IBM

MVS Custom-Built Offerings

SC23-0352-4

MVS Custom-Built Installation Process Offering

MVS Custom-Built Product Delivery Offering

Process Aids — Drivers

Planning and Installation

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- MVS Custom-Built Installation Process Offering Process Aids, program number 5751-CS2
- MVS Custom-Built Installation Processing Offering Drivers, program number 5665-343.

Changes are made periodically to the information herein; before using this publication in connection with the operation of IBM systems, consult the latest *IBM System/370, 30xx, 4300, and 9370 Processors Bibliography*, GC20-0001, for the editions that are applicable and current.

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Programming Interfaces

This publication is intended to help you plan for installing CBIPOs and CBPDOs. It contains descriptions of installation requirements, installation considerations, and post-installation activities. This publication documents no programming interfaces for use by customers in writing programs that request or receive the services of a CBIPO or CBPDO.

Preface

This publication describes how to plan for installing the following offerings from IBM:

- **MVS Custom-Built Installation Process Offering (CBIPO).** This is a software package for creating or replacing an MVS system or subsystem.
- **MVS Custom-Built Product Delivery Offering (CBPDO).** This is a software package for adding or upgrading products or service (or both) on an existing MVS system or subsystem.

It also contains information about two related offerings:

- **CBIPO Process Aids.** This consists of documentation and jobs for a CBIPO feature, without any product code, and can be used to plan the installation of a CBIPO.
- **MVS CBIPO Drivers.** A driver is a load-and-go MVS/XA* or MVS/370 system to help you install a CBIPO system if you do not already have an MVS system.

Before using this publication, you should have a working knowledge of how to install products and service on an MVS system. You should also be familiar with System Modification Program Extended (SMP/E). For a list of publications in the CBIPO, CBPDO, and SMP/E libraries, see Appendix B.

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Summary of Changes

Revision SC23-0352-4 (November 1990)

This revision documents the following change for CBIPO support:

- 3390 support provided by the MVS/XA driver is now also available in the MVS/370 driver.

There are also technical corrections and clarifications. Vertical bars to the left of the text mark these changes.

Revision SC23-0352-3 (January 1990)

An MVS/XA CBIPO driver is now available. This driver supports both 3380 and 3390 DASD devices.

Chapter 1. Introduction to CBIPO and CBPDO

This chapter is an introduction to CBIPO and CBPDO. It describes:

- What CBIPO is
- What CBPDO is
- How to decide which offering to use.

What Is CBIPO?

CBIPO is a software package for creating or replacing an MVS system. It consists of four separately orderable features:

- **MVS.** This includes MVS/Extended Architecture (MVS/XA*), MVS/Enterprise Systems Architecture (MVS/ESA*), MVS/370, and associated IBM* system control programs (SCPs) and licensed programs.
- **NCP.** This includes ACF/NCP and associated IBM licensed programs.
- **Data Base Systems.** This includes IMS, DB2*, and associated IBM licensed programs.
- **CICS.** This includes CICS and associated IBM licensed programs.

Each feature is independent of the others and designed to be managed separately. For example, you do not have to install the MVS feature before you install one of the subsystem features. The CBIPO system is structured in such a way that installation of your system and subsystems can be segmented, and various system programming specialists can perform their work independently, yet in parallel.

Each CBIPO feature includes one or more base products and other licensed programs that provide closely related functions. The features parallel four of the system release identifiers (SRELs) used by SMP/E to install products and service in the MVS environment. These are the SRELs for each feature:

- MVS — Z038
- NCP — P004
- Data base — P115
- CICS — C150.

For each feature, you select from a large number of SMP/E-installable IBM licensed programs that run in the MVS environment. When you receive your CBIPO, you get three kinds of tapes:

- One or more tapes with the distribution libraries (DLIB tape)

  All of the products and service you order are in a single integrated set of distribution libraries at a predetermined service level. This service level has been IPL-tested on a number of CBIPO systems with a variety of products before it is made available.

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- A tape of related installation materials (RIM tape)

  RIMs are task-oriented documentation, jobs, sample exit routines, procedures, parameters, and examples developed by IBM. The RIMs are designed to help you install and generate your system using the CBIPO distribution libraries.

- A tape of system modifications (SYSMODs) associated with the licensed programs you selected that are not integrated into the DLIBs (SERV tape).

  This includes functions that are part of licensed programs you selected but that your particular product mix does not require. It also includes PTFs-in-error (PEs), PTFs with unresolved system holds, PTFs in PE and system hold chains, and PTFs that are more current than those integrated into your CBIPO DLIBs.

What Is CBPDO?

CBPDO is a software package for adding or upgrading products or service, or both, on an existing MVS system. It consists of four separately orderable features:

- **MVS.** This includes MVS/Extended Architecture (MVS/XA), MVS/Enterprise Systems Architecture (MVS/ESA), MVS/370, and associated IBM SCP and licensed programs.
- **NCP.** This includes ACF/NCP and associated IBM licensed programs.
- **Data Base Systems.** This includes IMS, DB2, and associated IBM licensed programs.
- **CICS.** This includes CICS and associated IBM licensed programs.

The features parallel four of the system release identifiers (SRELs) used by SMP/E to install products and service in the MVS environment. These are the SRELs for each feature:

- MVS — Z038
- NCP — P004
- Data base — P115
- CICS — C150.

For each feature, you may select from a large number of SMP/E-installable IBM licensed programs that run in an MVS environment. You will receive them in SMP/E relative file format. The individual products and service you order are not integrated but are packaged on a single logical tape (there may be more than one physical reel of tape). The service includes changes that have been approved for distribution but are not yet available on a program update tape (PUT). A CBPDO also includes service for all those programs supported by each feature and for which you are licensed under a single customer number. In addition, there are recommendations of what PTF service to install, including recommendations for PTFs in hold status, and preventive service planning (PSP) information about the products and service on the CBPDO tape.

With CBPDO, you can order and install as much or as little as you desire: both products and service, or service alone. Because the service is not integrated, it can be removed if a problem occurs after the service is installed. In addition,

you can install the CBPDO on a copy of your system (for example, a backup or test system) to protect your running system in the event a problem occurs.

Which Should You Choose: CBIPO or CBPDO?

CBIPO and CBPDO are two distinct ways of obtaining products and service. This section describes the advantages of each package. Using this information and a knowledge of your own system will help you decide whether to use CBIPO, CBPDO, or a combination of the two.

Table 1. Comparison of CBIPO and CBPDO

CBIPO	CBPDO
Adds a new system or replaces an existing system	Adds to or upgrades an existing system
A predetermined service level is integrated in the product distribution libraries	Service is not integrated
Provides installation assistance (RIMs) for system generation, IPL, system installation verification procedures (IVPs), and customization	Provides assistance (RIMs) through the SMP/E RECEIVE step only

In deciding whether to replace your system with CBIPO or upgrade it with CBPDO, you should also consider the following:

- Service level of your current system

  The older the service level of your current system, the more you should consider replacing the system, using a CBIPO to minimize time and DASD requirements.

- Number of products to be added or updated

  If the number of products being updated or added is minimal (for example, one or two products) and the change is not complex, you should consider CBPDO. If, however, the number of products is large or the change is complex (for example, migration from MVS/370 to MVS/ESA or from one release of IMS to another), then you should use CBIPO. The time required to install a large number of products using CBIPO is usually considerably less than the time required to install the products using CBPDO or traditional methods.

  Because of your unique requirements, you may have to use CBPDO to install a major system change (rather than use CBIPO to replace your system). In addition, if your system service level is not reasonably current, you should do the following to minimize requirements for time, DASD resources, and virtual storage:

  1. Order and install a service-only CBPDO to bring the service on your system up to the required level.
  2. Order and install a CBPDO for the new products to be installed on the system.

- System programming resources

  If you are new to MVS (or NCP, IMS, or CICS) or have a small staff, then CBIPO might be your preference because of the RIMs and the "cookbook" approach to installation. If, on the other hand, you have a large system programming staff or are very experienced with MVS, the subsystems, and SMP/E, then the choice of offerings should be based on other factors.

  CBPDO requires the same skills and experience traditionally required to install individual products and service. With respect to installation, CBIPO requires less expertise than CBPDO.

- Change control at your installation

  If you are implementing a new change control system at your site or change control in the past has been weak, then CBIPO is again the better choice because it offers a known starting point. On the other hand, if you already have effective change control procedures in place, make your choice based on other factors.

- Availability of products

  Products are generally supported sooner through CBPDO than through CBIPO. Therefore, if you want to add a particular product to your system as soon as possible, you may prefer to order it on a CBPDO rather than on a CBIPO.

- Products or changes not available in a CBIPO.

  If your system has a large number of user modifications or contains a large number of products that are not available in the CBIPO, then CBPDO is probably the better choice. Remember, since CBPDO updates your existing system instead of replacing it, your user modifications and other products may be preserved.

Each offering has different strengths and, for a given situation, one of the offerings will be the better choice. Each time you order products, review the considerations above along with any that are unique to your site, then order the offering best suited to your needs.

Chapter 2. CBIPO Planning

This chapter provides information to help you plan the design of a CBIPO system. It describes the following:

- Requirements for installing CBIPO
- Structure of a CBIPO system
- System design considerations.

Requirements for CBIPO

Before installing a CBIPO, you should be aware of the requirements for:

- Programming
- Hardware
- Education.

Programming Requirements

You must be licensed for SMP/E to order a CBIPO.

The following products must be installed on the driving system used to install a custom-built offering:

- One of the following: MVS/System Extensions Release 1 or 2, MVS/370 (MVS/SP* Version 1), MVS/XA (MVS/SP Version 2), or MVS/ESA (MVS/SP Version 3 or MVS/ESA SP Version 4).
- JES2 or JES3 as the job entry subsystem.
- The Device Support Facilities program. This is used by the CBIPO RIM-provided jobs to initialize DASD, create VTOCs, and perform other utility functions during system installation.
- To install Integrated Catalog Facility (ICF) catalogs on your new system, the driving system must include either MVS/370 DFP, MVS/XA DFP, MVS/DFP*, or Data Facility Extended Function (DFEF).

  Note: You do not need to convert all the catalogs on your driving system to ICF. However, you ***should*** try to convert your catalogs to ICF. Jobs are supplied on the RIM tape to help you do this.

- SMP/E. The specific level of SMP/E required on your driving system depends on the type of feature you are installing:
  - For MVS features, any supported level of SMP/E is allowed. This is because a CBIPO order for an MVS feature must always include SMP/E. The installation process for the MVS feature makes batch SMP/E (without any dialogs) available to the driving system as part of the installation process.
  - For subsystem features, the minimum required level of SMP/E is Release 5.

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- The installation process makes Assembler H and the MVS/XA linkage editor available to the driving system when installing an MVS/XA or MVS/ESA feature.

For information about any additional requirements for the products in a CBIPO order, see the announcement materials for those products.

Hardware Requirements

You can run the CBIPO installation process on any hardware configuration capable of running MVS, provided the configuration has at least the following:

- One 6250-bpi tape drive or one 3480 tape drive.
- Sufficient 3350, 3375, 3380, or 3390 DASD devices to hold the MVS system, RIM data sets, DLIBs, and catalog volume data sets used in the installation process. These CBIPO volumes are in addition to those required to run your driving MVS (including DASD storage required for MVS work data sets and other temporary storage) on your configuration.

  Note: The CBIPO DASD requirements may vary depending on your DASD device types, your mix of products, and your performance criteria.

  The *MVS CBIPO System Design Reference* manual discusses this topic in detail, and the *MVS CBIPO Memo to Users Extension* provides estimates of the DASD space requirements for your particular order. (These documents are provided in the CBIPO RIMs.)
- One or more terminals. The CBIPO jobs are designed to be edited and submitted from TSO or another online interactive system. A terminal can be used to view the CBIPO documentation online.
- One printer. Because the CBIPO documentation is distributed in mixed case, your printer should have the capability to print both uppercase and lowercase. The documentation can, however, be printed in uppercase only.

Education Requirements

The person responsible for planning and installing a CBIPO feature should be familiar with:

- The MVS area of responsibility (for example, MVS, NCP, IMS, DB2, CICS, JES)
- Job control language
- SMP/E concepts
- MVS utilities
- ISPF (if used)
- ISPF/PDF (if used).

For more information about recommended education for CBIPO, CBPDO, and SMP/E, see Table 10 on page 45.

Structure of a CBIPO System

Figure 1 on page 10 shows the structure of a complete CBIPO-installed system and highlights some of the major design characteristics found in each feature.

- The contents of each feature are organized on logical DASD volumes. Each of these logical volumes contains a collection of related data sets:
  - The distribution libraries (DLIBs)
  - The target (system) libraries
  - The SMP/E data sets
  - The CBIPO RIM data sets

  The logical volumes may be combined on physical DASD volumes or mapped one-to-one on physical devices, depending on the capacity of the devices on your system and your system design requirements.
- Each CBIPO feature has its own SMP/E consolidated software inventory (CSI) data set, and the structure of the SMP/E data sets is the same for all the features.
- The CBIPO system is designed around a master catalog and several user catalogs in each of the four features. The principal user catalog for each of the subsystems is placed on its target system logical volume and provides pointers to all of the major data sets in the subsystem. It, in turn, is connected to the system master catalog. The system master catalog may be the one created when the MVS feature is installed or the one on your driving MVS system.

System Design Considerations

Before installing a CBIPO system, you must make a number of decisions that will determine its design. The RIMs supplied with your CBIPO feature and the installation procedures outlined in them reflect the system design philosophy of the CBIPO development organization and its experience with the CBIPO Model Installation system used to create those RIMs. (The Model Installation system is an MVS/SP Version 3 JES2 system at the current CBIPO level. It is used by IBM to carry out, document, and package the processes used to install MVS and related licensed programs that are available in a CBIPO.) Your understanding of the RIM-defined design and the rationale behind it will provide you with a solid foundation for making the design decisions suitable to your own circumstances.

The *MVS CBIPO System Design Reference* manual provided in the RIMs describes the overall design of the CBIPO system. Before making any design decisions, you should thoroughly review the information in this document, which includes:

- Structure and naming conventions for the following:
  - Logical and physical DASD volumes
  - System and user catalogs
  - SMP/E data sets
- Recommendations on the use of DASD space
- Procedures for adding new products or service to the CBIPO system.

This design information will help you decide whether to use the CBIPO-supplied values provided with your order as is, or to change them to fit your require-

ments. You should also consider your hardware configuration, the products included, and any unique installation requirements when deciding whether to use the CBIPO-supplied values or to replace them. Wherever appropriate, CBIPO provides additional information and criteria for the selection of these values based on experience with the model installation.

An edit facility called IPOUPDTE is provided to help you change the default values used by the jobs in the RIMs and use those jobs to build other systems or subsystems. For more information about changing default installation values using IPOUPDTE, see "Tailoring the Installation Jobs" on page 21.

The following sections provide an overview of some of the system design considerations that are described in more detail in the *System Design Reference* manual:

- Logical and physical volumes
- System and user catalogs
- SMP/E data sets
- Coexistence of SMP/E and SMP Release 4 (SMP4)
- System parameters supplied by CBIPO.

Logical and Physical Volumes

In the CBIPO installation process, MVS and each of the subsystems have requirements for similar types of data sets:

- Target (or system) data sets
- Distribution (or DLIB) data sets
- SMP/E data sets
- System and user catalogs
- CBIPO RIM data sets.

These similar types of data sets for each CBIPO feature are collected onto logical DASD volumes, and each data set in the system is assigned to one logical volume. These logical DASD volumes share the following characteristics:

- They are device-independent.
- Data sets are customized and placed onto logical volumes for each CBIPO feature.
- All data sets on a logical volume **must** be treated as a single unit.
- Space requirements for all data sets on a logical volume may be identified and related to space on real (physical) volumes.
- Two or more logical volumes may be combined onto a single physical volume, depending on the device types to be used and the space actually used by the data sets.

Note: The CBIPO design does **not** include space for:

- Products not supported by CBIPO that you may want to install on a CBIPO logical volume
- Data sets required by CBIPO-supported products but not defined during the CBIPO installation process.

Remember the following when you make one of the major design decisions for your system or subsystem: whether to combine two or more logical volumes onto a single physical volume.

- **You can combine** logical volumes if the space requirements of the products in your order and the device types on which you install the system allow you to do so.
- **Whether you should** combine logical volumes depends on a number of considerations, including your hardware configuration, your mix of batch and online applications, your overall system load, and the number and frequency of your system replacements.

The *Memo to Users Extension* for your CBIPO feature provides estimates of the DASD space requirements for your order. The *System Design Reference* manual discusses these in detail and provides instructions for combining logical volumes on a single physical volume. It also includes examples of logical volume names and the names used in CBIPO documents, examples of configurations, and naming conventions for product data sets.

Figure 1 on page 10 shows the logical DASD volume structure your system might have if you installed all four of the CBIPO features, using the defaults for the CBIPO batch installation jobs.

For the NCP and CICS features, there is one logical volume for the target data sets and one logical volume for DLIB data sets. For the Data Base Systems feature, there are three logical volumes for the target data sets and three for the DLIB data sets. For the MVS feature, there are eight logical volumes for the target data sets and eight for the DLIB data sets, because the MVS feature contains the largest number of products.

The data sets are assigned to logical volumes in such a way that all the data sets on a single logical volume can fit on a single physical volume of the smallest device type supported by CBIPO. This accommodates the largest possible number of products in an order and provides extra space on each logical volume for the future addition of products or PTF service.

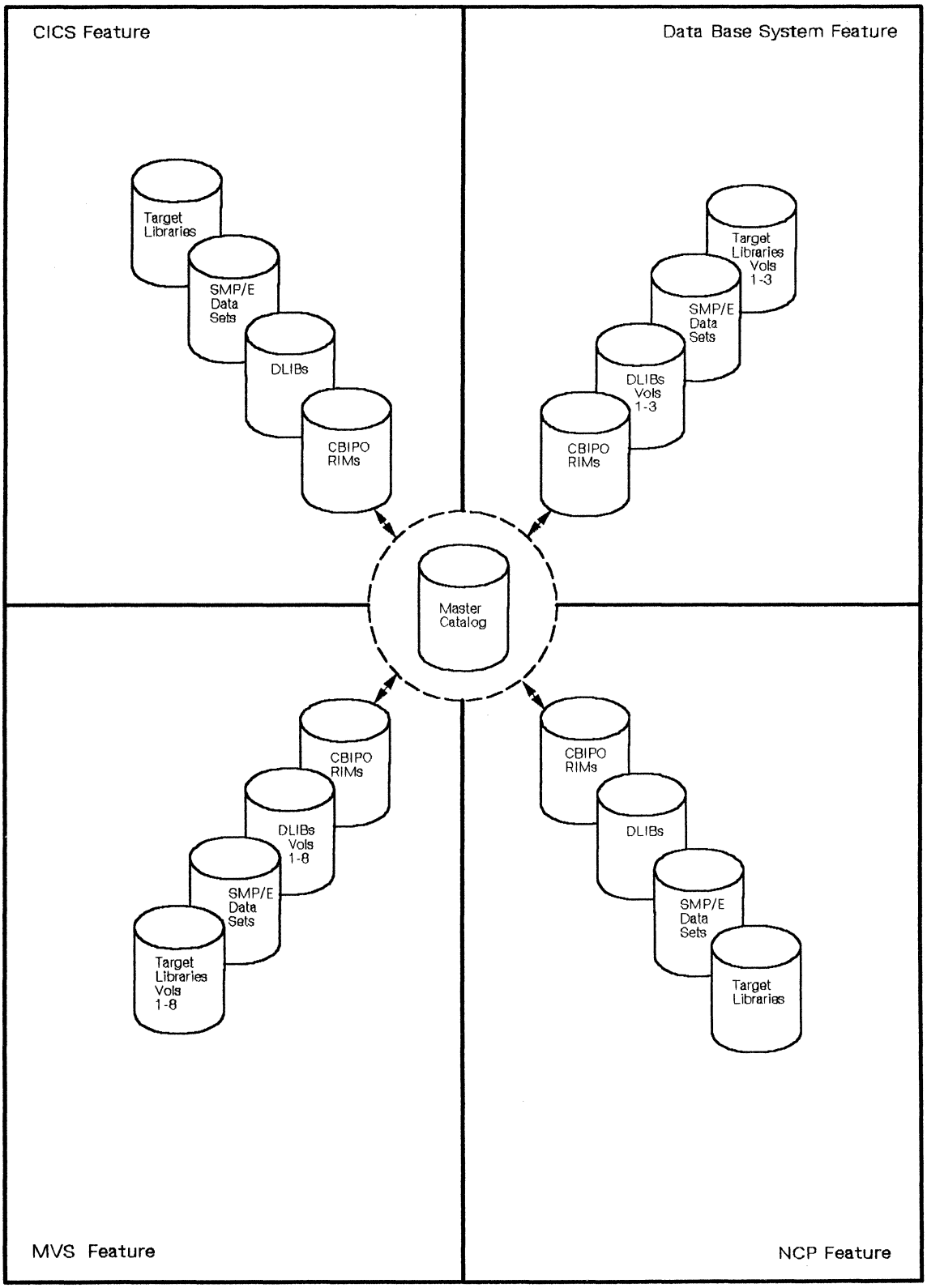

Figure 1. Logical Volumes for a Complete CBIPO-Installed System

System and User Catalogs

The CBIPO procedures for creating catalogs support the Integrated Catalog Facility (ICF) format. To build ICF catalogs, you must have either MVS/370 Data Facility Product (DFP), MVS/XA DFP, MVS/DFP for MVS/ESA, or Data Facility Extended Function (DFEF) installed on your driving system.

The CBIPO installation jobs cannot support a mixed catalog environment. A mixed catalog environment refers specifically to those catalogs defined in the CBIPO jobs, the master catalog, and the user catalogs. Because your master catalogs are in ICF format, the user catalogs you define in the CBIPO installation process must also be ICF format.

When installing an MVS feature, the CBIPO installation process builds a new master catalog for the new system. This catalog is a user catalog until the IPL is done for the new system. It contains all CBIPO data sets, user catalogs, and aliases. Procedures are provided as part of the installation process for adding entries from the old master catalog. Alternatively, if you are using ICF catalogs, you can connect to an existing ICF master catalog (or a copy of it) as part of the installation process.

Figure 2 on page 13 shows the catalog structure you would have should you use the defaults to install a CBIPO system containing all four features, with each CBIPO logical volume mapped to a physical volume. Your system would contain:

- A system master catalog that defines:
  - All the system and subsystem libraries whose names begin with *SYS1.*
  - The MVS feature RIM data sets
  - The user catalogs for all four features
  - Alias pointers to the product and RIM data sets contained in the user catalogs
- A user catalog on the first MVS DLIB volume for the MVS DLIB zone CSI and the MVS distribution libraries whose names do not begin with *SYS1.*
- A user catalog on the first MVS target system volume for the MVS target zone CSI and the MVS target libraries whose names do not begin with *SYS1.*
- A user catalog on each of the SMP/E volumes for:
  - The global zone CSI
  - The SMPLOG data set for the global zone
  - The SMPPTS data set
- A user catalog on each **subsystem** target libraries volume for:
  - The target zone CSI
  - The target libraries whose names do not begin with *SYS1.*
  - The distribution libraries whose names do not begin with *SYS1.*
  - The SMP/E data sets (excluding those on the subsystem's SMP/E volume)
  - The CBIPO RIM data sets

- A user catalog on each **subsystem** DLIB volume for the DLIB zone CSI.

The catalog structure of your own system can vary from this example based on the design decisions you make. Because ICF supports more than one catalog on a physical volume, you have a choice of maintaining separate catalogs for each logical volume or combining two or more catalogs. The CBIPO installation process provides an editing facility called IPOUPDTE to help you combine logical volumes on a single volume. See "Tailoring the Installation Jobs" on page 21 for more information.

Catalog structures are discussed in detail in the *MVS CBIPO System Design Reference* manual. Definitions of the CBIPO catalog names and examples of catalog structures are based on the defaults provided by the CBIPO installation process.

SMP/E Data Sets

Figure 2 on page 13 shows the SMP/E data set structure that you would have on your system if you installed all four CBIPO features using the defaults. These are some of the major design characteristics of the SMP/E data sets:

- The target and distribution libraries are each managed by a target or DLIB zone in a CSI on the same logical volume as the libraries themselves. In the Data Base Systems feature, which has three logical volumes for the target libraries and three logical volumes for the distribution libraries, the CSIs are on the first logical volume. In the MVS feature, which has eight logical volumes for the target libraries and eight logical volumes for the distribution libraries, the CSIs are on the first logical volume.
- There is always only one zone per CSI. This keeps the zone closely associated with its data sets and simplifies system backup and installation of new programs and PTF service.
- A CSI is always cataloged in a catalog on the same logical volume as the CSI. This means that the data sets controlled by a zone, the CSI that contains the zone, and the catalog that points to the CSI are all on the same logical volume.
- Each zone has its own SMPLOG data set.
- The data sets belonging to the global zone are all on the SMP/E volume for each feature.
- Alias pointers are provided from the system master catalog to each of the CSIs via the CSI's catalogs.

Within the framework of this structure, the design decisions you make with regard to how you use volumes, catalogs, and data sets will affect the organization and composition of your installation's SMP/E data sets. If you combine logical volumes, you should:

- Keep individual CSIs as separate data sets. This will simplify system backup and modification procedures.
- Combine catalogs when you combine logical volumes containing CSIs and their catalogs.

See the *MVS CBIPO System Design Reference* manual for additional information on SMP/E data set design and naming conventions.

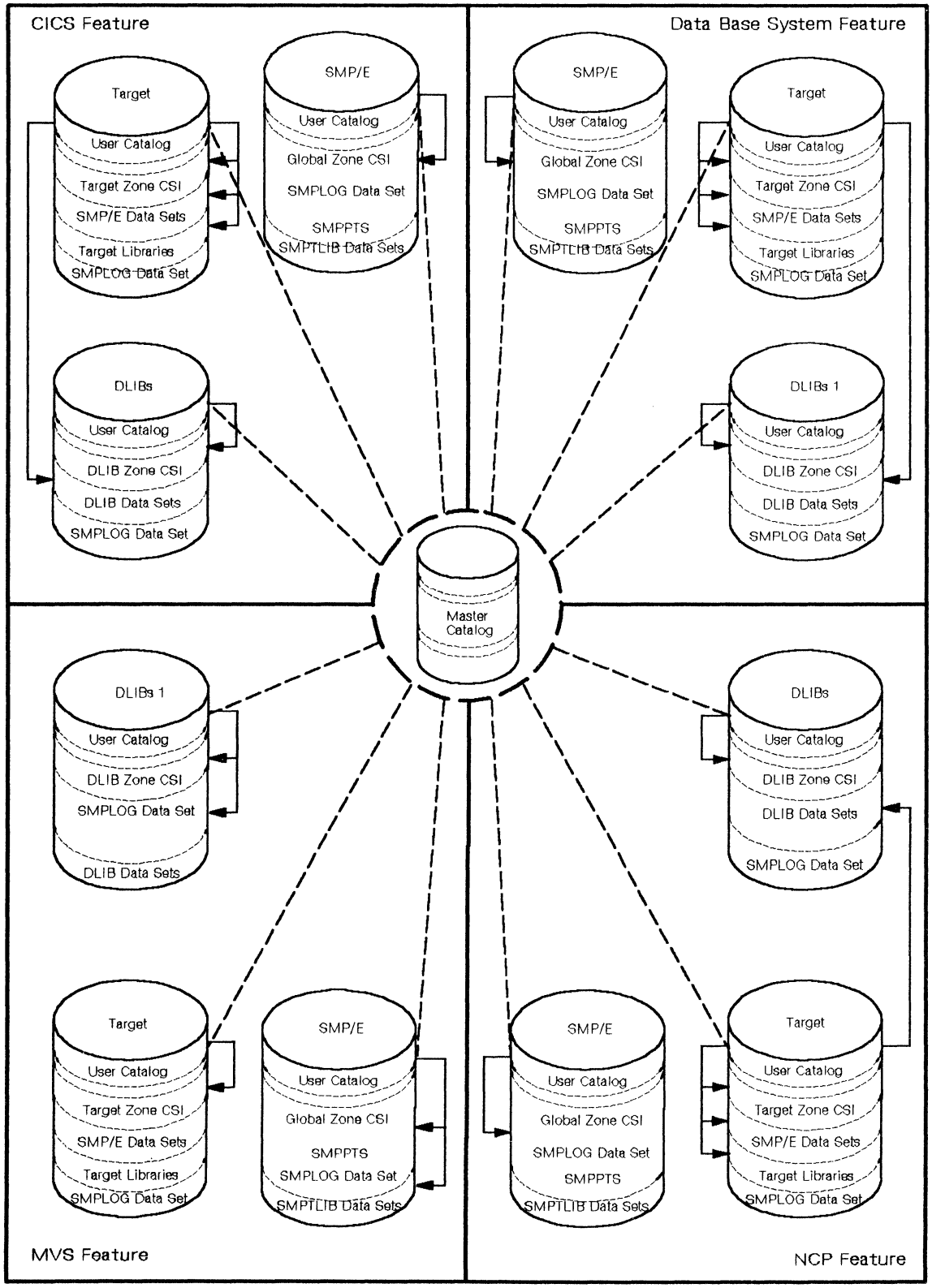

Figure 2. Catalog and SMP/E Data Set Structure of a Complete CBIPO-Installed System

Coexistence of SMP/E and SMP Release 4

In planning your system or subsystem installation using CBIPO, remember that SMP/E and SMP Release 4 (SMP4) may need to coexist for a time on your new system for the following reasons:

- SMP/E **must** be used to maintain the CSI data sets for any CBIPO feature you install.
- SMP4 **can** be used to maintain any remaining SMP4 CDS and ACDS system data sets (for NCP, Data Base Systems, and CICS, for example) until you convert them to SMP/E CSI format. SMP4 is included in the target and distribution libraries of a CBIPO MVS feature for this reason, although no other support is provided for SMP4.

A further consideration is that in order to install a CBIPO feature, SMP/E must be present in the driving system during the installation process. The CBIPO installation processes address this consideration as follows:

- For the MVS feature, SMP/E need not be present on the driving system before the installation process begins. Batch SMP/E (without the dialogs) is made available to the driving system as part of the installation process. At the completion of the installation process, both SMP/E and SMP4 will be installed and operational for batch processing in the generated system.
- For the CBIPO NCP, Data Base Systems, or CICS feature, the minimum required level of SMP/E is Release 5. This level of SMP/E must be on the MVS driving system **before** the installation process begins.

CBIPO-Supplied System Parameters

Many of the details of your MVS system's operational characteristics, such as performance, system data gathering, DASD volume use, and job management are specified in SYS1.PARMLIB. CBIPO provides a series of default parameters that you may modify, as your objectives require, during the CBIPO installation process. These parameters were selected as a starting point and no tuning has been done with them. The rationale behind these defaults and the system-level implications resulting from their selection are discussed in the *MVS CBIPO System Design Reference* manual.

Chapter 3. CBIPO Installation

This chapter describes how to install a CBIPO order. It explains the following:

- What is meant by "installation"
- A summary of how CBIPO simplifies installation
- How the installation process is customized to a CBIPO order
- A summary of the CBIPO installation process
- Post-installation tasks.

What Is Meant by "Installation"

"Installation," as defined by CBIPO, refers specifically to the CBIPO installation and system-level customization tasks that bring your system or subsystem to the point where the code for all of your CBIPO licensed programs is in your target libraries.

"System-level customization" consists of such activities as allocating data sets, supplying parameters, tables, and cataloged procedures, and running initialization jobs.

After installing your CBIPO and doing any necessary system-level customization, you are ready to run a CBIPO-supplied installation verification procedure (IVP) on your system or subsystem.

In some cases, you will have to follow the CBIPO installation process with additional product-level customization to make a licensed program ready to use. CBIPO RIMs provide support for some of these tasks, but for some licensed programs you will have to refer to the product publications. The *MVS CBIPO Memo to Users Extension* tells you, for each licensed program in your order, where to look for the information you need.

The installation and post-installation activities are summarized in Figure 3 on page 16.

Note: Installation of CBIPOs on volumes managed by Storage Management Subsystem (SMS) is not supported.

Summary of CBIPO Objectives for Installation

CBIPO is designed to:

- Offer you flexibility in selecting the product set to support your MVS installation.
- Deliver your selected IBM licensed programs with PTF service already integrated, reducing the need for you to research and apply a large volume of PTF service as part of your installation process.
- Help your system programmers make decisions regarding system design and configuration that will make subsequent additions to your installation easier.

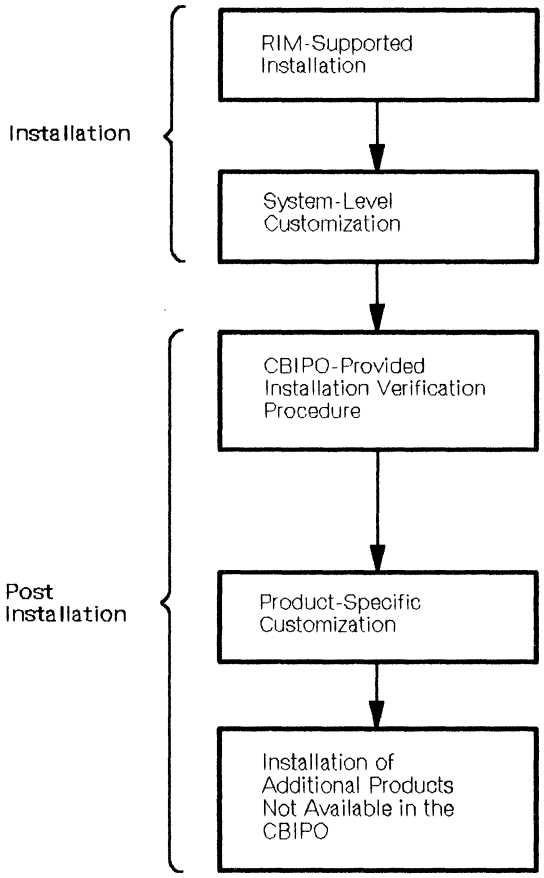

Figure 3. Installation and Post-Installation Activities

- Provide an installation approach that will make future reinstallations of MVS and its subsystems easier.
- Reduce the stand-alone machine time required to install your systems, and to utilize, wherever possible, your existing system and tools.
- Help you choose the number of DASD volumes required to install your system or subsystem.
- Isolate the installation activities associated with MVS and each of its subsystems, while allowing the installation tasks for each feature to proceed in parallel.
- Provide a documented, step-by-step approach to building your system.
- Reduce the number of non-installation-dependent options and parameter decisions you have to research, implement, and test.
- Provide installation JCL and a process that makes it easily modifiable and usable.
- Provide a functional system, generated from your CBIPO distribution libraries, that you can tune and customize to your installation's requirements.
- Provide procedures to verify that your basic system or subsystem is operational.

- Provide guidance in the additional post-installation steps you will need to perform to customize your system or subsystem following the CBIPO installation process.

How the Installation Process Is Customized to Your CBIPO Order

To reduce system programmer effort, the CBIPO installation process is customized to your order in a number of ways:

- The contents of some of the jobs provided with your CBIPO are by their nature affected by your CBIPO mix of licensed programs. Some of these jobs include:
  - DLIB allocation and load jobs
  - Target library allocation
  - JES2 or JES3 spool and checkpoint data set allocation

  These jobs are tailored to your product mix by the software manufacturing process and are delivered on your RIM tape.
- The *MVS CBIPO Memo to Users Extension* is the only document delivered with your CBIPO feature that is customized to the contents of your order. It contains a complete list of the contents of your order, descriptions of the contents of the individual programs, and pointers to the information you will need to install and customize your particular product mix.

  The *MVS CBIPO Memo to Users Extension* is also delivered on your RIM tape.
- The modules and PTF service that are integrated into your DLIBs are also customized to your order, and any modules contained in your licensed programs, but not applicable to your product mix, are delivered separately on the SERV tape.

The CBIPO Installation Process

This section discusses the following:

- A summary of the CBIPO installation process
- The role of the CBIPO installation RIMs
- Tailoring the installation jobs with IPOUPDTE
- Using the SMP/E GENERATE command with IPOGEN
- The system installation verification procedures.

Summary of the CBIPO Installation Process

To install any of the CBIPO features, you should follow these general steps:

1. Review the *MVS CBIPO Memo to Users* that accompanies your feature.
2. Using the instructions in the *MVS CBIPO Memo to Users*, print the *MVS CBIPO Memo to Users Extension*, the publication *MVS CBIPO System Design Reference*, and the installation guide for the feature.
3. Review the documentation.
4. Initialize your target system residence volumes and RIM data set volume.
5. Allocate your target system and RIM data sets and load the RIM tape.

6. Using the CBIPO-provided IPOUPDTE process, tailor the jobs and JCL provided with your feature to conform to your system design characteristics and installation naming conventions.
7. Initialize your DLIB, SMP/E, and catalog volumes, where required.
8. Build your master catalog and user catalogs.
9. Allocate and load the DLIBs.
10. Build the SMP/E volume, if required.
11. Generate your system or subsystem.
12. Perform system-level customization as required by the programs in your feature.
13. IPL your system and run the CBIPO-provided IVPs.

The Role of CBIPO Installation RIMs

To help you install products using the CBIPO DLIBs, CBIPO also provides related installation materials (RIMs). These RIMs contain information to help you design your system, as well as documentation and jobs to guide you step-by-step through the installation process. In addition, the RIMs explain how to customize, operate, and use your system or subsystem.

Note: You can get the RIMs as part of a CBIPO, or you can order them for a particular feature, without any product code, as the CBIPO Process Aids. (The Process Aids for the MVS feature are RIMs for the CBIPO Model Installation system, which is an MVS/SP Version 3 JES2 system at the current CBIPO level.) The Process Aids can be used to plan for installing a CBIPO, but cannot be used to actually install a CBIPO.

There are also sample installation exit routines, procedures, parameters, and examples developed by IBM to help you install and customize your system. You can use the RIM examples exactly as provided, make minor changes by using IPOUPDTE, or make extensive changes using your own criteria to satisfy your system requirements.

For more information about customization using IPOUPDTE, see "Tailoring the Installation Jobs" on page 21.

Note: Bear in mind that the RIM examples only customize selected products to the extent needed to IPL the system and to run a CBIPO-supplied set of basic installation verification procedures (IVPs). These IVPs are system-oriented and validate only some of the main areas of the target system. The RIM examples do not make all the products supplied in the CBIPO DLIBs operational, because of the diversity of options available and the uniqueness of individual installation requirements. You should complete any necessary customization and special processing to make the entire target system operational.

The documentation provided in the RIMs includes installation guides to describe installation procedures and considerations. Some features have additional installation guides. For example, there is more than one installation guide if different levels of that feature are available (such as different levels of MVS or DBS). You will receive the guide that is appropriate for your order.

The sections that follow describe the documents included in the RIMs.

Note: The only CBIPO document that is customized to the specific products you ordered is the *Memo to Users Extension*. The other documents are only customized to the particular feature you ordered.

Common RIMs

The following RIMs are common to all features of CBIPO:

- The *MVS CBIPO Memo to Users Extension* for the feature you order contains a customized description of the contents of your order and the products contained within the order.

  The definition of the order's content includes:

  - A list of products by name, order number, and feature code
  - A list of the copyrighted licensed programs in your order
  - Volume serial numbers and purposes of tapes contained in the order
  - A list of the FMIDs contained in the order
  - The PTF service level of your order
  - Driving system dependencies for the installation process
  - DASD space requirements for each CBIPO-defined logical volume for each supported device type

  The description for each individual product includes:

  - Whether the product is ready to use after running the CBIPO installation process
  - A description of where to find additional information (for example, on customization) about the product, in other RIM documents and in formal product documents
  - A list of the FMIDs that make up the product
  - The location of the program directory information needed to customize certain licensed programs in your CBIPO order
  - Whether the product has SYSGEN support
  - Service considerations for specific products

- The *MVS CBIPO System Design Reference* manual describes the rationale for the design of the system defined by the CBIPO defaults. Because you may choose to modify the CBIPO design to suit your own installation's requirements, the *System Design Reference* manual is provided to aid you in planning and to help you make decisions that will determine the design of your own system. It focuses on such major design characteristics as:

  - Types and number of DASD volumes for system and DLIB data sets
  - System and user catalog structures
  - MVS system parameters
  - System replacement procedures

  The *System Design Reference* describes the system you will have at the end of the installation process if you have followed the procedures described in the CBIPO installation guides.

MVS Feature RIMs

The MVS installation guides provide instructions for installing an MVS system. Depending on your order, you will get installation guides for either MVS/XA and MVS/ESA, or for MVS/370.

These guides describe:

- Gathering the necessary materials
- Preparing the MVS driving system
- Generating the new system using the SMP/E GENERATE command
- Performing the basic system-level customization required for IPL
- Doing an IPL for the system
- Running the system IVPs to validate the main paths of the base system.

NCP Feature RIMs

The NCP installation guide provides step-by-step procedures for installing the CBIPO NCP feature on the 37*xx* communications controllers. This guide contains:

- Installation planning considerations
- Installation tailoring information
- Sample NCPGEN and utility jobs.

Data Base Systems Feature RIMs

The Data Base Systems installation guide provides step-by-step procedures for installing a CBIPO Data Base Systems feature.

The RIMs for IMS Versions 1 and 2 provide:

- IMS generation input
- MVS authorization considerations
- An IVP to validate your newly installed subsystem.

The RIMs for IMS Version 3 and DB2 do the following:

- Generate DB2 target libraries
- Refer to product-supplied dialogs to complete system-specific tasks and run IVPs.

CICS Feature RIMs

The CICS installation guide describes how to use the CBIPO CICS feature to install a CICS system from a CBIPO-customized DLIB. This guide provides guidance in:

- Initialization procedures
- Tailoring the CICS Master Change member
- MVS SYSGEN and authorization considerations
- VSAM considerations
- Generating, initializing, and customizing the subsystem
- Running an IVP to validate your newly installed subsystem.

Tailoring the Installation Jobs

IPOUPDTE is an update program shipped with each CBIPO feature. It is used extensively in the CBIPO installation processes and is the primary means by which you can modify the CBIPO installation jobs to implement your system design. Each of the CBIPO installation guides provides the information you need to customize the installation jobs to fit your system's requirements. You can use IPOUPDTE to:

- Change selected fields (such as volume names and device types) in the JCL and control statements provided in the RIMs
- Merge two logical volumes into one physical volume.

Using the SMP/E GENERATE Command

CBIPO features are installed by a process called IPOGEN, which uses the SMP/E GENERATE command. The GENERATE command uses product-specific JCLIN that was generated for your order by the software manufacturing process to install all of the programs in your CBIPO (including those that do not have SYSGEN support) into your target libraries. Using the GENERATE command provides a number of advantages:

- You no longer need to run many product-specific post-SYSGEN installation jobs.
- The installation process generally takes less time than running SYSGEN and post-SYSGEN jobs. This is because the GENERATE command tailors the job stream it creates for maximum efficiency by eliminating duplicate or unnecessary steps that sometimes occur in normal SYSGEN processing.
- You no longer need to edit product-supplied Stage 2 job streams to match your installation's data set names or unit and volume serial numbers. GENERATE uses the information supplied to the IPOUPDTE program to create a job stream.
- The GENERATE command produces a summary report that lists the utilities and libraries used in the job stream, which elements go in which libraries, and which modules are included in each load module.

These are the steps in the SMP/E GENERATE process, as shown in Figure 4 on page 22.

1. Use SMP/E to build the target zone for the new system.

   First the DLIB zone CSI shipped with the CBIPO order is copied into the target zone CSI, then the target zone is defined to the global zone. As a result, JCLIN for any products without SYSGEN support is copied from the DLIB zone into the target zone.

2. Do a Stage 1 SYSGEN for products with SYSGEN support.

   This creates a job stream that will be used in step 3. Unlike a normal SYSGEN, however, the generated job stream will not actually be run.

   Note: This step is not applicable to an MVS/ESA SP Version 4 environment.

3. Run the SMP/E JCLIN command using the SYSGEN Stage 1 output.

   This updates the target zone with definitions of the load modules, source modules, and macros in the target libraries for the products with SYSGEN

support. The target zone now defines the contents of the target libraries for all the products in the CBIPO order.

Note: This step is not applicable to an MVS/ESA SP Version 4 environment.

4. Run the SMP/E GENERATE command.

   The GENERATE command analyzes the target zone to create a job stream that will install **all** of the CBIPO-built elements of your target system into the target libraries.

5. Run the job stream created by the GENERATE command.

   This installs the elements into the target libraries.

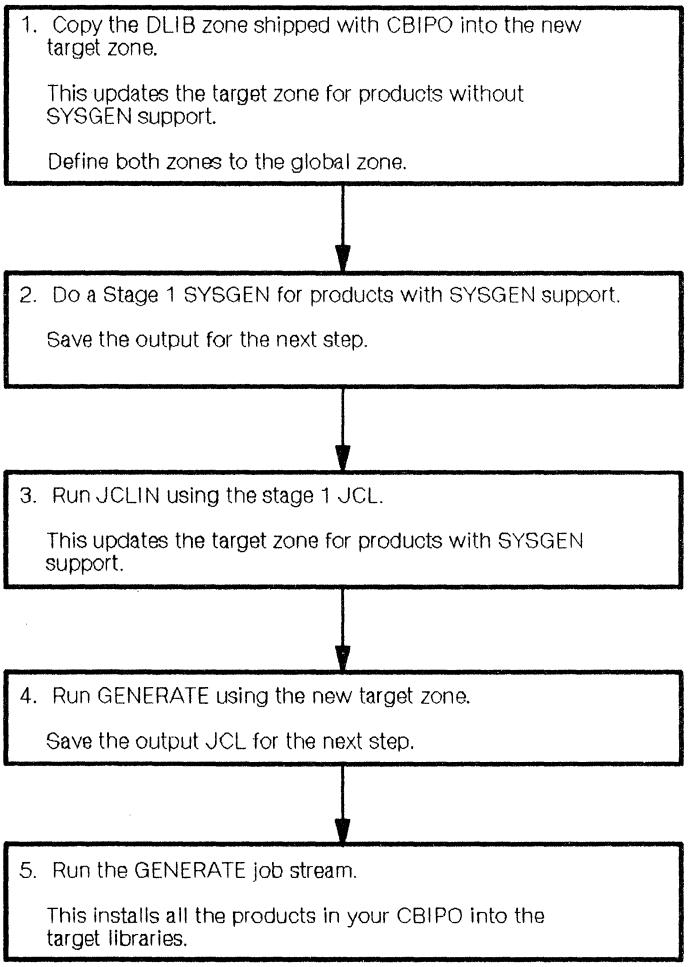

Figure 4. Using the GENERATE Command

The System Installation Verification Procedures (IVPs)

The last step in the installation process is running the installation verification procedures (IVPs) supplied by CBIPO. These procedures verify the basic operations of your new system or subsystem. These IVPs will run on any CBIPO-installed system regardless of the product mix. (The IVPs are automatically updated along with the installation jobs whenever you change items such

as VOLSERs and data set names.) There are IVPs for each of the CBIPO features:

- The MVS feature provides a series of batch IVPs, some of which can be run as is and others which may be tailored to the mix of products on your system. An interactive IVP is provided for users of TSO and ACF/VTAM.
- The NCP feature provides sample source code that highlights use of both Systems Network Architecture (SNA) and non-SNA terminals. These samples can be used as models for creating the source code you need to generate an NCP load module.
- The Data Base Systems feature provides a sample IVP for IMS Versions 1 and 2. For DB2 and IMS Version 3, product-supplied dialogs are used to take you through the IVP.
- The CICS feature provides batch and interactive IVPs that are similar to the IVPs shipped with the CICS product, except that they use SMP/E and can be tailored with IPOUPDTE.

What Is Left for You to Do after Installation

Once you have installed the products and service in your CBIPO and run the IVPs, you may still have to do some of these tasks:

- Do any product-specific customization needed to make your system fully operational.
- Install any products not available in the CBIPO.
- Install any necessary installation or user exit routines.
- Install any required user modifications.
- Install product-specific service as documented in the *Memo to Users Extension*
- Integrate the required applications into your new system.
- Tune the system to your requirements.
- Perform system level testing as required.
- Activate the new system as a production system.

Chapter 4 discusses the post-installation support for these tasks that is provided with your CBIPO feature.

Eventually, you may want to add new products to your system or install service. You can use CBPDO to get these changes. For more information about CBPDO, see Chapter 5. Whether you use CBPDO or not, you will continue to receive PTF service for the products in your CBIPO system from the IBM Software Distribution Centers.

Chapter 4. Post-Installation Support for CBIPO

This chapter notes where to find information that can help you perform various post-installation tasks. These are the sources of information supplied by CBIPO:

- Additional RIM support
- The SERV tapes.

Additional RIM Support

Once you have installed your system or subsystem and verified its basic function, you can continue to use the CBIPO RIMs to perform a variety of post-installation activities, such as customizing specific products, doing an MVSCP or IOGEN, adding other CBIPO RIM-supported licensed programs to your system or subsystem, and performing system-level problem determination. The following RIMs can help you with these tasks:

- The CBIPO *Customization and Use* guides
- The CBIPO *Memo to Users Extension*
- The *MVS CBIPO System Design Reference* manual
- The *CBIPO MVS System Problem Determination Guide*.

Notes:

1. You can get the RIMs as part of a CBIPO or you can order them for a particular feature, without any product code, as the CBIPO Process Aids. (The Process Aids for the MVS feature are RIMs for the CBIPO Model Installation, which is an MVS/SP Version 3 JES2 system at the current CBIPO level.) The Process Aids can be used to plan for customizing the products installed from a CBIPO.
2. The only CBIPO document that is customized to the specific products you ordered is the *Memo to Users Extension*. The other documents are only customized to the particular feature you ordered.

CBIPO Customization and Use Guides

The customization and use guides that accompany your CBIPO DLIBs contain a variety of information on customizing and using the feature you have just installed. These guides may be used with the formal documentation for the products you ordered to tailor your system to your installation's requirements. The following sections summarize the topics covered in the guides for each of the CBIPO features.

MVS Feature Guides

The *MVS CBIPO MVS Customization and Use Guide* provides guidance in customizing the MVS system control program and data management products. This document describes:

- **Converting to ICF catalogs:** To help you convert OS CVOLs and VSAM catalogs to ICF structure, there are descriptions of:
  - A gradual process for migrating your present system to ICF
  - Alternative methods for converting your master catalog

  - Procedures for verifying the conversion
  - Backup and recovery procedures for an ICF environment.

- **Converting to SMP/E:** To help you convert data sets from previous releases of SMP/E to the current format, there are descriptions of the following topics, based on the design used for the CBIPO Model Installation:

  - Zone and catalog definitions
  - Naming conventions
  - Pre- and post-installation tasks, including reformatting of the CSI
  - Installation of programs and PTF service with SMP/E

- **Supporting MVS/XA and MVS/ESA:** To help MVS/XA and MVS/ESA users, there are descriptions of:

  - Coexistence of MVS/370 and MVS/XA or MVS/ESA
  - Techniques for sharing programs, exits, and system data
  - System and operational differences with MVS/370
  - MVS/XA and MVS/ESA program migration considerations

- **Establishing the Storage Management Subsystem (SMS) environment:** To help you establish an SMS environment, there are descriptions of:

  - Allocating control data sets
  - Defining a base configuration
  - Defining system management constructs
  - Testing ACS routines
  - Activating SMS
  - Protecting an SMS environment.

  Note: Once you have established an SMS environment on a new system, you **cannot** install a subsequent CBIPO on any SMS-managed volumes in that system. To install CBIPOs, you must set aside volumes not managed by SMS.

The *MVS CBIPO MVS Customization and Use Guide* also discusses:

- Performing an MVSCP or IOGEN on your CBIPO-built system
- Installing post-SYSGEN extensions
- Performing product-specific customization
- Installing user modifications
- Establishing the storage management environment
- Establishing operational procedures.

The *MVS CBIPO JES2 Customization and Use Guide* provides step-by-step procedures for migrating to a new level of JES2 and describes how to define and use JES2 Network Job Entry (NJE). There are two versions of this guide: one for MVS/XA and MVS/ESA, and one for MVS/370. The guide describes:

- JES2 networking
- Differences between JES2 releases
- How to keep your existing JES2
- Migrating from one JES2 release to another.

The *MVS CBIPO JES3 Customization and Use Guide* provides step-by-step procedures for migrating to a new level of JES3 in an MVS/SP environment. There are two versions of this guide: one for MVS/XA and MVS/ESA, and one for MVS/370.

The guide describes:

- JES3 considerations at SYSGEN time
- How to keep your existing JES3
- Migrating from one JES3 release to another
- JES3 networking
- Customizing the JES3 initialization stream.

The *MVS CBIPO Communications Customization and Use Guide* is supplied with orders for the MVS feature of the CBIPO. It is the same document discussed below under the CBIPO NCP feature.

NCP Feature Guide

The *MVS CBIPO Communications Customization and Use Guide* provides guidance in installing the communications portion of your system. It contains:

- Customization procedures
- Migration and operation information
- A description of communication network management
- Information about selected communication programs
- Information about multisystem networking.

Data Base Systems Feature Guide

The *MVS CBIPO Data Base Systems Customization and Use Guide* is for data base systems users. It describes how to customize and use IMS, DB2, and related products. It contains:

- Customization procedures
- Data Dictionary customization information
- IVPs for data base-related products
- Hints and tips for using the dialogs provided by DB2 and related products.

CICS Feature Guide

The *MVS CBIPO CICS Customization and Use Guide* describes how to customize and use CICS and related products. It contains:

- Assistance in performing a partial SYSGEN
- Assistance in activating the CICS-DL/I interface
- Information about local shared resources
- Information about the CICS/VS monitoring facility.

CBIPO Memo to Users Extension

The *MVS CBIPO Memo to Users Extension* for each feature provides product-specific information for every licensed program in a particular CBIPO package, including the status of the product when you complete the installation process and run the IVP. It notes whether the product is usable as is or whether it requires further tailoring.

When a licensed program does require additional customization, the *MVS CBIPO Memo to Users Extension* tells you where to look for the information you need to make the product usable, and to use the product. These references may be to other CBIPO documents (usually the customization and use guides) or to the formal product documentation, or both.

The MVS CBIPO System Design Reference

The *MVS CBIPO System Design Reference* manual presents an approach to system upgrade (both for PTF service and programs) that complements the overall CBIPO system design and is applicable to any one of the four features. This approach may be varied to accommodate your installation's approach to supporting production, development, and testing and is workable in installations having multiple processors and systems, as well as installations having a single processor. The *System Design Reference* also contains information about:

- The contents of logical volumes and configurations
- Catalog sharing and aliases
- SMP/E considerations
- A tutorial on IPOUPDTE.

The CBIPO MVS System Problem Determination Guide

The *CBIPO MVS System Problem Determination Guide* is designed to help you analyze system dumps of IBM code. It contains procedures to help you gather the information needed by the IBM Support Center to do one of the following:

- Determine whether the problem is a known problem
- Provide enough information to the next level of IBM support so that an expert in the component can work with you to get the necessary information from the dump.

The recommendations in this document are based on MVS/XA and MVS/ESA dumps and the expertise of the CBIPO development organization using MVS/XA and MVS/ESA systems. However, most of the information applies to MVS/370 systems as well.

The SERV Tapes

The CBIPO SERV tapes contain functions and service that were not integrated into the DLIBs. (There may be more than one physical SERV tape.) Specifically, SERV tapes provide:

- Uninstalled function SYSMODs (FMIDs)
- PTFs-in-error (PEs)
- PTFs with unresolved system holds
- PTFs in PE (error) and system hold chains
- PTFs from PUT tapes more current than those integrated into your CBIPO DLIBs
- PTFs not yet available on a PUT tape but approved for distribution.

The **uninstalled FMIDs** are parts of a licensed program you selected that your particular product mix does not require. For example, the SERV tape would include FMIDs that require prerequisite licensed programs not included in your product mix, or FMIDs that are mutually exclusive with other FMIDs in your product mix. FMIDs are included on the SERV tape in case you add products to your system or subsystem. If you decide at some future date to add the prerequisite licensed program to your system, the FMID will be readily available to you

on the SERV tape. By installing the FMID at the same time that you install the prerequisite product, you keep the original product matched to your current product mix.

PEs are service fixes (PTFs) in error, and PE chains are valid PTFs that cannot be installed because somewhere in their logic they require a PE.

PTFs in **system hold** status either require a specific action, such as an assembly, on your part, or are dependent on such variables as your installation's hardware configuration.

The **additional PTF service** on the CBIPO SERV tape is provided only for the products that are contained in your CBIPO order, not for every product for which you may be licensed. Subsequent PTF service updates will be distributed in the normal manner, beginning with the next available PUT tape. These additional PTFs are included with your order so that you will have all of the PTF service that potentially applies to your order.

A SOURCEID is supplied for all PTFs shipped on a SERV tape. This SOURCEID can help you decide whether to install the PTFs. The SOURCEIDs that may be associated with these PTFs include:

- **SMCREC:** This indicates a PTF that is approved for distribution and is recommended to be installed, but is not yet available on a PUT tape. These PTFs should be installed on your system. They were assigned a SOURCEID of SMCREC for one of the following reasons:
  - The PTF resolves a High Impact or Pervasive (HIPER) APAR.
  - The PTF resolves a program error (PE) for another PTF.
  - The PTF was required to successfully complete CBIPO validation during the software manufacturing process.
  - The PTF is needed to install the product.
  - The PTF is needed to support new hardware.
- **SMCCOR:** This indicates a PTF that is approved for distribution, but is not yet available on a PUT tape. These PTFs are provided in case you experience the problem they fix and need to install them as corrective service.
- **PUT***xxxx*: This indicates the PUT tape on which the PTF was made available.

Once a PTF with a SOURCEID of SMCREC or SMCCOR is made available on a PUT tape, its SOURCEID is changed to PUT*xxxx* to reflect the PUT tape on which it is now contained.

You should install the PTF service in all of the PUT SOURCEIDs provided on the SERV tape as well as those PTFs with a SOURCEID of SMCREC. For more information about SOURCEIDs, see the *SMP/E Reference* manual.

Also, remember to look at the hold data on your SERV tape to see what PTF service has been held. This is particularly true for the system holds, which you may be able to install or **need** to install immediately based on your specific environment.

Chapter 5. CBPDO Installation

This chapter discusses how to plan for and install a CBPDO. It explains the following:

- Requirements for installing a CBPDO
- What is meant by "installation"
- A summary of how CBPDO simplifies installation
- A summary of the CBPDO installation process
- Post-installation tasks.

Requirements for CBPDO

Before installing a CBPDO, you should be aware of the requirements for:

- Programming
- Hardware
- Education.

Programming Requirements

You must be licensed for SMP/E to order a CBPDO.

The following products must be installed on the driving system used to install a CBPDO:

- MVS Release 3.8 or above. This includes MVS/System Extensions Release 1 or 2, MVS/370 (MVS/SP Version 1), MVS/XA (MVS/SP Version 2), or MVS/ESA (MVS/SP Version 3 or MVS/ESA SP Version 4).
- SMP/E. The minimum required level of SMP/E is Release 5.

  Note: If your driving system has an earlier release of SMP/E, you can request the required level when you order a CBPDO MVS feature. A sample job is provided in the RIMLIB data set to help you install the new release of SMP/E on your driving system.

  You must have an established SMP/E environment to install a CBPDO. There are no CBPDO jobs or documentation to help you migrate from SMP4 to SMP/E. For information about migrating from SMP4, see the *SMP/E Program Directory for Installation Planning*.

  If you plan to use the SMP/E dialogs to install products and service from CBPDOs, the following programs are required:

  - Interactive System Productivity Facility (ISPF) Version 2 Release 3 (Program Number 5665-319), or later, and service PTF UY14417 (for FMID HIF2302)
  - Interactive System Productivity Facility/Program Development Facility (ISPF/PDF) Version 2 Release 3 (Program Number 5665-317), or later, and service PTF UY15941 (for FMID HDV2302).

Hardware Requirements

To install a CBPDO, you must have the following:

- One 6250-bpi tape drive or one 3480 tape drive
- DASD and other devices (such as a terminal or printer) as required by the products in your CBPDO.

Education Requirements

CBPDO requires the same skills and experience traditionally required to install individual products and service. The person responsible for planning and installing a CBPDO feature should be familiar with:

- The MVS area of responsibility (for example, MVS, NCP, IMS, DB2, CICS, JES)
- Job control language
- SMP/E concepts related to the traditional installation of individual products and service
- MVS utilities
- ISPF (if used)
- ISPF/PDF (if used).

For more information about recommended education for CBIPO, CBPDO, and SMP/E, see Table 10 on page 45.

What Is Meant by "Installation"

"Installation," as defined by CBPDO, refers specifically to the installation tasks that you use to get the code for all of your CBPDO licensed programs and service into your target libraries. These libraries may be for a system created from a CBIPO, or they may be for a system created using traditional product installation methods.

CBPDO provides RIMs to assist you **only** up to the point where your CBPDO licensed programs and PTF service are **received** into the SMPPTS data set for your MVS system. (There are also SMP/E dialogs to help you receive and install CBPDO tapes.)

Once you have received a CBPDO, you use traditional installation methods as outlined in each product's program directory (such as the SMP/E APPLY and ACCEPT commands or system generation) to install the products and service.

Summary of CBPDO Objectives for Installation

CBPDO is designed to:

- Provide available basic machine-readable material necessary to install products and PTF service on your MVS system
- Offer you a choice in selecting and installing the products and PTF service to support your MVS installation

- Allow you to incrementally upgrade your MVS system with products and PTF service
- Deliver your selected IBM licensed programs with currently available PTF service unintegrated, reducing the need for you to research and separately obtain a large volume of PTF service as part of your installation process
- Deliver service approved for distribution but not yet available on a PUT tape.

The CBPDO Installation Process

This section discusses the following:

- A summary of the CBPDO installation process
- The role of the CBPDO *Memo to User's Extension*
- SOURCEID considerations
- Hold class considerations
- Other considerations.

Summary of the CBPDO Installation Process

To install any of the CBPDO features, you should follow these general steps. If you have already installed SMP/E (the minimum required level is Release 5), you can use the SMP/E dialogs to load files from the CBPDO tapes and install your CBPDO.

1. Check the CBPDO package against the *Program Shipping Request* to make sure you received all materials shipped with the CBPDO.

   Note: Some product materials, such as basic publications, are shipped separately from the CBPDO tape.

2. Review the *MVS CBPDO Memo to Users* for the sample job to load the RIMLIB data set from tape to DASD. You can use this example to create and run the job to load the RIMLIB data set from tape to DASD.
3. Modify, if necessary, and run the job (from the RIMLIB data set) to load the *MVS CBPDO Memo to Users Extension* from tape to DASD, or run the job to print the *MVS CBPDO Memo to Users Extension*.
4. Review the *MVS CBPDO Memo to Users Extension*, which includes:
   - Information on the programs and PTF service that are shipped on the CBPDO tapes
   - Deviations from the product installation described in the program directories.
5. Modify, if necessary, and run the job (from the RIMLIB data set) to load the program directories and preventive service planning (PSP) information from tape to DASD, or run the job to print the program directories and PSP information. (Program directories are supplied on the CBPDO tape only if products were ordered in the CBPDO.)
6. Review the program directories for additional information about installing the products. Also check the PSP upgrade and subset file for each of the products and PUT service levels being installed, as well as PSP information for upgrade CORPE. These upgrade files contain installation considerations that may be helpful.

7. You must make sure the minimum required level of SMP/E (Release 5) is available to your driving MVS system. If you have a previous level of SMP/E on your driving system, you can install the necessary release of SMP/E from an MVS feature CBPDO tape. The sample jobs provided in the RIMLIB data set will help you do this.

   Note: The CBPDO RIMs do not help you migrate from SMP4 to SMP/E. For assistance in migrating from SMP4, see the *SMP/E Program Directory for Installation Planning*.

8. If you are installing SMP/E from your MVS feature CBPDO tapes, also install all the associated SMP/E PTF service provided on those CBPDO tapes. The sample jobs provided in the RIMLIB data set will help you do this.

9. Modify, if necessary, and run the job from the RIMLIB data set to receive programs and PTF service from the CBPDO tapes into your MVS system SMPPTS data set.

Once the products and service have been received into the SMPPTS, you use traditional installation methods to install the products and service. CBPDO does not provide RIMs to assist in these tasks. You research, create, and run the required installation jobs that you define from program directories, PSP upgrade files, existing installation procedures, product installation and customization guides, or SMP/E manuals for the programs and PTF service you want to install. Exceptions to the program directories are documented in the *MVS CBPDO Memo to Users Extension*.

CBPDO Memo to Users Extension

The *MVS CBPDO Memo to Users Extension* for the feature you order contains a customized description of the contents of your CBPDO package and the products contained in that package.

The description of the CBPDO package includes:

- A list of products by name, order number, and feature code
- A list of the copyrighted licensed programs in the package
- Volume serial numbers of the tapes contained in the package
- A list of the FMIDs contained in the package
- The PTF service levels contained in the package
- Driving system dependencies for the installation process.

SOURCEID Considerations

A SOURCEID is supplied for all PTFs shipped in a CBPDO. This SOURCEID can help you decide whether to install the PTFs. The SOURCEIDs that may be associated with these PTFs include:

- **SMCREC:** This indicates a PTF that is approved for distribution and is recommended to be installed, but is not yet available on a PUT tape. These PTFs should be installed on your system. They were assigned a SOURCEID of SMCREC for one of the following reasons:
  - The PTF resolves a High Impact or Pervasive (HIPER) APAR.
  - The PTF resolves a program error (PE) for another PTF.
  - The PTF was required to successfully complete CBIPO validation during the software manufacturing process.

- The PTF is needed to install the product.
- The PTF is needed to support new hardware.

- **SMCCOR:** This indicates a PTF that is approved for distribution but is not yet available on a PUT tape. These PTFs are provided in case you experience the problem they fix and need to install them as corrective service.
- **PUT***xxxx*: This indicates the PUT tape on which the PTF was made available.

Once a PTF with a SOURCEID of SMCREC or SMCCOR is made available on a PUT tape, its SOURCEID is changed to PUT*xxxx* to reflect the PUT tape on which it is now contained.

You should install the PTF service in all of the PUT SOURCEIDs provided on the CBPDO tape as well as those PTFs with a SOURCEID of SMCREC. For more information about SOURCEIDs, see the *SMP/E Reference* manual.

Hold Class Considerations

The SMP/E ++HOLD statement prevents PTF service from being installed until some special action is taken. For example, a PTF may be held for special installation processing or because of an error (APAR) that has been reported against the PTF. A CBPDO contains all the applicable hold data from the latest time the software manufacturing data base was updated.

In some cases a PTF may be installed even though the hold exists. These special classes of holds are specified on the ++HOLD statement in addition to the original reason the PTF is being held. A hold class is supplied for any held PTFs shipped in a CBPDO that may be installed under these special conditions. The hold classes that may be associated with these PTFs include:

- **ERREL:** This is for error holds that should be installed. Software manufacturing has determined that the problem they resolve is significantly more critical than the error reflected by the holding APAR.
- **UCLREL:** This is for UCLIN that was handled by the software manufacturing process and no longer requires your attention.

You should handle held PTFs the same way you usually do except when there is an associated hold class. You should install held PTFs that have a hold class by specifying **BYPASS HOLDCLASS** for that class on the SMP/E APPLY and ACCEPT commands during installation. For more information about held PTFs, see the *SMP/E User's Guide* or the *SMP/E Reference* manual.

Other Considerations

When installing products and service from a CBPDO tape, you should be aware of how CBPDO tapes handle certain things differently from PUT tapes and CBIPO tapes.

- Service and HOLDDATA are shipped by feature. This is different from how service and HOLDDATA are shipped on PUT tapes.

  In a CBPDO, you get service and HOLDDATA applicable to all products **within a given feature** for which you are licensed under a single customer number.

On a PUT tape, you get service and HOLDDATA applicable to **all products** for which you are licensed under a single customer number; the products are not divided into features.

- CBPDO tapes may contain service from several PUT tapes, as well as service not yet available on a PUT tape.

Note: It is not recommended to mix CBPDOs and PUT tapes.

What Is Left for You to Do after Installation

Once you have installed products and service from your CBPDO, you may still have to do some of these tasks:

- Do any product-specific customization needed to make your system fully operational.
- Install any necessary user exit routines.
- Tune the system to your requirements.
- Perform system level testing as required.
- Activate the new system as a production system.

Appendix A. Planning Information for the MVS CBIPO Drivers

This appendix describes the MVS CBIPO drivers, their hardware requirements, and the device addresses that are built into the MVS CBIPO driving system.

What Are the Drivers?

The MVS CBIPO drivers are for customers who do not have an MVS system they can use to install a CBIPO MVS feature. A driver is a pregenerated MVS/XA or MVS/370 system in dump/restore format. It can only be used as an initial MVS system to install a CBIPO MVS feature. It is not intended for any other purpose and cannot be used as a conventional MVS/XA or MVS/370 system.

An MVS CBIPO driver contains the products needed to support the installation of a CBIPO MVS feature. Along with the driver, you also get stand-alone copies of utility programs to initialize DASD and restore the driver.

A *Memo to Users and Installation Guide* is provided with each driver.

Hardware Requirements

The MVS/XA CBIPO driver supports 3380 and 3390 DASD devices. The MVS/370 CBIPO driver supports 3350, 3375, 3380, and 3390 DASD devices. To install an MVS CBIPO driver, you need:

- Two DASDs of the same type, such as two 3350s, two 3375s, two 3380s, or two 3390s
- One 6250-bpi tape drive or one 3480 tape drive
- One local terminal for TSO and ISPF
- One printer
- A processor and system console capable of supporting an MVS system.

I/O Device Addresses for the MVS CBIPO Drivers

The following charts describe the devices and corresponding physical addresses that are generated into the MVS CBIPO driving system. The devices are grouped by category (unit record, direct access, tape, miscellaneous, console, terminals, and other telecommunication devices).

Table 2. Addresses Generated for Unit Record Devices

Device Type	Generated Unit Addresses
1403 Printer	00E
3203-4 Printer	004 (see Note)
3211 Printer	001, 002, 003
4245 Printer	01E
3800-3 Printer	C18
3800 Printer	C19

Note: This address can also be used for 3203 Model 5 Printers. However, in the driver it is coded for the Model 4 Printer.

Table 3. Addresses Generated for Direct Access Storage Devices

Device Type	Generated Unit Addresses
3350	340–35F Optional Channel 9
3375	2A0–2BF Optional Channel 8
3380	2C0–2DF Optional Channel 8 3A0–3BF Optional Channel 9
3380 or 3390	120–13F 160–17F 220–23F Optional Channel 8 240–25F Optional Channel 8 2E0–2FF Optional Channel 8 360–37F Optional Channel 9 3C0–3DF Optional Channel 9 3E0–3FF Optional Channel 9 700–707 880–88F D40–D47
3390	260–27F Optional Channel 8 320–33F Optional Channel 9

Table 4 (Page 1 of 2). Addresses Generated for Tape Devices

Device Type	Generated Unit Addresses
3420 Model 6	470–477 Optional Channel A 478–47F Optional Channel A 480–487 Optional Channel A 570–577 Optional Channel B 578–57F Optional Channel B 580–587 Optional Channel B
3420 Model 8	488–48F Optional Channel A 588–58F Optional Channel B
3480	280–28F 380–38F 900–90F

Table 4 (Page 2 of 2). Addresses Generated for Tape Devices

Device Type	Generated Unit Addresses
3430	460—46F 560—567

Table 5. Addresses Generated for Console Devices

Console Address	Device Type	Alternate Address
0A1	3277-2	0E1
0A2	3277-2	0E1
0B1	3277-2	0E1
0BE	3277-2	0E1
010	3278-2A	0F2
0F2	3278-2A	0F3
0F3	3278-2A	0F2
0C1	3278-4	6E1
0CD	3278-4	0E1
0E1	3278-4	0C1
0E2	3278-4	6E2
6E1	3278-4	6C1
6C1	3278-4	0E2
6E2	3278-4	0E1
0FE	3286-2	0E2
6FE	3286-2	6E2
5E0	3286-2	FD1
FD1	3286-2	5E0
009	3279-2B	0E1
0D4	3279-2B	0E1
020	3279-3B	021
021	3279-3B	020
0CF	3279-3B	0E1

Note: See the comments at the end of Table 6 for additional information.

Table 6 (Page 1 of 3). Addresses Generated for SNA Telecommunication Terminals

Device Type	Generated Control Unit Address and Port (0–31) Device Attached through a 3274-41A	SYS1.VTAMLST (Member)
3278/9 Model 2	080 Ports=(01–07, 09, 10, 13, 19, 21)	H06L02
	081 Ports=(00, 03, 19, 22)	H06L03
	082 Ports=(04, 10, 15, 17–19, 28)	H06L04
	083 Ports=(11, 13–15, 18, 24, 27)	H06L05
	088 Ports=(10–17)	H06L06
	089 Ports=(11, 13–15, 18, 24, 27)	H06L07
	08A Ports=(11, 13–15, 18, 24, 27)	H06L08
	680 Ports=(01–07, 09, 10, 13, 19, 21)	H06L0F
	681 Ports=(00, 03, 19, 22)	H06L0G
	682 Ports=(04, 10, 15, 17–19, 28)	H06L0H
	683 Ports=(11, 13–15, 18, 24, 27)	H06L0I
	684 Ports=(11, 13–15, 18, 24, 27)	H06L0J
	688 Ports=(11, 13–15, 18, 24, 27)	H06L0K

Table 6 (Page 2 of 3). Addresses Generated for SNA Telecommunication Terminals

Device Type	Generated Control Unit Address and Port (0–31) Device Attached through a 3274-41A	SYS1.VTAMLST (Member)
3279 Model 3	080 Ports=(12, 16, 17, 20, 22, 24, 26)	H06L02
	081 Ports=(01, 04, 05, 12, 16, 17, 20, 21, 24–26, 30, 31)	H06L03
	082 Ports=(06, 14, 16, 22, 24)	H06L04
	083 Ports=(00, 02, 05, 07, 12, 16, 17, 25, 28–31)	H06L05
	088 Ports=(04, 06, 07)	H06L06
	089 Ports=(00, 02, 05, 07, 12, 16, 17, 25, 28–31)	H06L07
	08A Ports=(00, 02, 05, 07, 12, 16, 17, 25, 28–31)	H06L08
	680 Ports=(12, 16, 17, 20, 22, 24, 26)	H06L0F
	681 Ports=(01, 04, 05, 12, 16, 17, 20, 21, 24–26, 30, 31)	H06L0G
	682 Ports=(06, 14, 16, 22, 24)	H06L0H
	683 Ports=(00, 02, 05, 07, 12, 16, 17, 25, 28–31)	H06L0I
	684 Ports=(00, 02, 05, 07, 12, 16, 17, 25, 28–31)	H06L0J
	688 Ports=(00, 02, 05, 07, 12, 16, 17, 25, 28–31)	H06L0K

Table 6 (Page 3 of 3). Addresses Generated for SNA Telecommunication Terminals

Device Type	Generated Control Unit Address and Port (0–31) Device Attached through a 3274-41A	SYS1.VTAMLST (Member)
3278 Model 4	080 Ports=(00, 08, 11, 14, 15, 18, 23, 25, 27–31)	H06L02
	081 Ports=(02, 06–11, 13–15, 18, 23, 27–29)	H06L03
	082 Ports=(00–03, 05, 07–09, 11–13, 20, 21, 23, 25–27, 29–31)	H06L04
	083 Ports=(01, 03, 04, 06, 08–10, 19–23, 26)	H06L05
	088 Ports=(00, 02, 03, 08, 09)	H06L06
	089 Ports=(01, 03, 04, 06, 08–10, 19–23, 26)	H06L07
	08A Ports=(01, 03, 04, 06, 08–10, 19–23, 26)	H06L08
	680 Ports=(00, 08, 11, 14, 15, 18, 23, 25, 27–31)	H06L0F
	681 Ports=(02, 06–11, 13–15, 18, 23, 27–29)	H06L0G
	682 Ports=(00–03, 05, 07–09, 11–13, 20, 21, 23, 25–27, 29–31)	H06L0H
	683 Ports=(01, 03, 04, 06, 08–10, 19–23, 26)	H06L0I
	684 Ports=(01, 03, 04, 06, 08–10, 19–23, 26)	H06L0J
	688 Ports=(01, 03, 04, 06, 08–10, 19–23, 26)	H06L0K

- Column 1 lists device types supported by the MVS CBIPO driver.
- Column 2 lists the pregenerated addresses for these device types.
- Column 3 lists the member in SYS1.VTAMLST that supports the address in column 2.
- The 3180 terminal may be used on any of the above defined ports if the 3180 has been configured to match the model for that port.
- A 3278 Model 4 terminal will operate on a 3278/9 Model 2 or a 3278/9 Model 3 device definition. However, only a portion of the 3278 Model 4 screen will be used.
- A 3279 Model 3 terminal will operate on a 3278/9 Model 2 device definition. However, only a portion of the 3279 Model 3 screen will be used.

Table 7. Addresses Generated for BSC Telecommunication Terminals		
Device Type	**Generated Unit Addresses Attached through a 3272**	**SYS1.VTAMLST (Member)**
3277 Model 2	0A1−0BE	H06L09
	6A1−6BE	H06L0L

- Column 1 lists the BSC device type supported by the MVS CBIPO driver.
- Column 2 lists the pregenerated addresses for this device type.
- Column 3 lists the member in SYS1.VTAMLST that supports the address in column 2.

Note: See the comments at the end of Table 8 for additional information.

Table 8 (Page 1 of 2). Addresses Generated for Non-SNA Telecommunication Terminals		
Device Type	**Generated Unit Addresses Attached through a 3274-41D**	**SYS1.VTAMLST (Member)**
3278/9 Model 2	063, 064, 067	H06L01
	0CB, 0CC, 0D1−0D7	H06L0A
	0F2−0F6	H06L0B
	4C7, 4CB, 4CC, 4D1−4D7	H06L0C
	4E4−4E8, 4EB, 4EC, 4EE−4F0, 4F3−4F6, 4F9−4FC	H06L0D
	663, 664, 667	H06L0E
	6C7, 6CB, 6CC, 6D1−6D7	H06L0M
	6E4−6E8, 6EB, 6EC, 6EE−6F0, 6F3−6F6, 6F9−6FC	H06L0N
3279 Model 3	020−027	H06L00
	060	H06L01
	0C9, 0CF, 0DD	H06L0A
	0ED−0EF, 0FB−0FD	H06L0B
	4C4, 4C8, 4C9, 4CF, 4DD	H06L0C
	4ED, 4F1, 4F8, 4FD	H06L0D
	660	H06L0E
	6C4, 6C8, 6C9, 6CF, 6DD	H06L0M
	6ED, 6F1, 6F8, 6FD	H06L0N

Table 8 (Page 2 of 2). Addresses Generated for Non-SNA Telecommunication Terminals

Device Type	Generated Unit Addresses Attached through a 3274-41D	SYS1.VTAMLST (Member)
3278 Model 4	061, 062, 065, 066, 068–07D	H06L01
	0C0–0C8, 0CA, 0CD, 0CE, 0D0, 0D8–0DC	H06L0A
	0E0–0EC, 0F0, 0F1, 0F7–0FA	H06L0B
	4C0–4C3, 4C5, 4C6, 4CA, 4CD, 4CE, 4D0, 4D8–4DC	H06L0C
	4E0–4E3, 4E9, 4EA, 4F2, 4F7	H06L0D
	661, 662, 665, 666, 668–67D	H06L0E
	6C0–6C3, 6C5, 6C6, 6CA, 6CD, 6CE, 6D0, 6D8–6DC	H06L0M
	6E0–6E3, 6E9, 6EA, 6F2, 6F7	H06L0N

- Column 1 lists device types supported by the MVS CBIPO driver.
- Column 2 lists the pregenerated addresses for these device types.
- Column 3 lists the member in SYS1.VTAMLST that supports the address in column 2.
- The 3180 terminal may be used on any of the above defined addresses if the 3180 has been configured to match the model for that address.
- A 3278 Model 4 terminal will operate on a 3278/9 Model 2 or a 3278/9 Model 3 device definition. However, only a portion of the 3278 Model 4 screen will be used.
- A 3279 Model 3 terminal will operate on a 3278/9 Model 2 device definition. However, only a portion of the 3279 Model 3 screen will be used.

Table 9. Addresses Generated for Other Telecommunication Devices

Device Type	Generated Unit Addresses
2741C	035, 036, 045, 046, 625, 626, 635, 636 645, 646
3286 Model 2	07E, 07F, 0A0, 0BF, 0DE, 0DF, 0FE, 0FF, 4DE, 4DF, 4FE, 4FF, 6A0, 6BF, 6DE, 6DF, 6FE, 6FF, 67E, 67F, 5E0, FD1
3705 Terminal Control Unit	590, 591, 592, 593, 594, 595, 596, 600, B90, B91, B92, B93, B94, B95, B96
3791L Addresses are 3274 SNA devices	080, 081, 082, 083, 088, 089, 08A, 680, 681, 682, 683, 684, 688, 689, 68A, FD9
BSC1	030–034 040–044 620–624 630–634 640–644

Appendix B. Related Documentation

This appendix indicates where you can find additional information about CBIPO, CBPDO, and SMP/E.

Table 10 shows the recommended education on CBIPO, CBPDO, and SMP/E that is offered through various IBM locations.

Table 10 (Page 1 of 2). Classes and Self-Study Courses

Location	Recommended Education	Catalog of Courses	Phone Number for More Information
Australia	• "SMP/E: A Guide for the New SMP/E User" (Self-Study Course 32186) • "SMP/E Fundamentals" (Course H3765) • "Integrated System Maintenance Using SMP/E" (Course H3763) • "MVS Installation and Tailoring" (Course H3903) and all prerequisites or equivalent experience.	Contact your local branch office.	Contact your local branch office.
Canada	• "SMP/E: A Guide for the New SMP/E User" (Self-Study Course 32186) • "New SMP Users" (Course S4716) • "MVS Installation and Tailoring" (Course S6375) and all prerequisites or equivalent experience.	*Education Course Catalogue*, G209-0073 (bilingual version) or G209-0062 (English version)	IBM Direct-Education at 1-800-465-1234
EMEA	• "SMP/E: A Guide for the New SMP/E User" (Self-Study Course 32186) • "System Installation and Maintenance with SMP/E" • "MVS/XA Installation Practice and Procedure" or "MVS/ESA Installation and Implementation" • "MVS/ESA Customization" and all prerequisites or equivalent experience.	See your country's education course catalog.	See your country's education course catalog for enrollment procedures.
Japan	• "How to Use SMP/E" (Self-Study Course 25024) • "MVS Installation and Tailoring" (Course H3903) • "MVS/ESA Installation" (Course 24226) • "MVS/ESA Customization" (Course 24228) and all prerequisites or equivalent experience.	*Catalog of IBM Education*, GR18-5200	IBM DIRECT at 03-865-5748

Table 10 (Page 2 of 2). Classes and Self-Study Courses			
Location	**Recommended Education**	**Catalog of Courses**	**Phone Number for More Information**
United States	• "SMP/E: A Guide for the New SMP/E User" (Self-Study Course 32186) • "SMP/E Fundamentals" (Course H3765) • "Integrated System Maintenance Using SMP/E" (Course H3763) • "MVS Installation and Tailoring" (Course H3903) and all prerequisites or equivalent experience.	*Catalog of IBM Education*, G320-1244	IBM DIRECT at 1-800-631-5584

CBIPO Documentation

Figure 5 on page 47 quickly reviews the types of documents in the CBIPO library and their relationship to each other. In this chart, the documents are grouped into three major categories (planning, installation, and customization) for each of the four features. The specific documents are described below. All of the CBIPO documentation is on a tape of related installation materials (RIMs), except for this publication and the *Memo to Users*. Documents on the RIM tape can be printed using jobs that are included on the RIM tape.

Note: The only CBIPO document that is customized to the specific products you ordered is the *Memo to Users Extension*. The other documents are only customized to the particular feature you ordered.

Common Documents

Title	Description
MVS Custom-Built Offerings Planning and Installation, SC23-0352	Provides a summary of how to plan for installing products and service from a CBIPO or CBPDO.
MVS CBIPO System Design Reference	Helps in designing a system. It shows the system that results when you follow the installation procedures described in the installation guides and other RIM data sets. **This document is part of the CBIPO package and does not have an order number.**

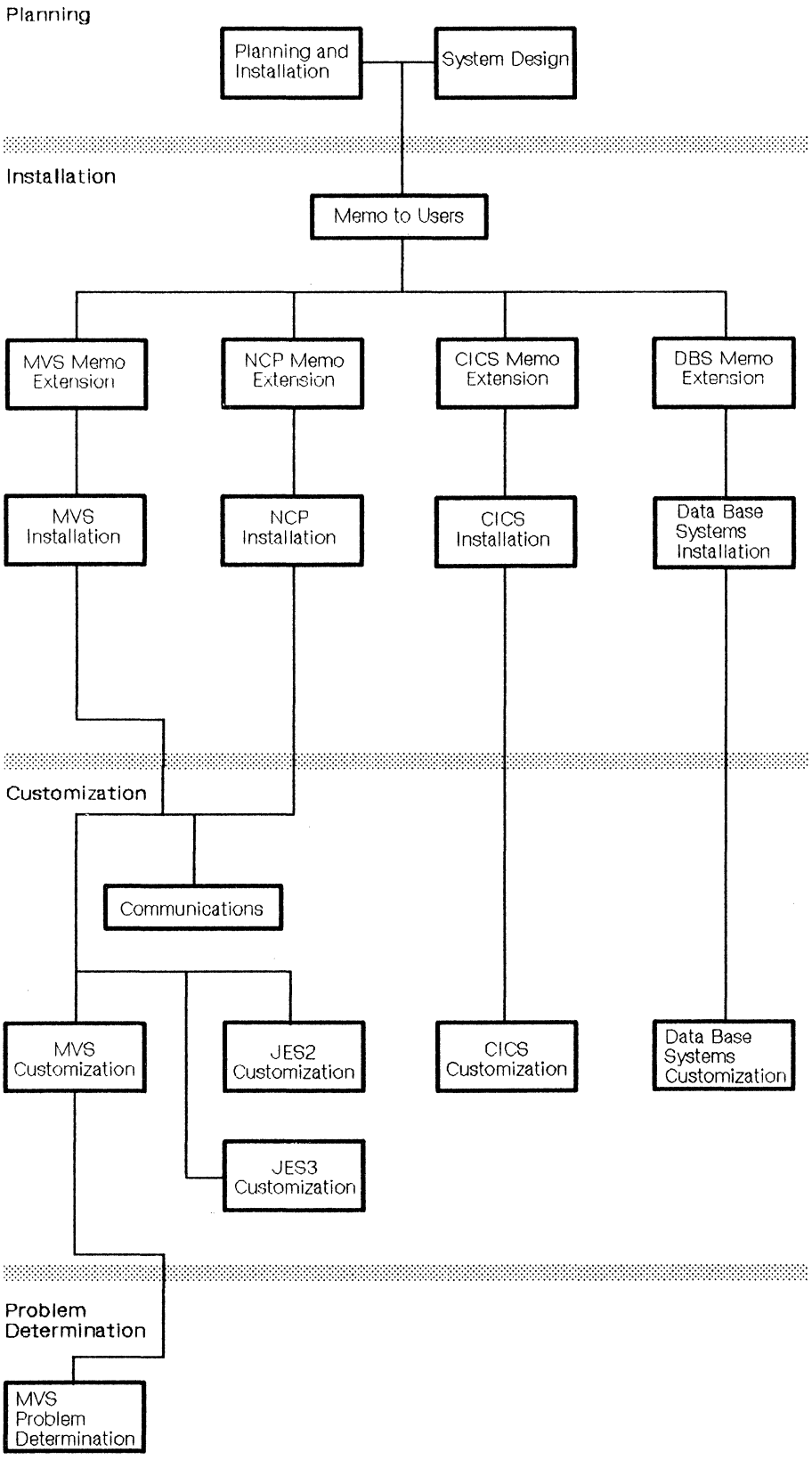

Figure 5. Types of Information Provided for CBIPO

MVS Feature Documents

Title	Description
MVS CBIPO Memo to Users Extension	Describes the order as a whole, as well as individual licensed programs in the order. There is a separate *Memo to Users Extension* for each feature, which is customized to the specific order.
MVS CBIPO Installation Guide for MVS/XA and MVS/ESA	Describes how to install a new MVS/XA or MVS/ESA system from a CBIPO-customized DLIB.
MVS CBIPO Installation Guide for MVS/370	Describes how to install a new MVS/370 system from a CBIPO-customized DLIB.
MVS CBIPO Customization and Use Guide	Describes how to customize and use the MVS system control program and selected other products.
MVS CBIPO Communication Customization and Use Guide	Contains information needed for customizing and managing a communication network.
MVS CBIPO JES2 Customization and Use Guide for MVS/XA and MVS/ESA *MVS CBIPO JES2 Customization and Use Guide for MVS/370*	Provides step-by-step procedures for migrating to a new level of JES2 and describes how to define and use JES2 Network Job Entry (NJE).
MVS CBIPO JES3 Customization and Use Guide for MVS/XA and MVS/ESA *MVS CBIPO JES3 Customization and Use Guide for MVS/370*	Provides step-by-step procedures for migrating to a new level of JES3 in an MVS/SP environment.
CBIPO MVS System Problem Determination Guide	Contains information to help users with system-level problem determination.
Note: Each of these documents is part of the CBIPO package and does not have an order number.	

NCP Feature Documents

Title	Description
MVS CBIPO Memo to Users Extension	Describes the order as a whole, as well as individual licensed programs in the order. There is a separate *Memo to Users Extension* for each feature, which is customized to the specific order.
MVS CBIPO NCP Installation Guide	Provides step-by-step procedures for installing the CBIPO NCP feature. It also describes other aspects of ACF/NCP that you may want to review, such as NCPGEN.
MVS CBIPO Communication Customization and Use Guide	Contains information needed for customizing and managing a communication network.
Note: Each of these documents is part of the CBIPO package and does not have an order number.	

Data Base Systems Feature Documents

Title	Description
MVS CBIPO Memo to Users Extension	Describes the order as a whole, as well as individual licensed programs in the order. There is a separate *Memo to Users Extension* for each feature, which is customized to the specific order.
MVS CBIPO Data Base Systems Installation Guide	Describes step-by-step procedures for installing the CBIPO Data Base Systems feature.
MVS CBIPO Data Base Systems Customization and Use Guide	Describes how to customize IMS-related products and includes hints and tips for dialogs provided by DB2 and other related products.
Note: Each of these documents is part of the CBIPO package and does not have an order number.	

CICS Feature Documents

Title	Description
MVS CBIPO Memo to Users Extension	Describes the order as a whole, as well as individual licensed programs in the order. There is a separate *Memo to Users Extension* for each feature, which is customized to the specific order.
MVS CBIPO CICS Installation Guide	Describes how to install a CICS/OS/VS system from a CBIPO-customized DLIB.
MVS CBIPO CICS Customization and Use Guide	Describes how to customize and use CICS, and provides guidance on using CICS together with its related products.
Note: Each of these documents is part of the CBIPO package and does not have an order number.	

CBPDO Documentation

Figure 6 on page 50 quickly reviews the types of documents in the CBPDO library and their relationship to each other. In this chart, the documents are grouped into two categories: planning and installation. The specific documents are described below. The *Memo to Users Extension* can be printed using directions in the *Memo to Users*.

Title	Description
MVS Custom-Built Offerings Planning and Installation, SC23-0352	Provides a summary of how to plan for installing products and service from a CBIPO or CBPDO.

Title	Description
MVS CBPDO Memo to Users Extension	Describes the order as a whole, as well as individual licensed programs in the order. There is a separate *Memo to Users Extension* for each feature, which is customized to the specific order. **This document is part of the CBPDO package and does not have an order number.**

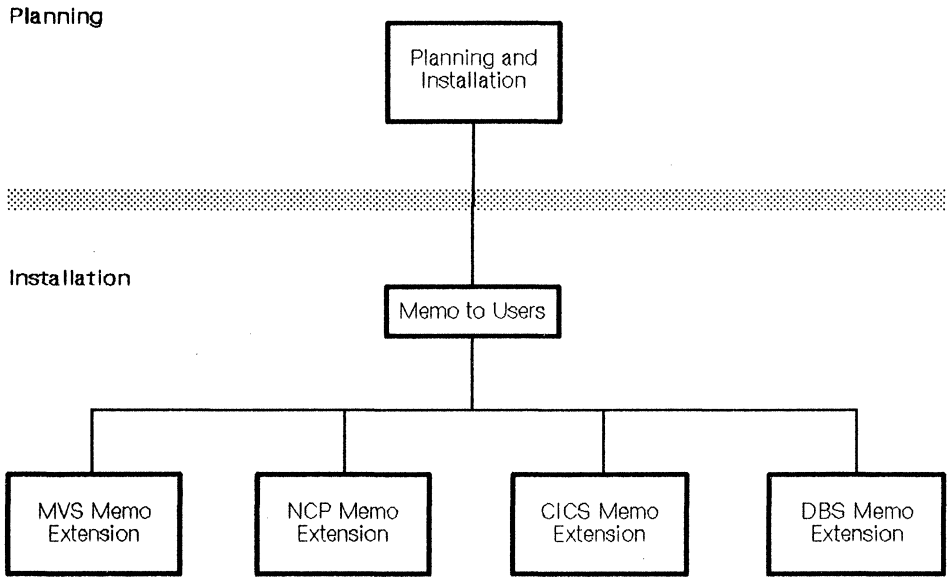

Figure 6. Types of Information Provided for CBPDO

SMP/E Documentation

Here is a list of the SMP/E Release 5.1 publications and a brief description of each one.

Note: You can order the SMP/E Release 5.1 publications individually or use a Bill of Forms number to order the complete set of unlicensed publications. (The *SMP/E Diagnosis Guide* must be ordered separately.)

- For the English feature of SMP/E, use **SBOF-1587**.
- For the Japanese feature of SMP/E, use **SBOF-3161**.

Title	Description
SMP/E Program Directory for Installation Planning (English Feature), GC23-0130 *SMP/E Program Directory for Installation Planning (Japanese Feature)*, GC23-0469	Explains how to plan for installing SMP/E on your current SMP/E or SMP4 system.
SMP/E User's Guide, SC28-1302	Describes how to use SMP/E to install programs and service.
SMP/E Messages and Codes, SC28-1108	Explains SMP/E messages and return codes and the actions to take for each message and code.
SMP/E Reference, SC28-1107	Explains SMP/E commands and processing in detail.
SMP/E Reference Summary, SX22-0006	Quickly reviews the SMP/E commands in a convenient form.
SMP/E Program Packaging Guide, SC23-0221	Explains how to package programs for installation by SMP/E.
SMP/E Diagnosis Guide, LY27-8047	Explains how to handle suspected SMP/E problems.

Appendix C. Acronyms and Abbreviations

ACDS Alternate control data set.

ACF Advanced Communications Function.

APAR Authorized program analysis report.

CBIPO Custom-Built Installation Process Offering.

CBPDO Custom-Built Product Delivery Offering.

CDS Control data set.

CICS Customer Information Control System.

CORPE PSP UPGRADE for PE-PTFs available correctively, but not yet available on a PUT.

CSI Consolidated software inventory.

CVOL Control volume.

DASD Direct access storage device.

DB2 DATABASE 2*.

DFEF Data Facility Extended Function.

DFP Data Facility Product.

DLIB Distribution library.

DXT Data dictionary.

EC Engineering change.

FMID Function modification identifier.

HIPER High impact or pervasive APAR.

ICF Integrated Catalog Facility.

IMS Information Management System.

IOGEN Input/output device generation.

IPL Initial program load.

ISPF Interactive System Productivity Facility.

ISPF/PDF Interactive System Productivity Facility/Program Development Facility.

IVP Installation verification procedure.

JCL Job control language.

JES Job Entry Subsystem.

MVS Multiple Virtual Storage.

MVSCP MVS configuration program.

MVS/ESA Multiple Virtual Storage/Enterprise Systems Architecture (MVS/SP Version 3 or MVS/ESA SP Version 4).

MVS/SP Multiple Virtual Storage/System Product.

MVS/XA Multiple Virtual Storage/Extended Architecture (MVS/SP Version 2).

MVS/370 Multiple Virtual Storage for System/370* (MVS/SP Version 1).

NCP Network Control Program.

NJE Network Job Entry.

PDF Program Development Facility.

PE Program temporary fix in error.

PSP Preventive service planning.

PTF Program temporary fix.

PUT Program update tape.

RIM Related installation material.

SCP System control program.

SERV CBIPO service tape.

SMCCOR A PTF that is approved for distribution but is not yet available on a PUT tape.

SMCREC A PTF that is approved for distribution and is recommended to be installed, but is not yet available on a PUT tape.

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SMP	System Modification Program.
SMPCSI	SMP/E consolidated software inventory data set.
SMP/E	System Modification Program Extended.
SMPPTS	SMP/E PTF temporary storage data set.
SMS	Storage Management Subsystem.
SNA	Systems Network Architecture.
SREL	System release.
SYSGEN	System generation.
SYSMOD	System modification.
TSO	Time Sharing Option.
USERMOD	User modification.
VSAM	Virtual Storage Access Method.
VTAM	Virtual Telecommunications Access Method.
VTOC	Volume table of contents.

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MVS Custom-Built Installation
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MVS Custom-Built Product
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Process Aids — Drivers

Planning and Installation

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