | ifc_simple_property | ifc_simple_property_template |
| ifc_simple_property_template_type_enum | ifc_simple_value | ifc_site | ifc_size_select | ifc_slab | ifc_slab_elemented_case |
| ifc_slab_type_enum | ifc_slippage_connection_condition | ifc_solar_device | ifc_solar_device_type | ifc_solid_angle_measure | ifc_solid_model |
| ifc_solid_or_shell | ifc_sound_power_level_measure | ifc_sound_power_measure | ifc_sound_pressure_level_measure | ifc_sound_pressure_measure | ifc_space |
| ifc_space_boundary_select | ifc_space_heater | ifc_space_heater_type | ifc_space_type | ifc_space_type_enum | ifc_spatial_element |
| ifc_spatial_element_type | ifc_spatial_structure_element | ifc_spatial_structure_element_type | ifc_spatial_zone | ifc_spatial_zone_type | enum |
| ifc_specific_heat_capacity_measure | ifc_specular_exponent | ifc_specular_highlight_select | ifc_specular_roughness | ifc_sphere | ifc_spherical_surface |
| ifc_stack_terminal_type | ifc_stack_terminal_type_enum | ifc_stair | ifc_stair_flight | ifc_stair_flight_type | ifc_stair_type |
| ifc_state_enum | ifc_structural_action | ifc_structural_activity | ifc_structural_activity_assignment_select | ifc_structural_analysis_model | ifc_structural_connection |
| ifc_structural_connection_condition | ifc_structural_curve_action | ifc_structural_curve_activity_type | ifc_structural_curve_connection | ifc_structural_curve_member | |
| ifc_structural_curve_member_type_enum | ifc_structural_curve_member_varying | ifc_structural_curve_reaction | ifc_structural_item | ifc_structural_linear_action | |
| ifc_structural_load | ifc_structural_load_case | ifc_structural_load_configuration | ifc_structural_load_group | ifc_structural_load_linear_force | ifc_structural_load_or_result |
| ifc_structural_load_or_result_empty_list | ifc_structural_load_or_result_list | ifc_structural_load_planar_force | ifc_structural_load_single_displacement | | |
| ifc_structural_load_single_displacement_distortion | ifc_structural_load_single_force | ifc_structural_load_single_force_warping | ifc_structural_load_static | | |
| ifc_structural_load_temperature | ifc_structural_member | ifc_structural_planar_action | ifc_structural_point_action | ifc_structural_point_connection | |
| ifc_structural_point_reaction | ifc_structural_reaction | ifc_structural_result_group | ifc_structural_surface_action | ifc_structural_surface_activity_type | enum |
| ifc_structural_surface_connection | ifc_structural_surface_member | ifc_structural_surface_member_type | ifc_structural_surface_member_type | ifc_structural_surface_member_varying | |
| ifc_structural_surface_reaction | ifc_style_assignment_select | ifc_style_model | ifc_styled_item | ifc_styled_representation | ifc_sub_contract_resource |
| ifc_sub_contract_resource_type | ifc_sub_contract_resource_type_enum | ifc_subedge | ifc_surface | ifc_surface_curve | ifc_surface_curve_swept_area_solid |
| ifc_surface_feature | ifc_surface_feature_type | ifc_surface_of_linear_extrusion | ifc_surface_of_revolution | ifc_surface_or_face_surface | ifc_surface_reinforcement_area |
| ifc_surface_side | ifc_surface_style | ifc_surface_style_element | ifc_surface_style_lighting | ifc_surface_style_refraction | ifc_surface_style_rendering |
| ifc_surface_style_shading | ifc_surface_style_with_textures | ifc_surface_texture | ifc_surface_texture_empty_list | ifc_surface_texture_list | ifc_swept_area_solid |
| ifc_swept_disk_solid | ifc_swept_disk_solid_polygonal | ifc_swept_surface | ifc_switching_device | ifc_switching_device_type | ifc_system |
| ifc_system_furniture_element | ifc_system_furniture_element_type | ifc_system_furniture_element_type | ifc_t_shape | profile_def | ifc_table |
| ifc_table_column_empty_list | ifc_table_column_list | ifc_table_row | ifc_table_row_empty_list | ifc_table_row_list | ifc_tank |
| ifc_task_duration_enum | ifc_task_time | ifc_task_time_recurring | ifc_task_type | ifc_task_type_enum | ifc_telecom_address |
| ifc_temperature_rate_of_change_measure | ifc_tendon | ifc_tendon_anchor | ifc_tendon_anchor_type | ifc_tendon_anchor_type_enum | ifc_tendon_type |
| ifc_tendon_type_enum | ifc_tessellated_face_set | ifc_tessellated_item | ifc_text | ifc_text_alignment | ifc_text_decoration |
| ifc_text_font_name_list | ifc_text_font_select | ifc_text_literal | ifc_text_literal_with_extent | ifc_text_path | ifc_text_style |
| ifc_text_style_for_defined_font | ifc_text_style_text_model | ifc_text_transformation | ifc_texture_coordinate | ifc_texture_coordinate_generator | ifc_texture_map |
| ifc_texture_vertex | ifc_texture_vertex_empty_list | ifc_texture_vertex_list | ifc_texture_vertex_list | ifc_thermal_admittance_measure | ifc_thermal_conductivity_measure |
| ifc_thermal_expansion_coefficient_measure | ifc_thermal_resistance_measure | ifc_thermal_transmittance_measure | ifc_thermodynamic_temperature_measure | ifc_time | |
| ifc_time_measure | ifc_time_ratio_select | ifc_time_period | ifc_time_period_empty_list | ifc_time_period_list | ifc_time_series |
| ifc_time_series_value | ifc_time_series_value_empty_list | ifc_time_series_value_list | ifc_time_stamp | ifc_topological_representation_item | ifc_topology_representation |
| ifc_topological_surface | ifc_torque_measure | ifc_transformer | ifc_transformer_type | ifc_transformer_type_enum | ifc_translational_stiffness_select |
| ifc_transport_element | ifc_transport_element_type | ifc_transport_element_type | ifc_trapezium_profile | ifc_triangulated_face_set | ifc_trimmed_curve |
| ifc_trimming_preference | ifc_trimming_select | ifc_tube_bundle | ifc_tube_bundle_type | ifc_type_object | ifc_type_process |
| ifc_type_resource | ifc_ur1reference | ifc_ur1reference_empty_list | ifc_ur1reference_list | ifc_ushape_profile_def | ifc_unit_ifc_unit_assignment |
| ifc_unitary_control_element | ifc_unitary_control_element_type | ifc_unitary_control_element_type | ifc_unitary_equipment | ifc_unitary_equipment_type | |
| ifc_unitary_equipment_type_enum | ifc_value | ifc_value_empty_list | ifc_value_list | ifc_value | ifc_vapor_permeability_measure |
| ifc_vector | ifc_vector_empty_list | ifc_vector_list | ifc_vector_or_direction | ifc_vertex | ifc_vertex_loop |
| ifc_vibration_isolator_type_enum | ifc_virtual_element | ifc_virtual_grid_intersection | ifc_voiding_feature | ifc_voiding_feature_type | ifc_volume_measure |
| ifc_volumetric_flow_rate_measure | ifc_wall | ifc_wall_elemented_case | ifc_wall_standard_case | ifc_wall_type | ifc_wall_type_enum |
| ifc_warping_moment_measure | ifc_warping_stiffness_select | ifc_waste_terminal | ifc_waste_terminal_type | ifc_waste_terminal_type_enum | ifc_window |
| ifc_window_lining_properties | ifc_window_panel_operation_enum | ifc_window_panel_position_enum | ifc_window_panel_properties | ifc_window | standard_case |
| ifc_window_style | ifc_window_style_construction_enum | ifc_window_style_operation_enum | ifc_window_type | ifc_window_type_enum | ifc_window_type_partitioning_enum |
| ifc_work_calendar | ifc_work_calendar_type_enum | ifc_work_control | ifc_work_plan | ifc_work_plan_type | enum |
| ifc_work_time | ifc_z_shape_profile_def | ifc_zone | ifc_zone | ifc_work_schedule | ifc_work_schedule_type |

Object Properties

| | | | | | | | | | | |
|------------------|----------------------|------------------|----------------------|----------------------|---------------------|-----------------------|---------------------------|---------------|---------------|-------------|
| AccessState | ActingRole | ActionSource | ActionType | ActualDate | ActualDuration | ActualFinish | ActualFinish | ActualStart | ActualStart | ActualUsage |
| ActualWork | AdditionalConditions | Addresses | Addresses | AddressLines | AgreementFlag | AmbientIntensity | AmountOfSubstanceExponent | AnchorageSlip | | |
| Angle | ApplicableDate | ApplicableEntity | ApplicableOccurrence | ApplicationDeveloper | ApplicationFullName | ApplicationIdentifier | AppliedCondition | AssemblyPlace | AssemblyPlace | |
| AppliedCondition | AppliedLoad | AppliedValue | ApprovedObjects | ApprovedResources | AreaValue | ArithmeticOperator | AssemblyPlace | AssemblyPlace | AssemblyPlace | |

| | | | | | | | | | | | | | | |
|----------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType |
| PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType |
| PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType |
| PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType |
| PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType |
| PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType | PredefinedType |
| PredefinedType | PredefinedType | Prefix | PrefixTitles | PreStress | PrimaryMeasureType | PrimaryUnit | Priority | Priority | Priority | ProcessType | Properties | Properties | Properties | Properties |
| ProductDefinitional | Profile | ProfileDefinition | ProfileName | Profiles | ProfileType | ProjectedOrTrue | ProjectedOrTrue | ProjectsElements | ProjectsElements | Properties | Properties | Properties | Properties | Properties |
| PropertiesForConstraint | PropertyDependsOn | PropertyForDependence | PropertyReference | ProvidesBoundaries | ProxyType | Publisher | Purpose |
| Purpose | Purpose | Purpose | QuadraticAttenuation | Qualifier | Quality | Quantities | QuantityInProcess | Radius |
| Radius | Radius | Radius | RasterCode | RasterFormat | RateDateTime | RateSource | RealizingElement | RealizingElements | RealizingElements | Recurrence | Recurrence | Recurrence | Recurrence | Recurrence |
| RecurrencePattern | RecurrenceType | Red | RefDirection | RefDirection | RefElevation | ReferenceCurve | ReferencedByPlacements | ReferenceExtent | ReferenceExtent | ReferencePath | ReferencePath | ReferencePath | ReferencePath | ReferencePath |
| ReferencedDocument | ReferencedInStructures | ReferencedLibrary | ReferencedSource | ReferenceExtent | ReferenceExtent | ReferencePath |
| ReferencesElements | ReferenceSurface | ReferenceTokens | RefLatitude | ReflectanceColour | ReflectanceMethod | ReflectionColour | RefLongitude |
| RefractionIndex | Region | ReinforcementRole | ReinforcementSectionDefinitions | RelatedApprovals | RelatedBuildingElement |
| RelatedBuildings | RelatedConnectionType | RelatedControlElements | RelatedCoverings | RelatedCoverings | RelatedDefinitions | RelatedDefinitions | RelatedDefinitions | RelatedDefinitions | RelatedDefinitions | RelatedDocuments | RelatedDocuments | RelatedDocuments | RelatedDocuments | RelatedDocuments |
| RelatedElement | RelatedElement | RelatedElement | RelatedElements | RelatedElements | RelatedFeatureElement | RelatedMaterials | RelatedMaterials | RelatedMaterials | RelatedMaterials | RelatedMonetaryUnit | RelatedMonetaryUnit | RelatedMonetaryUnit | RelatedMonetaryUnit | RelatedMonetaryUnit |
| RelatedObjects | RelatedObjects | RelatedObjects | RelatedObjects | RelatedObjects | RelatedObjects | RelatedObjects | RelatedObjects | RelatedObjects | RelatedObjects | RelatedObjects | RelatedObjects | RelatedObjects | RelatedObjects | RelatedObjects |
| RelatedOpeningElement | RelatedOrganizations | RelatedPort | RelatedPriorities | RelatedProcess | RelatedPropertySets | RelatedResourceObjects |
| RelatedResourceObjects | RelatedResourceObjects | RelatedStructuralActivity | RelatedStructuralConnection | Relates | Relates | Relates | Relates | Relates | Relates | RelatingActor | RelatingActor | RelatingActor | RelatingActor | RelatingActor |
| RelatingApproval | RelatingApproval | RelatingApproval | RelatingBuildingElement | RelatingBuildingElement | RelatingClassification |
| RelatingConstraint | RelatingConstraint | RelatingContext | RelatingControl | RelatingDocument | RelatingDocument | RelatingElement |
| RelatingElement | RelatingElement | RelatingFlowElement | RelatingGroup | RelatingLibrary | RelatingMaterial | RelatingMaterial | RelatingMaterial | RelatingMaterial | RelatingMaterial | RelatingMonetaryUnit | RelatingMonetaryUnit | RelatingMonetaryUnit | RelatingMonetaryUnit | RelatingMonetaryUnit |
| RelatingObject | RelatingObject | RelatingObject | RelatingOpeningElement | RelatingOrganization | RelatingPort | RelatingPort | RelatingPort | RelatingPort | RelatingPort | RelatingPriorities | RelatingPriorities | RelatingPriorities | RelatingPriorities | RelatingPriorities |
| RelatingProcess | RelatingProcess | RelatingProduct | RelatingPropertyDefinition | RelatingReference | RelatingResource | RelatingSpace |
| RelatingStructuralMember | RelatingStructure | RelatingStructure | RelatingSystem | RelatingTemplate | RelatingType | RelationshipType | RelationshipType | RelationshipType | RelationshipType | RelativePlacement | RelativePlacement | RelativePlacement | RelativePlacement | RelativePlacement |
| RemainingTime | RemainingUsage | RemainingWork | RepeatS | RepeatT | Representation | RepresentationContexts | RepresentationContexts | RepresentationContexts | RepresentationContexts | RepresentationIdentifier | RepresentationIdentifier | RepresentationIdentifier | RepresentationIdentifier | RepresentationIdentifier |
| RepresentationMap | RepresentationMaps | Representations | RepresentationsInContext | RepresentationType | RepresentedMaterial | RequestingApproval |
| ResourceType | ResponsiblePerson | ResponsiblePersons | ResultForLoadGroup | ResultGroupFor | Revision | RiserHeight | Role | Roles |
| RotationalDisplacementRX | RotationalDisplacementRY | RotationalDisplacementRZ | RotationalStiffnessX | RotationalStiffnessY | RotationalStiffnessZ | RoundingRadius | RowCells | Rows | SameSense | SameSense | SameSense | SameSense | SameSense | SameSense |
| RotationalStiffnessByLengthZ | RotationalStiffnessX | RotationalStiffnessY | RotationalStiffnessZ | RotationalStiffnessZ | RoundingRadius | RowCells | Rows | SameSense |
| SameSense | SameSense | SameSense | SbsBoundary | Scale | Scale | Scale2 | Scale2 | Scale3 | ScheduleContour | ScheduleDate | ScheduleDuration | ScheduleDuration | ScheduleDuration | ScheduleDuration |
| ScheduleFinish | ScheduleFinish | ScheduleStart | ScheduleStart | ScheduleUsage | ScheduleWork | Scope | SecondaryMeasureType | SecondaryPlaneAngle |
| SecondaryUnit | SecondMullionOffset | SecondOperand | SecondTransomOffset | SectionDefinition | SectionType | Segments | Segments | Segments | Segments | SelfIntersect | SelfIntersect | SelfIntersect | SelfIntersect | SelfIntersect |
| SelfIntersect | SelfIntersect | SelfIntersect | SelfIntersect | SelfIntersect | SelfIntersect | SelfWeightCoefficients | SemiAxis1 | SemiAxis1 | SemiAxis1 | SemiAxis2 | SemiAxis2 | SemiAxis2 | SemiAxis2 | SemiAxis2 |
| SenseAgreement | SequenceType | ServicedBySystems | ServicesBuildings | SetPointValue | ShapeAspectStyle | ShapeAspectStyle | ShapeAspectStyle | ShapeAspectStyle | ShapeAspectStyle | SheathDiameter | Side | Side | Side | Side |
| ShapeAspectStyle | ShapeAspectStyle | ShapeAspectStyle | ShapeOfProduct | ShapeRepresentations | SharedPlacement | ShearReinforcement | ShearReinforcement | ShearReinforcement | ShearReinforcement | SheathDiameter | SheathDiameter | SheathDiameter | SheathDiameter | SheathDiameter |
| SiteAddress | Sizeable | Sizeable | SizelnX | SizelnY | SlippageX | SlippageY | SlippageZ | Sort | Source | SourceCRS | SourceOfResultGroup | SourceOfResultGroup | SourceOfResultGroup | SourceOfResultGroup |
| SpecularColour | SpecularHighlight | SpineCurve | SpreadAngle | Start | StartOfNextHatchLine | StartParam | StartParam | StartParam | StartParam | StartProfile | StartProfile | StartProfile | StartProfile | StartProfile |
| StartTime | StartTime | StartTime | State | Status | Status | Status | Status | Status | Status | StatusTime | StatusTime | StatusTime | StatusTime | StatusTime |
| SteelGrade | StyledByItem | Styles | Styles | Styles | SubmittedOn | SuffixTitles | SupportedLength | SurfaceColour | SurfaceColour | SurfaceForm | SurfaceForm | SurfaceForm | SurfaceForm | SurfaceForm |
| SurfaceOnRelatedElement | SurfaceOnRelatingElement | SurfaceReinforcement1 | SurfaceReinforcement2 | SweptArea | SweptCurve | SystemType | Tag |
| Tag | TargetCRS | TargetScale | TargetView | TaskTime | TelephoneNumbers | TemplateType | TemplateType | TemplateType | TemplateType | TensionFailureX | TensionFailureX | TensionFailureX | TensionFailureX | TensionFailureX |
| TensionFailureY | TensionFailureZ | TensionForce | TexCoordIndex | TexCoords | TexCoordsList | TextAlign | TextCharacterAppearance | TextCharacterAppearance | TextCharacterAppearance | TextDecoration | TextDecoration | TextDecoration | TextDecoration | TextDecoration |
| TextFontSize | TextIndent | TextStyle | TextTransform | Textures | TextureTransform | TheActor | TheOrganization | TheOrganization | TheOrganization | ThePerson | ThePerson | ThePerson | ThePerson | ThePerson |
| ThermodynamicTemperatureExponent | Thickness | Thickness | Thickness | ThresholdDepth | ThresholdOffset | ThresholdThickness | Tiles | TilingPattern |
| TilingScale | TimeExponent | TimeLag | TimeOfApproval | TimePeriods | TimeSeriesDataType | TimeStamp | TimeStep | TimeValue | ToMaterialConstituentSet | TotalCrossSectionArea | TotalCrossSectionArea | TotalCrossSectionArea | TotalCrossSectionArea | TotalCrossSectionArea |
| TopFlangeEdgeRadius | TopFlangeFilletRadius | TopFlangeSlope | TopFlangeThickness | TopFlangeWidth | TopXDim | TopXOffset | TotalFloat | TotalFloat | TotalReplacementCost | Town | Transition | TranslationalStiffnessByAreaX | TranslationalStiffnessByAreaY | TranslationalStiffnessByAreaZ |
| TotalFloat | TotalFloat | TotalReplacementCost | Town | Transition | TranslationalStiffnessByAreaX | TranslationalStiffnessByAreaY | TranslationalStiffnessByAreaZ | TranslationalStiffnessByLengthX | TranslationalStiffnessByLengthY | TranslationalStiffnessByLengthZ | TranslationalStiffnessByLengthZ | TranslationalStiffnessByLengthZ | TranslationalStiffnessByLengthZ | TranslationalStiffnessByLengthZ |
| TranslationalStiffnessByAreaZ | TranslationalStiffnessByLengthX | TranslationalStiffnessByLengthY | TranslationalStiffnessByLengthZ |
| TranslationalStiffnessZ | TranslationalStiffnessZ | TransmissionColour | TransmissionColour | TransomOffset | TransomOffset | TransomThickness |
| Transparency | TransverseBarCrossSectionArea | TransverseBarCrossSectionArea | TransverseBarNominalDiameter |
| TransverseBarSpacing | TransverseBarSpacing | TransversePosition | TreadLength | TreeRootExpression | Trim1 | Trim2 | TrueNorth | TypeIdentifier | TypeIdentifier | Types | Types | Types | Types | Types |
| U1 | U2 | UAxes | UClosed | UDegree | UKnots | UMultiplicities | Unit | UnitComponent |
| Units | UnitsInContext | UnitType | Update | UpperBoundValue | URLReference | Usage | Usage | Usage | Usage | UsageName | UsageName | UsageName | UsageName | UsageName |
| Usense | User | UserDefinedDataOrigin | UserDefinedDataOrigin | UserDefinedEventTriggerType | UserDefinedEventTriggerType | UserDefinedEventTriggerType | UserDefinedEventTriggerType | UserDefinedEventTriggerType | UserDefinedEventTriggerType | UserDefinedGrade | UserDefinedGrade | UserDefinedGrade | UserDefinedGrade | UserDefinedGrade |
| UserDefinedOperationType | UserDefinedOperationType | UserDefinedPartitioningType | UserDefinedQualifier | UserDefinedQualifier | UserDefinedQualifier | UserDefinedQualifier | UserDefinedQualifier |
| UserDefinedRole | UserDefinedSequenceType | UserDefinedTargetView | UserDefinedType | V1 | V2 | ValidFrom | ValidUntil | ValueComponent | Values | Values | Values | Values | Values | Values |
| Values | Values | ValueSource | VAxes | VClosed | VDegree | Version | Version | Version | Version | VertexGeometry | VerticalDatum | VerticalDatum | VerticalDatum | VerticalDatum |
| VisibleSegmentLength | VKnots | VMultiplicities | Voids | Voids | VoidsElements | VolumeOnRelatedElement | VolumeOnRelatingElement | VolumeOnRelatingElement | VolumeOnRelatingElement | VolumeValue | VolumeValue | VolumeValue | VolumeValue | VolumeValue |
| Vsense | WallThickness | WallThickness | WallThickness | WarpingMoment | WarpingStiffness | WAxes | WebEdgeRadius | WebSlope | WebSlope | WebThickness | WebThickness | WebThickness | WebThickness | WebThickness |
| WebThickness | WebThickness | WebThickness | WebThickness | WebThickness | WeekdayComponent | WeightsData | WeightsData | WeightsData | WeightsData | WeightValue | Width | Width | Width | Width |
| WordSpacing | WorkingTimes | WorkMethod | WorkMethod | WorldCoordinateSystem | WWWHomePageURL | XAxisAbscissa | XAxisOrdinate | XDim |
| XLength | XLength | YDim | YDim | YLength | YLength | ZDim | ZLength |

Named Individuals

| | | | | | | | | | | | | | | |
|-----------------------------------|--------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| ABSORBEDDOSEUNIT | ACCELERATIONUNIT | ACCESS | ACCESSION_ASSEMBLY | ACTIVE | ACTOR | ACTUAL | ADD | ADDED | ADIABATICRIGIDMEDIA | ADIABATICRIGIDMEDIA | ADIABATICRIGIDMEDIA | ADIABATICRIGIDMEDIA | ADIABATICRIGIDMEDIA | ADIABATICRIGIDMEDIA |
| ADIABATICAIRWASHER | ADIABATICATOMIZING | ADIABATICCOMPRESSEDAIRNOZZLE |
| ADIABATICULTRASONIC | ADIABATICWETTEDELEMENT | ADMINISTRATION | ADVICE_CAUTION | ADVICE_NOTE | ADVICE_WARNING | ADVISORY | ADVISORY | ADVISORY | AIRHANDLER | AIRPARTICLEFILTER | AIRRELEASE | AIRSTATION | AIRSTATION | AIRSTATION |
| AGGREGATES | AIRCONDITIONING | AIRCONDITIONINGUNIT | AIRCOOLED |
| ALARMPANEL | ALUMINIUM | ALUMINIUM_PLASTIC | ALUMINIUM_WOOD | AMMETER | AMOUNTOFSUBSTANCEUNIT | AMPERE |
| ANCHORBOLT | ANCHORING | ANCHORPLATE | ANGULARVELOCITYUNIT | ANTENNA | ANTIVACUUM | ARCH | ARCHITECT | AREA |
| AREAFDENSYUNIT | AREAUNIT | ASSEMBLY | ASSETINVENTORY | ASSIGNEE | ASSIGNOR | ASSISTEDBUTANE | ASSISTEDDELECTRIC | ASSISTEDDELECTRIC | ASSISTEDPROPANE | ASSISTEDSTEAM | ATTENDANCE | ATTENDANCE | ATTENDANCE | ATTENDANCE |
| ASSISTEDNATURALGAS | ASSISTEDPROPANE | ASSISTEDSTEAM | ATEND | ATPATH | ATSTART | ATTENDANCE |
| AUDIOVISUALOUTLET | AWNING | AXIS1 | AXIS2 | AXIS3 | BACKDRAFTDAMPER | BALANCINGDAMPER | BALUSTRADE | BAR | BARREL | BENDING_ELEMENT | BENDING_ELEMENT | BENDING_ELEMENT | BENDING_ELEMENT | BENDING_ELEMENT |
| BASELINE | BASESLAB | BASIN | BATH | BATTERY | BEAM | BEAM_GRID | BECKERQUEL | BED | BELL | BELTDRIVE | BEND | BENDING_ELEMENT | BENDING_ELEMENT | BENDING_ELEMENT |
| BIDET | BILINEAR | BIRDCAGE | BLASTDAMPER | BLINN | BOLT | BOOSTER | BORED | BOTH | BOTTOM | BOTTOMHUNG | BRACE | BRACE | BRACE | BRACE |
| BRACED_FRAME | BRACKET | BRAKES | BREAKGLASSBUTTON | BREAKPRESSURE |
| BUILDINGOPERATOR | BUILDINGOWNER | BUOYANCY | BUSBARSEGMENT | BUTTERFLY_ROOF | BY_DAY | COUNT | COUNT | COUNT | COUNT | CABLETRUNKINGSEGMENT | CAISSON | CAISSON | CAISSON | CAISSON |
| CABLECARRIER | CABLELADDERSEGMENT | CABLESEGMENT | CABLETRAYSEGMENT | CABLETRUNKINGSEGMENT | CABLETRUNKINGSEGMENT | CALENDAR |
| CALIBRATION | CAMERA | CANDELA | CAPACITORBANK | CARPENTRY | CARTESIAN | CAST_IN_PLACE | CEILING | CENTI | CENTI | CENTRIFUGALAIRFOIL | CENTRIFUGALAIRFOIL | CENTRIFUGALAIRFOIL | CENTRIFUGALAIRFOIL | CENTRIFUGALAIRFOIL |
| CENTRIFUGALBACKWARDINCLINEDCURVED | CENTRIFUGALFORWARDCURVED | CENTRIFUGALFORWARDCURVED | CENTRIFUGALRADIAL | CHAIR | CHAMFER | CHANGEORDER | CHANGEORDER | CHANGEORDER | CHANGEORDER | CHANGEOPTION | CHANGEOPTION | CHANGEOPTION | CHANGEOPTION | CHANGEOPTION |
| CHANGEOVER | CHECK | CHEMICAL | CHILLEDWATER | CHORD | CHP | CIRCUITBREAKER | CIRCULAR_ARC | CIRCULAR_ARC | CIRCULAR_ARC | CIRULATOR | CISTERNS | CISTERNS | CISTERNS | CISTERNS |
| CIVILENGINEER | CLADDING | CLEANING | CLIENT | CO2SENSOR | COATED | CODECOMPLIANCE | CODEWAIVER | COHESION | COHESION | COLLAR | COLLAR | COLLAR | COLLAR | COLLAR |
| COMPLETION_G1 | COMPLEX | COMPOSITE | COMPOUNDPLANEANGLEUNIT | COMPRESSEDAIR | COMPRESSEDAIRFILTER |
| COMPRESSION_MEMBER | COMPUTER | CONCRETE | CONDENSERWATER | CONDUCTANCESENSOR | CONDUCTORSEGMENT | CONDUCTORSEGMENT | CONDUITSEGMENT |
| CONFIDENTIAL | CONICAL_SURE | CONNECTOR | CONST | CONSTANTFLOW | CONSTRUCTION | CONSTRUCTION | CONSTRUCTIONMANAGER | CONSTRUCTIONMANAGER | CONSTRUCTIONMANAGER | CONSULTANT | CONSULTANT | CONSULTANT | CONSULTANT | CONSULTANT |
| CONSUMERUNIT | CONTACTOR | CONTACTOR | CONTINUOUS | CONTRACTOR | CONTROL | CONTROL | CONTROLDAMPER | CONTROLDAMPER | CONTROLDAMPER | CONTROL PANEL |
| CONTSAMEGRADIENT | CONTSAMEGRADIENT</td | | | | | | | | | | | | | |

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|---|-----------------------|-----------------------------------|-----------------------------------|---------------------------------|---------------------------------------|------------------------------------|----------------------------|-------------------------|
| DISPOSAL | DISTRIBUTIONBOARD | DISTRIBUTIONPOINT | DIVERTING | DIVIDE | DOOME | ROOF | DOMESTICCOLDWATER | DOMESTICHOTWATER |
| DOOR | DOSEQUIVALENTUNIT | DOUBLE ACTING | DOUBLE DOOR | DOUBLE SWING | DOUBLE DOOR | FOLDING | DOUBLE DOOR | SINGLE SWING |
| DOUBLE DOOR | SINGLE SWING | OPPOSITE LEFT | | DOUBLE DOOR | SINGLE SWING | OPPOSITE RIGHT | | DOUBLE DOOR SLIDING |
| DOUBLE PANEL | HORIZONTAL | DOUBLE PANEL VERTICAL | | DOUBLE RETURN STAIR | | DOUBLE SWING LEFT | | DOUBLE SWING RIGHT |
| DOUBLECHECK | DOUBLEREGULATING | DOWEL | DOWN | DRAFT | DRAINAGE | DRAWOFFCOCK | DRIVEN | DRYWALL DUCT |
| DXCOOLINGCOIL | DYNAMIC | DYNAMICVISCOSITYUNIT | EARTHING | EARTHINGSWITCH | EARTHLEAKAGECIRCUITBREAKER | EARTHMOVING | | |
| EARTHQUAKE | EDGE | ELAPSED TIME | ELECTRIC | ELECTRICACTUATOR | ELECTRICAL | ELECTRICALENGINEER | ELECTRICCAPACITANCEUNIT | |
| ELECTRICCHARGEUNIT | | ELECTRICCONDUCTANCEUNIT | | ELECTRICCOOKER | | ELECTRICCURRENTUNIT | ELECTRICHEATINGCOIL | |
| ELECTRICRESISTANCEUNIT | | ELECTRICVOLTAGEUNIT | ELECTROACOUSTIC | ELECTROMAGNETIC | ELECTRONIC | ELEMENT | ELEMENTEDWALL | |
| ELEVATION | VIEW | ELEVATOR | ELLIPTIC ARC | EMAIL | EMERGENCYSTOP | ENDEVENT | ENDSUCTION | ENERGYMETER ENERGYUNIT |
| ENGINEER | ENGINEGENERATOR | ENTRY EQUALTO | EQUIDISTANT | ERECTING | ERCTION | ESCALATOR | ESTIMATE | EVAPORATIVECOOLED |
| EVENTCOMPLEX | EVENTMESSAGE | EVENTRULE | EVENTTIME | EXA | EXHAUST | EXIT | EXPANSION | EXTERNAL EXTERNAL EARTH |
| EXTERNAL FIRE | EXTERNAL WATER | EXTERNALCOMBUSTION | EXTRAORDINARY A | FacilitiesManager | FACTORY | FARAD | FAUCET | FAX |
| FEEDAIRUNIT | FEEDANDEXPANSION | FEMTO | FENESTRATION | FIELDCONSTRUCTIONMANAGER | FILECABINET | FINAL | FINALDRAFT | |
| FINISH | FINISH | FINISH START | FINISHING | FINNED FIRE | FIREDAMPER | FIREHYDRANT | FIREFPROTECTION | FIRESAFETY FIRESENSOR |
| FIRESMOKEADAMPER | | FIRST ORDER THEORY | | FIRSTSHIFT | FIXED END | FIXEDCASEMENT | | FIXEDPANEL |
| FIXEDPLATECOUNTERFLOWEXCHANGER | | FIXEDPLATECROSSFLOWEXCHANGER | | FIXEDPLATEPARALLELFLOWEXCHANGER | | FLAT | | FLAT ROOF |
| FLATOVAL | FLEXIBLESEGMENT | FLOATING | FLOODEDHELLANDTUBE | FLOOR | FLOORING | FLOORTRAP | FLOORWASTE | FLOWSENSOR |
| FLUORESCENT | FLUSHING | FOLDING | FOLDING TO LEFT | FOLDING TO RIGHT | FOOTING BEAM | FORCEUNIT | FORMEDDUCT | FORMWORK |
| FOUNDATION | FREEFORM | | | | | | | |
| FREESTANDINGWATERHEATER | | FREEZER | FREQUENCY | FREQUENCYMETER | FREQUENCYUNIT | FRICITION | FRIDGE FREEZER | |
| FROSTSENSOR | FUEL | FULL NONLINEAR THEORY | FUMEOODEXHAUST | FURNITUREINVENTORY | FUSEDISCONNECTOR | GABLE ROOF | | |
| GAMBREL ROOF | GAS | GASCOCK | GASDETECTIONPANEL | GASHEATINGCOIL | GASMETER | GASENSOR | GASTAP GATE | GATEWAY |
| GENERAL | GENERALISED CONE | GFA | GIGA GIRDER | GLASS GLOBAL COORDS | GLUE | GRAM | GRAPH VIEW | GRAVITYDAMPER |
| GRAVITYRELIEFDAMPER | GRAY | GREASE | GREATER THAN | GREATER THAN OR EQUAL TO | GRILL | GRILLE | GROUP GUARDRAIL | GULLYSUMP |
| GULLYTRAP | GUTTER | GYPSUM | HALF TURN RAMP | HALF TURN STAIR | HALF WINDING STAIR | HALOGEN | HANDDRYER | |
| HANDOPERATEDACTUATOR | HANDRAIL | HARD HARMONICFILTER | HAZARDOUS | HEALTHANDSAFETY | HEATFLUXDENSITYUNIT | HEATING | | |
| HEATINGVALUEUNIT | HEATPIPE | HEATRECOVERY | HEATSENSOR | HECTO | HENRY | HERMETIC | HERTZ | HIGH GRADE STEEL |
| HIGHPRESSUREMERCURY | HIGHPRESSURESODIUM | HIP ROOF | HIPPED GABLE ROOF | HOLE | HOLLOWCORE | HOME | HOSEREEL | |
| HUMIDISTAT | HUMIDITYSENSOR | HVAC | HYDRAULICACTUATOR | HYDRONICCOIL | HYPERBOLIC ARC | ICE | IDENTIFIERSENSOR | |
| ILLUMINANCEUNIT | IMPACT | IMPULSE | IN PLANE LOADING 2D | INCLUDED IN | INCLUDES | INDICATORPANEL | INDIRECTDIRECTCOMBINATION | |
| INDIRECTEVAPORATIVECOOLINGTOWERORCOILCOOLER | | | | | | | INDIRECTEVAPORATIVEWETCOIL | |
| INDUCTANCEUNIT | INDUCTION | INDUCTORBANK | INSPECTIONCHAMBER | INSPECTIONPIT | | INSTALLATION | INSULATION | |
| INTEGERCOUNTAUNEUNIT | INTERMEDIATEVENT | INTERNAL | INTERNALCOMBUSTION | | | | | |
| IONCONCENTRATIONSENSOR | IONCONCENTRATIONUNIT | IRREGULAR | ISOCONTOUR | ISOLATING | | ISOTHERMALMOISTURECAPACITYUNIT | | |
| JALOUSIE | JETGROUTING | JOIST | JOULE JUNCTION | KELVIN | KEYPAD KILO | KINEMATICVISCOSEITYUNIT | KITCHENMACHINE | |
| LACK OF FIT | LANDING | LANDSCAPING | LED LEFT | LENGTHUNIT | LESSEE LESSOR | LESS THAN | LESSTHANOREQUAL TO | |
| LETTINGAGENT | LEVELSENSOR | LIFTINGGEAR | LIGATION LIGHT | LIGHTDOME | LIGHTEMITTINGDIODE | LIGHTING | LIGHTNINGPROTECTION | |
| LIGHTSENSOR | LINEAR | LINEARFORCEUNIT | LINEARMOMENTUNIT | LINEARSTIFFNESSUNIT | LINEARVELOCITYUNIT | LINTEL | LIVE LOAD Q | |
| LOAD CASE | LOAD COMBINATION | LOAD GROUP | LOADBEARING | LOADING 3D | LOCAL COORDS | LOCKED | LOG LINEAR LOG LOG | |
| LOGICALAND | LOGICALNOTAND | LOGICALNOTOR | LOGICALOR | LOGICALXOR | LOGISTIC LOUVER | LOUVRE | LOWPRESSURESODIUM | |
| LOWVOLTAGEHALOGEN | LUMEN | LUMINOUSFLUXUNIT | LUMINOUSINTENSITYDISTRIBUTIONUNIT | LUMINOUSINTENSITYUNIT | LUX | | | |
| MAGNETICFLUXDENSITYUNIT | MAGNETICFLUXUNIT | MAIN MAINTENANCE | MAINTENANCEWORKORDER | MAINVOLTAGEHALOGEN | MANHOLE | | | |
| MANSARD ROOF | MANUALPULLBOX | MANUFACTURER | MARK MASONRY | MASSDENSYUNIT | MASSFLOWRATEUNIT | MASSPERLENGTHUNIT | | |
| MASSUNIT | MATT | MEASURED | MECHANICAENGINEER | MECHANICALFORCEDDRAFT | MECHANICALINDUCEDDRAFT | MEGA MEMBER | | |
| MEMBRANE | MEMBRANE ELEMENT | MERGECONFICT | METAL METALHALIDE | METERCHAMBER | METRE | MICRO MICROPHONE | | |
| MICROWAVE | MIDDLE MILLI | MIMICPANEL | MIRROR MITER | MIXING MODEL | VIEW MODELVIEW | MODEM MODIFIED | | |
| MODULUSOFSUBGRADEACTIONUNIT | | MODULUSOFLINEARSUBGRADEACTIONUNIT | | | MODULUSOFROTATIONALSUBGRADEACTIONUNIT | | | |
| MODULUSOFSUBGRADEACTIONUNIT | | MOISTUREDIFFUSIVITYUNIT | MOISTURESENSOR | MOLDING MOLE | | MOLECULARWEIGHTUNIT | | |
| MOMENTARYSWITCH | MOMENTOINFERTIAUNIT | MONTHLY BY DAY OF MONTH | MONTHLY BY POSITION | MORTAR | MOTORCONTROLCENTRE | | | |
| MOVABLE | MOVE | MOVEMENTSENSOR | MOVEORDER | MOVINGWALKWAY | MULLION MULTIPOSITION | MUNICIPALSOLIDWASTE | | |
| NAIL | NAILPLATE | NANO NATURALDRAFT | NEGATIVE | NETWORKAPPLIANCE | NETWORKBRIDGE | NETWORKHUB | NEWTON NOCHANGE | |
| NOTCH | NOTDEFINED | NOTEQUAL TO | NOTINCLUDEDIN | NOTINCLUDES NULL | OBSTRUCTION OCCUPANCY | ODORFILTER OFFICE OHM | | |
| OIL | OILFILTER | OILMETER | OLED OPENING | OPENTYPE OPERATION | OPERATIONAL OTHER | CONSTRUCTION OTHEROPERATION | | |
| OUT PLANE LOADING 2D | OUTERSHELL | OWNER | OXYGENGENERATOR | OXYGENPLANT | P BOUNDEDVALUE | P COMPLEX | | |
| P ENUMERATEDVALUE | P LISTVALUE | P REFERENCEVALUE | P SINGLEVALUE | P TABLEVALUE | PAD FOOTING | PAINTING PANEL | | |
| PARABOLA | PARABOLIC ARC | PARAMETER | PARAPET | PARKING PARTIAL | PASCAL | PASSIVE PAVILION ROOF | PAVING | |
| PCURVE S1 | PCURVE S2 | PERMANENT G | PERSONAL PETA | PETROL | PHASEANGLEMETER | PHONE PHONG | PHOTOCOPIER | |
| PHSENSOR | PHUNIT | PHYSICAL PICO | PIECEWISE BEZIER KNOTS | PIECEWISEINARY | PIECEWISECONSTANT | PIECEWISECONTINUOUS | | |
| PILASTER | PILE CAP | PIN JOINED MEMBER | PIPE | PIVOTHORIZONTAL | PIVOTVERTICAL | PLAIN PLAN | VIEW PLANARFORCEUNIT | |
| PLANE SURF | PLANEANGLEUNIT | PLANNED | PLASTIC PLATE | PLAYER PLUMBING | PLUMBINGWALL | PNEUMATICACTUATOR | | |
| POINTSOURCE | POLYGONAL | POLYLINE FORM | POLYPHASE | POSITIVE POST | POWER POWERFACTORMETER | POWERGENERATION | | |
| POWEROUTLET | POWERUNIT | PRECAST CONCRETE | PRECASTPANEL | PREDICTED | PREFAB STEEL | PRESSUREGAUGE | | |
| PRESSUREREDUCING | PRESSURERELIEF | PRESSURESENSOR | PRESSUREUNIT | | PRESSUREVESSEL | PRESTRESSING P | | |
| PRICEDBILLOQUANTITIES | PRINTER | PROCESS PRODUCT | PROGRAMMABLE | PROJECT PROJECTED LENGTH | | PROJECTMANAGER | | |
| PROJECTOR | PROPELLORAXIAL | PROPORTIONAL | PROPPING | PROVISIONFORSPACE | PROVISIONFORVOID | PSET OCCURRENCEDRIVEN | | |
| PSET PERFORMANCEDRIVEN | PSET TYPEDRIVENONLY | PSET TYPEDRIVENONLY | PSET TYPEDRIVENOVERRIDE | PUBLIC PUMPING | PUNCHING PURCHASE | | | |
| PURCHASEORDER | PURLIN | Q AREA Q COMPLEX | Q COUNT | Q LENGTH Q TIME | Q VOLUME Q WEIGHT | QTO OCCURRENCEDRIVEN | | |
| QTO TYPEDRIVENONLY | | QTO TYPEDRIVENOVERRIDE | | QUADRATIC SURF | QUARTER TURN RAMP | QUARTER TURN STAIR | | |
| QUARTER WINDING STAIR | QUASI UNIFORM KNOTS | RADIAL RADIAN | RADIATIONSENSOR | RADIATOR | RADIOACTIVITYSENSOR | | | |
| RADIOACTIVITYUNIT | RAFTER | RAIN RAINBOW ROOF | RAINWATER | RAINWATERHOPPER | READONLY READONLYLOCKED | READWRITE | | |
| READWRITELOCKED | RECEIVER | RECESS RECIPROCATING | RECTANGULAR | RECTIFIER REDUCER | REFLECTED PLAN | VIEW | | |
| REFRIGERATION | REFRIGERATOR | REGISTER REGULATING | REINFORCEMENT UNIT | RELAY RELIEFDAMPER | RELUCTANCESYNCHRONOUS | | | |
| REMOVABLECASEMENT | REMOVAL | RENOVATION REPEATER | | REQUIREMENT | RESELLER | RESIDUALCURRENT | | |
| RESIDUALCURRENTCIRCUITBREAKER | RESIDUALCURRENTSWITCH | RESOURCE | RESTRICTED | REVISION REVOLVING | RIGHT RIGID FRAME | | | |
| ROTID | JOINED MEMBER | RIGIDSEGMENT | RING RIVET | ROLLINGPISTON | ROLLINGUP ROOF | ROOFDRAIN ROOFING | ROOPTOPUNIT | |
| ROTARY | ROTARYVANE | ROTARYWHEEL | ROTATIONALFREQUENCYUNIT | | ROTATIONALMASSUNIT | ROTATIONALSTIFFNESSUNIT | ROUND | |
| ROUTER | RULED SURF | RUNAROUNDCOILLOOP | SAFETYCUTOFF | SANITARYFOUNTAIN | SCANNER SCHEDULEOFERATES | SCREEN SCREW | | |
| SCROLL | SECOND | SECOND ORDER THEORY | SECONDSHIFT | SECTION VIEW | SECTIONAREAINTEGRALUNIT | SECTIONMODULUSUNIT | | |
| SECURITY | SECURITYLIGHTING | SELECTORSWITCH | SEMIHERMETIC | SETTLEMENT U | SEWAGE SHADING SHEAR | SHEARCONNECTOR | | |
| SHARMODULUSUNIT | SHED ROOF | SHEET SHELF | SHELL SHELL | SHELLANDCOIL | SHELLANDTUBE SHOE | SHOWER SHRINKAGE | | |
| SHUTDOWN | SHUTTER | SIDEHUNGLLEFTHAND | SIDEHUNGRIGHTHAND | SIEMENS SIEVERT | SIGNAL SIMULATED | SINGLE PANEL | | |
| SINGLE SWING LEFT | SINGLE SWING RIGHT | SINGLESCREW | SINGLESTAGE | SINK SINUS SIREN SITE | SITEGRADING SKETCH | VIEW | | |
| SKIRTINGBOARD | SKYLIGHT | SLAB FIELD | SLEEPING | SLIDING SLIDING TO LEFT | SLIDING TO RIGHT | SLIDINGHORIZONTAL | | |
| SLIDINGVERTICAL | SMOKEDAMPER | SMOKESENSOR | SNOW S SOFA | SOFT SOLARCOLLECTOR | SOLARPANEL | SOLIDANGLEUNIT | | |
| SOLIDWALL | SOUNDPOWERLEVELUNIT | SOUNDPowerUNIT | SOUNDPRESSURELEVELUNIT | SOUNDPRESSUREUNIT | SOUNDSENSOR SOURCE | | | |
| SOURCEANDSINK | SPACE | SPACEINVENTORY | SPANDREL SPEAKER | SPECIFICATION SPECIFICATION | SPECIFICHEATCAPACITYUNIT | SPHERICAL SURF | | |
| SPRAL | SPRAL RAMP | SPRAL STAIR | SPLITCASE SPLITSYSTEM | SPOL SPRING | SPRINKLER SPRINKLERDEFLECTOR | | | |
| SQUARE METRE | STANDALONE | STANDARD STAPLE | START FINISH | START START | STARTER STARTEVENT | STARTUP STEAM | | |
| STEAMHEATINGCOIL | STEAMINJECTION | STEAMTRAP STEEL | STEELWORK | STERADIAN STOPCOCK | STORAGE | STORMWATER | | |
| STRAIGHT | STRAIGHT RUN RAMP | STRAIGHT RUN STAIR | STRAINER STRAND | STRAUSS STRINGER | STRIP FOOTING | | | |
| STRUCTURALENGINEER | STRUT STUD | STUDSHEARCONNECTOR | SUBCONTRACTOR | SUBMERSIBLEPUMP SUBTRACT | SUMP SUMPPUMP | | | |
| SUPPLIER | SUPPORT | SURF OF LINEAR EXTRUSION | SURF OF REVOLUTION | SURVEYING SWING FIXED LEFT | SWING FIXED RIGHT | | | |
| SWINGING | SWITCHBOARD | SWITCHDISCONNECTOR | SWITCHER SYNCHRONOUS | SYSTEM IMPERFECTION T BEAM | TABLE TAG | | | |
| TAPERED | TEE TELEPHONE | TELEPHONEOUTLET TEMPERATURE | TEMPERATURE | TEMPERATUREGRADIENTUNIT | TEMPERATURERATEOFCHANGEUNIT | | | |
| TEMPERATURESENSOR | TENANT | TENDER TENSION MEMBER | TENSIONING END | TERA TERRAIN | TESLA TEXTURED | TERMAL | | |
| TERMALADMITTANCEUNIT | | THERMALCONDUCTANCEUNIT | | THERMALEXPANSIONCOEFFICIENTUNIT | | TERMALRESISTANCEUNIT | | |
| TERMALTRANSMITTANCEUNIT | | THERMODYNAMIC TEMPERATUREUNIT | | THERMOMETER | | THERMOSIPHONCOILTYPEHEATEXCHANGERS | | |
| THERMOSIPHONSEALEDTUBEHEATEXCHANGERS | | Thermostat | ThermostaticACTUATOR | | | THIRD ORDER THEORY | THIRDSHIFT | |
| THREE QUARTER TURN STAIR | | THREE QUARTER WINDING STAIR | | TIILTANDTURNLEFTHAND | | TIILTANDTURNRIGHHAND | TIMECLOCK | |

| | | | | | | | | | | |
|---------------------------------|-------------------|-----------------------|-------------------------|------------------------|-------------------------------|------------------------|-----------------|----------------|------------|--------------|
| TIMEDELAY | TIMEUNIT | TOGGLESWITCH | TOILETPAN | TOP | TOPHUNG | TOROIDAL | SURE | TORQUEUNIT | TRANSITION | TRANSPORT |
| TRANSPORTING | TRAPDOOR | TREATMENT | TRENCH | TRIANGULAR | TRIGGERCONDITION | | | | TRIPLE | PANEL BOTTOM |
| TRIPLE PANEL HORIZONTAL | TRIPLE PANEL LEFT | TRIPLE PANEL RIGHT | TRIPLE PANEL TOP | TRIPLE PANEL VERTICAL | | | | | | TROCHOIDAL |
| TRUE LENGTH | TRUSS | TUBEAXIAL | TUMBLEDRYER | TUNER | TUNGSTENFILAMENT | | | TV | | TWINSCREW |
| TWINTOWERENTHALPYRECOVERYLOOPS | | TWO CURVED RUN STAIR | | TWO QUARTER TURN RAMP | | TWO QUARTER TURN STAIR | | | | |
| TWO QUARTER WINDING STAIR | | TWO STRAIGHT RUN RAMP | | TWO STRAIGHT RUN STAIR | | TWOPOSITION | TYPE A | TYPE B | TYPE C | |
| UNIFORM | UNIFORM KNOTS | UNION | UNPRICEDBILLOQUANTITIES | UNSPECIFIED | UP | UPS | URINAL | USERDEFINED | VACUUM | |
| VACUUMSTATION | VALVECHAMBER | VANFAKIAL | VAPORPERMEABILITYUNIT | VARIABLE_Q | VARIABLEFLOWPRESSUREDEPENDANT | | | | | |
| VARIABLEFLOWPRESSUREINDEPENDANT | VARISTOR | VENDINGMACHINE | VENT | VENTILATION | VERBAL | VERTICALINLINE | VERTICALTURBINE | | | |
| VESSEL | VIRTUAL | VOLT | VOLTAGE | VOLTMETER PEAK | VOLTMETER RMS | VOLUMETRICFLOWRATEUNIT | VOLUMEUNIT | | | |
| WARPINGCONSTANTUNIT | WARPINGMOMENTUNIT | WASHHANDBASIN | WASHINGMACHINE | WASTEDISPOSALUNIT | WASTETRAP | WASTEWATER | | | | |
| WATER | WATERCOOLED | WATERCOOLEDRAZEDPLATE | WATERCOOLEDSHELLCOIL | WATERCOOLEDSHELLTUBE | WATERCOOLEDTUBETINTUBE | | | | | |
| WATERCOOLINGCOIL | WATERFILTER | WATERHEATINGCOIL | WATERMETER | WATERSUPPLY | WATT | WAVE | WCSEAT | WEATHERSTATION | | |
| WEBER | WEEKLY | WELD | WELDED SHELL HERMETIC | WHISTLE | WIND_W | WINDER | WINDOW | WINDSENSOR | WIRE | WOOD WORK |
| WORKORDER | WORKSURFACE | WORKTIME | WRAPPING | YEARLY_BY DAY OF MONTH | YEARLY_BY POSITION | | | | | |

2. Cross reference for IFC4_ADD2_TC1 classes, properties and dataproperties

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This section provides details for each class and property defined by IFC4_ADD2_TC1.

2.1. Classes

| | | | | | | | | | | |
|--|-------------------------------------|---|--|---|---|--|-------------------------------|--------------|-----------------|----------------------|
| ifc absorbed dose measure | ifc acceleration measure | ifc action request | ifc action request type enum | ifc action source type enum | ifc action type enum | | | | | |
| ifc actor | ifc actor role | ifc actor role empty list | ifc actor role list | ifc actor select | ifc actuator | ifc actuator type | ifc actuator type enum | ifc address | | |
| ifc address empty list | ifc address list | ifc address type enum | ifc advanced brep | ifc advanced brep with voids | ifc advanced face | ifc air terminal | | | | |
| ifc air terminal box | ifc air terminal box type | ifc air terminal box type enum | ifc air terminal type | ifc air terminal type enum | ifc air to air heat recovery | | | | | |
| ifc air to air heat recovery type | | ifc air to air heat recovery type enum | ifc alarm | ifc alarm type | ifc alarm type enum | ifc amount of substance measure | | | | |
| ifc analysis model type enum | | ifc analysis theory type enum | ifc angular velocity measure | ifc annotation | ifc annotation fill area | ifc application | ifc applied value | | | |
| ifc applied value empty list | | ifc applied value list | ifc applied value select | ifc approval | ifc approval relationship | ifc arbitrary closed profile def | | | | |
| ifc arbitrary open profile def | | ifc arbitrary profile def with voids | ifc arc index | ifc area density measure | ifc area measure | ifc arithmetic operator enum | | | | |
| ifc assembly place enum | | ifc asset | ifc asymmetric i shape profile def | ifc audio visual appliance | ifc audio visual appliance | ifc axis2 placement3 d empty list | | | | |
| ifc audio visual appliance type enum | | ifc axis1 placement | ifc axis2 placement | ifc axis2 placement2 d | ifc axis2 placement3 d | ifc axis2 placement3 d empty list | | | | |
| ifc axis2 placement3 d list | | ifc b spline curve | ifc b spline curve form | ifc b spline curve with knots | ifc b spline surface | ifc b spline surface form | | | | |
| ifc b spline surface with knots | | ifc beam | ifc beam standard case | ifc beam type | ifc beam type enum | ifc benchmark enum | ifc bending parameter select | | | |
| ifc bending parameter select empty list | | ifc bending parameter select list | ifc binary | ifc binary empty list | ifc binary list | ifc blob texture | ifc block | ifc boiler | | |
| ifc boiler type | ifc boiler type enum | ifc boolean | ifc boolean clipping result | ifc boolean operand | ifc boolean operator | ifc boolean result | ifc boundary condition | | | |
| ifc boundary curve | ifc boundary edge condition | ifc boundary face condition | ifc boundary node condition | ifc boundary node condition | warping | ifc bounded curve | | | | |
| ifc bounded surface | ifc bounding box | ifc box alignment | ifc boxed half space | ifc building | ifc building element | ifc building element part | | | | |
| ifc building element part type | ifc building element part type enum | ifc building element proxy | ifc building element proxy type | ifc building element proxy type enum | ifc building element type | ifc building storey | ifc building system | ifc burner | ifc burner type | ifc burner type enum |
| ifc building element type | | | | | | | | | | |
| ifc c shape profile def | | ifc cable carrier fitting | ifc cable carrier fitting type | ifc cable carrier fitting type enum | ifc cable carrier segment | | | | | |
| ifc cable carrier segment type | | ifc cable carrier segment type enum | ifc cable fitting | ifc cable fitting type | ifc cable fitting type enum | ifc cable segment | | | | |
| ifc cable segment type | | ifc cable segment type enum | ifc cardinal point reference | ifc cartesian point | ifc cartesian point empty list | ifc cartesian point list | | | | |
| ifc cartesian point list | | ifc cartesian point list empty list | ifc cartesian point list list | ifc cartesian point list2 d | ifc cartesian point list3 d | ifc cartesian transformation operator | | | | |
| ifc cartesian transformation operator | | | | | | ifc cartesian transformation operator2 d | | | | |
| ifc cartesian transformation operator3 d | | ifc cartesian transformation operator3 dnon uniform | ifc center line profile def | ifc change action enum | ifc chiller | | | | | |
| ifc chiller type | ifc chiller type enum | ifc chimney | ifc chimney type | ifc chimney type enum | ifc circle | ifc circle hollow profile def | ifc circle profile def | | | |
| ifc civil element | ifc civil element type | ifc classification | ifc classification reference | ifc classification reference select | ifc classification select | ifc closed shell | | | | |
| ifc coil | ifc coil type | ifc coil type enum | ifc colour | ifc colour or factor | ifc colour rgb | ifc colour rgb list | ifc colour specification | ifc column | | |
| ifc column standard case | | ifc column type | ifc column type enum | ifc communications appliance | ifc communications appliance | | | | | |
| ifc communications appliance type enum | | ifc complex number | ifc complex property | ifc complex property template | ifc complex property template type enum | | | | | |
| ifc composite curve | ifc composite curve on surface | ifc composite curve segment | | ifc composite curve segment empty list | ifc composite curve segment list | | | | | |
| ifc composite profile def | ifc compound plane angle measure | ifc compressor | ifc compressor type | ifc compressor type enum | ifc condenser | ifc condenser type | | | | |
| ifc condenser type enum | ifc conic | ifc connected face set | ifc connection curve geometry | ifc connection geometry | ifc connection point eccentricity | | | | | |
| ifc connection point geometry | ifc connection surface geometry | ifc connection type enum | ifc connection volume geometry | ifc constraint | ifc constraint empty list | | | | | |
| ifc constraint enum | ifc constraint list | ifc construction equipment resource | ifc construction equipment resource type | ifc construction equipment resource type enum | ifc construction equipment resource type enum | | | | | |
| ifc construction material resource | | ifc construction material resource type | ifc construction material resource type enum | ifc construction product resource | ifc construction product resource type enum | | | | | |
| ifc construction product resource type | | ifc construction product resource type enum | ifc construction resource | ifc construction resource type | ifc context | | | | | |
| ifc context dependent measure | ifc context dependent unit | ifc control | ifc controller | ifc controller type | ifc controller type enum | ifc conversion based unit | | | | |
| ifc conversion based unit with offset | | ifc cooled beam | ifc cooled beam type | ifc cooled beam type enum | ifc cooling tower | ifc cooling tower type | | | | |
| ifc cooling tower type enum | | ifc coordinate operation | ifc coordinate reference system | ifc coordinate reference system select | ifc cost item | | | | | |
| ifc cost item type enum | ifc cost schedule | ifc cost schedule type enum | ifc cost value | ifc cost value empty list | ifc cost value list | ifc count measure | | | | |
| ifc covering | ifc covering type | ifc covering type enum | ifc crew resource | ifc crew resource type | ifc crew resource type enum | ifc csg primitive3 d | | | | |
| ifc csg select | ifc csg solid | ifc currency relationship | ifc curtain wall | ifc curtain wall type | ifc curtain wall type enum | ifc curvature measure | ifc curve | | | |
| ifc curve bounded plane | | ifc curve bounded surface | ifc curve font or scaled curve font select | ifc curve interpolation enum | ifc curve on surface | | | | | |
| ifc curve or edge curve | | ifc curve style | ifc curve style font | ifc curve style font and scaling | ifc curve style font pattern | ifc curve style font pattern empty list | | | | |
| ifc curve style font pattern list | | ifc curve style font select | ifc cylindrical surface | ifc damper | ifc damper type | ifc data origin enum | | | | |
| ifc date | ifc date time | ifc day in month number | ifc day in week number | ifc definition select | ifc derived measure value | ifc derived profile def | ifc derived unit | | | |
| ifc derived unit element | | ifc derived unit enum | ifc descriptive measure | ifc dimension count | ifc dimensional exponents | ifc direction | ifc direction sense enum | | | |
| ifc discrete accessory | | ifc discrete accessory type | ifc discrete accessory type enum | ifc distribution chamber element | ifc distribution chamber element type | | | | | |
| ifc distribution chamber element type enum | | ifc distribution circuit | ifc distribution control element | ifc distribution control element type | ifc distribution element | | | | | |
| ifc distribution element type | | ifc distribution flow element | ifc distribution flow element type | ifc distribution port | ifc distribution port type enum | | | | | |
| ifc distribution system | | ifc distribution system enum | ifc document confidentiality enum | ifc document information | ifc document information relationship | | | | | |
| ifc document reference | | ifc document select | ifc document status enum | ifc door | ifc door lining properties | ifc door panel operation enum | | | | |
| ifc door panel position enum | | ifc door panel properties | ifc door standard case | ifc door style | ifc door style construction enum | ifc door style operation enum | | | | |
| ifc door type | | ifc door type enum | ifc door type operation enum | ifc dose equivalent measure | ifc draughting pre defined colour | | | | | |
| ifc draughting pre defined curve font | | ifc duct fitting | ifc duct fitting type | ifc duct fitting type enum | ifc duct segment | ifc duct segment type | | | | |
| ifc duct segment type enum | | ifc duct silencer | ifc duct silencer type | ifc duct silencer type enum | ifc duration | ifc dynamic viscosity measure | ifc edge | | | |
| ifc edge curve | | ifc edge loop | ifc electric appliance | ifc electric appliance type | ifc electric appliance type enum | ifc electric capacitance measure | | | | |
| ifc electric charge measure | | ifc electric conductance measure | ifc electric current measure | ifc electric distribution board | ifc electric distribution board type | | | | | |
| ifc electric distribution board type enum | | ifc electric flow storage device | ifc electric flow storage device type | ifc electric flow storage device type enum | ifc electric generator | ifc electric generator type | | | | |
| ifc electric generator | | ifc electric generator type | ifc electric generator type enum | ifc electric motor | ifc electric motor type | ifc electric motor type enum | | | | |
| ifc electric resistance measure | | ifc electric time control | ifc electric time control type | ifc electric time control type enum | ifc electric voltage measure | ifc element | | | | |
| ifc element assembly | | ifc element assembly type | ifc element assembly type enum | ifc element component | ifc element component type | | | | | |
| ifc element composition enum | | ifc element quantity | ifc element type | ifc elementary surface | ifc ellipse | ifc ellipse profile def | ifc energy conversion device | | | |
| ifc energy conversion device type | | ifc energy measure | ifc engine | ifc engine type | ifc engine type enum | ifc evaporative cooler | ifc evaporative cooler type | | | |
| ifc evaporative cooler type enum | | ifc evaporator | ifc evaporator type | ifc evaporator type enum | ifc event | ifc event time | ifc event trigger type enum | | | |
| ifc event type | | ifc event type enum | ifc extended properties | ifc external information | ifc external reference | ifc external reference relationship | | | | |
| ifc external spatial element | | ifc external spatial element type enum | | ifc extruded area solid | ifc extruded area solid tapered | ifc face | ifc face based surface model | | | |
| ifc externally defined surface style | | ifc externally defined text font | | ifc extruded area solid | ifc extruded area solid tapered | ifc face | ifc face based surface model | | | |
| ifc face bound | | ifc face outer bound | ifc face surface | ifc faceted brep | ifc faceted brep with voids | ifc failure connection condition | ifc fan | ifc fan type | | |
| ifc fan type enum | | ifc fastener | ifc fastener type | ifc feature element | ifc feature element addition | ifc feature element subtraction | | | | |
| ifc fill area style | | ifc fill area style hatching | ifc fill area style tiles | ifc fill style select | ifc filter | ifc filter type | ifc fire suppression terminal | | | |
| ifc fire suppression terminal type | | ifc fire suppression terminal type enum | | ifc fixed reference swept area solid | ifc flow controller | ifc flow controller type | | | | |
| ifc flow direction enum | | ifc flow fitting | ifc flow fitting type | ifc flow instrument | ifc flow instrument type | ifc flow instrument type enum | ifc flow meter | | | |
| ifc flow meter type | | ifc flow meter type enum | ifc flow moving device | ifc flow moving device type | ifc flow segment | ifc flow segment type | ifc flow storage device | | | |
| ifc flow storage device type | | ifc flow terminal | ifc flow terminal type | ifc flow treatment device | ifc flow treatment device type | ifc font style | ifc font variant | | | |

| | | | | | | | |
|---|--|--|--|---|--|---|------------------------------|
| ifc font weight | ifc footing | ifc footing type | ifc footing type enum | ifc force measure | ifc frequency measure | ifc furnishing element | ifc furnishing element type |
| ifc furniture | ifc furniture type | ifc furniture type enum | ifc geographic element | ifc geographic element type | ifc geographic element type enum | | |
| ifc geometric curve set | | ifc geometric projection enum | | ifc geometric representation context | | ifc geometric representation item | |
| ifc geometric representation sub context | | ifc geometric set | ifc geometric set select | ifc global or local enum | ifc globally unique id | ifc grid | ifc grid axis |
| ifc grid axis empty list | ifc grid axis list | ifc grid placement | ifc grid placement direction select | ifc grid type enum | ifc group | ifc half space solid | |
| ifc hatch line distance select | ifc heat exchanger | ifc heat exchanger type | ifc heat exchanger type enum | ifc heat flux density measure | ifc heating value measure | | |
| ifc humidifier | ifc humidifier type | ifc humidifier type enum | ifc i shape profile def | ifc identifier | ifc identifier empty list | ifc identifier list | ifc illuminance measure |
| ifc image texture | ifc indexed colour map | ifc indexed indexed poly curve | ifc indexed polygonal face | ifc indexed polygonal face empty list | ifc indexed polygonal face list | | |
| ifc indexed polygonal face with voids | ifc indexed texture map | ifc indexed triangle texture map | ifc inductance measure | ifc integer | ifc integer count rate measure | | |
| ifc integer empty list | ifc integer list | ifc interceptor | ifc interceptor type | ifc interceptor type enum | ifc internal or external enum | ifc intersection curve | |
| ifc inventory | ifc inventory type enum | | ifc ion concentration measure | ifc irregular time series | ifc irregular time series | ifc irregular time series value | |
| ifc irregular time series value empty list | ifc irregular time series value list | | ifc isothermal moisture capacity measure | ifc junction box | ifc junction box type | | |
| ifc junction box type enum | ifc kinematic viscosity measure | ifc knot type | ifc l shape profile def | ifc label | ifc label empty list | ifc label list | ifc labor resource |
| ifc labor resource type | ifc labor resource type enum | ifc lag time | ifc lamp | ifc lamp type | ifc lamp type enum | ifc language id | ifc layer set direction enum |
| ifc layered item | ifc length measure | ifc length measure empty list | ifc length measure list | ifc length measure list empty list | ifc length measure list list | | |
| ifc library information | ifc library reference | ifc library select | ifc light distribution curve | ifc light distribution data | ifc light distribution data empty list | | |
| ifc light distribution data list | ifc light distribution data source select | ifc light emission source enum | ifc light fixture | ifc light fixture type | ifc light fixture type enum | | |
| ifc light intensity distribution | ifc light source | ifc light source ambient | ifc light source directional | ifc light source goniometric | ifc light source positional | | |
| ifc light source spot | ifc line | ifc line index | ifc linear force measure | ifc linear moment measure | ifc linear stiffness measure | ifc linear velocity measure | |
| ifc load group type enum | ifc local placement | ifc logical | ifc logical operator enum | ifc loop | ifc luminous flux measure | | |
| ifc luminous intensity distribution measure | | | ifc luminous intensity distribution measure empty list | ifc luminous intensity distribution measure list | | | |
| ifc luminous intensity measure | ifc magnetic flux density measure | ifc magnetic flux measure | ifc manifold solid brep | ifc map conversion | ifc mapped item | | |
| ifc mass density measure | ifc mass flow rate measure | ifc mass measure | ifc mass per length measure | ifc material | ifc material classification relationship | | |
| ifc material constituent | ifc material constituent set | ifc material definition | ifc material definition representation | ifc material empty list | ifc material layer | | |
| ifc material layer empty list | ifc material layer list | ifc material layer set | ifc material layer set usage | ifc material layer with offsets | ifc material list | ifc material list | |
| ifc material profile | ifc material profile empty list | ifc material profile list | ifc material profile set | ifc material profile set usage | ifc material profile set usage tapering | | |
| ifc material profile with offsets | | ifc material properties | ifc material relationship | ifc material select | ifc material usage definition | ifc measure value | |
| ifc measure with unit | ifc mechanical fastener | | ifc mechanical fastener type | ifc mechanical fastener type enum | ifc medical device | ifc medical device type | |
| ifc medical device type enum | ifc member | ifc member standard case | ifc member type | ifc member type enum | ifc metric | ifc metric value select | |
| ifc mirrored profile def | ifc modulus of elasticity measure | | ifc modulus of linear subgrade reaction measure | ifc modulus of rotational subgrade reaction measure | | | |
| ifc modulus of rotational subgrade reaction select | | | ifc modulus of subgrade reaction measure | ifc modulus of subgrade reaction select | | | |
| ifc modulus of translational subgrade reaction select | | ifc moisture diffusivity measure | ifc molecular weight measure | | | | |
| ifc monetary measure | ifc monetary unit | ifc month in year number | ifc motor connection | ifc motor connection type | | | |
| ifc named unit | ifc non negative length measure | ifc normalised ratio measure | ifc normalised ratio measure empty list | | | | |
| ifc normalised ratio measure list empty list | ifc normalised ratio measure list list | ifc null style | ifc numeric measure | ifc object | ifc object definition | | |
| ifc object definition empty list | ifc object definition list | ifc object placement | ifc object reference select | ifc object type enum | ifc objective | ifc objective enum | |
| ifc occupant | ifc occupant type enum | ifc offset curve2d | ifc offset curve3d | ifc open shell | ifc opening element | | |
| ifc opening standard case | ifc organization | ifc organization relationship | ifc oriented edge | ifc oriented edge empty list | ifc oriented edge list | | |
| ifc outer boundary curve | ifc outlet | ifc outlet type | ifc owner history | ifc p h measure | ifc parameter value | ifc parameter value empty list | |
| ifc parameter value list | ifc parameter value list empty list | ifc parameter value list list | ifc parameterized profile def | ifc path | ifc pcurve | ifc pcurve empty list | |
| ifc pcurve list | ifc performance history | ifc performance history type enum | ifc permeable covering operation enum | ifc permeable covering properties | ifc permit | | |
| ifc permit type enum | ifc person | ifc person and organization | ifc physical complex quantity | ifc physical or virtual enum | ifc physical quantity | | |
| ifc physical quantity empty list | ifc physical quantity list | ifc physical simple quantity | ifc pile | ifc pile construction enum | ifc pile type | ifc pile type enum | |
| ifc pipe fitting | ifc pipe fitting type | ifc pipe fitting type enum | ifc pipe segment | ifc pipe segment type | ifc pixel texture | | |
| ifc placement | ifc planar box | ifc planar extent | ifc planar force measure | ifc plane | ifc plane angle measure | ifc plane angle measure empty list | |
| ifc plane angle measure list | ifc plate | ifc plate standard case | ifc plate type | ifc point | ifc point on curve | ifc point on surface | |
| ifc point or vertex point | ifc poly loop | ifc polygonal bounded half space | ifc polygonal face set | ifc polyline | ifc port | ifc positive integer | |
| ifc positive integer empty list | ifc positive integer list | ifc positive integer list empty list | ifc positive integer list list | ifc positive length measure | | | |
| ifc positive plane angle measure | ifc positive ratio measure | ifc postal address | ifc power measure | ifc pre defined colour | ifc pre defined curve font | | |
| ifc pre defined item | ifc pre defined properties | ifc pre defined property set | ifc pre defined text font | ifc preferred surface curve representation | ifc presentable text | | |
| ifc presentation item | ifc presentation layer assignment | ifc presentation layer with style | ifc presentation style | ifc presentation style assignment | | | |
| ifc presentation style select | ifc pressure measure | ifc procedure | ifc procedure type | ifc process | ifc process select | ifc product | |
| ifc product definition shape | ifc product representation | ifc product representation select | ifc product select | ifc profile def | ifc profile def empty list | | |
| ifc profile def list | ifc profile properties | ifc profile type enum | ifc project | ifc project library | ifc project order | ifc project order type enum | ifc projected c r s |
| ifc projected or true length enum | ifc projection element | ifc projection element type enum | ifc property | ifc property abstraction | ifc property bounded value | | |
| ifc property definition | | ifc property dependency relationship | ifc property enumerated value | ifc property enumeration | ifc property list value | | |
| ifc property reference value | ifc property set | ifc property set definition | ifc property set definition select | ifc property set definition set | ifc property set template | | |
| ifc property set template type enum | ifc property single value | ifc property table value | ifc property template | ifc property template definition | ifc protective device | | |
| ifc protective device tripping unit | | ifc protective device tripping unit type | ifc protective device tripping unit type enum | ifc protective device type | | | |
| ifc protective device type enum | ifc proxy | ifc pump | ifc pump type | ifc pump type enum | ifc quantity area | ifc quantity count | ifc quantity length |
| ifc quantity set | ifc quantity time | ifc quantity volume | ifc quantity weight | ifc radio activity measure | ifc railing | ifc railing type | ifc railing type enum |
| ifc ramp flight | ifc ramp flight type | ifc ramp flight type enum | ifc ramp type | ifc ramp type enum | ifc ratio measure | ifc ratio measure empty list | |
| ifc ratio measure list | ifc rational b spline curve with knots | ifc rational b spline surface with knots | ifc real | ifc real empty list | ifc real list | ifc real list empty list | |
| ifc real list list | ifc rectangle hollow profile def | ifc rectangle profile def | ifc rectangular pyramid | ifc rectangular trimmed surface | ifc recurrence pattern | | |
| ifc recurrence type enum | ifc reference | ifc reflectance method enum | ifc regular time series | ifc reinforcement bar properties | | | |
| ifc reinforcement definition properties | | ifc reinforcing bar | ifc reinforcing bar role enum | ifc reinforcing bar surface enum | ifc reinforcing bar type | | |
| ifc reinforcing bar type enum | ifc reinforcing element | ifc reinforcing element type | ifc reinforcing mesh | ifc reinforcing mesh type | ifc reinforcing mesh type enum | | |
| ifc rel aggregates | ifc rel assigns | ifc rel assigns to actor | ifc rel assigns to control | ifc rel assigns to group | ifc rel assigns to group by factor | | |
| ifc rel assigns to process | ifc rel assigns to product | ifc rel assigns to resource | ifc rel associates | ifc rel associates approval | ifc rel associates classification | | |
| ifc rel associates constraint | ifc rel associates document | ifc rel associates library | ifc rel associates material | ifc rel connects | ifc rel connects elements | | |
| ifc rel connects path elements | | ifc rel connects port to element | ifc rel connects ports | ifc rel connects structural activity | ifc rel connects structural member | | |
| ifc rel connects with eccentricity | | ifc rel connects with realizing elements | ifc rel contained in spatial structure | ifc rel covers bldg elements | ifc rel covers spaces | | |
| ifc rel declares | ifc rel decomposes | ifc rel defines | ifc rel defines by object | ifc rel defines by properties | ifc rel defines by template | ifc rel defines by type | |
| ifc rel fills element | | ifc rel flow control elements | ifc rel interferes elements | ifc rel nests | ifc rel projects element | ifc rel referenced in spatial structure | |
| ifc rel sequence | ifc rel services buildings | ifc rel space boundary | ifc rel space boundary1st level | ifc rel space boundary2nd level | ifc rel voids element | | |
| ifc relationship | ifc reparametrised composite curve segment | ifc representation | ifc representation context | ifc representation empty list | ifc representation item | | |
| ifc representation list | ifc representation map | ifc representation map empty list | ifc representation map list | ifc resource | ifc resource approval relationship | | |
| ifc resource constraint relationship | ifc resource level relationship | ifc resource object select | ifc resource select | ifc resource time | ifc revolted area solid | | |
| ifc revolted area solid tapered | ifc right circular cone | ifc right circular cylinder | ifc role enum | ifc roof | ifc roof type | ifc root | |
| ifc rotational frequency measure | | ifc rotational mass measure | ifc rotational stiffness measure | ifc rotational stiffness select | ifc rounded rectangle profile def | | |
| ifc s i prefix | ifc s i unit | ifc s i unit name | ifc sanitary terminal | ifc sanitary terminal type | ifc sanitary terminal type enum | ifc scheduling time | ifc seam curve |
| ifc section modulus measure | | ifc section properties | ifc section reinforcement properties | ifc section reinforcement properties empty list | | | |
| ifc section reinforcement properties list | | ifc section type enum | ifc sectional area integral measure | ifc sectioned spine | ifc segment index select | | |
| ifc segment index select empty list | ifc segment index select list | ifc sensor | ifc sensor type | ifc sequence enum | ifc shading device | | |
| ifc shading device type | | ifc shading device type enum | ifc shape aspect | ifc shape model | ifc shape model empty list | ifc shape model list | |
| ifc shape representation | | ifc shear modulus measure | ifc shell | ifc shell based surface model | ifc simple property | ifc simple property template | |
| ifc simple property template type enum | ifc simple value | ifc site | ifc size select | ifc slab | ifc slab elemental case | ifc slab standard case | ifc slab type |
| ifc slab type enum | ifc slippage connection condition | ifc solar device | ifc solar device type | ifc solar device type enum | ifc solid angle measure | ifc solid model | |
| ifc solid or shell | ifc sound power level measure | ifc sound power measure | ifc sound pressure level measure | ifc sound pressure measure | ifc space | | |
| ifc space boundary select | ifc space heater | ifc space heater type | ifc space type | ifc space type enum | ifc spatial element | | |
| ifc spatial element type | ifc spatial structure element | ifc spatial structure element type | ifc spatial zone | ifc spatial zone type | ifc spatial zone type enum | | |
| ifc specific heat capacity measure | ifc specular exponent | ifc specular highlight select | ifc specular roughness | ifc sphere | ifc spherical surface | ifc stack terminal | |
| ifc stack terminal type | ifc stack terminal type enum | ifc stair | ifc stair flight | ifc stair flight type | ifc stair flight type enum | ifc stair type | ifc stair type enum |
| ifc state enum | ifc structural action | ifc structural activity | ifc structural activity assignment select | ifc structural analysis model | ifc structural connection | | |
| ifc structural connection condition | ifc structural curve action | ifc structural curve activity type enum | ifc structural curve connection | ifc structural curve member | | | |
| ifc structural curve member type enum | | ifc structural curve member varying | ifc structural curve reaction | ifc structural item | ifc structural linear action | | |
| ifc structural load | ifc structural load case | ifc structural load configuration | ifc structural load group | ifc structural load linear force | ifc structural load or result | | |
| ifc structural load or result empty list | ifc structural load or result list | ifc structural load planar force | ifc structural load single displacement | ifc structural load single displacement | | | |
| ifc structural load single displacement distortion | | ifc structural load single force | ifc structural load single force warping | ifc structural load static | | | |
| ifc structural load temperature | ifc structural member | ifc structural planar action | ifc structural point action | ifc structural point connection | | | |

| | | | | |
|---|-------------------------------------|---|---------------------------------------|---|
| ifc structural point reaction | ifc structural reaction | ifc structural result group | ifc structural surface action | ifc structural surface activity type enum |
| ifc structural surface connection | ifc structural surface member | ifc structural surface member type enum | ifc structural surface member varying | |
| ifc structural surface reaction | ifc style assignment select | ifc style model | ifc styled item | ifc styled representation |
| ifc sub contract resource type | ifc sub contract resource type enum | ifc subedge | ifc surface | ifc sub contract resource |
| ifc surface feature | ifc surface feature type enum | ifc surface of linear extrusion | ifc surface of revolution | ifc surface or face surface |
| ifc surface side | ifc surface style | ifc surface style element select | ifc surface style lighting | ifc surface reinforcement area |
| ifc surface style shading | ifc surface style with textures | ifc surface texture | ifc surface texture empty list | ifc surface texture list |
| ifc swept disk solid | ifc swept disk solid polygonal | ifc swept surface | ifc switching device | ifc switching device type |
| ifc system furniture element | ifc system furniture element type | ifc system furniture element type enum | ifc t shape profile def | ifc table |
| ifc table column empty list | ifc table column list | ifc table row | ifc table row empty list | ifc table row list |
| ifc task duration enum | ifc task time | ifc task time recurring | ifc task type | ifc tank |
| ifc tendon | ifc tendon anchor | ifc tendon anchor type | ifc tendon anchor type enum | ifc tendon type |
| ifc tendon type enum | ifc tessellated face set | ifc tessellated item | ifc text | ifc text alignment |
| ifc text font name list | ifc text font select | ifc text literal | ifc text literal with extent | ifc text path |
| ifc text font style | ifc text font select | ifc text literal | ifc text style | ifc text style font model |
| ifc texture vertex | ifc texture vertex empty list | ifc texture vertex list | ifc texture vertex list | ifc texture coordinate |
| ifc thermal expansion coefficient measure | ifc thermal resistance measure | ifc thermal transmittance measure | ifc thermal admittance measure | ifc thermal conductivity measure |
| ifc time measure | ifc time or ratio select | ifc time period | ifc time period empty list | ifc time period list |
| ifc time series value | ifc time series value empty list | ifc time series value list | ifc time stamp | ifc time series |
| ifc time series value | ifc time series value empty list | ifc time series value list | ifc time stamp | ifc topological representation item |
| ifc toroidal surface | ifc torque measure | ifc transformer | ifc transformer type | ifc translational stiffness select |
| ifc transport element | ifc transport element type | ifc transport element type enum | ifc trapezium profile def | ifc triangulated face set |
| ifc trimming preference | ifc trimming select | ifc tube bundle | ifc tube bundle type | ifc tube bundle type enum |
| ifc type resource | ifc u r i reference | ifc u r i reference empty list | ifc u r i reference list | ifc u shape profile def |
| ifc unitary control element | ifc unitary control element type | ifc unitary control element type enum | ifc unitary equipment | ifc unitary equipment type |
| ifc unitary equipment type enum | ifc value | ifc value empty list | ifc value list | ifc valve |
| ifc vector | ifc vector empty list | ifc vector list | ifc vertex or direction | ifc vertex |
| ifc vibration isolator type enum | ifc virtual element | ifc virtual grid intersection | ifc vertex loop | ifc vibration isolator |
| ifc volumetric flow rate measure | ifc wall | ifc wall elemental case | ifc wall standard case | ifc voiding feature |
| ifc warping moment measure | ifc warping stiffness select | ifc waste terminal | ifc waste terminal type | ifc volume measure |
| ifc window lining properties | ifc window panel operation enum | ifc window panel position enum | ifc window panel properties | ifc warping constant measure |
| ifc window style | ifc window style construction enum | ifc window style operation enum | ifc window type | ifc window standard case |
| ifc work calendar | ifc work calendar type enum | ifc work control | ifc work plan | ifc work plan type enum |
| ifc work time | ifc z shape profile def | ifc zone | ifc work schedule | ifc work schedule type enum |

ifc absorbed dose measure^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAbsorbedDoseMeasure

has super-classes

[ifc derived measure value](#) ^c

REAL

ifc acceleration measure^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAccelerationMeasure

has super-classes

[ifc derived measure value](#) ^c

REAL

ifc action request^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcActionRequest

has super-classes

[ifc control](#) ^c

[LongDescription](#) ^{op} [only](#) [ifc text](#) ^c

[PredefinedType](#) ^{op} [only](#) [ifc action request type enum](#) ^c

[Status](#) ^{op} [only](#) [ifc label](#) ^c

[LongDescription](#) ^{op} [max](#) 1 [ifc text](#) ^c

[PredefinedType](#) ^{op} [max](#) 1 [ifc action request type enum](#) ^c

[Status](#) ^{op} [max](#) 1 [ifc label](#) ^c

is in domain of

[LongDescription](#) ^{op}, [PredefinedType](#) ^{op}, [Status](#) ^{op}

is disjoint with

[ifc cost item](#) ^c, [ifc cost schedule](#) ^c, [ifc performance history](#) ^c, [ifc permit](#) ^c, [ifc project order](#) ^c, [ifc work calendar](#) ^c, [ifc work control](#) ^c

ifc action request type enum^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcActionRequestTypeEnum

has super-classes

ENUMERATION

is in range of

[PredefinedType](#) ^{op}

has members

[EMAIL](#) ⁿⁱ, [FAX](#) ⁿⁱ, [NOTDEFINED](#) ⁿⁱ, [PHONE](#) ⁿⁱ, [POST](#) ⁿⁱ, [USERDEFINED](#) ⁿⁱ, [VERBAL](#) ⁿⁱ

ifc action source type enum^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcActionSourceTypeEnum

has super-classes

ENUMERATION

is in range of

[ActionSource](#) ^{op}

has members

BRAKES ni, BUOYANCY ni, COMPLETION_G1 ni, CREEP ni, CURRENT ni, DEAD_LOAD_G ni, EARTHQUAKE_E ni, ERECTION ni, FIRE ni, ICE ni, IMPACT ni, IMPULSE ni, LACK_OF_FIT ni, LIVE_LOAD_Q ni, NOTDEFINED ni, PRESTRESSING_P ni, PROPPING ni, RAIN ni, SETTLEMENT_U ni, SHRINKAGE ni, SNOW_S ni, SYSTEM_IMPERFECTION ni, TEMPERATURE_T ni, TRANSPORT ni, USERDEFINED ni, WAVE ni, WIND_W ni

ifc action type enum^c

[back to [ToC](#) or [Class ToC](#)

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcActionTypeEnum

has super-classes
ENUMERATION

is in range of
[ActionType](#) op

has members

[EXTRAORDINARY_A](#) ni, [NOTDEFINED](#) ni, [PERMANENT_G](#) ni, [USERDEFINED](#) ni, [VARIABLE_Q](#) ni

ifc actor^c

[back to [ToC](#) or [Class ToC](#)

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcActor

has super-classes

[ifc_object](#) c
[IsActingUpon](#) op only [ifc_rel_assigns_to_actor](#) c
[TheActor](#) op only [ifc_actor_select](#) c
[TheActor](#) op exactly 1 [ifc_actor_select](#) c

has sub-classes

[ifc_occupant](#) c

is in domain of
[IsActingUpon](#) op, [TheActor](#) op

is in range of
[RelatingActor](#) op

is disjoint with

[ifc_control](#) c, [ifc_group](#) c, [ifc_process](#) c, [ifc_product](#) c, [ifc_resource](#) c

ifc actor role^c

[back to [ToC](#) or [Class ToC](#)

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcActorRole

has super-classes

[ifc_resource_object_select](#) c
[Description](#) op only [ifc_text](#) c
[Role](#) op only [ifc_role_enum](#) c
[UserDefinedRole](#) op only [ifc_label](#) c
[Role](#) op exactly 1 [ifc_role_enum](#) c
[Description](#) op max 1 [ifc_text](#) c
[UserDefinedRole](#) op max 1 [ifc_label](#) c

is in domain of

[Description](#) op, [Role](#) op, [UserDefinedRole](#) op

is in range of
[ActingRole](#) op

ifc actor role empty list^c

[back to [ToC](#) or [Class ToC](#)

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcActorRole_EmptyList

has super-classes

[ifc_actor_role_list](#) c
empty list

ifc actor role list^c

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IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcActorRole_List

has super-classes

[OWLList](#)
has contents only [ifc_actor_role](#) c
has next only [ifc_actor_role_list](#) c
is followed by only [ifc_actor_role_list](#) c

has sub-classes

[ifc_actor_role_empty_list](#) c

is in range of

[Roles](#) op, [Roles](#) op, [Roles](#) op

ifc actor select^c

[back to [ToC](#) or [Class ToC](#)

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcActorSelect

has super-classes

[SELECT](#)

has sub-classes

[ifc_organization](#) c, [ifc_person](#) c, [ifc_person_and_organization](#) c

is in range of

[ifc actuator^c](#)[back to ToC or Class ToC](#)IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcActuator

has super-classes

- [ifc distribution control element^c](#)
- [PredefinedType^{op} only ifc actuator type enum^c](#)
- [PredefinedType^{op} max 1 ifc actuator type enum^c](#)

is in domain of

[PredefinedType^{op}](#)

is disjoint with

[ifc alarm^c](#), [ifc controller^c](#), [ifc flow instrument^c](#), [ifc protective device tripping unit^c](#), [ifc sensor^c](#), [ifc unitary control element^c](#)[ifc actuator type^c](#)[back to ToC or Class ToC](#)IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcActuatorType

has super-classes

- [ifc distribution control element type^c](#)
- [PredefinedType^{op} only ifc actuator type enum^c](#)
- [PredefinedType^{op} exactly 1 ifc actuator type enum^c](#)

is in domain of

[PredefinedType^{op}](#)

is disjoint with

[ifc alarm type^c](#), [ifc controller type^c](#), [ifc flow instrument type^c](#), [ifc protective device tripping unit type^c](#), [ifc sensor type^c](#), [ifc unitary control element type^c](#)[ifc actuator type enum^c](#)[back to ToC or Class ToC](#)IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcActuatorTypeEnum

has super-classes

[ENUMERATION](#)

is in range of

[PredefinedType^{op}](#), [PredefinedType^{op}](#)

has members

[ELECTRICACTUATORⁿⁱ](#), [HANDOPERATEDACTUATORⁿⁱ](#), [HYDRAULICACTUATORⁿⁱ](#), [NOTDEFINEDⁿⁱ](#), [PNEUMATICACTUATORⁿⁱ](#), [THERMOSTATICACTUATORⁿⁱ](#), [USERDEFINEDⁿⁱ](#)[ifc address^c](#)[back to ToC or Class ToC](#)IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAddress

has super-classes

- [ifc object reference select^c](#)
- [ifc postal address^c or ifc telecom address^c](#)
- [Description^{op} only ifc text^c](#)
- [Purpose^{op} only ifc address type enum^c](#)
- [UserDefinedPurpose^{op} only ifc label^c](#)
- [Description^{op} max 1 ifc text^c](#)
- [Purpose^{op} max 1 ifc address type enum^c](#)
- [UserDefinedPurpose^{op} max 1 ifc label^c](#)

has sub-classes

[ifc postal address^c](#), [ifc telecom address^c](#)

is in domain of

[Description^{op}](#), [Purpose^{op}](#), [UserDefinedPurpose^{op}](#)[ifc address empty list^c](#)[back to ToC or Class ToC](#)IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAddress_EmptyList

has super-classes

[ifc address list^c](#)
empty list[ifc address list^c](#)[back to ToC or Class ToC](#)IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAddress_List

has super-classes

- [OWLList](#)
- [has contents only ifc address^c](#)
- [has next only ifc address list^c](#)
- [is followed by only ifc address list^c](#)

has sub-classes

[ifc address empty list^c](#)

is in range of

[Addresses^{op}](#), [Addresses^{op}](#)

ifc address type enum^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAddressTypeEnum

has super-classes

ENUMERATION

is in range of

Purpose ^{op}

has members

DISTRIBUTIONPOINT ⁿⁱ, HOME ⁿⁱ, OFFICE ⁿⁱ, SITE ⁿⁱ, USERDEFINED ⁿⁱ

ifc advanced brep

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAdvancedBrep

has super-classes

ifc manifold solid brep ^c

has sub-classes

ifc advanced brep with voids ^c

is disjoint with

ifc faceted brep ^c

ifc advanced brep with voids^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAdvancedBrepWithVoids

has super-classes

ifc advanced brep ^c

Voids ^{op} **only** ifc closed shell ^c

Voids ^{op} **min** 1 ifc closed shell ^c

is in domain of

Voids ^{op}

ifc advanced face^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAdvancedFace

has super-classes

ifc face surface ^c

ifc air terminal^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAirTerminal

has super-classes

ifc flow terminal ^c

PredefinedType ^{op} **only** ifc air terminal type enum ^c

PredefinedType ^{op} **max** 1 ifc air terminal type enum ^c

is in domain of

PredefinedType ^{op}

is disjoint with

ifc audio visual appliance ^c, ifc communications appliance ^c, ifc electric appliance ^c, ifc fire suppression terminal ^c, ifc lamp ^c, ifc light fixture ^c, ifc medical device ^c, ifc outlet ^c, ifc sanitary terminal ^c, ifc space heater ^c, ifc stack terminal ^c, ifc waste terminal ^c

ifc air terminal box^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAirTerminalBox

has super-classes

ifc flow controller ^c

PredefinedType ^{op} **only** ifc air terminal box type enum ^c

PredefinedType ^{op} **max** 1 ifc air terminal box type enum ^c

is in domain of

PredefinedType ^{op}

is disjoint with

ifc damper ^c, ifc electric distribution board ^c, ifc electric time control ^c, ifc flow meter ^c, ifc protective device ^c, ifc switching device ^c, ifc valve ^c

ifc air terminal box type^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAirTerminalBoxType

has super-classes

ifc flow controller type ^c

PredefinedType ^{op} **only** ifc air terminal box type enum ^c

PredefinedType ^{op} **exactly** 1 ifc air terminal box type enum ^c

is in domain of

PredefinedType ^{op}

is disjoint with

[ifc damper type](#) ^c, [ifc electric distribution board type](#) ^c, [ifc electric time control type](#) ^c, [ifc flow meter type](#) ^c, [ifc protective device type](#) ^c, [ifc switching device type](#) ^c, [ifc valve type](#) ^c

ifc air terminal box type enum^c

[back to [ToC](#) or [Class ToC](#)]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAirTerminalBoxTypeEnum

has super-classes

ENUMERATION

is in range of

[PredefinedType](#) ^{op}, [PredefinedType](#) ^{op}

has members

[CONSTANTFLOW](#) ⁿⁱ, [NOTDEFINED](#) ⁿⁱ, [USERDEFINED](#) ⁿⁱ, [VARIABLEFLOWPRESSUREDEPENDANT](#) ⁿⁱ, [VARIABLEFLOWPRESSUREINDEPENDANT](#) ⁿⁱ

ifc air terminal type^c

[back to [ToC](#) or [Class ToC](#)]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAirTerminalType

has super-classes

[ifc flow terminal type](#) ^c

[PredefinedType](#) ^{op} **only** [ifc air terminal type enum](#) ^c

[PredefinedType](#) ^{op} **exactly 1** [ifc air terminal type enum](#) ^c

is in domain of

[PredefinedType](#) ^{op}

is disjoint with

[ifc audio visual appliance type](#) ^c, [ifc communications appliance type](#) ^c, [ifc electric appliance type](#) ^c, [ifc fire suppression terminal type](#) ^c, [ifc lamp type](#) ^c, [ifc light fixture type](#) ^c, [ifc medical device type](#) ^c, [ifc outlet type](#) ^c, [ifc sanitary terminal type](#) ^c, [ifc space heater type](#) ^c, [ifc stack terminal type](#) ^c, [ifc waste terminal type](#) ^c

ifc air terminal type enum^c

[back to [ToC](#) or [Class ToC](#)]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAirTerminalTypeEnum

has super-classes

ENUMERATION

is in range of

[PredefinedType](#) ^{op}, [PredefinedType](#) ^{op}

has members

[DIFFUSER](#) ⁿⁱ, [GRILLE](#) ⁿⁱ, [LOUVRE](#) ⁿⁱ, [NOTDEFINED](#) ⁿⁱ, [REGISTER](#) ⁿⁱ, [USERDEFINED](#) ⁿⁱ

ifc air to air heat recovery^c

[back to [ToC](#) or [Class ToC](#)]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAirToAirHeatRecovery

has super-classes

[ifc energy conversion device](#) ^c

[PredefinedType](#) ^{op} **only** [ifc air to air heat recovery type enum](#) ^c

[PredefinedType](#) ^{op} **max 1** [ifc air to air heat recovery type enum](#) ^c

is in domain of

[PredefinedType](#) ^{op}

is disjoint with

[ifc boiler](#) ^c, [ifc burner](#) ^c, [ifc chiller](#) ^c, [ifc coil](#) ^c, [ifc condenser](#) ^c, [ifc cooled beam](#) ^c, [ifc cooling tower](#) ^c, [ifc electric generator](#) ^c, [ifc electric motor](#) ^c, [ifc engine](#) ^c, [ifc evaporative cooler](#) ^c, [ifc evaporator](#) ^c, [ifc heat exchanger](#) ^c, [ifc humidifier](#) ^c, [ifc motor connection](#) ^c, [ifc solar device](#) ^c, [ifc transformer](#) ^c, [ifc tube bundle](#) ^c, [ifc unitary equipment](#) ^c

ifc air to air heat recovery type^c

[back to [ToC](#) or [Class ToC](#)]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAirToAirHeatRecoveryType

has super-classes

[ifc energy conversion device type](#) ^c

[PredefinedType](#) ^{op} **only** [ifc air to air heat recovery type enum](#) ^c

[PredefinedType](#) ^{op} **exactly 1** [ifc air to air heat recovery type enum](#) ^c

is in domain of

[PredefinedType](#) ^{op}

is disjoint with

[ifc boiler type](#) ^c, [ifc burner type](#) ^c, [ifc chiller type](#) ^c, [ifc coil type](#) ^c, [ifc condenser type](#) ^c, [ifc cooled beam type](#) ^c, [ifc cooling tower type](#) ^c, [ifc electric generator type](#) ^c, [ifc electric motor type](#) ^c, [ifc engine type](#) ^c, [ifc evaporative cooler type](#) ^c, [ifc evaporator type](#) ^c, [ifc heat exchanger type](#) ^c, [ifc humidifier type](#) ^c, [ifc motor connection type](#) ^c, [ifc solar device type](#) ^c, [ifc transformer type](#) ^c, [ifc tube bundle type](#) ^c, [ifc unitary equipment type](#) ^c

ifc air to air heat recovery type enum^c

[back to [ToC](#) or [Class ToC](#)]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAirToAirHeatRecoveryTypeEnum

has super-classes

ENUMERATION

is in range of

[PredefinedType](#) ^{op}, [PredefinedType](#) ^{op}

has members

[FIXEDPLATECOUNTERFLOWEXCHANGER](#) ⁿⁱ, [FIXEDPLATECROSSFLOWEXCHANGER](#) ⁿⁱ, [FIXEDPLATEPARALLELFLOWEXCHANGER](#) ⁿⁱ, [HEATPIPE](#) ⁿⁱ, [NOTDEFINED](#) ⁿⁱ, [ROTARYWHEEL](#) ⁿⁱ, [RUNAROUNDCOILLOOP](#) ⁿⁱ, [THERMOSIPHONCOILTYPEHEATEXCHANGERS](#) ⁿⁱ, [THERMOSIPHONSEALEDTUBEHEATEXCHANGERS](#) ⁿⁱ, [TWINTOWERENTHALPYRECOVERYLOOPS](#) ⁿⁱ, [USERDEFINED](#) ⁿⁱ

ifc alarm^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAlarm

has super-classes

[ifc distribution control element](#) ^c
[PredefinedType](#) op **only** [ifc alarm type enum](#) ^c
[PredefinedType](#) op **max 1** [ifc alarm type enum](#) ^c

is in domain of

[PredefinedType](#) op

is disjoint with

[ifc actuator](#) ^c, [ifc controller](#) ^c, [ifc flow instrument](#) ^c, [ifc protective device tripping unit](#) ^c, [ifc sensor](#) ^c, [ifc unitary control element](#) ^c

ifc alarm type^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAlarmType

has super-classes

[ifc distribution control element type](#) ^c
[PredefinedType](#) op **only** [ifc alarm type enum](#) ^c
[PredefinedType](#) op **exactly 1** [ifc alarm type enum](#) ^c

is in domain of

[PredefinedType](#) op

is disjoint with

[ifc actuator type](#) ^c, [ifc controller type](#) ^c, [ifc flow instrument type](#) ^c, [ifc protective device tripping unit type](#) ^c, [ifc sensor type](#) ^c, [ifc unitary control element type](#) ^c

ifc alarm type enum^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAlarmTypeEnum

has super-classes

ENUMERATION

is in range of

[PredefinedType](#) op, [PredefinedType](#) op

has members

[BELL](#) ⁿⁱ, [BREAKGLASSBUTTON](#) ⁿⁱ, [LIGHT](#) ⁿⁱ, [MANUALPULLBOX](#) ⁿⁱ, [NOTDEFINED](#) ⁿⁱ, [SIREN](#) ⁿⁱ, [USERDEFINED](#) ⁿⁱ, [WHISTLE](#) ⁿⁱ

ifc amount of substance measure^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAmountOfSubstanceMeasure

has super-classes

[ifc measure value](#) ^c

REAL

ifc analysis model type enum^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAnalysisModelTypeEnum

has super-classes

ENUMERATION

is in range of

[PredefinedType](#) op

has members

[IN PLANE LOADING 2D](#) ⁿⁱ, [LOADING 3D](#) ⁿⁱ, [NOTDEFINED](#) ⁿⁱ, [OUT PLANE LOADING 2D](#) ⁿⁱ, [USERDEFINED](#) ⁿⁱ

ifc analysis theory type enum^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAnalysisTheoryTypeEnum

has super-classes

ENUMERATION

is in range of

[TheoryType](#) op

has members

[FIRST ORDER THEORY](#) ⁿⁱ, [FULL NONLINEAR THEORY](#) ⁿⁱ, [NOTDEFINED](#) ⁿⁱ, [SECOND ORDER THEORY](#) ⁿⁱ, [THIRD ORDER THEORY](#) ⁿⁱ, [USERDEFINED](#) ⁿⁱ

ifc angular velocity measure^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAngularVelocityMeasure

has super-classes

[ifc derived measure value](#) ^c

REAL

ifc annotation^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAnnotation

has super-classes

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| ifc product ^c |
| is disjoint with |
| ifc element ^c , ifc grid ^c , ifc port ^c , ifc proxy ^c , ifc spatial element ^c , ifc structural activity ^c , ifc structural item ^c |

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| ifc annotation fill area ^c |
| back to ToC or Class ToC |
| IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAnnotationFillArea |
| has super-classes |
| ifc geometric representation item ^c |
| InnerBoundary ^{op} only ifc curve ^c |
| OuterBoundary ^{op} only ifc curve ^c |
| OuterBoundary ^{op} exactly 1 ifc curve ^c |
| is in domain of |
| InnerBoundary ^{op} , OuterBoundary ^{op} |
| is disjoint with |
| ifc boolean result ^c , ifc bounding box ^c , ifc cartesian point list ^c , ifc cartesian transformation operator ^c , ifc composite curve segment ^c , ifc csg.primitive3d ^c , ifc curve ^c , ifc direction ^c , ifc face based surface model ^c , ifc fill area style hatching ^c , ifc fill area style tiles ^c , ifc geometric set ^c , ifc half space solid ^c , ifc light source ^c , ifc placement ^c , ifc planar extent ^c , ifc point ^c , ifc sectioned spine ^c , ifc shell based surface model ^c , ifc solid model ^c , ifc surface ^c , ifc tessellated item ^c , ifc text literal ^c , ifc vector ^c |

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| ifc application ^c |
| back to ToC or Class ToC |
| IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcApplication |
| has super-classes |
| ApplicationDeveloper ^{op} only ifc organization ^c |
| ApplicationFullName ^{op} only ifc label ^c |
| ApplicationIdentifier ^{op} only ifc identifier ^c |
| Version ^{op} only ifc label ^c |
| ApplicationDeveloper ^{op} exactly 1 ifc organization ^c |
| ApplicationFullName ^{op} exactly 1 ifc label ^c |
| ApplicationIdentifier ^{op} exactly 1 ifc identifier ^c |
| Version ^{op} exactly 1 ifc label ^c |
| is in domain of |
| ApplicationDeveloper ^{op} , ApplicationFullName ^{op} , ApplicationIdentifier ^{op} , Version ^{op} |
| is in range of |
| LastModifyingApplication ^{op} , OwningApplication ^{op} |

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| ifc applied value ^c |
| back to ToC or Class ToC |
| IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAppliedValue |
| has super-classes |
| ifc metric value select ^c |
| ifc object reference select ^c |
| ifc resource object select ^c |
| ApplicableDate ^{op} only ifc date ^c |
| AppliedValue ^{op} only ifc applied value select ^c |
| ArithmeticOperator ^{op} only ifc arithmetic operator enum ^c |
| Category ^{op} only ifc label ^c |
| Components ^{op} only ifc applied value list ^c |
| Components ^{op} only has next some ifc applied value list ^c |
| Condition ^{op} only ifc label ^c |
| Description ^{op} only ifc text ^c |
| FixedUntilDate ^{op} only ifc date ^c |
| Name ^{op} only ifc label ^c |
| UnitBasis ^{op} only ifc measure with unit ^c |
| ApplicableDate ^{op} max 1 ifc date ^c |
| AppliedValue ^{op} max 1 ifc applied value select ^c |
| ArithmeticOperator ^{op} max 1 ifc arithmetic operator enum ^c |
| Category ^{op} max 1 ifc label ^c |
| Components ^{op} max 1 ifc applied value list ^c |
| Condition ^{op} max 1 ifc label ^c |
| Description ^{op} max 1 ifc text ^c |
| FixedUntilDate ^{op} max 1 ifc date ^c |
| Name ^{op} max 1 ifc label ^c |
| UnitBasis ^{op} max 1 ifc measure with unit ^c |
| has sub-classes |
| ifc cost value ^c |
| is in domain of |
| ApplicableDate ^{op} , AppliedValue ^{op} , ArithmeticOperator ^{op} , Category ^{op} , Components ^{op} , Condition ^{op} , Description ^{op} , FixedUntilDate ^{op} , Name ^{op} , UnitBasis ^{op} |

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| ifc applied value empty list ^c |
| back to ToC or Class ToC |
| IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAppliedValue_EmptyList |
| has super-classes |
| ifc applied value list ^c |
| empty list |

ifc applied value list^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAppliedValue_List

has super-classes

[OWLList](#)

has contents [only ifc applied value](#)

has next [only ifc applied value list](#)

is followed by [only ifc applied value list](#)

has sub-classes

[ifc applied value empty list](#)

is in range of

[BaseCosts](#) ^{op}, [BaseCosts](#) ^{op}, [Components](#) ^{op}

ifc applied value select^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAppliedValueSelect

has super-classes

[SELECT](#)

has sub-classes

[ifc measure with unit](#), [ifc reference](#), [ifc value](#)

is in range of

[AppliedValue](#) ^{op}

ifc approval^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcApproval

has super-classes

[ifc resource object select](#)

[ApprovedObjects](#) ^{op} [only ifc rel associates approval](#)

[ApprovedResources](#) ^{op} [only ifc resource approval relationship](#)

[Description](#) ^{op} [only ifc text](#)

[GivingApproval](#) ^{op} [only ifc actor select](#)

[Identifier](#) ^{op} [only ifc identifier](#)

[IsRelatedWith](#) ^{op} [only ifc approval relationship](#)

[Level](#) ^{op} [only ifc label](#)

[Name](#) ^{op} [only ifc label](#)

[Qualifier](#) ^{op} [only ifc text](#)

[Relates](#) ^{op} [only ifc approval relationship](#)

[RequestingApproval](#) ^{op} [only ifc actor select](#)

[Status](#) ^{op} [only ifc label](#)

[TimeOfApproval](#) ^{op} [only ifc date time](#)

[Description](#) ^{op} [max 1 ifc text](#)

[GivingApproval](#) ^{op} [max 1 ifc actor select](#)

[Identifier](#) ^{op} [max 1 ifc identifier](#)

[Level](#) ^{op} [max 1 ifc label](#)

[Name](#) ^{op} [max 1 ifc label](#)

[Qualifier](#) ^{op} [max 1 ifc text](#)

[RequestingApproval](#) ^{op} [max 1 ifc actor select](#)

[Status](#) ^{op} [max 1 ifc label](#)

[TimeOfApproval](#) ^{op} [max 1 ifc date time](#)

is in domain of

[ApprovedObjects](#) ^{op}, [ApprovedResources](#) ^{op}, [Description](#) ^{op}, [GivingApproval](#) ^{op}, [Identifier](#) ^{op}, [IsRelatedWith](#) ^{op}, [Level](#) ^{op}, [Name](#) ^{op}, [Qualifier](#) ^{op}, [Relates](#) ^{op}, [RequestingApproval](#) ^{op}, [Status](#) ^{op}, [TimeOfApproval](#) ^{op}

is in range of

[RelatedApprovals](#) ^{op}, [RelatingApproval](#) ^{op}, [RelatingApproval](#) ^{op}, [RelatingApproval](#) ^{op}

ifc approval relationship^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcApprovalRelationship

has super-classes

[ifc resource level relationship](#)

[RelatedApprovals](#) ^{op} [only ifc approval](#)

[RelatingApproval](#) ^{op} [only ifc approval](#)

[RelatedApprovals](#) ^{op} [min 1 ifc approval](#)

[RelatingApproval](#) ^{op} [exactly 1 ifc approval](#)

is in domain of

[RelatedApprovals](#) ^{op}, [RelatingApproval](#) ^{op}

is in range of

[IsRelatedWith](#) ^{op}, [Relates](#) ^{op}

is disjoint with

[ifc currency relationship](#), [ifc document information relationship](#), [ifc external reference relationship](#), [ifc material relationship](#), [ifc organization relationship](#), [ifc property dependency relationship](#), [ifc resource approval relationship](#), [ifc resource constraint relationship](#)

ifc arbitrary closed profile def^c

[back to ToC or Class ToC]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcArbitraryClosedProfileDef

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|---|--|
| <p>has super-classes</p> <ul style="list-style-type: none"> ifc profile def ^c OuterCurve ^{op} only ifc curve ^c OuterCurve ^{op} exactly 1 ifc curve ^c <p>has sub-classes</p> <ul style="list-style-type: none"> ifc arbitrary profile def with voids ^c <p>is in domain of</p> <ul style="list-style-type: none"> OuterCurve ^{op} <p>is disjoint with</p> <ul style="list-style-type: none"> ifc arbitrary open profile def ^c, ifc composite profile def ^c, ifc derived profile def ^c, ifc parameterized profile def ^c | back to ToC or Class ToC |
|---|--|

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| <p>ifc arbitrary open profile def ^c</p> <p>IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcArbitraryOpenProfileDef</p> <p>has super-classes</p> <ul style="list-style-type: none"> ifc profile def ^c Curve ^{op} only ifc bounded curve ^c Curve ^{op} exactly 1 ifc bounded curve ^c <p>has sub-classes</p> <ul style="list-style-type: none"> ifc center line profile def ^c <p>is in domain of</p> <ul style="list-style-type: none"> Curve ^{op} <p>is disjoint with</p> <ul style="list-style-type: none"> ifc arbitrary closed profile def ^c, ifc composite profile def ^c, ifc derived profile def ^c, ifc parameterized profile def ^c | back to ToC or Class ToC |
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| <p>ifc arbitrary profile def with voids ^c</p> <p>IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcArbitraryProfileDefWithVoids</p> <p>has super-classes</p> <ul style="list-style-type: none"> ifc arbitrary closed profile def ^c InnerCurves ^{op} only ifc curve ^c InnerCurves ^{op} min 1 ifc curve ^c <p>is in domain of</p> <ul style="list-style-type: none"> InnerCurves ^{op} | back to ToC or Class ToC |
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|---|--|
| <p>ifc arc index ^c</p> <p>IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcArcIndex</p> <p>has super-classes</p> <ul style="list-style-type: none"> ifc positive integer list ^c ifc segment index select ^c has next some has next some has next some ifc positive integer list ^c has next only has next only has next exactly 1 ifc positive integer empty list ^c | back to ToC or Class ToC |
|---|--|

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| <p>ifc area density measure ^c</p> <p>IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAreaDensityMeasure</p> <p>has super-classes</p> <ul style="list-style-type: none"> ifc derived measure value ^c REAL | back to ToC or Class ToC |
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| <p>ifc area measure ^c</p> <p>IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAreaMeasure</p> <p>has super-classes</p> <ul style="list-style-type: none"> ifc measure value ^c REAL <p>is in range of</p> <ul style="list-style-type: none"> AreaValue ^{op}, CrossSectionArea ^{op}, CrossSectionArea ^{op}, CrossSectionArea ^{op}, CrossSectionArea ^{op}, LongitudinalBarCrossSectionArea ^{op}, LongitudinalBarCrossSectionArea ^{op}, TotalCrossSectionArea ^{op}, TransverseBarCrossSectionArea ^{op}, TransverseBarCrossSectionArea ^{op} | back to ToC or Class ToC |
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| <p>ifc arithmetic operator enum ^c</p> <p>IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcArithmeticOperatorEnum</p> <p>has super-classes</p> <ul style="list-style-type: none"> ENUMERATION <p>is in range of</p> <ul style="list-style-type: none"> ArithmeticOperator ^{op} <p>has members</p> <ul style="list-style-type: none"> ADD ⁿⁱ, DIVIDE ⁿⁱ, MULTIPLY ⁿⁱ, SUBTRACT ⁿⁱ | back to ToC or Class ToC |
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| <p>ifc assembly place enum ^c</p> <p>IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAssemblyPlaceEnum</p> | back to ToC or Class ToC |
|--|--|

has super-classes

ENUMERATION

is in range of[AssemblyPlace](#) op, [AssemblyPlace](#) op**has members**[FACTORY](#) ni, [NOTDEFINED](#) ni, [SITE](#) ni**ifc asset**^c[back to ToC or Class ToC](#)IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAsset**has super-classes**

[ifc group](#) c
[CurrentValue](#) op **only** [ifc cost value](#) c
[DepreciatedValue](#) op **only** [ifc cost value](#) c
[Identification](#) op **only** [ifc identifier](#) c
[IncorporationDate](#) op **only** [ifc date](#) c
[OriginalValue](#) op **only** [ifc cost value](#) c
[Owner](#) op **only** [ifc actor select](#) c
[ResponsiblePerson](#) op **only** [ifc person](#) c
[TotalReplacementCost](#) op **only** [ifc cost value](#) c
[User](#) op **only** [ifc actor select](#) c
[CurrentValue](#) op **max 1** [ifc cost value](#) c
[DepreciatedValue](#) op **max 1** [ifc cost value](#) c
[Identification](#) op **max 1** [ifc identifier](#) c
[IncorporationDate](#) op **max 1** [ifc date](#) c
[OriginalValue](#) op **max 1** [ifc cost value](#) c
[Owner](#) op **max 1** [ifc actor select](#) c
[ResponsiblePerson](#) op **max 1** [ifc person](#) c
[TotalReplacementCost](#) op **max 1** [ifc cost value](#) c
[User](#) op **max 1** [ifc actor select](#) c

is in domain of[CurrentValue](#) op, [DepreciatedValue](#) op, [Identification](#) op, [IncorporationDate](#) op, [OriginalValue](#) op, [Owner](#) op, [ResponsiblePerson](#) op, [TotalReplacementCost](#) op, [User](#) op**is disjoint with**[ifc inventory](#) c, [ifc structural load group](#) c, [ifc structural result group](#) c, [ifc system](#) c**ifc asymmetric i shape profile def**^c[back to ToC or Class ToC](#)IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAsymmetricIShapeProfileDef**has super-classes**

[ifc parameterized profile def](#) c
[BottomFlangeEdgeRadius](#) op **only** [ifc non negative length measure](#) c
[BottomFlangeFilletRadius](#) op **only** [ifc non negative length measure](#) c
[BottomFlangeSlope](#) op **only** [ifc plane angle measure](#) c
[BottomFlangeThickness](#) op **only** [ifc positive length measure](#) c
[BottomFlangeWidth](#) op **only** [ifc positive length measure](#) c
[OverallDepth](#) op **only** [ifc positive length measure](#) c
[TopFlangeEdgeRadius](#) op **only** [ifc non negative length measure](#) c
[TopFlangeFilletRadius](#) op **only** [ifc non negative length measure](#) c
[TopFlangeSlope](#) op **only** [ifc plane angle measure](#) c
[TopFlangeThickness](#) op **only** [ifc positive length measure](#) c
[TopFlangeWidth](#) op **only** [ifc positive length measure](#) c
[WebThickness](#) op **only** [ifc positive length measure](#) c
[BottomFlangeThickness](#) op **exactly 1** [ifc positive length measure](#) c
[BottomFlangeWidth](#) op **exactly 1** [ifc positive length measure](#) c
[OverallDepth](#) op **exactly 1** [ifc positive length measure](#) c
[TopFlangeWidth](#) op **exactly 1** [ifc positive length measure](#) c
[WebThickness](#) op **exactly 1** [ifc positive length measure](#) c
[BottomFlangeEdgeRadius](#) op **max 1** [ifc non negative length measure](#) c
[BottomFlangeFilletRadius](#) op **max 1** [ifc non negative length measure](#) c
[BottomFlangeSlope](#) op **max 1** [ifc plane angle measure](#) c
[TopFlangeEdgeRadius](#) op **max 1** [ifc non negative length measure](#) c
[TopFlangeFilletRadius](#) op **max 1** [ifc non negative length measure](#) c
[TopFlangeSlope](#) op **max 1** [ifc plane angle measure](#) c
[TopFlangeThickness](#) op **max 1** [ifc positive length measure](#) c

is in domain of[BottomFlangeEdgeRadius](#) op, [BottomFlangeFilletRadius](#) op, [BottomFlangeSlope](#) op, [BottomFlangeThickness](#) op, [BottomFlangeWidth](#) op, [OverallDepth](#) op, [TopFlangeEdgeRadius](#) op, [TopFlangeFilletRadius](#) op, [TopFlangeSlope](#) op, [TopFlangeThickness](#) op, [TopFlangeWidth](#) op, [WebThickness](#) op**is disjoint with**[ifc c shape profile def](#) c, [ifc circle profile def](#) c, [ifc ellipse profile def](#) c, [ifc i shape profile def](#) c, [ifc l shape profile def](#) c, [ifc rectangle profile def](#) c, [ifc t shape profile def](#) c, [ifc trapezium profile def](#) c, [ifc u shape profile def](#) c, [ifc z shape profile def](#) c**ifc audio visual appliance**^c[back to ToC or Class ToC](#)IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAudioVisualAppliance**has super-classes**

[ifc flow terminal](#) c
[PredefinedType](#) op **only** [ifc audio visual appliance type enum](#) c

| |
|--|
| <u>PredefinedType</u> ^{op} max 1 ifc_audio_visual_appliance_type enum ^c |
| is in domain of PredefinedType ^{op} |
| is disjoint with ifc_air_terminal ^c , ifc.communications_appliance ^c , ifc.electric_appliance ^c , ifc.fire_suppression_terminal ^c , ifc.lamp ^c , ifc.light_fixture ^c , ifc.medical_device ^c , ifc.outlet ^c , ifc.sanitary_terminal ^c , ifc.space_heater ^c , ifc.stack_terminal ^c , ifc.waste_terminal ^c |

ifc audio visual appliance type^c

[back to [ToC](#) or [Class ToC](#)]

IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAudioVisualApplianceType

has super-classes

[ifc_flow_terminal_type](#) ^c
PredefinedType ^{op} **only** [ifc_audio_visual_appliance_type enum](#) ^c
PredefinedType ^{op} **exactly 1** [ifc_audio_visual_appliance_type enum](#) ^c

is in domain of

[PredefinedType](#) ^{op}

is disjoint with

[ifc_air_terminal_type](#) ^c, [ifc.communications_appliance_type](#) ^c, [ifc.electric_appliance_type](#) ^c, [ifc.fire_suppression_terminal_type](#) ^c, [ifc.lamp_type](#) ^c, [ifc.light_fixture_type](#) ^c, [ifc.medical_device_type](#) ^c, [ifc.outlet_type](#) ^c, [ifc.sanitary_terminal_type](#) ^c, [ifc.space_heater_type](#) ^c, [ifc.stack_terminal_type](#) ^c, [ifc.waste_terminal_type](#) ^c

ifc audio visual appliance type enum^c

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IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAudioVisualApplianceTypeEnum

has super-classes

ENUMERATION

is in range of

[PredefinedType](#) ^{op}, [PredefinedType](#) ^{op}

has members

[AMPLIFIER](#) ⁿⁱ, [CAMERA](#) ⁿⁱ, [DISPLAY](#) ⁿⁱ, [MICROPHONE](#) ⁿⁱ, [NOTDEFINED](#) ⁿⁱ, [PLAYER](#) ⁿⁱ, [PROJECTOR](#) ⁿⁱ, [RECEIVER](#) ⁿⁱ, [SPEAKER](#) ⁿⁱ, [SWITCHER](#) ⁿⁱ, [TELEPHONE](#) ⁿⁱ, [TUNER](#) ⁿⁱ, [USERDEFINED](#) ⁿⁱ

ifc axis1 placement^c

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IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAxis1Placement

has super-classes

[ifc_placement](#) ^c
[Axis](#) ^{op} **only** [ifc_direction](#) ^c
[Axis](#) ^{op} **max 1** [ifc_direction](#) ^c

is in domain of

[Axis](#) ^{op}

is in range of

[Axis](#) ^{op}, [AxisPosition](#) ^{op}

is disjoint with

[ifc_axis2_placement2_d](#) ^c, [ifc_axis2_placement3_d](#) ^c

ifc axis2 placement^c

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IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAxis2Placement

has super-classes

SELECT

has sub-classes

[ifc_axis2_placement2_d](#) ^c, [ifc_axis2_placement3_d](#) ^c

is in range of

[MappingOrigin](#) ^{op}, [Placement](#) ^{op}, [Placement](#) ^{op}, [Position](#) ^{op}, [RelativePlacement](#) ^{op}, [WorldCoordinateSystem](#) ^{op}

ifc axis2 placement2 d^c

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IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAxis2Placement2D

has super-classes

[ifc_axis2_placement](#) ^c
[ifc_placement](#) ^c
[RefDirection](#) ^{op} **only** [ifc_direction](#) ^c
[RefDirection](#) ^{op} **max 1** [ifc_direction](#) ^c

is in domain of

[RefDirection](#) ^{op}

is in range of

[Position](#) ^{op}

is disjoint with

[ifc_axis1_placement](#) ^c, [ifc_axis2_placement3_d](#) ^c

ifc axis2 placement3 d^c

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IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAxis2Placement3D

has super-classes

| | |
|-------------------------------------|--|
| ifc axis2 placement | ifc placement |
| Axis | only ifc direction |
| RefDirection | op only ifc direction |
| Axis | max 1 ifc direction |
| RefDirection | op max 1 ifc direction |
| is in domain of | Axis |
| | Axis , RefDirection |
| is in range of | ConditionCoordinateSystem |
| | ConditionCoordinateSystem , OrientationOf2DPlane |
| | Position |
| is disjoint with | ifc axis1 placement , ifc axis2 placement2 |

ifc axis2 placement3 d empty list

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IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAxis2Placement3D_EmptyList

has super-classes

[ifc axis2 placement3 d list](#)
[empty list](#)

ifc axis2 placement3 d list

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IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcAxis2Placement3D_List

has super-classes

[OWLList](#)
has contents [only ifc axis2 placement3 d](#)
has next [only ifc axis2 placement3 d list](#)
is followed by [only ifc axis2 placement3 d list](#)

has sub-classes

[ifc axis2 placement3 d empty list](#)

is in range of

[CrossSectionPositions](#)

ifc b spline curve

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IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcBSplineCurve

has super-classes

[ifc bounded curve](#)
[ifc b spline curve with knots](#)
[ClosedCurve](#) [op only ifc logical](#)
[ControlPointsList](#) [op only ifc cartesian point list](#)
[ControlPointsList](#) [op only has next some has next some ifc cartesian point list](#)
[CurveForm](#) [op only ifc b spline curve form](#)
[Degree](#) [op only ifc integer](#)
[SelfIntersect](#) [op only ifc logical](#)
[ClosedCurve](#) [exactly 1 ifc logical](#)
[ControlPointsList](#) [exactly 1 ifc cartesian point list](#)
[CurveForm](#) [exactly 1 ifc b spline curve form](#)
[Degree](#) [exactly 1 ifc integer](#)
[SelfIntersect](#) [exactly 1 ifc logical](#)

has sub-classes

[ifc b spline curve with knots](#)

is in domain of

[ClosedCurve](#) [op](#), [ControlPointsList](#) [op](#), [CurveForm](#) [op](#), [Degree](#) [op](#), [SelfIntersect](#) [op](#)

is disjoint with

[ifc composite curve](#), [ifc indexed poly curve](#), [ifc polyline](#), [ifc trimmed curve](#)

ifc b spline curve form

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IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcBSplineCurveForm

has super-classes

[ENUMERATION](#)

is in range of

[CurveForm](#)

has members

[CIRCULAR_ARC](#) [ni](#), [ELLIPTIC_ARC](#) [ni](#), [HYPERBOLIC_ARC](#) [ni](#), [PARABOLIC_ARC](#) [ni](#), [POLYLINE_FORM](#) [ni](#), [UNSPECIFIED](#) [ni](#)

ifc b spline curve with knots

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IRI: https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL#IfcBSplineCurveWithKnots

has super-classes

[ifc b spline curve](#)
[KnotMultiplicities](#) [op only ifc integer list](#)
[KnotMultiplicities](#) [op only has next some has next some ifc integer list](#)
[KnotSpec](#) [op only ifc knot type](#)