IBM

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Memorandum To: Licensees of VS Pasca Compiler and Library for VM,
5668-767

Subject: Release 02, Modification Level 00
Features 5870, 5871, 5872, 7890, 7891, 7892

Thank you for your order.

Please review the enclosed Packing List to ensure that you have received all items listed.

If there are any discrepancies between the package contents and the Packing List, report them via the Questionnaire which is enclosed for your convenience.

PRGDIR1Q62
12/88

**Program Directory for
VS Pascal Compiler and Library for VM
Release 2 Modification 0**

Program Number: 5668-767

December 1988

Preface

This program directory contains information concerning the material and procedures associated with the installation of VS Pascal Compiler and Library Release 2 (also referred to in this program directory as VS Pascal). This program directory should be reviewed in its entirety prior to the installation of VS Pascal, and used in conjunction with *VS Pascal Installation and Customization for VM*, and should be retained for future reference.

VS Pascal Compiler and Library is an IBM licensed program for use in developing business-oriented applications.

In this program directory, any reference made to IBM licensed programs is not intended to state or imply that only IBM's licensed programs may be used; any equivalent program conforming to IBM published interfaces may be used.

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1.0 Introduction

The program directory describes the VS Pascal licensed program shipped with this document. It is intended for the system programmer responsible for program installation and maintenance.

Basic materials and documentation are identified.

Installation requirements and procedures specific to installing this licensed program in a CMS environment are described.

Warning: If you have Pascal/VS (Program Number 5796-PNQ) and/or VS Pascal Release 1 installed on your system, ensure your production minidisk for VS Pascal Release 2 is different from that of Pascal/VS and/or VS Pascal Release 1 as there will be naming conflicts.

2.0 Program Materials

2.1 Basic Machine-Readable Material

The distribution medium for VS Pascal Compiler and Library is a standard-labeled 9-track tape written at either 1600 BPI or 6250 BPI, or 3480 cartridge.

Table 1. Basic Machine-Readable Material		
Track/Density	**Feature Number**	**External Tape Label**
9/1600	5870	BASIC - CMS
9/6250	5871	BASIC - CMS
3480 Cartridge	5872	BASIC - CMS

There are five CMS VMFPLC2 dump files on the tape. They are as follows:

File 1 Product identifier and installation EXEC

File 2 Memo to users

File 3 Compiler modules, run-time and debugging TXTLIBs; product LOADLIBs; MACLIBs; compile, link-edit and execute EXECs, EXEC HELP files; and product message files

File 4 Installation verification EXEC and sample programs

File 5 Files for service and customization

2.2 Optional Machine-Readable Material

The distribution medium for VS Pascal Restricted Source Materials is a standard-labeled 9-track tape written at either 1600 BPI or 6250 BPI, or 3480 cartridge.

Table 2. Optional Machine-Readable Material Medium		
Track/Density	**Feature Number**	**External Tape Label**
9/1600	7890	MVS/VM Optional Source
9/6250	7891	MVS/VM Optional Source
3480 Cartridge	7892	MVS/VM Optional Source

There are four IEBUPDTE format files on the tape. They are as follows:

File 1 Copyright information

File 2 Macros needed to assemble and compile the source modules

File 3 Pascal source modules

File 4 Assembler source modules

2.3 Program Publications

2.3.1 Basic Program Publications

One copy of the following documentation is included with this package. For additional copies, contact your IBM representative.

Unlicensed Documentation

- *VS Pascal Installation and Customization for VM*, SC26-4342

- *VS Pascal Licensed Program Specification*, GC26-4317

- *VS Pascal Language Reference*, SC26-4320

- *VS Pascal Reference Summary*, SX26-3760

- *VS Pascal Application Programming Guide*, SC26-4319

Licensed Documentation

- *VS Pascal Diagnosis Guide and Reference*, LY27-9525

2.3.2 Optional Documentation

The following publication is not shipped with this package, but is related to the installation of this product. This publication may be ordered by contacting your IBM representative.

- *VS Pascal General Information*, GC26-4318

2.4 Microfiche

There is no microfiche for VS Pascal.

3.0 Program Support

3.1 Program Services

VS Pascal is classified as a licensed program (LP). Contact your IBM Marketing Representative for information concerning available program services.

3.2 Preventive Service Planning (PSP)

Before installing VS Pascal, use INFO/ACCESS or ask your IBM Support Center to check the Preventive Service Planning facility for the latest additional information available for this program. To obtain this information, specify:

UPGRADE	Subset
PASCAL120	PASCAL/120

3.3 Statement of Support Procedures

Report any difficulties you have using this program to your IBM Support Center. If an Authorized Program Analysis Report (APAR) is required, submit it to the location identified in the *Programming System General Information Manual* (PSGIM), G229-2228.

The field engineering service number (FESN) for this product is:

Table 3. FESNs and Component IDs		
Product	**Component ID**	**FESN**
Compiler	566876701	6476701
Library	566871701	6471701

4.0 Program and Service Level Information

This section identifies the program and service level of VS Pascal. The program level refers to the APAR fixes which have been incorporated into the program. The service level refers to the PTFs which have been incorporated.

4.1 Program Level Information

The following APARs have been incorporated into VS Pascal Compiler and Library Release 2:

PL12020	PL20071	PL27419	PL33935
PL17420	PL20773	PL27652	PL33981
PL17959	PL20777	PL29141	
PL18025	PL22514	PL29702	
PL18687	PL23599	PL29897	
PL18688	PL26174	PL29899	

4.2 Service Level Information

The following PTFs have been incorporated into VS Pascal Compiler and Library Release 2:

UL25861	UL36467	UL36708	UL37819
UL20983	UL39647	UL38764	UL39649
UL23716	UL35206	UL34251	
UL39645	UL38764	UL34838	
UL26868	UL33613	UL38648	

5.0 Installation Requirements and Considerations

5.1 Programming Systems

The following sections identify the resources, materials, prerequisite programs and service required to install and use VS Pascal. The information is categorized into two areas which describe distinct system environments: the system used to install the program (Installation System), and the system on which the program will be installed and used (Execution System).

5.1.1 Installation System Requirements

The following describes the environment of the installation system required to install VS Pascal.

5.1.1.1 Operating System

Installation of VS Pascal requires the following minimum system environment or subsequent releases:

* VM/SP Version 1, Release 4 with or without HPO

5.1.1.2 Hardware

There are no special hardware requirements for installing VS Pascal.

5.1.1.3 Software

There are no special software requirements for installing VS Pascal.

5.1.1.4 DASD Storage

Production Minidisks

The production minidisk contains the production libraries required to run VS Pascal. It must be linked and formatted prior to installing VS Pascal. The following table shows the estimated DASD space requirements for the production minidisk.

Table 4. Production Disk Space Requirements				
	Estimated DASD Space			
	Number of Cylinders			Number of Blocks
Block Size	3350	3375	3380	
4096	12	14	9	1320

Temporary Minidisk

During customizing or servicing of VS Pascal, the installation EXEC will create a temporary disk. The following table shows the DASD space requirements for the temporary disk.

Table 5. Temporary Disk Space Requirements				
	DASD Space Requirements			
	Number of Cylinders			Number of Blocks
Block Size	3350	3375	3380	
2048	9	13	8	1700

Optional Restricted Source Minidisk

The restricted source minidisk contains source modules and macros. It must be linked and formatted prior to installing the restricted source materials. The following table shows the estimated DASD space requirements for the restricted source minidisk.

Table 6. Restricted Source Disk Space Requirements				
	DASD Space Requirements			
	Number of Cylinders			Number of Blocks
Block Size	3350	3375	3380	
4096	4	5	3	322

5.1.2 Execution System Requirements

The following describes the environment of the execution system required for use of VS Pascal.

5.1.2.1 Operating System

Refer to 5.1.1.1, "Operating System" on page 6.

Note: Use of VS Pascal's Double-Byte Character Set (DBCS) support requires VM/SP Version 1, Release 5 or later.

5.1.2.2 Hardware

The VS Pascal Compiler and Library and its generated object programs run on those processors supported by the operating systems listed previously. It will support all devices in those operating systems which are transparent through the provided QSAM, BSAM, BPAM, and BDAM access methods.

5.1.2.3 Software

VS Pascal and its generated object programs will run in the VM/CMS operating system only with the OS simulation facility.

5.1.2.4 DASD Storage

Storage requirements for execution are reflected in the target library table as shown in 5.1.1.4, "DASD Storage" on page 6.

5.2 Special Considerations

5.2.1 Programming Considerations

If you have Pascal/VS (Program Number 5796-PNQ) and/or VS Pascal Release 1 installed on your system, ensure your production minidisk for VS Pascal Release 2 is different from that of Pascal/VS and or VS Pascal Release 1 as there will be naming conflicts.

5.2.2 Installation Guide Errata

The following notes are provided in addition to, and as corrections to *VS Pascal Installation and Customization for VM*. In cases of conflicting information, the information in this Program Directory takes precedence.

Page 7   Add the following note:

Note: If you choose to install the Compiler above the 16-megabyte line, you have to modify the VSPASCAL EXEC as follows:

- Add "GLOBAL LOADLIB PASRTLIB" after "GLOBAL TXTLIB AMPLANG".

Page 22   Add the following note to the end of the section:

Note: If you choose to install the Compiler above the 16-megabyte line, you have to modify the VSPASCAL EXEC as follows:

- Add GLOBAL LOADLIB PASRTLIB after "GLOBAL TXTLIB AMPLANG".

6.0 Installation Instructions for Basic Machine-Readable Material

6.1 Program Code Installation

The following figure is a sample install. User input is highlighted. Refer to *VS Pascal Installation and Customization for VM* for detailed installation instructions for the installation procedure and the additional prompts.

---

vmplc2 load * * m

LOADING....
I5668767 012005   M1
I5668767 EXEC   M1
END-OF-FILE OR END-OF-TAPE
R;

i5668767

.

.

.

Figure 1. Sample Install Job

6.2 Installation Verification Procedure (IVP) Output

The output from running the IVP is shown in Figure 2 on page 10.

```
*** VS Pascal Compiler and Library verification in progress.

Invoking VS Pascal Release 2.0
 Starting Language Analysis Pass...
 Starting Optimization Pass...
 Starting Code Generation Pass...
 No Compiler Detected Errors

Source lines:     58;  Total time:   0.xx seconds;  Total rate:  xxxxx LPM
        2      3      5      7     11     13     17     19     23     29
       31     37     41     43     47     53     59     61     67     71
       73     79     83     89     97    101    103    107    109    113
      127    131    137    139    149    151    157    163    167    173
      179    181    191    193    197    199    211    223    227    229
      233    239    241    251    257    263    269    271    277    281
      283    293    307    311    313    317    331    337    347    349
      353    359    367    373    379    383    389    397    401    409
      419    421    431    433    439    443    449    457    461    463
      467    479    487    491    499    503    509    521    523    541

Invoking VS Pascal Release 2.0
 Starting Language Analysis Pass...
 Starting Optimization Pass...
 Starting Code Generation Pass...
 No Compiler Detected Errors

Source lines:    131;  Total time:   0.xx seconds;  Total rate:  xxxxx LPM
        PPPPPP      AAAA       SSSS      CCCCC      AAAA    L
        P      P   A    A    S    S    C     C    A    A    L
        P      P   A      A  S         C     C    A      A  L
        PPPPPP     A      A  SSSSS     C          A      A  L
        P          AAAAAAAA      S     C          AAAAAAAA  L
        P          A      A      S C    C    C    A      A  L
        P          A      A  S    S C    C   C    A      A  L
        P          A      A  SSSS     CCCCC       A      A  LLLLLLLL

        IIII      SSSS                        U      U  PPPPPP
         II      S    S                       U      U  P      P
         II      S                            U      U  P      P
         II      SSSSS                        U      U  PPPPPPP
         II          S                        U      U  P
         II          S                        U      U  P
         II      S    S                        U    U   `P
        IIII      SSSS                          UUUU    P


              ...at 15:51:05 on 15/11/88


*** VS Pascal Compiler and Library verification successful.
```

Figure 2. VS Pascal Output During IVP

7.0 Installation of Optional Restricted Source Materials

The VS Pascal optional restricted source materials is provided as machine-readable material on one magnetic tape. Each file on the tape consists of 80-character records blocked at 12,000 bytes.

The source modules and macros may be loaded from the tape under CMS as follows:

1. Mount the installation tape on an appropriate tape device.

2. Use the CMS command TAPE to position the tape device at the desired tape file.

3. Issue the following CMS command to load the source onto disk:

   ```
   TAPPDS * ft fm (COL1 UPDATE TAPn
   ```

   where ft and fm are the filetype and filemode of the source files, and TAPn is the symbolic name of the tape device.

   For example, if the tape is on device 182 and you are reading the second file (macros) onto your A-disk, the command would be:

   ```
   TAPPDS * COPY A (COL1 UPDATE TAP2
   ```

Note: Refer to your VM documentation for a detailed explanation of the TAPE and TAPPDS commands.

Reader Comment Form

To better enable us to meet your needs in future VS Pascal Compiler and Library program directories, please rate the following characteristics, entering a digit in the range one (for very poor or very low) to five (for very good or very high).

___ Completeness

___ Accuracy

___ Clarity

___ Format

___ Usefulness

Please provide specific comments on problems you found with this program directory. Attach additional sheets as needed.

After completing the evaluation, detach this page and send via first class mail to:

IBM Corporation
P. O. Box 49023
San Jose, California 95161-9023

Attention: Manager, VS Pascal Development, M43 D30