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Systems

OS/VS1 Release 7 Guide

IBM

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Release 7

IBM

Preface

This publication summarizes the differences between OS/VS1 Release 7 and Release 6.7. It provides installation managers, system programmers, and IBM Field Engineering personnel with useful planning and implementation information.

The four chapters of this publication contain:

1. Functional summaries of the enhancements and information about the device support included in this release.
2. Installation and system generation considerations.
3. An OS/VS1 publications list and library chart.
4. Order and distribution procedures for this release, including program material shipped with the system and optional material available.

The *Release Guide* no longer contains lists of APARs and PTFs that are included with this release. See the *Program Directory* available from PID for this information.

APAR descriptions and the Program Symptom Index are available in the EWS (Early Warning System) microfiche service, which the Field Engineering (FE) Division maintains and updates weekly. You may subscribe to the EWS under SLSS (System Library Subscription Service). Contact your IBM representative or the IBM branch office serving your locality to assist you in establishing and maintaining a subscription so you'll automatically receive updated books.

First Edition (July 1979)

This edition, GC24-5201-0, applies to Release 7 of OS/VS1. Changes are continually made to the information contained herein; before using this publication in connection with the operation of IBM systems, consult the latest *IBM System/370 Bibliography*, GC20-0001, for editions that are applicable and current.

Publications are not stocked at the address given below; requests for IBM publications should be made to your IBM representative or to the IBM branch office serving your locality.

This publication has been produced by IBM Corporation, Programming Publications, Dept. G60, P.O. Box 6, Endicott, NY, U.S.A. 13760.

Contents

Chapter 1: Functional Summary

This chapter briefly describes the device support, supervisor enhancements, and scheduler enhancements included in Release 7.

OS/VS1 Release 7 is built on an OS/VS1 Release 6.7 base and includes all selectable units that were integrated into that release. Initially, both OS/VS1 Release 7 and Release 6.7 are current and simultaneously available.

For a listing of APARs and PTFs that are included with this release, see the *Program Directory* available from PID. The service level of VS1 Release 7 is at the 7905 PTF tape level.

4331/4341 Processor Support

Release 7 of VS1 supports the IBM 4331 and 4341 Processors in System/370 mode and the IBM 3278 Model 2A Display Station.

With this support, VS1:

- Recognizes the IBM 4331 or 4341 Processor as a processing unit.
- Provides channel error recovery procedures for the IBM 4331 or 4341 Processor.
- Recognizes the IBM 3278 Model 2A Display Station as a master or secondary console.

ECPS: VS1 (Extended Control Program Support for VS1) is supported on the 4341 Processor. The level of ECPS for the 4341 is the set of instructions supported by the IBM System/370 Model 158 and the 3031 Processor plus the page measurement operation supported by the Model 138/148. In addition, VS1 passes the address of the highest location of the fixed SQA (system queue area) to the 4341, which then bypasses translation below that address.

Among the optional features that Release 7 supports on the 4331 Processor are the communications adapter and the diskette drive. The communications adapter operating in 2703 compatibility mode provides control for the attachment of up to eight binary synchronous communications (BSC) or start/stop lines in any combination. The diskette drive is a single drive diskette reader/recorder that reads from or writes to IBM Diskettes Type 1. VS1 Release 7 supports the diskette drive as an IBM 3540 Diskette Input/Output Unit.

Device Support

All devices supported by Release 6.7 are supported by Release 7.

Release 7 also supports:

- The attachment of 3340/3344 Direct Access Storage devices to a 4341 Processor via the 3880 Storage Control Model 1. The 3880 Storage Control Model 1 provides two independent paths, called storage directors, for transfer of file positioning commands and data between channels and the processor.
- The IBM 3203 Model 5 Printer on the 4300 Processors.

The IODEVICE macro is changed in Release 7 to recognize the prepare-to-read feature of the IBM 3274 Model 1D Control Unit for 3277 Display Stations and 3284/3286 Printers. This feature supports the SELECT commands that notify the controller of an intention to read or write data.

3278 Model 2A Service Aids Support

The CONSOLE= parameter of the HMDSADMP service aids macro instruction is used to specify the device address and the device type of the primary system console for the stand-alone dump program (SADMP). In addition to the device types listed in *OS/VS1 Service Aids*, GC28-0665, you can use 3278-2A to specify the IBM 3278 Model 2A Display Station.

Supervisor Enhancements

Supervisor enhancements included in Release 7 are listed below. A brief description follows each item.

Request Queue Element (RQE) Serviceability: A Request Queue Element contains the addresses of the major control blocks needed to process a request for I/O activity. In previous releases, RQEs were obtained from and returned to the top of the RQE freelist. This meant that the same RQEs were used and re-used. As a serviceability enhancement, IOS (input/output supervisor) now gets RQEs from the top of the freelist and returns them to the bottom. This destroys residual information about previous requests less rapidly, and allows service personnel to reconstruct prior I/O events more efficiently.

Cross-Partition Communication: Cross-partition communication allows communication between tasks that are executing concurrently in two different partitions. To use this function, you create a link that permits posting of each partition and passing of data between partitions.

Graphics Console Roll/Delete: At system generation, you can specify whether graphics consoles are initialized in roll mode or roll-deletable mode. You no longer have to issue a command after they are initialized to

get them into that mode. The amount of time between screen rolls may also be specified at system generation.

VM/370 IPL (non-zero memory): The way OS/VS1 IPL (initial program load) zeros main storage under VM/370 is improved. The new procedure is faster than the method used in previous releases.

Page Supervisor Preferred Pages: You can now specify that certain pages are to be *preferred* with respect to the length of time they are allowed to remain in real storage without being referenced. By using the PAGETUNE command, the central operator is able to specify a preference index for each partition. This index is an integer from 1 to 255. It represents the number of times an unreferenced page within the address range of the partition will be allowed to cycle through the page supervisor in-use queues before being chosen for page out.

IOS Short Term Fix/Long Term Fix: In previous releases, when IOS (input/output supervisor) requested pages to be fixed in real storage, the pages were marked as short term fixed. This meant they would be fixed only for the duration of the I/O operation (which was generally a short time).

Telecommunications and graphics operations, however, may cause pages to be fixed for a relatively long time. In VS1 Release 7, IOS recognizes these operations and requests the pages be long term fixed. This allows the page supervisor to better manage the real pages in the system.

IOS Start I/O Fast: IOS uses the Start I/O Fast Release (SIOF) instruction instead of Start I/O (SIO). This increases channel/processor overlap, allowing more available processor time under normal conditions.

List Search Technique: Instead of the traditional sequential search, the contents supervisor uses a new hashing technique when searching the resident SVC and resident reenterable lists. The new algorithm allows the contents supervisor to search longer resident-lists more efficiently.

EXCPVR Handshake: EXCPVR recognizes that OS/VS1 is running in VM/370 non-paging mode and does not attempt to fix pages passed from the user page-fix appendage. This reduces I/O path length for EXCPVR requests with user page-fix appendages. The user page-fix appendage is still entered for compatibility.

Scheduler Enhancements

Scheduler enhancements included in Release 7 are listed below. A brief description follows each item.

Concatenated Procedure Libraries (PROCLIBs): You are able to concatenate procedure libraries at Master Scheduler Initialization (MSI) time. The START command can now refer to procedure libraries outside SYS1.PROCLIB, allowing remote workstations with fast-start readers to have additional procedure libraries. These concatenated PROCLIBs are available throughout the life of the IPL.

Enhanced Automatic Volume Recognition (AVR): You can select a new AVR NOMOUNT option at system generation. When you choose this option, AVR allocates premounted tape and DASD volumes. If there are remaining volume requirements, the system uses standard allocation mount processing rather than generic mount requests.

Multiple Log Copies: You are able to request multiple copies of the system log via the JES SYSGEN macro, the JESxxxxx member of SYS1.PARMLIB, or the WRITELOG command.

Message Enhancement: The display of job control language (JCL) interpreter error messages is changed for improved visibility. Five periods preface all OS/VS1 JCL interpreter messages.

TYPRUN=SCAN Change: Processing of the JOB statement keyword TYPRUN=SCAN is changed to issue a message with new text indicating that the job was not run because TYPRUN=SCAN was coded.

New SYSOUT DISPLAY Command: A new command, SO, enables the system operator or a remote operator to display the output characteristics for a job in the SYSOUT queue on either a data set or a class basis. The operator can then use this information to manage output processing more efficiently by manipulating the system output.

Allocation Deserialization: An improvement in allocation allows an increase in multiprogramming to occur because of deserialization. Allocation is no longer serialized during the job file control block (JFCB) housekeeping routine or while waiting for devices or volumes. This change allows more overlap among allocations and terminations.

Chapter 2: Installation and System Generation Considerations

System Generation Considerations

SMP Release 4 must be applied if you are using either an existing VS1 operating system or a starter system from a previous VS1 release. A tape containing the load module of SMP Release 4 and a DLIBLOAD procedure is supplied with the distribution libraries. For detailed information about system generation, see *OS/VS1 System Generation Reference,* GC26-3791.

Utility Programs

The independent utilities operate outside the control of a system control program and are loaded as card decks or on tape as card images. The independent utilities and IPL text must be of the same release level as the system you are generating. These programs are distributed in the distribution library SYS1.ASAMPLIB.

Starter System Considerations

The Integrated Communications Adapter (ICA) feature on the IBM System/370 Model 135 uses one address for each line, up to a total of eight lines beginning at address 001. The IBM 3211 printer, generated in the starter system at addresses 002, 004, and 202, cannot be used on channel 0 in this case. The starter system available in VS1 is distributed on tape to be restored to either a 2314/2319, 3330, 3340, or 3350 disk storage device, depending on which starter system is used.

The starter system, regardless of standard labels or the dual density feature, assumes that all 9-track tapes are written at a density of 1600 bpi. If your tape drive is dual density and you want it to write at a density other than 1600 bpi, you must specify the density in the DCB parameter of the DD statements for the tape data set. The density must be specified for each job step using the data set. If your tape unit is single density, it will write only at that single density. 800 and 1600 bpi tapes cannot be used for labeled SYSOUT tapes.

The minimum system configuration for using the starter system is:

- An IBM System/370 Model 135, 138, 145, 148, 155II, 158, 165II, 168; or an IBM 3031, 3032, 3033, 4331, 4341 Processor
- 192K of real storage (see the note following)
- Two 3350, three 3330 or 3340 (70 meg), five 3340 (35 meg), or five 2314/2319 DASDs
- A 2400- or 3400-series magnetic tape unit
- Console
- SYSIN device
- SYSOUT print and punch devices.

Note: If you are generating a system in 192K of real storage, do not use the default block size for the system data sets, which are blocked to a full track. Specify a block size smaller than a full track for the data sets.

The VS1 SCP is generated in two stages:

- Stage I analyzes user-coded macro instructions for errors. If it finds no errors, it produces a job stream for use by Stage II.
- Stage II uses the job stream produced by Stage I to select and process modules from the distribution libraries and optional user-written modules to form a new VS1 system.

The first time a VS1 system is generated, you must use the starter system. The starter system for performing the first system generation consists of:

- A control program that supports the central processing unit and I/O devices needed to perform the system generation.
- An assembler and linkage editor.
- The utility programs used for data set space allocation, volume initialization, and Stage II processing.

If you use an existing VS1 system as the generating system, you should note these additional items:

- The START command for the initiator should include the SPACE keyword to increase the size of the scheduler work area data set (SWADS) from 250 to 600 blocks.
- SYS1.SYSPOOL requires 50 cylinders on a 2314, 30 cylinders on a device in the 3330 series, 45 cylinders on a 3340 and 3344, or 20 cylinders on the 3350.
- The linkage-editor sizes used for a nucleus link-edit are size1=192 and size2=64.

Component Distribution Libraries (DLIBs)

The component libraries are distributed in SMP format on magnetic tape. All non-optional system subsets are grouped on the DLIB tapes. You can load these same tapes directly onto two 2314/2319 disks; two 3340 (35 meg) disks; or one 3330, 3340 (70 meg), 3344, or 3350 disk. To use space more efficiently, DLIB data sets containing link-edited code have block sizes of 6144 bytes rather than 7294 bytes.

Storage Requirements

Review the manual *OS/VS1 Storage Estimates,* GC24-5094, before planning your VS1 system.

Minimum I/O Requirements

Refer to *OS/VS1 System Generation Reference*, GC26-3791, for the minimum machine requirements for a VS1 system generation.

Programming Requirements Using an Existing VS1 System

A starter system provides all the programming support needed to perform a VS1 system generation. If you use an existing VS1 operating system as the generating system, it must contain this programming support:

- OS/VS Assembler
- Linkage Editor
- IEHDASDR utility program
- IEBCOPY utility program
- IEBUPDTE utility program
- IEHPROGM utility program
- IEHIOSUP utility program
- IFCDIP00 utility program
- IEBEDIT utility program
- IEHLIST utility program
- ASMS and LINKS (in SYS1.PROCLIB)
- SMP Release 4

Note: See "Ordering Procedures" in Chapter 4 for additional restrictions.

Special Installation Considerations and Restrictions

Special Features Required

Both VSAM and VTAM require that the following special no-charge features be installed on machine types as indicated:

Machine Type	Feature Number	Feature Name
3135	1051	Conditional Swapping
3145	1001	Advanced Control Program Support
	or	
	1051	Conditional Swapping

Programming Considerations

SMP Data Set Usage

Depending upon your SMP options, some of these SMP data sets are required for this release:

SMPACDS: This data set contains information about the macros, modules, and SYSMODs in the distribution libraries. The data in the ACDS is used by SMP to control the checking, inserting, or removing of modules and macro definitions in the distribution libraries.

SMPACRQ: This data set holds ++IF modification control statements for use by ACCEPT processing.

SMPCDS: This data set contains information about the macros, assemblies, modules, libraries copied at system generation time, and SYSMODs in the Release 7 system. The data in the CDS is used by SMP to control the checking, inserting, or removing of modules and macro definitions in the Release 7 libraries.

SMPCRQ: This data set holds ++IF modification control statements for use by APPLY processing.

SMPLOG: This data set contains a time-stamped record of events that occur during SMP processing. SMP automatically writes records to this data set.

SMPMTS: This data set contains macros that do not reside in a Release 7 library. The updated version of the macro is stored on the SMPMTS during APPLY processing. The data is used in APPLY, ACCEPT, and RESTORE processing.

SMPPTS: This data set serves as temporary storage for SYSMODs. The name "PTF Temporary Store" is a carry-over from previous SMP releases in which the name "PTF" described all types of modifications.

SMPSCDS: This data set contains backup copies of CDS entries that are modified during APPLY processing when ++JCLIN modification control statements are present in SYSMODs. The backup copies are used during RESTORE processing to return the CDS entries to the state they were in before APPLY processing.

SMPSTS: This data set contains source modules that do not reside in a Release 7 library. The updated version of the source module is stored on the SMPSTS during APPLY processing. The data set is used in APPLY, ACCEPT, and RESTORE processing, and is passed to the assembler as input.

The following data sets, required for SMP RECEIVE, ACCEPT, and NOAPPLY processing, are allocated by the DLIBLOAD procedure provided with the distribution libraries:

- SYS1.ACDS
- SYS1.SMPLOG
- SYS1.SMPMTS
- SYS1.SMPPTS
- SYS1.SMPSTS
- SYS1.SMPACRQ

For more information about SMP data sets, refer to *OS/VS1 System Modification Program (SMP) System Programmer's Guide*, GC28-0673.

Installation Productivity Option (IPO)

The OS/VS1 Release 7 System IPO is a pregenerated system that may include one or more of the following optional products:

- OS/VS1
- IMS/VS DB (Data Base only)
- IMS/VS DB/DC (including the Data Communication Feature)
- CICS/VS
- ACF/VTAM
- ACF/NCP

Each of the components is described in detail in the *System Installation Productivity Option (IPO) for OS/VS1 Planning Guide,* GC20-1861.

IPO reduces the machine time and manpower required for the installation process by including:

- Current PTFs and APAR fixes preapplied.
- Pregenerated code based on preselected options.
- Job control statements for installing the program, and a step-by-step installation procedure.
- Sample programs and test cases to validate the installation.
- Procedures and job control language statements for tailoring or expanding the function of the pregenerated version of the program to more closely meet user requirements.

Benefits provided by the IPO are:

Coordinated Maintenance: The service levels of the individual components are compatible.

Coordinated Options: The options selected for the pregenerated systems, and those used in the generation decks supplied, are compatible across the System IPO.

Coordinated Operational Verification: To ensure the components will run in an operational environment, IBM runs sample programs to verify the components. The OS/VS1 System IPO is verified primarily under the VM/370-IPO, and is also verified in native mode on a System/370 Model 148.

Coordinated Installation Process: With the exception of the OS/VS1 component, the installation process for the various components that make up the System IPO is uniform.

Coordinated Installation Guides: The installation guides for the various components have been coordinated so that they are similar in content, layout, and format.

Chapter 3: Publications

Refer to the *Program Directory* (available from PID) for the program temporary fixes resolved and for the APAR list.

No additional hardware engineering change levels are required for the device support included in Release 7.

You can find information concerning APARs corrected and PTFs generated as a result of post-release change activity in the Early Warning System (EWS) microfiche, which is available through the System Library Subscription Service (SLSS). For ordering information, see your IBM representative.

Publications List

The OS/VS publications library has several additions, revisions, and TNLs for this release of VS1. Unless you specify editions for a previous release by using the "temporary order numbers" listed in the *IBM System/370 Bibliography*, you will receive the latest edition of each publication you order. To keep your library updated automatically, you should use the System Library Subscription Service (SLSS), available through your IBM representative, and described in *Entering an SLSS Subscription*, G320-1561.

This section lists, within subject code groups, the publications that support Release 7 of VS1.

Note: Beginning with Release 5, most VS1 logic manuals are available on microfiche as well as printed manuals.

	Base Order No.	Applicable TNLs and Supplements	Microfiche Order No.
00 General Information			
IBM System/370 Bibliography	GC20-0001-2	GN20-0021	
IBM System/370 System Summary: Processors	GA22-7001-7	GN22-0577	
03 Printers, Control Units			
Introducing the IBM 3800 Printing Subsystem and Its Programming	GC26-3829-5		
04 OCR, MCR (Optical, Magnetic Character Readers), Control Units			
IBM 3890 Document Processor, Machine and Programming Description	GA24-3612-5		
09 Communications Systems or Equipment			
Systems Network Architecture General Information	GA27-3102-1		
20 Programming Systems - General Information			
OS/VS1 Features	GC20-1752-3		
OS/VS1 Master Index	GC24-5104-1		GCB4-5104-1
OS/VS1 Master Index of Logic	GY24-5164-1		GYB4-5164-0
21 Assembler			
OS/VS, DOS/VS, and VM/370 Assembler Language	GC33-4010-5	GN33-8193 GN33-8201 GN33-8207 GN33-8226	
OS/VS and VM/370 Assembler Logic	SY33-8041-1	SN33-8192 SN33-8238	SYC3-8041-0
OS/VS and VM/370 Assembler Programmer's Guide	GC33-4021-3	GN33-8205 GN33-8236	
30 Access Methods, Data Management, Storage/Communications Control Programs			
IBM 3800 Printing Subsystem Programmer's Guide	GC26-3846-2		
OS/VS 3886 Optical Character Reader, Model 1 Logic	SY24-5162-0		SYB4-5162-0
OS/VS1 Access Method Services	GC26-3840-3		
OS/VS1 Access Method Services Logic	SY35-0008-2		SYC5-0008-1
OS/VS1 BDAM Logic	SY26-3836-0	SN26-0788	SYB6-3836-0
OS/VS BTAM	GC27-6980-3	GN27-1477 GN27-1502 GN30-3061 GN30-3097	
OS/VS BTAM Logic	SY27-7246-2	SN30-3062 SN30-3098	SYB7-7246-1
OS/VS1 Catalog Management Logic	SY35-0003-3		SYC5-0003-0
OS/VS1 DADSM Logic	SY26-3837-1	SN26-0807	SYB6-3837-0
OS/VS1 Data Management for System Programmers	GC26-3837-2	GN26-0913 GN26-0875	

	Base Order No.	Applicable TNLs and Supplements	Microfiche Order No.
OS/VS1 Data Management Macro Instructions	GC26-3872-0		
OS/VS1 Data Management Services Guide	GC26-3874-0		
OS/VS Graphics Access Method Logic	SY27-7240-0	SN27-1389 SN33-3059	SYB7-7240-0
OS/VS Problem Determination Aids and Messages and Codes for GPS and GSP	GC27-6974-1	GN33-3058	
OS/VS Graphics Problem-Oriented Routines Logic	SY27-7241-0	SN33-3060	SYB7-7241-0
OS/VS Graphic Subroutine Package (GSP) for FORTRAN IV, COBOL, and PL/I	GC27-6973-0	GN27-1393 GN33-3057 GN33-3053	
OS/VS Graphic Subroutine Package (GSP) for FORTRAN IV, COBOL, and PL/I Logic	SY27-7242-0	SN27-1390 SN33-3061	SYB7-7242-0
OS/VS1 I/O Supervisor Logic	SY24-5156-5	SN24-5563 SN24-5573 SN24-5601 SN24-5643	SYB4-5156-1
OS/VS1 ISAM Logic	SY26-3838-0	SN26-0812	SYB6-3838-0
OS/VS Logic for IBM 3890 Document Processor	SY24-5163-0	SN24-5502	SYB4-5163-0
OS/VS Mass Storage System (MSS) Installation Planning and Table Create	GC35-0028-0	GN35-0060	
OS/VS Mass Storage Control Table Create Logic	SY35-0016-4		SYC5-0016-1
OS/VS Mass Storage Control (MSC) Trace Reports Logic	SY35-0014-2	SN35-0056 SN35-0063	SYC5-0014-0
OS/VS1 Mass Storage System Communicator (MSSC) Logic	SY35-0012-3	SN35-0061	SYC5-0012-2
OS/VS Message Library: Mass Storage System (MSS) Messages	GC38-1000-5		
Operator's Library: IBM 3850 Mass Storage System (MSS) Under OS/VS	GC35-0014-2		
IBM 3850 Introduction and Preinstallation Planning	GA32-0038-0		
OS/VS Mass Storage System (MSS) Services: General Information	GC35-0016-2	GN35-0059	
OS/VS MSS System Data Analyzer	GC35-0027-0	GN35-0057 GN35-0068	
OS/VS MSS System Data Analyzer Logic	SY35-0029-0	SN35-0069	
OS/VS MSS Enhancements Selectable Unit System Information (SU 5)	GC35-0018-0		
OS/VS Mass Storage System (MSS) Services Logic	SY35-0015-3	SN35-0064	SYC5-0015-1
OS/VS Mass Storage System (MSS) Services: Reference Information	GC35-0017-1	GN35-0067	
OS/VS1 Open/Close/EOV Logic	SY26-3839-3	SN26-0918	SYB6-3839-1
OS/VS1 RES RTAM and Workstation Support Logic	SY28-6849-4	SN24-5580	SYB8-6849-1
OS/VS Message Library: VS1 RES RTAM and Account Messages	GC38-1010-4	GN24-5582 GN24-5609	
OS/VS1 SAM Logic	SY26-3840-2	SN26-0880 SN26-0916 (SU 6)	SYB6-3840-1
IBM System/370 Subsystem Support Services Logic	SY30-3017-5	SN31-0590	SYC0-3017-1
OS/VS Message Library: Subsystem Support Services Messages	GC38-1011-4	GN27-1586	
IBM System/370 Subsystem Support Services User's Guide	GC30-3022-5	GN27-1585	
OS/VS Tape Labels	GC26-3795-3		
OS/VS Message Library: VS1 TCAM Level 10 Messages (SU 2)	GC30-3044-1		
OS/VS1 TCAM Level 10 Selectable Unit System Information (SU 2)	GC30-3046-0		
OS/VS TCAM Level 10 System Programmer's Guide (SU 2)	GC30-2051-2		
OS/VS TCAM Level 10 Installation and Migration Guide	GC30-3039-1	GN30-3105	
OS/VS TCAM Level 10 Macro Reference Guide (SU 2)	GC30-2052-1	GN30-3083	
OS/VS TCAM Level 10 Application Programmer's Guide (SU 2)	GC30-3036-1		
Operator's Library: OS/VS TCAM Level 10 (SU 2)	GC30-3037-0	GN30-3090	
OS/VS TCAM Level 10 Concepts and Applications	GC30-2049-0	GN30-3073	
OS/VS TCAM Level 10 Debugging Guide	GC30-3040-1	GN30-3084	
OS/VS TCAM Level 10 Program Logic Manual	SY30-3032-1	SN30-3085	
OS/VS TCAM Program Reference Summary	GY30-1024-0	GN30-3089	

	Base Order No.	Applicable TNLs and Supplements	Microfiche Order No.
OS/VS1 Virtual Storage Access Method (VSAM) Logic	SY26-3841-1	SN26-0818 SN26-0883 SN26-0911 SN26-0919	SYB6-3841-1
OS/VS Virtual Storage Access Method (VSAM) Options for Advanced Applications	GC26-3819-4	GN26-0924	
Planning for Enhanced VSAM under OS/VS	GC26-3842-2	GN26-0894	
OS/VS Virtual Storage Access Method Programmer's Guide	GC26-3838-3		
VTAM Concepts and Planning	GC27-6998-3	GN27-1545 GN31-0606 GN31-0890	
OS/VS1 VTAM Control Block Overview	GX27-0030-1		
OS/VS1 VTAM Data Areas	SY27-7266-1	SN27-1541 SN31-0830	SYB7-7266-1
OS/VS1 VTAM Debugging Guide	GC27-0022-1	GN27-1569	
OS/VS1 VTAM Execution Sequences	SY27-7271-0		SYB7-7271-0
Introduction to VTAM	GC27-6987-6	GN31-0889	
Introduction to VTAM Logic	SY27-7256-3	SN27-1552 SN31-0829	SYB7-7256-1
OS/VS1 VTAM Logic	SY27-7257-1	SN27-1550 SN27-1551	SYB7-7257-1
VTAM Macro Language Guide	GC27-6994-2	GN27-1574 GN27-1582 GN31-0658	
VTAM Macro Language Reference	GC27-6995-5		
OS/VS VTAM Network Operating Procedures	GC27-0027-1	GN31-0660 GN31-0753	
OS/VS VTAM Reference Summary	GX27-0034-1		
Supplement to the VTAM Macro Language Guide for the Program Operator	GC27-0036-1	GN27-1546	
OS/VS1 VTAM System Programmer's Guide	GC27-6996-1	GN27-1548 GN27-1519 GN31-0706	
OS Data Management Macro Logic for IBM 1285/1287/1288	GY21-0013-2		GYB1-0013-0
OS Data Management Services and Macro Instructions for IBM 1285/1287/1288	GC21-5004-3		
OS Data Management Services and Macro Instructions for IBM 1419/1275	GC21-5006-4		
OS BSAM Logic for IBM 1419/1275	GY21-0012-2		GYB1-0012-0
OS/VS Graphic Programming Services (GPS) for IBM 2250 Display Unit	GC27-6971-0	GN27-1391 GN27-1437 GN33-3055	
OS/VS Graphic Programming Services (GPS) for IBM 2260 Display Station (Local Attachment)	GC27-6972-0	GN27-1392 GN33-3056	
Introduction to Programming the IBM 3270	GC27-6999-2	GN31-0755	
OS Programming Support for the IBM 3505 and 3525	GC21-5097-1	GN28-2591	
OS/VS1 Logic for IBM 3540 Diskette Input/Output Unit	SY24-5166-1	SN24-5534	SYB4-5166-1
OS/VS1 IBM 3540 Programmer's Reference	GC24-5110-0		
IBM 3740 BTAM/TCAM Programmer's Guide	GC21-5071-3		
OS/VS 3886 Optical Character Reader, Model 1 Reference	GC24-5101-0		
IBM 3895 VS1 SCP Specifications	GC24-5158-0		
Device Support Facilities	GC35-0033-0		
Device Support Facilities Logic	SY35-0030-0		
Device Support Facilities SCP Specifications	GC35-0042-1		
31 Support Programs			
OS/VS Linkage Editor and Loader	GC26-3813-5		
OS/VS Linkage Editor Logic	SY26-3815-0	SN26-0770 SN26-0822 SN26-8020 SN26-8033 SN26-0905	SYB6-3815-1
OS/VS Loader Logic	SY26-3814-0	SN26-0771 SN26-8022 SN26-8032	SYB6-3814-0
OS/VS Message Library: Linkage Editor and Loader Messages	GC38-1007-5		

	Base Order No.	Applicable TNLs and Supplements	Microfiche Order No.
32 Utilities			
OS/VS Analysis Program-1 (AP-1) Logic	SY26-3851-0	SN26-0889	SYB6-3851-1
OS/VS and DOS/VS Analysis Program-1 (AP-1) User's Guide	GC26-3855-2		
OS/VS1 Utilities	GC26-3901-0	GN26-0920	
OS/VS Utilities Logic	SY35-0005-5	SN26-0873 SN26-0859 SN26-0882 SN26-0877 SN26-0910	SYC5-0005-1
OS/VS Message Library: VS1 Utilities Messages	GC26-3919-0	GN26-0927	
34 System Planning, Generation, Installation, SMF; Storage or Performance Estimates; Release Guides			
DOS and DOS/VS to OS/MFT, OS/MVT, OS/VS1 Management Planning Guide	GC24-5082-2		
DOS and DOS/VS to OS/VS1 Implementation Guide	GC24-5095-3		
OS/VS1 Planning and Use Guide	GC24-5090-7		
OS/VS1 Release 7 Guide	GC24-5201-0		
OS/VS1 Release 7 SCP Specifications	GC24-5202-0		
OS/VS1 Subsystem Attachment Support Selectable Unit System Information (SU 6)	GC24-5127-0		
VS1 Subsystem Attachment Support SU SCP Specifications (SU 6)	GC24-5155-0		
OS/VS1 3031, 3032, 3033 Processor Support Selectable Unit System Information (SU 20)	GC24-5171-0		
VS1 3031, 3032, 3033 Selectable Unit SCP Specifications (SU 20)	GC24-5172-0		
OS/VS1 Storage Estimates	GC24-5094-7	GN24-5652	
OS/VS1 System Management Facilities (SMF)	GC24-5115-2		
OS/VS1 System Generation Reference	GC26-3791-9	GN24-5644	
OS/VS Display Exception Monitoring Facility (DEMF) System Information Manual	GC34-2002-0		
OS/VS Display Exception Monitoring Facility (DEMF) SCP Specifications	GC34-2001-0		
36 Control Program			
OS/VS1 Checkpoint/Restart	GC26-3876-0	GC26-3886-1 (SU 6) GN26-0922	
OS/VS1 Checkpoint/Restart Logic	SY24-5159-3		SYB4-5159-0
OS/VS1 System Data Areas	SY28-0605-6	SN24-5653 SN24-5633	SYB8-0605-1
OS/VS1 IPL and NIP Logic	SY24-5160-4	SN24-5555 SD25-0006-0 (SU 20) SN24-5602 SN24-5646	SYB4-5160-1
OS/VS1 JCL Reference	GC24-5099-4	GN24-5628	
OS/VS1 JCL Services	GC24-5100-4		
OS/VS1 Job Management Logic, Volume 1	SY24-5168-1	SN24-5647	SYB4-5168-1
OS/VS1 Job Management Logic, Volume 2	SY24-5169-1	SN24-5648	SYB4-5169-1
OS/VS1 Programmer's Reference Digest	GC24-5091-5	GN24-5525 GC24-5148-0 (SU 4) GC24-5128-0 (SU 6) GN24-5598 GN24-5642	
OS/VS1 Supervisor Logic	SY24-5155-6	SN24-5693	SYB4-5155-1
OS/VS1 Supervisor Services and Macro Instructions	GC24-5103-2	GN24-5599 GN24-5640	
37 RAS (Reliability, Availability, Serviceability): Testing, Service Aids, Problem Determination			
OS/VS1 Debugging Guide	GC24-5093-4	GN24-5522 GC24-5152-0 (SU 4) GN24-5603 GN24-5638	
OS/VS1 OLTEP	GC28-0666-2	GN25-0305 GN25-0332	
OS/VS1 OLTEP Logic	SY28-0662-2	SN25-0330	SYB8-0662-1
OS/VS1 Recovery Management Support Logic	SY24-5170-1	SN24-5645	SYB4-5170-0
OS/VS1 Service Aids	GC28-0665-2		
OS/VS1 Service Aids Logic	SY28-0635-3		SYB8-0635-1

	Base Order No.	Applicable TNLs and Supplements	Microfiche Order No.
OS/VS1 Service Aids Reference Summary	GX23-0001-1		
OS/VS System Modification Program (SMP) System Programmer's Guide	GC28-0673-5		
OS/VS System Modification Program (SMP) Logic	SY28-0685-5		SYB8-0685-1
OS/VS1 SYS1.LOGREC Error Recording	GC28-0668-3	GN25-0333 GD25-0607-0 (SU 24) GD25-0603-0 (SU 20)	
OS/VS1 SYS1.LOGREC Error Recording Logic	SY28-0669-3	SD25-0606-0 (SU 24) SD25-0602-0 (SU 20)	SYB8-0669-1
OS/VS, DOS/VSE, VM/370 Environmental Recording Editing and Printing (EREP) Program	GC28-0772-2	GN25-0338	
OS/VS, DOS/VSE, VM/370 Environmental Recording Editing and Printing (EREP) Program Logic (SU 1)	SY28-0773-2	SN25-0340	
OS/VS (VS1 and MVS) EREP Product Support Selectable Unit SCP Specifications	GC28-1001-0		
OS/VS Independent Component: Environmental Recording Editing and Printing (EREP) Program System Information (SU 1)	GC28-0870-0		
OS/VS Message Library: EREP Messages	GC38-1045-1	GN25-0343	
OS/VS Display Exception Monitoring Facility User's Guide	GC34-2003-0	GN28-4562	
DOS/VS and OS/VS TOLTEP for VTAM	GC28-0663-2	GN31-0683	
DOS/VS and OS/VS TOLTEP Logic	SY28-0664-2		SYB8-0664-0
38 Remote Job Entry (RJE, CRJE, RES, etc.)			
OS/MFT, OS/MVT, and OS/VS1 CRJE Concepts and Facilities	GC30-2012-2		
OS/MFT, OS/MVT, and OS/VS1 CRJE Logic	GY30-2011-1	GN28-0599 GN28-0614 GN28-0617	GYC0-2011-0
Operator's Library: OS/VS1 CRJE	GC38-0335-0		
OS/MFT, OS/MVT, and OS/VS1 CRJE System Programmer's Guide	GC30-2016-2		
OS/MFT, OS/MVT, and OS/VS1 CRJE Terminal User's Guide	GC30-2014-2		
OS/VS1 RES Account Facility Logic	SY28-0660-0		SYB8-0660-0
OS/VS1 RES System Programmer's Guide	GC28-6878-4	GN24-5583	
OS/VS1 RES Workstation User's Guide	GC28-6879-3	GN24-5562 GN24-5581	
40 System Operation (messages, codes)			
OS/VS Message Library: VS1 Routing and Descriptor Codes	GC38-1101-3		
OS/VS Message Library: VS1 System Codes	GC38-1003-9		
OS/VS Message Library: VS1 System Messages (integrates VS1 Service Aids and OLTEP Messages, GC23-0005)	GC38-1001-9		
System/370 Operator's Reference Guide	SR20-4460-2		
Operator's Library: OS/VS1 Display Consoles	GC38-0255-4	GN24-5637	
Operator's Library: OS/VS1 Reference	GC38-0110-8	GN24-5641	
85 Data Processing - Introductory Manuals			
IBM Data Processing Glossary	GC20-1699-5		
IBM Marketing Publications KWIC Index	G320-1621-36		
Introduction to Virtual Storage in System/370	GR20-4260-1		
An Introduction to IBM Data Processing Systems	GC20-1684-4		

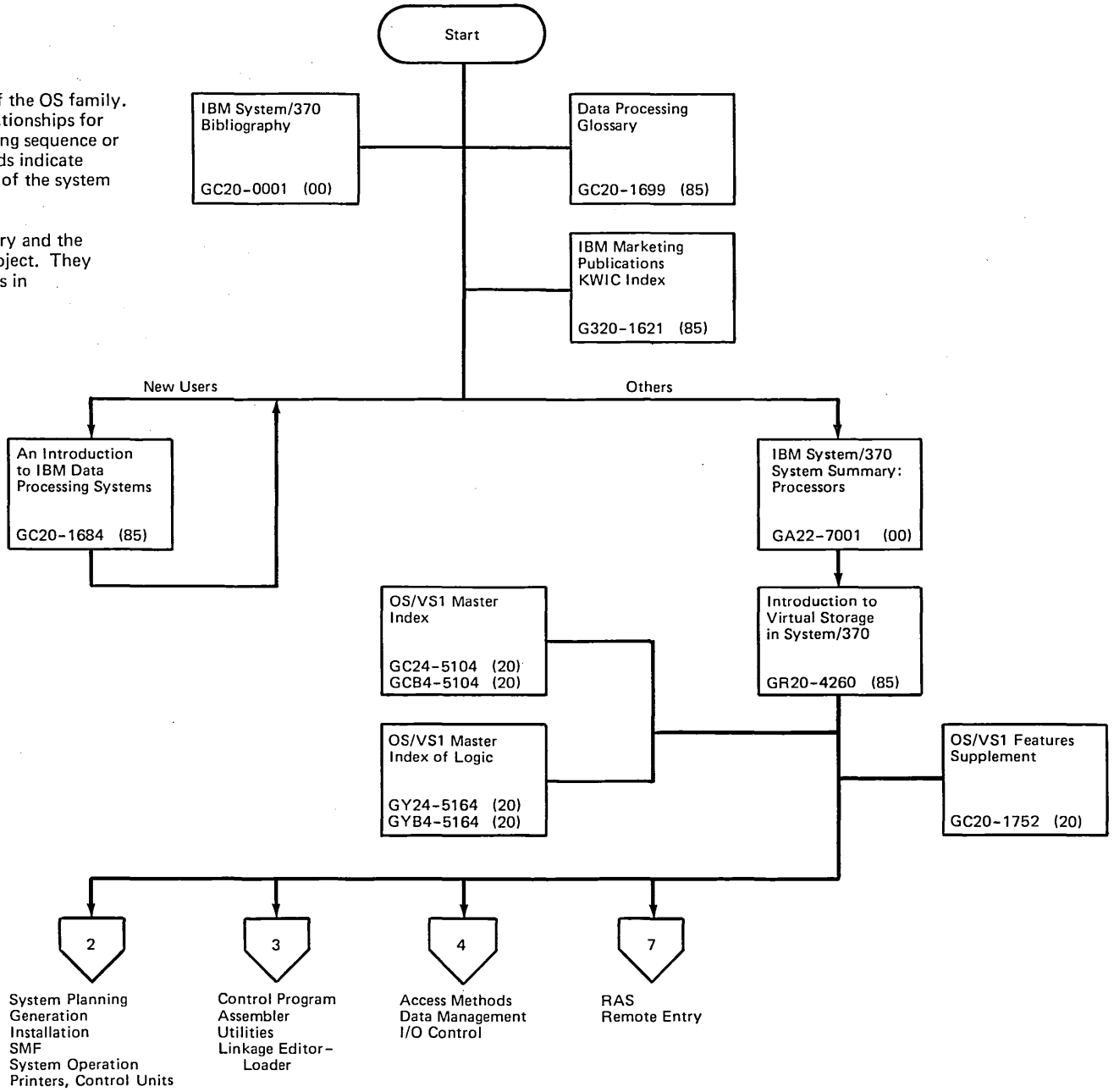
The easiest way to order the latest editions of books is by subscribing to SLSS (System Library Subscription Service) through your branch office. If you order books by the order numbers listed in this Release Guide, you will receive the latest editions of those books. If a later release of OS/VS1 is available when you order books for this release, you should consult the latest *IBM System/370 Bibliography*, GC20-0001, which lists "temporary order numbers" that apply to books for back-level releases.

OS/VS1 Library Charts

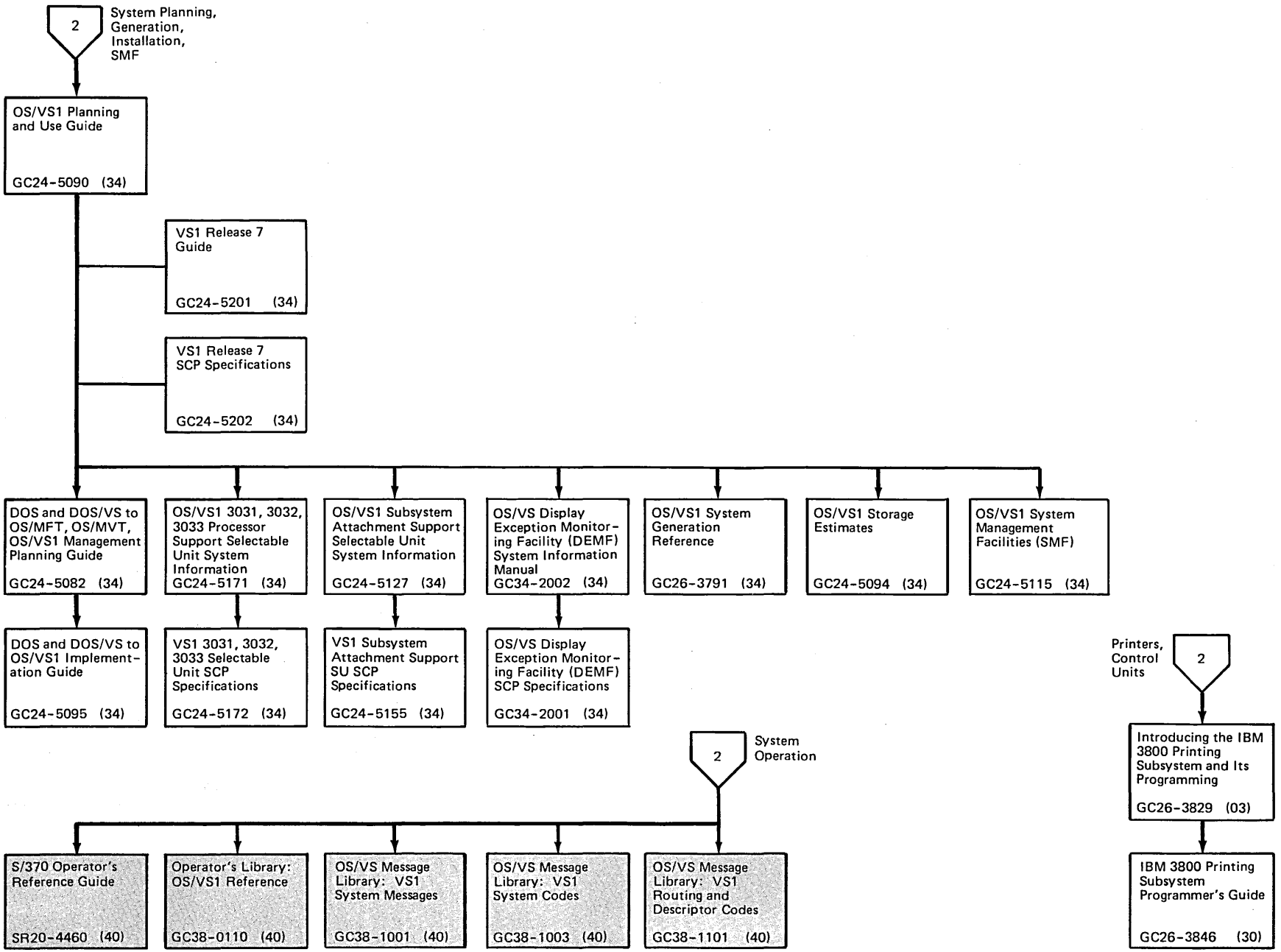
OS/VS1 Library Charts (Part 1 of 8)

This chart addresses VS1 as a member of the OS family. Subsequent charts indicate prerequisite relationships for specific VS1 topics. Arrows suggest a reading sequence or information path. Lines without arrowheads indicate material that does not discuss the concepts of the system but contains valuable reference material.

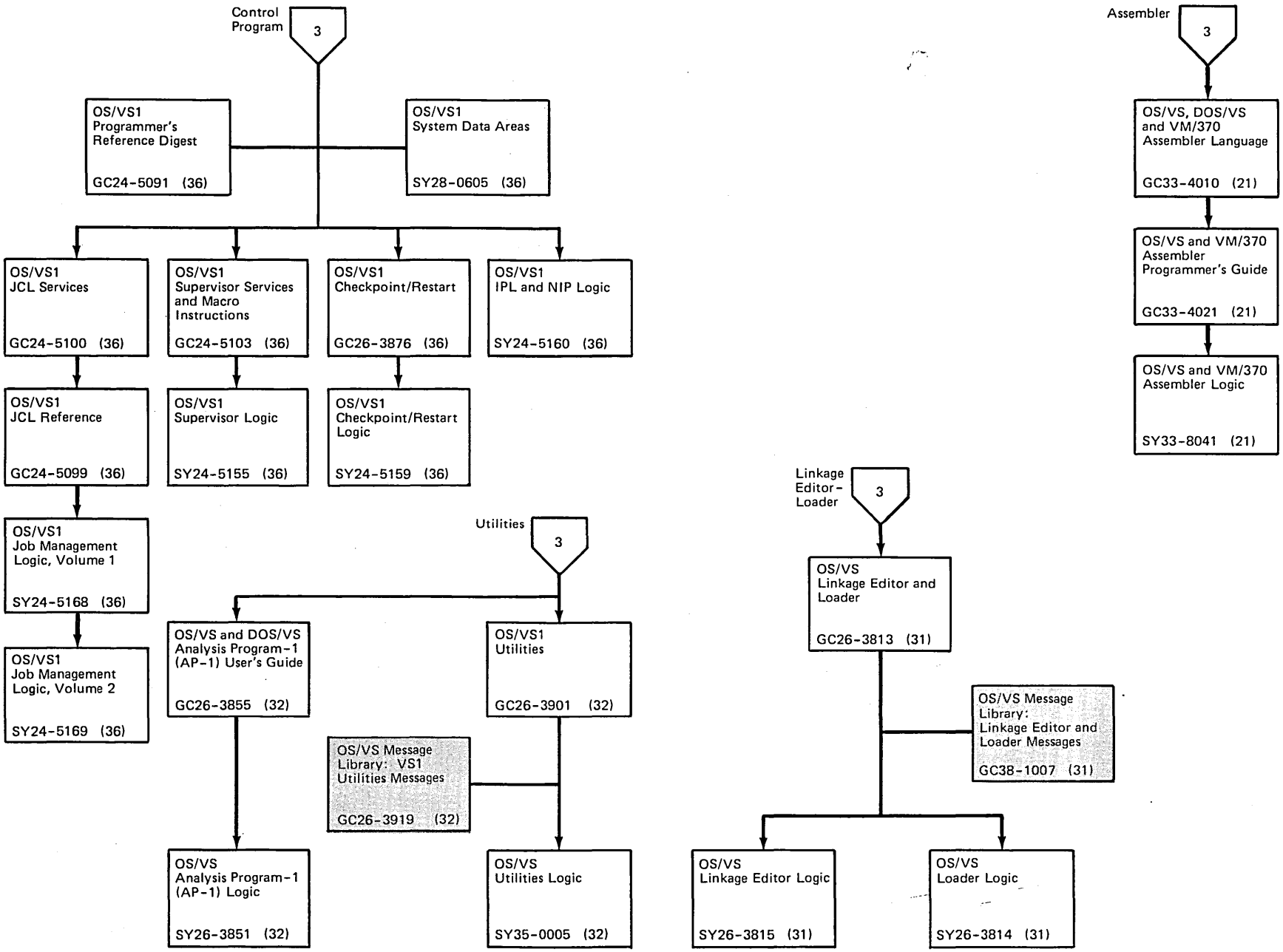
Books belonging to the Operator's Library and the Message Library are placed according to subject. They are shaded for easy identification. Numbers in parentheses are subject codes.



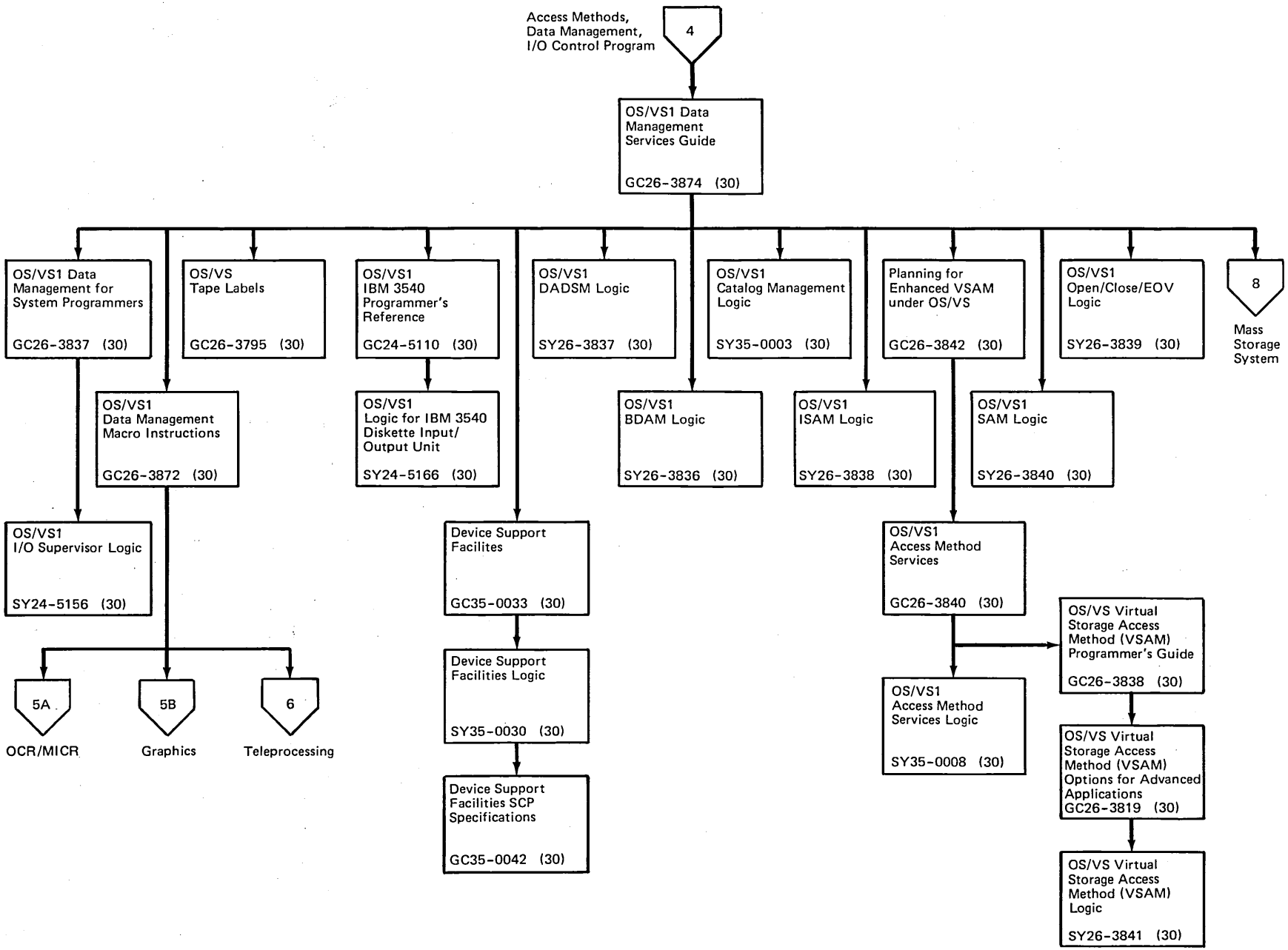
OS/VS1 Library Charts (Part 2 of 8)

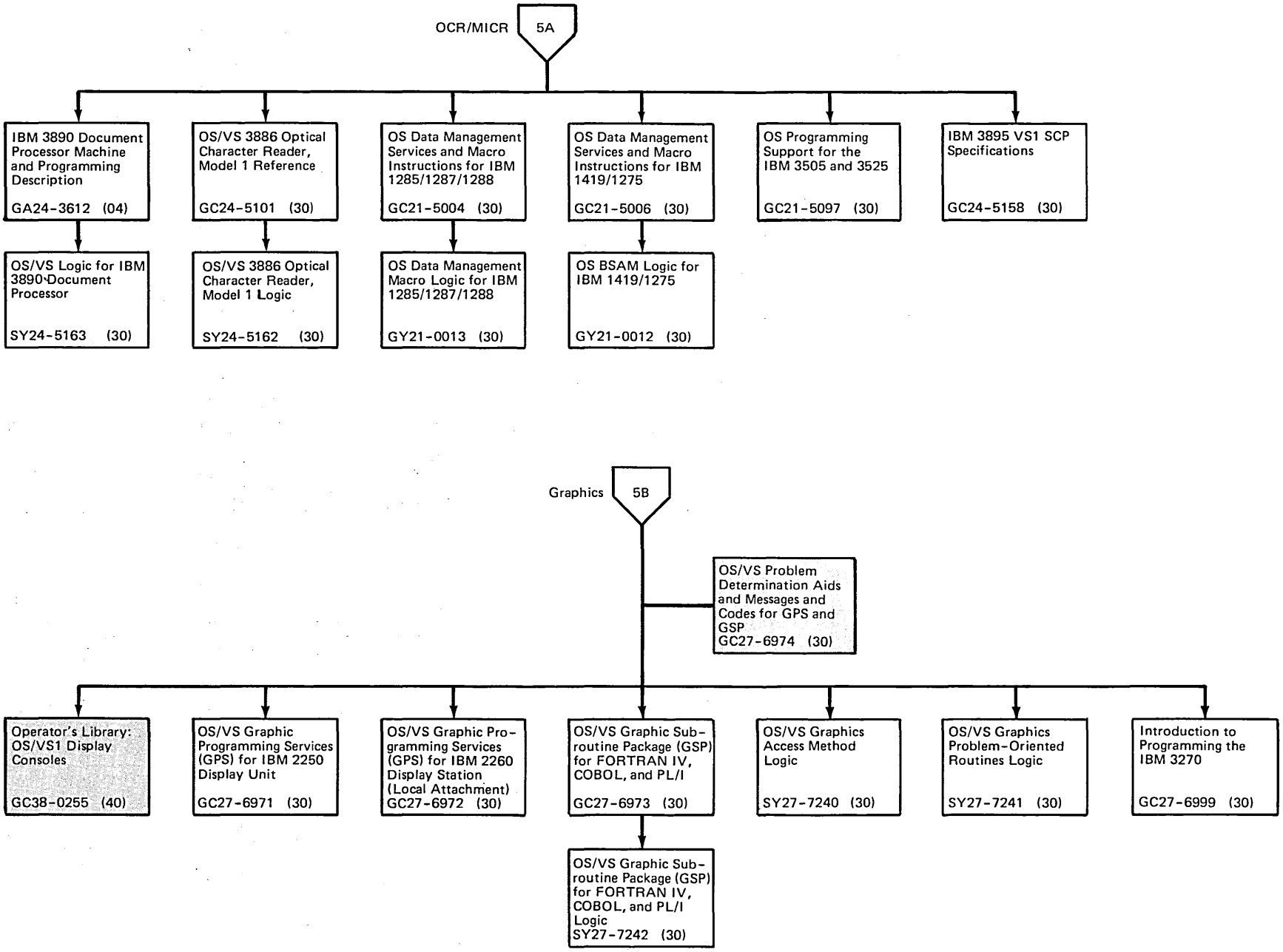


OS/VS1 Library Charts (Part 3 of 8)

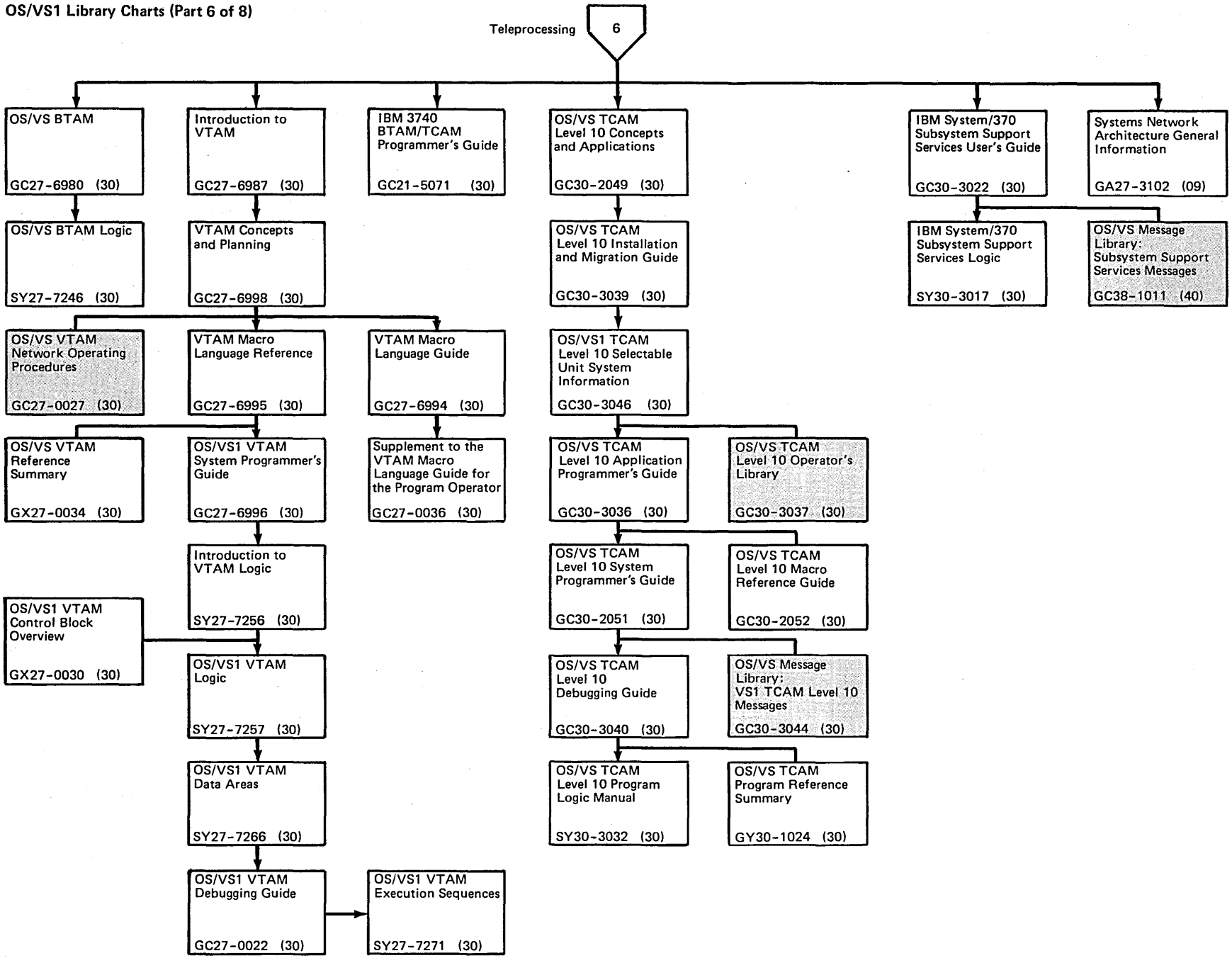


OS/VS1 Library Charts (Part 4 of 8)

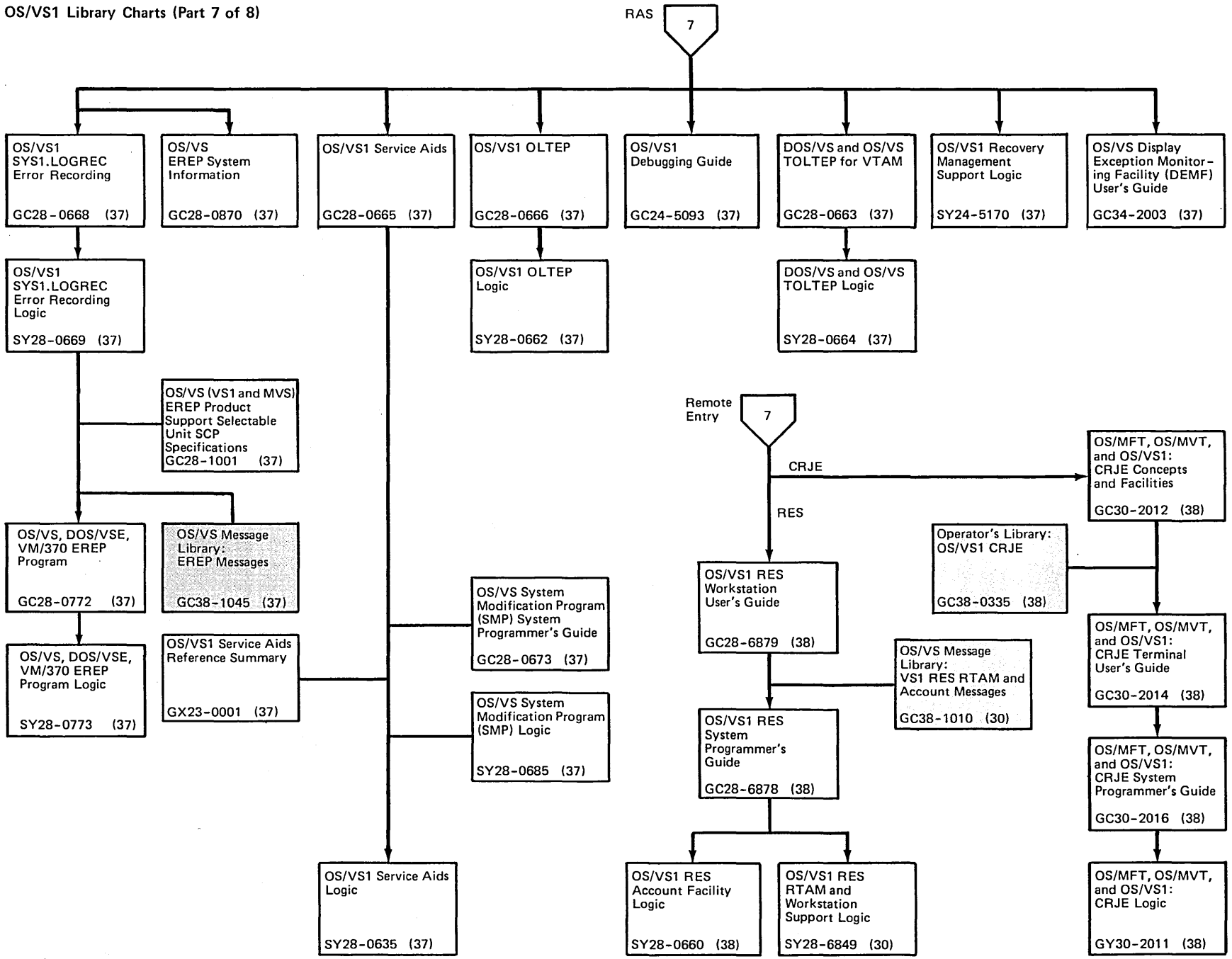



OCR/MICR
5A
IBM 3890 Document Processor Machine and Programming Description
GA24-3612 (04)
OS/VS 3886 Optical Character Reader, Model 1 Reference
GC24-5101 (30)
OS Data Management Services and Macro Instructions for IBM 1285/1287/1288
GC21-5004 (30)
OS Data Management Services and Macro Instructions for IBM 1419/1275
GC21-5006 (30)
OS Programming Support for the IBM 3505 and 3525
GC21-5097 (30)
IBM 3895 VS1 SCP Specifications
GC24-5158 (30)
OS/VS Logic for IBM 3890 Document Processor
SY24-5163 (30)
OS/VS 3886 Optical Character Reader, Model 1 Logic
SY24-5162 (30)
OS Data Management Macro Logic for IBM 1285/1287/1288
GY21-0013 (30)
OS BSAM Logic for IBM 1419/1275
GY21-0012 (30)
Graphics
5B
OS/VS Problem Determination Aids and Messages and Codes for GPS and GSP
GC27-6974 (30)
Operator's Library: OS/VS1 Display Consoles
GC38-0255 (40)
OS/VS Graphic Programming Services (GPS) for IBM 2250 Display Unit
GC27-6971 (30)
OS/VS Graphic Programming Services (GPS) for IBM 2260 Display Station (Local Attachment)
GC27-6972 (30)
OS/VS Graphic Subroutine Package (GSP) for FORTRAN IV, COBOL, and PL/I
GC27-6973 (30)
OS/VS Graphics Access Method Logic
SY27-7240 (30)
OS/VS Graphics Problem-Oriented Routines Logic
SY27-7241 (30)
Introduction to Programming the IBM 3270
GC27-6999 (30)
OS/VS Graphic Subroutine Package (GSP) for FORTRAN IV, COBOL, and PL/I Logic
SY27-7242 (30)

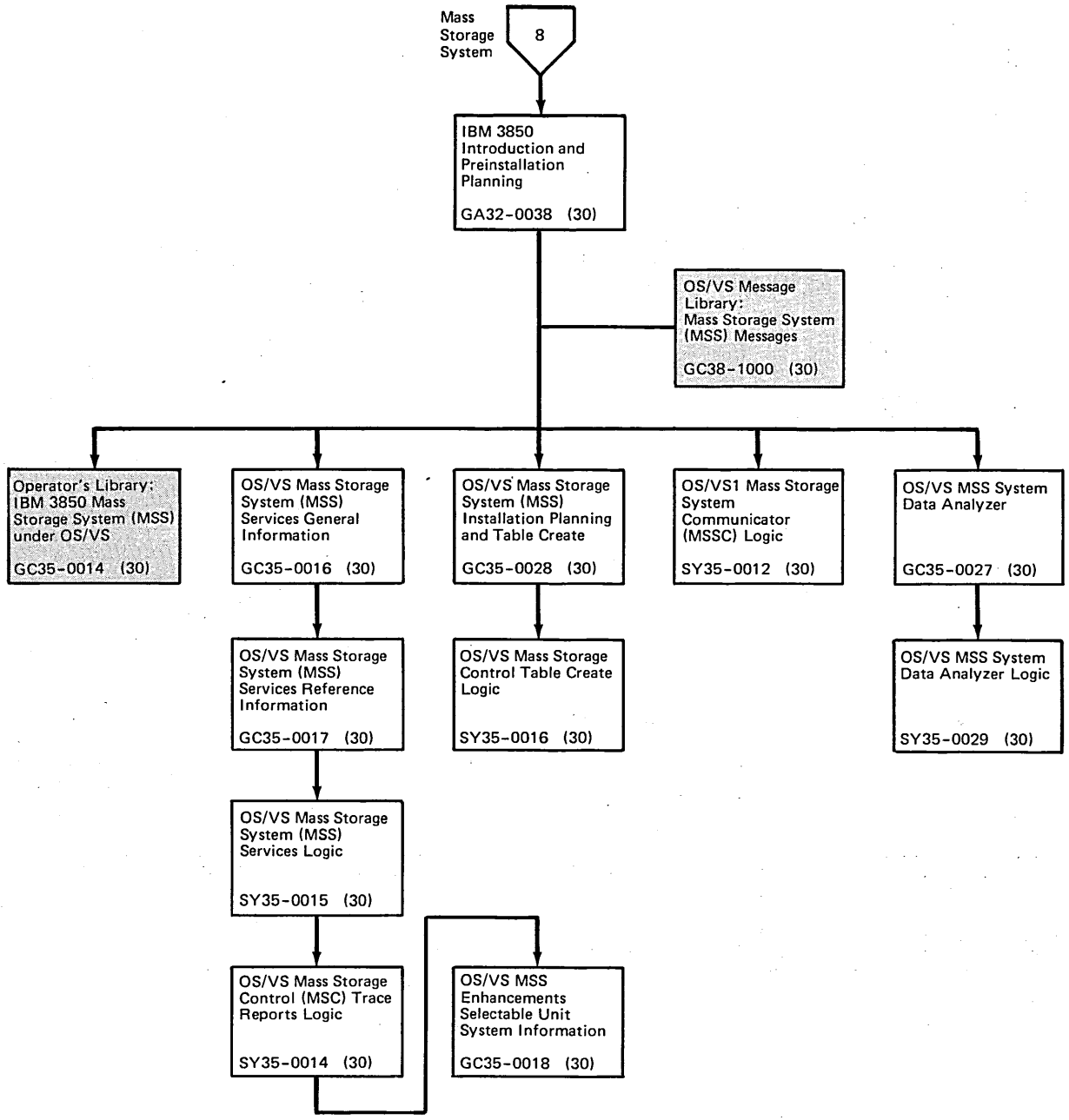
OS/VS1 Library Charts (Part 6 of 8)



OS/VS1 Library Charts (Part 7 of 8)



OS/VS1 Library Charts (Part 8 of 8)



Ordering Procedures

To order this release of VS1, contact your IBM representative or your IBM branch office. It is no longer necessary to fill out a Program Order Form; your IBM representative will place the order for you.

You can't perform the initial system generation of VS1 without the starter system or the distribution libraries (DLIBs).

The basic program material comprises base system-control-program (SCP) subsets and optional SCP subsets.

When ordering the base SCP distribution libraries specify one of these numbers:

Feature Number	Tape
9029	9-track, 1600 bpi
9031	9-track, 6250 bpi

If you want to order the optional SCP subsets, use the following feature numbers:

System Subset Name	1600 bpi Tape	6250 bpi Tape
ACF/VTAM	5301	5302
SSS	5303	5304
VPSS	5305	5306

See "Basic Program Material List" in this chapter for information about the components included in the basic program material.

When ordering the optional program material for 1600 or 6250 bpi, use these feature numbers:

Feature Number	Group
1600 bpi:	
7850	VPSS
7851	MSS
7852	Data Management
7853	SMP, Assembler, Utilities
7854	Telecommunications, Graphics
7855	VTAM
7856	Base Control Program
7857	Service Aids, EREP
7858	Support Programs
7859	ACF/VTAM
7860	SSS
6250 bpi:	
7870	Base Control Program, Service Aids, EREP
7871	Support Programs, Utilities
7872	MSS
7873	Data and Program Management
7874	VTAM
7875	ACF/VTAM
7876	TCAM, SSS

See "Optional Program Material List" in this chapter for information about the subsets and components included in the optional program material.

Distribution on 800 bpi density tapes has been discontinued.

OS/VS1 Releases 1, 2, 2.6, 3, 3.1, 4, and 5 are no longer current. An OS/VS1 Release 6 or 6.7 system, or an OS/VS1 starter system is recommended for system generation. The starter system is updated for Release 7.

The starter system provided for the initial system generation consists of:

- A control program that supports the CPU and I/O devices needed to perform the system generation
- An assembler and a linkage editor
- The utilities used for data set and volume initialization and for Stage II processing.

Order the starter system by feature number as indicated:

For a 2314/2319 Starter System, order:

Feature Number	Tape
6001	9-track, 1600 bpi
6002	9-track, 6250 bpi

For a 3330 Series Starter System, order:

Feature Number	Tape
6003	9-track, 1600 bpi
6004	9-track, 6250 bpi

For a 3340 Series Starter System, order:

Feature Number	Tape
6005	9-track, 1600 bpi
6006	9-track, 6250 bpi

For a 3350 Series Starter System, order:

Feature Number	Tape
6007	9-track, 1600 bpi
6008	9-track, 6250 bpi

You must use feature number 6999 when you order no starter system.

Two features are available in card decks. They are the IBM 1130 and the IBM System/3 workstation programs. If you have a prior release of these features, it is not necessary to reorder them for Release 7. Otherwise, use these feature numbers:

Feature Number	Deck Description
6015	1130 System Workstation Bootstrap Deck (8 - 80 column cards)
6016	System/3 Workstation Starter Deck (137 - 96 column cards)

System/360 and System/370 workstation support is part of the release. (The 2770 and the 2780 are not programmable terminals.)

If you want additional features, such as the starter system, after your order has been received, you may order them through your IBM representative or the local IBM branch office.

System Control Programs (SCPs) that are not shipped in the distribution libraries are available to VS1 users at no additional cost. You order them separately. These include emulator programs, Form Description macros, utility support for the 3735 Programmable Buffered Terminal, and the Distributed Intelligence System. To order these or for additional information, contact your IBM representative or the local IBM branch office.

Distribution Procedures

Distribution libraries for this release of VS1 are distributed in SMP Release 4 format on magnetic tape only. You can load the distribution libraries onto two 2314/2319s; two 3340s (35 meg); or one 3330, 3340 (70 meg), or 3350 direct access device using SMP Release 4.

IBM ships SMP Release 4, a DLIBLOAD procedure, and an SMP Release 4 procedure on a separate magnetic tape. This magnetic tape is necessary to build the distribution libraries.

You should load the DLIBLOAD procedure regardless of what release of VS1 you are currently using. You must add SMP Release 4 and associated procedures to your system prior to processing the distribution libraries if:

- You use an existing VS1 Release 6 or older operating system as the generating system
- You use a Release 6.7 or older starter system as the generating system.

The VS1 starter system is distributed in the dump/restore format, and is at the Release 7 level.

For additional information about installation procedures, see *OS/VS1 System Generation Reference,* GC26-3791.

Basic Program Material List

The OS/VS1 system subsets with their identifications (IDs) are listed below. This list also includes the components of VS1 and their component IDs. These components are grouped within their associated system subsets.

The system subsets are grouped as base system-control-program subsets or as optional system-control-program subsets. Although logic manuals are optional, their order numbers are listed here for your convenience.

Base System Control Program Subsets

System Subset ID	System Subset Name	Component ID	Component Name	Logic Manual
EAS1201	System Assembler	5741-SC103	Assembler XF	SY33-8041
EBA1201	Base Control Program	5741-SC1BB	RES	SY28-6849
		5741-SC1BD	Restart RDR/DSR Processing	SY24-5168
		5741-SC1BE	System Log	SY24-5168
		5741-SC1BF	WTP	SY24-5168
		5741-SC1BG	MSI	SY24-5168
		5741-SC1BJ	Job List Mgr	SY24-5168
		5741-SC1BK	ISSP	SY24-5168
		5741-SC1BL	SSI	SY24-5168
		5741-SC1B0	JECS	SY24-5168
		5741-SC1B1	Input Stream Control	SY24-5168
		5741-SC1B2	Output Stream Control	SY24-5168
		5741-SC1B3	System Restart	SY24-5168
		5741-SC1B4	I/O Device Allocation	SY24-5168
		5741-SC1B5	SWADS Manager	SY24-5168
		5741-SC1B6	Initiator	SY24-5168
		5741-SC1B7	Termination	SY24-5168
		5741-SC1B8	Commands	SY24-5168
		5741-SC1B9	Interpreter	SY24-5168
		5741-SC1CE	RMS	SY24-5170
		5741-SC1CN	Common Supvsr Macros	None
		5741-SC1CP	Extended Precision Floating Point Simulator	SY24-5155
		5741-SC1C1	IPL	SY24-5160
		5741-SC1C3	IOS	SY24-5156
		5741-SC1C4	DIDOCS	SY24-5168
		5741-SC1C5	Supervisor	SY24-5155 & SY24-5168
		5741-SC1C8	NIP	SY24-5160
		5741-SC1S1	SYSGEN	None
		5741-SC1S4	Supervisor SYSGEN	None
		5741-SC1S5	Scheduler SYSGEN	None
		5741-SC1S7	IOS Common Macros	None
		5741-SC100	Scheduler SMF	SY24-5168
		5741-SC102	SMF	SY24-5168 & SY24-5155 SY26-3837 SY26-3839
		5741-SC108	IVP	None
		5741-SC117	IMCJOBQD	SY28-0635
		5741-SC119	IMCOSJQD	SY28-0635
EBT1201	BTAM	5741-SC120	BTAM	SY27-7246
EDE1201	DEMF	5741-CM100	DEMF	SY28-0669
EDM1201	Data Management	5741-SC1CS	Condition Assemblies	None

System Subset ID	System Subset Name	Component ID	Component Name	Logic Manual
		5741-SC1DB	JES Compatibility Interface	SY24-5168
		5741-SC1DC	Password Protect	SY26-3837
		5741-SC1DE	VSAM	SY26-3841
		5741-SC1DK	Access Method Services	SY35-0008
		5741-SC1D0	SAM	SY26-3840
		5741-SC1D1	Open/Close/EOV	SY26-3839
		5741-SC1D2	PAM	SY26-3840
		5741-SC1D3	OS Catalog	SY35-0003
		5741-SC1D4	DADSM	SY26-3837
		5741-SC1D7	DAM	SY26-3836
		5741-SC1D8	ISAM	SY26-3838
		5741-SC1D9	JAM	SY24-5168
		5741-SC109	Checkpoint/Restart	SY24-5159
EDS1201	Data Management Support	5741-SC1CA	DASD ERP	SY24-5156
		5741-SC1CB	Unit Record ERP	SY24-5156
		5741-SC1CC	Tape ERP/VES	SY24-5156
		5741-SC1IO	IBCDMPRS	SY35-0005
		5741-SC1I1	IBCDASDI	SY35-0005
		5741-SC1UN	Device Support Facility	SY35-0030
		5741-SC1UF	IEHATLAS	SY35-0005
		5741-SC1U0	IEHDASDR	SY35-0005
		5741-SC131	AP-1	SY26-3851
EER1200	EREP	5744-EREP1	EREP	SY28-0773
EGA1201	GAM/GPS	5741-SC1G0	GAM	SY27-7240
EGS1201	GSP	5741-SC107	GSP	SY27-7242
EMO1201	MICR/OCR	5741-SC1DF	3890 Document Processor	SY24-5163
		5741-SC1DL	3886 OCR	SY24-5162
		5741-SC1DM	3895 ERP	None
		5741-SC1DN	3540 Diskette	SY24-5166
		5741-SC1D5	OCR	GY21-0013
		5741-SC1UG	IEBTCRIN	SY35-0005
EMS1201	Mass Storage Subsystem	5741-SC1BZ	MSS Recovery Management	SY35-0015
		5741-SC1CI	MSC ERP	SY28-0069 & SY24-5156
		5741-SC1DP	MSSC	SY35-0012
		5741-SC1DQ	MSCTC	SY35-0016
		5741-SC1DR	MSVC	SY35-0012
		5741-SC1DS	MSSDA	SY28-0669
		5741-SC1DT	MSC Trace	SY35-0014
		5741-SC1DU	MSS Services	SY35-0015
EPM1201	Program Management	5741-SC1C2	Overlay Supervisor	SY24-5155
		5741-SC1C7	FETCH	SY24-5155
		5741-SC104	Linkage Editor	SY26-3815
		5741-SC105	Loader	SY26-3814
		5741-SC114	HMBLIST	SY28-0635
ERJ1201	CRJE	5741-SC10A	CRJE	GY30-2011
ESA1201	Service Aids	5741-SCOBR	OBR Recorder	SY28-0669
		5741-SC1BC	RES Account Facility	SY28-0660
		5741-SC1S6	Service Aids SYSGEN	None
		5741-SC106	OLTEP	SY28-0662
		5741-SC111	GTF	SY28-0635
		5741-SC112	HMASPZAP	SY28-0635
		5741-SC113	HMDPRDMP	SY28-0635
		5741-SC115	HMDSADMP	SY28-0635
		5741-SC118	HMDPRDMP (Edit)	SY28-0635
EST1201	System Support	5741-SC1D6	MICR	GY21-0012
ESU1201	SU Bit String Support	5741-SC1SU	SU Bit String Macros	None
ESX1201	VS1 Support	5741-SC1DD	3505/3525 RDR/PUN	SY26-3840 & SY28-0605

System Subset ID	System Subset Name	Component ID	Component Name	Logic Manual
		5741-SC10E	PWF	SY28-0687
		5741-SC116	HMAPTFLE	SY28-0635
ESY1100	SMP Release 4	5744-SC130	SMP	SY28-0685
ETC0207	TCAM 10	5741-SC121	TCAM	SY30-2069
EUT1201	Utilities	5741-SC1I2	ICAPRTBL	SY35-0005
		5741-SC1UA	IEBPTPCH	SY35-0005
		5741-SC1UC	IEHMOVE	SY35-0005
		5741-SC1UD	IEHINITT	SY35-0005
		5741-SC1UE	IEHSTATR	SY35-0005
		5741-SC1UH	IEBISAM	SY35-0005
		5741-SC1UJ	IEBDG	SY35-0005
		5741-SC1UK	IEBCOMPR	SY35-0005
		5741-SC1UM	IEBIMAGE	SY35-0005
		5741-SC1UX	SGIEH402	None
		5741-SC1U1	IEHIOSUP	SY35-0005
		5741-SC1U2	IEHLIST	SY35-0005
		5741-SC1U3	IEHPROGM	SY35-0005
		5741-SC1U6	IEBCOPY	SY35-0005
		5741-SC1U7	IEBGENER	SY35-0005
		5741-SC1U8	IEBUPDTE	SY35-0005
		5741-SC1U9	IEBEDIT	SY35-0005
EVT0207	VTAM	5741-SC123	VTAM	SY27-7257
		5741-SC10C	TOLTEP	SY28-0664

Optional System Control Program Subsets

System Subset ID	System Subset Name	Component ID	Component Name	Logic Manual
ESS1201	SSS	5741-SC1SS	SSS	SY30-3017
EVP1201	VPSS	5741-SC1DV	VPSS	SY24-5174
EVT1901	ACF/VTAM	5741-SC123	VTAM	None

Optional Program Material List

The optional program material is distributed with a condensed symbolic library that contains component source code. The optional materials consist of:

- A nine-track distribution tape (1600 or 6250 bpi).
- The program logic manuals (manual numbers associated with each component are listed earlier in this chapter under "Basic Program Material List").
- Microfiche of the program assembly listings.

The microfiche for this release are high-density (360 frames per card) and compacted by system subset (each module starts immediately following the last frame of the previous module).

An index is not provided for each component. Instead, a *Module Index* (SJD2-2195), is available. The *Module Index* is in alphabetical order by module name; you will need it to use the microfiche.

Order the tapes by feature number. Order the other items individually by order number through your IBM representative.

The system subsets, their identifications (ID), and their microfiche order numbers are listed for each feature number by tape density. All macros, including private macros, required for your assemblies are included on the individual tapes. Macros that cross system subsets are in SYS1.AMODGEN. The components contained within the system subsets are listed earlier in this chapter under "Basic Program Material List."

1600 BPI

Feature Number	System Subset ID	System Subset Name	Microfiche Order Number
7850	EVP1201	VPSS	SJD2-2220-00
7851	EMS1201	MSS	SJD2-2208-00
7852	EDM1201	Data Management	SJD2-2200-00
7853	ESY1100	SMP	SJD2-2216-00
	EDS1201	Data Management Support	SJD2-2202-00
	EPM1201	Program Management	SJD2-2210-00
	EST1201	System Support	SJD2-2214-00
	EUT1201	Utilities	SJD2-2218-00
	EAS1201	Assembler	SJD2-2184-00
7854	ETC0207	TCAM	SJD2-2217-00
	EBT1201	BTAM	SJD2-2197-00
	EGA1201	GAM/GPS	SJD2-2205-00
	EGS1201	GSP	SJD2-2206-00
7855	EVT0207	VTAM	SJD2-2221-00
7856	EBA1201	Base Control Program	SJD2-2194-00
7857	ESA1201	Service Aids	SJD2-2212-00
	EER1200	EREP	SJD2-2204-00
7858	ERJ1201	CRJE	SJD2-2211-00
	EMO1201	MICR/OCR	SJD2-2207-00
	ESX1201	VS1 Support	SJD2-2215-00
	EDE1201	DEMF	SJD2-2199-00
7859	EVT1901	ACF/VTAM	SJD2-2222-00
7860	ESS1201	SSS	SJD2-2213-00

6250 BPI

Feature Number	System Subset ID	System Subset Name	Microfiche Order Number
7870	EBA1201	Base Control Program	SJD2-2194-00
	ESA1201	Service Aids	SJD2-2212-00
	EER1200	EREP	SJD2-2204-00
7871	ERJ1201	CRJE	SJD2-2211-00
	EMO1201	MICR/OCR	SJD2-2207-00
	ESX1201	VS1 Support	SJD2-2215-00
	EDE1201	DEMF	SJD2-2199-00
	EVP1201	VPSS	SJD2-2220-00
	ESY1100	SMP	SJD2-2216-00
	EBT1201	BTAM	SJD2-2197-00
	EGA1201	GAM/GPS	SJD2-2205-00
	EGS1201	GSP	SJD2-2206-00
	EAS1201	Assembler	SJD2-2184-00
	EUT1201	Utilities	SJD2-2218-00
	EST1201	System Support	SJD2-2214-00
7872	EMS1201	MSS	SJD2-2208-00
7873	EDM1201	Data Management	SJD2-2200-00
	EDS1201	Data Management Support	SJD2-2202-00
	EPM1201	Program Management	SJD2-2210-00
7874	EVT0207	VTAM	SJD2-2221-00
7875	EVT1901	ACF/VTAM	SJD2-2222-01
7876	ETC0207	TCAM	SJD2-2217-01
	ESS1201	SSS	SJD2-2213-00

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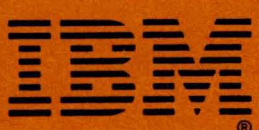

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