Technical Publication Transfer Test

Using:

Northrop Corporation Data

MIL-D-28000A (IGES)
MIL-M-28001A (SGML)

Quick Short Test Report

01 September 1992

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Prepared for

DTIC QUALITY INSPECTED 3

Electronic Systems Center

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1 September 1992

Prepared By
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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 and 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 92-051

**Date of
Evaluation:**   1 September 1992

Evaluator: George Elwood
                                  Air Force CALS Test Bed
                                  HQ ESC/ENCP
                                  Suite 200
                                  4027 Colonel Glenn Hwy
                                  Dayton OH 45431-1672

**Data
Originator:**   John Bean
                                  Northrop Corporation
                                  B-2 Division
                                  1595/XY
                                  Pico Rivera CA 90660

**Data
Description:**   Technical Manual Test
                                       2 Document Declaration files
                                       1 Document Type Definitions (DTD)
                                       103 Initial Graphics Exchange Specification
                                              (IGES) files
                                       2 Text files
                                       1 Format Output Specification Instance
                                              (FOSI) file

**Data
Source System:**

        IGES
                HARDWARE
                        Unknown
                SOFTWARE
                        Unknown

        Text/Stand Generalized Markup Language (SGML)
                HARDWARE
                        Unknown
                SOFTWARE
                        Unknown

Evaluation Tools Used:

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

    MIL-D-28000 (IGES)
        SUN 3/60
            IGES Data Analysis (IDA) *IGESview v2.0*
            IDA IGES *Parser/Verifier*
            Rosetta Technologies *Preview v3.2*
        Sun SparcStation 2
            AGFA *CAPS ig2ps v6.0x*
            ArborText *iges2draw*
            IDA *Parser/Verifier*
            IDA *IGESView v3.0*
            Intergraph *I/EMS 02.00.01.11*
            Intergraph *I/CIGES 02.00.01.03*
            International TechneGroup Incorporated
                (ITI) *IGES/Works 1.0*
            Rosetta Technologies *Preview v3.2*
        HP PA RISC 7000
            CarBerry *CADLeaf 3.0*
        Cheetah Gold 486
            Autodesk *AutoCAD 386 R11*
            Cadkey *Cadkey v4.06*
            IDA *IGES Parser/Verifier*
            Mirco Engineering Solutions *CheckMark*

    MIL-M-28001 (SGML)
        SUN SparcStation 2
            ArborText *ADEPT v4.2.1*
            SoftQuad *Author/Editor v2.1*
        Cheetah Gold 486
            Datalogics *ParserStation v3.36*
            Exoterica *XGMLNormalizer v1.2e3.2*
            SoftQuad *Author/Editor v2.1*

**Standards
Tested:**
        MIL-STD-1840A
        MIL-D-28000A
        MIL-M-28001A

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 or barrier sheet material 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 1840A tape was run through the AFCTB *Tapetool v1.2.8* utility. No errors were reported while evaluating the contents of the tape labels.

A note was reported on the tape label version. MIL-STD-1840A permits the use of both versions three and four. The use of the most current standard should be used and noted.

The tape was also read using AGFA *CAPS read1840A* tape utility. No errors were reported during this operation.

3.2.2 Declaration and Header Fields

No errors were reported during the evaluation of the Document Declaration file and data file header records.

4. IGES Analysis

The tape contained 103 IGES files. All 103 files appeared to be identical. A file comparison check was made which verified this to be true, therefore, only file D001Q007 will be used in the balance of this report.

The file was checked visually for the required MIL-D-28000A statement in the Start section. The correct information was found.

This file was verified using IDA's *Parser/Verifier* for CALS Class I Standards. Several CALS Class I errors were noted during this operation relating to entity type 106. The line font noted in the DE area was listed as zero. MIL-D-28000A Table I requires this value to be between 1 and 5.

*** Entity type: 106

ERROR   4046: Illegal line font for CALS Class I specified in D   87.

```
                            ┌── This must be 1, 2, 3, 4, or 5
                            vvv
    106       63      0      0      0      0      0    000010001D     87
    106        0      4      3     63                            D     88
```


Additional basic CALS errors were also noted. The entire verification log is located in the Appendix of this report.

Because all files were the same, D001Q007 was selected for the image generation phase of the test.

The file was converted using the ArborText *iges2draw* utility. No errors were noted. When the file was imported into Island Graphics' *IslandDraw*, nothing was displayed.

The file was converted using Autodesk's *AutoCAD R11*. This process generated many error messages relating to non-supported entities. The hard copy of this process is included in the Appendix of this report.

The file was converted to Cadkey's *Cadkey* format with no reported errors. The file displayed and printed without a problem. The hard copy is included in the Appendix of this report.

The file was read into IDA's *IGESVIEW*. No errors were reported yet nothing was displayed on the screen.

The file was converted using Intergraph *EMS ciges* utility without a reported problem. The file was then read into *EMS* and displayed without a problem.

The file was read into ITI's *IGESWorks* with no reported problems. The image displayed and printed without a problem.

The file was converted using Rosetta Technologies' *Prepare* and viewed using *Preview*. The conversion process generated some errors relating to non-supported entities. The hard copy of the file is included in the Appendix of this report.

Because of the noted error with entity type 106, the IGES file does not meet the CALS MIL-D-28000A specification.

5. SGML Analysis

The Text file from this document was tested using the Exoterica *XGMLNormalizer* parser. The DTD was parsed without a reported error, although several warnings were issued relating to the use of mixed content data characters. No problems were encountered with the included Text file.

Using the compiled DTD, the Text file did not report any errors.

The file was parsed using Datalogics' *ParseStation*, Arbor-Text's *Adept*, and SoftQuad's *Author/Editor* with no reported errors.

The AFCTB does not have any software which would permit the use of the FOSI and to generate the entire document.

6. Raster Analysis

No Raster files were included on this tape.

7. CGM Analysis

No Computer Graphics Metafile (CGM) files were included on this tape.

8. Conclusions and Recommendations

In summary, the MIL-STD-1840A tape from Northrop Corporation, B-2 Division was correct. The tape could be read properly using both the AFCTN *tapetool* and AGFA *CAPS read1840A* without any reported errors.

The tape contained 103 IGES files which were exactly alike. The files contained the correct 'Start' section note. Only one CALS error relating to line font was reported during the parsing operation.

The DTD and SGML documents were parsed without any reported errors using several different utilities.

The tape does not meet the CALS MIL-STD-1840A requirements due to minor problems with the IGES file.

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:
  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

Tue Sep 1 09:03:45 1992

MIL-STD-1840A File Catalog

File Set Directory: /cals/tapetool8/Set084

Page: 1

File Name	File Type	Record Format/ Length	Block Length/Total	Selected/ Extracted
D001	Document Declaration	D/00260	02048/000001	Extracted
D002	Document Declaration	D/00260	02048/000001	Extracted
D001T001	Text	D/00260	02048/000063	Extracted
D001G002	DTD	D/00260	02048/000014	Extracted
D001H003	Output Specification	D/00260	02048/000088	Extracted
D001Q004	IGES	F/00080	02000/000035	Extracted
D001Q005	IGES	F/00080	02000/000035	Extracted

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

D001Q106	IGES	F/00080	02000/000035	Extracted
D002T001	Text	D/00260	02048/000021	Extracted

Catalog Process terminated normally.

9.2 Tape Evaluation Log

Air 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 Sep 1 09:00:21 1992

ANSI Tape Import Log

Allocating tape drive /dev/rmt0...

/dev/rmt0 allocated.

VOL1ITDS01   CONTROLLER   4

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

*** NOTE (ANSI X3.27; 8.3.1.1) - Columns 12-24 are reserved
    for future standardization and must be spaces.

HDR1D001   ITDS0100010001000100 92237 92237 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: 92237
  Expiration Date: 92237
  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 ***************

  Actual Block Size Found = 2048 Bytes.

  Number of data blocks read = 1.

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

EOF1D001   ITDS0100010001000100 92237 92237 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: 92237
  Expiration Date: 92237
  File Accessibility:
  Block Count: 000001
  Implementation Identifier: CONTROLLER

EOF2D0204800260   00

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

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

HDR1D002   ITDS0100010002000100 92237 92237 000000   CONTROLLER

  Label Identifier: HDR1
  File Identifier: D002
  File Set Identifier: ITDS01
  File Section Number: 0001
  File Sequence Number: 0002
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date: 92237
  Expiration Date: 92237
  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 ***************

  Actual Block Size Found = 2048 Bytes.

  Number of data blocks read = 1.

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

EOF1D002   ITDS0100010002000100 92237 92237 000001   CONTROLLER

  Label Identifier: EOF1
  File Identifier: D002
  File Set Identifier: ITDS01
  File Section Number: 0001
  File Sequence Number: 0002
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date: 92237
  Expiration Date: 92237
  File Accessibility:
  Block Count: 000001
  Implementation Identifier: CONTROLLER

EOF2D0204800260   00

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

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

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

HDR1D002T001   ITDS0100010109000100 92237 92237 000000   CONTROLLER

  Label Identifier: HDR1
  File Identifier: D002T001
  File Set Identifier: ITDS01

File Section Number: 0001
File Sequence Number: 0109
Generation Number: 0001
Generation Version Number: 00
Creation Date: 92237
Expiration Date: 92237
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 ***************

  Actual Block Size Found = 2048 Bytes.

  Number of data blocks read = 21.

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

EOF1D002T001   ITDS0100010109000100 92237 92237 000021   CONTROLLER

  Label Identifier: EOF1
  File Identifier: D002T001
  File Set Identifier: ITDS01
  File Section Number: 0001
  File Sequence Number: 0109
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date: 92237
  Expiration Date: 92237
  File Accessibility:
  Block Count: 000021
  Implementation Identifier: CONTROLLER

EOF2D0204800260   00

  Label Identifier: EOF2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  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 1 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:
    MIL-STD-1840A (1987) - Automated Interchange of Technical Information

Tue Sep 1 09:03:46 1992

MIL-STD-1840A File Set Evaluation Log

File Set: Set084

Found file: D001

srcsys: John G, Bean, ITDS User System Program Manager, Northrop Corporation, B-2 Divi
L595/XY, Pico Rivera, CA 90660 (310) 942-6553
srcdocid: 1B-2A-2-95JG-10-1
srcrelid: NONE
chglvl: ORIGINAL
dteisu: 19920819
dstsys: Gary Lammers, Manager, USAF CALS Test Bed, HQ ESC/ENCP, 4027 Col. Glenn Hwy, D
OH 45431-1672
dstdocid: 1B-2A-2-95JG-10-1
dstrelid: NONE
dtetrn: 19920824
dlvacc: NONE
filcnt: T1, H1, G1, Q103
ttlcls: UNCLASSIFIED
doccls: UNCLASSIFIED
doctyp: JOB GUIDE
docttl: CREW ESCAPE AND SAFETY EJECTION SEATS

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

srcdocid: 1B-2A-2-95JG-10-1
dstdocid: 1B-2A-2-95JG-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-2-95JG-10-1
dstdocid: 1B-2A-2-95JG-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-2-95JG-10-1
dstdocid: 1B-2A-2-95JG-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-2-95JG-10-1
dstdocid: 1B-2A-2-95JG-10-1
txtfilid: W
figid: NONE
srcgph: B2AJG9510-0005
doccls: UNCLASSIFIED
notes: NONE

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

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

Found file: D002T001
Extracting Text Header Records...
Evaluating Text Header Records...

srcdocid: B2JGOSDTD
dstdocid: B2JGOSDTD
txtfilid: W
doccls: UNCLASSIFIED
notes: NONE

Saving Text Header File: D002T001_HDR

Saving Text Data File: D002T001_TXT

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 D002.

No errors were encountered in this File Set.

MIL-STD-1840A File Set Evaluation Complete.

9.4   Other Tape Reading Logs

No errors were reported by Agfa's *read1840A* utility.

10. Appendix B - IGES Detailed Analysis

10.1   File D001Q007

10.1.1   Paser/Verifier Log

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

 Input file is q007.igs

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

 Today is September 2, 1992  8:28 AM

*** File and Product Name Information ***

    File name from sender    = 'handlerev.iges'
    File creation Date.Time   = '920820.111052'
    Model change Date.Time   = ''
    Author                   = 'NORTHROP B2 ITDS CTB'
    Department               = ''
    Product name from sender = 'handlerev.iges'
    Destination product name = 'handlerev.iges'

*** 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              = 1.0000E+00
```

```
       Unit flag              =  1
       Units                  =  'IN'
       Line weights           =  1
       Maximum line thickness =  1.600000E-02
       Minimum line thickness =  1.600000E-02
CAUTION 2317: Maximum line thickness equal to minimum thickness.
       Granularity            =  1.000000E-07
       Maximum coordinate     =  6.693571E+00
```

Drafting standard applicable to original data is not specified.

*** Status Flag Summary ***

Blank status:	Visible	219
	Blanked	0
Independence:	Independent	168
	Physically Subordinate	9
	Logically Subordinate	42
	Totally Subordinate	0
Entity use:	Geometry	205
	Annotation	14
	Definition	0
	Other	0
	Logical/Positional	0
	2D parametric	0
	Not Specified	0
Hierarchy:	Structure DE applies	0
	Subordinate DE applies	219
	Hierarchy property applies	0
	Not Specified	0

*** Entity Occurrence Counts ***

Entity	Form	Level	Count	Type
100	0	0	125	Circular arc
104	1	0	2	Conic arc - ellipse
106	11	0	11	Copious data - Piecewise planar, linear string(2D path)
106	63	0	9	Simple closed planar curve
110	0	0	45	Line
124	0	0	2	Transformation matrix
212	0	0	12	General note
230	0	0	9	Sectioned area (Standard Crosshatching)

404	0	0	1	Drawing
406	16	0	1	Property - Drawing size
406	18	0	1	Property - Intercharacter spacing
410	0	0	1	View - Orthographic parallel

*** Entity Count by Level ***

Level	Count
0	219

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled   219

*** Line Fonts Used in Data ***

100	102	104	106	108	110	112	114	
-	-	-	9	-	-	-	-	Undefined
125	-	2	11	-	45	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

116	118	120	122	124	125	126	128	
-	-	-	-	2	-	-	-	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
Defaulted	36	(0.0160)
1	183	(0.0160)

*** Colors Used in Data ***

Defaulted	6
Blue	213


```
******************************
******  ENTITY ANALYSIS  ******
******************************
```


*** Entity type: 100

ERROR   2242: Radii not equal at D   135; difference is 2.185078E-05.
ERROR   2242: Radii not equal at D   141; difference is 2.631546E-04.
ERROR   2242: Messages regarding unequal radii suppressed.

*** Entity type: 104

WARNING 2265: Start point off conic by 5.045419E-03 at D   321.
WARNING 2039: End point off conic by 5.045419E-03 at D   321.
WARNING 2265: Start point off conic by 2.278689E-04 at D   367.
WARNING 2039: End point off conic by 1.074573E-04 at D   367.

*** Entity type: 106

ERROR   4046: Illegal line font for CALS Class I specified in D   87.
ERROR   4046: Illegal line font for CALS Class I specified in D   91.
ERROR   4046: Illegal line font for CALS Class I specified in D   95.
                         <<<<< *PART OF LOG REMOVED HERE* >>>>>

*** Entity type: 110

  --   45 lines averaging 2.361677E-01 units --

*** Entity type: 124

2 transformation matrices, 2 non-zero translations.
NOTE   2341: 2 matrices contain translation information.

*** Entity type: 212

    12 text strings in data file.
    Average text aspect ratio in file is 0.8927706.
    Minimum text aspect ratio in file is 0.8918800.
    Maximum text aspect ratio in file is 0.8935355.

    FONTS USED IN FILE

    FONT   COUNT   NAME

     1   12   Default ASCII Style

*** Entity type: 230

NITPICK 2076: Entity does not have Annotation flag set at D   89.
NITPICK 2076: Entity does not have Annotation flag set at D   93.
                       <<<< PART OF LOG REMOVED HERE >>>>

*** Entity type: 404

WARNING 2035: Drawing entity may not be subordinate at D   5.
Drawing at D   5 contains 1 views.
NITPICK 2289: View (D   1) is not logically subordinate to drawing at D
        5.
Drawing at D   5 contains 0 annotation entities.

*** Entity type: 406

ERROR   4046: Illegal line font for CALS Class I specified in D   65.

*** Entity type: 410

CAUTION 2332: View attributes are not subordinate (orphan view?) at D   1.
   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 ***

2011: 2 Invalid subordinate relationships.
2015: 117 Mathematically incorrect definitions.
2016: 9 Invalid entity use flag.
2018: 1 Problems with line weight/width display information.
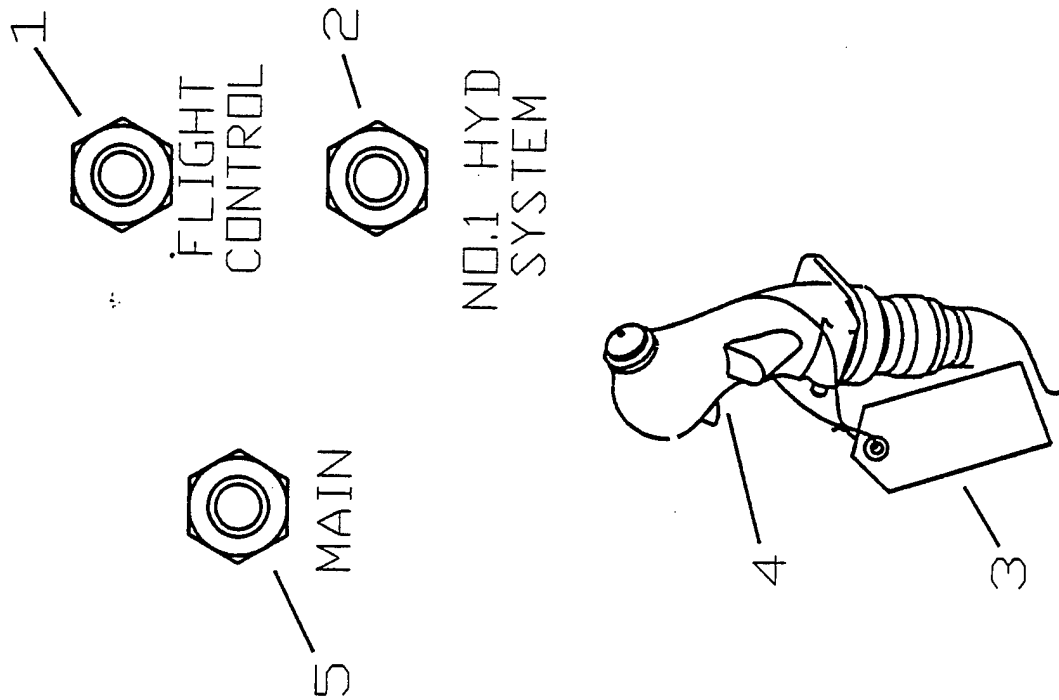4016: 10 Illegal line fonts

*** Error Summary ***

```
      0 fatal errors
      0 severe errors
    123 errors
      5 warnings
      2 cautions
     10 nitpicks
      1 notes
```
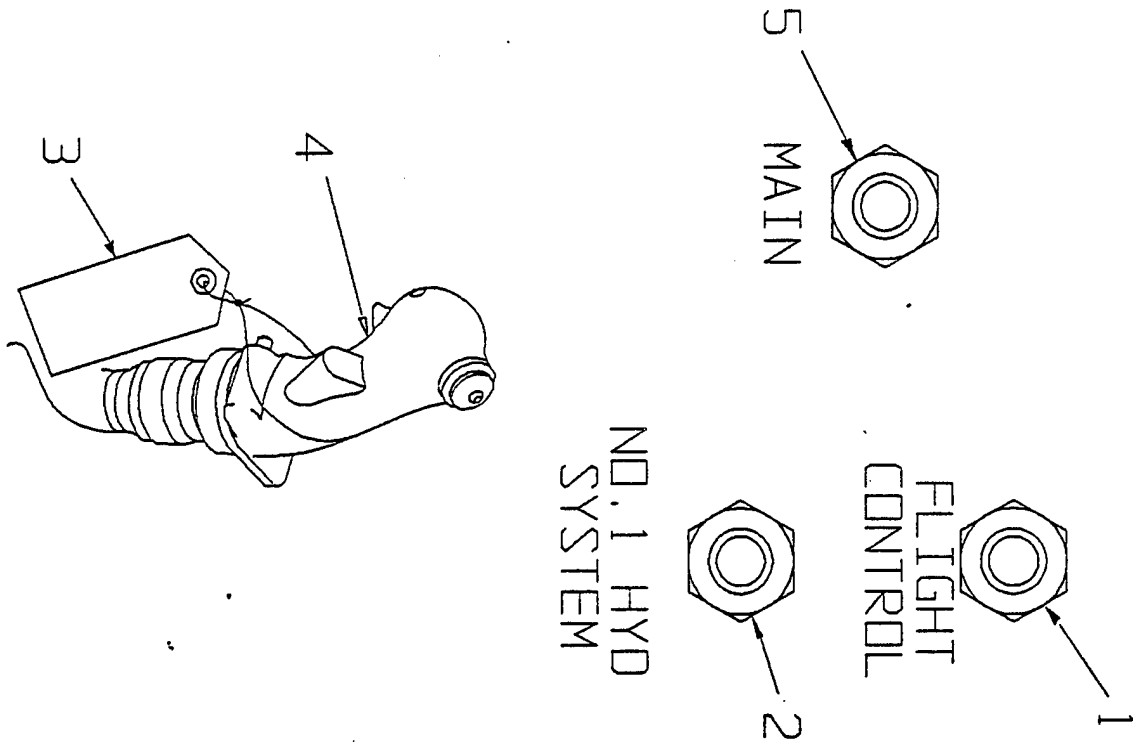
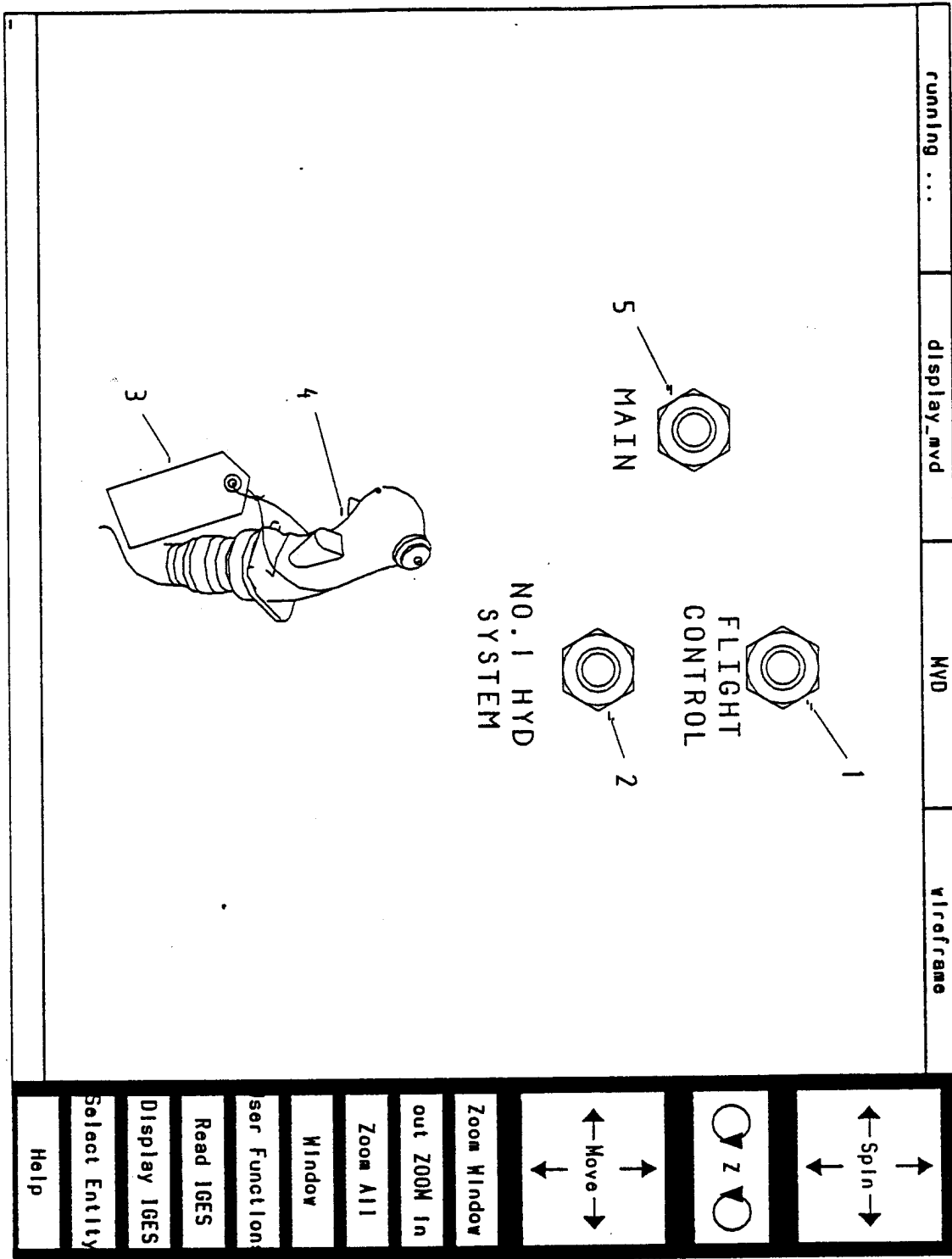*** End of Analysis of q007.igs ***

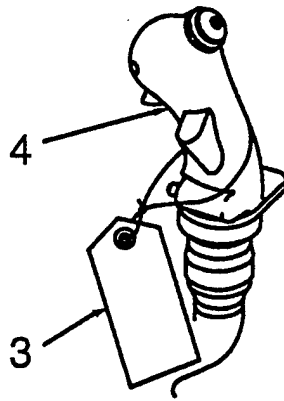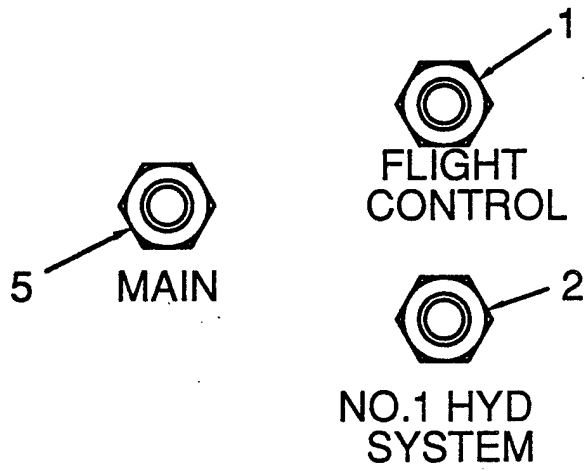## 10.1.2 Output AutoCAD R11

10.1.3 Output Cadkey v4.06

10.1.4 Output IGESWorks

10.1.5 Output Preview

11. Appendix C - SGML Detailed Analysis

11.1 Datalogics Parser Log

```
IPA0108:          *** SGML Instance Parser Log File ***
Source Document File:  'north51.txt'.
Job File:              'north.jbf'.
DTD File:              '.'.
SGML Declaration File: ''.

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

     Concrete Syntax Settings In Effect For This Parse:
          NAMECASE GENERAL: YES.
          NAMECASE ENTITY:  NO.
          NAMELEN:          32.
          SHORTTAG:         YES.
Closed 'north.jbf', File Type 'JOB FILE'.
Reading File 'north51.txt', File Type 'DIRECT INPUT FILE'.
   --> Scanned Up To Line 100 In north51.txt.
   --> Scanned Up To Line 200 In north51.txt.
   --> Scanned Up To Line 300 In north51.txt.
   --> Scanned Up To Line 400 In north51.txt.
   --> Scanned Up To Line 500 In north51.txt.
   --> Scanned Up To Line 600 In north51.txt.
   --> Scanned Up To Line 700 In north51.txt.
   --> Scanned Up To Line 800 In north51.txt.
   --> Scanned Up To Line 900 In north51.txt.
   --> Scanned Up To Line 1000 In north51.txt.
   --> Scanned Up To Line 1100 In north51.txt.
   --> Scanned Up To Line 1200 In north51.txt.
   --> Scanned Up To Line 1300 In north51.txt.
   --> Scanned Up To Line 1400 In north51.txt.
   --> Scanned Up To Line 1500 In north51.txt.
   --> Scanned Up To Line 1600 In north51.txt.
   --> Scanned Up To Line 1700 In north51.txt.
   --> Scanned Up To Line 1800 In north51.txt.
   --> Scanned Up To Line 1900 In north51.txt.
   --> Scanned Up To Line 2000 In north51.txt.
   --> Scanned Up To Line 2100 In north51.txt.
   --> Scanned Up To Line 2200 In north51.txt.
   --> Scanned Up To Line 2300 In north51.txt.
   --> Scanned Up To Line 2400 In north51.txt.
   --> Scanned Up To Line 2500 In north51.txt.
   --> Scanned Up To Line 2600 In north51.txt.
   --> Scanned Up To Line 2700 In north51.txt.
   --> Scanned Up To Line 2800 In north51.txt.
```

```
--> Scanned Up To Line 2900 In north51.txt.
--> Scanned Up To Line 3000 In north51.txt.
--> Scanned Up To Line 3100 In north51.txt.
--> Scanned Up To Line 3200 In north51.txt.
--> Scanned Up To Line 3300 In north51.txt.
--> Scanned Up To Line 3400 In north51.txt.
Closed 'north51.txt', File Type 'DIRECT INPUT FILE'.
Document Parsed Successfully, No Errors or Warnings.
```

11.2   Exoterica Parser

```
C:\XGML\XGMLTEST.EXE --
Warning on line 333 in file entities/north51.dtd:
An element with mixed content does not permit data characters
everywhere.
Spaces and line breaks in element 'ENTRY' may be treated as data
characters, forcing insertion of markup.


C:\XGML\XGMLTEST.EXE --
Warning on line 463 in file entities/north51.dtd:
An element with mixed content does not permit data characters
everywhere.
Spaces and line breaks in element 'NOTICE' may be treated as data
characters, forcing insertion of markup.


C:\XGML\XGMLTEST.EXE --
Warning on line 527 in file entities/north51.dtd:
An element with mixed content does not permit data characters
everywhere.
Spaces and line breaks in element 'RESULT' may be treated as data
characters, forcing insertion of markup.
```