



CALS TEST NETWORK

CTN Test Report

93-009

AFTB-ID

92-068



Technical Illustration

Transfer Using



Texas Instruments

DTIC QUALITY INSPECTED 4



MIL-D-28000A (IGES)

MIL-R-28002A (Raster)

MIL-D-28003A (CGM)



Quick Short Test Report

16 October 1992



Prepared for
Air Force Materiel Command

19960826 068

DISTRIBUTION STATEMENT A

Approved for public release;
Distribution Unlimited

DISCLAIMER NOTICE



**THIS DOCUMENT IS BEST
QUALITY AVAILABLE. THE
COPY FURNISHED TO DTIC
CONTAINED A SIGNIFICANT
NUMBER OF PAGES WHICH DO
NOT REPRODUCE LEGIBLY.**

**Technical Illustration Transfer
Using Texas Instruments
MIL-D-28000A (IGES)**

**MIL-R-28002A (Raster)
MIL-D-28003A (CGM)**

Quick Short Test Report

16 October 1992

Prepared By

Air Force CALS Test Bed
Wright-Patterson AFB, OH 45433

AFTB Contact

Gary Lammers
(513) 427-2295

CTN Contact

Mel Lammers
(513) 427-2295

DISCLAIMER

This document was prepared as an account of work sponsored by the Air Force. Neither the United States Government or the Air Force nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately own rights. Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or the Air Force. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or the Air Force, and shall not be used for advertising or product endorsement purposes.

Available to the public from the
National Technical Information Service
U.S. Department of Commerce
5285 Port Royal Rd.,
Springfield, VA 22161

This report and those involved in its preparation do not endorse any product, process, or company stated herein. Use of these means by anyone does not imply certification by the CALS Test Network (CTN).

Contents

1.	Introduction.....	1
1.1.	Background.....	1
1.2.	Purpose.....	1
2.	Test Parameters.....	2
3.	1840A Analysis.....	4
3.1.	External Packaging.....	4
3.2.	Transmission Envelope.....	4
3.2.1.	Tape Formats.....	4
3.2.2.	Declaration and Header Fields.....	4
4.	IGES Analysis.....	4
5.	SGML Analysis.....	5
6.	Raster Analysis.....	5
7.	CGM Analysis.....	6
8.	Conclusions and Recommendations.....	7
9.	Appendix A - Tape Tool Report Logs.....	8
9.1.	Tape Catalog.....	8
9.2.	Tape Evaluation Log.....	9
9.3.	Tape File Set Validation Log.....	12
10.	Appendix B - IGES Detail Analysis.....	15
10.1.	File D001Q001.....	15
10.1.1.	Paser/Verifer Log.....	15
10.1.2.	Output AutoCAD R11.....	27
10.1.3.	Output Cadkey v4.06.....	28
10.1.4.	Output IGESView.....	29

10.1.5.	Output IslandDraw.....	30
10.1.6.	Output Preview.....	31
10.2.	File D001Q002.....	32
10.2.1.	Paser/Verifer Log.....	32
10.2.2.	Output AutoCAD R11.....	44
10.2.3.	Output Cadkey v4.06.....	45
10.2.4.	Output IGESView.....	46
10.2.5.	Output IslandDraw.....	47
10.2.6.	Output Preview.....	48
11.	Appendix C - Detail Raster Analysis.....	49
11.1.	File D001R004.....	49
11.1.1.	Output IslandPaint.....	49
11.1.2.	Output Preview.....	50
12.	Appendix D - CGM Detail Analysis.....	51
12.1.	File D001C003.....	51
12.1.1.	Parser Log MetaCheck.....	51
12.1.2.	validcgm Log.....	52
12.1.3.	Output Harvard Graphics.....	54
12.1.4.	Output IslandDraw.....	55
12.1.5.	Output cgm2draw/IslandDraw.....	56

1. Introduction

1.1 Background

The DoD Computer-aided Acquisition and Logistics Support (CALS) Test Network (CTN) 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 CTN is a DoD-sponsored confederation of voluntary participants from industry and government managed by the Air Force Materiel Command.

The primary objective of the CTN 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, comprehensive tests that follow a written test plan, require specific authorization from DoD, and may take months to prepare, execute, and report.

Informal tests are used by the CTN technical staff to broaden the testing base by including representative samples of the many systems and applications used by CTN participants. They also allow the CTN staff to gain feedback from many industry and government interpretations of the standards, to increase the base of participation in the CALS initiative, and to respond, in a timely manner, to the many requests for help that come from participants. Participants take part voluntarily and are benefited by receiving an evaluation of their latest implementation (interpretation) of the standards, interacting with the CTN technical staff, gaining experience in use of the standards, and developing 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 Texas Instruments' interpretation and use of the CALS standards in transferring technical publications Illustration data. Texas Instruments used its CALS Technical Data Interchange System to produce data in accordance with the standards and delivered it to the CTN technical staff on a 9-track magnetic tape.

2. Test Parameters

Test Plan: AFTB 92-68

Date of Evaluation: 16 October 1992

Evaluators: George Elwood
Air Force CALS Test Bed
HQ AFMC/ENCT
4027 Colonel Glenn Hwy
Suite 200
Dayton, Ohio 45431-1601

Data Originator: Texas Instruments
Mike Hurn
6500 Chase Oaks Boulevard
M/S 8420
Plano, TX 75086

Data Description: Technical Manual Test
1 document declaration file
2 IGES files
1 Raster file
1 CGM file

Data Source System:

IGES	HARDWARE	Unknown
	SOFTWARE	Unknown
Raster	HARDWARE	Unknown
	SOFTWARE	Unknown
CGM	HARDWARE	Unknown
	SOFTWARE	Unknown

Evaluation Tools Used:

MIL-STD-1840A (TAPE)

SUN 3/280

CTN Tapetools (v1.2.8) UNIX
Agfa Compugraphics CAPS/CALS v40.4

MIL-D-28000 (IGES)

Sun SparcStation 2

ArborText *iges2draw*
IDA Parser/Verifier
IDA IGESView V3.0
International TechneGroup Incorporated
IGES/Works 1.0

Rosetta Technologies Preview V3.2

Cheetah Gold 486

AutoCAD 386 R11

Cadkey V4.06

IDA IGES Parser/Verifier

MIL-R-28002 (Raster)

SUN SparcStation 2

ArborText *g42tiff*
Agfa CAPS *ccitt2caps v6.0x*
CTN *validg4*
CTN *calstb.475*
Island Graphics *IslandPaint 3.0*

Cheetah

Inset Systems *HiJaak V2.02*

SPC *Harvard Graphics V3.0*

MIL-D-28003 (CGM)

SUN SparcStation 2

ArborText *cgm2draw*
Island Graphics *IslandDraw 3.0*

Sun 3/60

Advanced Technology Center *CGM-View R2.0*

Cheetah Gold 486

ATC *MetaVIEW R 1.12*

ATC *MetaCHECK R 2.05*

Harvard Graphics 3.0

Standards

Tested:

MIL-STD-1840A

MIL-D-28000A

MIL-R-28002A

MIL-D-28003A

3. 1840A Analysis

3.1 External Packaging

The tape arrived at the Air Force Test Bed enclosed in a box IAW ASTM D 3951. The exterior of the box was marked with the required magnetic tape warning label, 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 required 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 that were recorded on the tape.

3.2 Transmission Envelope

The 9-track tape received by the Air Force Test Bed 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 AFTB *Tapetool* utility version 1.2.8. 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.

4. IGES Analysis

This tape contained two IGES files. These files were declared as CALS Class II files.

The files were evaluated using IDA's *Parser/Verifier* with CALS options. Both files were reported as having many er-

rors, both basic IGES and CALS Class II errors. The complete error logs for both files are located in the appendix to this report.

The files were imported into *AutoCAD R11*. Many errors were displayed during the conversion of the files indicating nonsupport entities. The output displayed and printed showing only the text located around the drawing.

The files were converted to *Cadkey* format and run into this software application. The results were several drawings and models located around the screen.

The files were imported into ITI's *IGESWorks*. Both files generated error messages during the import process. The import generated into three drawings. One of the drawings was the basic drawing sheet.

The files were converted to *IslandDraw* format using Arbor-text *iges2draw* utility. This is not a Class II tool and does not support 3-D models. The results were the drawing outline sheets when imported into Island Graphics *IslandDraw*.

The files were imported in IDA's *IGESView*. No errors were reported during this procedure. The results were the drawing sheet outlines. No models were displayed.

The files were converted using Rosetta Technologies *Prepare*. No error were reported during this procedure. *Prepare* generated four drawings for each file, one of which was blank. The first drawing consisted of the sheet outline. The other two sheets were the models.

The IGES files did not meet current CALS Standards.

5. SGML Analysis

No SGML files were included on this tape.

6. Raster Analysis

The tape contained one raster file. The file was reported as being a valid CALS Raster file by the CTN *validg4*. The file was imported into Rosetta Technologies *Preview* with no

reported errors. The image displayed without problem. It was noted that the image was reversed. The file was also converted using ArborText *g42tiff* and then imported into Island Graphics *IslandPaint*. Again, the image was reversed.

The raster file was a valid file but was scanned backward.

7. CGM Analysis

The tape contained one CGM file. This file was evaluated using ATC's *MetaCheck* with CALS options. This utility reported the file was a valid CALS CGM file. The file was also checked using the CTN *validcgm* utility. This utility also reported the file as a valid file.

The CGM file was imported into *Harvard Graphics 3.0* without problem. The image displayed and printed without problem. The file was also converted using ArborText *cgm2draw* utility. No problems were reported. The resulting file was imported into Island Graphics *IslandDraw* without problem. The file was also directly imported into *IslandDraw* without problem. The file was also viewed using ATC's *Metaview* and *CGMView* without problem.

The CGM file meets current CALS MIL-D-28003A standards.

8. Conclusions and Recommendations

In summary, the MIL-STD-1840A tape from Texas Instruments was correct. The tape could be read properly using the CTN Tapetool and Agfa CAPS read1840A without reported problem.

The IGES files did not meet current CALS standards. The files did not have the required statement required by MIL-D-28000A. The files also contained many basic IGES and CALS errors.

The raster file meets current CALS standards. The file was scanned backward.

The CGM file meets current CALS standards. The file was reported as meeting standards by both *MetaCheck* and *valid-cgm*. The images were imported, displayed and printed without problem.

The CGM and Raster files contained on this tape meet current CALS standards; however, the IGES files contained on this tape do not meet current CALS standards.

9. Appendix A - Tape Tool Report Logs

9.1 Tape Catalog

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

Standards referenced:

- MIL-STD-1840A (1987) - Automated Interchange of Technical Information
- MIL-R-28003 (1988) - Digital Representation For Communication Of
Illustration Data; CGM Application Profile
- ANSI X3.27 (1987) - File Structure and Labelling of Magnetic Tapes
for Information Interchange
- ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Thu Oct 15 10:43:53 1992

MIL-STD-1840A File Catalog

File Set Directory: /cals/tapetool8/Set101

Page: 1

File Name	File Type	Record Format/ Length	Block Length/Total	Selected/ Extracted
D001	Document Declaration	D/00260	02048/000001	Extracted
D001Q001	IGES	F/00080	02000/000217	Extracted
D001Q002	IGES	F/00080	02000/000215	Extracted
D001C003	CGM	F/00080	00800/000074	Extracted
D001R004	Raster	F/00128	02048/000027	Extracted

Catalog Process terminated normally.

9.2 Tape Evaluation Log

CALS Test Network Tape Evaluation - Version 1.2; Release Number 8

Standards referenced:

ANSI X3.27 (1987) - File Structure and Labelling of Magnetic Tapes
for Information Interchange

ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Thu Oct 15 10:43:29 1992

ANSI Tape Import Log

Allocating tape drive /dev/rmt0...

/dev/rmt0 allocated.

VOLICALS01 TI-TAPETOOL

4

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

HDR1D001 CALS0100010001000000 92269 00000 000000TI-TAPETOOL

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: 92269
Expiration Date: 00000
File Accessibility:
Block Count: 000000
Implementation Identifier: TI-TAPETOOL

HDR2D0204800260

00

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

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

File Accessibility:
Block Count: 000000
Implementation Identifier: TI-TAPETOOL

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 = 27.

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

EOF1D001R004 CALS0100010005000000 92269 00000 000027TI-TAPETOOL

Label Identifier: EOF1
File Identifier: D001R004
File Set Identifier: CALS01
File Section Number: 0001
File Sequence Number: 0005
Generation Number: 0000
Generation Version Number: 00
Creation Date: 92269
Expiration Date: 00000
File Accessibility:
Block Count: 000027
Implementation Identifier: TI-TAPETOOL

EOF2F0204800128 00

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

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

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

End of Volume CALS01

CTN Test Report
93-009

AFTB Test Report
92-68

End Of Tape File Set

Deallocating /dev/rmt0...

Tape Import Process terminated with 0 error(s), 0 warning(s),
and 0 note(s).

9.3 Tape File Set Validation Log

CALS Test Network File Set Evaluation - Version 1.2; Release Number 8

Standards referenced:

MIL-STD-1840A (1987) - Automated Interchange of Technical Information
MIL-R-28002 (1989) - Raster Graphics Representation In Binary
Format, Requirements For

Thu Oct 15 10:43:53 1992

MIL-STD-1840A File Set Evaluation Log

File Set: Set101

Found file: D001

Extracting Document Declaration Header Records...

Evaluating Document Declaration Header Records...

srcsys: Texas Instruments P.O.Box 869305 Plano, TX 75086

srcdocid: CALS TEST NETWORK TEST DOCUMENT 1

srcrelid: NONE

chglvl: ORIGINAL

dteis: 19920925

dstsys: CALS TEST NETWORK AFLC LMSC/SJT WRIGHT-PATTERSON AFB, OHIO 44533-5001

dstdocid: TEXAS INSTRUMENTS TEST DOCUMENT 1

dstrelid: NONE

dtetrn: 19920925

dlvacc: NONE

filcnt: C1,Q2,R1

ttlcls: UNCLASSIFIED

doccls: UNCLASSIFIED

doctyp: Product Data

docttl: NONE

Found file: D001Q001

Extracting IGES Header Records...

Evaluating IGES Header Records...

srcdocid: NONE

dstdocid: NONE

txtfilid: NONE

figid: NONE

srcgph: NONE

doccls: UNCLASSIFIED

notes: NONE

Saving IGES Header File: D001Q001_HDR

Saving IGES Data File: D001Q001_IGS

Found file: D001Q002
Extracting IGES Header Records...
Evaluating IGES Header Records...

srcdocid: NONE
dstdocid: NONE
txtfilid: NONE
figid: NONE
srcgph: NONE
doccls: UNCLASSIFIED
notes: NONE

Saving IGES Header File: D001Q002_HDR
Saving IGES Data File: D001Q002_IGS

Found file: D001C003
Extracting CGM Header Records...
Evaluating CGM Header Records...

srcdocid: NONE
dstdocid: NONE
txtfilid: NONE
figid: NONE
srcgph: NONE
doccls: UNCLASSIFIED
notes: NONE

Saving CGM Header File: D001C003_HDR
Saving CGM Data File: D001C003_CGM

Found file: D001R004
Extracting Raster Header Records...
Evaluating Raster Header Records...

srcdocid: NONE
dstdocid: NONE
txtfilid: NONE
figid: NONE
srcgph: NONE
doccls: NONE
rtype: 1
rorient: 000,090
rpelcnt: 003152,004123
rdensty: 0300
notes: NONE

Saving Raster Header File: D001R004_HDR

Saving Raster Data File: D001R004_GR4

Evaluating numbering scheme...

No errors were encountered during numbering scheme evaluation.

Numbering scheme evaluation complete.

Checking file count...

No errors were encountered during file count verification.

File Count verification complete.

No errors were encountered in Document D001.

No errors were encountered in this File Set.

MIL-STD-1840A File Set Evaluation Complete.

10. Appendix B - IGES Detail Analysis

10.1 File D001Q001

10.1.1 Paser/Verifer Log

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

Input file is ti01.igs

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

Today is October 15, 1992 11:16 AM

*** File and Product Name Information ***

```
File name from sender   = 'scr.4212011'  
File creation Date.Time = '920922.135247'  
Model change Date.Time = ''  
Author                  = 'mda drafting'  
Department               = 'ti-lewisville'  
Product name from sender = 'prod.4212011'  
Destination product name = 'prod.4212011'
```

*** Parameter Delimiters ***

```
Delimiter = ','  
Terminator = ';' 
```

*** Originating System Data ***

```
System ID           = 'COMPUTERVISION CADDStation REV 6.0 GRAPHIC SYSTEM'  
Preprocessor version = 'CADDs-IGES REVISION 6.0 (23-Oct-90) '  
Specification version = 4 (IGES 3.0)
```

*** Precision levels ***

```
Integer bits = 32  
Floating point - Exponent = 38  Mantissa = 6  
Double precision - Exponent = 308  Mantissa = 14
```

*** Global Model Data ***

```
Model scale          = 1.0000E+00  
Unit flag            = 1
```

Units = 'IN'
Line weights = 32767
Maximum line thickness = 3.276700E+01
Minimum line thickness = 1.000000E-03
Granularity = 5.000000E-04
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	1303
	Blanked	2
Independence:	Independent	387
	Physically Subordinate	845
	Logically Subordinate	14
	Totally Subordinate	59
Entity use:	Geometry	276
	Annotation	843
	Definition	154
	Other	32
	Logical/Positional	0
	2D parametric	0
	Not Specified	0
Hierarchy:	Structure DE applies	0
	Subordinate DE applies	1305
	Hierarchy property applies	0
	Not Specified	0

*** Entity Occurrence Counts ***

Entity	Form	Level	Count	Type
-----	-----	-----	-----	-----
100	0	0	1	Circular arc
100	0	11	1	
100	0	225	20	
100	0	226	20	
100	0	240	44	
100	0	250	25	
100	0	253	1	
102	0	0	8	Composite curve

106	11	0	5	Copious data - Piecewise planar, linear string(2D path)
106	12	0	1	Copious data - Piecewise linear string(3D linear p
106	31	0	3	Section lines - General use, iron, brick, stone ma
106	40	0	32	Witness line
* 108	0	0	24	Plane, Unbounded
110	0	0	67	Line
110	0	5	16	
110	0	11	2	
110	0	225	49	
110	0	226	36	
110	0	240	28	
110	0	250	180	
110	0	251	40	
110	0	252	86	
110	0	253	22	
116	0	225	2	Point
124	0	0	38	Transformation matrix
126	0	225	7	Rational B-spline curve
126	0	226	7	
206	0	240	1	Diameter dimension
210	0	0	6	General label
212	0	0	29	General note
212	6	0	19	General note - multiple stack/left justified
212	6	240	1	
212	6	250	161	
212	6	253	40	
212	7	0	10	General note - multiple stack/center justified
212	7	253	2	
212	8	0	5	General note - multiple stack/right justified
212	8	253	9	
214	3	0	42	Leader arrow - Filled triangle
214	6	0	1	Leader arrow - Filled circle
216	0	0	12	Linear dimension
216	0	240	4	
222	0	0	1	Radius dimension
228	0	0	5	General symbol
230	0	250	8	Sectioned area (Standard Crosshatching)
304	2	0	2	Line font definition - repeating pattern
312	0	254	22	Text template - absolute coordinates
314	0	0	18	Color definition
320	0	0	2	Network subfigure definition
402	1	0	8	Group instance
402	3	0	9	Views visible instance
402	4	0	91	Views visible, Color, Line weight instance
402	7	0	1	Group without back-pointers instance
404	0	0	4	Drawing
406	15	0	11	Property - Name
406	16	0	2	Property - Drawing size

	406	17	0	4	Property - Drawing units
+	406	5557	0	2	Implementor entity instance
	410	0	0	6	View - Orthographic parallel
	420	0	0	2	Network subfigure instance

+ Indicates use of a Implementor defined form or entity.

* Indicates use of a form or entity not defined in the IGES version specified.

*** Entity Count by Level ***

Level	Count
0	471
5	16
11	3
225	78
226	63
240	78
250	374
251	40
252	86
253	74
254	22

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled 1305

*** Line Fonts Used in Data ***

100	102	104	106	108	110	112	114	
-	8	-	37	24	16	-	-	Undefined
112	-	-	4	-	477	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	1	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	32	-	-	User defined
116	118	120	122	124	125	126	128	
-	-	-	-	38	-	-	-	Undefined
2	-	-	-	-	-	14	-	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	1305	(0.0010)

*** Colors Used in Data ***

Defaulted	819
Green	57
Yellow	204
Magenta	145
Cyan	3
White	7
User	70

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

*** Entity type: 100

*** Entity type: 102

ERROR 2033: Endpoints of curves D 1553 and D 1551 disjoint by 2.000008E-01
 at D 1581.

ERROR 2033: Endpoints of curves D 1551 and D 1549 disjoint by 2.236077E-01
 at D 1581.

ERROR 2033: Endpoints of curves D 1561 and D 1559 disjoint by 2.000008E-01
 at D 1585.

ERROR 2033: Endpoints of curves D 1559 and D 1557 disjoint by 2.236070E-01
 at D 1585.

ERROR 2033: Endpoints of curves D 1569 and D 1567 disjoint by 2.000008E-01

at D 1589.
ERROR 2033: Endpoints of curves D 1567 and D 1565 disjoint by 2.236070E-01
at D 1589.
ERROR 2033: Endpoints of curves D 1577 and D 1575 disjoint by 2.000008E-01
at D 1593.
ERROR 2033: Endpoints of curves D 1575 and D 1573 disjoint by 2.236077E-01
at D 1593.
ERROR 2033: Endpoints of curves D 2293 and D 2291 disjoint by 2.000008E-01
at D 2321.
ERROR 2033: Endpoints of curves D 2291 and D 2289 disjoint by 2.236077E-01
at D 2321.
ERROR 2033: Messages regarding disjoint composite curves suppressed.

*** Entity type: 106

CAUTION 2331: Use of section lines (Form 31-38) is not recommended at D 1161.
CAUTION 2331: Use of section lines (Form 31-38) is not recommended at D 1163.
CAUTION 2331: Use of section lines (Form 31-38) is not recommended at D 1165.

*** Entity type: 108

WARNING 2082: Form zero is not defined in the IGES version specified at D
103.
WARNING 2082: Form zero is not defined in the IGES version specified at D
105.
WARNING 2082: Form zero is not defined in the IGES version specified at D
107.
WARNING 2082: Form zero is not defined in the IGES version specified at D
109.
WARNING 2082: Form zero is not defined in the IGES version specified at D
117.
WARNING 2082: Form zero is not defined in the IGES version specified at D
119.
WARNING 2082: Form zero is not defined in the IGES version specified at D
121.
WARNING 2082: Form zero is not defined in the IGES version specified at D
123.
WARNING 2082: Form zero is not defined in the IGES version specified at D
131.
WARNING 2082: Form zero is not defined in the IGES version specified at D
133.
WARNING 2082: Messages regarding form zero suppressed.

*** Entity type: 110

CAUTION 2336: Zero length line at D 1909.
-- 526 lines averaging 1.909132E+00 units --

*** Entity type: 116

*** Entity type: 124

38 transformation matrices, 3 non-zero translations.
NOTE 2341: 3 matrices contain translation information.

*** Entity type: 126

*** Entity type: 206

*** Entity type: 210

*** Entity type: 212

WARNING 2086: Invalid font (1003) referenced by string 1 in general note at D 957.
WARNING 2086: Invalid font (1003) referenced by string 1 in general note at D 969.
WARNING 2086: Invalid font (1003) referenced by string 1 in general note at D 981.
WARNING 2086: Invalid font (1003) referenced by string 2 in general note at D 981.
WARNING 2086: Invalid font (1003) referenced by string 1 in general note at D 993.
WARNING 2086: Invalid font (1003) referenced by string 1 in general note at D 1005.
WARNING 2086: Invalid font (1003) referenced by string 2 in general note at D 1005.
WARNING 2086: Invalid font (1003) referenced by string 3 in general note at D 1005.
WARNING 2086: Invalid font (1003) referenced by string 1 in general note at D 1011.
WARNING 2086: Invalid font (1003) referenced by string 2 in general note at D 1011.
WARNING 2086: Messages regarding invalid fonts suppressed.
ERROR 4050: Illegal text font for CALS Class II specified for string 1 at D 1167.
ERROR 4050: Illegal text font for CALS Class II specified for string 2 at D 1167.
ERROR 4050: Illegal text font for CALS Class II specified for string 1 at D 1169.
ERROR 4050: Illegal text font for CALS Class II specified for string 1 at D 1171.
ERROR 4050: Illegal text font for CALS Class II specified for string 1 at D 1173.

ERROR 4050: Illegal text font for CALS Class II specified for string 1 at D 1179.
ERROR 4050: Illegal text font for CALS Class II specified for string 2 at D 1179.
ERROR 4050: Illegal text font for CALS Class II specified for string 3 at D 1179.
ERROR 4050: Illegal text font for CALS Class II specified for string 1 at D 1181.
ERROR 4050: Illegal text font for CALS Class II specified for string 1 at D 1183.
ERROR 4050: Messages regarding illegal text fonts suppressed.
309 text strings in data file.
Average text aspect ratio in file is 0.9050666.
Minimum text aspect ratio in file is 0.5755555.
Maximum text aspect ratio in file is 1.3999999.

FONTS USED IN FILE

FONT	COUNT	NAME
1	10	Default ASCII Style
2	207	LeRoy
7	51	Micro-Film Standard
1003	49	Drafting Font

*** Entity type: 214

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

*** Entity type: 216

*** Entity type: 222

*** Entity type: 228

*** Entity type: 230

*** Entity type: 304

Default line font substitute at D 217 is Solid.
Default line font substitute at D 491 is Center-line.

*** Entity type: 312

ERROR 4038: Entity type is not allowed in CALS Class II.
22 text templates in data file.
Average text template aspect ratio in file is 7.8190404.
Minimum text template aspect ratio in file is 0.8088889.
Maximum text template aspect ratio in file is 13.4000000.

*** Entity type: 314

Color specified at D 65 has no name.
Default color substitute is white.
Color specified at D 67 has no name.
Default color substitute is magenta.
Color specified at D 69 has no name.
Default color substitute is magenta.
Color specified at D 71 has no name.
Default color substitute is magenta.
Color specified at D 73 has no name.
Default color substitute is magenta.
Color specified at D 75 has no name.
Default color substitute is magenta.
Color specified at D 77 has no name.
Default color substitute is magenta.
Color specified at D 79 has no name.
Default color substitute is yellow.
Color specified at D 81 has no name.
Default color substitute is yellow.
Color specified at D 83 has no name.
Default color substitute is cyan.
Color specified at D 85 has no name.
Default color substitute is cyan.
Color specified at D 87 has no name.
Default color substitute is white.
Color specified at D 89 has no name.
Default color substitute is white.
Color specified at D 91 has no name.
Default color substitute is white.
Color specified at D 93 has no name.
Default color substitute is white.
Color specified at D 95 has no name.
Default color substitute is white.
Color specified at D 97 has no name.
Default color substitute is white.
Color specified at D 1685 has no name.
Default color substitute is cyan.

*** Entity type: 320

ERROR 4038: Entity type is not allowed in CALS Class II.

Subfigure name: 'LIB.JSOW.FMT.IN.D2'.
Number of included entities = 108.
Reference designator: DEFAULTED.
Number of connect points = 0.
Subfigure name: 'LIB.JSOW.FMT.IN.D1'.
Number of included entities = 457.
Reference designator: DEFAULTED.
Number of connect points = 0.

*** Entity type: 402

WARNING 2324: No members in class 2 of associativity instance at D 183.
WARNING 2324: No members in class 2 of associativity instance at D 219.
WARNING 2324: No members in class 2 of associativity instance at D 239.
WARNING 2324: No members in class 2 of associativity instance at D 255.
WARNING 2324: No members in class 2 of associativity instance at D 279.
WARNING 2324: No members in class 2 of associativity instance at D 319.
WARNING 2324: No members in class 2 of associativity instance at D 335.
WARNING 2324: No members in class 2 of associativity instance at D 365.
WARNING 2324: No members in class 2 of associativity instance at D 375.
WARNING 2324: No members in class 2 of associativity instance at D 383.
WARNING 2324: Messages suppressed
ERROR 4042: Illegal form for CALS Class II specified at D 1555.
ERROR 4042: Illegal form for CALS Class II specified at D 1563.
ERROR 4042: Illegal form for CALS Class II specified at D 1571.
ERROR 4042: Illegal form for CALS Class II specified at D 1579.
ERROR 4042: Illegal form for CALS Class II specified at D 2295.
ERROR 4042: Illegal form for CALS Class II specified at D 2303.
ERROR 4042: Illegal form for CALS Class II specified at D 2311.
ERROR 4042: Illegal form for CALS Class II specified at D 2319.

*** Entity type: 404

NITPICK 2074: Entity use flag must be 3 for Drawing entity at D 1433.
Drawing at D 1433 contains 1 views.
Drawing at D 1433 contains 75 annotation entities.
NITPICK 2067: Entity (D 1289) referenced by drawing at D 1433 is not marked
as annotation.
NITPICK 2067: Entity (D 1359) referenced by drawing at D 1433 is not marked
as annotation.
NITPICK 2067: Entity (D 1367) referenced by drawing at D 1433 is not marked
as annotation.
NITPICK 2067: Entity (D 1383) referenced by drawing at D 1433 is not marked
as annotation.
NITPICK 2067: Entity (D 1391) referenced by drawing at D 1433 is not marked
as annotation.
NITPICK 2067: Entity (D 1415) referenced by drawing at D 1433 is not marked
as annotation.
NITPICK 2067: Entity (D 1399) referenced by drawing at D 1433 is not marked

as annotation.
NITPICK 2067: Entity (D 1363) referenced by drawing at D 1433 is not marked as annotation.
NITPICK 2067: Entity (D 1371) referenced by drawing at D 1433 is not marked as annotation.
NITPICK 2067: Entity (D 1387) referenced by drawing at D 1433 is not marked as annotation.
NITPICK 2067: Messages regarding entities not marked as annotation suppressed.
ERROR 4009: CALS Class II requires a pointer to a Drawing Size Property at D 1433.
NITPICK 2074: Entity use flag must be 3 for Drawing entity at D 1441.
Drawing at D 1441 contains 4 views.
Drawing at D 1441 contains 115 annotation entities.
NITPICK 2068: Entity (D 1425) is not physically subordinate to drawing entity at D 1441.
ERROR 4009: CALS Class II requires a pointer to a Drawing Size Property at D 1441.
NITPICK 2074: Entity use flag must be 3 for Drawing entity at D 1449.
CAUTION 2325: No views in drawing at D 1449.
Drawing at D 1449 contains 0 annotation entities.
NITPICK 2074: Entity use flag must be 3 for Drawing entity at D 1457.
Drawing at D 1457 contains 1 views.
Drawing at D 1457 contains 0 annotation entities.

*** Entity type: 406

ERROR 4042: Illegal form for CALS Class II specified at D 1431.
ERROR 4042: Illegal form for CALS Class II specified at D 1439.

*** Entity type: 410

NITPICK 2073: Entity use flag must be 3 for View entity at D 111.
Scale of view at D 111 is 1.000000E+00.
Orthographic View entity at D 111 has 4 clipping planes specified.
XMIN = 2.599 XMAX = 3.005
YMIN = 0.106 YMAX = 0.541
ZMIN = Not Set ZMAX = Not Set
NITPICK 2073: Entity use flag must be 3 for View entity at D 125.
Scale of view at D 125 is 5.000000E-01.
CAUTION 2315: Matrix associated with view contains translation information at D 125.
Orthographic View entity at D 125 has 4 clipping planes specified.
XMIN = -8.020 XMAX = 7.430
YMIN = -7.615 YMAX = 2.076
ZMIN = Not Set ZMAX = Not Set
NITPICK 2073: Entity use flag must be 3 for View entity at D 139.
Scale of view at D 139 is 5.000000E-01.

CAUTION 2315: Matrix associated with view contains translation information at D 139.

Orthographic View entity at D 139 has 4 clipping planes specified.

XMIN = 3.247 XMAX = 28.036
YMIN = -7.545 YMAX = 3.973
ZMIN = Not Set ZMAX = Not Set

NITPICK 2073: Entity use flag must be 3 for View entity at D 153.

Scale of view at D 153 is 5.000000E-01.

CAUTION 2315: Matrix associated with view contains translation information at D 153.

Orthographic View entity at D 153 has 4 clipping planes specified.

XMIN = -7.514 XMAX = 6.671
YMIN = -8.387 YMAX = 2.147
ZMIN = Not Set ZMAX = Not Set

NITPICK 2073: Entity use flag must be 3 for View entity at D 167.

Scale of view at D 167 is 1.000000E-01.

Orthographic View entity at D 167 has 4 clipping planes specified.

XMIN = 58.287 XMAX = 102.530
YMIN = 26.335 YMAX = 63.906
ZMIN = Not Set ZMAX = Not Set

NITPICK 2073: Entity use flag must be 3 for View entity at D 181.

Scale of view at D 181 is 1.000000E-01.

Orthographic View entity at D 181 has 4 clipping planes specified.

XMIN = -141.170 XMAX = 78.830
YMIN = -92.906 YMAX = 77.094
ZMIN = Not Set ZMAX = Not Set

*** Entity type: 420

ERROR 4038: Entity type is not allowed in CALS Class II.

Network subfigure instance at D 1287 references network subfigure at D 1683.

ERROR 2162: Network subfigure definition (D 1683) follows instance entity at D 1287.

Reference Designator at D 1287 is DEFAULTED.

Network subfigure instance at D 1289 references network subfigure at D 2609.

ERROR 2162: Network subfigure definition (D 2609) follows instance entity at D 1289.

Reference Designator at D 1289 is DEFAULTED.

*** Message Summary ***

2007: 16 Mathematical discontinuities.

2008: 24 Invalid form numbers.

2011: 1 Invalid subordinate relationships.

2013: 49 Data out of defined range.

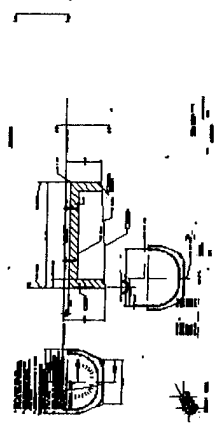
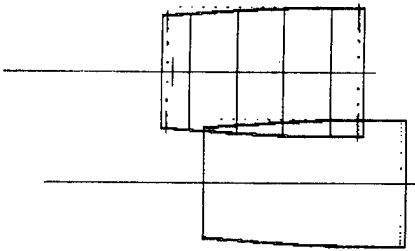
2015: 1 Mathematically incorrect definitions.
2016: 35 Invalid entity use flag.
4000: 258 Miscellaneous CALS messages
4008: 2 Missing properties
4018: 3 Illegal entity types
4019: 10 Entities with illegal form

*** Error Summary ***

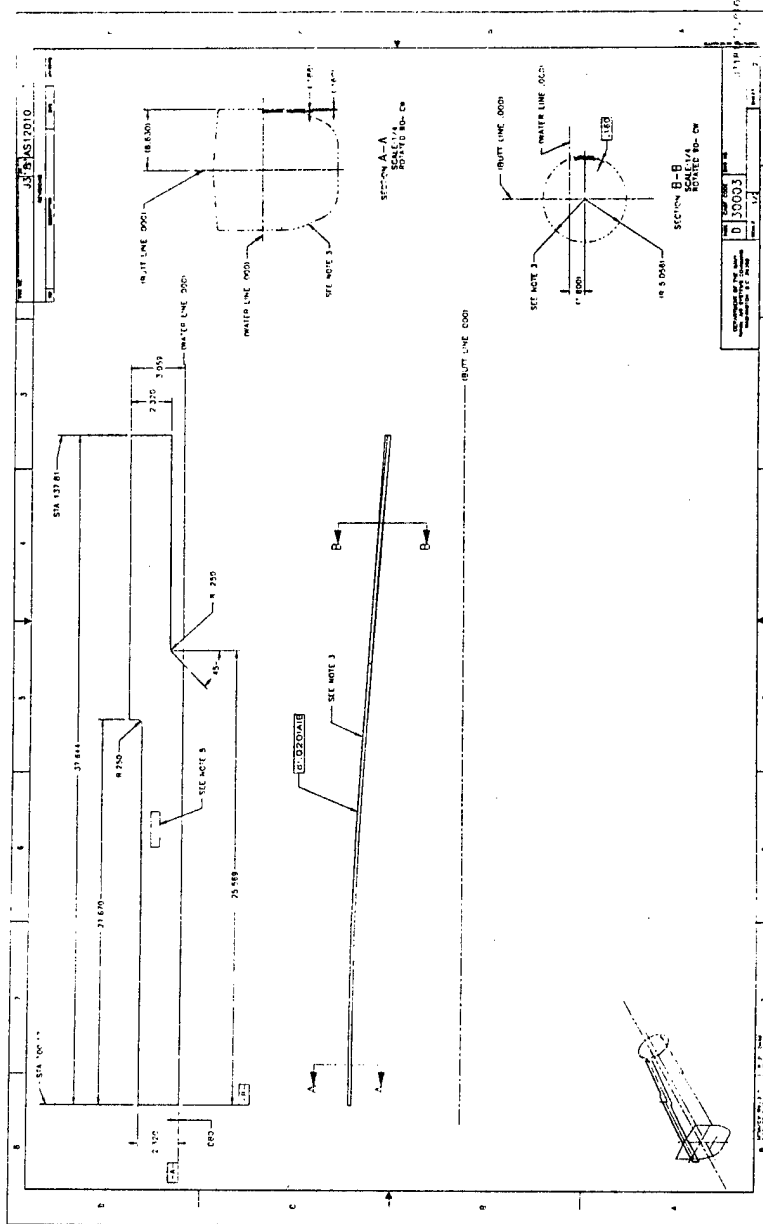
0 fatal errors
0 severe errors
291 errors
173 warnings
9 cautions
36 nitpicks
1 notes

*** End of Analysis of ti01.igs ***

10.1.3 Output Cadkey v4.06



10.1.6 Output Preview



10.2 File D001Q002

10.2.1 Paser/Verifer Log

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

Input file is ti02.igs

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

Today is October 15, 1992 11:16 AM

*** File and Product Name Information ***

```
File name from sender      = 'scr.4212010'  
File creation Date.Time   = '920922.135007'  
Model change Date.Time    = ''  
Author                    = 'mda drafting'  
Department                 = 'ti-lewisville'  
Product name from sender  = 'prod.4212010'  
Destination product name = 'prod.4212010'
```

*** Parameter Delimiters ***

```
Delimiter = ','  
Terminator = ';' 
```

*** Originating System Data ***

```
System ID          = 'COMPUTERVISION CADDStation REV 6.0 GRAPHIC SYSTEM'  
Preprocessor version = 'CADDs-IGES REVISION 6.0 (23-Oct-90) '  
Specification version = 4 (IGES 3.0)
```

*** Precision levels ***

```
Integer bits = 32  
Floating point - Exponent = 38 Mantissa = 6  
Double precision - Exponent = 308 Mantissa = 14
```

*** Global Model Data ***

```
Model scale          = 1.0000E+00  
Unit flag            = 1  
Units                = 'IN'  
Line weights        = 32767
```

Maximum line thickness = 3.276700E+01
 Minimum line thickness = 1.000000E-03
 Granularity = 5.000000E-04
 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	1154
	Blanked	3
Independence:	Independent	276
	Physically Subordinate	807
	Logically Subordinate	14
	Totally Subordinate	60
Entity use:	Geometry	149
	Annotation	820
	Definition	168
	Other	20
	Logical/Positional	0
	2D parametric	0
	Not Specified	0
Hierarchy:	Structure DE applies	0
	Subordinate DE applies	1157
	Hierarchy property applies	0
	Not Specified	0

*** Entity Occurrence Counts ***

Entity	Form	Level	Count	Type
-----	-----	-----	-----	-----
100	0	0	2	Circular arc
100	0	101	8	
100	0	139	8	
100	0	250	25	
100	0	253	1	
102	0	0	8	Composite curve
106	11	0	4	Copious data - Piecewise planar, linear string(2D path)
106	12	0	2	Copious data - Piecewise linear string(3D linear p
106	20	0	1	Centerline
106	31	0	8	Section lines - General use, iron, brick, stone ma

	106	40	0	24	Witness line
*	108	0	0	24	Plane, Unbounded
	110	0	0	58	Line
	110	0	12	16	
	110	0	13	1	
	110	0	101	10	
	110	0	139	2	
	110	0	250	180	
	110	0	251	40	
	110	0	252	86	
	110	0	253	22	
	116	0	0	1	Point
	124	0	0	15	Transformation matrix
	126	0	12	59	Rational B-spline curve
	126	0	228	8	
	202	0	0	1	Angular dimension
	210	0	0	12	General label
	212	0	0	30	General note
	212	6	0	20	General note - multiple stack/left justified
	212	6	250	161	
	212	6	253	40	
	212	7	0	13	General note - multiple stack/center justified
	212	7	253	3	
	212	8	0	5	General note - multiple stack/right justified
	212	8	253	9	
	214	3	0	39	Leader arrow - Filled triangle
	216	0	0	11	Linear dimension
	222	0	0	2	Radius dimension
	228	0	0	4	General symbol
	230	0	250	8	Sectioned area (Standard Crosshatching)
	304	2	0	2	Line font definition - repeating pattern
	312	0	254	10	Text template - absolute coordinates
	314	0	0	18	Color definition
	320	0	0	2	Network subfigure definition
	402	1	0	8	Group instance
	402	3	0	5	Views visible instance
	402	4	0	111	Views visible, Color, Line weight instance
	402	7	0	2	Group without back-pointers instance
	404	0	0	3	Drawing
	406	15	0	11	Property - Name
	406	16	0	1	Property - Drawing size
	406	17	0	3	Property - Drawing units
+	406	5557	0	2	Implementor entity instance
	410	0	0	6	View - Orthographic parallel
	420	0	0	2	Network subfigure instance

+ Indicates use of a Implementor defined form or entity.

* Indicates use of a form or entity not defined in the IGES version specified.

*** Entity Count by Level ***

Level	Count
0	460
12	75
13	1
101	18
139	10
228	8
250	374
251	40
252	86
253	75
254	10

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled 1157

*** Line Fonts Used in Data ***

100	102	104	106	108	110	112	114	
-	8	-	28	24	16	-	-	Undefined
43	-	-	11	-	391	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
1	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	8	-	-	User defined
116	118	120	122	124	125	126	128	
-	-	-	-	15	-	-	-	Undefined
1	-	-	-	-	-	67	-	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	1157	(0.0010)

*** Colors Used in Data ***

Defaulted	787
Red	18
Green	57
Yellow	136
Magenta	51
Cyan	3
White	7
User	98

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

*** Entity type: 100

*** Entity type: 102

ERROR 2033: Endpoints of curves D 1257 and D 1255 disjoint by 2.000008E-01
at D 1285.

ERROR 2033: Endpoints of curves D 1255 and D 1253 disjoint by 2.236077E-01
at D 1285.

ERROR 2033: Endpoints of curves D 1265 and D 1263 disjoint by 2.000008E-01
at D 1289.

ERROR 2033: Endpoints of curves D 1263 and D 1261 disjoint by 2.236070E-01
at D 1289.

ERROR 2033: Endpoints of curves D 1273 and D 1271 disjoint by 2.000008E-01
at D 1293.

ERROR 2033: Endpoints of curves D 1271 and D 1269 disjoint by 2.236070E-01
at D 1293.

ERROR 2033: Endpoints of curves D 1281 and D 1279 disjoint by 2.000008E-01
at D 1297.

ERROR 2033: Endpoints of curves D 1279 and D 1277 disjoint by 2.236077E-01
at D 1297.

ERROR 2033: Endpoints of curves D 1997 and D 1995 disjoint by 2.000008E-01
at D 2025.
ERROR 2033: Endpoints of curves D 1995 and D 1993 disjoint by 2.236077E-01
at D 2025.
ERROR 2033: Messages regarding disjoint composite curves suppressed.

*** Entity type: 106

CAUTION 2331: Use of section lines (Form 31-38) is not recommended at D 849.
CAUTION 2331: Use of section lines (Form 31-38) is not recommended at D 851.
CAUTION 2331: Use of section lines (Form 31-38) is not recommended at D 853.
CAUTION 2331: Use of section lines (Form 31-38) is not recommended at D 855.
CAUTION 2331: Use of section lines (Form 31-38) is not recommended at D 857.
CAUTION 2331: Use of section lines (Form 31-38) is not recommended at D 859.
CAUTION 2331: Use of section lines (Form 31-38) is not recommended at D 861.
CAUTION 2331: Use of section lines (Form 31-38) is not recommended at D 863.

*** Entity type: 108

WARNING 2082: Form zero is not defined in the IGES version specified at D
57.
WARNING 2082: Form zero is not defined in the IGES version specified at D
59.
WARNING 2082: Form zero is not defined in the IGES version specified at D
61.
WARNING 2082: Form zero is not defined in the IGES version specified at D
63.
WARNING 2082: Form zero is not defined in the IGES version specified at D
71.
WARNING 2082: Form zero is not defined in the IGES version specified at D
73.
WARNING 2082: Form zero is not defined in the IGES version specified at D
75.
WARNING 2082: Form zero is not defined in the IGES version specified at D
77.
WARNING 2082: Form zero is not defined in the IGES version specified at D
85.
WARNING 2082: Form zero is not defined in the IGES version specified at D
87.
WARNING 2082: Messages regarding form zero suppressed.

*** Entity type: 110

CAUTION 2336: Zero length line at D 1613.
-- 415 lines averaging 2.534893E+00 units --

*** Entity type: 116

*** Entity type: 124

15 transformation matrices, 4 non-zero translations.

NOTE 2341: 4 matrices contain translation information.

*** Entity type: 126

*** Entity type: 202

*** Entity type: 210

*** Entity type: 212

- WARNING 2086: Invalid font (1003) referenced by string 1 in general note at D 693.
- WARNING 2086: Invalid font (1003) referenced by string 1 in general note at D 705.
- WARNING 2086: Invalid font (1003) referenced by string 1 in general note at D 717.
- WARNING 2086: Invalid font (1003) referenced by string 2 in general note at D 717.
- WARNING 2086: Invalid font (1003) referenced by string 3 in general note at D 717.
- WARNING 2086: Invalid font (1003) referenced by string 1 in general note at D 729.
- WARNING 2086: Invalid font (1003) referenced by string 2 in general note at D 729.
- WARNING 2086: Invalid font (1003) referenced by string 1 in general note at D 741.
- WARNING 2086: Invalid font (1003) referenced by string 1 in general note at D 753.
- WARNING 2086: Invalid font (1003) referenced by string 2 in general note at D 753.
- WARNING 2086: Messages regarding invalid fonts suppressed.
- ERROR 4050: Illegal text font for CALS Class II specified for string 1 at D 865.
- ERROR 4050: Illegal text font for CALS Class II specified for string 2 at D 865.
- ERROR 4050: Illegal text font for CALS Class II specified for string 4 at D 865.
- ERROR 4050: Illegal text font for CALS Class II specified for string 1 at D 867.
- ERROR 4050: Illegal text font for CALS Class II specified for string 1 at D 873.
- ERROR 4050: Illegal text font for CALS Class II specified for string 1 at D 879.

ERROR 4050: Illegal text font for CALS Class II specified for string 1 at D 885.
ERROR 4050: Illegal text font for CALS Class II specified for string 1 at D 891.
ERROR 4050: Illegal text font for CALS Class II specified for string 2 at D 891.
ERROR 4050: Illegal text font for CALS Class II specified for string 4 at D 891.
ERROR 4050: Messages regarding illegal text fonts suppressed.
310 text strings in data file.
Average text aspect ratio in file is 0.9039628.
Minimum text aspect ratio in file is 0.5687500.
Maximum text aspect ratio in file is 1.1499769.

FONTS USED IN FILE

FONT	COUNT	NAME
1	12	Default ASCII Style
2	215	LeRoy
7	52	Micro-Film Standard
1003	32	Drafting Font

*** Entity type: 214

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

*** Entity type: 216

*** Entity type: 222

*** Entity type: 228

*** Entity type: 230

*** Entity type: 304

Default line font substitute at D 145 is Solid.
Default line font substitute at D 211 is Center-line.

*** Entity type: 312

ERROR 4038: Entity type is not allowed in CALS Class II.

10 text templates in data file.
Average text template aspect ratio in file is 7.0841250.
Minimum text template aspect ratio in file is 1.4625000.
Maximum text template aspect ratio in file is 13.4000000.

*** Entity type: 314

Color specified at D 19 has no name.
Default color substitute is white.
Color specified at D 21 has no name.
Default color substitute is magenta.
Color specified at D 23 has no name.
Default color substitute is magenta.
Color specified at D 25 has no name.
Default color substitute is magenta.
Color specified at D 27 has no name.
Default color substitute is magenta.
Color specified at D 29 has no name.
Default color substitute is magenta.
Color specified at D 31 has no name.
Default color substitute is magenta.
Color specified at D 33 has no name.
Default color substitute is yellow.
Color specified at D 35 has no name.
Default color substitute is yellow.
Color specified at D 37 has no name.
Default color substitute is cyan.
Color specified at D 39 has no name.
Default color substitute is cyan.
Color specified at D 41 has no name.
Default color substitute is white.
Color specified at D 43 has no name.
Default color substitute is white.
Color specified at D 45 has no name.
Default color substitute is white.
Color specified at D 47 has no name.
Default color substitute is white.
Color specified at D 49 has no name.
Default color substitute is white.
Color specified at D 51 has no name.
Default color substitute is white.
Color specified at D 1389 has no name.
Default color substitute is cyan.

*** Entity type: 320

ERROR 4038: Entity type is not allowed in CALS Class II.
Subfigure name: 'LIB.JSOW.FMT.IN.D2'.
Number of included entities = 108.

Reference designator: DEFAULTED.
Number of connect points = 0.
Subfigure name: 'LIB.JSOW.FMT.IN.D1'.
Number of included entities = 457.
Reference designator: DEFAULTED.
Number of connect points = 0.

*** Entity type: 402

WARNING 2324: No members in class 2 of associativity instance at D 137.
WARNING 2324: No members in class 2 of associativity instance at D 141.
WARNING 2324: No members in class 2 of associativity instance at D 147.
WARNING 2324: No members in class 2 of associativity instance at D 151.
WARNING 2324: No members in class 2 of associativity instance at D 155.
WARNING 2324: No members in class 2 of associativity instance at D 159.
WARNING 2324: No members in class 2 of associativity instance at D 163.
WARNING 2324: No members in class 2 of associativity instance at D 167.
WARNING 2324: No members in class 2 of associativity instance at D 171.
WARNING 2324: No members in class 2 of associativity instance at D 175.
WARNING 2324: Messages suppressed
ERROR 4042: Illegal form for CALS Class II specified at D 1259.
ERROR 4042: Illegal form for CALS Class II specified at D 1267.
ERROR 4042: Illegal form for CALS Class II specified at D 1275.
ERROR 4042: Illegal form for CALS Class II specified at D 1283.
ERROR 4042: Illegal form for CALS Class II specified at D 1999.
ERROR 4042: Illegal form for CALS Class II specified at D 2007.
ERROR 4042: Illegal form for CALS Class II specified at D 2015.
ERROR 4042: Illegal form for CALS Class II specified at D 2023.

*** Entity type: 404

NITPICK 2074: Entity use flag must be 3 for Drawing entity at D 1145.
CAUTION 2325: No views in drawing at D 1145.
Drawing at D 1145 contains 63 annotation entities.
NITPICK 2067: Entity (D 1017) referenced by drawing at D 1145 is not marked
as annotation.
NITPICK 2067: Entity (D 1055) referenced by drawing at D 1145 is not marked
as annotation.
NITPICK 2067: Entity (D 1031) referenced by drawing at D 1145 is not marked
as annotation.
NITPICK 2067: Entity (D 1099) referenced by drawing at D 1145 is not marked
as annotation.
NITPICK 2067: Entity (D 1089) referenced by drawing at D 1145 is not marked
as annotation.
NITPICK 2067: Entity (D 1085) referenced by drawing at D 1145 is not marked
as annotation.
NITPICK 2067: Entity (D 1041) referenced by drawing at D 1145 is not marked
as annotation.
NITPICK 2067: Entity (D 1051) referenced by drawing at D 1145 is not marked

as annotation.
ERROR 4009: CALS Class II requires a pointer to a Drawing Size Property at D 1145.
NITPICK 2074: Entity use flag must be 3 for Drawing entity at D 1153.
Drawing at D 1153 contains 5 views.
Drawing at D 1153 contains 105 annotation entities.
NITPICK 2067: Entity (D 1133) referenced by drawing at D 1153 is not marked as annotation.
NITPICK 2068: Entity (D 1133) is not physically subordinate to drawing entity at D 1153.
NITPICK 2067: Entity (D 1137) referenced by drawing at D 1153 is not marked as annotation.
NITPICK 2068: Entity (D 1137) is not physically subordinate to drawing entity at D 1153.
NITPICK 2067: Messages regarding entities not marked as annotation suppressed.
ERROR 4009: CALS Class II requires a pointer to a Drawing Size Property at D 1153.
NITPICK 2074: Entity use flag must be 3 for Drawing entity at D 1161.
Drawing at D 1161 contains 1 views.
Drawing at D 1161 contains 0 annotation entities.

*** Entity type: 406

ERROR 4042: Illegal form for CALS Class II specified at D 1143.
ERROR 4042: Illegal form for CALS Class II specified at D 1151.

*** Entity type: 410

NITPICK 2073: Entity use flag must be 3 for View entity at D 65.
Scale of view at D 65 is 2.500000E-01.
Orthographic View entity at D 65 has 4 clipping planes specified.
XMIN = -46.891 XMAX = 41.109
YMIN = -38.066 YMAX = 29.934
ZMIN = Not Set ZMAX = Not Set

NITPICK 2073: Entity use flag must be 3 for View entity at D 79.
Scale of view at D 79 is 5.000000E-01.
CAUTION 2315: Matrix associated with view contains translation information at D 79.
Orthographic View entity at D 79 has 4 clipping planes specified.
XMIN = -12.675 XMAX = 31.778
YMIN = -1.053 YMAX = 3.933
ZMIN = Not Set ZMAX = Not Set

NITPICK 2073: Entity use flag must be 3 for View entity at D 93.
Scale of view at D 93 is 2.500000E-01.
CAUTION 2315: Matrix associated with view contains translation information at D 93.
Orthographic View entity at D 93 has 4 clipping planes specified.

XMIN = -2.107 XMAX = 15.590
YMIN = -7.584 YMAX = 10.113
ZMIN = Not Set ZMAX = Not Set

NITPICK 2073: Entity use flag must be 3 for View entity at D 107.
Scale of view at D 107 is 5.000000E-01.

CAUTION 2315: Matrix associated with view contains translation information at D 107.

Orthographic View entity at D 107 has 4 clipping planes specified.

XMIN = -10.928 XMAX = 30.576
YMIN = -1.865 YMAX = 9.090
ZMIN = Not Set ZMAX = Not Set

NITPICK 2073: Entity use flag must be 3 for View entity at D 121.
Scale of view at D 121 is 2.500000E-01.

CAUTION 2315: Matrix associated with view contains translation information at D 121.

Orthographic View entity at D 121 has 4 clipping planes specified.

XMIN = -1.408 XMAX = 16.850
YMIN = -7.270 YMAX = 10.427
ZMIN = Not Set ZMAX = Not Set

NITPICK 2073: Entity use flag must be 3 for View entity at D 135.
Scale of view at D 135 is 1.000000E-01.

Orthographic View entity at D 135 has 4 clipping planes specified.

XMIN = -17.039 XMAX = 45.148
YMIN = -9.831 YMAX = 40.027
ZMIN = Not Set ZMAX = Not Set

*** Entity type: 420

ERROR 4038: Entity type is not allowed in CALS Class II.

Network subfigure instance at D 1015 references network subfigure at D 1387.

ERROR 2162: Network subfigure definition (D 1387) follows instance entity at D 1015.

Reference Designator at D 1015 is DEFAULTED.

Network subfigure instance at D 1017 references network subfigure at D 2313.

ERROR 2162: Network subfigure definition (D 2313) follows instance entity at D 1017.

Reference Designator at D 1017 is DEFAULTED.

*** Message Summary ***

2007: 16 Mathematical discontinuities.
2008: 24 Invalid form numbers.
2011: 2 Invalid subordinate relationships.
2013: 32 Data out of defined range.
2015: 1 Mathematically incorrect definitions.

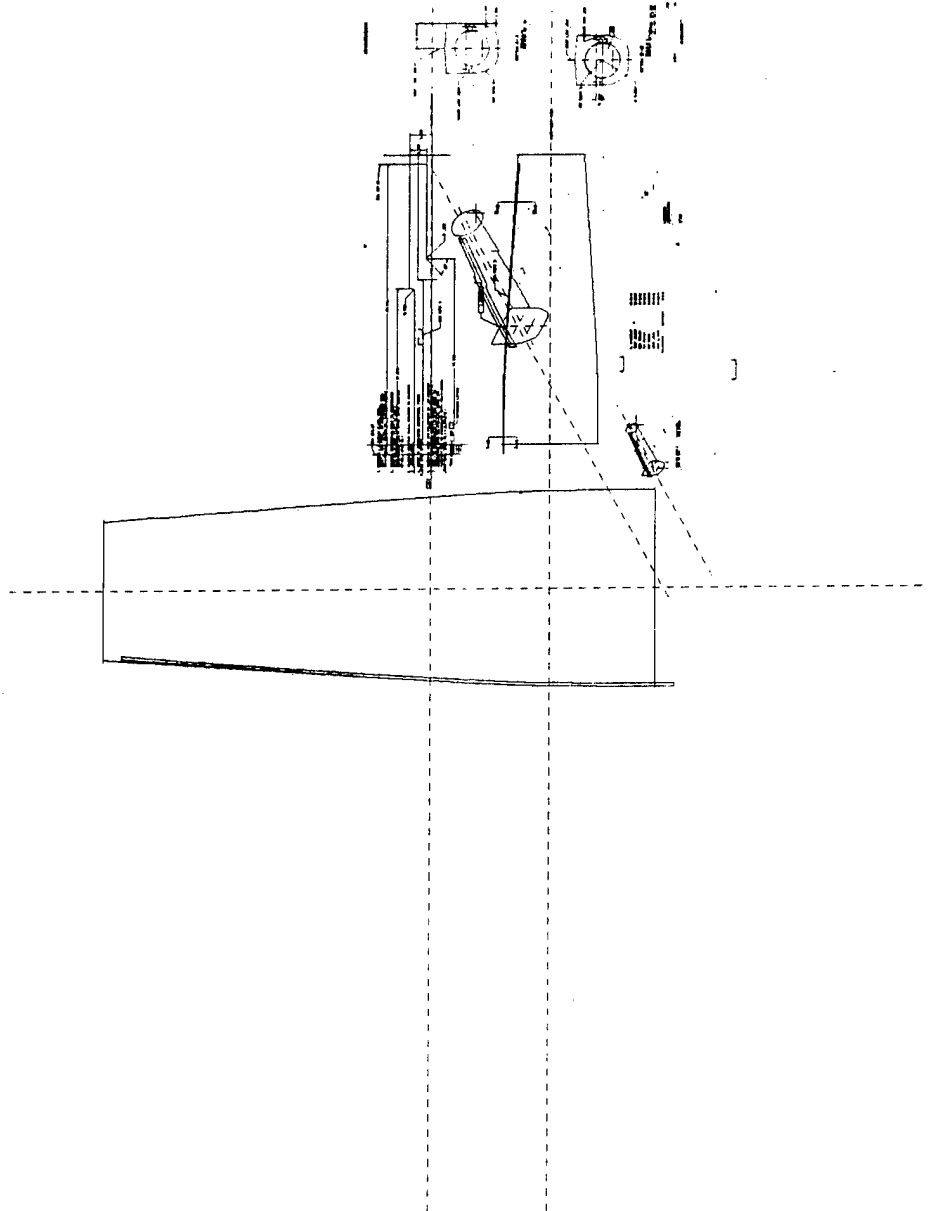
2016: 23 Invalid entity use flag.
4000: 267 Miscellaneous CALS messages
4008: 2 Missing properties
4018: 3 Illegal entity types
4019: 10 Entities with illegal form

*** Error Summary ***

0 fatal errors
0 severe errors
300 errors
172 warnings
15 cautions
25 nitpicks
1 notes

*** End of Analysis of ti02.igs ***

10.2.3 Output Cadkey v4.06



10.2.4 Output IGESView

The drawing shows a rectangular plate with dimensions 10.000 x 10.000. The title block contains the following information:

REV	DATE	BY	CHKD
1	10/10/93	AS1810	
D 30003			
PLATE BRASS 80/20 ALL US ROUNDS			
AS1810			

NOTES

- 1 MATERIAL ALUMINUM ALLOY 6061-T6
- 2 SURFACE FINISH TO BE 125 R.M.S. (1000) 2500
- 3 DIMENSIONS TO BE AS SHOWN UNLESS OTHERWISE SPECIFIED
- 4 DIMENSIONS TO BE AS SHOWN UNLESS OTHERWISE SPECIFIED
- 5 DIMENSIONS TO BE AS SHOWN UNLESS OTHERWISE SPECIFIED
- 6 DIMENSIONS TO BE AS SHOWN UNLESS OTHERWISE SPECIFIED
- 7 DIMENSIONS TO BE AS SHOWN UNLESS OTHERWISE SPECIFIED
- 8 DIMENSIONS TO BE AS SHOWN UNLESS OTHERWISE SPECIFIED
- 9 DIMENSIONS TO BE AS SHOWN UNLESS OTHERWISE SPECIFIED
- 10 DIMENSIONS TO BE AS SHOWN UNLESS OTHERWISE SPECIFIED

276 10/10/93 AS1810

10.2.5 Output IslandDraw

J3181AS12010

NOTES:

1. MATERIAL: ALUMINUM ALLOY, 6061, SHEET, 1/8" STOCK, IN ACCORDANCE WITH QQ-A-300/11, TEMPER T6, (418137/31) 900
2. FINISH: CONVERSION COAT IN ACCORDANCE WITH MIL-C-8841, CLASS 1A AND 2. DIMENSIONAL LIMITS APPLY AFTER COATING. (F-21, MTHO 81)
3. OUTSIDE CONTOURS SHALL CONFORM TO DRAWING J3181AS12009.
4. CHECK IN RESTRAINED CONDITION, FORCE AT SHOP OPTION.
5. MARKINGS: MARK THE FOLLOWING IN 12 MINIMUM HIGH CHARACTER PER METHOD RUBBER STAMP, 7/8" SIZE, IN APPROPRIATE LOCATION SHOWN IN ACCORDANCE WITH MIL-STD-130, USING INC 482583-1 ALU IN ACCORDANCE WITH MIL-S-43863: (F-802, MTHO 013 (417818-2))

J3181AS12010-1 REV REVISION LETTER

REV	DATE	DESCRIPTION	BY	CHKD
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>REV STATUS OF SHEETS</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> </tr> </table>	REV STATUS OF SHEETS	1	2	3	4	5	6	7	8	9	10	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>DATE</td> <td>270</td> </tr> </table>	DATE	270	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>PLATE, SPLICE, RIGHT, ALL-UP ROUND</td> <td>030003</td> <td>J3181AS120</td> </tr> </table>	PLATE, SPLICE, RIGHT, ALL-UP ROUND	030003	J3181AS120
REV STATUS OF SHEETS	1	2	3	4	5	6	7	8	9	10								
DATE	270																	
PLATE, SPLICE, RIGHT, ALL-UP ROUND	030003	J3181AS120																

(4212010)

11. Appendix C - Detail Raster Analysis

11.1 File D001R004

11.1.1 Output IslandPaint

12. Appendix D - CGM Detail Analysis

12.1 File D001C003

12.1.1 Parser Log MetaCheck

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 10/16/92 Time: 13:40:34

Metafile Examined : \9268\ti03.cgm

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

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

Tracing not selected.

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

Bulletin 20027: Element Class/ID: 4/7 Offset: 526 octets Element No. 39
Warning; a foreground color has been defined and referenced by a primitive,
while the background color has not been defined.

=====
CAL S 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: 10/16/92 Time: 13:40:43

Name of CGM under test: \9268\ti03.cgm
Encoding : Binary

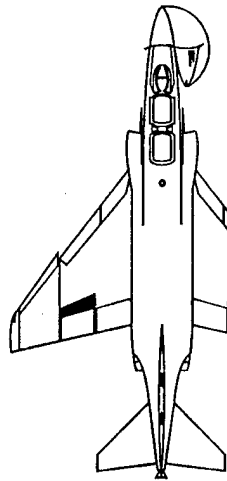
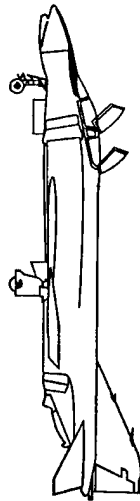
Pictures Examined : All
Elements Examined : All
Bytes Examined : All

BEGIN METAFILE string : "HiJaak 2"
METAFILE DESCRIPTION : "HiJaak 2 MIL-D-28003/BASIC-1"

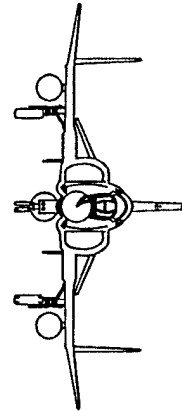
Picture 1 starts at octet offset 336; string contains: "Awesome!"

(1, 8) occurred 1 time
(1, 10) occurred 1 time
(1, 11) occurred 1 time
(2, 1) occurred 1 time
(2, 2) occurred 1 time
(2, 3) occurred 1 time
(2, 4) occurred 1 time
(2, 5) occurred 1 time
(2, 6) occurred 1 time
(2, 7) never occurred, required by standard B
(3, 1) occurred 1 time
(4, 1) occurred 315 times
(4, 4) occurred 5 times
(4, 7) occurred 54 times
(5, 3) occurred 1 time
(5, 4) occurred 414 times
(5, 8) occurred 414 times
(5, 14) occurred 414 times
(5, 15) occurred 5 times
(5, 16) occurred 6 times
(5, 22) occurred 56 times
(5, 23) occurred 273 times
(5, 28) occurred 1 time
(5, 29) occurred 414 times
(5, 30) occurred 1 time

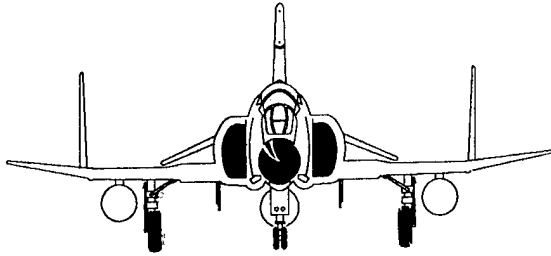
12.1.3 Output Harvard Graphics



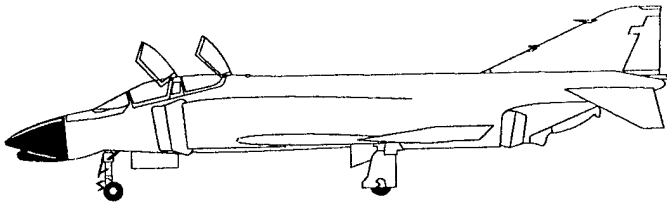
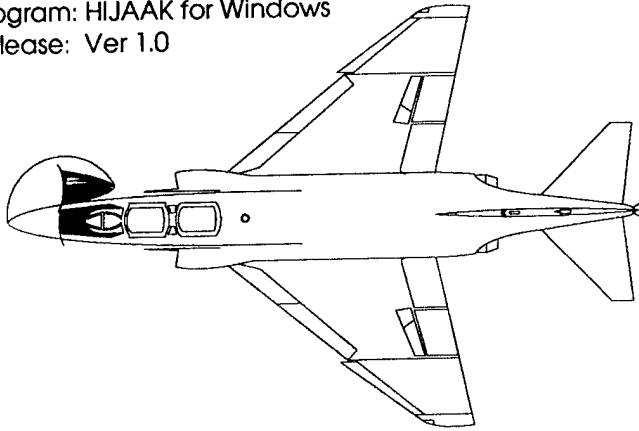
Test File: F4-TEST
Source: Microworld
Destination: F4-TEST.CAD
Program: HIJACK for Windows
Release: Ver 1.0



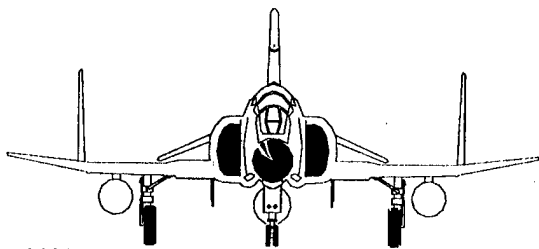
12.1.4 Output IslandDraw



Test File: F4-TEST
Source: Micrografx DRW
Destination: F4-TEST.CGM
Program: HIJAAK for Windows
Release: Ver 1.0



12.1.5 Output cgm2draw/IslandDraw



Test File: F4-TEST

Source: Micrografx DRW

Destination: F4-TEST.CGM

Program: HJAAK for Windows

Release: Ver 1.0

