

APPLICATION PROTOCOLS AND ASSOCIATED ABSTRACT-TEST SUITES

<p>I 201 Explicit draughting [ATS 301 = X] I 202 Associative draughting [C] I 203 Configuration controlled 3D design (c2=l,a1=l)[X] I 203 Configuration controlled 3D design (TS1=l) I 204 Mechanical design using boundary rep [I] X 205 Mechanical design using surface rep [W] X 206 Mechanical design using wireframe [X] I 207 Sheet metal die planning and design [c1=l] X 208 Life-cycle product change process [X] I 209 Composite & metal structural anal & related design[X] I 210 Electronic assy, interconnection & packaging design [X] C 210 e2 Electronic assy, interconnection & packaging design X 211 Electronic P-C assy: test, diag, & remanuf[X] I 212 Electrotechnical design and installation [X] X 213 Num control (NC) process plans for mach'd parts [X] I 214 e2 Core data for automotive mech design processes [X] A 214 e3 Core data for automotive mech design processes I 215 Ship arrangement [X] I 216 Ship moulded forms [X] X 217 Ship piping [X] I 218 Ship structures [W] E 219 Dimension inspection [X] O 220 Proc. plg, mfg, assy of layered electrical products [X]</p>	<p>E 221 Functional data & their schem rep for process plant [X] X 222 Design-manuf for composite structures [X] C 223 Exch of design & mfg product info for cast parts [X] I 224 e3 Mech pdt def for p. plg using mach'n'g feat (e2=l) [I,W] I 225 Building elements using explicit shape rep [C] X 226 Ship mechanical systems[X] I 227 Plant spatial configuration(e2=E) [X] X 228 Building services: HVAC [X] A 229 Exchange of product info for forged parts[X] X 230 Building structural frame: steelwork [X] X 231 Process-engineering data [X] I 232 Technical data packaging: core info & exch [I] W 233 e2 Systems engineering data repr X 234 Ship operational logs, records, and messages[X] C 235 Materials info for des and verif of products [X] I 236 Furniture product and project data[W] X 237 Computational Fluid Dynamics E 238 Application interpreted model for computer numeric controllers I 239 Product life cycle support I 240 Process plans for machined products A 241 Generic model for Lifecycle support of AEC facilities</p>
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COMMON RESOURCES (with 13584-20 logic. model of expr. and 15531-42 Time)

Legend: TS Status
 0-10 =O=prop-->apvl for ballot
 10-20=A=NP blt circ-->NP apvl
 20-60=D=DTS dev-->reg as TS
 >60 =T=TS Published

APPLICATION MODULES (Technical specifications)	
Because there are many of these planned SOAP has been forced to be SO4P, STEP on four pages. For their listing, please access the file via the SC4ONLINE, SOAP Folder .	
INTEGRATED-APPLICATION RESOURCES	
I 101 Draughting (c1=l) X 102 Ship structures X 103 E/E connectivity I 104 Finite element analysis I 105 Kinematics (c1=l, c2=l) X 106 Building core model	I 107 Finite-element analysis definition relationships I 108 Prmetizat'n&Constraints for expl geom prod mdl I 109 Assembly model for products X 110 Mesh based computational fluid dynamics E 111 Construction history features I 112 2d standard modeling commands for the procedural parametric exchange
INTEGRATED-GENERIC RESOURCES	
I 41 e3 Fund of prdct descr & spt I 42 e3 Geom & top rep I 43 e2 Representation structures I 44 e2 Product structure configuration I 45 Materials (c1=l) I 46 Visual presentation (c1=l, c2=l, c3=l) I 47 Tolerances (c1=l) X 48 Form features I 49 Process structure & properties	I 50 Mathematical constructs I 51 Mathematical description C 52 Mesh-based topology C 53 Numerical Analysis I 54 Classification and set theory I 55 : Procedural and hybrid representation I 56 State X 57 Expression extensions X 58 Risk C 59 Quality of product shape data
APPLICATION-INTERPRETED CONSTRUCTS	
I 501 Edge-based wireframe I 502 Shell-based wireframe I 503 Geom-bounded 2D wireframe (c1=l) I 504 Draughting annotation I 505 Drawing structure & admin. I 506 Draughting elements I 507 Geom-bounded surface I 508 Non-manifold surface I 509 Manifold surface I 510 Geom-bounded wireframe I 511 Topologically bounded surface I 512 Faceted B-representation	I 513 Elementary B-rep I 514 Advanced B-rep I 515 Constructive solid geometry X 516 Mechanical-design context I 517 Mech-design geom presentation (c1=l) I 518 Mech-design shaded presentation I 519 Geometric tolerances (c1=l) I 520 Assoc draughting elements I 521 Manifold subsurface I 522 Machining features I 522 e2 Machining features I 523 Curve swept solid
IMPLEMENTATION METHODS	
I 21 e2 Clear-text encoding exch str I 22 Standard data access interface I 23 C++ language binding (to #22) I 24 C language binding (to #22)	T 25 EXPRESS to OMG XML binding X 26 IDL language binding (to #22) T 27 JAVA language binding (to #22) T 28 XML rep for EXPRESS-schemas and data (e2=E) X 29 Ltwt Java binding (to #22)

DESCRIPTION METHODS

- I 1 [Overview and fundamental principles](#) (a2=W)
- I 11 e2 [EXPRESS language ref man.](#) (e3=O (ISO 20303))
- I 12 [EXPRESS-I language ref man.](#) (Type 2 tech report, not a 10303 part)
- X 13 [Architecture and Methodology reference manual](#)
- I 14 [EXPRESS X Language reference manual](#)

- I 31 [General Concepts](#)
- I 32 [Requirements on testing labs and clients](#)
- X 33 [Structure and use of abstract test suites](#)
- I 34 [Abstract test methods for Part 21 implementation.](#)
- I 35 [Abstract test methods for Part 22 implementation.](#)

CONFORMANCE TESTING METHODOLOGY & FRAMEWORK

<p>Legend: Part Status (E, F, I safe to implement) 0=O=Preliminary Stage (Proposal-->appr for NP ballot) 10=A =Proposal Stage (NP ballot circ-->NP approval) 20=W=Preparatory Stage (Wkg Draft devel.-->CD registration) 30=C =Committee Stage (CD circulation-->DIS registration)</p>	<p>40=E =Enquiry Stage (DIS circ.-->FDIS registration) 50=F =Approval Stage (FDIS circ-->Int'l Std registration) @=At ISO, approved for publication (ISO status 40.95 or 50.99) 60=I =Publication Stage (Int'l Std published) 98=X=Project withdrawn</p>
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jgnell, 89-Oct.-23; rev. 01-11-28. Origin: ISO 10303 Editing Committee. On-line: <http://www.nist.gov/sc5/soap/>
Chg 1. 2004-06-19/jpbrazy . Reverse engineered SOAP to MS Word source to enable linking to SC4ONLINE Project folders.
Chg 2. 2006-05-05/jpbrazy..Updated to include publications through 2005-12-31.
Chg 3a. 2007-04-25/jpbrazy. Updated to include publications through 2006-12-31.