Program Directory for

Advanced Communications Function For

Virtual Telecommunications Access Method

(ACF/VTAM)

Version 4
Release 2

Program Number 5654-010

for Use with
VM/ESA

Document Date: March 1995

GI10-8154-01

Note!

Before using this information and the product it supports, be sure to read the general information under “Notices” on page viii.

This program directory, dated March 1995, applies to ACF/VTAM Version 4 Release 2 (VTAM V4R2 for VM/ESA), Program Number 5654-010 for the following:

COMPIDs	Feature Numbers	System Name
565401001	5820/5821	VM/ESA

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Contents

Figures

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1.0 Introduction

This program directory is intended for the system programmer responsible for program installation and maintenance. It contains information concerning the material and procedures associated with the installation of VTAM * V4R2 for VM/ESA *. You should read all of this program directory before installing the program and then keep it for future reference.

The program directory contains the following sections:

- 2.0, “Program Materials” on page 2 identifies the basic and optional program materials and documentation for VTAM V4R2 for VM/ESA.
- 3.0, “Program Support” on page 7 describes the IBM * support available for VTAM V4R2 for VM/ESA.
- 4.0, “Program and Service Level Information” on page 8 lists the APARs (program level) and PTFs (service level) incorporated into VTAM V4R2 for VM/ESA.
- 5.0, “Product Requirements and Considerations” on page 9 identifies the resources and considerations for installing and using VTAM V4R2 for VM/ESA.
- 6.0, “Installation Instructions” on page 35 provides detailed installation instructions for VTAM V4R2 for VM/ESA.
- 7.0, “Service Instructions” on page 61 provides detailed servicing instructions for VTAM V4R2 for VM/ESA.
- Appendix A, “VTAM APARs” on page 69 lists the APARs (program level) and PTFs (service level) incorporated into VTAM V4R2 for VM/ESA.
- Appendix B, “Installing the VTAM VIT Analysis Tool” on page 73 describes the installation procedure for the VTAM VIT Analysis Tool.
- Appendix C, “Installing the VTAM-provided OS/2 DLUR” on page 82 describes the installation procedure for downloading and unpacking the VTAM-provided OS/2 * DLUR for Communications Manager/2 files.
- Appendix D, “Installing the VTAM Command Set Library” on page 85 describes the installation method and step-by-step procedures to install VTAM V4R2 for VM/ESA Command Set Library.

Before installing VTAM V4R2 for VM/ESA, read 3.1, “Preventive Service Planning” on page 7. This section tells you how to find any updates to the information and procedures in this program directory.

2.0 Program Materials

This chapter describes the basic material included with VTAM V4R2 for VM/ESA and the optional materials available. This chapter describes the following:

- Basic machine-readable material
- Program publications
- Online View Program Listings (VPL) support
- Publications useful during installation.

An IBM program is identified by a program number and a feature code. The program number for VTAM V4R2 for VM/ESA is 5654-010.

The program announcement material describes the features supported by VTAM V4R2 for VM/ESA. Ask your IBM marketing representative for this information if you have not already received a copy.

2.1 Basic Machine-Readable Material

The distribution medium for this program is 9-track magnetic tape written at 6250 BPI, or 3480 cartridge. The tape or cartridge contains all the programs and data needed for installation. VTAM V4R2 for VM/ESA is installed using the instructions provided in 6.0, “Installation Instructions” on page 35. Figure 1 describes the tape or cartridge. Figure 2 on page 3 describes the file content of the program tape or cartridge.

Note: The program tape and cartridge contain “Restricted Materials of IBM.”

Figure 1. Basic Material: Program Tape

Feature Number	Medium	Physical Volume	Tape Content	External Tape Label
5820	6250 tape	1	VTAM V4R2 for VM/ESA	VTAM V4R2 VM/ESA
5821	3480 cart.	1	VTAM V4R2 for VM/ESA	VTAM V4R2 VM/ESA

Figure 2. Program Tape: File Content

Tape File	Content
1	Tape Header
2	Tape Header
3	5654010A (Product Identifier File)
4	5654010A MEMO (Memo to Users)
5	Service Apply Lists (AXLIST)
6	PARTLISTs
7	Service (DELTA)
8	Service (APPLY)
9	Base Code (BASE)
10	Sample Files (SAMPLE)
11	Server Code (BUILD)
12	Diagnostic Code (TRACE)
13	Online OS/2 Tools Files (WSCODE)

2.2 Optional Machine-Readable Material

There are no optional machine-readable materials for VTAM V4R2 for VM/ESA.

2.3 Program Publications

The following sections identify the basic and optional publications for VTAM V4R2 for VM/ESA.

2.3.1 Basic Program Publications

Figure 3 identifies the basic program publications for VTAM V4R2 for VM/ESA. One copy of each of these publications is included when you order the basic materials for VTAM V4R2 for VM/ESA. For additional copies, contact your IBM representative.

Figure 3 (Page 1 of 2). Basic Material: Unlicensed Publications

Publication Title	Form Number
Overview of VTAM V4R2 for VM/ESA and VSE/ESA	GC31-8114
Planning for NetView, NCP, and VTAM	SC31-7122
Planning for Integrated Networks	SC31-7123
Planning Aids: Pre-installation Planning Checklist for NetView, NCP, and VTAM	SX75-0092

Figure 3 (Page 2 of 2). Basic Material: Unlicensed Publications

Publication Title	Form Number
VTAM Glossary for V4R2 for MVS/ESA, VM/ESA, and VSE/ESA	GC31-6558
VTAM Licensed Program Specifications	GC31-6490
VTAM Messages and Codes	SC31-6493
VTAM Migration Guide	GC31-8071
VTAM Network Implementation Guide	SC31-6494
VTAM Operation	SC31-6495
VTAM Operation Quick Reference	SX75-0205
VTAM Release Guide	GC31-8089
VTAM Resource Definition Reference	SC31-6498

2.3.2 Optional Program Publications

This section provides a list of the optional unlicensed and licensed program publications available for VTAM V4R2 for VM/ESA.

2.3.2.1 Unlicensed Publications

Figure 4 identifies the optional unlicensed program publications for VTAM V4R2 for VM/ESA. The first copy is available at no charge to licensees of the basic material by ordering the 7xxx feature number. A fee is charged for additional copies.

See Section 2.3.3, “Softcopy Publications” on page 5 for information on the optional unlicensed program publications provided on CD-ROM.

Figure 4. Optional Material: Unlicensed Program Publications

Publication Title	Form Number	Feature Number
Estimating Storage for VTAM	SK2T-2007	7003
VTAM Programming	SC31-6496	7000
VTAM Programming for LU 6.2	SC31-6497	7001
VTAM Resource Definition Samples	SC31-6499	7002

Note: The *VTAM Resource Definition Samples* and *Estimating Storage for VTAM* will not be available on the planned availability date for VTAM V4R2 for VM/ESA. They will be automatically shipped to all users of record when available.

2.3.2.2 Licensed Publications

Figure 5 on page 5 identifies the optional licensed program publications for VTAM V4R2 for VM/ESA. The first copy is available at no charge to licensees of the basic material by ordering the 7xxx feature number. Order additional copies using the 8xxx feature number. A fee is charged for additional copies.

Figure 5. Optional Material: Licensed Program Publications

		Feature No.	
Publication Title	**Form No.**	**First Copy**	**Add'l Copy**
VTAM Customization	LY43-0063	7005	8002
VTAM Data Areas for VM/ESA	LY43-0103	7006	8003
VTAM Diagnosis	LY43-0065	7007	8004

2.3.3 Softcopy Publications

All VTAM V4R2 for VM/ESA manuals, licensed and unlicensed, except for *VTAM Licensed Program Specifications*, is offered in displayable softcopy form on the media listed in Figure 6.

Figure 6. Softcopy Publications

Title	**Form Number**	**Feature Number**
IBM Networking Systems Softcopy Collection Kit (CD-ROM)	SK2T-6012	7004

2.4 View Program Listings Support

Microfiche support for VTAM V4R2 for VM/ESA has been replaced by equivalent support through the View Program Listings (VPL) application from ISMC, Boulder, Colorado. VPL is replacing the microfiche by providing this information online. External customers can access this information by using ServiceLink or Dial IBM. Internal users can access VPL by dialing to VPL.

2.5 Publications Useful During Installation

The publications listed in Figure 7 might be useful during the installation of VTAM V4R2 for VM/ESA. To order copies, contact your IBM representative.

Figure 7 (Page 1 of 2). Publications Useful During Installation / Service

Publication Title	**Form Number**
VTAM Network Implementation Guide	SC31-6494
VMSES/E Introduction and Reference	SC24-5444

Figure 7 (Page 2 of 2). Publications Useful During Installation / Service

Publication Title	Form Number
VM/ESA CP Planning and Administration	SC24-5521
VM/ESA Service Guide	SC24-5527
VM/ESA CMS Command Reference	SC24-5461
VM/ESA System Messages and Codes	SC24-5529

3.0 Program Support

This section describes the IBM support available for VTAM V4R2 for VM/ESA.

3.1 Preventive Service Planning

Before installing VTAM V4R2 for VM/ESA, check with your IBM Support Center or use either Information/Access or IBMLink * (Service Link) to see whether there is additional Preventive Service Planning (PSP) information. To obtain this information, specify the following UPGRADE and SUBSET values:

Figure 8. PSP Upgrade and Subset ID

	Retain		
COMPID	**Release**	**Upgrade**	**Subset**
565401001	420	ACFVTAM420	VM420

If you have received VTAM V4R2 for VM/ESA only from IBM Software Distribution, before installing VTAM V4R2 for VM/ESA, you should also check with your IBM Support Center or use SoftwareXcel Extended to see if there is additional PSP information that you should know.

3.2 Statement of Support Procedures

Report any difficulties you have using this program to your IBM Support Center. If an APAR is required, the Support Center will provide the address to which any needed documentation can be sent.

Figure 9 identifies the component ID (COMPID), Retain Release and Field Engineering Service Number (FESN) for VTAM V4R2 for VM/ESA.

Figure 9. Component IDs

	Retain		
COMPID	**Release**	**Component Name**	**FESN**
565401001	420	VTAM V4R2 for VM/ESA	0466591

4.0 Program and Service Level Information

This section identifies the program and any relevant service levels of VTAM V4R2 for VM/ESA. The program level refers to the APAR fixes incorporated into the program. The service level refers to the PTFs shipped with this product. Information about the cumulative service tape is also provided.

4.1 Program Level Information

The program level refers to the APAR fixes incorporated into the program. For a list of the APAR fixes against previous releases of VTAM that have been incorporated into VTAM V4R2 for VM/ESA, see Appendix A, “VTAM APARs” on page 69.

4.2 Service Level Information

The service level refers to the PTFs integrated. No PTFs have been incorporated into VTAM V4R2 for VM/ESA.

4.3 Cumulative Service Tape

A cumulative service tape, containing PTFs not incorporated into this release, might be included with this program. If you received this product as part of a CBPDO *, there is no cumulative service tape.

5.0 Product Requirements and Considerations

The following sections identify the system requirements for installing and activating VTAM V4R2 for VM/ESA.

5.1 Hardware Requirements

VTAM V4R2 for VM/ESA runs in a virtual storage environment in any IBM system configuration that supports the operating systems specified in the Operating System Requirements section.

Certain VTAM functions require the use of appropriate IBM machines. Functions introduced in earlier versions have the same minimum machine requirements as previously announced. The following VTAM functions have these minimum machine requirements:

- APPN * host-to-host channel for one of the following:
  - Channel-to-channel adapter
  - IBM 3088 Multisystem Channel Communication Unit
  - IBM Enterprise System Connection (ESCON *) channel
- Dependent LU server (DLUS):

  A dependent LU requester (DLUR), such as the IBM 3174 Establishment Controller Configuration Support C Release 5
- *Estimating Storage for VTAM* diskette:

  A workstation capable of running, at a minimum, OS/2 Extended Edition Version 2.0
- IBM Command Tree/2 to build VTAM commands:

  A workstation capable of running, at a minimum, OS/2 Extended Edition Version 1.3 or OS/2 Version 2 with either Extended Services Version 1 or Communications Manager/2 Version 1 (program number 5621-254)

5.2 Program Considerations

The following sections list the programming considerations for installing VTAM V4R2 for VM/ESA and activating its functions.

5.2.1 Operating System Requirements

The minimum operating system required for this product is VM/ESA Version 1 Release 2.1 (5684-112) with the PTFs specified in Section 5.4, “Cross Product Service Considerations” on page 13. **RSU9405 service level** or above must be applied to VMSES/E on VM/ESA Version 1 Release 2.1 prior to installing VTAM V4R2 for VM/ESA.

Notes:

1. Support for all functions is provided in VM/ESA Version 2 Release 1 (5654-030).
2. VM/ESA Version 1 Release 2.2 may be used; however, it does not support full VSCS network-qualified names.
3. VM/ESA Version 1 Release 2.1 may be used; however, it does not support full buffer trace or full VSCS network-qualified names.

VTAM also operates with later versions, releases, and modifications of these operating systems, unless otherwise stated. Earlier versions, releases, and modifications are not supported.

5.2.2 Other Program Product Requirements

Certain VTAM functions require the use of the appropriate level of associated IBM licensed programs. Functions introduced in earlier versions and releases have the same minimum programming requirements as previously announced. These functions also operate with later versions and releases of these required programs, unless otherwise stated. The following VTAM functions have the following minimum programming requirements.

- APPN multiple network connectivity:
  - NCP Version 7 Release 1 (5648-063), in configurations where NCP provides the boundary function support for the APPN connection between two APPN subnetworks.
  - NetView * Version 2 Release 4 for MVS/ESA (5685-111) with the appropriate PTF, for NetView to properly display APPN routing information. NetView support in multiple network connectivity for Version 4 Release 2 for VM/ESA is provided by and requires a VTAM Version 4 for MVS/ESA within the network running NetView Version 2 Release 4 for MVS/ESA as mentioned above. This is required due to the fact that NetView does not support dependent LU server and expanded addressing pool for VM/ESA. For subarea only support, NetView Version 2 Release 3 for VM/ESA (5756-051) should be used.
  - Appropriate levels of the following products for attachment of these products to a VTAM APPN Border Node:
    - Communications Manager/2 Version 1.11 ServicePak WR06150, or the country equivalent for national language support versions
    - 6611/MPNP with the appropriate PTFs
- Connection network:

  - NCP Version 7 Release 1 (5648-063), in configurations where NCP provides the boundary function attachment to the connection network

- Dependent LU server (DLUS):
  - A dependent LU requester (DLUR), such as the VTAM-provided OS/2 DLUR. This DLUR requires:
    - OS/2 Version 2
    - Communications Manager/2 Version 1.11 ServicePak WR06150, or the country equivalent for national language support versions
- Expanded addressing pool:
  - One of the following, for NPM to collect data on resources assigned expanded network addresses:
    - NPM Version 1 Release 6 (5665-333) with PTF UW03386
    - NPM Version 2 Release 1 (5665-043) with PTF UW03989
- Expanded dial information:
  - NCP Version 7 Release 1 (5648-063), for token-ring and frame-relay communication
  - X.25 NCP Packet Switching Interface (NPSI) Version 3 Release 7 (5688-035), for NPSI resources
- Session limits for switched resources:
  - NCP Version 6 Release 3 (5688-231), or later, when the switched devices are attached to VTAM through an NCP
- *Estimating Storage for VTAM* diskette:
  - OS/2 Extended Edition Version 2
- Full buffer trace:
  - SSP Version 4 Release 1 (5654-009)
- Enhancements for formatted trace (VIT Analysis Tool)
  - ISPF/PDF Version 3 Release 2 for VM (5684-123)
- Frame Relay Over token-ring connections:
  - NCP Version 7 Release 3 (5648-063)
- Spare SDLC Lines:
  - NCP Version 7 Release 2 (5648-063)
  - NTuneMON * Version 1 Release 2 (5648-077)
  - NTuneNCP * Version 1 Release 1 (5648-089)
- NetView Performance Monitor (NPM)
  - NPM Version 2 Release 2 (5654-011) with APAR VM59042
- Displayable softcopy publication enhancements require one of the following BookManager releases:

- BookManager READ/VM Release 2 (program number 5684-062)
- BookManager READ/MVS Release 2 (program number 5695-046)
- BookManager READ/DOS V1.2 (program number 5601-453)
- BookManager READ/2 V1.2.1 (program number 5601-454)
- IBM Library Reader */2 (available on the IBM Networking Systems Softcopy Collection Kit CD-ROM)

5.3 Compatibility

VTAM V4R2 for VM/ESA supports all releases and modifications of the associated licensed programs listed below for which program services are provided by IBM.

Note: You might need to apply program temporary fixes (PTFs) to ensure compatibility for certain functions. Also, compatibility with certain programs is limited. For information about the PTFs you might need to apply, refer to the following sources:

- Preventive service planning (PSP) bucket, available through:
  - Information Access
  - SoftwareXcel Extended
  - IBMLink (ServiceLink)
- IBM Support Center.

For information about compatibility limitations between VTAM V4R2 for VM/ESA and the following programs, refer to *Planning for NetView, NCP, and VTAM* (SC31-7122):

- VTAM Version 4 Release 1 for MVS/ESA (program number 5695-117)
- VTAM Version 3 releases for:
  - MVS/ESA (5685-085)
  - MVS/XA * (5665-289)
  - MVS/370 (5665-313)
  - VM/ESA (5684-095)
  - VM/SP (5664-280)
  - VM/9370 (5684-052)
  - VSE/SP (5666-313)
  - VSE/ESA * (5666-363)
- ACF/NCP
  - Version 7 for the IBM 3745 Communication Controller (5648-063)
  - Version 6 for the IBM 3745 Communication Controller (5688-231)
  - Version 5 for the IBM 3720 or 3745 Communication Controllers (5668-738)
  - Version 4 for the IBM 3720 or 3745 Communication Controllers (5668-854)
- NetView

  - Version 2 for VM/ESA (5756-051)
- OSI/Communications Subsystem (5685-014)
- ACF/TCAM
  - Version 3 (5665-314)
  - Version 2 (5735-RC3)
- NetView Performance Monitor (NPM)
  - NPM Version 1 Release 6 (5665-333)
  - NPM Version 2 Release 1 (5665-043)

VTAM Version 4 Release 2 APIs are upwardly compatible with the APIs for MVS/ESA VTAM Version 4 Release 1 for MVS/ESA and VTAM Version 3.

For APPN compatibility with other APPN-capable products and programs, the appropriate minimum releases listed below are required. Later releases and versions of these products are also APPN-capable unless otherwise stated:

- IBM 3174 Establishment Controller Configuration Support C Release 4. To exploit a VTAM acting as a central directory server requires the APPN-capable 3174 to be Configuration Support C Release 5
- AS/400 * Version 2 Release 1 with the appropriate PTFs
- Communications Manager/2 Version 1.0
- Extended Services * Version 1 with the appropriate PTFs
- Networking Services/2 Version 1 Release 1 with the appropriate PTFs
- AIX * SNA Services/6000 Version 2.1
- System/36 Release 5.1 with the appropriate PTFs
- DPPX Release 3 with the appropriate PTFs
- IBM 6611 Network Processor with Multiprotocol Networking Program Version 1 Release 2
- IBM 8250 Multiprotocol Intelligent Hub with the Worksation Networking Module.

5.4 Cross Product Service Considerations

To ensure compatibility, all product in your network that are listed in 5.2.2, “Other Program Product Requirements” on page 10 and 5.3, “Compatibility” on page 12 should be maintained at their latest service level.

The following list of APARs and PTFs describes programming service to products which can be affected by the installation of VTAM V4R2 for VM/ESA. Depending on your environment, you might have to install PTFs for the APARs listed below. If additional PTFs are needed, they are listed in this product's Preventative Service Planning Information. In that case, contact the IBM Support Center for the latest PTF information. The Product Involved column lists the product to which the APAR applies.

5.4.1 VTAM

5.4.1.1 VTAM V4R2 VM/ESA

The service shown in Figure 10 is required for VTAM V4R2 for VM/ESA.

Figure 10. VTAM V4R2 VM/ESA

PTF	PUT	APAR	FMID or Comp ID	Product Involved
		VM59197	565401001	VTAM V4R2 VM/ESA
		VM59198	565401001	VTAM V4R2 VM/ESA

5.4.1.2 APPN Connection Network

The service shown in Figure 11 is required for VTAM to communicate with the products shown across an APPN Connection Network.

Figure 11. APPN Connection Network

PTF	PUT	APAR	FMID or Comp ID	Product Involved
		JR07679	562125400	Communication Manager/2 1.0
WR20412		JR07826	562207800	Communications Manager/2 1.1
MF06425		MA08208	9400DG3CM	AS/400 V2R3 (APPN Support)

For 3174 communication with VTAM through an APPN Connection Network, VTAM requires the IBM 3174 Establishment Controller Configuration Support C Release 5 or Release 3 with patch PCAE11.

5.4.1.3 APPN Multiple Network Connectivity

The service shown in Figure 12 is required for a MVS/ESA VTAM V4R1 APPN Network Node to communicate with a VTAM V4R2 APPN Border Node. The service shown in Figure 13 is required for 6611/MPNP attachment to a VTAM APPN Border Node.

Figure 12. APPN Multiple Network Connectivity

PTF	PUT	APAR	FMID or Comp ID	Product Involved
UW13300		OW03031	HVT4101	VTAM V4R1 MVS/ESA
UW09849		OW03032	HVT4101	VTAM V4R1 MVS/ESA
UY96214		OY63987	HVT4101	VTAM V4R1 MVS/ESA

Figure 13. APPN Border Node attachment

PTF	PUT	APAR	FMID or Comp ID	Product Involved
NP00331		NA00908	564801600	6611/MPNP

5.4.1.4 Automatic Logon

The service shown in Figure 14 is required for Automatic Logon.

Figure 14. Automatic Logon

PTF	PUT	APAR	FMID or Comp ID	Product Involved
UW07807		OW03346	HVT4101	VTAM V4R1 MVS/ESA

5.4.1.5 Expanded Dial Information

The service shown in Figure 15 is required for Expanded Dial Information.

Figure 15. Expanded Dial Information

PTF	PUT	APAR	FMID or Comp ID	Product Involved
		OW03346	HVT4101	VTAM V4R1 MVS/ESA

5.4.1.6 Resource Discovery Search Reduction

The service shown in Figure 16 is required for MVS/ESA VTAM V4R1 to handle new sense codes associated with the resource discovery search reduction function.

Figure 16. Resource Discovery Search Reduction

PTF	PUT	APAR	FMID or Comp ID	Product Involved
UY96351	9308	OY65058	HVT4101	VTAM V4R1 MVS/ESA

5.4.1.7 Virtual-Route-Based Transmission Groups

The service shown in Figure 17 is required when MVS/ESA VTAM V4R1 acts as a network node server for VTAM APPN nodes using virtual-route-based transmission groups.

Figure 17. Virtual-Route-Based Transmission Groups

PTF	PUT	APAR	FMID or Comp ID	Product Involved
UW00351		OY65786	HVT4101	VTAM V4R1 MVS/ESA
UY94809		OY62975	HVT4101	VTAM V4R1 MVS/ESA

5.4.1.8 APPN

The service shown in Figure 18 is required to support APPN and Subarea sessions.

Figure 18. VTAM

PTF	PUT	APAR	FMID or Comp ID	Product Involved
UY77776	9204	OY52009	568508501	VTAM V3R4.1 MVS/ESA
UY86408	9210	OY56407	566531301	VTAM V3R2 MVS/370
UY95765	9306	OY64464	566528901	VTAM V3R3 MVS/XA
UV55517	9205	VM52524	566428001	VTAM V3R4 VM/SP
UV55515	9205	VM52522	568409501	VTAM V3R4 VM/ESA
UD48061		DY41674	566636301	VTAM V3R3 VSE/ESA
UD48216		DY41957	566631301	VTAM V3R2 VSE
UW04428		OW02171	568508501	VTAM V3R4.1 MVS/ESA
UW04427		OW02171	568508501	VTAM V3R4.2 MVS/ESA
		OW03155	566528901	VTAM V3R3 MVS/XA
UW06384		OW04207	569511701	VTAM V4R1 MVS/ESA

5.4.1.9 Dynamic NETID

The service shown in Figure 19 is required to support Dynamic NETID.

Figure 19. Dynamic NETID

PTF	PUT	APAR	FMID or Comp ID	Product Involved
UD47076	N/A	DY40436	566636301	VTAM V3R3 VSE/ESA

5.4.1.10 Casual Connection

The service shown in Figure 20 is required for VTAM V3R2 to own an NCP that is casually connected to another subarea node.

Figure 20. Casual Connection

PTF	PUT	APAR	FMID or Comp ID	Product Involved
UY46395	9003	OY28682	HVT3303	VTAM V3R3 MVS/XA
UY41496	8908	OY23894	JVT3214	VTAM V3R2 MVS/370
UY48167	9003	OY29848	HVT3204	VTAM V3R2 MVS/370
UD44635	N/A	DY38544	566631301	VTAM V3R2 VSE
UD45516	N/A	DY39140	566631301	VTAM V3R2 VSE

5.4.2 NetView

The service shown in Figure 21 is required for NetView.

Figure 21. NetView

PTF	PUT	APAR	FMID or Comp ID	Product Involved
UY86306	9210	OY58886	568511101	NetView V2R2 MVS/ESA
UV57645		VM57145	575605101	NetView V2R2 VM/ESA

5.4.2.1 Session Monitor Support

The service shown in Figure 22 is required for NetView V2R4 Session Monitor support of VTAM V4R2 for multiple network connectivity, virtual-route-based transmission groups, and expanded addressing pool.

Figure 22. NetView - Session Monitor Support

PTF	PUT	APAR	FMID or Comp ID	Product Involved
		OW01612	568511101	NetView V2R4

5.4.2.2 Sense Code Support

The service shown in Figure 23 is required for NetView support of VTAM sense codes.

Figure 23. NetView - Sense Code Support

PTF	PUT	APAR	FMID or Comp ID	Product Involved
		OW00072	568511101	NetView V2R3
		OW00072	568511101	NetView V2R4

5.4.2.3 Enhanced Display Command Support

The service shown in Figure 24 is required for NetView V2R4 support of VTAM DISPLAY command enhancements.

Figure 24. NetView - Enhanced DISPLAY Command Support

PTF	PUT	APAR	FMID or Comp ID	Product Involved
		OW03772	568511101	NetView V2R4

5.4.3 NPM

5.4.3.1 NPM V2R2

The service shown in Figure 25 is required for NPM V2R2 users.

Figure 25. NPM V2R2

PTF	PUT	APAR	FMID or Comp ID	Product Involved
		VM59042	5654011	NPM V2R2

5.4.3.2 Expanded Addressing Pool

The service shown in Figure 26 is required if the Expanded Addressing Pool capability is enabled (ENHADDR=YES in VTAM start options).

Figure 26. Expanded Addressing Pool

PTF	PUT	APAR	FMID or Comp ID	Product Involved
UW03386		OW02263	566533301	NPM V1R6

5.4.3.3 VTAM Statistics Collection Feature

The service shown in Figure 27 is required to use the VTAM Statistics Collection Feature of NPM Version 2 with VTAM V4R2.

Figure 27. VTAM Statistics Collection Feature

PTF	PUT	APAR	FMID or Comp ID	Product Involved
UW03989		OW01766	566504300	NPM V2R1

5.4.4 S/36

The service shown in Figure 28 is required for S/36 network nodes to support VTAM APPN network nodes.

Figure 28. S/36

PTF	PUT	APAR	FMID or Comp ID	Product Involved
U653395		S344644	5727SS1IL	S/36 R5.1
U760597		S344645	5727SS6IL	S/36 R6.0

5.4.5 AS/400

5.4.5.1 AS/400 Network Node

The service shown in Figure 29 is required for AS/400 network nodes to support VTAM APPN.

Figure 29. AS/400 Network Node

PTF	PUT	APAR	FMID or Comp ID	Product Involved
MF03816		MA06029	9400DG3CM	AS/400 V2R1M0
MF04664		MA06029	9400DG3CM	AS/400 V2R1M1
MF03938		MA06029	9400DG3CM	AS/400 V2R2M0
MF06293		MA06920	9400DG3DB	AS/400 V2R2M0

5.4.5.2 AS/400 Supporting VTAM Connection Network

The service shown in Figure 30 is required for AS/400 to support VTAM Connection Network.

Figure 30. AS/400 supporting VTAM Connection Network

PTF	PUT	APAR	FMID or Comp ID	Product Involved
MF04870		MA07777	5738999	AS/400 V2R2M0

5.4.5.3 AS/400 Supporting VTAM Across Switched Connections

The service shown in Figure 31 is required for AS/400 to support VTAM APPN across switched connections.

Figure 31. AS/400 service supporting VTAM across switched connections

PTF	PUT	APAR	FMID or Comp ID	Product Involved
MF04871		MA06122	5738999	AS/400 V2R1M0
MF04869		MA06122	5738999	AS/400 V2R1M1

5.4.6 ES

The service shown in Figure 32 is required for ES to support VTAM APPN.

Figure 32. ES

CSD	PUT	APAR	FMID or Comp ID	Product Involved
WR06025		JR06359	562121301	ES 1.0
WR06025		JR06360	562121301	ES 1.0
WR06025		JR06361	562121301	ES 1.0
WR06025		JR06363	562121301	ES 1.0
WR06025		JR06364	562121301	ES 1.0
WR06025		JR06643	562121301	ES 1.0
WR06025		JR06644	562121301	ES 1.0

5.4.7 NS/2

The service shown in Figure 33 is required for NS/2 to support VTAM APPN.

Figure 33. NS/2

CSD	PUT	APAR	FMID or Comp ID	Product Involved
WR20147		JR05616	562115500	NS/2 V1R1M0
WR20147		JR05708	562115500	NS/2 V1R1M0
WR20147		JR05763	562115500	NS/2 V1R1M0
WR20147		JR05837	562115500	NS/2 V1R1M0
WR20147		JR05838	562115500	NS/2 V1R1M0
		JR05851	562115500	NS/2 V1R1M0
		JR06291	562115500	NS/2 V1R1M0

5.4.8 ISPF

The service shown in Figure 34 is required for ISPF to support VTAM interactive dump formatting and trace analysis.

Figure 34. ISPF

PTF	PUT	APAR	FMID or Comp ID	Product Involved
UY79484	9205	OY53592	568505401	ISPF V3R2
UY61994	9103	OY40082	568505401	ISPF V3R2

5.4.9 DPPX

The service shown in Figure 35 is required for DPPX to support VTAM APPN.

Figure 35. DPPX

PTF	PUT	APAR	FMID or Comp ID	Product Involved
UF09376		DF20010	566029201	DPPX R3

5.4.10 SSP

This section contains the required service for SSP to use Full Buffer Trace, Line Trace, and to prevent wasted storage if no frame relay resources are defined.

5.4.10.1 Full Buffer Trace

The service shown in Figure 36 is required to use Full Buffer Trace.

Figure 36. Full Buffer Trace

PTF	PUT	APAR	FMID or Comp ID	Product Involved
UR38835	9302	IR99727	5665338	SSP V3R8 MVS
UR38836	9303	IR99728	5664289	SSP V3R8 VM

5.4.10.2 Line Trace

The service shown in Figure 37 is required to use Line Trace.

Figure 37. SSP with Line Trace

PTF	PUT	APAR	FMID or Comp ID	Product Involved
UR38837	9302	IR99729	5665338	SSP V3R8 MVS
UR39210	9303	IR22325	5664289	SSP V3R8 VM

5.4.10.3 No Frame Relay Resources Defined

The service shown in Figure 38 is required to prevent wasted storage if no frame relay resources are defined.

Figure 38. SSP with No Frame Relay Resource Definitions

PTF	PUT	APAR	FMID or Comp ID	Product Involved
UR39209	9303	IR22322	5665338	SSP V3R8 MVS
UR38838	9303	IR99730	5664289	SSP V3R8 VM

5.4.11 First Failure Service Technology/Failure Analysis Structure Tables

First Failure Service Technology (FFST) Release 2 is the minimum level required. Refer to the FFST PSP bucket for required maintenance. If you plan to use Failure Analysis Structure Tables (FAST) Services, you must also apply the service listed for FAST.

5.4.12 NCP

5.4.12.1 Route INOP Reduction

The service shown in Figure 39 is required for NCP to use the VTAM ROUTE INOP reduction function.

Figure 39. NCP

PTF	PUT	APAR	FMID or Comp ID	Product Involved
UR38187	9208	IR97026	566873801	NCP V5R4 MVS
UR38188	9302	IR97026	566873801	NCP V5R4 VM
UR38189		IR97026	566873801	NCP V5R4 VSE

5.4.12.2 XID Change

The service shown in Figure 40 is required if the largest PIU sent to the NCP is larger than the lowest value of (MAXBFRU*UNITSZ) - BFRPAD on a HOST statement. VTAM includes support for LNCTL=CA (D/T 3745).

Figure 40. XID Change for VTAM with NCP

PTF	PUT	APAR	FMID, REL, or CLC	Product Involved
UR20157	8708	IR76227	HNC4105	NCP V4R1 MVS
UR21056	8802	IR76227	HNC4205	NCP V4R2 MVS
UR21054	N/A	IR76227	A65	NCP V4R1 VSE
UR21055	8802	IR76227	425	NCP V4R2 VM

5.4.13 VM Operating Environments

The following are the VM operating system considerations.

5.4.13.1 VM/ESA Version 1 Release 2.1

The service shown in Figure 41 is required for VM/ESA Version 1 Release 2.1.

Figure 41. VM/ESA V1R2.1

PTF	PUT	APAR	FMID or Comp ID	Product Involved
		VM59196	568411204	AVS
UM26881		VM58859	568411202	CP

5.4.13.2 VM/ESA Version 1 Release 2.2

The service shown in Figure 42 is required for VM/ESA Version 1 Release 2.2.

Figure 42. VM/ESA V1R2.2

PTF	PUT	APAR	FMID or Comp ID	Product Involved
		VM59196	568411204	AVS
UM26835		VM58989	568411202	CP
UM26882		VM58859	568411202	CP

5.4.14 Connectivity Environments

The devices and programs shown in Figure 43 can require the listed service in order to successfully contact or operate with a VTAM MVS/ESA host system.

Figure 43. Connectivity Environments

PTF	PUT	APAR	Comments
PC00329	--	S110206	Series/1 * RPS Releases 7.1 and 7.2 Running APPC, SSCP-LU normal flow rejected with expedited and format indicator bits on.
PC00457	--	S110359	Series/1 RPS Releases 7.1 and 7.2 SSCP-LU session active and another ACTLU received by S/1. S/1 rejects 2nd ACTLU 0815, preventing takeover.
UR20904	--	IR76161	APPC/PC Hang - Interrupt vector not restored.
51-801	DK3602	S337080	SYSTEM/36 * Release 5.1 Required for T2.1 support.
--	--	MT05481	SYSTEM/38 Release 8.0 XID exchange fails, contact not achieved.
UF08194	--	DF18426	DPPX/SP After Host System IPL, unable to re-establish sessions with DPPX.
Micro code Fix MCF05	--	EC Level A58809	3708 Protocol Converter Unable to process UNBIND Type = X'0A'
		EC Level PTRA6D5	All D/T 3174 Configured with Multiple Logical Terminal Support and using VTAM SDDLU.
		EC Level CHAN3002 OLVH27	All D/T 3737 users with VTAM V3R4 and later.
		PTRAE11	Required for all D/T 3737 when attached to the same Connection Network as VTAM V4R2.

5.4.15 Program Installation/Service Considerations

This section describes items that should be considered before you install or service VTAM V4R2 for VM/ESA.

5.4.15.1 Installation

- VMSES/E is required to install and service this product.
- The defaults provided by VTAM for the installation and service processes assume that you are using the new IBM-suggested user ID **5654010A** that has a privilege class of **EG**.
- Throughout the installation and service instructions provided in this program directory, the use of IBM-supplied default minidisk addresses and user ID 5654010A is assumed and recommended. If you use a different user ID or minidisk addresses to install VTAM V4R2 for VM/ESA, adapt these instructions as needed for your environment. A PPF override must be created if you use a different installation user ID or if you use different minidisk addresses.

  Note: It is recommended that you make the changes during the installation procedure 6.2.1, “Plan Your Installation” step 6 on page 40, rather than after you have installed this product.

- For service to products which may be required for the use of VTAM V4R2 for VM/ESA, see 5.4, “Cross Product Service Considerations” on page 13.

5.4.15.2 VSCS

VSCS is a 31-bit address mode application.

The VSCS data translation exits and the logon exit are required to be written in 31-bit addressing mode.

If DTIUSERx is coded, it must be recompiled using the new DTIGEN macro or VSCS will initialize using defaults and a message will be issued indicating recompile required.

5.4.15.3 VTAM and GCS Virtual Machines

The ES/9000 * Token-Ring adapter must be defined to VM (in HCPRIO) with a device type of ICA and adapter ILAN. Four channel addresses must be defined and attached to the VTAM virtual machine or sense code 081C 0008 or 081C 000C will result when an attempt is made to activate the LAN Major node.

Warning: GCS is capable of supporting only one VTAM segment. While you can save more than one segment for a single GCS, it is not recommended because you cannot activate more than one and you cannot specify which one is loaded.

The virtual machine in the GCS group assigned as the dump receiver must be an authorized machine. Following is the recommended CP command to dump a virtual machine without changing the machine's running environment.

```
#CP VMDUMP 0-END DSS FORMAT GCS TO userid
```

5.4.15.4 Initialization

If VTAM V4R2 for VM/ESA is started with the wrong Discontiguous Shared Segment (DCSS), VTAM initialization will fail.

To define your VTAM DCSS, you will need to find enough contiguous space for it. At least 1M is required and the segment range of X'600 - X'6FF' is recommended.

VTAM V4R2 for VM/ESA is available in three separate packages, each offering different levels of function at different prices:

- Client/Server
- MultiDomain
- InterEnterpise.

For complete information about these packages, refer to the *Overview of VTAM V4R2 for VM/ESA and VSE/ESA*.

If you start VTAM with your own user-written startup EXEC, you must supply the following information in your startup EXEC before you start VTAM:

- Your IBM customer number
- The VTAM password for the package you have installed.

If you start VTAM with the IBM-supplied sample startup EXEC (found on the samples disk), VTAM is initialized as Client/Server. If you have ordered MultiDomain or InterEnterprise, before you start VTAM, you must edit the sample startup EXEC and replace the default customer number and VTAM password (specified on the VTAM START command) with your customer number and VTAM password obtained separately from IBM. If you have ordered Client/Server, IBM recommends that you follow this same procedure so that your unique customer number and VTAM password are contained in your startup EXEC.

For complete information about what to include in your startup EXEC, refer to the *VTAM Network Implementation Guide*.

5.5 System Considerations

It is recommended that all products running with VTAM V4R2 for VM/ESA be at the latest service level.

For a description of the compatibility and coexistence of VTAM V4R2 for VM/ESA with prior releases of VTAM and with other related IBM licensed programs, refer to the Program Announcement Letter and the *VTAM Release Guide*.

User written command lists that use VTAM commands and wait for the VTAM response messages may never get the expected reply. Refer to the *VTAM Release Guide* or the *VTAM Messages and Codes* for a list of all VTAM messages which were either modified or deleted for this release.

VTAM V4R2 for VM/ESA validates the RPLCBID field and the RPLLEN2 field in the RPL to ensure that the RPL is valid. If either field is not correct, the RPL request will be rejected because of an invalid RPL control block.

5.6 DASD Storage and User ID Requirements

Figure 44 on page 32 lists the user IDs and minidisks that are used to install and service VTAM V4R2 for VM/ESA.

Important Installation Notes:

- User ID(s) and mindisks will be defined in 6.2.1, “Plan Your Installation” on page 37 and are listed here so that you can get an idea of the resources that you need prior to allocating these resources.
- 5654010A is a default user ID and can be changed. It is recommended that the default user ID be used to install and service VTAM V4R2 for VM/ESA. If you choose to change the name of the installation user ID you need to create a Product Parameter Override (PPF) to change the name. This can be done in 6.2.1, “Plan Your Installation” step 6 on page 40.

Note: If you choose to install VTAM V4R2 for VM/ESA on a common user ID the default minidisk addresses for VTAM V4R2 for VM/ESA might already be defined. If any of the default minidisks required by VTAM V4R2 for VM/ESA are already in use you will have to create an override to change the default minidisks for VTAM V4R2 for VM/ESA so they are unique.

Figure 44 (Page 1 of 2). DASD Storage Requirements for Target Minidisks

Minidisk owner (user ID)	Default Address	Storage in Cylinders		1K Blocks	4K Blocks	Disk Name / Description
		DASD	CYLS			
5654010A	2B2	3380 3390 9345	75 70 83	34500	11200	**BASE1 disk** Contains all the base code shipped with VTAM. Old name: BASE disk
5654010A	2C2	3380 3390 9345	5 5 5	2000	750	**LOCALSAM disk** Contains customization files. This disk may also be used for local modifications. Old name: VTM191 disk
5654010A	2D2	3380 3390 9345	20 19 22	9000	3000	**DELTA disk** Contains serviced files. Old name: DELTA disk
5654010A	2C4	3380 3390 9345	2 2 2	800	300	**LOCALMOD disk** Contains customization files. This disk can also be used for local customer modifications. Old name: ZAP disk
5654010A	2A6	3380 3390 9345	10 10 11	4500	1500	**APPLY TEST/ALTERNATE disk** Contains AUX files and software inventory tables that represent the test service level of VTAM. After testing, copy to the 2A2 disk. Old Name: MERGE disk
5654010A	2A2	3380 3390 9345	10 10 11	4500	1500	**APPLY PRODUCTION disk** Contains AUX files and software inventory tables that represent the service level of VTAM that is currently in production. Old name: MERGE disk
5654010A	49A	3380 3390 9345	40 37 44	18200	6000	**BUILD0 TEST/ALTERNATE disk** Test build disk for VTAM server. Contains load libraries and execs. After testing, copy to the 29A disk. Old name: RUN disk.
5654010A	29A	3380 3390 9345	40 37 44	18200	6000	**BUILD0 PRODUCTION disk** Production build disk for VTAM server. Old name: RUN disk

Note: Cylinder values defined in this table are based on a 1k block size. Block values are derived from the 3380 cylinder values in this table.

Figure 44 (Page 2 of 2). DASD Storage Requirements for Target Minidisks

Minidisk owner (user ID)	Default Address	Storage in Cylinders		1K Blocks	4K Blocks	Disk Name / Description
		DASD	CYLS			
5654010A	402	3380 3390 9345	3 3 3	1000	400	**BUILD4 TEST/ALTERNATE disk** Test build disk for Online OS/2 tools files. After testing, copy to the 401 disk. Old name: Files were on RUN disk
5654010A	401	3380 3390 9345	3 3 3	1000	400	**BUILD4 PRODUCTION disk** Production build disk for Online OS/2 tools files. Old name: Files were on RUN disk
5654010A	493	3380 3390 9345	4 4 4	1500	500	**BUILD2 TEST/ALTERNATE disk** Test build disk for DVF, Tracered, and Formatted Trace. After testing, copy to the 193 disk. Old name: TRACERED/DVF disk
MAINT	193	3380 3390 9345	4 4 4	1500	500	**BUILD2 PRODUCTION disk** Production build disk for DVF, Tracered, and Formatted Trace. Old name: TRACERED/DVF disk
5654010A	191	3380 3390 9345	20 19 22	9000	3000	5654010A user ID's 191 minidisk.
VTAM						The VTAM user ID will link to the 5654010A user ID's 2C2 disk as its 191 disk.

Note: Cylinder values defined in this table are based on a 1k block size. Block values are derived from the 3380 cylinder values in this table.

Notes:

1. Though the cylinder values in the chart above are based on a 1K blocksize, you may allocate your DASD with any optimal blocksize you prefer.
2. In the chart above, all minidisks owned by the installation user ID (5654010A) should be linked with write access. All other minidisks only require read access.
3. The space requirements for the APPLY, DELTA, and LOCALMOD disks are initial recommended sizes. You may need to increase the disk space according to your service needs.
4. The space allocation for the MAINT 193 disk is necessary only for installing VTAM V4R2 for VM/ESA. This allocation should not be used as the maximum minidisk size because other products might also require space on the same minidisk.
5. The 193 disk is used for TRACERED/DVF files. The PLANINFO file created during the installation process lists the 193 disk as being owned by user ID 5654010A. If you have multiple products that

use a common disk for TRACERED/DVF files, then you may want to use that common disk (a 193 disk owned by user ID MAINT as shown in the chart above) rather than using a 193 disk owned by user ID 5654010A.

6.0 Installation Instructions

This chapter describes the installation methods and the step-by-step procedures to install and activate VTAM V4R2 for VM/ESA.

The step-by-step procedures are in two column format. The steps to be performed are in bold large numbers. Commands for these steps are on the left side of the page in bold print. Additional information for a command exist to the right of the command. For more information about the two column format, refer to “Understanding Dialogs with the System” in *VM/ESA Installation (SC24-5526)*.

Each step of the installation instructions must be followed. Do not skip any step unless directed otherwise.

Throughout these instructions, the use of IBM-supplied default minidisk addresses and installation user ID **5654010A** is assumed. If you use a different user ID or minidisk addresses to install VTAM V4R2 for VM/ESA, adapt these instructions as needed for your environment.

Refer to *VMSES/E Introduction and Reference* for details on the use and syntax of the VMSES/E commands you use to install VTAM V4R2 for VM/ESA.

Note:

The sample console output presented throughout these instructions was produced on a VM/ESA Version 1 Release 2.2 system. If you are installing VTAM V4R2 for VM/ESA on a different VM/ESA system, the results obtained for some commands might differ from those depicted here.

6.1 Installation of VTAM V4R2 for VM/ESA with VMSES/E (VMFINS)

You use VMFINS to install VTAM V4R2 for VM/ESA. VMFINS is an installation aid supplied as part of VMSES/E to make installation of VM and Licensed Program Products (LPs) consistent.

For a complete description of all VMFINS installation options refer to *VMSES/E Introduction and Reference* (SC24-5444).

6.2 VMSES/E Installation Process Overview

The following is a brief description of the main steps in installing VTAM V4R2 for VM/ESA using VMSES/E:

- Plan Your Installation for VTAM V4R2 for VM/ESA

  Use the VMFINS command to load several VMSES/E files from the product tape to obtain VTAM V4R2 for VM/ESA resource requirements. For more information, see 6.2.1, “Plan Your Installation” on page 37.

- Allocate Resources for Installing VTAM V4R2 for VM/ESA

  Use the information obtained from the previous step to allocate the appropriate minidisks and user IDs needed to install and use VTAM V4R2 for VM/ESA. For more information, see 6.2.2, “Allocate Resources for Installing VTAM V4R2 for VM/ESA” on page 41.

- Install the VTAM V4R2 for VM/ESA Product

  Use the VMFINS command to load the VTAM V4R2 for VM/ESA product files from tape to the test BUILD and BASE minidisks/directories. For more information, see 6.2.3, “Install VTAM V4R2 for VM/ESA” on page 42.

- Update the Build Status Table

  Use VMFINS to update the VM SYSBLDS file used by VMSES/E for software inventory management. For more information, see 6.2.4, “Update Build Status Table for VTAM V4R2 for VM/ESA” on page 45.

- Activate VTAM V4R2 for VM/ESA

  For information about initial activation of VTAM V4R2 for VM/ESA, see 6.3.2, “Activate the Program” on page 54.

- Copy VTAM V4R2 for VM/ESA Files Into Production

  Once the product files have been tailored and the operation of VTAM V4R2 for VM/ESA is satisfactory, the product files are copied from the test BUILD disk(s) to production BUILD. For more information, see 6.3.3, “Copy VTAM Files Into Production” on page 55.

- Install VTAM VIT Analysis Tool

  If you will be using the VTAM VIT Analysis Tool, see Appendix B, “Installing the VTAM VIT Analysis Tool” on page 73 for the steps to complete the installation of this tool.

- Install OS/2 Code provided by VTAM

  Once VTAM V4R2 for VM/ESA has been installed, you need to download and unpack the VTAM-provided OS/2 DLUR and the VTAM Command Set Library. For more information, see Appendix C, “Installing the VTAM-provided OS/2 DLUR” on page 82 and Appendix D, “Installing the VTAM Command Set Library” on page 85, respectively.

- Install Tables and Local/User Modules

  See section 6.3.6, “Install Tables and Local/User Modules” on page 57 for information on making local modifications to your system.

For a complete description of all VMSES/E installation options refer to *VMSES/E Introduction and Reference* (SC24-5444).

6.2.1 Plan Your Installation

You use the VMFINS command to plan the installation. This is a two step process that:

- Loads the first tape file, containing installation files
- Generates a “PLANINFO” file listing containing:
  - All user ID and minidisk requirements
  - All the required products

To obtain planning information for your environment:

1. Log on as the installer/planner.

   This user ID can be **any** ID that has read access to MAINT's 5E5 minidisk and write access to MAINT 51D minidisk.

2. Mount the VTAM V4R2 for VM/ESA installation tape and attach it to the user ID at virtual address 181. The VMFINS EXEC requires the tape drive to be at virtual address 181.

3. Establish read access to the VMSES/E code.

link maint 5e5 5e5 rr **access 5e5 b**	VMSES/E resides on the 5E5 disk.

4. Establish write access to the Software Inventory disk.

link maint 51d 51d mr **access 51d d**	The VMSES/E system-level Software Inventory and other dependent files reside on the MAINT 51D disk.

Note: If another user is currently linked to the MAINT 51D minidisk in write mode (R/W), you will obtain only read access (R/O). If this occurs, you need to have that user re-link to the 51D in read-only mode (RR), and then re-issue the above LINK and ACCESS commands. Do not continue with these procedures until you establish a R/W link to the 51D minidisk.

5 Load the VTAM V4R2 for VM/ESA product control files to the 51D minidisk.

vmfins install info (nomemo

The NOMEMO option loads the memo from the tape but does not issue a prompt to send the memo to the system printer. Specify the MEMO option if you want to be prompted to print the memo.

The INSTALL INFO command performs the following:

- Loads the Memo-to-Users (contains a pointer to this Program Directory and the *VTAM Network Implementation Guide*)
- Loads various product control files, including the Product Parameter File (PPF) and the PRODPART files
- Creates VMFINS PRODLIST on your A-disk. The VMFINS PRODLIST contains a list of products on the installation tape.

When complete, VMFINS returns the following:

```
vmfins install info (nomemo
VMFINS2767I Reading VMFINS DEFAULTS B for additional options
VMFINS2760I VMFINS processing started
VMFINS1909I VMFINS PRODLIST created on your A-disk
VMFINS2760I VMFINS processing completed successfully
Ready;
```

Figure 45. Sample console output - Load product control files

6 Obtain resource planning information for VTAM V4R2 for VM/ESA.

vmfins install ppf 5654010A VTAM (plan nomemo

The PLAN option specifies that VMFINS performs requisite checking, plans system resources, and provides an opportunity to override the defaults in the product parameter file (PPF). VTAM will **not** be loaded at this time using this form of the VMFINS command.

You can override any of the following:

- The name of the product parameter file (PPF)
- The default user IDs
- The minidisk/directory definitions

Note:

- If you change the PPF name, a default user ID, or any other parameters via a PPF override, you need to use your changed values instead of those indicated (when appropriate), throughout the rest of these installation instructions, as well as the instructions provided for servicing VTAM V4R2 for VM/ESA. For example, you will need to specify your PPF override file name instead of 5654010A for certain VMSES/E commands.
- If you are not familiar with creating PPF overrides using VMFINS, see "Using the Make Override Panel" section in Chapter 3 of the *VMSES/E Introduction and Reference* before you continue.

```
vmfins install ppf 5654010a vtam (plan nomemo
VMFINS2767I Reading VMFINS DEFAULTS B for additional options
VMFINS2760I VMFINS processing started
VMFINS2601R Do you want to create an override for :PPF 5654010A
            VTAM :PRODID 5654010A%VTAM?
            Enter 0 (No), 1 (Yes) or 2 (Exit)
0
VMFINS2603I Processing product :PPF 5654010A VTAM :PRODID
            5654010A%VTAM
VMFREQ2805I Product :PPF 5654010A VTAM :PRODID 5654010A%VTAM
            has passed requisite checking
VMFINT2603I Planning for the installation of product :PPF
            5654010A VTAM :PRODID 5654010A%VTAM
VMFRMT2760I VMFRMT processing started
VMFRMT2760I VMFRMT processing completed successfully
VMFINS2760I VMFINS processing completed successfully
Ready;
```

Figure 46. Sample console output - Obtain resource planning information

7 Review the install message log ($VMFINS $MSGLOG). All install message logs are written to the installation user ID's A-disk. If necessary, correct any problems before going on. For information about handling specific error messages, see *VM/ESA: System Messages and Codes*, or use online HELP.

vmfview install

6.2.2 Allocate Resources for Installing VTAM V4R2 for VM/ESA

Use the planning information in the 5654010A PLANINFO file, created in the **PLAN** step (section 6.2.1, “Plan Your Installation” on page 37) to create the 5654010A user directory for minidisk install.

1 Obtain the user directory from the 5654010A PLANINFO file.

Notes:

a. The **5654010A** user directory entry is located at the bottom of the PLANINFO file of the resource section; these entries will contain all of the links and privilege classes necessary for the 5654010A user ID. Use the directory entry found in PLANINFO as a model as input to your system directory.

b. Add the following statements to the **VTAM** user directory entry (in addition to the statements already in the PLANINFO file for the VTAM user directory entry):

```
NAMESAVE gcssystem
IPL gcssystem
```

Replace *gcssystem* with the name of your GCS system.

c. The PLANINFO file shows the 193 disk as being owned by user ID 5654010A. The 193 disk is used for TRACERED/DVF files. If you have multiple products that use a common disk for TRACERED/DVF files, then you may want to use that common disk (a 193 disk owned by user ID MAINT) rather than using a 193 disk owned by user ID 5654010A.

2 Add the MDISK statements to the directory entry for 5654010A. Use Figure 44 on page 32 to obtain the minidisk requirements.

3 Add the 5654010A directory to the system directory. Change the passwords for 5654010A from xxxxx to a valid password, in accordance with your security guidelines.

4 Place the new directories online using VM/Directory Maintenance (DIRMAINT) or an equivalent CP directory maintenance method.

> **Note**
>
> All minidisks for the 5654010A user ID must be formatted before installing VTAM V4R2 for VM/ESA.

6.2.3 Install VTAM V4R2 for VM/ESA

1 Logon to the installation user ID **5654010A**.

2 Create a PROFILE EXEC that contains the ACCESS commands for MAINT 5E5 and 51D minidisks.

```
xedit profile exec a
===> input /**/
===> input 'access 5e5 b'
===> input 'access 51d d'
===> file
```

3 Execute the profile to access MAINT's minidisks.

```
profile
```

4 Establish write access to the Software Inventory disk, if it is not already linked R/W.

Note: If the MAINT 51D minidisk was accessed R/O, you need to have the user who has it linked R/W re-access the disk as R/O. You then can issue the following commands to establish R/W access.

link maint 51d 51d mr
access 51d d

5 Have the VTAM V4R2 for VM/ESA installation tape mounted and attached to 5654010A at virtual address 181. The VMFINS EXEC requires the tape drive to be at virtual address 181.

6 Install VTAM V4R2 for VM/ESA.

Notes:

If you have already created a PPF override file, you should specify your override file name after the **ppf** keyword for the following VMFINS command.

You might be prompted for additional information during VMFINS INSTALL processing depending on your installation environment. If you are unsure how to respond to a prompt, refer to the “Installing Products with VMFINS” and “Install Scenarios” chapters in the *VMSES/E Introduction and Reference* to decide how to proceed.

vmfins install ppf 5654010A VTAM (nomemo nolink

The NOLINK option indicates that VMFINS is not to link to the appropriate minidisks, only access them if not accessed.

```
vmfins install ppf 5654010a vtam (nomemo nolink
VMFINS2767I Reading VMFINS DEFAULTS B for additional options
VMFINS2760I VMFINS processing started
VMFINS2601R Do you want to create an override for :PPF 5654010A
            VTAM :PRODID 5654010A%VTAM?
            Enter 0 (No), 1 (Yes) or 2 (Exit)
0
VMFINS2603I Processing product :PPF 5654010A VTAM :PRODID
            5654010A%VTAM
VMFREQ2805I Product :PPF 5654010A VTAM :PRODID 5654010A%VTAM
            has passed requisite checking
VMFINT2603I Installing product :PPF 5654010A VTAM :PRODID
            5654010A%VTAM
VMFSET2760I VMFSETUP processing started for 5654010A VTAM
VMFUTL2205I Minidisk|Directory Assignments:
            String    Mode  Stat  Vdev  Label/Directory
VMFUTL2205I LOCALSAM  E      R/W  2C2   DMR2C2
VMFUTL2205I LOCALMOD  F      R/W  2C4   DMR2C4
VMFUTL2205I APPLY     G      R/W  2A6   DMR2A6
VMFUTL2205I           H      R/W  2A2   DMR2A2
VMFUTL2205I DELTA     I      R/W  2D2   DMR2D2
VMFUTL2205I BUILD0    J      R/W  49A   DMR49A
VMFUTL2205I BUILD2    K      R/W  493   DMR493
VMFUTL2205I BUILD4    L      R/W  402   DMR402
VMFUTL2205I BASE1     M      R/W  2B2   DMR2B2
VMFUTL2205I --------  A      R/W  191   USR191
VMFUTL2205I --------  B      R/O  5E5   MNT5E5
VMFUTL2205I --------  C      R/O  292   ISP192
VMFUTL2205I --------  D      R/W  51D   MNT51D
VMFUTL2205I --------  S      R/O  190   MNT190
VMFUTL2205I --------  Y/S    R/O  19E   MNT19E
VMFSET2760I VMFSETUP processing completed successfully
VMFREC2760I VMFREC processing started
VMFREC1852I Volume 1 of 1 of INS TAPE 9500
VMFREC1851I (1 of 9) VMFRCAXL processing AXLIST
VMFRCX2159I Loading 0 part(s) to DELTA 2D2 (I)
VMFREC1851I (2 of 9) VMFRCPTF processing PARTLST
VMFRCP2159I Loading 0 part(s) to DELTA 2D2 (I)
VMFREC1851I (3 of 9) VMFRCCOM processing DELTA
VMFRCC2159I Loading 0 part(s) to DELTA 2D2 (I)
VMFREC1851I (4 of 9) VMFRCALL processing APPLY
VMFRCA2159I Loading part(s) to APPLY 2A6 (G)
VMFRCA2159I Loaded 1 part(s) to APPLY 2A6 (G)
VMFREC1851I (5 of 9) VMFRCALL processing BASE
VMFRCA2159I Loading part(s) to BASE1 2B2 (M)
VMFRCA2159I Loaded 3339 part(s) to BASE1 2B2 (M)
```

Figure 47 (Part 1 of 2). Sample console output - Install VTAM V4R2 for VM/ESA

```
VMFREC1851I (6 of 9) VMFRCALL processing SAMPLE
VMFRCA2159I Loading part(s) to LOCALSAM 2C2 (E)
VMFRCA2159I Loaded 18 part(s) to LOCALSAM 2C2 (E)
VMFREC1851I (7 of 9) VMFRCALL processing BUILD
VMFRCA2159I Loading part(s) to BUILD0 49A (J)
VMFRCA2159I Loaded 5 part(s) to BUILD0 49A (J)
VMFREC1851I (8 of 9) VMFRCALL processing TRACE
VMFRCA2159I Loading part(s) to BUILD2 493 (K)
VMFRCA2159I Loaded 26 part(s) to BUILD2 493 (K)
VMFREC1851I (9 of 9) VMFRCALL processing WSCODE
VMFRCA2159I Loading part(s) to BUILD4 402 (L)
VMFRCA2159I Loaded 4 part(s) to BUILD4 402 (L)
VMFREC2760I VMFREC processing completed successfully
VMFINT2603I Product installed
VMFINS2760I VMFINS processing completed successfully
Ready;
```

Figure 47 (Part 2 of 2). Sample console output - Install VTAM V4R2 for VM/ESA

7 Review the install message log ($VMFINS $MSGLOG). All install message logs are written to the installation user ID's A-disk. If necessary, correct any problems before going on. For information about handling specific error messages, refer to *VM/ESA: System Messages and Codes*, or use online HELP.

vmfview install

6.2.4 Update Build Status Table for VTAM V4R2 for VM/ESA

1 Update the VM SYSBLDS software inventory file for VTAM V4R2 for VM/ESA.

vmfins build ppf 5654010A VTAM (serviced nolink

The SERVICED option builds any parts that were not built on the installation tape (if any) and updates the Software Inventory build status table showing that the product 5654010A has been built.

```
vmfins build ppf 5654010a vtam (serviced nolink
VMFINS2767I Reading VMFINS DEFAULTS B for additional options
VMFINS2760I VMFINS processing started
VMFINS2603I Processing product :PPF 5654010A VTAM :PRODID
            5654010A%VTAM
VMFREQ2805I Product :PPF 5654010A VTAM :PRODID 5654010A%VTAM
            has passed requisite checking
VMFINB2603I Building product :PPF 5654010A VTAM :PRODID
            5654010A%VTAM
VMFSET2760I VMFSETUP processing started for 5654010A VTAM
VMFUTL2205I Minidisk|Directory Assignments:
            String    Mode  Stat  Vdev  Label/Directory
VMFUTL2205I LOCALSAM  E      R/W  2C2   DMR2C2
VMFUTL2205I LOCALMOD  F      R/W  2C4   DMR2C4
VMFUTL2205I APPLY     G      R/W  2A6   DMR2A6
VMFUTL2205I           H      R/W  2A2   DMR2A2
VMFUTL2205I DELTA     I      R/W  2D2   DMR2D2
VMFUTL2205I BUILD0    J      R/W  49A   DMR49A
VMFUTL2205I BUILD2    K      R/W  493   DMR493
VMFUTL2205I BUILD4    L      R/W  402   DMR402
VMFUTL2205I BASE1     M      R/W  2B2   DMR2B2
VMFUTL2205I --------  A      R/W  191   USR191
VMFUTL2205I --------  B      R/O  5E5   MNT5E5
VMFUTL2205I --------  C      R/O  292   ISP192
VMFUTL2205I --------  D      R/W  51D   MNT51D
VMFUTL2205I --------  S      R/O  190   MNT190
VMFUTL2205I --------  Y/S    R/O  19E   MNT19E
VMFSET2760I VMFSETUP processing completed successfully
VMFBLD2760I VMFBLD processing started
VMFBLD1851I Reading build lists
VMFBLD2182I Identifying new build requirements
VMFBLD2182I No new build requirements identified
VMFBLD2179I There are no build requirements matching your request
            at this time.
            No objects will be built
VMFBLD2180I There are 0 build requirements remaining
VMFBLD2760I VMFBLD processing completed successfully
VMFINB2603I Product built
VMFINB2173I No verification exec found for this product
VMFINS2760I VMFINS processing completed successfully
Ready;
```

Figure 48. Sample console output - Update software inventory file

2 Review the install message log ($VMFINS $MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, refer to *VM/ESA: System Messages and Codes*, or use online HELP.

vmfview install

6.3 Place VTAM Into Production

6.3.1 Define and Build the VTAM V4R2 for VM/ESA Saved Segments Using VMSES/E

You should build segments for VTAM V4R2 for VM/ESA. First, you define the segments to the system using the segment mapping tool VMFSGMAP. Once the segments are defined, use VMFBLD to build them.

For more information on using VMSES/E for saved segments, review the chapter, “Using VMSES/E to Define, Build, and Manage Saved Segments” in *VM/ESA Planning and Administration*.

Notes:

1. The defining and building of the VTAM V4R2 for VM/ESA saved segments should be performed from the installation user ID. If you move any segments that are currently defined on your system, you must ensure that they are rebuilt from the user ID that maintains them.
2. To define your VTAM DCSS, you will need to find enough contiguous space for it. At least 1M is required and the segment range of X'600 - X'6FF' is recommended.

1 Logon to the installation user ID **5654010A**.

2 Establish write access to the Software Inventory disk.

```
link maint 51d 51d mr
access 51d d
```

3 Add VTAM V4R2 for VM/ESA segment object definitions to the SEGBLIST EXC00000 build list.

vmfsgmap segbld esasegs segblist

This command displays a panel for making segment updates. See Figure 49 on page 49 for an example of the Segment Map panel.

```
                          VMFSGMAP - Segment Map                 More: -
                                                              Lines nn to nn of nn


Meg              004-MB          005-MB          006-MB          007-MB
St Name    Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
M GROUP1   SPA 4.............5.............6.............================
M NETVSG00 MEM 4.............5.............6.............7RRRRRRRRRRRRRR
M NPM      MEM 4.............5.............6.............R.............
M ISRDCSS  DCS 4.............5.............6.............RRRRRRRRRRRRRRR
M GCS      SYS RRRRRRNNNNNNNNNNNNNNNNNNNNNNNNNN6.............7.............
M GCSXA    SYS RRRRRRNNNNNNNNNNNNNNNNNNNNNNNNNN6.............7.............
M GCSXA1   SYS RRRRRRNNNNNNNNNNNNNNNNNNNNNNNNNN6.............7.............
M GCSXA2   SYS RRRRRRNNNNNNNNNNNNNNNNNNNNNNNNNN6.............7.............
M GCSXA3   SYS RRRRRRNNNNNNNNNNNNNNNNNNNNNNNNNN6.............7.............
M GCSXA4   SYS RRRRRRNNNNNNNNNNNNNNNNNNNNNNNNNN6.............7.............

Meg              008-MB          009-MB          00A-MB          00B-MB
St Name    Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
M DOSBAM   SPA 8.............9.............==============================
M CMSDOS   MEM 8.............9.............A.............R.............
M CMSBAM   MEM 8.............9.............A.............BRRR..........
M CMSAMS   MEM 8.............9.............WWW...........B...RRRRRR......
M CMSVSAM  MEM 8.............9.............A..W..........B.........RRRRRR
M ISPDCSS  DCS 8.............9.............RRRRRRRRRRRRRRRB.............
M CMSVMLIB DCS RRRRRRRRRRRRRRR9.............A.............B.............
M CMSPIPES DCS 8.............RRRRRRRRRRRRRRRA.............B.............
M DOSINST  DCS 8.............R--------------A.............B.............

Meg              00C-MB          00D-MB          00E-MB          00F-MB
St Name    Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
M HELPINST DCS RRRRRRRRRRRRRRRD.............E.............F.............
M CMS      SYS C.............D.............RRRRRRRRRRRRRRRRRRRRRRRRRRRRRR>

================================ 16-MB Line ================================
F1=Help     F2=Chk Obj   F3=Exit      F4=Chg Obj   F5=File      F6=Save
F7=Bkwd     F8=Fwd       F9=Retrieve  F10=Add Obj  F11=Del Obj  F12=Class
```

Figure 49. Segment Map panel example.

4 Select the Add Object panel by pressing PF10.

F10

F10 takes you from the Segment Map panel to the Add Segment Definition panel. See Figure 50 on page 50 to see an example of the Add Segment Definition panel.

```
                          Add Segment Definition
                                                        Lines 1 to nn of nn

 OBJNAME....:  VTAM
 DEFPARMS...:
 SPACE......:
 TYPE.......:  SEG
 OBJDESC....:
 OBJINFO....:
 GT_16MB....:  NO
 DISKS......:
 SEGREQ.....:
 PRODID.....:  5654010A
 BLDPARMS...:  UNKNOWN









 F1=Help     F2=Get Obj   F3=Exit      F4=Add Line  F5=Map        F6=Chk MEM
 F7=Bkwd     F8=Fwd       F9=Retrieve  F10=Seginfo  F11=Adj MEM   F12=Cancel
====>
```

Figure 50. Add Segment Definition panel example

5 Obtain the VTAM V4R2 for VM/ESA segment definitions from the PRODPART file by pressing F10.

OBJNAME....: **VTAM**
PRODID.....: **5654010A**

F10

F10 obtains the VTAM V4R2 for VM/ESA segment information from the 5654010A PRODPART file.

If you have created your own PPF override, then use your PPF name instead of 5654010A in the BLDPARMS field.

See Figure 51 on page 51 for the refreshed Add Segment definition panel that will be displayed.

```
                          Add Segment Definition              More: +
                                                            Lines 1 to nn of nn



 OBJNAME....:  VTAM
 DEFPARMS...:  600-6FF SR
 SPACE......:
 TYPE.......:  SEG
 OBJDESC....:  VTAM TEST SEGMENT
 OBJINFO....:  MUST BE BELOW 16M LINE....
 GT_16MB....:  NO
 DISKS......:
 SEGREQ.....:
 PRODID.....:  5654010A VTAM
 BLDPARMS...:  PPF(5654010A VTAM ISTSBSEG)



VMFSMD2760I SEGINFO processing completed SUCCESSFULLY
 F1=Help     F2=Get Obj   F3=Exit      F4=Add Line  F5=Map        F6=Chk MEM
 F7=Bkwd     F8=Fwd       F9=Retrieve F10=Seginfo   F11=Adj MEM   F12=Cancel
====>
```

Figure 51. Add Segment Definition panel showing the segments

6 Return to the Segment Map panel by pressing F5.

F5

F5 returns you to the Segment Map panel. See Figure 52 on page 52 for an example of the refreshed Segment Map panel.

```
                          VMFSGMAP - Segment Map                 More: -
                                                              Lines nn to nn of nn


Meg              004-MB          005-MB          006-MB          007-MB
St Name    Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
M GROUP1   SPA 4.............5.............6.............================
M NETVSG00 MEM 4.............5.............6.............7RRRRRRRRRRRRRRR
M NPM      MEM 4.............5.............6.............R..............
P VTAM     DCS 4.............5.............RRRRRRRRRRRRRRR7..............
M ISRDCSS  DCS 4.............5.............6.............RRRRRRRRRRRRRRR
M GCS      SYS RRRRRRNNNNNNNNNNNNNNNNNNNNNNNNNN6.............7..............
M GCSXA    SYS RRRRRRNNNNNNNNNNNNNNNNNNNNNNNNNN6.............7..............
M GCSXA1   SYS RRRRRRNNNNNNNNNNNNNNNNNNNNNNNNNN6.............7..............
M GCSXA2   SYS RRRRRRNNNNNNNNNNNNNNNNNNNNNNNNNN6.............7..............
M GCSXA3   SYS RRRRRRNNNNNNNNNNNNNNNNNNNNNNNNNN6.............7..............
M GCSXA4   SYS RRRRRRNNNNNNNNNNNNNNNNNNNNNNNNNN6.............7..............

Meg              008-MB          009-MB          00A-MB          00B-MB
St Name    Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
M DOSBAM   SPA 8.............9.............==========================
M CMSDOS   MEM 8.............9.............A.............R..............
M CMSBAM   MEM 8.............9.............A.............BRRR............
M CMSAMS   MEM 8.............9.............WWW...........B...RRRRRR......
M CMSVSAM  MEM 8.............9.............A..W..........B.........RRRRRR
M ISPDCSS  DCS 8.............9.............RRRRRRRRRRRRRRRB..............
M CMSVMLIB DCS RRRRRRRRRRRRRRR9.............A.............B..............
M CMSPIPES DCS 8.............RRRRRRRRRRRRRRRA.............B..............
M DOSINST  DCS 8.............R--------------A.............B..............

Meg              00C-MB          00D-MB          00E-MB          00F-MB
St Name    Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
M HELPINST DCS RRRRRRRRRRRRRRRD.............E.............F..............
M CMS      SYS C.............D.............RRRRRRRRRRRRRRRRRRRRRRRRRRRRRR>

================================ 16-MB Line ================================
F1=Help     F2=Chk Obj   F3=Exit      F4=Chg Obj   F5=File       F6=Save
F7=Bkwd     F8=Fwd       F9=Retrieve  F10=Add Obj  F11=Del Obj   F12=Class
```

Figure 52. Segment Map panel

7 Save the new information and exit from the Segment Map panel by pressing F5.

F5

F5 saves all changed information and exits the map panel.

8 Prepare to build the segments. This is a three step process.

a IPL CMS to clear the virtual storage

ipl cms parm clear nosprof instseg no

***** DO NOT press ENTER at the VMREAD!*****

This command allows you to bypasses the execution of the system profile (SYSPROF EXEC) without loading the installation saved segment (CMSINST).

access (noprof Bypass the execution of the PROFILE EXEC.

b Access the VMSES/E code

access 5e5 b

c Establish write access to the Software Inventory disk

link maint 51d 51d mr
access 51d d

9 Issue VMFBLD command to build the VTAM V4R2 for VM/ESA segments.

vmfbld ppf segbld esasegs segblist VTAM (all

```
VMFBLD PPF SEGBLD ESASEGS SEGBLIST VTAM (ALL
VMFBLD2760I VMFBLD processing started
VMFBLD1851I Reading build lists
VMFBLD2182I Identifying new build requirements
VMFBLD2182I New build requirements identified
VMFBLD1851I (1 of 1) VMFBDSEG processing SEGBLIST EXC00000,
            target is BUILD 51D (D)
VMFBDS2115I Validating segment VTAM
VMFBDS2002I A DEFSEG command will be issued for 1 segment(s).
VMFBDS2219I Processing object VTAM.SEGMENT
DMSNXM941I Nucleus extension VTAMDCSS is not loaded
HCPNSS440I Saved segment VTAM was successfully saved in fileid
           0100.
VTAM904I The VTAM SEGMENT, VTAM  has been successfully saved
VMFBLD1851I (1 of 1) VMFBDSEG completed with return code 0
VMFBLD2180I There are 1 build requirements remaining
VMFBLD2760I VMFBLD processing completed successfully
Ready;
```

Figure 53. Sample console output - Build the VTAM V4R2 for VM/ESA segment

6.3.2 Activate the Program

Perform the following steps to ensure that VTAM V4R2 for VM/ESA was installed properly:

1. Prepare your operating system.

   Refer to the *VTAM Network Implementation Guide* to prepare your operating system prior to activating VTAM.

2. Modify the startup EXEC you will be using, if necessary.

   Refer to “Initialization” in 5.4.15, “Program Installation/Service Considerations” on page 28 for information on changes you might need to make to your startup EXEC prior to starting VTAM at the Client/Server, MultiDomain, or InterEnterprise functional level.

3. Logon to your VTAM user ID **VTAM**.

4 Detach the PRODUCTION (29A) disk and link to the installation user ID's RUN TEST/ALTERNATE (49A) disk.

detach 29a
link 5654010a 49a 29a rr

User ID 5654010A's 2C2 disk should be automatically linked as **VTAM's** 191 disk. The LINK statement to do this was defined in the VTAM user directory entry in the 5654010A PLANINFO file created in the **PLAN** step (section 6.2.1, “Plan Your Installation” on page 37).

5 IPL GCSXA. If your GCS system is not named 'gcsxa', then IPL using your GCS system name.

i gcsxa

6 Bring up VTAM using the sample VMVTAM startup EXEC.

vmvtam

Message IST020I tells you that VTAM is operational.

7 To end VTAM, enter VTAM HALT.

vtam halt

6.3.3 Copy VTAM Files Into Production

1 Logon to the installation user ID **5654010A**.

2 Access the BUILD0 TEST/ALTERNATE (49A) disk and the BUILD0 PRODUCTION (29A) disk.

access 49a e
access 29a f

3 Issue the VMFCOPY command to copy all the files from the BUILD0 TEST/ALTERNATE (49A) disk to the BUILD0 PRODUCTION (29A) disk. Note that message VMFCOP2866I will be received indicating that file VMSES PARTCAT will not be copied.

vmfcopy * * e = = f (prodid 5654010A%VTAM olddate replace

4 Access the BUILD4 TEST/ALTERNATE (402) disk and the BUILD4 PRODUCTION (401) disk.

```
access 402 e
access 401 g
```

5 Issue the VMFCOPY command to copy all the files from the BUILD4 TEST/ALTERNATE (402) disk to the BUILD4 PRODUCTION (401) disk.

```
vmfcopy * * e = = g (prodid 5654010A%VTAM olddate replace
```

6 Access the BUILD2 TEST/ALTERNATE (493) disk and MAINT's 193 disk.

```
link maint 193 193 mr
access 493 e
access 193 h
```

7 Issue the VMFCOPY command to copy all the files from the BUILD2 TEST/ALTERNATE (493) disk to MAINT's 193 disk.

```
vmfcopy * * e = = h (prodid 5654010A%VTAM olddate replace
```

8 Now that you have copied the contents of the test/alternate disks to their corresponding production disks you will need to have the VTAM user ID link to the 5654010A user ID's BUILD0 PRODUCTION (29A) disk that contains the production-level VTAM load libraries and EXECs.

If you logged off the VTAM user ID after completing the steps in 6.3.2, “Activate the Program” on page 54, then when you log that ID back on it will automatically link to the 5654010A user ID's 29A disk.

If you have not logged off the VTAM user ID after completing the steps in 6.3.2, “Activate the Program” on page 54, then from the VTAM user ID issue the following commands to link to the 5654010A user ID's 29A disk.

```
detach 29a
link 5654010a 29a 29a rr
```

VTAM V4R2 for VM/ESA is now installed and built on your system.

6.3.4 Install VTAM VIT Analysis Tool

If you will be using the VTAM VIT Analysis Tool you will need to perform some additional steps to complete the installation of this function. For more information, see Appendix B, “Installing the VTAM VIT Analysis Tool” on page 73.

6.3.5 Install OS/2 Code

Once you have installed VTAM V4R2 for VM/ESA, you need to download and unpack the VTAM-provided OS/2 DLUR and the VTAM Command Set Library. For more information, see Appendix C, “Installing the VTAM-provided OS/2 DLUR” on page 82 and Appendix D, “Installing the VTAM Command Set Library” on page 85.

6.3.6 Install Tables and Local/User Modules

When making local modifications to your system, use VMSES/E commands and execs in place of VMFLKED as in prior releases. Complete instructions are available in the *VM/ESA: VMSES/E Introduction and Reference* and the *VM/ESA: Service Guide*.

6.3.6.1 VTAM User Modifications during Installation

To make local modifications to your system during installation, follow the steps below:

1. Log on to the installation user ID 5654010A.
2. Create or copy the IBM-supplied assemble file needed for your local modification. See Figure 54 on page 60 for the appropriate part and member name. This is required in rebuilding any local modifications you have put on your system.
3. Copy the assemble file to the 2C4 (E-disk). Make your local modification to the copy on your LOCALMOD 2C4 disk.
4. Issue the following command:

global maclib vtambld vtamac

5 Issue the assemble command for the file:

vmfhasm *fn* **5654010a vtam (ppf**

Notes:

1. Other options are available for the assemble commands. Consult the *VM/ESA: VMSES/E Introduction and Reference* for additional information.
2. We recommend that you use the VMFHASM assemble exec supplied by VMSES/E. Also available is the VMFHLASM assemble exec.
3. If the assemble function is successful, the file *fn* TXT00000 will be placed on the A-disk.

6 Copy the *fn* TXT00000 file from the A-disk to the 2C4 E-disk as *fn* TXTL*nnnn*.

copyfile *fn* **txt00000 a** *fn* **txtl***nnnn* **e**

Note: TXTL is a required filetype for local modified text. The *nnnn* is a user-defined number assigned to this fix, usually starting with 0001.

7 Erase the TXT00000 from your A-disk.

erase *fn* **txt00000 a**

8 Rename the assemble file on the 2C4 E-disk as *fn* ASMLnnnn E.

9 Update the VVT tables for both the TXT and ASM files by issuing the following VMFSIM against both the text and the assemble files:

vmfsim logmod 5654010a vvtlcl e tdata :mod lcl*nnnn* **:part** *fn* **txt**
vmfsim logmod 5654010a vvtlcl e tdata :mod lcl*nnnn* **:part** *fn* **asm**

10 Relink your new local modification into the appropriate loadlib by issuing the following command. See Figure 54 on page 60 for the appropriate *blist* and *memname*.

vmfbld ppf 5654010a vtam *blist memname* **(all**

11 Copy the updated file(s) to the appropriate production disk.

Refer to section 6.3.3, “Copy VTAM Files Into Production” on page 55 for examples using the VMFCOPY command to copy files onto a production disk.

12 Log on to your VTAM user id **VTAM**.

13 Issue the following command after GCS has been IPLed but before VTAM is started. Refer to section 6.3.2, “Activate the Program” on page 54 for the steps used to activate VTAM.

global loadlib vscsuser vtamuser vscs vtam

Figure 54. Local Modifiable Assemble Files Provided by IBM

FILENAME (fn)	Buildlist (blist)	Member name (memname)	LOADLIB Affected
ISTINCNO	ISTBLVL1	ISTINCNO	VTAM
ISTINCLM	ISTBLVL1	ISTINCLM	VTAM
ISTINCL1	ISTBLVL1	ISTTABLE	VTAM
ISTINCL2	ISTBLVL1	DSIASCII	VTAM
ISTINCL3	ISTBLVL1	DSIASCPR	VTAM
ISTINCL4	ISTBLVL1	DSICNMDT	VTAM
ISTINCL5	ISTBLVL1	DSILU0	VTAM
ISTINCL6	ISTBLVL1	DSIXDOM	VTAM
ISTINCL7	ISTBLVL1	DSI4LU2	VTAM
ISTINCL8	ISTBLVL1	DSI6LU2	VTAM
ISTINCL9	ISTBLVL1	TABBINDS	VTAM
ISTMGC10	ISTBLVL1	ISTMGC10	VTAM
ISTINCDT	ISTBLVL1	ISTINCDT	VTAM
DTISDMOD	ISTBLVL2	DTIISTRT	VSCS
DTIPRLOG	ISTBLVL2	DTIPRLOG	VSCS
DTIPDADV	ISTBLVL2	DTIPDADV	VSCS
DTISMSGM	ISTBLVL2	DTIISTRT	VSCS
DTIUSERn	ISTBLVL8	DTIUSERn	VSCSUSER
ISTEXCAA	ISTBLVL9	ISTEXCAA	VTAMUSER
ISTEXCVR	ISTBLVL9	ISTEXCVR	VTAMUSER
ISTPUCWC	ISTBLVL9	ISTPUCWC	VTAMUSER
ISTEXCCS	ISTBLVL9	ISTEXCCS	VTAMUSER
ISTEXCSD	ISTBLVL9	ISTEXCSD	VTAMUSER
ISTCMMND	ISTBLVL9	ISTCMMND	VTAMUSER
ISTEXCUV	ISTBLVL9	ISTEXCUV	VTAMUSER
ISTEXCDM	ISTBLVL9	ISTEXCDM	VTAMUSER
ISTMSFLD	ISTBLVL9	ISTMSFLD	VTAMUSER

7.0 Service Instructions

This section of the Program Directory contains the procedure to install CORrective service to VTAM V4R2 for VM/ESA. VMSES/E is used to install service for VTAM V4R2 for VM/ESA.

To become more familiar with service using VMSES/E, you should read the introductory chapters in *VMSES/E Introduction and Reference* (SC24-5444). This manual also contains the command syntax for the VMSES/E commands listed in the procedure.

Note: Each step of the servicing instructions must be followed. Do not skip any step unless otherwise directed to. All instructions showing accessing of disks assume the use of default minidisk addresses. If different minidisk addresses are used, change the instructions appropriately.

7.1 VMSES/E Service Process Overview

The following is a brief description of the main steps in servicing VTAM V4R2 for VM/ESA using VMSES/E:

- Merging Service

  Use the VMFMRDSK command to clear the alternate apply disk before receiving new service. This allows you to easily remove the new service if a serious problem is found.

- Receiving Service

  The VMFREC command receives service from the delivery media and places it on the Delta disk.

- Applying Service

  The VMFAPPLY command updates the version vector table (VVT), which identifies the service level of all the serviced parts. In addition, AUX files are generated from the VVT for parts that require them.

- Reapplying Local Service (if applicable)

  All local service (mods) must be entered into the software inventory to allow VMSES/E to track the changes and build them into the system. See Chapter 7 in the *VM/ESA Service Guide* (SC24-5527) for this procedure.

- Building New Levels

  The build task generates the serviced level of an object and places the new object on a test BUILD disk.

- Placing the New Service into Production

  Once the service is satisfactorily tested it should be put into production by copying the new service to the production disk, re-saving the NSS (Named Saved System) or DCSS (Discontiguous Saved Segments), etc.

7.2 Servicing VTAM V4R2 for VM/ESA

7.2.1 Prepare to Receive Service

1 Log on to the VTAM V4R2 for VM/ESA service user ID **5654010A**

2 Establish access to the software inventory disk.

Note: If the MAINT 51D minidisk was accessed R/O, you will need to have the user that has it accessed R/W link it R/O. You can then issue the following commands to obtain R/W access to it:

link maint 51d 51d mr
access 51d d

The 51D minidisk is where the VMSES/E Software Inventory files and other product dependent files reside.

3 Have the VTAM V4R2 for VM/ESA CORrective service tape mounted and attached to ***5654010A***.

4 Establish the correct minidisk access order.

vmfsetup 5654010A VTAM

5654010A is the PPF that was shipped with the product. If you have your own PPF override you should substitute your PPF name for 5654010A.

Electronic Service

If you are receiving service from Service Link (electronic service) see Appendix A, 'Receiving COR Service from ServiceLink', in the *VM/ESA Service Guide* for the steps to receive service documentation. Return to step 7 below to continue the service process.

5 Receive the documentation. VMFREC with the INFO option loads the documentation and displays a list of all the products on the tape.

vmfrec info

6 Check the receive message log ($VMFREC $MSGLOG) for warning and error messages.

vmfview receive

Also make note of which products and components have service on the tape. To do this, use the PF5 key to show all status messages which identify the products on the tape.

7 Clear the alternate APPLY disk to ensure that you have a clean disk for new service.

vmfmrdsk 5654010A VTAM apply

This command clears the alternate APPLY disk.

5654010A is the PPF that was shipped with the product. If you have your own PPF override you should substitute your PPF name for 5654010A.

8 Review the merge message log ($VMFMRD $MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see *VM/ESA: System Messages and Codes*, or use online HELP.

vmfview mrd

7.2.2 Receive the Service

1 Receive the service.

vmfrec ppf 5654010A VTAM

This command receives service from your service tape. All new service is loaded to the alternate DELTA disk.

vmfrec ppf 5654010A VTAM (env vptf*nnnn*

This command receives service from Service Link that now resides on disk.

This command maps the envelope file (verifies that all the necessary files exist), creates a SERVICE DISKMAP file, and receives service from your PTF envelope VPTFnnnn SERVLINK.

2 Review the receive message log ($VMFREC $MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see *VM/ESA: System Messages and Codes*, or use online HELP.

vmfview receive

7.2.3 Apply the Service

1 Apply the new service.

vmfapply ppf 5654010A VTAM — This command applies the service that you just received. The version vector table (VVT) is updated with all serviced parts and all necessary AUX files are generated.

2 Review the apply message log ($VMFAPP $MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see *VM/ESA: System Messages and Codes*, or use online HELP.

vmfview apply

Note

If you get the message VMFAPP2120W then re-apply any local modifications before building the new VTAM V4R2 for VM/ESA. Refer to section 6.3.6, “Install Tables and Local/User Modules” on page 57 for the steps to use when servicing local modifiable assemble files. If the file has been previously serviced, the latest service level of that file will be located on the 2D2 (DELTA) disk.

For additional service information, refer to chapter 7 in the *VM/ESA Service Guide*, SC24-5527. Follow the steps that are applicable to your local modification.

The following substitutions need to be made:

- **esalcl** should be **5654010A**
- **esa** should be **5654010A**
- *compname* should be **VTAM**
- *appid* should be **5654010A**
- *fm-local* should be the fm of 2C2
- *fm-applyalt* should be the fm of 2A6

If you have changed any of the installation parameters via a PPF override, you need to substitute your changed values where applicable.

Keep in mind that when you get to the "Rebuilding Objects" step in the *Service Guide* you should return back to this program directory at 7.2.4, “Update the Build Status Table.”

7.2.4 Update the Build Status Table

1 Update the Build Status Table with serviced parts.

vmfbld ppf 5654010A VTAM (status — This command updates the Build Status Table.

Note (part 1 of 2)

If the $ppf files have been changed by the service you have applied, you will get the following prompt:

```
VMFBLD2185R The following source product parameter files have
            been serviced:
VMFBLD2185R 5654010A $PPF
VMFBLD2185R When source product parameter files are serviced,
            all product parameter files built from them must
            be recompiled using VMFPPF before VMFBLD can be
            run.
VMFBLD2185R Enter zero (0) to have the latest levels of the
            source product parameter files copied to your
            A-disk and exit VMFBLD so you can recompile your
            product parameter files with VMFPPF
            Enter one (1) to continue only if you have
            already recompiled your product parameter files
            with VMFPPF
```

0

Enter a 0 and complete the following steps before you continue.

```
VMFBLD2188I Building 5654010A $PPF on 191 (A) from level
            $PFnnnnn
VMFBLD2760I VMFBLD processing completed
Ready(00500);
```

vmfppf 5654010A VTAM

Note: If you have created your own PPF override then use your PPF name instead of 5654010A.

copyfile 5654010A $ppf a = = d (olddate replace
erase 5654010A $ppf a

Note: **Do not** use your own PPF name in place of 5654010A for the COPYFILE and ERASE commands.

NOTE (part 2 of 2)

vmfbld ppf 5654010A VTAM (status	
	Re-issue VMFBLD to complete updating the build status table. **Note:** If you have created your own PPF override then use your PPF name instead of 5654010A.
1	When you receive the prompt that was previously displayed, enter a 1 to continue.

2 Use VMFVIEW to review the build status messages, and see what objects need to be built.

vmfview build

7.2.5 Build Serviced Objects

1 Rebuild VTAM V4R2 for VM/ESA serviced parts.

vmfbld ppf 5654010A VTAM (serviced

2 Review the build message log ($VMFBLD $MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see VM/ESA: System Messages and Codes, or use online HELP.

vmfview build

7.3 Place the New VTAM Service into Production

7.3.1 Rebuild the Saved Segments

1 Re-save the VTAM V4R2 for VM/ESA segments.

```
vmfbld ppf segbld esasegs segblist VTAM (serviced
```

2 Review the build message log ($VMFBLD $MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see VM/ESA: System Messages and Codes, or use online HELP.

```
vmfview build
```

7.3.2 Copy the New VTAM Serviced Files Into Production

1 Logon to the installation user ID **5654010A**.

2 Access the BUILD0 TEST/ALTERNATE (49A) disk and the BUILD0 PRODUCTION (29A) disk.

```
access 49a e
access 29a f
```

3 Issue the VMFCOPY command to copy all the files from the BUILD0 TEST/ALTERNATE (49A) disk to the BUILD0 PRODUCTION (29A) disk. Note that message VMFCOP2866I will be received indicating that file VMSES PARTCAT will not be copied.

```
vmfcopy * * e = = f (prodid 5654010A%VTAM olddate replace
```

4 Access the BUILD4 TEST/ALTERNATE (402) disk and the BUILD4 PRODUCTION (401) disk.

```
access 402 e
access 401 g
```

5 Issue the VMFCOPY command to copy all the files from the BUILD4 TEST/ALTERNATE (402) disk to the BUILD4 PRODUCTION (401) disk.

```
vmfcopy * * e = = g (prodid 5654010A%VTAM olddate replace
```

6 Access the BUILD2 TEST/ALTERNATE (493) disk and MAINT's 193 disk.

```
link maint 193 193 mr
access 493 e
access 193 h
```

7 Issue the VMFCOPY command to copy all the files from the BUILD2 TEST/ALTERNATE (493) disk to MAINT's 193 disk.

```
vmfcopy * * e = = h (prodid 5654010A%VTAM olddate replace
```

You now have finished servicing VTAM V4R2 for VM/ESA.

Appendix A. VTAM APARs

This appendix contains the APAR fixes incorporated into VTAM V4R2 for VM/ESA.

VM52127	VM54061	VM54378	VM54708	VM54893	VM55203
VM52771	VM54082	VM54379	VM54709	VM54903	VM55204
VM52948	VM54088	VM54398	VM54710	VM54904	VM55205
VM52986	VM54089	VM54423	VM54711	VM54906	VM55206
VM53033	VM54109	VM54424	VM54712	VM54931	VM55207
VM53056	VM54110	VM54425	VM54713	VM54932	VM55208
VM53164	VM54122	VM54428	VM54714	VM54934	VM55210
VM53301	VM54141	VM54432	VM54731	VM54979	VM55225
VM53371	VM54142	VM54433	VM54732	VM54980	VM55230
VM53404	VM54165	VM54449	VM54771	VM54982	VM55231
VM53413	VM54167	VM54480	VM54772	VM54984	VM55232
VM53414	VM54168	VM54481	VM54798	VM55001	VM55233
VM53440	VM54182	VM54508	VM54799	VM55006	VM55234
VM53446	VM54184	VM54509	VM54800	VM55007	VM55235
VM53448	VM54190	VM54511	VM54801	VM55009	VM55245
VM53494	VM54211	VM54512	VM54811	VM55010	VM55278
VM53609	VM54224	VM54513	VM54813	VM55026	VM55279
VM53619	VM54226	VM54542	VM54831	VM55027	VM55280
VM53621	VM54240	VM54546	VM54832	VM55030	VM55281
VM53622	VM54241	VM54547	VM54833	VM55031	VM55286
VM53747	VM54255	VM54550	VM54834	VM55036	VM55287
VM53751	VM54256	VM54554	VM54862	VM55069	VM55288
VM53752	VM54257	VM54574	VM54863	VM55084	VM55289
VM53764	VM54258	VM54575	VM54864	VM55085	VM55290
VM53798	VM54259	VM54589	VM54865	VM55092	VM55314
VM53799	VM54260	VM54590	VM54866	VM55110	VM55336
VM53807	VM54281	VM54591	VM54867	VM55116	VM55337
VM53834	VM54284	VM54592	VM54868	VM55117	VM55338
VM53835	VM54313	VM54593	VM54869	VM55118	VM55339
VM53865	VM54314	VM54594	VM54870	VM55119	VM55346
VM53866	VM54317	VM54595	VM54871	VM55130	VM55347
VM53878	VM54323	VM54645	VM54872	VM55131	VM55348
VM53879	VM54324	VM54656	VM54884	VM55134	VM55349
VM53903	VM54338	VM54657	VM54885	VM55139	VM55350
VM53904	VM54353	VM54658	VM54887	VM55142	VM55351
VM53942	VM54358	VM54659	VM54888	VM55163	VM55378
VM53943	VM54360	VM54660	VM54889	VM55164	VM55379
VM53977	VM54361	VM54685	VM54890	VM55165	VM55380
VM54008	VM54365	VM54696	VM54891	VM55166	VM55381
VM54009	VM54366	VM54707	VM54892	VM55202	VM55382

VM55390	VM55695	VM55983	VM56233	VM56397	VM56609
VM55391	VM55697	VM55984	VM56234	VM56408	VM56610
VM55407	VM55705	VM56001	VM56235	VM56409	VM56611
VM55423	VM55706	VM56003	VM56236	VM56417	VM56612
VM55438	VM55707	VM56018	VM56237	VM56437	VM56613
VM55439	VM55708	VM56027	VM56238	VM56441	VM56614
VM55443	VM55709	VM56028	VM56263	VM56445	VM56615
VM55444	VM55729	VM56030	VM56269	VM56446	VM56616
VM55448	VM55740	VM56031	VM56288	VM56450	VM56620
VM55449	VM55752	VM56032	VM56295	VM56451	VM56647
VM55450	VM55759	VM56033	VM56296	VM56453	VM56653
VM55460	VM55761	VM56034	VM56297	VM56454	VM56654
VM55478	VM55778	VM56035	VM56298	VM56455	VM56699
VM55479	VM55783	VM56036	VM56299	VM56456	VM56710
VM55485	VM55800	VM56037	VM56300	VM56484	VM56711
VM55486	VM55801	VM56038	VM56301	VM56508	VM56712
VM55488	VM55806	VM56039	VM56302	VM56509	VM56713
VM55489	VM55807	VM56040	VM56303	VM56510	VM56714
VM55499	VM55809	VM56043	VM56304	VM56511	VM56715
VM55545	VM55810	VM56100	VM56305	VM56512	VM56716
VM55547	VM55811	VM56101	VM56325	VM56513	VM56717
VM55558	VM55812	VM56123	VM56330	VM56514	VM56718
VM55559	VM55813	VM56124	VM56333	VM56515	VM56719
VM55560	VM55814	VM56125	VM56336	VM56516	VM56724
VM55561	VM55819	VM56126	VM56337	VM56517	VM56728
VM55562	VM55825	VM56128	VM56338	VM56518	VM56735
VM55563	VM55831	VM56129	VM56339	VM56519	VM56736
VM55576	VM55835	VM56130	VM56340	VM56521	VM56738
VM55590	VM55842	VM56131	VM56341	VM56530	VM56739
VM55593	VM55844	VM56132	VM56342	VM56535	VM56740
VM55594	VM55854	VM56135	VM56343	VM56546	VM56741
VM55598	VM55870	VM56136	VM56344	VM56550	VM56742
VM55599	VM55871	VM56148	VM56345	VM56577	VM56744
VM55624	VM55872	VM56149	VM56346	VM56578	VM56745
VM55659	VM55873	VM56150	VM56349	VM56579	VM56746
VM55662	VM55874	VM56195	VM56370	VM56580	VM56747
VM55664	VM55875	VM56196	VM56371	VM56582	VM56749
VM55666	VM55876	VM56205	VM56375	VM56583	VM56774
VM55667	VM55891	VM56206	VM56387	VM56584	VM56775
VM55668	VM55892	VM56207	VM56388	VM56585	VM56776
VM55669	VM55907	VM56208	VM56389	VM56586	VM56777
VM55670	VM55962	VM56211	VM56390	VM56587	VM56778
VM55671	VM55979	VM56212	VM56393	VM56592	VM56779
VM55673	VM55980	VM56213	VM56394	VM56606	VM56780
VM55674	VM55981	VM56214	VM56395	VM56607	VM56781
VM55675	VM55982	VM56215	VM56396	VM56608	VM56782

VM56783	VM57218	VM57490	VM57667	VM57910	VM58162
VM56784	VM57228	VM57503	VM57668	VM57912	VM58176
VM56785	VM57229	VM57504	VM57698	VM57940	VM58177
VM56791	VM57238	VM57505	VM57699	VM57942	VM58178
VM57077	VM57251	VM57506	VM57700	VM57943	VM58179
VM57078	VM57252	VM57507	VM57701	VM57944	VM58183
VM57079	VM57282	VM57509	VM57702	VM57945	VM58197
VM57080	VM57283	VM57510	VM57703	VM57946	VM58198
VM57081	VM57288	VM57511	VM57704	VM57947	VM58211
VM57082	VM57325	VM57512	VM57705	VM57948	VM58212
VM57083	VM57342	VM57513	VM57714	VM57969	VM58213
VM57084	VM57371	VM57529	VM57739	VM57987	VM58214
VM57085	VM57382	VM57553	VM57740	VM57988	VM58215
VM57086	VM57388	VM57557	VM57741	VM57989	VM58216
VM57087	VM57389	VM57559	VM57765	VM57990	VM58239
VM57088	VM57390	VM57560	VM57766	VM57991	VM58243
VM57089	VM57403	VM57561	VM57767	VM57992	VM58244
VM57115	VM57404	VM57562	VM57800	VM57993	VM58252
VM57134	VM57410	VM57580	VM57812	VM58009	VM58254
VM57135	VM57411	VM57581	VM57813	VM58010	VM58255
VM57141	VM57412	VM57582	VM57820	VM58012	VM58256
VM57147	VM57413	VM57583	VM57827	VM58013	VM58257
VM57157	VM57414	VM57584	VM57837	VM58014	VM58258
VM57158	VM57415	VM57591	VM57838	VM58040	VM58259
VM57159	VM57416	VM57592	VM57839	VM58041	VM58260
VM57160	VM57417	VM57604	VM57840	VM58042	VM58261
VM57161	VM57418	VM57608	VM57841	VM58043	VM58262
VM57162	VM57419	VM57637	VM57842	VM58044	VM58263
VM57163	VM57420	VM57642	VM57843	VM58065	VM58264
VM57164	VM57421	VM57648	VM57844	VM58066	VM58265
VM57165	VM57422	VM57649	VM57845	VM58070	VM58266
VM57166	VM57423	VM57652	VM57847	VM58096	VM58267
VM57167	VM57424	VM57653	VM57859	VM58097	VM58300
VM57168	VM57433	VM57654	VM57860	VM58107	VM58301
VM57182	VM57449	VM57655	VM57861	VM58108	VM58308
VM57207	VM57450	VM57656	VM57862	VM58109	VM58326
VM57208	VM57451	VM57657	VM57863	VM58110	VM58327
VM57209	VM57457	VM57658	VM57882	VM58111	VM58328
VM57210	VM57458	VM57659	VM57891	VM58112	VM58329
VM57211	VM57461	VM57660	VM57893	VM58113	VM58330
VM57212	VM57465	VM57661	VM57895	VM58138	VM58331
VM57213	VM57466	VM57662	VM57896	VM58139	VM58332
VM57214	VM57474	VM57663	VM57897	VM58143	VM58333
VM57215	VM57475	VM57664	VM57898	VM58152	VM58334
VM57216	VM57478	VM57665	VM57899	VM58153	VM58335
VM57217	VM57489	VM57666	VM57900	VM58161	VM58336

VM58337	VM58527	VM58629	VM58702	VM58750	VM58846
VM58338	VM58534	VM58643	VM58707	VM58751	VM58847
VM58339	VM58538	VM58644	VM58717	VM58754	VM58848
VM58340	VM58588	VM58660	VM58718	VM58755	VM58849
VM58343	VM58593	VM58663	VM58719	VM58763	VM58850
VM58353	VM58594	VM58664	VM58722	VM58764	VM58851
VM58371	VM58595	VM58667	VM58724	VM58765	VM58852
VM58400	VM58603	VM58668	VM58725	VM58766	VM58853
VM58429	VM58604	VM58676	VM58726	VM58776	VM58854
VM58440	VM58612	VM58680	VM58727	VM58777	VM58857
VM58443	VM58613	VM58681	VM58728	VM58778	VM58858
VM58452	VM58614	VM58682	VM58729	VM58784	VM58868
VM58453	VM58615	VM58683	VM58730	VM58806	VM58875
VM58454	VM58616	VM58684	VM58731	VM58815	VM58876
VM58455	VM58617	VM58685	VM58732	VM58816	VM58877
VM58456	VM58618	VM58686	VM58742	VM58817	VM58878
VM58457	VM58619	VM58687	VM58743	VM58818	VM58879
VM58458	VM58620	VM58688	VM58744	VM58819	VM58880
VM58459	VM58621	VM58695	VM58745	VM58820	VM58881
VM58461	VM58622	VM58696	VM58746	VM58821	VM59015
VM58477	VM58623	VM58699	VM58747	VM58822	VM59047
VM58488	VM58624	VM58700	VM58748	VM58823	
VM58510	VM58625	VM58701	VM58749	VM58845	

Appendix B. Installing the VTAM VIT Analysis Tool

To install the VTAM VIT analysis tool, complete the following steps as described in this section (ISPF V3R2 is required to install this tool):

1. Access the appropriate disks
2. Update and run the ISPF EXEC
3. Install the ISPF trace tables
4. Invoke the ISPF Dialog Tag Language Utility
5. Compile the help panels, creating multiple help panels
6. Verify that the trace formatter panels have been set up correctly
7. Optionally customize the ISPF interface.

If problems are encountered, see "VTAM Internal Trace (VIT) Analysis Tool Problems (VM)" in *VTAM Diagnosis* for further information.

B.1 Accessing the Appropriate Disks

The following loadlibs or maclibs contain the necessary data to set up the VTAM VIT Analysis Tool. You need to concatenate the maclibs into the ISPF EXEC, as shown below.

Target Loadlib or Maclib	Action	Mini Disk	Comment
N/A	Accessed as A	493 Test 193 Prod	Contains REXX EXECs
ISTPLIB	Accessed as A	493 Test 193 Prod	Contains compiled panels
ISTMLIB	Accessed as A	493 Test 193 Prod	Contains compiled ISPF messages
user-defined maclib	Accessed as A	493 Test 193 Prod	This maclib can be a new or existing one and needs to be the same maclib used for ISPTABL.
ISTTLIB (same as used for ISPTLIB)	Accessed as A	493 Test 193 Prod	Because ISPTABL can only point to one maclib, this maclib needs to replace any previous maclib set up for ISPTLIB.
ISTDEBUG	Accessed as B	49A Test 29A Prod	Contains ISTRAFT1 load module
N/A	Accessed as C	2B2 BASE1	Contains input GML files

B.2 Updating and Running the ISPF EXEC

Update the ISPF EXEC with the appropriate maclib names and then run it. See Figure 55 on page 74 for an example. Note that the highlighted FILEDEF statements in Figure 55 on page 74 are required, and they must be placed after the ISRNULL FILEDEF statements.

```
/*********************************************************************/
/* PERFORM FILEDEFS                                                  */
/* NOTE: PRIVATE PANELS, MSGS, SKELS, TABLES AND PROFILE FILES       */
/*       SHOULD BE PLACED AHEAD OF THE PDF AND ISPF SUPPLIED FILES. */
/*       THE FILEMODE MAY NEED TO BE CHANGED DEPENDING ON HOW DISK  */
/*       WAS ACCESSED.                                               */
/*********************************************************************/
'SET CMSTYPE HT'                    /*              VM29458*/
'FILEDEF ISPPROF CLEAR'
'FILEDEF ISPPLIB CLEAR'
'FILEDEF ISPMLIB CLEAR'
'FILEDEF ISPSLIB CLEAR'
'FILEDEF ISPLLIB CLEAR'                 /* @P2A */
'FILEDEF ISPTLIB CLEAR'
'FILEDEF ISPXLIB CLEAR'
'FILEDEF ISPTABL CLEAR'
'SET CMSTYPE RT'                    /*              VM29458*/

'FILEDEF ISPPROF DISK TABLES MACLIB A (PERM '

/* Filemode 'T' has been replaced by 'A'          */

'FILEDEF ISPPLIB DISK INSPECT MACLIB Y (PERM CONCAT'
'FILEDEF ISPPLIB DISK SERRLIB MACLIB Y (PERM CONCAT'
'FILEDEF ISPPLIB DISK ISRNULL PANEL  Y (PERM CONCAT'
'FILEDEF ISPPLIB DISK ISTPLIB MACLIB A (PERM CONCAT'
'FILEDEF ISPPLIB DISK VSF2PLIB MACLIB Y (PERM CONCAT'
'FILEDEF ISPPLIB DISK ISRPLIB MACLIB Y (PERM CONCAT'
'FILEDEF ISPPLIB DISK ISPPLIB MACLIB Y (PERM CONCAT'

'FILEDEF ISPMLIB DISK ISRNULL MESSAGE Y (PERM CONCAT'
'FILEDEF ISPMLIB DISK ISTMLIB MACLIB A (PERM CONCAT'
'FILEDEF ISPMLIB DISK ISRMLIB MACLIB Y (PERM CONCAT'
'FILEDEF ISPMLIB DISK ISPMLIB MACLIB Y (PERM CONCAT'

'FILEDEF ISPSLIB DISK ISRNULL SKELETON Y (PERM CONCAT'
'FILEDEF ISPSLIB DISK ISRSLIB MACLIB Y (PERM CONCAT'
'FILEDEF ISPTLIB DISK ISRNULL TABLE A (PERM CONCAT'
'FILEDEF ISPTLIB DISK ISTTLIB MACLIB A (PERM CONCAT'
'FILEDEF ISPTLIB DISK TABLES MACLIB A (PERM CONCAT'
'FILEDEF ISPTLIB DISK ISRTLIB MACLIB Y (PERM CONCAT'
'FILEDEF ISPTLIB DISK ISPTLIB MACLIB Y (PERM CONCAT'

'FILEDEF ISPTABL DISK ISTTLIB MACLIB A (PERM'

'FILEDEF ISPXLIB DISK IBMLIB TXTLIB Y (PERM CONCAT'
'FILEDEF ISPXLIB DISK VSC2LTXT TXTLIB Y (PERM CONCAT'
```

Figure 55. Sample ISPF EXEC modified for IST maclibs

B.3 Installing the ISPF Trace Tables

After the installation maclibs have been concatenated and the mini disk for the table EXEC is accessed, you can install the ISPF tables. To do this, select option 7 from the ISPF/PDF PRIMARY OPTION MENU, and then option 1 from the Dialog Test menu to go to the ISPF INVOKE DIALOG FUNCTION/SELECTION PANEL shown in Figure 56 on page 75.

```
------------------  INVOKE DIALOG FUNCTION/SELECTION PANEL  ------------------


INVOKE SELECTION PANEL:
          PANEL  ===>                       OPT   ===>

INVOKE COMMAND:
          CMD    ===> ISTTTABL

          LANG   ===>                       (APL or blank)

INVOKE PROGRAM/SHARED SEGMENT:
          PGM    ===>                       DCSS  ===>

          PARM   ===>
                                            EXTENDED PLIST ===> NO

NEWAPPL           ===> NO                   ID    ===>

NEWPOOL           ===> NO                   PASSLIB  ===> NO

COMMAND ===>
 F1=HELP     F2=SPLIT    F3=END      F4=RETURN   F5=RFIND    F6=RCHANGE
 F7=UP       F8=DOWN     F9=SWAP    F10=LEFT    F11=RIGHT   F12=CURSOR
```

Figure 56. ISPF Panel Used to Run the Table EXECs

To run all the table EXECs for the formatted trace, enter the EXEC name ISTTTABL in the INVOKE COMMAND: CMD ===> field and press Enter.

The individual table EXECs for formatted trace are:

- ISTTT007
- ISTTT012
- ISTTT017
- ISTTT024.

Each table EXEC should complete with a return code of 0. RC=0 will appear in the upper right corner of the screen.

The output of the table EXECs is placed in the maclib pointed to by the ISPTABL statement, the user-defined ISPTLIB maclib.

B.4 Invoking the ISPF Dialog Tag Language Utility

To complete the panel setup, you must compile all of the help panels that expand into multiple panels. All other panels, help panels, keylists, and commands have been compiled and placed in the appropriate maclib. The ISPF Dialog Tag Language Utility, ISPDTLC, is used for the compile. ISPDTLC is a REXX EXEC provided by ISPF that generates panels, help panels, messages, keylists and commands from Dialog Tag Language source files. For more information about the Dialog Tag Language Utility, see the *ISPF Dialog Tag Language and Reference Guide*. You can enter ISPDTLC from the COMMAND ===> line or from the COMMAND AND EXEC PROCESSING panel, shown in Figure 57 on page 76.

```
ISRCMS----------------  COMMAND AND EXEC PROCESSING  --------------------------
COMMAND ===>

ENTER CMS OR CP COMMAND BELOW:
===> ISPDTLC



Any one of the following may be entered:

- A CMS command
- A CP command
- An EXEC specification
- SUBSET (to enter CMS subset mode: use RETURN command
          to terminate subset mode.)









 F1=HELP     F2=SPLIT    F3=END      F4=RETURN   F5=RFIND    F6=RCHANGE
 F7=UP       F8=DOWN     F9=SWAP    F10=LEFT    F11=RIGHT   F12=CURSOR
```

Figure 57. ISPF Panel Used to Invoke the Dialog Tag Language Utility

After ISPDTLC has been invoked, the ISPF Dialog Tag Language Conversion Utility panel is displayed.

B.5 Compiling the Help Panels, Keylists, and Commands

The following section describes how to compile the help panels, keylists, and commands using the ISPF Dialog Tag Language Conversion Utility.

To compile the help panels, keylist, and commands, enter the following on the “ISPF Dialog Tag Language Conversion Utility” panel:

- The GML source file. ISTTTWO contains a compile list of all the help panels that expand into multiple help panels.

- The output panel maclib for the panels.
- The output log for the messages.
- The four-character prefix of the trace application to be used as the keylist application ID. For formatted trace, enter ISTT.
- Whether old files are replaced with the new compiled output. Enter YES.
- Whether you want the ISPDTLC compiler messages displayed on the screen or written to a file.

  If you indicate that you want the messages written to an output file, you can specify a filename in the OUTPUT LOG field. Otherwise, the output is written to the ISPF log.

  Writing the messages to the ISPF log will not cause any messages to be overwritten. It is recommended that you have the messages written to a file.
- Whether you want ISPF messages suppressed. It is recommended that you not suppress messages.
- Your national language.

Examples of the completed ISPF V3R2 panels follow.

To compile the help panels, keylists, and commands for formatted trace, enter the information as provided on the screen shown in Figure 58.

```
                ISPF Dialog Tag Language Conversion Utility

Enter requested information:
   GML source file  . . . . . ISTTTWO
   Output Panel MACLIB fn . . 'ISTPLIB'
       (Leave blank for sequential panel file)
   Output Log fn  . . . . . _______                                  _
       (Leave blank to use ISPF log file)

   Keylist Application Id . . ISTT  Up to four characters

   Replace old files  . . . . YES   No or Yes
   ISPDTLC messages to disk . YES   No or Yes
   Allow DBCS . . . . . . . . NO    No or Yes
   Specify KANA . . . . . . . ___   No or Yes or blank
   Suppress messages (ISPF) . NO    No or Yes
   National Language  . . . . ENGLISH

Command ===> ____________________________________________________________
```

Figure 58. Compiling the Help Panels, Keylists, and Commands for Formatted Trace

After compiling the help panels and tables have been generated and/or moved to the correct maclibs, the VTAM VIT analysis tool is ready for use or testing. No additional steps are necessary.

B.6 Verifying the Trace Formatter Panels

To verify that the Trace Formatter panels are set up correctly, return to the ISPF 7.1 function "INVOKE DIALOG FUNCTION/SELECTION PANEL" and enter the REXX EXEC as shown in Figure 59 on page 78.

```
------------------  INVOKE DIALOG FUNCTION/SELECTION        FUNCTION RC =   0


INVOKE SELECTION PANEL:
          PANEL  ===>                       OPT   ===>

INVOKE COMMAND:
          CMD    ===> ISTTE01

         LANG    ===>                       (APL or blank)

INVOKE PROGRAM/SHARED SEGMENT:
          PGM    ===>                       DCSS  ===>

         PARM    ===>
                                            EXTENDED PLIST ===> NO

NEWAPPL          ===> YES                   ID    ===> ISTT

NEWPOOL          ===> NO                    PASSLIB  ===> NO

COMMAND ===>
 F1=HELP     F2=SPLIT    F3=END      F4=RETURN   F5=RFIND    F6=RCHANGE
 F7=UP       F8=DOWN     F9=SWAP    F10=LEFT    F11=RIGHT   F12=CURSOR
```

Figure 59. Verifying the Trace Formatter Panels

The first ISPF panel you should see is shown in Figure 60 on page 79.

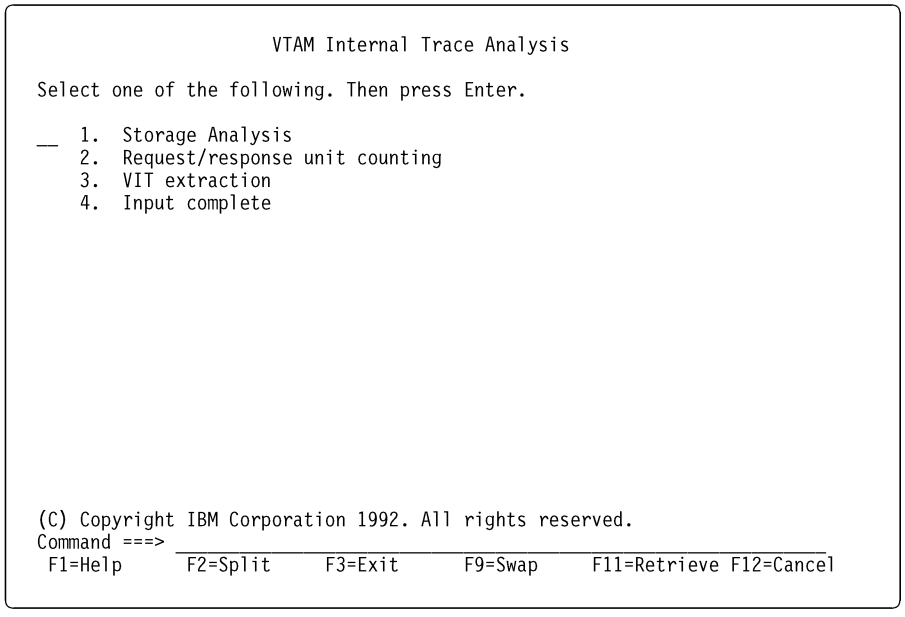

Figure 60. Main Menu for Selecting Trace Parameters

Press the PF1 key to verify that the appropriate help panel is displayed.

Note: It is recommended that you position the command line at the bottom of the screen using ISPF PARMS option DISPLAY and changing the 'COMMAND LINE PLACEMENT ===> ASIS' to BOTTOM to improve readability.

B.7 Customizing the ISPF Interface

If you want a customized interface to be active to select the VTAM trace analysis commands, customize the ISPF panel ISR@PRIM by adding the highlighted lines shown in Figure 61 on page 80 to create and activate option V on the ISPF/PDF Primary Option Menu as shown in Figure 62 on page 81. When this option is selected, control is passed to the ISTTE01 EXEC. This EXEC controls the ISPF panels for the trace formatter.

```
)ATTR
+ TYPE(TEXT) COLOR(GREEN) INTENS(LOW)
)BODY
%------------------------ SAMPLE ISPF/PDF PRIMARY OPTION MENU -----------------
%OPTION  ===>_ZCMD                                                            +
%
%                                                          +USERID   - &ZUSER
%   0 +ISPF PARMS  - Specify terminal and user parameters   +TIME     - &ZTIME
%   1 +BROWSE      - Display source data or output listings +TERMINAL - &ZTERM
%   2 +EDIT        - Create or change source data           +PF KEYS  - &ZKEYS
%   3 +UTILITIES   - Perform utility functions
%   4 +FOREGROUND  - Invoke language processors in foreground
%   5 +BATCH       - Submit to batch for language processing
%   6 +COMMAND     - Enter CMS command or EXEC
%   7 +DIALOG TEST - Perform dialog testing
%   8 +LM UTILITIES- Perform library administrator utility functions
%   9 +IBM PRODUCTS- Additional IBM program development products
%  10 +SCLM        - Software Configuration and Library Manager
%   C +CHANGES     - Display summary of changes for this release
%   V +VTAM        - VTAM trace analysis commands
%   T +TUTORIAL    - Display information about ISPF/PDF
%   X +EXIT        - Terminate using console, log, and list defaults
%
+Enter%END+command to terminate ISPF.
%
)INIT
  .HELP = ISR00003
  &ZPRIM = YES        /* ALWAYS A PRIMARY OPTION MENU      */
  &ZHTOP = ISR00003   /* TUTORIAL TABLE OF CONTENTS        */
  &ZHINDEX = ISR91000 /* TUTORIAL INDEX - 1ST PAGE         */
  &ZSCLMPRJ = &Z
  VPUT (ZHTOP,ZHINDEX,ZSCLMPRJ) PROFILE
)PROC
&ZQ = &Z
  IF (&ZCMD ¬= ' ')
    &ZQ = TRUNC(&ZCMD,'.')
    IF (&ZQ = ' ')
      .MSG = ISRU000
  &ZSEL = TRANS( &ZQ
               0,'PANEL(ISPOPTA)'
               1,'PGM(ISRBRO) PARM(ISRBRO01)'
               2,'PGM(ISREDIT) PARM(P,ISREDM01)'
               3,'PANEL(ISRUTIL)'
               4,'PANEL(ISRFPA)'
               5,'PGM(ISRJB1) PARM(ISRJPA) NOCHECK'
               6,'PGM(ISRPTC)'
               7,'PGM(ISPYXDR) PARM(ISR) NOCHECK'
               8,'PANEL(ISRLPRIM)'
               9,'PANEL(ISRDIIS)'
              10,'PGM(ISRSCLM) NOCHECK'
               C,'PGM(ISPTUTOR) PARM(ISR00005)'
               V,'CMD(%ISTTE01) NEWAPPL(ISTT)'
               T,'PGM(ISPTUTOR) PARM(ISR00000)'
             ' ',' '
               X,'EXIT'
               *,'?' )
  &ZTRAIL = .TRAIL
)END
```

Figure 61. Sample ISPF Panel ISR@PRIM Customization

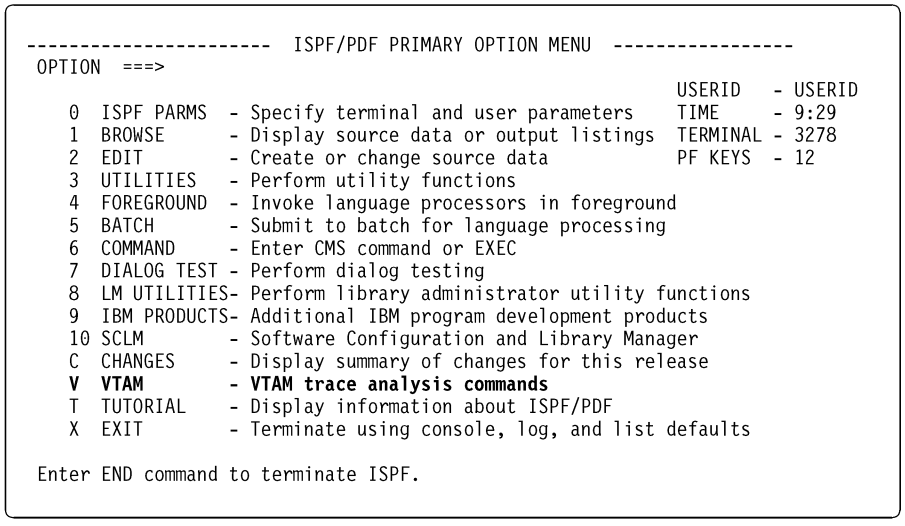

Figure 62. Addition of Option V on the ISPF/PDF Primary Option Menu

Appendix C. Installing the VTAM-provided OS/2 DLUR

The dependent LU server function provides dependent secondary logical unit (SLU) support by establishing an LU6.2 session pipe between a dependent LU requester node (DLUR), and a dependent LU server node (DLUS). A DLUR is an APPN end node or an APPN network node that owns dependent LUs, but requests that a DLUS provide the SSCP services for those dependent LUs.

The VTAM-provided OS/2 DLUR for Communications Manager/2 provides full DLUR support, with the following exceptions:

- Downstream PUs
- SSCP takeover/giveback (ANS=CONT)
- DLUR/DLUS cross-subnetwork support
- DDDLU
- XRF and XRF/Crypto.

This appendix describes downloading and unpacking the DLUR files.

C.1 Downloading the DLUR Files

Install the DLUR files by downloading the following files from the host to the root directory of the drive where Communications Manager/2 is installed.

1. Download files ISTIPDLR AISTDAT1 and ISTLDRM2 AISTDAT1 from the 401 disk on the host.
2. Download file ISTIPRDM AISTDAT1 from the 401 disk on the host. This is a README file containing DLUR installation and configuration information.

You can use any installed communication facility that enables you to transfer files from a VM/ESA host to OS/2. Following are two examples of how you can download these files:

- Use the receive function of a Communications Manager/2 3270 emulation session. For example:

  ```
  RECEIVE ISTIPDLR.RAM id:ISTIPDLR AISTDAT1 fm
  RECEIVE LOADRAM2.EXE id:ISTLDRM2 AISTDAT1 fm
  RECEIVE README.DLR id:ISTIPRDM AISTDAT1 fm (ASCII CRLF
  ```

  where *id* is the emulator session and *fm* is the filemode from which you are downloading.

  For information on transferring files using 3270 sessions, refer to your *IBM Communications Manager/2 User's Guide*.

- If TCP/IP is installed on the VM/ESA host and on your workstation, you can use FTP to download ISTIPDLR, ISTLDRM2, and ISTIPRDM. For information on setting up and using FTP on OS/2, refer to your *IBM TCP/IP for OS/2: User's Guide*.

Do the following when you download the DLUR files:

- Make sure you specify that files ISTIPDLR and ISTLDRM2 are in binary format before you run the download command. The README file, ISTIPRDM, is in EBCDIC format, not binary.
- Rename the following files after they are downloaded to OS/2:
  - Rename ISTIPDLR to ISTIPDLR.RAM.
  - Rename ISTLDRM2 to LOADRAM2.EXE.
  - Rename ISTIPRDM to README.DLR.

The following section refers to the DLUR files by their OS/2 names: ISTIPDLR.RAM and LOADRAM2.EXE. The README.DLR is DLUR information file and is not exploded.

C.2 Unpacking the DLUR Files into Communications Manager/2 Subdirectories

Make sure FFST * and Communications Manager/2 and all associated processes are not active.

The following procedure explains how to use LOADRAM2.EXE to unpack ISTIPDLR.RAM into individual DLUR files.

1. Back up and store both files. If any of the files are lost or damaged, you can restore them by running LOADRAM2 against ISTIPDLR again.
2. Make sure you are on the drive and in the subdirectory (if applicable) where LOADRAM2.EXE and ISTIPDLR.RAM reside.
3. Unpack ISTIPDLR.RAM into individual files using the following command:

   `LOADRAM2 ISTIPDLR.RAM target [/d]`

   where:

   LOADRAM2
   name of the command that explodes ISTIPDLR.RAM into individual files.

   ISTIPDLR.RAM
   name of the file containing all packed files associated with DLUR Communications Manager/2.

   target
   drive where the individual DLUR files are stored when they are unpacked from ISTIPDLR.RAM.

   /d instructs LOADRAM2 to display files as they are unloaded. This parameter is optional.
4. Verify the following file names are on the same drive as *target* drive:

   DLUR.DLL
   DLR.MSG
   DLRH.MSG

If LOADRAM2 ran successfully, a return code of 0 should be displayed on your terminal. If a problem occurred while LOADRAM2 was exploding ISTIPDLR into individual files, one of the following error codes might be displayed on your terminal:

2 No files were found.

8 Insufficient memory.

15 An invalid drive was specified.

87 An invalid parameter was specified or incorrect syntax was used.

112 The target disk is full.

220 The present DOS version is not supported.

221 No files were found in the list file.

222 The macro file has the wrong format.

224 The macro file is too short.

225 Generally successful but no files were found to match at least one specification.

The following errors can also occur:

An error occurred while opening *xxx*
: A file could not be transferred to the target directory. This error causes OS/2 to report *Path not found*. Ensure that the correct drive was specified.

Not transferred
: A file could not be transferred to the target directory. This error can occur when reinstalling DLUR Communications Manager/2 if Communications Manager/2 is active. Stop Communications Manager/2 and all associated processes, for example, subsystem management and message log formatters, and repeat the installation procedure.

Destination conflict
: The target drive might not be specified correctly in the LOADRAM2 command.

5. Copy the following exploded files into the associated directory or subdirectories:
   - DLUR.DLL into C:\CMLIB\DLL\
   - DLR.MSG into C:\CMLIB\DLR.MSG
   - DLRH.MSG into C:\CMLIB\DLRH.MSG

   Note: C: is the same directory in which Communications Manager/2 has been installed.
6. Restart Communications Manager/2 and all associated processes.

For more information on using Communication Manager/2's DLUR, see the *VTAM Network Implementation Guide*.

Appendix D. Installing the VTAM Command Set Library

This section describes the installation method and step-by-step procedures to install VTAM V4R2 for VM/ESA Command Set Library.

The IBM Command Tree/2 program is an IBM OS/2 application program that guides you through the process of building a command. After you select the command options that you want, the IBM Command Tree/2 program generates a command string that you can send to a specified destination. You need not remember details such as option names, the order of options, or punctuation to build a command. VTAM V4R2 for VM/ESA Command Set Library supplies a command set library for IBM Command Tree/2.

D.1.1 Downloading the VTAM Command Set Library

To download the VTAM command set library for IBM Command Tree/2 and install it on a workstation, follow these steps:

- Logon to the installation user ID 5654010A or any other id that has read access to the Online OS/2 Files (401) disk. Make sure you have the 401 disk accessed in read mode. The command set library (ISTC420V) and the ISTLDRM2 unpacking utility reside on the Online OS/2 Files (401) disk.
- Download the VTAM command set library files to your workstation.

  Use the OS/2 RECEIVE command to download the files from the host. Enter the following commands on an OS/2 command line (where *id* is the emulator session and *fm* is the filemode from which you are downloading):

```
RECEIVE ISTC420V.RAM id:ISTC420V AISTDAT1 fm

RECEIVE ISTLDRM2.EXE id:ISTLDRM2 AISTDAT1 fm
```

  OS/2 downloads the ISTLDRM2 unpacking utility and the packed version of the VTAM command set library and stores them on your workstation. For more information on the RECEIVE command, enter *HELP RECEIVE* on the OS/2 command line.

  For example, if you are downloading from your A emulator session, the 401 disk is accessed as filemode G, and you want to store the VTAM V4R2 for VM/ESA command set library for IBM Command Tree/2 on your D: drive in directory IBMFKB\RUNTIME\ISTC420V for VM/ESA enter the RECEIVE command show below. This RECEIVE command is shown split across two lines, but the command should be entered as a single line command.

```
RECEIVE D:IBMFKB\RUNTIME\ISTC420V\ISTC420V.RAM
          A:ISTC420V AISTDAT1 G
```

  IBMFKB is the directory that contains the IBM Command Tree/2 program files. It is recommended (but not required) that you install each command set library in a separate subdirectory of IBMFKB\RUNTIME to avoid overlaying any existing files. For example, you could store the VTAM V4R2 for VM/ESA command set library in IBMFKB\RUNTIME\ISTC420V, and a user-written command set library in IBMFKB\RUNTIME\MYCMDS.

- Unpack the VTAM command set library files.

  After the packed command set library is on your workstation, you need to unpack the files before you can build VTAM commands. To unpack the files, go to an OS/2 command line and be sure the prompt is set for the directory to which you downloaded the command set library (for example, D:\IBMFKB\RUNTIME\ISTC420V for VM/ESA). Now enter:

  ```
  ISTLDRM2 ISTC420V.RAM /D
  ```

  This unpacks the files and stores them in the current directory. The ISTLDRM2 utility does not erase the packed command set library file. For backup purposes, it is recommended that you keep a copy of this packed command set library file on the workstation or on the host.

D.1.2 For More Information

For more information on the IBM Command Tree/2 program, including how to create user profiles to start the program with the VTAM command set library, see *Using IBM Command Tree/2*. This book is also available on the *IBM Networking Softcopy Collection Kit* CD-ROM.

D.1.3 Installation Considerations

When upgrading from a previous release of VTAM, and you are using the same disks for your current release, ensure all old text decks are removed from disks.

Reader's Comments

ACF/VTAM Version 4 Release 2 for VM/ESA

You may use this form to comment about this document, its organization, or subject matter with the understanding that IBM may use or distribute whatever information you supply in any way it believes appropriate without incurring any obligation to you.

For each of the topics below please indicate your satisfaction level by circling your choice from the rating scale. If a statement does not apply, please circle N.

RATING SCALE

```
  very                                  very          not
satisfied  <======================>  dissatisfied  applicable
   1        2        3        4         5            N
```

	Satisfaction					
Ease of product installation	1	2	3	4	5	N
Time required to install the product	1	2	3	4	5	N
Contents of program directory	1	2	3	4	5	N
Readability and organization of program directory tasks	1	2	3	4	5	N
Necessity of all installation tasks	1	2	3	4	5	N
Accuracy of the definition of the installation tasks	1	2	3	4	5	N
Technical level of the installation tasks	1	2	3	4	5	N
Installation verification procedure	1	2	3	4	5	N
Ease of customizing the product	1	2	3	4	5	N
Ease of migrating the product from a previous release	1	2	3	4	5	N
Ease of putting the system into production after installation	1	2	3	4	5	N
Ease of installing service	1	2	3	4	5	N

- Did you order this product as an independent product or as part of a package?
  - □ Independent
  - □ Package

    What type of package was ordered?

    - □ CustomPac *
      - □ FunctionPac *
      - □ SystemPac *
    - □ System Delivery Offering (SDO)
    - □ Other - Please specify type: _____

- Is this the first time your organization has installed this product?
  - □ Yes
  - □ No
- Were the people who did the installation experienced with the installation of VM products using VMSES/E?
  - □ Yes

    How many years of experience do they have? _____
  - □ No
- How long did it take to install this product? _____
- If you have any comments to make about your ratings above, or any other aspect of the product installation, please list them below:

  _____

  _____

  _____

  _____

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Please provide the following contact information:

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Thank you for your participation.

Please send the completed form to the following address, or give to your IBM representative who will forward it to the ACF/VTAM Development group:

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