UNISYS

Product Information Announcement

o New Release o Revision • Update o New Mail Code

Title

System 80 OS/3 Installation Verification Procedures (IVP) Operating Guide

This Product Information Announcement announces the release and availability of Update B to the *System 80 OS/3 Installation Verification Procedures (IVP) Operating Guide.*

Additional changes to this document for Release 13:

- Identify IVPSCS and IVPOLM as being applicable for Models 3-6 and 8-20 only
- Clarify that IVP ISCSER will run on systems without the ONUERL product but will not print out the error log
- Correct the operating instruction dialog (IN and OUT) for IVPs ISCSSU, IVPSFG, IVPOLM, and IVPSAM
- Add the IVPSPS verification procedures for validating the installation of the system platform software on the System 80 Model 7E

All other changes in this document are corrections, deletions, or expanded descriptions applicable to items present in the hardware or software prior to this release.

You can order the update only or the complete manual with all updates. To receive only the update, order UP-10003 Rev. 1-B. To receive the complete manual, order UP-10003 Rev.1.

This document can be ordered through your branch representative or from Unisys Corporation, Corporate Software and Publications Operations, 13250 Haggerty Road North, Plymouth, Michigan 48170.

Announcement only:	Announcement and attachments:	System: System 80
MB00, SAB, and SAE	MB01, MBA9, MBB1, and MBW	Release: 13 Date: June 1990 Part Number: UP-10003 Rev. 1-B

UNISYS

PUBLICATIONS UPDATE

System 80

OS/3
Installation Verification
Procedures (IVP)
Operating
Guide

UP-10003 Rev. 1-A

This Library Memo announces the release and availability of Update A to the *System 80 OS/3 Installation Verification Procedures (IVP) Operating Guide*, UP-10003 Rev. 1.

This guide is a standard library item (SLI). It is part of the standard library provided automatically with the purchase of the product.

Changes to this document for Release 13.0 include the following:

- Addition of the ICAM procedure for the model 7E
- Addition of the COBOL '85 procedure
- Addition of the C program procedure
- Addition of the TPS program procedure
- Support for multithread Information Management System (IMS)

All other changes in this document are documentation improvements applicable to items present in the software prior to this release.

The information in this guide is common to all models of System 80 unless otherwise indicated in the procedure.

You can order the update only or the complete manual with the update. To receive only the update, order UP-10003 Rev. 1-A. To receive the complete manual with the update, order UP-10003 Rev.1.

LIBRARY MEMO ONLY	LIBRARY MEMO AND ATTACHMENTS	THIS SHEET IS
Mailing Lists MB00, SAB, and SAE	Mailing Lists MB01 and MBA9 (41 pages plus Memo)	Library Memo for UP-10003 Rev. 1-A

RELEASE DATE:
January 1990

UNISYS

PUBLICATIONS REVISION

System 80

OS/3 Installation Verification Procedures (IVP) Operating Guide

UP-10003 Rev. 1

This Library Memo announces the release and availability of *System 80 OS/3 Installation Verification Procedures (IVP) Operating Guide*, UP-10003 Rev. 1.

This guide is a standard library item (SLI). It is part of the standard library provided automatically with the purchase of the product.

Changes to this document for Release 12.0 include the following:

- Addition of FORTRAN 77 and Pascal procedures
- Discontinuance of support for single-thread Information Management System (IMS)

All other changes in this document are documentation improvements applicable to items present in the software prior to this release.

Additional copies may be ordered through your Unisys representative.

Destruction Notice: This revision supersedes and replaces the *Operating System/3 (OS/3) Installation Verification Procedures (IVP) Operating Guide*, UP-10003, released on Library Memo dated February 1984. Please destroy all copies of UP-10003 and its Library Memo.

LIBRARY MEMO ONLY	LIBRARY MEMO AND ATTACHMENTS	THIS SHEET IS
Mailing Lists MBZ, MCZ, MMZ, M28U, and M29U	Mailing Lists MB00, MB01, and MBW (178 pages plus Memo)	Library Memo for UP-10003 Rev. 1 RELEASE DATE:

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Correspondence regarding this publication should be forwarded to Unisys Corporation either by using the Business Reply Mail form at the back of this manual or by addressing remarks directly to Unisys Corporation, OS/3 Systems Product Information Development, P.O. Box 500, Mail Station E5-114, Blue Bell, Pennsylvania, 19424, U.S.A.

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About This Guide

Purpose

This manual is one in a series designed to instruct and guide you in the use of the Unisys Operating System/3 (OS/3). Specifically described are the OS/3 installation verification procedures, which check the installation of the OS/3 software products.

Audience

This guide is intended for the site administrator, or the individual responsible for installing the OS/3 system.

How to Use This Guide

Use this guide to run the installation verification procedures. You should run the procedures at the conclusion of the software installation process or whenever you install a new software product. When a procedure concludes successfully, the software product is ready for use. The procedures are common to all models of System 80 unless otherwise indicated within the procedure.

Organization

This guide contains the following information:

Section 1. Introduction

This section lists overall considerations for the procedures, and describes the design of the procedures, the structure of the manual, and coding conventions.

Section 2 through Section 61. Procedure Descriptions

These sections describe individual installation verification procedures in terms of overall design, execution requirements, operating instructions, verification results, and error handling techniques. Some descriptions also contain output listings that you must compare with your output. Unless otherwise indicated, the procedures are common to all System 80 models.

Appendix. Messages

The appendix lists the messages that are produced by the installation verification procedures. Messages produced by the software products themselves are documented in their respective user guides or programmer references.

Related Product Information

To fully understand and appreciate the functions performed by the installation verification procedures, you should be familiar with the information contained in the following installation guides:

- System 80 Models 3-6 and 8-20 Installation Guide, UP-8839.
- System 80 Model 7E Installation Guide, 70023858

Note: Throughout this guide, when we refer you to another manual, use the version that applies to the software level in use at your site.

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Section 1
Introduction

The installation verification procedures (IVP) for your Unisys OS/3 software demonstrate to you that your software products are installed and operable. When each procedure concludes successfully, the product is ready for use (RFU) on your system.

The procedures described in this manual are not feature or regression tests. Instead, they are easy-to-use, straightforward checks on the availability of each software product on your system. All are designed to operate under the supervisor that you have generated, using your own SYSRES and the minimal hardware configuration for your computer.

You can verify the system control software all at one time by running the collective IVP for these products (see Section 2). The extended system software products must be verified individually; program product IVPs must also be run separately.

1.1. Design of the Procedures

Each IVP has two phases. Phase 1 first conveys the configuration of your system to the procedure. If you change your supervisor or the configuration of your system (the availability of any of the devices) in any way between the procedures or between the steps in a procedure, you may receive the message:

```
I@03 CURRENT VALUES REDEFINED. PLEASE RE-ENTER RUN COMMAND.
```

This is a normal part of the procedure and only requires that you again enter the run command that you last issued. Refer to Appendix A, A.1.2.

Phase 1 next determines that all needed product modules are available in your system. If all are present, Phase 1 prints a message to that effect. If they are not, the IVP halts and prints a message diagnosing the difficulty. You must complete Phase 1 successfully before you go on to Phase 2.

If all of the modules are available, the procedure automatically enters Phase 2, which first checks for the availability of prerequisite software products. If the prerequisite products are not all available, the IVP prints an error message indicating that it has not run because of improper configuration. If the prerequisites have been met, Phase 2 continues with an execution of the product. At the conclusion of this execution, the product is either ready for use immediately or ready for use after you verify the printer output.

Most of the procedures consist of independent job streams located in the IVP library file (IVPLIB). You execute them by a simple RV command from the system console.

IVPs are largely automatic for noninteractive products, such as the COBOL compiler. They produce either a message that tells you the product is ready for use, or a message that you have to compare with one in the product's verification instructions in this guide.

IVPs require responses from you for interactive products, such as the editor. This manual gives you simple, easy-to-follow dialogs to check interactive products.

1.2. Structure of Guide

This guide is divided into sections, each of which is devoted to a particular IVP. The IVP for the system control software (IVPSCS) comes first (Section 2), and you should perform it before any other IVP. After IVPSCS completes successfully, however, you may perform the remaining procedures in any order.

This guide groups many procedures by type: all of the language IVPs are together, all of the Universal Terminal System 400 (UTS 400) IVPs are together, etc. In addition, to make it easier to find a procedure you need, the index contains an alphabetical listing of both the products being checked and the acronyms for the procedures. Occasionally, the IVP descriptions suggest that you complete a particular procedure prior to beginning another. These are only suggestions, not requirements; however, you may want to check for the existence of one product (ICAM, for instance) before you check for the existence of another product that depends on it (for example, IMS).

Each IVP description uses the same format.

1. An overview of the IVP, describing briefly what it will accomplish

2. A description of the execution requirements, such as the approximate run time, and hardware and SYSGEN requirements. The term *minimum configuration*, which describes hardware and peripherals, indicates the minimum configuration you need to run the procedure you are currently verifying. All IVPs run in the minimum configuration required for the product's support.

   We realize that you may not have your system minimally configured for all products at all times. Therefore, we have occasionally highlighted specific hardware or peripheral requirements as a reminder to check your current configuration.

3. A step-by-step description of how to run the IVP. Unless otherwise noted, commands are issued from the system console.

   A number of the IVPs use dialogs, which we have written out for you in this guide. The dialog is a series of IN and OUT statements. You enter all the commands labeled IN from the system console, a workstation, or a terminal, as directed. The system responds with the messages labeled OUT. Any deviation from the dialog indicates an error.

   If this guide states that a message is displayed, it means the message appears on your system console, workstation, or terminal screen. If this guide states that a message is printed, it means the message appears on your printer output. (If you use a 48-character print band to print the IVP, the colons (:) in the RV statements are not printed.)

4. Anticipated status, which should be printed at the end of the IVP.

   - RFU — Product is ready for use.
   - VERIFY — You must verify the results by checking the IVP's output against the sample shown in this guide.

   If the anticipated status does not appear, the IVP prints one of the following conditions:

   - MISSING — The IVP has not found some modules (listed) during Phase 1. You must configure them to achieve RFU status.
   - ERROR — The IVP has detected a product error during Phase 2. The product generates additional information on the nature of the error.
   - NOT RUN — Phase 2 did not run because of a configuration or prerequisite error. The IVP gives you additional information on why this error has occurred (i.e., incorrect system characteristics, file not available, prerequisite product not available).

5. A description of anticipated errors that are unique to the particular IVP being run, and the ways to handle them. The errors listed in this section are errors other than those resulting in an end status of MISSING, ERROR, or NOT RUN. Normally, an end status of MISSING, ERROR, or NOT RUN requires a return to the SYSGEN procedure to correct the error.

6. A sample listing for comparison with your output. Listings are provided only when you must compare your output with a model. Nonessential output listings do not appear in this guide.

This IVP guide does not contain the actual job control streams that are used to perform each procedure because you do not need them. They are already stored for you in the IVPLIB file.

1.3. Statement Conventions

To illustrate commands and control statements, the following conventions are used:

- You must code capital letters, parentheses ( ), and punctuation marks (except braces, brackets, and ellipses) exactly as shown. An ellipsis, which is a series of three periods, indicates the omission of a number of obvious entries.
- Lowercase letters and terms represent information that you must supply. Such lowercase terms may contain hyphens for readability.
- Information within braces { } represents necessary entries, one of which you must choose.
- Information within brackets [ ] (including commas) represents optional entries that are included or omitted depending on program requirements. Braces within brackets signify that you must choose one of the entries if you include that option.
- Subparameters may appear in the text. You must code positional subparameters in the order indicated. You may code nonpositional subparameters in any order.
- You must use commas after each parameter except the last. When you omit a positional parameter (or a positional subparameter within a series of parameters), you must retain the comma to indicate the omission. When you omit a trailing positional parameter, you also omit its associated comma, even when a keyword parameter follows. You must code positional parameters or positional subparameters in the order shown.
- The IVPs select shaded parameters automatically when you omit a keyword parameter or subparameter.

Section 2
IVPSCS: System Control Software for Models 3-6 and 8-20

Perform IVPSCS before you perform any other IVPs.

Unlike other IVPs, IVPSCS is a series of individual procedures for each SCS component. You have three options for performing them.

- Option A - Run all the IVPs for SCS at one time. Estimated run time: 1 hour
- Option B - Run each IVP individually.
- Option C - Run several of the component procedures individually, then run the rest together.

Option A - Run All the IVPs for SCS at One Time

Issue the command:

```
RV IVPSCS:IVPLIB[,,keyword parameters]
```

where:

`keyword parameters`
: Are any of the optional parameters from any of the SCS procedures you may want to use. See the individual descriptions for the exact parameters. (The only component procedure currently using keyword parameters is ISCSAM; see 2.1.)

Phase 1 of IVPSCS uses the job ISCSMA to check module availability. It requires no interaction on your part. If any modules are missing, Phase 1 stops immediately with a status of MISSING MODULES, listing the modules that are missing. Correct your installation and run IVPSCS again.

If Phase 1 is successful, IVPSCS automatically schedules and runs all the IVPs documented in 2.1 through 2.11 in the order shown in this manual. You must watch your system console screen during this run and respond to any questions issued from the IVPs. (For instance, you must respond to the job dump procedure and to the system utility procedure, as noted in 2.7 and 2.10.)

After IVPSCS completes these runs, it displays the following message on the system console:

```
TO COMPLETE RFU VERIFICATION OF SCS, FOLLOW THE RUN INSTRUCTIONS FOR:

        IVPCAM
        ISCSIN
```

First perform IVPCAM as shown in Section 3. Then return to subsection 2.10 and perform the procedure for interactive services, ISCSIN.

Option B - Run Each IVP Individually

You may not want to run all your IVPs together because of limited time or other priority projects. In this case, you should refer to the individual component descriptions (2.1 through 2.10) to run the applicable procedure. The component IVPs are all independent; none demands a prior running of any part of IVPSCS. However, you should perform IVPCAM before you perform ISCSIN, if you are using the ICAM network.

Option C - Run Several Component Procedures Individually, then the Rest Together

You may have run several of the component procedures individually, and now you want to run the rest of the SCS procedures together. You can do this by issuing the command:

```
RV ISCSxx:IVPLIB,,NEXT=YES
```

where:

`ISCSxx`
: Is the name of the IVP with which you want to begin.

The procedure you designate as ISCSxx runs. Then, all the SCS procedures that come after it in this guide run. As in Option A, you must remain at your system console to respond to messages from the IVP. At the end of the automatic run, you must perform IVPCAM, then ISCSIN as instructed by the message the IVP displays.

Note: *This run includes only the procedure you designate and those that come after it in the guide. It does not return and run procedures that appear in the guide before the procedure you designate as ISCS*xx.

2.1. ISCSAM: Access Methods

This IVP demonstrates your system's ability to access files. You may choose the medium on which the files are to be created (e.g., a specific disk or data set label diskette, a tape, punch, or printer). As a default, the IVP will create the files on your SYSRES volume.

The IVP outputs 10 fixed-unblocked records of 80 characters each to the devices specified. The first field of each record contains a number from 1 to 10. The IVP automatically reads back disk, diskette, and tape files and verifies them against the original file. The IVP verifies input cards from the reader against the expected numbers 1 to 10. You must verify the output to the punch and printer manually.

2.1.1. Execution Requirements

- Run time: 5 to 10 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration only is required. You may include the following options:
  - Punch
  - Data set label diskette
  - Card reader
  - Tape
  - Alternate disk pack

2.1.2. Operating Instructions

Notes:

1. *There are two ways to run this IVP with a card reader. The first is to keypunch 10 cards as follows and place them in the reader before issuing the run command:*

Card No.	***Contents***
01	*0000000001*
02	*0000000002*
.	.
.	.
.	.
10	*0000000010*

The second option is to use the cards that are produced during the punch verification as input to the card reader. The IVP checks the punch before the reader. Once the punch produces the 10 cards, you take them from the punch and place them in the reader. If you specify the card reader option and the cards are not in the reader when the IVP needs them, the procedure waits until you put them in.

2. *In spooling environments, the 10 cards must be spooled by entering the IN command from the operator console before you run the job. Precede the 10 cards with the following card:*

   // DATA FILEID=ISCSAMREADER

   Follow the 10 cards with this card:

   // FIN

Issue the command:

```
RV ISCSAM:IVPLIB[,,RD=Y,PR=Y,PU=Y,TP=Y,DK=vsnxxx,DT=vsnxxx]
```

where:

RD=Y
: Indicates the IVP should use the card reader.

PR=Y
: Indicates the IVP should use the printer.

PU=Y
: Indicates the IVP should use the punch.

TP=Y
: Indicates the IVP should use the tape.

DK=vsnxxx
: Specifies the volume serial number of the disk the IVP should use.

DT=vsnxxx
: Specifies the volume serial number of the diskette the IVP should use.

2.1.3. Verification

The expected status is VERIFY. At this point, the disk, diskette, tape, and card reader are ready for use. You must, however, manually verify that the card punch has produced 10 cards numbered 0000000001 to 0000000010, and that the printer lists a file containing 10 records also numbered 0000000001 to 0000000010.

2.1.4. Error Handling

The message *device* NOT CONFIGURED indicates that you have specified a device in your run command that does not agree with your SYSGEN configuration. Try again with a corrected run command.

If the IVP terminates because of an unrecoverable I/O error, correct the error and rerun the IVP.

Both of these errors result in a status of NOT RUN. You also get a NOT RUN status if you use a format label diskette instead of a data set label diskette.

2.2. ISCSLB: Librarian

This IVP copies several modules from the system libraries to the system run library (YRUN), creates and prints an alphabetical directory of the modules, and then deletes the copied modules. The IVP prints the directory for your information.

2.2.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

2.2.2. Operating Instructions

Issue the command:

```
RV ISCSLB:IVPLIB
```

2.2.3. Verification

The expected status is RFU.

2.2.4. Error Handling

No unique errors are anticipated.

2.3. ISCSDP: Disk Prep

This IVP uses a subfunction of the disk prep to overwrite the control storage records on the system pack. Since the system pack is prepped upon delivery, you are not actually prepping the disk, so you avoid long run times and operator intervention.

2.3.1. Execution Requirements

- Run time: 2 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

2.3.2. Operating Instructions

Issue the command:

```
RV ISCSDP:IVPLIB
```

2.3.3. Verification

The expected status is RFU.

2.3.4. Error Handling

No unique errors are anticipated.

2.4. ISCSLE: Linkage Editor

This IVP links several modules in the IVP library and executes the resulting program. The link options covered are automatic inclusion and overlay structure.

2.4.1. Execution Requirements

- Run time: 3 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

2.4.2. Operating Instructions

Issue the command:

```
RV ISCSLE:IVPLIB
```

2.4.3. Verification

The expected status is VERIFY. Check the printed output to see that the message AUTO-INCLUDED follows ILEEOVL1 and ILEEOVL2 (just before the Definitions Dictionary) and that the last statement before the VERIFY message is ERRORS ENCOUNTERED-0000 UPSI- X'00'. In addition, the IVP displays the following messages from the root and overlay phases:

```
ILK1      ROOT PHASE LOADED

ILK2      OVERLAY PHASE IVPLNK01 IS CALLED

ILK3      OVERLAY PHASE IVPLNK01 GETS CONTROL

ILK4      OVERLAY PHASE IVPLNK01 LEAVES CONTROL

ILK2      OVERLAY PHASE IVPLNK02 IS CALLED

ILK3      OVERLAY PHASE IVPLNK02 GETS CONTROL

ILK4      OVERLAY PHASE IVPLNK02 LEAVES CONTROL

ILK5      PROGRAM ENDED
```

2.4.4. Error Handling

If there is an error in any of the root or overlay phases, you receive the message:

```
ILK0 ERROR xxx IN LOADING PHASE yyyyyyyy
```

where:

xxx
: Is the supervisor error code returned from the LOAD macro.

yyyyyyyy
: Is the phase number of the module being loaded.

Check your SYSGEN parameters and installation steps, then rerun the procedure.

2.5. ISCSCA: Catalog Manipulation Utility

This IVP catalogs an entry (IVP$$FIL$), displays the entire catalog index, and then deletes the entry.

2.5.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

2.5.2. Operating Instructions

Issue the command:

```
RV ISCSCA:IVPLIB
```

2.5.3. Verification

The expected status is VERIFY. Check the printed catalog index to ensure that the IVP has listed IVP$$FIL$.

2.5.4. Error Handling

No unique errors are anticipated.

2.6. ISCSSD: System Dump

This IVP executes a program that contains the SVC-dump instruction. The SYSDUMP transient queries you as to the kind of dump required. Respond with the JOBS option, which displays the symbionts, transients, and user jobs. The IVP warns you to expect the dump before executing it.

To limit execution time and printer output, do not run other jobs at the same time as you are running ISCSSD.

2.6.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: SYSDUMP=YES
- Peripherals: Minimum configuration

2.6.2. Operating Instructions

Step 1

Issue the command:

```
RV ISCSSD:IVPLIB
```

The system will now tell you how to respond to its next query. The message PLEASE ENTER JOBS TO THE SYSDUMP-QUESTION appears on the screen. Then, the SYSDUMP query appears.

Step 2

Respond to the SYSDUMP query with:

```
JOBS
```

You must make this response. If you don't respond, the procedure waits until you do.

2.6.3. Verification

The expected status is VERIFY. Check your printer output. The first page should contain the word SYSDUMP. The following pages should contain a formatted printout of the job ISCSSD (at least). User register zero should contain X'0000FFFF'.

In most cases, the only job dump that will appear is for the job ISCSSD, since most users will not be running other jobs concurrently with their IVPs. However, if you have other jobs in the system, the IVP also prints dumps for them.

2.6.4. Error Handling

No unique errors are anticipated.

2.7. ISCSJD: Job Dump

This IVP executes a program that contains a job-dump option and prints a dump of the job ISCSJD.

2.7.1. Execution Requirements

- Run time: 3 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

2.7.2. Operating Instructions

Issue the command:

```
RV ISCSJD:IVPLIB
```

2.7.3. Verification

The expected status is VERIFY. Check your printer output. The first page should contain the word JOBDUMP. The following pages should contain a formatted printout of the job ISCSJD. User register zero should contain X'0000FFFF'.

2.7.4. Error Handling

No unique errors are anticipated.

2.8. ISCSER: Error Logging

This IVP executes a program that attempts to issue invalid commands to the system disk. (Invalid commands are not issued on some systems.) The IVP then executes the ONUERL program to print the error log data.

Note: *This IVP uses the ONUERL product, a part of the online diagnostic and maintenance package, to print the ERRORLOG. The IVP runs if you don't have ONUERL, but the error log data will not be printed.*

2.8.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

2.8.2. Operating Instructions

Step 1

Issue the command:

```
RV ISCSER:IVPLIB
```

Step 2

Follow this dialog, entering all commands labeled IN:

```
(OUT)
 ONUERL - MODIFY PROGRAM OPTIONS (Y,N,?)

(IN)
Y

(OUT)
 ONUERL - ENTER OPTIONS (1,2,3,4,?)

(IN)
 2

(OUT)
 ONUERL - 2: TRACE = (Y,T,N,R,D,?

(IN)
 N
```

Note: The following messages occur only during the initial execution of ONUERL when running ISCSER. When you respond to these messages, execution continues.

```
(OUT)
 ONUERL - $Y$ESUM NOT INITIALIZED
 ONUERL - ENTER CUSTOMER ID (----------------)
```

```
(IN)
 PRESS TRANSMIT KEY.

(OUT)
 ONUERL - CUSTOMER ID IS: ------- -- CONFIRM (Y,N)

(IN)
 Y
```

2.8.3. Verification

The expected status is VERIFY. If invalid commands were issued, the following message appears in the job log:

```
EXPECTED ERROR HAS BEEN GENERATED...
```

If invalid commands were not issued, the following message appears in the job log:

```
NO ERRORS GENERATED IN THIS ENVIRONMENT
```

Systems configured with the ONUERL maintenance product generate printed output (error log file) from the ONUERL job execution.

2.8.4. Error Handling

No unique errors are anticipated.

You get a unit check error status code as a normal part of this IVP. It results from an I/O error that the IVP purposely creates. However, if any other error status occurs, the IVP displays the following message:

```
UNEXPECTED ERROR HAS HAPPENED
```

This may result from a recoverable I/O error. Rerun the IVP. If the problem persists, perform a hardware diagnosis.

2.9. ISCSEC: Security

This IVP copies several screens from the system YFMT file to a temporary scratch file, prints the names of the modules copied, and then scratches the work file.

2.9.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration

- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

2.9.2. Operating Instructions

Issue the command:

```
RV ISCSEC:IVPLIB
```

2.9.3. Verification

The expected status is RFU.

2.9.4. Error Handling

No unique errors are anticipated.

2.10. ISCSSU: System Utility

Through a brief dialog that you enter at the system console, you tell the system utility to print a complete volume table of contents (VTOC) of your SYSRES pack.

2.10.1. Execution Requirements

- Run time: 3 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

2.10.2. Operating Instructions

Follow this dialog, entering all commands labeled IN:

```
(IN)
 RV ISCSSU:IVPLIB
```

The following may appear as part of the dialog, depending on your configuration:

```
(OUT)
 NO PRINTER AVAILABLE
```

(OUT)
```
?ENTER DVC/VSN
```

(IN)
```
vsnxxx,ALL
```

where:

vsnxxx
: Is the volume number of your SYSRES pack.

(OUT)
```
?ENTER REQUIRED FUNCTION
```

(IN)
```
EOJ
```

You must respond as shown. If you don't respond, the system waits until you do.

2.10.3. Verification

The expected status is VERIFY. The system responses should be as in the dialog in 2.10.2. Examine the printer output to ensure that the VTOC includes a header and a description of all system files.

2.10.4. Error Handling

No unique errors are anticipated.

2.11. ISCSIN: Interactive Command Interface

During this IVP, you issue a series of chained commands from your workstation or terminal. First, you verify the system commands STATUS VOLUMES, VTOC, and FSTATUS; then you enter and run a job stream.

ICAM is required to run ISCSIN from a terminal acting as a workstation. (ICAM is not required if you're using a workstation or the system console.) Therefore, be sure to run the IVP for ICAM (see Section 3) to ensure that ICAM is properly configured before you run ISCSIN from a terminal.

2.11.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration

- SYSGEN options: RESMOD=SM$ATCH,SM$TASK (not required, but highly recommended to improve performance)

  Workstation or COMM≥1,1

  If you are using a terminal, ICAM must be generated with DMI and multitasking. For further information on this generation, consult the LOCAP macro in the *ICAM Operations Guide,* (UP-9745).

- Peripherals: Workstation or terminal connected to the system with communications hardware

2.11.2. Operating Instructions

Step 1

If you aren't using a terminal, go to Step 2. If you are using a terminal

a. Enter C*n* or M*n* to load the appropriate ICAM symbiont

   where:

   C*n* or M*n*
   Is the name specified on the MCPNAME parameter in the COMMCT phase of SYSGEN, and *n* is a numeric digit 1 to 9 that identifies the network to be loaded.

   The message ICAM READY should appear.

b. Run the GUST program (ML$$G1).

c. Sign on the terminal.

d. Issue the IS command at the system console to load the interactive services symbiont.

Step 2

LOGON your workstation or terminal. Follow this dialog, entering all of the commands labeled IN:

(OUT)
```
IS22 OS/3 INTERACTIVE SERVICES
IS19 LOGON ACCEPTED AT time ON date,REV number...
```

(IN)
```
STATUS TERMINALS
```

(OUT)
```
TRM         USERID
terminal-id user-id      (All users logged on at this time are shown.)
... COMMAND TERMINATED NORMALLY
```

(IN)
```
STATUS VOLUMES
```

(OUT)
```
D-REL070 T-TAPE  (This is an example. Information about your own volumes appears.)
... COMMAND TERMINATED NORMALLY
```

(IN)
```
VTOC RES
```

(OUT)
```
FILENAME TYPE EXT CYL %DIR %DATA %THIRD AVAIL.
```
(The chart under these headings contains information about the files on your SYSRES pack.)

```
TOTAL FREE: CYLINDERS xxx, TRACKS xxx
```

(IN)
```
ALLOCATE ST,'I$ISCSIN',RES,SIZE=1
```

(OUT)
```
... COMMAND TERMINATED NORMALLY
```

(IN)
```
COPY I@IVPGBL,IVPLIB,RES,P TO PROC1,I$ISCSIN,RES,P
```

(OUT)
```
... COMMAND TERMINATED NORMALLY
```

(IN)
```
FSTATUS 'I$ISCSIN',RES LONG
```

(OUT)
```
P-PROC1 date-and-time-PROC1-was-created
FSTATUS FINISHED 0001 ELEMENTS WERE DISPLAYED
```

(IN)
```
ERASE 'I$ISCSIN',RES
```

(OUT)
```
ERASING ENTIRE FILE. PROCEED? (Y/N)
```

(IN)
```
Y
```

```
(OUT)
... COMMAND TERMINATED NORMALLY

(IN)
MENU

(OUT)
The standard SYSTEM MENU      OS301

(IN)
Choose PERFORM A SYSTEM FUNCTION.

(OUT)
The standard SYSTEM FUNCTION MENU      OS314

(IN)
Choose JCL DIALOG.
```

When the standard SYSTEM FUNCTION MENU OS314 screen returns, the following procedures must be performed before the dialog processor becomes activated. The exact order for performing these procedures can be affected by other system activity.

A. Choose RETURN TO SYSTEM MENU.

B. You must answer several queries from the run processor, such as

```
jji?DO YOU WANT TO SAVE THE RUN LIBRARY? (Y/N)
jji?ARE YOU CREATING A NEW AUDIT FILE?   (Y/N)
jji?ARE YOU AUDITING AN OLD AUDIT FILE?  (Y/N)
```

C. You must choose END MENU to end the menu session.

You may have to answer the queries before you can perform procedures A and C. The order is determined by other system activity.

When you end the system menu, JC$BLD begins.

Then, the dialog processor will allow you to enter the following:

```
// JOB ISCSIN
// ALTJCS IVPLIB,RES
// IVPSTA ISCSIN,INT-SERV,V
/&
```

Choose the job control stream module type. Enter JOBNAME=ISCSIN; accept defaults for all options.

The general type option may be used to enter remaining statements.

After JC$BLD runs, you receive a printout. Check it to see that VERIFY appears on the last page.

(IN)

```
LOGOFF
```

(OUT)

```
IS73 LOGOFF ACCEPTED AT time ON date
```

2.11.3. Verification

The expected status is VERIFY. If the responses to all commands appear as in 2.11.2, the product is ready for use.

2.11.4. Error Handling

The only anticipated error messages are those that result from incorrect typing of the commands. Enter the corrected commands.

Section 2A
IVPSPS: System Platform Software for Model 7E

Perform IVPSPS before you run any other IVPs.

IVPSPS is a collection of individual procedures that validate the installation of the SPS components. You can run this IVP from system console display window 2 or display window 3.

2A.1. Execution Requirements

- Run time: 20 minutes
- Hardware: System 80 model 7E
- Software: OS/3 system software (Release 13)

2A.2. Operating Instructions

Enter from system console display window 2 or 3:

```
RV IVPSPS:IVPLIB
```

Transmit.

IVPSPS executes the following component IVPs:

ISCSMA	ISCSCA	IVPSR3
ISCSAM	ISCSJD	IVPSPL
ISCSLB	ISCSEC	IVPIC7
ISCSDP	IVPDUT	
ISCSLE	IVPSRM	

Although the following IVPs verify components of the system platform software, they are not invoked by IVPSPS; they require interactive response from the operator. It is recommended that you run them after running IVPSPS.

ISCSSD	IVPSAM
ISCSSU	IVPSFG
IVPDIA	

2A.3. Verification

The expected status is VERIFY. If the responses to all commands appear as in 2.11.2, the product is ready for use.

2A.4. Error Handling

The only anticipated error messages are those that result from incorrect typing of the commands. Enter the corrected commands.

Section 3
IVPCAM: Integrated Communications Access Method (ICAM) for Models 3-6 and 8-20

This IVP verifies the presence of ICAM in model 3-6 and 8-20 systems. You use the STDMCP interface of ICAM. The steps include

- Generating a communications control access (CCA) network
- Loading the network to an ICAM READY state
- Exercising the communications user program, which sends, receives, and verifies messages from a process file

This IVP does not exercise lines or terminals, or attempt to verify communications hardware.

3.1. Execution Requirements

- Run time: 1 hour
- Hardware: Minimum configuration
- SYSGEN options: ICAM with the STDMCP interface
- Peripherals: Minimum configuration. A terminal is not required; however, usually at least one is configured.

3.2. Operating Instructions

Step 1

At the system console, enter the command:

```
RV IVPCM1:IVPLIB
```

IVPCM1 schedules SG$PARAM, which generates the ICAM and the network listing shown in Figure 3-1.

```
1          10      6                                                    72
-----------------------------------------------------------------------
COMMCT
M1N1      CCA    TYPE=(STDMCP),PASSWORD=NETWORK1,                       X
                 FEATURES=(OPCOM,SEGMENTS)
          BUFFERS 50,128,10,ARP=20,STAT=YES
LNE1      LINE   DEVICE=(LWS),                                         X
                 INPUT=PRF1,                                           X
                 LBL=32
TRM1      TERM   FEATURES=(LWS),                                       X
                 LOW=MAIN
PRF1      PRCS   LOW=MAIN,MEDIUM=MAIN,HIGH=MAIN
          ENDCCA
          MCP    MCPNAME=M1
                 MCPVOL=&I@RES
END
```

Notes:

1. IVPCAM automatically supplies the volume number of your SYSRES.
2. If you have previously generated an ICAM with the name M1, you receive a warning message. You must protect your M1 ICAM because IVPCM2 will overwrite it.

Figure 3-1. STDMCP Network Listing

You receive a printout listing: the required job streams in the order in which you must run them; your parameter specifications; defaults; error diagnostics; and instructions.

Step 2

When the message SG$PARAM TERMINATED NORMALLY appears on the system console, enter:

```
RV SG$COMMK
```

You receive another output listing at the termination of this job.

Step 3

Follow this dialog, entering all commands labeled IN at the system console:

(IN)

```
M1
```

(OUT)

```
ICAM READY
```

```
(IN)
 RV IVPCM2:IVPLIB

(OUT)
 JC08 USING DEV=FFF TYPE=PRNTR
 JC01 JOB IVPCAM EXECUTING JOB STEP IVSP0000 #001 time

(OUT)
 BEGIN COMMUNICATIONS TESTING

(OUT)
 NETWORK REQUEST SUCCESSFUL
```

If message here is NETWORK REQUEST FAILED, refer to 3.4, "Error Handling," for instructions.

```
(OUT)
 BEGIN MESSAGE PROCESSING
```

Twenty-five segmented messages are sent and received. Their format is

```
***Test Number nnnn
Verifying the presence of the communications system.
End of message
```

The following message may appear on the system console:

```
xxxx Messages were sent
yyyy msgs received-Continue(C),
Terminate (T),Dump(D)
```

where:

xxxx is the number of messages sent
yyyy is the number of messages received

This indicates that no message was available. If *xxxx=yyyy*=0025, respond with T. Otherwise, respond with C, and if the message reappears and *xxxx≠yyyy≠*0025, respond with T and check your SYSGEN parameters and installation steps.

```
(OUT)
 MESSAGE PROCESSING COMPLETE

(OUT)
 NETWORK RELEASE SUCCESSFUL
```

If message here is NETWORK RELEASE FAILED, refer to 3.4, "Error Handling," for instructions.

```
(OUT)
 COMMUNICATIONS TESTING COMPLETE

(OUT)
 JC02 JOB IVPCM2 TERMINATED NORMALLY time

(OUT)
 MC#96 ICAM END OF SYMBIONT
```

3.3. Verification

The expected status is VERIFY. The messages on your system console should match the job dialog in 3.2.

Normally, the output from IVPCM1 concludes with the statement NO ERRORS. The output from SG$COMMK should include the following:

- Job control stream
- Assembly of the CCA, followed by the statement NO STATEMENTS FLAGGED IN THIS ASSEMBLY
- Assembly of the MCP, followed by the statement NO STATEMENTS FLAGGED IN THIS ASSEMBLY
- Link stream, followed by the message ERRORS ENCOUNTERED 0000 UPSI-X'00'

3.4. Error Handling

Informational Error Messages

`NETWORK RELEASE FAILED`
An error condition was detected during execution of a network release. A descriptive error message follows.

`NETWORK REQUEST FAILED`
The communications user program was unable to perform a network request. A descriptive error message follows.

Descriptive Error Messages

You should perform IVPCM2 exactly as shown. If you do, no unique errors are anticipated. If you attempt this IVP with another ICAM network, you may get the following errors:

CCA SATURATION - ARP UNAVAILABLE

Check the BUFFERS macroinstruction in the network. The numeric value specified for the ARP parameter is not large enough. Correct and regenerate the network according to Figure 3-1.

DISK ERROR OPENING A FILE

The ICAM network in the system does not have the STDMCP interface. In the CCA macro, the TYPE parameter must be specified as STDMCP. Correct and regenerate the network according to Figure 3-1.

ERROR DURING GETCP, DUMP ANSWER (Y/N)

An error occurred when the IVP tried to get messages from the process file. Respond with Y to get a dump or N to indicate you don't want one.

ERROR DURING PUTCP, DUMP ANSWER (Y/N)

An error occurred when the IVP tried to put messages to the process file. Respond with Y to get a dump or N to indicate you don't want one.

INVALID DESTINATION

The destination name specified in the communication user program's PUTCP macroinstruction is not a valid name in the generated network. The network must have PRF1 specified as a process file name in the PRCS macroinstruction. Correct and regenerate the network according to Figure 3-1.

INVALID PROCESS FILE

The process file in the communications user program's GETCP macroinstruction is not a valid name in the generated network. The network must have PRF1 specified as the process file name in the PRCS macroinstruction. Correct and regenerate the network according to Figure 3-1.

MESSAGE SENT NOT EQUAL TO MESSAGE RECEIVED

An error occurred during the verification process. A message asking you if you need a dump is displayed. This is an ICAM problem, and you should take a dump.

PASSWORD MISMATCH

The password specified in the network generation does not match the password in the NETREQ macroinstruction. For this communications user program, the network must use the password NETWORK1. Correct and regenerate the network according to Figure 3-1.

SD01 ENTER SYSDUMP PARAMETER (ALL,NONE,DUMP,TRANSLATED,JOBS)

The network name in the network specification does not match the network name in the program NETREQ macro. The network name must be M1N1 in the network specification. Regenerate the network with M1N1 as the network name.

Section 3A
IVPIC7: Integrated Communications Access Method (ICAM) for Model 7E

This IVP verifies the availability of modules for ICAM on your model 7E system.

3A.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

3A.2. Operating Instructions

Issue the command:

```
RV IVPIC7:IVPLIB
```

3A.3. Verification

The expected status is RFU.

3A.4. Error Handling

No unique errors are anticipated.

Section 4
IVPFPA: File Placement Analyzer

This IVP demonstrates the availability of the file placement analyzer (FIPLAN). It checks for the FIPLAN load module, the system activity monitor (SAM) load module, and if SAM is generated in the supervisor.

4.1. Execution Requirements

- Run time: 2 minutes
- Hardware: Minimum configuration
- SYSGEN options: SAM=YES
  CONSOLOG=MIN, NORM, or MAX
- Peripherals: Minimum configuration

4.2. Operating Instructions

Issue the command:

```
RV IVPFPA:IVPLIB
```

4.3. Verification

The expected status from IVPFPA is VERIFY. Check the output listing from FIPLAN for the following messages:

```
FPA00     OS/3 FILE PLACEMENT ANALYZER x.y STARTED
```

where:

x.y
: Is the current FIPLAN release level identification.

```
FPA03     SAM INPUT FILE OPEN ERR: - 1

FPA99     FILE PLACEMENT ANALYSIS COMPLETED
```

4.4. Error Handling

The status MISSING occurs if the FIPLAN load module is not in YLOD of SYSRES.

The status NOT RUN occurs if the SAM load module is not in YLOD of SYSRES.

FIPLAN is not executed if either of the preceding status messages is received.

Error Messages

`WARNING SAM NOT GENERATED`

You probably need to regenerate your supervisor using the option SAM=YES; see the SUPGEN section of the *Installation Guide* (UP-8839). Note that this is only a warning and that FIPLAN will be executed.

Section 5
IVPDUT: Data Utilities

During this IVP, the data utility copies a fixed data file to various peripherals. At a minimum, the data utility copies the fixed data file to another file on the SYSRES, and then compares the two files. In addition, you may specify the copying of the file to other peripherals (disk, data set label diskette, tape, punch, or printer). You may also check the functioning of your card reader with the data utility.

5.1. Execution Requirements

- Run time: 5 to 10 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration only is required. You may include the following options:
  - Card reader
  - Punch
  - Alternate disk
  - Data set label diskette
  - Tape

5.2. Operating Instructions

Notes:

1. *You have two options for running this IVP with the card reader. The first is to keypunch 10 cards as follows and place them in the card reader before issuing the run command:*

Card No.	***Contents***
01	*0000000001*
02	*0000000002*
.	.
.	.
.	.
10	*0000000010*

   The second option is to use the cards that are produced during punch verification as input to the card reader. The IVP checks the punch before the reader. Once the punch produces the 10 cards, take them and place them in the reader. If you specify the card reader option and the cards are not in the reader when the IVP needs them, it waits until you put them in.

2. *In spooling environments, the 10 cards must be spooled by entering the IN command from the operator console before you run the job. Precede the 10 cards with this card:*

   // DATA FILEID=IVPDUTINPUT1

   Follow the 10 cards with this card:

   // FIN

Issue the command:

```
RV IVPDUT:IVPLIB[,,RD=Y,PR=Y,PU=Y,TP=Y,DK=vsnxxx,DT=vsnxxx]
```

where:

`RD=Y`
: Indicates the IVP should use the card reader.

`PR=Y`
: Indicates the IVP should use the printer.

`PU=Y`
: Indicates the IVP should use the punch.

TP=Y
Indicates the IVP should use the tape.

DK=vsnxxx
Specifies the volume serial number of the disk the IVP should use.

DT=vsnxxx
Specifies the volume serial number of the diskette the IVP should use.

5.3. Verification

The expected status is VERIFY. If no errors are detected, a DU99 message is printed after the execution of data utilities on each device. At this point, the card reader, tape, disks, and diskette are ready for use. Manually verify that the card punch produces 10 cards with first fields from 0000000001 to 0000000010, and that the printer produces 10 records with first fields from 0000000001 to 0000000010.

5.4. Error Handling

The message device NOT CONFIGURED indicates that you have specified a device in your run command that does not agree with your SYSGEN configuration. Try again with a corrected run command.

If the IVP terminates because of an unrecoverable I/O error, correct the error and rerun the IVP.

Both of these errors result in a status of NOT RUN. You also get a NOT RUN status if you use a format label diskette instead of a data set label diskette.

Section 6
IVPSRM: Sort/Merge

This IVP sorts an input disk file of 30 records in ascending order, deletes 10 records, and creates an output disk file of 20 records. Finally, it deletes this file from the disk pack.

6.1. Execution Requirements

- Run time: 10 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

6.2. Operating Instructions

Issue the command:

```
RV IVPSRM:IVPLIB
```

6.3. Verification

The expected status is VERIFY. The product is ready for use if the IVP displays the following messages on the system console:

```
END OF SORT

RECORDS IN 30

RECORDS DELETED 10
```

6.4. Error Handling

No unique errors are anticipated.

Section 7
IVPSR3: SORT3

This IVP processes an input disk file of 30 records in ascending order, deletes 10 duplicate records, sorts the remaining records, and creates an output disk file of 20 records. Finally, it deletes this file from the disk pack.

7.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

7.2. Operating Instructions

Issue the command:

```
RV IVPSR3:IVPLIB
```

7.3. Verification

The expected status is VERIFY. SORT3 is ready for use if the IVP displays the following messages on the system console:

```
END OF SORT

RECORDS IN 20

RECORDS DELETED 00
```

Note: *IVPSR3 counts the records immediately prior to the sort.*

7.4. Error Handling

No unique errors are anticipated.

Section 8
IVPSPL: Spooling, Job Accounting, Log Accumulation, and JOBLOG

This IVP demonstrates the installation of these four related products by running a job control stream to print two copies of an output message. It then schedules two additional jobs that print accounting information for this job and the job log.

8.1. Execution Requirements

- Run time: 15 minutes
- Hardware: Minimum configuration
- SYSGEN options: SUPVPROTECT=N
  SPOOLING=INPUT or OUTPUT or REMOTE
  SPOOLPRT=ALL
  SYSLOG=Y or operator issues SET SPL,DU from system console.
- Peripherals: Minimum configuration

8.2. Operating Instructions

Important:

No other jobs should be running when IVPSPL is executed. Your SYSLOG information is reset when you run this IVP. See 8.4 for more detail.

Do not assign RES and RUN packs to different channel-type devices (i.e., selector and nonselector).

Issue the command:

```
RV IVPSPL:IVPLIB,,SYSLOG=INIT
```

When IVPSPL is complete, it automatically schedules IVPSPL01 to dump the log and JBLOG to print it.

When JBLOG completes, issue the command:

```
ERΔ,IV$FILEOUT,RES
```

8.3. Verification

The expected status is VERIFY. The IVP prints two copies of the message:

```
THIS MUST PRINT TWICE.
```

8.4. Error Handling

If the SYSGEN setting of SPOOLING is NO, the expected status will be NOT RUN. Spooling is required for establishing this product as ready for use.

If SYSLOG=N and operator does not issue SET SPL,DU, the JOBLOG portion is not verified.

If SYSLOG=INIT is not specified on the run command, the JOBLOG portion is not verified.

Section 9
IVPIMM: IMS Distributed Data Processing (IMS) Multithread

This IVP checks for the availability of modules for your IMS (multithread) transaction processing facility.

9.1. Execution Requirements

- Run time: 5 to 10 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

9.2. Operating Instructions

Issue the command:

```
RV IVPIMM:IVPLIB
```

9.3. Verification

The expected status is RFU since this IVP does not execute IMS.

9.4. Error Handling

If the status is MISSING, the printout will indicate which modules were not found.

DELETION

The material on pages 9-2 through 9-27 has been deleted.

Section 10
IVPDIM: IMS Distributed Data Processing

This IVP checks for the availability of modules for your IMS transaction processing facility.

10.1. Execution Requirements

- Run time: 5 to 10 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

10.2. Operating Instructions

Issue the command:

```
RV IVPDIM:IVPLIB
```

10.3. Verification

The expected status is RFU since this IVP does not execute IMS.

10.4. Error Handling

If the status is MISSING, the printout will indicate which modules were not found.

Section 11
IVPDMS: Data Base Management System (DMS)

IVPDMS has four job streams.

1. IVPDMS verifies the availability of components.
2. DMSBUILD allocates and builds the data base.
3. DMSCOMP compiles a run unit and readies it for execution.
4. DMSEXEC executes the run unit and the DMS utilities.

Output includes

- Messages
- Printed page of the data base before and after recovery
- Audit trail of each DMS verb executed

Since IVPDMS uses COBOL, run your COBOL IVP (Section 15, 16, or 17) before you run this IVP.

11.1. Execution Requirements

- Run time: 50 minutes
- Hardware: At least 512K bytes main storage and 10 cylinders of space on SYSRES for data base and temporary files
- SYSGEN options: Assembler, COBOL, COBL74, or EXTCOBOL
- Peripherals: At least two printers or spooling

11.2. Operating Instructions

From the system console, issue the following command *twice:*

```
RV IVPDMS:IVPLIB
```

Follow this dialog, entering all commands labeled (IN).

Note: *Message-ids (the first two characters on the message line of your terminal, workstation, or system console screen) are significant in this IVP. In many cases, you must include the message-id from a previous message (shown as a variable) as part of your response. For instance, the first IN message in the following dialog contains the notation 'nn'. To find the message-id you enter here, find 'nn' in one of the preceding OUT messages in the dialog. Find the corresponding OUT message on your screen, and use the message-id from that message as your entry for 'nn'.*

About 10 minutes after the IVP begins, the following message appears:

```
(OUT)
 nn?AFTER "DBMS INITIALIZED" MESSAGE APPEARS - REPLY "PROCEED"
```

The IVP now schedules a second job, which displays the message:

```
(OUT)
 QY00 DBMS INITIALIZED

(IN)
 nn PROCEED
```

About 20 minutes later, the IVP displays the following messages:

```
(OUT)
 mm?REPLY P AFTER ENTERING "UNS DICTDBMS SHUTDOWN"

(IN)
 UNS DICTBMS SHUTDOWN

(OUT)
 QY01 SHUTDOWN COMPLETE

(IN)
 mmΔP
```

The IVP displays several execution messages, then displays:

```
(OUT)
 pp?AFTER "DBMS INITIALIZED" MESSAGE APPEARS - REPLY "PROCEED"
```

The IVP now schedules another job, which displays the message:

```
(OUT)
 QY00 DBMS INITIALIZED

(IN)
 pp PROCEED
```

The IVP displays several execution messages, then displays:

```
(OUT)
 qq?REPLY P AFTER ENTERING "UNS USERDBMS SHUTDOWN"

(IN)
 UNS USERDBMS SHUTDOWN

(OUT)
 QY01 SHUTDOWN COMPLETE
 JC02  JOB TERMINATED NORMALLY

(IN)
 qqΔP
```

The IVP displays several execution messages, then displays:

```
(OUT)
 IVP STATUS FOR "DMS 90" IS "RFU"
 JC02 JOB UTILITIES TERMINATED NORMALLY
```

Complete your verification procedures (see 11.3) and then enter:

```
(IN)
 RV DMSSCR:IVPLIB
```

11.3. Verification

The expected status is RFU. The IVP uses the UPSI byte for verification, and it gives you a multipage printout. This output needs to be checked only if an error has occurred. The following are verification steps that lead you through this output to find the correct page and message to check.

The printout contains sections that begin with a name in large letters (from the write-big routine). Each verification step shows you the name of the section (in boldface type) that you must locate. Next is the number of pages you should count in the output (not including the page with the name on it) to get to the target page. The second line of each step tells you where to look on the target page to find the message you need to check.

For example, in Step 1, you locate the page that says DD DMCL in large letters, count three more pages, look at the next to last line, and make sure it says

```
QC02 **DMCL COMPILATION COMPLETED WITH SUCCESS**.
```

Step 1 - DD DMCL + 3

Next to last line:

```
QC02 **DMCL COMPILATION COMPLETED WITH SUCCESS**
```

Step 2 - DD DBINT + 1

Line 8:

```
QI14 INITIALIZATION SUCCESSFUL FOR AREA DDLDML
```

Step 3 - DB SCHEMA + 7

Line 2:

```
NO ERROR AND/OR WARNING MESSAGE ISSUED
```

Step 4 - DB DMCL + 9

Next to last line:

```
QC02 **DMCL COMPILATION COMPLETED WITH SUCCESS**
```

Step 5 - DML RUN=UNIT + 3

Last line:

```
**DML PREPROCESSING COMPLETE WITHOUT ERRORS**
```

Step 6 - EXEC DBINIT + 1

Line 8:

```
QI14 INITIALIZATION SUCCESSFUL FOR AREA THE-MINIMUM-AREA
```

All other parts of this IVP are self-checking.

11.4. Error Handling

IVPDMS uses the UPSI byte to verify the correct execution of each step. Any error causing a nonzero setting of the UPSI byte causes the IVP to terminate. The IVP sends error analysis messages to the console followed by a termination message. Use these messages to correct the problem and then rerun the IVP.

Section 12
IVPMAP: MAPPER 80

This IVP verifies the availability of the MAPPER® 80 modules.

12.1. Execution Requirements

- Run time: 20 minutes
- Hardware: Any System 80 model 4 or model 6 environment
- Software:

  To run this IVP, the following software is required:

  - OS/3 system software (Release 8.1 or later)
  - DMS (SE E8L version)
  - MAPPER 80

12.2. Operating Instructions

Enter at the system console:

```
RV IVPMAP:IVPLIB
```

Transmit.

A series of messages appear at the console and verify that IVP is running:

```
*    BEGIN MAPPER 80 MODULE CHECK   *
***  PHASE 1:  LOAD MODULES CHECK     ***
***  PHASE 2:  OBJECT MODULES CHECK ***
***  PHASE 3:  SOURCE MODULES CHECK ***
***  PHASE 4:  SCREEN MODULES CHECK ***
***  PHASE 5:  SHARED CODE MODULES CHECK                ***
***  PHASE 6:  JOB CONTROL MODULES CHECK                ***
***  PHASE 7:  DMS MODULES CHECK  ***
```

MAPPER is a registered trademark and service mark of Unisys Corporation.

12.3. Verification

When the following message appears, IVPMAP has terminated normally with no errors:

```
***  IVPMAP TERMINATED NORMALLY !   ***
***       ALL MODULES FOUND   !  ***
```

12.4. Error Handling

If IVP terminates abnormally, the following messages appear:

```
***  TOTAL LIBS ERRORS OOON UPSI SETTING X'40'        ***
***  IVPMAP TERMINATED ABNORMALLY             ***
***  REQUIRED MODULES NOT FOUND !  ***
***  SEE LISTINGS FOR MISSING MODULES         ***
```

When IVP terminates abnormally, read through the IVPMAP listing to identify the missing modules.

Section 13
IVPRPG: Report Program Generator II (RPG II)

This IVP compiles, links, and executes an RPG II source program using the RPG II compiler. It produces a verification message for each of the RPG II features used (MOVE, MULTIPLICATION, GOTO loop, and EXECUTE INTERNAL SUBROUTINE) and an additional status message.

13.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

13.2. Operating Instructions

Issue the command:

```
RV IVPRPG:IVPLIB
```

13.3. Verification

The expected status is VERIFY. Your printout should include the name of each function used and its status, expected result, and the actual result obtained. The expected and actual results should be identical. The IVP should also print the message RPG II VERIFICATION MESSAGE *** ERRORS NONE at the end of this printout.

13.4. Error Handling

If the expected and actual results on the output are different, the IVP prints the message RPG II VERIFICATION MESSAGE *** ERRORS FOUND. Check your SYSGEN parameters and installation steps, then rerun the IVP.

Section 14
IVPRPE: Report Program Generator Editor

This IVP demonstrates the installation of the RPG II editor through an interactive procedure entered from a system console, workstation, or terminal acting as a workstation. You create an RPG II header specification with a syntax error, remove the error, and then delete the header specification.

You should run the IVP for EDT before running this IVP to ensure accurate results.

ICAM is required to run IVPRPE from a terminal acting as a workstation. (ICAM is not required if you're using a workstation or the system console.) Therefore, be sure to run the IVP for ICAM (see Section 3) to ensure that ICAM is properly configured before you run IVPRPE from a terminal.

14.1. Execution Requirements

- Run time: 10 minutes
- Hardware: Minimum configuration
- SYSGEN options: Workstation or COMM=1,1
  If you are using a terminal as a workstation, ICAM must be generated with DMI and multitasking.

  EDT
- Peripherals: Workstation, system console used as a workstation, or terminal connected to system with communications hardware

14.2. Operating Instructions

Step 1

If you are using a workstation or the system console, go to Step 2. If you are using a terminal as a workstation

a. Issue the IS command at the system console to load the interactive services symbiont.

b. Enter C*n* or M*n* to load the appropriate ICAM symbiont

where:

C*n* or M*n*
Is the name specified on the MCPNAME parameter in the COMMCT phase of SYSGEN and *n* is a numeric digit from 1 to 9 that identifies the network to be loaded.

The message ICAM READY should appear.

c. Run the GUST program (ML$$G1).

d. Sign on the terminal.

Step 2

LOGON your terminal or workstation. Follow the dialog listed, entering all of the commands labeled IN:

(IN)
```
RV IVPRPE:IVPLIB
```

(OUT)
```
MODULES PRESENT
```

(IN)
```
EDT @RPG
```

(OUT)
```
PRESS TRANSMIT TO CONTINUE
```

(IN)
Press XMIT key.

(OUT)
```
                              RPGEDT VER xxx

SELECT MODE (C)
C = CREATE   U = UPDATE

SELECT FORMAT TYPE   (1)

1 = POSITIONAL    2 = FORMATTED    3 = FREE FORM

SPECIFICATION TYPE DISPLAY? (N)    Y = YES    N = NO
```

Notes:

1. *Initially, the RPG II editor automatically positions the cursor at the home position on a display. When you create data lines using RPG II editor formatted displays, you must enter all data indicated before pressing the TRANSMIT key. You may skip fields in which you do not enter data by using the cursor directional keys or the space bar.*

2. *If you are using a workstation, move cursor to bottom of display before transmitting.*

(IN)
TRANSMIT.

(OUT)

```
                                                LINE -    1.000

              1 2 2 3 4 4 4 4 7    7 7
1     6 7 8 9 5 1 6 1 0 1 2 3 0    4 5
----- H - - - - - - - - - - - - ---- - ------
NEXT SPECIFICATION TYPE, ST OR CMD: (    )
                                     ---
```

(IN)
ENTER:
? in the column 7 field
CMD in the NEXT SPECIFICATION TYPE field
as shown in this screen:

```
                                                LINE -    1.0000
              1 2 2 3 4 4 4 4 7    7 7
1     6 7 8 9 5 1 6 1 0 1 2 3 0    4 5
----- H ? - - - - - - - - - - - - ---- - ------
NEXT SPECIFICATION TYPE, ST OR CMD: (CMD)
```

TRANSMIT.

(OUT)
The syntax error display shown in this screen. The > character symbolizes a blink character.

```
                                                LINE -    1.0000
              1 2 2 3 4 4 4 4 7    7 7
1     6 7 8 9 5 1 6 1 0 1 2 3 0    4 5
----- H > - - - - - - - - - - - ---- - ------
NEXT SPECIFICATION TYPE, ST OR CMD: (___)
RED060-COMPILATION MODE (COL 7) MUST BE 2,3,4 OR BLANK.
                             TO IGNORE ERROR,ENTER SPEC TYPE(IGN)
```

(IN)
Enter 4 in the column 7 field, as shown in this screen.

```
                                                        LINE -    1.0000
              1 2 2 3 4 4 4 4 7   7 7
1    6 7 8 9 5 1 6 1 0 1 2 3 0   4 5

----- H 4 - - - - - - - - - - ---- - ------
NEXT SPECIFICATION TYPE, ST OR CMD: (___)
RED060-COMPILATION MODE (COL 7) MUST BE 2,3,4 OR BLANK.
                              TO IGNORE ERROR,ENTER SPEC TYPE(IGN)
```

Move cursor to NEXT SPECIFICATION TYPE field and transmit.

(OUT)

```
2.0000▶
```

(IN)
@DELETE (as shown in this screen)

```
    2.0000▶@DELETE
```

(OUT)
Line number 1.0000 added to update mode display

(IN)
@HALT (as shown in this screen)

```
    2.0000▶@DELETE
    1.0000▶@HALT
```

(IN)

```
LOGOFF
```

14.3. Verification

The expected status is VERIFY. If all system responses are as listed in the dialog in 14.2, the product is ready for use.

14.4. Error Handling

No unique errors are anticipated.

Section 15
IVPRPA: Report Program Generator Auto Report

This IVP creates, compiles, and executes an RPG II source program. It uses both the header generation and accumulation field functions of the RPG auto report.

RPG II is required for the RPG auto report. Therefore, run the IVP for RPG II (IVPRPG) before you start this IVP.

15.1. Execution Requirements

- Run time: 10 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

15.2. Operating Instructions

Issue the command:

```
RV IVPRPA:IVPLIB
```

15.3. Verification

The expected status is VERIFY. Your printout should include the following:

```
mm/dd/yy                          PAGE n
                    Unisys
      INSTALLATION VERIFICATION PROGRAM
            AUTO# RUN RESULTS
AUTO# VERIFICATION MESSAGE *** ERRORS NONE      (IVP VER=nnnnn)
```

15.4. Error Handling

If less than X'E000' main storage is available on the system

- Auto report terminates with ENDED 0001 ERRORS ENCOUNTERED.
- The error messages include AR010 TABLE AREA FOR FIELD NAMES USED ON *AUTO LINES EXCEEDED. SPECIFICATION IS DROPPED.
- The last line of the verification is not printed.

Section 16
IVPC74: COBOL '74

This IVP compiles a COBOL program. It then links the program, places it in the system run library, and executes it. The procedure uses five features of COBL74: MOVE, PERFORM, ADD, SUBTRACT, and printer I/O. The IVP prints verification messages for the first four features, and you must compare them with the messages shown in this guide.

16.1. Execution Requirements

- Run time: 15 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

16.2. Operating Instructions

Issue the command:

```
RV IVPC74:IVPLIB
```

16.3. Verification

The expected status is VERIFY. Check printer output to make sure that verification messages for each of the four features appear and that the message COBL74 VERIFICATION MESSAGE *** ERRORS =000 appears at the end.

16.4. Error Handling

If the IVP prints COBL74 VERIFICATION MESSAGE *** ERRORS FOUND, check your SYSGEN parameters and installation steps and rerun this IVP.

Section 17
IVPC6B: Basic COBOL

This IVP compiles a COBOL program. It then links the program, places it in the system run library, and executes it. The procedure uses five features of basic COBOL: MOVE, PERFORM, ADD, SUBTRACT, and printer I/O. The IVP prints verification messages for the first four features. You must manually verify the printer output.

Note: *This product is only available on System 80 models 8-20.*

17.1. Execution Requirements

- Run time: 15 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

17.2. Operating Instructions

Issue the command:

```
RV IVPC6B:IVPLIB
```

17.3. Verification

The expected status is VERIFY. Printer output should contain verification messages for each of the four features and the message BASIC COBOL VERIFICATION MESSAGE *** ERRORS NONE.

17.4. Error Handling

If the IVP prints BASIC COBOL VERIFICATION MESSAGE *** ERRORS FOUND, check your SYSGEN parameters and installation steps and rerun the IVP.

Section 18
IVPC6E: Extended COBOL

This IVP compiles a COBOL program. It then links the program, places it in the system run library, and executes it. The procedure uses five features of extended COBOL: MOVE, PERFORM, ADD, SUBTRACT, and printer I/O. The IVP prints verification messages for the first four features. You must manually verify the printer output.

Note: *This product is only available on System 80 models 8-20.*

18.1. Execution Requirements

- Run time: 15 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

18.2. Operating Instructions

Issue the command:

```
RV IVPC6E:IVPLIB
```

18.3. Verification

The expected status is VERIFY. Printer output should contain verification messages for each of the four features and the message EXTENDED COBOL VERIFICATION MESSAGE *** ERRORS NONE.

18.4. Error Handling

If the IVP prints EXTENDED COBOL VERIFICATION MESSAGE *** ERRORS FOUND, check your SYSGEN parameters and installation steps and rerun the IVP.

Section 19
IVPCED: COBL74 Editor

This IVP demonstrates the installation of the COBL74 editor through an interactive procedure entered from a workstation or terminal acting as a workstation. You should run the IVP for EDT before running this IVP to ensure accurate results.

ICAM is required to run IVPCED from a terminal acting as a workstation. Therefore, be sure to run the IVP for ICAM to ensure that ICAM is properly configured before you run IVPCED from a terminal.

19.1. Execution Requirements

- Run time: 10 minutes
- Hardware: Minimum configuration
- SYSGEN options: Workstation or COMM=1,1
  If you are using a terminal as a workstation, ICAM must be generated with DMI and multitasking.

  EDT
- Peripherals: Workstation or terminal connected to system with communications hardware

19.2. Operating Instructions

Step 1

If you aren't using a terminal, go to Step 2. If you are using a terminal:

a. Issue the IS command at the system console to load the interactive services symbiont.

b. Enter C*n* or M*n* to load the appropriate ICAM symbiont

where:

C*n* or M*n*
Is the name specified on the MCPNAME parameter in the COMMCT phase of SYSGEN and *n* is a numeric digit from 1 to 9 that identifies the network to be loaded.

The message ICAM READY should appear.

c. Run the GUST program (ML$$G1).

d. Sign on the terminal.

Step 2

LOGON your terminal or workstation. Follow the dialog listed, entering all of the commands labeled IN:

(IN)
```
RV IVPCED: IVPLIB
```

(OUT)
```
MODULES PRESENT
```

(IN)
```
EDT @COBOL
```

(OUT)
The Option Select Screen shown in Figure 19-1.

```
OS/3 EDT/COBOL                                          COBOL EDITOR(V12.0)
*******************************************************************************
 Select Creation Mode : (2)
   1=Create in COBOL Program Order
   2=Create Selected Portions of the COBOL Program



 Continuation Code (NRM)
   NRM=Normal Continuation          CMD=Enter EDT Command Mode

EDT Command:@

*******************************************************************************
```

Figure 19-1. Option Select Screen

(IN)
Enter a 1 in the Select Creation Mode option. Tab to the end of the screen and transmit.

(OUT)
The Identification Division Screen shown in Figure 19-2.

```
OS/3 EDT/COBOL                          COBOL EDITOR(V12.0)-Ordered Creation Mode
*******************************************************************************
                      Identification Division                   Line nnnn.nnnn
 A    B
 IDENTIFICATION DIVISION.   <Enter X if Line not to be created in Select Mode.>
 PROGRAM-ID.
 [AUTHOR.                                                                    .]
 [INSTALLATION.                                                              .]
 [DATE-WRITTEN.                                                              .]
 [DATE-COMPILED.                                                             .]
 [SECURITY.                                                                  .]


 Continuation Code (NRM) [Next Screen is Environment Division]
   NRM = Normal Continuation      SEL = Enter Selective Creation Mode
   CMD = Enter EDT Command Mode   CON = Display Control Division Screen

EDT Command:@
*******************************************************************************
```

Figure 19-2. Identification Division Screen

(IN)
Enter IVPCED on PROGRAM-ID line. Tab to end of screen and transmit.

(OUT)
The Environment Division Screen shown in Figure 19-3.

```
OS/3 EDT/COBOL                        COBOL EDITOR (V12.0)-Ordered Creation Mode
*******************************************************************************
                        Environment  Division                    Line nnnn.nnnn
 A    B
 ENVIRONMENT DIVISION.       <Enter X if Division not to be created>
 CONFIGURATION SECTION.
 SOURCE-COMPUTER. UNISYS-OS3
     [(WITH) DEBUGGING MODE].       <Enter X if line not to be included>
 OBJECT-COMPUTER. UNISYS-OS3
     [(PROGRAM COLLATING) SEQUENCE (IS)                  <alphabet-name>]
     [SEGMENT-LIMIT IS    <segment-number>].


 Continuation Code (NRM)  [Next Screen is File Control]
   NRM = Normal Continuation     SEL = Enter Selective Creation Mode
   CMD = Enter EDT Command Mode  SN1 = Display Special-Names Screen 1
   SCH = Display SYSCHAN Screen  SN2 = Display Special-Names Screen 2
   ALP = Display Alphabet-Name   SSW = Display SYSSWCH Screen
           Screen
   CLN = Display Class-Name
           Screen

EDT Command:@
*******************************************************************************
Error Message Area
```

Figure 19-3. Environment Division Screen

(IN)
Tab to the continuation code entry; key in SN1 and transmit.

(OUT)
Special-Names Screen 1 shown in Figure 19-4.

```
OS/3 EDT/COBOL                    COBOL EDITOR (V12.0)-Ordered Creation Mode
*******************************************************************************
                        Special-Names Screen (1 of 6)          Line nnnn.nnnn
 A    B
 SPECIAL-NAMES.    <Enter X if header is not to be created in Select Mode>
     [SYSSCOPE IS                                    <mnemonic-name>]
     [SYSWORK IS                                    <mnemonic-name>
          ASSIGN (TO)          <lfdname-1>]
     [SYSFORMAT IS                                   <mnemonic-name>
          ASSIGN (TO)          <lfdname-2>]
     [CURRENCY (SIGN) IS    <literal>]
     [DECIMAL-POINT IS COMMA].    <Enter X if line is to be created>

  Continuation Code (NRM)  [Next Screen is File Control]
   NRM = Normal Continuation     SEL = Enter Selective Creation Mode
   CMD = Enter EDT Command Mode  SN2 = Display Special-Names Screen 2
   ALP = Display Alphabet-Name   SCH = Display SYSCHAN Screen
           Screen
   CLN = Display Class-Name      SSW = Display SYSSWCH Screen
           Screen

EDT Command:@
*******************************************************************************
```

Figure 19-4. Special-Names Screen 1

(IN)
Tab to the continuation code entry; key in SEL and transmit.

(OUT)
Standard COBOL coding form shown in Figure 19-5.

```
OS/3 EDT/COBOL                    COBOL EDITOR (V12.0)-Selective Creation Mode
*******************************************************************************
                        Standard COBOL Coding Form              Line nnnn.nnnn
 C|A   B
  |
  |
  |
  |
  |
  |
  |
  |
  |
  |
 Continuation Code (NRM     )   [Next Screen is the Standard COBOL Coding Form]
   NRM = Normal Continuation     TMP = Display Creation Screen List
   CMD = Enter EDT Command Mode  sss = Display Creation Screen sss
   RET = Return to Ordered Mode  vvvvvvvvv = Display Verb Skeleton vvvvvvvv
EDT Command:@
*******************************************************************************
```

Figure 19-5. Standard COBOL Coding Form

(IN)
Enter RET for the continuation code.

(OUT)
Special-Names Select Screen shown in Figure 19-6.

```
OS/3 EDT/COBOL                      COBOL EDITOR(V12.0)-Ordered Creation Mode
*******************************************************************************
                        Select-Names Select Screen

   SN1 = Display Special-Name Screen 1 SN2 = Display Special-Name Screen 2
   ALP = Display Alphabet-Name Screen  SCH = Display SYSCHAN Screen
   CLN = Display Class-Name Screen     SSW = Display SYSSWCH Screen

Continuation Code (NRM)  [Next Screen is File Control]
  NRM = Normal Continuation          SEL = Enter Selective Creation Mode
  CMD = Enter EDT Command Mode

EDT Command:@

*******************************************************************************
```

Figure 19-6. Special-Names Select Screen

(IN)
Enter COBOL END in the EDT command space.

(OUT)
EDT line 7.0000

(IN)
```
@DELETE
```

(OUT)
EDT line 1.0000 added to EDT display screen

(IN)
```
@HALT
```

(OUT)
```
EDT NORMAL TERMINATION
```

(IN)
LOGOFF

19.3. Verification

Successful completion of all steps in this procedure indicates that COBEDT is present and functioning.

19.4. Error Handling

For OS/3 system error message handling, refer to the *System Messages Manual* (UP-8076). If an error is made during the interactive procedure, the procedure must be repeated beginning with Step 2.

Section 20
IVPSFG: Screen Format Generator

This IVP supplies you with a screen (IV$SCRN). First, you modify the field labels and write the new format to the YFMT library under the name IV$NEWSCR. Finally, you run a program that uses the new screen to read a record from the input fields and write data to the output fields.

ICAM is required to run IVPSFG from a terminal acting as a workstation. (ICAM is not required if you're using a workstation or the system console.) Therefore, be sure to run the IVP for ICAM (see Section 3) to ensure that ICAM is properly configured before you run IVPSFG from a terminal.

20.1. Execution Requirements

- Run time: 10 minutes
- Hardware: Minimum configuration
- SYSGEN options: Workstation or COMM=1,1
  If you are using a terminal, ICAM must be generated with DMI and multitasking.
- Peripherals: At least one workstation, system console used as a workstation, or terminal connected to the system with communications hardware.

20.2. Operating Instructions

Step 1

If you are using a workstation or the system console, go to Step 2. If you are using a terminal:

a. Issue the IS command at the system console to load the interactive services symbiont.

b. Enter C*n* or M*n* to load the appropriate ICAM symbiont

where:

C*n* or M*n*
Is the name specified on the MCPNAME parameter in the COMMCT phase of SYSGEN and *n* is a numeric digit from 1 to 9 that identifies the network to be loaded.

The message ICAM READY should appear.

c. Run the GUST program (ML$$GI).

d. Sign on the terminal.

Step 2

LOGON your terminal or workstation. Follow the dialog listed, entering all of the commands labeled IN:

(IN)

```
RV IVPSFG:IVPLIB
```

(OUT)

```
PLEASE ENTER THE FOLLOWING INFORMATION:

FUNCTION (1):1.  CREATE  2.  CREATE-FROM  3.  MODIFY  4.  DELETE
             5.  SHOW    6.  LIST         7.  SPOOL   8.  TERMINATE

OLD FORMAT NAME:  (_ _ _ _ _ _ _ _)       VOLUME:  (_ _ _ _ _ _ _ _)

FILE NAME:  (_ _ _ _ _ _ _ _)

NEW FORMAT NAME:  (_ _ _ _ _ _ _ _)

FILE NAME:  (_ _ _ _ _ _ _ _)             VOLUME:  (_ _ _ _ _ _ _ _)
```

(IN)

Enter the following values:

```
FUNCTION (2)
OLD FORMAT NAME (IV$SCRNΔ), file name ($Y$FMT), volume (RES)
NEW FORMAT NAME (IV$NEWSC), file name ($Y$FMT), volume (RES)
```

Transmit.

Note: *If you get a message stating that IV$NEWSC already exists, press the TRANSMIT key.*

(OUT)

```
MODIFY OPTION (1):  1.  CHANGE TEMPLATE  2.  CHANGE TYPE
                    3.  CHANGE I/O
                    7.  CHANGE TEMPLATE ONLY-NO INTERNAL CHANGES
```

(IN)
Transmit.

(OUT)

```
GLOBAL CHARACTERISTICS FOR FORMAT IV$NEWSC:
LOWER CASE TRANSLATION (1):  1.  YES  2.  NO
                    .
                    .
                    .
```

(IN)
Transmit.

(OUT)

```
                              UNISYS

                    Screen Format Service Utility

                                                  Date_ _ /_ _ /_ _
Customer Name_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _    City_ _ _ _ _ _ _ _ _ _ _ _
                                                  Transaction No. _ _ _ _ _ _

Input Data_ _ _ _ _ _ _ _ _ _
Output Data _ _ _ _ _ _ _ _ _
```

(IN)
Overwrite the field labels as shown:

```
                                UNISYS

                        Screen Format Service Utility

                                                        Date_ _ /_ _ /_ _
Depositor_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _          Acct._ _ _ _ _ _ _ _ _ _
                                        Deposit No. _ _ _ _ _ _ _

Deposit    _ _ _ _ _ _ _ _ _ _
Verify     _ _ _ _ _ _ _ _ _ _
```

Move cursor to bottom of screen and transmit.

(OUT)
Same screen you just transmitted.

(IN)
Specify the Field Type Attributes as shown:

```
                                UNISYS

                        SCREEN FORMAT SERVICE UTILITY

                                                        Date 9_/9_/9_
DepositorA _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _        Acct. X _ _ _ _ _ _ _ _
                                        Deposit No. X _ _ _ _ _

   Deposit    9 _ _ _ _ _ _ _ _ _
   Verify     9 _ _ _ _ _ _ _ _ _
```

Transmit.

(OUT)

```
                                UNISYS

                        SCREEN FORMAT SERVICE UTILITY

                                                        Date O_/O_/O_
DepositorO_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _       Acct. O _ _ _ _ _ _ _ _
                                        Deposit No. O _ _ _ _ _

Deposit    O _ _ _ _ _ _ _ _ _
Verify     O _ _ _ _ _ _ _ _ _
```

(IN)
Change Deposit field to the letter I and transmit.

(OUT)

```
PLEASE ENTER THE FOLLOWING INFORMATION

FUNCTION (1) 1.  CREATE  2.  CREATE-FORM  3.  MODIFY  4.  DELETE

             5.  SHOW    6.  LIST         7.  SPOOL   8.  TERMINATE

OLD FORMAT NAME (_ _ _ _ _ _ _ _)

FILE NAME: (_ _ _ _ _ _ _ _)              VOLUME: (_ _ _ _ _ _ _ _)

NEW FORMAT NAME: (_ _ _ _ _ _ _ _)

FILE NAME: (_ _ _ _ _ _ _ _)              VOLUME: (_ _ _ _ _ _ _ _)
```

(IN)
Enter the following value:

```
FUNCTION (8)
```

Transmit.

(OUT)

```
IVPSFG01 TERMINATED NORMALLY
```

Step 3

Follow the dialog listed, entering all of the commands labeled IN:

(IN)

```
RV IVPSFC:IVPLIB
```

(OUT)

```
                                UNISYS

                        Screen Format Service Utility

                                                        Date 05/01/88
Depositor John Smith                                    Acct. 0123456789
                                                Deposit No. 000000

Deposit   _ _ _ _ _ _ _ _ _ _ _
Verify
```

(IN)
Enter any numbers in the Deposit field, as shown:

```
                                UNISYS

                        Screen Format Service Utility

                                                        Date 05/01/88
Depositor John Smith                                    Acct. 0123456789
                                                Deposit No. 000000

Deposit    567 _ _ _ _ _ _ _ _ _
Verify
```

Transmit.

(OUT)
Screen shown with same numbers in Verify field as you entered in Deposit field.

```
                                UNISYS

                        Screen Format Service Utility

                                                        Date 05/01/80
Depositor John Smith                                    Acct. 0123456789
                                                Deposit No. 000001

Deposit    _ _ _ _ _ _ _ _ _ _
Verify     567
```

Note: *You may repeat these last two commands several times. After each entry, the Deposit No. field should increase by 1.*

Press function key 15 to terminate this process. If your terminal doesn't have function keys, enter alphabetic F15 in system mode.

20.3. Verification

The expected status is VERIFY. If responses to the dialog are as listed in 20.2, the product is ready for use.

20.4. Error Handling

If the status is NOT RUN, the IV$NEWSR screen was not found. Check your SYSGEN parameters and installation steps and rerun the IVP.

If the following message appears, enter Y:

```
UNSUCCESSFUL{ OPEN   } HAS BEEN FOUND REPLY (Y) TO GET DUMP
            { DMSEL  }
            { DMINP  }
            { DMOUT  }
            { DMCLOSE}
```

An analysis of the dump should indicate whether the error is a hardware I/O problem or an installation error.

Section 21
IVPDIA: Dialog Translator

This IVP creates and executes a dialog. It then displays and prints a data item.

ICAM is required to run IVPDIA from a terminal acting as a workstation. (ICAM is not required if you're using a workstation or the system console.) Therefore, be sure to run the IVP for ICAM (see Section 3) to ensure that ICAM is properly configured before you run IVPDIA from a terminal.

21.1. Execution Requirements

- Run time: 15 minutes
- Hardware: Minimum configuration
- SYSGEN options: Workstation or COMM=1,1
  If you are using a terminal, ICAM must be generated with DMI and multitasking.
- Peripherals: Workstation, system console acting as a workstation, or terminal connected to the system with communications hardware

21.2. Operating Instructions

Step 1

If you are using a workstation or the system console, go to Step 2. If you are using a terminal as a workstation:

a. Issue the IS command at the system console to load the interactive services symbiont.

b. Enter C*n* or M*n* to load the appropriate ICAM symbiont

where:

C*n* or M*n*
Is the name specified on the MCPNAME parameter in the COMMCT phase of SYSGEN and *n* is a numeric digit from 1 to 9 that identifies the network to be loaded.

The message ICAM READY should appear.

c. Run the GUST program (ML$$G1).

d. Sign on the terminal.

Step 2

LOGON the terminal or workstation. Issue the following command:

```
RV IVPDIA:IVPLIB
```

The IVP displays the following data item:

```
DIALOG SPECIFICATION LANGUAGE TRANSLATOR INSTALLATION VERIFIED.PUSH TRANSMIT TO
PROCEED
```

Press the TRANSMIT key.

21.3. Verification

The expected status is VERIFY. If the IVP displays and prints the following message, the product is RFU.

```
DSLT VERIFICATION MESSAGE ***ERRORS NONE IVPVER=xxxxxx PRESS TRANSMIT KEY TO PROCEED.
```

where:

xxxxxx
: Is the current version number of your IVP.

21.4. Error Handling

If the IVP prints DIALOG SPECIFICATION LANGUAGE TRANSLATOR VERIFICATION MESSAGE *** ERRORS FOUND, check your SYSGEN parameters and installation steps and rerun the IVP.

Section 22
IVPFR4: FORTRAN IV

This IVP compiles, links, and executes a FORTRAN IV™ program. It uses four basic FORTRAN operations: an assignment statement, exponentiation, multiplication, and a DO loop. The procedure produces a verification statement for each operation, along with the expected and actual results.

If enough main storage is available, this IVP also uses the FOR4L (FORTRAN IV LARGE) compiler, producing an additional output from IVPFRL.

22.1. Execution Requirements

- Run time: 10 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

22.2. Operating Instructions

Issue the command:

```
RV IVPFR4:IVPLIB
```

22.3. Verification

The expected status is VERIFY. Printer output should contain a verification statement for each of the four features used, along with the step number, expected result, and actual result. Expected and actual results should be identical. The IVP should also print one or both of the following messages:

```
FORTRAN-IV (FOR4) VERIFICATION MESSAGE *** ERRORS=NONE

LARGE FORTRAN-IV (FOR4L) VERIFICATION MESSAGE *** ERRORS=NONE
```

FORTRAN IV is a trademark of SuperSoft Associations.

22.4. Error Handling

If either message says ERRORS FOUND, check your SYSGEN parameters and installation steps and rerun the IVP.

If the message is FOR4 MISSING MODULE, followed by the names of the missing modules, make certain that these modules are added to your YLOD file, and rerun the IVP.

If IVP terminates with a 604 or 602 error code, the FORTRAN modules are probably incorrectly aligned in YOBJ. Realign the modules by keying in one of the following and rerun the IVP:

`RV MIXFOR4`	(if you are operating in CDM or MIXED mode environment)
`RV DTFFOR4`	(if you are operating in a DTF mode environment)

Section 23
IVPASM: Assembler

This IVP assembles, links, and executes an assembler program. It uses four assembler operations: load, or-immediate, shift-left-single logical, and add-immediate. The procedure produces a verification statement for each operation, along with the expected and actual results.

23.1. Execution Requirements

- Run time: 20 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

23.2. Operating Instructions

Issue the command:

```
RV IVPASM:IVPLIB
```

23.3. Verification

The expected status is VERIFY. Printer output should contain a verification statement for each of the four features used, along with the step number, expected result, and actual result. Expected and actual results should be identical. The IVP should also print ASSEMBLER VERIFICATION MESSAGE *** ERRORS NONE at the end of the output.

23.4. Error Handling

If the IVP prints ASSEMBLER VERIFICATION MESSAGE *** ERRORS FOUND, check your SYSGEN parameters and installation steps and rerun the IVP.

Section 24
IVPEDT: Editor

This IVP demonstrates the installation of the Editor and the Error File Processor. It uses five EDT functions: string handling, variable handling, @INPUT, printer I/O, and procedure files. Output includes a verification statement for each of these functions and a status message.

24.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

24.2. Operating Instructions

Issue the command:

```
RV IVPEDT:IVPLIB
```

When the message CONTINUE IVP BY FOLLOWING DIALOG IN THE IVP MANUAL is displayed on the console, LOGON the workstation and follow this dialog, entering all commands labeled (IN):

```
(IN)
 EDT

(OUT)
 ED000 EDITOR VERSION x.xx READY
     1.0000Δ

(IN)
 @INPUT IVPEDT05,IVPLIB,RES

(OUT)
 EFP001 EFP VERSION x.xx
 EFP002 ENTER ERROR-FILE-MODULE-NAME,FILE-NAME,VSN
```

```
(IN)
 ERRFILE,IVDEDT,RES

(OUT)
 EFP003 ERROR-FILE=ERRFILE,IVDEDT,RES
        FORTRAN 0800  03/02/82  12:34:56
 EFP004 SOURCE-FILE=IVPEDTSC,IVPLIB,RES
 EFP005 MODULE=EDTFRT   0001 ERRORS
 ERR-0001 FC132 UNDECLARED ARRAY NAME.
 0005.0000    A=UNDIM(5)
 ***ANSWER 'Y' TO ERASE ERROR-FILE
 EFP003 ERROR-FILE=ERRFILE,IVDEDT,RES
        FORTRAN 0800  03/02/82  12:34:56
 EFP007 ERASE ERROR-FILE? (Y,N)Δ

(IN)
 Y

(OUT)
 ED052 EFP TERMINATED
 1.0000Δ

(IN)
 @H

(OUT)
 ED098 EDT NORMAL TERMINATION
```

24.3. Verification

The expected status is VERIFY. Printer output should include the five functions and a verification message for each. The IVP should print EDT VERIFICATION MESSAGE ***ERRORS NONE at the end of the list.

24.4. Error Handling

If the IVP displays the message ...ERRFILE,RES ALREADY EXISTS.OVERWRITE (Y,N)? answer Y to this message and continue the IVP.

If the IVP prints EDT VERIFICATION MESSAGE***ERRORS FOUND, check your SYSGEN parameters and installation steps and rerun the IVP.

Section 25
IVPULD: UTS 400 Load/Dump Terminal Package

This IVP checks the availability of modules for your UTS 400 load/dump terminal package.

25.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

25.2. Operating Instructions

From the system console, issue the command:

```
RV IVPULD:IVPLIB
```

25.3. Verification

The expected status is RFU.

25.4. Error Handling

No unique errors are anticipated.

Section 26
IVPUCB: UTS 4000 COBOL Compiler

This IVP checks the availability of modules for your UTS 4000 COBOL compiler.

26.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

26.2. Operating Instructions

From the system console, issue the command:

```
RV IVPUCB:IVPLIB
```

26.3. Verification

The expected status is RFU.

26.4. Error Handling

No unique errors are anticipated.

Section 27
IVPUEP: UTS 400 Editor Processor

This IVP checks the availability of modules for your UTS 400 editor processor.

27.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

27.2. Operating Instructions

From the system console, issue the command:

```
RV IVPUEP:IVPLIB
```

27.3. Verification

The expected status is RFU.

27.4. Error Handling

No unique errors are anticipated.

Section 28
IVPOLM: Online Diagnostic and Maintenance Programs for Models 3-6 and 8-20

This IVP executes every online maintenance program (OLM) regardless of system configuration. The procedure displays a message regarding the termination of each program on the system console.

28.1. Execution Requirements

- Run time: 20 minutes
- Hardware: Minimum configuration
- SYSGEN options: ONLNDIAG=YES
  ERRORLOG=YES
- Peripherals: Minimum configuration

28.2. Operating Instructions

Issue the command:

```
RV IVPOLM:IVPLIB
```

Follow the dialog for your system, entering all data labeled IN:

```
(OUT)
 PROGRAM MENU/SELECTION:
 1 - REMOTE MAINTENANCE INTERFACE
 2 - PROGRAM DESCRIPTION
 3 - TUTORIAL MODE
 4 - STANDARD MODE (DEFAULT)
 ENTER SELECTION NUMBER (FORMAT X,X,X)

(IN)
 4
```

```
(OUT)
 SELECT OPTIONS (ENTER OPTION OR ?)

(IN)
 E
```

Note: For models 3 through 6, repeat the preceding dialog sequence 10 times. For models 8 through 20, repeat the preceding dialog sequence 16 times.

```
(OUT)
 ICAM NOT ACTIVE, PLEASE LOAD ICAM. ENTER (Y,N,?)

(IN)
 N

(OUT)
 ONMAIN-OPTION-REPLY-REMOTE MAINTENANCE ? ENTER (Y,N,?)

(IN)
 N

(OUT)
 ONMAIN-OPTION-REPLY-ECHO TO PRINTER ? ENTER (Y,N,?)

(IN)
 N

(OUT)
 DO YOU WISH TO USE A WORKSTATION FOR MESSAGES? ENTER (Y,N)

(IN)
 N

(OUT)
 A block of system information is displayed at this time.

(OUT)
 IS DIAGNOSTIC PROGRAM INFORMATION REQUIRED? ENTER (Y,N,?)

(IN)
 N

(OUT)
 PROGRAM MENU/SELECTION:
 1 - REMOTE MAINTENANCE INTERFACE
 2 - PROGRAM DESCRIPTION
 3 - TUTORIAL MODE
 4 - STANDARD MODE (DEFAULT)
 ENTER SELECTION NUMBER (FORMAT X,X,X)
```

```
(IN)
 4

(OUT)
 READY FOR TEST PROGRAM GENERATION OR SERVICE COMMANDS
 ENTER:COMMANDS/INSTRUCTIONS AT THE ***.

(IN)
 END
```

Note: *If ERRORLOG=NO, this dialog will end here (see 28.4).*

```
(OUT)
 ONUERL - MODIFY PROGRAM OPTIONS (Y,N,?)

(IN)
 Y

(OUT)
 ONUERL - ENTER OPTIONS, SEPARATED BY COMMAS (1,2,3,4,5,6,7,8,?)

(IN)
 2,7

(OUT)
```

For models 8-20:

```
 ONUERL - 2: SUMMARY = (Y,T,N,R,D,?)
```

For models 3 - 6:

```
 ONUERL - 2: TRACE = (Y,T,N,R,D,?)

(IN)
 N

(OUT)
 ONUERL - 7: ESUMFIL = (I,U,?)

(IN)
 I
```

```
(OUT)
 ONUERL - ESUM FILE OPEN FOR INITIALIZATION.
 ONUERL - ENTER CUSTOMER ID. (_ _ _ _ _ _ _ _ _,?)
```

Respond to this message by entering the 9-digit customer-id number. You will need to enter this customer-id only once. A sample is shown here:

```
(IN)
 C48443

(OUT)
 ONUERL - CUSTOMER-ID IS:  C48443   .  CONFIRM (Y OR N)

(IN)
 Y
```

Note: *If no errors have been logged into the system error log, the following message will appear:*

```
   $Y$ELOG IS EMPTY

(OUT)
 ONELAN - DO YOU NEED HELP RUNNING THIS PROGRAM? (Y,N)

(IN)
 N

(OUT)
 ONELAN - ENTER REQUEST (LST, DOC, ALL, DVC, SUB, END, ?)

(IN)
 LST, ALL, END
```

28.3. Verification

The expected status is VERIFY. Check the console listing to ensure that each program terminated normally. If dialog responses are as listed in 28.2, your online diagnostic and maintenance programs are ready for use.

28.4. Error Handling

If your SYSGEN did not specify ONLNDIAG=YES, the final status is NOT RUN. If your SYSGEN did not specify ERRORLOG=YES, this run will bypass the ONUERL portion of the preceding dialog. Modify your SYSGEN before rerunning this IVP.

Section 29
IVPDDP: Distributed Data Processing Transfer Facility

This IVP creates a library file on the host you select, copies a library element to it, requests the file status, purges the file, and sends a TALK command to the system operator. You may select either your local system or a remote system as the receiving host.

29.1. Execution Requirements

	Option A: Local Host Is Receiving Host	Option B: Remote Host Is Receiving Host
• Run time:	10 minutes	10 minutes plus ICAM and interactive services initialization time
• Hardware:	Minimum configuration	Two processors
• SYSGEN options:	Supervisor with ISLOCAPID parameter	Supervisor with ISLOCAPID, SPOOLING=DDP, and ISNETNAME parameters ICAM - DMI interface
• Peripherals:	Minimum configuration	Minimum configuration

29.2. Operating Instructions

Option A - Local Host Is Receiving Host

Issue the command:

```
RV IVPDDP:IVPLIB
```

After this job terminates normally, issue the command:

```
ENTER IVPDDPL,IVPLIB,RES
```

Option B - Remote Host Is Receiving Host

1. Issue the IS command to load the interactive services symbiont.

2. From the system console, enter C*n* or M*n* to load the appropriate ICAM symbiont

   where:

   C*n* or M*n*
   : Is the name specified on the MCPNAME parameter in the COMMCT phase of SYSGEN and *n* is a numeric digit from 1 to 9 that identifies the network to be loaded.

   The message ICAM READY should appear.

3. Issue the following command:

```
RV IVPDDP:IVPLIB,,LOCAL=xxxx::,REMOTE=yyyy::
```

   where:

   xxxx
   : Is the sending host-id specified in your ICAM LOCAP macroinstruction.

   yyyy
   : Is the receiving host-id specified in your ICAM LOCAP macroinstruction.

   After this job terminates normally, issue the command:

```
ENTER IVPDDPL,IVPLIB,RES
```

29.3. Verification

The expected status is VERIFY. Your printer output should contain 12 messages. There should be one ACCEPTED message and one COMPLETED message for each of the commands used in the IVP (CREATE, COPY, STATUS FILE, PURGE, and TALK). The format of these messages is:

```
DDPnnn mid nnn cccccccc COMMAND { ACCEPTED  } WO=nnnnnn time
                                { COMPLETED }
```

where:

n
: Is a numeric digit.

mid
: Is an alphanumeric abbreviation.

cccccccc
Is the name of the command.

In addition, the local operator receives the following messages as a result of the TALK command: IVPDDP IS STARTED and IVPDDP IS COMPLETED.

29.4. Error Handling

No unique errors are anticipated.

Section 30
IVPNTR: Nine Thousand Remote (NTR) for Models 3-6 and 8-20

This IVP checks the installation of NTR by using SG$PARAM and SG$NTRMK to perform an NTRGEN. For a complete explanation of the listings the IVP produces, consult the *NTR Utility Programming Guide* (UP-9502).

30.1. Execution Requirements

- Run time: 40 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

30.2. Operating Instructions

Step 1

Enter the following command:

```
RV IVPNTR:IVPLIB
```

Step 2

The IVP now schedules SG$PARAM. At its termination, SG$PARAM instructs you to run SG$NTRMK.

Enter the following command:

```
RV SG$NTRMK
```

30.3. Verification

The expected status is VERIFY. The SG$PARAM output should conclude with the statement NO ERRORS. SG$NTRMK should also terminate without errors.

30.4. Error Handling

No unique errors are anticipated.

Section 31
IVPESC: ESCORT

In this IVP, you use ESCORT™ menu screens to enter and print a structure (data definition).

ICAM is required to run IVPESC from a terminal acting as a workstation. (ICAM is not required if you're using a workstation or the system console.) Therefore, be sure to run the IVP for ICAM (see Section 3) to ensure that ICAM is properly configured before you run IVPESC from a terminal. It is recommended that you run the IVP for the screen format generator (see Section 20) first, since ESCORT is dependent on screen format services.

31.1. Execution Requirements

- Run time: 5-10 minutes
- Hardware: Minimum configuration
  Spooling must be configured on your system.
- SYSGEN options: Workstation or COMM=1,1
  If you are using a terminal, ICAM must be generated with DMI and multitasking.
- Peripherals: At least one workstation, the system console acting as a workstation, or a terminal connected to the system with communications hardware

31.2. Operating Instructions

Step 1

If you are using a terminal:

a. Issue the IS command at the system console to load the interactive services symbiont.

ESCORT is a trademark of Unisys Corporation.

b. From the system console, enter C*n* or M*n* to load the appropriate ICAM symbiont

where:

C*n* or M*n*
Is the name specified on the MCPNAME parameter in the COMMCT phase of SYSGEN and *n* is a numeric digit from 1 to 9 that identifies the network to be loaded.

The message ICAM READY should appear.

c. Run the GUST program (ML$$G1).

d. Sign on the terminal.

Step 2

LOGON your terminal or workstation. Follow the dialog listed, entering all of the commands labeled IN:

(IN)
```
RV IVPESC:IVPLIB
```

(OUT)
```
CONTINUE THIS IVP BY FOLLOWING THE DIALOG IN THE IVP MANUAL.
```

(IN)
```
ESCORT
```

(OUT)
The WELCOME TO ESCORT screen

(IN)
`ENTRY POINT` 1 (command mode). Transmit.

(OUT)
The COMMAND SELECTION screen

(IN)
`SELECTION` 3 (STRUCTURE COMMANDS). Transmit.

(OUT)
The STRUCTURE COMMANDS screen

(IN)
`SELECT COMMAND` 1 (ENTER STRUCTURE) `STRUCTURE NAME` INVOICE. Transmit.

(OUT)
The STRUCTURE ENTRY screen

(IN)

Fill in the first three blanks under FIELDNAME and LENGTH/TYPE as follows:

FIELDNAME	LENGTH/TYPE
INVNO	5A
DESCR	20A
AMOUNT	7P2

Transmit.

(OUT)
The STRUCTURE ENTRY screen (blank)

(IN)
Press function key 1

(OUT)
The STRUCTURE COMMANDS screen

(IN)
SELECT COMMAND 6 (PRINT STRUCTURE). STRUCTURE NAME INVOICE. Transmit.

(OUT)
The STRUCTURE COMMANDS screen

(IN)
SELECT COMMAND 12 (TERMINATE STRUCTURE PROCESSOR). Transmit.

(OUT)
The COMMAND SELECTION screen

(IN)
SELECT COMMAND 1 (TERMINATE CURRENT ESCORT SESSION). Transmit.

(OUT)
DO YOU WISH TO SAVE THIS CURRENT SESSION FILE?

(IN)
Transmit.

(OUT)
ESCORT TERMINATED.

31.3. Verification

The expected status is VERIFY. Check the printer output to see that the structure printed matches the one shown in 31.5.

31.4. Error Handling

No unique errors are anticipated.

31.5. Listing

```
DATE 88/08/10        STRUCTURE INVOICE   TOTAL LENGTH 0030      TIME 23:16:39

                     LENGTH/                   EDIT     REPEAT
    FIELDNAME         TYPE        KEYS         CODES    COUNT      POSITION

    INVNO            5A                                          0001 - 0005
    DESCR            20A                                         0006 - 0025
    AMOUNT           7P2                                         0026 - 0030
```

Section 32
IVPBAS: BASIC

During this IVP, you issue BASIC commands from a workstation to run a program supplied by the procedure. This program calculates the area of a circle.

32.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Floating point
- SYSGEN options: FLOATPT=YES

  Workstation or COMM=1,1
  If you are using a terminal as a workstation, ICAM must be generated with DMI and multitasking

- Peripherals: Workstation, system console acting as a workstation, or terminal connected to system with communications hardware

32.2. Operating Instructions

If you are using a terminal, begin with Step 1; otherwise, begin with Step 2.

Step 1

a. Issue the IS command at the system console to load the interactive services symbiont.

b. Enter C*n* or M*n* at the system console to load the appropriate ICAM symbiont

where:

C*n* or M*n*
: Is the name specified on the MCPNAME parameter in the COMMCT phase of SYSGEN and *n* is a numeric digit from 1 to 9 that identifies the network to be loaded.

The message ICAM READY should appear.

c. Run the GUST program (ML$$G1).

d. Sign on the terminal.

Step 2

LOGON your terminal or workstation. Follow this dialog, entering all commands labeled IN:

```
(OUT)
 IS01  INTERACTIVE SERVICES READY
 IS22  OS/3 INTERACTIVE SERVICES
 IS19  LOGON ACCEPTED AT time ON date REV number...

(IN)
 RV IVPBAS:IVPLIB
```

After the IVP runs, go on to the next (IN) entry.

```
(IN)
 LOGOFF

(OUT)
 IS67 LOGOFF ACCEPTED AT time ON date
```

32.3. Verification

The expected status is RFU. Check the printer output.

32.4. Error Handling

No unique errors are anticipated.

Section 33
IVPTSF: Terminal Support Facility for Models 3-6 and 8-20

This IVP checks the availability of modules for your terminal support facility.

33.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

33.2. Operating Instructions

Issue the command:

```
RV IVPTSF:IVPLIB
```

33.3. Verification

The expected status is RFU.

33.4. Error Handling

No unique errors are anticipated.

Section 34
IVP327: IBM 3270 Remote Terminal Support Facility for Models 3-6 and 8-20

This IVP checks the availability of modules for your IBM® 3270 remote terminal support facility.

34.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

34.2. Operating Instructions

Issue the command:

```
RV IVP327:IVPLIB
```

34.3. Verification

The expected status is RFU.

34.4. Error Handling

No unique errors are anticipated.

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Section 35
IVPDAT: DATEX-L PDN Support Facility

This IVP checks the availability of modules for your DATEX-L public data network (PDN) support.

35.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

35.2. Operating Instructions

Issue the command:

```
RV IVPDAT:IVPLIB
```

35.3. Verification

The expected status is RFU.

35.4. Error Handling

No unique errors are anticipated.

Section 36
IVPDCA: ICAM DCA Termination System

This IVP verifies that the ICAM distributed communications architecture (DCA) termination system (TS) software is in your system library. The IVP does not exercise lines or terminals nor does it attempt to verify communications hardware.

36.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: ICAM with the DMI interface
- Peripherals: Minimum configuration

36.2. Operating Instructions

At the system console, enter the command:

```
RV IVPDCA:IVPLIB
```

IVPDCA will verify that the DCA-TS modules for ICAM are in SG$OBJ.

36.3. Verification

The expected status is VERIFY.

36.4. Error Handling

No unique errors are anticipated.

Section 37
IVPRTP: Remote Terminal Processor for Models 3-6 and 8-20

The IVP for the remote terminal processor determines that all of the RTP modules are available and in their appropriate libraries. Object modules should be in SG$OBJ, user generation procedures should be in YMAC, and job streams used in the generation process should be in YJCS.

37.1. Execution Requirements

- Run time: 3 minutes
- Hardware: Minimum configuration
- SYSGEN options: Spooling must be configured.
  ICAM is required for RTP execution, but not for the verification run.
- Peripherals: Minimum configuration

37.2. Operating Instructions

At the console, enter:

```
RV IVPRTP:IVPLIB
```

37.3. Verification

The expected status is RFU.

37.4. Error Handling

Before checking to see that the remote terminal processor modules are in their appropriate libraries, the validation procedure tests to see if spooling is configured.

If spooling is not configured, the validation procedure terminates after issuing the following message to the console:

```
IVPRTP - SPOOLING IS REQUIRED
```

Section 38
IVPEI3: IBM 3270 BSC Emulation for Models 3-6 and 8-20

This IVP determines that the modules required to support IBM 3270 Emulation with ICAM are available in the SG$OBJ library.

38.1. Execution Requirements

- Run time: 3 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

38.2. Operating Instructions

Issue the command:

```
RV IVPEI3:IVPLIB
```

38.3. Verification

The expected status is RFU.

38.4. Error Handling

No unique errors are anticipated.

Section 39
IVPDFA: DDP File Access

This IVP verifies the system's ability to perform remote file access functionality. RFU also confirms the availability of DDP program-to-program communications.

39.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

39.2. Operating Instructions

Issue the command:

```
RV IVPDFA:IVPLIB
```

39.3. Verification

The expected status is RFU.

39.4. Error Handling

No unique errors are anticipated.

Section 40
IVPMUG: Menu Generator

This IVP supplies you with a menu (IV$MENUX). First, you modify the action table and write the new menu to the YFMT library under the name IV$MENUY. Then, the new menu is used via the MENU command. When you select (1) on this menu, a message is printed on the system console telling you if the menu generator IVP executed correctly.

40.1. Execution Requirements

- Run time: 10 minutes
- Hardware: Minimum configuration
- MENUGEN options: No special requirements
- Peripherals: At least one workstation or the system console acting as a workstation

40.2. Operating Instructions

Log on your workstation. Follow the dialog listed, entering all of the commands labeled IN:

```
(IN)
 RV IVPMUG:IVPLIB
```

Before IVPMUG finishes, a message will be printed on the system console telling you if you should continue. If IVPMUG fails, you will be instructed to stop at this point. If IVPMUG executes correctly, continue with the following dialog:

```
(IN)
 MENUGEN
```

(OUT)

```
                                                              MG01
                    MENU GENERATOR HOME SCREEN
 1.  CREATE A NEW MENU MODULE
 2.  MODIFY AN EXISTING MENU MODULE
 3.  DISPLAY AN EXISTING MENU MODULE
 4.  END MENU GENERATOR
 FOR HELP ON A PARTICULAR ITEM NUMBER, ENTER A QUESTION MARK
 FOLLOWED BY THE ITEM NUMBER (?#). HELP FOR THE ENTIRE MENU CAN
 BE ACQUIRED BY ENTERING A QUESTION MARK (?).
                                  ENTER SELECTION NUMBER:_ _
```

(IN)

Key in selection number 2 and transmit.

(OUT)

```
                                                    MG0102S
                  MENU MODULE ACCESS INFORMATION
 ENTER THE NAME, FILE LBL AND VSN OF THE MENU MODULE
 THAT YOU WANT TO MODIFY.
 MENU MODULE NAME:_ _ _ _ _ _ _ _

 FILE LBL:_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _(DEFAULT IS $Y$FMT)

 VSN:_ _ _ _ _ _ _ _ _ (DEFAULT IS RES)
```

(IN)

Key in IV$MENUX for MENU MODULE NAME and transmit.
Use the defaults for FILE LBL and VSN.

(OUT)

```
                                MG25
                MODIFY OPTIONS
 1.  MODIFY MENU SCREEN
 2.  MODIFY ACTION TABLE
 3.  MODIFY HELP SCREEN
 4.  END MODIFY OPERATION - WRITE MODIFIED MENU MODULE TO FILE
 5.  END MODIFY OPERATION - DON'T WRITE MODIFIED MENU MODULE TO FILE
                               ENTER SELECTION NUMBER: _ _
```

(IN)

Key in selection number 2 and transmit.

(OUT)

```
                                        MG22
                MODIFY ACTION TABLE OPTIONS
    1.  CHANGE EXISTING ACTIONS
    2.  ADD ACTION(S) TO AN ITEM WITH NO ACTIONS
    3.  DELETE ALL ACTIONS FOR AN ITEM
    4.  DISPLAY ACTION TABLE
    5.  DISPLAY MENU SCREEN
    6.  END MODIFY ACTION TABLE
                        ENTER SELECTION NUMBER: _ _
```

(IN)

Key in selection number 1 and transmit.

(OUT)

```
                    CHANGE AN ACTION
                                                    MG2201S
ENTER ITEM _ WHICH CORRESPONDS TO ACTION(S) TO BE CHANGED
ENTER ITEM _: _ _
```

(IN)

Key in item number 1 and transmit.

(OUT)

```
CHANGES OR ADD ACTIONS FOR ITEM 01 ON THIS SCREEN (MG2201S1)
ORDER THEM CHRONOLOGICALLY. TRANSMIT TO GET NEXT 8 ACTIONS.
ACTION TYPE             ACTION
     S                  TELL ALL, 'MENUIVP IS NOT WORKING'_ _ _ _ _ _ _ _ _ _
     s                  tell all, 'menuivp is working'    _ _ _ _ _ _ _ _ _ _
     _                  _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
     _                  _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
     _                  _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
     ENTER 'C' TO CANCEL ALL CHANGES TO ITEM _
```

(IN)

Change the action field and press the RETURN key and transmit.

(OUT)

```
CHANGES OR ADD ACTIONS FOR ITEM 01 ON THIS SCREEN (MG2201S1)
ORDER THEM CHRONOLOGICALLY. TRANSMIT TO GET NEXT 8 ACTIONS.
ACTION TYPE             ACTION
     S                  TELL ALL, 'MENU IVP IS NOW WORKING'
     s
     _                  _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
     _                  _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
     _                  _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
ENTER 'C' TO CANCEL ALL CHANGES TO ITEM _
```

(OUT)

```
                                        MG24
                        CHANGE AN ACTION
      THERE ARE NO MORE ACTIONS FOR THIS ITEM.
      DO YOU WANT TO ADD SOME? Y(ES), N(O) _
```

(IN)
Key in N and transmit.

(OUT)

```
                                        MG22
                    MODIFY ACTION TABLE OPTIONS
        1.  CHANGE EXISTING ACTIONS
        2.  ADD ACTION(S) TO AN ITEM WITH NO ACTIONS
        3.  DELETE ALL ACTIONS FOR AN ITEM
        4.  DISPLAY ACTION TABLE
        5.  DISPLAY MENU SCREEN
        6.  END MODIFY ACTION TABLE
                              ENTER SELECTION NUMBER:_ _
```

(IN)
Key in selection number 6 and transmit.

(OUT)

```
                                        MG25
                    MODIFY OPTIONS
        1.  MODIFY MENU SCREEN
        2.  MODIFY ACTION TABLE
        3.  MODIFY HELP SCREEN
        4.  END MODIFY OPERATION - WRITE MODIFIED MENU MODULE TO FILE
        5.  END MODIFY OPERATION - DON'T WRITE MODIFIED MODULE TO FILE
                              ENTER SELECTION NUMBER: _ _
```

(IN)
Key in selection number 4 and transmit.

(OUT)

```
                                                    MG2504S
          MODIFIED MENU MODULE OUTPUT INFORMATION
      ENTER THE NAME, FILE LBL AND VSN OF THE MODIFIED MENU MODULE.
      FILE LBL DEFAULTS TO $Y$FMT
      VSN DEFAULTS TO RES
      NAME: _ _ _ _ _ _ _ _ _

      FILE LBL: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

      VSN: _ _ _ _ _ _ _
```

(IN)
Key in IV$MENUY for the NAME field and transmit. Use the defaults for FILE LBL and VSN.

Note: *If you get a message stating that IV$MENUY already exists, answer yes to the overwrite message. (Key in Y and transmit.)*

(OUT)

```
                                                          MG01
                    MENU GENERATOR HOME SCREEN
    1.  CREATE A NEW MENU MODULE
    2.  MODIFY AN EXISTING MENU MODULE
    3.  DISPLAY AN EXISTING MENU MODULE
    4.  END MENU GENERATOR
    FOR HELP ON A PARTICULAR ITEM NUMBER, ENTER A QUESTION MARK
    FOLLOWED BY THE ITEM NUMBER (?#). HELP FOR THE ENTIRE MENU CAN
    BE ACQUIRED BY ENTERING A QUESTION MARK (?).
                                      ENTER SELECTION NUMBER: _ _
```

(IN)
Key in selection number 4 and transmit.

(OUT)
The workstation will go back to system mode.

(IN)
Key in function/system mode; then key in MENU IV$MENUY.

(OUT)

```
    IVP MENU
    1.  PICK THIS SELECTION FIRST          7.
    2.  TERMINATE MENU PROCESSING          8.
    3.                                     9.
    4.                                     10.
    5.                                     11.
    6.                                     12.
                                  ENTER SELECTION NUMBER: _ _
```

(IN)
Key in selection number 1 and transmit. This will cause a message to be printed on the system console stating if this IVP has executed correctly.

(OUT)
The IVP MENU will be displayed again.

(IN)
Key in selection number 2 and transmit.

(OUT)
The workstation will go back to system mode.

40.3. Verification

The expected status is VERIFY. If responses to the screens are as listed in 38.2 and the message MENU IVP IS NOW WORKING is displayed on the system console, the product is ready for use.

40.4. Error Handling

The status MENU GEN MISSING will occur if a module needed to execute MENUGEN is not on your res pack.

The message MENU IVP IS NOT WORKING will be printed on the system console if MENUGEN did not execute correctly.

Section 41
IVPTPC: TRANSPAC PDN Support Facility

This IVP checks the availability of modules for your TRANSPAC public data network (PDN) support facility.

41.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

41.2. Operating Instructions

Issue the command:

```
RV IVPTPC:IVPLIB
```

41.3. Verification

The expected status is RFU.

41.4. Error Handling

No unique errors are anticipated.

Section 42
IVPDTP: DATAPAC PDN Support Facility

This IVP checks the availability of modules for your DATAPAC public data network (PDN) support facility.

42.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

42.2. Operating Instructions

Issue the command:

```
RV IVPDTP:IVPLIB
```

42.3. Verification

The expected status is RFU.

42.4. Error Handling

No unique errors are anticipated.

Section 43
IVPDDX: DDX-P PDN Support Facility

This IVP checks the availability of modules for your DDX-P public data network (PDN) support facility.

43.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

43.2. Operating Instructions

Issue the command:

```
RV IVPDDX:IVPLIB
```

43.3. Verification

The expected status is RFU.

43.4. Error Handling

No unique errors are anticipated.

Section 44
IVPDTEX: DATEX-P PDN Support Facility

This IVP checks the availability of modules for your DATEX-P public data network (PDN) support facility.

44.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

44.2. Operating Instructions

Issue the command:

```
RV IVPDTX:IVPLIB
```

44.3. Verification

The expected status is RFU.

44.4. Error Handling

No unique errors are anticipated.

Section 45
IVPSAM: System Activity Monitor

This IVP demonstrates the installation of the system activity monitor (SAM). It uses both SAM components: the monitor symbiont and the reduction program. After the IVP establishes a file (IVPSAMFILE) on the SYSRES volume, you enter a simple dialog at the system console to activate SAM and create some activity to be measured. At the conclusion of this dialog, you run a job that generates a report of the data written to the SAM file during the dialog. The IVP then deletes the SAM file from SYSRES.

Note: *No other jobs should be running in the system during the execution of IVPSAM.*

45.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: SAM=YES
  COP or CONSOLOG=MIN, NORM, or MAX
- Peripherals: Minimum configuration

45.2. Operating Instructions

Follow this dialog, entering all commands labeled IN from the system console:

(IN)
```
RV IVPSAM:IVPLIB
```

(OUT)
```
START SAM MONITOR, RESUME IVPSAM AFTER SAM01 MSG
```

Note: *At this point, IVPSAM goes into a PAUSE state.*

(IN)
```
SAM I=S3O,1,O=D,IVDSAMFILE,GO
```

```
(OUT)
 SAM00 LOADED
 SAM10 SFL#1 OPENED
 SAM01 ACTIVE (1)

(IN)
 ij
```

where:

ij
: Is the 2-digit identifier preceding the PAUSE statement.

Note: *At this point, IVPSAM resumes to create some system activity and then pauses.*

```
(OUT)
 JC01 IVPSAM EXECUTING JOB STEP IVSP0000
```

Note: *The SAM report appears here 30 seconds after you have entered the second IN command (SAM I=S30,1,...).*

```
(OUT)
 SAM04 INACTIVE (1)

(OUT)
 RESUME IVPSAM AFTER SAM05 RELEASED MSG

(IN)
 00 SA EOJ

(OUT)
 SAM05 RELEASED

(IN)
 ij
```

where:

ij
: Is the 2-digit identifier preceding the PAUSE statement.

IVPSAM now executes IFIL00 SAMRPT program.

45.3. Verification

The expected status from IVPSAM is VERIFY. Check the system console statistics; there should be nonzero values on the CPU display line. The sum of CPU + WAIT + IDLE should be 100. The access channel for SYSRES should register some activity. After IVPSAM is completed, check the printed output. If the CPU and channel statistics from the console output match those in the printed report, the product is ready for use.

45.4. Error Handling

Error Messages

`IVDSAMFILE NOT FOUND`

SAMRPT cannot run because IVPSAM didn't generate the required file.

`SAM NOT GENERATED`

Return to SUPGEN section of the *Installation Guide* (UP-8839). You probably need to regenerate your supervisor using the option SAM=YES.

Section 46
IVPPSS: PSS PDN Support Facility

This IVP checks the availability of modules for your PSS public data network (PDN) support facility.

46.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

46.2. Operating Instructions

Issue the command:

```
RV IVPPSS:IVPLIB
```

46.3. Verification

The expected status is RFU.

46.4. Error Handling

No unique errors are anticipated.

Section 47
IVPX21: X.21 Circuit Switched PDN Support Facility for Models 3-6 and 8-20

The IVP for the X.21 circuit switched public data network (PDN) support facility determines that the significant modules are available and in their appropriate libraries.

47.1. Execution Requirements

- Run time: 3 minutes
- Hardware: Minimum configuration
- SYSGEN options: None
- Peripherals: Minimum configuration

47.2. Operating Instructions

At the console, issue the command:

```
RV IVPX21:IVPLIB
```

47.3. Verification

The expected status is RFU.

47.4. Error Handling

No unique errors are anticipated.

Section 48
TPS IVP

By design, the TPS IVP is run as part of TPS generation and installation. Refer to the generation, installation, and IVP information presented in the *System 80 OS/3 TPS Programming Guide Volume II,* 7002 3999

48.1. Execution Requirements

- Run time: 20 to 30 minutes
- Hardware: Minimum configuration
- SYSGEN options: Supervisor and ICAM generated
- Peripherals: Minimum configuration

48.2. Operating Instructions

Follow the TPS generation, installation, and operation instructions in the TPS programming guide 7002 3999.

48.3. Verification

The following TIP/30 files are open:

Lfd-name	File Label	Lfd-name	File Label
TIP$MSG	TIP.IMS3.MSG	TIP$JRN	TIP.IMS3.JRN
TIP$RNDM	TIP.IMS3.RNDM	TIP$CAT	TIP.IMS3.CAT
TIP$SWAP	TIP.IMS3.SWAP	TIP$MCS	TIP.IMS3.MCS
TIP$B4	TIP.IMS3.B4	TIP$TSP	TIP.IMS3.TSP

TIP/30 installation verification complete.

48.4. Error Handling

No unique errors are anticipated.

Section 49
IVPRSM: Resource Management

This IVP verifies the installation of the resource management feature. Output includes a verification statement and a status message.

49.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration System 80
- SYSGEN options: RESMGT=YES and individual specifications to tailor your system (see the *Installation Guide* (UP-8839)).
- Peripherals: Minimum configuration

49.2. Operating Instructions

1. Issue the command:

```
RV IVPRSM:IVPLIB
```

2. When the message

```
MODULES PRESENT. NOW FOLLOW PHASE 2 INSTRUCTIONS.
```

appears on the system console, enter the command:

```
STATUS LIMITS
```

49.3. Verification

The expected status is VERIFY and the displayed limits should match your SYSGEN parameters.

49.4. Error Handling

If you do not receive the VERIFY status, check your SYSGEN parameters and installation steps and rerun the IVP.

Section 50
IVPM5H: MAPPER 5 Remote Device Handler for Models 3-6 and 8-20

This IVP determines that the modules required to support the MAPPER 5 remote device handler with ICAM are available in the SG$OBJ library.

50.1. Execution Requirements

- Run time: 3 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

50.2. Operating Instructions

Issue the command:

```
RV IVPM5H:IVPLIB
```

50.3. Verification

The expected status is RFU.

50.4. Error Handling

No unique errors are anticipated.

Section 51
IVPOLT: PC Online File Transfer Utility

This IVP verifies the system's PC online file transfer utility.

51.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

51.2. Operating Instructions

Issue the command:

```
RV IVPOLT:IVPLIB
```

51.3. Verification

The expected status is RFU.

51.4. Error Handling

No unique errors are anticipated.

Section 52
IVPOLD: PC Online Disk Utility

This IVP verifies the PC online disk utility.

52.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

52.2. Operating Instructions

Issue the command:

```
RV IVPOLD:IVPLIB
```

52.3. Verification

The expected status is RFU.

52.4. Error Handling

No unique errors are anticipated.

Section 53
IVPNRM: UNIX File Transfer Utility for Models 3-6 and 8-20

This IVP checks the availability of modules for the UNIX® file transfer utility.

53.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

53.2. Operating Instructions

Issue the command:

```
RV IVPNRM:IVPLIB
```

53.3. Verification

The expected status is RFU.

53.4. Error Handling

No unique errors are anticipated.

UNIX is a registered trademark of AT&T Information Systems.

Section 54
IVPUXM: OS/3-to-UNIX Connectivity for Models 3-6 and 8-20

This IVP checks the availability of modules for the OS/3-to-UNIX connectivity.

54.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

54.2. Operating Instructions

Issue the command:

```
RV IVPUXM:IVPLIB
```

54.3. Verification

The expected status is RFU.

54.4. Error Handling

No unique errors are anticipated.

Section 55
IVPM5F: MAPPER 5 File Transfer Facility for Models 3-6 and 8-20

This IVP determines that the module required to execute the MAPPER 5-to-OS/3 file transfer facility (MP5FTF) is available in the YLOD library.

55.1. Execution Requirements

- Run time: 3 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

55.2. Operating Instructions

Issue the command:

```
RV IVPM5F:IVPLIB
```

55.3. Verification

The expected status is RFU.

55.4. Error Handling

No unique errors are anticipated.

Section 56
IVPTRN: PCTRAN Utility

This IVP verifies the availability of modules for the PCTRAN utility.

56.1. Execution Requirements

- Run time: 1 minute
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

56.2. Operating Instructions

Issue the command:

```
RV IVPTRN:IVPLIB
```

56.3. Verification

The expected status is RFU.

56.4. Error Handling

No unique errors are anticipated.

Section 57
IVPIBE: IBERPAC Public Data Network Support Facility

This IVP checks the availability of modules for IBERPAC public data network (PDN) support.

57.1. Execution Requirements

- Run time: 5 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

57.2. Operating Instructions

Issue the command:

```
RV IVPIBE:IVPLIB
```

57.3. Verification

The expected status is RFU.

57.4. Error Handling

No unique errors are anticipated.

Section 58
IVPF77: FORTRAN 77

This IVP compiles, links, and executes a FORTRAN 77 program. It uses four basic FORTRAN operations: an assignment statement, exponentiation, multiplication, and a DO loop. The procedure produces a verification statement for each operation, along with the expected and actual results.

58.1. Execution Requirements

- Run time: 10 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

58.2. Operating Instructions

Issue the command:

```
RV IVPF77:IVPLIB
```

58.3. Verification

The expected status is VERIFY. Printer output should contain a verification statement for each of the four features used, along with the step number, expected result, and actual result. Expected and actual results should be identical. The IVP should also print the following message:

```
FORTRAN-77 (FOR77) VERIFICATION MESSAGE *** ERRORS=NONE
```

58.4. Error Handling

If the message says ERRORS FOUND, check your SYSGEN parameters and installation steps and rerun the IVP.

Section 59
IVPPAS: Pascal

This IVP compiles, links, and executes a Pascal program. It uses two basic Pascal operations: an assignment statement and a FOR loop. The procedure produces a verification statement for each operation, along with the expected and actual results.

59.1. Execution Requirements

- Run time: 10 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

59.2. Operating Instructions

Issue the command:

```
RV IVPPAS:IVPLIB
```

59.3. Verification

The expected status is VERIFY. Printer output should contain a verification statement for each of the features used, along with the step number, expected result, and actual result. Expected and actual results should be identical. The IVP should also print the following message:

```
PASCAL VERIFICATION MESSAGE *** ERRORS=NONE
```

59.4. Error Handling

If the message says ERRORS FOUND, check your SYSGEN parameters and installation steps and rerun the IVP.

Section 60
IVPC85: COBOL '85

This IVP compiles a COBOL program. It then links the program, places it in the system run library, and executes it. The procedure uses five features of COBL85: MOVE, PERFORM, ADD, SUBTRACT, and printer I/O. The IVP prints verification messages for the first four features, and you must compare them with the messages shown in this guide.

60.1. Execution Requirements

- Run time: 15 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

60.2. Operating Instructions

Issue the command:

```
RV IVPC85:IVPLIB
```

60.3. Verification

The expected status is VERIFY. Check printer output to make sure that verification messages for each of the four features appear and that the message COBL85 VERIFICATION MESSAGE *** ERRORS =000 appears at the end.

60.4. Error Handling

If the IVP prints COBL85 VERIFICATION MESSAGE *** ERRORS FOUND, check your SYSGEN parameters and installation steps and rerun the IVP.

Section 61
IVPCC: C

This IVP compiles, links, and executes a C program. It performs editing operations on several functions, then reedits and checks the final results.

61.1. Execution Requirements

- Run time: 10 minutes
- Hardware: Minimum configuration
- SYSGEN options: No special requirements
- Peripherals: Minimum configuration

61.2. Operating Instructions

Issue the command:

```
RV IVPCC:IVPLIB
```

61.3. Verification

The expected status is VERIFY. Printer output should contain a verification statement for each of the features used, along with the step number, expected result, and actual result. Expected and actual results should be identical. The IVP should also print the following message:

```
NO ERRORS ENCOUNTERED
INSTALLATION VERIFICATION PROCEDURE PASSED
```

61.4. Error Handling

If the message says:

```
n ERRORS ENCOUNTERED
```

check your SYSGEN parameters and installation steps and rerun the IVP.

Appendix
Messages

The following messages are not the only ones you will see displayed during the running of the IVPs. The products themselves generate informational and error messages that are documented in the user manuals for the individual products, and in the system messages manual. For the most part, these messages are not repeated in this appendix.

This appendix does list all the messages unique to the IVPs. It places them in several categories. The first, general messages, contains those messages associated with several products. The subsequent sections are devoted to the messages associated with the IVPs for particular products.

Arrangement of the messages is alphabetic, beginning with the first nonvariable word. The only exception is the linkage editor section, in which the arrangement is alphanumeric by prefix.

A.1. General Messages

A.1.1. Messages Beginning with a Variable

`product IS RFU`
The product is ready for use.

`product NOT AVAILABLE`
The product has not been generated. Check your SYSGEN parameters and installation steps and rerun the IVP.

`device NOT CONFIGURED`
You have specified the use of a device that is not configured on your system. Change your parameters or configure the device and rerun the IVP.

`product VERIFICATION MESSAGE***ERRORS` { `FOUND` | `NONE` | `n` }

This indicates whether product errors have occurred.

`FOUND`
Indicates that you should check your installation steps and SYSGEN requirements and rerun the IVP.

NONE
Indicates that no errors were found. Proceed with the rest of the IVP.

n
Indicates either the number of errors found or an error code. The IVP defines specific recovery from this condition in the error handling section.

A.1.2. Messages Beginning with a Nonvariable

I@03 CURRENT VALUES REDEFINED. PLEASE RE-ENTER RUN COMMAND
You have changed your supervisor or your system configuration (availability of configured devices) in some way since the last time you ran an IVP or IVP step. The IVP has detected this problem and is now reset to the proper configuration. However, it cannot continue until you enter the run command again.

ERROR
The IVP has detected a product error during Phase 2. Diagnostic messages accompany this message.

INCORRECT PARAMETER FOR NEXT=&NEXT
The only correct parameters are YES and NO. Enter a correct parameter and rerun the IVP.

MISSING
IVP Phase 1 did not find some modules. Check your SYSGEN parameters and installation steps. Do not rerun the IVP until you have corrected this condition.

NOT RUN
Phase 2 will not start because there is a configuration/prerequisite error. Additional information should accompany this message to further diagnose the problem. Some reasons for NOT RUN status are:

- Machine characteristics are in error.
- A file that should have been generated in a previous phase of the IVP is not available.
- A prerequisite product is not available. For instance, the RPG editor cannot run without the OS/3 editor.

RFU or READY FOR USE
Product is ready for use.

SYSGEN OPTIONS NOT SATISFACTORY
Check your SYSGEN options and installation steps. Correct and rerun the IVP.

VERIFY
You must visually check the output to ensure that the product functioned properly. Refer to the verification section in the IVP description.

A.2. ICAM Messages

A.2.1. Informational Messages

BEGIN COMMUNICATIONS TESTING
: The communications user program has started execution.

BEGIN MESSAGE PROCESSING
: The communications user program has begun sending, receiving, and verifying messages to a process file.

COMMUNICATIONS TESTING COMPLETE
: The communications testing session is complete. The communications user program and ICAM will leave the system.

MESSAGE PROCESSING COMPLETE
: All messages to the process file have been sent, received, and verified.

NETWORK RELEASE FAILED
: An error condition has been detected during execution of a network release. A descriptive error message will follow (see A.2.2).

NETWORK RELEASE SUCCESSFUL
: The facilities of the communications network have been successfully released.

NETWORK REQUEST FAILED
: The communications user program was unable to perform a network request. A descriptive error message follows (see A.2.2).

NETWORK REQUEST SUCCESSFUL
: The communications user program has successfully activated the CCA.

A.2.2. Error Messages

These error messages appear only if you use an ICAM different from the one shown in Figure 3-1.

CCA SATURATION - ARP UNAVAILABLE
: The numeric value specified for the ARP parameter during network generation is not large enough. Check the BUFFERS macroinstruction in the network, correct, and then regenerate the network.

DISK ERROR OPENING FILE
: The ICAM network in the system does not have the STDMCP interface. In the CCA macro, the TYPE parameter must be specified as STDMCP. Correct and regenerate the network.

ERROR DURING GETCP, DUMP ANSWER (Y/N)
An error occurred when the IVP tried to get messages from the process file. Respond with Y to get a dump or N to indicate you don't want one.

ERROR DURING PUTCP, DUMP ANSWER (Y/N)
An error occurred when the IVP tried to put messages into the process file. Respond with Y to get a dump or N to indicate you don't want one.

INVALID DESTINATION
The network must have PRF1 specified as the process file in the PRCS macro. Correct and regenerate the network.

INVALID PROCESS FILE
The network must have PRF1 specified as the process file in the PRCS macro. Correct and regenerate the network.

MESSAGE SENT NOT EQUAL TO MESSAGE RECEIVED
An error has occurred during verification. You receive a message asking if you need a dump. Since this is an ICAM problem, you should take the dump.

PASSWORD MISMATCH
The password specified in the network generation does not match the password in the NETREQ macro. The network must use the password NETWORK1. Correct and regenerate the network.

SD01 ENTER SYSDUMP PARAMETER (ALL,NONE,DUMP,TRANSLATED,JOBS)
The network name in the network specification does not match the network name in the program NETREQ macro. The network name must be M1N1 in the network specification. Correct and regenerate the network.

A.3. IMS Messages

MISSING MODULES AND FILES FROM PHASE n
The phase specified (*n*) failed to perform its required functions.

A.4. Linkage Editor Messages

ILK0 ERROR xxx IN LOADING PHASE yyyyyyyy
The linkage editor is not operating properly. Check your SYSGEN parameters and installation steps and rerun the IVP.

ILK01 ROOT PHASE LOADED
Root phase has been successfully loaded.

ILK02 OVERLAY PHASE IVPLNKxx IS CALLED
Overlay phase successfully called.

ILK03 OVERLAY PHASE IVPLNKxx GETS CONTROL
Overlay phase successfully placed in control.

ILK04 OVERLAY PHASE IVPLNKxx LEAVES CONTROL
Overlay phase successfully terminated.

ILK05 PROGRAM ENDED
End of program.

A.5. System Activity Monitor Messages

IVDSAMFILE NOT FOUND
You have run this IVP without creating the disk file needed for the final printout. Rerun the IVP using Option A instead of Option B.

SAM NOT GENERATED
Check your SYSGEN options and installation steps. You must have the SUPGEN option SAM=YES. Rerun the IVP.

A.6. Sort and SORT3 Messages

END OF SORT
Sorting has terminated normally.

RECORDS DELETED nn
Specifies the number of records deleted from the file.

RECORDS IN nn
Specifies the number of records placed in the file.

A.7. UTS 400 Messages

END OF INSTALLATION VERIFICATION PROGRAM

Self-explanatory.

ICAM MUST BE LOADED FOR THIS IVP. RETRY Y/N

Enter Y, load ICAM, and rerun the IVP.

IDLE TOO LONG. NO RESPONSE IN ALLOTTED TIME.

The program has terminated because of lack of input from the terminal.

IDLE TOO LONG. NO RESPONSE IN ALLOTTED TIME. ENTER GO COMMAND OR CANCEL

You have exceeded your first time limit on entering information from the terminal. You have 3 more minutes. If you don't make an entry, the IVP terminates.

INPUT RECEIVED FROM A NON-MASTER UTS 400

Re-enter the input from the master UTS 400.

IVP WILL WAIT 5 MINUTES FOR VALID INPUT FROM TERMINAL. PLEASE PRESS TRANSMIT ON THE MASTER/PRIMARY UTS 400

If you exceed this time limit, you get a prompt message to enter the input or cancel.

PROGRAM HAS INITIALIZED A POWER CONFIDENCE TEST

A loading error has occurred. Program will try to reload automatically.

UTS 400 PROGRAM-DUMP WILL START AFTER PRESSING TRANSMIT

Press the transmit button for resumption of the IVP.

UTS 400 PROGRAM DUMPED SUCCESSFULLY

Self-explanatory.

UTS 400 PROGRAM LOADED SUCCESSFULLY

Self-explanatory.

WRONG NETWORK COMPONENT SPECIFIED.

Check your response to the ENTER PROCESS-FILE/NETWORK/LINE/or PASSWORD prompt to make sure your keywords match the terminal you are using.

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NOTES

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