Program Directory for

VSE/ESA Version 2

Version 2 Release 7.0

Program Number 5690-VSE

Document Date: March 2003

GI11-2681-00

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 March 2003, applies to VSE/Enterprise Systems Architecture Version 2 (VSE/ESA 2.7.0) Release 7.0 , Program Number 5690-VSE for the following:

Feature Numbers	Content	System Name
2198	VSE/ESA V2 English Base on 3480 Cartridge compressed	VSE/ESA V2
2199	VSE/ESA V2 English Base on 3590 Cartridge	VSE/ESA V2
2400	VSE/ESA V2 German Base on 3480 Cartridge compressed	VSE/ESA V2
2404	VSE/ESA V2 German Base on 3590 Cartridge	VSE/ESA V2
2598	VSE/ESA V2 Spanish Base on 3480 Cartridge compressed	VSE/ESA V2
2599	VSE/ESA V2 Spanish Base on 3590 Cartridge	VSE/ESA V2
2090	VSE/ESA V2 Japanese Base on 3480 Cartridge compressed	VSE/ESA V2
2089	VSE/ESA V2 Japanese Base on 3590 Cartridge	VSE/ESA V2

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Summary of Changes

The following list summarizes VSE/ESA 2.7.0 content changes compared to VSE/ESA 2.6.2

With this release, we have introduced the **compressed** 3480 cartridge which replaces the previous 3480 **UN**compressed cartridge. With this change, the VSE/ESA Version 2 BASE fits on **ONE** volume.

VSE/ESA BASE PROGRAMs

- 5686-066 VSE Cental Functions 6.7 - new release
- 5686-094 LE for VSE 1.4.3 - new modification
- 5686-A04 TCP/IP for VSE/ESA 1.5 - new release

VSE/ESA OPTIONAL PROGRAMs

- 5686-066 VSE CF IXFP/Snapshot 6.7 - new release
- 5686-A06 MQSeries for VSE/ESA 2.1.2 - new modification

For functional enhancements of VSE/ESA 2.7.0, please see the updated

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

and on the VSE/ESA home page: http://www.IBM.com/servers/eserver/zseries/os/vse

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 2.7.0. 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 2.7.0.
- 3.0, “Program Support” on page 31 describes the IBM support available for VSE/ESA 2.7.0.
- 4.0, “Program and Service Level Information” on page 33 lists the APARs (program level) and PTFs (service level) incorporated into VSE/ESA 2.7.0
- 5.0, “Installation Requirements and Considerations” on page 37 identifies the resources and considerations for installing and using VSE/ESA 2.7.0.
- 7.0, “Installation Instructions” on page 57 provides detailed installation instructions for VSE/ESA 2.7.0.
- 8.0, “VSE/ESA 2.7.0 Install Logic” on page 59 provides the install logic for VSE/ESA 2.7.0.

Before installing VSE/ESA 2.7.0, read 3.1, “Preventive Service Planning” on page 31. 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 2.7.0 is 5690-VSE.

The program announcement material describes the features supported by VSE/ESA 2.7.0. 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 2.7.0. 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 2.7.0 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
- `DELDB2` to delete DB2 Server V7.1 and DB2 Data Propagator
- `DELDB272` to delete DB2 Server V7.2
- `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/ESA 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** consists of the following 3 volumes:

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

distributed on either 3480 Cartridges (compressed), or 3590 Cartridges.

Figure 1 describes the **MEDIA and VOLUMES** of the VSE/ESA BASE. These volumes contain all the programs and data needed for installation. VSE/ESA 2.7.0 is installed using the Maintain System History Program (MSHP).

Figure 2 on page 7 describes the **BASE PRODUCTS and COMPONENTS** of the VSE/ESA BASE.

Figure 3 on page 9 describes the **FILES** of the VSE/ESA Base.

See 7.0, “Installation Instructions” on page 57 for more information about how to install the program.

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/ESA2.7.0-xx VSE/ESA2.7.0XBASE
3590 Cartridge	2199,2404,2599,2089	1 2	VSE/ESA2.7.0-xx VSE/ESA2.7.0XBASE

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 Extended Base**

2.2.2 VSE/ESA BASE - PRODUCTS / COMPONENTS

Figure 2 describes the contents of the VSE/ESA 2.7.0 Base.

Figure 2 (Page 1 of 2). VSE/ESA 2.7.0 - BASE Products

Product Description	Program Number	Component-Identifier	CLC
VSE/ESA 2.7.0 (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 2.7.0 - 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

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/ESA2.7.0-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 2.7.0 EXTENDED BASE Products / Components.

Figure 4. VSE/ESA 2.7.0 - 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 V7.2 Server f.VSE/ESA 3)	5697-F42	5697F4201	2NN
DB2 V7.1 DPROPR	5697-F42	5697F4201	1NO

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 7.2 (5697-F42), this product is partially packaged and delivered as a key-enabled component of the VSE/ESA 2.7.0 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 packaged onto and always distributed with the VSE/ESA Extended Base Tape are DB2 Server for VSE and Data Propagator Capture for VSE. The DB2 Server for VSE Help Tape is always distributed on a separate tape. The DB2 optional features are packaged as optional products and distributed on the VSE/ESA optional product 'stacked tape' if they were ordered.

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, 3590 cartridge or CD-ROM.

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 5 describes the media.

Figure 5. 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 2.7.0, that are available as hardcopy publications. The VSE Softcopy Collection Kit SK2T-0060, which is distributed with every VSE/ESA order, provides further documentation to all available VSE/ESA base and optional programs. Those publications, which have been added or updated with VSE/ESA 2.7.0 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 shipment. Therefore, your shipment may NOT CONTAIN ALL publications shown in the the following lists. For additional copies, contact your IBM representative.

2.4.1 VSE/ESA Base - Basic Publications

Figure 6. VSE/ESA Basic Publications

Publication Title	Form Number
VSE/ESA Licensed Progr. Specifications	GC33-6700
VSE/ESA System Upgrade & Service	SC33-6702 U
VSE/ESA Planning	SC33-6703 U
VSE/ESA Installation	SC33-6704 U
VSE/ESA Administration	SC33-6705
VSE/ESA Release Guide	SC33-6718 U
VSE/ESA Softcopy Collection Kit	SK2T-0060 U
VSE/ESA *e*-business Connectors User's Guide	SC33-6719 U
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 7 identifies the basic program publications for CICS Transaction Server

Figure 7 (Page 1 of 2). Basic Publications of CICS Transaction Server 5648-054

Publication Title	Form Number
CICS-supplied Transactions	SC33-1655
Customization Guide	SC33-1652
Migration Guide	GC33-1646
System Definition Guide	SC33-1651
Operations and Utilities GD	SC33-1654
Release Guide	SC33-1645
Program Directory	GI10-2508

Figure 7 (Page 2 of 2). Basic Publications of CICS Transaction Server 5648-054

Publication Title	Form Number
Licensed Programming Specs	GC34-5464
Enhancements Guide	GC34-5763

Note: CICS/VSE 2.3 publications are provided as softcopy only on the VSE/ESA Softcopy Collection Kit SK2T-0060.

Figure 8. Basic Publications of LE/VSE

Publication Title	Form Number
LE Licensed Programming Specs	GC33-6683

Figure 9. Basic Publications of TCP/IP for VSE/ESA

Publication Title	Form Number
TCP/IP Licensed Programming Specs	GC33-6594

Figure 10. Basic Publications of DITTO/ESA

Publication Title	Form Number
DITTO/ESA Install and Customization Guide	GC26-9598
DITTO/ESA Licensed Programming Specs	GH19-8223
DITTO/ESA Program Directory	GI10-0426

Figure 11. Basic Publications of ACF/VTAM 4.2.0

Publication Title	Form Number
Network Implementation Guide	SC31-6494
VTAM Operation	SC31-6495
VTAM Resource Definition Reference	SC31-6498
Program Directory	GI10-8112
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 tapes or cartridges contain all of 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.

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 3745	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 / NLS
5668-719	X.25 NPSI	2.1.0	
5668-723	GDDM-IVU	1.1.3	
5668-738	ACF/NCP 3745/3720	5.4.0	
5668-801	GDDM-IMD	2.1.3	
5668-812	GDDM-PGF	2.1.3	
5668-854	ACF/NCP 3725	4.3.1	
5686-011	CICSVR/VSE	1.2.0	
5686-040	PSF/VSE	2.2.1	with Base 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 3720/3745	3.4.0	
5688-035	X.25 NPSI 3745	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-B88	DB2 VSAM Transparency	5.1.0	
5697-F42	DB2 V7 Server for VSE	7.2.0	NLV JPN, DEU, FRA
	Control Center	7.1.0	
	Data Restore	7.1.0	
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 3720/3745	1.9.0	

5735-XXB	EP 3745	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/CICS	1.5.0	*)
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	

Note: SDF/CICS (1.5.0) will only work with the old CICS macro commands of CICS/VSE V2 (5686-026).

2.5.2 Optional Programs - List of Product Identifiers

The following Optional Programs are available with VSE/ESA 2.7.0. 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
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)
NPSI/3725..2.1.0	566871901	B60	719B60	
GDDM-IVU...1.1.3	566872301	1FF	7231FF	
NCP/3745...5.4.0	566873801	CH0	738CH0	
NCP/UT-2...5.4.0	566873801	CH1	738CH1	
NCP/UT-2.5.5.4.0	566873801	CH2	738CH2	
NCP/UT-3...5.4.0	566873801	CH3	738CH3	
NCP/UT-4...5.4.0	566873801	CH4	738CH4	
NCP/UT-5...5.4.0	566873801	CH5	738CH5	
GDDM-IMD...2.1.3	566880101	1FG	8011FG	
GDDM-PGF...2.1.3	566881201	1F5	8121F5	
NCP/3725...4.3.1	566885401	D34	854D34	
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	4)
COB.BASE...1.1.0	568606800	18M	06818M	
COB.ENU....1.1.0	568606801	18N	06818N	
COB.JPN....1.1.0	568606802	18O	06818O	
DTVSE.BASE.1.1.1	5686A0200	6G8	A026G8	2)
DTVSE.JPN..1.1.1	5686A0201	6G9	A026G9	2)
PLI.VSE....1.1.0	568606900	18P	06918P	
DTVSE.BASE.1.1.1	5686A0200	6G8	A026G8	2)
DTVSE.JPN..1.1.1	5686A0201	6G9	A026G9	2)
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	
NPSI/3745..3.4.0	568803501	CJ0	035CJ0	
NPSI/UT-2..3.4.0	568803501	CJ1	035CJ1	
NPSI/UT-2.53.4.0	568803501	CJ2	035CJ2	
NPSI/UT-3..3.4.0	568803501	CJ3	035CJ3	
NPSI/UT-4..3.4.0	568803501	CJ4	035CJ4	
NPSI/UT-5..3.4.0	568803501	CJ5	035CJ5	
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	
DB2VSE.XTV.5.1.0	5697B8800	514	B88514	
DB2/NLV....7.2.0	5697F4201	2NN	F422NN	
ASN/VSE....7.2.0	5697F4201	1NO	F421NO	
DB2CC......7.1.0	5697F4206	1NQ	F421NQ	
DB2VSE.RCV.7.2.0	5697F4205	1NP	F421NP	
RPGII......1.3.0	5746RG100	O42	RG1O42	
DFSORT/VSE.3.4.0	5746SM310	34A	SM334A	
VSE/ACLR...1.2.1	5746XE700	H06	XE7H06	
SDF/CICS...1.5.0	5746XXT00	B27	XXTB27	
SDF/JAPAN..1.5.0	5746XXT10	B28	XXTB28	
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/3745....1.9.0  5748EP115  CH6  EP1CH6        3)
EP_R14....1.14.0  5748EP115  4E1  EP14E1        3)
```

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. The program number of EP/3725 (5735-XXB) differs from the COMPONENT-ID.
4. For installation and setup details of IXFP/Snapshot, please refer to the *VSE/ESA Planning Guide* SC33-6703.

2.5.3 Optional Programs - Program Tapes/Program Cartridges

All ordered Optional Programs will be delivered on stacked tape or cartridge. 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 2.7.0 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 tape label of the stacked tape/cartridge is:
VSE/ESA 2.7.0 OPT x OF y

2.5.4 Optional Programs - File Content

Figure 12 describes the file content of the Optional Program Tape

Figure 12. Program Tape - 'VSE/ESA 2.7.0 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 2.7.0 Optional Programs, sorted by program number.

Figure 13. BASIC Documentation of ACF/NCP 3745 5648-063 7.8.1

Publication Title	Order/Form Number
NCP Licensed Programming Specs	GC31-6226
NCP, SSP & EP Resource Def. Guide	SC31-6223
NCP, SSP & EP Resource Def. Refer.	SC31-6224
NCP V7R8 Migration Guide	SC30-4024
Planning for NetView, NCP & VTAM	SC31-8063
NCP...Today, Magazine	G325-3426
Program Directory	GI10-6623
Memo to Licensees	GI10-6628

Figure 14. BASIC Documentation of DITTO/ESA f.VM 5648-099 1.3.0

Publication Title	Order/Form Number
Program Directory	GI10-0438

Figure 15. BASIC Documentation of VisualAge Generator Server 5648-B02 1.2.0

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

Figure 16. BASIC Documentation of AFP Font Collection 5648-B33 2.1.1

Publication Title	Order/Form Number
AFP Font Collection LPS	G544-5634
AFP Font Summary	S544-5633
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 17. BASIC Documentation of X.25 NPSI 5668-719 2.1.0

Publication Title	Order/Form Number
X.25 NCP PSI V2 General Information	GC30-3500
X.25 NCP PSI V2 Planning & Installation	SC30-3501
X.25 NCP PSI V2 Host Programming	SC30-3503
X.25 NCP PSI V2 Licensed Programming Specs	GC30-9616
NCP and Related Products: Directory of Progr.Interfaces for Customers	GC31-6202
Program Directory	n/a

Figure 18. BASIC Documentation of GDDM-IVU 5668-723 1.1.3

Publication Title	Order/Form Number
Image View Utility	SC33-0479
Program Directory	GI11-1586

Figure 19. BASIC Documentation of ACF/NCP for 3745 5668-738 5.4.0

Publication Title	Order/Form Number
Licensed Program Specifications	GC30-9607
NCP Migration Guide	SC31-6204
NCP, SSP & EP Resource Definition Guide	SC30-3447
NCP, SSP & EP Resource Definition Reference	SC30-3448
Planning and Reference for NetView, NCP, and VTAM	SC31-6102
Program Directory	GI11-2027

Figure 20. BASIC Documentation of GDDM-IMD 5668-801 2.1.3

Publication Title	Order/Form Number
Interactive Map Definition	SC33-0338
Program Directory	n/a

Figure 21. BASIC Documentation of GDDM-PGF 5668-812 2.1.3

Publication Title	Order/Form Number
Interactive Chart Utility	SC33-0328
Vector Symbol Editor	SC33-0330
Application Program Guide	SC33-0913
Programming Reference	SC33-0333
TNL: Programming Reference	SN33-6436
OPS Users Guide	SC33-1776
Program Directory	GI10-9657

Figure 22. BASIC Documentation of ACF/NCP for 3725 5668-854 4.3.1.

Publication Title	Order/Form Number
Licensed Program Specifications	GC30-9583
NCP, SSP & EP Resource Definition Guide	SC30-3349
NCP, SSP & EP Resource Definition Reference	SC30-3254
NCP Migration Guide	SC30-3252
Network PPs: Planning	SC30-3351
Network PPs: General Information	GC30-3350
NCP and Related Products: Directory of Progr. Interfaces for Customers	GC31-6202
Generation & Loading Guide	SC30-3348
Messages and Codes	SC30-3169
Network PPs: Storage Estimates	SC30-3403
Program Directory	GI10-9624

Figure 23. BASIC Documentation of CICSVR/VSE 5686-011 1.2.0

Publication Title	Order/Form Number
Licensed Program Specifications	GC26-7323
User's Guide and Reference	SC26-7321
Messages & Problem Determination	SC26-7322
Program Directory	GI10-4528
Memo to Licensees	GI10-4534

Figure 24. BASIC Documentation of PSF/VSE 5686-040 2.2.1

Publication Title	Order/Form Number
AFP: Printer Summary	G544-3135
MODCA Reference	SC31-6802
Printer Information	G544-3290
Application Programmer's GD	S544-3666
Licensed Programming Specifications	G544-3667
System Programmer's Guide	S544-3665
Messages & Codes	S544-3664
AFP Font Summary	G544-3810
API Progr. Guide and Reference	S544-3872
API COBOL Language	S544-3873
Program Directory for 2.2.1	GI10-0203

Figure 25. BASIC Documentation of GDDM/VSE 5686-057 3.2.0

Publication Title	Order/Form Number
General Information	GC33-0866
Base Application Programming Guide	SC33-0867
Base Application Programming Reference	SC33-0868
Messages	SC33-0869
Diagnosis	SC33-0870
System Customization & Administration	SC33-0871
Users Guide	SC33-0875
Series Licensed Progr Specifications	GC33-0876
Using Image Symbol Editor	SC33-0920
Program Directory	GI11-1528

Figure 26. BASIC Documentation of ACF/SSP f. VSE 5686-064 4.8.1

Publication Title	Order/Form Number
NCP, SSP & EP Gen and Load Guide	SC31-6221
NCP, SSP & EP Messages & Codes	SC31-6222
Licensed Program Specs SSP	GC31-6230
NCP V7R8, SSP V4R8 & EP R14 Library Dir.	SC30-4025
NCP Today	G325-3426
Program Directory	GI10-6620
Memo to Licensees	GI10-6627

Figure 27. BASIC Documentation of ACF/VTAM for VM Feature 5686-065 4.2.0

Publication Title	Order/Form Number
VTAM Migration Guide VM/ESA	GC31-8071
VTAM Release Guide VM/ESA	GC31-8089
APPC Application Suite Users Guide	SC31-6532
APPC Application Suite Administrat.	SC31-6533
VTAM Application Suite Programming	SC31-6534

Figure 28. 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
COBOL/VSE Installation & Custom.Guide	SC26-8071
COBOL/VSE Programming Guide	SC26-8072
Debug Tool Users Guide & Reference	SC26-8797
Debug Tool Install & Customizing GD	SC26-8798
Memo to Licensees	GI10-9890

Figure 29. BASIC Documentation of IBM PL/I for VSE/ESA 5686-069 1.1.0

Publication Title	Order/Form Number
PL/I VSE Programming Guide	SC26-8053
PL/I VSE Language Reference	SC26-8054
PL/I VSE Licensed Programming Specs	GC26-8055
PL/I VSE Install.& Customization GD	SC26-8057
PL/I VSE Messages & Codes	SC26-8059
Debug Tool Users Guide & Reference	SC26-8797
Debug Tool Install & Customizing GD	SC26-8798
Memo to Licensees Full Function	GI11-1707
Memo to Licensees Alternate Function	GI11-1708

Figure 30. BASIC Documentation of IBM C for VSE/ESA 5686-A01 1.1.0

Publication Title	Order/Form Number
C/VSE LPS	GC09-2421
C/VSE Install & Customization GD	GC09-2422
C/VSE Diagnosis Guide	GC09-2426
C/VSE Migration Guide	SC09-2423
C/VSE User's Guide	SC09-2424
C/VSE Language Reference	SC09-2425
Debug Tool Users GD & Reference	SC26-8797
Debug Tool Install & Custom Guide	SC26-8798

Figure 31. BASIC Documentation of MQSeries for VSE/ESA 5686-A06 2.1.2

Publication Title	Order/Form Number
MQSeries Clients	GC33-1632
MQSeries VSE/ESA System Mgmt. Guide	GC34-5364
MQSeries VSE/ESA LPS	GC34-5365
Memo to new Licensees	GI10-2512

Figure 32. BASIC Documentation of CCCA for VSE/ESA 5686-A07 2.1.0

Publication Title	Order/Form Number
Users Guide	SC26-9401
Licensed Programming Specifications	GC26-9408
Program Directory	GI10-5079

Figure 33. BASIC Documentation of X.25 NPSI 5688-035 3.4.0

Publication Title	Order/Form Number
X.25 NCP PSI V3 Planning/Installation	SC30-3470
X.25 NCP PSI V3 Host Programming	SC30-3502
X.25 NCP PSI V3 Licensed Progr Specifications	GC30-9605
X.25 NCP PSI V3 General Information	GC30-3469
Program Directory	GI11-1943

Figure 34. BASIC Documentation of X.25 NPSI 5688-035 3.9.0

Publication Title	Order/Form Number
X.25 NCP PSI V3 General Information	GC30-3469
X.25 NCP PSI V3 Licensed Progr Specs	GC30-9605
X.25 NCP PSI V3 Host Programming	SC30-3502
X.25 NCP PSI V3 Planning/Installation	SC30-3470
Program Directory	GI10-6558

Figure 35. BASIC Documentation of PPFA/370 5688-190 1.1.0.

Publication Title	Order/Form Number
Licensed Program Specifications	G544-3696
User's Guide	S544-5284
Command Quick Reference	G544-3701
PPFA Diagnosis Guide & Reference	LH40-0207
Program Directory	GI10-9679

Figure 36. BASIC Documentation of OGL/370 5688-191 1.1.0

Publication Title	Order/Form Number
OGL/370 Getting Started	G544-3691
OGL/370 Licensed Progr. Specifications	G544-3697
OGL/370 User's Guide and Reference	S544-3702
OGL Quick Reference	SX35-5032
Program Directory	n/a

Figure 37. BASIC Documentation of HLASM Toolkit 5696-234 1.4.0

Publication Title	Order/Form Number
HLASM Toolkit IDF Users Guide	GC26-8709
HLASM Toolkit Users Guide	GC26-8710
HLASM Toolkit Installation/Customization Guide	GC26-8711
HLASM Toolkit IDF Reference Summary	GC26-8712
Memo to new Licensees	GI10-5051

Figure 38. BASIC Documentation of DB2 VSE/VSAM Transparency 5697-B88 5.1.0

Publication Title	Order/Form Number
VSAM Transparency for VSE Users Guide	SC26-8956
Program Directory	GI11-1723

Figure 39. BASIC Documentation of DB2 Server for VSE/ESA 5697-F42 7.2.0

Publication Title	Order/Form Number
DB2 Server Diagnosis Guide & Reference	LC09-2907
DB2 Server F.VM & VSE Licensed Specs	GC09-2982
DB2 Server SNAP-IX Brochure	GC09-4762
DB2 Server Training Brochure	GC09-4768
DB2 Server Universal Developer's Ed	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 Installation and Managing	GC27-0721
QMF for VSE Messages & Codes	GC27-0717
QMF for VSE Program Directory	GI10-8330

Figure 40. BASIC Documentation of EP 5735-XXB 1.9.0

Publication Title	Order/Form Number
Licensed Program Specifications	GC31-6201
Program Directory	n/a

Figure 41. BASIC Documentation of EP 5735-XXB 1.14.0

Publication Title	Order/Form Number
Licensed Progr.Specifications	GC31-6201
NCP V7R7 Migration Guide	SC30-3889
Program Directory	GI10-0996

Figure 42. BASIC Documentation of RPG II 5746-RG1 1.3.0

Publication Title	Order/Form Number
Licensed Program Specifications	GC33-6029
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 43. BASIC Documentation of DFSORT/VSE 5746-SM3 3.4.0

Publication Title	Order/Form Number
Licensed Progr.Specifications	GC26-7038
General Information Brochure	GC26-7039
Application Programmer's Guide	SC26-7040
Installation & Tuning Guide	SC26-7041
Reference Summary	SX26-6008
Messages, Codes & Diagnosis Guide	SC26-7132
Getting Started with DFSORT	SC26-7101
Program Directory	GI10-4513

Figure 44. BASIC Documentation of VSE/ACLR 5746-XE7 1.2.1

Publication Title	Order/Form Number
Licensed Program Specifications	GH12-5241
Program Reference & Operation	SH12-5336
Program Directory	GI11-0645

Figure 45. BASIC Documentation of SDF/CICS 5746-XXT 1.5.0

Publication Title	Order/Form Number
General Information Manual	GH19-8104
Licensed Program Specifications	GH19-8106
Reference Summary	SX11-6100
Operations Guide	SH19-6094
Primer	SH19-6102
Program Reference	SH19-8105
Messages & Codes	SH19-8107
Program Directory	GI11-1548
Program Directory Kanji	GI11-2164

Figure 46. BASIC Documentation of SDF II VSE 5746-XXT 1.6.0

Publication Title	Order/Form Number
SDF II Administration Guide	SH12-6311
SDF II Prototype RT-Services	SH12-6312
SDF II Primer CICS/BMS Programs	SH12-6313
SDF II Introducing Release 6	GH12-6314
SDF II General Information	SH12-6315
SDF II Licensed Specification	GH12-6318
Program Directory	GI10-0424
Memo to Licensees	GI10-0428

Figure 47. 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
Licensed Program Specifications	GH24-5031
Release Guide	SC33-6211
Messages and Codes	SH12-5414
Guide for New Users	SH24-5001
Application Programming: HLPI	SH24-5009
Data Base Administration	SH24-5011
Application & Data Base Design	SH24-5022
Interact. Resource Definition & Utilities	SH24-5029
Application Progr: Call+RQDLI Interf	SH12-5411
Library Guide + Master Index	GH24-5008
Diagnostic Guide	SH24-5002
Recovery/Restart Guide	SH24-5030
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 and Microfiche

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

3.0 Program Support

This section describes the IBM support available for VSE/ESA 2.7.0.

3.1 Preventive Service Planning

Before installing VSE/ESA 2.7.0, 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 2.7.0 only from IBM Software Distribution, then before installing VSE/ESA 2.7.0, 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 7 for component IDs (COMPID) for VSE/ESA 2.7.0

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 since VSE/ESA 2.5, which are NOT visible in the MSHP history file.

COMPONENT 568606601, ..02 (UNIQUE CODE)

```
PQ21748   PQ21749   PQ21750   PQ21829   PQ22248
PQ22537   PQ22539   PQ24641   PQ24808   PQ26062
PQ26296   PQ26451   PQ26780   PQ27580   PQ28422
PQ28605   PQ29299   PQ30134   PQ31176   PQ31285
PQ31932   PQ34249   PQ34694   PQ34718   PQ36445
PQ36532   PQ36688   PQ36898   PQ38386   PQ38704
PQ39412   PQ39414
PQ41225   PQ41480   PQ42737   PQ43137   PQ43503
PQ44269   PQ45663   PQ46864   PQ48871   PQ49063
PQ49301   PQ49437   PQ49527   PQ50082   PQ50122
PQ50346   PQ51324   PQ51515   PQ51586   PQ52261
PQ52476
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)

```
DY44844   DY44845   DY44856   DY44863   DY44880   DY44883
DY44941   DY45017   DY45060   DY45073   DY45095   DY45105
DY45112   DY45124   DY45131   DY45161   DY45185   DY45193
DY45215   DY45219   DY45228   DY45235   DY45240   DY45243
DY45251   DY45283   DY45289   DY45291   DY45276   DY45313
DY45323   DY45337   DY45372   DY45375   DY45404   DY45346
DY45413   DY45414   DY45495   DY45437   DY45444
DY45464   DY45489   DY45498   DY45511   DY45514   DY45521
DY45543   DY45546   DY45554   DY45555   DY45562   DY45570
DY45584   DY45591   DY45607   DY45613   DY45622   DY45634
```

DY45647 DY45675 DY45679 DY45701 DY45714 DY45763
DY45769 DY45780
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)

DY44820 DY44851 DY44858 DY44889 DY45037 DY45063
DY45070 DY45076 DY45097 DY45103 DY45114 DY45123
DY45141 DY45166 DY45167 DY45175 DY45182 DY45190
DY45195 DY45196 DY45229 DY45252 DY45253 DY45254
DY45265 DY45266 DY45275 DY45290 DY45299 DY45306
DY45309 DY45324 DY45328 DY45329 DY45338 DY45347
DY45348 DY45376 DY45383 DY45385 DY45397 DY45423
DY45424 DY45438 DY45452 DY45460 DY45462 DY45466
DY45467 DY45475 DY45507
DY45502 DY45516 DY45525 DY45526 DY45528 DY45530
DY45537 DY45540 DY45545 DY45547 DY45551 DY45556
DY45557 DY45564 DY45568 DY45573 DY45580 DY45586
DY45593 DY45619 DY45623 DY45626 DY45629 DY45636
DY45639 DY45644 DY45655 DY45658 DY45676 DY45677
DY45683 DY45684 DY45685 DY45686 DY45698 DY45712
DY45726 DY45739 DY45758 DY45767 DY45773 DY45779
DY45785
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)

DY44838 DY44859 DY44876 DY45044 DY45075 DY45090
DY45107 DY45135 DY45136 DY45137 DY45255 DY45256
DY45264 DY45336 DY45351 DY45310 DY45311 DY45312
DY45409 DY45349 DY45442 DY45491 DY45425 DY45439
DY45473
DY44814 DY44996
DY45529 DY45536 DY45538 DY45539 DY45571 DY45589
DY45596 DY45612 DY45617 DY45618 DY45630 DY45631
DY45645 DY45654 DY45661 DY45667 DY45687 DY45693
DY45696 DY45751 DY45764 DY45778
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)

PN73312 PN73314 PN79224 PN80038 PN85665 PN88902
PQ11175
PQ22701 PQ30054 PQ33539 PQ22257 PQ36354
PQ58394 PQ57333 PQ70277

COMPONENT 568606611 (FASTCOPY)

DY44060 DY44121 DY44214 DY45867

COMPONENTs 568606612, 568606616 (REXX)

PQ22016 PQ24982 PQ33431 PQ31258
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 2.7.0 at this time.

4.3 Cumulative Service Tape

There is no cumulative service tape for VSE/ESA 2.7.0.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating VSE/ESA 2.7.0.

5.1 System Requirements

5.1.1 Operating System Requirements

VSE/ESA 2.7.0 is an operating system itself and does not require another operating system to run under. Anyway, VSE/ESA 2.7.0 can run as a guest system under the following VM/ESA systems:

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

Note that VSE/ESA 2.7.0 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 Release 1, Running Guest Operating Systems*, SC24-5950,
- *z/VM Version 4 Release 1, Running Guest Operating Systems*, SC24-5997
- *VSE/ESA Installation*, SC33-6704.

5.1.2 VSE/ESA Processor Support

VSE/ESA 2.7.0 supports ESA/390 **uniprocessors** and **multiprocessors** of the following IBM System/390 processor series:

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

VSE/ESA 2.7.0 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 VM/ESA or z/VM on all processors supported by VM/ESA or z/VM.

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 2.7.0 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 VM/ESA.
- 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 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.

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 2.7.0 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.

6.1.2 SSL Client Authentication

With 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' .

6.1.3 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

6.1.4 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.

6.1.5 Implementation of LCDD for the 3494 Tape Library Dataserver

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

For LCDD commands please review GC35-0176, but be aware that LCDD is installed into IJSYSRS.SYSLIB and the sample startup JCL to tailor is in ICCF LIB 59.

6.1.6 Device Support Facilities (DSF 1.17)

For details on this new 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.

Both publications are available e.g. from the VSE homepage at

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

6.1.7 HLASM Support with ACF/SSP Version 4, Release 7 and 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.

6.1.8 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 DFH$SVEX 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.

6.1.9 SVA Setup

With VSE/ESA 2.7.0 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.

6.2 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 2.7.0 base system.

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.
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.
3. The optional LE/VSE 1.4.3 DBCS locale component is shipped on the VSE/ESA 2.7.0 Extended Base tape.

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

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.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.

Figure 48 (Page 1 of 4). LE/VSE 1.4 Jobs in ICCF lib 62

ICCF Member	Purpose and Function
CEECCSD	LE/VSE base program definitions (CICS)

Figure 48 (Page 2 of 4). LE/VSE 1.4 Jobs in ICCF lib 62

ICCF Member	Purpose and Function
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
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
CEEWUOPT	Application specific run-time options
CEEWUXIT	Application specific assembler user exit
EDCCCSD	LE/VSE C-specific program definitions (CICS)
EDCLLOCL	Changing the C locale time information
EDCUCSD	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
IGZCCSD	LE/VSE COBOL-specific program definitions (CICS)
IGZWARRE	Customize behavior of COBOL reusable environment

Figure 48 (Page 3 of 4). LE/VSE 1.4 Jobs in ICCF lib 62

ICCF Member	Purpose and Function
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 2.7.0 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).

b. All Z-books under a.) correspond to *TSCSD members outlined in Figure 48.

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.

Further general service assist will be available via the Service Update Facility (SUF): http://www.ibm.com/servers/eserver/zseries/zos/suf/ or http://techsupport.services.ibm.com .

6.2.11 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

  have been updated for the March 2003 Softcopy Collection Kit SK2T-0060 and placed into the VSE/ESA 2.7 bookshelf.

6.3 TCP/IP for VSE/ESA

With VSE/ESA 2.7.0 APAR PQ69574 (aka TCPIP15A) 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 2.7.0

The documentation for TCP/IP 1.5 for VSE/ESA is available on the VSE/ESA 2.7.0 Softcopy Collection CD-ROM SK2T-0060.

On the CD-ROM you will find 6 books with the original program description from Connectivity Systems Incorporated, the provider of the TCP/IP for VSE 1.5 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.

All the documentation on the CD-ROM 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-1.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 2.7.0 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 CD-ROM Collection SK2T-0060.

From the internet, access and get these documents via the VSE/ESA homepage
http://www-1.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 with CICS TS 1.1.1:

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)
  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

There is no further information for VSE/ESA 2.7.0

8.0 VSE/ESA 2.7.0 Install Logic

There is no further information for VSE/ESA 2.7.0

9.0 Reader's Comments

Program Directory for VSE/Enterprise Systems Architecture Version 2 Release 7.0

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.

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satisfied  <====================>  dissatisfied  applicable
   1        2        3        4        5            N
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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
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