

ISO/TS 10303-325:2004-01 (E)

Industrial automation systems and integration - Product data representation and exchange - Part 325: Abstract test suite: Building elements using explicit shape representation

Contents		Page
1	Scope	1
2	Normative references	1
3	Terms, definitions and abbreviations	2
3.1	Terms defined in ISO 10303-1	2
3.2	Terms defined in ISO 10303-31	2
3.3	Abbreviations	3
4	Test purposes	3
4.1	Application element test purposes	3
4.2	AIM test purposes	17
5	General test purposes and verdict criteria	39
5.1	General test purposes	39
5.2	General verdict criteria for all abstract test cases	39
5.3	General verdict criteria for preprocessor abstract test cases	39
5.4	General verdict criteria for postprocessor abstract test cases	40
6	Abstract test cases	40
6.1	Building_complex with foundation as faceted_b_rep	40
6.2	Building_complex with foundation as block	46
6.3	Building_complex with foundation as Truncated_pyramid	52
6.4	Building_complex with foundation as Truncated_cone	58
6.5	Building_complex with foundation as Right_circular_cylinder	63
6.6	Building_complex with foundation as Trimmed_sphere	69
6.7	Building_complex with foundation as solid_of_linear_extrusion	75
6.8	Building_complex with foundation as solid_of_revolution	81
6.9	Wall with window using Faceted_face_with_thickness	87
6.10	Column with recess using Faceted_b_rep	96
6.11	Column with recess using Trimmed_torus	103
6.12	Column with recess using Advanced_b_rep	110
6.13	Wall with doorway including change and approval	117
6.14	Wall with doorway using Elementary_face_with_thickness	129
6.15	Wall with doorway using Advanced_face_with_thickness	141
6.16	Building with levels (floors) using Faceted_b_rep	152
6.17	Building with levels (floors) using Elementary_b_rep	165
6.18	Item_assembly with approvals as roof (beams) using Faceted_b_rep	182
6.19	Item_assembly as stairway using Faceted_b_rep	193
6.20	Item_group (single level)	201
6.21	Multi-level Item_group	212
6.22	Structural wire using faceted_curve	221
6.23	Structural wire using elementary_curve	227
6.24	Structural wire using advanced_curve	233
6.25	Building with levels using faceted_shell	239
6.26	Building with levels using elementary_shell	248
6.27	Building with levels using advanced_shell	257
6.28	Building with levels using ground_face	266
6.29	Building_complex with surrounding_grounds_shape as faceted_surface	276

6.30	Building_complex with surrounding_grounds_shape as point_and_line_representation	278
	Annex A (normative) Conformance classes	281
	Annex B (normative) Information object registration	288
	Annex C (normative) Postprocessor input specification file names	289
	Annex D (informative) Excluded test purposes	291
	Index	292
	Tables Table 1 - Application elements for Building_complex with foundation as faceted_b_rep	40
	Table 2 - Application elements for Building_complex with foundation as Block	46
	Table 3 - Application elements for Building_complex with foundation as Truncated_pyramid	52
	Table 4 - Application elements for Building_complex with foundation as Truncated_cone	58
	Table 5 - Application elements for Building_complex with foundation as right_circular_cylinder	64
	Table 6 - Application elements for Building_complex with foundation as trimmed_sphere	70
	Table 7 - Application elements for Building_complex with foundation as solid_of_linear_extrusion	76
	Table 8 - Application elements for Building_complex with foundation as solid_of_revolution	82
	Table 9 - Application elements for wall with window using Faceted_face_with_thickness	88
	Table 10 - Application elements for column with recess using Faceted_b_rep	96
	Table 11 - Application elements for column with recess using Trimmed_torus	103
	Table 12 - Application elements for column with recess using Advanced_b_rep	110
	Table 13 - Application elements for wall with doorway including change and approval	117
	Table 14 - Application elements for wall with doorway using Elementary_face_with_thickness	129
	Table 15 - Application elements for wall with doorway using Advanced_face_with_thickness	141
	Table 16 - Application elements for building with levels (floors) using faceted_b_rep	153
	Table 17 - Application elements for building with levels (floors) using elementary_b_rep	166
	Table 18 - Application elements for item_assembly with approvals as roof (beams) using faceted_b_rep	182
	Table 19 - Application elements for item_assembly as stairway using faceted_b_rep	194
	Table 20 - Application elements for Item_group	201
	Table 21 - Application elements for item_group	213
	Table 22 - Application elements for structural wire	222
	Table 23 - Application elements for structural wire using elementary_curve	228
	Table 24 - Application elements for structural wire using advanced_curve	234
	Table 25 - Application elements for building with levels using faceted_shell	239

Table 26 - Application elements for building with levels using elementary_shell	248
Table 27 - Application elements for building with levels using advanced_shell	257
Table 28 - Application elements for building with levels using ground_face	266
Table 29 - Application elements for building_complex with surrounding_grounds_shape as faceted_surface	276
Table 30 - Application elements for building_complex with surrounding_grounds_shape as point_and_line_representation	279
Table C.1 - Postprocessor input specification file names	289