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Systems

OS/VS2 Release Guide

VS2 Release 1.6

IBM

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This edition applies to release 1.6 of OS/VS2. Periodically, changes are made to the information herein: before using this publication in connection with the operation of IBM systems, consult the IBM System/360 and System/370 Bibliography, GA22-6822, and the IBM System/370 Advanced Function Bibliography, GC20-1763, for the editions that are current and applicable.

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This publication describes the ordering and distribution procedures, special considerations, and maintenance activity of OS/VS2 release 1.6.

This publication provides information for installation managers, system programmers, and IBM Field Engineering personnel for planning OS/VS2 release 1.6.

The three parts of this publication are:

1. A functional summary of features available in this release, including special considerations for generating and running it.
2. A summary of maintenance activity to the operating system that includes a list of APARs fixed and PTFs resolved.
3. Ordering and distribution procedures for this release, including hardware and engineering change levels and documentation support.

Memorandum to: Users of OS/VS2

Subject: Release 1.6

This memorandum announces the availability of OS/VS2 Release 1.6.

This updated release contains over 1000 fixed APARs, 36 permanently resolved PTFs, and four integrated Component Releases. APAR fixes solve problems in function, reliability, and performance discovered in OS/360 and OS/VS1 as well as OS/VS2.

The following Component Releases are integrated into the system at Release 1.6:

<u>Name</u>	<u>Feature No.</u>	<u>Reference</u>
BTAM 3270 Dial Support	5013/5014	P73-32
Dynamic Support System (DSS)	N/A	P73-31
TCAM 4	5001/5002	P73-32
TSO Enhancements	5011/5012	P73-26

Details about ordering procedures, basic and optional material lists, and the Starter Operating System are available in the OS/VS2 Release Guide for Release 1.6, GC28-0601-1. Information about Release 1.6 items and maintenance activity is also available in the Release Guide.

Current Systems Programs and sort and language processors required for OS/VS that are a part of OS/MFT and OS/MVT should be extracted from OS/360 Release 21.6 or 21.7, when it becomes available. Some components from earlier releases will not function correctly on OS/VS. Appropriate PTFs should be applied.

OS/VS2 Release 1.0 will be current through the availability of Release 3.0 or the Release 3.0 update, if any, plus 6 months. At that time central and FE programming services for Release 1.0 will be withdrawn.

Customers who plan to install Release 1.6 should meet with their IBM representatives to review known restrictions, PTFs and EC requirements.

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**Summary of Amendments
for GC28-0601-1
OS/VS2 Release 1.6**

The format of this publication is different from the format of the OS/VS2 Release Guide for release 1.0. Please note the following differences, including the availability on other media of information that had previously been contained in the release guide:

APAR Text Description and Program Symptom Index

The APAR text description and the Program Symptom Index (PSI) have been removed. This information exists in the Early Warning System (EWS) microfiche service, which is maintained by Field Engineering (FE) Division and is updated weekly. Customers may subscribe to EWS under the System Library Subscription Service (SLSS). Contact your IBM representative or the IBM Branch Office serving your locality for ordering procedures.

Module Status and Module Directory

The module status and module directory reports have been removed. Since this information is essentially an index to the program listings on microfiche, it is now available with those listings under group number SJD2-0001. Contact your IBM representative or the IBM Branch Office serving your locality for ordering procedures.

Module Index

A module index has been created that provides a cross-reference between module and component, i.e., it shows in what component each module is located. This microfiche index is orderable with the module status and module directory under the same group number, SJD2-0001.

Ordering and Distribution

The ordering and distribution procedures use a common set of basic and optional material lists containing the same information as previously, but eliminating duplicate information.

Chapter 1: Functional Summary

The following information is contained in this chapter:

- Release 1.6 Items**
- Release 1.6 Based Items**
- Release 1.6 Special System Generation Considerations**
- Release 1.6 Programming and Documentation Notes**

Release 1.6 Items

The following Component Releases have been incorporated into the system at release 1.6:

TSO Enhancements
TCAM 4
DSS
VS2 BTAM 3270 Dial Support

Below is a detailed description of each component release:

TSO Enhancements

The following is a list of enhancements to TSO:

ACCOUNT

- New operand added to ADD subcommand:
USERDATA (digits)—modifies an installation-defined data field in the User Attribute Data Set.
- New operand added to CHANGE subcommand:
USERDATA (digits)—modifies an installation-defined data field in the User Attribute Data Set.

ALLOCATE

- New operands added:
DUMMY—allocates dummy data sets.
TRACKS—allocates space by tracks.
CYLINDERS—allocates space by cylinders.
RELEASE—deletes unused space when the data set is closed.
- Additional change:
When the specified filename is in use, the user is prompted to either free and reallocate the file or to terminate the command.

Dynamic Allocation

- XCTL instructions have been replaced with branch instructions and VCONs.

EDIT

- New subcommand added:
SEND—allows the terminal user to communicate with other terminal users or with the system operator while remaining in EDIT mode.
- New operand added to RUN subcommand.
LIB—allows the user to run programs that require subroutines from private libraries.

OPERATOR

- New operand added to SEND subcommand:
SAVE—saves a message in the SYS1.BROADCAST data set.
- Additional changes:
The characters OPER are appended to messages from an operator console or terminal.
A notice may be sent from the SYS1.BROADCAST data set to a terminal user.

Parse

- A plus sign (+) is added to the "REENTER" message whenever HELP messages are available. This indicates to the user that he may obtain additional information by entering a question mark.
- Parse will prompt for a replacement of an invalid subfield by providing the user-entered keyword followed immediately by a left parenthesis. Only the subfield need be entered in response to the prompt.
- Parse can provide the user operating in no-prompt mode with all diagnostic messages for an invalid input line.

SEND

- New operands added:
 - WAIT—allows the user to wait for each specified logged-on user to receive his message.
 - NOWAIT—message will not be sent to specified logged-on users whose terminals are busy. The sender will be notified that the message was not sent or it will become mail in the SYS1.BROADCAST data set.
 - USER(*)—allows a message to be sent to the issuer of the SEND command.

PROFILE

- New operand added:
 - LIST—allows the characteristics of a user's profile to be listed at the terminal.

RUN

- New operand added:
 - LIB—allows the user to run programs that require subroutines from private libraries.

Publications Support -- The following publications support TSO Enhancements:

Technical Newsletter No. GN28-2537 to OS/VS2 TSO Command Language Reference, Order no. GC28-0646.

OS/VS2 TSO Enhancements Logic, Order No. SY28-0659.

TCAM 4

The following is a list of enhancements to the OS/VS2 release 1.0 TCAM program:

- Programming support for the 3270 Information Display System – TCAM now supports the local and remote 3270 Display System devices.
- Programming support for the 3670 Brokerage Communication System – Special functions supported include (1) the 3670 has the capability to accept broadcast data, and (2) the recording of 3670 error counters on SYS1.LOGREG and the capability to print the counters using EREP.
- Programming support for General Poll Capability of 2260 and 3270 Devices – General poll economizes line time and interrupt handling because invitation of every device connected to a control unit is accomplished by transmission of only one set of special polling characters.
- Programming support for the 2715 Transmission Control Unit – TCAM now supports the 2715 Transmission Control Unit by allowing variable length messages with no special length or end character specified.
- TSO/TCAM 3270 support – TSO/TCAM now provides modified typewriter mode support for the 3270 Information Display System.

- **BSC1, BSC2, and BSC3 support** – The capability exists to allow binary synchronous devices to be specified in the TCAM TERMINAL macro as BSC1, BSC2, or BSC3.
- **TCAM-to-TCAM communications** – TCAM now supports OS/VS1 TCAM-to-TCAM communications on switched and leased contention networks.
- **Expanded mixed environment support** – TCAM now provides combined use support of non-dedicated terminal ports, which may be used for either TCAM or TSO applications, for both leased and switched lines.
- **New operator control** – TCAM Operator Control now provides for more than serial processing of operator control commands by allowing commands to be processed while other commands are waiting for resources.
- **Read/Write Disk Error Recovery Procedures (ERP) for TCAM message queues** – An error message is written to the system console and the TCAM task is terminated if a permanent disk error occurs when reading or writing a record on a TCAM message queue.
- **New user macro instructions** – A variety of additional functions are performed by new macro instructions:
 - COMMBUF – routes broadcast data to destinations specified in a TLIST.
 - MHGET – available for use within the Message Handler. MHGET moves data from the current buffer into a user-specified work area or returns in a register the address of the data in the buffer.
 - MHPUT – available for use within the Message Handler. MHPUT moves data from a user-specified work area into the current buffer.
 - QRESET – resends output messages that have already been transmitted to an output device.
 - SLOWPOLL – suspends further polling on a line when errors specified by the error mask occur.
 - TYPETABL – builds a branch table for the MSGTYPE macro to use, thereby allowing the use of nested message types in a message.

Publications Support – The following publications support TCAM 4:

OS/VS TCAM Programmer's Guide, GC30-2034

OS/VS TCAM User's Guide, GC30-2025

OS/VS TCAM Level 4 Component Release Guide, GC30-2035

OS/VS TCAM Logic, SY30-2039

OS TCAM Concepts and Facilities, GC30-2022

DSS

Dynamic Support System (DSS) is a non-optional, interactive debugging program that assists Field Engineering Program System Representatives or user-authorized maintenance personnel to identify and temporarily correct causes of programming failures in VS2. DSS allows access to most components of VS2 from the system console. Twenty five commands in the DSS Command Language provide the facility to alter and move data, use alternate I/O routes, and monitor most control program events and services during system execution. When running, DSS has control of the system and can return control to VS2 for further operations without system restart processing. See "Release 1.6 Special System Generation Considerations" section for additional information pertaining to the fact that DSS is not optional.

The DSS user can:

- Display any portion of real storage or virtual storage and any register or system control block during system operation.
- Monitor hardware events recognized by the program event recording feature and certain program events that are detected using the monitoring feature.
- Stop the operation of the system at a given point, perform maintenance procedures, and then continue system operation.
- Save data acquired during DSS operation on sequential devices for later use.

Notes:

1. No permanent changes can be made by DSS. Any modification made to the system will not be carried over to the next IPL. DSS cannot modify itself, IPL, or NIP.
2. Since DSS takes control from the system on each activation, time dependencies cannot be maintained. Thus, DSS should not be used while a time-sensitive program, such as a time-sharing task, is running.
3. Unauthorized use of DSS must be prevented by installation procedures. The main protection offered by DSS is the fact that only the primary system console can be used for DSS operations.
4. The function of the COLLECT command has been changed as follows:

When the length of the second operand is greater than the remaining space (size minus offset) in the collection area, the offset is reset to zero

- before the data is moved, if there is not enough room for another data-field. Thus, a collection area is like a wrap-around buffer.
- after the data is moved, if the remaining space in the collection area is less than one collection-area element, i.e., less than the length of dss-data-field. This avoids accidental displaying or setting of data beyond the end of the collection area.

Publications Support – The following publications support DSS:

OS/VS2 System Generation Reference, GC26-3792

OS/VS2 Planning and Use Guide, GC28-0600

OS/VS2 System Data Areas, SY28-0606

OS/VS2 I/O Supervisor Logic, SY26-3823

OS/VS2 IPL/NIP Logic, SY27-7243

OS/VS2 Supervisor Logic, SY27-7244

OS/VS2 Recovery Management Support Logic, SY27-7252

* OS/VS Dynamic Support System, GC28-0640

OS/VS System Generation Introduction, GC26-3790

OS/VS Dynamic Support System Logic, SY28-0641

IBM System/370 System Summary, GA22-7001

* Contains system level information in an appendix.

VS2 BTAM 3270 Dial Support

VS2 BTAM 3270 Dial Support provides an extension to BTAM for support of the stand-alone remote 3275 Display Station with dial feature operating on a switched point-to-point (BSC2) connection.

BTAM has been modified in these three areas to support the 3275 Dial device: sense/status message recording, request-for-test handling, and two new READ/WRITE optypes to minimize timeout.

Publication Support – The following publications support VS2 BTAM 3270 Dial Support:

VS BTAM, GC27-6980-1

Technical Newsletter No. SN27-1401 to VS BTAM Logic, SY27-7246-0

Items based on Release 1.6 are announced but are not presently available. They will be available within six months of the availability of Release 1.6.

TCAM Extensions

- TCAM support of the 3705 in Network Control Program (NCP) mode.
- TSO/TCAM support of the 3705 in Network Control Program (NCP) mode.
- Speed selection for lines equipped with Dual Speed Modems (TCAM Host support only).
- Switched Network Backup when appropriate facilities are available (TCAM Host Support only).
- Manual Dial Operation is supported.

VSAM

Virtual Storage Access Method (VSAM) is a new access method designed for long-term data stability and as a suitable access method for data base applications.

3803/3420 Magnetic Tape Subsystem (6250 bpi density)

One new model of the 3803 Tape Control plus three new models of the 3420 Tape Unit offer increased capacity and speed to System/370 Model 135 through 195 users.

Release 1.6 Special System Generation Considerations

- Since DSS is not optional, you must allocate additional storage space for NUCLEUS, LINKLIB, and LPALIB. System level information about DSS is available in an appendix in OS/VS Dynamic Support System, GC28-0640.
- A new system data set, SYS1.DSSVM, is created. This data set contains DSS language processing routines, a nucleus map area, a work space area, a nucleus swap area, and DSS change pages. You should use the DATASET macro when generating SYS1.DSSVM because an improper VOLID and UNITTYPE may be generated if you don't.
- Before using TCAM 4 you should check the storage requirements to make sure that enough space can be allocated.
- If you have a 158/168 system and you want to use a starter system on these CPUs, you must order and use the updated Release 1.0 Starter Operating System provided with Release 1.6.
- The PARMTZ member of SYS1.PARMLIB provides a convenient means of overriding the SYSGEN-assigned time zone constant. The member is read at IPL, and its value replaces the SYSGEN value.

The format of the PARMTZ member is:

$\left. \begin{array}{l} \{ E \\ \{ W \} \end{array} \right\}$,HH	[.MM]	[.SS]	where:	E	– the time is east of GMT
					W	– the time is west of GMT
					HH	– hours (value between 00 and 23)
					MM	– minutes (value between 00 and 59)
					SS	– seconds (value between 00 and 59)
$\left. \begin{array}{l} \{ \} \end{array} \right\}$						– choose one
$\left[\right]$						– optional

After an installation has set the SYSGEN time zone constant to indicate local time, the PARMTZ member can be used to set local daylight savings time. In this case the PARMTZ member would be stored in SYS1.PARMLIB at the first day of daylight savings time and scratched at the end of summer.

The member must end before column 69 of the card.

- The distribution libraries have changed from a standard label (SL) format to a non-label (NL) format. To access the IEBCOPY control cards for copying to either a 2314, 2319, or 3330, type the following:

```
START RDR,182,LABEL=(NL),DSNAME=LOAD010,VOL=SER=DLIBT1
```

(If 182 is not the unit address of your tape drive, enter the correct address.)

You should note this change under the section "Copy the Distribution Libraries to a Direct Access Volume," in OS/VS2 System Generation Reference, GC26-3792-1.

- If you plan to use OS/VS2 Release 1.0 to perform a system generation for Release 1.6, the following considerations should be noted:

- (1) A 300k region is needed to perform certain link edit and assembly functions. A reader procedure should be created that will raise the job step default region size to 300k.
- (2) Changes have been made to ASMS, the procedure used for assembly functions, and LINKS, the procedure used for link edit functions.

Please note the underlined changes in the following procedures:

```

MEMBER NAME RDR
//IEFPROC EXEC PGM=IEFIRC,          READER FIRST LOAD      ,02000001
//          REGION=48K,             READER BASIC REGION    ,04000001
// PARM='80103005001024930010SYSDA E0001A' DEFAULT OPTIONS ,06000001
//          BPPTTTOOOMMMIIICCCRLSSSSSSSAAAAEFH PARM FIELD    08000001
//*                                     10000001
//*                                     12000001
//* B PROGRAMMER NAME AND ACCOUNT NUMBER NOT NEEDED          14000001
//* PROGRAM CAN BE ROLLED OUT                                  16000001
//* PP PRIORITY=01                                             18000001
//* TTT JOB STEP INTERVAL=30 MINUTES                           20000001
//* OOO PRIMARY SYSOUT SPACE=50 TRACKS                         22000001
//* MMM SECONDARY SYSOUT SPACE=10 TRACKS                      24000001
//* III READER/INTERPRETER DISPATCHING PRIORITY=249           26000001
//* CCC JOB STEP DEFAULT REGION=300K                          28000001
//* R DISPLAY AND EXECUTE COMMANDS=1                           30000001
//* L BYPASS LABEL OPTION=0                                    32000001
//* SSSSSSS SYSOUT UNIT NAME=SYSDA                             34000001
//* AAAA COMMAND AUTHORITY FOR MCS=E000--ALL COMMANDS         36000001
//* MUST BE AUTHORIZED                                         38000001
//* EF JCL AND ALLOCATION MESSAGE LEVEL DEFAULTS=01            40000001
//* H DEFAULT MESSAGE CLASS                                    42000001
//*                                                            44000001
//*                                                            46000001
//IEFRDR DD UNIT=2400,          9 TRACK TAPE ,48000001
//          LABEL=(,NL),       UNLABELED    ,50000001
//          VOLUME=SER=SYSIN,   VOLUME NAME ,52000001
//          DISP=OLD,           OLD DATA SET,54000001
//          DCB=(BLKSIZE=80,RECFM=F,BUFL=80,BUFNO=1)          56000001
//IEFPDSI DD DSNAMESYS1.PROCLIB, PROCEDURE LIBRARY ,58000001
//          DISP=SHR          60000001
//IEFDDATA DD UNIT=SYSDA,      SPOOL DEVICE ,62000001
//          SPACE=(80,(500,500),RLSE,CONTIG), AMOUNT ,64000001
//          DCB=(BUFNO=2,LRECL=80,BLKSIZE=80,RECFM=F,BUFL=80, 66000001
//          DSORG=PS)        68000001

```

MEMBER NAME ASMS

//ASMS PROC	07000000
//A EXEC PGM=ASMBLR	14000000
//SYSLIB DD DSN=SYS1.AMODGEN,DISP=(SHR,PASS)	21000000
// DD DSN=SYS1.AMACLIB,DISP=(SHR,PASS)	28000000
//SYSUT1 DD DISP=(,DELETE),DSN=&&SYSUT1,SPACE=(1700,(6000,200)),	*35000000
// UNIT=SYSDA	42000000
//SYSUT2 DD DISP=(,DELETE),DSN=&&SYSUT2,SPACE=(7294,(2000,133)),	*49000000
// UNIT=(SYSDA,,,SEP=(SYSUT1))	56000000
//SYSUT3 DD DISP=(,DELETE),DSN=&&SYSUT3,SPACE=(1700,(2000,200)),	*63000000
// UNIT=SYSDA	70000000
//SYSPRINT DD SPACE=(121,(1500,200),RLSE),	X77000000
// DCB=(RECFM=FB,LRECL=121,BLKSIZE=3509),SYSOUT=&CLASS	84000000
//SYSPUNCH DD DISP=OLD,VOLUME=(,RETAIN),DSN=SYS1.&OBJ.(&MOD)	91000000

MEMBER NAME LINKS

//LK EXEC PGM=IEWL,PARM='SIZE=(200K,30K)',	00000010
// REGION=256K	00000020
//SYSUT1 DD DSNAME=&&SYSUT1,DISP=(NEW,DELETE),SPACE=(3625,(400,50)),	00000030
// UNIT=SYSDA	00000040
//SYSPRINT DD SPACE=(121,(4000,3000),RLSE),SYSOUT=&CLASS,	X0000050
// DCB=(RECFM=FB,LRECL=121,BLKSIZE=121),UNIT=(SYSDA,4)	00000060
//SYSPUNCH DD DISP=SHR,VOLUME=(,RETAIN),DSNAME=SYS1.&OBJ	00000070
//SYSLMOD DD DISP=OLD,UNIT=&UNIT,VOL=SER=&SER,	00000080
// DSNAME=&N..&NAME&P1&MOD&P2	00000090

Programming Notes

- You can password protect page data sets by preallocating SYS1.PAGE and then using IEHPROGM to assign the password.

To protect more than one SYS1.PAGE data set, IEHPROGM can be used as follows:

```
ADD    DSNAMESYS1.PAGE,
        PASWORD2=PASS,
        VOL=3330=PAGE00
DELETEP DSNAMESYS1.PAGE,
ADD    DSNAMESYS1.PAGE,
        PASWORD2=PASS,
        VOL=3330=PAGE00
```

See OS/VS Utilities, GC35-0005-1, for further details concerning the proper JCL and for complete control card syntax.

- IOS ABEND codes have been improved by adding more information about the conditions that caused the ABEND.
- IOS channel program workspace definition has been changed for debugging purposes. See OS/VS2 I/O Supervisor Logic, SY26-3823-1, for additional information.
- The operating system may terminate abnormally if you fail to increase the size of the virtual SQA when processing jobs that use a large number of buffers (from 20 to 255). The I/O Supervisor keeps information on the current I/O situation in the virtual SQA. If enough free SQA space cannot be found for a job, the operating system terminates abnormally with a completion code of 101.

Although insufficient SQA space could occur with any job, it is more likely to occur when the I/O Supervisor needs SQA space for a job with a large number of buffers. To avoid terminating abnormally, you should (1) reduce the number of buffers specified in the BUFNO subparameter of the DD statement's DCB parameter, or (2) have the operator increase the size of the SQA by specifying the SQA parameter at system initialization.

- The INITQBF restriction in OS/VS2 Release 1.0 no longer exists in Release 1.6. However, the parameter is not dynamically changeable via the IPL option.
- TSO ALLOCATE messages IKJ56103I and IKJ56112A have been changed so that a first level message, ENTER FREE OR CARRIAGE RETURN +, appears instead of the regular message. The regular message is now a second level message and appears only if you enter a question mark in response to the first level message.

Documentation Notes

The following changes apply to OS/VS OLTEP (VS1 Release 1 and VS2 Release 1), GC28-0636-1:

- The test requirements for several devices have been updated. Please note these changed requirements for devices to be tested.

Device type	Test Requirements
IBM 2701 IBM 2702 IBM 2703	Telecommunications lines must be offline and unallocated in order to be tested by OLTEP. Also, all users of the lines (applications programs and program access methods) must have terminated their use of the lines and have given the lines back to the operating system prior to testing. The IBM 2702 and the IBM 2703 require at least two lines, including line 0, for testing.
IBM 3270	Locally attached 3270 devices can be tested by OLTEP while they are online or allocated only if they have been allocated to BTAM (Basic Telecommunications Access Method). Otherwise, these devices must be offline to the operating system and not allocated to any user.
Remote TP Terminals ¹	The remote terminals must be attached to an IBM 2701, 2702, 2703, 3704, 3705, or 7770 control unit in order to be tested by OLTEP. The TP line from the control unit to the remote terminals must be offline and unallocated in the operating system. Once OLTEP has control of the line, no other user should access it. OLTEP retains control of the line until testing on the remote terminal is complete and another device is selected at ENTER-DEV/TEST/OPT time. A special OLTEP data set of symbolically named data must exist before the remote terminals are tested.

- Modification of the default values for the optional parameters used to define an OLTEP job step has caused the following change:

“DSNAME=DUMMY” should be replaced by “DUMMY” in the INPUT DD, SYMSYM DD, SERLOG DD, ACCIN DD, and SYSABEND DD statements.

¹ Teleprocessing terminals supported by OLTEP include 1030, 1050, 1060, 1130, 2020, 2260, 2265, 2715-II, 2721, 2740, 2741, 2760, 2770, 2780, 2979, and TOUCH-TONE* devices.

*Trademark of Bell System

Chapter 2: Maintenance Activity

The following information is contained in this chapter:

APAR list

Program Temporary Fixes (PTFs) resolved

APAR List

The following is a list of APARs fixed in Release 1.6:

OS4 1592	OS4 1596	OS5 3639	OS5 6208	OS5 7687
OS4 1593	OS4 1597	OS5 4155	OS5 6209	OS5 7691
OS4 1594	OS4 1598	OS5 4262	OS5 6213	OS5 7692
OS4 1595	OS4 1599	OS5 4268	OS5 6217	OS5 7694
OS4 1596	OS4 1601	OS5 4269	OS5 6222	OS5 7695
OS4 1597	OS4 1602	OS5 4271	OS5 6226	OS5 7699
OS4 1598	OS4 1603	OS5 4273	OS5 6230	OS5 8434
OS4 1599	OS4 1604	OS5 4274	OS5 6231	OS5 8435
OS4 1601	OS4 1605	OS5 4276	OS5 6234	OS5 8440
OS4 1602	OS4 1606	OS5 4277	OS5 6303	OS5 8444
OS4 1603	OS4 1607	OS5 4280	OS5 6307	OS5 8446
OS4 1604	OS4 1608	OS5 4283	OS5 6312	OS5 8451
OS4 1605	OS4 1609	OS5 4290	OS5 6318	OS5 8454
OS4 1606	OS4 1610	OS5 4297	OS5 6320	OS5 8456
OS4 1607	OS4 1611	OS5 4299	OS5 6332	OS5 8457
OS4 1608	OS4 1612	OS5 4300	OS5 6606	OS5 8602
OS4 1609	OS4 1613	OS5 4471	OS5 6610	OS5 8670
OS4 1610	OS4 1614	OS5 4921	OS5 6611	OS5 8988
OS4 1611	OS4 1615	OS5 4922	OS5 6614	OS5 8992
OS4 1612	OS4 5117	OS5 4923	OS5 6615	OS5 8993
OS4 1613	OS4 8276	OS5 4926	OS5 6617	OS5 8994
OS4 1614	OS5 0190	OS5 4929	OS5 6624	OS5 8995
OS4 1615	OS5 0192	OS5 4930	OS5 6626	OS5 8997
OS4 5117	OS5 0208	OS5 4931	OS5 6629	OS5 8998
OS4 8276	OS5 1065	OS5 4933	OS5 6630	OS5 9003
OS5 0190	OS5 1078	OS5 4935	OS5 6631	OS5 9004
OS5 0192	OS5 1090	OS5 4942	OS5 6889	OS5 9006
OS5 0208	OS5 1097	OS5 4948	OS5 6891	OS5 9008
OS5 1065	OS5 1783	OS5 4956	OS5 6898	OS5 9011
OS5 1078	OS5 1787	OS5 4959	OS5 6902	OS5 9012
OS5 1090	OS5 1796	OS5 5236	OS5 6906	OS5 9015
OS5 1097	OS5 2502	OS5 5381	OS5 6907	OS5 9016
OS5 1783	OS5 2506	OS5 5382	OS5 6908	OS5 9020
OS5 1787	OS5 2791	OS5 5383	OS5 6912	OS5 9024
OS5 1796	OS5 2946	OS5 5385	OS5 6915	OS5 9025
OS5 2502	OS5 2951	OS5 5387	OS5 6918	OS5 9027
OS5 2506	OS5 2955	OS5 5389	OS5 6920	OS5 9028
OS5 2791	OS5 2958	OS5 5391	OS5 7087	OS5 9038
OS5 2946	OS5 2960	OS5 5392	OS5 7173	OS5 9039
OS5 2951	OS5 2963	OS5 5393	OS5 7322	OS5 9040
OS5 2955	OS5 2969	OS5 5402	OS5 7324	OS5 9162
OS5 2958	OS5 2971	OS5 5404	OS5 7325	OS5 9165
OS5 2960	OS5 2972	OS5 5420	OS5 7332	OS5 9166
OS5 2963	OS5 2984	OS5 5593	OS5 7334	OS5 9169
OS5 2969	OS5 2995	OS5 5923	OS5 7345	OS5 9170
OS5 2971	OS5 3603	OS5 5925	OS5 7355	OS5 9171
OS5 2972	OS5 3605	OS5 5926	OS5 7356	OS5 9174
OS5 2984	OS5 3606	OS5 5927	OS5 7357	OS5 9175
OS5 2995	OS5 3610	OS5 5932	OS5 7360	OS5 9180
OS5 3603	OS5 3611	OS5 5941	OS5 7661	OS5 9181
D60-OP2C	OS5 3617	OS5 5944	OS5 7673	OS5 9184
OS4 1592	OS5 3627	OS5 5948	OS5 7674	OS5 9188
OS4 1593	OS5 3628	OS5 5958	OS5 7681	OS5 9189
OS4 1594	OS5 3632	OS5 6202	OS5 7684	OS5 9194
OS4 1595	OS5 3636	OS5 6206	OS5 7685	OS5 9195

OS59235	OY00027	OY00115	OY00178	OY00238
OS59501	OY00028	OY00116	OY00179	OY00239
OS59503	OY00029	OY00117	OY00180	OY00240
OS59508	OY00030	OY00118	OY00181	OY00241
OS59509	OY00031	OY00119	OY00182	OY00242
OS59523	OY00032	OY00121	OY00184	OY00243
OS59524	OY00033	OY00122	OY00185	OY00244
OS59533	OY00034	OY00123	OY00186	OY00245
OS59538	OY00035	OY00125	OY00187	OY00246
OS59961	OY00036	OY00126	OY00188	OY00247
OS59967	OY00037	OY00127	OY00189	OY00248
OS59970	OY00038	OY00128	OY00190	OY00250
OS59972	OY00039	OY00129	OY00191	OY00251
OS59976	OY00040	OY00130	OY00193	OY00252
OS59987	OY00041	OY00131	OY00194	OY00253
OS60002	OY00042	OY00132	OY00195	OY00254
OS60004	OY00043	OY00133	OY00196	OY00255
OS60005	OY00044	OY00134	OY00197	OY00257
OS60007	OY00045	OY00135	OY00198	OY00258
OS60011	OY00050	OY00136	OY00199	OY00261
OS60012	OY00052	OY00137	OY00200	OY00263
OS60013	OY00054	OY00138	OY00201	OY00264
OS60311	OY00055	OY00139	OY00202	OY00265
OS60316	OY00056	OY00140	OY00203	OY00266
OS60320	OY00057	OY00141	OY00204	OY00267
OS60335	OY00058	OY00142	OY00205	OY00271
OS60341	OY00059	OY00143	OY00206	OY00272
OS60792	OY00060	OY00144	OY00207	OY00273
OS60814	OY00062	OY00145	OY00208	OY00274
OS60820	OY00064	OY00146	OY00209	OY00275
OS61043	OY00065	OY00147	OY00210	OY00276
OS61058	OY00066	OY00149	OY00211	OY00277
OS61077	OY00067	OY00150	OY00213	OY00278
OS61099	OY00068	OY00151	OY00214	OY00279
OS61761	OY00070	OY00152	OY00215	OY00280
OS61771	OY00071	OY00153	OY00216	OY00283
OS61772	OY00072	OY00154	OY00217	OY00284
	OY00073	OY00155	OY00218	OY00285
	OY00074	OY00156	OY00219	OY00286
OY00001	OY00076	OY00157	OY00220	OY00287
OY00002	OY00080	OY00158	OY00221	OY00288
OY00004	OY00100	OY00159	OY00222	OY00289
OY00007	OY00101	OY00160	OY00223	OY00290
OY00009	OY00102	OY00161	OY00224	OY00292
OY00010	OY00103	OY00163	OY00225	OY00293
OY00012	OY00104	OY00166	OY00226	OY00294
OY00013	OY00105	OY00168	OY00227	OY00295
OY00019	OY00106	OY00169	OY00228	OY00296
OY00020	OY00107	OY00170	OY00229	OY00297
OY00021	OY00108	OY00171	OY00230	OY00299
OY00022	OY00109	OY00172	OY00232	OY00300
OY00023	OY00110	OY00174	OY00234	OY00301
OY00024	OY00111	OY00175	OY00235	OY00303
OY00025	OY00113	OY00176	OY00236	OY00307
OY00026	OY00114	OY00177	OY00237	OY00309

OY00310	OY00386	OY00589	OY00662	OY00842
OY00312	OY00387	OY00590	OY00663	OY00843
OY00313	OY00388	OY00592	OY00664	OY00844
OY00314	OY00390	OY00597	OY00665	OY00845
OY00316	OY00391	OY00598	OY00666	OY00846
OY00317	OY00392	OY00599	OY00667	OY00847
OY00318	OY00393	OY00600	OY00668	OY00848
OY00319	OY00397	OY00602	OY00669	OY00849
OY00321	OY00398	OY00603	OY00670	OY00851
OY00322	OY00400	OY00605	OY00673	OY00854
OY00323	OY00401	OY00607	OY00674	OY00855
OY00324	OY00425	OY00608	OY00679	OY00856
OY00325	OY00426	OY00609	OY00682	OY00858
OY00327	OY00427	OY00610	OY00684	OY00860
OY00328	OY00429	OY00612	OY00680	OY00864
OY00329	OY00430	OY00614	OY00681	OY00865
OY00332	OY00431	OY00615	OY00682	OY00866
OY00333	OY00432	OY00618	OY00683	OY00867
OY00334	OY00434	OY00619	OY00684	OY00868
OY00335	OY00445	OY00620	OY00685	OY00869
OY00336	OY00448	OY00621	OY00686	OY00870
OY00338	OY00540	OY00621	OY00687	OY00871
OY00339	OY00542	OY00623	OY00688	OY00873
OY00340	OY00543	OY00624	OY00689	OY00874
OY00341	OY00544	OY00626	OY00690	OY00875
OY00342	OY00546	OY00627	OY00691	OY00877
OY00343	OY00547	OY00628	OY00692	OY00879
OY00344	OY00552	OY00629	OY00693	OY00882
OY00345	OY00555	OY00630	OY00694	OY00884
OY00346	OY00556	OY00631	OY00695	OY00888
OY00348	OY00557	OY00632	OY00696	OY00891
OY00349	OY00558	OY00633	OY00697	OY00892
OY00350	OY00559	OY00636	OY00698	OY00893
OY00351	OY00560	OY00637	OY00699	OY00894
OY00352	OY00565	OY00638	OY00700	OY00895
OY00353	OY00567	OY00639	OY00701	OY00896
OY00354	OY00568	OY00641	OY00702	OY00897
OY00356	OY00569	OY00643	OY00703	OY00898
OY00358	OY00570	OY00644	OY00704	OY00899
OY00359	OY00571	OY00645	OY00705	OY00900
OY00360	OY00572	OY00646	OY00706	OY00901
OY00361	OY00573	OY00648	OY00707	OY00902
OY00362	OY00574	OY00649	OY00708	OY00903
OY00363	OY00575	OY00650	OY00709	OY00904
OY00364	OY00576	OY00651	OY00710	OY00906
OY00365	OY00577	OY00652	OY00711	OY00907
OY00368	OY00578	OY00653	OY00712	OY00908
OY00370	OY00579	OY00654	OY00713	OY00909
OY00372	OY00580	OY00655	OY00714	OY00911
OY00373	OY00583	OY00656	OY00715	OY00912
OY00374	OY00584	OY00657	OY00716	OY00913
OY00375	OY00585	OY00658	OY00717	OY00914
OY00376	OY00586	OY00659	OY00718	OY00915
OY00377	OY00587	OY00660	OY00719	OY00918
OY00379	OY00588	OY00661	OY00720	OY00920
				OY00921

OY00922	OY00995	OY01070	OY01189	OY01253
OY00924	OY00996	JY01071	OY01190	OY01254
OY00925	JY00997	OY01072	JY01191	JY01255
OY00926	OY00998	OY01073	OY01192	OY01256
OY00927	OY00999	OY01074	OY01193	OY01257
OY00928	OY01002	OY01075	OY01194	OY01258
OY00929	OY01003	JY01076	OY01195	OY01259
OYC0930	OY01015	OY01077	OY01196	OY01260
JY00931	OY01016	OY01078	OY01197	OY01264
OY00932	OY01017	OY01079	OY01198	OY01265
OYC0934	JY01018	OY01090	JY01200	OY01268
OY00935	OY01019	OY01091	OY01201	OY01269
OY00936	OY01020	OY01092	OY01202	OY01284
OY00937	OY01021	OY01093	OY01203	OY01289
OY00938	OY01022	OY01094	OY01204	OY01300
OY00939	OY01023	OY01095	OY01205	OY01377
OY00940	OY01024	OY01096	OY01206	JY01378
OYC0941	OY01025	JY01097	OY01207	OY01380
OY00942	JY01026	OY01098	OY01208	OY01381
OY00943	OY01027	OY01100	OY01209	OY01383
OY00944	OY01028	OY01101	OY01210	OY01384
OY00947	OY01029	OY01102	JY01212	OY01385
OYC0949	JY01030	JY01103	OY01213	JY01386
OY00951	OY01031	OY01104	OY01215	OY01388
OY00953	OY01032	OY01105	OY01216	OY01469
OYC0954	OY01033	JY01106	OY01217	OY01470
OY00955	JY01035	OY01107	OY01218	OY01471
OY00956	OY01036	OY01108	OY01219	OY01474
OY00957	OY01037	OY01109	OY01220	OY01750
OY00958	OY01038	JY01112	JY01221	OY01751
OYC0960	OY01042	OY01162	OY01222	OY01752
JY00961	OY01043	OY01163	OY01223	OY01754
OY00962	OY01044	OY01164	OY01227	OY01802
OY00963	OY01045	OY01165	OY01228	JY01812
OY00964	JY01046	JY01166	OY01229	JY01948
OY00969	OY01047	OY01167	OY01230	OY02005
OYC0970	OY01048	OY01168	OY01231	
OY00971	OY01049	OY01169	OY01232	
OY00972	OY01050	OY01170	OY01233	
OY00973	OY01051	OY01171	OY01234	OY00123
OY00974	OY01052	OY01172	OY01235	OY00125
OY00975	OY01053	OY01173	OY01236	OY00137
OY00977	OY01055	OY01174	OY01237	OY00148
OY00978	OY01056	OY01175	OY01238	OY00262
OY00979	OY01057	OY01176	OY01240	OY00315
OY00980	OY01058	OY01177	OY01241	OY00353
OY00981	OY01059	OY01178	JY01242	OY00368
JY00982	OY01060	OY01179	OY01243	OY00673
OY00983	OY01061	OY01180	OY01244	OY00680
OY00984	OY01062	OY01181	OY01245	OY00685
JY00985	OY01063	JY01182	OY01246	OY00872
JY00986	OY01064	OY01183	OY01247	OY00892
OY00987	OY01065	OY01184	OY01248	OY01382
OY00988	OY01066	OY01185	OY01249	OY01800
OYC0989	JY01067	OY01186	OY01250	
JY00992	JY01068	OY01187	JY01251	
OY00994	OY01069	OY01188	OY01252	

PTFs Resolved

The following is a list of PTFs resolved in Release 1.6:

PTF Number	Component
UY70001	5742-SC1-14
UY70002	5742-SC1-U0
UY70003	5742-SC1-G0
UY70004	5742-SC1-07
UY70005	5742-SC1-CB
UY70006	5742-SC1-D7
UY70008	5742-SC1-20
UY70009	5742-SC1-CB
UY70010	5742-SC1-20
UY70011	5742-SC1-01
UY70012	5742-SC1-C5
UY70013	5742-SC1-06
UY70014	5742-SC1-C5
UY70015	5742-SC1-C2
UY70016	5742-SC1-C3
UY70017	5742-SC1-06
UY70019	5742-SC1-D7
UY70020	5742-SC1-08
UY70021	5742-SC1-B2
UY70022	5742-SC1-06
UY70023	5742-SC1-T4
UY70024	5742-SC1-D1
UY70025	5742-SC1-C5
UY70026	5742-SC1-C3
UY70028	5742-SC1-D0
UY70031	5742-SC1-D0
UY70032	5742-SC1-20
UY70035	5742-SC1-20
UY70038	5742-SC1-C3
UY70040	5742-SC1-CA
UY70041	5742-SC1-08
UY70042	5742-SC1-C5
UY70045	5742-SC1-10
UY70018	5742-SC1-21
UY70027	5742-SC1-CD
UY70039	5742-SC1-CA

Chapter 3: Ordering and Distribution

The following information is contained in this chapter:

- Ordering procedures
- Distribution procedures
- Basic material list
- Optional material list
- Hardware engineering change levels
- Documentation support

Ordering Procedures

To order OS/VS2 release 1.6, contact your IBM representative or the IBM Branch Office serving your locality. It is no longer necessary to fill out a Program Order Form; your IBM representative places the order for you.

All new users of VS2 should order the Starter System as well as the Distribution Libraries. The initial system generation cannot be performed without the Starter System.

If additional features, such as the Starter System, are desired after your order has been received, you may order them through your IBM representative or the local IBM Branch Office.

System control programs such as the Emulator programs that are not shipped in the distribution libraries are available to VS2 users at no additional cost. They must be ordered separately. To order these or for additional information, contact your IBM representative or the local IBM Branch Office.

Distribution Procedures

OS/VS2 Release 1.6 is distributed only on magnetic tape. The number of user volumes required is specified in the basic and optional material lists.

The Distribution Libraries are distributed as unloaded partitioned data sets. These can be loaded to various direct access devices using the IEBCOPY utility in the Starter System. For additional information on installation procedures, see OS/VS2 System Generation Reference, GC26-3792.

Material for Starter Operating System

You get one copy of machine readable material containing a Starter Operating System for restoring to a 2314/2319 or a 3330. Order the basic material by selecting one of the following feature numbers:

<u>Feature Number</u>	<u>Residence</u>	<u>Track/Density</u>	<u>No. of Tape Volumes</u>
6000	2314/2319	9 track/800 BPI tape	1
6001	2314/2319	9 track/1600 BPI tape	none (DTR)
6002	3330	9 track/800 BPI tape	1
6003	3330	9 track/1600 BPI tape	none (DTR)

DASDI and DUMP/RESTORE precede the dumped disk pack data on a restore tape.

* 6999 Starter System not ordered.

Note: See "Release 1.6 Special System Generation Considerations" if you have a 158/168 system.

*Use this number if you have retained a Starter Operating System from a previous release.

Basic Program Material List

The basic program material list identifies the available systems and data sets contained on the unloaded distribution library tapes. You get one copy of machine readable material consisting of OS/VS2 Distribution Libraries. Order the basic program material by selecting one of the following specify numbers:

<u>Specify Number</u>	<u>Track/Density</u>	<u>No. of Tape Volumes</u>
9027	9 track/800 BPI tape	2
9029	9 track/1600 BPI tape	1

Note: To initially generate the system, a Starter Operating System is required.

The following is a list of data sets contained on the unloaded distribution library tapes:

SYS1.AOS00	SYS1.AOSCE	SYS1.AMACLIB
SYS1.AOS03	SYS1.AOSC2	SYS1.AMODGEN
SYS1.AOS04	SYS1.AOSC5	SYS1.AOS07
SYS1.AOS05	SYS1.AOSC6	SYS1.AOS20
SYS1.AOS06	SYS1.AOSD0	SYS1.AOS21
SYS1.AOS10	SYS1.AOSD7	SYS1.AOSG0
SYS1.AOS11	SYS1.AOSD8	SYS1.AOST3
SYS1.AOS12	SYS1.AOSU0	SYS1.AOST4
SYS1.AOSAO	SYS1.APARMLIB	SYS1.ACMDLIB
SYS1.AOSB0	SYS1.APROCLIB	SYS1.AHELP
SYS1.AOSB3	SYS1.ASAMPLIB	SYS1.ATCAMMAC
SYS1.AOSCA	SYS1.ALPALIB	SYS1.ATSOMAC
SYS1.AOSCD	SYS1.AGENLIB	SYS1.AUADS

In addition to the basic program material, one copy of each of the following publications is also provided:

OS/VS2 Release Guide (Release 1.6), GC28-0601-1

TNL No. GN26-0705 to OS/VS2 System Generation Reference, GC26-3792

Optional Program Material List

The Optional Program Material (Source Libraries) is available from DP-PID on 9 track 800 or 1600 BPI tapes.

Any assemblies done utilizing OS/VS2 SYMBOLICS must have SYS1.AMODGEN concatenated to SYS1.AMACLIB and SYS1.APVTMACS. SYS1.AMODGEN contains Stage II SYSGEN macros, some of which are called by other modules in the system. If you do not specify TSO in your system, you must concatenate SYS1.ATSOMAC to SYS1.AMACLIB, SYS1.AMODGEN and SYS1.APVTMACS. SYS1.ATSOMAC contains macros which may be required during the assembly of non-TSO modules.

An assembly of the source code may result in object code which is not the same byte for byte, as the object code in the distribution libraries. This is due to differences in macro expansion which do not affect execution of the modules.

The machine readable material contains the system control program source code in SYSIN format; the code is divided into nine component groups.

Order optional material by selecting one or more of the following feature numbers:

<u>Feature Number</u>	<u>Group</u>	<u>Track/Density</u>	<u>No. of Tape Volumes</u>
7801	Installation Processors	9/800	1
7802	Installation Processors	9/1600	1
7805	Utilities	9/800	1
7806	Utilities	9/1600	1
7809	Data Management	9/800	1
7810	Data Management	9/1600	1
7813	BTAM/ISAM	9/800	1
7814	BTAM/ISAM	9/1600	1
7817	Prob. Deter/Diagnostics	9/800	2
7818	Prob. Deter/Diagnostics	9/1600	2
7821	Control Program	9/800	3
7822	Control Program	9/1600	3
7825	TSO	9/800	3
7826	TSO	9/1600	3
7829	TCAM/Graphics	9/800	1
7830	TCAM/Graphics	9/1600	1
7833	DSS	9/800	1
7834	DSS	9/1600	1

The relationship between system control program components and the nine component groups is as follows:

<u>Feature Number</u>	<u>Group</u>	<u>Components</u>	<u>Component IDs</u>	<u>Microfiche Order Numbers</u>
7801/7802	Installation Processors	Assembler	5742-SC1-03	SJD2-0890
		Linkage Editor	5742-SC1-04	SJD2-0860
		Loader	5742-SC1-05	SJD2-0870
7805/7806	Utilities	IBCDMPPS	5742-SC1-I0	SJD2-0750
		IBCDASDI	5742-SC1-I1	SJD2-0760
		ICAPRTBL	5742-SC1-I2	SJD2-0800
		IEHDASDR	5742-SC1-U0	SJD2-0770
		IEHLIST	5742-SC1-U2	SJD2-0060
		IEHPROGM	5742-SC1-U3	SJD2-0070
		IEBCOPY	5742-SC1-U6	SJD2-0170
		IEBGENER	5742-SC1-U7	SJD2-0180
		IEBUPDTE	5742-SC1-U8	SJD2-0190
		IEBEDIT	5742-SC1-U9	SJD2-0050
		IEBPTPCH	5742-SC1-UA	SJD2-0200
		IEHMOVE	5742-SC1-UC	SJD2-0160
		IEHINITT	5742-SC1-UD	SJD2-0020
		IFHSTATR	5742-SC1-UE	SJD2-0030
		IEHATLAS	5742-SC1-JF	SJD2-0780
		IEBTCRIN	5742-SC1-UG	SJD2-0580
		IEBISAM	5742-SC1-UH	SJD2-0220
		IEBDG	5742-SC1-UJ	SJD2-0230
IEBCOMPR	5742-SC1-UK	SJD2-0210		
7809/7810	Data Management	SAM	5742-SC1-D0	SJD2-0660
		OPEN/CLOSE/EOV	5742-SC1-D1	SJD2-0830
		PAM	5742-SC1-D2	SJD2-0670
		CATALOG	5742-SC1-D3	SJD2-0080
		DADSM	5742-SC1-D4	SJD2-0840
		OCR	5742-SC1-D5	SJD2-0600
		MICR	5742-SC1-D6	SJD2-0680
		DAM	5742-SC1-D7	SJD2-0690
		Password Protect	5742-SC1-DC	SJD2-0110
		3505/3525 Spt.	5742-SC1-DD	SJD2-0590
7813/7814	BTAM/ISAM/VSAM	BTAM	5742-SC1-20	SJD2-0560
		3735 Macros/Util.	5742-SC1-22	SJD2-0490
		ISAM	5742-SC1-D8	SJD2-0810
		VSAM	5742-SC1-DE	SJD2-1220
7817/7818	Prob. Deter/Diagnostics	OLTEP	5742-SC1-06	SJD2-0550
		GTF	5742-SC1-11	SJD2-0430
		AMASPZAP	5742-SC1-12	SJD2-0440
		AMDPRDMP	5742-SC1-13	SJD2-0450
		AMBLIST	5742-SC1-14	SJD2-0880
		AMDSADMP	5742-SC1-15	SJD2-0460
		AMAPTFLE	5742-SC1-16	SJD2-0470
		AMDPRDMP (EDIT)	5742-SC1-18	SJD2-0480
		OBR/EREP	5742-SC1-CD	SJD2-0420
		RMS	5742-SC1-CE	SJD2-0270

<u>Feature Number</u>	<u>Group</u>	<u>Components</u>	<u>Component ID's</u>	<u>Microfiche Order Numbers</u>
7821/7822	Control Program	Scheduler SMF	5742-SC1-00	SJD2-0090
		Mapping Macros	5742-SC1-01	SJD2-0540
		SMF	5742-SC1-02	SJD2-0010
		Checkpoint/Rest.	5742-SC1-09	SJD2-0820
		Sysout Writer	5742-SC1-B2	SJD2-0790
		System Restart	5742-SC1-B3	SJD2-0330
		Allocation	5742-SC1-B4	SJD2-0350
		Q Manager	5742-SC1-B5	SJD2-0360
		Initiator	5742-SC1-B6	SJD2-0370
		Termination	5742-SC1-B7	SJD2-0380
		Commands	5742-SC1-B8	SJD2-0390
		Reader/Interpreter	5742-SC1-B9	SJD2-0400
		IPL	5742-SC1-C1	SJD2-0250
		Overlap Supervisor	5742-SC1-C2	SJD2-0640
		IOS	5742-SC1-C3	SJD2-0700
		DIDOCs	5742-SC1-C4	SJD2-0300
		Supervisor	5742-SC1-C5	SJD2-0260
		FETCH	5742-SC1-C7	SJD2-0650
		DASD ERP	5742-SC1-CA	SJD2-0710
		Unit Record ERP	5742-SC1-CB	SJD2-0720
Tape ERP/VES	5742-SC1-CC	SJD2-0040		
Extended SVC Router	5742-SC1-CF	SJD2-0530		
Floating Pt. Simul.	5742-SC1-CP	SJD2-0140		
PVTMACS			(Symbolics only)	
7825/7826	TSO	TSO EDIT	5742-SC1-T0	SJD2-0240
		TSO TEST	5742-SC1-T1	SJD2-0130
		TSO Utilities	5742-SC1-T2	SJD2-0120
		TSO Data Mgmt.	5742-SC1-T3	SJD2-0740
		TSO Scheduler	5742-SC1-T4	SJD2-0410
		Link/Loadgo Prompter	5742-SC1-T5	SJD2-0850
		TSO Supervisor	5742-SC1-T7	SJD2-0320
		TSO TRACE	5742-SC1-T9	SJD2-0100
7829/7830	TCAM/Graphics	GSP	5742-SC1-07	SJD2-0280
		TCAM	5742-SC1-21	SJD2-0570
		GAM	5742-SC1-G0	SJD2-0290
		TSO Subrtns for TCAM	5742-SC1-T8	SJD2-0730
7833/7834	DSS	DSS	5742-SC1-10	SJD2-0130

Note: Module status, module directory, and module index reports are available under microfiche order number SJD2-0001.

Current System Programs

The following Current System Programs can be used with OS/VS2. The programs can be extracted from Release 21.6 of OS.

COBOL F	Note 1
COBOL F Library	Note 1
Full ANS COBOL V2	
Full ANS COBOL V2 Library	
FORTRAN G	
FORTRAN H	
FORTRAN G & H Library	
FORTRAN Syntax Checker	
PL/I F	Note 2
PL/I Library	
PL/I Syntax Checker	
Sort/Merge	

Notes:

1. Program withdrawn, but will operate with VS2.
2. Teleprocessing support is not available in this environment since QTAM is not supported by VS, and PL/I F does not support TCAM.

Please contact your FE representative to determine what PTFs might be required for these CSPs to operate correctly with VS2.

Hardware Engineering Change Levels

The following are the minimum engineering change levels necessary to support the listed devices:

Model 15511

EC 263031
EC 261766

Model 158

EC 262936 plus REAs 02-045-041 through 02-045-049
EC 262951 plus REA 02-57-118

3830 Control Unit

EC 427556

3275 Dial Device

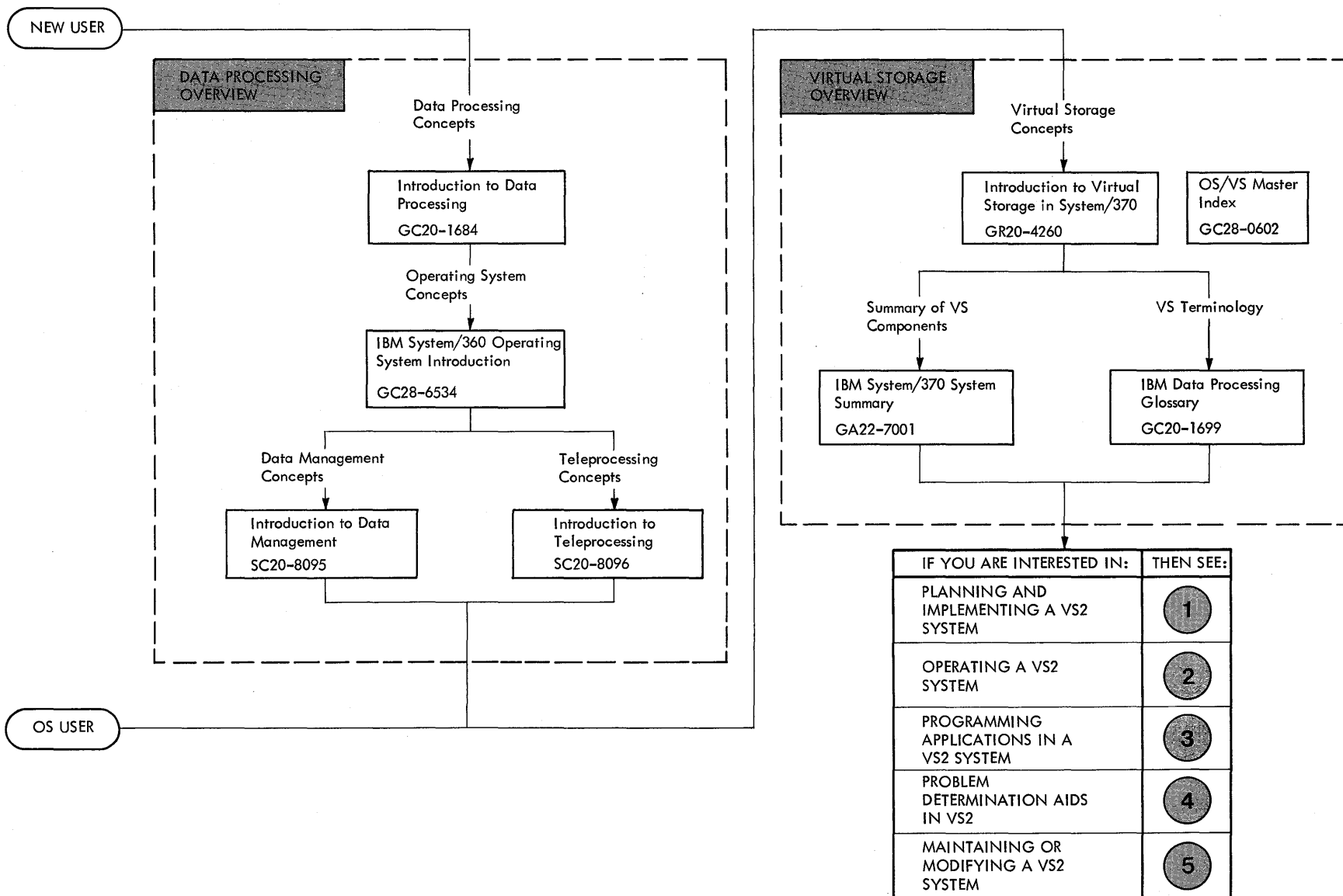
EC 718549

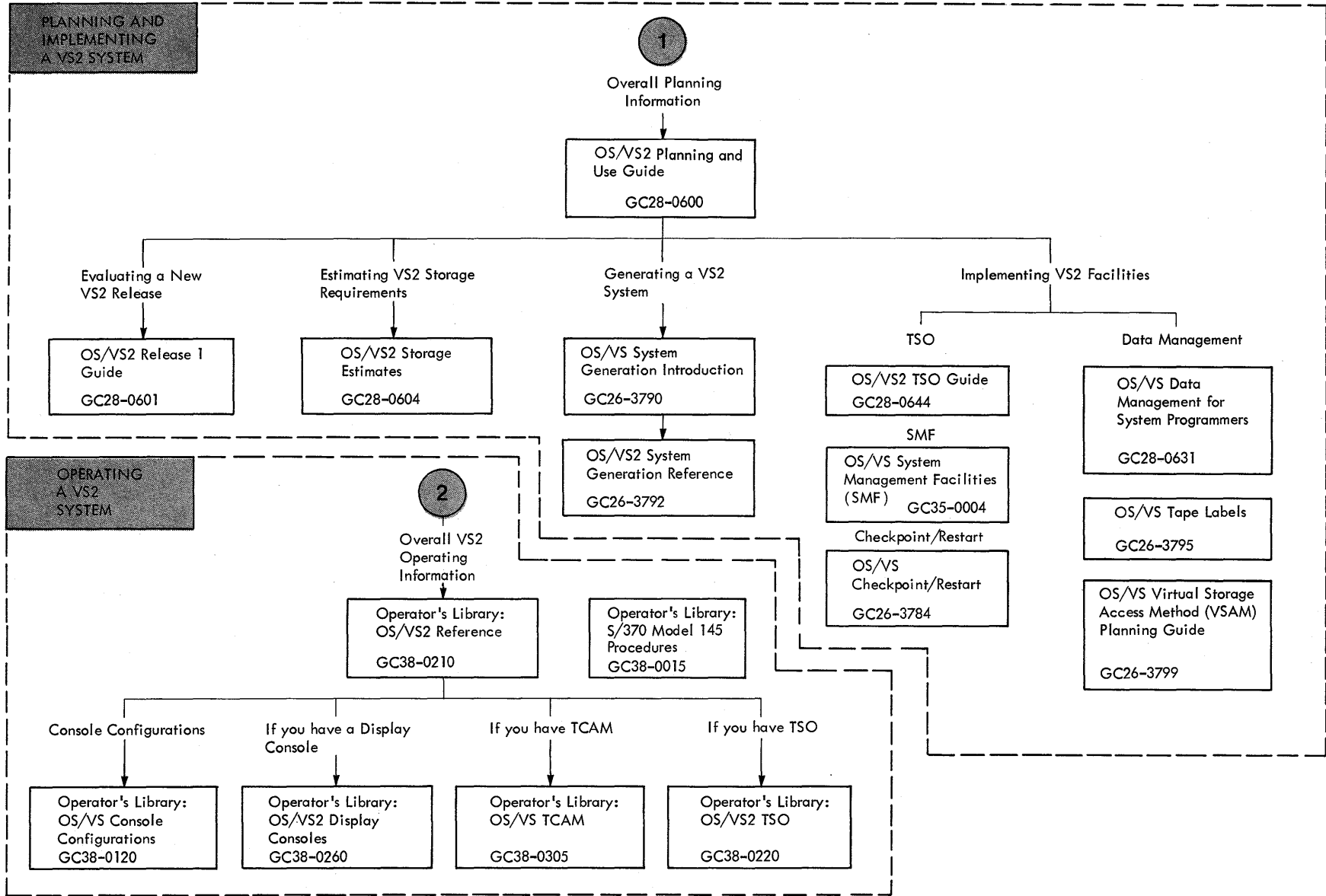
3411 Control Unit

EC 733733

Documentation Support

The following chart shows OS/VS2 publications arranged according to user application: Following the chart is a list of OS/VS2 publications with the appropriate order numbers and TNL numbers, if any.





APPLICATION PROGRAMMING IN VS2

3

Control Program Services

Job Management Services

Data Management Services

Supervisor Services

Support Programs

OS/VS JCL Services
GC28-0617

OS/VS Data Management Service Guide
GC26-3783

OS/VS Supervisor Services and Macro Instructions
GC27-6979

Assembler

Linkage Editor and Loader

Utilities

OS/VS JCL Reference
GC28-0618

OS/VS Data Management Macro Instructions
GC26-3793

OS/VS and DOS/VS Assembler Language
GC33-4010

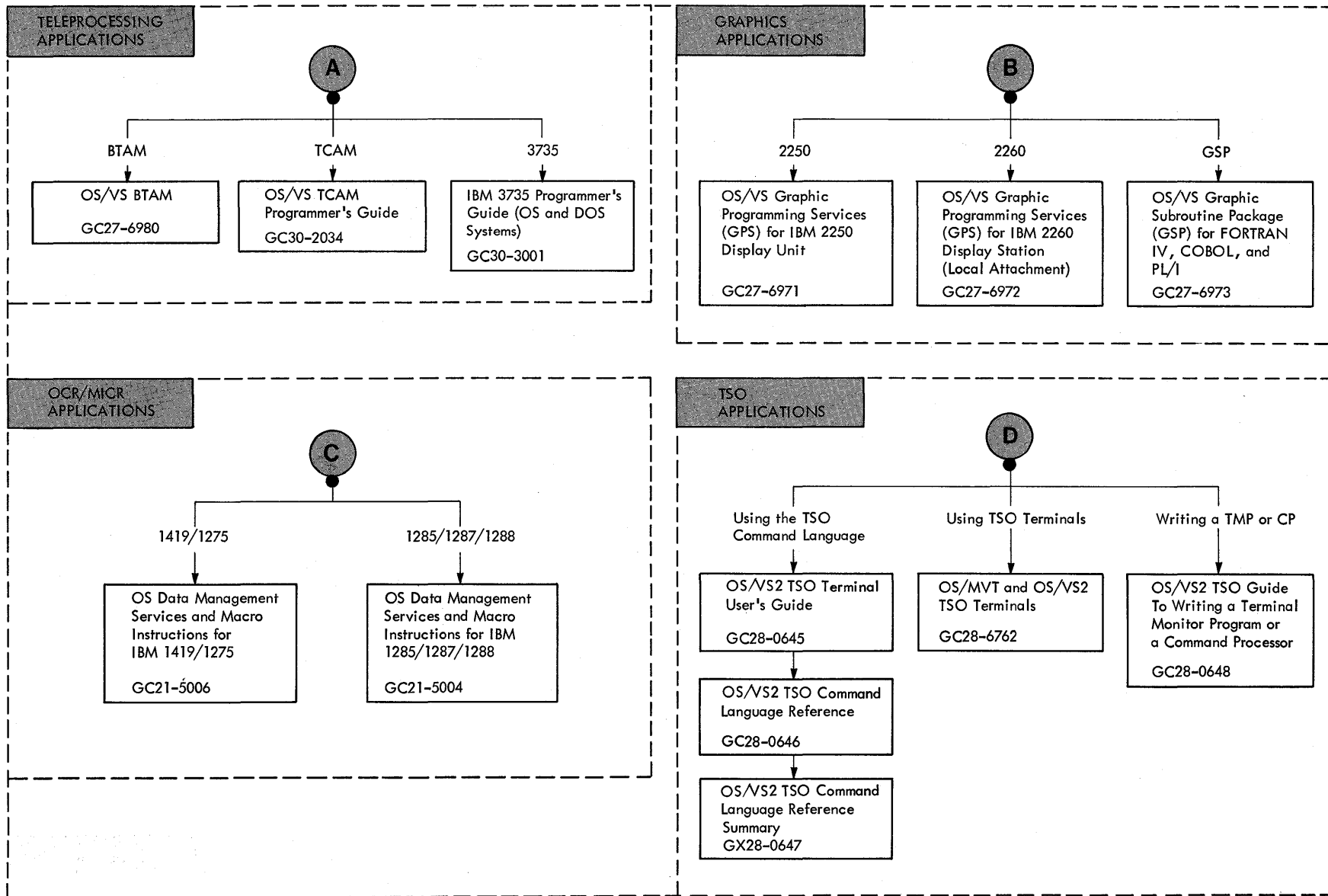
OS/VS Linkage Editor and Loader
GC26-3813

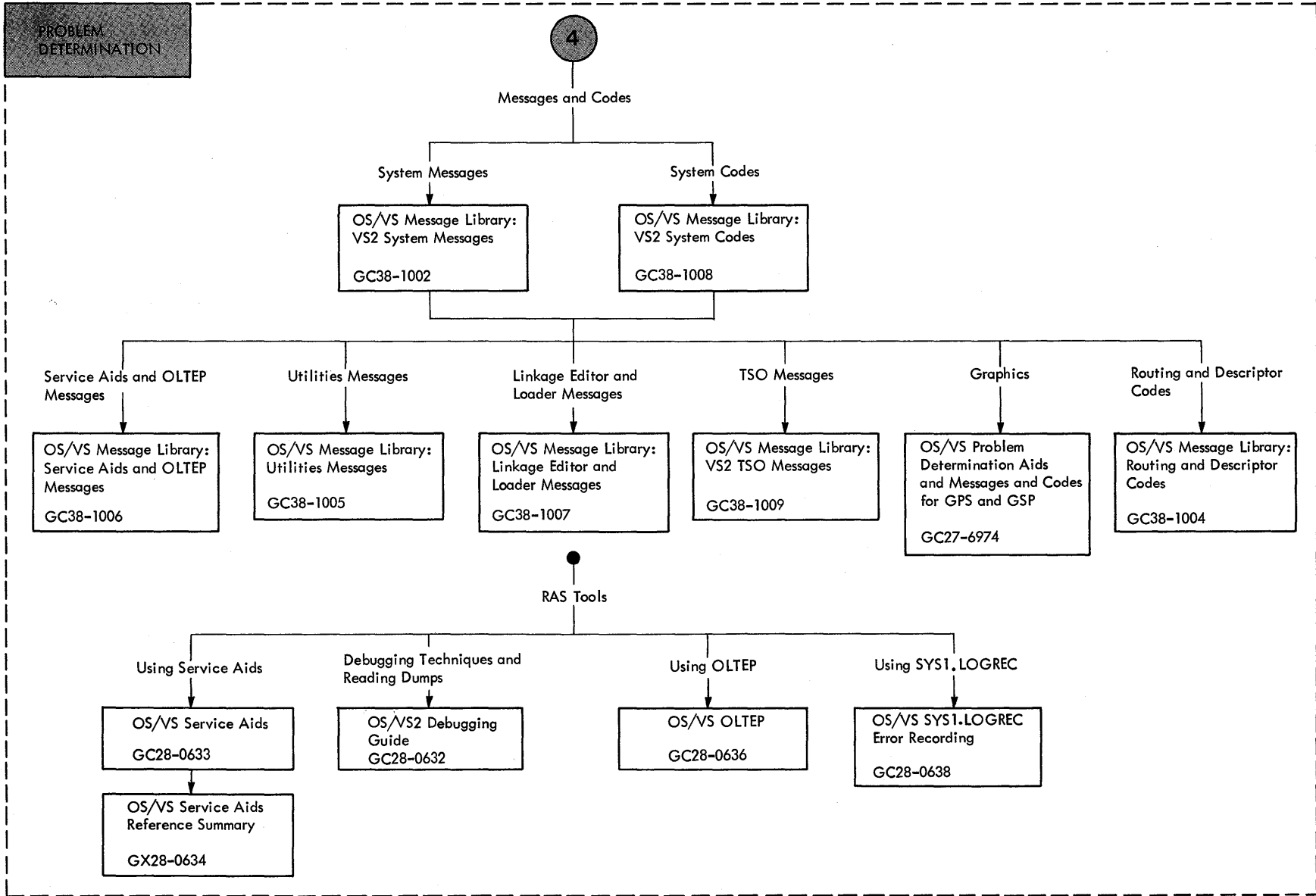
OS/VS Utilities
GC35-0005

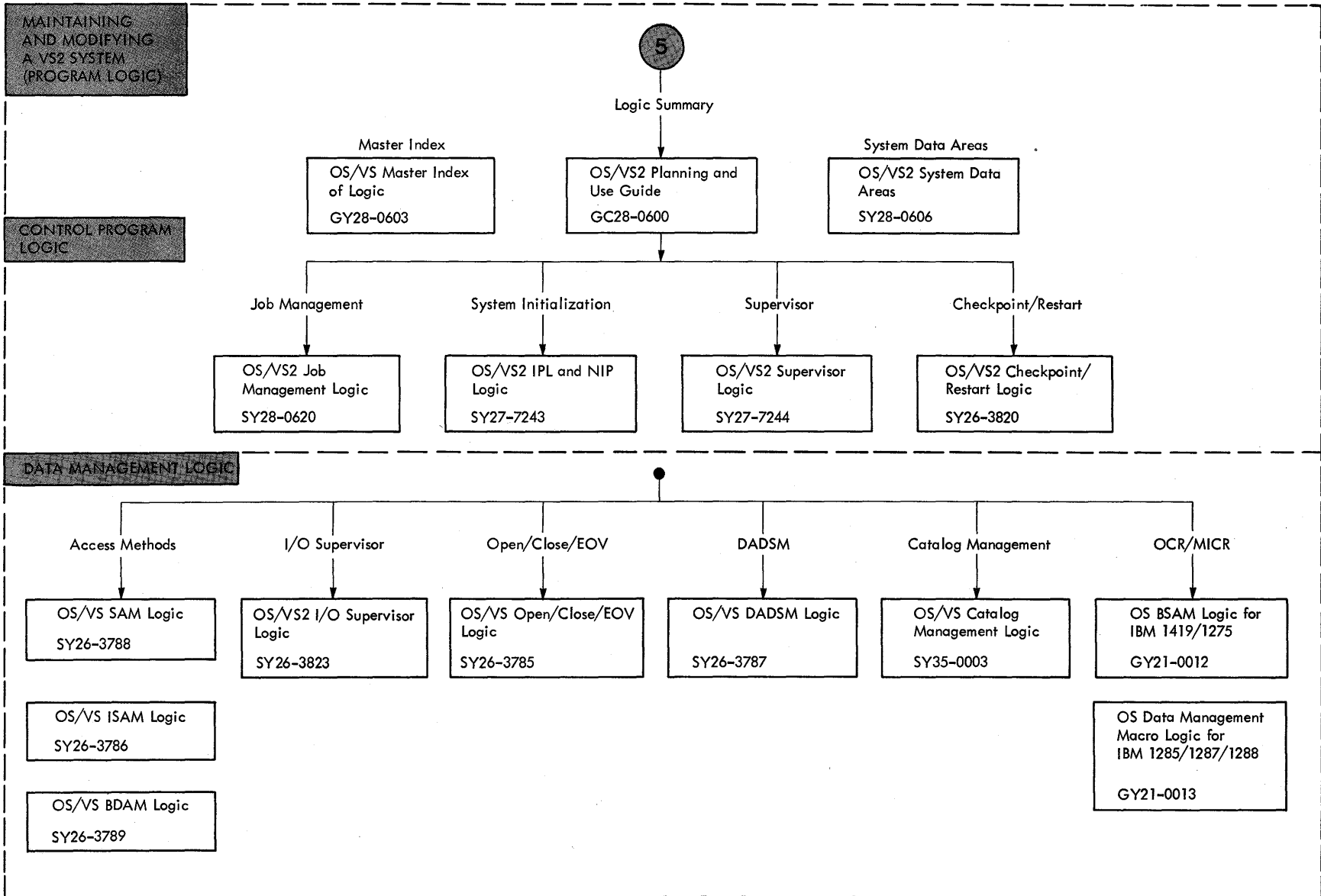
OS/VS JCL Syntax Reference Summary
GX28-0619

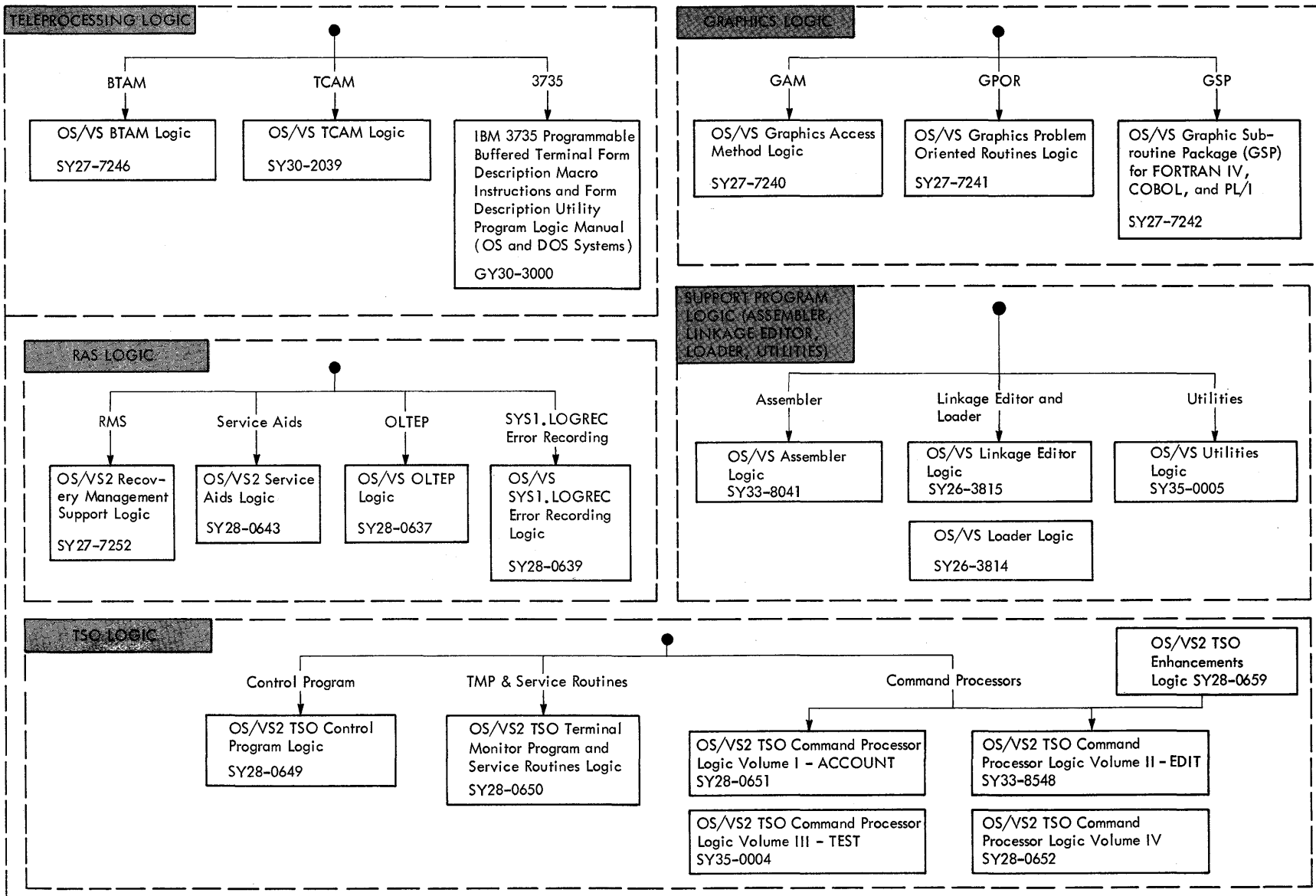
OS/VS Assembler Programmer's Guide
GC33-4021

If you are interested in coding:	Then see:
TP applications	A
Graphics applications	B
OCR/MICR applications	C
TSO applications	D









Planning and Implementing a VS2 System	Base Order Number	Applicable TNLs
OS/VS2 Planning and Use Guide	GC28-0600-2	None
OS/VS2 Release 1.6 Guide	GC28-0601-1	None
OS/VS2 Storage Estimates	GC28-0604-0	None
OS/VS2 System Generation Introduction	GC26-3790-1	None
OS/VS2 System Generation Reference	GC26-3792-1	None
OS/VS2 TSO Guide	GC28-0644-0	None
OS/VS System Management Facilities (SMF)	GC35-0004-3	None
OS/VS Checkpoint/Restart	GC26-3784-1	GN26-0754
OS/VS Data Management for System Programmers	GC28-0631-1	GN26-0759
OS/VS Tape Labels	GC26-3795-0	GN26-0746,GN26-0747
OS/VS Virtual Storage Access Method (VSAM) Planning Guide	GC26-3799-0	None
OS TCAM Concepts and Facilities	GC30-2022-1	None
Operating a VS2 System		
Operator's Library: OS/VS2 Reference	GC38-0210-0	None
Operator's Library: OS/VS Console Configurations	GC38-0120-2	GN24-5458
Operator's Library: OS/VS2 Display Consoles	GC38-0260-0	None
Operator's Library: OS/VS TCAM	GC38-0305-0	None
Operator's Library: OS/VS2 TSO	GC38-0220-0	None
Operator's Library: S/370 Model 145 Procedures	GC38-0015-1	None
Application Programming in VS2		
OS/VS Programmer's Reference Digest	GC24-5091-1	None
OS/VS JCL Services	GC28-0617-2	None
OS/VS JCL Reference	GC28-0618-1	GN28-2539
OS/VS JCL Syntax Reference Summary	GX28-0619-1	None
OS/VS Data Management Services Guide	GC26-3783-1	GN26-0749
OS/VS Data Management Macro Instructions	GC26-3793-1	GN26-0748
OS/VS Supervisor Services and Macro Instructions	GC27-6979-1	GN27-1400,GN27-1405
OS/VS and DOS/VS Assembler Language	GC33-4010-0	GN33-8145,GN33-8148
OS/VS Assembler Programmer's Guide	GC33-4021-0	GN33-8146,GN33-8150
OS/VS Linkage Editor and Loader	GC25-3813-0	GN26-0752,GN26-0638
OS/VS Utilities	GC35-0005-1	None
Teleprocessing Applications		
OS/VS BTAM	GC27-6980-1	None
OS/VS TCAM Programmer's Guide	GC30-2034-2	None
OS TCAM User's Guide	GC30-2025-1	None
IBM 3735 Programmer's Guide (OS and DOS Systems)	GC30-3001-2	GN30-3003,GN30-3004
Graphics Applications		
OS/VS Graphic Programming Services (GPS) for IBM 2250 Display Unit	GC27-6971-0	GN27-1391
OS/VS Graphic Programming Services (GPS) for IBM 2260 Display Station (Local Attachment)	GC27-6972-0	GN27-1392
OS/VS Graphic Subroutine Package (GSP) for FORTRAN IV, COBOL, and PL/I	GC27-6973-0	GN27-1393
OCR/MICR Applications		
OS Data Management Services and Macro Instructions for IBM 1419/1275	GC21-5006-2	GN26-0744,GN26-0755
OS Data Management Services and Macro Instructions for IBM 1285/1287/1288	GC21-5004-2	GN21-5147,GN21-7658

TSO Applications	Base Order Number	Applicable TNLs
OS/VS2 TSO Terminal User's Guide	GC28-0645-0	None
OS/VS2 TSO Command Language Reference	GC28-0646-0	GC28-2537
OS/VS2 TSO Command Language Reference Summary	GX28-0647-0	None
OS/MVT and OS/VS2 TSO Terminals	GC28-6762-1	None
OS/VS2 TSO Guide to Writing a Terminal Monitor Program or a Command Processor	GC28-0648-0	None
Problem Determination		
OS/VS Message Library: VS2 System Messages	GC38-1002-0	GN28-2557
OS/VS Message Library: VS2 System Codes	GC38-1008-0	GN28-2558
OS/VS Message Library: Service Aids and OLTEP Messages	GC38-1006-2	None
OS/VS Message Library: Utilities Messages	GC38-1005-2	None
OS/VS Message Library: Linkage Editor and Loader Messages	GC38-1007-1	GN26-0753
OS/VS Message Library: VS2 TSO Messages	GC38-1009-0	GN28-2559
OS/VS Problem Determination Aids and Messages and Codes for GPS and GSP	GC27-6974-0	GN27-1344
OS/VS Message Library: Routing and Descriptor Codes	GC38-1004-2	None
OS/VS Service Aids	GC28-0633-1	GN28-2540
OS/VS Service Aids Reference Summary	GX28-0634-1	None
OS/VS2 Debugging Guide	GC28-0632-0	GN28-2560
OS/VS OLTEP	GC28-0636-1	None
OS/VS SYS1.LOGREC Error Recording	GC28-0638-1	None
OS/VS Dynamic Support System	GC28-0640-0	None
Maintaining and Modifying a VS2 System (Program Logic)		
Control Program Logic		
OS/VS Master Index of Logic	GY28-0603-0	None
OS/VS2 Planning and Use Guide	GC28-0600-2	None
OS/VS2 Job Management Logic	SY28-0620-0	None
OS/VS2 IPL and NIP Logic	SY27-7243-0	SN27-1406
OS/VS2 Supervisor Logic	SY27-7244-0	SN27-1403
OS/VS2 Checkpoint/Restart Logic	SY26-3820-0	None
OS/VS2 System Data Areas	SY28-0606-0	None
Data Management Logic		
OS/VS SAM Logic	SY26-3788-1	SN26-8028
OS/VS ISAM Logic	SY26-3786-1	SN26-8030
OS/VS BDAM Logic	SY26-3789-1	SN26-8029
OS/VS2 I/O Supervisor Logic	SY26-3823-2	None
OS/VS Open/Close/EOV Logic	SY26-3785-2	None
OS/VS DADSM Logic	SY26-3787-2	SN26-8023
OS/VS Catalog Management Logic	SY35-0003-2	None
OS BSAM Logic for IBM 1419/1275	GY21-0012-1	GN26-8026,GN26-8034
OS Data Management Macro Logic for IBM 1285/1287/1288	GY21-0013-1	GN21-5169,GN21-7659
Teleprocessing Logic		
OS/VS BTAM Logic	SY27-7246-0	SN27-1398,SN27-1401
OS/VS TCAM Logic	SY30-2039-2	None
IBM 3735 Programmable Buffered Terminal Form Description Macro Instructions and Form Description Utility Program Logic Manual OS and DOS Systems	GY30-3000-0	GY30-3500

Graphics Logic	Base Order Number	Applicable TNLs
OS/VS Graphics Access Method Logic	SY27-7240-0	SN27-1389
OS/VS Graphics Problem Oriented Routines Logic	SY27-7241-0	None
OS/VS Graphic Subroutine Package (GSP) for FORTRAN IV, COBOL, and PL/I	SY27-7242-0	SN27-1390
RAS Logic		
OS/VS2 Recovery Management Support Logic	SY27-7239-1	SN27-1407
OS/VS2 Service Aids Logic	SY28-0643-0	None
OS/VS OLTEP Logic	SY28-0637-1	None
OS/VS SYS1.LOGREC Error Recording Logic	SY28-0639-1	None
OS/VS Dynamic Support System Logic	SY28-0641-0	None
Support Program Logic (Assembler, Linkage Editor, Loader and Utilities)		
OS/VS Assembler Logic	SY33-8041-0	SN33-8152
OS/VS Linkage Editor Logic	SY26-3815-0	SN26-8020,SN26-8033
OS/VS Loader Logic	SY26-3814-0	SN26-8022,SN26-8032
OS/VS Utilities Logic	SY35-0005-0	SN35-0008
TSO Logic		
OS/VS2 TSO Control Program Logic	SY28-0649-0	None
OS/VS2 TSO Terminal Monitor Program and Service Routines Logic	SY28-0650-0	None
OS/VS2 TSO Command Processor Logic Volume I - ACCOUNT	SY28-0651-0	None
OS/VS2 TSO Command Processor Logic Volume II - EDIT	SY33-8548-0	None
OS/VS2 TSO Command Processor Logic Volume III - TEST	SY35-0004-0	None
OS/VS2 TSO Command Processor Logic Volume IV	SY28-0652-0	None
OS/VS2 TSO Enhancements Logic	SY28-0659-0	None

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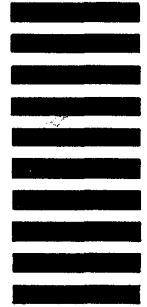
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