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Introduction

CADMATIC Electrical and CADMATiC HVAC are CAD 2D/3D softwares, developed by Finnish company CADMATiC. Softwares are available both in English and Finnish. Softwares include import and export functions of IFC formatted data models. The certified IFC 2x3 CV2.0 MEP export is available from version 17.

CADMATIC Electrical is database-based application with centralized project data management for electrical and automation design. CADMATiC Electrical has a wide range of functionalities for BIM design including real time clash detection, height management, centralized project data management, product databases, 3D models, BOM, BCF, dynamical cable tray functions etc.

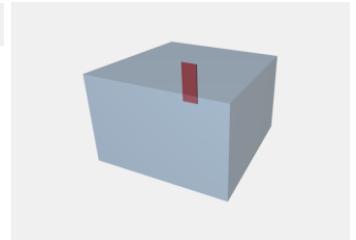
CADSiS HVAC is an HVAC designer's tool for heating, plumbing and ventilation planning which is done in 3D and based on the product databases. CADMATiC HVAC also includes sizing and balancing functions for the pipework and ductwork.

Testlist

Name test	concepts total	manually checked		
				
CharsetTest-01MEP / 2x3	2	2		
DuplexHouse_Electrical / 2x3	65	24		41
DuplexHouse_Heating / 2x3	56	31	7	18
DuplexHouse_Sanitary / 2x3	52	21	5	26
DuplexHouse_Ventilation / 2x3	44	25	1	18
RandomMEP-X1 / 2x3	19	9		10
RandomMEP-X2 / 2x3	28	18		10
RandomMEP-X3 / 2x3	4	1		3
RandomMEP-X4 / 2x3	22	14		8
RandomMEP-X5 / 2x3	45	22		23
Space_01MEP / 2x3	15	12	3	
UnitTest-01MEP / 2x3	3	2		1

Concepts

CharsetTest-01MEP / 2x3



General	<i>company statement</i>	<i>CharsetTest-01MEP / 2x3</i>
_G1 Character sets	■	
_G4 Remarks	■	

DuplexHouse_Electrical / 2x3

















204 IfcEnergyConversionDevice		<i>company statement</i>	<i>DuplexHouse_Electrical / 2x3</i>
010 Naming	■		
020 Placement			
020-2 Placement Relative	■		
030 Geometry			
030-6 Geometry Body			
030-6-5 Geometry Explicit	■		
030-6-9 Geometry Mapped	■		
100 Element Aggregation			
100-4 Port Assignment	■		
110 Connectivity			
110-5 Connectivity by Ports	■		
120 Spatial Containment	■		
130 Grouping			
130-2 Grouping to Systems	■		
300 Type			
300-1 Type Geometry	■		
300-2 Type Naming	■		
205 IfcFlowController		<i>company statement</i>	<i>DuplexHouse_Electrical / 2x3</i>
010 Naming	■		

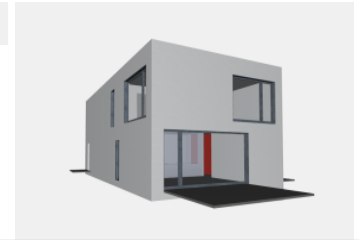
020 Placement		
020-2 Placement Relative		
030 Geometry		
030-6 Geometry Body		
030-6-5 Geometry Explicit		CADS Planner supports two kind of brep representations IfcFacedBrep and IfcFaceBasedSurfaceModel. Shell based representation and faceted brep with voids are not supported.
030-6-9 Geometry Mapped		
100 Element Aggregation		
100-4 Port Assignment		[JPa 2016-08-16] CADS Planner does not support Port assignment.[JPa
110 Connectivity		
110-5 Connectivity by Ports		2016-08-16] CADS Planner does not support connectivity by ports.
120 Spatial Containment		
130 Grouping		
130-2 Grouping to Systems		
300 Type		
300-1 Type Geometry		CADS Planner does not support type geometry.
300-2 Type Naming		
206 IfcFlowFitting		<i>company statement</i> <i>DuplexHouse_Electrical / 2x3</i>
010 Naming		
020 Placement		
020-2 Placement Relative		
030 Geometry		
030-6 Geometry Body		
030-6-5 Geometry Explicit		
030-6-9 Geometry Mapped		

100 Element Aggregation		
100-4 Port Assignment	■	
110 Connectivity		
110-5 Connectivity by Ports	■	
120 Spatial Containment	■	
130 Grouping		
130-2 Grouping to Systems	■	
300 Type		
300-1 Type Geometry	■	
300-2 Type Naming	■	
208 IfcFlowSegment		<i>company statement</i> <i>DuplexHouse_Electrical / 2x3</i>
010 Naming	■	
020 Placement		
020-2 Placement Relative	■	
030 Geometry		
030-6 Geometry Body		
030-6-5 Geometry Explicit	■	
030-6-9 Geometry Mapped	■	
040 Presentation		
040-1 Geometric Presentation	■	
100 Element Aggregation		
100-4 Port Assignment	■	
110 Connectivity		
110-5 Connectivity by Ports	■	
120 Spatial Containment	■	







130 Grouping		
130-2 Grouping to Systems	■	
300 Type		
300-1 Type Geometry	■	
300-2 Type Naming	■	
210 IfcFlowTerminal		<i>company statement</i> <i>DuplexHouse_Electrical / 2x3</i>
010 Naming	■	
020 Placement		
020-2 Placement Relative	■	
030 Geometry		
030-6 Geometry Body		
030-6-5 Geometry Explicit	■	CADS Planner supports two kind of brep representations IfcFacedBrep and IfcFaceBasedSurfaceModel. Shell based representation and faceted brep with voids are not supported.
030-6-9 Geometry Mapped	■	
040 Presentation		
040-1 Geometric Presentation	■	
050 CAD Layer	■	
100 Element Aggregation		
100-4 Port Assignment	■	CADS Planner does not support Port assignment.
110 Connectivity		
110-5 Connectivity by Ports	■	CADS Planner does not support connectivity by ports.
120 Spatial Containment	■	
130 Grouping		
130-2 Grouping to Systems	■	













210 Property Set			
210-1 Property Set IFC Common			
210-6 Property Set IFC any			
210-9 Property Set User Defined			
300 Type			
300-1 Type Geometry		CADS Planner does not support type geometry.	
300-2 Type Naming			
501 IfcProject		<i>company statement</i>	<i>DuplexHouse_Electrical / 2x3</i>
010 Naming			
503 IfcBuilding		<i>company statement</i>	<i>DuplexHouse_Electrical / 2x3</i>
010 Naming			
504 IfcBuildingStorey		<i>company statement</i>	<i>DuplexHouse_Electrical / 2x3</i>
010 Naming			
020 Placement			
020-2 Placement Relative			
150 Spatial Aggregation			
150-1 Spatial Composition			
507 IfcSystem		<i>company statement</i>	<i>DuplexHouse_Electrical / 2x3</i>
010 Naming			
130 Grouping			
130-2 Grouping to Systems			
130-5 Is Group			
General		<i>company statement</i>	<i>DuplexHouse_Electrical / 2x3</i>
_G4 Remarks		CADS supports IfcEnergyConvesionDevice, IfcFlowFitting and IfcFlowSegment objects, but this test case does not contain any, so those concepts are set to "not supported" state.	










DuplexHouse_Heating / 2x3











204 IfcEnergyConversionDevice	<i>company statement</i>		<i>DuplexHouse_Heating / 2x3</i>
010 Naming	■		
030 Geometry 030-6 Geometry Body 030-6-5 Geometry Explicit 030-6-9 Geometry Mapped	■	CADS Planner supports two kind of brep representations IfcFacedBrep and IfcFaceBasedSurfaceModel. Shell based representation and faceted brep with voids are not supported.	
040 Presentation 040-1 Geometric Presentation	■		
100 Element Aggregation 100-4 Port Assignment	■	CADS Planner does not support Port assignment.	
110 Connectivity 110-5 Connectivity by Ports	■	CADS Planner does not support connectivity by ports.	
130 Grouping 130-2 Grouping to Systems	■		
300 Type 300-1 Type Geometry 300-5 Type Property Set	■	CADS Planner does not support type geometry.	
205 IfcFlowController	<i>company statement</i>		<i>DuplexHouse_Heating / 2x3</i>
010 Naming	■		

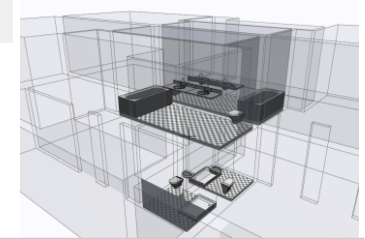
030 Geometry	
030-6 Geometry Body	
030-6-5 Geometry Explicit	 CADS Planner supports two kind of brep representations IfcFacedBrep and IfcFaceBasedSurfaceModel. Shell based representation and faceted brep with voids are not supported.
030-6-9 Geometry Mapped	
040 Presentation	
040-1 Geometric Presentation	
100 Element Aggregation	
100-4 Port Assignment	 CADS Planner does not support Port assignmet.
110 Connectivity	
110-5 Connectivity by Ports	 CADS Planner does not support connectivity by ports.
130 Grouping	
130-2 Grouping to Systems	
300 Type	
300-1 Type Geometry	 CADS Planner does not support type geometry.
300-5 Type Property Set	
206 IfcFlowFitting	<i>company statement</i> <i>DuplexHouse_Heating / 2x3</i>
010 Naming	
030 Geometry	
030-6 Geometry Body	
030-6-5 Geometry Explicit	 CADS Planner supports two kind of brep representations IfcFacedBrep and IfcFaceBasedSurfaceModel. Shell based representation and faceted brep with voids are not supported.
030-6-9 Geometry Mapped	
040 Presentation	
040-1 Geometric Presentation	

100 Element Aggregation 100-4 Port Assignment	 CADS Planner does not support Port assignment.
110 Connectivity 110-5 Connectivity by Ports	 CADS Planner does not support connectivity by ports.
130 Grouping 130-2 Grouping to Systems	
300 Type 300-1 Type Geometry 300-5 Type Property Set	 CADS Planner does not support type geometry. 
207 IfcFlowMovingDevice	<i>company statement</i> <i>DuplexHouse_Heating / 2x3</i>
010 Naming	
030 Geometry 030-6 Geometry Body 030-6-5 Geometry Explicit 030-6-9 Geometry Mapped	 CADS Planner supports two kind of brep representations IfcFacedBrep and IfcFaceBasedSurfaceModel. Shell based representation and faceted brep with voids are not supported. 
040 Presentation 040-1 Geometric Presentation	
100 Element Aggregation 100-4 Port Assignment	 CADS Planner does not support Port assignment.
110 Connectivity 110-5 Connectivity by Ports	 CADS Planner does not support connectivity by ports.
130 Grouping 130-2 Grouping to Systems	













300 Type		
300-1 Type Geometry		CADS Planner does not support type geometry.
300-5 Type Property Set		
208 IfcFlowSegment		<i>company statement</i> <i>DuplexHouse_Heating / 2x3</i>
010 Naming		
030 Geometry		
030-6 Geometry Body		
030-6-1 Geometry SweptSolid		Only IfcExtrudedAreaSolid type of SweptSolid is supported.
030-6-5 Geometry Explicit		CADS Planner supports two kind of brep representations IfcFacedBrep and IfcFaceBasedSurfaceModel. Shell based representation and faceted brep with voids are not supported. In this test case all Flowsegments are swept solids.
030-6-9 Geometry Mapped		
040 Presentation		
040-1 Geometric Presentation		
100 Element Aggregation		
100-4 Port Assignment		CADS Planner does not support Port assignment.
110 Connectivity		
110-5 Connectivity by Ports		CADS Planner does not support connectivity by ports.
130 Grouping		
130-2 Grouping to Systems		
300 Type		
300-1 Type Geometry		CADS Planner does not support type geometry.
300-5 Type Property Set		
210 IfcFlowTerminal		<i>company statement</i> <i>DuplexHouse_Heating / 2x3</i>
010 Naming		














<p>030 Geometry</p> <p>030-6 Geometry Body</p> <p>030-6-5 Geometry Explicit</p> <p>030-6-9 Geometry Mapped</p>	<p> CADS Planner supports two kind of brep representations IfcFacedBrep and IfcFaceBasedSurfaceModel. Shell based representation and faceted brep with voids are not supported.</p> <p></p>
<p>040 Presentation</p> <p>040-1 Geometric Presentation</p>	<p></p>
<p>100 Element Aggregation</p> <p>100-4 Port Assignment</p>	<p> CADS Planner does not support Port assignment.</p>
<p>110 Connectivity</p> <p>110-5 Connectivity by Ports</p>	<p> CADS Planner does not support connectivity by ports.</p>
<p>130 Grouping</p> <p>130-2 Grouping to Systems</p>	<p></p>
<p>300 Type</p> <p>300-1 Type Geometry</p> <p>300-5 Type Property Set</p>	<p> CADS Planner does not support type geometry.</p> <p></p>
<p>General</p>	<p><i>company statement</i> <i>DuplexHouse_Heating / 2x3</i></p>
<p><i>_G4 Remarks</i></p>	<p></p>

DuplexHouse_Sanitary / 2x3



205 IfcFlowController	<i>company statement</i>		<i>DuplexHouse_Sanitary / 2x3</i>
010 Naming	■		
020 Placement			
020-2 Placement Relative	■		
030 Geometry			
030-6 Geometry Body			
030-6-1 Geometry SweptSolid	■	Only IfcExtrudedAreaSolid type of SweptSolid is supported. Swept geometry is supported only for IfcFlowSegment.	
030-6-5 Geometry Explicit	■	CADS Planner supports two kind of brep representations IfcFacedBrep and IfcFaceBasedSurfaceModel. Shell based representation and faceted brep with voids are not supported.	
030-6-9 Geometry Mapped	■	Mapped geometry is supported but this test model does not contain any mapped representations for IfcFlowController.	
040 Presentation			
040-1 Geometric Presentation	■		
100 Element Aggregation			
100-4 Port Assignment	■	CADS Planner does not support Port assignment.	
110 Connectivity			
110-5 Connectivity by Ports	■	CADS Planner does not support connectivity by ports.	
120 Spatial Containment	■		
130 Grouping			
130-2 Grouping to Systems	■		
206 IfcFlowFitting	<i>company statement</i>		<i>DuplexHouse_Sanitary / 2x3</i>

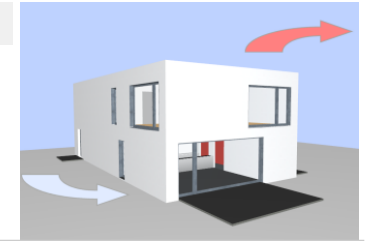
010 Naming		
020 Placement		
020-2 Placement Relative		
030 Geometry		
030-6 Geometry Body		
030-6-1 Geometry SweptSolid		Swept geometry is supported only for IfcFlowSegment.
030-6-5 Geometry Explicit		CADS Planner supports two kind of brep representations IfcFacedBrep and IfcFaceBasedSurfaceModel. Shell based representation and faceted brep with voids are not supported.
030-6-9 Geometry Mapped		
040 Presentation		
040-1 Geometric Presentation		
100 Element Aggregation		
100-4 Port Assignment		CADS Planner does not support Port assignment.
110 Connectivity		
110-5 Connectivity by Ports		CADS Planner does not support connectivity by ports.
120 Spatial Containment		
130 Grouping		
130-2 Grouping to Systems		
208 IfcFlowSegment		<i>company statement</i> <i>DuplexHouse_Sanitary / 2x3</i>
010 Naming		
020 Placement		
020-2 Placement Relative		

030 Geometry	
030-6 Geometry Body	
030-6-1 Geometry SweptSolid	 Only IfcExtrudedAreaSolid type of SweptSolid is supported.
030-6-5 Geometry Explicit	 CADS Planner supports two kind of brep representations IfcFacedBrep and IfcFaceBasedSurfaceModel. Shell based representation and faceted brep with voids are not supported.
030-6-9 Geometry Mapped	
040 Presentation	
040-1 Geometric Presentation	
100 Element Aggregation	
100-4 Port Assignment	 CADS Planner does not support Port assignment.
110 Connectivity	
110-5 Connectivity by Ports	 CADS Planner does not support connectivity by ports.
120 Spatial Containment	
130 Grouping	
130-2 Grouping to Systems	
210 IfcFlowTerminal	<i>company statement</i> <i>DuplexHouse_Sanitary / 2x3</i>
010 Naming	 This test model does not contain any IfcFlowTerminal.
020 Placement	
020-2 Placement Relative	 This test model does not contain any IfcFlowTerminal.
030 Geometry	
030-6 Geometry Body	
030-6-1 Geometry SweptSolid	 Only IfcExtrudedAreaSolid type of SweptSolid is supported. This test model does not contain any IfcFlowTerminal.
030-6-5 Geometry Explicit	 CADS Planner supports two kind of brep representations IfcFacedBrep and IfcFaceBasedSurfaceModel. Shell based representation and faceted brep with voids are not supported. This test model does not contain any IfcFlowTerminal.
030-6-9 Geometry Mapped	 This test model does not contain any IfcFlowTerminal.












040 Presentation		
040-1 Geometric Presentation	■	This test model does not contain any IfcFlowTerminal.
050 CAD Layer	■	This test model does not contain any IfcFlowTerminal.
100 Element Aggregation		
100-4 Port Assignment	■	CADS Planner does not support Port assignment This test model does not contain any IfcFlowTerminal..
110 Connectivity		
110-5 Connectivity by Ports	■	CADS Planner does not support connectivity by ports. This test model does not contain any IfcFlowTerminal.
120 Spatial Containment	■	This test model does not contain any IfcFlowTerminal.
130 Grouping		
130-2 Grouping to Systems	■	This test model does not contain any IfcFlowTerminal.
200 Material		
200-1 Single Material	■	This test model does not contain any IfcFlowTerminal.
210 Property Set		
210-6 Property Set IFC any	■	This test model does not contain any IfcFlowTerminal.
210-9 Property Set User Defined	■	This test model does not contain any IfcFlowTerminal.
300 Type		
300-1 Type Geometry	■	CADS Planner does not support type geometry. This test model does not contain any IfcFlowTerminal.
300-2 Type Naming	■	This test model does not contain any IfcFlowTerminal.
300-3 Type Material	■	CADS Planner does not support type geometry. This test model does not contain any IfcFlowTerminal.
300-5 Type Property Set	■	This test model does not contain any IfcFlowTerminal.
507 IfcSystem		<i>company statement</i> <i>DuplexHouse_Sanitary / 2x3</i>
010 Naming	■	
130 Grouping		
130-5 Is Group	■	

250 System Assignment			
250-2 Services Spatial Element	■		
General		<i>company statement</i>	<i>DuplexHouse_Sanitary / 2x3</i>
_G4 Remarks	■		

DuplexHouse_Ventilation / 2x3



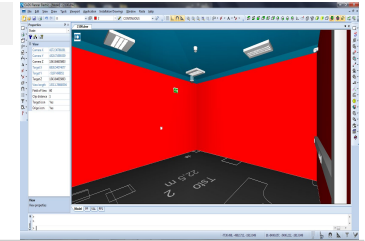
206 IfcFlowFitting	<i>company statement</i>		<i>DuplexHouse_Ventilation / 2x3</i>
010 Naming	■		
020 Placement			
020-2 Placement Relative	■		
030 Geometry			
030-6 Geometry Body			
030-6-1 Geometry SweptSolid	■	Only IfcExtrudedAreaSolid type of SweptSolid is supported. But this test case does not contain any, so those concepts are set to "not supported" state.	
030-6-5 Geometry Explicit	■	CADS Planner does not support Port assignment.	
030-6-9 Geometry Mapped	■		
040 Presentation			
040-1 Geometric Presentation	■		
100 Element Aggregation			
100-4 Port Assignment	■	CADS Planner does not support Port assignment.	
110 Connectivity			
110-5 Connectivity by Ports	■	CADS Planner does not support connectivity by ports.	
120 Spatial Containment	■		
130 Grouping			
130-2 Grouping to Systems	■		
207 IfcFlowMovingDevice	<i>company statement</i>		<i>DuplexHouse_Ventilation / 2x3</i>
010 Naming	■		

020 Placement	
020-2 Placement Relative	
030 Geometry	
030-6 Geometry Body	
030-6-1 Geometry SweptSolid	 Only IfcExtrudedAreaSolid type of SweptSolid is supported. But this test case does not contain any, so those concepts are set to "not supported" state.
030-6-5 Geometry Explicit	 CADS Planner supports two kind of brep representations IfcFacedBrep and IfcFaceBasedSurfaceModel. Shell based representation and faceted brep with voids are not supported. But this test case does not contain any, so those concepts are set to "not supported" state.
030-6-9 Geometry Mapped	
040 Presentation	
040-1 Geometric Presentation	
100 Element Aggregation	
100-4 Port Assignment	 CADS Planner does not support Port assignment.
110 Connectivity	
110-5 Connectivity by Ports	 CADS Planner does not support connectivity by ports.
120 Spatial Containment	
130 Grouping	
130-2 Grouping to Systems	
208 IfcFlowSegment	<i>company statement</i> <i>DuplexHouse_Ventilation / 2x3</i>
010 Naming	
020 Placement	
020-2 Placement Relative	








<p>030 Geometry</p> <p> 030-6 Geometry Body</p> <p> 030-6-1 Geometry SweptSolid</p> <p> 030-6-5 Geometry Explicit</p> <p> 030-6-9 Geometry Mapped</p>	<p> Only IfcExtrudedAreaSolid type of SweptSolid is supported.</p> <p> CADS Planner supports two kind of brep representations IfcFacedBrep and IfcFaceBasedSurfaceModel. Shell based representation and faceted brep with voids are not supported. But this test case does not contain any, so those concepts are set to "not supported" state.</p> <p> CADS supports mapped geometry but this test case does not contain any, so those concepts are set to "not supported" state.</p>
<p>040 Presentation</p> <p> 040-1 Geometric Presentation</p>	<p></p>
<p>100 Element Aggregation</p> <p> 100-4 Port Assignment</p>	<p> CADS Planner does not support Port assignment.</p>
<p>110 Connectivity</p> <p> 110-5 Connectivity by Ports</p>	<p> CADS Planner does not support connectivity by ports.</p>
<p>120 Spatial Containment</p>	<p></p>
<p>130 Grouping</p> <p> 130-2 Grouping to Systems</p>	<p></p>
<p>210 IfcFlowTerminal</p>	<p><i>company statement</i> <i>DuplexHouse_Ventilation / 2x3</i></p>
<p>010 Naming</p>	<p></p>
<p>020 Placement</p> <p> 020-2 Placement Relative</p>	<p></p>

030 Geometry		
030-6 Geometry Body		
030-6-1 Geometry SweptSolid	■	IfcExtrudedAreaSolid type of SweptSolid is supported. But this test case does not contain any, so those concepts are set to "not supported" state.
030-6-5 Geometry Explicit	■	CADS Planner supports two kind of brep representations IfcFacedBrep and IfcFaceBasedSurfaceModel. Shell based representation and faceted brep with voids are not supported. But this test case does not contain any, so those concepts are set to "not supported" state.
030-6-9 Geometry Mapped	■	
040 Presentation		
040-1 Geometric Presentation	■	
100 Element Aggregation		
100-4 Port Assignment	■	CADS Planner does not support Port assignment.
110 Connectivity		
110-5 Connectivity by Ports	■	CADS Planner does not support connectivity by ports.
120 Spatial Containment	■	
130 Grouping		
130-2 Grouping to Systems	■	
507 IfcSystem		<i>company statement</i> <i>DuplexHouse_Ventilation / 2x3</i>
010 Naming	■	
130 Grouping		
130-5 Is Group	■	
250 System Assignment		
250-2 Services Spatial Element	■	
General		<i>company statement</i> <i>DuplexHouse_Ventilation / 2x3</i>
_G4 Remarks	■	

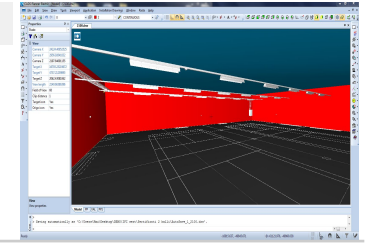
RandomMEP-X1 / 2x3















102 IfcWall		<i>company statement</i>	<i>RandomMEP-X1 / 2x3</i>
001 GUIDs	■	IfcBeam is not included in CADS Planner MEP export.	
103 IfcBeam		<i>company statement</i>	<i>RandomMEP-X1 / 2x3</i>
002 History	■	IfcBeam is not included in CADS Planner MEP export.	
010 Naming	■	IfcBeam is not included in CADS Planner MEP export.	
104 IfcColumn		<i>company statement</i>	<i>RandomMEP-X1 / 2x3</i>
010 Naming	■	IfcBeam is not included in CADS Planner MEP export.	
206 IfcFlowFitting		<i>company statement</i>	<i>RandomMEP-X1 / 2x3</i>
010 Naming	■		
020 Placement			
020-2 Placement Relative	■		
030 Geometry			
030-6 Geometry Body			
030-6-9 Geometry Mapped	■		
300 Type			
300-1 Type Geometry	■	CADS Planner does not support type geometry.	
300-2 Type Naming	■		
208 IfcFlowSegment		<i>company statement</i>	<i>RandomMEP-X1 / 2x3</i>
210 IfcFlowTerminal		<i>company statement</i>	<i>RandomMEP-X1 / 2x3</i>
001 GUIDs	■		
010 Naming	■		







020 Placement			
020-2 Placement Relative			
030 Geometry			
030-6 Geometry Body			
030-6-5 Geometry Explicit			
408 IfcElementAssembly		<i>company statement</i>	<i>RandomMEP-X1 / 2x3</i>
001 GUIDs		IfcElementAssembly is not included in CADS Planner MEP export.	
010 Naming		IfcElementAssembly is not included in CADS Planner MEP export.	
020 Placement			
020-2 Placement Relative		IfcElementAssembly is not included in CADS Planner MEP export.	
100 Element Aggregation			
100-1 Element Composition		IfcElementAssembly is not included in CADS Planner MEP export.	
100-2 Element Decomposition		IfcElementAssembly is not included in CADS Planner MEP export.	
General		<i>company statement</i>	<i>RandomMEP-X1 / 2x3</i>
_G4 Remarks			

RandomMEP-X2 / 2x3







205 IfcFlowController	<i>company statement</i>		<i>RandomMEP-X2 / 2x3</i>
001 GUIDs	■		
002 History	■		
010 Naming	■		
020 Placement			
020-2 Placement Relative	■		
030 Geometry			
030-6 Geometry Body			
030-6-9 Geometry Mapped	■		
050 CAD Layer	■		
100 Element Aggregation			
100-4 Port Assignment	■	CADS Planner does not support Port Assignment.	
206 IfcFlowFitting	<i>company statement</i>		<i>RandomMEP-X2 / 2x3</i>
030 Geometry			
030-6 Geometry Body			
030-6-9 Geometry Mapped	■		
100 Element Aggregation			
100-4 Port Assignment	■	CADS Planner does not support Port Assignment.	
110 Connectivity			
110-5 Connectivity by Ports	■	CADS Planner does not support connectivity by ports.	

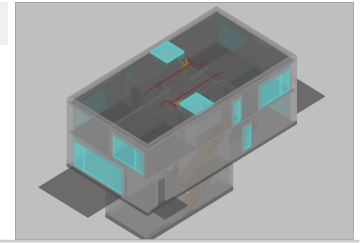
207 IfcFlowMovingDevice	<i>company statement</i>		<i>RandomMEP-X2 / 2x3</i>
010 Naming			
020 Placement			
020-2 Placement Relative			
030 Geometry			
030-6 Geometry Body			
030-6-5 Geometry Explicit			
030-6-9 Geometry Mapped			
040 Presentation			
040-1 Geometric Presentation			
050 CAD Layer			
100 Element Aggregation			
100-4 Port Assignment		CADS Planner does not support Port Assignment.	
110 Connectivity			
110-5 Connectivity by Ports		CADS Planner does not support connectivity By ports.	
120 Spatial Containment			
200 Material			
200-1 Single Material		CADS Planner MEP does not support single material naming.	
210 Property Set			
210-9 Property Set User Defined			
208 IfcFlowSegment	<i>company statement</i>		<i>RandomMEP-X2 / 2x3</i>
030 Geometry			
030-6 Geometry Body			
030-6-9 Geometry Mapped			

100 Element Aggregation 100-4 Port Assignment	 CADS Planner does not support Port Assignment
110 Connectivity 110-5 Connectivity by Ports	 CADS Planner does not support connectivity by ports.
210 IfcFlowTerminal	<i>company statement</i> <i>RandomMEP-X2 / 2x3</i>
030 Geometry 030-6 Geometry Body 030-6-9 Geometry Mapped	
100 Element Aggregation 100-4 Port Assignment	 CADS Planner does not support Port Assignment
110 Connectivity 110-5 Connectivity by Ports	 CADS Planner does not support connectivity by ports.
General	<i>company statement</i> <i>RandomMEP-X2 / 2x3</i>
_G4 Remarks	








RandomMEP-X3 / 2x3

506 IfcGroup		<i>company statement</i>	<i>RandomMEP-X3 / 2x3</i>
001 GUIDs		CADS Planner MEP does not support IfcGroup element.	
010 Naming		CADS Planner MEP does not support IfcGroup element.	
130 Grouping			
130-5 Is Group		CADS Planner MEP does not support IfcGroup element.	
General		<i>company statement</i>	<i>RandomMEP-X3 / 2x3</i>
_G4 Remarks			











RandomMEP-X4 / 2x3











206 IfcFlowFitting	<i>company statement</i>		<i>RandomMEP-X4 / 2x3</i>
300 Type			
300-2 Type Naming	■		
208 IfcFlowSegment	<i>company statement</i>		<i>RandomMEP-X4 / 2x3</i>
001 GUIDs	■		
020 Placement			
020-2 Placement Relative	■		
030 Geometry			
030-6 Geometry Body			
030-6-5 Geometry Explicit	■		
030-6-9 Geometry Mapped	■		
040 Presentation			
040-1 Geometric Presentation	■		
050 CAD Layer	■		
100 Element Aggregation			
100-4 Port Assignment	■	CADS Planner does not support Port Assignment.	
120 Spatial Containment	■		
200 Material			
200-1 Single Material	■	CADS Planner MEP does not support single material naming.	

210 Property Set			
210-9 Property Set User Defined			
210 IfcFlowTerminal		<i>company statement</i>	<i>RandomMEP-X4 / 2x3</i>
300 Type			
300-2 Type Naming			
501 IfcProject		<i>company statement</i>	<i>RandomMEP-X4 / 2x3</i>
002 History			
005 Project Units			
005-2 Project Imperial Units		CADS Planner does not support imperial units.	
008 Representation Context			
008-1 Representation Main Context			
008-2 Representation Sub Context			
008-2-2 Representation Sub Context 3D			
508 IfcZone		<i>company statement</i>	<i>RandomMEP-X4 / 2x3</i>
001 GUIDs		CADS Planner does not support IfcZone object.	
002 History		CADS Planner does not support IfcZone object.	
010 Naming		CADS Planner does not support IfcZone object.	
130 Grouping			
130-3 Grouping to Zones		CADS Planner does not support IfcZone object.	
210 Property Set			
210-6 Property Set IFC any		CADS Planner does not support IfcZone object.	
General		<i>company statement</i>	<i>RandomMEP-X4 / 2x3</i>
_G4 Remarks			

RandomMEP-X5 / 2x3

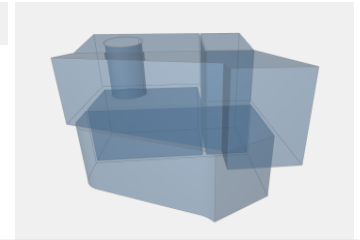
205 IfcFlowController	<i>company statement</i>		<i>RandomMEP-X5 / 2x3</i>
100 Element Aggregation			
100-4 Port Assignment		CADS Planner does not support Port Assignment.	
110 Connectivity			
110-5 Connectivity by Ports		CADS Planner does not support Connectivity by ports	
206 IfcFlowFitting	<i>company statement</i>		<i>RandomMEP-X5 / 2x3</i>
001 GUIDs			
002 History			
010 Naming			
020 Placement			
020-2 Placement Relative			
030 Geometry			
030-6 Geometry Body			
030-6-5 Geometry Explicit			
030-6-9 Geometry Mapped			
040 Presentation			
040-1 Geometric Presentation			
050 CAD Layer			
100 Element Aggregation			
100-4 Port Assignment		CADS Planner does not support Port Assignment	

110 Connectivity 110-5 Connectivity by Ports	 CADS Planner does not support Connectivity By ports
120 Spatial Containment	
200 Material 200-1 Single Material	 CADS Planner MEP does not support single material naming.
210 Property Set 210-9 Property Set User Defined	 CADS Planner only supports IFC common property set and application specific property sets.
208 IfcFlowSegment	<i>company statement</i> <i>RandomMEP-X5 / 2x3</i>
001 GUIDs	
010 Naming	
020 Placement 020-2 Placement Relative	
030 Geometry 030-6 Geometry Body 030-6-1 Geometry SweptSolid 030-6-5 Geometry Explicit 030-6-9 Geometry Mapped	  
100 Element Aggregation 100-4 Port Assignment	 CADS Planner does not support Port Assignment.
110 Connectivity 110-5 Connectivity by Ports	 CADS Planner does not support Connectivity by ports
200 Material 200-1 Single Material	 CADS Planner MEP does not support single material naming.

300 Type		
300-1 Type Geometry		CADS Planner does not support type geometry.
300-3 Type Material		CADS Planner does not support type material.
210 IfcFlowTerminal		<i>company statement</i> <i>RandomMEP-X5 / 2x3</i>
010 Naming		
020 Placement		
020-2 Placement Relative		
030 Geometry		
030-6 Geometry Body		
030-6-5 Geometry Explicit		
030-6-9 Geometry Mapped		
040 Presentation		
040-1 Geometric Presentation		
050 CAD Layer		
100 Element Aggregation		
100-4 Port Assignment		CADS Planner does not support Port Assignment.
110 Connectivity		
110-5 Connectivity by Ports		CADS Planner does not support Connectivity by ports
200 Material		
200-1 Single Material		CADS Planner MEP does not support single material naming.
210 Property Set		
210-9 Property Set User Defined		CADS Planner only supports IFC common property set and application specific property sets.
303 IfcCovering		<i>company statement</i> <i>RandomMEP-X5 / 2x3</i>
001 GUIDs		IfcCovering object is not part of MEP certification.

020 Placement		
020-2 Placement Relative	■	IfcCovering object is not part of MEP certification.
030 Geometry		
030-6 Geometry Body		
030-6-1 Geometry SweptSolid	■	IfcCovering object is not part of MEP certification.
030-6-5 Geometry Explicit	■	IfcCovering object is not part of MEP certification.
050 CAD Layer	■	IfcCovering object is not part of MEP certification.
200 Material		
200-1 Single Material	■	IfcCovering object is not part of MEP certification.
300 Type		
300-1 Type Geometry	■	IfcCovering object is not part of MEP certification.
300-3 Type Material	■	IfcCovering object is not part of MEP certification.
General		<i>company statement</i> <i>RandomMEP-X5 / 2x3</i>
_G4 Remarks	■	

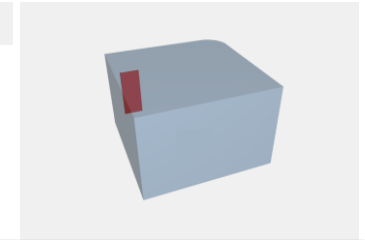
Space_01MEP / 2x3



111 IfcBuildingElementProxy	<i>company statement</i>		<i>Space_01MEP / 2x3</i>
010 Naming	■		
020 Placement 020-2 Placement Relative	■		
030 Geometry 030-6 Geometry Body 030-6-1 Geometry SweptSolid	■		
210 Property Set 210-2 Property Set IFC any	■	CADS Planner supports only predefined property sets.	
505 IfcSpace	<i>company statement</i>		<i>Space_01MEP / 2x3</i>
001 GUIDs	■		
002 History	■		
010 Naming	■		
020 Placement 020-2 Placement Relative	■		
030 Geometry 030-6 Geometry Body 030-6-1 Geometry SweptSolid 030-6-2 Geometry Clipping	■	Only one clipping plane is supported.	

040 Presentation		
040-1 Geometric Presentation	■	
050 CAD Layer	■	
150 Spatial Aggregation		
150-1 Spatial Composition	■	
210 Property Set		
210-6 Property Set IFC any	■	CADS Planner supports only predefined property sets.
General		<i>company statement</i> <i>Space_01MEP / 2x3</i>
_G4 Remarks	■	

UnitTest-01MEP / 2x3



501 IfcProject	<i>company statement</i>	<i>UnitTest-01MEP / 2x3</i>
005 Project Units		
005-1 Project Metric Units	■	
005-2 Project Imperial Units	■ CADS Planner does not support Imperial units.	
General	<i>company statement</i>	<i>UnitTest-01MEP / 2x3</i>
_G4 Remarks	■	