

PDES, Inc. Position on ISO 14306 JT Specification

For over 27 years, PDES, Inc. has supported the development of open standards that allow 3D product data exchange for manufacturing and archiving. PDES, Inc. has developed a statement defining open standards which is available on pdesinc.org.

Many of the members of PDES, Inc. support the use of JT for visualization, LOTAR for archiving and STEP for data exchange. LOTAR and STEP developers have worked together to make sure the standards are harmonized to ensure interoperability. An ISO 14306 JT specification that meets the criteria of interoperability and openness, and supports the needs of the international manufacturing community as a whole, as opposed to a specific industry, is a requirement for the ISO 14306 JT specification to proceed. The following paragraphs outline the conditions that we believe are required for the ISO 14306 JT specification to meet the criteria.

- 1. The specification shall be sufficiently explicit that independent organizations can develop ISO 14306 JT translators from the specification that are able to produce the same result.** Currently there are procedural entities in the XT_brep that is included in the ISO 14306 JT specification. It is well known that interpretation of procedural geometry by differing implementation software leads to differing results. Therefore the ISO 14306 JT file format specification must include the source code for the receiver (which would be needed to achieve the same result for all receivers). Otherwise, these entities do not meet ISO TC184/SC4 requirements for data exchange or for long term archiving, and can only be provided for information only.
- 2. The specification must be suitable for and trusted for long-term archiving because the specification is upward compatible.** ISO TC184/SC4 has a 20-year history of maintaining upward compatibility in its specifications. ISO 14306 JT edition 2 and all future editions, shall be upward compatible with previous editions. In order to support upward compatibility, JT edition 2 shall be a superset including JT edition 1 entities and both compression formats.
- 3. Specifications for data exchange and long-term archiving of product data cannot be controlled by a private entity by means of patents or proprietary rights.** Currently, Siemens retains patent rights that would enable de facto control of the ISO 14306 JT standard. Siemens agreed to freely license the patented content of JT to implementors as long as the standard is not substantially changed by the ISO TC/184/SC4. If the members of SC4 make updates to the JT standard, Siemens could cancel this licensing arrangement, and invalidate JT implementations. ISO does not support patenting of specifications or standards. Implementations may be patented, but not a specification which has been updated and balloted using the ISO TC 184/SC process for standards development.

For these reasons, PDES Inc. membership consensus expresses the concern that JT edition 2 does not appear to meet US industry requirements for normative XT_brep-based data exchange and long-term archiving.