Program Directory for

VSE/ESA Version 2

Version 2 Release 7.3

Program Number 5690-VSE

Document Date: November 2004

GI11-2681-05

Note!

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

This program directory, dated November 2004, applies to VSE/Enterprise Systems Architecture Version 2 (VSE/ESA 2.7.3) Release 7.3 , Program Number 5690-VSE for the following:

Feature Numbers	Content	System Name
2198/2199	VSE/ESA V2 English Base on 3480/3590 Cartridge	VSE/ESA V2
2197	VSE/ESA V2 English Base on CD-ROM	VSE/ESA V2
2400/2404	VSE/ESA V2 German Base on 3480/3590 Cartridge	VSE/ESA V2
2406	VSE/ESA V2 German Base on CD-ROM	VSE/ESA V2
2598/2599	VSE/ESA V2 Spanish Base on 3480/3590 Cartridge	VSE/ESA V2
2597	VSE/ESA V2 Spanish Base on CD-ROM	VSE/ESA V2
2090/2089	VSE/ESA V2 Japanese Base on 3480/3590 Cartridge	VSE/ESA V2

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Contents

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The following summarizes the changes made in VSE/ESA 2.7.0 and since then

VSE/ESA 2.7.3 Changes: In addition to the Softcopy Collection Kit on CD-ROM, the VSE softcopy documentation is now also delivered on **DVD**, form number SK3T-8348

Updated VSE/ESA BASE PROGRAMs

- 5796-F42 DB2 Server 7.4, incl. Data Propagator - replaces Release 7.3

For functional enhancements of VSE/ESA 2.7.3, please see the

- VSE/ESA Release Guide, SC33-6718
- VSE/ESA *e*-business Connectors User's Guide, SC33-6719

  and the VSE/ESA Home Page:

  `http://www.ibm.com/servers/eserver/zseries/os/vse`

Removed from VSE/ESA 2.7.3

- 5697-B88 DB2 VSAM Transparency 5.1

VSE/ESA is provided through ShopzSeries on CD-ROM and also downloadable from the Internet for customers from the following countries:

- **USA and CANADA**
- **EUROPE**:
  Austria, Bulgaria, Belgium, Croatia, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom

  Starting November 26, 2004: Cyprus, Greece, Turkey
- **AFRICA:** Starting November 26, 2004:
  Algeria, Benin, Burkina Faso, Cameroon, Central Africa Rep., Chad, Congo, Cote D'Ivoire, Egypt, Gabon, Gambia, Guinea, Mali, Mauritania, Marocco, Niger, Senegal, South Africa, Togo, Tunisia
- **ASIA:** Starting November 26, 2004:
  Bahrein, Dubai/Abu Dhabi, Israel, Jordan, Kuwait, Lebanon, Libya, Oman, Pakistan, Qatar, Saudi Arabia, Syria, United Arab Emirates, Yemen

VSE/ESA 2.7.2 Changes:: Starting with this modification level, VSE/ESA is provided through ShopzSeries on CD-ROM and also downloadable for customers of selected countries.

added VSE/ESA OPTIONAL PROGRAMs

- 300PEL Compatibility Fonts of 5648-040 PSF/VSE

REMOVED

- 5746-XXT SDF/CICS 1.5.0

VSE/ESA 2.7.1 Changes

UPDATED

- 5697-F42 DB2 Server 7.3 including Data Propagator 7.3 - new release
- 5697-F42 DB2 Server 7.3 Data Restore - new release
- 5697-F42 DB2 Server 7.3 Control Center - new release

QMF for VSE remains on level 7.2

REMOVED:

- 5735-XXB Emulator Program 1.9.0
- 5668-738 ACF/NCP 3745/3720 5.4.0
- 5668-854 ACF/NCP 3725 4.3.1
- 5688-035 X.25 NPSI 3720/3745 3.4.0
- 5668-719 X.25 NPSI 2.1.0
- 5697-F42 DB2 Server for VSE/ESA 7.2 including Data Propagator 7.2

VSE/ESA 2.7.0 Changes: With VSE/ESA 2.7.0 the **compressed** 3480 cartridge was introduced to replace the previous 3480 **UN**compressed cartridge. With this change, the VSE/ESA Version 2 BASE now fits on **ONE** volume.

UPDATED:

- 5686-066 VSE Central Functions 6.7 - new release
- 5686-094 LE for VSE 1.4.3 - new mod level
- 5686-A04 TCP/IP for VSE/ESA 1.5 - new release
- 5686-066 VSE CF IXFP/Snapshot 6.7 - new release
- 5686-A06 MQSeries for VSE/ESA 2.1.2 - new mod level

REMOVED

- 5686-055 NetView V2 VSE/ESA

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 VSE/ESA 2.7.3. You should read all of this program directory before installing the program and then keep it for future reference.

The program directory contains the following sections:

- 2.0, “Program Materials” on page 3 identifies the basic and optional program materials and documentation for VSE/ESA 2.7.3.
- 3.0, “Program Support” on page 27 describes the IBM support available for VSE/ESA 2.7.3.
- 4.0, “Program and Service Level Information” on page 29 lists the APARs (program level) and PTFs (service level) incorporated into VSE/ESA 2.7.0
- 5.0, “Installation Requirements and Considerations” on page 33 identifies the resources and considerations for installing and using VSE/ESA 2.7.3.
- 7.0, “Installation Instructions” on page 53 provides detailed installation instructions for VSE/ESA 2.7.3.
- 8.0, “VSE/ESA 2.7.3 Install Logic” on page 55 provides the install logic for VSE/ESA 2.7.3.

Before installing VSE/ESA 2.7.3, read 3.1, “Preventive Service Planning” on page 27. This section tells you how to find any updates to the information and procedures in this program directory.

2.0 Program Materials

An IBM program is identified by a program number and a feature code. The program number for VSE/ESA 2.7.3 is 5690-VSE.

The program announcement material describes the features supported by VSE/ESA 2.7.3. Ask your IBM marketing representative for this information if you have not already received a copy.

The following sections identify:

- The basic and optional program materials available with this program
- Program Source Materials

  Microfiche program listings are not provided with VSE/ESA 2.7.3. Customers with access to View Program Listings (VPL), such as through SoftwareXcel Extended, can access program listings formerly provided through microfiche.

  Those customers without access to VPL can contact their IBM representative.

  The VPL facility provides online viewing of program listings that are available to customers.

2.1 For Users who have NOT ordered a l l VSE/ESA Base Products

Customers, who have not ordered ALL VSE/ESA Products are requested to delete those products, for which they are not licensed.

2.1.1 General Description

In order to ensure successful installation, all base products are delivered with the VSE/ESA Version 2 system, but if you have specified only some of them to use and to get licensed for, you are requested to delete the others from the system.

2.1.2 Jobstreams included for deleting VSE/ESA Base components

VSE/ESA 2.7.3 provides ready-to-run jobs to delete base products which were not intentionally ordered.

Following is a list of these jobs, stored in ICCF library 59:

- `DELCICS` to delete CICS TS 1.1.1
- `DELDB274` to delete DB2 Server V7.4
- `DELDIT` to delete DITTO/ESA
- `DELLECOB` to delete the LE/VSE COBOL parts *)
- `DELLEPLI` to delete the LE/VSE PL/I parts *)
- `DELTCPIP` to delete TCP/IP for VSE/ESA
- `DELVTM` to delete ACF/VTAM 4.2
- `DELHLASM` to delete HLASM 1.4.0
- `DELREXX` to delete REXX/VSE 6.7.0

Note: *)The VSE C Run-Time support will remain in the VSE/ESA BASE.

To delete one of these Base Products, access ICCF library 59 and submit the job named in above list.

Note: Since the VSE/ESA System Package is tested and delivered as a full-function, pre-packaged system, any modifications to the system become the user's responsibility. If you are deleting a base component, you should be aware of the consequences of the loss of product function.

1. Since the deletion of a component is treated as altered code, solving problems may cause additional billing, if the alteration is determined to be the cause of a problem.
2. You should be aware that maintenance procedures, including the application of PTFs, may be affected in the event one or more components are deleted.
3. Deleting parts of LE requires updates of the CICS CSD file. Please refer to skeleton SKLE370 in ICCF library 59 for more details.
4. Do not delete the VSE C Run-Time support - without which CICS TS will not come up.

2.1.3 Special considerations when deleting CICS Transaction Server

- ICCF cannot be used - also not with CICS/VSE
- The Interactive User Interface cannot be used - also not with CICS/VSE
- DL/I 1.10.0 does not run with the CICS Transaction Server, it requires CICS/VSE Version 2.3
- DL/I 1.11.0 requires CICS Transaction Server 1.1

2.2 VSE/ESA BASE - BASIC Machine Readable Material (MRM)

The **VSE/ESA BASE** is delivered either

on **THREE volumes of either 3590 Cartridges or 3480 Cartridges** (compressed):

- VSE/ESA BASE
- VSE/ESA Extended Base
- DB2 Server for VM & VSE Help Text

or on **ONE CD-ROM** containing:

- ReadMe File
- VSE/ESA BASE
- VSE/ESA Extended Base
- DB2 Server for VM & VSE Help Text

or **through electronic delivery** (via ShopzSeries) to be downloaded

- ReadMe File
- VSE/ESA BASE
- VSE/ESA Extended Base
- DB2 Server for VM & VSE Help Text

Figure 1 on page 7 describes the **MEDIA and VOLUMES** of the VSE/ESA BASE. These volumes contain all the programs and data needed for installation. VSE/ESA 2.7.3 is installed using the Maintain System History Program (MSHP).

Figure 2 on page 8 describes the **BASE PRODUCTS and COMPONENTS** of the VSE/ESA BASE - on Cartridge

Figure 3 on page 10 describes the **FILES** of the VSE/ESA Base - on Cartridge.

Figure 4 on page 12 describes the VSE/ESA 2.7.3 EXTENDED BASE Products / Components - on cartridge

Figure 5 on page 13 describes **VSE/ESA 2.7.3 on CD-ROM** and the files provided through *e*-delivery.

For download and installing the files from CD-ROM or provided as e-delivery, please see the VSE Install Instructions on the VSE/ESA Home page:

`http://www.ibm.com/servers/eserver/zseries/os/vse`

2.2.1 VSE/ESA BASE - MEDIA and VOLUMES

Figure 1. Basic Material - VSE/ESA - MEDIA and VOLUMES

Medium	Feature Numbers	Physical Volume	External Label Identification
3480 Cartridge compressed	2198,2400,2598,2090	1 2	VSE/ESA2.7.3-xx VSE/ESA2.7.3XBASE
3590 Cartridge	2199,2404,2599,2089	1 2	VSE/ESA2.7.3-xx VSE/ESA2.7.3XBASE
CD-ROM	2197,2406,2597	1	VSE/ESA2.7.3-xx

Notes:

1. **xx** defines the LANGUAGE of the VSE/ESA Base, in which the system was ordered:
   xx = EN English
   xx = GE German
   xx = SP Spanish
   xx = KA Kanji (Japanese)
2. The **XBASE** (Extended Base) contains further VSE/ESA Base Programs. **DO NOT IPL the tape of the Extended Base**
3. Please see Chapter **Summary of Changes** (page ix) for which customers CD-ROM is available and who can download VSE/ESA from the Internet.
4. Please note that VSE/ESA Japanese is not available on CD-ROM or through e-delivery.

2.2.2 VSE/ESA BASE - PRODUCTS / COMPONENTS - on cartridge

Figure 2 describes the contents of the VSE/ESA 2.7.3 Base

Figure 2 (Page 1 of 2). VSE/ESA 2.7.3 - BASE Products

Product Description	Program Number	Component-Identifier	CLC
VSE/ESA 2.7.3 (Package)	5690-VSE	n/a	n/a
VSE Central Functions 6.7.0	5686-066	n/a	n/a
VSE/SP UNIQUE CODE	5686-066	568606601	75C
VSE/UNIQUE CODE ENGLISH	5686-066	568606602	75D
KANJI	5686-066	568606602	75E
GERMAN	5686-066	568606602	75A
SPANISH	5686-066	568606602	75H
VSE/POWER	5686-066	568606603	75C
VSE/POWER Macros	5686-066	568606603	75G
VSE/VSAM	5686-066	568606605	75C
VSE/VSAM Macros	5686-066	568606605	75G
VSE/AF SVR & BAM & GDS	5686-066	568606606	75C
VSE/AF Macros	5686-066	568606606	75G
VSE/AF Generation Feature	5686-066	568606606	75J
VSE/AF MSHP	5686-066	568606607	75C
VSE/AF Info/Analysis	5686-066	568606608	75C
VSE/AF IOCP	5686-066	568606609	75C
VSE/ICCF	5686-066	568606610	75C
VSE/FastCopy	5686-066	568606611	75C
REXX/VSE Library	5686-066	568606612	75I
REXX/VSE Kernel & Interface	5686-066	568606616	75I
VSE/OLTEP	5686-066	568606613	75I
OSA SF	5686-066	568606630	7G7
VSE Connectors	5686-066	568606635	75N
LE Base ENU + JPN 1.4.3	5686-066	568606632	75K
LE C ENU + JPN 1.4.3	5686-066	568606633	75L
CICS Transaction Server 1.1.1	5648-054	564805400	B0P

Figure 2 (Page 2 of 2). VSE/ESA 2.7.3 - BASE Products

Product Description	Program Number	Component-Identifier	CLC
TCP/IP 1.5 for VSE/ESA 1) Application Pak NFS Feature GPS Feature	5686-A04	5686A0400	7IP
ACF/VTAM 4.2.0 2) Client/Server MultiDomain InterEnterprise	5686-065	568606501	FE6
High Level Assembler 1.4.0	5696-234	569623400	489
EREP 3.5.0	5656-260	565626001	E00
ICKDSF 1.17.0	5747-DS2	565899201	1NM
DITTO/ESA for VSE	5648-099	564809901	36O
LE COBOL + JPN + CICS (1.4.3)	5686-094	568609403	7EW
LE PL/I + JPN (1.4.3)	5686-094	568609406	7EX

Notes:

1. TCP/IP for VSE/ESA consists of several functional features, which are pre installed with the base product. Each feature is key-protected. They have to be activated by entering an activation key together with the customer number, which is provided when TCP/IP for VSE/ESA was ordered.
2. ACF/VTAM V4R2 for VSE/ESA consists of three functional levels which are shipped in the base product. They are activated by entering your customer number and valid password, which is added to your order according to the ordered feature.

2.2.3 VSE/ESA BASE - MRM FILE Contents - on Cartridge

The layout of the base tapes changed. Initial Installation will reflect the new layout. FSU will also handle the new layout, provided the prepare step is executed first. The downlevel check should not be done prior to the prepare step, but **after the prepare**.

Figure 3 describes the files of the VSE/ESA Base (labelled: VSE/ESA2.7.3-xx)

Figure 3 (Page 1 of 2). File Content: VSE/ESA 2.7 BASE

File	Name
1	Header and SA Supervisor
2	VSE Standalone Utilities
3	MSHP History File - SYSRES Products
4	SYSRES Library
5	Null File
6	End of Backup Record
7	DTSFILE Header
8	DTSFILE Non-NLS
9	EOF1 - DTSFILE Trailer
10	Header File
11	MSHP History File - PRD1.MACLIB Products
12	PRD1.MACLIB Sublibrary
13	Header File
14	MSHP History File - PRD2.SCEEBASE Products
15	PRD2.SCEEBASE Sublibrary
16	Header File
17	MSHP History File - NLS Products
18	NLS Library
19	Null File
20	End of Backup Record
21	DTSFILE Header
22	DTSFILE NLS
23	EOF1 - DTSFILE Trailer
24	Header File
25	MSHP History File - Generation Features
26	Generation Feature

Figure 3 (Page 2 of 2). File Content: VSE/ESA 2.7 BASE

File	Name
27	Null File
28	End of Tape Record (EOT)
29	Header File
30	MSHP History File - PRD1.BASE Products
31	PRD1.BASE Sublibrary
32	Null File
33	End of Backup Record
34	Online-Message-File
35	Null File
36	End of Tape Record

2.2.4 VSE/ESA Extended BASE - PRODUCTS / COMPONENTS

Figure 4 describes the VSE/ESA 2.7.3 EXTENDED BASE Products / Components.

Figure 4. VSE/ESA 2.7.3 - EXTENDED BASE Products

Product Description	Program Number	ComponentID	CLC
CICS/VSE 2.3 Production	5686-026	568602601	14X
CICS/VSE 2.3 Generation 1)	5686-026	568602601	14V
CICS/VSE 2.3 RCF	5686-026	568602601	14W
OS/390 APIs	5686-066	568606614	75V
LE DBCS Locales	5686-066	568606634	75M
DB2 V7.4 Server f.VSE/ESA 2)	5697-F42	5697F4201	4NN
DB2 V7.4 DPROPR	5697-F42	5697F4201	4NO

Notes:

1. This feature is only needed if CICS/VSE 2.3 is to be re-generated
2. For an improved installability of DB2 Server for VSE Version 7.4 (5697-F42), this product is partially packaged and delivered as a key-enabled component of the VSE/ESA 2.7.3 Base. First time DB2 users can take advantage of a free-of-charge 90-day trial period to evaluate the product. An activation key, provided with the DB2 Server for VSE V7 license, is required to use the product beyond the 90-day trial period. Packaging info: The DB2 V7 components,that are packaged onto and always distributed with the VSE/ESA Extended Base Tape are DB2 Server for VSE and Data Propagator Capture for VSE. If the media type is cartridge, the DB2 Help Text is distributed on a separate volume. The DB2 optional features are packaged as optional products and distributed on the VSE/ESA optional product 'stacked tape' if they were ordered.

2.2.5 VSE/ESA on CD-ROM

The following files are available on the CD-ROM in the sequence shown below:

Figure 5. VSE/ESA 2.7.3 - VSE/ESA 2.7.3 on CD-ROM

File #	File Description	File Name
1	Readme File	VSERDME.txt
2	VSE/ESA BASE	VSEBAS27.AWS
3	VSE/ESA Extended Base	VSEBAE27.AWS
4	DB2 Help Text	DB2VSEHE.AWS

For details on the contents of the VSE/ESA Base and the VSE/ESA Extended Base, please see Figures 2, 3 and 4. Note that the optional products are delivered on a 2nd CD-ROM in a file named: VSEOPT27.AWS.

2.2.6 VSE/ESA downloadable from the Internet

The following files are available when downloading from Internet through ShopzSeries:

Base Tape VSE273YY.aws

Extended Base Tape VSE273XB.aws

DB2 Help Tape DB2HELP.aws

Opt.Product Tape VSEOPT27.aws

Note that after downloading the respective files from the Internet, you will have the VSE/ESA 2.7 operating system and/or optional products available on your PC in ZIPped format. After unzipping these files you will have the files available as shown in chapter **VSE/ESA on CD-ROM** above.

The VSE/ESA operating system consists of 3 files (VSE/ESA base, VSE/ESA extended base, DB2 Help Text), for the optional products you will have only one file available: named VSEOPT27.AWS. In case of multiple optional products ordered, you will find all these optional products in this one file in VSE stacked format.

The description of the next steps for processing these files can be found at the VSE Home Page at

`http://www.ibm.com/servers/eserver/zseries/os/vse`

or in the manuals VSE/ESA 2.7 Installation SC33-6704 or VSE/ESA 2.7 System Upgrade and Service, SC33-6702, both available on the VSE Softcopy Collection Kit on either CD-Rom (SK2T-0060) or DVD (SK3T-8348) or from the VSE Home page or the IBM Publications Center at

`http://www.elink.ibmlink.ibm.com/public/applications/publications/cgibin/pbi.cgi.`

2.3 VSE/ESA BASE - OPTIONAL Machine-Readable Material

There is Optional Source available for VSE Central Functions 6.7.0.

The distribution media for optional machine-readable material are 3480 cartridge compressed or 3590 cartridge, but NOT on CD-ROM or through e-delivery.

A separate memorandum is distributed with the Optional Material. It contains a description on how to install the Optional Source Code of VSE Central Functions.

Figure 6 describes the media.

Figure 6. Optional Material: 5686-066 VSE Central Functions 6.7

Feature Number	Medium	Product Name	Product No.	External Tape Label
5812	3480 Cartridge	VSE Central Functions	5686-066	VSE CF 6.7.0 SOURCE
6099	3590 Cartridge	VSE Central Functions	5686-066	VSE CF 6.7.0 SOURCE

2.4 VSE/ESA BASE - Program Publications

The following sections identify the basic and optional publications for VSE/ESA 2.7.3, that are available as hardcopy publications.

Since VSE/ESA 2.7.2, all VSE/ESA manuals are available as softcopy only. This includes LE/VSE manuals, VSE/POWER manuals, CICS Transaction Server for VSE/ESA manuals, and so on. You can now obtain softcopy VSE/ESA manuals from either the:

- VSE Softcopy Collection on CD-ROM, SK2T-0060 (delivered with VSE/ESA)
- VSE Softcopy Collection on DVD, SK3T-8348 (delivered with VSE/ESA)
- IBM Publications Center, which has this internet URL:

  `http://www.elink.ibmlink.ibm.com/public/applications/publications/cgibin/pbi.cgi`

From the IBM Publications Center, you can download most VSE/ESA online publications free-of-charge in PDF or BOOK format. You can also order hardcopies of VSE/ESA manuals (for an additional fee) that were published before VSE/ESA 2.7.2, providing they are still available.

Please note that the Licensed Program Specifications (LPS) for the following VSE products are now also available and shipped in softcopy version only. They can be found on the PDF-CD of the VSE/ESA Softcopy Collection Kit in bookshelf 'VSE/ESA Related LPS PDFs', as well as on the VSE Softcopy Collection on DVD.

VSE/ESA
LE for VSE/ESA
TCP/IP for VSE/ESA
IXFP/SnapShot for VSE/ESA
DL/I 1.11.0
DOS/VS RPG II
OS/VS RPG II
VSE/ACLR
VSE/VSAM for VM

Those publications, which have been added or updated with VSE/ESA 2.7.3 are either marked with **(N)** for NEW publications, or **(U)** for updated documentation. Your shipment contains ONE copy of all those publications, which were updated since your last order.

2.4.1 VSE/ESA Base - Basic Publications

Figure 7. VSE/ESA Basic Publications

Publication Title	Form Number
VSE/ESA Release Guide	SC33-6718
VSE/ESA Softcopy Collection Kit	SK2T-0060 U
VSE Softcopy Collection on DVD	SK3T-8348 N
DB2 Server CD Doc Kit	SK3T-5257
DB2 Server Overview	GC09-2995
QMF Window Try/Buy Kit	LCD4-3781
Program Directory VSE/VSAM for VM	n/a
DB2 Program Directory	GI10-4999
DB2 Memo to Users DB2 Server	GI10-5008

Figure 8 identifies the basic program publications as hardcopies for further VSE/ESA 2.7.3 base products.

Figure 8. Publications of VSE/ESA 2.7.3 Base Programs

Publication Title	Form Number
CICS/TS Program Directory	GI10-2508
CICS/TS Licensed Programming Specs	GC34-5464
DITTO/ESA Licensed Programming Specs	GH19-8223
DITTO/ESA Program Directory	GI10-0426
ACF/VTAM Program Directory	GI10-8112
ACF/VTAM Licensed Programming Specs	GC31-6490

2.5 VSE/ESA OPTIONAL PROGRAMS

Optional Programs are independent products, that can be ordered additionally and together with VSE/ESA and which run under the operating system VSE/ESA. They should not be mixed up with the optional material (source code), which is available for both the VSE/ESA BASE and some Optional Programs.

The distribution medium for these Optional Programs are the same as for the VSE/ESA Base. The medium contains all the programs and data needed for installation using the Maintain System History Program (MSHP). They are on the media in stacked format and can be installed by using the VSE/ESA dialogs.

If VSE/ESA 2.7.3 was ordered to be delivered through the Internet (e-delivery), Optional Programs have to be downloaded as described in the *VSE Installation Guide*, SC33-6704.

2.5.1 Optional Programs - Available with VSE/ESA V2

(sorted by Product Number)

Prod.No.	Product Name	V.R.M	remarks
5648-063	ACF/NCP	7.8.1	3746-900 incl. NCP
5648-099	DITTO/ESA for VM feature	1.3.0	VM format
5648-B02	VA Generator Server	1.2.0	NLS available
5648-B33	AFP Font Collection	2.1.1	VSE fonts
5668-723	GDDM-IVU	1.1.3	
5668-801	GDDM-IMD	2.1.3	
5668-812	GDDM-PGF	2.1.3	
5686-011	CICSVR/VSE	1.2.0	
5686-040	PSF/VSE	2.2.1	Base and Fonts
5686-057	GDDM/VSE	3.2.0	NLS available
5686-064	ACF/SSP for VSE	4.8.1	
5686-065	ACF/VTAM for VM feature	4.2.0	VM format
	ACF/VTAM APPC Feature		
5686-066	IXFP/Snapshot	6.7.0	Opt.Feat.of VSE CF
5686-068	COBOL for VSE/ESA	1.1.0	Full/Altern.Function
5686-069	PL/I for VSE/ESA	1.1.0	Full/Altern.Function
5686-081	VSE/VSAM for VM	6.1.0	VM format
5686-A01	C for VSE/ESA	1.1.0	Full/Altern.Function
5686-A06	MQSeries for VSE/ESA	2.1.2	
5686-A07	CCCA for VSE/ESA	2.1.0	
5688-035	X.25 NPSI	3.9.0	
5688-190	PPFA/370	1.1.0	
5688-191	OGL/370	1.1.0	incl. NLS
5696-234	HLASM Toolkit	1.4.0	WS feature
5697-F42	DB2 V7 Server for VSE	7.4.0	NLV JPN, DEU, FRA
	Control Center	7.3.0	
	Data Restore	7.3.0	
5697-F42	QMF for VSE/ESA	7.2.0	Base and NLV
5697-F42	QMF for Windows	7.2.0	Base and NLV
5735-XXB	EP	1.14.0	
5746-RG1	DOS/VS RPG II	1.3.0	

```
5746-SM3  DFSORT/VSE                      3.4.0
5746-XE7  VSE/ACLR                        1.2.1
5746-XXT  SDF II VSE                      1.6.0
5746-XX1  DL/I DOS/VS                    1.10.0
5746-XX1  DL/I VSE                       1.11.0
```

2.5.2 Optional Programs - List of Product Identifiers

The following Optional Programs are available with VSE/ESA 2.7.3. They show the product identifiers as you will find them on the Optional Program tape itself.

```
BACKUPID          COMPID     CLC  PRODID
----------------  ---------  ---  ------
PSF/ACIF...2.2.1  564806201  FW0  062FW0
PSF/API....2.2.1  564806202  FW1  062FW1
NCP/V7.....7.8.1  564806300  78G  06378G
DITTO.JPN..1.3.0  564809902  37O  09937O
QMF/VSE....7.2.0  566872101  2NR  F422NR    Base / US English
QMF/VSE.U..7.2.0  564806102  2NS  F422NS    Upper Case English
QMF/VSE.C..7.2.0  564806103  2OL  F422OL    Canadian French
QMF/VSE.R..7.2.0  564806104  2NT  F422NT    Simpl.Chinese
QMF/VSE.F..7.2.0  564806107  2NU  F422NU    French
QMF/VSE.D..7.2.0  564806108  2NV  F422NV    German
QMF/VSE.I..7.2.0  564806109  2NW  F422NW    Italian
QMF/VSE.K..7.2.0  564806110  2NX  F422NX    Japanese
QMF/VSE.H..7.2.0  564806111  2NY  F422NY    Korean
QMF/VSE.P..7.2.0  564806112  2NZ  F422NZ    Brazil.Port
QMF/VSE.S..7.2.0  564806113  2O0  F422O0    Spanish
QMF/VSE.Y..7.2.0  564806115  2O1  F422O1    Swiss French
QMF/VSE.Z..7.2.0  564806116  2O2  F422O2    Swiss German
PSF/COMPAT.B300   564811310  1BM  1131BM    300Pel Fonts
VGEN.BASE..1.2.0  5648B020A  1JI  B021JI    Base
VGEN.ENU...1.2.0  5648B0207  1JF  B021JF    US English
VGEN.ENP...1.2.0  5648B020B  1JJ  B021JJ    UC English
VGEN.DES...1.2.0  5648B0202  1JA  B021JA    Swiss German
VGEN.ESP...1.2.0  5648B0203  1JB  B021JB    Spanish
VGEN.DEU...1.2.0  5648B0204  1JC  B021JC    German
VGEN.CHS...1.2.0  5648B0205  1JD  B021JD    Simpl.Chinese
VGEN.KOR...1.2.0  5648B0206  1JE  B021JE    Korean
VGEN.PTB...1.2.0  5648B0208  1JG  B021JG    Brazil.Portugese
VGEN.JPN...1.2.0  5648B0209  1JH  B021JH    Japanese
AFP_FONT...2.1.1  5648B3300  n/a    n/a        1)
GDDM-IVU...1.1.3  566872301  1FF  7231FF
GDDM-IMD...2.1.3  566880101  1FG  8011FG
GDDM-PGF...2.1.3  566881201  1F5  8121F5
CICSVR/VSE.1.2.0  568601101  1NL  0111NL
PSF/VSE....2.2.1  568604001  DC0  040DC0
PSF/CODEPG.B240   568604015  FR9  040FR9
AFP/CODEPG.B300   568604021  FS0  040FS0
PSF/COMPAT.B240   568604055  DH1  040DH1
PSF/COMPAT.U240   568604054  DH0  040DH0
GDDM/VSE...3.2.0  568605701  1EA  0571EA
GDDM/VSE.A.3.2.0  568605702  1EP  0571EP
GDDM/VSE.B.3.2.0  568605702  1EO  0571EO      Brazilian
```

```
GDDM/VSE.C.3.2.0  568605702  1EN  0571EN      Simp.Chin.
GDDM/VSE.D.3.2.0  568605702  1EM  0571EM      Danish
GDDM/VSE.S.3.2.0  568605702  1EL  0571EL      Spanish
GDDM/VSE.T.3.2.0  568605702  1EK  0571EK      Trad.Chin
GDDM/VSE.V.3.2.0  568605702  1EJ  0571EJ      Swedish
GDDM/VSE.F.3.2.0  568605702  1EI  0571EI      French
GDDM/VSE.G.3.2.0  568605702  1EH  0571EH      German
GDDM/VSE.I.3.2.0  568605702  1EE  0571EE      Italian
GDDM/VSE.K.3.2.0  568605702  1ED  0571ED      Kanji
GDDM/VSE.N.3.2.0  568605702  1EC  0571EC      Norwegian
GDDM/VSE.Q.3.2.0  568605702  1EQ  0571EQ      Can.French
ACF/SSP....4.8.1  568606400  48G  06448G
IXFP/SNAP..6.7.0  568606631  75P  06675P      3)
COB.BASE...1.1.0  568606800  18M  06818M
COB.ENU....1.1.0  568606801  18N  06818N
COB.JPN....1.1.0  568606802  18O  06818O
PLI.VSE....1.1.0  568606900  18P  06918P
C/VSE.BASE.1.1.0  5686A0100  1FY  A011FY
C/VSE.JPN..1.1.0  5686A0101  1G4  A011G4
DTVSE.BASE.1.1.1  5686A0200  6G8  A026G8      2)
DTVSE.JPN..1.1.1  5686A0201  6G9  A026G9      2)
MQSERIES...2.1.2  5686A0600  2ZZ  A062ZZ
CCCA.VSE...2.1.0  5686A0700  1JS  A071JS
X_25/NPSI..3.9.0  568803501  9E0  0359E0
PPFA/370...1.1.0  568819001  A03  190A03
OGL/370....1.1.0  568819101  A05  191A05
OGL/370....1.1.0  568819102  AA0  191AA0
OGL/370....1.1.0  568819103  AA1  191AA1
OGL/370....1.1.0  568819104  AA2  191AA2
HLASM.TLKT.1.4.0  569623401  4IM  2344IM
DB2/NLV....7.4.0  5697F4201  4NN  F424NN
ASN/VSE....7.4.0  5697F4201  4NO  F424NO
DB2CC......7.3.0  5697F4206  3NQ  F423NQ
DB2VSE.RCV.7.3.0  5697F4205  3NP  F423NP
RPGII......1.3.0  5746RG100  O42  RG1O42
DFSORT/VSE.3.4.0  5746SM310  34A  SM334A
VSE/ACLR...1.2.1  5746XE700  H06  XE7H06
SDF.II.VSE.1.6.0  5746XXT01  228  XXT228
SDF.II.GER.1.6.0  5746XXT03  1J7  XXT1J7
SDF.II.DES.1.6.0  5746XXT04  1J8  XXT1J8
SDF.II.ESP.1.6.0  5746XXT05  1J9  XXT1J9
SDF.II.JPN.1.6.0  5746XXT02  229  XXT229
DL/I-BASE..1.A.0  5746XX100  DB5  XX1DB5
DL/I-BASE..1.B.0  5746XX100  1IO  XX11IO
EP_R14....1.14.0  5748EP115  4E1  EP14E1
```

Notes:

1. The AFP Fonts will NOT be stacked. You will get them on separate volumes.
2. These components define the debugging functions (DEBUG Tool), which are part of the Full Function orders of C for VSE, PL/I for VSE and COBOL for VSE.
3. For installation and setup details of IXFP/Snapshot, please refer to the *VSE/ESA Release Guide* SC33-6718.

This version of IXFP/Snapshot is intended to run on VSE/ESA 2.7 only.

2.5.3 Optional Programs - Program Tapes/Program Cartridges

All ordered Optional Programs will be delivered stacked on cartridge or in a file available on the CD-ROM or downloaded from the Internet. There will be multiple volumes, if the ordered products will physically not fit onto one volume.

You will get Program Directories of the individual Optional programs ordered with VSE/ESA 2.7.3 for additional information on the particular programs. Please ignore the **ordering information** in these directories, as this part does not apply to these products when ordered within the VSE/ESA package.

The external label of the volume(s) is: **VSE/ESA 2.7.3 OPT x OF y**

2.5.4 Optional Programs - File Content

Figure 9 describes the file content of the Optional Program Tape

Figure 9. Program Tape - 'VSE/ESA 2.7.3 OPT x OF y' File Content

File	Name
1	Null File
2	Start of Stacked Tape Indicator
3	Null File
4	1st Optional Program ordered
5	2nd Optional Program ordered
6	3rd Optional Program ordered
7	nth Optional Program ordered
8	Null File
9	End of Stacked Tape Indicator
10	Null File
11	Null File

Refer to the individual program directories on specific information to the ordered product.

2.5.5 Optional Programs - Basic Publications

The following tables identify the b a s i c publications of the VSE/ESA 2.7.3 Optional Programs, that are available as hardcopies. The VSE/ESA Softcopy Collection Kit CD, as well as the VSE Softcopy Collection on DVD, which are delivered with every VSE/ESA order, provide further documentation to all VSE Optional Programs.

Figure 10. BASIC Documentation of ACF/NCP 5648-063 7.8.1

Publication Title	Order/Form Number
NCP Licensed Programming Specs	GC31-6226
Program Directory	GI10-6623
Memo to Licensees	GI10-6628

Figure 11. BASIC Documentation of DITTO/ESA f.VM 5648-099 1.3.0

Publication Title	Order/Form Number
Program Directory	GI10-0438

Figure 12. BASIC Documentation of VisualAge Generator Server 5648-B02 1.2.0

Publication Title	Order/Form Number
VA Generator Server LPS	GH23-0255
VA Server Guide	SH23-0256
Program Directory	GI10-0813
Memo to Current Licensees	GI10-6776

Figure 13. BASIC Documentation of AFP Font Collection 5648-B33 2.1.1

Publication Title	Order/Form Number
AFP Font Collection LPS	G544-5634
Program Directory VSE Fonts	GI10-0223
PGDIR Japanese Fonts VSE	GI10-0241
PGDIR Korean Fonts VSE	GI10-0242
PGDIR S-Chinese Fonts VSE	GI10-0243
PGDIR T-Chinese Fonts VSE	GI10-0244

Figure 14. BASIC Documentation of GDDM-IVU 5668-723 1.1.3

Publication Title	Order/Form Number
Program Directory	GI11-1586

Figure 15. BASIC Documentation of GDDM-IMD 5668-801 2.1.3

Publication Title	Order/Form Number
Program Directory	GI11-1630

Figure 16. BASIC Documentation of GDDM-PGF 5668-812 2.1.3

Publication Title	Order/Form Number
Program Directory	GI10-9657

Figure 17. BASIC Documentation of CICSVR/VSE 5686-011 1.2.0

Publication Title	Order/Form Number
Licensed Program Specifications	GC26-7323
Program Directory	GI10-4528
Memo to Licensees	GI10-4534

Figure 18. BASIC Documentation of PSF/VSE 5686-040 2.2.1

Publication Title	Order/Form Number
Licensed Programming Specifications	G544-3667
Program Directory for 2.2.1	GI10-0203
Program Directory for PSF Compat Fonts	GI10-0254

Figure 19. BASIC Documentation of GDDM/VSE 5686-057 3.2.0

Publication Title	Order/Form Number
Series Licensed Progr Specifications	GC33-0876
Program Directory	GI11-1528

Figure 20. BASIC Documentation of ACF/SSP f. VSE 5686-064 4.8.1

Publication Title	Order/Form Number
Licensed Program Specs SSP	GC31-6230
Program Directory	GI10-6620
Memo to Licensees	GI10-6627

Figure 21. BASIC Documentation of IBM COBOL for VSE/ESA 5686-068 1.1.0

Publication Title	Order/Form Number
COBOL/VSE Licensed Programming Specs	GC26-8069
Memo to Licensees Full Function	GI10-9890
Memo to Licensees Alternate Function	GI11-1706
Memo to current Lics of the Debugger	GI10-8484
Memo to new Lics of the Debugger	GI10-8476

Figure 22. BASIC Documentation of IBM PL/I for VSE/ESA 5686-069 1.1.0

Publication Title	Order/Form Number
PL/I VSE Licensed Programming Specs	GC26-8055
Memo to Licensees Full Function	GI11-1707
Memo to Licensees Alternate Function	GI11-1708

Figure 23. BASIC Documentation of IBM C for VSE/ESA 5686-A01 1.1.0

Publication Title	Order/Form Number
C/VSE LPS	GC09-2421

Figure 24. BASIC Documentation of MQSeries for VSE/ESA 5686-A06 2.1.2

Publication Title	Order/Form Number
MQSeries VSE/ESA LPS	GC34-5365
Memo to new Licensees	GI10-2512

Figure 25. BASIC Documentation of CCCA for VSE/ESA 5686-A07 2.1.0

Publication Title	Order/Form Number
Licensed Programming Specifications	GC26-9408
Program Directory	GI10-5079

Figure 26. BASIC Documentation of X.25 NPSI 5688-035 3.9.0

Publication Title	Order/Form Number
X.25 NCP PSI V3 Licensed Progr Specs	GC30-9605
X.25 NCP PSI V3 Host Programming	SC30-3502
Program Directory	GI10-6558

Figure 27. BASIC Documentation of PPFA/370 5688-190 1.1.0.

Publication Title	Order/Form Number
Licensed Program Specifications	G544-3696
Quick Reference	G544-3701
Diagnosis Guide + Reference	LH40-0207
Program Directory	GI10-9679

Figure 28. BASIC Documentation of OGL/370 5688-191 1.1.0

Publication Title	Order/Form Number
OGL/370 Licensed Progr. Specifications	G544-3697
OGL/370 Quick Reference	SX35-5032
Program Directory	n/a

Figure 29. BASIC Documentation of HLASM Toolkit 5696-234 1.4.0

Publication Title	Order/Form Number
Memo to new Licensees	GI10-5051

Figure 30. BASIC Documentation of DB2 Server for VSE/ESA 5697-F42 7.4.0

Publication Title	Order/Form Number
DB2 Server F.VM & VSE Licensed Specs	GC09-2982
DB2 Server Diagnosis GD + Reference	LC09-2907
DB2 Server Universal Developers Edition	LK3T-5242
DProP VSE Memo to Users	GI10-5010
DProP VSE Program Directory	GI10-5001
Control Center Program Directory	GI10-5003
Control Center Memo to Users	GI10-5012
Data Restore Program Directory	GI10-5005
Data Restore Memo to Users	GI10-5014
QMF for VSE Program Directory	GI10-8330
QMF for VSE NLV Program Directory	GI10-8332

Figure 31. BASIC Documentation of EP 5735-XXB 1.14.0

Publication Title	Order/Form Number
Licensed Progr.Specifications	GC31-6201
Program Directory	GI10-0996

Figure 32. BASIC Documentation of RPG II 5746-RG1 1.3.0

Publication Title	Order/Form Number
Language Reference	SC33-6031
Installation Reference	SC33-6032
Messages	SC33-6033
Auto Report	SC33-6034
User's Guide	SC33-6074
Program Directory	GI10-9770

Figure 33. BASIC Documentation of DFSORT/VSE 5746-SM3 3.4.0

Publication Title	Order/Form Number
Licensed Progr.Specifications	GC26-7038
Reference Summary	SX26-6008
Program Directory	GI10-4513

Figure 34. BASIC Documentation of VSE/ACLR 5746-XE7 1.2.1

Publication Title	Order/Form Number
Program Directory	GI11-0645

Figure 35. BASIC Documentation of SDF II VSE 5746-XXT 1.6.0

Publication Title	Order/Form Number
SDF II Introducing Release 6	GH12-6314
SDF II Licensed Specification	GH12-6318
Program Directory	GI10-0424

Figure 36. BASIC Documentation of DL/I VSE 5746-XX1 1.10.0 and 1.11.0

Publication Title	Order/Form Number
General Information Manual	GH20-1246
Guide for New Users	SH24-5001
Library Guide + Master Index	GH24-5008
Diagnostic Guide	SH24-5002
Low Lev Code Cont. Check	SH20-9046
Ref Summary: CALL Prog. Interface	SX24-5103
Ref Summary: HLPI Interface	SX24-5120
Program Directory	GI10-0484

2.5.6 Optional Programs - Licensed Publications

Optionally available publications are orderable under the individual Optional program product numbers. Please see the Program Directories of these products for available publications.

3.0 Program Support

This section describes the IBM support available for VSE/ESA 2.7.3.

3.1 Preventive Service Planning

Before installing VSE/ESA 2.7.3, check with your IBM Support Center or use either Information/Access or SoftwareXcel Extended to see whether there is additional Preventive Service Planning (PSP) information that you should know. To obtain this information, specify the following UPGRADE and SUBSET value:

VSEESA2rm

where rm is the current Release/Modification level.

With this upgrade value you will see lists of subset values, one sorted by VSE/ESA BASE programs, and one sorted per VSE/ESA OPTIONAL programs. The subset identifies are derived from the product names, to where the subset identifiers belong.

In addition, there are the following subset values:

BASESERVICE and **OPTPSERVICE**

Using these values, you find the list of APARs and related PTFs per BASE program (BASESERVICE) and OPTIONAL program (OPTPSERVICE). These lists are identified by the products component identifier, which you may find in Chapter 'Optional Programs - List of Product Identifiers.

If you have received VSE/ESA 2.7.3 only from IBM Software Distribution, then before installing VSE/ESA 2.7.3, you should also check with your IBM Support Center or use either Information/Access or SoftwareXcel Extended to see if there is additional PSP information that you should know.

3.2 Statement of Support Procedures

Report any difficulties you have using this program to your IBM Support Center. If an APAR is required, the Support Center will provide the address to which any needed documentation can be sent. Please refer to Figure 2 on page 8 for component IDs (COMPID) for VSE/ESA 2.7.3

4.0 Program and Service Level Information

This section identifies the program and any relevant service levels of VSE/ESA 2.7.0. The program level refers to the APAR fixes incorporated into the program. The service level refers to the PTFs integrated. Information about the cumulative service tape is also provided.

4.1 Program Level Information

The following is a list of APARs fixed and integrated into VSE/ESA 2.7, which are NOT visible in the MSHP history file.

COMPONENT 568606601, ..02 (UNIQUE CODE)

```
PQ54326      PQ54701      PQ54702      PQ55137      PQ55920      PQ55927
PQ55969      PQ56186      PQ56424      PQ56556      PQ56618      PQ56819
PQ56864      PQ56865      PQ57091      PQ57099      PQ57217      PQ57220
PQ57472      PQ57473      PQ57607      PQ57743      PQ57744      PQ57985
PQ58998      PQ60136      PQ60250      PQ60447      PQ60449      PQ61009
PQ61103      PQ61749      PQ61787      PQ62813      PQ65460      PQ65715
PQ65790      PQ66568      PQ68047
```

COMPONENT 568606603 (POWER)

```
DY45745     DY45747      DY45748      DY45749      DY45750
DY45783     DY45786      DY45804      DY45806      DY45821      DY45825
DY45835     DY45838      DY45870      DY45874      DY45884      DY45895
DY45933     DY45942      DY45999
```

COMPONENTs 568606604, ..06, ..07, ..08, ..09 (AF)

```
DY45736      DY45752      DY45774      DY45789      DY45796      DY45798
DY45799      DY45817      DY45826      DY45827      DY45829      DY45830
DY45839      DY45845      DY45848      DY45849      DY45851      DY45869
DY45878      DY45879      DY45881      DY45886      DY45887      DY45888
DY45889      DY45890      DY45892      DY45896      DY45897      DY45911
DY45917      DY45921      DY45934      DY45938      DY45939      DY45947
DY45950      DY45971      DY45975      DY45976      DY45980      DY45988
DY45995      DY46002
```

COMPONENT 568606605 (VSAM)

```
DY45744      DY45754      DY45755      DY45808      DY45809      DY45819
DY45822      DY45844      DY45850      DY45865      DY45908      DY45918
DY45922      DY45969      DY45970      DY45977      DY45978
```

COMPONENT 568606630 (OSA/SF)

PQ06993 PQ06292 PQ03091 PQ11504 PQ16071
PQ54717 PQ59028 PQ66278

COMPONENT 568606610 (ICCF)

PQ58394 PQ57333 PQ70277

COMPONENT 568606611 (FASTCOPY)

DY44060 DY44121 DY44214 DY45867

COMPONENTs 568606612, 568606616 (REXX)

PQ41345 PQ42277 PQ44022 PQ47519 PQ51117
PQ55252 PQ56301 PQ56557 PQ59388 PQ66948 PQ69262

COMPONENT 568606613 (OLTEP)

DY44219

TCP/IP 1.5 5686-A0400

PQ11216 PQ11589 PQ11981 PQ12876 PQ14716 PQ14718
PQ14724 PQ16251 PQ18295 PQ18354 PQ19496 PQ19507
PQ19603 PQ19780 PQ20942 PQ21691 PQ24008 PQ26600
PQ27233 PQ27252 PQ28760 PQ29052 PQ29053 PQ39048
PQ39540 PQ39277
PQ40278 PQ43707 PQ43576 PQ43577 PQ43581 PQ45314
PQ45531 PQ46046 PQ46047 PQ46048 PQ46049 PQ46050
PQ46051 PQ46052 PQ46053 PQ46054 PQ46055 PQ46056
PQ46057 PQ46058 PQ46059 PQ46060 PQ46061 PQ46062
PQ46063 PQ46064 PQ46065 PQ52348 PQ54068 PQ55591
PQ60559 PQ60559 PQ60560 PQ63021 PQ66906 PQ69574

LE/VSE 1.4.3 5686-06632 (LE Base)

PQ06598 PQ09262 PQ21622 PQ23918 PQ24407 PQ24997
PQ26738 PQ27448 PQ28586 PQ28747 PQ29165 PQ31256
PQ31989 PQ35020 PQ36828 PQ38321 PQ39636 PQ42344
PQ47866 PQ48405
PQ01591* PQ13106* PQ29151* PQ33406* PQ34353* PQ36632*
PQ47713* PQ62014 PQ65818 PQ67005
*) indicates the APAR has been routed from LE OS/390 or LE z/OS.

LE/VSE 1.4.3 5686-06633 (LE C)

PQ24999 PQ27349 PQ30589 PQ31101 PQ32076 PQ33140
PQ34038 PQ34263 PQ45676 PQ45681 PQ47358

VSE Connectors 5686-06635

PQ41480 PQ49063 PQ50122 PQ51324 PQ52261
PQ56023 PQ56024 PQ56316 PQ60611 PQ60612
PQ54703 PQ56517 PQ59275 PQ56316 PQ67458
PQ67459

LE/VSE 1.4.3 5686-09403 (LE COBOL)

PQ11742 PQ24687 PQ28536 PQ29574 PQ30638 PQ30663
PQ30711 PQ30714 PQ38025 PQ49487 PQ50085
PQ61668 PQ66612

LE/VSE 1.4.3 5686-09406 (LE PL/I)

PQ28824 PQ30907 PQ32442 PQ36650 PQ37297 PQ48684
PQ65549 PQ66264

CICS/TS 1.1.1 5648-054

PQ26158 PQ26159 PQ26160 PQ26161 PQ26165 PQ26166
PQ26170 PQ26632 PQ26634 PQ26635 PQ26636 PQ26639
PQ26640 PQ26642 PQ26644 PQ26789 PQ26792 PQ27517
PQ27956 PQ27959 PQ28334 PQ28617 PQ28642 PQ29185
PQ29289 PQ29570 PQ29694 PQ30170 PQ30707 PQ31254
PQ33640 PQ33689 PQ34164 PQ34772 PQ35402 PQ35598
PQ36567

Note: For APARs integrated into 5648-054 CICS Transaction Server 1.1.0, please see the 5648-054 Program Directory.

4.2 Service Level Information

There is no information for VSE/ESA 2.7.3 at this time.

4.3 Cumulative Service Tape

There is no cumulative service tape for VSE/ESA 2.7.3.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating VSE/ESA 2.7.3.

5.1 System Requirements

5.1.1 Operating System Requirements

VSE/ESA 2.7.3 is an operating system itself and does not require another operating system to run under. Anyway, VSE/ESA 2.7.3 can run as a guest system under the following z/VM systems:

z/VM Version 3 (or later), where VSE/ESA runs in 31-bit mode.

If VSE/ESA 2.7 is running under z/VM Version 3.1, please see the processor prerequisites as listed below in chapter 5.1.2.

If VSE/ESA 2.7 is running under z/VM Version 5, PTF UM31214 needs to be applied.

Note that VSE/ESA 2.7.3 runs with supervisor mode ESA only. If you are migrating from a pre VSE/ESA V2 system and running a supervisor with MODE-VM or MODE=VMESA, please see *VSE/ESA Planning*, SC33-6703, Chapter: Planning for Migration.

Additional information is available in

- *z/VM Version 3, Running Guest Operating Systems*, SC24-5950
- *z/VM Version 4, Running Guest Operating Systems*, SC24-5997
- *z/VM Version 5 Release 1, Running Guest Operating Systems*, SC24-6115
- *VSE/ESA Installation*, SC33-6704.

5.1.2 VSE/ESA Processor Support

VSE/ESA 2.7.3 supports ESA/390 **uniprocessors** and **multiprocessors** of the following IBM System/390 processor series:

IBM *e*Server zSeries 800
IBM *e*Server zSeries 890
IBM *e*Server zSeries 900
IBM *e*Server zSeries 990
IBM S/390 Multiprise 3000
IBM S/390 Parallel Enterprise Server - Generation 5
IBM S/390 Parallel Enterprise Server - Generation 6

VSE/ESA 2.7.3 provides "n-way" support for the multiprocessor models of these processor series through the VSE/ESA Turbo Dispatcher.

Note that VSE/ESA can run as a guest system under z/VM on all processors supported by z/VM.

Please also note that VSE/ESA 2.7.3 will not run under z/VM V3 on servers not listed above in this section.

5.1.3 Processor Details

Please refer to *VSE/ESA Planning SC33-6703* for an actual list or the processors supported by VSE/ESA.

5.1.4 Minimum System Configuration

VSE/ESA 2.7.3 requires the following minimum system configuration:

- 16MB of processor (real) storage.

  Since the processor storage available is usually much higher, this value is mainly of interest if VSE/ESA is running in LPAR mode or under z/VM.
- About 916MB (environment A) or about 1030MB (environment B) of disk device space on two volumes, DOSRES and SYSWK1, as outlined in *VSE/ESA Planning*, SC33-6703.
- A tape or cartridge unit supporting the distribution medium.
- A system printer. This may be a channel-attached or adapter-attached printer controlled by VSE/POWER or a local terminal printer controlled by CICS. A terminal printer should have a minimum speed of 300 lines per minute.
- A display station. This can be a terminal or programmable workstation of any supported type.
- The system console. This can be an integrated console or any display station supported as system console.

5.1.5 DASD Storage Requirements

Please see: *VSE/ESA Planning*, SC33-6703 for storage requirements.

6.0 Special Considerations

Information on VSE/ESA base and optional programs

6.1 Tips and Hints for VSE/ESA Base Programs

6.1.1 Supervisor Generation fails with VSE/ESA 2.7.2 and later

If it is required to generate an own supervisor with the base VSE/ESA 2.7.2, the supervisor generation could fail with the following message:

```
** ASMA044E  Undefined symbol - THININT
** ASMA435I  Record 2951 in PRD2.GEN1(SGSVCX)
```

This error is caused by a wrong level part OSADCL.A in PRD2.GEN1.

The correct level of this part is delivered with PTF UD52494 (APAR DY46075) catalogued into PRD1.MACLIB. Since in the standard LIBDEF chain PRD1.MACLIB is behind PRD2.GEN1, the wrong part in the generation library should be deleted or renamed.

6.1.2 VSE/ESA Fast Service Upgrade (FSU)

There will be no Fast Service Upgrade provided from releases prior to VSE/ESA 2.5.0. In any case, first run the prepare step, afterwards you may run the FSU installation. **Do not run a downlevel check** in any case of a release upgrade. For preparation tasks and additional space requirements, refer to the *System Upgrade and Service* and the *Planning* manual.

For electronic delivery (download from ShopzSeries), FSU as a service refresh on VSE/ESA 2.7 is possible using virtual tape support. In this case, the electronic medium can be used. For more information, see the VSE Install Instructions on the VSE/ESA Home Page:

`http://www.ibm.com/servers/eserver/zseries/os/vse`

and also the *System Upgrade and Service* manual.

After FSU is finished, you should update the CICS TS transaction security settings using the merge key (PF6) on the 'Dialog Definition Transaction Security' (fastpath 28). For additional post-FSU tasks refer to the *System Upgrade and Service* manual.

With VSE/ESA 2.7.3 the system default FCT settings are migrated into the CICS CSD file. After the FSU from VSE/ESA 2.5 message 'DFHAM4803F applid Install failed because an existing definition for file 'FILE' could not be deleted' is displayed. This is due to the fact that the SIT refers to FCT=SP and therefore the FCT definition is used instead of the CICS RDO definition. You should change the SIT to FCT=NO to avoid the message. CICS will use the CSD base file definition.

There are new applications and selection panels. After the FSU, upgrade the application profiles and selection panels as described in the manual.

6.1.3 SSL Client Authentication

Since VSE/ESA 2.7 it is possible to assign a VSE user ID to a client certificate and use the access rights of this user ID for the client. Therefore the service BSSDCERT was introduced. Details about BSSDCERT can be found at 'VSE/ESA e-business Connectors User's Guide' via the VSE Home Page.

For CWS/SSL see also 'CICS TS for VSE/ESA: Enhancements Guide' .

6.1.4 OS/390 Library - API

This library contains members for the OS/390 emulation environment. The members contained in this library are not intended for general use by VSE/ESA customers but may be required by vendor products. Vendors who have a need for these interfaces should contact VSE/ESA development by sending a note to VSE@de.ibm.com

6.1.5 Restriction of the MSHP TAILOR Function

The MSHP TAILOR function together with one of the following control statements

```
EXECute ASSEMBLY
EXECute ASSEMBLY,LNKEDT
EXECute ASSEMBLY,LIBR
```

for generating library members is no longer supported with VSE/ESA Version 2.

Message

```
0S05I PHASE ASSEMBLY NOT FOUND
```

will be issued if it is attempted to use this function. Starting with VSE/ESA 2.1, the DOS/VSE Assembler (ASSEMBLY) has been replaced by the High Level Assembler for VSE (ASMA90). The MSHP TAILOR function does not work with the High Level Assembler for VSE.

6.1.6 Implementation of LCDD for the 3494 Tape Library Dataserver

The Library Device Control Driver for VSE/ESA (LCDD) is included in VSE/ESA 2.7.

For LCDD commands please review GC33-6740, but be aware that LCDD is installed into IJSYSRS.SYSLIB and the sample startup JCL to tailor is in ICCF LIB 59.

6.1.7 Device Support Facilities (DSF 1.17)

For details on this release, please see the Program Directory of Device Support Facilities Release 17, GI11-1238, and the DSF User's Guide and Reference Release 17, GC35-0033, available on the VSE Softcopy Collection Kit CD: SK2T-0060 and the Softcopy Collection on DVD: SK3T-8348

Both publications are also available from the VSE Home Page at

`http://www.ibm.com/servers/eserver/zseries/os/vse/`

6.1.8 HLASM Support with ACF/SSP Version 4, Release 8

With ACF/SSP 4.7 and later, ACF uses the High Level Assembler for NCP and EP compiles. There are a couple of macros with the same name as for VSE Central Functions causing assembly errors. It is recommended to change the search chain for source members and put PRD1.MACLIB ahead of PRD2.COMM, the target library for ACF/SSP.

6.1.9 CICS/TS

IMPORTANT: Do not specify SEC=NO in the SIT, SEC=NO means no security checking in CICS/TS at all, that is no signon security and also no transaction security. SEC=YES by default will use the basic security manager (BSM) as external security manager.

CICS/TS SIT setting SVA=NO changed to SVA=YES. To allow CICS coexistence, exclude list IESVAEXC is used.

To activate this change in case of an FSU Release upgrade, the SIT has to be compiled and the CICS startup job has to be changed to reflect the exclude list.

6.1.10 SVA Setup

With VSE/ESA 2.7.3 LE Base and C-Runtime routines are loaded into the SVA. For details see *VSE/ESA Planning* SC33-6703. In order to make sure the related programs can also be used in CICS/TS, default setting of SVA in the SIT was changed from NO to YES.

6.1.11 Telnet Terminal Definition and Autoinstall

The default terminal logmodes used by TCP/IP Telnet do not have the extended data stream flag set. Without this flag set, file transfer using IND$file transaction will not work. It is recommended to use the logmodes with the query facility instead of the default modes. An example would be:

```
DEFINE TEL,ID=MYTEL,TAR=DBDCCICS,TERM=D1000,CO=20,LOGMODE=SP3272QN, -
       LOGMODE3=SP3272QN,LOGMODE4=SP3272QN,LOGMODE5=SP3272QN
```

If only extended data stream is wished, without the query facility, following definition for the Telnet daemon is appropriate:

```
DEFINE TEL,ID=MYTEL,TAR=DBDCCICS,TERM=D1000,CO=20,LOGMODE=SP3272EN, -
       LOGMODE3=SP3273EN,LOGMODE4=NSX32704,LOGMODE5=NSX32705
```

In any case, non SNA logmodes have to be specified. With the logmodes above, the logtab IESINCLM has to be specified in the VTAM application definition:

```
D100001 APPL  AUTH=(ACQ),MODETAB=IESINCLM
```

In the above samples, logmodes for terminal models 3, 4 and 5 are also added. In case of the query facility modes, the logmode can also be specified with the MENUE definition, in this case only one LOGMODE parameter is required: LOGMODE=SP3272QN.

6.1.12 DITTO

DITTO APAR PQ70313 increased the size of DITMOD PHASE by about 80K. With the changed phase, the online version of DITTO will not work, since interactive partition/class 'Y' is too small. Either increase the size of class 'Y' by 1 MB or change the profile to run DITTO in a lower partition by default. You may also load DITMOD into the SVA to avoid the problem.

Class Y is increased to 3MB in case of an initial installation. The FSU classtable needs to be updated as described.

6.2 Language Environment for VSE/ESA (LE/VSE 1.4.3)

6.2.1 LE/VSE 1.4.3

Except for the DBCS local component, all LE/VSE components are shipped as part of the VSE/ESA 2.7.3 base system.

The optional LE/VSE 1.4.3 DBCS locale component is shipped on the VSE/ESA 2.7.3 Extended Base tape.

For more information, please see the *VSE/ESA Release Guide* SC33-6718

The following table lists the new component identifiers (COMP IDs) and component level codes (CLCs).

Component-ID	CLC	Description
5686-066-32	75K	LE Common base, containing information written in: - Uppercase and mixed-case US English - Japanese NLF
5686-066-33	75L	LE C-specific base, containing information written in: - Uppercase and mixed-case US English - Japanese NLF
5686-066-34	75M	Optional LE DBCS Locale Component (see note below)
5686-094-03	7EW	LE COBOL-specific base and CICS, containing information written in: - Uppercase and mixed-case US English - Japanese NLF
5686-094-06	7EX	LE PL/I-specific base, containing information written in: - Uppercase and mixed-case US English - Japanese NLF

Notes:

1. For a summary of all the changes introduced with LE/VSE 1.4.3 (including changes contained in all re-published LE/VSE manuals), refer to the *VSE/ESA Release Guide*, SC33-6718. The manual is also available on the *VSE/ESA Softcopy Collection Kit*, SK2T-0060, as well as on the VSE Softcopy Collection on DVD: SK3T-8348.
2. The LE Base ($SVACEE) and C Runtime ($SVAEDCM) are pre loaded in the SVA. Please also see the *VSE/ESA Planning Guide*, SC33-6703.

   Please notice that option modules (e.g.) CEECOPT.PHASE and CEEDOPT.PHASE are included in $SVACEE. Changing run-time options for batch and CICS environment therefore requires a SVA re-load via SET SDL command from BG partition. Supplied skeletons CEEWCOPT and CEEWDOPT in ICCF library 62 will take this into consideration.

6.2.1.1 Modifying the Behavior of the COBOL Reusable Environment (optional):

The COBOL reusable environment behavior can be modified to control how program checks are handled that occur in a non-Language Environment conforming driver. The COBOL reusable environment is established with the RTEREUS run-time option or a call to IGZERRE INIT.

Use the IGZWARRE sample job to change the behavior of COBOL's reusable environment. You must modify the IGZRREOP macro invocation, depending on the function that you want.

To run with VS COBOL II and DOS/VS COBOL run-time compatibility mode (i.e., the user has control of program checks that occur when the COBOL reusable environment is dormant, resulting in an additional performance cost), use:

- IGZRREOP REUSENV=COMPAT

To run with optimum performance (i.e., Language Environment intercepts all program checks that occur when the COBOL reusable environment is dormant and converts them to CEE3321C/CEE3320C, resulting in improved performance), use:

- IGZRREOP REUSENV=OPT

See *LE/VSE Customization Guide* for related information.

6.2.2 Mixed Language Applications under LE/VSE (involving Assembler)

When creating or maintaining mixed language applications in an LE/VSE environment various supported techniques are available. In general the following macros and services can assist to ensure operating LE/VSE-conform.

- LE/VSE assembler macros (CEEENTRY/CEETERM)
- LE/VSE preinitialization service (CEEPIPI)
- LE/VSE C-specific macros (EDCPRLG/EDCEPIL)

Examples and further details not covered here are available on LE/VSE Home Page via

`http://www-1.ibm.com/servers/eserver/zseries/os/vse/le/samples.htm`

6.2.3 Summary of LE/VSE Customization and IVP-Jobs in IUI

This is a list of LE/VSE related jobs, pre-installed in ICCF library 62. These members can assist you in various verification and customization tasks.

ICCF Member	Purpose and Function
CEECCSD	LE/VSE base program definitions (CICS)
CEECOPT	LE/VSE CICS-wide default run-time options source

ICCF Member	Purpose and Function
CEEDOPT	LE/VSE batch-wide default run-time options source
CEEUOPT	LE/VSE application specific run-time options source
CEEWCCHA	Assemble and link sample user condition handler
CEEWCCSD	Skeleton for enabling LE/VSE program definitions (CICS)
CEEWCEXT	Identify abnormal termination exit to LE/VSE (CICS)
CEEWCOPT	Installation-wide default LE/CICS run-time options
CEEWCXIT	Installation-wide assembler user exit
CEEWDCD0	Card-device run-time LIOCS phase
CEEWDDU0	Diskette-device run-time LIOCS phase
CEEWDEL	Delete the system supplied LE/VSE level
CEEWDEXT	Identify abnormal termination exit to LE/VSE (batch)
CEEWDOPT	Installation-wide default LE/batch run-time options
CEEWDPR0	Printer device run-time LIOCS phase
CEEWDXIT	Installation-wide assembler user exit (batch)
CEEWHLLX	High level language user exit
CEEWINFG	Collect system status information related to LE/VSE
CEEWINFR	Summarize/condense information generated via CEEWINFG
CEEWIVP1	Verification of Assembler program interface
CEEWIVP2	Verification of LE/VSE COBOL Component
CEEWIVP3	Verification of LE/VSE PL/I Component
CEEWIVP4	Verification of LE/VSE C Component
CEEWIVP5	Verify the LE/VSE C Prelink Utility
CEEWMSVA	LE/VSE base routines eligible for putting into the SVA
CCEWUCHA	Sample user-written condition handler for CICS
CEEWUOPT	Application specific run-time options
CEEWUXIT	Application specific assembler user exit
CEEWWCHA	Assemble and link sample user condition handler
CEEXUOPT	Application-specific run-time options (only for debugging purposes)
EDCCCSD	LE/VSE C-specific program definitions (CICS)
EDCUTCSD	Optional codeset converters (CICS)
EDCWMSV1	LE/VSE C-specific routines eligible for SVA
IBMCCSD	LE/VSE PL/I-specific program definitions (CICS)
IBMSVA1	LE/VSE PL/I-specific routines eligible for SVA

ICCF Member	Purpose and Function
IGZCCSD	LE/VSE COBOL-specific program definitions (CICS)
IGZWARRE	Customize behavior of COBOL reusable environment
IGZWEPAC	COBOL COBPACK tailoring
IGZWEPCC	COBOL COBPACK tailoring
IGZWEPCO	COBOL COBPACK tailoring
IGZWESV1	LE/VSE COBOL-specific routines eligible for SVA
SKLE370	LE/VSE CICS CSD entries in GROUP(CEE)
CEETSCSD (*)	Sample code for USESVACOPY(YES) alteration, LE Base under CICS TS (pre-customized since VSE/ESA 2.6.0)
EDCTSCSD (*)	Sample code for USESVACOPY(YES) alteration, LE C under CICS TS (pre-customized since VSE/ESA 2.6.0)
IGZTSCSD (*)	Sample code for USESVACOPY(YES) alteration, LE COBOL under CICS TS (optional !)
IBMTSCSD (*)	Sample code for USESVACOPY(YES) alteration, LE PL/I under CICS TS (optional !)
EDCXYDLY (#)	Sample C/VSE code exploiting new LE/VSE Callable Service CEE5DLY (introduced with LE 1.4.2)
IGZTDLY (#)	Sample COBOL/VSE code exploiting new LE/VSE Callable Service CEE5DLY (introduced with LE 1.4.2)

Notes:

1. Skeleton SKLE370 is located in ICCF lib 59. It reflects a pre-customized status of the shipped CICS region (for VSE/ESA 2.4 (and later) this is a CICS TS based DBDCCICS). Hence there is no need to run SKLE370 unless LE/VSE definitions are modified or reestablished. For example this may apply when a second CICS region is built. Be aware that you need LE/VSE C-specific support in order to start CICS TS, respectively make use of Debug Tool for VSE/ESA (orderable feature of LE/VSE enabled compilers).
2. All members marked (*) are sample code and have been introduced with LE/VSE 1.4.2. They contain component specific DFHCSDUP ALTER commands for USESVACOPY(YES) enablement under CICS Transaction Server. Please be aware that this change has to go along with a CICS SIT parameter setting of SIT SVA=YES as well as load of corresponding $SVAxxxx loadlists. For details and possible impacts in a CICS coexistence environment please refer to CICS TS documentation and VSE/ESA Planning Guide, SC33-6703.

   For VSE/ESA 2.7.3 the delivered system is pre-customized with SIT SVA=YES:

   a. Making use of SVA loadlists $SVACEE (LE/VSE 1.4.3 Base) and $SVAEDCM (LE/VSE 1.4.3 C).

   b. Shipping USESVACOPY(YES) enabled CICS CSD definitions - via GROUP(CEE) - for LE/VSE 1.4.3 modules contained in these loadlists. There is no need to run CEETSCSD and EDCTSCSD on this level. All is present !

Additional information:

a. A set of Z-books (allowing direct DFHCSDUP input) was provided to support the preload issue. Actually members CEETICSD.Z and EDCTICSD.Z which are integrated in common base install and service upgrade procedures. The LE COBOL and LE PL/I specific Z-books (IGZTICSD and IBMTICSD) complement this set (but aren't preloaded).

6.2.4 Languages and CICS Transaction Server

CICS Transaction Server for VSE/ESA supports:

- All LE/VSE conforming compilers (C/VSE, COBOL/VSE, PLI/VSE)
- High Level Assembler with LE/VSE
- DOS/VS COBOL and VS COBOL-II (if relinked / using LE run-time)

CICS Transaction Server does not support:

- DOS PL/1 and C/370 applications (recompilation with LE-conforming compiler is required)
- RPG-II (not supported by LE, either)

6.2.5 Generating Applications Capable of Running Under LE/VSE

Be aware of the Interactive Interface support (Primary Library, OPTION 8, translate and compile ...) in order to build your applications.

This will ensure usage of language independent stubs such as CICS DFHELII, related options etc.

Note: Be aware that every CICS TS related transaction needs to be "security-enabled" prior to it's first execution. The Interactive Interface provides associated support via dialog 'Define Transaction Security' fastpath 28.

6.2.6 AMODE 24 Applications in a LE/VSE-initialized CICS Environment

Under CICS, the supplied default LE/VSE run-time options ALL31(ON) and STACK(4K,4K,ANYWHERE,KEEP) are present.

These settings improve performance and storage utilization for a CICS region running AMODE31 programs or applications that use CICS services to invoke AMODE24 programs from AMODE31 applications. This is applicable unless AMODE31 programs dynamically call AMODE24 programs (which are not automatically enabled for AMODE switching). In such cases a setting off ALL31(OFF) and STACK(4K,4K,BELOW,KEEP) is recommended/required. You may wish to implement it by use of an appropriate CEEUOPT.OBJ linked with an application.

Note: LE/VSE Customization Guide, SC33-6682 Chapter 2 shows an example on how to build a CEEUOPT (application specific run-tune option module).

Detailed information about run-time option changes are also available in *IBM LE/VSE R4 Customization Guide*, SC33-6682.

6.2.7 Run-Time Options to Use with Caution

You may find these tips valuable in your environment:

- Use LE/VSE run-time option **TERMTHDACT(UADUMP)** for diagnosis in a batch environment. It generates a VSE partition dump and a corresponding LE/VSE dump. For problem determination under both CICS/VSE and CICS TS it is recommended to specify TERMTHDACT(DUMP).

  Please also be aware that use of TERMTHDACT (UADUMP) with database managers will bypass backout processing that may be required after application failure. Any files still open at point of failure will not be closed. Additional reference will be available via Info APAR II 11817.

- The default run-time option **HEAP(..,ANYWHERE,..)** is important because of the correlation to COBOL compile options DATA(24/31), RMODE and RENT. Be aware that there is a 64k limit for CICS/VSE GETMAIN storage requests below the 16MB line. Avoid HEAP(BELOW) it ignores the COBOL DATA(xx) compile setting for location of dynamic data areas (such as working storage) !

- Setting **TRAP(ON,MAX)** ensures LE/VSE's integrity when handling abnormal conditions. TRAP(OFF) should only be activated on request of IBM service personal.

- The **3rd parameter** of the **STORAGE** run-time option can be of importance in PL/I migration environments. It deals with PL/I automatic variable storage and provides an initialization service in case the programming style did not consider start values for variables. However the associated performance impact can be significant (dependent on how the application is coded). Since it deals with the LE/VSE stack it can degrade overall run-time performance for all languages ! Therefore a setting of STORAGE(00,NONE,**00**,xk) should be used very strictly, respectively application specific (e.g. via tailored CEEUOPT.OBJ or JCL PARM override).

6.2.8 CICS/VSE Table Parameter Settings (optional environment)

Please ensure that you update the following CICS table(s) if you intend to run COBOL/VSE, VS COBOL II, DOS/COBOL or PLI/VSE programs under control of LE/VSE:

CICS/VSE System Definition Table (SIT):

- ***COBOL2=NO***

  LE/VSE will automatically provide you with the necessary run-time support for VS COBOL II.

- ***PL1=NO***

  This is the recommended setting in order to indicate to CICS/VSE that LE/VSE is going to provide related run-time support. In case of LE/VSE this must be a PLI/VSE compiled program unit. On the contrary PL1=YES assumes involving the obsolete DOS PL/I 1.6.0 run-time library which went out-of-service 06/30/1997.

CICS/VSE Processing Program Table (PPT): (VS COBOL II only)

If there are VS COBOL II run-time PPT entries

- Do ***not*** include copy-book ***IGZ9PPT.A*** in your PPT

- Recompile your CICS PPT in order to update control information
- Recycle CICS via ***cold-start***. This should be done once in conjunction with topic "Member SKLE370 provides LE/VSE support for CICS/VSE".
- If there are CICS CSD entries for VS COBOL II modules IGZCPAC & IGZCPCC (instead of macro definitions) - ensure they are removed

If you plan to use VS COBOL II with the LE/VSE run-time under CICS/VSE, you should observe the following when modifying your CICS/VSE PPT:

- Do ***not*** include the VS COBOL II copy-book, ***IGZ9PPT.A*** in your PPT. Instead include the copy-book, ***IGZCPPT.A***, supplied in PRD2.SCEECICS.
- Recompile your CICS PPT
- Recycle CICS via ***cold-start***

6.2.9 CICS Translator Options Required for COBOL Applications

For COBOL/VSE or VS COBOL II online programs (VS COBOL II must at least be relinked to involve LE/VSE run-time) one of the following CICS/VSE or CICS TS translator options must be used. This will apply to mainline programs as well as to COPY-books that may be translated separately.

- XOPTS(**COBOL2**) was a minimum setting for VS COBOL II type programs, preferable matching the ANSI74 standard. It may also be used in a COBOL/VSE context.
- XOPTS(**ANSI85**) implies COBOL2 and can also be applicable for COBOL/VSE or VS COBOL II compiled program units. However these settings are appropriate in case the application exploits ANSI85 functionality such as nested programs.
- XOPTS(**COBOL3**) is a CICS TS only translator option which you may wish to use as an indicator for a COBOL/VSE or SAA AD/Cycle COBOL/370 cross compile program unit. It implies ANSI85 and COBOL2. By the way CICS TS doesn't support the SIT COBOL2 parameter since the run-time must be LE/VSE. Please refer to CICS Transaction Server documentation for more details.

Note: Sometimes VS COBOL II programs, translated without either of these CICS translator options, executed without error with the former VS COBOL II run-time. However such programs will not execute successfully under LE/VSE and are likely to use the old and obsolete COBOL specific CICS stub DFHECI.

6.2.10 LE/VSE Related Service via Ordering PSP Bucket

Please use VSE/ESA specific PSP buckets for upgrading LE/VSE. This package is named "VSEESA27x" (where x is the modification level). It can be ordered via IBM service teams. The related subset for LE/VSE 1.4.3 is named "IBMLANG/75K". Of further interest can be CICS subsets ensuring synchronization with LE/VSE.

6.2.11 LE/VSE Return Codes to CICS

The following msg and return code might be experienced in VSE/ESA 2.7 environments in case the CEECOPT.A (LE/CICS option source) is assembled without the CEELOPT macro appendix.

DFHAP1200 DBDCCICS A CICS request to the Language Environment for VSE/ESA has failed. Reason code '0011060'.

The event indicates that an invalid CEECOPT.PHASE module was used for LE/CICS initialization. Simply take the system provided CEEWCOPT skeleton and regenerate CEECOPT.PHASE for related relief.

Note: This setup problem is outlined via MSG DFH1568 in CICS/VSE coexistence environments.

6.2.12 CLER Usage in multiple CICS environments:

This newly provided LE/CICS run-time option tailoring transaction (VSE/ESA 2.7) is intended for dynamic, temporary overrides in a single, active CICS subsystem. As such CLER customization will not take effect in other CICS subsystems nor retain after CICS recycling.

LE/CICS run-time options that are commonly shared between multiple CICS subsystems (referring to the same CEECOPT module) are better tailored via customizing CEEWCOPT skeleton and CEECOPT.A option source.

6.2.13 LE/VSE Documentation Links

- `http://www.ibm.com/servers/eserver/zseries/os/vse/le/books.htm`

  The link also provides a 'doc sorted by LE/VSE release' view.
- *LE/VSE V1R4 Programming Reference*,SC33-6685
- *LE/VSE V1R4 Customization Guide*,SC33-6682
- *LE/VSE V1R4 Programming Guide*,SC33-6684
- *LE/VSE V1R4 Debugging & Run-Time Message Guide*,SC33-6681
- *LE/VSE V1R4 C Run-Time Programming Guide*,SC33-6688

are available on the VSE/ESA Softcopy Collection Kit CD-ROM: SK2T-0060 as well as on the VSE Softcopy Collection on DVD: SK3T-8348, and placed into the VSE 2.7 bookshelf.

6.2.14 LE/VSE Support for COBOL/VSE

APAR PQ74201 has been introduced to support COBOL/VSE documentation and message updates. This also comprises updates to LE/VSE 1.4.1 and LE/VSE 1.4.2. For details please see the APAR description available in RETAIN or via the VSE/ESA service links on the web.

6.3 TCP/IP for VSE/ESA

With VSE/ESA 2.7.3 APAR PQ79563 (aka TCPIP15D) was installed as the current service level for TCP/IP for VSE/ESA.

The functional update of the TCP/IP for VSE/ESA 1.4 or 1.3 program (IBM program number 5686-A04) to release level 1.5 was introduced with APAR PQ66906. This APAR is included in VSE/ESA 2.7.3

The documentation for TCP/IP 1.5 for VSE/ESA is available on the VSE/ESA 2.7.3 Softcopy Collection either on CD-ROM (SK2T-0060) or DVD (SK3T-8348).

On the Softcopy Collection Kit you will find 6 books with the original program description from Connectivity Systems Incorporated, the provider of the TCP/IP 1.5 for VSE program, plus one manual describing the setup of the TCP/IP for VSE/ESA program IBM is providing. The books are as follows:

- TCP/IP for VSE/ESA - IBM Program Setup and Supplementary Information
- TCP/IP for VSE 1.5 Installation Guide
- TCP/IP for VSE 1.5 User's Guide
- TCP/IP for VSE 1.5 Operator Commands
- TCP/IP for VSE 1.5 Programmer's Reference
- TCP/IP for VSE 1.5 Messages
- TCP/IP for VSE 1.5 Optional Products

The manual 'TCP/IP for VSE/ESA - IBM Program Setup and Supplementary Information' (SC33-6601) replaces the former 'TCP/IP for VSE/ESA User's Guide'. All the available documentation for the TCP/IP for VSE/ESA 1.5 program is described in that manual in Chapter 1.

The documentation on CD-ROM and DVD is available in PDF format only. You can use the Adobe Acrobat Reader to view and print the documentation. If you do not already have an Acrobat Reader installed, or if you need information on installing and using an Acrobat Reader, see the Adobe Web site at

```
http://www.adobe.com
```

You will find the documentation for this new release of TCP/IP for VSE/ESA also on the VSE Home Page at

```
http://www.ibm.com/servers/eserver/zseries/os/vse/
```

For a detailed description of

- How to install TCP/IP Keys
- The TCP/IP demo mode
- Dependencies when you are using a license from Connectivity Systems.

please see the manual *TCP/IP for VSE/ESA IBM Program Setup and Supplementary Information* SC33-6601.

6.4 Installation Hints and Tips

6.4.1 Installation of VSE Connector Client

For installation details, please refer to the following Internet page:

`http://www.ibm.com/servers/eserver/zseries/os/vse/support/vseconn/conmain.htm`

6.4.2 Installation of the Java-Based TCP/IP for VSE/ESA Configuration Dialog

For installation details, please refer to the following internet page:

`http://www.ibm.com/servers/eserver/zseries/os/vse/support/vseconn/conmain.htm`

6.4.3 CWS Client Authentication

With VSE/ESA 2.7, the CICS Web Support (CWS) supports SSL Client Authentication. The Interactive Interface now includes a new dialog and various service functions that can be used with CWS to implement client authentication and manage client certificates.

For more information, check the following books:

- *CICS Transaction Server for VSE/ESA V1R1 Enhancements Guide*, GC34-5763.
- *VSE/ESA e-business Connectors User's Guide*, SC33-6719

and the VSE/ESA Internet page at

`http://www.ibm.com/servers/eserver/zseries/os/vse/`

6.5 Publication Updates

6.5.1 Accessing VSE/ESA Performance Documentation

You can receive up-to-date performance information for VSE/ESA from the Internet or from the VSE/ESA Softcopy Collection Kit either on CD-ROM (SK2T-0060) or on DVD (SK3T-8348).

From the internet, you get these documents via the VSE/ESA Home Page

`http://www.ibm.com/servers/eserver/zseries/os/vse/library/vseperf.htm`

On the CD-ROM Collection, all the performance documents are on disc 3.

The following files or documents are available, all of them are in PDF format (ADOBE Acrobat Reader):

FILE	DOCUMENT TITLE
VE13PERF.PDF	IBM VSE/ESA 1.3/1.4 Performance Considerations
VEVMPERF.PDF	IBM VSE/ESA VM Guest Performance Considerations
VE21PERF.PDF	IBM VSE/ESA V2 Performance Considerations
VE21TDP.PDF	IBM VSE/ESA Turbo Dispatcher Performance
VEIOPERF.PDF	IBM VSE/ESA I/O Subsystem Performance Considerations
VEPERACT.PDF	IBM VSE/ESA Hints for Performance Activities
VETCPPER.PDF	VSE/ESA TCP/IP Performance Considerations
VESORTP.PDF	IBM DFSORT/VSE Performance Considerations
VECICSTS.PDF	IBM VSE/ESA CICS Transaction Server Performance Considerations
VE25PERF.PDF	IBM VSE/ESA 2.5 Performance Considerations
VE26PE00.PDF	IBM VSE/ESA 2.6 and 2.7 Performance Considerations
VETP1400.PDF	IBM VSE/ESA TCP/IP 1.4 and 1.5 Performance Considerations

6.6 Tips and Hints for VSE/ESA Optional Programs

6.6.1 VisualAge Generator Server runtime

The documentation delivered with Visual Age Generator Server 1.1.0 for VSE/ESA describes the setup for a VSE/ESA 2.4 system. So here are the changes that are necessary to run the Generator Server for VSE/ESA on a VSE/ESA 2.6 system (and later) with CICS TS 1.1.1:

The following is a sample to setup VAGEN for DBDCCICS

EZEPRIN needs to be a standard system label, because CICS TS 1.1.1 doesn't work with temporary labels (DLBL statements) in the JCL

Description: The label EZEPRIN is defined in member ELAVCICS.A and usually you have to add the label to the CICS startup job, but the temporary 'DLBL EZEPRIN' statement doesn't work and the CICS startup fails. If you insert the label into the standard system label area (see job ADDLAB below), than the CICS startup will run successfully. The ASSGN statement is the only one which needs to be placed in CICS startup job.

FCT entries are now online

Description: The FCT entries are migrated to CSD and now online, they should now be defined via RDO. To migrate the old FCT entry in ELAFCT, assemble DFHFCTSP (with inserted ELAFCT) and change the job SKCSDFIL (library 59), simply add the line 'MIGRATE TABLE(DFHFCTSP)' at the end of the DFHCSDUP part after the ADD GROUP statement (see the following sample for 3380 or CKD devices below).

Run the job and the table will be updated and migrated to the new format.

```
Job ADDLAB:

* $$ JOB JNM=ADDLAB,CLASS=0,DISP=L,PRI=3
// JOB ADDLAB
// OPTION STDLABEL=ADD
// DLBL ELACFIL,'ELA110.ELACFIL',,VSAM,CAT=IJSYSCT
// DLBL EZEPRIN,'USER.EZEPRINT.FILE',0,SD
// EXTENT SYS025,SYSWK3,1,0,5910,75
/*
/&
* $$ EOJ
```

```
Part of job SKCSDFIL

// EXEC DFHCSDUP,SIZE=600K     UPDATE CICS CSD VSAM FILE
  DELETE GROUP(ELAGRP)
* $$ SLI MEM=ELAGRP.A,S=(PRD2.DBASE)
* $$ SLI MEM=ELAGENU.A,S=(PRD2.DBASE)
  ADD GROUP(ELAGRP) LIST(VSELIST)
  DELETE GROUP(DFHFCTSP)
  MIGRATE TABLE(DFHFCTSP)
```

6.6.2 DOS/VS COBOL withdrawal

DOS/VS COBOL is no longer available as individual product. DOS/VS COBOL customers who wish to run it under VSE/ESA 2.3 (with CICS/VSE 2.3) and later may refer to APARs PQ00970 and PQ00971. These APARs provide assistance in migrating the DOS/VS COBOL product (members+ MSHP service information) from an existing operating environment to VSE/ESA 2.3 and later.

7.0 Installation Instructions

7.1.1 Installing from CD-ROM and through e-delivery

Please see the *VSE Installation Guide*, SC33-6704.

7.1.2 ICKDSF Considerations when placing the VTOC on Large DASDs

For ECKD devices containing more than 64K tracks, there are special considerations for VTOC placement. The highest address that can be referenced as a VTOC track must be 64K-1. Because of this, the entire VTOC must reside within the first 64K tracks, that is, the VTOC must end before cylinder 4369 (X'1111') head 1. This is especially important when using the DOSVTOC(END) parameter. Its usage can result in error message **ICK21002I INVALID VTOC ORIGIN SPECIFICATION**

For further details please see the ICKDSF R17 User's Guide and Reference, GC35-0033.

7.1.3 VSE/VSAM on Large DASDs

VSE/VSAM supports Large DASDs up to a capacity of 10017 cylinders (150255 tracks). This limit corresponds to the capacity of an IBM 3390 Model 9.

Please see *VSE/ESA Planning*, SC33-6703 for storage requirements.

8.0 VSE/ESA 2.7.3 Install Logic

There is no further information for VSE/ESA 2.7.3

9.0 Reader's Comments

Program Directory for VSE/Enterprise Systems Architecture Version 2 Release 7.3

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

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

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

	Satisfaction					
Ease of product installation	1	2	3	4	5	N
Contents of program directory	1	2	3	4	5	N
Installation Verification Programs	1	2	3	4	5	N
Time to install the product	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
Ease of getting the system into production after installation	1	2	3	4	5	N

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__ Package

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  __ SystemPac

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