IBM

Program Directory for

VisualAge Generator Server for VM

Release 2.0

Program Number 5648-B02

for Use with
VM/ESA Version 1 Release 2.2
VM/ESA Version 2

Document Date: July 1998

GI10-0814-01

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┌─ Note ─────────────────────────────────────────────────────────────────────────────┐
│                                                                                      │
│  Before using this information and the product it supports, be sure to read the general information under "Notices" on page  vii. │
│                                                                                      │
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Contents

Figures

Notices

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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 VisualAge Generator Server. You should read all of this program directory before installing the program and then keep it for future reference.

Note: Further references to VisualAge Generator Server for MVS, VSE and VM throughout this document are shortened to VisualAge Generator Server in order to improve the readability of the document.

The program directory contains the following sections:

- 2.0, "Program Materials" on page 3 identifies the basic and optional program materials and documentation for VisualAge Generator Server.

- 3.0, "Program Support" on page 9 describes the IBM support available for VisualAge Generator Server.

- 4.0, "Program and Service Level Information" on page 11 lists the APARs (program level) and PTFs (service level) incorporated into VisualAge Generator Server.

- 5.0, "Installation Requirements and Considerations" on page 13 identifies the resources and considerations for installing and using VisualAge Generator Server.

- 6.0, "Installation Instructions" on page 19 provides detailed installation instructions for VisualAge Generator Server.

- 7.0, "Service Instructions" on page 83 provides detailed servicing instructions for VisualAge Generator Server.

Before installing VisualAge Generator Server, read 3.1, "Preventive Service Planning" on page 9. This section tells you how to find any updates to the information and procedures in this program directory.

1.1 Program Description

The VisualAge Generator products are a set of application development tools in the IBM Application Productivity Family that provide definition, test, generation and run time support for both stand-alone and client/server applications. With VisualAge Generator Server, you can prepare, install, and run generated COBOL applications on VM in a batch mode or interactive mode. These applications can be stand-alone host applications or server applications that communicate with client applications through the provided communications support.

2.0 Program Materials

An IBM program is identified by a program number. The program number for VisualAge Generator Server is 5648-B02.

The program announcement material describes the features supported by VisualAge Generator Server. Ask your IBM marketing representative for this information if you have not already received a copy.

The following sections identify:

- basic and optional program materials available with this program

- publications useful during installation.

2.1 Basic Machine-Readable Material

The distribution medium for this program are two 9-track magnetic tapes (written at 6250 BPI), two 3480 tape cartridges, two 1/4-inch tape cartridges, or two 4MM tape cartridges. The tapes or cartridges contain all the programs and data needed for installation. See section 6.0, "Installation Instructions" on page 19 for more information about how to install the program. Figure 1 describes the tapes or cartridges. Figure 2 on page 5 describes the file content of the program tapes or cartridges.

Figure 1 (Page 1 of 3). Basic Material: Program Tape

Feature Number	Medium	Physical Volume	Tape Content	External Tape Label
5010	6250 tape	1 1	Base Code Mixed Case English Code	VAGEN SVR VM BASE VAGEN SVR VM ENU
5950	3480 cart.	1 1	Base Code Mixed Case English Code	VAGEN SVR VM BASE VAGEN SVR VM ENU
6474	4MM cart.	1 1	Base Code Mixed Case English	VAGEN SVR VM BASE VAGEN SVR VM ENU
5834	.25" cart	1 1	Base Code Mixed Case English	VAGEN SVR VM BASE VAGEN SVR VM ENU
5821	6250 tape	1 1	Base Code Upper Case English Code	VAGEN SVR VM BASE VAGEN SVR VM ENP
5822	3480 cart.	1 1	Base Code Upper Case English Code	VAGEN SVR VM BASE VAGEN SVR VM ENP
6476	4MM cart.	1 1	Base Code Upper Case English	VAGEN SVR VM BASE VAGEN SVR VM ENP
5824	.25" cart	1 1	Base Code Upper Case English	VAGEN SVR VM BASE VAGEN SVR VM ENP

Figure 1 (Page 2 of 3). Basic Material: Program Tape

Feature Number	Medium	Physical Volume	Tape Content	External Tape Label
5811	6250 tape	1 1	Base Code Chinese Code	VAGEN SVR VM BASE VAGEN SVR VM CHS
5812	3480 cart.	1 1	Base Code Chinese Code	VAGEN SVR VM BASE VAGEN SVR VM CHS
6451	4MM cart.	1 1	Base Code Chinese Code	VAGEN SVR VM BASE VAGEN SVR VM CHS
5814	.25" cart	1 1	Base Code Chinese Code	VAGEN SVR VM BASE VAGEN SVR VM CHS
5861	6250 tape	1 1	Base Code Spanish Code	VAGEN SVR VM BASE VAGEN SVR VM ESP
5862	3480 cart.	1 1	Base Code Spanish Code	VAGEN SVR VM BASE VAGEN SVR VM ESP
6449	4MM cart.	1 1	Base Code Spanish Code	VAGEN SVR VM BASE VAGEN SVR VM ESP
5874	.25" cart	1 1	Base Code Spanish Code	VAGEN SVR VM BASE VAGEN SVR VM ESP
5871	6250 tape	1 1	Base Code Swish German Code	VAGEN SVR VM BASE VAGEN SVR VM DES
5872	3480 cart.	1 1	Base Code Swish German Code	VAGEN SVR VM BASE VAGEN SVR VM DES
6458	4MM cart.	1 1	Base Code Swish German Code	VAGEN SVR VM BASE VAGEN SVR VM DES
5884	.25" cart	1 1	Base Code Swish German Code	VAGEN SVR VM BASE VAGEN SVR VM DES
5831	6250 tape	1 1	Base Code German Code	VAGEN SVR VM BASE VAGEN SVR VM DEU
5832	3480 cart.	1 1	Base Code German Code	VAGEN SVR VM BASE VAGEN SVR VM DEU
6448	4MM cart.	1 1	Base Code German Code	VAGEN SVR VM BASE VAGEN SVR VM DEU
5844	.25" cart	1 1	Base Code German Code	VAGEN SVR VM BASE VAGEN SVR VM DEU
5841	6250 tape	1 1	Base Code Japanese Code	VAGEN SVR VM BASE VAGEN SVR VM JPN
5842	3480 cart.	1 1	Base Code Japanese Code	VAGEN SVR VM BASE VAGEN SVR VM JPN
6457	4MM cart.	1 1	Base Code Japanese Code	VAGEN SVR VM BASE VAGEN SVR VM JPN

Figure 1 (Page 3 of 3). Basic Material: Program Tape

Feature Number	Medium	Physical Volume	Tape Content	External Tape Label
5854	.25" cart	1	Base Code	VAGEN SVR VM BASE
		1	Japanese Code	VAGEN SVR VM JPN
5851	6250	1	Base Code	VAGEN SVR VM BASE
	tape	1	Korean Code	VAGEN SVR VM KOR
5852	3480	1	Base Code	VAGEN SVR VM BASE
	cart.	1	Korean Code	VAGEN SVR VM KOR
6475	4MM	1	Base Code	VAGEN SVR VM BASE
	cart.	1	Korean Code	VAGEN SVR VM KOR
5864	.25" cart	1	Base Code	VAGEN SVR VM BASE
		1	Korean Code	VAGEN SVR VM KOR
5801	6250	1	Base Code	VAGEN SVR VM BASE
	tape	1	Brazilian Portuguese Code	VAGEN SVR VM PTB
5802	3480	1	Base Code	VAGEN SVR VM BASE
	cart.	1	Brazilian Portuguese Code	VAGEN SVR VM PTB
6477	4MM	1	Base Code	VAGEN SVR VM BASE
	cart.	1	Brazilian Portuguese Code	VAGEN SVR VM PTB
5804	.25" cart	1	Base Code	VAGEN SVR VM BASE
		1	Brazilian Portuguese Code	VAGEN SVR VM PTB

Figure 2. Program Tape: File Content

Tape File	Content
1	Tape Header
2	Tape Header
3	Product Header
4	Product Memo
5	Service Apply Lists
6	PTFPARTs
7	VisualAge Generator Server Service
8	VisualAge Generator Server Service
9	VisualAge Generator Server Base Code
10	VisualAge Generator Server Customization Files
11	VisualAge Generator Server Help Files
12	VisualAge Generator Server Executable Code

2.2 Optional Machine-Readable Material

There are no optional machine-readable materials for VisualAge Generator Server.

2.3 Program Publications

The following sections identify the basic and optional publications for VisualAge Generator Server.

2.3.1 Basic Program Publications

One copy of the following publication is included when you order the basic materials for VisualAge Generator Server. For additional copies, contact your IBM representative.

Figure 3. Basic Material: Unlicensed Publications

Publication Title	Form Number
Licensed Program Specification	GH23-0255
VisualAge Generator Server Guide for MVS, VM and VSE	SH23-0256

2.4 Microfiche Support

There is no microfiche for VisualAge Generator Server.

2.5 Publications Useful During Installation

The publications listed in Figure 4 and Figure 5 on page 7 may be useful during the installation of VisualAge Generator Server. To order copies, contact your IBM representative.

Figure 4. Publications Useful During Installation / Service on VM/ESA Version 1

Publication Title	Form Number
VM/ESA: VMSES/E Introduction and Reference	SC24-5444
VM/ESA: CP Planning and Administration	SC24-5521
VM/ESA: Service Guide	SC24-5527
VM/ESA: CMS Command Reference	SC24-5461
VM/ESA: SFS and CRR Planning, Administration, and Operation	SC24-5649
VM/ESA System Messages and Codes	SC24-5529

Figure 5. Publications Useful During Installation / Service on VM/ESA Version 2.1.0 or 2.2.0

Publication Title	Form Number
VM/ESA: VMSES/E Introduction and Reference	SC24-5747
VM/ESA: Service Guide	SC24-5749
VM/ESA: Planning and Administration	SC24-5750
VM/ESA: CMS Command Reference	SC24-5776
VM/ESA: CMS File Pool Planning, Administration, and Operation	SC24-5751
VM/ESA: System Messages and Codes	SC24-5784

Figure 6. Publications Useful During Installation / Service on VM/ESA Version 2.3.0

Publication Title	Form Number
VM/ESA: VMSES/E Introduction and Reference	GC24-5837
VM/ESA: Service Guide	GC24-5838
VM/ESA: Planning and Administration	SC24-5750
VM/ESA: CMS Command Reference	SC24-5776
VM/ESA: CMS File Pool Planning, Administration, and Operation	SC24-5751
VM/ESA: System Messages and Codes	GC24-5841

3.0 Program Support

This section describes the IBM support available for VisualAge Generator Server.

3.1 Preventive Service Planning

Before installing VisualAge Generator Server, check with your IBM Support Center or use IBMLink (ServiceLink) to see whether there is additional Preventive Service Planning (PSP) information. To obtain this information, specify the following UPGRADE and SUBSET values:

Figure 7. PSP Upgrade and Subset ID

	Retain		
COMPID	Release	Upgrade	Subset
5648B0200	120	VGHS120	VGVM/120
5648B0200	121	VGHS120	VGVM/120
5648B0200	122	VGHS120	VGVM/120
5648B0200	123	VGHS120	VGVM/120
5648B0200	124	VGHS120	VGVM/120
5648B0200	100	VGHS120	VGVM/120
5648B0200	126	VGHS120	VGVM/120
5648B0200	127	VGHS120	VGVM/120
5648B0200	128	VGHS120	VGVM/120

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 tell you where to send any needed documentation.

Figure 8 identifies the component ID (COMPID), Retain Release and Field Engineering Service Number (FESN) for VisualAge Generator Server.

Figure 8. Component IDs

COMPID	Retain Release	Component Name	FESN
5648B0200	128	VisualAge Generator Server 1.2.0 (BASE)	0405444
5648B0200	120	VisualAge Generator Server 1.2.0 (DES)	0405444
5648B0200	122	VisualAge Generator Server 1.2.0 (DEU)	0405444
5648B0200	121	VisualAge Generator Server 1.2.0 (ESP)	0405444
5648B0200	127	VisualAge Generator Server 1.2.0 (JPN)	0405444
5648B0200	124	VisualAge Generator Server 1.2.0 (KOR)	0405444
5648B0200	126	VisualAge Generator Server 1.2.0 (PTB)	0405444
5648B0200	100	VisualAge Generator Server 1.2.0 (ENP)	0405444
5648B0200	123	VisualAge Generator Server 1.2.0 (CHS)	0405444

BASE   Base code
DES   Swiss German
DEU   German
ESP   Spanish
JPN   Japanese
KOR   Korean
PTB   Brazilian Portuguese
ENP   Upper Case English
CHS   Simplified Chinese

4.0 Program and Service Level Information

This section identifies the program and any relevant service levels of VisualAge Generator Server. 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 following APAR fixes against the previous release of VisualAge Generator Server have been incorporated into this release.

PN92122   PQ07635   PQ09365   PQ10173
PQ00256   PQ09130   PQ09848   PQ11167
PQ01949

4.2 Service Level Information

Check the VGHS120 PSP bucket for any additional PTFs that should be installed or any additional install information.

4.3 Cumulative Service Tape

Cumulative service for VisualAge Generator Server Release 2.0 is available through a monthly corrective service tape, Expanded Service Option, ESO.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating VisualAge Generator Server.

5.1 Hardware Requirements

There are no special hardware requirements for VisualAge Generator Server.

5.2 Program Considerations

The following sections list the programming considerations for installing VisualAge Generator Server and activating its functions.

5.2.1 Operating System Requirements

VisualAge Generator Server supports the following VM operating systems:

- VM/ESA Version 2
  - **RSU9608 service level** or above must be applied to **CMS and VMSES/E** on VM/ESA 2.1.0 prior to installing VisualAge Generator Server. The following APAR is on that RSU:
    - APAR **VM60578** must be applied to VM/CMS on VM/ESA 2.1.0 prior to installing VisualAge Generator Server
  - APAR **PN83993** must be applied to IBM Language Environment prior to installing VisualAge Generator Server on VM/ESA 2.1.0 or VM/ESA 2.2.0.
- VM/ESA Version 1 Release 2.2
  - **RSU9605 service level** or above must be applied to **CMS and VMSES/E** on VM/ESA 1.2.2 prior to installing VisualAge Generator Server. The following APAR is on that RSU:
    - APAR **VM60578** must be applied to VM/CMS on VM/ESA 1.2.2 prior to installing VisualAge Generator Server

5.2.2 Other Program Product Requirements

- IBM Language Environment for MVS and VM Version 1 Release 5 or later (Program number 5688-198)

One of the following COBOL products for running generated COBOL applications:

- IBM COBOL for MVS & VM Version 1 Release 2 (Program number 5688-197)
- IBM COBOL for OS/390 & VM Version 2 Release 1 or later (Program number 5648-A25)

One of the following products for file transfer during generation:

- IBM 3270/PC File Transfer Program for VM (Program number 5664-281).

- IBM TCP/IP Version 2 Release 3 or later (Program number 5735-FAL).

For assembling of the parts used for tailoring VisualAge Generator Server: IBM High Level Assembler/MVS & VM & VSE Version 1 Release 2 or later (Program number 5696-234)

If you plan to use relational databases:

- Structured Query Language/Data System (SQL/DS) Version 3 Release 5 or later (Program number 5688-103)
  or

- IBM DB2 Server for VSE & VM Version 5 Release 1 or later (Program number 5648-158)

For accessing the Interactive Chart Utility from a VisualAge Generator Application:

- Graphical Data Display Manager/VM (GDDM/VM) Version 3.1.0 with APAR PN39848 (Program number 5684-168)

- Graphical Data Display Manager/PGF Version 2.1.1 (Program number 5668-812) or later

5.2.3 Program Installation and Service Considerations

This section describes items that should be considered before you install or service VisualAge Generator Server.

- VMSES/E is required to install and service this product.

- If multiple users install and maintain licensed products on your system, there may be a problem getting the necessary access to MAINT's 51D disk. If you find that there is contention for write access to the 51D disk, you can eliminate it by converting the Software Inventory from minidisk to Shared File System (SFS). See the *VMSES/E Introduction and Reference* manual, section 'Changing the Software Inventory to an SFS Directory', for information on how to make this change.

- Customers will no longer install and service VisualAge Generator Server strictly using the MAINT user ID, but will use a new user ID--5648B02A. This is the IBM suggested user ID name. You are free to change this to any user ID name you wish; however, a PPF override must be created.

  Note: It may be easier to make the above change during the installation procedure 6.2, "Plan Your Installation For VisualAge Generator Server" step 6 on page 23, rather than after you have installed this product.

5.3 DASD Storage and User ID Requirements

Figure 9 on page 15 lists the user IDs, minidisks and default SFS directory names that are used to install and service VisualAge Generator Server.

Important Installation Notes:

- User ID(s) and minidisks or SFS directories will be defined in 6.2, "Plan Your Installation For VisualAge Generator Server" on page 22 and are listed here so that you can get an idea of the resources that you will need prior to allocating them.

- 5648B02A is a default user ID and can be changed. If you choose to change the name of the installation user ID you need to create a PPF override to reflect this change. This can be done in 6.2, "Plan Your Installation For VisualAge Generator Server" step 6 on page 23.

- If you choose to install VisualAge Generator Server on a common user ID the default minidisk addresses for VisualAge Generator Server may already be defined. If any of the default minidisks required by VisualAge Generator Server are already in use you will have to create an override to change the default minidisks for VisualAge Generator Server so they are unique.

| Minidisk owner (user ID) | Default Address | Storage in Cylinders | | FB-512 Blocks | SFS 4K Blocks | Usage |
		DASD	CYLS			Default SFS Directory Name
5648B02A	2B2	3390 3380 9345	7 8 8	8800	1200	Contains all the base code shipped with VisualAge Generator Server and code for a single language. **VMSYS:5648B02A.VISGEN.OBJECT**
		3390 3380 9345	1 1 1	600	150	Additional storage requirement for each additional language for each addition language installed for VisualAge Generator Server **VMSYS:5648B02A.VISGEN.OBJECT**
5648B02A	2C2	3390 3380 9345	1 1 1	520	150	Contains customization files for the base and a single language. This disk may also be used for local modifications. **VMSYS:5648B02A.VISGEN.SAMPLE**
		3390 3380 9345	1 1 1	320	150	Additional storage requirement for each additional language installed for VisualAge Generator Server **VMSYS:5648B02A.VISGEN.SAMPLE**

Figure 9 (Page 1 of 3). DASD Storage Requirements for Target Minidisks

Note: Cylinder values defined in this table are based on a 4K block size. FB-512 block and SFS values are derived from the 3380 cylinder values in this table. The FBA blocks are listed as 1/2K but should be CMS formatted at 1K size.

Minidisk owner (user ID)	Default Address	Storage in Cylinders		FB-512 Blocks	SFS 4K Blocks	Usage
		DASD	CYLS			Default SFS Directory Name
5648B02A	2D2	3390 3380 9345	9 10 10	12000	1500	Contains serviced files **VMSYS:5648B02A.VISGEN.DELTA**
		3390 3380 9345	2 2 2	2400	300	Additional storage requirement for each additional language installed for VisualAge Generator Server **VMSYS:5648B02A.VISGEN.DELTA**
5648B02A	2A6	3390 3380 9345	2 2 2	2400	300	Contains AUX files and software inventory tables that represent the test service level of VisualAge Generator Server **VMSYS:5648B02A.VISGEN.APPLYALT**
5648B02A	2A2	3390 3380 9345	2 2 2	2400	300	Contains AUX files and software inventory tables that represent the service level of VisualAge Generator Server that is currently in production. **VMSYS:5648B02A.VISGEN.APPLYPROD**
5648B02A	29D	3390 3380 9345	1 1 1	1200	150	Mixed-Case English Help build disk. This code will be copied to a help disk. **VMSYS:5648B02A.VISGEN.THELP.ENU**
	202	3390 3380 9345	1 1 1	1200	150	Upper case English Help build disk. This code will be copied to a help disk. **VMSYS:5648B02A.VISGEN.THELP.ENP**
	206	3390 3380 9345	1 1 1	1200	150	Spanish Help build disk. This code will be copied to a help disk. **VMSYS:5648B02A.VISGEN.THELP.ESP**
	207	3390 3380 9345	1 1 1	1200	150	Chinese Help build disk. This code will be copied to a help disk. **VMSYS:5648B02A.VISGEN.THELP.CHS**
	205	3390 3380 9345	1 1 1	1200	150	German Help build disk. This code will be copied to a help disk. **VMSYS:5648B02A.VISGEN.THELP.DEU**
	218	3390 3380 9345	1 1 1	1200	150	Swiss German Help build disk. This code will be copied to a help disk. **VMSYS:5648B02A.VISGEN.THELP.DES**

Figure 9 (Page 2 of 3). DASD Storage Requirements for Target Minidisks

Note: Cylinder values defined in this table are based on a 4K block size. FB-512 block and SFS values are derived from the 3380 cylinder values in this table. The FBA blocks are listed as 1/2K but should be CMS formatted at 1K size.

| Minidisk owner (user ID) | Default Address | Storage in Cylinders | | FB-512 Blocks | SFS 4K Blocks | Usage |
		DASD	CYLS			Default SFS Directory Name
	219	3390 3380 9345	1 1 1	1200	150	Portuguese Help build disk. This code will be copied to a help disk. **VMSYS:5648B02A.VISGEN.THELP.PTB**
	220	3390 3380 9345	1 1 1	1200	150	Korean Help build disk. This code will be copied to a help disk. **VMSYS:5648B02A.VISGEN.THELP.KOR**
	201	3390 3380 9345	1 1 1	1200	150	Japanese Help build disk. This code will be copied to a help disk. **VMSYS:5648B02A.VISGEN.THELP.JPN**
5648B02A	200	3390 3380 9345	7 8 8	9600	1200	Test build disk. This code will be copied to a production disk so the production disk will also require this amount of free space. **VMSYS:5648B02A.VISGEN.T200BUILD**
		3390 3380 9345	1 1 1	1200	500	Additional storage requirement for each additional language installed for VisualAge Generator Server **VMSYS:5648B02A.VISGEN.T200BUILD**
5648B02A	300	3390 3380 9345	7 8 8	9600	1200	Production build disk. This is the disk to which you will copy the data from the test build disk. **VMSYS:5648B02A.VISGEN.P300BUILD**
		3390 3380 9345	1 1 1	1200	150	Additional storage requirement for each additional language installed for VisualAge Generator Server **VMSYS:5648B02A.VISGEN.P300BUILD**
5648B02A	191	3390 3380 9345	9 10 10	12000	1500	5648B02A user ID's 191 minidisk **VMSYS:5648B02A.**

Figure 9 (Page 3 of 3). DASD Storage Requirements for Target Minidisks

Note: Cylinder values defined in this table are based on a 4K block size. FB-512 block and SFS values are derived from the 3380 cylinder values in this table. The FBA blocks are listed as 1/2K but should be CMS formatted at 1K size.

6.0 Installation Instructions

This chapter describes the installation methods and the step-by-step procedures to install and activate VisualAge Generator Server.

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 hand side of the page in bold print. Additional information for a command may exist to the right of the command. For more information about the two column format see 'Understanding Dialogs with the System' in the *VM/ESA Installation Guide*.

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

Throughout these instructions, the use of IBM-supplied default minidisk addresses and user IDs is assumed. If you use different user IDs, minidisk addresses, or SFS directories to install VisualAge Generator Server, adapt these instructions as needed for your environment.

Note

The sample console output presented throughout these instructions was produced on a VM/ESA 2.2.0 system. If you're installing VisualAge Generator Server on a different VM/ESA system, the results obtained for some commands may differ from those depicted here.

The base code and the language code for VisualAge Generator Server are shipped on separate tapes. Different PPFs are used for the base and the various languages. Figure 10 lists the PPF names used during the installation and servicing of VisualAge Generator Server code. This information is required throughout the installation process.

The *ppfname* used throughout the installation instructions is **5648B02***x*, which assumes you are using the PPF supplied by IBM for VisualAge Generator Server. If you have your own PPF override file for VisualAge Generator Server, you should use your file's *ppfname* instead of **5648B02***x*. The *ppfname* you use should be used **throughout** the rest of this procedure, unless otherwise stated.

Figure 10 (Page 1 of 2). Base and Language related PPFs

PPF	Product ID	Base or Language
5648B02A	5648B02A	Base code for all languages
5648B02B	5648B02B	Mixed Case English
5648B02C	5648B02C	Swiss German
5648B02D	5648B02D	German
5648B02E	5648B02E	Spanish
5648B02F	5648B02F	Japanese
5648B02G	5648B02G	Korean

Figure 10 (Page 2 of 2). Base and Language related PPFs

PPF	Product ID	Base or Language
5648B02H	5648B02H	Brazilian Portuguese
5648B02J	5648B02J	Upper Case English
5648B02K	5648B02K	Chinese

In the installation instructions, you will be asked to enter the component name. The component name is used to specify whether you are installing the code on minidisks or SFS directory space. In addition, it indicates which build lists to use when building the product. When asked for the *compname*, you should choose the one most appropriate for the environment that you are supporting. For example, if you are installing VisualAge Generator Server with support for GDDM and SQL and using SFS directory space for the install, you would choose VISGENSQLGDDMSFS. See Figure 11 for the list of valid component names and the PPFs that use them.

Sometimes that *compname* might not be in the list shown for a step in the process. This is because the VMSES/E instruction may not need you to be that specific. In that case, choose the most appropriate *compname*. Continuing with the previous example, if only the VISGEN and VISGENSFS *compnames* are shown, then VISGENSFS would be the correct choice.

Figure 11 (Page 1 of 2). Component Names: Valid PPF Combinations and Usage Definition

Component Name	Used with 5648B02A	Used with Other PPFs	Usage
VISGEN	yes	yes	installing and servicing VisualAge Generator Server on minidisks
VISGENSFS	yes	yes	installing and servicing VisualAge Generator Server on Share File System
VISGENGDDM	yes	no	installing and servicing VisualAge Generator Server with GDDM support on minidisks
VISGENGDDMSFS	yes	no	installing and servicing VisualAge Generator Server with GDDM support on Share File System
VISGENSQL	yes	no	installing and servicing VisualAge Generator Server with SQL support on minidisks
VISGENSQLSFS	yes	no	installing and servicing VisualAge Generator Server with SQL support on Share File System
VISGENSQLGDDM	yes	no	installing and servicing VisualAge Generator Server with SQL and GDDM support on minidisks
VISGENSQLGDDMSFS	yes	no	installing and servicing VisualAge Generator Server with SQL and GDDM support on Share File System
VGNDCE	yes	no	installing and servicing VisualAge Generator Server with DCE support on minidisks

Figure 11 (Page 2 of 2). Component Names: Valid PPF Combinations and Usage Definition

Component Name	Used with 5648B02A	Used with Other PPFs	Usage
VGNDCESFS	yes	no	installing and servicing VisualAge Generator Server with DCE support on Shared File System
VGNDCEGDDM	yes	no	installing and servicing VisualAge Generator Server with DCE and GDDM support on minidisks
VGNDCEGDDMSFS	yes	no	installing and servicing VisualAge Generator Server with DCE and GDDM support on Shared File System
VGNDCESQL	yes	no	installing and servicing VisualAge Generator Server with DCE and SQL support on minidisks
VGNDCESQLSFS	yes	no	installing and servicing VisualAge Generator Server with DCE and SQL support on Shared File System
VGNDCESQLGDDM	yes	no	installing and servicing VisualAge Generator Server with DCE, SQL and GDDM support on minidisks
VGNDCESQLGDDMSFS	yes	no	installing and servicing VisualAge Generator Server with DCE, SQL and GDDM support on Shared File System

The steps in the following sections assume you are using the component name within the **5648B02***x* PPF file. If you specify your own *ppfname*, you should use the *compname* from that file instead of the ones shown in the instructions. The *compname* you use, should be used **throughout** the rest of this procedure.

6.1 VMSES/E Installation Process Overview

The following is a brief description of the main steps in installing VisualAge Generator Server using VMSES/E.

- Plan Your Installation

  Use the VMFINS command to load several VMSES/E files from the product tape and to obtain VisualAge Generator Server resource requirements.

- Allocate Resources

  The information obtained from the previous step is used to allocate the appropriate minidisks (or SFS directories) and user IDs needed to install and use VisualAge Generator Server.

- Install the VisualAge Generator Server Product

  Use the VMFINS command to load the VisualAge Generator Server product files from tape to the test BUILD and BASE minidisks/directories. VMFINS is then used to update the VM SYSBLDS file used by VMSES/E for software inventory management.

- Perform Post-installation Tasks

Information about file tailoring and initial activation of the program is presented in 6.5, "Post-Installation Considerations" on page 34.

- Place VisualAge Generator Server Files into Production

  Once the product files have been tailored and the operation of VisualAge Generator Server is satisfactory, the product files are copied from the test BUILD disk(s) to production BUILD disk(s).

For a complete description of all VMSES/E installation options refer to *VMSES/E Introduction and Reference*.

6.2 Plan Your Installation For VisualAge Generator Server

The VMFINS command will be used to plan the installation. This section has 2 main steps that will:

- load the first tape file, containing installation files
- generate a 'PLANINFO' file listing
  - all user ID and mdisks/SFS directory requirements
  - required products

To obtain planning information for your environment:

1 Log on as VisualAge Generator Server installation planner.

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

2 Mount the VisualAge Generator Server 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   The 5E5 disk contains the VMSES/E code.
access 5e5 b

4 Establish write access to the Software Inventory disk.

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

Note: If another user already has the MAINT 51D minidisk linked in write mode (R/W), you will only obtain read access (R/O) to this minidisk. If this occurs, you will need to have that user re-link the 51D in read-only mode

(RR), and then re-issue the above LINK and ACCESS commands. Do not continue with these procedures until a R/W link is established to the 51D minidisk.

5 Load the VisualAge Generator Server product control files to the 51D minidisk.

vmfins install info (nomemo

The NOMEMO option will load the memos from the tape but will not issue a prompt to send them to the system printer. Specify the MEMO option if you want to be prompted for printing the memo.

This command will perform the following:

- load Memo-to-Users

- load various product control files, including the Product Parameter File (PPF) and the PRODPART files

- create VMFINS PRODLIST on your A-disk. The VMFINS PRODLIST contains a list of products on the installation tape.

```
VMFINS2760I VMFINS processing started
VMFINS1909I VMFINS PRODLIST created on your A-disk
VMFINS2760I VMFINS processing completed successfully
Ready;
```

6 Obtain resource planning information for VisualAge Generator Server.

Notes:

a. The product will **not** be loaded by the VMFINS command at this time.

vmfins install ppf 5648B02A {VISGEN | VISGENSFS} (plan nomemo

Use **VISGEN** for installing on minidisks or **VISGENSFS** for installing in Shared File System directories.

The PLAN option indicates that VMFINS will perform requisite checking, plan system resources, and provide an opportunity to override the defaults in the product parameter file.

You can override any of the following:

- the name of the product parameter file

- the default user IDs

- minidisk/directory definitions

Notes:

a. If you change the PPF name, a default user ID, or other parameters via a PPF override, you will need to use your changed values instead of those indicated (when appropriate), throughout the rest of the installation instructions, as well as the instructions for servicing VisualAge Generator Server. For example, you will need to specify your PPF override file name instead of 5648B02A for certain VMSES/E commands.

b. If you're not familiar with creating PPF overrides using VMFINS, you should review the 'Using the Make Override Panel' section in Chapter 3 of the *VMSES/E Introduction and Reference* before you continue.

```
VMFINS2767I Reading VMFINS DEFAULTS B for additional options
VMFINS2760I VMFINS processing started
VMFINS2601R Do you want to create an override for :PPF 5648B02A VISGEN
            :PRODID. 5648B02A%VISGEN?
            Enter 0 (No), 1 (Yes) or 2 (Exit)
0
VMFINS2603I Processing product :PPF 5648B02A VISGEN :PRODID
            5648B02A%VISGEN
VMFREQ1909I 5648B02A PLANINFO created on your A-disk
VMFREQ2805I Product :PPF 5648B02A VISGEN :PRODID 5648B02A%VISGEN
            has passed requisite checking
VMFINT2603I Planning for the installation of product :PPF 5648B02A VISGEN
            :PRODID 5648B02A%VISGEN
VMFRMT2760I VMFRMT processing started
VMFRMT2760I VMFRMT processing completed successfully
VMFINS2760I VMFINS processing completed successfully
```

7 Review the install message log ($VMFINS $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 on-line HELP.

vmfview install

6.3 Allocate Resources for Installing VisualAge Generator Server

Use the planning information in the 5648B02A PLANINFO file, created in the **PLAN** step, to:

- Create the 5648B02A user directory for minidisk install

  OR

- Create the 5648B02A user directory for SFS install

6.3.1 Installing VisualAge Generator Server on Minidisk

1 Obtain the user directory from the 5648B02A PLANINFO file.

Note: The user directory entry is located in the resource section of the PLANINFO file, at the bottom; these entries will contain all of the links and privilege classes necessary for the 5648B02A user ID. Use the directory entry found in PLANINFO as a model as input to your system directory.

2 Add the MDISK statements to the directory entry for 5648B02A. Use Figure 9 on page 15 to obtain the minidisk requirements. Make sure you include the extra number of cylinders you will need for any NLS languages you will be installing.

3 Add the 5648B02A directory entry to the system directory. Change the password for 5648B02A from xxxxx to a valid password, in accordance with your security guidelines.

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

> **Note**
>
> All minidisks for the 5648B02A user ID must be formatted before installing VisualAge Generator Server.

6.3.2 Installing VisualAge Generator Server in SFS Directories

1 Obtain the user directory from the 5648B02A PLANINFO file.

Note: The user directory entry is located in the resource section of the PLANINFO file, at the bottom; these entries will contain all of the links and privilege classes necessary for the 5648B02A user ID. Use the directory entry found in PLANINFO as a model as input to your system directory.

2 Add the 5648B02A directory entry to the system directory. Change the password for 5648B02A from xxxxx to a valid password, in accordance with your security guidelines.

3 Place the new directories on-line using VM/Directory Maintenance (DIRMAINT) or an equivalent CP directory maintenance method.

4 An SFS installation will also require the following steps:

a Determine the number of 4K blocks that are required for SFS directories by adding up the 4K blocks required for each SFS directory you plan to use. Make sure you include the extra number of blocks you will need for any NLS languages you will be installing.

If you intend to use all of the default VisualAge Generator Server SFS directories, the 4K block requirements for the directories are summarized in Figure 9 on page 15.

This information will be used when enrolling the 5648B02A to the VMSYS filepool.

b Enroll user 5648B02A in the VMSYS filepool using the ENROLL USER command:

```
ENROLL USER 5648B02A VMSYS: (BLOCKS blocks
```

where *blocks* is the number of 4K blocks that you calculated in the previous step.

Note: This must be done from a user ID that is an administrator for VMSYS: filepool.

c Determine if there are enough blocks available in the filepool to install VisualAge Generator Server. This information can be obtained from the QUERY FILEPOOL STATUS command. Near the end of the output from this command is a list of minidisks in the filepool and the number of blocks free. If the number of blocks free is smaller than the total 4K blocks needed to install VisualAge Generator Server you will need to add space to the filepool. See the *VM/ESA SFS and CRR Planning, Administration, and Operation* manual for information on adding space to a filepool.

d Create the necessary subdirectories listed in the 5648B02A PLANINFO file using the CREATE DIRECTORY command.

set filepool vmsys:
create directory *dirid*

dirid is the name of the SFS directory you're creating. An example of the create command is:

```
create directory vmsys:5648B02A.visgen
create directory vmsys:5648B02A.visgen.object
   :
```

If necessary, see the *VM/ESA CMS Command Reference* manual for more information about the CREATE DIRECTORY command.

A complete list of default VisualAge Generator Server SFS directories is provided in Figure 9 on page 15.

e If you intend to use an SFS directory as the work space for the 5648B02A user ID, include the following IPL control statement in the 5648B02A directory entry:

```
IPL CMS PARM FILEPOOL VMSYS
```

This will cause CMS to automatically access the 5648B02A's top directory as file mode A.

6.4 Install VisualAge Generator Server

The VisualAge Generator Server code is shipped on two tapes for each feature. One tape contains the code common to all languages. The second tape contains the code unique to each language which provides the language support. Both tapes must be installed before VisualAge Generator Server can be used. See Figure 1 on page 3 for a list of the various feature numbers, tapes, and external tape labels on the tapes.

6.4.1 Install VisualAge Generator Server Base Code

The *ppfname* used throughout these installation instructions is **5648B02A**, which assumes you are using the PPF supplied by IBM for VisualAge Generator Server. If you have your own PPF override file for VisualAge Generator Server, you should use your file's *ppfname* instead of **5648B02A**. The *ppfname* you use should be used **throughout** the rest of this procedure.

The *compname* used throughout the base installation instructions is either **VISGEN** or **VISGENSFS**, which assumes you are using the component name within the 5648B02A PPF file. If you specify your own *ppfname*, you should use the *compname* from that file instead of **VISGEN** or **VISGENSFS**. The *compname* you use should be used **throughout** the rest of this procedure.

1 Logon to the installation user ID **5648B02A**.

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

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

If either 5E5 or 51D is in a shared file system (SFS) then substitute your SFS directory name in the access command.

3 Run the profile to access MAINT's minidisks.

profile

4 If the Software Inventory disk (51D) was accessed R/O (read only) then establish write access to the Software Inventory disk.

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

link MAINT 51d 51d mr
access 51d d

5 Have the VisualAge Generator Server installation tape mounted and attached to 5648B02A at virtual address 181. The VMFINS EXEC requires the tape drive to be at virtual address 181.

6 Install VisualAge Generator Server.

Notes:

a. If you've already created a PPF override file, you should specify your override file name, in place of the default PPF name (5648B02A), after the **PPF** keyword for the following VMFINS command.

b. You may be prompted for additional information during VMFINS INSTALL processing depending on your installation environment. If you're 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 5648B02A {VISGEN | VISGENSFS} (nomemo nolink

Use **VISGEN** for installing on minidisks or **VISGENSFS** for installing in Shared File System directories.

The NOLINK option indicates that you don't want VMFINS to link to the appropriate minidisks, only access them if not accessed.

```
VMFINS2767I Reading VMFINS DEFAULTS B for additional options
VMFINS2760I VMFINS processing started
VMFINS2601R Do you want to create an override for :PPF 5648B02A VISGEN
            :PRODID. 5648B02A%VISGEN?
            Enter 0 (No), 1 (Yes) or 2 (Exit)
0
VMFINS2603I Processing product :PPF 5648B02A VISGEN :PRODID
            5648B02A%VISGEN
VMFREQ2805I Product :PPF 5648B02A VISGEN :PRODID 5648B02A%VISGEN
            has passed requisite checking
VMFINT2603I Installing product :PPF 5648B02A VISGEN :PRODID
            5648B02A%VISGEN
VMFSET2760I VMFSETUP processing started
VMFUTL2205I Minidisk|Directory Assignments:
            String   Mode Stat Vdev  Label/Directory
VMFUTL2205I LOCALSAM E    R/W  2C2   SES2C2
VMFUTL2205I APPLY    F    R/W  2A6   SES2A6
VMFUTL2205I          G    R/W  2A2   SES2A2
VMFUTL2205I DELTA    H    R/W  2D2   SES2D2
VMFUTL2205I BUILD0   I    R/W  200   SES200
VMFUTL2205I BASE1    J    R/W  2B2   SES2B2
VMFUTL2205I -------- A    R/W  191   SES191
VMFUTL2205I -------- B    R/O  5E5   MNT5E5
VMFUTL2205I -------- D    R/W  51D   SES51D
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 9800
VMFREC1851I (1 of 8) VMFRCAXL processing AXLIST
VMFRCX2159I Loading 0 part(s) to DELTA 2D2 (H)
VMFREC1851I (2 of 8) VMFRCPTF processing PARTLST
VMFRCP2159I Loading 0 part(s) to DELTA 2D2 (H)
VMFREC1851I (3 of 8) VMFRCCOM processing DELTA
VMFRCC2159I Loading 1 part(s) to DELTA 2D2 (H)
VMFREC1851I (4 of 8) VMFRCALL processing APPLY
VMFRCA2159I Loading part(s) to APPLY 2A6 (F)
VMFRCA2159I Loaded 1 part(s) to APPLY 2A6 (F)
VMFREC1851I (5 of 8) VMFRCALL processing BASE
VMFRCA2159I Loading part(s) to BASE 2B2 (J)
VMFRCA2159I Loaded 284 part(s) to BASE 2B2 (J)
VMFREC1851I (6 of 8) VMFRCALL processing SAMPLE
VMFRCA2159I Loading part(s) to LOCALSAM 2C2 (E)
VMFRCA2159I Loaded 1 part(s) to LOCALSAM 2C2 (E)
VMFREC1851I (7 of 8) VMFRCALL processing HELP
VMFRCA2159I Loading part(s) to BUILD0 200 (I)
VMFRCA2159I Loaded 1 part(s) to BUILD0 200 (I)
VMFREC1851I (8 of 8) VMFRCALL processing BUILD
VMFRCA2159I Loading part(s) to BUILD0 200 (I)
VMFRCA2159I Loaded 24 part(s) to BUILD0 200 (I)
VMFREC2760I VMFREC processing completed successfully
VMFINT2603I Product installed
VMFINS2760I VMFINS processing completed successfully
```

7 Review the install message log ($VMFINS $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 on-line HELP.

vmfview install

6.4.2 Install VisualAge Generator Server Language Code

For each language to be installed you must perform the steps in this section.

The *ppfname* used throughout the language code installation instructions is **5648B02***x*, which represents the PPF for the language being installed. See Figure 10 on page 19 for the list of VisualAge Generator Server PPFs.

This document assumes you are using the PPF supplied by IBM for VisualAge Generator Server. If you have your own PPF override file for VisualAge Generator Server, you should use your file's *ppfname* instead of **5648B02***x*. The *ppfname* you use, should be used **throughout** the rest of this procedure.

The *compname* used throughout the installation of the language code is either **VISGEN** or **VISGENSFS**, which assumes you are using the component name within the **5648B02***x* **PPF** file. If you specify your own *ppfname*, you should use the *compname* from that file instead of **VISGEN** or **VISGENSFS**. The *compname* you use should be used **throughout** the rest of this procedure.

1 You should already be logged onto the installation user ID **5648B02A** and have tailored that user's PROFILE EXEC, see 6.4.1, "Install VisualAge Generator Server Base Code" on page 27.

2 Execute the profile to access MAINT's minidisks.

profile

3 If the Software Inventory disk (51D) was accessed R/O (read only), then establish write access to the Software Inventory disk.

Note: If the MAINT 51D minidisk was accessed R/O, have the user (who has it linked R/W) link it as R/O. You then can issue the following commands to obtain R/W access to it.

link MAINT 51d 51d mr
access 51d d

4 Have the VisualAge Generator Server language installation tape mounted and attached to 5648B02A at virtual address 181. The VMFINS EXEC requires the tape drive to be at virtual address 181. See Figure 1 on page 3 for the external label on the language tape of the feature being installed.

5 Install VisualAge Generator Server language code.

Notes:

a. If you've already created a PPF override file, you should specify your override file name in place of the default PPF name (**5648B02**x) after the **PPF** keyword for the following VMFINS command.

b. You may be prompted for additional information during VMFINS INSTALL processing depending on your installation environment. If you're 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 5648B02x **{VISGEN | VISGENSFS} (nomemo nolink**

> Use **VISGEN** for installing VisualAge Generator Server on minidisks or **VISGENSFS** for installing VisualAge Generator Server in Shared File System directories.
>
> The NOLINK option indicates that you don't want VMFINS to link to the appropriate minidisks, only access them if not accessed.
>
> See Figure 10 on page 19 for the ppfname (**5648B02**x) to use for the language you are installing.

```
VMFINS2767I Reading VMFINS DEFAULTS B for additional options
VMFINS2760I VMFINS processing started
VMFINS2601R Do you want to create an override for :PPF 5648B02B VISGEN
            :PRODIDB. 5648B02B%VISGEN?
            Enter 0 (No), 1 (Yes) or 2 (Exit)
0
VMFINS2603I Processing product :PPF 5648B02B VISGEN :PRODID
            5648B02B%VISGEN
VMFREQ2805I Product :PPF 5648B02B VISGEN :PRODID 5648B02B%VISGEN
            has passed requisite checking
VMFINT2603I Installing product :PPF 5648B02B VISGEN :PRODID
            5648B02B%VISGEN
VMFSET2760I VMFSETUP processing started for 5648B02B VISGEN
VMFUTL2205I Minidisk|Directory Assignments:
            String    Mode  Stat  Vdev   Label/Directory
VMFUTL2205I LOCALSAM  E     R/W   2C2    SES2C2
VMFUTL2205I APPLY     F     R/W   2A6    SES2A6
VMFUTL2205I           G     R/W   2A2    SES2A2
VMFUTL2205I DELTA     H     R/W   2D2    SES2D2
VMFUTL2205I BUILD2    I     R/W   29D    SES29D
VMFUTL2205I BUILD0    J     R/W   200    SES200
VMFUTL2205I BASE      K     R/W   2B2    SES2B2
VMFUTL2205I --------  A     R/W   191    SES191
VMFUTL2205I --------  B     R/O   5E5    MNT5E5
VMFUTL2205I --------  D     R/W   51D    SES51D
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 9800
VMFREC1851I (1 of 8) VMFRCAXL processing AXLIST
VMFRCX2159I Loading   0 part(s) to DELTA 2D2 (H)
VMFREC1851I (2 of 8) VMFRCPTF processing PARTLST
VMFRCP2159I Loading   0 part(s) to DELTA 2D2 (H)
VMFREC1851I (3 of 8) VMFRCCOM processing DELTA
VMFRCC2159I Loading   0 part(s) to DELTA 2D2 (H)
VMFREC1851I (4 of 8) VMFRCALL processing APPLY
VMFRCA2159I Loading part(s) to APPLY 2A6 (F)
VMFRCA2159I Loaded   1 part(s) to APPLY 2A6 (F)
VMFREC1851I (5 of 8) VMFRCALL processing BASE
VMFRCA2159I Loading part(s) to BASE 2B2 (J)
VMFRCA2159I Loaded  31 part(s) to BASE 2B2 (J)
VMFREC1851I (6 of 8) VMFRCALL processing SAMPLE
VMFRCA2159I Loading part(s) to LOCALSAM 2C2 (E)
VMFRCA2159I Loaded   1 part(s) to LOCALSAM 2C2 (E)
VMFREC1851I (7 of 8) VMFRCALL processing HELP
VMFRCA2159I Loading part(s) to BUILD0 29D (I)
VMFRCA2159I Loaded   1 part(s) to BUILD0 29D (I)
VMFREC1851I (8 of 8) VMFRCALL processing BUILD
VMFRCA2159I Loading part(s) to BUILD0 200 (J)
VMFRCA2159I Loaded   3 part(s) to BUILD0 200 (J)
VMFREC2760I VMFREC processing completed successfully
VMFINT2603I Product installed
VMFINS2760I VMFINS processing completed successfully
```

6 Review the install message log ($VMFINS $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 on-line HELP.

vmfview install

7 If you are installing more than one language, then repeat the steps in this section for each additional language being installed.

6.5 Post-Installation Considerations

The post-installation procedures are divided into two sets of procedures: required and optional. Be sure to read the introduction to each specific section to verify whether you need to perform the steps contained there.

6.5.1 Post-Installation Preparation

Most post-installation procedures require that you have the proper accesses set up to MAINT's 51D and 5E5 disks. The post-installation prepare steps listed here are intended to remind you of the accesses that are needed prior to performing the tailoring. You may need to change a setting (previously done in the tailoring steps) months after an installation was completed. If you are continuing the installation and have not logged off or destroyed your accesses, you may skip this section.

1 Execute the profile to access MAINT's minidisks.

profile

2 If the Software Inventory disk (51D) was accessed R/O (read only), then establish write access to the Software Inventory disk.

Note: If the MAINT 51D minidisk was accessed R/O, have the user (who has it linked R/W) link it as R/O. You then can issue the following commands to obtain R/W access to it.

link MAINT 51d 51d mr
access 51d d

The MAINT 51D disk is where the VMSES/E system-level Software Inventory and other dependent files reside.

3 Access the VisualAge Generator Server installation disks.

vmfsetup 5648B02A {VISGEN | VISGENSFS}   Use **VISGEN** for tailoring VisualAge Generator
Server on minidisks or **VISGENSFS** for tailoring
VisualAge Generator Server in Shared File System
directories.

6.5.2 Post-Installation Considerations (Required)

Four post-installation steps are required prior to completing the install process:

- Set installation variables used by VisualAge Generator Server.

- Tailor VisualAge Generator Server ELASETUP and ELACLEAN EXECs to
  access the VisualAge Generator Server production code disk.

- Rename the message repositories for non-VM supported languages to file
  names that will be recognized.

6.5.2.1 Required Post-Install Step for Installation Variables

VisualAge Generator Server requires some information be defined by the
installation so that it is available to the execs which provide application processing.
This information is also used during some of the post-installation tailoring steps.

The ELAVMSET EXEC displays a set of panels to allow you to tailor information
related to your installation. It creates a file, ELACCDEF DATA, which contains the
response information.

Within the panels presented by ELAVMSET, the Enter key and PF keys provide
data validation, help, and other functions; specifically:

Key   **Function**

Enter   If a command is entered on the command line, then the command is
                invoked. Otherwise, the Enter key causes the information entered on
                the current panel to be validated and the next panel to be displayed if
                the information is valid.

PF1   Displays the help information for a panel; if the cursor is located on an
                entry field, pressing PF1 provides HELP for that field. Otherwise, PF1
                provides general help information for the ELAVMSET EXEC.

PF3   Exits from ELAVMSET if pressed from the first panel; if pressed from
                another panel, the previous panel is displayed.

PF5   Replaces information in an entry field with the default text for that field.
                Replacement of the current value with the default value is only done for
                the field on which the cursor is currently located. If the cursor is not
                located on an entry field, this key has no effect.

Note: Each panel has a panel number in the upper-right corner. The first two
digits indicate the total number of panels that can be displayed. The last three

digits indicate the panel number. Some panels may not display because accessing them depends on the entries from previous panels.

1 If the access order has changed so that the test build disk is no longer accessed, then restore the access order by performing the steps in 6.5.1, "Post-Installation Preparation" on page 34.

2 Invoke ELAVMSET to present the input panels.

elavmset *fm-build*
fm-build is the file mode of the test build disk, 200. If an ELACCDEF DATA file already exists on the specified disk (test build disk), the values in that file are used as the initial values for the variables. Otherwise, the defaults shipped with the VisualAge Generator Server code are used as the initial values.

3 Enter General Variable Information.

The panel in Figure 12 is used for customizing the general variables.

```
 VisualAge Generator Server Customization Facility          ELA16001

Will you be generating SQL/DS applications: N



 PF1=Help PF3=Previous PF5=Default
====>
```

Figure 12. Host Variables Panel (ELAVMSET)

Figure 13. Run-time Default Options

Option	Value(s)	Default	Description
Will you be generating SQL/DS applications?	N/Y	N	Answer with a "Y" for Yes if you are running SQL. Answer with an "N" for No if you are not running SQL.

4 Enter COBOL variable information.

The panel in Figure 14 is used for customizing the COBOL variables.

```
 VISUALAGE GENERATOR SERVER COBOL VARIABLES                          ELA15002

Names of Standard COBOL MACLIBs:
 SIGYMAC

Location of the COBOL Compiler:


File name of the TXTLIB for COBOL Application Link-Edits: SCEELKED
Location of the COBOL TXTLIB for Application Link-Edits:


File name of the COBOL LOADLIB: SCEERUN
Location of the COBOL LOADLIB:




 PF1=Help PF3=Previous PF5=Default
====>
```

Figure 14. COBOL Variables Panel (ELAVMSET)

Figure 15 (Page 1 of 2). COBOL Variables

Option	Value(s)	Default	Description
Names of Standard COBOL MACLIBs	*filenames*	SIGYMAC	Specifies the file names of all the standard COBOL MACLIBs you are using.
Location of the COBOL Compiler	*nickname*, *nickname\password*, *sfs_directory_id*, *userid/vaddr*, or *userid/vaddr\password*		Specifies the VMLINK nickname, SFS directory ID, or user ID and minidisk address of the minidisk/directory that contains the COBOL compiler you are using to generate programs. You can optionally specify a password to be used with the VMLINK nickname or *userid/vaddr* by appending a backslash \ and the password to the location.
File name of the TXTLIB for COBOL Program Link-Edits	*filename*	SCEELKED	Specifies the file name of the TXTLIB that will be used to link-edit the COBOL programs with LE services.

Figure 15 (Page 2 of 2). COBOL Variables

Option	Value(s)	Default	Description
Location of the COBOL TXTLIB	*nickname*, *nickname\password*, *sfs_directory_id*, *userid/vaddr*, or *userid/vaddr\password*		Specifies the VMLINK nickname, SFS directory ID, or user ID and minidisk address of the minidisk/directory that contains the COBOL TXTLIB used when link editing the COBOL program. You can optionally specify a password to be used with the VMLINK nickname or *userid/vaddr* by appending a backslash \ and the password to the location.
			Note: This is the location of the disk containing the COBOL TXTLIB. COBOL uses a common Language Environment TXTLIB. You should ensure that the location specified contains the TXTLIB with the COBOL related code. For example, VM/ESA Version 2 Release 1.0 ships a copy of the SCEELKED TXTLIB on the 19E disk that does not contain the additional code required for COBOL. The COBOL related code is installed separately.
			Note: Make note of this location. You will use it in 6.5.3.3, "Optional Post-Install Step to Set LE Runtime Options" on page 55, and 6.5.3.4, "Optional Post-Install Step for LE Assembler User Exit Processing" on page 56.
File name of the COBOL LOADLIB	*filename*	SCEERUN	Specifies the file name of the run-time LOADLIB for the COBOL version that you are using.
Location of the COBOL LOADLIB	*nickname*, *nickname\password*, *sfs_directory_id*, *userid/vaddr*, or *userid/vaddr\password*		Specifies the VMLINK nickname, SFS directory ID, or user ID and minidisk address of the minidisk/directory that contains LE LOADLIB used when running the COBOL program. You can optionally specify a password to be used with the VMLINK nickname or *userid/vaddr* by appending a backslash \ and the password to the location.
			Note: This is the location of the disk containing the COBOL LOADLIB. COBOL uses a common Language Environment LOADLIB. You should ensure that the location specified contains the LOADLIB with the COBOL related code. For example, VM/ESA Version 2 Release 1.0 ships a copy of the SCEERUN LOADLIB on the 19E disk that does not contain the additional code required for COBOL. The COBOL related code is installed separately.

5 Enter SQL information.

The panel in Figure 16 is used for customizing the SQL variables. This panel is displayed only if "Y" was answered on the SQL question in Figure 12 on page 36.

```
VISUALAGE GENERATOR SERVER SQL/DS VARIABLES                          ELA15003

Location of the SQL/DS:



 PF1=Help PF3=Previous PF5=Default
====>
```

Figure 16. SQL Variables Panel (ELAVMSET)

Figure 17. SQL Variables

Option	Value(s)	Default	Description
Location of the SQL/DS	*nickname*, *nickname\password*, *sfs_directory_id*, *userid/vaddr*, or *userid/vaddr\password*		Specifies the VMLINK nickname, SFS directory ID, or user ID and minidisk address of the minidisk/directory that contains the SQL/DS production code. You can optionally specify a password to be used with the VMLINK nickname or *userid*/*vaddr* by appending a backslash \ and the password to the location.

6 Enter run-time default options changes.

The panel in Figure 18 on page 40 is used for customizing the run-time default options. Figure 19 explains the IBM-supplied default options.

```
 ┌─────────────────────────────────────────────────────────────────────────────┐
 │                                                                               │
 │    VISUALAGE GENERATOR SERVER RUN-TIME DEFAULT OPTIONS              ELA15004   │
 │                                                                               │
 │  Default language code: ENU                                                   │
 │  Bypass date edit on EOF: N                                                   │
 │  VisualAge Generator Server trace buffer size: 64                             │
 │                                                                               │
 │                                                                               │
 │                                                                               │
 │                                                                               │
 │                                                                               │
 │   PF1=Help PF3=Previous PF5=Default                                           │
 │   ====>                                                                       │
 │                                                                               │
 └─────────────────────────────────────────────────────────────────────────────┘
```

Figure 18. Run-time Default Options Panel (ELAVMSET)

Figure 19. Run-time Default Options

Option	Value(s)	Default	Description
Default language code	*LLL*	ENU	Specifies the language code representing the language currently being customized. See Figure 21 on page 41 for a list of three-character codes.
Bypass date edit on EOF	N/Y	N	If N is entered, then a valid date must be entered before allowing a user to exit map. If Y is entered, then the user can bypass the edit checking of a date field by using the Erase EOF key on that field.
VisualAge Generator Server trace buffer size	size in K	64	Specifies the buffer size in K for the VisualAge Generator Server trace facility.

7 Enter the languages whose language-dependent options will be tailored. See Figure 21 for the 3-character language code corresponding to the language being installed and tailored.

The panel in Figure 20 is used for specifying the languages that will be customized.

```
VISUALAGE GENERATOR SERVER LANGUAGE OPTIONS                        ELA15005

Customized languages:




  PF1=Help PF3=Previous PF5=Default
====>
```

Figure 20. Language Customization Selection Panel (ELAVMSET)

Figure 21. Language Code Conversion Table

Language	1-Character Code	3-Character Code
English	E	ENU
Uppercase English	U	ENP
Swiss German	W	DES
German	G	DEU
Spanish	S	ESP
Japanese	J	JPN
Korean	K	KOR
Brazilian (Portuguese)	P	PTB
Chinese (Simplified)	C	CHS

8 Enter language-dependent option changes for the indicated language. A panel is displayed for each language that was indicated in Figure 20.

The panel in Figure 22 is used for customizing the language-dependent options.

```
 ┌──────────────────────────────────────────────────────────────────────────────┐
 │                                                                                │
 │    VISUALAGE GENERATOR SERVER 'ENU' LANGUAGE OPTIONS                ELA15006    │
 │                                                                                │
 │  Long Gregorian date format: MM/DD/YYYY                                        │
 │  Short Gregorian date format: MM/DD/YY                                         │
 │  Long Julian date format: YYYY-DDD                                             │
 │  Short Julian date format: YY-DDD                                             │
 │  Conversion Table Name: ELACNENU                                              │
 │  Positive response character string: YES                                     │
 │  Negative response character string: NO                                      │
 │  Decimal point character: .                                                   │
 │  Numeric Separator character: ,                                               │
 │  Currency Symbol: $                                                           │
 │  SQL host variable indicator: :                                               │
 │  SQL host column indicator: !                                                 │
 │                                                                                │
 │                                                                                │
 │                                                                                │
 │                                                                                │
 │                                                                                │
 │                                                                                │
 │   PF1=Help PF3=Previous PF5=Default                                           │
 │  ====>                                                                         │
 │                                                                                │
 └──────────────────────────────────────────────────────────────────────────────┘
```

Figure 22. Language-Dependent Options Customization Panels (ELAVMSET)

Figure 23 on page 43 lists the language-dependent options for language
code ENU (U.S. English) that are used by the panels in Figure 22. See
Figure 21 on page 41 for a mapping of one- and three-character codes to
the corresponding languages. Also refer to the *VisualAge Generator Server
Guide for MVS, VM and VSE* for the defaults for other languages.

Figure 23 (Page 1 of 2). Language-Dependent Options

Option	Value(s)	Default	Description
Language code	*LLL*	ENU	Specifies the language code representing the language currently being customized. (This is used in generation of the CSECT name.)
Long Gregorian date format	*mask*	MM/DD/YYYY	Specifies the default long Gregorian date edit mask. The long Gregorian date edit mask consists of 'DD', 'MM', and 'YYYY', in any order, separated by any valid separator character. Any non-numeric single-byte character, except 'D', 'M', and 'Y', is valid as a separator character.
Short Gregorian date format	*mask*	MM/DD/YY	Specifies the default short Gregorian date edit mask. The short Gregorian date edit mask consists of 'DD', 'MM', and 'YY', in any order, separated by any valid separator character. Any non-numeric single-byte character, except 'D', 'M', and 'Y', is valid as a separator character.
Long Julian date format	*mask*	YYYY-DDD	Specifies the default long Julian date edit mask. The long Julian date edit mask consists of 'DDD' and 'YYYY', in any order, separated by any valid separator character. Any non-numeric single-byte character, except 'D', 'M', and 'Y', is valid as a separator character.
Short Julian date format	*mask*	YY-DDD	Specifies the default short Julian date edit mask. The short Julian date edit mask consists of 'DDD' and 'YY', in any order, separated by any valid separator character. Any non-numeric single-byte character, except 'D', 'M', and 'Y', is valid as a separator character.
Conversion table name	*xxxxxxxx*	ELACN*LLL*	Specifies the default 1- to 8-character conversion table name, where *LLL* is 3-character code for the language be customized. See Figure 21 on page 41 for the 3-character language codes. See Figure 24 on page 44 and Figure 25 on page 44 for a list of the conversion tables shipped with VisualAge Generator Server.
Positive response character string	*yyy*	YES	Specifies the 1- to 3-character string used by VisualAge Generator Server to denote a positive response.
Negative response character string	*nnn*	NO	Specifies the 1- to 3-character string used by VisualAge Generator Server to denote a negative response.

Figure 23 (Page 2 of 2). Language-Dependent Options

Option	Value(s)	Default	Description
Decimal point character	*x*	.	Specifies the character used by VisualAge Generator Server to denote a decimal point. The character specified must be a '.' or a ',' and must be distinct from the characters assigned for the numeric separator and currency symbol.
Numeric separator character	*x*	,	Specifies the character used by VisualAge Generator Server to denote a numeric separator. The character specified must be a ',' or a '.' and must be distinct from the characters assigned for decimal point and currency symbol.
Currency symbol	*x*	$	Specifies the character used by VisualAge Generator Server to denote a currency symbol. The character specified must be distinct from the characters assigned for the decimal point and numeric separator. The character specified must also be a valid COBOL currency symbol.
SQL host variable indicator	*x*	:	Specifies the character used by VisualAge Generator Server as the SQL host variable indicator. The character assigned must be distinct from the character assigned for the SQL host column indicator.
SQL host column indicator	*x*	!	Specifies the character used by VisualAge Generator Server as the SQL host column indicator. The character assigned must be distinct from the character assigned for the SQL host variable indicator.

A default code page conversion table is provided for each language. The conversion table name specified on the Language Dependent Options panel for the language being used at run time is used if the program requests a default conversion table for cooperative processing support. The language conversion tables support the following code pages:

Figure 24. Default Code Page Conversion for SBCS Languages

Language	Conversion Table	ASCII Code Page	EBCDIC Code Page
English	ELACNENU	437	037
Upper Case English	ELACNENP	437	037
German	ELACNDEU	850	500
Swiss German	ELACNDES	850	500
Spanish	ELACNESP	850	284
Brazilian Portuguese	ELACNPTB	850	037

Figure 25. Default Code Page Conversion for DBCS Languages

Language	Conversion Table	ASCII SBCS Code Page	ASCII DBCS Code Page	EBCDIC SBCS Code Page	EBCDIC DBCS Code Page
Simplified Chinese	ELACNCHS	1042	928	836	837
Japanese	ELACNJPN	1041	301	290	300
Korean	ELACNKOR	1040	926	833	834

9 Commit the information entered on the previous panels.

```
 VisualAge Generator Server Customization Facility              ELA16016

 Press the Enter key to commit the changes.




  PF1=Help PF3=Previous
 ====>
```

Figure 26. Change Commit Panel (ELAVMSET)

6.5.2.2 Required Post-Install Step to Change the ELASETUP and ELACLEAN EXECs

Two EXECs, ELASETUP and ELACLEAN, are shipped with VisualAge Generator Server that must be tailored to the installation. ELASETUP links/accesses the VisualAge Generator Server code disk during the preparation step of a program or the execution of a program. ELACLEAN releases/detaches the VisualAge Generator Server code disk after completion of the preparation or execution of the program. To tailor the EXECs, perform the following steps.

1 If the access order has changed, then restore the access order by performing the steps in 6.5.1, "Post-Installation Preparation" on page 34.

2 Update or create an AUX file (ELASETUP AUXLCL) and add an entry for the update file. The default file type is AUXLCL. The file type will need to be changed if you are using a different level AUX file in your CNTRL file.

xedit elasetup auxlcl *fm-local* **(noprof**

fm-local is the file mode of the LOCALSAM disk, 2C2.

====> input defopts lcl lcl0001 default options tailoring
====> file

3 Change the ELASETUP $EXEC file to reflect your installation defaults.

xedit elasetup $exec (ctl elavm

====> find /*START-INSTALL-CHANGE-1*/
Change the **vgloc = ' '** line to specify
 the location of the production level code
 within the apostrophes (').
Change the **nolink_userid = ' '** line to
 specify the install user ID
 within the apostrophes (').

The location of the production level code should be specified as a one word VMLINK nickname, a valid SFS directory ID, or in the form *userid*/*address*. For example:

    vgloc = 'VISGEN'
    vgloc = 'SFSSERV:VISPROD.CODE'
    vgloc = 'VISPROD/300'

If a password is required for the link to a minidisk to occur, the password should be added after the VMLINK nickname or *userid*/*vaddr*. The password should be separated from the nickname or minidisk address by a back slash. For example:

    vgloc = 'VISGEN\password'
    vgloc = 'VISPROD/300\password'

The **nolink_userid** variable indicates the user ID for whom the ELASETUP and ELACLEAN EXECs will not attempt to access/release the VisualAge Generator Server code disk. This is used when running the customer verification programs at a later point in the install and service processes.

Note: The changed **vgloc** and **nolink_userid** instructions must not go past column 63 of the $EXEC. When the EXEC file is created from the $EXEC, data after column 63 (last 17 columns of the line) is truncated. If an exec line will be longer than column 63, it should be continued on the next line of the $EXEC. The *VM/ESA REXX/VM User's Guide* provides additional information on continuing REXX EXEC instructions.

====> file = = *fm-local*

fm-local is the file mode of the LOCALSAM disk, 2C2.

4 Create the updated EXEC file and place it on the local sample disk.

vmfexupd elasetup exec 5648B02A {VISGEN | VISGENSFS} (logmod $select outmode localsam

> Use **VISGEN** for installing VisualAge Generator
> Server on minidisks or **VISGENSFS** for installing
> VisualAge Generator Server on Shared File
> System directories.

5 Update or create an AUX file (ELACLEAN AUXLCL) and add an entry for the
update file. The default file type is AUXLCL. The file type will need to be
changed if you are using a different level AUX file in your CNTRL file.

xedit elaclean auxlcl *fm-local* **(noprof**   *fm-local* is the file mode of the LOCALSAM disk,
2C2.

====> input defopts lcl lcl0001 default options tailoring
====> file

6 Change the ELACLEAN $EXEC file to reflect your installation defaults.

xedit elaclean $exec (ctl elavm

====> find /*START-INSTALL-CHANGE-1*/
Change the **vgloc = ' '** line to specify
 the location of the production level code
 within the apostrophes (').
Change the **nolink_userid = ' '** line to
 specify the install user ID
 within the apostrophes (').

The location of the production level code should be
specified as a one word VMLINK nickname, a valid
SFS directory ID, or in the form *userid*/*address*.
For example:

> vgloc = 'VISGEN'
> vgloc = 'SFSSERV:VISPROD.CODE'
> vgloc = 'VISPROD/300'

Note: A password operand is never needed by
ELACLEAN as it might be in ELASETUP.

The **nolink_userid** variable indicates the user ID
for whom the ELASETUP and ELACLEAN EXECs
will not attempt to access/release the VisualAge
Generator Server code disk. This is used when
running the customer verification programs at a
later point in the install and service processes.

Note: The changed **vgloc** and **nolink_userid**
instructions must not go past column 63 of the
$EXEC. When the EXEC file is created from the
$EXEC, data after column 63 (last 17 columns of
the line) is truncated. If an exec line will be longer
than column 63, it should be continued on the next
line of the $EXEC. The *VM/ESA REXX/VM User's
Guide* provides additional information on continuing
REXX EXEC instructions.

====> file = = *fm-local*

fm-local is the file mode of the LOCALSAM disk,
2C2.

7 Create the updated EXEC file and place it on the local sample disk.

vmfexupd elaclean exec 5648B02A {VISGEN | VISGENSFS} (logmod $select outmode localsam

Use **VISGEN** for installing VisualAge Generator
Server on minidisks or **VISGENSFS** for installing
VisualAge Generator Server on Shared File
System directories.

6.5.2.3 Required Post-Install Step to Support Non-VM Supported Message Repositories

VM/ESA does not support every language that is supported by VisualAge Generator Server. On VM systems that run with multiple supported languages or with languages different from the languages shipped with the VisualAge Generator Server code, you will need to update the build list so that the shipped language repository (the one you wish VisualAge Generator Server to use) will be renamed to the name or names appropriate for your VM system.

Figure 27 lists the following:

- Various languages supported by VisualAge Generator Server and VM
- File name of the repository text file that is shipped with VisualAge Generator Server
- Required name of the repository text file in order to be recognized for the installed VM language; if the VisualAge Generator Server repository text file does not match the file name of all possible VM language files installed on your system, then you will need to update the build list.

Note: If you are installing more than one VisualAge Generator Server language tape, you should ensure that you do not rename a repository file of one VisualAge Generator Server language to the name of an already installed repository file for another language.

Figure 27. VisualAge Generator Server and VM Repository File Name Table

Language	VAGEN File Name	VM File Name
English	ELAUME	ELAUME
Uppercase English	ELAUMEB	ELAUMEB
Swiss German	ELAUMEDS	
German	ELAUMEE	ELAUMEE
Spanish	ELAUMEF	ELAUMEF
Japanese	ELAUMEA	ELAUMEA
Korean	ELAUMEKO	
Brazilian (Portuguese)	ELAUMEC	ELAUMEC
Chinese (Simplified)	ELAUMEG	ELAUMEG
Canadian French		ELAUMEJ

To update the build list so that the repository text file for the VisualAge Generator Server language code that you are installing is renamed to the appropriate VM supported file name, you must:

1 If the access order has changed, then restore the access order by performing the steps in 6.5.1, "Post-Installation Preparation" on page 34.

2 For each language with a repository text file that is being renamed, you must update or create an AUX file for the LOADLIB build list of that language and add an entry for the update file.

xedit elablml*y* auxlcl *fm-local* **(noprof**

The file name of the build list is **ELABLLL**y, where *y* is the language code for the language being processed. See Figure 21 on page 41 for the 1 character language codes.

The default file type is AUXLCL. The file type will need to be changed if you are using a different level AUX file in your CNTRL file.

fm-local is the file mode of the LOCALSAM disk, 2C2.

====> input defopts lcl lcl0001 rename repository file for use with VM
====> file

3 Change the ELABLLL*y* $EXEC file to reflect the new name of the repository file.

xedit elablml*y* $exec (ctl elavm

locate /:OBJNAME. ELAUME/

You will be positioned on a line that may appear as ':OBJNAME. ELAUME*xx*.TEXT' where ELAUME*xx* is the file name of the file as it is intended to be shipped by VisualAge Generator Server.

change the name after the ':OBJNAME' keyword to be the supported VM file name

The string '.TEXT' must be concatenated to the file name without any intervening blanks. For example, the resulting line for causing the file to be renamed to the file name required by VM for upper case English is:

> :OBJNAME. ELAUMEB.TEXT

If your VM system runs with multiple supported languages, then you may wish to have the VisualAge Generator Server text file copied to more than one file (one for each supported VM language). You may duplicate the lines beginning with the ':OBJNAME' keyword and ending with the ':EOBJNAME' keyword, and specify a different file name following the ':OBJNAME' keyword. The *VMSES/E Introduction and Reference* provides further information on coding the build list.

====> file = = *fm-local*

fm-local is the file mode of the LOCALSAM disk, 2C2.

4 Create the updated EXEC file and place it on the local sample disk.

vmfexupd elablml*y* **exec 5648B02***x* **{VISGEN | VISGENSFS} (logmod $select outmode localsam**

Use **VISGEN** for installing VisualAge Generator Server on minidisks or **VISGENSFS** for installing VisualAge Generator Server on Shared File System directories.

5648B02*x* is the *ppfname* associated with the language being processed. See Figure 10 on page 19 for the valid PPF names.

5 If you are tailoring more than one language, then repeat the steps in this section for each language.

6.5.3 Post-Installation Considerations (Optional)

A number of post-installation tailoring steps may need to be performed. These include:

- Changing the default installation options,
- Changing the language-dependent default options,
- Changing the LE run-time options,

- Changing the LE user exits,

- Preparing the ANSI SQL program, and

- Tailoring the critical error maps.

6.5.3.1 Optional Post-Install Step for Changing Default Installation Options

VisualAge Generator Server provides default installation options. If you changed any values on the VisualAge Generator Server run-time default options panel (Figure 18 on page 40), you need to perform this step. If you accepted the default values on that panel, you can skip this step.

1 If the access order has changed, then restore the access order by performing the steps in 6.5.1, "Post-Installation Preparation" on page 34.

2 Update or create an AUX file (ELARPIOP AUXLCL) and add an entry for the update file. The default file type is AUXLCL. The file type will need to be changed if you are using a different level AUX file in your CNTRL file.

xedit elarpiop auxlcl *fm-local* **(noprof**   *fm-local* is the file mode of the LOCALSAM disk, 2C2.

====> input defopts lcl lcl0001 default options tailoring
====> file

3 Create the new form of the ELARMIOP macro invocation for the ELARPIOP ASSEMBLE file. ELAVPIOP EXEC is provided to create a file that contains the changes that you will need to insert into the ELARPIOP ASSEMBLE file.

elavpiop defopts   The file that contains the ELARMIOP specification is placed on the A-disk. The file name is ELARPIOP. A message is displayed at the screen that indicates the file type of the created file.

You will need to specify the file type in the steps that follow.

4 Change the ELARPIOP ASSEMBLE file to reflect your installation defaults.

xedit elarpiop assemble (ctl elavm

delete the ELARMIOP specification   An assembler line that is continued on the next line
  and any continued lines   is indicated by a non-blank in column 72 of the line
position the current line at the location   being continued.
  of the deleted line(s)

====> get elarpiop *filetype*   *filetype* is the file type of the file created by
                                                     ELAVPIOP.

====> file = = *fm-local*   *fm-local* is the file mode of the LOCALSAM disk,
                                                     2C2.

5 Erase the file created by ELAVPIOP.

erase elarpiop *filetype* **a**   *filetype* is the file type of the file created by
                                                     ELAVPIOP.

6 Assemble the updated options file and place it on the local sample disk.

vmfhlasm elarpiop 5648B02A {VISGEN | VISGENSFS} (logmod $select outmode localsam

                                                     Use **VISGEN** for installing VisualAge Generator
                                                     Server on minidisks or **VISGENSFS** for installing
                                                     VisualAge Generator Server on Shared File
                                                     System directories.
                                                     Either the VMFHASM or VMFHLASM command
                                                     can be used.

6.5.3.2 Optional Post-Install Step to Change Language-dependent Options

VisualAge Generator Server provides language-dependent options that can be
customized for each language being installed. If you changed any values on the
VisualAge Generator Server Language Dependent Options panel (Figure 22 on
page 42), you need to perform the steps in this section for that language. If you
accepted the default values for a language, you can skip this section for that
language.

Note: Throughout this section *xxx* is used to reflect the three-character language
identifier for the language being customized. For example, 'ENU' is the three
character code for mixed-case English and ELARIENU ASSEMBLE is the assemble
file that must be updated for mixed-case English. See Figure 21 on page 41 for a
mapping of one- and three-character codes to the corresponding languages.

1 If the access order has changed, then restore the access order by performing
the steps in 6.5.1, "Post-Installation Preparation" on page 34.

2 Update or create an AUX file (ELARI*xxx* AUXLCL) and add an entry for the
update file. The default file type is AUXLCL. The file type will need to be
changed if you are using a different level AUX file in your CNTRL file.

xedit elari*xxx* **auxlcl** *fm-local* **(noprof**   *fm-local* is the file mode of the LOCALSAM disk,
2C2.

====> input defopts lcl lcl0001 default options tailoring
====> file

3 Create the new form of the ELARMIOE macro invocation for the ELARI*xxx*
ASSEMBLE file. ELAVPIOP EXEC is provided to create a file that contains
the changes which you will need to insert into the ELARI*xxx* ASSEMBLE file.

elavpiop *xxx*   *xxx* is the 3 character language code of the
language being tailored. The file that contains the
ELARMIOE specification will be placed on the
A-disk. The file name is ELARI*xxx*. A message is
displayed at the screen that indicates the file type
of the created file. You will need to specify the file
type in the steps that follow.

4 Change the ELARI*xxx* ASSEMBLE file to reflect your installation defaults.

xedit elari*xxx* **assemble (ctl elavm**

delete the ELARMIOE specification   An assembler line that is continued on the next line
 and any continued lines   is indicated by a non-blank in column 72 of the line
position the current line at the location   being continued.
 of the deleted line(s)

====> get elari*xxx* *filetype*   *filetype* is the file type of the file created by
ELAVPIOP.

====> file = = *fm-local*   *fm-local* is the file mode of the LOCALSAM disk,
2C2.

5 Erase the file created by ELAVPIOP.

erase elari*xxx* *filetype* **a**   *filetype* is the file type of the file created by
ELAVPIOP.

6 Assemble the updated options file and place it on the local sample disk.

vmfhlasm elari*xxx* **5648B02***x* **{VISGEN | VISGENSFS} (logmod $select outmode localsam**

> Use **VISGEN** for installing VisualAge Generator Server on minidisks or **VISGENSFS** for installing VisualAge Generator Server on Shared File System directories.
>
> **5648B02***x* is the name of the PPF for the language being tailored. See Figure 10 on page 19 for the *ppfname* (**5648B02***x*) to use for the language you are installing.
>
> Either the VMFHASM or VMFHLASM command can be used.

6.5.3.3 Optional Post-Install Step to Set LE Runtime Options

Generated VisualAge Generator programs for VM environments rely on the LE working storage being initialized to binary zeroes to determine whether VisualAge Generator Server has been initialized.

For VM, sample code for CEEUOPT is shipped with LE in the file CEEUOPT ASSEMBLE. VisualAge Generator Server ships a modified version of CEEUOPT called ELAEUOPT ASSEMBLE. ELAEUOPT has been modified to specify '00' for the first subparameter (heap-allocation-value) of the STORAGE parameter. This ensures that working storage is initialized to binary zeroes. Perform the steps in this section if you wish to modify the file to include other options supported by LE.

> **1** If the access order has changed, then restore the access order by performing the steps in 6.5.1, "Post-Installation Preparation" on page 34.

> **2** Update or create an AUX file (ELAEUOPT AUXLCL) and add an entry for the update file. The default file type is AUXLCL. The file type will need to be changed if you are using a different level AUX file in your CNTRL file.

xedit elaeuopt auxlcl *fm-local* **(noprof**   *fm-local* is the file mode of the LOCALSAM disk, 2C2.

====> input defopts lcl lcl0001 default options tailoring
====> file

> **3** Change the ELAEUOPT ASSEMBLE file to reflect your additional runtime options. Refer to the *LE Programming Guide* for more information about using run-time options with LE.

xedit elaeuopt assemble (ctl elavmle
Add any additional options according
to the instruction in the LE
documentation.

ELAVMLE is used as the control file here and for
when the part is assembled later. This control file
contains the necessary specification of the LE
MACLIBs used during assembly.

====> file = = *fm-local*

fm-local is the file mode of the LOCALSAM disk,
2C2.

4 Access the disk containing the LE MACLIB, SCEEMAC, as mode P.

5 Assemble the updated options file and place it on the local sample disk.

vmfhlasm elaeuopt 5648B02A {VISGEN | VISGENSFS} (logmod $select outmode localsam cntrl elavmle

Use **VISGEN** for installing VisualAge Generator
Server on minidisks or **VISGENSFS** for installing
VisualAge Generator Server on Shared File
System directories.
Either the VMFHASM or VMFHLASM command
can be used.

The file type of the created text deck will be
displayed. Make note of it. You will specify the file
type in the next step.

6 Remove the history (comment) lines from the created text deck.

elavmstp elaeuopt *filetype fm-local*

filetype is the file type of the text file created by the
previous assemble step.

fm-local is the file mode of the LOCALSAM disk,
2C2.

6.5.3.4 Optional Post-Install Step for LE Assembler User Exit Processing

When LE detects an error that is not handled by the subsystem, high-level
language, or application condition handlers, LE writes error messages and calls
entry point CEEBXITA for a user exit. The user exit indicates whether LE is to
ABEND or return to the system with an error return code. The default action is to
return with an error code. No automatic rollback is performed, and if database or
recoverable-resources updates are pending, they are committed.

For VM, sample code for CEEBXITA is shipped with LE in the file called CEEBXITB
ASSEMBLE. VisualAge Generator Server ships a modified version of CEEBXITB
called ELABXITB ASSEMBLE. ELABXITB has been modified to always request an

ABEND (set CEEAUE_ABND to 1) on any abnormal termination
(CEEAUE_ABTERM=1). This ensures that rollback for database and
recoverable-resources updates are performed on any abnormal termination.
Perform the steps in this section if you wish to do additional tailoring to the exit.

1 If the access order has changed, then restore the access order by performing
the steps in 6.5.1, "Post-Installation Preparation" on page 34.

2 Update or create an AUX file (ELABXITB AUXLCL) and add an entry for the
update file. The default file type is AUXLCL. The file type will need to be
changed if you are using a different level AUX file in your CNTRL file.

xedit elabxitb auxlcl *fm-local* **(noprof**	*fm-local* is the file mode of the LOCALSAM disk, 2C2.

====> input defopts lcl lcl0001 default options tailoring
====> file

3 Change the ELABXITB ASSEMBLE file to reflect your additional runtime
options. Refer to the *LE Programming Guide* for more information about
using run-time user exits with LE.

xedit elabxitb assemble (ctl elavmle Add any additional options according to the instruction in the LE documentation.	ELAVMLE is used as the control file here and for when the part is assembled later. This control file contains the necessary specification of the LE MACLIBs used during assembly.
====> file = = *fm-local*	*fm-local* is the file mode of the LOCALSAM disk, 2C2.

4 Access the disk containing the LE MACLIB, SCEEMAC, as mode P.

5 Assemble the updated exit file and place it on the local sample disk.

**vmfhlasm elabxitb 5648B02A {VISGEN	VISGENSFS} (logmod $select outmode localsam cntrl elavmle**	
	Use **VISGEN** for installing VisualAge Generator Server on minidisks or **VISGENSFS** for installing VisualAge Generator Server on Shared File System directories. Either the VMFHASM or VMFHLASM command can be used.
	The file type of the created text deck will be displayed. Make note of it. You will specify the file type in the next step.

6 Remove the history (comment) lines from the created text deck.

elavmstp elabxitb *filetype fm-local*

filetype is the file type of the text file created by the previous assemble step.

fm-local is the file mode of the LOCALSAM disk, 2C2.

6.5.3.5 Optional Post-Install Step to Prepare ANSI SQL Program

If a non-IBM ANSI SQL data-base manager is to be used with this product instead of SQL/DS, perform the following steps:

1 If the access order has changed, then restore the access order by performing the steps in 6.5.1, "Post-Installation Preparation" on page 34.

2 Create a text deck, ELARPANS, that contains the code required to support your data-base manager. An example is shipped on the LOCALSAM disk as ELARPANS DATA. This example contains psuedo-code, which gives an example of the type of processing that is required.

3 Copy the text deck to the LOCALSAM disk.

copyfile elarpans *ft fm* **= text** *fm-local* **(olddate**

ft is the file type of the text deck that was created.

fm is the file mode of the text deck.

fm-local is the file mode of the LOCALSAM disk, 2C2.

4 Update or create an AUX file for the main LOADLIB build list (ELABLLBS AUXLCL) and add an entry for the update file. The default file type is AUXLCL. The file type will need to be changed if you are using a different level AUX file in your CNTRL file.

xedit elabllbs auxlcl *fm-local* **(noprof**

fm-local is the file mode of the LOCALSAM disk, 2C2.

====> input ANSISQL LCL lcl0001 include ANSISQL module
====> file

5 Change the ELABLLBS $EXEC file to include the ELARPANS object in the VisualAge Generator Server LOADLIB.

xedit elabllbs $exec (ctl elavm

locate /:objname. elarpans/
  add the appropriate statements

The build list ELABLLBS $EXEC contains commented out statements that provide an example of the type of uncommented out statements that you will need to add to the build list. The name of the object and its entry statement must remain as ELARPANS. You may need to specify different link edit options, additional parts to include, and additional TXTLIBs to concatenate depending upon the database manager that you are supporting. The *VMSES/E Introduction and Reference* provides information on coding the statements in a build list.

====> file = = *fm-local*

fm-local is the file mode of the LOCALSAM disk, 2C2.

6 Create the updated EXEC file and place it on the local sample disk.

vmfexupd elabllbs exec 5648B02A {VISGEN | VISGENSFS} (logmod $select outmode localsam

Use **VISGEN** for installing VisualAge Generator Server on minidisks or **VISGENSFS** for installing VisualAge Generator Server on Shared File System directories.

7 The next steps create a customized version of the ELASQLAA EXEC. This exec is invoked during program preparation for SQL preprocessing. It must be customized to use the non-IBM database manager instead of SQL/DS.

The VisualAge Generator Server preparation exec (ELAPREP) and run-time exec (ELARUN) might need to be tailored. You would perform the same steps to tailor each of the execs, specifying the appropriate exec name where required.

a Update or create an AUX file (ELASQLAA AUXLCL) and add an entry for the update file. The default file type is AUXLCL. The file type will need to be changed if you are using a different level AUX file in your CNTRL file.

xedit elasqlaa auxlcl *fm-local* **(noprof**

fm-local is the file mode of the LOCALSAM disk, 2C2.

====> input defopts lcl lcl0001 ANSI SQL tailoring
====> file

b Change the ELASQLAA $EXEC file to support your non-IBM database manager.

xedit elasqlaa $exec (ctl elavm
Change the code to support the non-IBM
  database manager.

====> file = = *fm-local*   *fm-local* is the file mode of the LOCALSAM disk, 2C2.

c Create the updated EXEC file and place it on the local sample disk.

vmfexupd elasqlaa exec 5648B02A {VISGEN | VISGENSFS} (logmod $select outmode localsam

Use **VISGEN** for installing VisualAge Generator Server on minidisks or **VISGENSFS** for installing VisualAge Generator Server on Shared File System directories.

Note: The preparation exec templates and the run-time exec templates may require tailoring. These templates are shipped with the VisualAge Generator product. You would tailor these templates on the PCs that will use VisualAge Generator to generate programs to be run with VisualAge Generator Server.

Note: Specify the VisualAge Generator generation option of /ANSISQL for all programs that use SQL.

6.5.3.6 Optional Post-Install Step for Tailoring the Critical Error Maps
The critical error maps are used to display error messages if a problem occurs when an end user runs a program. You can tailor these maps for your installation (for example, to provide a help desk phone number).

Perform the following steps for each language, including English, that you are installing:

1 If the access order has changed, then restore the access order by performing the steps in 6.5.1, "Post-Installation Preparation" on page 34.

2 Determine the highest level of the external source format part.

vmfsim getlvl 5648B02*x* **{VISGEN | VISGENSFS} tdata :part ela***xxx* **efs (history**

> **5648B02***x* is the *ppfname* associated with the language being tailored. See Figure 10 on page 19 for the list of PPFs and languages.
>
> *xxx* is the 3 character language code of the language being tailored. See Figure 21 on page 41 for a mapping of one- and three-character codes to the corresponding languages.
>
> This command returns information to determine the highest level part shipped by IBM.
>
> If the response **contains** the :PTF tag, then there is IBM service to the part. The highest level of IBM service to the part is **ELA***xxx* **EFS***ptfnumber*. Use these names for the file name and file type of the highest level of part.
>
> If the response **does not contain** the :PTF tag, then there is no IBM service to the part. Use **ELA***xxx* for the file name and use the file type of the highest level of part (e.g., **ESFSRC**).

3 Download the highest level of the external source format file to the PC. Make certain that you specify the correct download options for the type of language being tailored (e.g. specify options for DBCS if downloading the Japanese language external source format file). Also, ensure that the PC and your virtual machine are running with the correct code pages.

4 Create an application in VisualAge Generator or use an existing one.

5 Import the external source format file that was downloaded into the application.

   Note: You must specify the IMPORT ALL option to obtain all of the tables.

6 Make changes to the applicable maps.

   Note: Do not add, delete, change, or move any variable fields. You can only change constant fields.

7 Use VisualAge Generator to generate the maps that you changed. This will create ELA*xxx*FM EZEFOBJ on your VM system.

   Note: You must specify the following VisualAge Generator options: '\system=vmcms', '\targnls=*xxx*'.

8 Copy the new map object (ELA*xxx*FM EZEFOBJ) to the LOCALSAM disk, 2C2.

copyfile ela*xxx*fm ezefobj a = ojtl0001 *fm-local*   *fm-local* is the file mode of the LOCALSAM disk, 2C2.

9 Identify the local modification in the local version vector table.

vmfsim logmod 5648B02*x* **vvtlcl** *fm-local* **tdata :part ela*xxx*fm ojt :mod lcl0001**

5648B02*x* is the *ppfname* associated with the language being tailored. See Figure 10 on page 19 for the list of PPFs and languages.

fm-local is the file mode of the LOCALSAM disk, 2C2.

xxx is the 3 character language code of the language being tailored. See Figure 21 on page 41 for a mapping of one- and three-character codes to the corresponding languages.

10 Export the maps using the EXPORT ALL option.

11 Upload ELA*xxx*.ESF file to the virtual machine.

Make certain that you specify the correct upload options for the type of language being tailored (e.g. specify options for DBCS if downloading the Japanese language external source format file). Also, ensure that the PC and your virtual machine are running with the correct code pages.

12 Copy the new external source format file to the LOCALSAM disk, 2C2.

copyfile ela*xxx* esfsrc a = efsl0001 *fm-local*   *fm-local* is the file mode of the LOCALSAM disk, 2C2.

13 Identify the local modification in the local version vector table.

vmfsim logmod 5648B02*x* **vvtlcl** *fm-local* **tdata :part ela***xxx* **efs :mod lcl0001**

> **5648B02***x* is the *ppfname* associated with the language being tailored. See Figure 10 on page 19 for the list of PPFs and languages.
>
> *fm-local* is the file mode of the LOCALSAM disk, 2C2.
>
> *xxx* is the 3 character language code of the language being tailored. See Figure 21 on page 41 for a mapping of one- and three-character codes to the corresponding languages.

6.6 Update Build Status Table for VisualAge Generator Server

In this section you will build the status table for VisualAge Generator Server, build the LOADLIB, and move any modified files from the local sample disk to the various test disks.

> ┌─ **Note!** ───┐
>
> If you are installing VisualAge Generator Server with GDDM or SQL support, you will be using a different component name for some of the commands that follow. This allows VMSES/E to use the build list that activates the support.
>
> └───┘

1 Release the disks that will be used for the non-VisualAge Generator Server code and non-VMSES/E code disks. This will ensure that you use only file modes set up by the steps that follow.

rel p
rel q
rel r

2 Access the disk containing the LE TXTLIB, SCEELKED, as file mode P. This disk may be already accessed as the TXTLIBs are often on the 19E disk. However, make certain that the TXTLIB contains support for the COBOL compiler.

3 If you are installing VisualAge Generator Server with database manager support (SQL/DS or a non-IBM database manager), then access the disk containing the database code libraries as file mode Q. Depending upon the

database manager, you may need access to the code in order to complete the rebuilding of the VisualAge Generator Server LOADLIB.

4 If you are installing VisualAge Generator Server with GDDM support, then access the disk containing the GDDM TXTLIB (ADMNLIB TXTLIB) as file mode R. This TXTLIB may already be on the CMS 19E, Y-disk. If that is the case and it is the correct level of the TXTLIB, then you may skip this step.

5 Update the VM SYSBLDS software inventory file for VisualAge Generator Server.

vmfins build ppf 5648B02A *compname* **(serviced nolink**

For *compname*, specify the most appropriate component name for the VisualAge Generator Server support that you are installing. Valid choices are:

VISGEN
VISGENSFS
VISGENGDDM
VISGENGDDMSFS
VISGENSQL
VISGENSQLSFS
VISGENSQLGDDM
VISGENSQLGDDMSFS
VGNDCE
VGNDCESFS
VGNDCEGDDM
VGNDCEGDDMSFS
VGNDCESQL
VGNDCESQLSFS
VGNDCESQLGDDM
VGNDCESQLGDDMSFS

See Figure 11 on page 20 for a further explanation of the choices.

The SERVICED option will build any parts that were not built on the installation tape (if any) and update the Software Inventory build status table showing that the product 5648B02A has been built.

6 Review the install message log ($VMFINS $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 on-line HELP.

vmfview install

You will probably see a number of lines in the message log for VMFBDU2180I indicating a build requirement for the ELABLNLS build list. This is normal. It is used when applying service to inform you when you need to rebuild the VisualAge Generator Server LOADLIB for the language parts that have been affected by service to one or more base parts. This is discussed in greater detail in section 7.0, "Service Instructions" on page 83.

```
BD:VMFBDU2180I Build Requirements:
BD&:              Bldlist   Object              Status
BD:VMFBDU2180I ELABLNLS   -         REBUILD ELALIB FOR LANGUAGES
BD:VMFBLD2180I There are 0 build requirements remaining
```

Figure 28. Message 2180 example for NLS build requirement

7 The VisualAge Generator Server LOADLIB is not shipped on the install tape because you must link edit additional code from the LE runtime library. You **must** build the VisualAge Generator Server LOADLIB at this time.

It is possible that the LOADLIB may have been built in the previous step because you tailored the build list for the LOADLIB. You may skip this step and the verification step that follows if the console log in the previous step shows that ELABLLBS was processed by VMFBDLLB.

vmfins build ppf 5648B02A {VISGEN | VISGENSFS} elabllbs (all nolink

Use **VISGEN** for installing VisualAge Generator Server on minidisks, or **VISGENSFS** for installing VisualAge Generator Server Shared File System directories.

The ALL option will build the part associated with the specified build list and update the Software Inventory build status table showing that the product 5648B02A has been built.

8 If you rebuilt the VisualAge Generator Server LOADLIB for the LE language interface modules in the previous step, then review the install message log ($VMFINS $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 on-line HELP.

9 If you are installing VisualAge Generator Server with GDDM support, then you must rebuild the VisualAge Generator Server LOADLIB to include the GDDM related modules.

vmfins build ppf 5648B02A *compname* **elabllgd (all nolink**

See Figure 11 on page 20 for the appropriate *compname*.

The ALL option will build the part associated with the specified build list and update the Software Inventory build status table showing that the product 5648B02A has been built.

10 If you rebuilt the VisualAge Generator Server LOADLIB for GDDM support, then review the install message log ($VMFINS $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 on-line HELP.

11 If you are installing VisualAge Generator Server with SQL/DS support, then you must rebuild the VisualAge Generator Server LOADLIB to include the SQL related modules.

vmfins build ppf 5648B02A *compname* **elabllsq (all nolink**

See Figure 11 on page 20 for the appropriate *compname*.

The ALL option will build the part associated with the specified build list and update the Software Inventory build status table showing that the product 5648B02A has been built.

12 If you rebuilt the VisualAge Generator Server LOADLIB for SQL support, then review the install message log ($VMFINS $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 on-line HELP.

13 If you are installing VisualAge Generator Server with DCE support, then you must rebuild the VisualAge Generator Server LOADLIB to include the DCE related modules. Access the disk containing the VMDCELIB TXTLIB as file mode R and then issue the following command:

vmfins build ppf 5648B02A *compname* **elabldce (all nolink**

> See Figure 11 on page 20 for the appropriate *compname*.
>
> The ALL option will build the part associated with the specified build list and update the Software Inventory build status table showing that the product 5648B02A has been built.

14 If you rebuilt the VisualAge Generator Server LOADLIB for DCE support, then review the install message log ($VMFINS $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 on-line HELP.

vmfview install

15 Build the parts for the languages that you are installing.

> **Note:** This must be done for each language installed.

> **a** Update the VM SYSBLDS software inventory file for VisualAge Generator Server language tapes.

vmfins build ppf 5648B02*x* **{VISGEN | VISGENSFS} (serviced nolink**

> **5648B02***x* is the *ppfname* associated with the language that you are building. See Figure 10 on page 19 for the list of PPFs and languages.
>
> Use **VISGEN** for installing VisualAge Generator Server on minidisks, **VISGENSFS** for installing VisualAge Generator Server in Shared File System directories.
>
> The SERVICED option will build any parts that were not built on the installation tape (if any) and update the Software Inventory build status table showing that the product 5648B02A has been built.

b Review the install message log ($VMFINS $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 on-line HELP.

vmfview install

c Rebuild the VisualAge Generator Server LOADLIB to add in the language parts.

vmfins build ppf 5648B02*x* **{VISGEN | VISGENSFS} elablll***y* **(all nolink**

> **5648B02***x* is the *ppfname* associated with the language that you are building. See Figure 10 on page 19 for the list of PPFs and languages.
>
> **ELABLLL***y* is the build list for placing language parts into the VisualAge Generator Server LOADLIB. The character *y* is the 1 character language code for the language being installed. See Figure 21 on page 41 for the language codes.
>
> Use **VISGEN** for installing VisualAge Generator Server on minidisks, **VISGENSFS** for installing VisualAge Generator Server in Shared File System directories.

d Review the install message log ($VMFINS $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 on-line HELP.

vmfview install

6.6.1 Optional Verification

Two Customer Verification Programs are shipped with VisualAge Generator Server to verify the successful installation of the VisualAge Generator Server code. They verify the non-interactive and interactive environments.

1 Reset the virtual machine environment so that none of the VisualAge Generator Server build disks are accessed.

ipl   The accessing of the 5E5 and 51D disks by your
                                PROFILE EXEC as part of the IPL will not interfere
                                with the valid execution of the verification
                                programs.

2 Access the test build disk, 200.

acc 200 b

3 Invoke the verification program to generate virtual printer output in order to
verify the non-interactive environment.

ELACVP6E   The batch customization verification program,
                                ELACVP6, is a VisualAge Generator program that
                                was generated and shipped as part of VisualAge
                                Generator Server. It allows you to verify that
                                VisualAge Generator Server has been properly
                                installed. This exec contains code to run the
                                program.

4 Verify the output. If your virtual printer is spooled directly to a real printer,
then view the output from the real printer. It should appear similar to the
panel shown in Figure 29 on page 70. The date appears in the upper-left
corner and the time in the upper-right corner. The date is in the format
MM/DD/YY.

If your virtual printer does not send the output directly to a real printer and
you do not wish to do so, then you may transfer the output to your virtual
reader and PEEK the output. Note that PEEK and the RECEIVE commands
strip out the blank lines. Also, the date and time fields may contain
undisplayable hexadecimal X'00' values that are used as fillers.

```
┌─────────────────────────────────────────────────────────────────┐
│ ELACVP6                                                           │
│ 6/01/98                                             19:30:36      │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
│              VISUALAGE GENERATOR SERVER                           │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
└─────────────────────────────────────────────────────────────────┘
```

Figure 29. Sample Customization Verification Output

If you receive Language Environment Abend U4083 return code 3 while running this verification program, then it is probable that your system requires APAR **PN83993** and you do not have it installed. You should correct this problem and retest.

5 Verify the interactive VisualAge Generator Server functions.

ELACVP7E

The **ELACVP7E EXEC** on the VisualAge Generator Server code disk runs application ELACVP7, which is the customization verification program for VM CMS. ELACVP7 is a VisualAge Generator program that was generated and is shipped as part of VisualAge Generator Server. It allows you to verify that VisualAge Generator Server is properly installed.

The first terminal panel should look similar to the panel shown in Figure 30.

```

                      VISUALAGE GENERATOR SERVER




    PRESS PF1


```
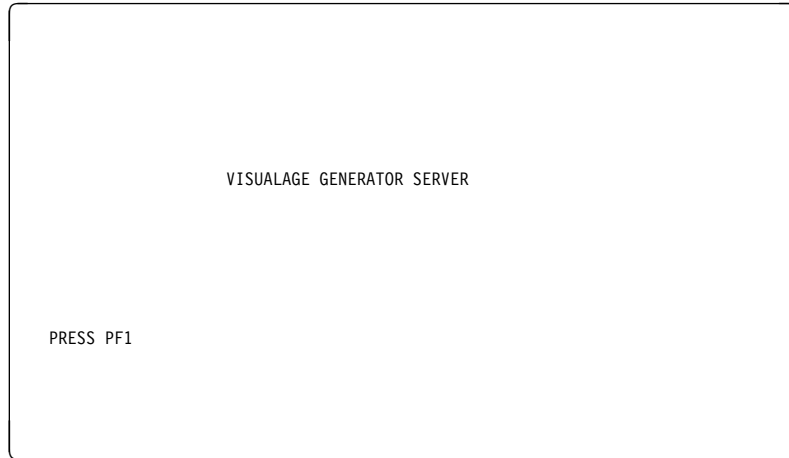
Figure 30. Customization Verification Panel

6 Proceed to the next screen.

press PF1 key   The map should look similar to the panel shown in
                                               Figure 31, which displays a message indicating the
                                               successful installation of the product. The date
                                               appears in the upper-left corner and the time in the
                                               upper-right corner. The date is in the format
                                               MM/DD/YY.

```

    06/01/98                                        19:30:36




                      VISUALAGE GENERATOR SERVER

                    INSTALLATION HAS BEEN VERIFIED




```
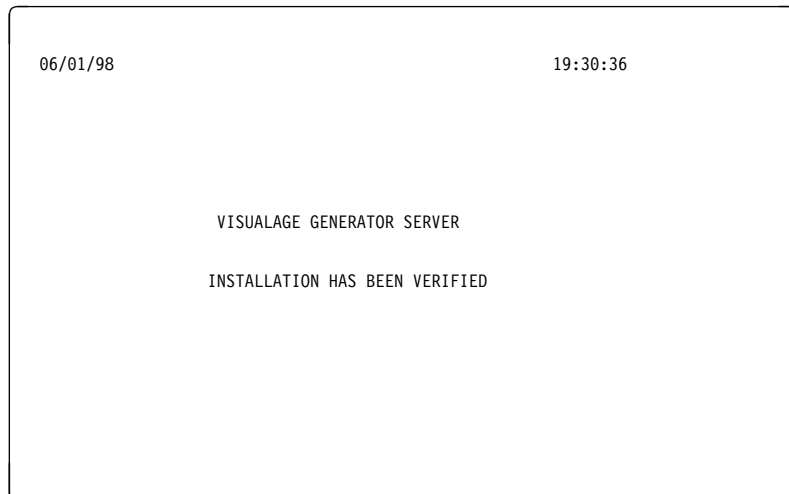
Figure 31. Customization Verification Panel

7 Exit the verification program.

press PF3 key

6.7 Place VisualAge Generator Server into Production

6.7.1 Copy VisualAge Generator Server Files into Production

1 Logon to the owner of the disk that will contain the production level of the VisualAge Generator Server code.

a If installing to minidisks

link 5648B02A 200 200 rr
access 200 e
access 300 f

vmfcopy * * e = = f2 (prodid 5648B02A%VISGEN olddate replace

> The VMFCOPY command will update the VMSES PARTCAT file on the 300 disk.

b If installing to Shared File System

access 5648B02A.VISGEN.tbuild e
access 5648B02A.VISGEN.P300BUILD f

vmfcopy * * e = = f2 (prodid 5648B02A%VISGEN olddate replace

> The VMFCOPY command will update the VMSES PARTCAT file on the 5648B02A.VISGEN.P300BUILD disk.

2 Logon to MAINT if you plan to put VisualAge Generator Server ELASETUP EXEC and ELACLEAN EXEC on the 'Y' disk (MAINT's 19E disk). Or logon to the owner of the disk that will contain the EXECs.

a If installing to minidisks

link 5648B02A 200 200 rr
access 200 e
access 19e f

vmfcopy elasetup exec e = = f2 (prodid 5648B02A%VISGEN olddate replace
vmfcopy elaclean exec e = = f2 (prodid 5648B02A%VISGEN olddate replace

> The VMFCOPY command will update the VMSES PARTCAT file on MAINT's 19E disk.

b If installing to Shared File System

access 5648B02A.VISGEN.tbuild e
access 19e f

vmfcopy elasetup exec e = = f2 (prodid 5648B02A%VISGEN olddate replace
vmfcopy elaclean exec e = = f2 (prodid 5648B02A%VISGEN olddate replace

> The VMFCOPY command will update the VMSES PARTCAT file on MAINT's 19E disk.

3 Logon to MAINT if you plan to put VisualAge Generator Server help files on MAINT's help disks. VM/ESA does not support all of the languages supported by VisualAge Generator Server. If your installation is running VM/ESA languages that are not the same as the VisualAge Generator Server languages that you are installing, then you should copy the VisualAge Generator Server help files to the languages that your installation supports.

Figure 32. Help Disks: Install and Production Disk Addresses

Language	Installation Disk Address	MAINT's Disk Address
Mixed-Case English	29D	19D
Upper-Case English	202	402
Spanish	206	406
Chinese	207	407
German	205	405
Japanese	201	401
Swiss German	218	n/s
Portuguese	219	n/s
Korean	220	n/s

Note: MAINT's disk addresses that are marked with 'n/s' instead of a disk address are not supported by VM/ESA. The help files for that language should be copied to a MAINT disk(s) containing help files for language(s) that are installed on your VM/ESA system.

Note: See Figure 9 on page 15 for the SFS directory ID associated with a specific installation disk address.

a If installing to minidisks

link 5648B02A *xxx xxx* **rr** **access** *xxx* **e** **acc** *yyy* **f**	*xxx* is the address of the help build disk owned by the installation user ID (VisualAge Generator Server). See Figure 9 on page 15 for the installation disk addresses.
	yyy is the address of the production help disk. See Figure 32 on page 73 for MAINT's help disk addresses.
vmfcopy * * e = = f (prodid 5648B02A%VISGEN olddate replace	
	The VMFCOPY command will update the VMSES PARTCAT file on MAINT's help disk.

b If installing to Shared File System

access 5648B02A.VISGEN.thelp.*xxx* **e** **acc** *yyy* **f**	*xxx* is the extension (if any) for the help build disk of the language that is being serviced.
	yyy is the address of MAINT's help disk. See Figure 9 on page 15 for default SFS directory IDs.
vmfcopy * * e = = f (prodid 5648B02A%VISGEN olddate replace	
	The VMFCOPY command will update the VMSES PARTCAT file on MAINT's help disk.

4 If you copied files to the 19E disk then re-save the CMS saved system to return the 19E minidisk (Y-disk) to 'shared' status. See the 'Placing (Serviced) Components into Production' section of the *VM/ESA Service Guide* for detailed information about how to save the CMS saved system.

5 Re-build the CMS HELPINST shared segment, to include VisualAge Generator Server's help files from the help disk. See the 'Placing (Serviced) Components into Production' section of the *VM/ESA Service Guide* for detailed information about how these segments should be saved on your system. (Note that you will need to use **(all** instead of **(serviced** on the VMSES/E VMFBLD command when re-building any segments.)

VisualAge Generator Server is now installed and built on your system.

6.7.2 Optional Post-Install Step to Define and Build the VisualAge Generator Server Saved Segments Using VMSES/E

It is recommended that segments be built for VisualAge Generator Server. First the segments are defined to the system using the segment mapping tool VMFSGMAP. Once the segments are defined VMFBLD is used 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 the *VM/ESA Planning and Administration* manual.

Note: The defining and building of the VisualAge Generator Server 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.

1 Logon to the installation user ID **5648B02A**.

2 By default the segment is built with mixed case English and no support for SQL. If you require SQL or a different language then you must perform the following steps to update ELASBSEG EXEC.

  a. If the access order has changed, then restore the access order by performing the steps in 6.5.1, "Post-Installation Preparation" on page 34.

  b. Update or create an AUX file (ELASBSEG AUXLCL) and add an entry for the update file. The default file type is AUXLCL. The file type will need to be changed if you are using a different level AUX file in your CNTRL file.

xedit elasbseg auxlcl *fm-local* **(noprof**   *fm-local* is the file mode of the LOCALSAM disk, 2C2.

====> input defopts lcl lcl0001 default options tailoring
====> file

  c. Change the ELASBSEG $EXEC file to reflect your installation defaults.

xedit elasbseg $exec (ctl elavm   Follow the instructions in the $EXEC file to uncomment the lines for SQL support or additional languages.

====> file = = *fm-local*   *fm-local* is the file mode of the LOCALSAM disk, 2C2.

  d. Create the updated EXEC file and place it on the local sample disk.

vmfexupd elasbseg exec 5648B02A {VISGEN | VISGENSFS} (logmod $select outmode localsam

Use **VISGEN** for installing VisualAge Generator Server on minidisks or **VISGENSFS** for installing VisualAge Generator Server on Shared File System directories.

e. Update the VM SYSBLDS software inventory file for VisualAge Generator Server.

vmfins build ppf 5648B02A {VISGEN | VISGENSFS} (serviced nolink

Use **VISGEN** for installing on minidisks or **VISGENSFS** for installing in Shared File System directories.

3 Add VisualAge Generator Server segment object definitions to the SEGBLIST EXC00000 build list.

vmfsgmap segbld esasegs segblist

This command displays a panel for making segment updates. See Figure 33 on page 77 for an example of the Segment Map panel that will be displayed.

```
                         VMFSGMAP - Segment Map                      More: +
                                                           Lines 1 to nn of nn

Meg            000-MB        001-MB        002-MB        003-MB
St Name    Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
M CMS      SYS W-W-------------1..............2..............3..............
M GCS      SYS W--------------1..............2..............3..............

Meg            004-MB        005-MB        006-MB        007-MB
St Name    Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
  CMSPIPES DCS 4..............5..............6..............RRRR------------
M GCS      SYS RRRRRRRNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN6..............7..............
M HLASM    DCS 4..............5..............RRRRRRRRRRRRRRRRRR7..............

Meg            008-MB        009-MB        00A-MB        00B-MB
St Name    Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
  DOSBAM   SPA 8..............9..............A..............====------------
  CMSBAM   MEM 8..............9..............A..............BRRR...........
  CMSDOS   MEM 8..............9..............A..............R..............
  CMSVMLIB DCS RRRRRRRRRRRRRRRRR9..............A..............B..............
  DOSINST  DCS 8..............R--------------A..............B..............

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

================================= 16-MB Line =================================

               010-MB        011-MB        012-MB        013-MB
 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=Cancel
 ====> _
```

Figure 33. Segment Map panel example.

4 Go to Add Segment Definition panel by pressing PF10.

F10

F10 takes you from the Segment Map panel to the Add Segment Definition panel. See Figure 34 on page 78 to see the Add Segment Definition panel that will be displayed.

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

       OBJNAME....:  ELADCSS
       DEFPARMS...:
       SPACE......:
       TYPE.......:  SEG
       OBJDESC....:
       OBJINFO....:
       GT_16MB....:  NO
       DISKS......:
       SEGREQ.....:
       PRODID.....:  5648B02A VISGEN
       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 34. Add Segment Definition panel example.

5 Obtain the VisualAge Generator Server segment definitions from the
PRODPART file by filling in the appropriate fields on the add segment
definition panel.

OBJNAME....: **ELADCSS**
PRODID.....: **5648B02A {VISGEN | VISGENSFS}**

Use **VISGEN** for building segments from a minidisk
or **VISGENSFS** for building segments from SFS
directories.

F10

F10 will obtain the VisualAge Generator Server
segment information from the 5648B02A
PRODPART file. See Figure 35 on page 79 for
the refreshed Add Segment definition panel that
will be displayed.

If any fields need to be changed then should you
should do so at this time.

```
┌─────────────────────────────────────────────────────────────────────────┐
│                          Add Segment Definition            More: +        │
│                                                       Lines 1 to nn of nn  │
│                                                                           │
│                                                                           │
│       OBJNAME....: ELADCSS                                                 │
│       DEFPARMS...: 2800-28FF SR                                            │
│       SPACE......:                                                         │
│       TYPE.......: PSEG                                                    │
│       OBJDESC....: VISUALAGE GENERATOR SERVER ABOVE 16 MEG                 │
│       OBJINFO....:                                                         │
│       GT_16MB....: YES                                                     │
│       DISKS......:                                                         │
│       SEGREQ.....:                                                         │
│       PRODID.....: 5648B02A VISGEN                                         │
│       BLDPARMS...: PPF (5648B02A VISGEN ELASBSEG)                          │
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                           │
│    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 35. Add Segment Definition panel showing the new segments

6 Go back to the Segment Map panel.

F5

F5 will return you to the Segment Map panel. See Figure 36 on page 80 for the refreshed Segment Map panel that will be displayed.

If you have your own PPF override then you need to change the BLDPARMS field to reflect this.

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


 Meg              000-MB         001-MB          002-MB          003-MB
 St Name    Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
 M CMS      SYS >RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR3..............
 M GCS      SYS RRNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN2..............3..............

 MEG              014-MB         015-MB          016-MB          017-MB
 ST NAME    TYP 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
   INSTSEG  DCS RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR6..............7..............
   CMSVMLIB DCS 4..............5..............6...............RRRRRRRRRRRRRRRRR

 MEG              018-MB         019-MB          01A-MB          01B-MB
 ST NAME    TYP 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
   CMSPIPES DCS RRRRRRRRRRRRRRRRR9..............A..............B..............
   CMSFILES DCS 8..............RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
   SCEEX    DCS 8..............9..............RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR>

 MEG              028-MB         029-MB          02A-MB          02B-MB
 ST NAME    TYP 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
 P ELADCSS  DCS RRRRRRRRRRRRRRRRR9..............A..............B..............
 ============================= END SEGMENT MAP ==============================
  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=Cancel
  ====>
```

Figure 36. Segment Map panel with added segments.

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

F5	**F5** saves all changed information and exits the map panel.
`Ready; T=nn.nn/nn.nn hh:mm:ss`	

8 Prepare to build the segments.

a IPL CMS to clear the virtual storage

ipl cms parm clear nosprof instseg no	IPL CMS to clear your virtual machine. This command bypasses the execution of the system
** DO NOT press <u>ENTER</u> at the VM READ!**	profile (SYSPROF EXEC) and 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 the Software Inventory Disk

link MAINT 51d 51d mr
access 51d d

   d Access the disk containing the LE TXTLIB, SCEELKED, as file mode P. This disk may be already accessed as the TXTLIBs are often on the 19E disk. However, make certain that the TXTLIB contains support for the COBOL compiler.

   e If you are installing VisualAge Generator Server with database manager support (SQL/DS or a non-IBM database manager), then access the disk containing the SQL code libraries as file mode Q.

9 Issue VMFBLD command to build the VisualAge Generator Server segments.

vmfbld ppf segbld esasegs segblist ELADCSS (serviced

10 Refer to VM/ESA Planning and Administration to copy the new SYSTEM SEGID file to the 190 disk and resave the CMS saved system.

7.0 Service Instructions

This section of the Program Directory contains the procedure to install CORrective service to VisualAge Generator Server. VMSES/E is used to install service for VisualAge Generator Server.

To become more familiar with service using VMSES/E, you should read the introductory chapters in the *VMSES/E Introduction and Reference*. 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 directed to do so. All instructions showing accessing of disks assume the use of default minidisk addresses. If different minidisk addresses are used, or if using a shared file system, change the instructions appropriately.

7.1 VMSES/E Service Process Overview

The following is a brief description of the main steps in servicing VisualAge Generator Server using VMSES/E.

- Setup Environment

  Access the software inventory disk. Use VMFSETUP command to establish the correct minidisk access order.

- Merge 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.

- Receive Service

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

- Apply 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.

- Reapply 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. Refer to Chapter 7 in the *VM/ESA Service Guide* for this procedure.

- Build New Levels

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

- Place 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 and re-saving the DCSS (Discontiguous Saved Segments), etc.

7.2 Servicing VisualAge Generator Server

The base code and the language code for VisualAge Generator Server is serviced separately. Documentation provided with the service material indicates the product IDs that are being serviced. Figure 37 lists the various product IDs for VisualAge Generator Server along with their related PPF names. This information is required throughout the service process.

The *ppfname* used throughout these servicing instructions is **5648B02***x*, which assumes you are using the PPF supplied by IBM for VisualAge Generator Server. See Figure 37 for the list of PPFs used in VisualAge Generator Server. If you have your own PPF override file for VisualAge Generator Server, you should use your file's *ppfname* instead of **5648B02***x*. The *ppfname* you use should be used **throughout** the rest of this procedure, unless otherwise stated.

Figure 37. Base and Language related PPFs

PPF	Product ID	Base or Language
5648B02A	5648B02A	Base code for all languages
5648B02B	5648B02B	Mixed Case English
5648B02C	5648B02C	Swiss German
5648B02D	5648B02D	German
5648B02E	5648B02E	Spanish
5648B02F	5648B02F	Japanese
5648B02G	5648B02G	Korean
5648B02H	5648B02H	Brazilian Portuguese
5648B02J	5648B02J	Upper Case English
5648B02K	5648B02K	Chinese

In the servicing instructions, you will be asked to enter the component name. The component name is used to specify whether you are installing the code on minidisks or SFS directory space. In addition, it indicates which build lists to use when building the product. When asked for the *compname*, you should choose the one most appropriate for the environment that you are supporting. For example, if you are servicing VisualAge Generator Server with installed support for GDDM and SQL, and using SFS directory space for the install, you would choose VISGENSQLGDDMSFS. See Figure 38 on page 85 for the list of valid component names and the PPFs that use them.

Sometimes that *compname* might not be in the list. This is because the VMSES/E instruction may not need you to be that specific. In that case, choose the most appropriate *compname*. Continuing with the previous example, if only the VISGEN and VISGENSFS *compnames* are shown, then VISGENSFS would be the correct choice.

Figure 38. Component Names: Valid PPF combinations and usage definition

Component Name	Used with 5648B02A	Used with Other PPFs	Usage
VISGEN	yes	yes	Installing and servicing VisualAge Generator Server on minidisks
VISGENSFS	yes	yes	Installing and servicing VisualAge Generator Server on Share File System
VISGENGDDM	yes	no	Installing and servicing VisualAge Generator Server with GDDM support on minidisks
VISGENGDDMSFS	yes	no	Installing and servicing VisualAge Generator Server with GDDM support on Share File System
VISGENSQL	yes	no	Installing and servicing VisualAge Generator Server with SQL support on minidisks
VISGENSQLSFS	yes	no	Installing and servicing VisualAge Generator Server with SQL support on Share File System
VISGENSQLGDDM	yes	no	Installing and servicing VisualAge Generator Server with SQL and GDDM support on minidisks
VISGENSQLGDDMSFS	yes	no	Installing and servicing VisualAge Generator Server with SQL and GDDM support on Share File System
VGNDCE	yes	no	installing and servicing VisualAge Generator Server with DCE support on minidisks
VGNDCESFS	yes	no	installing and servicing VisualAge Generator Server with DCE support on Shared File System
VGNDCEGDDM	yes	no	installing and servicing VisualAge Generator Server with DCE and GDDM support on minidisks
VGNDCEGDDMSFS	yes	no	installing and servicing VisualAge Generator Server with DCE and GDDM support on Shared File System
VGNDCESQL	yes	no	installing and servicing VisualAge Generator Server with DCE and SQL support on minidisks
VGNDCESQLSFS	yes	no	installing and servicing VisualAge Generator Server with DCE and SQL support on Shared File System
VGNDCESQLGDDM	yes	no	installing and servicing VisualAge Generator Server with DCE, SQL and GDDM support on minidisks
VGNDCESQLGDDMSFS	yes	no	installing and servicing VisualAge Generator Server with DCE, SQL and GDDM support on Shared File System

The steps in the following sections assume you are using the component name within the **5648B02**x PPF file. If you specify your own *ppfname*, you should use the *compname* from that file instead of the ones shown in the instructions. The *compname* you use should be used **throughout** the rest of this procedure.

The sections 'Prepare ...', 'Receive ...', 'Apply ...', and 'Build ...' must be completed for each product ID being serviced. It is recommended that you complete all steps for a product ID being serviced, and then do the service for any other VisualAge Generator Server product ID. After completing these steps for each VisualAge Generator Server product ID, then place the new service in production. If you are using the VisualAge Generator Server segment then you need to build each language you use so the segment can be flagged to be built if any of the base language segment objects have been serviced.

7.2.1 Prepare to Receive Service

1 Logon to VisualAge Generator Server service user ID **5648B02A**

2 As a precaution, create a backup copy of the current VisualAge Generator Server disks or SFS directories. Save this copy of VisualAge Generator Server until you have completed installing the service and you are confident that the service runs correctly.

3 If the Software Inventory disk (51D) was accessed R/O (read only) then establish write 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 then can 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.

4 Have the VisualAge Generator Server CORrective service tape mounted and attached to *5648B02A*.

5 Establish the correct minidisk access order.

vmfsetup 5648B02*x* {VISGEN | VISGENSFS}

        5648B02*x* is the *ppfname* associated with the product ID that you are servicing. See Figure 37 on page 84 for a list of product IDs and their associated PPFs. If you have your own PPF override you should substitute your PPF name for 5648B02*x*.

        Use **VISGEN** for servicing VisualAge Generator Server on minidisks and **VISGENSFS** for servicing VisualAge Generator Server in Shared File System directories.

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

> ┌─── **Electronic Service** ──┐
> │ If you are receiving service from ServiceLink (electronic service) see │
> │ Appendix A, 'Receiving Service for VMSES Envelopes', section Receive │
> │ Service Documentation, in the *VM/ESA Service Guide*. Then return back │
> │ to this program directory and continue with step 8 below. │
> └──┘

vmfrec info   This command will load the service memo to the 191 disk.

7 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.

8 Merge previously applied service to ensure that you have a clean alternate apply disk for new service. If you are servicing both the base and language related product IDs, you need only perform this step for the first product ID being serviced because the base and language product IDs share the same disk.

vmfmrdsk 5648B02*x* {VISGEN | VISGENSFS} apply

5648B02*x* is the *ppfname* associated with the product ID that you are servicing. See Figure 37 on page 84 for a list of product IDs and their associated PPFs. If you have your own PPF override, you should substitute your PPF name for 5648B02*x*.

Use **VISGEN** for servicing VisualAge Generator Server on minidisks and **VISGENSFS** for servicing VisualAge Generator Server in Shared File System directories.

This command clears the alternate APPLY disk.

9 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 on-line HELP.

vmfview mrd

7.2.2 Receive the Service

```
┌─ Electronic Service ──────────────────────────────────────────────────────┐
│                                                                            │
│  If you are receiving service from Servicelink (electronic service) see    │
│  Appendix A, 'Receiving Service for VMSES Envelopes', section Receive the   │
│  Service, in the *VM/ESA Service Guide*. Then return back to this program   │
│  directory and continue with section 7.2.3, "Apply the Service" on page 89. │
│                                                                            │
└────────────────────────────────────────────────────────────────────────────┘
```

1 Receive the service.

vmfrec ppf 5648B02*x* {VISGEN | VISGENSFS}

> **5648B02*x*** is the *ppfname* associated with the product ID that you are servicing. See Figure 37 on page 84 for a list of product IDs and their associated PPFs. If you have your own PPF override, you should substitute your PPF name for 5648B02*x*.
>
> Use **VISGEN** for servicing VisualAge Generator Server on minidisks and **VISGENSFS** for servicing VisualAge Generator Server in Shared File System directories.
>
> This command receives service from your service tape. All new service is loaded to the DELTA disk.

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 on-line HELP.

vmfview receive

7.2.3 Apply the Service

1 Apply the new service.

vmfapply ppf 5648B02_x_ **{VISGEN | VISGENSFS}**

>**5648B02**_x_ is the *ppfname* associated with the product ID that you are servicing. See Figure 37 on page 84 for a list of product IDs and their associated PPFs. If you have your own PPF override, you should substitute your PPF name for 5648B02_x_.
>
>Use **VISGEN** for installing on minidisks or **VISGENSFS** for installing in Shared File System directories.
>
>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 on the alternate apply disk.
>
>You must review the VMFAPPLY message log if you receive a return code (RC) of a 4, as this may indicate that you have local modifications that need to be reworked.

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 on-line HELP.

vmfview apply

Note

If you get the message VMFAPP2120W then re-apply any local modifications before building the new VisualAge Generator Server.

This program directory documents the necessary steps to complete a local modification for the parts that you will most likely tailor. If the part is:

ELACLEAN see 6.5.2.2, "Required Post-Install Step to Change the ELASETUP and ELACLEAN EXECs" on page 45

ELASETUP see 6.5.2.2, "Required Post-Install Step to Change the ELASETUP and ELACLEAN EXECs" on page 45

ELARPIOP see 6.5.3.1, "Optional Post-Install Step for Changing Default Installation Options" on page 52

ELARI*xxx* where *xxx* is ENU, ENP, DES, DEU, ESP, JPN, KOR, PTB, or CHS see 6.5.3.2, "Optional Post-Install Step to Change Language-dependent Options" on page 53,

ELAEUOPT see 6.5.3.3, "Optional Post-Install Step to Set LE Runtime Options" on page 55

ELABXITB see 6.5.3.4, "Optional Post-Install Step for LE Assembler User Exit Processing" on page 56

ELA*xxx*   where *xxx* is ENU, ENP, DES, DEU, ESP, JPN, KOR, PTB, or CHS see 6.5.3.6, "Optional Post-Install Step for Tailoring the Critical Error Maps" on page 60

After reapplying and handling all VMFAPP2120W identified parts, you will continue with section 7.2.4, "Completing the Build for Base Code" on page 91. If there are some parts not listed above, then you should follow the instructions in the next labeled box (labeled **Note continued**).

7.2.4 Completing the Build for Base Code

In order to complete the build, you must update the Build Status Table and build any objects that have been serviced.

┌─ **Note** ──┐

If you are currently applying service for Base code (product ID: 5648B02A), then perform the steps in:

- 7.2.4.1, "Update the Build Status Table for the Base code."

- 7.2.4.2, "Build Serviced Objects for the Base Code" on page 94.

- 7.2.5.1, "Update the Build Status Table for the Language Code" on page 96.

- 7.2.5.2, "Build Serviced Objects for the Language Code" on page 99.

Otherwise, perform the steps in:

- 7.2.5.1, "Update the Build Status Table for the Language Code" on page 96.

- 7.2.5.2, "Build Serviced Objects for the Language Code" on page 99.

└──┘

7.2.4.1 Update the Build Status Table for the Base code

If the base product is being serviced then you must perform the steps in this section.

1 Update the Build Status Table with serviced parts.

vmfbld ppf 5648B02A *compname* **(status**

For *compname*, use the component name most appropriate for the environment you are supporting. For example, if you are servicing VisualAge Generator Server with installed support for GDDM and SQL, and using SFS directory space for the install, you would choose VISGENSQLGDDMSFS. See Figure 38 on page 85 for the definition of the supported component names.

This command updates the Build Status Table.

```
┌─ Note ─────────────────────────────────────────────────────────────────────┐
│                                                                              │
│ If the $PPF files have been serviced you will get the following prompt:       │
│                                                                              │
│                                                                              │
│ VMFBLD2185R The following source product parameter files have been            │
│             serviced:                                                         │
│ VMFBLD2185R 5648B02A $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 serviced source product                │
│             parameter files built to your A-disk and exit VMFBLD so           │
│             you can recompile your product parameter files with VMFPPF.       │
│ VMFBLD2185R 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 5648B02A $PPF
            on 191 (A) from level $PFnnnnn
```

vmfppf 5648B02A *   **Note:** If you've created your own PPF override
                                                         then use your PPF name instead of 5648B02A.

copyfile 5648B02A $PPF a = = d (olddate replace   **Note:** **Do not** use your own PPF name in place of
erase 5648B02A $PPF a   5648B02A for the COPYFILE and ERASE
                                                         commands.

vmfbld ppf 5648B02A *compname* **(status**

1   Re-issue VMFBLD to complete updating the build
                                                         status table. When you receive the prompt that
                                                         was previously displayed, enter a 1 to continue.

                                                         See Figure 38 on page 85 for the definition of the
                                                         supported component names.

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

vmfview build

7.2.4.2 Build Serviced Objects for the Base Code

If the base product is being serviced, then you must perform the steps in this section.

1 Release the disks that will be used for the non-VisualAge Generator Server code and non-VMSES/E code disks. This will ensure that you use only file modes set up by the steps that follow.

rel p
rel q
rel r

2 Access the disk containing the LE TXTLIB, SCEELKED, as file mode P. This disk may be already accessed as the TXTLIBs are often on the 19E disk. However, make certain that the TXTLIB contains support for the COBOL compiler.

3 If you are installing VisualAge Generator Server with database manager support (SQL/DS or a non-IBM database manager), then access the disk containing the database code libraries as file mode Q. Depending upon the database manager, you may need access to the code in order to finish rebuilding the VisualAge Generator Server LOADLIB.

4 If you are installing VisualAge Generator Server with GDDM support, then access the disk containing the GDDM TXTLIB (ADMNLIB TXTLIB) as file mode R. This TXTLIB may already be on the CMS 19E, Y-disk. If that is the case and it is the correct level of the TXTLIB, then you may skip this step.

5 Rebuild VisualAge Generator Server serviced parts.

vmfbld ppf 5648B02A *compname* **(serviced**

For *compname*, use the component name most appropriate for the environment you are supporting. For example, if you are servicing VisualAge Generator Server with installed support for GDDM and SQL, and using SFS directory space for the install, you would choose VISGENSQLGDDMSFS. See Figure 38 on page 85 for the definition of the supported component names. Valid choices are:

VISGEN
VISGENSFS
VISGENGDDM
VISGENGDDMSFS
VISGENSQL
VISGENSQLSFS
VISGENSQLGDDM
VISGENSQLGDDMSFS
VGNDCE
VGNDCESFS
VGNDCEGDDM
VGNDCEGDDMSFS
VGNDCESQL
VGNDCESQLSFS
VGNDCESQLGDDM
VGNDCESQLGDDMSFS

6 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 on-line HELP.

Note: Message VMFBDU2180I is handled in a following step and may be ignored at this time.

vmfview build

7 If you received message VMFBDU2180I as shown in Figure 39 on page 96, then you will have to rebuild the VisualAge Generator Server LOADLIB for the language related parts.

Note: This step must be performed for each VisualAge Generator Server language feature that you have installed.

```
BD:VMFBDU2180I Build Requirements:
BD:            Bldlist   Object              Status
BD:VMFBDU2180I ELABLNLS  -         REBUILD ELALIB FOR LANGUAGES
BD:VMFBLD2180I There are 0 build requirements remaining
```

Figure 39. Message 2180 example for NLS build requirement

vmfins build ppf 5648B02*x* **{VISGEN | VISGENSFS} elablll***y* **(all nolink**

> **ELABLLL***y* is the build list for placing language parts into the VisualAge Generator Server LOADLIB. The character *y* is the 1 character language code for the language being installed. See Figure 21 on page 41 for the language codes.
>
> Use **VISGEN** for installing VisualAge Generator Server on minidisks and **VISGENSFS** for installing VisualAge Generator Server in Shared File System directories.

7.2.5 Completing the Build for the Language Code

> ── **Note** ──
>
> If you are currently applying service for Base code (product ID: 5648B02A), then go to section 7.3, "Optional Verification of Service" on page 100 unless you are using the VisualAge Generator Server segment or received the message to build ELALIB for languages message then continue with 7.2.5.1, "Update the Build Status Table for the Language Code." Optionally, you can delay verifying the code and placing it into production, and instead handle service for the language code by going to section 7.2.1, "Prepare to Receive Service" on page 86 to begin the process of servicing the language related code.

7.2.5.1 Update the Build Status Table for the Language Code

If the product ID relating to a language is being serviced, then you must perform the steps in this section.

1 Access the disk containing the LE TXTLIB, SCEELKED, as file mode P. This disk may be already accessed as the TXTLIBs are often on the 19E disk. However, make certain that the TXTLIB contains support for the COBOL compiler.

2 Update the Build Status Table with serviced parts.

vmfbld ppf 5648B02*x* {VISGEN | VISGENSFS} (status

5648B02*x* is the *ppfname* associated with the product ID that you are servicing. See Figure 37 on page 84 for a list of product IDs and their associated PPFs. If you have your own PPF override, you should substitute your PPF name for 5648B02*x*.

Use **VISGEN** for servicing VisualAge Generator Server on minidisks and **VISGENSFS** for servicing VisualAge Generator Server in Shared File System directories.

This command updates the Build Status Table.

If the $PPF files have been serviced, you will get the following prompt:

```
VMFBLD2185R The following source product parameter files have been
            serviced:
VMFBLD2185R 5648B02A $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 serviced source product
            parameter files built to your A-disk and exit VMFBLD so
            you can recompile your product parameter files with VMFPPF.
VMFBLD2185R 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 5648B02A $PPF
            on 191 (A) from level $PFnnnnn
```

vmfppf 5648B02x *   **5648B02x** is the *ppfname* associated with the
                                      product ID that you are servicing. See
                                      Figure 37 on page 84 for a list of product IDs
                                      and their associated PPFs. If you have your
                                      own PPF override, you should substitute your
                                      PPF name for 5648B02x.

                                      Note: If you've created your own PPF
                                      override, then use your PPF name instead of
                                      5648B02x.

copyfile 5648B02x $PPF a = = d (olddate replace
erase 5648B02x $PPF a

                                      Note: **Do not** use your own PPF name in
                                      place of 5648B02x for the COPYFILE and
                                      ERASE commands.

vmfbld ppf 5648B02x {VISGEN | VISGENSFS} (status

1   Re-issue VMFBLD to complete updating the
                                      build status table. When you receive the
                                      prompt that was previously displayed, enter a
                                      1 to continue.

3 Use VMFVIEW to review the build status messages to see what objects need to be built.

vmfview build

7.2.5.2 Build Serviced Objects for the Language Code
If the product ID relating to a language is being serviced, then you must perform the steps in this section.

1 Release any disks accessed as file mode P, Q, or R. This will ensure you use only file modes set up by the steps that follow.

rel p
rel q
rel r

2 Access the disk containing the LE TXTLIB, SCEELKED, as file mode P. This disk may be already accessed as the TXTLIBs are often on the 19E disk. However, make certain that the TXTLIB contains support for the COBOL compiler.

3 Rebuild VisualAge Generator Server serviced parts.

vmfbld ppf 5648B02x **{VISGEN | VISGENSFS} (serviced**

> **5648B02**x is the *ppfname* associated with the product ID that you are servicing. See Figure 37 on page 84 for a list of product IDs and their associated PPFs. If you have your own PPF override, you should substitute your PPF name for 5648B02x.
>
> Use **VISGEN** for servicing VisualAge Generator Server on minidisks and **VISGENSFS** for servicing VisualAge Generator Server in Shared File System directories.

4 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 on-line HELP.

vmfview build

7.3 Optional Verification of Service

VisualAge Generator Server provides customer verification programs to verify the successful servicing of the code. See section 6.6.1, "Optional Verification" on page 68 if you want to perform this step. If you decide to perform the optional verification, you should return here to place the service into production.

7.4 Place the New VisualAge Generator Server Service Into Production

7.4.1 Rebuild the Saved Segments

1 Prepare to build the segments.

a IPL CMS to clear the virtual storage

ipl cms parm clear nosprof instseg no

*** DO NOT press <u>ENTER</u> at the VM READ!***

IPL CMS to clear your virtual machine. This command bypasses the execution of the system profile (SYSPROF EXEC) and 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

2 Re-save the VisualAge Generator Server segments.

vmfbld ppf segbld esasegs segblist ELADCSS (serviced

3 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 on-line HELP.

vmfview build

7.4.2 Copy the New VisualAge Generator Server Serviced Files Into Production

1 Logon to the owner of the disk that will contain the production level of the VisualAge Generator Server code.

    a If installing to minidisks

link 5648B02A 200 200 rr   The VMFCOPY command will update the VMSES
access 200 e   PARTCAT file on the 300 disk.
access 300 f
vmfcopy * * e = = f2 (prodid 5648B02A%VISGEN olddate replace

    b If installing using Shared File System

access 5648B02A.VISGEN.tbuild e   The VMFCOPY command will update the VMSES
access 5648B02A.VISGEN.P300BUILD f   PARTCAT file on the 300 disk.
vmfcopy * * e = = f2 (prodid 5648B02A%VISGEN olddate replace

2 Logon to MAINT if you plan to put VisualAge Generator Server ELASETUP EXEC and ELACLEAN EXEC on the 'Y' disk (MAINT's 19E disk). Or logon to the owner of the disk that will contain the EXECs.

    a If installing to minidisks

link 5648B02A 200 200 rr
access 200 e
access 19e f

vmfcopy elasetup exec e = = f2 (prodid 5648B02A%VISGEN olddate replace
vmfcopy elaclean exec e = = f2 (prodid 5648B02A%VISGEN olddate replace

                                The VMFCOPY command will update the VMSES
                                PARTCAT file on MAINT's 19E disk.

    b If installing to Shared File System

access 5648B02A.VISGEN.tbuild e
access 19e f

vmfcopy elasetup exec e = = f2 (prodid 5648B02A%VISGEN olddate replace
vmfcopy elaclean exec e = = f2 (prodid 5648B02A%VISGEN olddate replace

The VMFCOPY command will update the VMSES PARTCAT file on MAINT's 19E disk.

3 Logon to MAINT if you plan to put VisualAge Generator Server help files on MAINT's help disks. VM/ESA does not support all of the languages supported by VisualAge Generator Server. If your installation is running VM/ESA languages that are not the same as the VisualAge Generator Server languages that you are installing, then you should copy the VisualAge Generator Server help files to the languages which your installation supports.

Figure 40. Help Disks: Install and MAINT's Production Disk Addresses

Language	Installation Disk Address	MAINT's Disk Address
Mixed-Case English	29D	19D
Upper-Case English	202	402
Spanish	206	406
Chinese	207	407
German	205	405
Japanese	201	401
Swiss German	218	n/s
Portuguese	219	n/s
Korean	220	n/s

Note: MAINT's disk addresses that are marked with 'n/s' instead of a disk address are not supported by VM/ESA. The help files for that language should be copied to a MAINT's disk(s) containing help files for language(s) that are installed on your VM/ESA system.

Note: See Figure 9 on page 15 for the SFS directory ID associated with a specific installation disk address.

a If installing to minidisks

link 5648B02A *xxx xxx* **rr** **access** *xxx* **e** **acc** *yyy* **f**	*xxx* is the address of the help build disk owned by the installation user ID (VisualAge Generator Server). See Figure 9 on page 15 for the installation disk addresses.
	yyy is the address of MAINT's help disk. See Figure 40 for the MAINT's help disk addresses.
vmfcopy * * e = = f (prodid 5648B02A%VISGEN olddate replace	
	The VMFCOPY command will update the VMSES PARTCAT file on MAINT's help disk.

b If installing to Shared File System

access 5648B02A.VISGEN.thelp.*xxx* **e** **acc** *yyy* **f**	*xxx* is the extension (if any) for the help build disk of the language that is being serviced.
	yyy is the address of the MAINT'S help disk. See Figure 40 on page 102 for the MAINT's help disk addresses.
vmfcopy * * e = = f (prodid 5648B02A%VISGEN olddate replace	
	The VMFCOPY command will update the VMSES PARTCAT file on MAINT's help disk.

4 If you copied files to the 19E disk, then re-save the CMS saved system, to return the 19E minidisk (Y-disk) to 'shared' status. See the 'Placing (Serviced) Components into Production' section of the *VM/ESA Service Guide* for detailed information about how to save the CMS saved system.

5 Re-build the CMS HELPINST shared segment to include VisualAge Generator Server's help files from the help disk. See the 'Placing (Serviced) Components into Production' section of the *VM/ESA Service Guide* for detailed information about how these segments should be saved on your system. (Note that you will need to use **(all** instead of **(serviced** on the VMSES/E VMFBLD command when re-building any segments.)


You have finished servicing VisualAge Generator Server.

Reader's Comments

VisualAge Generator Server Release 2.0

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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 satisfied				**very dissatisfied**	**not applicable**
1	**2**	**3**	**4**	**5**	**N**
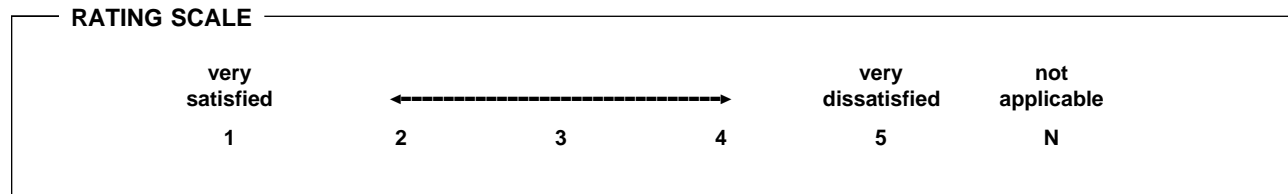
	Satisfaction					
Ease of product installation	1	2	3	4	5	N
Time required to install the product	1	2	3	4	5	N
Contents of program directory	1	2	3	4	5	N
Readability and organization of program directory tasks	1	2	3	4	5	N
Necessity of all installation tasks	1	2	3	4	5	N
Accuracy of the definition of the installation 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: _____

107

- 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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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 VisualAge Generator Server Development group:

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