Technical Engineering Drawing Transfer

Using:

Lockheed Missile & Space Company's Data

Supporting:

The Joint Advance Rocket System

Contract #N00019-9-2-C-185

MIL-D-28000A (IGES)

Quick Short Test Report

02 September 1993

Prepared for
Electronic Systems Center
Det 2 HQ ESC/AV-2
4027 Colonel Glenn Hwy, Suite 300
Dayton, Ohio 45431-1672
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Quick Short Test Report
02 September 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-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 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 Lockheed Missile & Spaces Company's interpretation and use of the CALS standards in transferring technical engineering data. Lockheed used its Sun Sparc server 670 MP with Cadkey's v5.2 software 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 93-085

Date of Evaluation: 02 September 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: Tom Benjamin
Lockheed Missile & Space Company
T4-02, 312, 3
6800 Burleson Road
P.O. Box 17100
Austin TX 78760-7100
(512) 386-2887

Data Description: Technical Manual Test
2 Document Declaration files
2 Initial Graphics Exchange Specification (IGES) files

Data Source System:

<table>
<thead>
<tr>
<th>HARDWARE</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOFTWARE</td>
<td>AFCTN Tapetool v1.2.10 UNIX</td>
</tr>
<tr>
<td>IGES</td>
<td></td>
</tr>
<tr>
<td>HARDWARE</td>
<td>SUN Sparc Server 670 MP</td>
</tr>
<tr>
<td>SOFTWARE</td>
<td>Cadkey/UX v5.2</td>
</tr>
</tbody>
</table>
Evaluation Tools Used:

**MIL-STD-1840A (TAPE)**

SUN 3/280
- AFCTN Tapetool v1.2.10 UNIX
- XSoft CAPS/CALS v40.4

**MIL-D-28000 (IGES)**

Sun SparcStation 2
- ArborText iges2draw
- Carberry CADLeaf Plus v3.1
- IGES Data Analysis (IDA) Parser/Verifier v92
- IDA IGESView v3.05
- IDA IGESXpert v1.0
- Intergraph I/EMS 02.00.01.11
- Intergraph I/CIGES 02.00.01.03
- International Techné Group Incorporated (ITI) IGES/Works v1.3
- Rosetta Technologies Prepare
- Rosetta Technologies Preview v3.2

**PC 486/50**
- AUTODESK AutoCAD 386 R12
- Cadkey Cadkey v5.02
- IDA IGESView Windows
- Rosetta Technologies Prepare
- Rosetta Technologies Preview

Standards Tested:

- MIL-STD-1840A
- MIL-D-28000A
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 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. Tape reel did not have a label indicating the recording density, as required by MIL-STD-1840A, para. 5.3.1. Some 9-track tape units require this BPI to be set manually. 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 v1.2.10 utility. No errors were encountered while evaluating the contents of the tape labels.

The tape was read using the XSoft CAPS read1840A utility without any reported errors.

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

3.2.2 **Declaration and Header Fields**

No errors were found in the Document Declaration files and data file headers. This portion of the tape meets the MIL-STD-1840A requirements.
4. IGES Analysis

The tape contained two IGES files. These files were evaluated using IDA's parser/verifier set for CALS Class II. Both files were reported in error due to the use of IGES version 5.1. The use of this version is not permitted in the CALS MIL-D-28000A specification, except for Class V files. Also reported as an error was a missing drawing entity.

The Start section statement required by the MIL-D-28000A, para. 3.2.2.4.1 was not found.

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 ArborText's iges2draw utility with no reported errors. The resulting files were read into Island Graphics' IslandDraw, displayed and printed without a reported error.

The files were read using AUTODESK's AutoCAD R12 with translator version 5.1. Some errors and warnings were generated during the conversion processes relating to font selections. The files were displayed and printed without a reported error. However, it was noted that the diameter symbol was displayed incorrectly on the screen and hard copy. It was displayed as a "n" instead of "Ø".

The files were converted using Cadkey's ig2c utility. The resulting files were read into Cadkey's Cadkey, displayed and printed.

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

The files were read using IDA's IGESView and IGESView for Windows. No problems were noted during this procedure. The images were printed.
The IGES files were converted using Intergraph's I/CIGES utility without a reported error. The resulting files were read into I/EMS and displayed.

The files were read using ITI's IGESWorks without a reported error. The files were displayed and printed.

The IGES files were converted using Rosetta Technologies' Prepare without a reported error. However, it was noted that the diameter symbol was displayed incorrectly on the screen and hard copy. It was displayed as a "n" instead of "Ø". The resulting files were read into Rosetta Technologies' Preview, displayed and printed.

Because the required Start Section statement was missing, the IGES files do not meet the CALS MIL-D-28000A Class II specification.

5. SGML Analysis

No Standard Generalized Markup Language (SGML) files were included on the tape.

6. Raster Analysis

No Raster files were included on the tape.

7. CGM Analysis

No Computer Graphics Metafile (CGM) files were included on the tape.
8. Conclusions and Recommendations

The MIL-STD-1840A tape from Lockheed Missiles & Space Company was correct. The tape could be read properly using the AFCTN Tapetools with no reported errors. The physical structure of the tape meets the CALS MIL-STD-1840A requirements.

The two IGES files do not meet the CALS MIL-D-28000A specification, because of the missing Start Section statement. The files were successfully imported into several software applications, displayed, and printed without a problem.

Because of the errors in the IGES files, the tape does not meet the CALS MIL-STD-1840A requirements.
9. Appendix A - Tapetool Report Logs

9.1 Tape Catalog

CALS Test Network Catalog Evaluation - Version 1.2; Release 10 (C)

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

Thu Sep 2 09:40:52 1993

MIL-STD-1840A File Catalog

File Set Directory: /cals/u1210/Set017

Page: 1

<table>
<thead>
<tr>
<th>File Name</th>
<th>File Type</th>
<th>Record Format/ Block Selected/ Length Length/Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>D001 Extracted</td>
<td>Document Declaration</td>
<td>D/00260 02048/000001</td>
</tr>
<tr>
<td>D002 Extracted</td>
<td>Document Declaration</td>
<td>D/00260 02048/000001</td>
</tr>
<tr>
<td>D001Q001 Extracted</td>
<td>IGES</td>
<td>F/00080 02000/000118</td>
</tr>
<tr>
<td>D002Q001 Extracted</td>
<td>IGES</td>
<td>F/00080 02000/000103</td>
</tr>
</tbody>
</table>

Catalog Process terminated normally.
9.2 Tape Evaluation Log

CALS Test Network Tape Evaluation - Version 1.2; Release 10 (C)
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

Thu Sep 2 09:40:40 1993

ANSI Tape Import Log

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

VOL1:CALS01
  4
  Label Identifier: VOL1
  Volume Identifier: CALS01
  Volume Accessibility:
  Owner Identifier:
  Label Standard Version: 4

HDR1D001     CALS0100010001000000000 93236 00000 000000
Label Identifier: HDR1
File Identifier: D001
File Set Identifier: CALS01
File Section Number: 0001
File Sequence Number: 0001
Generation Number: 0000
Generation Version Number: 00
Creation Date: 93236
Expiration Date: 000000
File Accessibility:
Block Count: 000000
Implementation Identifier:

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

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

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

################## End of Volume CALS01 ##################

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

Deallocating /dev/rmt0...

Tape Import Process terminated normally.
9.3 Tape File Set Validation Log

CALS Test Network File Set Evaluation - Version 1.2; Release 10 (C)

Standards referenced:

Thu Sept 2 09:40:52 1993

MIL-STD-1840A File Set Evaluation Log

File Set: Set017

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

srcsys: LMSC Austin Division, 6800 Burleson Rd., P O Box 17100, Austin TX 78760-7100
srcdocid: 3320AS1223
srcrelid: NONE
chglnvl: ORIGINAL
dteisu: 19930824
dstsys: Naval Air Warfare Center - Weapons Division NAWC-35B4 China Lake Ca 93555-6001
dstdocid: 3320AS1223
dstrelid: NONE
dtetrn: 19930824
dlvac: NONE
filcnt: Q1
ttlcls: UNCLASSIFIED
doccls: UNCLASSIFIED
doctyp: Product Data
docttl: Test IGES drawing

Found file: D001Q001
Extracting IGES Header Records...
Evaluating IGES Header Records...

srcdocid: 3320AS1223
dstdocid: 3320AS1223
txtfilid: NONE
figid: NONE
srcgph: NONE
doccls: UNCLASSIFIED
notes: NONE
Saving IGES Header File: D001Q001_HDR
Saving IGES Data File: D001Q001_IGS

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.

Found file: D002
Extracting Document Declaration Header Records...
Evaluating Document Declaration Header Records...

srccsys: LMSC Austin Division, 6800 Burleson Rd., P O Box 17100, Austin TX 78760-7100
srccdclid: 3320AS1224
srcrelid: NONE
chglvl: ORIGINAL
dteisu: 19930824
dstsys: Naval Air Warfare Center - Weapons Division NAWC-35B4 China Lake Ca 93555-6001
dstdclid: 3320AS1224
dstrelid: NONE
dtetrn: 19930824
dlvacl: NONE
filcnt: Q1
ttlcls: UNCLASSIFIED
doccls: UNCLASSIFIED
doctyp: Product Data
docttl: Test IGES drawing

Found file: D002Q001
Extracting IGES Header Records...
Evaluating IGES Header Records...

srccdclid: 3320AS1224
dstdclid: 3320AS1224
xtxtfilid: NONE
figid: NONE
srcgph: NONE
doccls: UNCLASSIFIED
notes: NONE

Saving IGES Header File: D002Q001_HDR
Saving IGES Data File: D002Q001.IGS

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.
10. Appendix B - Detailed IGES Analysis

10.1 File D001Q001

10.1.1 Parser/Verifier Log

************ IGES PARSER/VERIFIER ************
***** MARCH 1993 *****
***** IGES Data Analysis *****
***** (708) 344-1815 *****
************

Input file is /mnt/u1210/Seq017/D001/D001Q001.IGS

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

Today is September 3, 1993 8:31 AM

************
***** CHECK FILE SYNTAX *****
************

<table>
<thead>
<tr>
<th>Section</th>
<th>Records</th>
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<tbody>
<tr>
<td>Start</td>
<td>1</td>
</tr>
<tr>
<td>Global</td>
<td>3</td>
</tr>
<tr>
<td>Directory</td>
<td>1708 ( 854 Entities)</td>
</tr>
<tr>
<td>Parameter</td>
<td>1171</td>
</tr>
<tr>
<td>Terminate</td>
<td>1</td>
</tr>
</tbody>
</table>

NITPICK 2489: Excess precision in real constant (0.707106781186548) for Mat[0][0] of D 13.
NITPICK 2489: Messages regarding excess precision suppressed.

************
***** SUMMARY AND STATISTICS *****
************

*** File and Product Name Information ***

File name from sender   = 'bgc12230.prt'
File creation Date.Time = '930812.104941'
Model change Date.Time  = '930810.162925'
Author                  = ' '
Department = 'lad/bei'
Product name from sender = 'C2IG (Cadkey, Inc.)'
Destination product name = 'bgc12230.prt'

*** Parameter Delimiters ***

Delimiter = ','
Terminator = ';;'

*** Originating System Data ***

System ID = 'CADKEY/UX v5.02 07/02/92'
Preprocessor version = 'C2IG/UX SUN v5.02 08/05/92'
Specification version = 9 (IGES 5.1)
ERROR 4048: Illegal specification version for CALS Class II specified.

*** Precision levels ***

Integer bits = 16
Floating point - Exponent = 38 Mantissa = 7
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 = 1.0000000E+00
Minimum line thickness = 1.0000000E+00

CAUTION 2317: Maximum line thickness equal to minimum thickness.
Granularity = 5.0000000E-05
Maximum coordinate = 0.00000000E+00

CAUTION 2316: Maximum intended coordinate value of 0.0000000E+00 will be defaulted to zero.

Drafting standard applicable to original data is not specified.

*** Status Flag Summary ***

Blank status: Visible 738
Blanked 116

Independence: Independent 808
Physically Subordinate 46
Logically Subordinate 0
 Totally Subordinate 0

Entity use: Geometry 639
**AFCTN Test Report**  
**AFCTB Test Report**

**Annotation** 215  
**Definition** 0  
**Other** 0  
**Logical/Positional** 0  
**2D parametric** 0  
**Construction geometry** 0  
**Not Specified** 0

**Hierarchy:**  
- Structure DE applies 854  
- Subordinate DE applies 0  
- Hierarchy property applies 0  
- Not Specified 0

***Entity Occurrence Counts***

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<tr>
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<th>Form</th>
<th>Level</th>
<th>Count</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>Circular arc</td>
</tr>
<tr>
<td>100</td>
<td>0</td>
<td>19</td>
<td>4</td>
<td>Section lines - General use, iron, brick, stone masonry</td>
</tr>
<tr>
<td>106</td>
<td>31</td>
<td>241</td>
<td>1</td>
<td>Witness line</td>
</tr>
<tr>
<td>106</td>
<td>40</td>
<td>1</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>110</td>
<td>0</td>
<td>1</td>
<td>482</td>
<td>Line</td>
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<tr>
<td>110</td>
<td>0</td>
<td>11</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>110</td>
<td>0</td>
<td>19</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>110</td>
<td>0</td>
<td>256</td>
<td>116</td>
<td></td>
</tr>
<tr>
<td>124</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>Transformation. matrix</td>
</tr>
<tr>
<td>206</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>Diameter dimension</td>
</tr>
<tr>
<td>212</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>General note</td>
</tr>
<tr>
<td>212</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>General note - dual stack dimension</td>
</tr>
<tr>
<td>212</td>
<td>1</td>
<td>241</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>212</td>
<td>6</td>
<td>1</td>
<td>147</td>
<td>General note - multiple stack/left justified</td>
</tr>
<tr>
<td>212</td>
<td>6</td>
<td>19</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>212</td>
<td>6</td>
<td>241</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>214</td>
<td>2</td>
<td>1</td>
<td>12</td>
<td>Leader arrow - Triangle</td>
</tr>
<tr>
<td>214</td>
<td>2</td>
<td>241</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>216</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>Linear dimension</td>
</tr>
<tr>
<td>216</td>
<td>0</td>
<td>241</td>
<td>4</td>
<td></td>
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</tbody>
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ERROR 4030: CALS Class II requires that at least one drawing be defined.

***Entity Count by Level***

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<th>Count</th>
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</tr>
<tr>
<td>1</td>
<td>669</td>
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</tbody>
</table>
### *** Labeling Information ***

100% of the entities are labeled.

| Unlabeled | 0 |

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<th>Count</th>
<th>Label</th>
<th>Count</th>
<th>Label</th>
<th>Count</th>
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<tbody>
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<td>TMATRIX</td>
<td>8</td>
<td>LINE</td>
<td>619</td>
<td>GEN NOTE</td>
<td>168</td>
</tr>
<tr>
<td>LDR LINE</td>
<td>20</td>
<td>DIAM DIM</td>
<td>2</td>
<td>WIT LINE</td>
<td>16</td>
</tr>
<tr>
<td>LIN DIM</td>
<td>8</td>
<td>ARC</td>
<td>12</td>
<td>X-HATCH</td>
<td>1</td>
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### *** Line Fonts Used in Data ***

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<th>106</th>
<th>108</th>
<th>110</th>
<th>112</th>
<th>114</th>
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<td>-</td>
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<td>-</td>
<td>-</td>
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<td>-</td>
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<td>-</td>
<td>17</td>
<td>-</td>
<td>614</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>116</td>
<td>118</td>
<td>120</td>
<td>122</td>
<td>124</td>
<td>125</td>
<td>126</td>
<td>128</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**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>854</td>
<td>(1.0000)</td>
</tr>
</tbody>
</table>

### *** Colors Used in Data ***

| Defaulted | 8  |
| Red       | 633|
| Green     | 152|
| White     | 61 |
************
***** ENTITY ANALYSIS *****
************

*** Entity type: 100

*** Entity type: 106

CAUTION 2331: Use of section lines (Form 31-38) is not recommended at D 1643.

*** Entity type: 110

-- 619 lines averaging 9.754250E-01 units --

*** Entity type: 124

8 transformation matrices, 0 non-zero translations.

*** Entity type: 206

*** Entity type: 212

184 text strings in data file.
Average text aspect ratio in file is 0.9174377.
Minimum text aspect ratio in file is 0.9000000.
Maximum text aspect ratio in file is 1.0869518.

FONTS USED IN FILE

<table>
<thead>
<tr>
<th>FONT</th>
<th>COUNT</th>
<th>NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>176</td>
<td>Default ASCII Style</td>
</tr>
<tr>
<td>1001</td>
<td>2</td>
<td>Symbol Font 1</td>
</tr>
<tr>
<td>1002</td>
<td>4</td>
<td>Symbol Font 2</td>
</tr>
<tr>
<td>1003</td>
<td>2</td>
<td>Drafting Font</td>
</tr>
</tbody>
</table>

*** Entity type: 214

Average arrow aspect ratio in file is 3.0000001.
Minimum arrow aspect ratio in file is 3.0000000.
Maximum arrow aspect ratio in file is 3.0000002.

*** Entity type: 216

*** Message Summary ***
2018: 1 Problems with line weight/width display information.
4000: 1 Miscellaneous CALS messages
4011: 1 Problems in the Global section

*** Error Summary ***

  0 fatal errors
  0 severe errors
  2 errors
  0 warnings
  3 cautions
3679 nitpicks
  0 notes

*** End of Analysis of /mnt/u1210/Set017/D001/D001Q001_IGS ***
10.1.2 Parser Log - AutoCAD R12

Title: IGESIN Journal (v5.1 Nov 05 1992)

File: C:/TMP/Q8501.xli
Date: Thu, Sep 02, 1993
Time: 13:44:06

Translation from IGES file: C:/TMP/Q8501.IGS
To AutoCAD Drawing: C:\TMP\Q8501.dwg

Options obtained from: default settings
Curves Approximated to Tolerance of 0.01
Surfaces Approximated to Tolerance of 0.01

Text Font/Style mapping:

<table>
<thead>
<tr>
<th>IGES Text font</th>
<th>Style</th>
<th>Name</th>
<th>ACAD Font</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>SYMBOL0</td>
<td>iges0</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>STANDARD</td>
<td>txt</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>LEROY</td>
<td>txt</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>FUTURA</td>
<td>txt</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>COMP80</td>
<td>txt</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>GOTHIC</td>
<td>gothic</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>GOTHICI</td>
<td>gothici</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>ROMANS</td>
<td>romans</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>ROMANT</td>
<td>romant</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>ROMAND</td>
<td>romand</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>OCR</td>
<td>txt</td>
<td></td>
</tr>
<tr>
<td>1001</td>
<td>SYMBOL1</td>
<td>iges1001</td>
<td></td>
</tr>
<tr>
<td>1002</td>
<td>SYMBOL2</td>
<td>iges1002</td>
<td></td>
</tr>
<tr>
<td>1003</td>
<td>SYMBOL3</td>
<td>iges1003</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>KANJI</td>
<td>bigfont</td>
<td></td>
</tr>
</tbody>
</table>

IGES Line Font / AutoCAD Linetype mapping

<table>
<thead>
<tr>
<th>IGES Line Font</th>
<th>AutoCAD linetype</th>
<th>Shape file</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>BYLAYER</td>
<td>acad.lin</td>
</tr>
<tr>
<td>1</td>
<td>CONTINUOUS</td>
<td>acad.lin</td>
</tr>
<tr>
<td>2</td>
<td>DASHED</td>
<td>acad.lin</td>
</tr>
<tr>
<td>3</td>
<td>PHANTOM</td>
<td>acad.lin</td>
</tr>
<tr>
<td>4</td>
<td>CENTER</td>
<td>acad.lin</td>
</tr>
<tr>
<td>5</td>
<td>DOT</td>
<td>acad.lin</td>
</tr>
</tbody>
</table>
Parse phase

*** Warning (IAFP_LARGER_SGL_SIG) ***
C:/TMP/Q8501.IGS, line 4: IGES file has greater number of significant digits in single precision numbers than this system.

==========================================================================
Start Section:

Global Section:

Parameter Delimiter: ,
Record Delimiter: ;
Sending Product ID: C2IG (Cadkey, Inc.)
File Name: bgc12230.prt
System ID: CADKEY/UX v5.02 07/02/92
Preprocessor Version: C2IG/UX SUN v5.02 08/05/92
Size of Integer: 16
Sgl. Precision Mag: 38
Sgl. Precision Sig: 7
Lül. Precision Mag: 308
Db. Precision Sig: 15
Receiving Product ID: bgc12230.prt
Model Space Scale: 1.000000
Unit Flag: 1
Unit String: IN
# of Line Weights: 1
Maximum Line Width: 1.000000
Creation Date: 08/12/93 10:49:41
Minimum Resolution: 0.000050
Maximum Coordinate: 0.000000
Author: lad/bei
IGES Version Number: 9
Drafting Standard: 0
Model Create/Modify Date: 08/10/93 16:29:25

Entity Summary:

<table>
<thead>
<tr>
<th>Type</th>
<th>Form</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>0</td>
<td>Circular Arc</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>106</td>
<td>31</td>
<td>Section Entity</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>106</td>
<td>40</td>
<td>Witness Line</td>
</tr>
</tbody>
</table>
Translation phase

*** Warning (ACAD_I2AMAKESTYLEERROR) ***
Error creating text style. Most likely could not open the shape file for a font. Text will be forced to STANDARD. The style attempted was named: SYMBOL3

*** Warning (ACAD_I2AMAKESTYLEERROR) ***
Error creating text style. Most likely could not open the shape file for a font. Text will be forced to STANDARD. The style attempted was named: SYMBOL1

*** Warning (ACAD_I2AMAKESTYLEERROR) ***
Error creating text style. Most likely could not open the shape file for a font. Text will be forced to STANDARD. The style attempted was named: SYMBOL2

IGES Entity Summary

<table>
<thead>
<tr>
<th>Type</th>
<th>Form</th>
<th>Description</th>
<th>Count</th>
<th>Processed</th>
<th>Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>0</td>
<td>Circular Arc</td>
<td>12</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>106</td>
<td>31</td>
<td>Section Entity</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>106</td>
<td>40</td>
<td>Witness Line</td>
<td>16</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>110</td>
<td>0</td>
<td>Line</td>
<td>619</td>
<td>619</td>
<td>0</td>
</tr>
<tr>
<td>206</td>
<td>0</td>
<td>Diameter Dimension</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>212</td>
<td>0</td>
<td>General Note (Simple)</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>
212  1 General Note (Dual stack)  8  8  0
212  6 General Note (Left justified)  158  158  0
214  2 Leader (Triangle)  20  20  0
216  0 Linear dim - undetermined form  8  8  0
====  =======  =====
Totals  846  846  0

AutoCAD Entity Summary

<table>
<thead>
<tr>
<th>Entity</th>
<th>Created</th>
<th>Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>LINE</td>
<td>716</td>
<td>0</td>
</tr>
<tr>
<td>CIRCLE</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>TEXT</td>
<td>166</td>
<td>0</td>
</tr>
<tr>
<td>ARC</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>INSERT</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>POLYLINE</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>DIMENSION</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>BLOCK</td>
<td>9</td>
<td>0</td>
</tr>
</tbody>
</table>

Totals  =====  =====
        922  0

Error Summary:

The following message was issued 1 time(s)
IGES file has greater number of significant digits in single precision numbers than this system.

The following message was issued 8 time(s)
Error creating text style. Most likely could not open the shape file for a font. Text will be forced to STANDARD.
The style attempted was named: %s

Status:  0
Warning:  9
Error:  0
Fatal:  0

Elapsed Time:

Processor: 00:00:18
Clock: 00:00:19
10.1.3 Output AutoCAD R12
10.1.4 Output Cadkey v5.02
10.1.5 Output IGESView
10.1.6 Output IGESWorks
10.1.7 Output iges2draw/IslandDraw
10.1.8 Output Preview
10.2 File D002Q001

10.2.1 Parser/Verifier Log

****** IGES PARSER/VERIFIER ******
****** MARCH 1993 ******
****** IGES Data Analysis ******
****** (708) 344-1815 ******
*************************************************************************

Input file is /mnt/u1210/Seq017/D002/D002Q001.IGS

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

Today is September 3, 1993 8:31 AM

*************************************************************************

****** CHECK FILE SYNTAX ******
*************************************************************************

<table>
<thead>
<tr>
<th>Section</th>
<th>Records</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start</td>
<td>1</td>
</tr>
<tr>
<td>Global</td>
<td>3</td>
</tr>
<tr>
<td>Directory</td>
<td>1566 ( 783 Entities)</td>
</tr>
<tr>
<td>Parameter</td>
<td>961</td>
</tr>
<tr>
<td>Terminate</td>
<td>1</td>
</tr>
</tbody>
</table>

NITPICK 2489: Excess precision in real constant (0.707106781186548) for Mat[0][0] of D 13.
NITPICK 2489: Messages regarding excess precision suppressed.

*************************************************************************

****** SUMMARY AND STATISTICS ******
*************************************************************************

*** File and Product Name Information ***

File name from sender  = 'bgc12240.prt'
File creation Date.Time = '930812.105332'
Model change Date.Time = '930810.163041'
Author = ' 'Department = 'lad/bei'
Product name from sender = 'C2IG (Cadkey, Inc.)'
Destination product name = 'bgc12240.prt'
*** Parameter Delimiters ***

Delimiter = ','
Terminator = ';

*** Originating System Data ***

System ID = 'CADKEY/UX v5.02 07/02/92'
Preprocessor version = 'C2IG/UX SUN v5.02 08/05/92'
Specification version = 9 (IGES 5.1)
ERROR 4048: Illegal specification version for CALS Class II specified.

*** Precision levels ***

Integer bits = 16
Floating point - Exponent = 38 Mantissa = 7
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 = 1.000000E+00
Minimum line thickness = 1.000000E+00

CAUTION 2317: Maximum line thickness equal to minimum thickness.
Granularity = 5.000000E-05
Maximum coordinate = 0.000000E+00

CAUTION 2316: Maximum intended coordinate value of 0.000000E+00 will be defaulted to zero.

Drafting standard applicable to original data is not specified.

*** Status Flag Summary ***

Blank status: Visible 667
              Blanked 116

Independence: Independent 775
               Physically Subordinate 8
               Logically Subordinate 0
               Totally Subordinate 0

Entity use:   Geometry 625
              Annotation 158
              Definition 0
              Other 0
Logical/Positional  0
2D parametric  0
Construction geometry  0
Not Specified  0

Hierarchy:
structure DE applies  783
subordinate DE applies  0
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>1</td>
<td>8</td>
<td>Circular arc</td>
</tr>
<tr>
<td>100</td>
<td>0</td>
<td>11</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>106</td>
<td>40</td>
<td>241</td>
<td>2</td>
<td>Witness line</td>
</tr>
<tr>
<td>110</td>
<td>0</td>
<td>1</td>
<td>486</td>
<td>Line</td>
</tr>
<tr>
<td>110</td>
<td>0</td>
<td>11</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>110</td>
<td>0</td>
<td>256</td>
<td>116</td>
<td></td>
</tr>
<tr>
<td>124</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>Transformation matrix</td>
</tr>
<tr>
<td>206</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>Diameter dimension</td>
</tr>
<tr>
<td>212</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>General note</td>
</tr>
<tr>
<td>212</td>
<td>1</td>
<td>241</td>
<td>1</td>
<td>General note - dual stack dimension</td>
</tr>
<tr>
<td>212</td>
<td>6</td>
<td>1</td>
<td>135</td>
<td>General note - multiple stack/left justified</td>
</tr>
<tr>
<td>212</td>
<td>6</td>
<td>19</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>212</td>
<td>6</td>
<td>241</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>214</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>Leader arrow - Triangle</td>
</tr>
<tr>
<td>214</td>
<td>2</td>
<td>241</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>216</td>
<td>0</td>
<td>241</td>
<td>1</td>
<td>Linear dimension</td>
</tr>
</tbody>
</table>

ERROR  4030: CALS Class II requires that at least one drawing be defined.

*** Entity Count by Level ***

<table>
<thead>
<tr>
<th>Level</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>1</td>
<td>633</td>
</tr>
<tr>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>241</td>
<td>10</td>
</tr>
<tr>
<td>256</td>
<td>116</td>
</tr>
</tbody>
</table>

*** Labeling Information ***

100% of the entities are labeled.
Unlabeled 0

<table>
<thead>
<tr>
<th>Label</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMATRIX</td>
<td>8</td>
</tr>
<tr>
<td>LDR LINE</td>
<td>4</td>
</tr>
<tr>
<td>WIT LINE</td>
<td>2</td>
</tr>
<tr>
<td>LINE</td>
<td>608</td>
</tr>
<tr>
<td>DIAM DIM</td>
<td>1</td>
</tr>
<tr>
<td>LIN DIM</td>
<td>1</td>
</tr>
<tr>
<td>GEN NOTE</td>
<td>150</td>
</tr>
<tr>
<td>ARC</td>
<td>9</td>
</tr>
</tbody>
</table>

*** Line Fonts Used in Data ***

100 102 104 106 108 110 112 114

- - - - - - - - Undefined
9 - - 2 - 604 - Solid
- - - - - - - - Dashed
- - - - - - - - Phantom
- - - - - - 4 - Center-line
- - - - - - - - Dotted
- - - - - - - - User defined

116 118 120 122 124 125 126 128

- - - - - - - - Undefined
- - - - - 8 - - Solid

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

*** 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>783</td>
<td>(1.0000)</td>
</tr>
</tbody>
</table>

*** Colors Used in Data ***

| Defaulted | 8 |
| Red       | 627 |
| Green     | 122 |
| White     | 26 |

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

*** Entity type: 100

*** Entity type: 106
*** Entity type: 110
-- 608 lines averaging 8.090938E+01 units --

*** Entity type: 124

8 transformation matrices, 0 non-zero translations.

*** Entity type: 206

*** Entity type: 212

ERROR 2279: Text box width (0.000000E+00) is negative or zero at D 1535.
ERROR 2279: Text box width (0.000000E+00) is negative or zero at D 1537.
156 text strings in data file.
Average text aspect ratio in file is 0.9020091.
Minimum text aspect ratio in file is 0.0000000.
Maximum text aspect ratio in file is 1.0869518.

FONTS USED IN FILE

<table>
<thead>
<tr>
<th>FONT</th>
<th>COUNT</th>
<th>NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>151</td>
<td>Default ASCII Style</td>
</tr>
<tr>
<td>1002</td>
<td>4</td>
<td>Symbol Font 2</td>
</tr>
<tr>
<td>1003</td>
<td>1</td>
<td>Drafting Font</td>
</tr>
</tbody>
</table>

*** Entity type: 214

Average arrow aspect ratio in file is 3.0000001.
Minimum arrow aspect ratio in file is 3.0000000
Maximum arrow aspect ratio in file is 3.0000002.

*** Entity type: 216

*** Message Summary ***

2012: 2 Inconsistent data for entity definition.
2018: 1 Problems with line weight/width display information.
4000: 1 Miscellaneous CALS messages
4011: 1 Problems in the Global section

*** Error Summary ***

0 fatal errors
0 severe errors
4 errors
0 warnings
2 cautions
2999 nitpicks
0 notes

*** End of Analysis of /mnt/u1210/Set017/D002/D002Q001_IGS ***

10.2.2 Parser Log - AutoCAD R12

Title: IGESIN Journal (v5.1 Nov 05 1992)
=================================================================

File: C:/TMP/Q8502.xli
Date: Thu, Sep 02, 1993
Time: 13:44:30
=================================================================

EVALUATION VERSION -- NOT FOR RESALE

Translator S/N: 117-10075750
Translating from IGES file: C:/TMP/Q8502.IGS
to AutoCAD Drawing: C:/TMP/Q8502.dwg

=================================================================

Options obtained from: default settings
Curves Approximated to Tolerance of 0.01
Surfaces Approximated to Tolerance of 0.01

Text Font/Style mapping:
IGES Text font Style Name ACAD Font
0 SYMBOL0 iges0
1 STANDARD txt
2 LEROY txt
3 FUTURA txt
6 COMP80 txt
12 GOTHICE gothice
13 GOTHICI gothicI
14 ROMANS romans
17 ROMANT romant
18 ROMAND romand
19 OCR txt
1001 SYMBOL1 iges1001
1002 SYMBOL2 iges1002
1003 SYMBOL3 iges1003
2001 KANJI bigfont

==================================================================
IGES Linefont/AutoCAD Linetype mapping

<table>
<thead>
<tr>
<th>IGES Line Font</th>
<th>AutoCAD linetype</th>
<th>Shape file</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>BYLAYER</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>CONTINUOUS</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>DASHED</td>
<td>acad.lin</td>
</tr>
<tr>
<td>3</td>
<td>PHANTOM</td>
<td>acad.lin</td>
</tr>
<tr>
<td>4</td>
<td>CENTER</td>
<td>acad.lin</td>
</tr>
<tr>
<td>5</td>
<td>DOT</td>
<td>acad.lin</td>
</tr>
</tbody>
</table>

==================================

Parse phase

*** Warning (IAFP_LARGER_SGL_SIG) ***
C:/TMP/Q8502.IGS, line 4: IGES file has greater number of significant digits in single precision numbers than this system.

*** Warning (IEVM_BAD_BOX_WIDTH_NEG_212) ***
(DE 1535, TF 212:6) Entity's substring #1 character box width is negative.

Action taken: Box width has been made positive.

*** Warning (IEVM_BAD_BOX_WIDTH_212) ***
(DE 1535, TF 212:6) Entity's substring #1 character box width equals zero.

Action taken: Box width has been changed to the default specified: 1.0000000e+000.

*** Warning (IEVM_BAD_BOX_WIDTH_NEG_212) ***
(DE 1537, TF 212:6) Entity's substring #1 character box width is negative.

Action taken: Box width has been made positive.

*** Warning (IEVM_BAD_BOX_WIDTH_212) ***
(DE 1537, TF 212:6) Entity's substring #1 character box width equals zero.

Action taken: Box width has been changed to the default specified: 1.0000000e+000.

==================================

Start Section:

Global Section:

Parameter Delimiter: ,
Record Delimiter: ;
Sending Product ID: C2IG (Cadkey, Inc.)

37
File Name:  bgc12240.prt
System ID:  CADKEY/UX  v5.02  07/02/92
Preprocessor Version:  C2IG/UX SUN v5.02  08/05/92
Size of Integer:  16
Sgl. Precision Mag:  38
Sgl. Precision Sig:  7
Db1. Precision Mag:  308
Db1. Precision Sig:  15
Receiving Product ID:  bgc12240.prt
Model Space Scale:  1.000000
Unit Flag:  1
Unit String:  IN
# of Line Weights:  1
Maximum Line Width:  1.000000
Creation Date:  08/12/93  10:53:32
Minimum Resolution:  0.000050
Maximum Coordinate:  0.000000
Author:
Organization:  lad/bei
IGES Version Number:  9
Drafting Standard:  0
Model Create/Modify Date:  08/10/93  16:30:41

Entity Summary:

<table>
<thead>
<tr>
<th>Type Count</th>
<th>Form</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>0</td>
<td>Circular Arc</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>106</td>
<td>40</td>
<td>Witness Line</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>110</td>
<td>0</td>
<td>Line</td>
</tr>
<tr>
<td>608</td>
<td></td>
<td></td>
</tr>
<tr>
<td>124</td>
<td>0</td>
<td>Transformation Matrix</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>206</td>
<td>0</td>
<td>Diameter Dimension</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>212</td>
<td>0</td>
<td>General Note (Simple)</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>212</td>
<td>1</td>
<td>General Note (Dual stack)</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>212</td>
<td>6</td>
<td>General Note (Left justified)</td>
</tr>
<tr>
<td>148</td>
<td></td>
<td></td>
</tr>
<tr>
<td>214</td>
<td>2</td>
<td>Leader (Triangle)</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>216</td>
<td>0</td>
<td>Linear dim - undetermined form</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Translation phase

*** Warning (ACAD_I2AMAKESTYLEERROR) ***
Error creating text style. Most likely could not open the shape file for a font. Text will be forced to STANDARD.
The style attempted was named: SYMBOL3

*** Warning (ACAD_I2AMAKESTYLEERROR) ***
Error creating text style. Most likely could not open the shape file for a font. Text will be forced to STANDARD.
The style attempted was named: SYMBOL2

IGES Entity Summary

<table>
<thead>
<tr>
<th>Type</th>
<th>Form</th>
<th>Description</th>
<th>Count</th>
<th>Processed</th>
<th>Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>0</td>
<td>Circular Arc</td>
<td>9</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>106</td>
<td>40</td>
<td>Witness Line</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>110</td>
<td>0</td>
<td>Line</td>
<td>608</td>
<td>608</td>
<td>0</td>
</tr>
<tr>
<td>206</td>
<td>0</td>
<td>Diameter Dimension</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>212</td>
<td>0</td>
<td>General Note (Simple)</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>212</td>
<td>1</td>
<td>General Note (Dual stack)</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>212</td>
<td>6</td>
<td>General Note (Left justified)</td>
<td>148</td>
<td>148</td>
<td>0</td>
</tr>
<tr>
<td>214</td>
<td>2</td>
<td>Leader (Triangle)</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>216</td>
<td>0</td>
<td>Linear dim - undetermined form</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Totals

775 775 0

AutoCAD Entity Summary

<table>
<thead>
<tr>
<th>Entity</th>
<th>Created</th>
<th>Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>LINE</td>
<td>609</td>
<td>0</td>
</tr>
<tr>
<td>CIRCLE</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>TEXT</td>
<td>153</td>
<td>0</td>
</tr>
<tr>
<td>ARC</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>INSERT</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>POLYLINE</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>DIMENSION</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>BLOCK</td>
<td>6</td>
<td>0</td>
</tr>
</tbody>
</table>

Totals 785 0

Error Summary:

39
The following message was issued 1 time(s)
IGES file has greater number of significant digits in single precision numbers than this system.

The following message was issued 2 time(s)
Entity's substring #d character box width equals zero.

The following message was issued 2 time(s)
Entity's substring #d character box width is negative.

The following message was issued 5 time(s)
Error creating text style. Most likely could not open the shape file for a font. Text will be forced to STANDARD.
The style attempted was named: $s

Status: 0
Warning: 10
Error: 0
Fatal: 0

Elapsed Time:

Processor: 00:00:15
Clock: 00:00:15
==============================================================================
10.2.3 Output AutoCAD R12
10.2.4 Output Cadkey v5.02
10.2.5 Output IGESView
10.2.6 Output IGESWorks
10.2.7 **Output iges2draw/IslandDraw**

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**NOTES:**
- Material Thermoplastic Polyether Type
- Identify per MIL-STD-1320
- Do not mark on part

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**PRELIMINARY**

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**CAP, CHARGE HOLDER**

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