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The IGES/PDES ORGANIZATION DOCUMENT TRACKING SYSTEM

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THE IGES/PDES ORGANIZATION
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I. Introduction

The IGES/PDES Organization is a body of volunteers from industry, government, and academia who are dedicated to the development and implementation of world-wide standards for the digital representation and communication of product data.

The organization, formed in February 1980 as the IGES Organization, was chartered to "correct, refine, and assess the need to extend" the first version of the Initial Graphics Exchange Specification (IGES). IGES defines a neutral data format to allow the digital exchange of data among incompatible CAD (computer-aided design) systems. In 1980, the organization had two committees, a Steering Committee to oversee the project and an Extensions and Repairs Committee to carry out the charter. To date, five versions of IGES have been issued by the organization. Three of these versions have been submitted to the American National Standards Institute (ANSI) and adopted as national standards.

In 1984, work was begun on the Product Data Exchange Specification (PDES) to extend capabilities beyond those of IGES by developing a neutral mechanism for representing product data throughout the life cycle of a product. The name of the organization was changed to the IGES/PDES Organization (IPO) in 1987 to recognize this new activity. Recently the definition for PDES was updated to Product Data Exchange using STEP (Standard for the Exchange of Product Model Data) to better reflect that PDES is the United States activity which supports the development of the International Standard referred to as STEP.

The IPO is now composed of approximately thirty technical committees and interest groups; each has a particular area of expertise. Some committees work on the development of IGES and the PDES activity; others work on only one project.

During the lifetime of the IGES and IGES/PDES Organizations, many documents have been written as part of the development process. Suggested changes to versions of IGES are circulated to voting members of the IPO for approval or rejection. Approved changes are included in the next version of the Specification.

The effort involved in developing an International Standard such as ISO (International Organization for Standardization) 10303 (the official reference for STEP) requires, at a minimum, the creation of several versions of each Part of the proposed International Standard and the writing of supporting documentation.

To ensure that all documents produced as part of the IGES and PDES efforts are available to interested parties, the National Institute of Standards and Technology (NIST), the technical headquarters for the IPO, has established an IPO Document Tracking System (DTS). Although called the IPO DTS, documents authored by members of organizations closely associated with the IPO may be entered and distributed through the IPO DTS.

This report gives an overview of the IPO DTS, the procedures for registering documents in the system, information on the roles of those who administer the system, and directions for obtaining copies of documents registered in the system.

II. Overview of the IPO DTS

The IPO DTS is a database-managed mechanism for cataloging information on documents produced as contributions to versions of IGES, the PDES activity, or associated projects. The IPO Editor oversees the on-going operation of the system. The National PDES Testbed (NPT) provides a Configuration Control Administrator (CCA) who manages the database. The NPT was established at NIST to support industry's development and testing of STEP.

Each IPO committee and interest group has a librarian who is responsible for maintaining a log of the items produced by the committee and seeing that appropriate items are submitted to the IPO Editor for registration in the IPO DTS. Some organizations closely affiliated with the IPO also have appointed librarians. Appendix B contains a list of librarians and information on the IPO Editor and the CCA.

Librarians submit a completed IPO DTS cover sheet (Figure 1) to the IPO Editor with each item submitted. Instructions for completing it are given in Section III and Appendices A and B.

Authors not affiliated with IPO technical committees, interest groups, or associated organizations may enter documents they believe to be of interest to the IPO community in the IPO DTS by acting as their own librarians.

When an item and cover sheet are received at NIST, the IPO Editor reviews the material and if it is judged acceptable, forwards the item's IPO DTS cover sheet to the CCA who enters the information into the database. A series of forms on the computer screen are completed for each entry.

When the database entry is completed, the CCA returns the cover sheet to the IPO Editor. A copy of the item and its completed cover sheet are kept in the NIST library of IPO publications maintained by the IGES/PDES/STEP Administration Office. If an electronic version of the item has been furnished, it is retained by the CCA.

A report of all items in the IPO DTS is available from the IGES/PDES/STEP Administration Office. That report is updated quarterly.

The Information Services Center (ISC) of the National PDES Testbed (NPT) is in the process of developing a configuration management system to support the STEP development process. This system will serve the ISO community developing STEP, the IPO, PDES, Inc., and the NPT. Careful planning is needed to address all requirements of such a system. This IPO DTS is the first step in defining the IPO's functional requirements for that system.

Figure 1. The IPO DTS Cover Sheet

III. Procedures for Entering an Item in the IPO DTS

A. Registering Documents Produced Within a Technical Committee, Interest Group, or Related Organization

As soon as an author and committee or interest group chairman agree that a document produced within a technical committee or interest group is worthy of circulation they enter the document in the IPO DTS.

The author provides the committee librarian with one reproduction-quality copy of the document. If it exists in an electronic format, an electronic copy may also be provided.

The author provides the following information for the cover sheet:

1. Complete title of the item being submitted.

2. Complete names of all authors who contributed to the item being submitted.

3. A 25-word abstract describing the item.

4. The publication date or, in the case of a set of view graphs or a like item, the presentation date. If the date does not include a day of the month, the author should supply a two-digit entry (e.g., 01, 15, 31) to fulfill the database requirement.

5. The status level of the item (see Appendix A, item 1).

6. A classification for the item (see Appendix A, item 2).

7. A cross-reference identifier (if applicable). This may include information such as a literature citation, a NIST internal report (NISTIR) reference, or any other reference which would be of help in locating the item.

8. Information on availability of the item (see Appendix A, item 3).

9. One letter for the document identifier which indicates the activity with which the item is associated (see Appendix A, item 4). This letter is placed in box 3 of the cover sheet's document identifier.

To complete the cover sheet, the librarian supplies:

1. A document identification code which includes the committee identifier (see Appendix B). This committee

identifier is placed in box 1 of the cover sheet's document identifier.

2. Four digits which are used by the librarian to identify the document in the committee log. These four digits are placed in box 2 of the cover sheet's document identifier. If the librarian chooses to use less than four digits, zeros should be placed in front of the digits to fulfill the database requirement.

3. A version number which is used to identify the document in the committee log as well as its place in a document series such as the third draft or volume in a series. This version number is placed in box 4 of the cover sheet's document identifier. Since the database requires at least two digits, a zero should be placed in front of a single number.

4. The librarian's name, telephone and fax numbers, and E-mail address.

The librarian retains one copy of the cover sheet for the committee log and sends another copy of it along with the reproduction-quality copy of the document and the electronic form, if available, to the IPO Editor, NIST, Bldg. 220, Rm. A-127, Gaithersburg, MD, 20899.

A full-size version of the cover sheet is included at the end of this document for use by authors and librarians. An electronic version is available from the IPO Editor.

B. Registering Documents Authored by an "Individual Author"

An "individual author" is one who is not affiliated with an IPO committee, interest group, or associated organization. The individual author who feels that he or she has authored a document which is of significant interest that it should be entered in the IPO DTS and announced in the DTS database report does the following to register that document:

1. Provides the same information as the author working within the IPO (items 1 through 9 listed previously under "the author provides"). The committee name for all submissions by individuals is "IND."

2. Provides all of the information requested in the "librarian" section of the cover sheet. (An individual author acts as the librarian for the document he or she submits.) The information provided in the librarian section may be used by the IPO Editor, the CCA, or users of the database report to contact the individual author.

IV. The Role of the IPO Editor in the Operation of the IPO DTS

The IPO Editor provides assistance to those who wish to register items in the IPO DTS and to those seeking information about it, maintains the library of documents entered in the system, and oversees the distribution of items available from NIST. When a new item is submitted for entry in the IPO DTS, the Editor does the following:

1. Reviews the incoming submission for completeness and adherence to format. A cover sheet which is incomplete is returned along with the item being submitted. An item which the IPO Editor judges not to be of reproducible quality is returned along with its cover sheet.

2. Forwards the cover sheet and if provided, the electronic version of the document to the CCA for registration of the document in the IPO DTS.

3. When the registration of the item has been completed, files the copy of the item and a copy of the cover sheet in the library of IPO documents maintained at NIST.

4. Returns a copy of the completed cover sheet to the committee librarian or individual author as a record that the IPO DTS entry has been completed.

V. The Role of the Configuration Control Administrator in the Operation of the IPO DTS

The CCA oversees the setup and day-to-day operation of the IPO DTS database and publishes a database report of entries in the system.

When an IPO DTS cover sheet is received, the CCA performs the following duties:

1. Enters all information from the cover sheet in the IPO DTS database.

2. Signs and dates the cover sheet to indicate that the database entry has been completed and returns the cover sheet to the IPO Editor.

3. Retains the electronic form of the document, if provided.

The database report prepared by the CCA gives the information listed on the IPO DTS cover sheet and therefore, serves as a quick reference to those seeking information on the documents produced by the IPO.

VI. Document Distribution

Most documents produced by the IPO are available from the National Technical Information Service, NIST, the National Computer Graphics Association (NCGA), or the document authors. Specific information on the distribution of IPO documents is found in the "available from" section of the database report.

Copies of the database report are available from the IGES/PDES/STEP Administration Office, NIST, Bldg. 220, Rm A-127, Gaithersburg, MD 20899.

Appendix A
Status Levels, Classifications, Distribution & Activities

1. Status Levels

To indicate the status level of an item being submitted, the author chooses from the following:

For IPO documents which are not Parts of ISO 10303:

Status Level	IPO Approval
Working	Document Author(s)
Released	Technical Committee
Confirmed	Project Managers/Chair’s Committee
Approved	General Assembly/Steering Committee

For IPO documents which are Parts of ISO 10303:

Status Level	IPO Approval
Working Draft	Document Author(s)
Project Draft	Project Team
Released Draft	Technical Committee
Technically Complete	Qualification & Integration
Editorially Complete	Project Editor
IPO (Draft) Standard	General Assembly/Steering Committee

For ISO documents which are not Parts of ISO 10303:

Status Level	ISO Approval
Working	Document Author(s)
Released	Working Group (WG) Conveners
Confirmed	Project Management Advisory Group
Approved	Subcommittee of ISO/Technical Committee 184/Subcommittee 4 (ISO TC184/SC4)

For ISO documents which are Parts of ISO 10303:

Status Level	ISO Approval
Working Draft	Document Author(s)
Project Draft	Project Team
Released Draft	Working Group
Technically Complete	Qualification & Integration WG
Editorially Complete	STEP Editing Committee
ISO Committee Draft	Project Management Advisory Group

2. Document Classifications

The author chooses a classification from the following alphabetical list to identify the type of item being submitted and enters the appropriate word or words in the box following "Document Classification." If the appropriate classification does not appear on the list, the author enters it on the line following the word "Other."

- AP (Application Protocol)
- CDIM (Context-Driven Integrated Model [a PDES,Inc. term])
- Correspondence
- Guide/Guidelines
- Issue Log
- Minutes or Summary of a Meeting
- Model
- Paper
- Part
- Plan
- Policy
- Position Paper
- Proposal
- Report
- Specification
- Talk
- Set of View Graphs
- Other

3. Distribution of Items Registered in the DTS

The author specifies a source such as NTIS, (the National Technical Information Agency), NIST, or NCGA so that the user of the database report can locate the items listed. Telephone numbers for organizations that regularly distribute IPO documents are listed in the database report.

4. Activities

The document author chooses one letter from the following list to identify the activity with which the item being submitted is associated. That single letter should appear in box 3 of the Document Identifier.

A - The PDES activity and STEP
I - IGES
B - Both IGES and the PDES activity
P - PDES
S - STEP
T - IGES, PDES, and STEP
U - U.S. TAG
O - Other

Appendix B
Committees/Organizations, Identification Codes, Librarians, & Administrators

Committee/Organization	Committee Identifier	Librarian	Telephone
Application Validation Methodology Committee	AVM	Ben Kassel	202-227-1355
Architecture, Engineering, and Construction Committee	AEC	Rick Lovdahl	213 433-8376
CALS/IGES Special Interest Group	CISI	Lisa Deeds	301 227-2264
CALS/PDES Special Interest Group	CPSI	Shirley Goodman	502 364-6357
Dictionary/Methodology Committee	DM	Peter Eirich	301 765-9573
Drafting Committee	DRF	Bob Parks	505 845-8674
Electrical Applications Committee	EAC	Jack Wilhelmson	803 760-3312
Electronic Committee	EC	Joan Wellington	301 975-3564
Finite Element Analysis Committee	FEA	Keith Hunten	817 777-2147
Form Features Committee	FF	Mark Dunn	203 727-7461
Geometry Committee	GEO	Phil Kennedy	313 265-7493
IGES/PDES Organization	IPO	Mona Randall	301 975-3983
Implementors Committee	IMPL	Bill Turcotte	708 449-3430
Implementation Specifications	IS	Jim Fowler	301 975-3180
Individual Author	IND	N/A	N/A
Initial Graphics Exchange Specification (IGES) Project	IGES	J.C. Kelly	505 844-1835
Interoperability Testing Methodology Committee	ITM	Olga Litchen	313 578-6320
ISO TC184/SC4	ISO	Beverly Pieper	314 344-5163
Manufacturing Technology Committee	MANT	Greg Paul	817 777-5041
Materials Committee	MAT	John Rumble	301 975-2203
Mechanical Product Definition Committee	MPD	Michael Schmitt	+49-72-6084586
National PDES Testbed	NPT	Gaylen Rinaudot	301 975-3386
PDES Composites Committee	COMI	Glen Ziolko	817 472-9014
PDES Development Methods Committee	PDM	Bill Danner	301 975-5855
PDES, Inc.	PDIC	Nancy Forsyth	803 760-3376
PDES Presentation Committee	PRES	Neal Appel	508 250-3154
Product Data Exchange using STEP (PDES) Project	PDES	Anthony Day	203 386-5320
Product Life Cycle Support Committee	PLCS	Rubhash Ramachandran	703 721-3818
Product Structure Committee	PS	Richard Bonneau	508 467-4140
Qualification & Integration Committee	QI	Yuhwei Yang	213 424-2255
Recommended Practices Committee	RP	George Baker	513 576-3900
Sheet Metal Committee	SM	Mike Strub	313 265-7466
Software Products Committee	SP	John Hanna	203 443-2465
Standard Parts Committee	STP	Ron Bale	309 578-8200
Steering Committee (IPO)	STR	Ralph Mayer	508 937-3600
Technical Publications Committee	TPUB	Leon Roueche	206 393-7400
Test Case Design Committee	TCD	Clarence Johnson	301 975-3562
Testing Methodologies Committee	TMET	Alan Peltzman	301 757-4472
Tolerance Committee	TOL	Jesse Crusey	301 975-3566
U.S. Technical Advisory Group (TAG) to ISO TC184/SC4	TAG	Mafalda Bosworth	206 234-9231
Testing Project	TEST	Connie Bracken	313 265-4906

System Administrators:

IPO Editor:	Joan Wellington	301 975-3564
CCA:	Gaylen Rinaudot	301 975-3386

IPO DOCUMENT TRACKING SYSTEM
COVER SHEET

Complete (preferably by typing) all sections of this cover sheet. If there is no information for a section, use "none."

Author completes this section and box 3 of document identifier:

Document Title:

Document Author(s):

Abstract (25 words or less):

Date of Document: **Status Level:**

Document Classification: | ______ | **Other:** ____________

Cross-Reference Identifier (if applicable):
(e.g., ISO "N" number, NIST NISTIR number)

Document submitted in electronic form?: yes { } no { }
If yes, what electronic form, version, and hardware used (e.g., LaTex, WordPerfect, ASCII): ____________

Document Available From: (source) ____________

Except for box 3 of Identifier, librarian completes this section:

Document Identifier: | 1 | 2 | . | 3 | 4 |

Librarian Name:
Telephone Number:
FAX Number: **E-mail Address:**
Mailing Address (if submitted by "individual author"):

Database
Entry Completed: ____________ **Date:** ____________
Configuration Control Administrator