

Table of contents

Introduction




Testlist

Concepts

Introduction

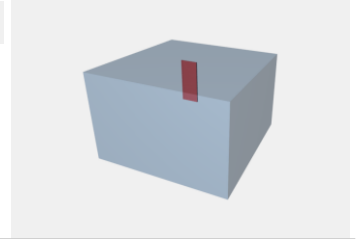
TRICAD-MS is the leading CAD software solution for building services engineering, plant design, digital factory, and Traffic design.

Testlist

Name test	concepts total	manually checked		
				
CharsetTest-01MEP / 2x3	2	2		
DuplexHouse_Electrical / 2x3	65	30	1	34
DuplexHouse_Heating / 2x3	56	43	1	12
DuplexHouse_Sanitary / 2x3	52	39	3	10
DuplexHouse_Ventilation / 2x3	44	38		6
RandomMEP-X1 / 2x3	46	45		1
RandomMEP-X2 / 2x3	62	49		13
RandomMEP-X3 / 2x3	56	54		2
RandomMEP-X4 / 2x3	42	41		1
RandomMEP-X5 / 2x3	17	17		
Space_01MEP / 2x3	15	14	1	
UnitTest-01MEP / 2x3	3	1	1	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	■	Mapped items are only used for reducers	
100 Element Aggregation 100-4 Port Assignment	■	Not all elements have connection ports	
110 Connectivity 110-5 Connectivity by Ports	■	Not all elements have connection ports	
120 Spatial Containment	■		
130 Grouping 130-2 Grouping to Systems	■	Not supported	
300 Type 300-1 Type Geometry 300-2 Type Naming	■	Not supported	
205 IfcFlowController	<i>company statement</i>		<i>DuplexHouse_Electrical / 2x3</i>
010 Naming	■		

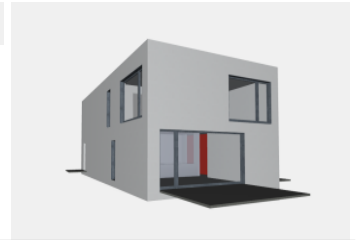
020 Placement		
020-2 Placement Relative		
030 Geometry		
030-6 Geometry Body		
030-6-5 Geometry Explicit		
030-6-9 Geometry Mapped		Mapped items are only used for reducers
100 Element Aggregation		
100-4 Port Assignment		Not all elements have connection ports
110 Connectivity		
110-5 Connectivity by Ports		Not all elements have connection ports
120 Spatial Containment		
130 Grouping		
130-2 Grouping to Systems		
300 Type		
300-1 Type Geometry		No IfcFlowController in the provided modele
300-2 Type Naming		No IfcFlowController in the provided modele
206 IfcFlowFitting		<i>company statement</i> <i>DuplexHouse_Electrical / 2x3</i>
010 Naming		No IfcFlowController in the provided modele
020 Placement		
020-2 Placement Relative		No IfcFlowController in the provided modele
030 Geometry		
030-6 Geometry Body		
030-6-5 Geometry Explicit		No IfcFlowController in the provided modele
030-6-9 Geometry Mapped		No IfcFlowController in the provided modele

100 Element Aggregation 100-4 Port Assignment	 No IfcFlowController in the provided modele
110 Connectivity 110-5 Connectivity by Ports	 No IfcFlowController in the provided modele
120 Spatial Containment	 No IfcFlowController in the provided modele
130 Grouping 130-2 Grouping to Systems	 No IfcFlowController in the provided modele
300 Type 300-1 Type Geometry 300-2 Type Naming	 No IfcFlowController in the provided modele  No IfcFlowController in the provided modele
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	  Mapped items are only used for reducers
040 Presentation 040-1 Geometric Presentation	
100 Element Aggregation 100-4 Port Assignment	 Not all elements have connection ports
110 Connectivity 110-5 Connectivity by Ports	 Not all elements have connection ports
120 Spatial Containment	














130 Grouping		
130-2 Grouping to Systems		Not in the provided model
300 Type		
300-1 Type Geometry		Not supported
300-2 Type Naming		Not supported
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		
030-6-9 Geometry Mapped		Mapped items are only used for reducers
040 Presentation		
040-1 Geometric Presentation		
050 CAD Layer		
100 Element Aggregation		
100-4 Port Assignment		Not all elements have connection ports
110 Connectivity		
110-5 Connectivity by Ports		Not all elements have connection ports
120 Spatial Containment		
130 Grouping		
130-2 Grouping to Systems		Some elements are grouped other not














210 Property Set			
210-1 Property Set IFC Common		Not supported	
210-6 Property Set IFC any		Not supported	
210-9 Property Set User Defined			
300 Type			
300-1 Type Geometry		Not supported	
300-2 Type Naming		Not supported	
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			















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	■	Mapped items are only used for reducers	
040 Presentation			
040-1 Geometric Presentation	■		
100 Element Aggregation			
100-4 Port Assignment	■		
110 Connectivity			
110-5 Connectivity by Ports	■		
130 Grouping			
130-2 Grouping to Systems	■		
300 Type			
300-1 Type Geometry	■	Not supported	
300-5 Type Property Set	■		
205 IfcFlowController	<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		Mapped items are only used for reducers
040 Presentation		
040-1 Geometric Presentation		
100 Element Aggregation		
100-4 Port Assignment		
110 Connectivity		
110-5 Connectivity by Ports		
130 Grouping		
130-2 Grouping to Systems		
300 Type		
300-1 Type Geometry		Not supported
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		
030-6-9 Geometry Mapped		Mapped items are only used for reducers
040 Presentation		
040-1 Geometric Presentation		
100 Element Aggregation		
100-4 Port Assignment		

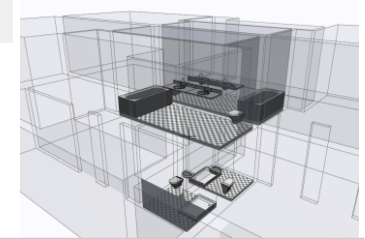
110 Connectivity		
110-5 Connectivity by Ports		
130 Grouping		
130-2 Grouping to Systems		
300 Type		
300-1 Type Geometry		Not supported
300-5 Type Property Set		
207 IfcFlowMovingDevice		<i>company statement</i> <i>DuplexHouse_Heating / 2x3</i>
010 Naming		
030 Geometry		
030-6 Geometry Body		
030-6-5 Geometry Explicit		
030-6-9 Geometry Mapped		Mapped items are only used for reducers
040 Presentation		
040-1 Geometric Presentation		
100 Element Aggregation		
100-4 Port Assignment		
110 Connectivity		
110-5 Connectivity by Ports		
130 Grouping		
130-2 Grouping to Systems		
300 Type		
300-1 Type Geometry		Not supported
300-5 Type Property Set		Not supported
208 IfcFlowSegment		<i>company statement</i> <i>DuplexHouse_Heating / 2x3</i>

010 Naming		
030 Geometry		
030-6 Geometry Body		
030-6-1 Geometry SweptSolid		
030-6-5 Geometry Explicit		
030-6-9 Geometry Mapped		Mapped items are only used for reducers
040 Presentation		
040-1 Geometric Presentation		
100 Element Aggregation		
100-4 Port Assignment		
110 Connectivity		
110-5 Connectivity by Ports		
130 Grouping		
130-2 Grouping to Systems		
300 Type		
300-1 Type Geometry		Not supported
300-5 Type Property Set		
210 IfcFlowTerminal		<i>company statement</i>
010 Naming		
030 Geometry		
030-6 Geometry Body		
030-6-5 Geometry Explicit		
030-6-9 Geometry Mapped		Mapped items are only used for reducers
040 Presentation		
040-1 Geometric Presentation		

100 Element Aggregation		
100-4 Port Assignment		
110 Connectivity		
110-5 Connectivity by Ports		
130 Grouping		
130-2 Grouping to Systems		
300 Type		
300-1 Type Geometry		Not supported
300-5 Type Property Set		
General		<i>company statement</i>
_G4 Remarks		








DuplexHouse_Heating / 2x3















DuplexHouse_Sanitary / 2x3



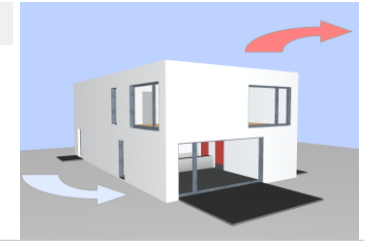
205 IfcFlowController	<i>company statement</i>		<i>DuplexHouse_Sanitary / 2x3</i>
010 Naming	■		
020 Placement 020-2 Placement Relative	■		
030 Geometry 030-6 Geometry Body 030-6-1 Geometry SweptSolid 030-6-5 Geometry Explicit 030-6-9 Geometry Mapped	■	■	
040 Presentation 040-1 Geometric Presentation	■		
100 Element Aggregation 100-4 Port Assignment	■		
110 Connectivity 110-5 Connectivity by Ports	■		
120 Spatial Containment	■		
130 Grouping 130-2 Grouping to Systems	■		
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	■
030-6-5 Geometry Explicit	■
030-6-9 Geometry Mapped	■ Mapped items are only used for reducers
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	■
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	■
030-6-5 Geometry Explicit	■ Pipes are only represented wit swept solids
030-6-9 Geometry Mapped	■ Mapped items are only used for reducers















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		
210 IfcFlowTerminal		<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 solids are only used for pipes and elbows
030-6-5 Geometry Explicit		
030-6-9 Geometry Mapped		Mapped items are only used for reducers
040 Presentation		
040-1 Geometric Presentation		
050 CAD Layer		
100 Element Aggregation		
100-4 Port Assignment		Some elements have connections other not















110 Connectivity 110-5 Connectivity by Ports	 Some elements have connections other not	
120 Spatial Containment		
130 Grouping 130-2 Grouping to Systems		
200 Material 200-1 Single Material	 Not supported	
210 Property Set 210-6 Property Set IFC any 210-9 Property Set User Defined	 	
300 Type 300-1 Type Geometry 300-2 Type Naming 300-3 Type Material 300-5 Type Property Set	 Not supported   Not supported  Not supported	
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	 Not supported	
General	<i>company statement</i>	<i>DuplexHouse_Sanitary / 2x3</i>
_G4 Remarks		

DuplexHouse_Ventilation / 2x3



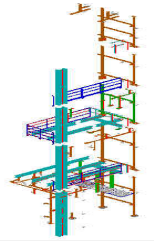
206 IfcFlowFitting	<i>company statement</i>		<i>DuplexHouse_Ventilation / 2x3</i>
010 Naming	■		
020 Placement			
020-2 Placement Relative	■		
030 Geometry			
030-6 Geometry Body			
030-6-1 Geometry SweptSolid	■		
030-6-5 Geometry Explicit	■		
030-6-9 Geometry Mapped	■	Mapped items are only used for reducers	
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	■		
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		Swept solids are only used for pipes and elbows
030-6-5 Geometry Explicit		
030-6-9 Geometry Mapped		Mapped items are only used for reducers
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		
208 IfcFlowSegment		<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		
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		
210 IfcFlowTerminal		<i>company statement</i> <i>DuplexHouse_Ventilation / 2x3</i>
010 Naming		
020 Placement		
020-2 Placement Relative		
030 Geometry		
030-6 Geometry Body		
<i>030-6-1 Geometry SweptSolid</i>		
030-6-5 Geometry Explicit		Pipes are only represented wit swept solids
030-6-9 Geometry Mapped		Mapped items are only used for reducers
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			
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		Not supported	
General		<i>company statement</i>	<i>DuplexHouse_Ventilation / 2x3</i>
_G4 Remarks			

RandomMEP-X1 / 2x3



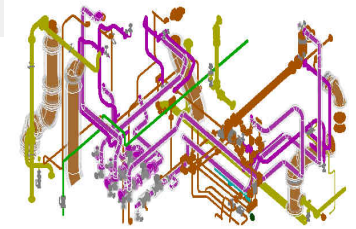
103 IfcBeam		<i>company statement</i>	<i>RandomMEP-X1 / 2x3</i>
002 History	■		
010 Naming	■		
105 IfcSlab		<i>company statement</i>	<i>RandomMEP-X1 / 2x3</i>
001 GUIDs	■		
002 History	■		
010 Naming	■		
020 Placement			
020-2 Placement Relative	■		
030 Geometry			
030-6 Geometry Body			
030-6-5 Geometry Explicit	■		
040 Presentation			
040-1 Geometric Presentation	■		
050 CAD Layer	■		
200 Material			
200-1 Single Material	■		
210 Property Set			
210-3 Property Set User Defined	■		
108 IfcRailing		<i>company statement</i>	<i>RandomMEP-X1 / 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	■		
050 CAD Layer	■		
210 Property Set			
210-3 Property Set User Defined	■		
208 IfcFlowSegment		<i>company statement</i>	<i>RandomMEP-X1 / 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	■		
040 Presentation			
040-1 Geometric Presentation	■		
050 CAD Layer	■		
100 Element Aggregation			
100-4 Port Assignment	■		

















120 Spatial Containment	■		
130 Grouping			
130-2 Grouping to Systems	■		
401 IfcMember		<i>company statement</i>	<i>RandomMEP-X1 / 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	■		
050 CAD Layer	■		
210 Property Set			
210-3 Property Set User Defined	■		
402 IfcPlate		<i>company statement</i>	<i>RandomMEP-X1 / 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	■		
050 CAD Layer	■		

















210 Property Set			
210-3 Property Set User Defined			
507 IfcSystem		<i>company statement</i>	<i>RandomMEP-X1 / 2x3</i>
010 Naming			
130 Grouping			
130-5 Is Group			
250 System Assignment			
250-2 Services Spatial Element		Not supported	
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 030-6-5 Geometry Explicit 030-6-9 Geometry Mapped	■	■ Mapped items are only used for reducers	
040 Presentation 040-1 Geometric Presentation	■		
050 CAD Layer	■		
100 Element Aggregation 100-4 Port Assignment	■		
110 Connectivity 110-5 Connectivity by Ports	■		
120 Spatial Containment	■		
130 Grouping 130-2 Grouping to Systems	■		

210 Property Set		
210-3 Property Set User Defined		
230 Classification		Not supported
300 Type		
300-1 Type Geometry		Not supported
300-2 Type Naming		Not supported
300-5 Type Property Set		Not supported for the provided modele
206 IfcFlowFitting		<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		
030-6-1 Geometry SweptSolid		
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		
110 Connectivity		
110-5 Connectivity by Ports		

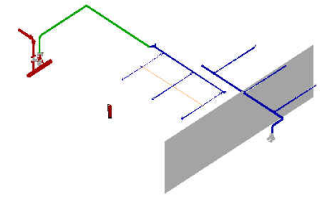
120 Spatial Containment		
130 Grouping		
130-2 Grouping to Systems		
210 Property Set		
210-9 Property Set User Defined		
<i>230 Classification</i>		Not supported
300 Type		
300-1 Type Geometry		Not supported
300-2 Type Naming		
300-5 Type Property Set		Not supported for the provided modele
208 IfcFlowSegment		<i>company statement</i> <i>RandomMEP-X2 / 2x3</i>
002 History		
010 Naming		
020 Placement		
020-2 Placement Relative		
030 Geometry		
030-6 Geometry Body		
030-6-1 Geometry SweptSolid		
030-6-5 Geometry Explicit		Pipes are only represented wit swept solids
030-6-9 Geometry Mapped		Mapped items are only used for reducers
040 Presentation		
040-1 Geometric Presentation		
050 CAD Layer		
100 Element Aggregation		
100-4 Port Assignment		

110 Connectivity			
110-5 Connectivity by Ports			
120 Spatial Containment			
130 Grouping			
130-2 Grouping to Systems			
210 Property Set			
210-9 Property Set User Defined			
230 Classification		Not supported	
300 Type			
300-2 Type Naming			
300-5 Type Property Set		Not supported for the provided modele	
210 IfcFlowTerminal		<i>company statement</i>	<i>RandomMEP-X2 / 2x3</i>
401 IfcMember		<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			
030-6-5 Geometry Explicit			
050 CAD Layer			
210 Property Set			
210-3 Property Set User Defined			
507 IfcSystem		<i>company statement</i>	<i>RandomMEP-X2 / 2x3</i>













010 Naming		
130 Grouping		
130-5 Is Group		
250 System Assignment		
250-2 Services Spatial Element		Not supported
General		<i>company statement</i>
_G4 Remarks		

RandomMEP-X2 / 2x3















RandomMEP-X3 / 2x3



205 IfcFlowController		<i>company statement</i>	<i>RandomMEP-X3 / 2x3</i>
001 GUIDs	■		
010 Naming	■		
020 Placement			
020-2 Placement Relative	■		
030 Geometry			
030-6 Geometry Body			
030-6-5 Geometry Explicit	■		
110 Connectivity			
110-5 Connectivity by Ports	■		
120 Spatial Containment	■		
130 Grouping			
130-2 Grouping to Systems	■		
206 IfcFlowFitting		<i>company statement</i>	<i>RandomMEP-X3 / 2x3</i>
001 GUIDs	■		
002 History	■		
010 Naming	■		
020 Placement			
020-2 Placement Relative	■		

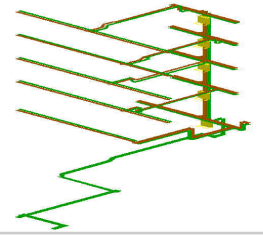
030 Geometry		
030-6 Geometry Body		
030-6-1 Geometry SweptSolid		
030-6-5 Geometry Explicit		
030-6-9 Geometry Mapped		Mapped items are only used for reducers
040 Presentation		
040-1 Geometric Presentation		
050 CAD Layer		
100 Element Aggregation		
100-4 Port Assignment		
110 Connectivity		
110-5 Connectivity by Ports		
120 Spatial Containment		
130 Grouping		
130-2 Grouping to Systems		
210 Property Set		
210-9 Property Set User Defined		
208 IfcFlowSegment		<i>company statement</i> <i>RandomMEP-X3 / 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	■
040 Presentation	
040-1 Geometric Presentation	■
050 CAD Layer	■
100 Element Aggregation	
100-4 Port Assignment	■
110 Connectivity	
110-5 Connectivity by Ports	■
120 Spatial Containment	■
130 Grouping	
130-2 Grouping to Systems	■
210 Property Set	
210-9 Property Set User Defined	■
300 Type	
300-2 Type Naming	■
300-5 Type Property Set	■
210 IfcFlowTerminal	<i>company statement</i>
	<i>RandomMEP-X3 / 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		
040 Presentation		
040-1 Geometric Presentation		
050 CAD Layer		
100 Element Aggregation		
100-4 Port Assignment		
110 Connectivity		
110-5 Connectivity by Ports		
120 Spatial Containment		
130 Grouping		
130-2 Grouping to Systems		
210 Property Set		
210-9 Property Set User Defined		
<i>230 Classification</i>		Not supported
300 Type		
300-2 Type Naming		
300-5 Type Property Set		
506 IfcGroup		<i>company statement</i> <i>RandomMEP-X3 / 2x3</i>
001 GUIDs		
010 Naming		
130 Grouping		
130-5 Is Group		
507 IfcSystem		<i>company statement</i> <i>RandomMEP-X3 / 2x3</i>

010 Naming	■		
130 Grouping			
130-5 Is Group	■		
General		<i>company statement</i>	<i>RandomMEP-X3 / 2x3</i>
_G4 Remarks	■		

RandomMEP-X4 / 2x3



205 IfcFlowController	<i>company statement</i>		<i>RandomMEP-X4 / 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	■		
050 CAD Layer	■		
120 Spatial Containment	■		
210 Property Set			
210-3 Property Set User Defined	■		
206 IfcFlowFitting	<i>company statement</i>		<i>RandomMEP-X4 / 2x3</i>
001 GUIDs	■		
002 History	■		
010 Naming	■		
020 Placement			
020-2 Placement Relative	■		

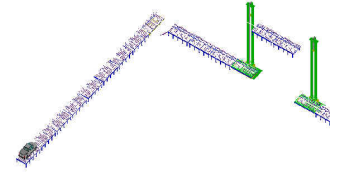
030 Geometry	
030-6 Geometry Body	
030-6-5 Geometry Explicit	■
040 Presentation	
040-1 Geometric Presentation	■
050 CAD Layer	■
100 Element Aggregation	
100-4 Port Assignment	■
110 Connectivity	
110-5 Connectivity by Ports	■
120 Spatial Containment	■
130 Grouping	
130-2 Grouping to Systems	■
210 Property Set	
210-9 Property Set User Defined	■
300 Type	
300-2 Type Naming	■
208 IfcFlowSegment	<i>company statement</i>
001 GUIDs	■
002 History	■
010 Naming	■
020 Placement	
020-2 Placement Relative	■

RandomMEP-X4 / 2x3

030 Geometry		
030-6 Geometry Body		
030-6-5 Geometry Explicit	■	
040 Presentation		
040-1 Geometric Presentation	■	
050 CAD Layer	■	
100 Element Aggregation		
100-4 Port Assignment	■	
110 Connectivity		
110-5 Connectivity by Ports	■	
120 Spatial Containment	■	
130 Grouping		
130-2 Grouping to Systems	■	
210 Property Set		
210-9 Property Set User Defined	■	
230 Classification	■	Not supported
300 Type		
300-2 Type Naming	■	
501 IfcProject		<i>company statement</i> <i>RandomMEP-X4 / 2x3</i>
002 History	■	
008 Representation Context		
008-1 Representation Main Context	■	
008-2 Representation Sub Context		
008-2-2 Representation Sub Context 3D	■	
507 IfcSystem		<i>company statement</i> <i>RandomMEP-X4 / 2x3</i>

010 Naming	■		
130 Grouping			
130-2 Grouping to Systems	■		
130-5 Is Group	■		
General		<i>company statement</i>	<i>RandomMEP-X4 / 2x3</i>
_G4 Remarks	■		

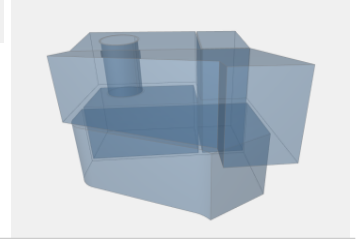
RandomMEP-X5 / 2x3



212 IfcTransportElement	<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	■		
040 Presentation			
040-1 Geometric Presentation	■		
210 Property Set			
210-3 Property Set User Defined	■		
300 Type			
300-2 Type Naming	■		
304 IfcFurnishingElement	<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	■		
040 Presentation			
040-1 Geometric Presentation	■		
050 CAD Layer	■		
210 Property Set			
210-9 Property Set User Defined	■		
507 IfcSystem		<i>company statement</i>	<i>RandomMEP-X5 / 2x3</i>
General		<i>company statement</i>	<i>RandomMEP-X5 / 2x3</i>
_G4 Remarks	■		

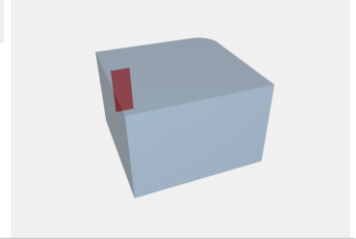
Space_01MEP / 2x3



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	■		
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	■	TRICAD only supports extruded surfaces and free volumes but without clipping	

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		■	
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	<p>■ TRICAD_MS always works and exports the measurements in mm even if the design file format is set to another unit</p> <p>■ TRICAD_MS always works and exports the measurements in mm even if the design file format is set to another unit</p>	
General	<i>company statement</i>	<i>UnitTest-01MEP / 2x3</i>
_G4 Remarks	■	