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Systems

**System Installation
Productivity Option (IPO)
for OS/VS1
General Information and
Planning Guide**

IBM

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This General Information and Planning Guide provides general information on the products, aids, and documentation included in Release 7C of the System Installation Productivity Option (IPO) for OS/VS1, to assist in evaluating the applicability of the OS/VS1 System IPO for a particular installation. This guide also contains an overview of the installation process for those planning to install an OS/VS1 system using the OS/VS1 System IPO.



PREFACE

This publication contains planning information for Release 7C of the System IPO for OS/VS1. It is intended for installation managers and systems programmers responsible for assessing the effort required to install an OS/VS1 Release 7 System (and subsystems such as IMS/VS and CICS/OS/VS) using the OS/VS1 System IPO. Potential users should evaluate the applicability of the OS/VS1 System IPO approach to their environment, before implementation.

This publication is for planning purposes only. The functions and capabilities described reflect the information that is currently available.

Sixth Edition (May 1980)

This edition, GC20-1861-5, is a major revision obsoleting GC20-1861-4. It reflects the changes made to the OS/VS1 System IPO since Release 7C.

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SUMMARY OF AMENDMENTS

Significant technical changes to OS/VS1 System IPO in this edition are as follows:

- Additions/Changes

- Tapes 2, 3, 4, and 5 are now standard label
- Additional 3344 string added in the pregenerated system starting at address 200
- SU installation process added
- Support for the ACF/VTAM Release 2 SNA products. The ACF/VTAM optional feature is upleveled to ACF/VTAM Release 2, replacing the ACF/VTAM Release 1 support
- Documentation, samples/examples for the ACF/VTAM Multisystem Networking Facility (MSNF) and the Network Communication Control Facility / Network Problem Determination Application (NCCF/NDPA)
- Documented Support for DMS/CICS/VS Release 2 (5740-XC5) in the CICS/OS/VS optional feature
- Documented support for the Application Development Facility (ADF) IUP (5796-PHX) in the IMS/VS DB/DC optional feature
- Documented support for the IMS/VS Data Base Recovery Control (DBRC) feature Release 1 in the IMS/VS DB and DB/DC features.
- Updated support for DB/DC Data Dictionary Release 3

- Deletions

- 3790 Host Support (5744-BZ3) and all 3790 specific support
- Subsystem Support Services (SSS)
- Network Operations Support Program (NOSP) (replaced by NCCF)
- Documentation and Samples/Examples for Display Exception Monitoring Facility (DEMF)

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1.0 INTRODUCTION

The OS/VS1 System IPO Release 7C has been built to assist any installation that is initially installing OS/VS1, adding new function, upgrading to the current service level, or installing OS/VS1 on a IBM 4331 or 4341 processor. All components are serviced, installed, and executed together before shipment, to improve component level synchronization and system stability. The OS/VS1 System IPO includes DLIBs built and serviced with SMP Release 4. These DLIBs have all of the SUs that are distributed as part of OS/VS1 Release 7.

The result of installing OS/VS1 using the OS/VS1 System IPO is an integrated system capable of running batch and, if required, ACF/VTAM, ACF/NCP/VS, IMS/VS DB, IMS/VS DB/DC (BTAM or VTAM), and CICS/OS/VS. If the OS/VS1 System IPO is used with the VM System IPO/E, the interactive capabilities of CMS are available. The system will be at a current service level and can be updated with new service and/or function as needed. This integrated system can also be tailored for unique environment and installation requirements. This system will then serve as a base for future systems and application growth.

The System IPO concept offers an excellent productivity vehicle to reverse the trend towards more complexity in migrations to and within the OS/VS1 environment. The System IPO simplifies the steps and complexity of installing and servicing a total system environment with multiple components. This is accomplished through the prepackaging of multiple components, user-oriented documentation, and sample procedures and JCL. The time and effort required to maintain service level currency with key new products and function can be reduced, thereby allowing more efficient use of resources for growth. Improved service currency can improve stability in critical online environments by reducing both problem rediscovery and system unavailability for end-users.

2.0 THE SYSTEM IPO APPROACH

This section describes the concepts and facilities of the System IPO. It is provided to give an overview of the features and uses of the System IPO and to help assess its applicability to your installation.

2.1 OVERVIEW

The concept of the System Installation Productivity Option (IPO) is to provide a prepackaged system that you can tailor to meet your specific requirements. This concept is based on a "Model Installation" where IBM generates, installs, tunes and services an integrated system that is representative of certain user environments.

System IPOs are constructed by gaining basic experience with OS/VS1 systems in a variety of environments. Components of the System IPO provide emphasis on DB/DC, communications, and distributed data processing. These components are integrated to form a complete package that provides synchronized service, coordinated system defaults, initial tuning, and experience-derived hints and tips. Installation procedures are given in step-by-step instructions that are supplemented with working sample JCL and utility jobs. This "example-oriented" approach is directed toward educating the installing programmer while simplifying and structuring the installation process.

The System IPO concept centers around four support layers that comprise a full-function operating system. These support layers, shown in Figure 1 on page 3, are:

- System Control - the basic operating system code, including supervisor services, data management, telecommunications access methods, and specific device support
- Major Subsystems - important functional bases such as IMS/VS and CICS/OS/VS
- Productivity - programming support included to make it easier for programmers and/or non-DP personnel to use the system
- User Interface - application programming support provided to make the computing system functions available to users within the organization

```

USER
* *****
* *   User Interface   *   ***** Compilers
* *****
* *   Productivity   *   ***** Installation and
* *                                     *   Service
* *                                     *   Application
* *                                     *   Assistance
* *****
* *   Major Subsystems *   ***** DB/DC
* *                                     *   ***** Distributed
* *                                     *   Processing
* *                                     *   ***** Job Entry
* *                                     *   System
* *****
* *   Systems Control *   ***** System Control
* *                                     *   Programming
* *                                     *   Data
* *                                     *   Management
* *                                     *   Telecommunications
* *                                     *   Support
* *                                     *   Hardware
* *                                     *   Support
* *****
V
SYSTEM

```

Figure 1. The System IPO Concept

The System IPO concept combines IBM programming offerings into a full-function operating system. Emphasis is placed on the functional and operational characteristics of the total system.

The IPO structure is made up of a base and features. The base is the set of integrated components. Features are optional extensions to the base and generally align closely with major subsystems. Primary emphasis has been placed on the System Control and Major Subsystem layers in System IPOs.

Experience is also gained by using several programs and compilers in the Model Installation (MI) System that are not shipped with the System IPO. These programs are usually Program Products (PPs), Field Developed

Programs (FDPs) or Installed User Programs (IUPs). Where relevant, information on the use, installation, and servicing of these programs is included in the System IPO documentation as an aid to the user. In addition, the System IPO is run as a guest system under VM System IPO/E. Information on the use and operation of the System IPO under VM System IPO/E is included where appropriate.

Installation processes, usage hints and tips, compatibility observations, performance advice, sample exits, operational considerations, service techniques and documentation references are included to assist you in installing, using, and servicing all parts of the System IPO.

2.2 USES OF THE SYSTEM IPO

The System IPO has been built to assist any installation that is initially installing OS/VS1, adding new function such as CICS/OS/VS or IMS/VS, or upgrading their system to a current service level. All components have been serviced, installed, and executed together before shipment to improve component level synchronization and system stability.

2.2.1 CONVERTING TO OS/VS1

For a user installing an OS/VS1 system for the first time, System IPO offers a number of very important potential benefits:

- **PRE-BUILT DLIBS** - The OS/VS1 System IPO Base DLIBs are built using SMP4 from the OS/VS1 Base Selectable Units.
- **OPTIONAL FEATURES** - Each of the OS/VS1 System IPO features (ACF/NCP/VS, ACF/VTAM, CICS/OS/VS, IMS/VS DB, and IMS/VS DB/DC) has been operationally verified with the OS/VS1 System IPO pregenerated system and the OS/VS1 System IPO distribution libraries.
- **SERVICE CURRENCY** - The OS/VS1 System IPO includes a customized cumulative installation service tape that provides the latest level of preventive service available from PID.

- SIMPLIFIED INSTALLATION WITHOUT DISRUPTION TO THE CURRENT PRODUCTION SYSTEM - Current users of either a System/360 Operating System or DOS/VS, planning to install OS/VS1, can run the current production system under VM/370 concurrently with the OS/VS1 test system installation (including SYSGEN) and build tasks. The production work can then be gradually converted to run under OS/VS1 while it is still operating as a guest system under VM/370.
- ABILITY TO INSTALL OS/VS1 FOR USE AS A LEARNING/EXPERIMENTAL TOOL - Using VM/370, an OS/VS1 system can be built to run concurrently with the current operating system, in the existing hardware environment. Hands-on experience with the OS/VS1 system can then improve the learning process of systems programmers, operations staff, and others. This system also provides an excellent experimental base on which feasibility studies and other testing can be done.
- BUILT-IN EXPERIENCE - The experiences of the OS/VS1 System IPO Development Group, IBM systems engineers, and various other installations have been "built in" in a number of ways:
 - "Hints and Tips" items in the System IPO documentation
 - Samples and examples
 - Moderately tuned system and additional tuning guidance
 - Streamlined installation process

2.2.2 EXISTING OS/VS1 USERS

For existing users of OS/VS1, potential benefits of the OS/VS1 System IPO are:

- PRE-BUILT DLIBs - The OS/VS1 System IPO Base DLIBs are built using SMP4 from the OS/VS1 Base Selectable Units.
- SERVICE CURRENCY - The OS/VS1 System IPO includes a customized cumulative installation service tape that provides the latest level of preventive service available from PID.
- FIRST TIME OR UPGRADE OF DB/DC SYSTEMS - The OS/VS1 System IPO DB/DC features may be of assistance for the initial installation or upgrade of data base/data communications systems using IMS/VS or CICS/OS/VS. The service and options of these features are coordinated with the OS/VS1 base.

- FIRST TIME OR UPGRADE OF TELECOMMUNICATIONS APPLICATIONS - Users introducing new telecommunications equipment or SNA software and line disciplines may find that the OS/VS1 System IPO saves time and resources during the planning and implementation phases.
- REINSTALLATION - Standardized installation processes of the OS/VS1 System IPO are designed to reduce installation time of new versions (or service levels) of the system.

3.0 OS/VS1 SYSTEM IPO RELEASE 7C

The OS/VS1 System IPO is the result of performing the OS/VS1 installation process at an internal IBM location. Portions of this process have been packaged in a generalized form since they have broad applicability to the conversion to or upgrade of OS/VS1. The pregenerated system was created using a subset of the System IPO installation process. This section describes the specific features and facilities of OS/VS1 System IPO Release 7C.

3.1 FACILITIES

The OS/VS1 System IPO provides a range of facilities that have been designed to ease the conversion process to OS/VS1. There are four major facilities that make up the OS/VS1 System IPO:

1. The Base System

The base system is a pregenerated OS/VS1 system that can either be used as is or be expanded to a uniquely tailored system. The Base includes:

- Device independent system residence
- All required Selectable Units (SUs) of OS/VS1 Release 7.
- Latest service for the OS/VS1 base system.
- Preselected options and features for OS/VS1

The pregenerated system of the OS/VS1 System IPO for OS/VS1 Release 7 is intended for use on 3031, 3032, 3033, 4331, or 4341 Processors and System/370 Model 138, 148, 158, or 168 having one megabyte or more of main storage. The pregenerated system will operate on other OS/VS1 supported configurations; however, the following hardware features are required for Models 135 and 145:

- Conditional Swapping (#1051)
- Clock Comparator and CPU Timer (#2001)

Since the components of the OS/VS1 System IPO are built from standard IBM products, each component is capable of supporting all of the device types supported by the standard product. Appendices B and C detail the configuration of the pregenerated system and highlight key SYSGEN options that were selected. The pregenerated system is designed to be immediately useful across a broad range of user environments. An IOGEN, nucleus or full system generation may be performed, if considered necessary, using the DLIBs provided with the OS/VS1 System IPO. Some instances of where an IOGEN, nucleus or full SYSGEN may be of benefit are:

- To add devices that are not included in the pregenerated system (e.g. 3850 MSS)
- To avoid changing the hardware addresses currently in use that do not correspond with the device addresses in the pregenerated system
- To decrease the size of the system nucleus by deleting device addresses (included in the pregenerated system but not required)
- To modify SYSGEN options to conform to user requirements or standards

The pregenerated system of the OS/VS1 System IPO, used as a guest system under the VM System IPO/E pregenerated system, is intended for processors with two megabytes or more of main storage.

2. The Distribution Library (DLIB)

The DLIB provides the exact base from which the base system was generated. The DLIB was built using SMP4 from all required Selectable Units of OS/VS1 Release 7C.

3. Procedures and Samples

The OS/VS1 System IPO provides JCL procedures and jobstreams for accomplishing many of the tasks associated with the installation process. In addition, samples of selected exits and other routines are provided to illustrate the use of OS/VS1 facilities. Included in the procedures and samples are:

- Sample JCL to tailor the OS/VS1 System IPO system to your I/O configuration
- Sample JCL to accomplish many of the post-system generation activities required such as the update of SYS1.PARMLIB and SYS1.PROCLIB

- A batch JCL tailoring aid that allows you to modify selected fields in the sample JCL and control statements
- Samples of some commonly used exit routines illustrating the protocol required for construction of these routines in your environment

4. Documentation

The documentation provided with the system explains how to print the OS/VS1 System IPO documentation delivered in machine readable form. Delivering the OS/VS1 System IPO documents in machine readable form permits the experience-oriented documents to reflect up-to-date information and detailed descriptions of the OS/VS1 System IPO components.

The following copyrighted machine readable documents are shipped with the base OS/VS1 System IPO:

- OS/VS1 Service Guide

This guide contains service-related information for the Base System, ACF/VTAM, and ACF/NCP/VS on PTF level, APARs, etc. Service information on the following topics is included:

- Corrective service incorporated in the OS/VS1 System IPO
- Reach-ahead PTFs applied to the OS/VS1 System IPO
- Known problems at ship time
- PTFs excluded from the OS/VS1 System IPO

Similar information for IMS/VS and CICS/OS/VS is included in IMS/VS DB, IMS/VS DB/DC, and CICS/OS/VS Service Guides shipped with these features of the OS/VS1 System IPO.

- Installation Guide

This guide discusses the step-by-step procedure to install the OS/VS1 System IPO in your environment and provides the rationale for the procedure. Tailoring, or customizing, of the OS/VS1 system provided with the OS/VS1 System IPO is discussed. The guide documents the service philosophy associated with service procedures that are supplied as part of the OS/VS1 System IPO and documents the interface with the procedures delivered on the PUT tapes. Information on installing and running the OS/VS1 System IPO under VM System IPO/E is also included.

- System Guide

This guide provides technical information on the OS/VS1 System IPO samples/examples, data sets, procedures, the pregenerated system, and VM System SIPO/E considerations. The system guide is intended for systems programmers.

- Communications and Interactive Guide

This guide provides installation and use information on VTAM2, ACF/VTAM, ACF/VTAM Networking with Multisystem Networking Facility (MSNF) and Network Communications Control Facility (NCCF), Network Problem Determination Application (NDPA), ACF/NCP/VS and SSP for ACF/NCP/VS, RTAM SNA Remote Job Entry (RJE), and DOS/VSE RJE interface to OS/VS1 systems.

The optional features available with the OS/VS1 System IPO include machine readable documents which are described in the chapter 4.0 "Optional Features" on page 22 under the appropriate feature.

3.2 INSTALL PROCEDURE

The install procedure, except for IPL test, could be run in conjunction with a production workload under an existing OS/VS1 system (for which programming services are available). Figure 2 on page 12 outlines the steps of the install procedure. An important feature of the install procedure is the development of a 'replaceable' system residence volume (SYSRES). When used with the service procedure (see next section), the 'replaceable' SYSRES allows the application of service or generation of another system in a production environment. A 'replaceable' SYSRES will contain only system datasets (no user datasets), so the following system datasets must be on a separate volume (referred to as the auxiliary pack):

SYS1.SYSPPOOL

SYS1.PAGE

SYS1.SYSJOBQE

SYS1.SYSWADS

SYS1.MANX

SYS1.MANY

The VSAM Master Catalog

SYS1.BROADCAST

SYS1.UADS

SYS1.PPOPTION

USER.PROCLIB

The install procedure will allow the SYSRES and DLIBS to be on different unit types (example: SYSRES on 3350 and DLIBS on 3330). The installation jobs are customized by a 'SETUP' procedure which is modified by the user for his environment.

3.3 OS/VS1 SERVICE

Information on service installation and system support for the OS/VS1 System IPO can be found in the Programming Systems General Information Manual (G229-2228).

Service Application Procedure

The OS/VS1 System IPO provides service procedures to assist in the application of service provided in SMP4 format (see Figure 3 on page 16). The service procedures are designed to minimize the impact of service application on a production environment. This is accomplished by creating a target copy of the OS/VS1 System IPO SYSRES volume and applying service to this copy (see Page 10 for data set placement requirements for this 'replaceable' SYSRES). Expiration dates on data sets may be set to null to minimize operator action. Target data sets are renamed to prevent system enqueues. Optionally, the SYSRES device type may be changed as part of the service procedure, provided that system data sets are allocated using OS/VS1 System IPO defaults (these defaults maintain DASD device independence). Backup copies of the target SYSRES and DLIBs are created at strategic points in the service procedure, and the service procedure incorporates the ability to synchronize the target volume catalog, minimizing catalog discrepancies that could occur.

```

*****
* Update the *
* driving system *
* to authorize *
* the IPO- *
* supplied *
* library for *
* SMP4 *
*****
*
V
*
* *
* OS/VS1*
* System IPO* Yes
* installation * *****
* in process* *
* * *
* * *
* * *****
* * * Prepare new *
* * * system *
* * * residence *
* * * for service *
* * * application *
* * *****
* *
V
*****
* Copy driver *
* SYSRES to *
* create target *
* volume *
*****
*
*<*****
V

```

Figure 3. (1 of 3) Functional overview of the Service Application Procedure

```

*
V
*****
* Print the PUT *
* documentation *
*****
*
V
*****
* Check with *
* IBM support *
* center for *
* additional *
* information *
*****
*
V
*****
* Use the *
* procedures *
* provided on *
* the PUT tape *
* to RECEIVE/ *
* APPLY service *
*****
*
V

```

Figure 3. (2 of 3) Functional overview of the Service Application Procedure


```

      *
      V
*****
* Test IPL,      *
* synchronize   *
* catalog, and  *
* perform       *
* additional    *
* testing as    *
* required      *
*****
      *
      V
*****
* Place system  *
* into         *
* production   *
*****
      *
      V
*****
* ACCEPT       *
* service into *
* DLIBs       *
*****
      *
      V
*****
* Back up DLIBs *
* and SMP4     *
* datasets     *
*****

```

Figure 3. (3 of 3) Functional overview of the Service Application Procedure

3.4 OS/VS1 SYSTEM IPO UNDER VM/370 SYSTEM IPO/E

OS/VS1 under VM/370

OS/VS1 used under VM/370 offers a unique capability to a data processing installation. OS/VS1 provides a high-performance full-function systems control program that in turn provides extensive batch capability, an online processing control program using either CICS/OS/VS or IMS/VS DC, and comprehensive data base capability with IMS/VS DB. Incorporation of these facilities under VM/370 makes the following additional functions available:

- A full interactive capability with CMS
- The ability to have multiple OS/VS1 guest machines, which provide:
 - Isolation for the production online system
 - Test and production machines
 - A machine that could be used for operator training without endangering the production system
 - A machine that could be used to install new versions of the operating system
 - A machine to test PUTs applied to the current release of OS/VS1
- Handshaking, a standard part of OS/VS1 that greatly facilitates the running of OS/VS1 under VM/370 control. Handshaking essentially removes the duplication of services, such as paging, when it is known that OS/VS1 will be running under VM/370.
- Extended Control Program Support:VM (ECPS:VM) (when running under VM/370, ECPS:VS1 is unavailable on the 4341 Processor)

OS/VS1 System IPO

The OS/VS1 System IPO runs as a guest machine under the VM/370 System IPO/E, and Directory entries designed for its operation in an environment with 2 megabytes or more of main storage are provided with the VM/370 System IPO/E. The OS/VS1 System IPO will includes:

- Operational considerations when running OS/VS1 under VM/370
- Configuration considerations when installing OS/VS1 under VM/370
- OS/VS1 system generation considerations
- CMS EXECs that assist in the installation of OS/VS1 through batch submission
- CMS EXECs for:
 - Submission of jobs to OS/VS1 made up of single or multiple CMS files
 - Creation of a PDS member from a CMS file
 - Retrieving a PDS member and making a CMS file from it
 - Reading printouts into a CMS file
- Automatically routing OS/VS1 output back to the submitting VM/370 userid

3.5 THE VTAM COMPONENT

This section describes the VTAM2 component which is integrated in the OS/VS1 System IPO base. Potential users should be aware that most of the OS/VS1 System IPO validation is run with ACF/VTAM replacing VTAM2.

The VTAM component provides support for local 3270s. VTAM startup parameters, application statements and 3270 local terminal definitions are found in SYS1.VTAMLST. Additionally, sample remote terminal definitions - Partitioned Emulator Program (PEP) generation statements - are provided as part of the 3705 Control Program component.

Exit Routines

Sample interpret and LOGON mode tables are provided to illustrate how to code the VTAM macros properly.

JCL Procedures

JCL is included to assemble the sample tables and link-edit them into the appropriate libraries.

"How To" Examples

Information is provided on how to code a VTAM startup (initialization) procedure. VTAM definition for members in SYS1.VTAMLST is discussed. The sample members are described.

VTAM Operation

Information is provided about operating a VTAM network. The MODIFY, VARY, DISPLAY, and HALT commands are described.

Documentation

The Communications and Interactive Guide discusses VTAM system and I/O generation considerations, parameter selection, VTAMLST definitions, operational considerations, and hints and tips.

4.0 OPTIONAL FEATURES

The following licensed programs are contained in optional features of the OS/VS1 System IPO Release 7C. The appropriate program products must previously have been ordered and licensed using the same customer number used for ordering the OS/VS1 System IPO (see Figure 4).

```

*****
* OS/VS1 System IPO          *                               *
* Optional Feature          *   Req. License   *   Number       *
*****
*                               *                               *
* IMS/VS (DB/DC)           *   IMS/VS V1 R1.5 *   5740-XX2     *
*                               *   feature        *   6151 or 6152 *
*                               *                               *
*****
*                               *                               *
* IMS/VS DB                 *   IMS/VS V1 R1.5 *   5740-XX2     *
*                               *                               *
*****
*                               *                               *
* CICS/OS/VS                *   CICS/VS V1     *   5740-XX1     *
*                               *   R4.1           *                 *
*                               *                               *
*****
*                               *                               *
* ACF/NCP/VS                *   ACF/NCP/VS     *   5735-XX1     *
*                               *   SSP for ACF/NCP *   5735-XX3     *
*                               *                               *
*****
*                               *                               *
* ACF/VTAM                  *   ACF/VTAM PP    *   5735-RC2     *
*                               *                               *
*****

```

Figure 4. Required Licenses for Features

4.1 THE ACF/NCP/VS FEATURE

OS/VS1 System IPO provides support for the Advanced Communication Function for the Network Control Program/VS (ACF/NCP/VS) Release 2. This support is based on OS/VS1 System IPO experience gained while installing ACF/NCP/VS in an OS/VS1 environment. It is directed to NCP/VS users intending to upgrade to ACF/NCP/VS Release 2 as well as to new users of ACF/NCP/VS.

The Model Installation (MI) System uses the Partitioned Emulation Program (PEP) in a 3705. The following sections describe the ACF/NCP/VS support that is distributed with the OS/VS1 System IPO.

3705 Control Program

ACF/NCP/VS Release 2 was used to generate a PEP for the MI System. The PEP for the 3705 was generated to support the following line disciplines and usages:

- BSC lines (leased)
 - 3271 remote clusters (PEP lines initially in EP mode)
 - 3271 remote clusters (NCP mode)
- SDLC lines (leased - NCP mode)
 - 3271 cluster
 - 3274 cluster
 - 3767 terminal
 - 3775 terminal
 - 3791 cluster
 - 2 PU type 4 lines to other 3705s
- Multipoint
 - 3271 cluster
 - 3775 terminal

The PEP Stage I input that was used on the OS/VS1 System IPO Model Installation System is included as a sample of an executable Partitioned Emulation Program.

Utilities and JCL Procedures

JCL is included to perform the following functions:

- Allocate the required SMP4 datasets
- Install ACF/NCP/VS and SSP for ACF/NCP/VS using SMP4
- Change the job statement in member JOBCARD of the Stage I macro library
- Perform Stage I (Stage II generated when Stage I is run) of 3705 Control Program generation
- Load the control unit with or without the initial test routine
- Dump the control unit using either the independent dump utility (requiring a reload of the controller) or the dynamic dump utility (supported in emulation mode only)
- Print the contents of a 3705 dump taken by VTAM

Distribution Libraries

The ACF/NCP/VS feature includes the DLIBs for ACF/NCP/VS, SSP for ACF/NCP/VS, and the SCP for ACF/NCP/VS with the EP feature. These libraries are shipped with additional service as appropriate. All DLIBs are delivered on one tape in SMP4 format.

Installation Procedure

The OS/VS1 System IPO base includes the procedures necessary to install ACF/NCP/VS using SMP4. JCL and procedures to perform Stage I assemblies, and load and dump the 3705 Communications Controller are also provided. Sample PEP definitions are supplied highlighting support for the 3270 remote BSC terminals, 3767 SDLC terminals, and 3770 SDLC terminals.

Documentation

The Communications and Interactive Guide includes a section for ACF/NCP/VS. This section provides a step-by-step description of the installation process, including reloading the DLIBs, performing Stage I and II assemblies, modifying the sample JCL, assembling the sample NCP and PEP, and using the service procedures. Also included in this section are instructions for loading and dumping the 3705 Communications Controller and for using ACF/NCP/VS with VTAM Level 2.

4.2 THE ACF/VTAM FEATURE

OS/VS1 System IPO provides support for the Advanced Communication Function for the Virtual Telecommunications Access Method (ACF/VTAM) Release 2. This support is based on OS/VS1 System IPO experience gained while installing ACF/VTAM in an OS/VS1 environment. It is directed to VTAM Level 2 and ACF/VTAM Release 1 users intending to upgrade to ACF/VTAM Release 2, as well as to current ACF/VTAM Release 2 users intending to upgrade the service level of their ACF/VTAM component. New users of ACF/VTAM who were not users of VTAM Level 2 should use the information in the VTAM2 component of the OS/VS1 System IPO as a base for the information provided for ACF/VTAM.

Distribution Libraries

The ACF/VTAM feature includes the DLIBs for the ACF/VTAM Program Product and the ACF/VTAM SCP. These libraries are based on the most current service level with additional service applied as appropriate. All DLIBs are delivered on one tape in SMP4 format.

Installation Procedure

The OS/VS1 System IPO base includes sample jobstreams that demonstrate the installation of ACF/VTAM using SMP4 on the OS/VS1 System IPO Base System. The sample jobstreams include reloading the ACF/VTAM OS/VS1 System IPO libraries, installing ACF/VTAM into the OS/VS1 System IPO base system and DLIB without a SYSGEN, and reassembling OS/VS1 System IPO samples. The OS/VS1 System IPO samples include interpret, logon mode, and unformatted system service (USS) tables.

Documentation

The Communications and Interactive Guide includes a section on ACF/VTAM. This section provides a step-by-step description of the installation process, including restoring the ACF/VTAM distribution libraries and installing the ACF/VTAM SUs into the OS/VS1 System IPO base system. Additionally, differences between VTAM Level 2, ACF/VTAM Release 1, and ACF/VTAM Release 2 are described. The topics discussed as part of the changes with ACF/VTAM include VTAM definition, operation, and hints and tips.

Networking

The OS/VS1 System IPO provides documented support for the inclusion of networking, which consists of ACF/VTAM Multisystem Networking Facility feature (ACF/VTAM MSNF), the Network Communications Control Facility (NCCF), and Network Problem Determination Application (NDPA). This support is based on OS/VS1 System IPO experience gained while installing and exercising ACF/VTAM MSNF in an OS/VS1 environment. It is directed to ACF/VTAM users intending to use ACF/VTAM MSNF, NCCF, and NDPA. Included are:

- Sample JCL to install MSNF, NCCF, and NDPA
- Sample CDRM, CDRSC, and path tables for MSNF
- Definitions for NCCF and NDPA
- Hints and Tips

4.3 THE CICS/OS/VS FEATURE

OS/VS1 System IPO provides support for CICS/OS/VS Version 1 Release 4.1. This support is based on OS/VS1 System IPO experience and is directed to both new and existing CICS/OS/VS users. New users can potentially benefit from the installation procedures and documentation provided. Existing users can potentially benefit from the migration procedures and documentation, particularly in the areas of SMP4 servicing and migration from previous releases of CICS/OS/VS. Installation procedures and documentation are provided for CICS/OS/VS Intersystem Communication (ISC), DL/I, DMS/CICS/VS, and the DB/DC Data Dictionary.

Distribution Libraries

The CICS/OS/VS feature includes the distribution libraries (DLIBs) for CICS/OS/VS V1 R4.1.

Pregenerated System

A CICS/OS/VS system generated for OS/VS1 from the OS/VS1 System IPO CICS/OS/VS DLIBs is shipped with this feature. This system provides a set of load modules that permit simple testing of CICS/OS/VS V1 R4.1. The pregenerated system includes the High Performance Option (HPO) and Program Isolation. Tables are provided for a variety of different terminal types with examples of mixed terminal environments. These tables include support for ISC, DL/I, DMS/CICS/VS and DB/DC Data Dictionary.

Installation Procedures

The CICS/OS/VS V1 R4.1 feature includes sample jobstreams to assist in installing and tailoring the supplied pregenerated system. These jobstreams include procedures to allocate and load the CICS/OS/VS libraries and sample data sets, create or modify system tables, and initialize CICS/OS/VS.

Documentation

The CICS/OS/VS V1 R4.1 Service Guide contains service related information for the provided CICS system and System IPO processes. Information is provided concerning corrective service incorporated into the feature, reach-ahead PTFs applied, known problems at the time of shipment, and PTFs excluded from the System IPO.

The CICS/OS/VS V1 R4.1 Installation Guide details the contents of the CICS/OS/VS DLIBs and sample system. A step-by-step installation procedure guides you through the modification and use of the sample jobstreams to install and tailor the CICS/OS/VS system to your configuration. Other topics include considerations for CICS/OS/VS planning, system parameters and CICS/OS/VS system generation.

The CICS/OS/VS V1 R4.1 System Guide is intended as a reference document to be used after the CICS/OS/VS feature is installed. The documentation also provides support for the IMS/VS DB feature and the DMS/CICS/VS Program Product. This includes information on the installation and validation of the CICS-DL/I interface with sample application programs. Information is also provided on the installation and use of the DB/DC Data Dictionary and DMS/CICS/VS.

4.4 THE IMS/VS DB FEATURE

The OS/VS1 System IPO provides support for IMS/VS Version 1 Release 1.5 DB as an additional feature. The support is based on OS/VS1 System IPO experiences in installing and using IMS/VS DB in the OS/VS1 environment. The IMS/VS DB feature is provided for IMS/VS batch and CICS/OS/VS- DL/I users. New IMS/VS users can potentially benefit from the installation procedures and documentation provided. Existing IMS/VS users can potentially benefit from the migration procedures and documentation, particularly in the areas of SMP4, DB/DC Data Dictionary installation, DBRC installation, and migration from IMS/VS Version 1 Release 1.4.

Distribution Libraries

The IMS/VS DB feature includes the distribution libraries (DLIBs) for IMS/VS V1 R1.5 DB.

Pregenerated System

An IMS/VS batch system generated for OS/VS1 from the OS/VS1 System IPO IMS/VS DLIBs is shipped as part of the IMS/VS DB feature.

Installation Procedures

The IMS/VS V1 R1.5 DB feature of the OS/VS1 System IPO includes pregenerated IMS/VS primer libraries with a suggested order of execution. The Primer samples are referenced in the IMS/VS primer manuals, SH20-9145 and SH20-9149. These samples are useful for educational purposes and as a comprehensive installation verification tool. Copies of the IMS/VS Primer data bases are provided. Consequently the extensive batch IVPs do not need to be run to create data bases for other Primer based IVPs such as those for CICS-DL/I and DBRC.

Sample JCL and procedures are also included to demonstrate the servicing of IMS/VS in the OS/VS1 System IPO environment. All service is applied using SMP4, and examples and documentation are supplied on the use of SMP4.

Documentation

The IMS/VS V1 R1.5 DB Service Guide contains service related information for the provided IMS/VS system and System IPO processes. Information is provided concerning corrective service incorporated into the feature, reach-ahead PTFs applied, known problems at the time of shipment, and PTFs excluded from the System IPO.

The IMS/VS V1 R1.5 DB Installation Guide details the contents of the OS/VS1 System IPO IMS/VS DLIBs and pregenerated system. A step-by-step installation procedure guides you through the modification and use of the sample jobstreams to install the IMS/VS system in your configuration. Other topics include considerations for IMS/VS planning and service of IMS/VS using SMP4.

The IMS/VS V1 R1.5 DB System Guide is intended as a reference document to be used after the IMS/VS DB feature is installed. The following subjects are included:

- IMS/VS tuning considerations in an OS/VS1 environment
- Installation and use of the supplied Primer Installation Verification Procedure (IVP)
- Installation and use of the DB/DC Data Dictionary
- Installation and use of the IMS/VS DBRC feature
- ISAM/OSAM to VSAM data base conversion

4.5 THE IMS/VS DB/DC FEATURE

The OS/VS1 System IPO provides support for IMS/VS Version 1 Release 1.5 DB/DC as an additional feature. The support is based on OS/VS1 System IPO experiences in installing and using IMS/VS DB/DC in the OS/VS1 environment. The IMS/VS DB/DC feature is directed to a broad range of users who will be using this release of IMS/VS. New IMS/VS users can potentially benefit from the installation procedures and documentation

provided. Existing IMS/VS users can potentially benefit from the migration procedures and documentation, particularly in the areas of SMP4, migration from BTAM to VTAM, the migration from IMS/VS Version 1 Release 1.4, and the installation and use of DBRC, DB/DC Data Dictionary and ADF.

Distribution Libraries

The IMS/VS DB/DC feature includes the DB and DC distribution libraries (DLIBs) for IMS/VS V1 R1.5 DB/DC.

Sample System

An IMS/VS system generated for OS/VS1 from the OS/VS1 System IPO IMS/VS DLIBs is shipped with the IMS/VS DB/DC feature. This sample system defines the IMS/VS sample and IMS/VS primer data bases and transactions to provide for simple testing and a demonstration capability of IMS/VS V1 R1.5 DB/DC. The Application Development Facility (ADF) support in the Sample System includes the data base and transaction definitions for the ADF sample application and for the System IPO ADF Installation Verification Procedure (IVP). The ADF IVP accesses the IMS/VS Primer data bases and performs functions similar to those of the IMS/VS Primer sample programs. Copies of the IMS/VS Primer data bases are provided. Consequently the extensive batch IVP does not need to be run to create data bases for other Primer based IVPs.

The DC configuration defines a 3270 network with a local BTAM 3270 as the master terminal. The BTAM DC network supports three local and two remote 3277 terminals as well as one local and one remote 3284 printer. The VTAM DC network supports three local, two remote SDLC-driven, and two remote BSC-driven 3277 terminals, as well as one local, one remote SDLC, and one remote BSC 3286 printer.

Installation Procedures

The IMS/VS V1 R1.5 DB/DC feature of the OS/VS1 System IPO includes sample jobs that assist in the tailoring of the sample system to your environment. The sample jobstreams include allocating the IMS/VS libraries, tailoring the supplied jobstreams for your requirements, performing an IMS/VS NUCLEUS system definition using the Sample System as a base, modifying IMS/VS SVC designations, and updating the OS/VS1 system with IMS/VS.

Sample JCL and procedures are also included to demonstrate the servicing of IMS/VS in the OS/VS1 System IPO environment. All service is applied using SMP4, and examples and documentation are supplied on the use of SMP4.

Documentation

The IMS/VS V1 R1.5 DB/DC Service Guide contains service related information for the provided IMS/VS system and System IPO processes. Information is provided concerning corrective service incorporated into the feature, reach-ahead PTFs applied, known problems at the time of shipment, and PTFs excluded from the System IPO.

The IMS/VS V1 R1.5 DB/DC Installation Guide details the contents of the OS/VS1 System IPO IMS/VS DLIBs and sample system. A step-by-step installation procedure guides you through the modification and use of the sample jobstreams to install and tailor the IMS/VS system to your configuration. Other topics include considerations for IMS/VS planning, system parameters, and IMS/VS system definition.

The IMS/VS V1 R1.5 DB/DC System Guide is intended as a reference document to be used after the IMS/VS DB/DC feature is installed. The following subjects are included:

- IMS/VS tuning considerations in an OS/VS1 environment
- Installation and use of the supplied Installation Verification Procedure (IVP)
- Installation and use of the BTS II (Batch Terminal Simulator IUP)
- Installation and use of the ADF IUP, including an IVP that performs functions similar to those of the IMS/VS Primer online application
- Installation and use of the IMS/VS DBRC feature
- Installation and use of the DB/DC Data Dictionary
- SNA considerations
- ISAM/OSAM to VSAM data base conversion

APPENDIX A: SVC NUMBER ALLOCATION

The OS/VS1 pregenerated system includes the following SVC definitions. Both IMS/VS and CICS/OS/VS have been assigned two sets of SVCs to allow testing of a new CICS/OS/VS or IMS/VS release while maintaining a current system for production. The SVCs marked 'available' are for individual installation use.

SVC Number	Type	Interrupts	Use
214	4	Enabled	CICS/VS)
215	4	Enabled) Reserved) 1st
216	2	Enabled) CICS/VS) Set
217	4	Enabled) CICS/VS)
218	2	Enabled	Available
219	4	Enabled	Available
220	1	Disabled	Available
221	4	Enabled	Available
222	3	Enabled	Available
223	4	Enabled	DASDR
224	4	Enabled	CICS/VS)
225	4	Enabled) Reserved) 2nd
226	2	Enabled) CICS/VS) Set
227	4	Enabled) CICS/VS)
228	4	Enabled	Available

SVC Number	Type	Interrupts	Use
229	3	Enabled	Available
230	2	Enabled	Available
231	1	Disabled	Available
232	1	Disabled	Available
233	1	Enabled	Available
234	2	Enabled	IMS/VS) 1st
235	4	Enabled	Available
236	4	Enabled	Available
237	4	Enabled	Available
238	1	Disabled	VSPC
239	1	Disabled	VSAPL
240	3	Enabled	GIS/VS
241	4	Enabled	Available
242	4	Enabled	Available
243	1	Enabled	Available
244	2	Enabled	IMS/VS) 2nd
245	4	Enabled	Available
246	1	Disabled	Available
247	3	Disabled	Available
248	4	Disabled	Available
249	4	Enabled	Available
250	2	Disabled	Available

SVC Number	Type	Interrupts	Use
251	2	Enabled	Available
252	1	Disabled	Available
253	2	Disabled	Available
254	4	Enabled	Available
255	1	Disabled	Available

SVC types 2,3, and 4 always have the SVRB extended to ten doublewords.

APPENDIX B: PREGENERATED SYSTEM ADDRESSES

4331, 4341, 3031, 3032, 3033 Processors and
System/370 Models 135, 138, 145, 148, 155II, 158, 165II, 168

		UNIT ADDRESSES					
DEVICE	NUMBER	ByteMPX	BlkMPX	BlkMPX	BlkMPX	BlkMPX	BlkMPX
TYPE	OF	Ch. 0	Ch. 1	Ch. 2	Ch. 3	Ch. 4	Ch. 5
	UNITS						

CONSOLES							
3036	6	005,007, 01A,01B, 020					507
3066	1	019					
3148	2	010,014					
3213	2	015,025					
3215	2	009,01F					
3277	4		120	220	320	420	
3278	1	01E					
7443	5	006,008 01C,01D					508
CARD READERS							
1442	2	00A,02A					
2540R	2	00C,02C					
3505	3	012,029					512
CARD PUNCHES							
2540P	3	00D,02D					50D(3)
3525	3	013,026					513
PRINTERS							
1403-2	1	02E					
1403-N1	3	00E,00F					51F(3)
3203	3	016,017 027					
3211	4	002,004 024					510
3800	3	018,028	118				

DEVICE TYPE	NUMBER OF UNITS	UNIT ADDRESSES					
		ByteMPX Ch. 0	BlkMPX Ch. 1	BlkMPX Ch. 2	BlkMPX Ch. 3	BlkMPX Ch. 4	BlkMPX Ch. 5
LOCAL DISPLAYS							
3277-2	65	090-093 096-099 09C-09F	121-127 1A0-1A6 1A8-1AE 1B0-1B6 1B8-1BE	221-226	321-326	421-426	
3284-2	2	094,09A					
3286-2	9	095,09B	1A7,1AF 1B7,1BF	227	327	427	
TELE- COMMUNICA- TIONS							
3705	4 (CA1)	050,051 070,071					
	2 (CA2)					440,490	
3704	1 (CA1)	080					
3791L	1	072					
2703	7 (BSC2)	030-036					
	10 (BSC1)	052,053 058-05F					
	4 (BSC2)	054-057					
	9 (2741C)	060-066 068-069					
	1 (TWX)	067					
	5 (BSC3)	081-085 (2)					
2701	4 (BSCA)	086-089 (2)					
2955	2	003,011					

		UNIT ADDRESSES					
DEVICE	NUMBER	ByteMPX	BlkMPX	BlkMPX	BlkMPX	BlkMPX	BlkMPX
TYPE	OF	CH. 0	CH. 1	CH. 2	CH. 3	CH. 4	CH. 5
	UNITS						
DASD							
3330-1	24		150-157	250-257	350-357		450-457 (1)
3330-11	18		158-15F	258-259 (2)	358-35F		458-45F (1)
3340	130			200-207	300-307		400-407 (1)
				210-217	310-317		410-417 (1)
(3344 STRING)				22A-22F (2)			
				23A-23F (2)			
				24A-24F (2)			
				25A-25F (2)			
				26A-26F (2)			
				27A-27F (2)			
(3344 STRING)			1C0-1C7	2C0-2C7	3C0-3C7		4C0-4C7 (1)
			1E2-1E7	2E2-2E7	3E2-3E7		4E2-4E7 (1)
			1EA-1EF	2EA-2EF	3EA-3EF		4EA-4EF (1)
			1F2-1F7	2F2-2F7	3F2-3F7		4F2-4F7 (1)
3350	18		148-14F	248-249 (2)	348-34F		448-44F (1)
TAPES							
3420-4	8		180-187				
3420-8	24			280-287	380-387		480-487

- (1) Alternate channel address.
- (2) Units added or changed from release 7B.
- (3) Devices hooked to block multiplexor via 2821 - ensure 2821 switch (under the covers) is not in burst mode.

APPENDIX C: SYSGEN OPTIONS FOR PREGENERATED SYSTEM

<u>MACRO</u>	<u>OPTIONS SELECTED</u>
CENPROCS	CTIMERS=INCLUDE CS=YES INSTSET=UNIV
UNITNAMES	
SYSDA	ALL DISK DEVICES
DISK	ALL DISK DEVICES
SYSSQ	ALL DISK DEVICES
DASD	ALL DISK DEVICES
MOD11	ALL 3330 MODEL 11
TAPE	ALL TAPE DRIVES
TAPE1600	ALL TAPE DRIVES
TAPE6250	ALL TAPE DRIVES
CTRLPROG	DYNPART (P3 - P10) ECPS=(148R,YES) FETCH=PCI OPTIONS=(BLDL, NODDRSYS, RDE, RER, TRSVCTBL) OVERLAY=ADVANCED RESIDNT=(ACSMETH, ERP, RENTCODE, TR SVC) SCREEN=INCLUDE SECURITY=FPROT SYSQUE=24 TRACE=100 VIRTUAL=11264 VSAM=INCLUDE

MACRO OPTIONS SELECTED

PARTITNS

P0 (C-*,S-128)
P1 (C-V,S-2048)
P2 (C-C,S-2048)
P3 (C-A,S-512)
P4 (C-A,S-512)
P5 (C-S,S-3072)
P6 (C-A,S-000)
P7 (C-A,S-000)
P8 (C-A,S-000)
P9 (C-A,S-000)
P10 (C-A,S-000)

SCHEDULR

AVR=NOMOUNT
DEL=RD
HARDCOPY=(SYSLOG,ALL,CMDS)
OPTIONS=(EXIT,
 IOLOADBAL,
 MCS,
 REMOTE,
 VM)
SMF=FULL

MACLIB

EXCLUDE=(GPS,OCR,TCAM)

APPENDIX D: DASD REQUIREMENTS

The following table shows the number of packs required to install the system or apply service. The table assumes a production system already in place for installation or service application, and the number of packs indicated is in addition to the number for that system. Installation and service application figures assume the OS/VS1 System IPO Procedures are followed (i.e. A 'replaceable' system is developed).

	3330-1	3330-11	3340-35	3340-70	3350
OS/VS1					
Auxiliary Pack	1	1	nt	1	1
System Residence	1	1	nt	1	1
DLIBs	2	1	3	2	mr
CICS/OS/VS	1	1	nt	nt	1
IMS/VS DB	1	1	nt	nt	1
IMS/VS DB/DC	2	1	nt	nt	1
ACF/VTAM	1	1	nt	nt	1
ACF/NCP/VS	1	1	nt	nt	1

mr = may reside on the same pack as the system residence
 nt = not tested. Allocation and placement of datasets
 responsibility of user.

GC20-1861-5

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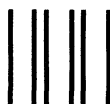
Reader's Comment Form

System Installation Productivity Option (IPO) for OS/VS1 (File No. S370-34) General Information and Planning Guide Printed in U.S.A. GC20-1861-5

Fold and tape

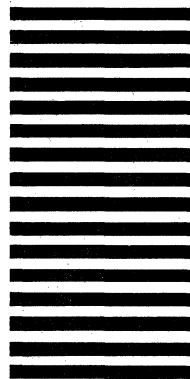
Please Do Not Staple

Fold and tape



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO. 40 ARMONK, N.Y.



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White Plains, New York 10604

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Data Processing Division
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