



**Program Directory for
IBM XL C/C++ for z/VM**

version 1 release 3.0

Program Number 5654-A22

for Use with
z/VM version 6 release 2

Document Date: December 2011

GI11-2899-01

Note!

Before using this information and the product it supports, be sure to read the general information under “Notices” on page 37.

This program directory, dated December 2011, applies to the IBM® XL C/C++ for z/VM™ Compiler version 1 release 3.0, Program Number 5654-A22.

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1.0 Introduction

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

The program directory contains the following sections:

- 2.0, “Program Materials” on page 2 identifies the basic and optional program materials and documentation for XL C/C++ for z/VM Compiler.
- 3.0, “Program Support” on page 5 describes the IBM support available for XL C/C++ for z/VM Compiler.
- 4.0, “Program and Service Level Information” on page 6 lists the APARs (program level) and PTFs (service level) incorporated into this release of XL C/C++ for z/VM Compiler.
- 5.0, “Installation Requirements and Considerations” on page 7 identifies the resources and considerations for installing and using the XL C/C++ for z/VM Compiler.
- 6.0, “Installation Instructions” on page 10 provides detailed installation instructions for the XL C/C++ for z/VM Compiler.
- 7.0, “Service Instructions” on page 34 provides service instructions for XL C/C++ for z/VM Compiler.
- Appendix A, “Segment Build List (CCNBLSGGL)” on page 35 describes the build list for Saved Segments for XL C/C++ for z/VM Compiler.

2.0 Program Materials

An IBM program is identified by a program number. The program number for IBM XL C/C++ for z/VM version 1 release 3.0 is 5654-A22.

The program announcement materials describe the features supported by XL C/C++ for z/VM Compiler. Ask your IBM marketing representative for this information if you have not already received a copy.

The following sections identify:

- basic and optional program materials available with this program.
- publications useful during installation

2.1 Basic Machine-Readable Material

The distribution medium for this program is 3590 or 3592 tape cartridge. You can also receive this program electronically by ordering it through the z/VM SDO (System Delivery Offering) using IBM ShopzSeries. For more information about IBM ShopzSeries go to www.ibm.com/software/ShopzSeries.

Note: You will need a 126 cylinder minidisk to hold the tersed electronic servlink file and a 485 cylinder minidisk to hold the untersed version of the servlink.

The cartridge or electronic envelope contains all the programs and data needed for installation. See 6.0, "Installation Instructions" on page 10 for more information about how to install the program. Figure 1 describes the file content of the program tape cartridge or electronic envelope.

Figure 1 (Page 1 of 2). Program Tape: File Content

Tape File	Content
1	Tape Header
2	Tape Header
3	Product Header
4	Product Memo
5	Service Apply Lists
6	PTFPARTs
7	XL C/C++ for z/VM Compiler Service
8	XL C/C++ for z/VM Compiler Service
9	XL C/C++ for z/VM Compiler Base Code
10	XL C/C++ for z/VM Compiler Samples
11	XL C/C++ for z/VM Compiler Build Code

Figure 1 (Page 2 of 2). Program Tape: File Content

Tape File	Content
12	XL C/C++ for z/VM Compiler Build Code (English)
13	XL C/C++ for z/VM Compiler Build Code (Kanji)

2.2 Optional Machine-Readable Material

There are no optional machine-readable materials for XL C/C++ for z/VM Compiler.

2.3 Program Publications

The following sections identify the basic and other publications for XL C/C++ for z/VM Compiler.

These publications are supplied softcopy on the *IBM Online Library: z/VM Collection DVD (SK5T-7054)* in BookManager® and Adobe® Portable Document Format (PDF). One copy of the z/VM collection on DVD was included when you ordered the basic materials for z/VM.

In addition, the XL C/C++ for z/VM Compiler softcopy publications are available in Adobe Portable Document Format from the z/VM Collection link off of the z/VM library home page on the World Wide Web; the URL for this home page is:

<http://www.vm.ibm.com/library>

The XL C/C++ for z/VM Compiler publications can be ordered separately, for a fee, using the specific publication number through the IBM Publication Center at:

<http://www.ibm.com/shop/publications/order/>

The Publications Center is a world wide central repository for IBM product publications and marketing material. Furthermore, a large number of publications are available online in various file formats (such as Adobe PDF), which can currently be downloaded free of charge.

2.3.1 Basic Program Publications

One copy of the following publication is included when you order the basic materials for XL C/C++ for z/VM Compiler.

Figure 2. Basic Material: Unlicensed Publications

Publication Title	Form Number
XL C/C++ for z/VM: User's Guide	SC09-7625

2.3.2 Other Program Publications

The following publications may be needed to support XL C/C++ for z/VM Compiler.

Figure 3. Other Material: Unlicensed Publications

Publication Title	Form Number
XL C/C++ for z/VM: Runtime Library Reference	SC09-7624
z/OS® XL C/C++ Language Reference	SC09-4815
z/OS XL C/C++ Messages	GC09-4819
z/OS XL C/C++ User's Guide	SC09-4767
z/OS XL C/C++ Compiler and Run-Time Migration Guide	GC09-4913
z/OS XL C/C++ Programming Guide	SC09-4765
z/OS C Curses	SA22-7820
z/OS XL C/C++ Run-Time Library Reference	SA22-7821
z/OS Language Environment® Debugging Guide	GA22-7560
z/OS Language Environment Run-Time Messages	SA22-7566

2.4 Program Source Materials

No program source materials or viewable program listings are provided for XL C/C++ for z/VM Compiler.

2.5 Publications Useful During Installation

The publications listed in Figure 4 may be useful during the installation of XL C/C++ for z/VM Compiler. To order copies, contact your IBM representative.

Figure 4. Publications Useful During Installation / Service on z/VM V6.2.0

Publication Title	Form Number
z/VM: VMSES/E Introduction and Reference	GC24-6243
z/VM: Service Guide	GC24-6247
z/VM: CMS Commands and Utilities Reference	SC24-6166
z/VM: CMS File Pool Planning, Administration, and Operation	SC24-6167
z/VM: Other Components Messages and Codes	GC24-6207
z/VM: CMS and REXX/VM Messages and Codes	GC24-6161
z/VM: CP Messages and Codes	GC24-6177

3.0 Program Support

This section describes the IBM support available for XL C/C++ for z/VM Compiler.

3.1 Preventive Service Planning

Before installing XL C/C++ for z/VM Compiler, check with your IBM Support Center or IBMLink™ (ServiceLink) to see whether there is additional Preventive Service Planning (PSP) information. To obtain this information, specify the following UPGRADE and SUBSET values:

Figure 5. PSP Upgrade and Subset ID

RETAIN®			
COMPID	Release	Upgrade	Subset
5654A2200	130/13A	CCZVM130	CMS130

3.2 Statement of Support Procedures

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

Figure 6 identifies the component ID (COMPID), Retain Release and Field Engineering Service Number (FESN) for XL C/C++ for z/VM Compiler.

Figure 6. Component IDs

RETAIN			
COMPID	Release	Component Name	FESN
5654A2200	130	XL C/C++ for z/VM Compiler, V1.3	0400000
5654A2200	13A	XL C/C++ for z/VM Compiler, V1.3, Japanese Kanji	0400000

4.0 Program and Service Level Information

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

4.1 Program Level Information

The APAR fixes against previous releases of XL C/C++ for z/VM Compiler that have been incorporated into this release are as follows:

PK76089 PK82187 PM27552 PM37136

4.2 Service Level Information

This is the initial release of XL C/C++ for z/VM Compiler. There are no PTFs on the installation media.

4.3 Cumulative Service Tape

Cumulative service for XL C/C++ for z/VM Compiler is available through a monthly corrective service tape, Expanded Service Option (ESO).

The XL C/C++ for z/VM Compiler PRODID, which is needed to order an ESO, is 5654A22C.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating the XL C/C++ for z/VM Compiler.

5.1 Hardware Requirements

There are no special hardware requirements for the XL C/C++ for z/VM Compiler.

5.2 Program Considerations

The following sections list the programming considerations for installing the XL C/C++ for z/VM Compiler and activating its functions.

5.2.1 Operating System Requirements

The XL C/C++ for z/VM Compiler operates under the following system environment (or subsequent releases):

- z/VM version 6 release 2

5.2.2 Other Program Product Requirements

Language Environment for z/VM, which is included in the base of z/VM, includes the C runtime library.

The High Level Assembler is required if you wish to customize the XL C/C++ for z/VM Compiler compile options (see 6.4.1, “Customization of Compile-time Options (Optional)” on page 22).

5.2.3 Program Installation Considerations

This section describes items that should be considered before you install the XL C/C++ for z/VM Compiler.

- XL C/C++ for z/VM Compiler supports the packaging changes introduced with z/VM version 6 release 2 to provide support for single system image (SSI) cluster. Note that **all XL C/C++ for z/VM Compiler service activity should now be performed using the user ID MAINTvrm (e.g. MAINT620)**.
- VMSES/E is required to install this product.
- If you modify or eliminate any of the IBM-supplied user IDs, minidisk addresses or SFS directory names that are associated with XL C/C++ for z/VM Compiler, you **must** create an appropriate PPF override to the 5654A22C \$PPF.

You also must use the **VMFUPDAT SYSSUF** command to update the VM SYSSUF Software Inventory file, so that your PPF override for 5654A22C PPF is used for automated service processing. For more information about PPF overrides, see the *z/VM: VMSES/E Introduction and Reference*.

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

5.3 DASD Storage and User ID Requirements

Figure 7 lists the user IDs and minidisks that are used to install the XL C/C++ for z/VM Compiler.

Important Installation Notes:

- User ID(s) and minidisks will be defined in 6.2.1, “Plan Your Installation For XL C/C++ for z/VM Compiler” on page 11 and are listed here so that you can get an idea of the resources that you will need prior to allocating them.
- The 5654A22C user ID is defined with a single-configuration virtual machine definition. See *z/VM: CP Planning and Administration* for information on single-configuration and multiconfiguration virtual machine definitions.
- 5654A22C is a default user ID and can be changed. If you choose to change the name of this user ID you need to create a Product Parameter File (PPF) Override to change the name. This can be done in 6.2.1, “Plan Your Installation For XL C/C++ for z/VM Compiler” step 4 on page 12.

Figure 7 (Page 1 of 2). DASD Storage Requirements for Target Minidisks

Minidisk owner (user ID)	Default Address	Storage in Cylinders		FB-512 Blocks	SFS 4K Blocks	Usage
		DASD	CYLS			Default SFS Directory Name
5654A22C	2B2	3390	250	360000	45000	Contains all the base code shipped with XL C/C++ for z/VM Compiler VMPSFS:5654A22C.CCXX.OBJECT

Notes:

1. Cylinder values defined in this table are based on a 4K block size. A total of 1290 cyls are needed for minidisk install. FB-512 block and SFS values are derived from the 3390 cylinder values in this table. 232,200 4K blocks are needed for SFS install.
2. If you are running in an SSI cluster you need to increase the size of the MAINT 19E minidisk on all members where you have a license to run XL C/C++ for z/VM Compiler. Also, when you increase the size of the MAINT 19E you need to re-save CMS. See *z/VM: Service Guide* for instructions on re-saving CMS.

Figure 7 (Page 2 of 2). DASD Storage Requirements for Target Minidisks

Minidisk owner (user ID)	Default Address	Storage in Cylinders		FB-512 Blocks	SFS 4K Blocks	Usage
		DASD	CYLS			Default SFS Directory Name
5654A22C	2C2	3390	5	7200	900	Contains customization files. This disk may also be used for local customer modification. VMPSFS:5654A22C.CCXX.SAMPLE
5654A22C	2D2	3390	450	648000	81000	Contains serviced files VMPSFS:5654A22C.CCXX.DELTA
5654A22C	2A6	3390	5	7200	900	Contains AUX files and software inventory tables that represent the test service level of XL C/C++ for z/VM Compiler VMPSFS:5654A22C.CCXX.APPLYALT
5654A22C	2A2	3390	5	7200	900	Contains AUX files and software inventory tables that represent the service level of XL C/C++ for z/VM Compiler that is currently in production. VMPSFS:5654A22C.CCXX.APPLYPROD
5654A22C	29E	3390	450	648000	81000	Test build disk. This code will be copied to a production disk, (such as MAINT 19E) so the production disk will also require this amount of free space. VMPSFS:5654A22C.CCXX.TBUILD
5654A22C	191	3390	125	180000	22500	5654A22C user ID's 191 minidisk VMPSFS:5654A22C.
MAINT	19E (2')	3390	900	1296000	n/a	Production build disk
<p>Notes:</p> <ol style="list-style-type: none"> 1. Cylinder values defined in this table are based on a 4K block size. A total of 1290 cyls are needed for minidisk install. FB-512 block and SFS values are derived from the 3390 cylinder values in this table. 232,200 4K blocks are needed for SFS install. 2. If you are running in an SSI cluster you need to increase the size of the MAINT 19E minidisk on all members where you have a license to run XL C/C++ for z/VM Compiler. Also, when you increase the size of the MAINT 19E you need to re-save CMS. See <i>z/VM: Service Guide</i> for instructions on re-saving CMS. 						

6.0 Installation Instructions

This chapter describes the installation methods and the step-by-step procedures to install and activate the XL C/C++ for z/VM Compiler.

The step-by-step procedures are in two column format. The steps to be performed are in bold large numbers. Commands for these steps are on the left hand side of the page in bold print. Additional information for a command may exist to the right of the command.

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

Throughout these instructions, the use of IBM-supplied default minidisk addresses and user IDs is assumed. If you use different user IDs or minidisk addresses to install the XL C/C++ for z/VM Compiler, adapt these instructions as needed for your environment.

Note!

The sample console output presented throughout these instructions was produced on a z/VM V6R2 system. If you are installing XL C/C++ for z/VM Compiler on a different z/VM system, the results obtained for some commands might differ from those depicted here.

6.1 VMSES/E Installation Process Overview

The following is a brief description of the main steps in installing the XL C/C++ for z/VM Compiler using VMSES/E.

- Plan Your Installation

The VMFINS command is used to load several VMSES/E files from the product tape and to obtain the XL C/C++ for z/VM Compiler resource requirements.

- Allocate Resources

The information obtained from the previous step is used to define the appropriate user IDs and minidisks (or SFS directories) needed to install and use the XL C/C++ for z/VM Compiler.

- Install the XL C/C++ for z/VM Compiler Product

The VMFINS command is used to load the XL C/C++ for z/VM Compiler product files from tape to the test BUILD and BASE minidisks/directories. VMFINS is then used to update the VM SYSBLDS file used by VMSES/E for software inventory management.

- Place the XL C/C++ for z/VM Compiler Files into Production

Once the operation of the XL C/C++ for z/VM Compiler is satisfactory, the product files are copied from the test BUILD disk(s) to production BUILD.

- Perform Post Installation Tasks

Information about creating a segment is presented in 6.6, “Post-Installation Considerations” on page 27.

For a complete description of all VMSES/E installation options refer to:

- *z/VM: VMSES/E Introduction and Reference*

6.2 Installation of the XL C/C++ for z/VM Compiler with VMSES/E (VMFINS)

VMFINS will be used to install the XL C/C++ for z/VM Compiler. VMFINS is the installation aid supplied as part of VMSES/E to make installation of Licensed Program Products (LPs) consistent.

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

6.2.1 Plan Your Installation For XL C/C++ for z/VM Compiler

The VMFINS command will be used to plan the installation. This is a two step process that will:

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

To obtain planning information for your environment:

- 1** Log on to user ID MAINT620 to plan your XL C/C++ for z/VM Compiler installation. Make sure that you have write access (R/W) to the Software Inventory disk, MAINT620 51D. Do not continue until you have a R/W link to the 51D.
- 2** Mount the XL C/C++ for z/VM Compiler installation tape on a tape drive and attach the tape drive to the user ID at virtual address 181. The VMFINS EXEC requires the tape drive to be attached at virtual address 181.
- OR -
If you have a product envelope SERVLINK file make sure it is available on the A-disk or any work disk that is accessed as file mode C, such as MAINT620's 500 disk.
- 3** Load the XL C/C++ for z/VM Compiler specific files to the 51D minidisk. The VMFINS INFO command will perform the following:
 - load Memo-to-Users

- load various product control files, including the Product Parameter File (PPF) and the PRODPART files
- create VMFINS PRODLIST on your A-disk. The VMFINS PRODLIST contains a list of products on the installation tape.

a If installing from **tape**

vmfins install info (nomemo)

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

b If installing from a product **envelope** file

vmfins install info (nomemo env *envfilename*)

envfilename is the file name of the product envelope file. The file type must be SERVLINK.

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

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

4 Obtain resource planning information for the XL C/C++ for z/VM Compiler. The product will **not** be loaded by the VMFINS command at this time.

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

Note:

- If you change the PPF name, a default user ID, or other parameters using a PPF override, you'll need to use your changed values instead of those indicated (when appropriate) throughout the rest of the installation instructions. For example, you'll need to specify your PPF override file name instead of 5654A22C for VMSES/E commands that use the PPF keyword.

- For more information about overriding the PPF, for example to change the VMPSFS file pool name at initial install time, refer to Chapter 3 in the *z/VM: VMSES/E Introduction and Reference*.
- Use ONE of the following install components:
 - **CCXX** if installing on minidisks.
 - **CCXXSFS** if installing in SFS directories.
 - **CCXXK** if installing Kanji on minidisks.
 - **CCXXKSFS** if installing Kanji in SFS directories.

a If installing from **tape**

vmfins install ppf 5654A22C {CCXX | CCXXSFS | CCXXK | CCXXKSFS} (plan nomemo

You can override any of the following by typing in a *1* followed by a *0*:

- the name of the product parameter file
- the default user IDs
- minidisk/directory definitions

If no override is needed just type in a *0* to continue.

b If installing from a product **envelope** file

vmfins install ppf 5654A22C {CCXX | CCXXSFS | CCXXK | CCXXKSFS} (plan nomemo env *envfilename*

envfilename is the file name of the product envelope file. The file type must be SERVLINK.

You can override any of the following by typing in a *1* followed by a *0*:

- the name of the product parameter file
- the default user IDs
- minidisk/directory definitions

If no override is needed just type in a *0* to continue.

```

VMFINS2767I Reading VMFINS DEFAULTS B for additional options
VMFINS2760I VMFINS processing started
VMFINS2601R Do you want to create an override for :PPF 5654A22C CCXX :PRODID
5654A22C%CCXX?
Enter 0 (No), 1 (Yes) or 2 (Exit)
0
VMFINS2603I Processing product :PPF 5654A22C CCXX :PRODID 5654A22C%CCXX
VMFREQ2805I Product :PPF 5654A22C CCXX :PRODID 5654A22C%CCXX has passed
requisite checking
VMFINT2603I Planning for the installation of product :PPF 5654A22C CCXX :PRODID
5654A22C%CCXX
VMFRMT2760I VMFRMT processing started
VMFRMT2760I VMFRMT processing completed successfully
VMFINS2760I VMFINS processing completed successfully
Ready;

```

- 5 Review the install message log (\$VMFINS \$MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see the appropriate *z/VM: Messages and Codes*, or use on-line HELP.

vmfview install

6.3 Allocate Resources for Installing the XL C/C++ for z/VM Compiler

Note

Ensure that MAINT's 19E is large enough to hold the complete product should you decide to put the product there. If you are running in an SSI cluster you need to make sure the MAINT 19E, on every member that you have a license to run XL C/C++ for z/VM Compiler on, is large enough.

Use the planning information in the 5654A22C PLANINFO file, created in the **PLAN** step, to:

- Create the 5654A22C user directory entry for minidisk install

OR

- Create the 5654A22C user directory entry for SFS install

6.3.1 Preparing to install XL C/C++ for z/VM Compiler on Minidisk

- 1 Obtain the user directory information from the 5654A22C PLANINFO file.

Note: The user directory entry is located at the bottom of the PLANINFO file of the resource section. This entry contains all of the links and privilege classes required for the 5654A22C user ID. Use the directory entry found in PLANINFO as model input to your system user directory.

- 2** Add the MDISK statements to the directory entry for 5654A22C. Use Figure 7 on page 8 to obtain the minidisk requirements.
- 3** Add the 5654A22C directory entry to the system user directory. Change the password for 5654A22C from xxxxx to a valid password, in accordance with your security guidelines.
- 4** Place the new directory on-line using the DIRECTXA command or an equivalent directory maintenance product, such as DIRMAINT.

Note: If you are running in an SSI cluster and you are using DIRECTXA you must run DIRECTXA on every member.

Note

All minidisks for the 5654A22C user ID must be formatted before installing XL C/C++ for z/VM Compiler.

- 5** Make sure minidisks or SFS directories containing previous releases of the compiler are not accessed by the 5654A22C user ID.
- 6** Continue with section 6.4, “Install the XL C/C++ for z/VM Compiler” on page 18.

6.3.2 Preparing to install XL C/C++ for z/VM Compiler in SFS Directories

- 1** Obtain the user directory information from the 5654A22C PLANINFO file.
Note: The user directory entry is located at the bottom of the PLANINFO file of the resource section. This entry contains all of the links and privilege classes required for the 5654A22C user ID. Use the directory entry found in PLANINFO as model input to your system user directory.
- 2** Add the 5654A22C directory entry to the system user directory. Change the password for 5654A22C from xxxxx to a valid password, in accordance with your security guidelines.
- 3** If you intend to use an SFS directory as the work space for the 5654A22C user ID, include the following IPL control statement in the 5654A22C directory entry:

```
IPL CMS PARM FILEPOOL VMPSFS
```

This will cause CMS to automatically access the 5654A22C top directory (VMPSFS:5654A22C) as file mode A.
- 4** Place the new directory online using the DIRECTXA command or an equivalent directory maintenance product, such as DIRMAINT.
Note: If you are running in an SSI cluster and you are using DIRECTXA then you need to run it on every member.
- 5** An SFS install also requires the following steps:
 - a** Determine the number of 4k blocks that are required for SFS directories by adding up the 4K blocks required for each SFS directory you plan to use.

If you intend to use all of the default XL C/C++ for z/VM Compiler SFS directories, the 4K block requirements for each directory are summarized in Figure 7 on page 8.

This information is used when enrolling 5654A22C user ID in the VMPSFS filepool.
 - b** Enroll user 5654A22C in the VMPSFS filepool using the ENROLL USER command:

```
ENROLL USER 5654A22C VMPSFS (BLOCKS blocks)
```

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

This creates the user's top directory, VMPSFS:5654A22C.

Note: This must be done from a user ID that is an administrator for the VMPSFS: filepool, such as MAINT620.

- C** Enroll the maintenance segment build user ID, BLDSEG, into the VMPSFS filepool using the ENROLL USER command. This needs to be done so that PUT2PROD can be used to build the XL C/C++ for z/VM Compiler segment.

ENROLL USER BLDSEG VMPSFS

Notes:

- 1) This must be done from a user ID that is an administrator for the VMPSFS: filepool, such as MAINT620.
- 2) If you receive a message that BLDSEG is already enrolled that is okay. Just continue on to the next step.

- d** Determine if there are enough blocks available in the filepool to install XL C/C++ for z/VM Compiler. This information can be obtained from the QUERY FILEPOOL STORGRP command. The output from this command is a list of storage groups in the filepool and the number of 4K blocks free. If the number of blocks free is smaller than the total 4k blocks needed to install XL C/C++ for z/VM Compiler you need to add space to the filepool. See *z/VM: CMS File Pool Planning, Administration, and Operation* manual for information on adding space to a filepool.

- e** Create the necessary subdirectories listed in the 5654A22C PLANINFO file using the CREATE DIRECTORY command.

A complete list of default CCXX SFS directory names is provided in Figure 7 on page 8.

**set filepool vmpsfs:
create directory *dirid***

dirid is the name of the SFS directory you're creating, such as:

```
create directory vmpsfs:5654A22C.CCXX
create directory vmpsfs:5654A22C.CCXX.object
:
```

If necessary, see *z/VM: CMS Commands and Utilities Reference* for more information about the CREATE DIRECTORY command.

- f** Authorize the maintenance segment build user ID, BLDSEG, to READ the XL C/C++ for z/VM Compiler SFS directories in order to build its segment using PUT2PROD.

grant auth vmpsfs:5654A22C.CCXX.APPLYALT to BLDSEG (read newread
grant auth vmpsfs:5654A22C.CCXX.APPLYPROD to BLDSEG (read newread
grant auth vmpsfs:5654A22C.CCXX.DELTA to BLDSEG (read newread
grant auth vmpsfs:5654A22C.CCXX.SAMPLE to BLDSEG (read newread
grant auth vmpsfs:5654A22C.CCXX.TBUILD to BLDSEG (read newread
grant auth vmpsfs:5654A22C.CCXX.OBJECT to BLDSEG (read newread

If necessary, see the *z/VM: CMS Commands and Utilities Reference* manual for more information about the GRANT AUTHORITY command.

- g** Authorize the z/VM maintenance user ID, MAINT620, to READ the test code directory, using the GRANT AUTHORITY command.

grant auth vmpsfs:5654A22C.CCXX.TBUILD to MAINT620 (read newread

If necessary, see the *z/VM: CMS Commands and Utilities Reference* manual for more information about the GRANT AUTHORITY command.

- h** Make sure minidisks or SFS directories containing previous releases of the compiler are not accessed by the 5654A22C user ID.

6.4 Install the XL C/C++ for z/VM Compiler

The *ppfname* used throughout these installation instructions is **5654A22C**, which assumes you are using the PPF supplied by IBM for XL C/C++ for z/VM Compiler. If you have your own PPF override file for XL C/C++ for z/VM Compiler, you should use your file's *ppfname* instead of **5654A22C**. The *ppfname* you use should be used **throughout** the rest of this procedure.

The *compname* used throughout these installation instructions is ONE of the following.

- **CCXX** if installing on minidisks.
- **CCXXSFS** if installing in SFS directories.
- **CCXXK** if installing Kanji on minidisks.
- **CCXXKSFS** if installing Kanji in SFS directories.

You should use the *compname* that you installed with **throughout** this procedure.

- 1** Logon to the installation user ID **5654A22C** which should have the minimum virtual storage of 256M.

If you are running in an SSI cluster you can log on any member where you have a license to run XL C/C++ for z/VM Compiler.

- 2 If you have not formatted the minidisks for the 5654A22C user ID then you must do that before continuing.
- 3 Create a PROFILE EXEC that will contain the ACCESS commands for VMSES/E and Software Inventory disks, MAINT620 5E5 and 51D minidisks.

xedit profile exec a

```
====> input /**/  
====> input ADDRESS COMMAND  
====> input 'ACCESS 5E5 B'  
====> input 'ACCESS 51D D'  
====> input 'SET LDRTBLS 30'  
====> input 'CP SET PF12 RETRIEVE'  
====> input EXIT  
====> file
```

- 4 Execute the profile to access MAINT620's minidisks.

profile

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

Note: If the MAINT620 51D minidisk was accessed R/O, you will need to have the user who has it linked R/W link it as R/O. You then can issue the following commands to obtain R/W access to it.

**link MAINT620 51d 51d mr
access 51d d**

- 6 Have the XL C/C++ for z/VM Compiler installation tape mounted and attached to 5654A22C at virtual address 181. The VMFINS EXEC requires the tape drive to be attached at virtual address 181.

- OR -

If you have a product envelope SERVLINK file make sure it is available on the A-disk or any work disk that is accessed as file mode C, such as MAINT620's 500 disk.

- 7 Install the XL C/C++ for z/VM Compiler.

Note:

- If you've already created a PPF override file, you should specify your override file name after the **PPF** keyword for the following VMFINS command.
- You may be prompted for additional information during VMFINS INSTALL processing depending on your installation environment. If you're unsure how to respond to a prompt, refer to the 'Installing Products with VMFINS' and 'Install Scenarios' chapters in the *VMSES/E Introduction and Reference* to decide how to proceed.

a If installing from **tape**

vmfins install ppf 5654A22C {CCXX | CCXXSFS | CCXXK | CCXXKSFS} (nomemo nolink

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

b If installing from a product **envelope** file

vmfins install ppf 5654A22C {CCXX | CCXXSFS | CCXXK | CCXXKSFS} (nomemo nolink env *envfilename*

envfilename is the file name of the product envelope file. The file type must be SERVLINK.

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


```

VMFINS2767I Reading VMFINS DEFAULTS B for additional options
VMFINS2760I VMFINS processing started
VMFINS2601R Do you want to create an override for :PPF 5654A22C CCXX :PRODID
5654A22C%CCXX?
Enter 0 (No), 1 (Yes) or 2 (Exit)
0
VMFINS2603I Processing product :PPF 5654A22C CCXX :PRODID 5654A22C%CCXX
VMFREQ2805I Product :PPF 5654A22C CCXX :PRODID 5654A22C%CCXX has passed
requisite checking
VMFINT2603I Installing product :PPF 5654A22C CCXX :PRODID 5654A22C%CCXX
VMFSET2760I VMFSETUP processing started for 5654A22C CCXX
VMFUTL2205I Minidisk|Directory Assignments:
String Mode Stat Vdev Label/Directory
VMFUTL2205I LOCALSAM E R/W 2C2 CXX2C2
VMFUTL2205I APPLY F R/W 2A6 CXX2A6
VMFUTL2205I G R/W 2A2 CXX2A2
VMFUTL2205I DELTA H R/W 2D2 CXX2D2
VMFUTL2205I BUILD0 I R/W 29E CXX29E
VMFUTL2205I BASE1 J R/W 2B2 CXX2B2
VMFUTL2205I ----- A R/W 191 CXX191
VMFUTL2205I ----- B R/O 5E5 MNT5E5
VMFUTL2205I ----- D R/W 51D MNT51D
VMFUTL2205I ----- S R/O 190 CMS20
VMFUTL2205I ----- Y/S R/O 19E YDISK
VMFSET2760I VMFSETUP processing completed successfully
VMFREC2760I VMFREC processing started
VMFREC1852I Volume 1 of 1 of INS ENVELOPE 0300
VMFREC1851I (1 of 8) VMFRCAXL processing AXLIST
VMFRCX2159I Loading 0 part(s) to DELTA 2D2 (H)
VMFREC1851I (2 of 8) VMFRCPTF processing PARTLST
VMFRCP2159I Loading 0 part(s) to DELTA 2D2 (H)
VMFREC1851I (3 of 8) VMFRCCOM processing DELTA
VMFRCC2159I Loading 0 part(s) to DELTA 2D2 (H)
VMFREC1851I (4 of 8) VMFRCALL processing APPLY
VMFRCA2159I Loading part(s) to APPLY 2A6 (F)
VMFRCA2159I Loaded 1 part(s) to APPLY 2A6 (F)
VMFREC1851I (5 of 8) VMFRCALL processing BASE
VMFRCA2159I Loading part(s) to BASE1 2B2 (J)
VMFRCA2159I Loaded nn part(s) to BASE1 2B2 (J)
VMFREC1851I (6 of 8) VMFRCALL processing SAMPLE
VMFRCA2159I Loading part(s) to LOCALSAM 2C2 (E)
VMFRCA2159I Loaded nn part(s) to LOCALSAM 2C2 (E)
VMFREC1851I (7 of 8) VMFRCALL processing BUILD
VMFRCA2159I Loading part(s) to BUILD0 29E (I)
VMFRCA2159I Loaded nn part(s) to BUILD0 29E (I)
VMFREC1851I (8 of 8) VMFRCALL processing BUILDENG
VMFRCA2159I Loading part(s) to BUILD0 29E (I)
VMFRCA2159I Loaded nn part(s) to BUILD0 29E (I)
VMFREC2760I VMFREC processing completed successfully
VMFINT2603I Product installed
VMFINS2760I VMFINS processing completed successfully
Ready;

```

Figure 8. Sample console output from vmfins install

- 8 Review the install message log (\$VMFINS \$MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see the appropriate *z/VM: Messages and Codes*, or use on-line HELP.

vmfview install

Note: You may detach the tape drive now if you wish.

6.4.1 Customization of Compile-time Options (Optional)

Execute the following command to customize the defaults for C/C++ compiler options.

Notes:

1. You must have access to the High Level Assembler.
2. If you use the C5654A22 EXEC to customize the compiler after initial installation you will need to:
 - a. Log on to MAINT620 and do a VMFSETUP for the compiler.
 - b. Run the C5654A22 EXEC to change your compiler options.
 - c. Run the V5654A22 EXEC to verify that your new options are valid.
 - d. Log on to MAINT620 and run SERVICE CCXX BUILD followed by PUT2PROD. If you are running in an SSI cluster you need to run PUT2PROD on every member.

C5654A22 *ppfname compname*

The C5654A22 EXEC uses a default *ppfname* of 5654A22C and a default *compname* of CCXX. If you are using a different *ppfname* or *compname*, then those names must be entered.

This exec will XEDIT an assembler routine CCNCOPT, allow you to enter and save your modifications, and use VMSES/E to call the High Level Assembler to assemble your changes. If you don't make any modifications in XEDIT, then no further processing takes place. You can change the IBM supplied default *FLAG(I)* or add any valid XL C/C++ for z/VM Compiler options, as described in the *XL C/C++ for z/VM User's Guide*. For example, to modify the defaults to be equivalent to entering *cc HELLO (source optimize flag(E))* you could make the following assembler code changes:

```

CCNO00C CSECT
CCNO00C RMODE ANY
CCNO00C AMODE ANY
* You can either code the length in the fullword below, or
* null terminate the string with an X'00' as shown
  DC  F'0'
  DC  CL7'SOURCE '  << notice blank delimiter
  DC  CL9'OPTIMIZE ' << notice blank delimiter
  DC  CL7'FLAG(E)'
  DC  CL7'ARCH(4)'  << see note below
  DC  X'00'        (NULL-terminate the string)
END

```

Figure 9. CCNCOPT assembler routine

Note: Do not delete or change the ARCH(4) option in the CCNOPT ASSEMBLE file. This option is required to let the compiler run on CMS.

```

...
VMFREP2760I VMFREPL processing started
VMFREP2509I The version vector table 5654A22C VVTLCL E will be updated for the
part CCNCOPT ASM
VMFREP2760I VMFREPL processing completed successfully
VMFBLD2760I VMFBLD processing started
VMFBLD1851I Reading build lists
VMFBLD2182I Identifying new build requirements
VMFBLD2182I New build requirements identified
VMFBLD1851I (1 of 2) VMFBDCOM processing CCNBLSAM EXEC J, target is LOCALSAM
2C2 (E)
VMFBDC2219I Processing object =.ASSEMBLE
VMFBLD1851I (1 of 2) VMFBDCOM completed with return code 0
VMFBLD1851I (2 of 2) VMFBDCOM processing CCNBLCPY EXEC J, target is BUILD0 29E
(I)
VMFBDC2219I Processing object CCNCOPT.ASSEMBLE
VMFBLD1851I (2 of 2) VMFBDCOM completed with return code 0
VMFBLD2180I There are 0 build requirements remaining
VMFBLD2760I VMFBLD processing completed successfully
VMFREP2760I VMFREPL processing started
VMFREP2509I The version vector table 5654A22C VVTLCL E will be updated for the
part CCNCOPT TXT
VMFREP2760I VMFREPL processing completed successfully
VMFASM2760I VMFHLASM processing started
DMSUPD181E No update files were found
VMFASM1907I Assembling CCNCOPT
Assembler Done No Statements Flagged
VMFASM2507I CCNCOPT TXTL1010 created on your E-disk for use in a VMSES/E
environment
VMFASM2760I VMFHLASM processing completed successfully
PRT FILE 1028 SENT FROM 5654A22C PRT WAS 1028 RECS 0137 CPY 001 A NOHOLD NOKEEP
VMFUTL2767I Reading VMFINS DEFAULTS B for additional options
VMFBLD2760I VMFBLD processing started
VMFBLD1851I Reading build lists
VMFBLD2182I Identifying new build requirements
VMFBLD2182I New build requirements identified
VMFBLD1851I (1 of 1) VMFBDPMD processing CCNBLPMB EXEC J, target is BUILD0
29E (I)
VMFBDC2219I Processing object CCNEDFLT.MODULE
VMFBLD1851I (1 of 1) VMFBDPMD completed with return code 0
VMFBLD2180I There are 0 build requirements remaining
VMFBLD2760I VMFBLD processing completed successfully
Ready;

```

Figure 10. Sample console output from the C5654A22 customization exec

6.4.2 Update Build Status Table for the XL C/C++ for z/VM Compiler

- 1 Update the VM SYSBLDS software inventory file for XL C/C++ for z/VM Compiler.

vmfins build ppf 5654A22C {CCXX | CCXXSFS | CCXXK | CCXXKSFS} (serviced nolink

```

VMFINS2767I Reading VMFINS DEFAULTS B for additional options
VMFINS2760I VMFINS processing started
VMFINS2603I Processing product :PPF 5654A22C CCXX :PRODID 5654A22C%CCXX
VMFREQ2805I Product :PPF 5654A22C CCXX :PRODID 5654A22C%CCXX has passed
requisite checking
VMFINB2603I Building product :PPF 5654A22C CCXX :PRODID 5654A22C%CCXX
VMFSET2760I VMFSETUP processing started for 5654A22C CCXX
VMFUTL2205I Minidisk|Directory Assignments:
String Mode Stat Vdev Label/Directory
VMFUTL2205I LOCALSAM E R/W 2C2 CXX2C2
VMFUTL2205I APPLY F R/W 2A6 CXX2A6
VMFUTL2205I G R/W 2A2 CXX2A2
VMFUTL2205I DELTA H R/W 2D2 CXX2D2
VMFUTL2205I BUILD0 I R/W 29E CXX29E
VMFUTL2205I BASE1 J R/W 2B2 CXX2B2
VMFUTL2205I ----- A R/W 191 CXX191
VMFUTL2205I ----- B R/O 5E5 MNT5E5
VMFUTL2205I ----- C R/O 11A5 MJD1A5
VMFUTL2205I ----- D R/W 51D MNT51D
VMFUTL2205I ----- S R/O 190 CMS20
VMFUTL2205I ----- Y/S R/O 19E YDISK
VMFSET2760I VMFSETUP processing completed successfully
VMFBLD2760I VMFBLD processing started
VMFBLD1851I Reading build lists
VMFBLD2182I Identifying new build requirements
VMFBLD2182I No new build requirements identified
VMFBLD2179I There are no build requirements matching your request at this time.
No objects will be built
VMFBLD2180I There are 0 build requirements remaining
VMFBLD2760I VMFBLD processing completed successfully
VMFINB2603I Product built
VMFINB2173I Executing verification exec V5654A22
*** V5654A22: Installation Verification Beginning...

C/C++ for z/VM Installation Verification Test, for OPT(0) RENT
Product Name: 5694A01
Version 1 Release 12 Modification 00
Text Creation Date: 11:293
VALIDATION SUCCESSFUL

C/C++ for z/VM Installation Verification Test, for OPT(1)
Product Name: 5694A01
Version 1 Release 12 Modification 00
Text Creation Date: 11:293
VALIDATION SUCCESSFUL
VMFINS2760I VMFINS processing completed successfully
Ready;

```

Figure 11. Sample console output from vmfins build

Note: The product information in the console output reflects the z/OS equivalent product level.

2 Log off 5654A22C.

6.5 Place the XL C/C++ for z/VM Compiler Into Production

Note: If you are running in an SSI cluster you need to perform the place into production steps on every member in the cluster that you have a license to run XL C/C++ for z/VM Compiler.

6.5.1 Copy the XL C/C++ for z/VM Compiler Into Production

- 1 Logon to MAINT620 to put the XL C/C++ for z/VM Compiler on the 'Y' disk (MAINT's 19E disk).

Note: Ensure that the 19E minidisk, or the 'production' disk for the compiler has sufficient space free to hold the compiler files. Refer to Figure 7 on page 8 to for the additional space requirement.

- 2 Update the VMSES/E product production inventory.

```
vmfupdat syspinv prod 5654A22C <membername>
```

Where **membername** is the name of the z/VM system you are doing the place into production steps from. You need to execute this command whether or not you are in an SSI cluster.

- 3 Copy the XL C/C++ for z/VM Compiler files to the MAINT's 19E 'Y' disk.

a If using minidisks

```
link 5654A22C 29e 29e rr
access 29e e
link MAINT 19e 19e mr
access 19e f
vmfcopy * * e = = f2 (prodid 5654A22C%CCXX olddate replace
```

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

b If using Shared File System

```
access 5654A22C.CCXX.TBUILD e
link MAINT 19e 19e mr
access 19e f
vmfcopy * * e = = f2 (prodid 5654A22C%CCXX olddate replace
```

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

- 4 Since XL C/C++ for z/VM Compiler was copied to the MAINT 19E disk, the CMS saved system needs to be re-saved to return the 19E minidisk (Y-disk) to 'shared' status. This can be accomplished with the PUT2PROD command.

a If you customized the compile time options then issue:

put2prod

b Otherwise issue:

put2prod savecms

- 5** Review the place into production (\$VMFP2P \$MSGLOG) message log. If necessary, correct the problems before going on. For information about handling specific error messages, see the appropriate *z/VM: Messages and Codes*, or use on-line HELP.

vmfview put2prod

- 6** If you are running in an SSI cluster you need to repeat steps 1 through 5 above on each member that you have a license to run XL C/C++ for z/VM Compiler.
- 7** Add XL C/C++ for z/VM Compiler into the VM SYSSUF inventory table. This will allow you to apply CORrective service using the VMSES/E SERVICE and PUT2PROD commands from the MAINT620 user ID.

vmfsuftb

The XL C/C++ for z/VM Compiler is now installed and built on your system.

6.6 Post-Installation Considerations

Upon successful installation, the compiler can be installed into a segment. If you choose to create the XL C/C++ for z/VM Compiler segment then it will get used instead of the modules on the test or production build disks. The following instructions are used to create a saved segment for XL C/C++ for z/VM Compiler. You will need to:

- Create a PPF override to the 5654A22C \$PPF to remove the '-' or NOOP for the build list that is used to build the segment.
- Use VMFSGMAP segment mapping tool to define the segment to the system.
- Build the segment using PUT2PROD.

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

Note: The defining and building of the XL C/C++ for z/VM Compiler saved segments should be performed from the z/VM maintenance user ID. If you move any segments that are currently defined on your system you must ensure that they are rebuilt.

6.6.1 Create a Product Parameter File (PPF) Override

This section provides instructions to create a product parameter file (PPF) override in order to be able to build and service segments for XL C/C++ for z/VM Compiler.

For more information on creating an override to a PPF refer to Chapter 21, 'Product Parameter File Syntax, in the *z/VM: VMSES/E Introduction and Reference*.

Note: Do **not** modify the product supplied 5654A22C \$PPF or 5654A22C PPF files. If the 5654A22C \$PPF file is serviced, the existing \$PPF file will be replaced, and any changes to that file will be lost. By creating your own \$PPF override, your updates will be preserved.

1 Log on to the **MAINT620** user ID.

2 Create a new \$PPF override file.

xedit *overname* \$PPF A2

overname is the PPF override file name (such as "SEGCCXX") that you want to use.

3 Modify the Build (:BLD.) section for the CCXX component. The change is to remove the dash in front of the part handler for the segment build list.

Notes:

- Your change should look like the **:BLD.** section as shown below.
- The example uses the compname of CCXX. You **should use the compname that you installed with**, such as CCXX or CCXXSFS or CCXXK or CCXXKSFS.

```
:OVERLST. CCXX
:CCXX. CCXX 5654A22C
=====*
* Variable definitions *
=====*
:BLD. UPDATE
  CCNBSGL VMFBDSBR BUILD0 *BLIST IBM XL C/C++ for z/VM Segments
:EBLD.
:END.
```


- 4 Copy your \$PPF override file from file mode A to file mode D—the Software Inventory minidisk (MAINT 51D) then erase it from file mode A.

file

copyfile *overname* \$PPF a = = d (olddate

erase *overname* \$PPF a

- 5 Compile your changes to create the usable *overname* PPF file. Copy your usable PPF file to file mode D—the Software Inventory minidisk (MAINT 51D) and then erase it from file mode A.

vmfppf *overname* *

copyfile *overname* PPF a = = d (olddate

erase *overname* PPF a

where *overname* is the file name of your \$PPF override file.

- 6 Update the VM SYSSUF Software Inventory table. Since you created a PPF override to the 5654A22C \$PPF file you need to make sure that the override name you created is reflected in the PPF tags for XL C/C++ for z/VM Compiler in the VM SYSSUF table. Type in the command **VMFUPDAT SYSSUF**. This will bring up a panel so that you can change the PPF names stored in the VM SYSSUF file. Locate 5654A22C under the 'Prodid' column. Replace the PPF name for INSTPPF, and BLDPPF for 5654A22C with your new PPF override file name. Use PF5 to process your changes.

Now that the *overname* PPF file has been created, you should specify *overname* instead of 5654A22C as the PPF name to be used for those VMSES/E commands that require a PPF name.

6.6.2 Define and Build Saved Segments Using VMSES/E

Notes:

1. If you are running in an SSI cluster you only have to define the the XL C/C++ for z/VM Compiler saved segment once but you need to build the saved segment on every member in the SSI cluster.
2. You must have Class E privileges to install a saved segment.
3. You must have a virtual storage size at least 0.5 MB greater than the address of the end of the segment. A minimum virtual storage of 256M is recommended if using default address range.
4. Ensure that the shared segment does not overlap any other shared segment or saved system. For details, see the *z/VM: Saved Segments Planning and Administration* manual.

F10

F10 will take you from the Segment Map panel to the Add Segment Definition panel. See Figure 13 on page 31 to see the Add Segment Definition panel that will be displayed. You will type in the highlighted information in the the next step.

```
                                Add Segment Definition                                Lines 1 to nn of nn
OBJNAME.....: CCNSEG
DEFPARMS....:
SPACE.....:
TYPE.....: SEG
OBJDESC.....:
OBJINFO.....:
GT_16MB....: NO
DISKS.....:
SEGREQ.....:
PROPID.....: 5654A22C CCXX
BLDPARMS....: UNKNOWN

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

Figure 13. Initial "Add Segment Definition" panel example.

4 Obtain the CCXX segment definitions from the PRODPART file. Fill in the fields on the Add Segment Definition panel with the following information (displayed after the colon) and then use function key F10.

Note: In the panel examples the CCXX compname was used. You need to use the compname that you used during installation.

```
OBJNAME.....: CCNSEG
PROPID.....: 5654A22C {CCXX | CCXXSFS | CCXXK | CCXXKSFS}
```

F10

F10 will obtain the XL C/C++ for z/VM Compiler segment information from the 5654A22C PRODPART file. See Figure 14 on page 32 for the refreshed Add Segment definition panel that will be displayed.

```

                                Add Segment Definition
                                More: +
                                Lines 1 to 12 of 12

OBJNAME....: CCNSEG
DEFPARMS...: 3000-7BFF SR
SPACE.....:
TYPE.....: PSEG
OBJDESC....: CCNSEG IBM XL C/C++ for z/VM Compiler segment
OBJINFO....:
GT_16MB....: YES
DISKS.....:
SEGREQ.....:
PRODID.....: 5654A22C CCXX
BLDPARMS...: PPF (5654A22C CCXX CCNBLSGL)

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

```

Figure 14. Segment Definition panel showing CCNSEG Segment information

5 Update the BLDPARMS field to reflect the PPF override that was created previously.

BLDPARMS...: PPF (**overname** CCXX CCNBLSGL)

enter

Where **overname** is the file name of your PPF override file.

6 Go back to the Segment Map panel.

F5

F5 will return you to the Segment Map panel. See Figure 15 on page 33 for the refreshed Segment Map panel that will be displayed.

7.0 Service Instructions

To install CORrective service to XL C/C++ for z/VM Compiler it is recommended that the z/VM VMSES/E automated service procedure (use of SERVICE and PUT2PROD commands) be used. These commands will apply the CORrective service and place it into production.

7.1 Servicing XL C/C++ for z/VM Compiler

Use the service instructions documented in the *z/VM: Service Guide* to receive, apply, build and place XL C/C++ for z/VM Compiler into production.

The **compname** that you will use in the SERVICE and PUT2PROD commands should be ONE of the following depending on what component name you used when you installed XL C/C++ for z/VM Compiler.

- **CCXX** if installing on minidisks.
- **CCXXSFS** if installing in SFS directories.
- **CCXXK** if installing Kanji on minidisks.
- **CCXXKSFS** if installing Kanji in SFS directories.

Appendix A. Segment Build List (CCNBLSGL)

```
*****
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* SCHEDULE CONTRACT WITH IBM CORP *
*****
* Buildlist for C/C++ for z/VM compiler in NSS *
*****
:FORMAT. 2
*
:OBJNAME. CCNSEG.SEGMENT
:BLDREQ. CCNBLPMB.CBXFINIT.MODULE
        CCNBLPMB.CCNDVR.MODULE
        CCNBLPMB.CCNEDFLT.MODULE
        CCNBLCPY.CCNEFLT.MODULE
        CCNBLCPY.CCNEOPTP.MODULE
        CCNBLPMB.CCNEP.MODULE
        CCNBLCPY.CCNEPP.MODULE
        CCNBLPMB.CCNETBY.MODULE
        CCNBLCPY.CCNMSGE.MODULE
:GLOBAL. TXTLIB SCEELKED
:OPTIONS. LOADFUNC ( LSEG CBXFINIT )
        LOADFUNC ( LSEG CCNDVR )
        LOADFUNC ( LSEG CCNEDFLT )
        LOADFUNC ( LSEG CCNEFLT )
        LOADFUNC ( LSEG CCNEOPTP )
        LOADFUNC ( LSEG CCNEP )
        LOADFUNC ( LSEG CCNEPP )
        LOADFUNC ( LSEG CCNETBY )
        LOADFUNC ( LSEG CCNMSGE )
:EOBJNAME.
```

Figure 16. Contents of CCNBLSGL Build List

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	1	2	3	4	5	N
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Time required to install the product						
Contents of program directory						
Readability and organization of program directory tasks						
Necessity of all installation tasks						
Accuracy of the definition of the installation tasks						
Technical level of the installation tasks						
Installation verification procedure						
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