Technical Publication Transfer

Using:

Northrop Corporation's Data

MIL-D-2800A (IGES)
MIL-M-28001A (SGML)
MIL-R-28002A (Raster)
MIL-D-28003 (CGM)

Quick Short Test Report

17 March 1993

Prepared for
Electronic Systems Center

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Quick Short Test Report
17 March 1993

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1. Introduction

1.1 Background

The Department of Defense (DoD) Air Force Continuous Acquisition and Life-Cycle Support (CALS) Test Network (AFCTN) is conducting tests of the military standard for the Automated Interchange of Technical Information, MIL-STD-1480A, and its companion suite of military specifications. The AFCTN is a DoD sponsored confederation of voluntary participants from industry and government managed by the Electronic Systems Center (ESC).

The primary objective of the AFCTN is to evaluate the effectiveness of the CALS standards for technical data interchange and to demonstrate the technical capabilities and operational suitability of those standards. Two general categories of tests are performed to evaluate the standards; formal and informal.

Formal tests are large and comprehensive, which follow a written test plan, require specific authorization from the DoD, and may take months to prepare, execute, and report.

Informal tests are quick and short, used by the AFCTN technical staff, to broaden the testing base. They include representative samples of the many systems and applications used by AFCTN participants. They also allow the AFCTN staff to gain feedback from many industry and government interpretations of the standards, to increase the base of participation in the CALS initiative, and respond to the many requests for help that come from participants. Participants take part voluntarily, benefit by receiving an evaluation of their latest implementation (interpretation) of the standards, interact with the AFCTN technical staff, gain experience using the standards, and develop increased confidence in them. The results of informal tests are reported in Quick Short Test Reports (QSTRs) that briefly summarize the standard(s) tested, the hardware and software used, the nature of the test, and the results.
1.2 Purpose

The purpose of the informal test, reported in this QSTR, was to analyze Northrop Corporation's interpretation and use of the CALS standards in transferring technical publication data. Northrop used its CALS Technical Data Interchange System to produce data, in accordance with the standards, and delivered it to the AFCTN technical staff on a 9-track magnetic tape.
2. Test Parameters

Test Plan: AFCTB 93-023

Date of Evaluation: 17 March 1993

Evaluator: George Elwood
Air Force CALS Test Bed
DET 2 HQ ESC/AV-2P
4027 Colonel Glenn Hwy
Suite 300
Dayton OH 45431-1672

Data Originator: John P. Kent
Northrop Corporation
B-2 Division
L591/GK
8900 E. Washington Blvd
Pico Rivera CA 90660-3765
(310) 948-0624

Data Description: Technical Manual Test
1 Document Declaration file
1 Document Type Definition (DTD)
4 Initial Graphics Exchange Specification (IGES) files
1 Text/Standard Generalized Markup Language (SGML) file
1 Raster file
1 Computer Graphics Metafile (CGM) file
1 Format Output Specification Instance (FOSI)

Data Source System:

IGES

HARDWARE Unknown

SOFTWARE
ITDS CONVERTER: GFF-IGES
Text/SGML

HARDWARE
Unknown

SOFTWARE
Unknown

Raster

HARDWARE
Unknown

SOFTWARE
Unknown

CGM

HARDWARE
Unknown

SOFTWARE
ITDS GEF

Evaluation Tools Used:

MIL-STD-1840A (TAPE)
SUN 3/280
AFCTN Tapetool v1.2.8 UNIX
XSoft CAPS/CALS v40.4

MIL-D-28000 (IGES)
Sun SparcStation 2
ArborText iges2draw
IGES Data Analysis (IDA) Parser/Verifier v92
IDA IGESView v3.05
International TechneGroup Incorporated
(ITI) IGES/Works v1.3
Cheetah Gold 486
Cadkey Cadkey v5.02

MIL-M-28001 (SGML)
Cheetah Gold 486
Exoterica XGMLNormalizer v1.2e3.2
McAfee & McAdam Sema Mark-it v2.2.2
Public Domain sgmls

MIL-R-28002 (Raster)
SUN SparcStation 2
ArborText g42tiff
AFCTN validg4
AFCTN calstb.475
IDA IGESView v3.0
Island Graphics IslandPaint v3.0
MIL-D-28003 (CGM)
   SUN SparcStation 2
   ArborText cgml2draw
   Island Graphics IslandDraw v3.0
   Cheetah Gold 486
   Advance Technology Center
      (ATC) MetaView R 1.12
   ATC MetaCheck R 2.05
   Software Publishing Corporation
      (SPC) Harvard Graphics v3.05
   Corel Ventura Publisher

Standards
Tested:
   MIL-STD-1840A
   MIL-D-28000A
   MIL-M-28001A
   MIL-R-28002A
   MIL-D-28003
3. 1840A Analysis

3.1 External Packaging

The tape arrived at the Air Force CALS Test Bed (AFCTB) enclosed in a box in accordance with ASTM D 3951. The exterior of the box was marked with the magnetic tape warning label, as required by MIL-STD-1840A, para. 5.3.1.3.

The tape was not enclosed in a barrier bag as required by MIL-STD-1840A, para. 5.3.1.2. Inspection of the tape reel showed the label indicating the recording density, as required by MIL-STD-1840A, para. 5.3.1. Enclosed in the box was a packing list showing all files recorded on the tape.

3.2 Transmission Envelope

The 9-track tape received by the AFCTB contained MIL-STD-1840A files. The files were named per the standard conventions.

3.2.1 Tape Formats

The tape was run through the AFCTN Tapetool v1.2.8 utility. No errors were encountered while evaluating the contents of the tape labels.

The tape was read without a reported problem using XSoft's CAPS read1840A.

3.2.2 Declaration and Header Fields

No errors were found in the Document Declaration file or data file headers.

The physical structure of the tape meets the CALS MIL-STD-1840A requirements.
4. IGES Analysis

The tape contained four IGES files. These files were evaluated using IDA's Parser and Verifier set for the CALS Class I standard. This utility reported that all four files meet the CALS Class I standard. This utility reported all four files as having basic IGES discrepancies. These consisted of line weight and misplaced points. See the log files in the Appendix for details.

The AFCTB has several tools for viewing IGES files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. Many of these products are used in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor an indication of CALS capability. All operations were performed using the default settings.

The files were converted using Cadkey's ig2c utility with no reported errors. The resulting files were read into Cadkey's Cadkey, displayed, and printed. The images appear to be complete.

The files were converted using ArborText's iges2draw utility with no reported errors. The resulting files were read into Island Graphics' IslandDraw. Nothing was displayed on the screen. This problem has been forwarded to ArborText for their action.

The files were read into IDA's IGESView, displayed and printed without a problem. The images appear to be complete.

The files were read into ITI's IGESWorks, displayed and printed without a reported error. The images appear to be complete.

The IGES files meet the CALS MIL-D-28000A specification.
5. SGML Analysis

The first pass through the document using Exoterica's XGML-Normalizer parser generated two errors. The first error was the use of a public entity set that was not define in MIL-M-28002A and not available in the AFCTB. This statement was commented out. Use of a nonstandard entity set should be avoided. If used, they must be included with the document.

```xml
<!ENTITY & PUBspc PUBLIC "ISO 8879-1986//ENTITIES Tech Pubs Special Characters//EN">
```

The parser also reported an ambiguous content model.

```
C:\XGML\XGMLNORM.EXE -- Error on line 466 in file entities/93222.dtd:
A content model is ambiguous.
For element 'TOC'.
The input is 'CONTENTSENTRY'.
<!-- The document prolog is in error. -->
```

The element on the defined line had contentsentry on the line twice. When the line was change to reflect only one, no errors were reported.

```xml
<!ELEMENT toc    - o (contentsentry*,contents?,table?) >
<!- line above replacing below
<!ELEMENT toc    - o
(contentsentry*,contents?,table?,contentsentry*) > -->
```

When the text file was parsed using the contentsentry at the end of the string, five errors were reported. When the contentsentry was moved to the front of the string, one error was reported.

The Public Domain sgmls and McAfee & McAdam's Sema Mark-it parsers also reported similar errors.

The basic DTD with the only non-standard reference commented out was parsed using another parser available within the AFCTB with no reported errors. The Text file also parsed without a reported error.
The DTDs and Text files do not meet the CALS MIL-M-28001A specification.

6. Raster Analysis

The tape included one type I Raster file. This file was evaluated using the AFCTN validg4 utility which reported the file was bad.

When an attempt to read the file using the AFCTN calstb.475, a Raster viewer, a core dump resulted.

The AFCTB has several tools for viewing Raster files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. Many of these products are used in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor an indication of CALS capability. All operations were performed using the default settings.

The file was read into IDA's IGESView without a reported error. The image generated consisted of random lines.

The file was converted using ArborText's g42tiff utility without a reported error. The resulting file was then read into Island Graphics' IslandPaint. The image consisted of random lines.

The Raster file does not meet the CALS MIL-R-28002A specification.

7. CGM Analysis

The tape included one CGM file. This file was evaluated using ATC's MetaCheck with CALS options. This utility, which is not the most current version, reported the file as meeting the CALS MIL-D-28003 specification.

The file was evaluated using the AFCTN beta validcgm utility, which reported two errors.

The AFCTB has several tools for viewing CGM files. These tools are not used to generate a pass/fail but to report how
commercially available software can handle the files. Many of these products are used in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor an indication of CALS capability. All operations were performed using the default settings.

ATC's MetaView displayed the image with font problems and a reported error.

The file was converted using ArborText's cgm2draw utility without a reported error. The resulting file was read into Island Graphics' IslandDraw, displayed and printed. The image appeared complete and usable.

The file was imported directly into Island Graphics' IslandDraw. The result was many lines displayed along the top of the screen.

The file was imported into SPC's Harvard Graphics 3.05 with two errors; line style and non-translated entities. The resulting image consisted of random lines on the screen.

When an attempt to import the file into Corel's Ventura Publisher it resulted in a message indicating that the file was not a valid CGM file.

The CGM file was reported as meeting the CALS MIL-D-28003 specification.
8. Conclusions and Recommendations

In summary, the tape from Northrop Corporation was correct. It could be read using available tools in the AFCTB without any reported errors. The physical structure of the tape meets the CALS MIL-STD-1840A requirements.

The included IGES files meet the CALS MIL-D-28000A specification.

The included DTD and Text files had reported errors and do not meet the CALS MIL-M-28001A specification.

The included Raster file was not acceptable and does not meet the CALS MIL-R-28002A specification.

The CGM file was reported as meeting the CALS MIL-D-28003 specification.

The tape, because of errors in the DTD, Text, and Raster files does not meet the CALS MIL-STD-1840A requirements.
9. Appendix A - Tapetool Report Logs

9.1 Tape Catalog

Air Force CALS Test Network Catalog Evaluation - Version 1.2; Release Number 8

Standards referenced:
ANSI X3.27 (1987) - File Structure and labeling of Magnetic Tapes for Information Interchange
ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Tue Mar 16 11:28:44 1993

MIL-STD-1840A File Catalog

File Set Directory: /cals/tapetool8/Set073

<table>
<thead>
<tr>
<th>File Name</th>
<th>File Type</th>
<th>Record Format/ Length</th>
<th>Block Length/Total</th>
<th>Selected/ Extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>D001</td>
<td>Document Declaration</td>
<td>D/00260 02048/000001</td>
<td></td>
<td>Extracted</td>
</tr>
<tr>
<td>D001T001</td>
<td>Text</td>
<td>D/0C260 02048/000009</td>
<td></td>
<td>Extracted</td>
</tr>
<tr>
<td>D001G002</td>
<td>DTD</td>
<td>D/00260 02048/000010</td>
<td></td>
<td>Extracted</td>
</tr>
<tr>
<td>D001H003</td>
<td>Output Specification</td>
<td>D/00260 02048/000051</td>
<td></td>
<td>Extracted</td>
</tr>
<tr>
<td>D001Q004</td>
<td>IGES</td>
<td>F/00080 02000/000281</td>
<td></td>
<td>Extracted</td>
</tr>
<tr>
<td>D001Q005</td>
<td>IGES</td>
<td>F/00080 02000/000138</td>
<td></td>
<td>Extracted</td>
</tr>
<tr>
<td>D001Q006</td>
<td>IGES</td>
<td>F/00080 02000/000224</td>
<td></td>
<td>Extracted</td>
</tr>
<tr>
<td>D001Q007</td>
<td>IGES</td>
<td>F/00080 02000/000224</td>
<td></td>
<td>Extracted</td>
</tr>
<tr>
<td>D001C008</td>
<td>CGM</td>
<td>F/00080 00800/000062</td>
<td></td>
<td>Extracted</td>
</tr>
<tr>
<td>D001R009</td>
<td>Raster</td>
<td>F/00128 02048/000005</td>
<td></td>
<td>Extracted</td>
</tr>
</tbody>
</table>

Catalog Process terminated normally.
9.2 Tape Evaluation Log

For Force CALS Test Network Tape Evaluation - Version 1.2; Release Number 8
Standards referenced:
ANSI X3.27 (1987) - File Structure and labeling of Magnetic Tapes
for Information Interchange
ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Tue Mar 16 11:27:55 1993

ANSI Tape Import Log

Allocating tape drive /dev/rmt0...
/dev/rmt0 allocated.

VOL1ITDS01 CONTROLLER

  Label Identifier: VOL1
  Volume Identifier: ITDS01
  Volume Accessibility:
  Owner Identifier:
  Label Standard Version: 4

HDR1D001 ITDS01000100010001000100 93057 93057 000000 CONTROLLER

  Label Identifier: HDR1
  File Identifier: D001
  File Set Identifier: ITDS01
  File Section Number: 0001
  File Sequence Number: 0001
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date: 93057
  Expiration Date: 93057
  File Accessibility:
  Block Count: 000000
  Implementation Identifier: CONTROLLER

HDR2D0204800260 00

  Label Identifier: HDR2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  Offset Length: 00

************* Tape Mark *************

13
Actual Block Size Found = 2048 Bytes.

Number of data blocks read = 1.

************ Tape Mark ************

EOF1D001 ITDS0100010001000100 93057 93057 000001 CONTROLLER

Label Identifier: EOF1
File Identifier: D001
File Set Identifier: ITDS01
File Section Number: 0001
File Sequence Number: 0001
Generation Number: 0001
Generation Version Number: 00
Creation Date: 93057
Expiration Date: 93057
File Accessibility: 000001
Implementation Identifier: CONTROLLER

EOF2D0204800260 00

Label Identifier: EOF2
Recording Format: D
Block Length: 02048
Record Length: 00260
Offset Length: 00

************ Tape Mark ************

HDR1D001T001 ITDS0100010002000100 93057 93057 000000 CONTROLLER

Label Identifier: HDR1
File Identifier: D001T001
File Set Identifier: ITDS01
File Section Number: 0001
File Sequence Number: 0002
Generation Number: 0001
Generation Version Number: 00
Creation Date: 93057
Expiration Date: 93057
File Accessibility: 000000
Implementation Identifier: CONTROLLER

HDR2D0204800260 00
Label Identifier: HDR2
Recording Format: D
Block Length: 02048
Record Length: 00260
Offset Length: 00

************ Tape Mark ************

Actual Block Size Found = 2048 Bytes.
Number of data blocks read = 9.

************ Tape Mark ************

EOF1D001T001 ITDS0100010002000100 93057 93057 000009 CONTROLLER

Label Identifier: EOF1
File Identifier: D001T001
File Set Identifier: ITDS01
File Section Number: 0001
File Sequence Number: 0002
Generation Number: 0001
Generation Version Number: 00
Creation Date: 93057
Expiration Date: 93057
File Accessibility:
Block Count: 000009
Implementation Identifier: CONTROLLER

EOF2D0204800260 00

Label Identifier: EOF2
Recording Format: D
Block Length: 02048
Record Length: 00260
Offset Length: 00

************ Tape Mark ************

<<<< PART OF LOG REMOVED HERE >>>>>

************ Tape Mark ************

HDR1D001R009 ITDS0100010001000100 93057 93057 000000 CONTROLLER

Label Identifier: HDR1
File Identifier: D001R009
File Set Identifier: ITDS01
File Section Number: 0001
File Sequence Number: 0010
Generation Number: 0001
Generation Version Number: 00
Creation Date: 93057
Expiration Date: 93057
File Accessibility: Block Count: 000000
Implementation Identifier: CONTROLLER

HDR2F0204800128 00

Label Identifier: HDR2
Recording Format: F
Block Length: 02048
Record Length: 00128
Offset Length: 00

************* Tape Mark *************

Actual Block Size Found = 2048 Bytes.
Number of data blocks read = 5.

************* Tape Mark *************

EOF1D001R009 ITDS0100010000000100 93057 93057 000005 CONTROLLER

Label Identifier: EOF1
File Identifier: D001R009
File Set Identifier: ITDS01
File Section Number: 0001
File Sequence Number: 0010
Generation Number: 0001
Generation Version Number: 00
Creation Date: 93057
Expiration Date: 93057
File Accessibility: Block Count: 000005
Implementation Identifier: CONTROLLER

EOF2F0204800128 00

Label Identifier: EOF2
Recording Format: F
Block Length: 02048
Record Length: 00128
Offset Length: 00

************* Tape Mark *************
************ Tape Mark ************

################ End of Volume ITDS01 ###############

################ End Of Tape File Set ###############

Deallocating /dev/rmt0...

Tape Import Process terminated with 0 error(s), 0 warning(s), and 0 note(s).
9.3 Tape File Set Validation Log

Air Force CALS Test Network File Set Evaluation - Version 1.2; Release Number 8
Standards referenced:

Tue Mar 16 11:28:45 1993

MIL-STD-1840A File Set Evaluation Log

File Set: Set073

Found file: D001
Extracting Document Declaration Header Records...
Evaluating Document Declaration Header Records...

srcref: John P. Kent, ITDS Chief Engineer, Northrop Corporation, B-2 Division, L591/GK E. Washington Blvd., Pico Rivera, CA 90660-3765 (310) 948-0624
srcdocid: 1B-2A-2-21JG-10-1
srcrtleid: NONE
chgclvl: ORIGINAL
dteis: 19910301
dstsref: Jeff Fisher, Integration Manager, USAF CALS Test Bed, HQ AFMC (I)/ENCT, TechnnCenter, 4027 Col. Glenn Highway, Dayton, OH 45431-1601
dstdocid: 1B-2A-2-21JG-10-1
dstrelid: NONE
dsttrn: 19930226
dlvacc: NONE
filecnt: T1, H1, G1, C1, Q4, R1
ttlcls: UNCLASSIFIED
doccls: UNCLASSIFIED
doctype: JOB GUIDE
docttl: ENVIRONMENTAL CONTROL - ECS CONTROL

Found file: D001T001
Extracting Text Header Records...
Evaluating Text Header Records...

srcref: 1B-2A-2-21JG-10-1
dstdocid: 1B-2A-2-21JG-10-1
txtfilid: W
doccls: UNCLASSIFIED
notes: NONE

Saving Text Header File: D001T001_HDR
Saving Text Data File: D001T001_TXT

Found file: D001G002
Extracting DTD Header Records...
Evaluating DTD Header Records...

srcdocid: 1B-2A-2-21JG-10-1
dstdocid: 1B-2A-2-21JG-10-1
notes: NONE

Saving DTD Header File: D001G002_HDR
Saving DTD Data File: D001G002_DTD

Found file: D001H003
Extracting Output Specification Header Records...
Evaluating Output Specification Header Records...

srcdocid: 1B-2A-2-21JG-10-1
dstdocid: 1B-2A-2-21JG-10-1
notes: NONE

Saving Output Specification Header File: D001H003_HDR
Saving Output Specification Data File: D001H003_OS

Found file: D001Q004
Extracting IGES Header Records...
Evaluating IGES Header Records...

srcdocid: 1B-2A-2-21JG-10-1
dstdocid: 1B-2A-2-21JG-10-1
txtfilid: W
figid: NONE
srcgph: B2A21JG2111-0101A
doccls: UNCLASSIFIED
notes: NONE

Saving IGES Header File: D001Q004_HDR
Saving IGES Data File: D001Q004_IGS

Found file: D001Q005
Extracting IGES Header Records...
Evaluating IGES Header Records...

srcdocid: 1B-2A-2-21JG-10-1
dstdocid: 1B-2A-2-21JG-10-1
txtfilid: W
figid: NONE
srcgph: B2A21JG2112-0101A
doccls: UNCLASSIFIED
notes: NONE

Saving IGES Header File: D001Q005_HDR
Saving IGES Data File: D001Q005_IGS

Found file: D001Q006
Extracting IGES Header Records...
Evaluating IGES Header Records...

srcdocid: 1B-2A-2-21JG-10-1
dstdocid: 1B-2A-2-21JG-10-1
txtfilid: W
figid: NONE
srcgph: B2AJG2112-0109C
doccls: UNCLASSIFIED
notes: NONE

Saving IGES Header File: D001Q006_HDR
Saving IGES Data File: D001Q006_IGS

Found file: D001Q007
Extracting IGES Header Records...
Evaluating IGES Header Records...

srcdocid: 1B-2A-2-21JG-10-1
dstdocid: 1B-2A-2-21JG-10-1
txtfilid: W
figid: NONE
srcgph: B2AJG2112-0110B
doccls: UNCLASSIFIED
notes: NONE

Saving IGES Header File: D001Q007_HDR
Saving IGES Data File: D001Q007_IGS

Found file: D001C008
Extracting CGM Header Records...
Evaluating CGM Header Records...

srcdocid: 1B-2A-2-21JG-10-1
dstdocid: 1B-2A-2-21JG-10-1
txtfilid: W
figid: NONE
srcgph: B2AJG2111-0103D
doccls: UNCLASSIFIED
notes: NONE

Saving CGM Header File: D001C008_HDR
Saving CGM Data File: D001C008_CGM

Found file: D001R009
Extracting Raster Header Records...
Evaluating Raster Header Records...

srcdocid: 1B-2A-2-21JG-10-1
dstdocid: 1B-2A-2-21JG-10-1
txtfilid: W
figid: NONE
srcgph: B2AJG2111-0104D
doccls: UNCLASSIFIED
rtype: 1
rorient: 000,270
rpelcnt: 000312,000500
rdensity: 0300
notes: NONE

Saving Raster Header File: D001R009_HDR
Saving Raster Data File: D001R009_GR4

Evaluating numbering scheme...
No errors were encountered during numbering scheme evaluation.
Numbering scheme evaluation complete.

Checking file count...
No errors were encountered during file count verification.
File Count verification complete.

No errors were encountered in Document D001.
No errors were encountered in this File Set.
MIL-STD-1840A File Set Evaluation Complete.
10. Appendix B - Detailed IGES Analysis

10.1 File D001Q004

10.1.1 Parser/Verifier Log

*** IGES DATA FILE ANALYSIS ***
*** MARCH 1992 ***
*** IGES Data Analysis ***
*** (708) 449-3430 ***

Input file is /novell/9323/D001Q004_IGS

Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

Today is March 16, 1993 4:59 PM

*** File and Product Name Information ***

File name from sender = '0101A.gef.igs'
File creation Date.Time = '930218.130008'
Model change Date.Time = ''
Author = 'NORTHROP B2 ITDS CTB'
Department = ''
Product name from sender = '0101A.gef.igs'
Destination product name = '0101A.gef.igs'

*** Parameter Delimiters ***

Delimiter = ',',
Terminator = ';'  

*** Originating System Data ***

System ID = 'ITDS CONVERTER: GEF_IGES'
Preprocessor version = '1.0'
Specification version = 6 (IGES 4.0)

*** Precision levels ***

Integer bits = 32
Floating point - Exponent = 38 Mantissa = 6
Double precision - Exponent = 308 Mantissa = 15

*** Global Model Data ***

Model scale = 1.00000E+00
Unit flag = 1
Units = 'IN'
Line weights = 1
Maximum line thickness = 6.300000E-03
Minimum line thickness = 6.300000E-03
CAUTION 2317: Maximum line thickness equal to minimum thickness.
Granularity = 1.000000E-03
Maximum coordinate = 7.243750E+00

Drafting standard applicable to original data is not specified.

*** Status Flag Summary ***

Blank status: Visible 1850
Blanked 0

Independence: Independent 1838
Physically Subordinate 8
Logically Subordinate 4
Totally Subordinate 0

Entity use: Geometry 1831
Annotation 19
Definition 0
Other 0
Logical/Positional 0
2D parametric 0
Not Specified 0

Hierarchy: Structure DE applies 0
Subordinate DE applies 1850
Hierarchy property applies 0
Not Specified 0

*** Entity Occurrence Counts ***

<table>
<thead>
<tr>
<th>Entity</th>
<th>Form</th>
<th>Level</th>
<th>Count</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>104</td>
<td>1</td>
<td>0</td>
<td>659</td>
<td>Conic arc - ellipse</td>
</tr>
<tr>
<td>106</td>
<td>63</td>
<td>0</td>
<td>8</td>
<td>Simple closed planar curve</td>
</tr>
<tr>
<td>110</td>
<td>0</td>
<td>0</td>
<td>497</td>
<td>Line</td>
</tr>
<tr>
<td>112</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>Parametric spline curve</td>
</tr>
<tr>
<td>124</td>
<td>0</td>
<td>0</td>
<td>659</td>
<td>Transformation matrix</td>
</tr>
<tr>
<td>212</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>General note</td>
</tr>
<tr>
<td>230</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>Sectioned area (Standard Crosshatching)</td>
</tr>
<tr>
<td>404</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>Drawing</td>
</tr>
<tr>
<td>406</td>
<td>16</td>
<td>0</td>
<td>1</td>
<td>Property - Drawing size</td>
</tr>
<tr>
<td>406</td>
<td>18</td>
<td>0</td>
<td>2</td>
<td>Property - Intercharacter spacing</td>
</tr>
</tbody>
</table>
410 0 0 1 View - Orthographic parallel

*** Entity Count by Level ***

Level Count
0 1850

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled 1850

*** Line Fonts Used in Data ***

100 102 104 106 108 110 112 114
- - - - - - - - - Undefined
- - 166 8 - 42 4 - Solid
- - - - - - - - - Dashed
- - 493 - - 455 1 - Phantom
- - - - - - - - - Center-line
- - - - - - - - - Dotted
- - - - - - - - - User defined

116 118 120 122 124 125 126 128
- - - - - 659 - - - Undefined
- - - - - - - - - Solid
- - - - - - - - - Dashed
- - - - - - - - - Phantom
- - - - - - - - - Center-line
- - - - - - - - - Dotted
- - - - - - - - - User defined

130 132 134 136 138 140 142 144
- - - - - - - - - Undefined
- - - - - - - - - Solid
- - - - - - - - - Dashed
- - - - - - - - - Phantom
- - - - - - - - - Center-line
- - - - - - - - - Dotted
- - - - - - - - - User defined

*** Line Widths Used in Data ***

Weight Count Width
Defaulded 1850 (0.0063)

*** Colors Used in Data ***

Defaulded 1784
Black 57
White 9

***************
***** ENTITY ANALYSIS *****
***************

*** Entity type: 104

WARNING 2265: Start point off conic by 1.190300E-03 at D 539.
WARNING 2265: Start point off conic by 1.234213E-03 at D 595.
WARNING 2265: Start point off conic by 1.388423E-03 at D 743.
WARNING 2039: End point off conic by 1.388423E-03 at D 743.
WARNING 2265: Messages regarding invalid start point suppressed.
WARNING 2039: Messages regarding conic end points suppressed.

*** Entity type: 106

*** Entity type: 110

-- 497 lines averaging 2.015512E-01 units --

*** Entity type: 112

*** Entity type: 124

659 transformation matrices, 659 non-zero translations.
NOTE 2341: 659 matrices contain translation information.

*** Entity type: 212

9 text strings in data file.
Average text aspect ratio in file is 0.9883842.
Minimum text aspect ratio in file is 0.9821430.
Maximum text aspect ratio in file is 0.9910715.

FONTS USED IN FILE

FONT COUNT NAME
1 9 Default ASCII Style

*** Entity type: 230
*** Entity type: 404

Drawing at D 5 contains 1 views.
Drawing at D 5 contains 0 annotation entities.

*** Entity type: 406

*** Entity type: 410

Scale of view at D 1 is 1.000000E+00.
Orthographic View entity at D 1 has 0 clipping planes specified.
  XMIN = Not Set   XMAX = Not Set
  YMIN = Not Set   YMAX = Not Set
  ZMIN = Not Set   ZMAX = Not Set

*** Message Summary ***

2015: 98 Mathematically incorrect definitions.
2018:  1 Problems with line weight/width display information.

*** Error Summary ***

  0 fatal errors
  0 severe errors
  0 errors
  98 warnings
  1 cautions
  0 nitpicks
  1 notes

*** End of Analysis of /novell/9323/D001Q004.IGS ***
10.1.2 Output Cadkey v5.02

ACCESS PANEL
5336PN048
(2111CT001)

(access panel)

ACCESS PANEL
5336PN058
(2111CT002)

(right)
10.1.3 Output IGESView
10.1.4 Output IGESWorks

ACCESS PANEL 5336PN048 (2111CT001)

(LEFT)

ACCESS PANEL 5336PN058 (2111CT002)

(RIGHT)
10.2 File D001Q005

10.2.1 Parser/Verifier Log

*** IGES DATA FILE ANALYSIS ***
*** MARCH 1992 ***
*** IGES Data Analysis ***
*** (708) 449-3430 ***

Input file is /novell/9323/D001Q005.IGS

Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

Today is March 16, 1993 4:59 PM

*** File and Product Name Information ***

File name from sender = '0101A.gef.igs'
File creation Date.Time = '930218.130511'
Model change Date.Time = ''
Author = 'NORTHROP B2 ITDS CTB'
Department = ''
Product name from sender = '0101A.gef.igs'
Destination product name = '0101A.gef.igs'

*** Parameter Delimiters ***

Delimiter = ','
Terminator = ';

*** Originating System Data ***

System ID = 'ITDS CONVERTER: GEF_IGES'
Preprocessor version = '1.0'
Specification version = 6 (IGES 4.0)

*** Precision levels ***

Integer bits = 32
Floating point - Exponent = 38 Mantissa = 6
Double precision - Exponent = 308 Mantissa = 15

*** Global Model Data ***

Model scale = 1.00000E+00
Unit flag = 1
Units = 'IN'
Line weights = 1
Maximum line thickness = 3.937490E-03
Minimum line thickness = 3.937490E-03
CAUTION 2317: Maximum line thickness equal to minimum thickness.
Granularity = 1.000000E-03
Maximum coordinate = 4.168750E+00

Drafting standard applicable to original data is not specified.

*** Status Flag Summary ***

Blank status: Visible 834
Blanked 0

Independence: Independent 830
Physically Subordinate 1
Logically Subordinate 3
Totally Subordinate 0

Entity use: Geometry 830
Annotation 4
Definition 0
Other 0
Logical/Positional 0
2D parametric 0
Not Specified 0

Hierarchy: Structure DE applies 0
Subordinate DE applies 834
Hierarchy property applies 0
Not Specified 0

*** Entity Occurrence Counts ***

<table>
<thead>
<tr>
<th>Entity</th>
<th>Form</th>
<th>Level</th>
<th>Count</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>Circular arc</td>
</tr>
<tr>
<td>104</td>
<td>1</td>
<td>0</td>
<td>108</td>
<td>Conic arc - ellipse</td>
</tr>
<tr>
<td>106</td>
<td>63</td>
<td>0</td>
<td>1</td>
<td>Simple closed planar curve</td>
</tr>
<tr>
<td>110</td>
<td>0</td>
<td>0</td>
<td>421</td>
<td>Line</td>
</tr>
<tr>
<td>112</td>
<td>0</td>
<td>0</td>
<td>189</td>
<td>Parametric spline curve</td>
</tr>
<tr>
<td>124</td>
<td>0</td>
<td>0</td>
<td>108</td>
<td>Transformation matrix</td>
</tr>
<tr>
<td>212</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>General note</td>
</tr>
<tr>
<td>230</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>Sectioned area (Standard Crosshatching)</td>
</tr>
<tr>
<td>404</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>Drawing</td>
</tr>
<tr>
<td>406</td>
<td>16</td>
<td>0</td>
<td>1</td>
<td>Property - Drawing size</td>
</tr>
<tr>
<td>406</td>
<td>18</td>
<td>0</td>
<td>1</td>
<td>Property - Intercharacter spacing</td>
</tr>
<tr>
<td>410</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>View - Orthographic parallel</td>
</tr>
</tbody>
</table>
*** Entity Count by Level ***

Level  Count
      0   834

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled  834

*** Line Fonts Used in Data ***

100  102  104  106  108  110  112  114

- - - - - - - - - - - - - - Undefined
1 -  108  1 -  415  189 - Solid
- - - - - - - - - - - - - - Dashed
- - - - - - - - - - - -  1 - - Phantom
- - - - - - - -  5 - - - Center-line
- - - - - - - - - - - - - - Dotted
- - - - - - - - - - - - - - User defined

116  118  120  122  124  125  126  128

- - - - - 108 - - - - - - - Undefined
- - - - - - - - - - - - - - Solid
- - - - - - - - - - - - - - Dashed
- - - - - - - - - - - - - - Phantom
- - - - - - - - - - - - - - Center-line
- - - - - - - - - - - - - - Dotted
- - - - - - - - - - - - - - User defined

130  132  134  136  138  140  142  144

- - - - - - - - - - - - - - Undefined
- - - - - - - - - - - - - - Solid
- - - - - - - - - - - - - - Dashed
- - - - - - - - - - - - - - Phantom
- - - - - - - - - - - - - - Center-line
- - - - - - - - - - - - - - Dotted
- - - - - - - - - - - - - - User defined

*** Line Widths Used in Data ***

<table>
<thead>
<tr>
<th>Weight</th>
<th>Count</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defaulted</td>
<td>834</td>
<td>(0.0039)</td>
</tr>
</tbody>
</table>
*** Colors Used in Data ***

Defaulted 118
Black 715
White 1

************************
***** ENTITY ANALYSIS *****
************************

*** Entity type: 100

*** Entity type: 104

WARNING 2265: Start point off conic by 1.336260E-03 at D 969.
WARNING 2039: End point off conic by 1.336260E-03 at D 969.
WARNING 2265: Start point off conic by 1.804375E-03 at D 973.
WARNING 2039: End point off conic by 1.804375E-03 at D 973.
WARNING 2265: Start point off conic by 1.328401E-03 at D 1173.
WARNING 2265: Start point off conic by 4.571146E-03 at D 1285.
WARNING 2039: End point off conic by 4.571146E-03 at D 1285.

*** Entity type: 106

*** Entity type: 110

-- 421 lines averaging 1.199761E-01 units --

*** Entity type: 112

WARNING 2238: Polynomial segment (4) at D 1343 is degenerate.
WARNING 2238: Polynomial segment (1) at D 1487 is degenerate.
WARNING 2238: Polynomial segment (1) at D 1513 is degenerate.
WARNING 2238: Polynomial segment (0) at D 1537 is degenerate.
WARNING 2238: Polynomial segment (1) at D 1541 is degenerate.
WARNING 2238: Polynomial segment (0) at D 1645 is degenerate.
WARNING 2238: Polynomial segment (1) at D 1647 is degenerate.

*** Entity type: 124

NOTE 2341: 108 matrices contain translation information.

*** Entity type: 212

1 text strings in data file.
Average text aspect ratio in file is 0.9873866.
Minimum text aspect ratio in file is 0.9873866.
Maximum text aspect ratio in file is 0.9873866.
FONTS USED IN FILE

FONT  COUNT  NAME
1 1  Default ASCII Style

*** Entity type: 230

*** Entity type: 404

Drawing at D 5 contains 1 views.
Drawing at D 5 contains 0 annotation entities.

*** Entity type: 406

*** Entity type: 410

Scale of view at D 1 is 1.000000E+00.
Orthographic View entity at D 1 has 0 clipping planes specified.
XMIN = Not Set  XMAX = Not Set
YMIN = Not Set  YMAX = Not Set
ZMIN = Not Set  ZMAX = Not Set

*** Message Summary ***

2015: 14 Mathematically incorrect definitions.
2018: 1 Problems with line weight/width display information.

*** Error Summary ***

0 fatal errors
0 severe errors
0 errors
14 warnings
1 cautions
0 nitpicks
1 notes

*** End of Analysis of /novell/9323/D001Q005_IGS ***
10.2.2 Output Cadkey v5.02
10.2.3 Output IGESView
10.2.4 Output IGESWorks
10.3 File D001Q006

10.3.1 Parser/Verifier Log

*** IGES DATA FILE ANALYSIS ***
*** MARCH 1992 ***
*** IGES Data Analysis ***
*** (708) 449-3430 ***

Input file is /novell/9323/D001Q006_IGS

Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

Today is March 16, 1993 5:00 PM

*** File and Product Name Information ***

File name from sender = '0109C.gef.igs'
File creation Date.Time = '930218.130525'
Model change Date.Time = '
Author = 'NORTHROP B2 ITDS CTB'
Department = '
Product name from sender = '0109C.gef.igs'
Destination product name = '0109C.gef.igs'

*** Parameter Delimiters ***

Delimiter = '','
Terminator = ';'

*** Originating System Data ***

System ID = 'ITDS CONVERTER: GEF_IGES'
Preprocessor version = '1.0'
Specification version = 6 (IGES 4.0)

*** Precision levels ***

Integer bits = 32
Floating point - Exponent = 38 Mantissa = 6
Double precision - Exponent = 308 Mantissa = 15

*** Global Model Data ***

Model scale = 1.00000E+00
Unit flag = 1
Units = 'IN'
Line weights = 1
Maximum line thickness = 6.300000E-03
Minimum line thickness = 6.300000E-03
CAUTION 2317: Maximum line thickness equal to minimum thickness.
Granularity = 1.000000E-03
Maximum coordinate = 7.243750E+00

Drafting standard applicable to original data is not specified.

*** Status Flag Summary ***

Blank status: Visible 1432
            Blanked 0

Independence: Independent 1422
            Physically Subordinate 6
            Logically Subordinate 4
            Totally Subordinate 0

Entity use:  Geometry 1417
            Annotation 15
            Definition 0
            Other 0
            Logical/Positional 0
            2D parametric 0
            Not Specified 0

Hierarchy:  Structure DE applies 0
            Subordinate DE applies 1432
            Hierarchy property applies 0
            Not Specified 0

*** Entity Occurrence Counts ***

<table>
<thead>
<tr>
<th>Entity</th>
<th>Form</th>
<th>Level</th>
<th>Count</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>Circular arc</td>
</tr>
<tr>
<td>104</td>
<td>1</td>
<td>0</td>
<td>266</td>
<td>Conic arc - ellipse</td>
</tr>
<tr>
<td>106</td>
<td>63</td>
<td>0</td>
<td>6</td>
<td>Simple closed planar curve</td>
</tr>
<tr>
<td>110</td>
<td>0</td>
<td>0</td>
<td>676</td>
<td>Line</td>
</tr>
<tr>
<td>112</td>
<td>0</td>
<td>0</td>
<td>189</td>
<td>Parametric spline curve</td>
</tr>
<tr>
<td>124</td>
<td>0</td>
<td>0</td>
<td>266</td>
<td>Transformation matrix</td>
</tr>
<tr>
<td>212</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>General note</td>
</tr>
<tr>
<td>230</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>Sectioned area (Standard Crosshatching)</td>
</tr>
<tr>
<td>404</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>Drawing</td>
</tr>
<tr>
<td>406</td>
<td>16</td>
<td>0</td>
<td>1</td>
<td>Property - Drawing size</td>
</tr>
<tr>
<td>406</td>
<td>18</td>
<td>0</td>
<td>2</td>
<td>Property - Intercharacter spacing</td>
</tr>
<tr>
<td>410</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>View - Orthographic parallel</td>
</tr>
</tbody>
</table>
### *** Entity Count by Level ***

<table>
<thead>
<tr>
<th>Level</th>
<th>Count</th>
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</thead>
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<tr>
<td>0</td>
<td>1432</td>
</tr>
</tbody>
</table>

### *** Labeling Information ***

0% of the entities are labeled.

Unlabeled 1432

### *** Line Fonts Used in Data ***

<table>
<thead>
<tr>
<th>100</th>
<th>102</th>
<th>104</th>
<th>106</th>
<th>108</th>
<th>110</th>
<th>112</th>
<th>114</th>
</tr>
</thead>
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<td>-</td>
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<td>-</td>
<td>-</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>11</td>
<td>252</td>
<td>6</td>
<td>600</td>
<td>189</td>
<td>Solid</td>
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<td></td>
</tr>
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<td>1</td>
<td>-</td>
<td>19</td>
<td>-</td>
<td>Dashed</td>
<td></td>
<td></td>
</tr>
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<td>-</td>
<td>13</td>
<td>-</td>
<td>50</td>
<td>-</td>
<td>Phantom</td>
<td></td>
<td></td>
</tr>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>7</td>
<td>-</td>
<td>Center-line</td>
<td></td>
<td></td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Dotted</td>
<td></td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>User defined</td>
<td></td>
<td></td>
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<tr>
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</tr>
</tbody>
</table>

### *** Line Widths Used in Data ***

<table>
<thead>
<tr>
<th>Weight</th>
<th>Count</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defaulted</td>
<td>1432</td>
<td>(0.0063)</td>
</tr>
</tbody>
</table>
*** Colors Used in Data ***

Defaulted 647
Black 778
White 7

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
****** ENTITY ANALYSIS ******
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

*** Entity type: 100

*** Entity type: 104

WARNING 2265: Start point off conic by 4.023317E-03 at D 953.
WARNING 2039: End point off conic by 4.023317E-03 at D 953.
WARNING 2265: Messages regarding invalid start point suppressed.
WARNING 2039: Messages regarding conic end points suppressed.

*** Entity type: 106

*** Entity type: 110

-- 676 lines averaging 1.383460E-01 units --

*** Entity type: 112

WARNING 2238: Polynomial segment (0) at D 1345 is degenerate.
WARNING 2238: Polynomial segment (1) at D 1423 is degenerate.
WARNING 2238: Polynomial segment (1) at D 1561 is degenerate.
WARNING 2238: Polynomial segment (0) at D 1563 is degenerate.
WARNING 2238: Polynomial segment (0) at D 1645 is degenerate.

*** Entity type: 124

266 transformation matrices, 266 non-zero translations.
NOTE 2341: 266 matrices contain translation information.

*** Entity type: 212

7 text strings in data file.
Average text aspect ratio in file is 0.9608803.
Minimum text aspect ratio in file is 0.8928572.
Maximum text aspect ratio in file is 0.9923470.

FONTS USED IN FILE

FONT COUNT NAME
1
7 Default ASCII Style

*** Entity type: 230

*** Entity type: 404

Drawing at D 5 contains 1 views.
Drawing at D 5 contains 0 annotation entities.

*** Entity type: 406

*** Entity type: 410

Scale of view at D 1 is 1.000000E+00.
Orthographic View entity at D 1 has 0 clipping planes specified.

*** Message Summary ***

2015: 39 Mathematically incorrect definitions.
2018: 1 Problems with line weight/width display information.

*** Error Summary ***

0 fatal errors
0 severe errors
0 errors
39 warnings
1 cautions
0 nitpicks
1 notes

*** End of Analysis of /novell/9323/D001Q006_IGS ***
10.3.2 Output Cadkey v5.02

2 FASTENER (6) PANEL

3 ELECTRICAL CONNECTOR
10.3.3 Output IGESView
10.3.4 Output IGESWorks
10.4 File D001Q007

10.4.1 Parser/Verifier Log

*** IGES DATA FILE ANALYSIS ***
*** MARCH 1992 ***
*** IGES Data Analysis ***
*** (708) 449-3430 ***

Input file is /novell/9323/D001Q007_IGS

Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

Today is March 16, 1993 5:01 PM

*** File and Product Name Information ***

File name from sender = '0110B.gef.igs'
File creation Date.Time = '930218.130543'
Model change Date.Time = ''
Author = 'NORTHROP B2 ITDS CTB'
Department = ''
Product name from sender = '0110B.gef.igs'
Destination product name = '0110B.gef.igs'

*** Parameter Delimiters ***

Delimiter = ','
Terminator = ';'

*** Originating System Data ***

System ID = 'ITDS CONVERTER: GEF_IGES'
Preprocessor version = '1.0'
Specification version = 6 (IGES 4.0)

*** Precision levels ***

Integer bits = 32
Floating point - Exponent = 38 Mantissa = 6
Double precision - Exponent = 308 Mantissa = 15

*** Global Model Data ***

Model scale = 1.00000+00
Unit flag = 1
Units = 'IN'
Line weights = 1
Maximum line thickness = 6.300000E-03
Minimum line thickness = 6.300000E-03
CAUTION 2317: Maximum line thickness equal to minimum thickness.
Granularity = 1.000000E-03
Maximum coordinate = 7.243750E+00

Drafting standard applicable to original data is not specified.

*** Status Flag Summary ***
Blank status: Visible 1433
  Blanked 0
Independence: Independent 1423
  Physically Subordinate 6
  Logically Subordinate 4
  Totally Subordinate 0
Entity use: Geometry 1417
  Annotation 16
  Definition 0
  Other 0
  Logical/Positional 0
  2D parametric 0
  Not Specified 0
Hierarchy: Structure DE applies 0
  Subordinate DE applies 1433
  Hierarchy property applies 0
  Not Specified 0

*** Entity Occurrence Counts ***

<table>
<thead>
<tr>
<th>Entity</th>
<th>Form</th>
<th>Level</th>
<th>Count</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>Circular arc</td>
</tr>
<tr>
<td>104</td>
<td>1</td>
<td>0</td>
<td>266</td>
<td>Conic arc - ellipse</td>
</tr>
<tr>
<td>106</td>
<td>63</td>
<td>0</td>
<td>6</td>
<td>Simple closed planar curve</td>
</tr>
<tr>
<td>110</td>
<td>0</td>
<td>0</td>
<td>676</td>
<td>Line</td>
</tr>
<tr>
<td>112</td>
<td>0</td>
<td>0</td>
<td>189</td>
<td>Parametric spline curve</td>
</tr>
<tr>
<td>124</td>
<td>0</td>
<td>0</td>
<td>266</td>
<td>Transformation matrix</td>
</tr>
<tr>
<td>212</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>General note</td>
</tr>
<tr>
<td>230</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>Sectioned area (Standard Crosshatching)</td>
</tr>
<tr>
<td>404</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>Drawing</td>
</tr>
<tr>
<td>406</td>
<td>16</td>
<td>0</td>
<td>1</td>
<td>Property - Drawing size</td>
</tr>
<tr>
<td>406</td>
<td>18</td>
<td>0</td>
<td>2</td>
<td>Property - Intercharacter spacing</td>
</tr>
<tr>
<td>410</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>View - Orthographic parallel</td>
</tr>
</tbody>
</table>
*** Entity Count by Level ***

Level  Count
   0    1433

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled    1433

*** Line Fonts Used in Data ***

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<td>142</td>
<td>144</td>
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</tr>
</tbody>
</table>

*** Line Widths Used in Data ***

<table>
<thead>
<tr>
<th>Weight</th>
<th>Count</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defaulted</td>
<td>1433</td>
<td>(0.0063)</td>
</tr>
</tbody>
</table>
*** Colors Used in Data ***

Defaulted 647
  Black    778
  White    8

******************************
***** ENTITY ANALYSIS *****
******************************

*** Entity type: 100

*** Entity type: 104

WARNING 2265: Start point off conic by 4.023317E-03 at D 955.
WARNING 2039: End point off conic by 4.023317E-03 at D 955.
WARNING 2265: Messages regarding invalid start point suppressed.
WARNING 2039: Messages regarding conic end points suppressed.

*** Entity type: 106

*** Entity type: 110

-- 676 lines averaging 1.380248E-01 units --

*** Entity type: 112

WARNING 2238: Polynomial segment (0) at D 1351 is degenerate.
WARNING 2238: Polynomial segment (1) at D 1421 is degenerate.
WARNING 2238: Polynomial segment (0) at D 1467 is degenerate.
WARNING 2238: Polynomial segment (1) at D 1567 is degenerate.
WARNING 2238: Polynomial segment (0) at D 1627 is degenerate.

*** Entity type: 124

266 transformation matrices, 266 non-zero translations.
NOTE 2341: 266 matrices contain translation information.

*** Entity type: 212

8 text strings in data file.
Average text aspect ratio in file is 0.9635382.
Minimum text aspect ratio in file is 0.8928572.
Maximum text aspect ratio in file is 0.9923470.

FONTS USED IN FILE

<table>
<thead>
<tr>
<th>FONT</th>
<th>COUNT</th>
<th>NAME</th>
</tr>
</thead>
</table>
1  8  Default ASCII Style

*** Entity type: 230

*** Entity type: 404

Drawing at D  5 contains 1 views.
Drawing at D  5 contains 0 annotation entities.

*** Entity type: 406

*** Entity type: 410

Scale of view at D  1 is 1.000000E+00.
Orthographic View entity at D  1 has 0 clipping planes specified.
  XMIN = Not Set  XMAX = Not Set
  YMIN = Not Set  YMAX = Not Set
  ZMIN = Not Set  ZMAX = Not Set

*** Message Summary ***

2015: 39 Mathematically incorrect definitions.
2018: 1 Problems with line weight/width display information.

*** Error Summary ***

  0 fatal errors
  0 severe errors
  0 errors
  39 warnings
  1 cautions
  0 nitpicks
  1 notes

*** End of Analysis of /novell/9323/D001Q007_IGS ***
10.4.2 Output Cadkey v5.02
10.4.3 Output IGESView
10.4.4 Output IGESWorks
11. Appendix C - Detailed SGML Analysis

11.1 Parser Log

11.1.1 DTD Log

SGML Document Type Definition Parser
An SGML System Conforming to
International Standard ISO 8879
Standard Generalized Markup Language

Log file: '9323.LOG'
SDO File: 'ctndeci.sdo'
Namecase General is yes.
Namecase Entity is no.
Parsing DTD file: '9323.dtd'

This DTD conforms to the ISO 8879 standard

DTO file '9323.DTO' created

closing statistics:
    Capacity points: 27392
    Bytes of DTO file string space: 7968
    SGML descriptor blocks: 2992

Document Type Definition is compliant and parsed normally.

Program status code: 0.

11.1.2 Text Log

IPA00108: *** SGML Instance Parser Log File ***
Source Document File: 'i:\9323\d001t001.'.
Job File: '9323.jbf'.
DTD File: ''. 
SGML Declaration File: ''. 

Reading File '9323.jbf', File Type 'JOB FILE'.

Concrete Syntax Settings In Effect For This Parse:
   NAMECASE GENERAL: YES.
   NAMECASE ENTITY: NO.
   NAMELEN: 32.
SHORTTAG: YES.
Closed '9323.jbf', File Type 'JOB FILE'.
Reading File 'i:\9323\d001t001.', File Type 'DIRECT INPUT FILE'.
  --> Scanned Up To Line 100 In i:\9323\d001t001..
  --> Scanned Up To Line 200 In i:\9323\d001t001..
  --> Scanned Up To Line 300 In i:\9323\d001t001..
  --> Scanned Up To Line 400 In i:\9323\d001t001..
  --> Scanned Up To Line 500 In i:\9323\d001t001..
Closed 'i:\9323\d001t001.', File Type 'DIRECT INPUT FILE'.
Document Parsed Successfully, No Errors or Warnings.

11.2 Exoterica Parser

11.2.1 DTD Log

C:\XGML\XGMLNORM.EXE --
Error on line 466 in file entities/9323.dtd: A content model is ambiguous. For element 'TOC'. The input is 'CONTENTSENTRY'. <!-- The document prolog is in error. -->

11.2.2 Text Log

11.2.2.1 First Pass

C:\XGML\XGMLNORM.EXE --
Error on line 94 in file i:\9323\d001t001:
Unexpected start tag encountered.
The start tag is for element 'CONTENTSENTRY'.
The current element is 'TOC'.
End tags for the following elements are allowed: 'TOC'.
Start tags for the following elements are allowed: None.
Start tags for the following inclusions are allowed: 'BRK', 'HRULE', 'PGBRK'.
Text is not allowed.
The element 'CONTENTSENTRY' will be treated as an inclusion.

C:\XGML\XGMLNORM.EXE --
Error on line 106 in file i:\9323\d001t001:
Unexpected start tag encountered.
The start tag is for element 'CONTENTSENTRY'.
The current element is 'SSSN'.
End tags for the following elements are allowed: 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'TOC'.
Start tags for the following elements are allowed: 'APPLICABIL',

55
'CHANGE', 'EMPHASIS', 'EXTREF', 'GRAPHIC', 'HCI', 'HCP', 'OCP',
'SUBENTRY', 'SUBENTRY1', 'XREF'.
Start tags for the following inclusions are allowed: 'BRK', 'HRULE',
'PGBRK'.
Text is allowed.
The element 'CONTENTSENTRY' will be treated as an inclusion.

C:\XGML\XGMLNORM.EXE --
Error on line 118 in file i:\9323\d001t001:
Unexpected start tag encountered.
The start tag is for element 'CONTENTSENTRY'.
The current element is 'SSSN'.
End tags for the following elements are allowed: 'SSSN', 'SUBENTRY',
'CONTENTSENTRY', 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'TOC'.
Start tags for the following elements are allowed: 'APPLICABIL',
'CHANGE', 'EMPHASIS', 'EXTREF', 'GRAPHIC', 'HCI', 'HCP', 'OCP',
'SUBENTRY', 'SUBENTRY1', 'XREF'.
Start tags for the following inclusions are allowed: 'BRK', 'HRULE',
'PGBRK'.
Text is allowed.
The element 'CONTENTSENTRY' will be treated as an inclusion.

C:\XGML\XGMLNORM.EXE --
Error on line 129 in file i:\9323\d001t001:
Unexpected start tag encountered.
The start tag is for element 'CONTENTSENTRY'.
The current element is 'SSSN'.
End tags for the following elements are allowed: 'SSSN', 'SUBENTRY',
'CONTENTSENTRY', 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'SSSN',
'SUBENTRY', 'CONTENTSENTRY', 'TOC'.
Start tags for the following elements are allowed: 'APPLICABIL',
'CHANGE', 'EMPHASIS', 'EXTREF', 'GRAPHIC', 'HCI', 'HCP', 'OCP',
'SUBENTRY', 'SUBENTRY1', 'XREF'.
Start tags for the following inclusions are allowed: 'BRK', 'HRULE',
'PGBRK'.
Text is allowed.
The element 'CONTENTSENTRY' will be treated as an inclusion.

C:\XGML\XGMLNORM.EXE --
Error on line 140 in file i:\9323\d001t001:
Unexpected start tag encountered.
The start tag is for element 'CONTENTSENTRY'.
The current element is 'SSSN'.
End tags for the following elements are allowed: 'SSSN', 'SUBENTRY',
'CONTENTSENTRY', 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'SSSN',
'SUBENTRY', 'CONTENTSENTRY', 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'TOC'.
Start tags for the following elements are allowed: 'APPLICABIL',
'CHANGE', 'EMPHASIS', 'EXTREF', 'GRAPHIC', 'HCI', 'HCP', 'OCP',
'SUBENTRY', 'SUBENTRY1', 'XREF'.

56
Start tags for the following inclusions are allowed: 'BRK', 'HRULE', 'PGBRK'.
Text is allowed.
The element 'CONTENTSENTRY' will be treated as an inclusion.

11.2.2.2 Second Pass

C:\XGML\XMLNORM.EXE --
Error on line 68 in file i:\9323\d001t001:
Unexpected start tag encountered.
The start tag is for element 'TABLE'.
The current element is 'SSSN'.
End tags for the following elements are allowed: 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'TOC'.
Start tags for the following elements are allowed: 'APPLICABIL', 'CHANGE', 'CONTENTSENTRY', 'EMPHASIS', 'EXTREF', 'GRAPHIC', 'HCI', 'HCP', 'OCP', 'SUBENTRY', 'SUBENTRY1', 'XREF'.
Start tags for the following inclusions are allowed: 'BRK', 'HRULE', 'PGBRK'.
Text is allowed.
The element 'TABLE' will be treated as an inclusion.
12. Appendix D - Detailed Raster Analysis

12.1 File D001R009

12.1.1 Error Log validg4

density = 300  
path length = 312  
scan lines = 500  
bit format = MSB

error reading input file
12.1.2 Output g42tiff/IslandPaint
12.1.3 Output IGESView
13. Appendix E - Detailed CGM Analysis

13.1 File D001C008

13.1.1 Parser Log MetaCheck

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/17/93 Time: 07:58:57

Metafile Examined : i:\9323\c008.cgm
Pictures Examined : All
Elements Examined : All
Bytes Examined : All

================================= Trace Report ===============================

Tracing not selected.

============ CGM Conformance Violation Report =============

No Errors Detected

======== CALS CGM Profile (MIL-D-28003) Report =========

No profile discrepancies detected.

================ Conformance Summary Report ==================

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/17/93 Time: 07:59:03

Name of CGM under test: i:\9323\c008.cgm
Encoding : Binary

Pictures Examined : All
Elements Examined : All
Bytes Examined : All

BEGIN METAFILE string : "0103D.cgm"
METAFILE DESCRIPTION : "NORTHROP B2 ITDS GEF, MIL-D-28003/BASIC-1"

Picture 1 starts at octet offset 154; string contains: "Picture 1"
Private values encountered in CGM

Conformance Summary: This file conforms to the CGM specification.

This file meets the CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

1 Pictures Tested
2192 Elements Tested
48616 Octets Tested

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| No Errors Were Detected |
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============== End of Conformance Report ===============

13.1.2 validcgm Log

Analysis for file c008.cgm using table table
ERROR: illegal in this state (2), std B
ERROR: required precursor (0, 4) not yet seen
(14.1, 0) (3, 6, 2) Clip Indicator OFF
(0, 1) occurred 1 time
(0, 2) occurred 1 time
(0, 3) occurred 1 time
(0, 4) occurred 1 time
(0, 5) occurred 1 time
(1, 1) occurred 1 time
(1, 2) occurred 1 time
(1, 3) occurred 1 time
(1, 4) occurred 1 time
(1, 5) occurred 1 time
(1, 6) occurred 1 time
(1, 7) occurred 1 time
(1, 8) occurred 1 time
(1, 9) occurred 1 time
(1, 10) occurred 1 time
(1, 11) occurred 1 time
(1, 12) occurred 1 time
(1, 13) occurred 1 time
(2, 2) occurred 1 time
(2, 6) occurred 1 time
(2, 7) occurred 1 time
(3, 2) occurred 1 time
(3, 6) occurred 1 time
(3, 6) occurred illegally 1 time
(4, 1) occurred 624 times
(4, 4) occurred 5 times
(4, 7) occurred 5 times
(4, 15) occurred 20 times
(4, 17) occurred 165 times
(4, 18) occurred 565 times
(5, 2) occurred 99 times
(5, 3) occurred 99 times
(5, 4) occurred 99 times
(5, 10) occurred 1 time
(5, 12) occurred 3 times
(5, 13) occurred 3 times
(5, 14) occurred 1 time
(5, 15) occurred 4 times
(5, 16) occurred 4 times
(5, 17) occurred 1 time
(5, 18) occurred 1 time
(5, 22) occurred 95 times
(5, 23) occurred 2 times
(5, 27) occurred 93 times
(5, 28) occurred 93 times
(5, 29) occurred 93 times
(5, 30) occurred 95 times
(5, 34) occurred 1 time
13.1.3 Output Harvard Graphics
13.1.4 Output cgm2draw/IslandDraw
13.1.5 Output CADleaf