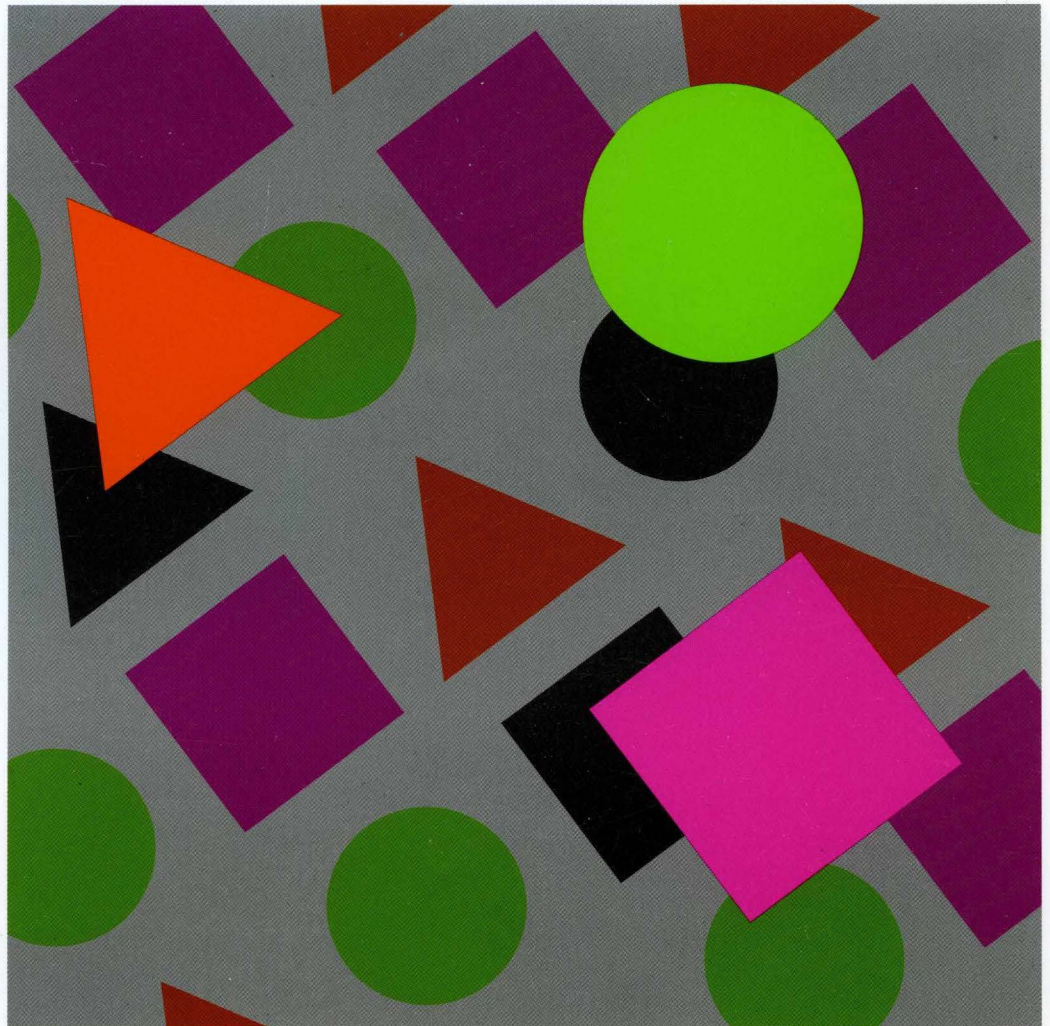


MVS Custom-Built Offerings

SC23-0352-05

MVS Custom-Built Installation Process Offering  
MVS Custom-Built Product Delivery Offering  
Process Aids -- Drivers

**Planning and Installation**





## MVS Custom-Built Offerings

SC23-0352-05

MVS Custom-Built Installation Process Offering  
MVS Custom-Built Product Delivery Offering  
Process Aids – Drivers

### **Planning and Installation**

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**Note!**

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

**Sixth Edition (August 1991)**

This edition replaces the previous edition, SC23-0352-4, which is obsolete. Changes or additions to the text and illustrations are indicated by a vertical line to the left of the change.

This edition applies to the following offerings, and to all subsequent releases and modifications until otherwise indicated in new editions:

- MVS Custom-Built Installation Process Offering, program number 5751-CS1
- MVS Custom-Built Product Delivery Offering, program number 5751-CS3
- MVS Custom-Built Installation Process Offering Process Aids, program number 5751-CS2
- MVS Custom-Built Installation Processing Offering Drivers, program number 5665-343.

Consult the latest edition of *IBM System/370, 30xx, 4300, and 9370 Processors Bibliography*, GC20-0001, for current information on these offerings.

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- MVS/DFP
- MVS/ESA
- MVS/SP
- MVS/XA
- System/370
- VTAM





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## 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 related publications, see Appendix B.

### What Is New?

SMP/E Release 6 provides new dialogs for installing CBIPOs.

For a quick comparison of using the new CBIPO dialogs versus using the batch installation process, see Table 3 on page 25.



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## Summary of Changes

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### Revision SC23-0352-05 (August 1991)

This revision documents the following changes:

- **CBIPO Dialogs**

SMP/E now includes dialogs that can be used to install CBIPO packages. These dialogs can be used instead of the existing batch installation process.

With the CBIPO dialogs you can:

- Install a system or subsystem from a CBIPO or redistribution tape.
- Reinstall existing user application programs and user data while installing a new system or subsystem from a CBIPO or redistribution tape.
- Redistribute a system or subsystem by either:
  - Copying the complete system or subsystem to DASD at the same location. This is called *local redistribution*.
  - Copying the complete system or subsystem to tape, transporting it, and installing the copied system or subsystem from the tape onto DASD at either the same location or at a different location. This is called *remote redistribution*.

For both types of redistribution, the data set, DASD, and catalog configuration of the copied system or subsystem need not be the same as the configuration of the original system or subsystem.

- Process I/O definitions for an MVS system that was installed using the CBIPO dialogs:
  - Process an MVSCP deck
  - Include existing IODFs (I/O definition files) for use during IPL and to be copied during reinstall or redistribution processing.
- Connect a previously installed subsystem to another MVS system.

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



---

## Chapter 1. Introduction to CBIPOs and CBPDOs

This chapter is an introduction to CBIPOs and CBPDOs. It describes:

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

### What Is New?

SMP/E Release 6 provides new dialogs for installing CBIPOs.

For a quick comparison of using the new CBIPO dialogs versus using the batch installation process, see Table 3 on page 25.

---

### What Is a CBIPO?

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

- **MVS.** This includes MVS/Enterprise Systems Architecture (MVS/ESA\*), MVS/Extended Architecture (MVS/XA\*), or MVS/370, and the associated IBM system control program (SCP) and licensed programs.
- **Network Control Program (NCP).** This includes Advanced Communications Function for NCP (ACF/NCP) and associated IBM licensed programs.
- **Data Base Systems (DBS).** This includes Information Management System (IMS), DATABASE 2\* (DB2\*), and associated IBM licensed programs.
- **Customer Information Control System (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. A 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:

Feature	SREL
<b>MVS</b>	Z038
<b>NCP</b>	P004
<b>DBS</b>	P115
<b>CICS</b>	C150

---

MVS/ESA, MVS/XA, DATABASE 2, and DB2 are trademarks of the IBM Corporation.

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:

- **DLIB tapes:** One or more tapes with the distribution libraries.

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.

- **RIM tape:** A tape of related installation materials (RIMs).

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.

The RIMs also include *order data*, which describes the contents of your particular CBIPO order and is used by the CBIPO dialogs in SMP/E Release 6. Order data consists of:

- The names of the products in the order.
- The FMIDs that make up the products in the order.
- The name of the feature to which the order applies.
- Descriptions of one or more default configurations on which the order may be installed. (A *configuration* describes the DASD layout on which a CBIPO order may be installed. It defines data set names and space allocations, the volumes where the data sets reside, and the catalogs where the data sets are defined.)

**Notes:**

1. If you have SMP/E Release 6 on your driving system, you can use either the CBIPO dialogs or the batch jobs contained on the RIM tape to install a CBIPO order. However, you cannot use both the CBIPO dialogs and the RIM batch jobs in combination to install the same order; you must use one or the other.
  2. If you do not have SMP/E Release 6 on your driving system, you must use the batch jobs contained on the RIM tape to install a CBIPO order.
- **SERV tape:** A tape of system modifications (SYSMODs) associated with the licensed programs you selected that are not integrated into the DLIBs.

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 chains and system hold chains, and PTFs that are more current than those integrated into your CBIPO DLIBs.

---

## What Is a CBPDO?

A 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/ESA, MVS/XA, MVS/370, and associated IBM SCP and licensed programs.
- **NCP.** This includes ACF/NCP and associated IBM licensed programs.

- **DBS.** This includes IMS, DB2, and associated IBM licensed programs.
- **CICS.** This includes CICS and associated IBM licensed programs.

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

<b>Feature</b>	<b>SREL</b>
<b>MVS</b>	Z038
<b>NCP</b>	P004
<b>DBS</b>	P115
<b>CICS</b>	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 for 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 a 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: a **CBIPO** or a **CBPDO**?

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

*Table 1. Comparison of a CBIPO with a CBPDO*

<b>CBIPO</b>	<b>CBPDO</b>
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 (CBIPO dialogs and 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 a CBIPO or upgrade it with a 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 a 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 a CBIPO. The time required to install a large number of products using a CBIPO is usually considerably less than the time required to install the products using a CBPDO or traditional methods.

Because of your unique requirements, you may have to use a CBPDO to install a major system change (rather than use a 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, DBS, or CICS) or have a small staff, then a CBIPO might be your preference because of the the CBIPO dialogs, 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.

Installing a CBPDO requires the same skills and experience traditionally required to install individual products and service. With respect to installation, a CBIPO requires less expertise than a 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 a 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 a CBPDO than through a 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 a CBIPO, a CBPDO is probably the better choice. Remember, because a 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 a CBIPO
- Structure of a CBIPO system
- System design considerations.

---

### CBIPO Requirements

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 dialogs contained in SMP/E Release 6 and the CBIPO RIM batch 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 Data Facilities Product (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 MVS RIM tape to help you do this.

- To use the IODF option when installing an order containing MVS/ESA SP Version 4, the driving system must contain DFP Version 2 Release 3 (MVS/XA DFP) or higher.
- 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.

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- For subsystem features, the minimum required level of SMP/E is Release 5.

### Notes:

1. SMP/E Release 6 is required on your driving system if you plan to use the CBIPO dialogs to install CBIPO orders. To install SMP/E Release 6 on your driving system, you can do one of the following:

- Order SMP/E Release 6 in a CBPDO and install it using the SMP/E dialogs or SMP/E batch jobs (if your driving system currently contains SMP/E Release 5 or higher)
- Order SMP/E Release 6 when it is available in a CBIPO and install the entire order using the RIM batch jobs
- Order and install a CBIPO driver when SMP/E Release 6 is available in a CBIPO.

If the dialogs are to be used, the following programs are required:

- Interactive System Productivity Facility (ISPF). Use one of the following:
    - Version 2 Release 3 (Program No. 5665-319), or later, plus service PTF UY14417 (for FMID HIF2302)
    - Version 3 (Program No. 5685-054), or later.
  - Interactive System Productivity Facility/Program Development Facility (ISPF/PDF). Use one of the following:
    - Version 2 Release 3 (Program No. 5665-317), or later, plus service PTF UY15941 (for FMID HDV2302)
    - Version 3 (Program No. 5665-402), or later.
  - Time Sharing Option/Extensions (TSO/E) Version 1 Release 2 (Program No. 5665-285), or later.
2. Subsystem orders can be installed using the CBIPO dialogs regardless of whether the driving system was installed using the CBIPO dialogs.
  3. All the CBIPO features except the MVS feature for MVS/370 can be installed using either the CBIPO dialogs or the CBIPO batch installation process. The MVS feature for MVS/370 can be installed only with the CBIPO batch installation process.
- 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, 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.

*MVS CBIPO System Design Reference* 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 CBIPOs, CBPDOs, and SMP/E, see Table 13 on page 61.

## Structure of a CBIPO System

Figure 3 on page 15 shows the structure of a complete CBIPO 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 con-

nected 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.

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### 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/ESA SP Version 4 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.

*MVS CBIPO System Design Reference*, 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 requirements. 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, a CBIPO provides additional information and criteria for the selection of these values based on experience with the model installation. The installation method you are using determines how you change the CBIPO-supplied installation values:

- The **CBIPO dialogs** in SMP/E Release 6 provide a tailoring option to help you change descriptions of the data set, DASD, and catalog layouts on which a CBIPO order may be installed. For example, you can change data set names, space allocations, volumes on which data sets reside, and catalogs where data sets are defined. The dialogs help you make these changes as general or as specific as necessary.
- The **batch** installation process provides an edit facility called *IPOUPDTE* to help you change the default values used by the jobs in the RIMs.

For more information about changing default installation values using the CBIPO dialogs or *IPOUPDTE*, see “Tailoring the Installation Jobs” on page 30.

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

- 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 a 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.
- The data sets on a logical volume may be treated either individually or as a single unit.
  - For **CBIPO dialog** users, the data sets on a logical volume may be treated either individually or as a single unit.
  - For **batch** job users, all the 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.

To provide additional flexibility in designing your system, default configurations are shipped with CBIPO orders for use with the CBIPO dialogs in SMP/E Release 6. A *configuration* describes the DASD layout on which a CBIPO order may be installed. It defines data set names and space allocations, the volumes where the data sets reside, and the catalogs where the data sets are defined. Several types of default configurations are shipped with a CBIPO order:

- A default **test** configuration. This uses the least possible amount of DASD. It is shipped with MVS orders and subsystem orders.
- A default **production** configuration. This groups data sets on volumes by function. It is shipped only with MVS orders.



- A default **batch** configuration. This matches the defaults provided for the CBIPO batch installation jobs. It is shipped with MVS orders and subsystem orders.

These default configurations are meant to be used as models for defining your own user configurations. You can then tailor these user-defined configurations as necessary to meet your own system requirements. (See “Using the CBIPO Dialogs in SMP/E Release 6” on page 30 for more information.)

**Note:** The CBIPO design used for both the CBIPO dialogs and the batch installation process 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.

However, the CBIPO dialogs in SMP/E Release 6 help you tailor your user-defined configurations to include space for these products and data sets.

Remember the following when you make this decision: One of the major design decisions you will make for your system or subsystem is 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. *MVS CBIPO System Design Reference* 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.

The following sections show the logical DASD volume structure of systems that can be built using the:

- Default test configuration (CBIPO dialogs only)
- Default production configuration (CBIPO dialogs only)
- Default batch configuration (CBIPO dialogs and batch installation process).

### **Default Test Configuration**

Figure 1 on page 13 shows the logical DASD volume structure your system might have if you installed all four of the CBIPO features using the default test configuration shipped with the CBIPO dialogs.

For each feature, there is one logical volume for the target data sets, one logical volume for DLIB data sets, and one logical volume for CBIPO RIMs and SMP/E data sets. In addition, there is a volume for the system master catalog.

The data sets are assigned to logical volumes to use the least possible amount of DASD space.

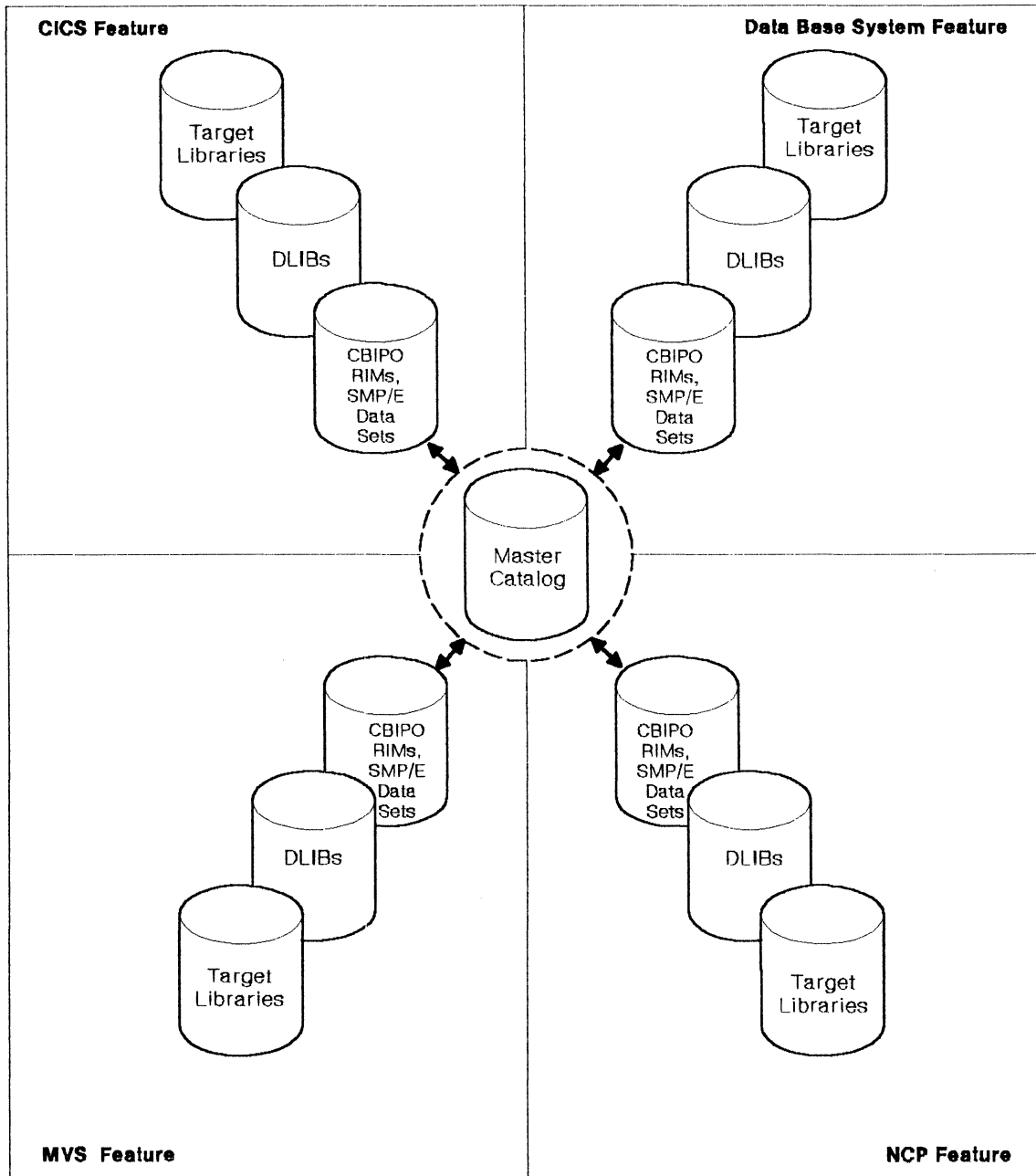


Figure 1. Default Test Configuration—Logical Volumes for a Complete CBIPO System

**Default Production Configuration (MVS Orders Only)**

Figure 2 on page 14 shows the logical DASD volume structure your system might have if you installed the MVS CBIPO feature using the default production configuration shipped with a CBIPO order. (This configuration is shipped **only** with MVS orders.)

In this configuration there is:

- One logical volume for target data sets
- One logical volume for DLIB data sets
- One logical volume for CBIPO RIMs, SMP/E data sets, and the JES checkpoint data set
- One logical volume for the spool data set
- One logical volume for RACF data sets
- Two logical volumes for page data sets
- One logical volume for the system master catalog.

The data sets are assigned to logical volumes by function.

**MVS Feature**

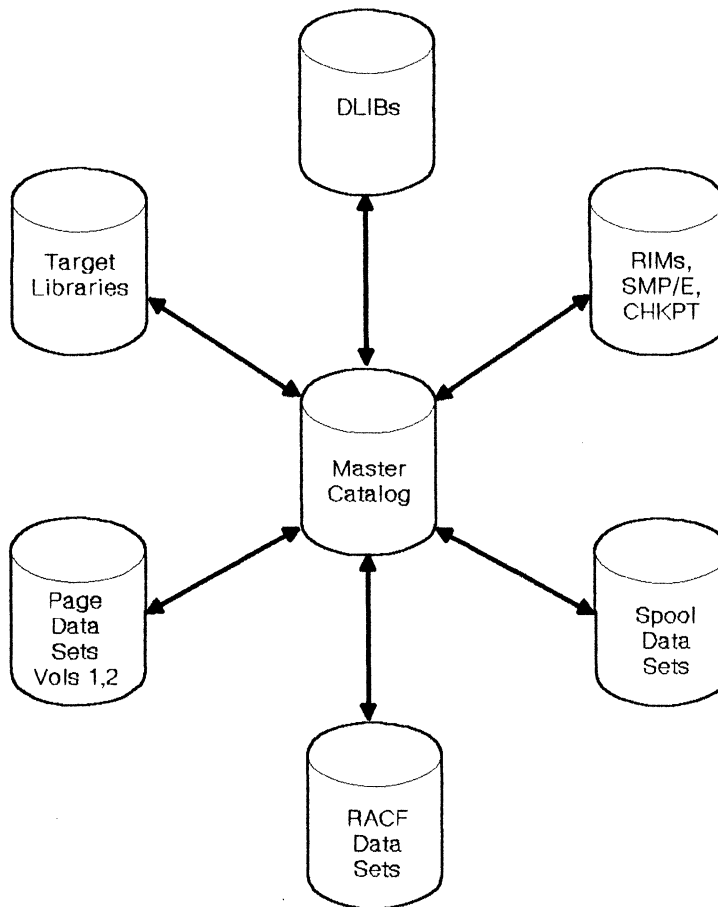


Figure 2. Default Production Configuration—Logical Volumes for the MVS Feature

**Default Batch Configuration**

Figure 3 on page 15 shows the logical DASD volume structure your system might have if you installed all four of the CBIPO features, using either the default batch configuration shipped with the CBIPO dialogs or the defaults for the CBIPO batch installation jobs.

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 CBIPOs. This accommodates the largest pos-

sible number of products in an order and provides extra space on each logical volume for the future addition of products or PTF service.

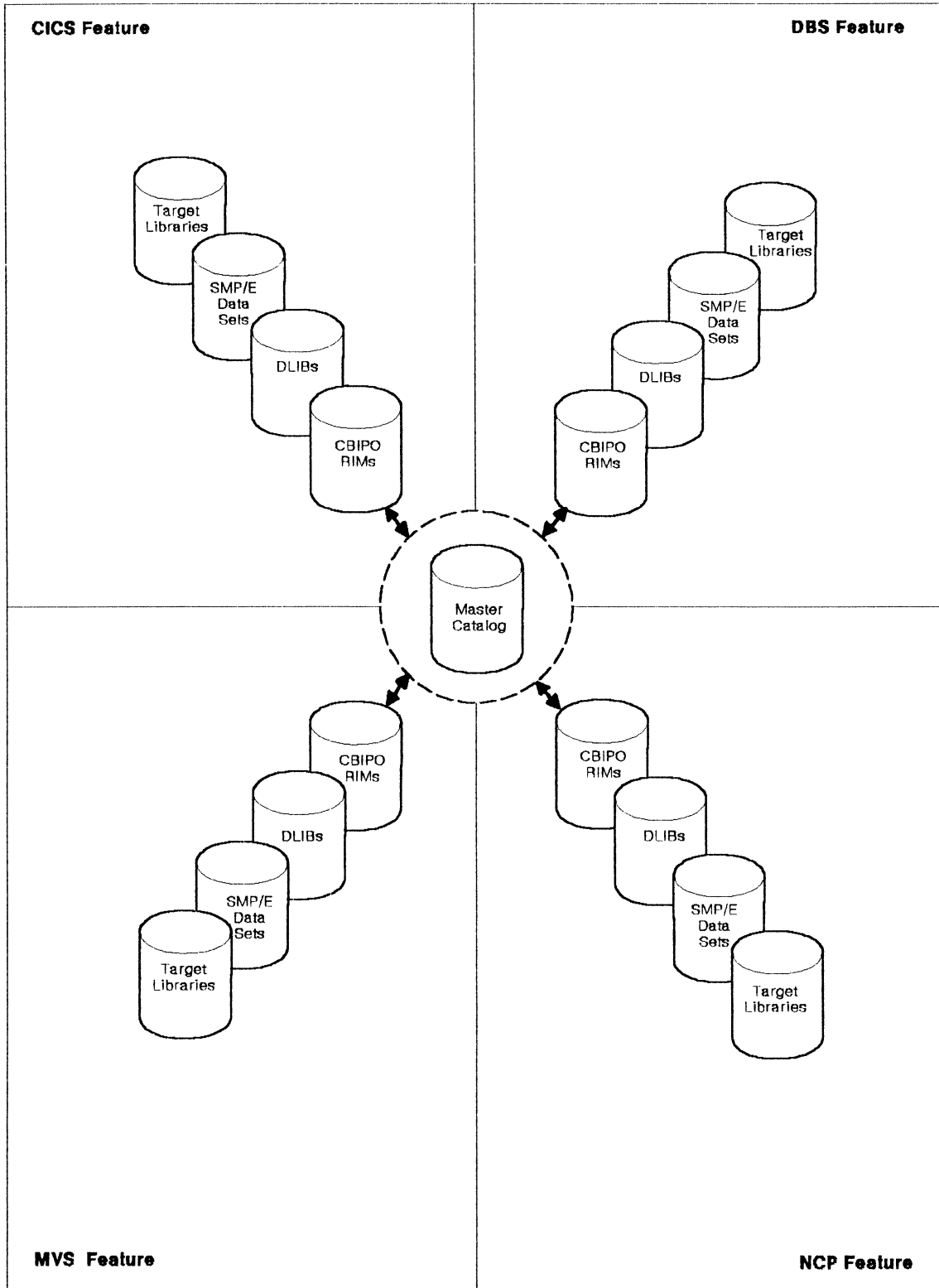


Figure 3. Default Batch Configuration—Logical Volumes for a Complete CBIPO System

## System and User Catalogs

The CBIPO procedures for creating catalogs support the ICF format. To build ICF catalogs, you must have either MVS/370 DFP, MVS/XA DFP, MVS/DFP for MVS/ESA, or 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 4 on page 18 shows the catalog structure you would have should you use the default batch configuration 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 the high-level qualifier *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 dialogs** provide extensive tailoring options to help you combine catalogs and volumes. See “Using the CBIPO Dialogs in SMP/E Release 6” on page 30 for details.
- The **batch** installation process provides an editing facility called IPOUPDTE to help you combine logical volumes on a single volume. See “Using the CBIPO Batch Installation Process” on page 32 for more information.

Catalog structures are discussed in detail in *MVS CBIPO System Design Reference*. Definitions of the CBIPO catalog names and examples of catalog structures are based on the default batch configuration.

## SMP/E Data Sets

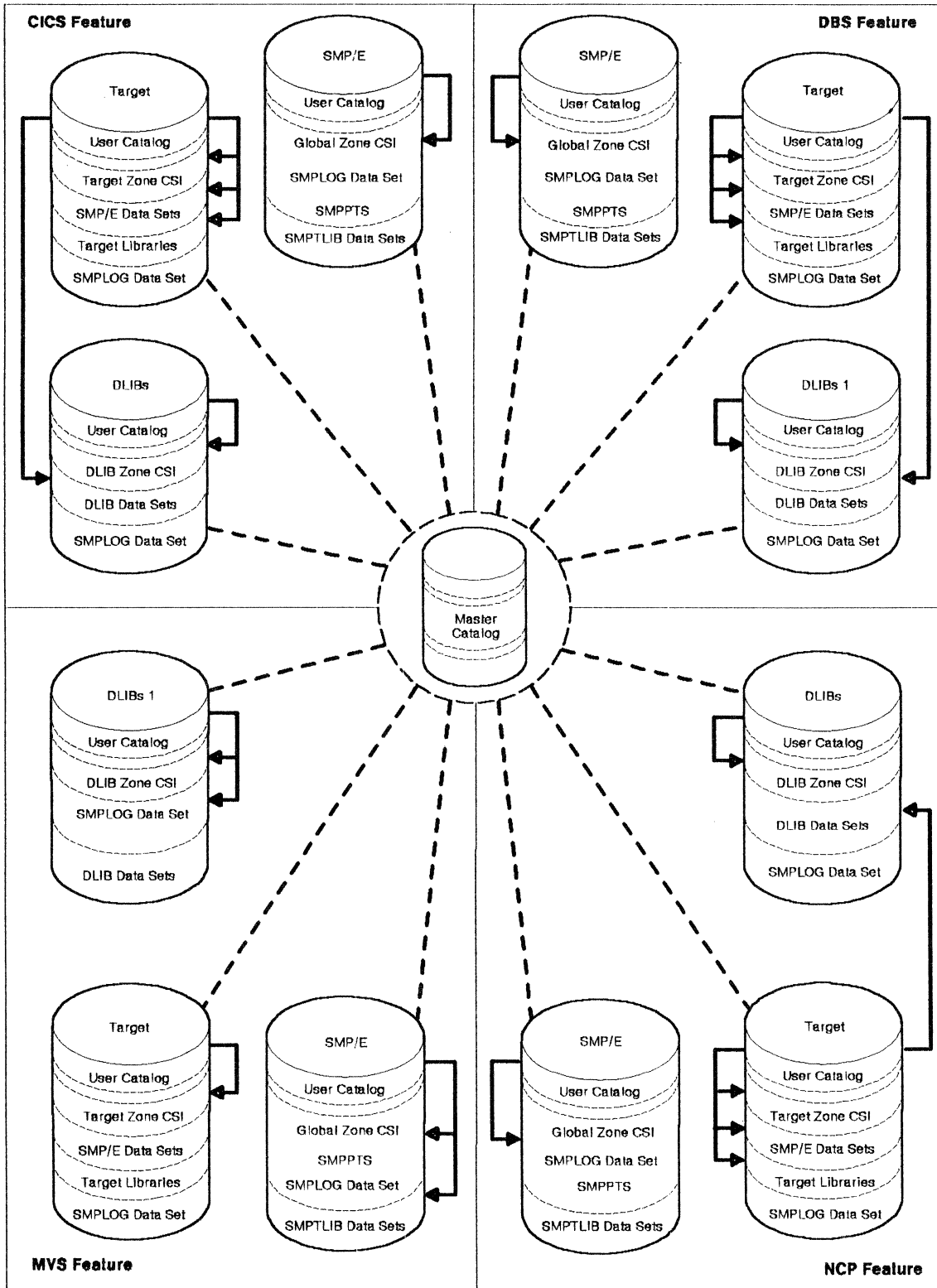
Figure 4 on page 18 shows the SMP/E data set structure that you would have on your system if you installed all four CBIPO features using the default batch configurations. These are some of the major design characteristics of the SMP/E data sets:

- 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 MVS feature and the DBS feature, the CSIs are on the first logical volume. In the CBIPO feature, 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 zone. 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 *MVS CBIPO System Design Reference* for additional information on SMP/E data set design and naming conventions.



| Figure 4. Default Batch Configuration—Catalog and SMP/E Data Set Structure of a Complete CBIPO System

## Coexistence of SMP/E and SMP Release 4

In planning your system or subsystem installation using a 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, DBS, 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, DBS, 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 *MVS CBIPO System Design Reference*.

**Note:** The CBIPO dialogs provide a PARMLIB management option, where you can change the information in various PARMLIB members (such as LNKLST, LPALST, and others), as well as read in existing PARMLIB information. See Table 4 on page 30 for more details on using the CBIPO dialogs to tailor PARMLIB members.





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## Chapter 3. CBIPO Installation

This chapter describes how to install a CBIPO. 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
- Additional installation support provided by the CBIPO dialogs.

### What Is New?

SMP/E Release 6 provides new dialogs for installing CBIPOs.

For a quick comparison of using the new CBIPO dialogs versus using the batch installation process, see Table 3 on page 25.

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### What Is Meant by “Installation”

“Installation,” as defined by CBIPO, refers specifically to the CBIPO installation tasks 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.

#### Notes:

1. Installation of CBIPOs on volumes managed by Storage Management Subsystem (SMS) is not supported.
2. If you have SMP/E Release 6 on your driving system, you can use either the CBIPO dialogs or the batch jobs contained on the RIM tape to install an order. However, you cannot use both the CBIPO dialogs and the RIM batch jobs in combination to install the same order; you must use one or the other.
3. If you do not have SMP/E Release 6 on your driving system, you must use the batch jobs contained on the RIM tape to install an order.

The installation and post-installation activities are summarized in Figure 5 on page 22.

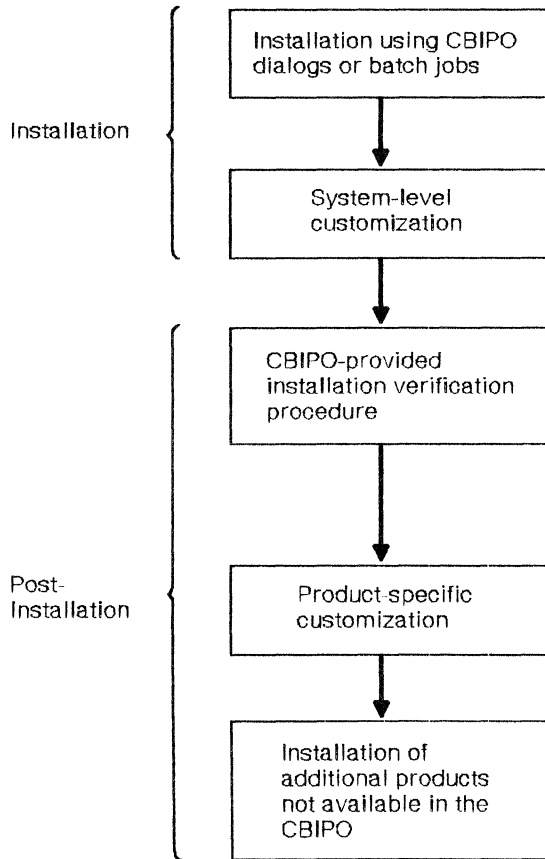


Figure 5. Installation and Post-Installation Activities

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### Summary of CBIPO Objectives for Installation

CBIPOs are 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.
- 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 easy to modify and use.
- 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.

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## 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:

- For the **CBIPO dialogs** in SMP/E Release 6, order data is customized to the contents of your order. *Order data* consists of:
  - The names of the products in the order.
  - The FMIDs that make up the products in the order.
  - The name of the feature to which the order applies.
  - Descriptions of one or more default configurations on which the CBIPO order may be installed. (A *configuration* describes the DASD layout on which a CBIPO order may be installed. It defines data set names and space allocations, the volumes where the data sets reside, and the catalogs where the data sets are defined.)

Order data is tailored to your product mix by the software manufacturing process and is delivered on your RIM tape.

- For the **batch** installation process, 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 pro-

grams, 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
- A comparison of the CBIPO dialogs in SMP/E Release 6 with the CBIPO batch installation jobs
- The role of the CBIPO installation RIMs
- Tailoring the installation jobs with IPOUPDTE
- Using the SMP/E GENERATE command with IPOGEN GENERATE
- The system installation verification procedures.

## Summary of the CBIPO Installation Process

To install any of the CBIPO features, you should follow the general steps shown in Table 2:

<i>Table 2 (Page 1 of 2). CBIPO Installation Process</i>	
<b>Using the CBIPO Dialogs in SMP/E Release 6</b>	<b>Using the CBIPO Batch Installation Process</b>
<ol style="list-style-type: none"> <li>1. Review the MVS CBIPO memo to users that accompanies your feature.</li> <li>2. Using the CBIPO dialogs:                             <ul style="list-style-type: none"> <li>• Define your particular order to the dialogs, then load the documentation.</li> <li>• Review online or print the CBIPO RIM documents, program directories, and PTF cover letters.</li> <li>• Select the order.</li> </ul> </li> <li>3. Using the CBIPO dialogs, select the configuration on which to install the order. You can define a new configuration by modelling it after an existing configuration.</li> <li>4. Using the CBIPO dialogs, tailor the selected configuration to conform to your system design characteristics and installation naming conventions.</li> <li>5. Using the CBIPO dialogs, build and submit the installation jobs for your order.  The dialogs create the necessary jobs for you, based on the selected configuration and the information you specify on the dialog panels. You can indicate which of these jobs should be automatically submitted and which should be manually submitted. (This step corresponds to steps 4–11 of the batch installation process.)</li> </ol>	<ol style="list-style-type: none"> <li>1. Review the MVS CBIPO memo to users that accompanies your feature.</li> <li>2. Using the instructions in the MVS CBIPO memo to users, print the CBIPO RIM documents. Then review the documentation.</li> <li>3. Initialize your target system residence volumes and RIM data set volume.  Then allocate your target system and RIM data sets and load the RIM tape.</li> <li>4. 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.</li> <li>5. Initialize your DLIB, SMP/E, and catalog volumes, where required.</li> <li>6. Build your master catalog and user catalogs.</li> <li>7. Allocate and load the DLIBs.</li> <li>8. Build the SMP/E volume.</li> <li>9. Generate your system or subsystem.</li> <li>10. Perform minimal customization to prepare for IPL.</li> <li>11. IPL your system and run the CBIPO-provided IVPs.</li> <li>12. Perform system-level customization as required by the products in your feature.</li> </ol>

Table 2 (Page 2 of 2). CBIPO Installation Process	
Using the CBIPO Dialogs in SMP/E Release 6	Using the CBIPO Batch Installation Process
6. Perform system-level customization as required by the products in your feature.  7. IPL your system and run the CBIPO-provided IVPs.	

### Which to Use—CBIPO Dialogs or CBIPO Batch Installation Jobs?

The CBIPO installation process is designed to reduce the system programmer effort required to install systems and subsystems. The assistance provided by the CBIPO batch jobs is further enhanced by the CBIPO dialogs. Table 3 compares the advantages of using the CBIPO dialogs over using the CBIPO batch installation process.

Table 3 (Page 1 of 2). Using the CBIPO Dialogs versus Using the CBIPO Batch Jobs		
Category	Using the CBIPO Dialogs in SMP/E Release 6	Using the CBIPO Batch Jobs
Installation	With the CBIPO dialogs you can: <ul style="list-style-type: none"> <li>• Install a system or subsystem from a CBIPO tape or redistribution tape.</li> <li>• Reinstall existing user application programs and user data while installing a new system or subsystem from a CBIPO tape or redistribution tape.</li> <li>• Redistribute a system or subsystem by either:                             <ul style="list-style-type: none"> <li>– Copying the complete system or subsystem to DASD at the same location. This is called <i>local redistribution</i>.</li> <li>– Copying the complete system or subsystem to tape, transporting it, and installing the copied system or subsystem from the tape onto DASD at either the same location or at a different location. This is called <i>remote redistribution</i>.</li> </ul> </li> </ul>	With the CBIPO batch jobs you can: <ul style="list-style-type: none"> <li>• Install a system or subsystem from a CBIPO tape.</li> <li>• Process an IOGEN deck, MVSCP deck, or IODF (I/O definition file) for an MVS system.</li> </ul> In addition, you can copy a system by tailoring the JCL sample provided in the RIMs.

*Table 3 (Page 2 of 2). Using the CBIPO Dialogs versus Using the CBIPO Batch Jobs*

Category	Using the CBIPO Dialogs in SMP/E Release 6	Using the CBIPO Batch Jobs
Installation (continued)	<p>For both types of redistribution, the data set, DASD, and catalog configuration of the copied system or subsystem need not be the same as the configuration of the original system or subsystem.</p> <ul style="list-style-type: none"> <li>• Process an MVSCP deck or or IODF (I/O definition file) for an MVS system that was installed using the CBIPO dialogs</li> <li>• Connect a previously installed subsystem to another MVS system.</li> </ul>	
Customization	<ul style="list-style-type: none"> <li>• The dialogs are used to customize the configuration on which an order is to be installed.</li> </ul> <p>Users can change information about data set names, space allocations, volumes on which data sets reside, and catalogs where data sets are defined.</p> <p>Extensive options are available for tailoring.</p> <ul style="list-style-type: none"> <li>• Input is validated as it is entered, which helps eliminate JCL errors.</li> </ul>	<ul style="list-style-type: none"> <li>• IPOUPDTE can be used to change certain parameters in the RIM jobs (such as volume names and types), or the JCL can be changed directly.</li> <li>• Input is not validated by IPOUPDTE. Input errors may result in JCL errors.</li> </ul>
System programmer effort	<ul style="list-style-type: none"> <li>• Most job streams can be automatically submitted. The user does not have to be there to submit them.</li> <li>• The dialogs save the configurations, so they can be used across orders. Users do not need to respecify input for each CBIPO order.</li> <li>• The dialogs can merge user data when a new system or subsystem is installed. For example, it can include user data sets and generate JCL to reinstall user modifications.</li> </ul>	<ul style="list-style-type: none"> <li>• Job streams must be manually submitted. The user must be there to submit them.</li> <li>• Users need to respecify input for each CBIPO order.</li> <li>• Users must manually process user data when a new system or subsystem is installed. For example, they must import catalogs and reinstall user modifications.</li> </ul>

### The Role of CBIPO Installation RIMs

To help you install products using the CBIPO DLIBs, a 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/ESA SP Version 4 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 default configurations, sample installation exit routines, procedures, parameters, and examples developed by IBM to help you install and customize your system.

- For the **CBIPO dialogs** in SMP/E Release 6, the order data contained in the RIMs describes default configurations for installing the products in your order. These default configurations are meant to be used as models for defining your own user configurations. Once you have your own user-defined configurations, you can use them as is for installing orders, or you can customize them as generally or as specifically as necessary using the tailoring option of the dialogs. (For more information about these default configurations, see page 12.)

In addition, the CBIPO dialogs provide sample installation exit routines that define various defaults used by the dialogs to generate JCL and issue messages. You can choose whether to supply your own installation exit routines, or use the IBM-supplied defaults. (For more information about customizing these installation exit routines, see *SMP/E Program Directory for Installation Planning*.)

- For the **batch** installation process, 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 the CBIPO dialogs or IPOUPDTE, see "Tailoring the Installation Jobs" on page 30.

**Note:** Bear in mind that the CBIPO dialogs and the batch 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. Each CBIPO feature has two types of installation guides:

- One for using the CBIPO dialogs
- One for using the CBIPO batch installation jobs.

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 a 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.
- *MVS CBIPO System Design Reference* describes the rationale for the design of the various systems defined by the default configurations used by the CBIPO dialogs. Because you may choose to modify the CBIPO design to suit your own installation's requirements, *MVS CBIPO System Design Reference* 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.
  - *MVS CBIPO Security Guide* describes different security features of various products included in an MVS CBIPO.

### **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. Two separate installation guides are shipped with each MVS/XA and MVS/ESA feature: one guide is for installing an MVS feature using the CBIPO dialogs, and the other guide is for installing an MVS feature using the CBIPO batch jobs. MVS/370 features include a single installation guide, which is for installing an MVS feature using the CBIPO batch jobs. (You cannot install an MVS/370 feature with the CBIPO dialogs.)

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 guides provide step-by-step procedures for installing the CBIPO NCP feature on the 37xx communications controllers. Two separate installation guides are shipped with each feature: one for installing an NCP feature using the CBIPO dialogs, and one for installing an NCP feature using the CBIPO batch jobs. These guides provide:

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

### **DBS Feature RIMs**

The DBS installation guides provide step-by-step procedures for installing a CBIPO DBS feature. Two separate installation guides are shipped with each feature: one for installing a DBS feature using the CBIPO dialogs, and one for installing a DBS feature using the CBIPO batch jobs.

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 guides describe how to use the CBIPO CICS feature to install a CICS system from a CBIPO-customized DLIB. Two separate installation guides are shipped with each feature: one for installing a CICS feature using the CBIPO dialogs, and one for installing a CICS feature using the CBIPO batch jobs. These guides provide 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

There are two ways you can tailor the installation jobs used to install a CBIPO. You can tailor the jobs using:

- The CBIPO dialogs in SMP/E Release 6
- The CBIPO batch installation process.

Each of the CBIPO installation guides mentioned in “The Role of CBIPO Installation RIMs” on page 26 provides the information you need to customize the installation jobs to fit your own system’s requirements.

### Using the CBIPO Dialogs in SMP/E Release 6

There are two basic ways to customize the information used by the CBIPO dialogs to install CBIPO orders:

- With the tailoring option of the dialogs, you can change the definitions of the volumes, catalogs, and data sets that make up the configurations on which you plan to install CBIPO orders.
- With the parameters option of the dialogs, you can define installation exit routines to change information used by the dialogs to generate JCL or issue messages.

**Tailoring Configurations:** You can add, rename, delete, merge, move, and generally redefine the volumes, catalogs, and data sets in the configuration you have selected.

**Note:** The specific options you can choose from depend on the type of order you are processing.

<i>Table 4 (Page 1 of 3). Tailoring Configurations with the CBIPO Dialogs</i>	
<b>What You Can Tailor:</b>	<b>What You Can Do:</b>
APFLST	<ul style="list-style-type: none"> <li>• Add data sets from an existing APFLST PARMLIB member (MVS orders only)</li> <li>• Add a data set to the APFLST</li> <li>• Delete a data set from the APFLST</li> </ul>
Catalogs	<ul style="list-style-type: none"> <li>• Add a catalog</li> <li>• Change the system-specific alias name for data sets in a catalog</li> <li>• Delete a catalog</li> <li>• List the data sets on a catalog</li> <li>• Merge two or more catalogs</li> <li>• Rename a catalog</li> </ul>
CLOCKxx time-zone values (MVS orders only)	<ul style="list-style-type: none"> <li>• Specify the system time-zone constants</li> </ul>

Table 4 (Page 2 of 3). Tailoring Configurations with the CBIPO Dialogs

What You Can Tailor:	What You Can Do:
Data set conflicts	<p>Check for and, optionally, resolve data set conflicts between the current configuration and the default configuration for the order. Examples of conflicts include:</p> <ul style="list-style-type: none"> <li>• Extra data sets that are not defined in the CBIPO default configuration</li> <li>• Missing data sets that are defined in the CBIPO default configuration</li> <li>• Conflicts in how data sets are defined</li> <li>• Missing, extra, or updated subsystem names</li> </ul>
Data set definitions (groups of data sets)	<ul style="list-style-type: none"> <li>• Change the BLKSIZE values for data sets on a given volume</li> <li>• Change the high-level qualifier for one data set or for a group of data sets</li> <li>• Move one data set or a group of data sets to a different catalog</li> <li>• Update the allocation values for data sets on a given volume, based on their previous percentage of free space</li> </ul>
Data set definitions (individual data sets)	<ul style="list-style-type: none"> <li>• Add a data set</li> <li>• Change the definition of the data set</li> <li>• Delete a data set</li> <li>• Move one or more data sets to a new location on the same volume or on a different volume</li> <li>• Rename a data set</li> </ul>
JES start-up procedure (MVS orders only)	<ul style="list-style-type: none"> <li>• Add a data set to the procedure</li> <li>• Change the order of data sets in the procedure</li> <li>• Delete a data set from the procedure</li> </ul>
LNKLST data sets	<ul style="list-style-type: none"> <li>• Add data sets from an existing LNKLST PARMLIB member (MVS orders only)</li> <li>• Add a data set to the list</li> <li>• Change the order of data sets in the list</li> <li>• Delete a data set from the list</li> </ul>
LPALST data sets	<ul style="list-style-type: none"> <li>• Add data sets from an existing LPALST PARMLIB member</li> <li>• Add a data set to the list</li> <li>• Change the order of data sets in the list</li> <li>• Delete a data set from the list</li> </ul>
PARMLIB suffixes	<ul style="list-style-type: none"> <li>• Change the suffixes to be used for PARMLIB member names</li> </ul>
SMP/E zones and data sets	<ul style="list-style-type: none"> <li>• Change target zone and DLIB zone SYSLIB concatenation: <ul style="list-style-type: none"> <li>– Add a data set to the concatenation</li> <li>– Change the order of data sets in the concatenation</li> <li>– Delete a data set from the concatenation</li> </ul> </li> <li>• Rename default target and DLIB zones</li> </ul>

<i>Table 4 (Page 3 of 3). Tailoring Configurations with the CBIPO Dialogs</i>	
<b>What You Can Tailor:</b>	<b>What You Can Do:</b>
Special data set requirements	Specify which data sets: <ul style="list-style-type: none"> <li>• Cannot be copied on a reinstall</li> <li>• Cannot be deleted</li> <li>• Cannot be redistributed</li> <li>• Cannot be renamed</li> <li>• Cannot have secondary extents</li> <li>• Must be cataloged in the master catalog</li> <li>• Must be have contiguous allocation</li> <li>• Must be on the SYSRES volume</li> </ul>
Stand-alone dumps (MVS orders only)	<ul style="list-style-type: none"> <li>• Specify the console address, tape unit address, and volume to be used for the stand-alone dump</li> </ul>
Subsystem names	<ul style="list-style-type: none"> <li>• Add subsystem names from an existing IEFSSN PARMLIB member (MVS orders only)</li> <li>• Add a subsystem name to the list</li> <li>• Change description of a subsystem in the list</li> <li>• Delete a subsystem name from the list</li> </ul>
TSO logon procedure (MVS orders only)	<ul style="list-style-type: none"> <li>• Add a data set to the procedure</li> <li>• Change the order of data sets in the procedure</li> <li>• Delete a data set from the procedure</li> </ul>
VATLST	<ul style="list-style-type: none"> <li>• Add volumes from an existing VATLST PARMLIB member (MVS orders only)</li> <li>• Add a volume to the VATLST (MVS orders only)</li> <li>• Change the VATLST attributes for a selected volume</li> <li>• Delete a volume from the VATLST (MVS orders only)</li> <li>• Specify VATLST defaults (MVS/ESA orders only)</li> </ul>
Volumes	<ul style="list-style-type: none"> <li>• Add a volume</li> <li>• Change the device type of a volume</li> <li>• Delete a volume</li> <li>• List the data sets on a volume</li> <li>• Merge two volumes</li> <li>• Rename a volume</li> </ul>

**Defining Installation Exit Routines:** You can write installation exit routines to change the CBIPO dialog defaults used for:

- Job card conventions
- Tape expiration date for tape data sets
- Write-to-operator messages for mounting tapes.

The CBIPO dialogs provide sample installation exit routines, which define the defaults used by the dialogs. You can copy these to a user data set, make the necessary changes, and have the dialogs use your installation exit routines instead of the default ones. For more information about these installation exit routines, see the *SMP/IE Program Directory for Installation Planning*.

**Using the CBIPO Batch Installation Process**

With the CBIPO batch installation process, you can use the IPOUPDTE program 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.

IPOUPDTE is an update program shipped with each CBIPO feature. It is used extensively in the CBIPO batch installation processes and is the primary means by which you can modify the CBIPO batch jobs to implement your system design.

## 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 either the CBIPO dialogs or 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 6 on page 34.

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.

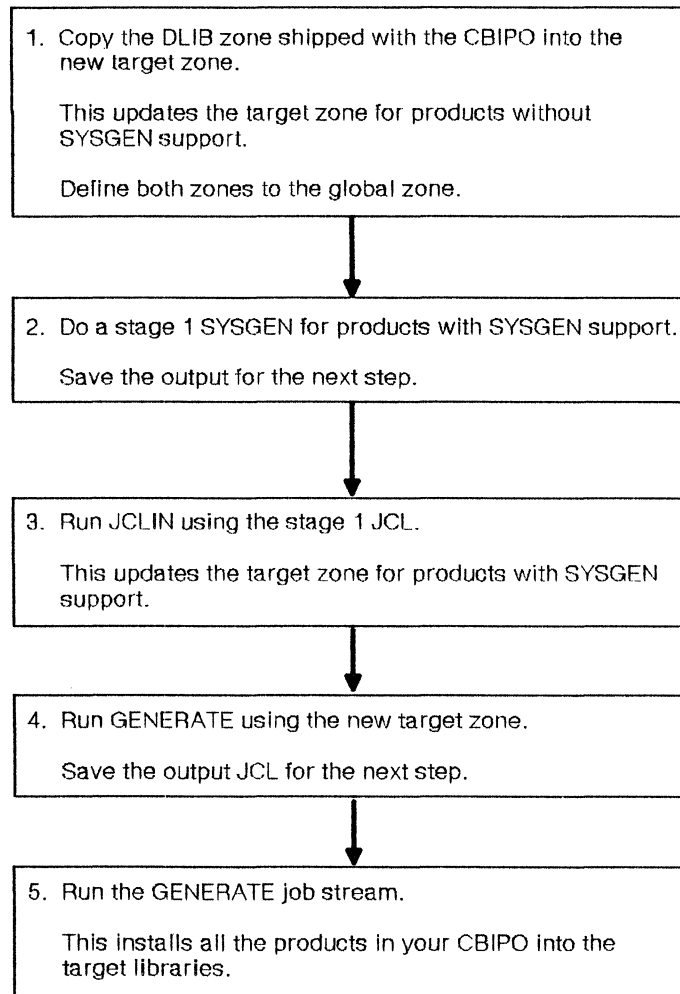


Figure 6. Using the GENERATE Command

### The System Installation Verification Procedures (IVPs)

The last step in the installation process is running the installation verification procedures (IVPs) supplied by a CBIPO. These procedures verify the basic operations of your new system or subsystem. These IVPs will run on any CBIPO 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 Advanced Communications Function for the Virtual Telecommunications Access Method (ACF/VTAM\*).

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ACF/VTAM is a trademark of the IBM Corporation.

- 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 DBS 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 either the CBIPO dialogs or IPOUPDTE.

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## Post-Installation Tasks

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

- Do any product-specific customization needed to make your system fully operational. (Both the CBIPO dialogs and the batch installation process help you with MVSCP. Only the batch installation process helps you with IOGEN. For MVS/ESA SP Version 4, you may need to use the HCD dialogs to tailor the I/O configuration.)
- 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.

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## Additional Installation Support Provided by the CBIPO Dialogs

The CBIPO dialogs provide additional installation support to help you complete your system or subsystem, as well as build additional systems or subsystems. Specifically, the CBIPO dialogs help you with the following:

- Reinstallation, which merges products in a new CBIPO order with user application programs and user data from an existing system or subsystem that was previously installed using the dialogs.



- Redistribution, which copies an existing system or subsystem. There are two basic types of redistribution:
  - DASD-to-DASD (local redistribution)—for example, copying a test system over to a production system
  - DASD-to-tape (remote redistribution)—for example, having a central site do initial installation and create tapes of pre-built systems or subsystems that can be installed by remote sites using the dialogs.
- IODF jobs for MVS/ESA SP Version 4 orders.
- MVSCP jobs for MVS/ESA and MVS/XA orders.
- Jobs to connect an installed subsystem to another system.

The basic steps in these tasks are outlined in the sections that follow.

### Reinstallation Using the CBIPO Dialogs

When you create a system or subsystem using the CBIPO dialogs, you can add user application programs, as well as user data such as user catalogs, user data sets, and data sets for non-IBM products. Later you may want to upgrade all the IBM-supplied code and create a new system or subsystem that also includes the existing user application programs and user data from the previous level. You can use the CBIPO dialogs to do this. Follow these steps to reinstall user application programs and user data when you are creating a new system or subsystem:

1. Review the MVS CBIPO memo to users that accompanies your feature.
2. Define your particular order to the dialogs, then load the documentation. Review online or print the MVS CBIPO memo to users extension, *MVS CBIPO System Design Reference*, and the installation guide for the feature.
3. Select the order.
4. Select the configuration on which to install the order. You can either choose an existing configuration or define a new one.
5. Tailor the selected configuration to conform to your system design characteristics and installation naming conventions.
6. Build and submit the JCL jobs to install your order and reinstall existing user data. You will need to specify the configuration of the existing system or subsystem that contains the user data to be included with your new order.

The dialogs create the necessary jobs for you based on the selected configurations and the information you specify on the dialog panels. You can indicate which of these jobs should be automatically submitted and which should be manually submitted.

7. Perform system-level customization as required by the programs in your feature.
8. IPL your system and run the CBIPO-provided IVPs.

## Redistribution Using the CBIPO Dialogs

With the CBIPO dialogs you can redistribute a system or subsystem by either:

- Copying the complete system or subsystem to DASD at the same location. This is called *local redistribution*.
- Copying the complete system or subsystem to tape, transporting it, and installing the copied system or subsystem from the tape onto DASD at either the same location or at a different location. This is called *remote redistribution*.

For both types of redistribution, the data set, DASD, and catalog configuration of the copied system or subsystem need not be the same as the configuration of the original system or subsystem.

The following sections describe how to do the following:

- Local redistribution
- Remote redistribution
- Redistribution of a system or subsystem that was not created by the CBIPO dialogs.

### Local Redistribution

Local redistribution can be used to copy a system or subsystem from one set of DASD to another—for example, to copy a test system that was installed by the CBIPO dialogs over to a production system. Follow these steps to do local redistribution:

1. Select the existing order you want to redistribute.
2. Select the configuration on which the order is currently installed.
3. Build and submit the job that creates a redistribution order from the selected order and configuration. The dialogs create the necessary job for you based on the selected configuration.
4. Select the redistribution order that was created.
5. Select the configuration on which to install the order. You can either choose an existing configuration or define a new one.
6. Tailor the selected configuration to conform to your system design characteristics and installation naming conventions.
7. Build and submit the JCL jobs to redistribute your order. The dialogs create the necessary jobs for you based on the selected configurations and the information you specify on the dialog panels. You can indicate which of these jobs should be automatically submitted and which should be manually submitted.

### Remote Redistribution

Remote redistribution can be used to copy a system or subsystem from DASD to tape—for example, to allow a central site to install a system using the CBIPO dialogs, then create a redistribution tape to ship copies of this system to remote sites. The remote sites can then use the CBIPO dialogs to install the pre-built system without having to build the target libraries from the distribution libraries. Follow these steps to create a tape for shipping a redistribution order:

1. Select the existing order you want to redistribute.

2. Select the configuration on which the order is currently installed.
3. Build and submit the job that creates a redistribution order from the selected order and configuration. The dialogs create the necessary job for you based on the selected configuration.
4. Select the redistribution order that was created.
5. Create any additional configurations that you want to ship as defaults with the order.
6. Tailor these additional configurations as necessary.
7. Select the configuration on which the redistribution order may be installed.
8. Build and submit the JCL job to copy the redistribution order to tape. You will need to select the additional configurations that are to be shipped as default configurations with the redistribution order, and define the tapes that will be used to redistribute the order. The dialogs create the necessary jobs for you based on the selected configuration and the information you specify on the dialog panels.

Users at the remote sites can then run the CBIPO dialogs to install the order from the redistribution tape, following the steps shown in Table 2 on page 24. Because the redistribution order contains a pre-built system or subsystem, installation should take less time than it did for the original system or subsystem.

### **Redistribution of a Non-CBIPO System or Subsystem**

The CBIPO dialogs can be used to redistribute a system or subsystem that was not created by the CBIPO dialogs. Here are the general steps to follow for remote redistribution. (The same steps can be used for local redistribution, except where noted.)

1. Order a CBIPO that contains all the products from the existing system or subsystem you want to redistribute. (This is to ensure that dialogs have the necessary order data for these products.)
2. Insert that order, then select the order.
3. Create or select a configuration on which the order is installed.
4. Tailor the configuration as necessary so that it matches your actual system layout.
5. Build and submit the JCL job that creates a redistribution order from the selected order and configuration. The dialogs create the necessary job for you based on the selected configuration.
6. Select the redistribution order that was created.
7. Create any additional configurations that you want to ship as defaults with the order.  
**Note:** For local redistribution, skip this step.
8. Tailor these additional configurations as necessary.  
**Note:** For local redistribution, skip this step.
9. Select the configuration on which the redistribution order should be installed.  
**Note:** For local redistribution, the order **will** be installed on the selected configuration. For remote redistribution, the order may be installed on

the selected configuration or on a different configuration—the personnel at the remote site make that decision.

10. Build and submit the JCL job to copy the redistribution order to tape. You will need to select the additional configurations that are to be shipped as default configurations with the redistribution order, and define the tapes that will be used to redistribute the order. The dialogs create the necessary job for you based on the selected configuration and the information you specify on the dialog panels.

Users at the remote sites can then run the CBIPO dialogs to install the order from the redistribution tape, following the steps shown in Table 2 on page 24. Because the redistribution order contains a pre-built system or subsystem, installation should take less time than it did for the original system or subsystem.

**Note:** For local redistribution, this step redistributes the order from one set of DASD to another. There is no need to run the CBIPO dialogs again to complete the installation.

## IODF Jobs

For orders containing MVS/ESA SP Version 4, you can use an existing production IODF to IPL your system after the CBIPO jobs have completed, without having to use Hardware Configuration Definition\* (HCD) directly.

As part of building the job stream to initially install or to reinstall an MVS/SP Version 4 order containing IODF support, the dialogs include the production IODF defined to be used during IPL.

- The production IODF used during IPL may be one of the following:
  - The existing default production IODF shipped with the order. In this case, there is no need to use HCD before IPL.
  - Your own production IODF, containing your own I/O configuration definition. In this case, you may have created the IODF using HCD.
- You can use the tailoring option of the CBIPO dialogs to:
  - Add or update definitions of user-defined work and production IODFs.
  - Indicate which production IODF should be used during IPL. (The default IODF shipped with the order is initially defined as the one to be used during IPL.)

## MVSCP Using the CBIPO Dialogs

After you have installed an MVS order using the CBIPO dialogs, you can use the dialogs to do an MVSCP to define the I/O configuration for that order. Follow these steps to do an MVSCP:

1. Select the order for which you want to do an MVSCP.
2. Select the configuration on which the order is installed.
3. Build and submit the MVSCP jobs. The dialogs create the necessary jobs for you based on the selected configuration and the information you specify on

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Hardware Configuration Definition is a trademark of the IBM Corporation.

the dialog panels. You can indicate which of these jobs should be automatically submitted and which should be manually submitted.

### **Connecting Subsystems Using the CBIPO Dialogs**

After you have installed a subsystem using the CBIPO dialogs, you can use the dialogs to connect that subsystem to multiple MVS systems without having to reinstall it. For example, you can connect a subsystem to the driving system after that subsystem has been installed on another MVS system, as long as the driving system has access to the same DASD as the first MVS system. Follow these steps to connect a subsystem:

1. Select the order for the subsystem you want to connect.
2. Select the configuration on which the order is installed.
3. Build and submit the JCL jobs to connect your order to the additional system. The dialogs create the necessary jobs for you based on the selected configuration and the information you specify on the dialog panels. You can indicate which of these jobs should be automatically submitted and which should be manually submitted.

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## 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 with a CBIPO:

- Additional RIM support
- The SERV tapes.

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### 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
- *MVS CBIPO System Design Reference*
- *MVS CBIPO Security Guide*
- *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/ESA SP Version 4 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

*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 control volumes (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 automatic class selection (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.

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

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

*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.

*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.

*MVS CBIPO Communication 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**

*MVS CBIPO Communication 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**

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

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

### **CICS Feature Guide**

*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.

## **MVS 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.



### MVS CBIPO System Design Reference

*MVS CBIPO System Design Reference* 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.

### MVS CBIPO Security Guide

*MVS CBIPO Security Guide* discusses different security features of various products that may be included in an MVS CBIPO. It focuses on customizing RACF and provides information and RIMs to help you with that task.

### CBIPO MVS System Problem Determination Guide

*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.

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### 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 chains and system hold chains
- PTFs from PUTs more current than those integrated into your CBIPO DLIBs
- PTFs not yet available on a PUT 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. It includes service that was created after the database used to create the integrated DLIBs was "frozen" at a specific product and service level. Subsequent PTF service updates will be distributed in the normal manner, beginning with the next available PUT. 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 source ID is supplied for all PTFs shipped on a SERV tape. This source ID can help you decide whether to install the PTFs. The source IDs 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. These PTFs should be installed on your system. They were assigned a source ID of SMCREC for one of the following reasons:
  - The PTF resolves a high impact or pervasive (HIPER) APAR.
  - The PTF resolves an error for another PTF (PE-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. These PTFs are provided in case you experience the problem they fix and need to install them as corrective service.
- **PUTxxxx:** This indicates the PUT on which the PTF was made available.

Once a PTF with a source ID of SMCREC or SMCCOR is made available on a PUT, its source ID is changed to PUTxxxx to reflect the PUT on which it is now contained.

After installing your CBIPO and running the IVPs, you should install the PTF service in all of the PUT source IDs provided on the SERV tape as well as those PTFs with a source ID of SMCREC. For more information about source IDs, see *SMP/E Reference*.

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.

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## 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 a CBPDO simplifies installation
- A summary of the CBPDO installation process
- Post-installation tasks.

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### CBPDO Requirements

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 do one of the following:

- Order SMP/E as part of a CBIPO MVS feature.
- Order and install a CBIPO driver.

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.

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). Use one of the following:
  - Version 2 Release 3 (Program No. 5665-319), or later, plus service PTF UY14417 (for FMID HIF2302)
  - Version 3 (Program No. 5685-054), or later
- Interactive System Productivity Facility/Program Development Facility (ISPF/PDF). Use one of the following:
  - Version 2 Release 3 (Program No. 5665-317), or later, plus service PTF UY15941 (for FMID HDV2302)
  - Version 3 (Program No. 5665-402), or later

- Time Sharing Option/Extensions (TSO/E) Version 1 Release 2 (Program No. 5665-285), or later.

### 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

Installing a 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 CBIPOs, CBPDOs, and SMP/E, see Table 13 on page 61.

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### 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.

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## Summary of CBPDO Objectives for Installation

CBPDOs are 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.

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## The CBPDO Installation Process

This section discusses the following:

- A summary of the CBPDO installation process
- The role of the MVS CBPDO memo to users extension
- Source ID 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. Make sure 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 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. 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.
8. 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. A 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.

### MVS 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.

### Source ID Considerations

A source ID is supplied for all PTFs shipped in a CBPDO. This source ID can help you decide whether to install the PTFs. The source IDs 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. These PTFs should be installed on your system. They were assigned a source ID of SMCREC for one of the following reasons:
  - The PTF resolves a high impact or pervasive (HIPER) APAR.
  - The PTF resolves an error for another PTF (PE-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. These PTFs are provided in case you experience the problem they fix and need to install them as corrective service.
- **PUTxxxx**: This indicates the PUT on which the PTF was made available.

Once a PTF with a source ID of SMCREC or SMCCOR is made available on a PUT, its source ID is changed to PUTxxxx to reflect the PUT on which it is now contained.

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

## 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 database 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 *SMP/E User's Guide* or *SMP/E Reference*.

## Other Considerations

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

- Service and hold data are shipped by feature. This is different from how service and hold data are shipped on PUTs.

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

On a PUT, you get service and hold data 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 PUTs, as well as service not yet available on a PUT.

**Note:** It is not recommended to mix CBPDOs and PUTs.

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### Post-Installation Tasks

Once you have installed products and service from your CBPDO, you may still have to do some of these post-installation 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.

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## 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.

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### 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.

When SMP/E Release 6 is available in a CBIPO, it will also be available in the drivers. SMP/E Release 6 contains dialogs that can be used to install a CBIPO feature.

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

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### 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

Table 5 through Table 12 on page 60 describe the devices and corresponding physical addresses that are generated into the MVS CBIPO driving system. The devices are grouped by category (unit record devices, direct access storage devices, tape devices, console devices, telecommunication terminals, and other telecommunication 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
<b>Note:</b> This address can also be used for 3203 Model 5 Printers. However, in the driver it is coded for the Model 4 Printer.	

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 9 700–707 880–887 D40–D47
3390	260–27F Optional Channel 8 320–33F Optional Channel 9

<b>Device Type</b>	<b>Generated Unit Addresses</b>
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
3430	460 – 46F 560 – 567

<b>Console Address</b>	<b>Device Type</b>	<b>Alternate Address</b>
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 9 for additional information.

<i>Table 9 (Page 1 of 3). Addresses Generated for SNA Telecommunication Terminals</i>		
<b>Device Type</b>	<b>Generated Control Unit Address and Port (0-31) Device Attached through a 3274-41A</b>	<b>SYS1.VTAMLST (Member)</b>
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)	H06LOF
	681 Ports=(00, 03, 19, 22)	H06LOG
	682 Ports=(04, 10, 15, 17-19, 28)	H06LOH
	683 Ports=(11, 13-15, 18, 24, 27)	H06LOI
	684 Ports=(11, 13-15, 18, 24, 27)	H06LOJ
	688 Ports=(11, 13-15, 18, 24, 27)	H06LOK

Table 9 (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 9 (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)	H06LOF
	681 Ports=(02, 06-11, 13-15, 18, 23, 27-29)	H06LOG
	682 Ports=(00-03, 05, 07-09, 11-13, 20, 21, 23, 25-27, 29-31)	H06LOH
	683 Ports=(01, 03, 04, 06, 08-10, 19-23, 26)	H06LOI
	684 Ports=(01, 03, 04, 06, 08-10, 19-23, 26)	H06LOJ
	688 Ports=(01, 03, 04, 06, 08-10, 19-23, 26)	H06LOK

- 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 10. Addresses Generated for BSC Telecommunication Terminals*

Device Type	Generated Unit Addresses Attached through a 3272	SYS1.VTAMLST (Member)
3277 Model 2	0A1 – 0BE 6A1 – 6BE	H06L09 H06L0L
<ul style="list-style-type: none"> <li>• Column 1 lists the BSC device type supported by the MVS CBIPO driver.</li> <li>• Column 2 lists the pregenerated addresses for this device type.</li> <li>• Column 3 lists the member in SYS1.VTAMLST that supports the address in column 2.</li> </ul>		

**Note:** See the comments at the end of Table 11 for additional information.

*Table 11 (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 11 (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 0C0 – 0C8, 0CA, 0CD, 0CE, 0D0, 0D8 – 0DC 0E0 – 0EC, 0F0, 0F1, 0F7 – 0FA 4C0 – 4C3, 4C5, 4C6, 4CA, 4CD, 4CE, 4D0, 4D8 – 4DC 4E0 – 4E3, 4E9, 4EA, 4F2, 4F7 661, 662, 665, 666, 668 – 67D 6C0 – 6C3, 6C5, 6C6, 6CA, 6CD, 6CE, 6D0, 6D8 – 6DC 6E0 – 6E3, 6E9, 6EA, 6F2, 6F7	H06L01 H06L0A H06L0B H06L0C H06L0D H06L0E H06L0M H06L0N
<ul style="list-style-type: none"> <li>• Column 1 lists device types supported by the MVS CBIPO driver.</li> <li>• Column 2 lists the pregenerated addresses for these device types.</li> <li>• Column 3 lists the member in SYS1.VTAMLST that supports the address in column 2.</li> <li>• 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.</li> <li>• 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.</li> <li>• 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.</li> </ul>		

*Table 12. 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. Education and Related Documentation

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

Table 13 shows the recommended education on CBIPOs, CBPDOs, and SMP/E that is offered through the various IBM locations.

<i>Table 13 (Page 1 of 2). Classes and Self-Study Courses</i>			
<b>Location</b>	<b>Recommended Education</b>	<b>Catalog of Courses</b>	<b>Phone Number for More Information</b>
Australia	<ul style="list-style-type: none"> <li>• "SMP/E: A Guide for the New SMP/E User" (Self-Study Course 32186)</li> <li>• "SMP/E Fundamentals" (Course H3765)</li> <li>• "Integrated System Maintenance Using SMP/E" (Course H3763)</li> <li>• "MVS Installation and Tailoring" (Course H3903)</li> </ul> <p>and all prerequisites or equivalent experience.</p>	Contact your local branch office.	Contact your local branch office.
Canada	<ul style="list-style-type: none"> <li>• "SMP/E: A Guide for the New SMP/E User" (Self-Study Course 32186)</li> <li>• "New SMP Users" (Course S4716)</li> <li>• "MVS Installation and Tailoring" (Course S6375)</li> </ul> <p>and all prerequisites or equivalent experience.</p>	<i>Education Course Catalogue</i> , G209-0073 (bilingual version) or G209-0062 (English version)	IBM Direct-Education at 1-800-465-1234
EMEA	<ul style="list-style-type: none"> <li>• "SMP/E: A Guide for the New SMP/E User" (Self-Study Course 32186)</li> <li>• "System Installation and Maintenance with SMP/E"</li> <li>• "MVS/XA Installation Practice and Procedure" or "MVS/ESA Installation and Implementation"</li> <li>• "MVS/ESA Customization"</li> </ul> <p>and all prerequisites or equivalent experience.</p>	See your country's education course catalog.	See your country's education course catalog for enrollment procedures.
Japan	<ul style="list-style-type: none"> <li>• "How to Use SMP/E" (Self-Study Course 25024)</li> <li>• "MVS Installation and Tailoring" (Course H3903)</li> <li>• "MVS/ESA Installation" (Course 24226)</li> <li>• "MVS/ESA Customization" (Course 24228)</li> </ul> <p>and all prerequisites or equivalent experience.</p>	<i>Catalog of IBM Education</i> , GR18-5200	IBM DIRECT at 03-865-5748

*Table 13 (Page 2 of 2). Classes and Self-Study Courses*

Location	Recommended Education	Catalog of Courses	Phone Number for More Information
United States	<ul style="list-style-type: none"> <li>• "SMP/E: A Guide for the New SMP/E User" (Self-Study Course 32186)</li> <li>• "SMP/E Fundamentals" (Course H3765)</li> <li>• "Integrated System Maintenance Using SMP/E" (Course H3763)</li> <li>• "MVS Installation and Tailoring" (Course H3903)</li> </ul> and all prerequisites or equivalent experience.	<i>Catalog of IBM Education, G320-1244</i>	IBM DIRECT at 1-800-IBM-TEACH

### CBIPO Documentation

Figure 7 on page 64 briefly reviews the types of documents in the CBIPO library and their relationship to each other. In this figure, the documents are grouped into three major categories (planning, installation, and customization) for each of the four features. The specific documents are described in the following tables:

- Common CBIPO documents: Table 14
- MVS feature documents: Table 15 on page 63
- NCP feature documents: Table 16 on page 65
- DBS feature documents: Table 17 on page 65
- CICS feature documents: Table 18 on page 66

All of the CBIPO documentation is on a RIM tape, except for the publication *MVS Custom-Built Offerings Planning and Installation*, and the memo to users. Documents on the RIM tape can be printed using either the CBIPO dialogs or 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 based on the CBIPO model installation and are only customized to the particular feature you ordered.

### Common Documents

*Table 14 (Page 1 of 2). Common CBIPO Documents*

Title	Description
<i>MVS Custom-Built Offerings Planning and Installation, SC23-0352</i>	Provides a summary of how to plan for installing products and service from a CBIPO or CBPDO.
<i>MVS CBIPO System Design Reference</i>	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, or when you use the CBIPO dialogs. <b>This document is part of the CBIPO package and does not have an order number.</b>

<i>Table 14 (Page 2 of 2). Common CBIPO Documents</i>	
Title	Description
<i>MVS CBIPO Security Guide</i>	Discusses the security features of various products, focusing on how to customize RACF. <b>This document is part of the CBIPO package and does not have an order number.</b>
<b>Note:</b> For a description of <i>SMP/E CBIPO Dialogs User's Guide</i> , see "SMP/E Documentation" on page 67.	

## MVS Feature Documents

<i>Table 15. MVS Feature Documents</i>	
Title	Description
<i>MVS CBIPO Memo to Users Extension</i>	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.
<i>CBIPO Dialogs Installation Guide for MVS/XA and MVS/ESA</i> <i>MVS CBIPO Installation Guide for MVS/XA and MVS/ESA</i>	Describe how to install a new MVS/XA or MVS/ESA system from a CBIPO-customized DLIB. One guide is for using the CBIPO dialogs. The other is for using the CBIPO batch installation process. Both guides are shipped with each feature.
<i>MVS CBIPO Installation Guide for MVS/370</i>	Describes how to install a new MVS/370 system from a CBIPO-customized DLIB using the CBIPO batch installation process.
<i>MVS CBIPO Customization and Use Guide</i>	Describes how to customize and use the MVS system control program and selected other products.
<i>MVS CBIPO Communication Customization and Use Guide</i>	Contains information needed for customizing and managing a communication network.
<i>MVS CBIPO JES2 Customization and Use Guide for MVS/XA and MVS/ESA</i> <i>MVS CBIPO JES2 Customization and Use Guide for MVS/370</i>	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).
<i>MVS CBIPO JES3 Customization and Use Guide for MVS/XA and MVS/ESA</i> <i>MVS CBIPO JES3 Customization and Use Guide for MVS/370</i>	Provides step-by-step procedures for migrating to a new level of JES3 in an MVS/SP environment.
<i>CBIPO MVS System Problem Determination Guide</i>	Contains information to help users with system-level problem determination.
<b>Note:</b> These documents are part of the CBIPO package and do not have order numbers.	

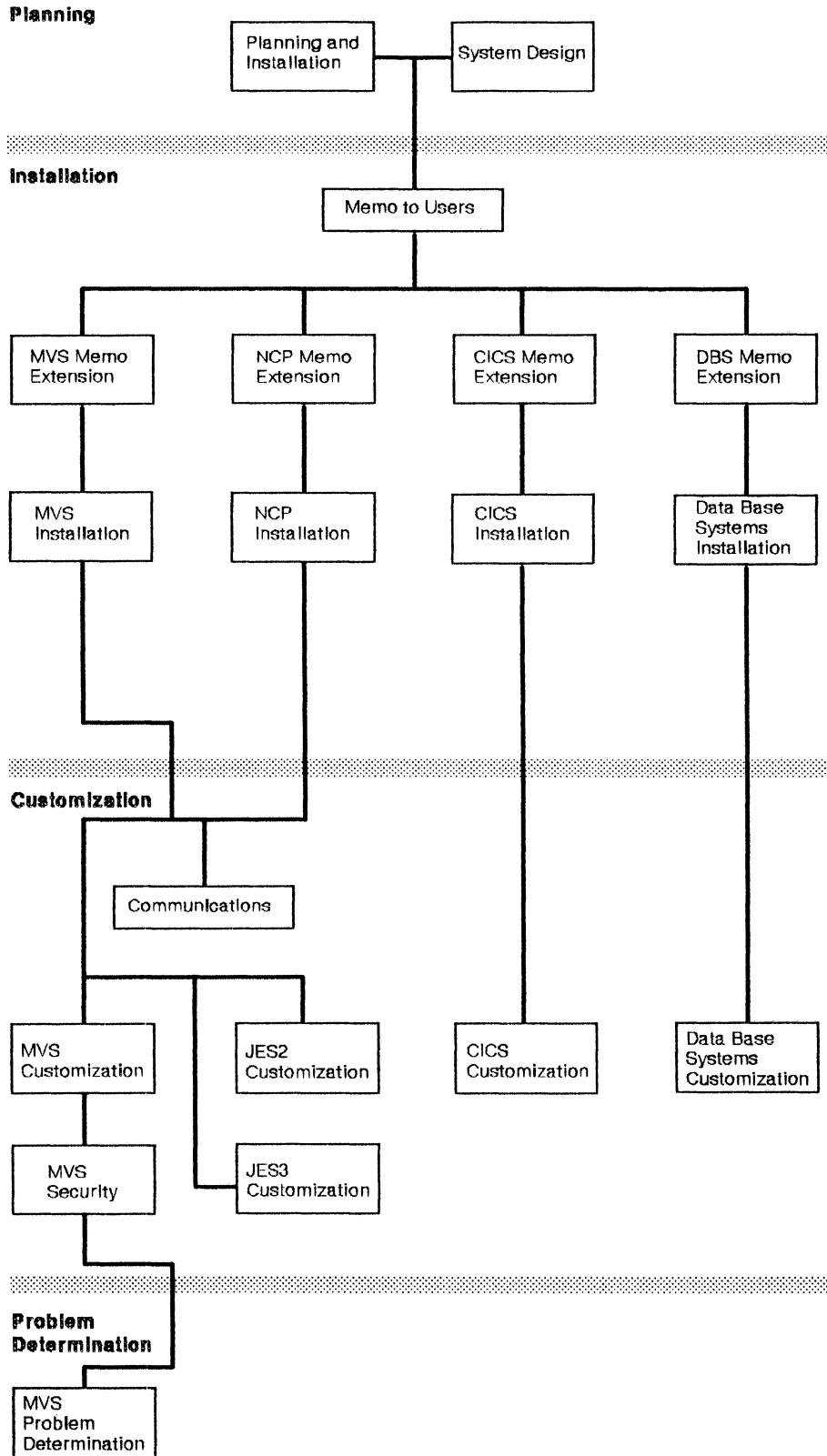


Figure 7. Types of Information Provided for CBIPOs

## NCP Feature Documents

<i>Table 16. NCP Feature Documents</i>	
<b>Title</b>	<b>Description</b>
<i>MVS CBIPO Memo to Users Extension</i>	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.
<i>CBIPO Dialogs Installation Guide for NCP</i> <i>MVS CBIPO NCP Installation Guide</i>	Provide 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. One guide is for using the CBIPO dialogs. The other guide is for using the CBIPO batch installation process. Both guides are shipped with each feature.
<i>MVS CBIPO Communication Customization and Use Guide</i>	Contains information needed for customizing and managing a communication network.
<b>Note:</b> These documents are part of the CBIPO package and do not have order numbers.	

## DBS Feature Documents

<i>Table 17. DBS Feature Documents</i>	
<b>Title</b>	<b>Description</b>
<i>MVS CBIPO Memo to Users Extension</i>	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.
<i>CBIPO Dialogs Installation Guide for Data Base Systems</i> <i>MVS CBIPO Data Base Systems Installation Guide</i>	Describe step-by-step procedures for installing the CBIPO DBS feature. One guide is for using the CBIPO dialogs. The other is for using the CBIPO batch installation process. Both guides are shipped with each feature.
<i>MVS CBIPO Data Base Systems Customization and Use Guide</i>	Describes how to customize IMS-related products and includes hints and tips for dialogs provided by DB2 and other related products.
<b>Note:</b> These documents are part of the CBIPO package and do not have order numbers.	

## CICS Feature Documents

<i>Table 18. CICS Feature Documents</i>	
<b>Title</b>	<b>Description</b>
<i>MVS CBIPO Memo to Users Extension</i>	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.
<i>CBIPO Dialogs Installation Guide for CICS</i> <i>MVS CBIPO CICS Installation Guide</i>	Describes how to install a CICS/OS/VS system from a CBIPO-customized DLIB. One guide is for using the CBIPO dialogs. The other guide is for using the CBIPO batch installation process. Both guides are shipped with each feature.
<i>MVS CBIPO CICS Customization and Use Guide</i>	Describes how to customize and use CICS, and provides guidance on using CICS together with its related products.
<b>Note:</b> These documents are part of the CBIPO package and do not have order numbers.	

## CBPDO Documentation

Figure 8 on page 67 briefly shows the types of documents in the CBPDO library and their relationship to each other. In this figure, the documents are grouped into two categories: planning and installation. The specific documents are described in Table 19. The memo to users extension can be printed using directions in the memo to users.

<i>Table 19. Common CBPDO Documents</i>	
<b>Title</b>	<b>Description</b>
<i>MVS Custom-Built Offerings Planning and Installation, SC23-0352</i>	Provides a summary of how to plan for installing products and service from a CBIPO or CBPDO.
<i>MVS CBPDO Memo to Users Extension</i>	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. <b>This document is part of the CBPDO package and does not have an order number.</b>

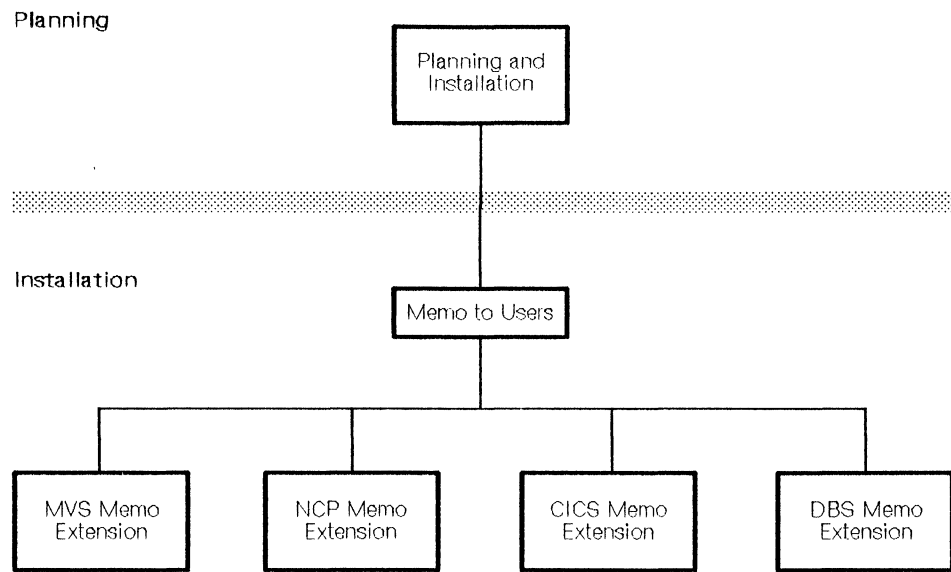


Figure 8. Types of Information Provided for CBPDOs

## SMP/E Documentation

Table 20 lists the SMP/E Release 6 publications and briefly describes each one.

<i>Table 20 (Page 1 of 2). Publications for SMP/E Release 6</i>	
<b>Title</b>	<b>Description</b>
<i>MVS Software Manufacturing Offerings General Information, GC23-0351</i> Online book: GIM9MST	Provides a summary of SMP/E, CBIPO, and CBPDO.
<i>SMP/E Program Directory for Installation Planning (English Feature), GC23-0130</i> Online book: GIM1MST	Explains how to plan for installing SMP/E Release 6 using SMP/E Release 5 or higher.
<i>SMP/E Program Directory for Installation Planning (Japanese Feature), GC23-0469</i> Online book: GIMJMST	
<i>SMP/E User's Guide, SC28-1302</i> Online book: GIM8MST	Describes how to use SMP/E to install programs and service.
<i>SMP/E Messages and Codes, SC28-1108</i> Online book: GIM4MST	Explains SMP/E messages and return codes and the actions to take for each message and code.
<i>SMP/E Reference, SC28-1107</i> Online book: GIM6MST	Explains SMP/E commands and processing in detail.
<i>SMP/E Reference Summary, SX22-0006</i> Online book: GIM7MST	Reviews the SMP/E commands in a convenient form.
<i>SMP/E Program Packaging Guide, SC23-0221</i> Online book: GIM5MST	Explains how to package programs for installation by SMP/E.
<i>SMP/E CBIPO Dialogs User's Guide, SC23-0538</i> Online book: GIM1MST	Explains how to use the CBIPO dialogs to install, reinstall, and redistribute CBIPO orders.



Title	Description
<i>SMP/E Diagnosis Guide</i> , LY27-8047 (no online book)	Explains how to handle suspected SMP/E problems.

**Notes:**

1. You can order hardcopy versions of individual SMP/E Release 6 publications or use a Bill of Forms number to order the complete set of unlicensed publications. (Because *SMP/E Diagnosis Guide* is a licensed publication, it must be ordered separately and is only available if you are licensed for SMP/E Release 6.)
  - For the English feature of SMP/E, use **SBOF-1587**.
  - For the Japanese feature of SMP/E, use **SBOF-3161**.
2. Online versions of the SMP/E Release 6 books (except for *SMP/E Diagnosis Guide*) are provided with the product.
3. You can order binders and inserts for the SMP/E library. Here are the order numbers:
  - For *SMP/E Reference*:
    - Binder plus inserts: **SBOF-2136**
    - Inserts only: **SX23-0442**
  - For the rest of the SMP/E library:
    - Binder plus inserts: **SBOF-2137**
    - Inserts only: **SX23-0443**.

**Note:** You will probably need two binders for the rest of the library.

## Appendix C. Acronyms and Abbreviations

<b>ACDS</b>	Alternate control data set.	<b>IMS</b>	Information Management System.
<b>ACF</b>	Advanced Communications Function.	<b>IODF</b>	I/O definition file.
<b>ACF/VTAM</b>	Advanced Communications Function for the Virtual Telecommunications Access Method.	<b>IOGEN</b>	Input/output device generation.
<b>ACS</b>	Automatic class selection.	<b>IPL</b>	Initial program load.
<b>APAR</b>	Authorized program analysis report.	<b>ISPF</b>	Interactive System Productivity Facility.
<b>CBIPO</b>	Custom-Built Installation Process Offering.	<b>ISPF/PDF</b>	Interactive System Productivity Facility/Program Development Facility.
<b>CBPDO</b>	Custom-Built Product Delivery Offering.	<b>IVP</b>	Installation verification procedure.
<b>CDS</b>	Control data set.	<b>JCL</b>	Job control language.
<b>CICS</b>	Customer Information Control System.	<b>JES</b>	Job entry subsystem.
<b>CORPE</b>	PSP UPGRADE for PE-PTFs available correctively, but not yet available on a PUT.	<b>MVS</b>	Multiple Virtual Storage.
<b>CSI</b>	Consolidated software inventory.	<b>MVSCP</b>	MVS configuration program.
<b>CVOL</b>	Control volume.	<b>MVS/DFP</b>	Multiple Virtual Storage/Data Facilities Product.
<b>DASD</b>	Direct access storage device.	<b>MVS/ESA</b>	Multiple Virtual Storage/Enterprise Systems Architecture (MVS/SP Version 3 or MVS/ESA SP Version 4).
<b>DBS</b>	Data Base Systems.	<b>MVS/SP</b>	Multiple Virtual Storage/System Product.
<b>DB2</b>	DATABASE 2.	<b>MVS/XA</b>	Multiple Virtual Storage/Extended Architecture (MVS/SP Version 2).
<b>DFEF</b>	Data facility extended function.	<b>MVS/370</b>	Multiple Virtual Storage for System/370* (MVS/SP Version 1).
<b>DFP</b>	Data Facility Product.	<b>NCP</b>	Network Control Program.
<b>DLIB</b>	Distribution library.	<b>NJE</b>	Network job entry.
<b>DXT</b>	Data dictionary.	<b>PDF</b>	Program Development Facility.
<b>EC</b>	Engineering change.	<b>PE-PTF</b>	PTF in error.
<b>EMEA</b>	IBM World Trade E/ME/A (Europe/Middle East/Africa).	<b>PSP</b>	Preventive service planning.
<b>FMID</b>	Function modification identifier.	<b>PTF</b>	Program temporary fix.
<b>HCD</b>	Hardware Configuration Definition*.	<b>PUT</b>	Program update tape.
<b>HIPER</b>	High impact or pervasive APAR.	<b>RIM</b>	Related installation material.
<b>ICF</b>	Integrated catalog facility.	<b>SCP</b>	System control program.

\* System/370 is a trademark of the IBM Corporation.

## Abbreviations

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<b>SERV</b>	CBIPO service tape.	<b>SMPPTS</b>	SMP/E PTF temporary storage data set.
<b>SMCCOR</b>	A PTF that is approved for distribution but is not yet available on a PUT.	<b>SMS</b>	Storage Management Subsystem.
<b>SMCREC</b>	A PTF that is approved for distribution and is recommended to be installed, but is not yet available on a PUT.	<b>SNA</b>	Systems Network Architecture.
<b>SMP</b>	System Modification Program.	<b>SREL</b>	System release.
<b>SMPCSI</b>	SMP/E consolidated software inventory data set.	<b>SYSGEN</b>	System generation.
<b>SMP/E</b>	System Modification Program Extended.	<b>SYSMOD</b>	System modification.
		<b>TSO</b>	Time Sharing Option.
		<b>USERMOD</b>	User modification.
		<b>VSAM</b>	Virtual storage access method.
		<b>VTAM</b>	Virtual Telecommunications Access Method.
		<b>VTOC</b>	Volume table of contents.

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# Readers' Comments

## MVS Custom-Built Offerings

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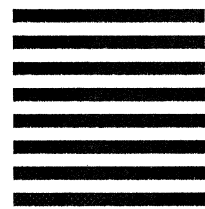
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