



**Program Directory for
z/OS V1R2 Communications Server
X11R4 XWindows**

Release 2, Modification Level 0

Program Number 5694-A01

FMIDs HIP612X

for Use with
z/OS V1R2

Document Date: September 2001

GI10-3206-00

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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 z/OS V1R2 Communications Server X11R4 XWindows. This publication refers to z/OS V1R2 Communications Server X11R4 XWindows as z/OS CS X11R4 XWin. You should read all of this program directory before installing the program and then keep it for future reference.

The program directory contains the following sections:

- 2.0, “Program Materials” on page 3 identifies the basic and optional program materials and documentation for z/OS CS X11R4 XWin.
- 3.0, “Program Support” on page 5 describes the IBM support available for z/OS CS X11R4 XWin.
- 4.0, “Program and Service Level Information” on page 6 lists the APARs (program level) and PTFs (service level) incorporated into z/OS CS X11R4 XWin.
- 5.0, “Installation Requirements and Considerations” on page 7 identifies the resources and considerations for installing and using z/OS CS X11R4 XWin.
- 6.0, “Installation Instructions” on page 13 provides detailed installation instructions for z/OS CS X11R4 XWin. It also describes the procedures for activating the functions of z/OS CS X11R4 XWin, or refers to appropriate publications.

Before installing z/OS CS X11R4 XWin, read 3.2, “Preventive Service Planning” on page 5. This section tells you how to find any updates to the information and procedures in this program directory.

1.1 z/OS CS X11R4 XWin Description

This program directory and the associated tape is for the X-Windows X11R4 support, which has been available via OS/390 Version 2 Release 8 and later as well as z/OS Version 1 Release 1 as FMID HTCP38X. It is included here because it is not included in z/OS V1R2. A downloadable version of this tape with installation instructions is available. If you wish to download this function please consult the PSP bucket for z/OS V1R2 (upgrade ZOSV1R2, subset CS390IP) for instructions.

The X-Windows X11R4 code for z/OS V1R2, and subsequent releases, is available as FMID HIP612X and has been changed to support the new System Resolver enhancements available with z/OS V1R2.

This function will be made available as part of z/OS for releases after Version 1 Release 2.

1.2 z/OS CS X11R4 XWin FMIDs

z/OS CS X11R4 XWin consists of the following FMIDs:

HIP612X

2.0 Program Materials

An IBM program is identified by a program number and a feature number. The program number for z/OS CS X11R4 XWin is 5694-A01. In this case, a feature number is not applicable.

Basic Machine-Readable Materials are materials that are supplied under the base license for 5694-A01 (z/OS V1) and is required for the use of the product. Optional Machine-Readable Materials are not applicable to z/OS CS X11R4 XWin.

The z/OS V1R2 program library describes the features supported by z/OS CS X11R4 XWin. Ask your IBM representative for this information if you have not already received a copy.

2.1 Basic Machine-Readable Material

The distribution medium for this program is 3480 cartridge. The cartridge contains all the programs and data needed for installation. It is installed using SMP/E, and is in SMP/E RELFILE format. See 6.0, “Installation Instructions” on page 13 for more information about how to install the program.

Figure 1 describes the tape or cartridge.

| <i>Figure 1. Basic Material: Program Tape</i> | | | | |
|---|----------------|-----------------|-------------------------------|--------|
| Medium | Feature Number | Physical Volume | External Label Identification | VOLSER |
| 3480 cart. | N/A | 1 | z/OS CS X11R4 XWin | IP612X |

2.2 Optional Machine-Readable Material

No optional machine-readable materials are applicable for z/OS CS X11R4 XWin.

2.3 Program Publications

Program publications for z/OS CS X11R4 XWin are included in the z/OS V1R2 program library.

2.3.1 Basic Program Publications

Basic licensed or unlicensed publications z/OS CS X11R4 XWin are included in the z/OS V1R2 program library.

2.3.2 Optional Program Publications

No optional licensed or unlicensed publications are applicable for z/OS CS X11R4 XWin.

2.4 Program Source Materials

Customers with access to View Program Listings (VPL), such as through S/390 SoftwareXcel, can use the VPL facility for online viewing of available program listings. Those customers without access to VPL can contact their IBM representative.

2.5 Publications Useful During Installation

The publications listed in Figure 2 may be useful during the installation of z/OS CS X11R4 XWin. To order copies, contact your IBM representative.

| <i>Figure 2. Publications Useful During Installation</i> | |
|--|--------------------|
| Publication Title | Form Number |
| <i>z/OS SMP/E User's Guide</i> | SA22-7773 |
| <i>z/OS SMP/E Commands</i> | SA22-7771 |
| <i>z/OS SMP/E Reference</i> | SA22-7772 |
| <i>z/OS SMP/E Messages, Codes and Diagnosis</i> | GA22-7770 |

3.0 Program Support

This section describes the IBM support available for z/OS CS X11R4 XWin.

3.1 Program Services

Program services for z/OS CS X11R4 XWin are the same as those available for z/OS V1R2.

3.2 Preventive Service Planning

Before installing z/OS CS X11R4 XWin, you should review the current Preventive Service Planning (PSP) information. If you obtained z/OS CS X11R4 XWin as part of a CBPDO, there is HOLDDATA and PSP information included on the CBPDO tape.

If you obtained z/OS CS X11R4 XWin on a product tape, or if the CBPDO is more than two weeks old when you install it, you should contact the IBM Support Center or use S/390 SoftwareXcel to obtain the current "PSP Bucket".

PSP Buckets are identified by UPGRADEs, which specify product levels, and SUBSETs, which specify the FMIDs for a product level. The UPGRADE and SUBSET values for z/OS CS X11R4 XWin are:

| UPGRADE | SUBSET | Description |
|---------|---------|--------------------------|
| ZOSV1R2 | CS390IP | Communications Server IP |

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.

Figure 4 identifies the component IDs (COMPID) for z/OS CS X11R4 XWin.

| FMID | COMPID | Component Name | RETAIN Release |
|---------|-----------|--------------------------------------|----------------|
| HIP612X | 5655HAL00 | Communications Server X11R4 XWindows | 12X |

4.0 Program and Service Level Information

This section identifies the program and any relevant service levels of z/OS CS X11R4 XWin. The program level refers to the APAR fixes incorporated into the program. The service level refers to the PTFs integrated.

4.1 Program Level Information

The following APAR fixes against previous releases of z/OS CS X11R4 XWin have been incorporated into this release. They are listed by FMID.

- FMID HIP612X

PQ41763

PQ47715

4.2 Service Level Information

No PTFs against this release of z/OS CS X11R4 XWin have been incorporated into the product tape.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating z/OS CS X11R4 XWin. The following terminology is used:

- *Driving system*: the system used to install the program.
- *Target system*: the system on which the program is installed.

In many cases, the same system can be used as both a driving system and a target system. However, you may want to set up a clone of your system to use as a target system by making a separate IPL-able copy of the running system. The clone should include copies of all system libraries that SMP/E updates, copies of the SMP/E CSI data sets that describe the system libraries, and your PARMLIB and PROCLIB.

Some cases where two systems should be used include the following:

- When installing a new level of a product that is already installed, the new product will delete the old one. By installing onto a separate target system, you can test the new product while still keeping the old one in production.
- When installing a product that shares libraries or load modules with other products, the installation can disrupt the other products. Installing onto a test system or clone will allow you to assess these impacts without disrupting your production system.

5.1 Driving System Requirements

For details on the driving system requirements of z/OS V1R2 see *z/OS Planning for Installation*, GA22-7504.

5.2 Target System Requirements

This section describes the environment of the target system required to install and use z/OS CS X11R4 XWin.

5.2.1 Machine Requirements

For details on the target system requirements of z/OS V1R2 see *z/OS Planning for Installation*, GA22-7504.

5.2.2 Programming Requirements

5.2.2.1 Mandatory Requisites

A mandatory requisite is defined as a product that is required without exception; this product either **will not install** or **will not function** unless this requisite is met. This includes products that are specified as REQs or PREs.

Figure 5. Mandatory Requisites

| Program Number | Product Name and Minimum VRM/Service Level |
|----------------|--|
| 5694-A01 | z/OS V1R2 with PTF UQ57556 |

5.2.2.2 Functional Requisites

A functional requisite is defined as a product that is **not** required for the successful installation of this product or for the basic function of the product, but **is** needed at run time for a specific function of this product to work. This includes products that are specified as IF REQs.

z/OS CS X11R4 XWin has no functional requisites.

5.2.2.3 Toleration/Coexistence Requisites

A toleration/coexistence requisite is defined as a product which must be present on a sharing system. These systems can be other systems in a multisystem environment (not necessarily sysplex), a shared DASD environment (such as test and production), or systems that reuse the same DASD at different time intervals.

z/OS CS X11R4 XWin has no toleration/coexistence requisites.

5.2.2.4 Incompatibility (Negative) Requisites

A negative requisite identifies products which must *not* be installed on the same system as this product.

z/OS CS X11R4 XWin is exclusive to z/OS V1R2.

5.2.3 DASD Storage Requirements

Figure 6 lists the total space required for each type of library.

Figure 6 (Page 1 of 2). Total DASD Space Required by z/OS CS X11R4 XWin

| Library Type | Total Space Required |
|--------------|-------------------------------|
| Target | 44 cylinders on a 3390 device |
| Distribution | 40 cylinders on a 3390 device |

Figure 6 (Page 2 of 2). Total DASD Space Required by z/OS CS X11R4 XWin

| Library Type | Total Space Required |
|--------------|----------------------|
| HFS | 0 |

Notes:

1. IBM recommends use of system determined block sizes for efficient DASD utilization for all non-RECFM U data sets. For RECFM U data sets, IBM recommends a block size of 32760, which is the most efficient from a performance and DASD utilization perspective.

2. Abbreviations used for Member Type for z/OS V1R2 are:

| | |
|-------------|-------------|
| CLST | CLIST |
| DATA | Data |
| EXEC | Exec |
| FONT | Font |
| HELP | Help |
| LMOD | Load Module |
| MAC | Macro |
| MSG | Message |
| PARM | Parameter |
| PANL | Panel |
| PROC | Procedure |
| SAMP | Sample |
| SKEL | Skeleton |
| BOOK | Book |
| SRCE | Source |
| TABL | Table |
| TEXT | Text |

3. The following figure describes the target libraries required to install z/OS Release 2. The figure maps all the z/OS CS X11R4 XWin target libraries to either target library volume 1 (TVOL1) or target library volume 2 (TVOL2). This mapping comprises IBM's recommended system layout.

Abbreviations used for Target Volume Are:

| | |
|-----------|-------|
| T1 | TVOL1 |
| T2 | TVOL2 |

4. Abbreviations used for the ORG field are:

| | |
|-------------|-----------------------------|
| PDS | Partition Data Set |
| PDSE | Partition Data Set Extended |
| SEQ | Sequential Data Set |

5. Abbreviations used for the data set type are:

- U** Unique data set, allocated by this product and used only by this product. In order to determine the correct storage needed for this data set, this table provides all required information; no other tables (or program directories) need to be referenced for the data set size.
- S** Shared data set, allocated by this product and used by this product and others. In order to determine the correct storage needed for this data set, the storage size given in this table needs to be added to other tables (perhaps in other program directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.
- E** Existing shared data set, used by this product and others. This data set is NOT allocated by this product. In order to determine the correct storage needed for this data set, the storage size given in this table needs to be added to other tables (perhaps in other program directories). This existing data set must have enough free space to accommodate the storage size given in this table.

If you currently have a previous release of this product installed in these libraries, the installation of this release will delete the old one and reclaim the space used by the old release and any service that had been installed. You can determine whether or not these libraries have enough space by deleting the old release with a dummy function, compressing the libraries, and comparing the space requirements with the free space in the libraries.

For more information on the names and sizes of the required data sets, please refer to 6.1.6, "Allocate SMP/E Target and Distribution Libraries and Paths" on page 14.

6. All target and distribution libraries listed have the following attributes:

- The default block size of the data set may be changed

7. All target libraries listed have the following attributes:

- The data set may be SMS managed
- It is not required for the data set to be SMS managed
- It is not required for the data set to reside on the IPL volume
- The values in the "Member Type" column are not necessarily the actual SMP/E element types identified in the SMPMCS.

8. All target libraries listed which contain load modules have the following attributes:

- The data set may be in the LNKLIST

The following figures describe the target and distribution libraries required to install z/OS CS X11R4 XWin. There are no HFS directories associated with z/OS CS X11R4 XWin. The storage requirements of z/OS CS X11R4 XWin must be added to the storage required by other programs having data in the same library or path.

Note: The data in these tables should be used when determining which libraries can be merged into common data sets. In addition, since some ALIAS names may not be unique, ensure that no naming conflicts will be introduced before merging libraries.

Figure 7. Storage Requirements for z/OS CS X11R4 XWin Target Libraries

| Library DDNAME | Member Type | Target Volume | T Y P E | O R G | R E C F M | L R E C L | No. of 3390 Trks | No. of DIR Blks |
|----------------|-------------|---------------|------------------|-------------|-----------------------|-----------------------|---------------------------|--------------------------|
| SEZACMAC | MAC | T2 | E | PDS | FB | 80 | 121 | 58 |
| SEZAHHELP | HELP | T1 | E | PDS | FB | 80 | 9 | 6 |
| SEZAINST | SAMP | T2 | E | PDS | FB | 80 | 52 | 18 |
| SEZALINK | LMOD | T1 | E | PDS | U | 0 | 50 | 2 |
| SEZAOLDX | LMOD | T1 | U | PDS | U | 0 | 1 | 3 |
| SEZARNT1 | DATA | T1 | E | PDS | FB | 80 | 56 | 78 |
| SEZARNT2 | DATA | T1 | U | PDS | FB | 80 | 13 | 8 |
| SEZARNT3 | DATA | T1 | U | PDS | FB | 80 | 52 | 16 |
| SEZAROE1 | DATA | T1 | E | PDS | FB | 80 | 71 | 78 |
| SEZAROE2 | DATA | T1 | U | PDS | FB | 80 | 16 | 8 |
| SEZAROE3 | DATA | T1 | U | PDS | FB | 80 | 71 | 16 |
| SEZAXAWL | LMOD | T1 | U | PDS | U | 0 | 12 | 36 |
| SEZAXMLB | LMOD | T1 | U | PDS | U | 0 | 54 | 129 |
| SEZAXTLB | LMOD | T1 | U | PDS | U | 0 | 19 | 81 |
| SEZAX11L | LMOD | T1 | U | PDS | U | 0 | 51 | 200 |

Figure 8 (Page 1 of 2). Storage Requirements for z/OS CS X11R4 XWin Distribution Libraries

| Library DDNAME | T Y P E | O R G | R E C F M | L R E C L | No. of 3390 Trks | No. of DIR Blks |
|----------------|------------------|-------------|-----------------------|-----------------------|---------------------------|--------------------------|
| AEZAHHELP | E | PDS | FB | 80 | 7 | 6 |
| AEZAMAC2 | E | PDS | FB | 80 | 128 | 59 |
| AEZAMOD1 | E | PDS | U | 0 | 123 | 66 |
| AEZARNT1 | E | PDS | FB | 80 | 60 | 78 |
| AEZARNT2 | U | PDS | FB | 80 | 13 | 8 |
| AEZARNT3 | U | PDS | FB | 80 | 53 | 16 |
| AEZAROE1 | E | PDS | FB | 80 | 75 | 78 |
| AEZAROE2 | U | PDS | FB | 80 | 15 | 8 |
| AEZAROE3 | U | PDS | FB | 80 | 67 | 16 |

Figure 8 (Page 2 of 2). Storage Requirements for z/OS CS X11R4 XWin Distribution Libraries

| Library DDNAME | T Y P E | O R G | R E C F M | L R E C L | No. of 3390 Trks | No. of DIR Blks |
|-------------------|------------------|-------------|-----------------------|-----------------------|---------------------------|--------------------------|
| AEZASMP1 | E | PDS | FB | 80 | 58 | 19 |

5.3 FMIDs Deleted

Installing z/OS CS X11R4 XWin may result in the deletion of other FMIDs. To see what FMIDs will be deleted, examine the ++VER statement in the product's SMPMCS.

If you do not wish to delete these FMIDs at this time, you must install z/OS CS X11R4 XWin into separate SMP/E target and distribution zones where the requisite functions are already installed.

Note: These FMIDs will not automatically be deleted from the Global Zone. Consult the SMP/E manuals for instructions on how to do this.

5.4 Special Considerations

z/OS CS X11R4 XWin has no special considerations for the target system.

6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of z/OS CS X11R4 XWin.

Please note the following:

- You can not install z/OS CS X11R4 XWin into its own SMP/E environment, without the Communications Server IP FMID in the same environment. However, the Communications Server HFS FMID is also required for a functional IP setup. If you wish to install in this manner, consult the SMP/E manuals for instructions on creating and initializing the SMPCSI and the SMP/E control data sets.
- Sample DDDEF and Allocate jobs are provided in the Communications Server IP FMID. The SMP/E jobs assume that all DDDEF entries required for SMP/E execution have been defined in the appropriate zones.
- The SMP/E dialogs may be used instead of the sample jobs to accomplish the SMP/E installation steps.

6.1 Installing z/OS CS X11R4 XWin

6.1.1 SMP/E Considerations for Installing z/OS CS X11R4 XWin

This release of z/OS CS X11R4 XWin is installed using the SMP/E RECEIVE, APPLY, and ACCEPT commands. The SMP/E dialogs may be used to accomplish the SMP/E installation steps.

6.1.2 SMP/E Options Subentry Values

The recommended values for some SMP/E CSI subentries are shown in Figure 9. Use of values lower than these may result in failures in the installation process. DSSPACE is a subentry in the GLOBAL options entry. PEMAX is a subentry of the GENERAL entry in the GLOBAL options entry. Refer to the SMP/E manuals for instructions on updating the global zone.

| <i>Figure 9. SMP/E Options Subentry Values</i> | | |
|--|---------------|---|
| SUB-ENTRY | Value | Comment |
| DSSPACE | 400,150,250 | |
| PEMAX | SMP/E Default | IBM recommends using the SMP/E default for PEMAX. |

6.1.3 SMP/E CALLLIBS Processing

z/OS CS X11R4 XWin uses the CALLLIBS function provided in SMP/E to resolve external references during installation. When z/OS CS X11R4 XWin is installed, ensure that DDDEFs exist for the following libraries:

- CEE.SCEELKED

Note: The DDDEFs above are used only to resolve the link-edit for z/OS CS X11R4 XWin using CALLLIBS. These data sets are not updated during the installation of z/OS CS X11R4 XWin.

6.1.4 Unload the Sample JCL from the Product Tape

The following sample installation jobs are provided via the HIP6120 PTF UQ57556 to help you install z/OS CS X11R4 XWin:

| <i>Figure 10. Sample Installation Jobs</i> | | | |
|--|----------|--|-------------|
| Job Name | Job Type | Description | RELFILE |
| EZACSALC | ALLOCATE | Sample job to allocate target and distribution libraries | PTF UQ57556 |
| EZACSDDF | DDDEF | Sample job to define SMP/E DDDEFs | PTF UQ57556 |

6.1.5 Perform SMP/E RECEIVE

Perform the SMP/E RECEIVE for z/OS CS X11R4 XWin.

NOTE: If you obtained z/OS CS X11R4 XWin as part of a CBPDO, you can use the RCVPDO job found in the CBPDO RIMLIB data set to RECEIVE the z/OS CS X11R4 XWin FMIDs as well as any service, HOLDDATA, or preventive service planning (PSP) information included on the CBPDO tape. For more information, refer to the documentation included with the CBPDO.

Expected Return Codes and Messages:

Successful RECEIVE processing returns a condition code of 00.

6.1.6 Allocate SMP/E Target and Distribution Libraries and Paths

Edit and submit sample job EZACSALC updated by PTF UQ57556 to allocate the additional SMP/E target and distribution libraries for z/OS CS X11R4 XWin. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages:

Successful ALLOCATE processing returns a condition code of 00.

6.1.7 Create DDDEF Entries

Edit and submit sample job EZACSDDF updated by PTF UQ57556 to create DDDEF entries for the additional SMP/E target and distribution libraries for z/OS CS X11R4 XWin. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages:

Successful DDDEF processing returns a condition code of 00.

6.1.8 Perform SMP/E APPLY

Perform an SMP/E APPLY CHECK for z/OS CS X11R4 XWin.

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the following on the APPLY CHECK: PRE, ID, REQ, and IFREQ. This is because the SMP/E root cause analysis identifies the cause only of **ERRORS** and not of **WARNINGS** (SYSMODs that are bypassed are treated as warnings, not errors, by SMP/E).

Once you have taken any actions indicated by the APPLY CHECK, remove the CHECK operand and run the job again to perform the APPLY.

Note: The GROUPEXTEND operand indicates that SMP/E apply all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.

Expected Return Codes and Messages from APPLY CHECK:

Successful APPLY CHECK processing returns a condition code of 00.

Expected Return Codes and Messages from APPLY:

Because the Language Environment routines are not linked during the link-edit of z/OS CS X11R4 XWin, Program Binder message IEW2454 will be received for each load module in the following datasets:

```
TCPIP.SEZAOLDX
TCPIP.SEZAXAWL
TCPIP.SEZAXMLB
TCPIP.SEZAXTLB
TCPIP.SEZAX11L
```

Because of these messages, and the resulting condition code, SMP/E produces one of the following messages for every load module that was link-edited in the same utility invocation:

- "GIM23903W LINK-EDIT PROCESSING FOR SYSMOD HIP612X WAS SUCCESSFUL FOR MODULE xxxxxxxx IN LMOD xxxxxxxx IN THE xxxxxx LIBRARY. THE RETURN CODE WAS 04. DATE yy.ddd - TIME hh:mm:ss SEQUENCE NUMBER nnnnnn."

-or-

- "GIM23913W LINK-EDIT PROCESSING FOR SYSMOD HIP612X WAS SUCCESSFUL FOR MODULE xxxxxxxx IN LMOD xxxxxxxx IN THE xxxxxxxx LIBRARY. THE RETURN CODE WAS 04. DATE yy.ddd -- TIME hh:mm:ss -- SEQUENCE NUMBER nnnnnn --."

You may receive the following message during the apply:

- IEW2609W 5104 SECTION xxxxxxxx USABILITY ATTRIBUTE OF NON-REUSABLE CONFLICTS WITH REQUESTED USABILITY OF REUSABLE

If these are the only causes of the condition code 4, it is acceptable.

6.1.9 Perform SMP/E ACCEPT

Perform an SMP/E ACCEPT CHECK for z/OS CS X11R4 XWin.

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the following on the ACCEPT CHECK: PRE, ID, REQ, and IFREQ. This is because the SMP/E root cause analysis identifies the cause only of **ERRORS** and not of **WARNINGS** (SYSMODs that are bypassed are treated as warnings, not errors, by SMP/E).

Before using SMP/E to load new distribution libraries, it is recommended that you set the ACCJCLIN indicator in the distribution zone. This will cause entries produced from JCLIN to be saved in the distribution zone whenever a SYSMOD containing inline JCLIN is ACCEPTed. For more information on the ACCJCLIN indicator, see the description of inline JCLIN in the SMP/E manuals.

Once you have taken any actions indicated by the ACCEPT CHECK, remove the CHECK operand and run the job again to perform the ACCEPT.

Note: The GROUPEXTEND operand indicates that SMP/E accept all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.

Expected Return Codes and Messages from ACCEPT CHECK:

Successful ACCEPT CHECK processing returns a condition code of 00.

Expected Return Codes and Messages from ACCEPT:

Successful ACCEPT processing returns a condition code of 00.

If PTFs containing replacement modules are being ACCEPTed, SMP/E ACCEPT processing will linkedit/bind the modules into the distribution libraries. During this processing, the Linkage Editor or Binder may issue messages documenting unresolved external references, resulting in a return code of 4 from the ACCEPT step. These messages can be ignored, because the distribution libraries are not executable and the unresolved external references will not affect the executable system libraries.

6.2 Activating z/OS CS X11R4 XWin

The publications *z/OS V1R2.0 Communications Server: IP Configuration Guide, SC31-8775-01* and *z/OS V1R2.0 Communications Server: IP User's Guide and Commands, SC31-8780-01* contain the step-by-step procedures to activate the functions of z/OS CS X11R4 XWin.

Reader's Comments

Program Directory for z/OS V1R2 Communications Server X11R4 XWindows

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| very satisfied | <-----> | | | | very dissatisfied | not applicable |
| 1 | 2 | 3 | 4 | 5 | N | |

| | Satisfaction | | | | | |
|---|--------------|---|---|---|---|---|
| Ease of product installation | 1 | 2 | 3 | 4 | 5 | N |
| Contents of program directory | 1 | 2 | 3 | 4 | 5 | N |
| Installation Verification Programs | 1 | 2 | 3 | 4 | 5 | N |
| Time to install the product | 1 | 2 | 3 | 4 | 5 | N |
| Readability and organization of program directory tasks | 1 | 2 | 3 | 4 | 5 | N |
| Necessity of all installation tasks | 1 | 2 | 3 | 4 | 5 | N |
| Accuracy of the definition of the installation tasks | 1 | 2 | 3 | 4 | 5 | N |
| Technical level of the installation tasks | 1 | 2 | 3 | 4 | 5 | N |
| Ease of getting the system into production after installation | 1 | 2 | 3 | 4 | 5 | N |

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Program Number: 5694-A01 N/A

Printed in U.S.A.

GI10-3206-00

