IBM

Program Directory for

z/VSE Version 4

Version 4 Release 2.2

Program Number 5609-ZV4

Document Date: April 2010

```
┌─ Note! ─────────────────────────────────────────────────────────────────────┐
│                                                                               │
│  Before using this information and the product it supports, be sure to read the general information under │
│  "Notices" on page  iv.                                                       │
│                                                                               │
└───────────────────────────────────────────────────────────────────────────────┘
```

This program directory, dated April 2010, applies to z/VSE Version 4 Release 2.2 (z/VSE 4.2.2) , Program Number 5609-ZV4 for the following:

Feature Numbers	Content	System Name
4001/4002	z/VSE V4 English base on 3590/3592 cartridge	z/VSE V4
4003	z/VSE V4 English base on CD-ROM	z/VSE V4
4011/4012	z/VSE V4 Japanese base on 3590/3592 cartridge	z/VSE V4
4013	z/VSE V4 Japanese base on CD-ROM	z/VSE V4

A form for reader's comments appears at the back of this publication. When you send information to IBM, you grant IBM a nonexclusive right to use or distribute the information in any way it believes appropriate without incurring any obligation to you.

Contents

Notices

References in this document to IBM products, programs, or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM product, program, or service is not intended to state or imply that only IBM's product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe on any of IBM's intellectual property rights may be used instead of the IBM product, program, or service. Evaluation and verification of operation in conjunction with other products, except those expressly designated by IBM, is the user's responsibility.

IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to the

> IBM Director of Licensing
> IBM Corporation
> North Castle Drive
> Armonk, New York 10504-1785
> USA

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

> IBM World Trade Asia Corporation
> Licensing
> 2-31 Roppongi 3-chome, Minato-ku
> Tokyo 106-0032, Japan

Trademarks and Service Marks

The following terms used in this document are trademarks of IBM Corporation in the United States, other countries or both:

AD/Cycle	ES/4381	Redbooks
Advanced Function Printing	ES/9000	RETAIN
AFP	ES/9370	RS/6000
BookManager	ESCON	S/390
BookMaster	FICON	S/390 Parallel Enterprise Server
C/370	FlashCopy	SAA
CICS	GDDM	SQL/DS
CICS/ESA	Hipersockets	System/390
CICS/VSE	IBM	VisualAge
COBOL/370	IBM(logo)	VisualGen
CUA	IBMLink	VM/ESA
Database 2	Language Environment	VSE/ESA
DataPropagator	MQSeries	VTAM
DB2	Multiprise	WebSphere
DFSORT	MVS	xSeries
ECKD	NetView	z/Architecture
e(logo)server	OS/2	z/OS
eServer	OS/390	z/VM
Enterprise Storage Server	Print Services Facility	z/VSE
e(logo)business	QMF	zSeries
ES/3090	RAMAC	System z

The following terms used in this document, are trademarks of other companies as follows:

Microsoft, Windows, Windows NT and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

Other company, product names or service names may be trademarks or service marks of others.

Summary of changes with z/VSE

The following summarizes the changes with z/VSE 4.2.2

For an overview of functional enhancements of z/VSE 4.2.2, please see the

- z/VSE Release Guide, SC33-8300

    and the z/VSE Home Page:

    `http://www.ibm.com/servers/eserver/zseries/zvse`

Updated z/VSE BASE PROGRAMs

- none

Updated OPTIONAL PROGRAMs

- none

No longer available with z/VSE 4.2.2

- none

z/VSE ordering through ShopzSeries is now available in all countries (except embargoed countries). ShopzSeries allows you to select CD-ROM, cartridges or internet delivery.

z/VSE is provided on CD-ROM for customers from the following countries:

- **USA, CANADA and BRAZIL**
- **EUROPE**: Austria, Bulgaria, Belgium, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungaria, Ireland, Italy, Luxemburg, Netherlands, Norway, Poland, Portugal, Romania, Russia, Slowakia, Slowenia, Spain, Sweden, Switzerland, Turkey, United Kingdom
- **AFRICA**:
  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
- **Near/Middle EAST**:
  Bahrein, Dubai/Abu Dhabi, Israel, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates, Yemen
- **ASIA**: Pakistan, Japan, Australia, New Zealand, Indonesia, Malaysia, Philippines, Thailand, Singapore, Brunei, Sri Lanka, Vietnam, India, Korea, Hong Kong, Macao, China, Taiwan

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 z/VSE 4.2.2. 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:

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 z/VSE 4.2.2 is 5609-ZV4.

The program announcement material describes the features supported by z/VSE 4.2.2. 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

  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 all z/VSE BASE Products

Customers, who have not ordered all z/VSE 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 z/VSE Version 4 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 z/VSE BASE products

z/VSE 4.2.2 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
- `DELDB275` to delete DB2 Server V7.5 or to delete DB2 Client Edition V7.5
- `DELDIT` to delete DITTO/ESA
- `DELLECOB` to delete the LE/VSE COBOL runtime *)
- `DELLEPLI` to delete the LE/VSE PL/I runtime *)
- `DELTCPIP` to delete TCP/IP for VSE/ESA 1.5.0
- `DELVTM` to delete ACF/VTAM 4.2
- `DELHLASM` to delete HLASM 1.6.0
- `DELREXX` to delete REXX/VSE 8.2.0

Note: *) The VSE C Run-Time support will remain in the z/VSE base

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

Note: Since the z/VSE 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 if 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 - otherwise 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 z/VSE 4.2.2 - BASIC Machine Readable Material (MRM)

The **z/VSE 4.2.2** is delivered either

on **THREE volumes of either 3590 or 3592 cartridges**

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

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

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

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

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

Figure 1 on page 5 describes **MEDIA and VOLUMES** of z/VSE 4.2.2. These volumes contain all the programs and data needed for installation. z/VSE 4.2.2 is installed using the Maintain System History Program (MSHP).

Figure 2 on page 6 describes the **BASE PRODUCTS and COMPONENTS** of z/VSE 4.2.2 - on z/VSE base cartridge.

Figure 3 on page 8 describes the **FILES** on the z/VSE base cartridge.

Figure 4 on page 10 describes the z/VSE 4.2.2 **EXTENDED BASE PRODUCTS** / **COMPONENTS** - on cartridge

Figure 5 on page 11 describes **z/VSE 4.2.2 on CD-ROM** and the files provided through electronic delivery.

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

```
http://www.ibm.com/servers/eserver/zseries/zvse
```

2.2.1 z/VSE BASE - MEDIA and VOLUMES

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

Medium	Feature Numbers	Physical Volume	External Label Identification
3590 cartridge	4001 (EN) 4011 (KA)	1 2	z/VSE4.2.2-xx z/VSE4.2.2XBASE
3592 cartridge	4002 (EN) 4012 (KA)	1 2	z/VSE4.2.2-xx z/VSE4.2.2XBASE
CD-ROM	4003 (EN) 4013(KA)	1	z/VSE4.2.2-xx

Notes:

1. **xx** defines the LANGUAGE of the z/VSE base, in which the system was ordered:
   xx = EN English
   xx = KA Kanji (Japanese)

2. The **XBASE** (Extended Base) contains further z/VSE Base Products. **DO NOT IPL the extended base tape**

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

Figure 2 describes the contents of the z/VSE 4.2.2 base

Figure 2 (Page 1 of 2). z/VSE 4.2.2 - BASE Products

Product Description	Program Number	Component-Identifier	CLC
z/VSE 4.2.2 (Package)	5609-ZV4	n/a	n/a
VSE Central Functions 8.2.0	5686-CF8	n/a	n/a
VSE/SP UNIQUE CODE	5686-CF8	5686CF801	01C
VSE/UNIQUE CODE ENGLISH	5686-CF8	5686CF802	01D
KANJI	5686-CF8	5686CF802	01E
VSE/POWER	5686-CF8	5686CF803	01C
VSE/POWER Macros	5686-CF8	5686CF803	01G
VSE/VSAM	5686-CF8	5686CF805	01C
VSE/VSAM Macros	5686-CF8	5686CF805	01G
VSE/AF SVR & BAM & GDS	5686-CF8	5686CF806	01C
VSE/AF Macros	5686-CF8	5686CF806	01G
VSE/AF Generation Feature	5686-CF8	5686CF806	01J
VSE/AF MSHP	5686-CF8	5686CF807	01C
VSE/AF Info/Analysis	5686-CF8	5686CF808	01C
VSE/AF IOCP	5686-CF8	5686CF809	01C
VSE/ICCF	5686-CF8	5686CF810	01C
VSE/FastCopy	5686-CF8	5686CF811	01C
REXX/VSE Library	5686-CF8	5686CF812	01I
REXX/VSE Kernel & Interface	5686-CF8	5686CF816	01I
OSA SF	5686-CF8	5686CF830	9G8
VSE Connector Server	5686-CF8	5686CF835	01N
LE Base ENU + JPN	5686-CF8	5686CF832	01K
LE C ENU + JPN	5686-CF8	5686CF833	01L
LE COBOL + JPN + CICS	5686-CF8	5686CF836	01W
LE PL/I + JPN	5686-CF8	5686CF837	01Z
CICS Transaction Server 1.1.1	5648-054	564805400	B0P
TCP/IP 1.5 for VSE/ESA 1) Application Pak NFS Feature GPS Feature	5686-A04	5686A0400	0TP
ACF/VTAM 4.2.0 2) Client/Server MultiDomain InterEnterprise	5686-065	568606501	FE6
High Level Assembler 1.6.0	5696-234	569623400	689
EREP 3.5.0	5656-260	565626001	E00

Figure 2 (Page 2 of 2). z/VSE 4.2.2 - BASE Products

Product Description	Program Number	Component-Identifier	CLC
ICKDSF 1.17.0	5747-DS2	565899201	1NM
DITTO/ESA for VSE	5648-099	564809901	36O

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 z/VSE BASE - MRM FILE Contents - on cartridge

In case of an Fast Service Upgrade (FSU) release upgrade, the downlevel check should not be done prior to the prepare step, but **after the prepare**.

Figure 3 describes the files of the z/VSE base (labelled: z/VSE4.2.2-xx)

Figure 3 (Page 1 of 2). File Content: z/VSE 4.2 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
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

Figure 3 (Page 2 of 2). File Content: z/VSE 4.2 BASE

File	Name
33	End of Backup Record
34	Online-Message-File
35	Null File
36	End of Tape Record

2.2.4 z/VSE Extended BASE - PRODUCTS / COMPONENTS

Figure 4 describes the z/VSE 4.2.2 EXTENDED BASE Products / Components.

Figure 4. z/VSE 4.2.2 - 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-CF8	5686CF814	01V
LE DBCS Locales	5686-CF8	5686CF834	01M
DB2 V7.5 Server f.VSE 2)	5697-F42	5697F4201	5NN
DB2 V7.4 DPROP Q Capture	5697-F42	5697F4201	4NO
DB2 V7.5 Client Edition 2)	5697-F42	5697F4207	5NC
VSE Connector WS code 3)	5686-CF8	5686CF838	01P

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 7.5 (5697-F42), this product is partially packaged and delivered as a key-enabled component of the z/VSE 4.2.2 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 z/VSE extended base tape are DB2 Server for VSE, DB2 server for VSE client edition and Data Propagator Q 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 z/VSE optional product 'stacked tape' if they were ordered.

3. VSE Connector Workstation code has been separated from VSE Connector Server. The VSE Connector Server is part of the z/VSE base tape, the VSE Connector Workstation code is part of the z/VSE extended base tape.

2.2.5 z/VSE on CD-ROM

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

Figure 5. z/VSE 4.2.2 - z/VSE 4.2.2 on CD-ROM

File #	File Description	File Name
1	Readme File	ReadM422.txt
2	z/VSE Base	VSE42xyy.AWS
3	z/VSE Extended Base	VSE42xXB.AWS
4	DB2 Help Text	DB2HELP.AWS

where

```
x   is the current modification level
yy  is the VSE base - language identifier
   where:  yy = EN  English (US)
           yy = KA  Kanji (Japanese)
```

For details on the contents of the z/VSE base and the z/VSE 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: VSE422OP.AWS.

2.2.6 z/VSE downloadable from the Internet

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

Base Tape   VSE422yy.aws

Extended Base Tape   VSE422XB.aws

DB2 Help Tape   DB2HELP.aws

Opt.Product Tape   VSE422OP.aws

Note that after downloading the respective files from the Internet, you will have the z/VSE 4.2 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 **z/VSE on CD-ROM** above.

The z/VSE operating system consists of 3 files (z/VSE base, z/VSE extended base, DB2 Help Text), for the optional products you will have only one file available: named VSE422OP.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 z/VSE Home Page at

```
http://www.ibm.com/servers/eserver/zseries/zvse
```

or in the manuals z/VSE 4.2 Installation SC33-8302 or z/VSE 4.2 System Upgrade and Service, SC33-8303, both available from the IBM Publications Center at

```
http://www.elink.ibmlink.ibm.com/publications/servlet/pbi.wss
```

2.3 z/VSE BASE - OPTIONAL Machine-Readable Material

There are no optional machine-readable materials for z/VSE 4.2.2.

2.4 z/VSE BASE - Program Publications

The following sections lists the documentation material, which is distributed with the z/VSE 4.2.2 base and optional products.

Except Program Directories, Memo to Licensees and various Programming License Specifications, z/VSE manuals are available as softcopy only. This includes VSE/POWER manuals, CICS Transaction Server for VSE/ESA manuals, and so on. You can obtain softcopy z/VSE manuals from either the:

- VSE Softcopy Collection on DVD, SK3T-8348 (delivered with z/VSE)
- IBM Publications Center, which has this internet URL:

  `http://www.elink.ibmlink.ibm.com/publications/servlet/pbi.wss`

From the IBM Publications Center, you can download most z/VSE online publications free-of-charge in PDF or BOOK format.

Please note that the Licensed Program Specifications (LPS) for the following VSE products are also available and shipped in softcopy version (PDF) only. They can be found on the Softcopy Collection Kit.

    z/VSE
    TCP/IP for VSE/ESA
    DL/I 1.11.0
    DOS/VS RPG II
    OS/VS RPG II
    VSE/ACLR

Those hardcopy publications, which have been added or updated with z/VSE 4.2.2 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 z/VSE BASE - Basic Publications

Figure 6. z/VSE Basic Publications

Publication Title	Form Number
z/VSE Release Guide	SC33-8300 U
VSE Softcopy Collection Kit on DVD	SK3T-8348
DB2 Server CD Doc Kit	SK3T-5257
DB2 Server Overview	GC09-2995
QMF Window Try/Buy Kit	LCD4-3781
Program Directory DB2 Server 7.5 VSE	GI10-4999
Program Directory DProp Q Capture VSE	GI10-5001
Memo to Licensees DB2 Server 7.5 VSE	GI10-5008
Memo to Licensees DProp Q Capture VSE	GI10-5010

Figure 7 identifies the basic program publications as hardcopies for further z/VSE 4.2.2 base products.

Figure 7. Publications of z/VSE 4.2 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	GI10-0436
ACF/VTAM Program Directory	GI10-8112
ACF/VTAM Licensed Programming Specs	GC31-6490

2.5 z/VSE OPTIONAL PROGRAMS

Optional Programs are independent products, that can be ordered additionally and together with z/VSE and which run under the operating system z/VSE.

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

If z/VSE 4.2.2 was ordered to be delivered through the Internet (e-delivery), Optional Programs have to be downloaded as described in the VSE Install Instructions on the z/VSE Home Page:

`http://www.ibm.com/servers/eserver/zseries/zvse`

2.5.1 Optional Programs - available with z/VSE V4

```
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-F66  Rational COBOL RT for z/VSE   7.5.0
5648-B33  AFP Font Collection           2.1.1    VSE fonts / NLS
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
5686-068  COBOL for VSE/ESA             1.1.0   Full/Altern.Function
5686-069  PL/I for VSE/ESA             1.1.0   Full/Altern.Function
5686-A01  C for VSE/ESA                 1.1.0   Full/Altern.Function
5655-U97  WebSphere MQ for z/VSE        3.0.0
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                1.6.0     WS feature
5697-F42  DB2 Server for VSE            7.5.0    NLV JPN, DEU, FRA
          DB2 Client Edition for VSE    7.5.0    NLV JPN, DEU, FRA
              Control Center
              Data Restore
          QMF for VSE                            Base and NLV
          QMF for Windows                         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
5686-CF8  Encryption Facility for z/VSE   1.2.0
```

2.5.2 Optional Programs - List of Product Identifiers

The following Optional Programs are available with z/VSE 4.2.2. 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
RDBCOBOLRT.7.5.0  5648F6600 750  F66750
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
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)
WMQZVSE....3.0.0  5655U9700 300  U97300
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.1.6.0  569623401  6IM  2346IM
DB2/NLV....7.5.0  5697F4201  5NN  F425NN
DB2/NLV.CE.7.5.0  5697F4207  5NC  F425NC
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
ZVSE.EF....1.2.0  5686CF840  01Y  CF801Y
```

Notes:

1. The AFP Fonts will NOT be stacked. You will get them on separate cartridges. Please note, that the AFP fonts are not distributed on CD-ROM or via e-delivery.

2. These components define the debugging functions (Debug Tool for VSE/ESA), which are part of the Full Function orders of C for VSE, PL/I for VSE and COBOL for VSE (the Debug Tool is the same for every language and can be installed only once).

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 z/VSE 4.2.2 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 z/VSE package.

The external label of the volume(s) is: **z/VSE 4.2.2 OPT x OF y**

2.5.4 Optional Programs - File Content

Figure 8 describes the file content of the Optional Program Tape

Figure 8. Program Tape - 'z/VSE 4.2.2 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 z/VSE 4.2.2 Optional Programs, that are available as hardcopies. The VSE Softcopy Collection Kits, which are delivered with every z/VSE order, provide further documentation to all VSE Optional Programs.

Figure 9. 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 10. DITTO/ESA f.VM 5648-099 1.3.0

Publication Title	Order/Form Number
Program Directory	GI10-0438

Figure 11. VisualAge Generator Server 5648-B02 1.2.0

Publication Title	Order/Form Number
Rational Cobol RT LPS	GC19-2723
Program Directory	I10-8803

Figure 12. 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 13. GDDM-IVU 5668-723 1.1.3

Publication Title	Order/Form Number
Program Directory	GI11-1586

Figure 14. GDDM-IMD 5668-801 2.1.3

Publication Title	Order/Form Number
Program Directory	GI11-1630

Figure 15. GDDM-PGF 5668-812 2.1.3

Publication Title	Order/Form Number
Program Directory	GI10-9657

Figure 16. CICSVR/VSE 5686-011 1.2.0

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

Figure 17. 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 18. BASIC Documentation of GDDM/VSE 5686-057 3.2.0

Publication Title	Order/Form Number
Series Licensed Programming Specs	GC33-0876
Program Directory	GI11-1528

Figure 19. BASIC Documentation of ACF/SSP for VSE 5686-064 4.8.1

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

Figure 20. BASIC Documentation of IBM COBOL for VSE 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 21. BASIC Documentation of IBM PL/I for VSE 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 22. BASIC Documentation of IBM C for VSE 5686-A01 1.1.0

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

Figure 23. BASIC Documentation of WebSphere MQ for z/VSE 5655-U97 3.0.0

Publication Title	Order/Form Number
Licensed Programming Specifications	GC34-6983
Memo to Users	GI13-0533
System Management Guide	GC34-6981

Figure 24. BASIC Documentation of CCCA for VSE 5686-A07 2.1.0

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

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

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

Figure 26. BASIC Documentation of PPFA/370 5688-190 1.1.0.

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

Figure 27. BASIC Documentation of OGL/370 5688-191 1.1.0

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

Figure 28. BASIC Documentation of DB2 Server for VSE 5697-F42 7.5.0

Publication Title	Order/Form Number
Licensed Programming Specifications	GC09-2982
DB2 Server Diagnosis GD + Reference	LC09-2907
DB2 Server Universal Developers Edition	LK3T-5242
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 29. BASIC Documentation of EP 5735-XXB 1.14.0

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

Figure 30. 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 31. BASIC Documentation of DFSORT/VSE   5746-SM3   3.4.0

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

Figure 32. BASIC Documentation of VSE/ACLR   5746-XE7   1.2.1

Publication Title	Order/Form Number
Program Directory	GI11-0645

Figure 33. 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 34. 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

Figure 35. BASIC Documentation of Rational COBOL RunTime 5724-V59 7.5.0

Publication Title	Order/Form Number
Program Directory	GI10-8803
Licensed Programming Specifications	GC19-2723

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 z/VSE 4.2.2.

3.1 Preventive Service Planning

Before installing z/VSE 4.2.2, check with your IBM Support Center or use either the Internet, 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 value:

zVSE422

With this upgrade value you will see lists of subset values, one sorted by z/VSE base programs, and one sorted per z/VSE optional programs. The subset identifiers 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 z/VSE 4.2.2 only from IBM Software Distribution, then before installing z/VSE 4.2.2, 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 Recommended Service Level

In addition to the PSP information, z/VSE offers the Recommended Service Level (RSL) to install z/VSE service preventively. The RSL consists of a list of **all** APAR/PTF numbers, which are available at specific cutoff dates. The RSL is updated bi-monthly and contains **all** available service, not only HIPER service.

The RSL for z/VSE 4.2.2 is published via a special RSL PSP bucket RSLVSE422 and on the Internet via the VSE home page

```
http://www.ibm.com/servers/eserver/zseries/zvse/support/preventive.html#rsl
```

The RSL PSP is ordered on tape like a HIPER PSP and the Internet RSL can be ordered electronically.

3.3 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 6 for component IDs (COMPID) for z/VSE 4.2.2

4.0 Program and Service Level Information

This section identifies the program and any relevant service levels of z/VSE V4.2 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 incorporated into z/VSE 4.2.0 (not visible in MSHP history file).

COMPONENT 5686CF801, ..02 (UNIQUE CODE)

```
PK35451 PK35764 PK36627 PK37948 PK37949 PK37980
PK38542 PK38656 PK38806 PK43465 PK43473 PK44597
PK47030 PK47285 PK48951 PK50786 PK52736 PK53958
PK54085 PK54868 PK58053 PK58054 PK64001 PK64822
PK66417 PK66632 PK69036 PK69519 PK69759 PK69831
```

COMPONENT 5686CF803 (POWER)

```
DY46641 DY46671 DY46672 DY46690 DY46700 DY46732
DY46749 DY46782 DY46804 DY46841 DY46849
```

COMPONENTs 5686CF804, ..06, ..07, ..08, ..09 (AF)

```
DY46642 DY46649 DY46663 DY46668 DY46675 DY46676
DY46677 DY46678 DY46682 DY46686 DY46688 DY46693
DY46699 DY46706 DY46709 DY46717 DY46719 DY46722
DY46728 DY46729 DY46738 DY46740 DY46741 DY46743
DY46747 DY46751 DY46759 DY46760 DY46761 DY46763
DY46765 DY46767 DY46769 DY46774 DY46777 DY46783
DY46789 DY46790 DY46796 DY46798 DY46800 DY46801
DY46806 DY46812 DY46818 DY46820 DY46822 DY46826
DY46829 DY46833 DY46834 DY46862 DY46863 DY46880
DY46881 DY46890 DY46921 DY46925 DY46785 DY46797
DY46840
```

COMPONENT 5686CF805 (VSAM)

```
DY46602 DY46629 DY46646 DY46653 DY46647 DY46666
DY46670 DY46684 DY46687 DY46689 DY46694 DY46695
DY46696 DY46697 DY46698 DY46702 DY46703 DY46704
DY46705 DY46710 DY46714 DY46715 DY46716 DY46731
DY46734 DY46735 DY46755 DY46775 DY46779 DY46786
DY46788 DY46791 DY46793 DY46795 DY46816 DY46835
DY46836 DY46852 DY46853 DY46854 DY46859 DY46861
DY46878 DY46893 DY46899 DY46913 DY46918
```

COMPONENT 5686CF811 (FCOPY)

```
DY46648
```

COMPONENT 5686CF830 (OSA/SF)

```
PK40056 PK56580
```

LE/VSE 5686CF832 (LE base)

```
PK39448
```

LE/VSE 5686CF833 (LE C)

```
PK38565 PK44816
```

VSE Connectors 5686CF835 (Connectors)

```
PK43803 PK50803 PK50743 PK56828 PK56772 PK57314
PK57267 PK60731 PK60658 PK63805 PK63811 PK66537
PK66621 PK67191
```

LE/VSE 5686CF836 (LE COBOL)

```
PK38566 PK62292
```

LE/VSE 5686CF837 (LE PLI)

```
PK38555 PK60120
```

TCP/IP 1.5 5686A0400

```
PK33472 PK38365 PK38492 PK39262 PK39279 PK47545
PK51399 PK55026 PK65428 PK66917 PK67333 PK70370
```

Note: For APARs integrated into 5696-234 High Level Assembler 1.6.0, please see the 5696-234
Program Directory.

4.2 Service Level Information

There is no information for z/VSE 4.2.2 at this time.

4.3 Cumulative Service Tape

There is no cumulative service tape for z/VSE 4.2.2.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating z/VSE 4.2.2.

5.1 System Requirements

5.1.1 Operating System Requirements

z/VSE 4.2.2 is an operating system itself and does not require another operating system to run under. Anyway, z/VSE 4.2.2 can run as a guest system under the following z/VM systems:

   z/VM Version 5.3 (or later)

Note that z/VSE V4 runs in z/Architecture mode only.

Additional information is available in

- *z/VM Version 5, Release 3, Running Guest Operating Systems*, SC24-6115
- *z/VSE Installation*, SC33-8302.

5.1.2 z/VSE Processor Support

These are the System z processors that can be used with z/VSE 4.2.2

   IBM System z10 Enterprise Class
   IBM System z10 Business Class
   IBM System z9 Enterprise Class
   IBM System z9 Business Class
   IBM *e*Server zSeries 990
   IBM *e*Server zSeries 890
   IBM *e*Server zSeries 900
   IBM *e*Server zSeries 800

5.1.3 Processor Details

Please refer to the *z/VSE Planning SC33-8301* manual.

5.1.4 Minimum System Configuration

z/VSE 4.2.2 requires the following minimum system configuration:

- 32MB of processor (real) storage.

  Since the processor storage available is usually much higher, this value is mainly of interest if z/VSE is running under z/VM.

- About 916MB (environment A) or about 1030MB (environment B) or 2814 MB (environment C) of disk device space on two volumes, DOSRES and SYSWK1, as outlined in *z/VSE Planning*, SC33-8301.

- A cartridge unit (3590 or 3592) or CD-ROM drive 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: *z/VSE Planning*, SC33-8301 for storage requirements.

6.0 Special Considerations

Information on z/VSE base and optional programs

6.1 Hints and Tips for z/VSE BASE Programs

6.1.1 z/VSE Fast Service Upgrade (FSU)

6.1.1.1 Before starting the FSU

1. From z/VSE 4.1 onwards, the label area must reside on a virtual disk. Please change your startup procedure $0JCL as follows: Remove the first EXEC PROC=STDLABEL statement as shown in the example below. If you do not yet use a VDISK for DLA, you must change the procedure to use one.

```
CATALOG $0JCL.PROC.DATA=YES REPLACE=YES
STDOPT ACANCEL=NO,DECK=NO,DUMP=PART,SYSDUMP=YES,SXREF=YES
SYSDEF DSPACE,DSIZE=12M
// VDISK UNIT=FDF,BLKS=2880,VOLID=VDIDLA,USAGE=DLA
*VDISK UNIT=CUU,BLKS=81920,VOLID=VDIWRK
// EXEC PROC=STDLABEL CALLS ALSO STDLABUP AND STDLABUS LOAD VDISK
// EXEC PROC=SETSDL
SET SDL PRTY BG,FA,F9,F8,F6,F5,F4,F2,F7,FB,F3,F1
ASSGN SYSLST,IGN
// JOB BGINIT
// SETPARM XNCPU=' '
```

   For an example, refer to skeleton SKJCL0.

2. From z/VSE V4.1 onwards, only a single supervisor ($$A$SUPI) is supported. Make sure your IPL procedure uses supervisor $$A$SUPI. In case you are using your own supervisor, or $$A$SUPX, you must modify your IPL proc.

3. Starting with z/VSE 4.1 the German and Spanish national language support has been dropped. You cannot use the FSU process to move from a German or Spanish version of z/VSE 3.1 to z/VSE 4.2. You have to do initial installation to upgrade your z/VSE 3.1 system (Spanish/German) to z/VSE V4.2 (English).

After FSU is finished and in case you are still using the old DTSECTXN based security concept, you should update the CICS TS transaction security settings using the merge key (PF6) on the 'Dialog Definition Transaction Security' (fastpath 285, do not migrate). For additional post-FSU tasks refer to the *System Upgrade and Service* manual. If you are performing the FSU on a z/VSE 3.1.1 or later system with the new security concept, no additional steps are required.

Actions to be done after FSU to establish the new security concept:

Please refer to the *System Upgrade and Service manual* section "Post stage 2 processing". After you have merged the security definitions (fastpath 285), you may consider migrating to the new security concept. These details can be found in the *Administration* manual.

6.1.1.2 FSU

There will be no Fast Service Upgrade provided from releases prior to z/VSE 3.1.0. 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.

FSU from z/VSE 3.1.x or z/VSE 4.1.x

- An upgrade from z/VSE 3.1 or z/VSE V4.1.x will not require a VSE/POWER cold start, however, the POWER files will be migrated to the new format. After migrating, it is not possible to start the old system from DOSRES. It is recommended to save the POWER files at the end of Stage 1 of the FSU.

  The following message is issued during Stage 2 of FSU:

  ```
  1Q0HD  IF SPOOL FILE MIGRATION TO V8R2 IS INTENDED REPLY 'YES',
         ELSE 'NO'
  ```

  Please enter 'YES' to have the queue files converted.

  In case your system is started usually with security set on, the following message is shown:

  ```
  1QFFD  VSE/POWER WARMSTART AND VSE ACCESS CONTROL NOT ACTIVATED
         (SEC=NO). DO YOU WISH TO CONTINUE? (YES/NO)
  ```

  Please enter 'YES' to continue. If you enter 'NO', the system will stop.

  If you do not have saved the POWER files, you may enter 'NO' and restart from DOSRES in order to perform the POFFLOAD BACKUP. After converting the files, FSU will continue. In case of any errors which require a restart from DOSRES, this is only possible performing a cold start and reloading the POWER files from a backup.

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

```
http://www.ibm.com/servers/eserver/zseries/zvse
```

and also the *System Upgrade and Service* manual.

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

6.1.2 Using a Remote Tape Image on a Workstation to copy the base tape to a Real Tape

Perform the following steps to copy the tape image. Run the VSE job, as shown below, to copy the base tape image in virtual tape format residing on a workstation to a real tape (at least 3590 - only one cartridge). The job uses a virtual tape at address *cuu1* and performs a DITTO tape-to-tape copy to a real tape at *cuu2*. See the example below for the parameters you must specify. Make sure that the VSE Virtual Tape Server is started on your workstation.

```
* $$ JOB JNM=VTAP2TAP,CLASS=0,DISP=D
// JOB VTAP2TAP - COPY VIRTUAL TAPE TO REAL TAPE
// UPSI 1
// PAUSE - PLEASE MOUNT A TAPE ON <cuu2>
// VTAPE START,UNIT=<cuu1>,LOC=<ip-address>,     X
            FILE=<tape file image>,READ
// ASSGN SYS010,<cuu1>      * INUT MEDIA   VTAPE
// ASSGN SYS011,<cuu2>,08   * OUTPUT MEDIA REAL TAPE,3590
// EXEC DITTO
$$DITTO REW OUTPUT=SYS010
$$DITTO REW OUTPUT=SYS011
$$DITTO TT INPUT=SYS010,OUTPUT=SYS011,NFILES=<36>
/*
// VTAPE STOP,UNIT=<cuu1>
/&
* $$ EOJ
/*
```

Before submitting the job, you must enter the following parameters:

<cuu1>	Device address of the input tape (virtual)
<cuu2>	Device address of the output tape (real)
<ip-address>	IP address of the workstation where the VSE Virtual Tape Server is running (in the format 10.3.4.56)
<tape image file>	File name and path of the remote virtual tape imge containing the z/VSE base tape. (For example, C:\DownloadDirector\VSEBA422.AWS)

Notes:

1. NFILES=*<36>* is only valid for the base tape. In case of the extended base tape, the value is 61.

2. FSU can also be done by using a real tape.

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 customers but may be required by vendor products. Vendors who have a need for these interfaces should contact VSE development by sending a note to VSE@de.ibm.com. If the system was upgraded by an FSU release upgrade, OS/390 library API should be reinstalled (first delete old library using skeleton DELOS390).

6.1.4 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 DVD SK3T-8348.

Both publications are also available from the z/VSE Home Page at

`http://www.ibm.com/servers/eserver/zseries/zvse/`

6.1.5 HLASM Release 1.6.0

The HLASM Release 1.6.0 allows to use either workfiles or partition storage for assemblies. In z/VSE 4.2 the High Level Assembler will be shipped with the WORKFILE option as default (Phase ASMADOPT). Sample skeleton SKASMOPT in ICCF library 59 shows the default Options used. If you have the options customized with your own values, you might consider adjusting the WORKFILE option accordingly, use the sample skeleton SKASMOPT for customization.

It is recommended to specify the following SIZE parameter which allows to allocate space above 16MB:

```
 // EXEC ASMA90,PARM='SIZE(MAX,ABOVE)'
```

or in case of the EDECK exit is used:

```
 // EXEC ASMA90,PARM='EXIT(LIBEXIT(EDECKXIT)),SIZE(MAX-200K,ABOVE)'
```

6.1.6 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.

6.1.7 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.

When using the EZA aplication program interfaces (EZASMI and EZASOKET) with CICS transactions, the EZA "task-related-user-exit" (TRUE) has to be actived before these transactions can be run. This applies also to the IBM-provided CICS Listener (EZAL). For detail on how to activate this TRUE, please refer to chapter "CICS Considerations for the EZA Interfaces (z/VSE 4.1 or later) in book *TCP/IP for VSE/ESA - IBM Program Setup and Supplementary Information, SC33-6601*

6.1.8 SVA Setup

Starting with z/VSE V4.1 LE base and C-Runtime routines are loaded into the SVA. For details see
z/VSE Planning SC33-8301. In order to make sure the related programs can also be used in CICS TS,
the default setting of SVA in the SIT was changed from NO to YES.

6.1.9 ACF/VTAM V4.2 31-bit I/O Buffer support

With the VTAM 31-bit I/O Buffer support, I/O Buffer and I/O CTC buffers can be allocated in the 31-bit
System Getvis area through the VTAM startup option IOBUF31=YES. If initial installation is performed,
the VTAM 31-bit I/O Buffer support is enabled. If performing an FSU from a previous release, it is
recommended to enable the support to provide 24-bit System GETVIS storage relief.

For Local non-SNA terminals, like terminals used under VM, moving I/O buffers in 31-bit storage
requires about 4 copy blocks for each terminal. Depending on the numbers of local non-SNA terminals
the default number of copy blocks, which is 1500, might not be sufficient. It can be changed using the
IPL SYS BUFSIZE command.

Before changing to IOBUF31=YES, make sure you have enough copy blocks defined, otherwise VTAM
startup might fail. The SIR command shows the actual usage of the copy blocks.

6.1.10 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.

6.1.11 DITTO

For customers upgrading from z/VSE 3.1.x or z/VSE V4.1.x.

Class Y is increased to 5MB in case of an initial installation.

6.1.12 Language Environment for z/VSE

6.1.12.1 LE/VSE Run-time options:

From z/VSE 3.1 onwards, LE/VSE checks if an invalid (older) run-time option module is loaded. In this case ABEND U4093 RSN42 is issued (for batch), respectively LE/VSE return code 11060 (at CICS initialization time).

In particular, it is recommended to save customized versions of LE/VSE batch and CICS run-time option sources - *prior to performing an FSU* - if stored in LE/VSE product library PRD2.SCEEBASE. To re-establish option changes of this kind, please use current job skeletons CEEWDOPT (batch) or CEEWCOPT (CICS) as supplied in ICCF library 62.

There is no need to perform above actions, if default LE/VSE or CICS run-option modules are used (as supplied with subject z/VSE release).

The default run-time option NATLANG has changed from UEN to ENU for both CICS and BATCH in z/VSE V4.2.1.

6.1.12.2 FETCH and PL/I

Programmers that implement the new PL/1 fetching of other PL/1 programs from a fetched phase, must call these fetched phase(s) explicitly by name. The use of entry points or pointers is not supported.

6.1.12.3 LE/VSE Attention Routine Interface and Commands

The attention routine interface is pre-customized and activated in subject z/VSE release. It is recommended to keep this interface enabled.

It suits to display LE/VSE run-time option, exit and status reports. From z/VSE V4.2 onwards, it provides commands to manage LE/VSE batch run-time override options and is a prerequisite for the "AS-IS" CEETRACE feature (during related initial installation).

For details and reference on the the attention routine interface and CEETRACE please see the *LE/VSE debugging and Run-Time Messages, SC33-6681, section "Summary of Changes".*

6.1.13 IBM WebSphere MQ for z/VSE V3.0.0

IBM WebSphere MQ for z/VSE V3.0.0 is a new member of the WebShere MQ family of messaging products. It is a replacement for MQSeries for VSE/ESA V2.1.2

The WebSphere MQ for z/VSE System Management Guide GC34-6981 describes:

- the installation procedure to install the product
- the migration procedure to migrate from MQSeries for VSE/ESA V2.1 to WebSphere MQ for z/VSE V3.0

6.1.14 Rational COBOL Runtime for z/VSE V7.5.0

IBM Rational COBOL Runtime for z/VSE V7.5 is designed to execute applications developed with the EGL (Enterprise Generation Language) capability of Rational Business Developer.

EGL, IBM's newest business language, frees developers to focus on the business problem rather than on the details of the target execution platforms and associated middleware. EGL is ideal for business-oriented development teams who value ease of learning and high productivity, and need to quickly deliver modern applications and services.

Rational COBOL Runtime for z/VSE provides the libraries to enable EGL code, generated as COBOL, to run on the z/VSE platform.

Using the new extension to Rational Business Developer, COBOL code can be generated and deployed in z/VSE as:

- Traditional 3270 CICS applications
- Traditional batch applications
- Application programs capable of being invoked from an EGL Web or Web 2.0 front-end, or from an EGL service on a distributed application server

Rational COBOL Runtime for z/VSE 7.5 is the replacement for VisualAge Generator Server V1.2

Please refer to the Rational COBOL Runtime for z/VSE V7.5.0 Program Directory - GC10-8803 for installation instructions.

For overview and details how to integrate Rational COBOL Runtime for z/VSE V7.5 in an IT infrastructure please refer to "Multi-Platform Development and VSE" in the "Solutions" section of the z/VSE Home Page: http://www-03.ibm.com/servers/eserver/zseries/zvse/solutions/egl.html

6.1.15 DL/I V1.10 and DL/I V1.11

z/VSE V4.2.2 is the last release where DL/I V1.10 (5746-XX1) and DL/I V1.11 (5746-XX1) are supported.

6.2 TCP/IP for VSE/ESA

z/VSE 4.2.2 includes TCP/IP 1.5 F with its most current service level. Please refer to the MSHP History File for the latest APAR/PTF applied.

For users of the IBM provided security exit BSSTISX there is one important point to notice:

New security request types are now passed to BSSTISX, like

· X'1A' SXTYCWDL   26 - Change directory from root

· X'1D' SXTYFCMD   29 - Send commands to FTP daemon

These new security request types pertain to FTP processing. To let FTP processing with z/VSE 4.2 and TCP/IP 1.5F behave the same way as with previous VSE releases and TCP/IP 1.5F, the z/VSE 4.2 IBM-provided BSSTISX exception list BSSTIXE has been extended with the above two request types. With this change, these request types are now accepted in BSSTISX and subject to userid and password checking. This is the same as with pre z/VSE 4.2 releases and TCP/IP 1.5F. Customer who do not want this behaviour can use skeleton SKEXCLST in ICCF list 59 to modify BSSTIXE exception list.

Customers who have migrated from previous releases to z/VSE 4.2 and continue to use their old BSSTIXE exception list, will now fail with their FTP processing. These customers have to add above two request types to the BSSTIXE exception list. This can also be done using member SKEXCLST in ICCF lib 59.

The documentation for TCP/IP 1.5 for VSE/ESA is available on the z/VSE 4.2.2 Softcopy Collection 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 for VSE/ESA 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/ESA 1.5 Installation Guide
· TCP/IP for VSE/ESA 1.5 User's Guide
· TCP/IP for VSE/ESA 1.5 Commands Reference
· TCP/IP for VSE/ESA 1.5 Programmer's Guide
· TCP/IP for VSE/ESA 1.5 Messages
· TCP/IP for VSE/ESA 1.5 Optional Features

The manual 'TCP/IP for VSE/ESA - IBM Program Setup and Supplementary Information' (SC33-6601) replaces the former 'TCP/IP for VSE 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 the Softcopy Collection Kits 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 z/VSE Home Page at

```
http://www.ibm.com/servers/eserver/zseries/zvse/
```

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.

6.3 Installation Hints and Tips

6.3.1 Installation of VSE Connector Workstation code

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

```
http://www.ibm.com/servers/eserver/zseries/zvse/products/connectors.html
```

6.3.2 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/zvse/products/connectors.html
```

6.3.3 CWS Client Authentication

The CICS Web Support (CWS) supports SSL Client Authentication. The Interactive Interface includes a 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.
- *z/VSE e-business Connectors User's Guide*, SC33-8231

and the VSE Internet page at

```
http://www.ibm.com/servers/eserver/zseries/zvse/
```

6.4 Publication Updates

6.4.1 Accessing VSE Performance Documentation

You can receive up-to-date performance information for VSE from the Internet or from the VSE Softcopy Collection DVD SK3T-8348.

From the internet, access and get these documents via the z/VSE Home Page

`http://www.ibm.com/servers/eserver/zseries/zvse/documentation/performance.html`

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
VE31PE01.PDF	IBM z/VSE 3.1 and SCSI Performance Considerations
VE41PE01.PDF	IBM z/VSE 4.1 and 4.2 Performance Considerationss

6.5 Hints and Tips for VSE/ESA Optional Programs

There is no further information for z/VSE 4.2.2

7.0 Installation Instructions

7.1.1 Installing from CD-ROM and through internet-delivery

Please see the VSE Install Instruction on the z/VSE Home Page:

```
http://www.ibm.com/servers/eserver/zseries/zvse
```

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.

8.0 z/VSE 4.2.2 Install Logic

There is no further information for z/VSE 4.2.2

9.0 Reader's Comments

Program Directory for z/VSE Version 4 Release 2.2

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

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

```
┌─ RATING SCALE ─────────────────────────────────────────────────┐
    very                          very        not
  satisfied <====================> dissatisfied  applicable
     1       2       3       4       5           N
└─────────────────────────────────────────────────────────────────┘
```

	Satisfaction					
Ease of product installation	1	2	3	4	5	N
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

Did you order this product as an independent product or as part of a package?

___ Independent
___ Package

If this product was ordered as part of a package, what type of package was ordered?

___ CustomPac

    ___ FunctionPac
    ___ SystemPac

___ System Delivery Offering (SDO)

___ Other - Please specify type: . . . .

Is this the first time your organization has installed this product?

___ Yes
___ No

Were the people who did the installation experienced with the installation of these products?

___ Yes
___ No

If yes, how many years? __

If you have any comments to make about your ratings above, or any other aspect of the product installation, please list them below:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Please provide the following contact information:

_____

Name and Job Title

_____

Organization

_____

Address

_____

Telephone

Thank you for your participation.

Please send the completed form to (or give to your IBM representative who will forward it to the z/VSE V4.2 Development group):

IBM System Software Development
Werner Demel
Dept.4357, Bldg.71032-16
Schoenaicher Strasse 220
71032 Boeblingen
Germany

IBM Ò