CALS TEST NETWORK

AFCTN Test Report 94-006

AFCTB-ID 93-033

Technical Publication Transfer

Using

U. S. Lynx's Data

MIL-D-28000A (IGES)
MIL-M-28001A (SGML)
MIL-R-28002A (Raster)
MIL-D-28003 (CGM)

Quick Short Test Report

10 May 1993

Prepared for

Electronic Systems Center

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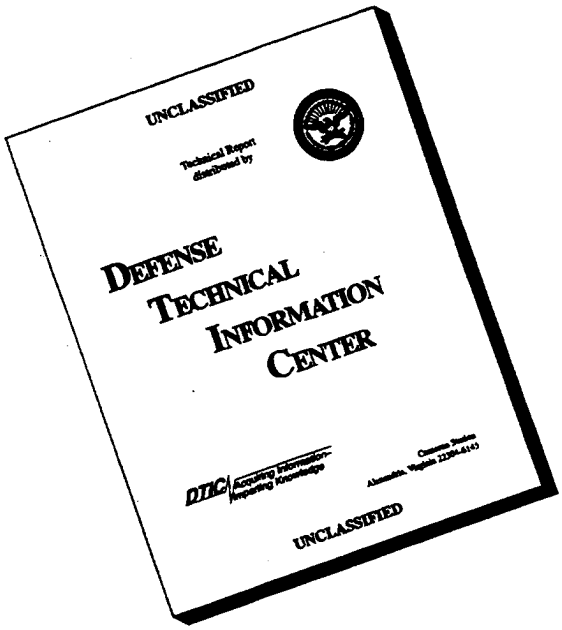

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Quick Short Test Report

10 May 1993

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Contents

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-1840A, 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 develope 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 U. S. Lynx's interpretation and use of the CALS standards, in transferring technical publication data. U.S. Lynx 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.

This tape and the files contained on it are part of the SGML transfer demonstration being conducted by the Air Force CALS Test Bed (AFCTB). This is the first of 16 companies/organization participating in the test.

2. Test Parameters

Test Plan: AFCTB 93-033

Date of Evaluation: 10 May 1993

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

Data Originator:
Michael Krieger
U. S. Lynx
853 Broadway
New York NY 10003
(212) 673-3210

Data Description: Technical Manual Test
- 1 Document Declaration file
- 1 Document Type Definition (DTD)
- 1 Initial Graphics Exchange Standards (IGES) file
- 1 Text file
- 5 Raster files
- 3 Computer Graphics Metafile (CGM) files

Data Source System:

1840

HARDWARE

Unknown

SOFTWARE

Unknown

IGES

HARDWARE

Unknown

SOFTWARE

Unknown

Text/Standard Generalized Markup Language (SGML)

HARDWARE

Unknown

SOFTWARE

Unknown

Raster

HARDWARE

Unknown

SOFTWARE

Unknown

CGM

HARDWARE

Unknown

SOFTWARE

Unknown

Evaluation Tools Used:

MIL-STD-1840A (TAPE)

SUN 3/280

AFCTN *Tapetool v1.2.9 UNIX*
XSoft *CAPS/CALS v40.4*
Texas Instruments (TI) *Tapetool v1.0.1*

PC 486/50

AFCTN *Tapetool v1.2.9 DOS*

MIL-D-28000 (IGES)

Sun SparcStation 2

AUTODESK *AutoCAD R12*
XSoft *CAPS ig2ps v6.0x*
ArborText *iges2draw*
IGES Data Analysis (IDA) *Parser/Verifier v92*
IDA *IGESView v3.05*
International TechneGroup Incorporated (ITI) *IGES/Works v1.3*

PC 486/50

AUTODESK *AutoCAD 386 R12*
Cadkey *Cadkey v5.02*
IDA *IGESView Windows*

MIL-M-28001 (SGML)

SUN SparcStation 2

ArborText *ADEPT v4.2.1*

PC 486/50

Datalogics *ParserStation v3.36*
Exoterica *XGMLNormalizer v1.2e3.2*
Exoterica *Validator v2.0 EXL*
McAfee & McAdam *Sema Mark-it v2.3*
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*

PC 486/50

IDA *IGESView Windows*
Inset Systems *HiJaak v2.1*
Inset Systems *HiJaak Window v1.0*
Corel *Ventura Publisher*

MIL-D-28003 (CGM)

SUN SparcStation 2

ArborText *cgm2draw*
Island Graphics *IslandDraw v3.0*
Carberry *CADLeaf v3.1*

PC 486/50

Advance Technology Center (ATC) *MetaView R 1.12*
ATC *MetaCheck R 2.05*
Software Publishing Corporation (SPC) *Harvard Graphics v3.05*
Inset Systems *HiJaak v2.1*
Inset Systems *HiJaak v1.0 Windows*
Micrografx *Designer v3.1*
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 AFCTB enclosed in a box in accordance with ASTM D 3951. The exterior of the box was marked with a magnetic tape warning label, as required by MIL-STD-1840A, para. 5.3.1.3.

The tape was 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 v1.2.9* utility. No errors were encountered while evaluating the contents of the tape labels.

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 one IGES file. This file was evaluated using IDA's *Parser* and *Verifier* for CALS Class I standards. No errors were reported during this procedure.

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 file was converted using ArborText's *iges2draw* utility without a reported error. The resulting file was read into Island Graphics' *IslandDraw* and displayed without a problem.

The file was read into IDA's *IGESView* and *IGESView for Windows* without a reported problem.

The file was converted using Rosetta Technologies' *Prepare* without a reported error. The resulting file was read into *Preview* and displayed without a problem.

The file was read into ITI's *IGESWorks* and displayed without a reported error.

The file was converted using AUTODESK's *AutoCAD R12* with the 5.1 IGES translator without a problem.

The file was converted using Cadkey's *ig2c* utility without a reported error. The resulting file was read into *Cadkey* and displayed without a problem.

The file was checked against the file that was sent from the AFCTB and it was found to be the same.

The IGES file meets the CALS MIL-D-28000A Class I specification.

5. SGML Analysis

The AFCTB has several parsers available for evaluating submitted DTD and Text files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. 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 unless specified in the report. Changes to DTD or Text files required by each system are not documented in the report.

The Text and DTD files from the tape were evaluated using Datalogics' *ParseStation*. No errors were reported.

The Text and DTD files from this document were evaluated using the Exoterica *Validator* parser with no reported errors.

The Text and DTD files from this document were tested using the Exoterica *XGMLNormalizer* parser. No errors were reported.

The Text and DTD files from the tape were evaluated using McAfee & McAdam's *Sema Mark-it* parser. No errors were reported.

The Text and DTD files from the tape were evaluated using the Public Domain *sgmls* parser. No errors were reported.

The Text file was read into ArborText's *Adept* software without a problem and published.

The DTD and Text files meet the CALS MIL-M-28001A specification.

6. Raster Analysis

This tape contained five Raster files. All five files were evaluated using the AFCTN *validg4* utility without any errors being reported. All five files were read into the AFCTN *calstb.475* and displayed on the screen. No problems were encountered during this procedure.

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 files were converted using ArborText's *g42tiff* utility without a reported error. The resulting files were read into Island Graphics' *IslandPaint* and displayed.

The files were read into IDA's *IGESView* and *IGESView for Windows* without a reported problem.

The files were read into Inset Systems' *HiJaak for Windows* and displayed without a reported problem.

The files were read into Carberry's *CADLeaf* software and displayed without a reported error.

The files were converted using Inset Systems' *HiJaak* into an IMG format which was then read into Corel's *Ventura Publisher.*

The files were compared to the files sent from the AFCTB and they were found to be the same.

The Raster files meet the CALS MIL-R-28002A specification.

7. CGM Analysis

The tape contained three CGM files. All three files were evaluated using ATC's *MetaCheck* software with CALS options. This software reported that the CGM files meet the CALS MIL-D-28003 specification.

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 and indication of CALS capability. All operations were performed using the default settings.

The files were read into Carberry's *CADLeaf* software without a reported error.

The files were read into Inset Systems' *HiJaak for Windows* without a reported error.

They were converted using ArborText's *cgm2draw* utility without a reported error. The resulting files were read into Island Graphics' *IslandDraw* and displayed without a problem.

The files were directly imported into Island Graphics' *IslandDraw* without a reported error.

The files were imported into the Micrografx *Designer* without a reported error.

The files were imported into SPC's *Harvard Graphics 3.05* without a reported error.

jThe files were imported into Corel's *Ventura Publisher* without a reported error.

The files were compared to the files sent from the AFCTB and they were found to be the same.

The CGM files meet the CALS MIL-D-28003 specification.

8. Conclusions and Recommendations

The tape from U. S. Lynx was correct. No errors were reported from any of the tape utilities available in the AFCTB. The basic tape structure meets the CALS MIL-STD-1840A requirements.

The IGES file on the tape meets the CALS Class I MIL-D-28000A specification.

The Text file and DTD on the tape were, parsed without a reported error using several different parsers available in the AFCTB. They meet the CALS MIL-M-28001A specification.

The Raster file meets the CALS MIL-R-28002A specification.

The CGM file meets the CALS MIL-D-28003 specification.

The tape and files submitted by U. S. Lynx 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 9 (U)

  Standards referenced:
    MIL-STD-1840A (1987) - Automated Interchange of Technical Information
    ANSI X3.27 (1987) - File Structure and Labeling of Magnetic Tapes
                        for Information Interchange
    ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Fri May 07 11:44:46 1993

MIL-STD-1840A File Catalog

File Set Directory: C:\CTN129\OVERLAND\SET005

                                                                    Page: 1
```

File Name	File Type	Record Format/ Length	Block Length/Total	Selected/ Extracted
D001	Document Declaration	D/00260	02048/000001	Extracted
D001T001	TEXT	D/00260	02048/000019	Extracted
D001G002	DTD	D/00260	02048/000019	Extracted
D001H003	Output Specification	D/00260	02048/000042	Extracted
D001Q004	IGES	F/00080	02000/000192	Extracted
D001C005	CGM	F/00080	00800/000040	Extracted
D001C006	CGM	F/00080	00800/000085	Extracted
D001C007	CGM	F/00080	00800/000011	Extracted
D001R008	Raster	F/00128	02048/000007	Extracted
D001R009	Raster	F/00128	02048/000005	Extracted
D001R010	Raster	F/00128	02048/000015	Extracted
D001R011	Raster	F/00128	02048/000006	Extracted
D001R012	Raster	F/00128	02048/000004	Extracted

```
Catalog Process terminated normally.
```

9.2 Tape Evaluation Log

```
Air Force CALS Test Network Tape Evaluation - Version 1.2; Release 9 (U)
  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

Fri May 07 11:43:54 1993
ANSI Tape Import Log
Rewinding tape to load point...

VOL1USLX01              US LYNXV1.0D                                        4

  Label Identifier: VOL1
  Volume Identifier: USLX01
  Volume Accessibility:
  Owner Identifier:
  Label Standard Version: 4

HDR1D001            USLSET00010001000101 93126000000 000000US LYNXV1.0D

  Label Identifier: HDR1
  File Identifier: D001
  File Set Identifier: USLSET
  File Section Number: 0001
  File Sequence Number: 0001
  Generation Number: 0001
  Generation Version Number: 01
  Creation Date:  93126
  Expiration Date: 000000
  File Accessibility:
  Block Count: 000000
  Implementation Identifier: US LYNXV1.0D

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 = 1.

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

EOF1D001            USLSET00010001000101 93126000000 000001US LYNXV1.0D

  Label Identifier: EOF1
  File Identifier: D001
  File Set Identifier: USLSET
  File Section Number: 0001
  File Sequence Number: 0001
  Generation Number: 0001
  Generation Version Number: 01
  Creation Date:  93126
  Expiration Date: 000000
  File Accessibility:
  Block Count: 000001
  Implementation Identifier: US LYNXV1.0D

EOF2D0204800260                                    00

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

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

HDR1D001R012        USLSET00010013000101 93126000000 000000US LYNXV1.0D

  Label Identifier: HDR1
  File Identifier: D001R012
  File Set Identifier: USLSET
  File Section Number: 0001
  File Sequence Number: 0013
  Generation Number: 0001
  Generation Version Number: 01
  Creation Date:  93126
  Expiration Date: 000000
  File Accessibility:
  Block Count: 000000
  Implementation Identifier: US LYNXV1.0D

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 = 4.

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

EOF1D001R012         USLSET00010013000101 93126000000 000004US LYNXV1.0D

  Label Identifier: EOF1
  File Identifier: D001R012
  File Set Identifier: USLSET
  File Section Number: 0001
  File Sequence Number: 0013
  Generation Number: 0001
  Generation Version Number: 01
  Creation Date:  93126
  Expiration Date: 000000
  File Accessibility:
  Block Count: 000004
  Implementation Identifier: US LYNXV1.0D

EOF2F0204800128                                    00

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

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

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

############ End of Volume USLX01 ###############

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

Rewinding tape to load point...

Tape Import Process terminated normally.
```

9.3 Tape File Set Validation Log

```
Air Force CALS Test Network File Set Evaluation - Version 1.2; Release 9 (O)

  Standards referenced:
    MIL-STD-1840A (1987) - Automated Interchange of Technical Information

Fri May 07 11:44:46 1993

MIL-STD-1840A File Set Evaluation Log

File Set: SET005

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

srcsys: US LYNX INC, 853 Broadway, New York, NY 10003 (212) 673-3210 Contact: S Kelly
srcdocid: Air Force CALS Test Bed CALS EXPO SGML Demonstration
srcrelid: NONE
chglvl: ORIGINAL 1 19930326
dteisu: 19930326
dstsys: Air Force CALS Program Office, att: George Elwood, HQ AFMC/ENC
dstdocid: CALS Expo SGML Demonstration
dstrelid: NONE
dtetrn: 19930506
dlvacc: NONE
filcnt: T1, G1, H1, Q1, R5, C3
ttlcls: UNCLASSIFIED
doccls: UNCLASSIFIED
doctyp: Technical Manual
docttl: SGML TRANSFER DEMONSTRATION

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

srcdocid: Air Force CALS Test Bed CALS EXPO SGML Demonstration
dstdocid: CALS Expo SGML Demonstration
txtfilid: W
doccls: UNCLASSIFIED
notes: NONE

Saving TEXT Header File: D001T001.HDR
Saving TEXT Data File: D001T001.TXT
```

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

```
Found file: D001R012
Extracting Raster Header Records...
Evaluating Raster Header Records...

srcdocid: Air Force CALS Test Bed CALS EXPO SGML Demonstration
dstdocid: CALS Expo SGML Demonstration
txtfilid: W
figid: NONE
srcgph: SGMLMAP.GP4
doccls: UNCLASSIFIED
rtype: 1
rorient: 000,270
rpelcnt: 001500,001159
rdensty: 0300
notes: NONE

Saving Raster Header File: D001R012.HDR
Saving Raster Data File: D001R012.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.
```

9.4 Other Tape Reading Logs

No errors reported by any of the other tape reading utilities.

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 i:\9329\d001q004.igs

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

 Today is May 11, 1993  10:58 AM

*** File and Product Name Information ***

   File name from sender     = 'I:\9329\D001Q004.igs'
   File creation Date.Time   = '930510.095919'
   Model change Date.Time    = ''
   Author                    = 'George Elwood'
   Department                = 'Air Force CALS Test Bed'
   Product name from sender  = 'I:\9329\D001Q004.IGS'
   Destination product name  = '\expo\expo2\hook1.prt'

*** Parameter Delimiters ***

   Delimiter  = ','
   Terminator = ';'

*** Originating System Data ***

   System ID              = 'IGES Data Analysis - IGESVIEW'
   Preprocessor version   = 'IGESVIEW Version 3.05'
   Specification version = 6 (IGES 4.0)

*** Precision levels ***
   Integer bits =    32
   Floating point  -  Exponent =   308  Mantissa =    15
   Double precision - Exponent =   308  Mantissa =    15

*** Global Model Data ***
```

```
    Model scale            =  1.0000E+000
    Unit flag              =  1
    Units                  =  'INCH'
    Line weights           =  1
    Maximum line thickness =  3.937008E-002
    Minimum line thickness =  3.937008E-002
CAUTION 2317: Maximum line thickness equal to minimum thickness.
    Granularity            =  1.000000E-004
    Maximum coordinate     =  6.778878E+000

    Drafting standard applicable to original data is not specified.


 *** Status Flag Summary ***

  Blank status: Visible                    1341
                Blanked                       0

  Independence: Independent                1339
                Physically Subordinate        0
                Logically Subordinate         2
                Totally Subordinate           0

  Entity use:   Geometry                        1
                Annotation                 1340
                Definition                    0
                Other                         0
                Logical/Positional            0
                2D parametric                 0
                Not Specified                 0

  Hierarchy:    Structure DE applies            0
                Subordinate DE applies       1341
                Hierarchy property applies      0
                Not Specified                   0

 *** Entity Occurrence Counts ***

  Entity   Form   Level    Count    Type
  ------   ----   -----    -----    ----

    104       1       0       58    Conic arc - ellipse
    106      11       0      268    Copious data - Piecewise planar, linear string(2D
    path)
    110       0       0      716    Line
    124       0       0       58    Transformation matrix
```

212	0	0	238	General note
404	0	0	1	Drawing
406	16	0	1	Property - Drawing size
410	0	0	1	View - Orthographic parallel

*** Entity Count by Level ***

Level	Count
0	1341

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled 1341

*** Line Fonts Used in Data ***

100	102	104	106	108	110	112	114	
-	-	-	-	-	-	-	-	Undefined
-	-	58	268	-	716	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

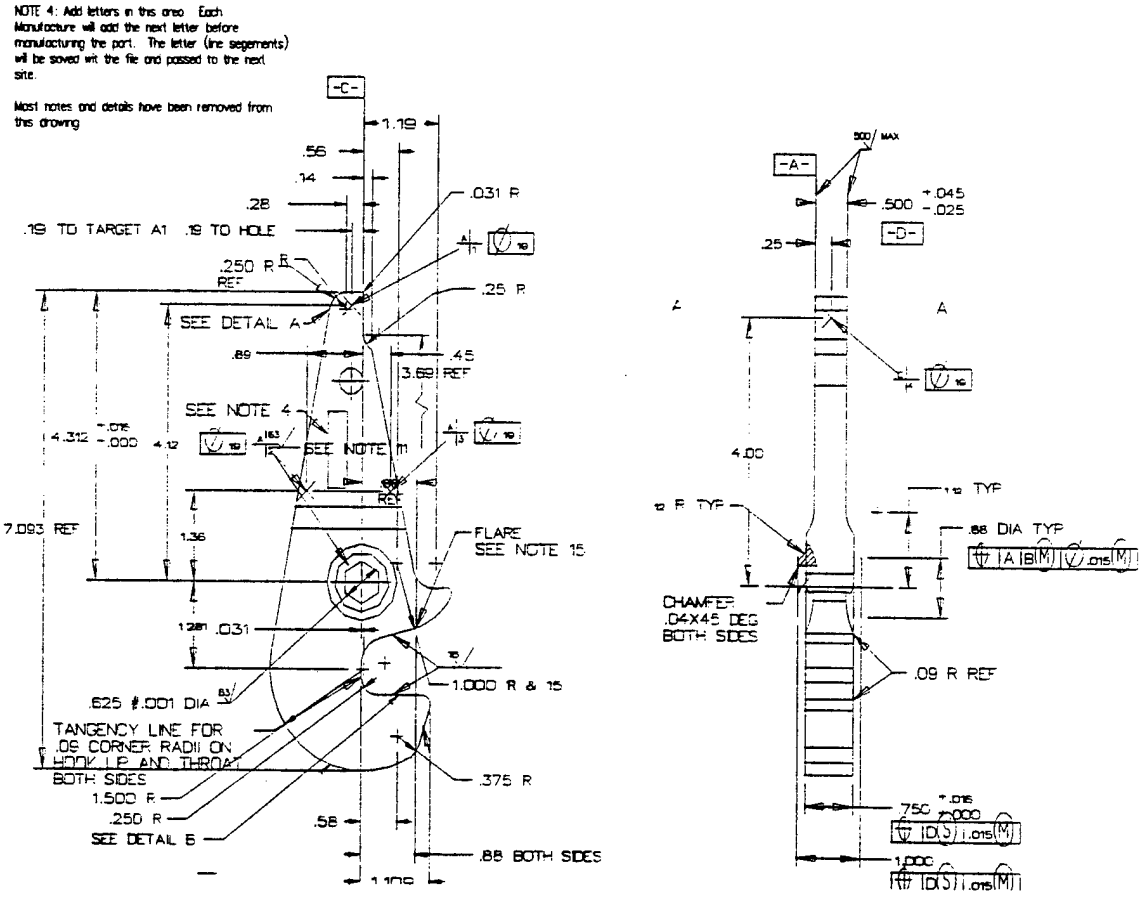
116	118	120	122	124	125	126	128	
-	-	-	-	-	-	-	-	Undefined
-	-	-	-	58	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

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

  Defaulted      1341       (0.0394)

 *** Colors Used in Data ***

  Defaulted         3
      Black      1338

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

 *** Entity type: 104

 *** Entity type: 106

 *** Entity type: 110

  --    716 lines averaging 2.835388E-001 units --

 *** Entity type: 124

58 transformation matrices, 58 non-zero translations.
NOTE    2341: 58 matrices contain translation information.

 *** Entity type: 212

       238 text strings in data file.
       Average text aspect ratio in file is 0.9073355.
       Minimum text aspect ratio in file is 0.4678925.
       Maximum text aspect ratio in file is 0.9307842.

       FONTS USED IN FILE

       FONT    COUNT    NAME

          1      238    Default ASCII Style

 *** 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+000.
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 ***

2018: 1 Problems with line weight/width display information.

 *** Error Summary ***

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

 *** End of Analysis of i:\9329\d001q004.igs ***
```

10.1.2 Output IGESView for Windows



11. Appendix C - Detailed SGML Analysis

11.1 ArbortText Parser Log

No reported errors.

11.2 Datalogics Parser Log

No reported errors.

11.3 Exoterica XGMLNormalizer Parser

No reported errors.

11.4 Sema Mark-it Log

No reported errors.

11.5 Public Domain sgmls Log

No reported errors.

11.6 Front Cover - ArborText

EXPO92 DEMO

TECHNICAL MANUAL

Sample Text

IGES TRANSFER MANUFACTURING DEMONSTRATION

SGML TRANSFER DEMONSTRATION

Air Force CALS Test Bed

SGML Transfer Demonstration

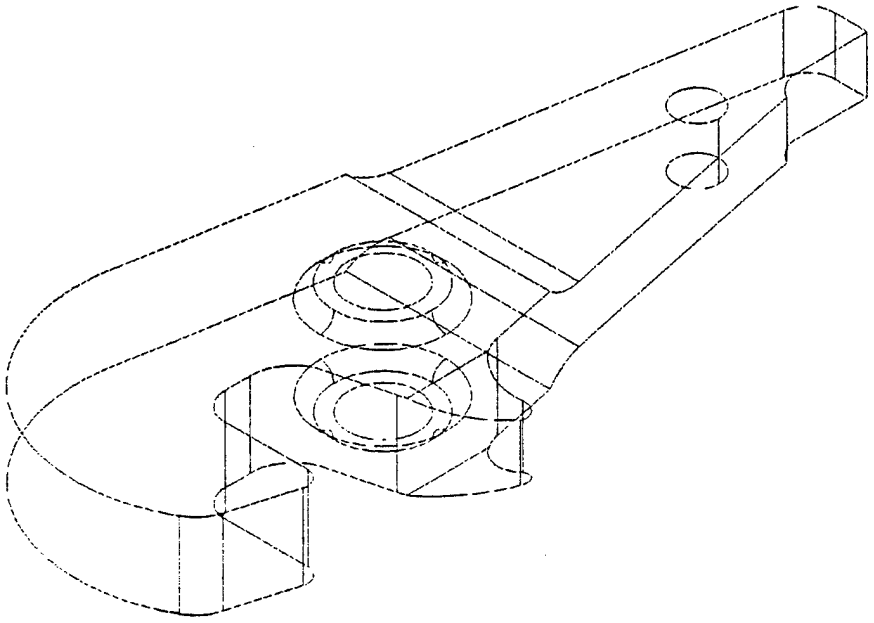
CALS TEST NETWORK

15 February 1993

12. Appendix D - Detailed Raster Analysis

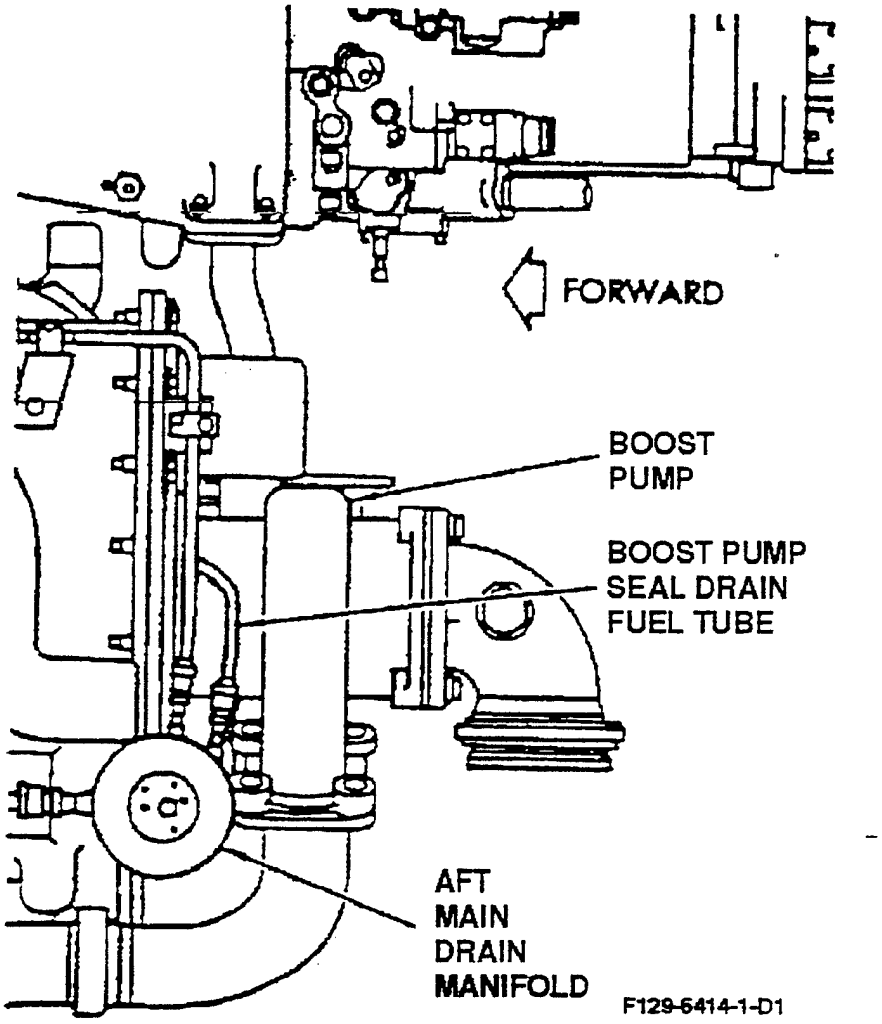
12.1 File D001R008

12.1.1 Output HiJaak for Windows



12.2 File D001R009

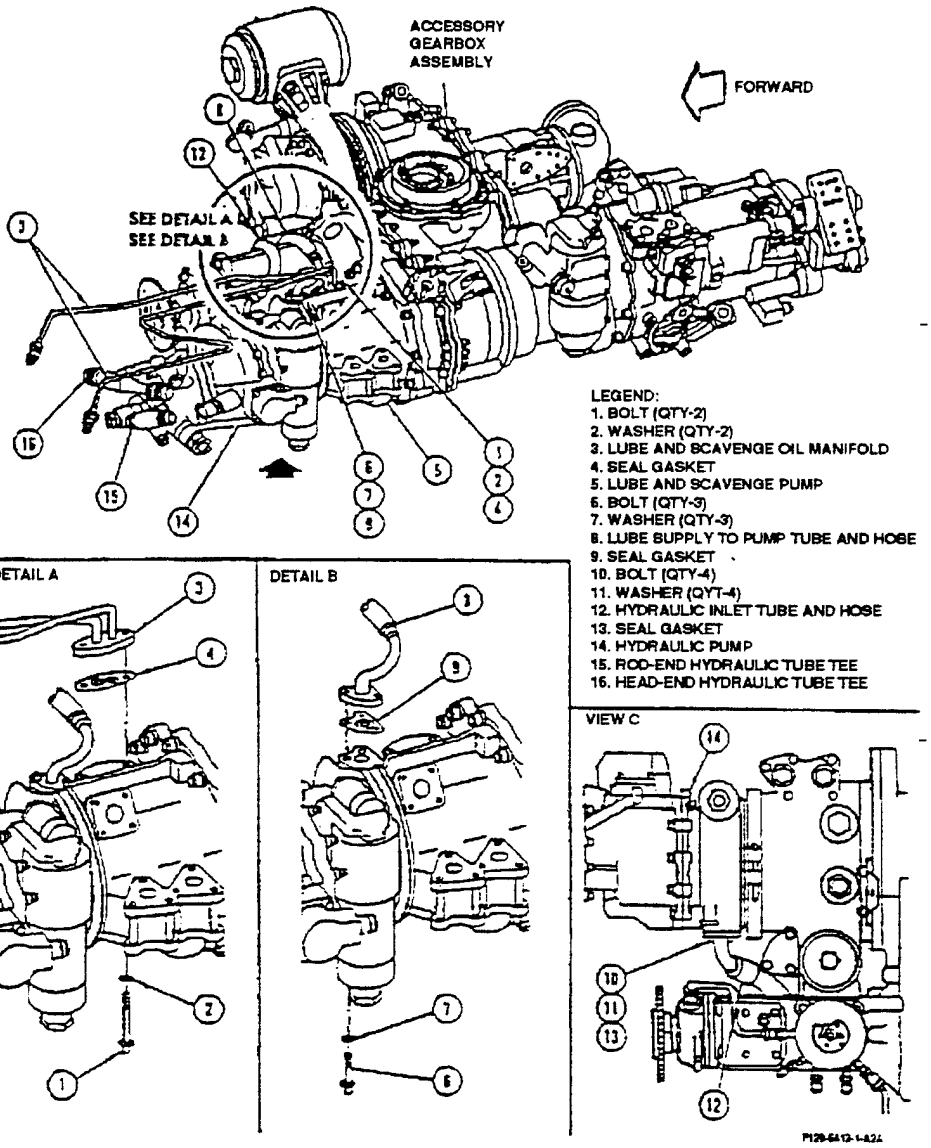
12.2.1 Output HiJaak for Windows



12.3 File D001R010

12.3.1 Output HiJaak for Windows

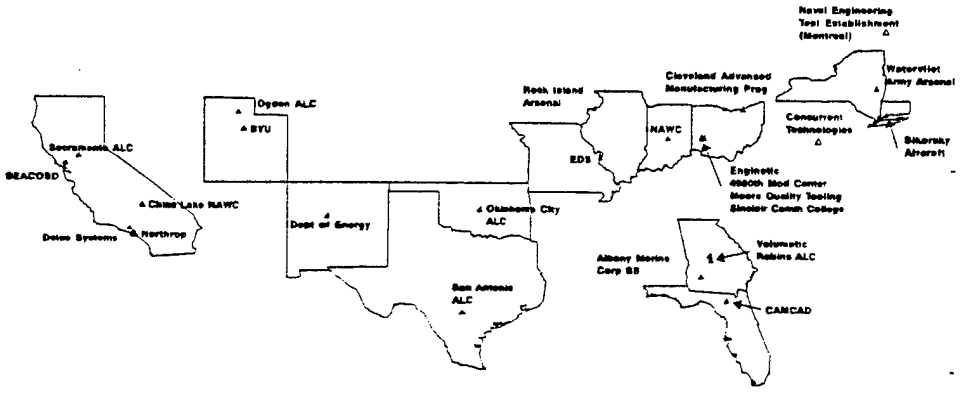
TO 2J-F110-16-6
WP 003 00



12.4 File D001R011

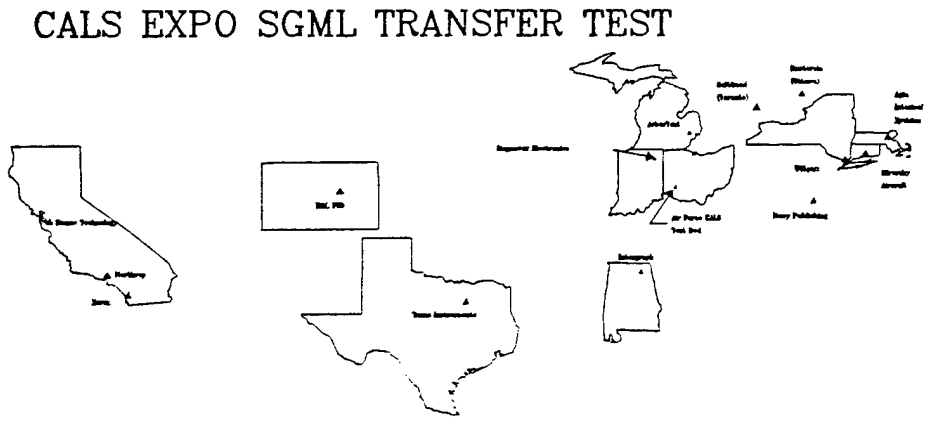
12.4.1 Output HiJaak for Windows

IGES TRANSFER TEST
MANUFACTURING LOCATIONS



12.5 File D001R012

12.5.1 Output HiJaak for Windows



13. Appendix E - Detailed CGM Analysis

13.1 File D001C005

13.1.1 Parser Log MetaCheck

```
MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 05/11/93     Time:  10:04:26

Metafile Examined    : i:\9329\d001c005.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: 05/11/93     Time:  10:04:32

Name of CGM under test: i:\9329\d001c005.cgm
Encoding              : Binary

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

BEGIN METAFILE string : "METAFILE.CGM"
METAFILE DESCRIPTION  : "Harvard v3.1 CGM  MIL-D-28003/BASIC-1"
```

Picture 1 starts at octet offset 110; string contains: "PICTURE 0"

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
300 Elements Tested
30720 Octets Tested

```
==================================
|    No Errors Were Detected     |
==================================
```

========== End of Conformance Report ==========

13.1.2 Designer

CALS TEST NETWORK

13.2 File D001C006

13.2.1 Parser Log MetaCheck

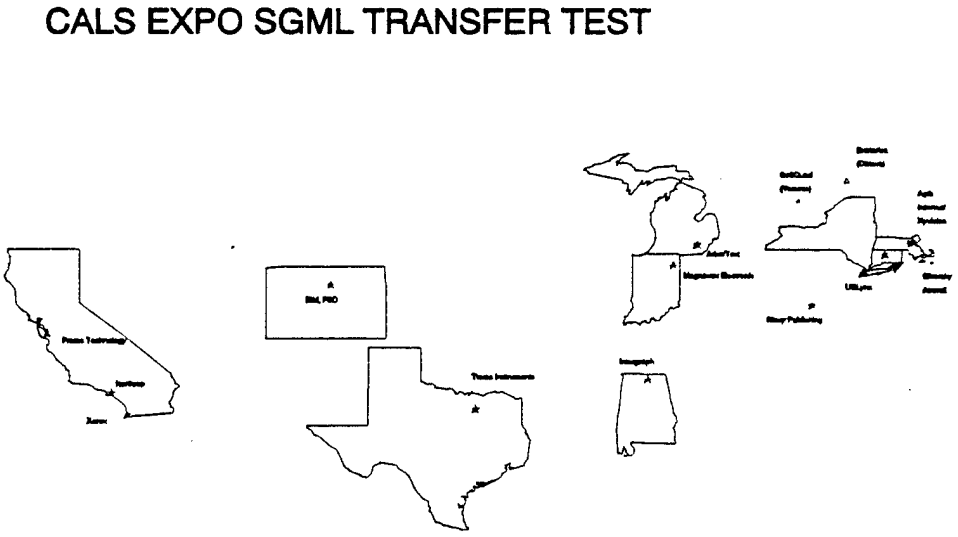
```
MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 05/11/93     Time:  10:04:52

Metafile Examined    : i:\9329\d001c006.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: 05/11/93     Time:  10:05:03

Name of CGM under test: i:\9329\d001c006.cgm
Encoding              : Binary

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

BEGIN METAFILE string : "METAFILE.CGM"
METAFILE DESCRIPTION  : "Harvard v3.1 CGM  MIL-D-28003/BASIC-1"

Picture 1 starts at octet offset 110; string contains: "PICTURE 0"

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
  3413 Elements Tested
 66908 Octets Tested

          ==================================
          |    No Errors Were Detected     |
          ==================================

================ End of Conformance Report ==================
```

13.2.2 Designer



13.3 File D001C007

13.3.1 Parser Log MetaCheck

```
MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 05/11/93     Time:  10:05:16

Metafile Examined    : i:\9329\d001c007.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 Errors Detected.

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

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 05/11/93     Time:  10:05:18

Name of CGM under test: i:\9329\d001c007.cgm
Encoding              : Binary

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

BEGIN METAFILE string : "METAFILE.CGM"
METAFILE DESCRIPTION  : "Harvard v3.1 CGM  MIL-D-28003/BASIC-1"

Picture 1 starts at octet offset 110; string contains: "PICTURE 0"

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
 120 Elements Tested
8188 Octets Tested

0 Illegal CGM Elements                          1000 -   1999
0 Incorrect CGM Element Lengths                 2000 -   2999
0 CGM State Errors                              3000 -   3499
0 Required CGM Elements Missing or Wrong        4000 -   4499
0 CGM Parameter Values Out of Range             6000 -   6499
0 CGM Structure Errors                          7000 -   7499
0     ***     CGM Errors Found (total)      ***

0 Profile State Errors                          3500 -   3999
0 Illegal Profile Elements                      4500 -   4999
0 Profile Parameter Values Out of Range         6500 -   6999
0 Profile Data Limits Exceeded                  8500 -   8999
0 Other Profile Constraints Violated            9500 -   9999
0     *** Profile Violations Found (total) ***

0 Warnings (Advisory Remarks)                  20000 -  20999

0 distinct errors and warnings were reported.

================ End of Conformance Report ==================
```

13.3.2 Designer

IGES TRANSFER & MANUFACTURING SITES