BookManager READ/MVS

Installation Planning and Customization

Release 3
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Programming Interface Information

This publication is intended to help the MVS system programmer install the IBM BookManager READ/MVS licensed program for use in an MVS environment. It contains procedures for installation and customization. This publication documents no programming interface for use by customers in writing programs that request or receive the services of BookManager READ/MVS, except as noted below.

This publication also documents product-sensitive programming interfaces and associated guidance information.

Product-sensitive programming interfaces are provided to allow the customer installation to perform tasks such as tailoring, monitoring, modification, tuning, or diagnosis of this IBM product. Use of such interfaces creates dependencies on the detailed design or implementation of the IBM product. Product-sensitive interfaces should be used only for these specialized purposes. Because of their dependencies on detailed design and implementation, it is to be expected that programs written to such interfaces may need to be changed in order to run with new product releases or versions, or as a result of service.

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<thead>
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<th>Description</th>
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<tr>
<td>AT</td>
<td>Personal Computer AT</td>
</tr>
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<td>Personal Computer XT</td>
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<table>
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<tr>
<td>Windows</td>
<td>Microsoft Corporation</td>
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</tbody>
</table>
About This Book

This book helps you plan the installation of the IBM* BookManager* READ/MVS licensed program for use in a Multiple Virtual Storage (MVS) environment, and customize BookManager READ/MVS for your site. BookManager READ/MVS lets you organize, display, and search online books.

To create your own online books, you must use either the IBM BookManager BUILD/MVS licensed program, the IBM BookManager BUILD/VM licensed program, or the IBM BookManager BUILD/2 licensed program. The Index Utility, which is provided with BookManager READ/MVS, BookManager BUILD/MVS, BookManager READ/VM, and BookManager BUILD/VM, lets you group books together on a bookshelf and create a search index for rapid searching of the books on a bookshelf.

Who Should Read This Book

This book is for system programmers responsible for installing and administering BookManager READ/MVS. It assumes that programmers will have a working knowledge of the following IBM software products:

- The MVS/Extended Architecture (MVS/XA*) operating system or the IBM MVS/Enterprise Systems Architecture (MVS/ESA*) operating system
- MVS Time Sharing Option/Extended (TSO/E)
- Interactive System Productivity Facility (ISPF)
- System Modification Program/Extended (SMP/E*).

How to Use This Book

This book is meant to be used in conjunction with the IBM BookManager READ/MVS Program Directory. You should understand the system prerequisites and fully read the installation procedures in the BookManager READ/MVS Program Directory before starting to install BookManager READ. This book presents these major topics:

- 1.0, “BookManager READ/MVS Prerequisites,” lists the hardware and software products you must have before you can use BookManager READ, and those you may want to use to acquire additional function.
- 2.0, “Customizing BookManager READ/MVS,” shows you how to set up the BookManager READ defaults for your site.
- 3.0, “Final Steps,” shows you how to verify that you installed the product correctly.
- 4.0, “Installation-Wide Exits,” provides information about exits that allow you to extend your site’s capabilities.

This book also includes a glossary of terms and abbreviations, a bibliography, and an index.
What’s New in BookManager

Software prerequisites are updated to more current levels. See 1.0, “BookManager READ/MVS Prerequisites” on page 1 for additional information.

Where to Find More Information

This book contains information on using BookManager READ in the MVS environment. The following books complete the BookManager library for MVS:

- *IBM BookManager READ/MVS and BookManager BUILD/MVS: General Information*, GC38-2032
- *IBM BookManager READ/MVS: Getting Started and Command Summary*, SC38-2033
- *IBM BookManager READ/MVS: Displaying Online Books*, SC38-2034
- *IBM BookManager READ/MVS: Licensed Program Specifications*, GC38-2038
- *IBM BookManager BUILD/MVS: Preparing Online Books*, SC38-2036
- *IBM BookManager BUILD/MVS: Installation Planning and Customization*, SC38-2037

To learn about publications for using BookManager in other environments, and to find other reference materials that might help you use BookManager, see “Bibliography” on page 49.
1.0 BookManager READ/MVS Prerequisites

The hardware and software prerequisites for the IBM BookManager READ/MVS licensed program are listed as required or optional. Required means that it is fundamental to the operation of BookManager READ and is needed for all sites. Optional means that it is needed only if you require the specified function.

1.1 Required Hardware

These hardware devices are required to install and use BookManager READ:

- An IBM System/370* or System/390* processor or equivalent
- A display device supported as an alphanumeric device by the IBM Interactive System Productivity Facility (ISPF), such as an IBM 3277 Display Station.
- One of these tape drives to install the distribution tapes:
  - A 9-track reel device, such as an IBM 3400 Magnetic Tape Unit
  - An 18-track cartridge device, such as an IBM 3490 Magnetic Tape Subsystem.
- An IBM 3380 Direct Access Storage device (DASD) or equivalent that supports your MVS operating system.

  For BookManager READ/MVS only, the equivalent of 105 cylinders of the IBM 3380 Direct Access Storage is recommended to hold the target and distribution libraries (including the linguistic dictionaries) that come on your BookManager distribution tapes.

  For BookManager READ/MVS installations that include BookManager BUILD/MVS, the equivalent of 118 cylinders of the IBM 3380 Direct Access Storage is recommended to hold the libraries that come on your BookManager distribution tapes.

  If BookManager BUILD/MVS is already installed on your system, you do not need to allocate space for the unloaded linguistic dictionaries. They were unloaded during the BUILD installation and must be replaced by the READ installation. BUILD and READ use the same linguistic dictionaries. See the Program Directory for BookManager BUILD/MVS for installation information on the BUILD product.

1.2 Optional Hardware

These hardware devices are needed for BookManager READ to provide the specified optional functions:

- To show graphics or images, BookManager READ requires a display device supported as a graphics device by the IBM Graphical Data Display Manager (GDDM*), such as an IBM 3279 Color Display Station Model S3G.
- To print topics from online books, BookManager READ requires a printer supported by the Multiple Virtual Storage (MVS) operating system.
- To use the Document Composition Facility (DCF) to print topics from online books, BookManager READ requires a printer supported by DCF.
1.3 Required Software

These software products are required to install and use BookManager READ:

- One of the following operating systems:
  - IBM MVS/Enterprise Systems Architecture (MVS/ESA*) System Product Version 4.2 or 4.3 (MVS/SP Version 4) (Program Number 5695-047 or 5695-048)
  - IBM MVS/Extended Architecture (MVS/XA*) System Product Version 2 (MVS/SP Version 2) (Program Number 5740-XC6 or 5665-291)

- IBM System Modification Program/Extended (SMP/E), Release 7 at service level 17.20 (PTF UR40251) for MVS (Program Number 5668-949)

- IBM Interactive System Productivity Facility (ISPF) Version 3 Release 5 for MVS (Program Number 5685-054)

- IBM Interactive System Productivity Facility/Program Development Facility (ISPF/PDF) Version 3, Release 5 for MVS (Program Number 5665-402)

- IBM TSO Extensions (TSO/E) Version 2, Release 1 (Program Number 5685-025)

- One of the following run-time libraries:
  - For MVS/ESA or MVS/XA, IBM C/370* Library Version 2.1 (Program Number 5688-039)
  - For MVS/ESA, IBM Language Environment/370 (LE/370*) Release 2 with PTF UN52909 applied (Program Number 5688-198)

  **Note:** The IBM C/370 Library Release 2 is included with the IBM C/370 Compiler Release 2 (Program Number 5688-040).

1.4 Optional Software

These software products are needed for BookManager READ to provide the specified optional functions:

**IBM Document Composition Facility (DCF)**

Release 4 (Program Number 5748-XX9)

To print topics using Generalized Markup Language (GML) Starter Set tags, you need IBM DCF.

**IBM Host Publishing Systems BookMaster***

Release 4 (Program Number 5588-015)

To print topics using BookMaster tags and symbols, you need BookMaster Release 4 or later. BookMaster gives you the best printed output that BookManager READ can provide.

**IBM Publishing Systems ProcessMaster***

Release 1.1 (Program Number 5685-055)

To store your SCRIPT source data sets in libraries that BookManager READ can access with its **Services** pull-down or EDIT command for the ProcessMaster option, you need ProcessMaster MVS Edition Release 1.1.
IBM Graphical Data Display Manager for MVS (GDDM/MVS)

Version 3 (Program Number 5695-167)

To display and print pictures in your online books, you need GDDM/MVS. Without GDDM/MVS, online books can display text only, and the printed output will not include pictures.

1.5 Other Products to Use with BookManager READ/MVS

IBM offers the following BookManager products that can be used at your site in addition to BookManager READ/MVS:

**IBM BookManager BUILD/MVS**

Release 3 (Program Number 5695-045)

To create your own online books on an MVS operating system to use with BookManager READ, you need the IBM BookManager BUILD/MVS licensed program. Without BookManager BUILD/MVS, you can use books created by others, but you cannot create your own.

**IBM BookManager BUILD/VM**

Release 3 (Program Number 5684-026)

To create your own online books on a VM operating system to use with BookManager READ, you need the IBM BookManager BUILD/VM licensed program. Without BookManager BUILD/VM, you can use books created by others, but you cannot create your own.

**IBM BookManager BUILD/2**

Version 1.2 (Program Number 5621-453)

To create your own online books on an IBM Personal System/2* (PS/2)* or an IBM Personal Computer AT* running the IBM Operating System/2* (OS/2*), you need the IBM BookManager BUILD/2 licensed program and the IBM Operating System/2 (OS/2) Version 1.2 or later.
2.0 Customizing BookManager READ/MVS

As part of installing BookManager READ, you must set defaults for how BookManager READ operates at your site. The following may be customized:

- ISPF/PDF selection panel
- BookManager READ options REXX EXEC — EOXVOPTS
- BookManager READ new data set allocation REXX EXEC — EOXMNALC
- BookManager READ function key definitions
- BookManager READ system bookshelf list data set
- BookManager READ installation help panel — EOXXV99
- BookManager READ Index Utility REXX EXEC and Job Control Language (JCL).

2.1 Invoking BookManager from ISPF

Although the user can start BookManager READ using the BOOKMGR REXX EXEC, most users invoke programs from an ISPF/PDF selection menu. Therefore, it is recommended that you add BookManager READ to an ISPF selection panel. Figure 1 shows the ISRDIIIS panel (Additional IBM Development Products) modified to include BookManager READ. The ISRDIIIS panel supports option 9 on the ISPF/PDF Primary Option Menu. BookManager READ is added as option 8 on our sample ISRDIIIS panel. The BookManager READ Index Utility is added as option 9 on our sample ISRDIIIS panel.

```
%----------------- ADDITIONAL IBM PROGRAM DEVELOPMENT PRODUCTS ----------
%OPTION ===>_ZCMD
+
+ 1+ CSP/AD - Cross System Product/Application Development
+ 2+ CSP/CE - Cross System Product/Application Execution
+ 3+ INFO/SYS - Information/System
+ 4+ COBOL/SF-F - COBOL Structuring Facility foreground dialog
+ 5+ COBOL/SF-B - COBOL Structuring Facility background dialog
+ 6+ SDF II - Screen Definition Facility II - Editors and Utilities
+ 7+ SDF II-P - Screen Definition Facility II - Prototype
+ 8+ READ - BookManager READ (Online Documentation)
+ 9+ READ INDEX - BookManager READ Bookshelf Index Creation

)INIT
  HELP = ISRD0000
)PROC
  &ZALTTR = TRUNC(&ZCMD,'.')
  &ZALTTR = .TRAIL
  &ZSEL=TRANS(TRUNC(&ZCMD,'.'))
  1,'PGM(ISRALTDI) PARM(DCACSPAD,+,ISRDCSPD,/*,ISRDCSPI) NOCHECK'
  8,'CMD(%EOXVSTRT &ZALTTR) MODE(FSCR) SUSPEND NEWAPPL(EOXR) NOCHECK'
  9,'CMD(8:BKINDEX)'
  '','
  '*?,')
)END
```

Figure 1. Sample ISPF/PDF Selection Menu
You must make the following changes to an ISPF/PDF selection panel:

1. Edit the selection panel that you want to use. If you are not sure of the panel name, start ISPF and issue the command PANELID. Display the selection panel. The name of the panel will be in the upper left-hand corner of the panel.

2. Add a statement to the list of options for BookManager READ. Be sure to include a selection number with the statement. In Figure 1 on page 5, this is:

   %8+ READ - BookManager READ (Online Documentation)

3. Add a statement to the )PROC section of the panel to invoke the EOXVSTRT REXX EXEC. In Figure 1 on page 5, this is:

   8,'CMD(%EOXVSTRT &ZALTTR) MODE(FSCR) SUSPEND NEWAPPL(EOXR) NOCHECK' 

   Be sure the number at the start of this statement (8 in Figure 1 on page 5) matches the number specified in the list of options.

   You can enter 8 on the option line followed by a period and a character string to start BookManager READ/MVS and open a specified bookshelf.

   For example, you can enter 8.SHELF on the option line to start BookManager READ/MVS and directly open a bookshelf named SHELF. You can also enter 8.MVS* to start READ and list all bookshelves beginning with the characters MVS. You can enter the same variables that are used with the BOOKMGR command, as in the following example:

   OPTION ===> 8.SHELF(dsn) CMD(command)

   See BookManager READ/MVS: Displaying Online Books for a detailed description of the BOOKMGR command.

4. Add a statement to the list of options for the BookManager READ Index Utility. Be sure to include a selection number with the statement. In Figure 1 on page 5, this is:

   %9+ READ INDEX - BookManager READ Bookshelf Index Creation

5. Add a statement to the )PROC section of the panel to invoke the BKINDEX REXX EXEC. In Figure 1 on page 5, this is:

   9,'CMD(%BKINDEX)'

   Be sure the number at the start of this statement (9 in Figure 1 on page 5) matches the number specified in the list of options.

For more information on modifying ISPF/PDF selection panels, see the ISPF Dialog Management Guide and Reference, SC34-4266.

2.2 EOXVOPTS Installation Options REXX EXEC

EOXVOPTS is a REXX EXEC that specifies your site’s BookManager READ options and information about optional products that BookManager READ can invoke (for example, ProcessMaster). The following explanation provides information that you can use to edit this REXX EXEC.

EOXVOPTS is a member of the SEOYCLIB target library. Figure 2 on page 7 shows a portion of the REXX EXEC.
/*REXX*/
;
/* Set the values which are independent of the user's language. */
QGDDMSYM = "'SYS1.GDDM.GDDMSYM'"
;
/* Get the user's language. Set the values which depend upon it. */
address ISPEXEC "VGET (ZLANG)"
select
  when (zlang = "???????") then /* ISPF language ??????? */
    do /* set its values */
    end
otherwise /* Other languages here (defaults) */
  do
    QHELPDSN = "'EOY.ENU.EOX03MST.BOOK'"
    ;
  end
end
;
/* Do not change the following. */
;
Figure 2. EOXVOPTS Installation Options REXX EXEC

The BookManager READ options fall into the following categories:

- Options independent of the user's language. For example, the same GDDM symbol set data set name is used in all languages.
- Options that depend upon the user's language. For example, the data set that contains the online version of BookManager READ/MVS: Displaying Online Books depends on the user's language.

To support these two categories, the EOXVOPTS REXX EXEC:

- Sets the parameters that are independent of the user's language.
- Obtains the user's language from the ISPF variable ZLANG.
- Uses a REXX select construct to set language-dependent variables. In Figure 2, the REXX EXEC checks for the language variable (indicated by ??????? in the example), which, in this case, does not exist. If the user's language is not one of the values specified on a when statement, REXX uses the otherwise clause. Your site's default language values should be set in the otherwise clause.

For example, if you want the French version of the product to be your default language, but some users at your site want to use the English version, you would edit the REXX EXEC as in Figure 3 on page 8.
address ISPEXEC "VGET (ZLANG)"
select
  when (zlang = "ENGLISH ") then /* If English, then */
    do /* set its values */
      QHELPDSN = "'EOY.ENU.EOX03MST.BOOK'"
    : end
  otherwise /* Other languages */
    do
      QHELPDSN = "'EOY.FRA.EOX03MST.BOOK'"
    : end
end

Figure 3. EOXVOPTS Installation Options REXX EXEC (coded for French and English)

- Performs additional processing. You should not change any other statements in this section.

You may set any option in either section of the REXX EXEC. Be sure to set all the options. If an option is not needed, set it to null by not specifying anything between the quotation marks. For example, if you do not use IBM 4250 printers, then you can show there is no 4250 font library by using the statement:

QFNT4250 = ""

It is recommended that all data set names be fully qualified. These names, including the single quotes, should be enclosed in double quotes. For example, to set the QFNT38PP option, you should specify:

QFNT38PP = "SYS1.FONTLIB"

All of the data set names must be cataloged.

The following options allow multiple data set names:

QLSHELF List of bookshelves
QGDDMSYM GDDM symbol sets

The following is an example of an option specifying two data set names:

QLSHELF = "'EOY.EXAMPLE1.BKLSHELF' 'EOY.EXAMPLE2.BKLSHELF'"

Note: If your entry specifies more than one data set name and extends over one line of text, put a comma at the end of the first line (after the double quotes), and start the next line with double quotes, as follows:

QLSHELF = "'EOY.EXAMPLE1.BKLSHELF' 'EOY.EXAMPLE2.BKLSHELF',
          'EOY.EXAMPLE3.BKLSHELF'"

A description of each option follows. You should read about each of them before making any changes to the EOXVOPTS REXX EXEC. You should not change any other statements in the REXX EXEC. If your newly installed EOXVOPTS REXX EXEC does not match the information presented in the next sections, refer to the BookManager READ/MVS: Program Directory for updated information.
2.2.1 Filter for the Synonym Dictionaries

QDICTPTH specifies a filter that describes the BookManager synonym dictionary data set name. An asterisk (*) is used to represent where BookManager READ should place the seven-character dictionary name. The EOVOPTS member shipped with BookManager READ specifies:

QDICTPTH = "'EOY.*.LEXIS'"

Therefore, the data set name that contains the EIJENGL (U.S. English) synonym dictionary would be 'EOY.EIJENGL.LEXIS'.

Note: These are the same dictionaries used by BookManager BUILD. If you have BookManager BUILD installed, the data set names for the dictionaries must match the names in BookManager READ.

2.2.2 Default Synonym Dictionary

QDICTDFT specifies the seven-character default synonym dictionary name. The name replaces the asterisk in the QDICTPTH option to define the data set name containing the default dictionary (see 2.2.1, “Filter for the Synonym Dictionaries”).

When BookManager creates a bookshelf, it specifies that the default dictionary is used for synonym processing. While the user can select a different dictionary, it is recommended that the installation set QDICTDFT to the most commonly used value.

Unload all the language dictionaries so they will be available to users needing a dictionary other than the default.

The language dictionaries are shipped with a default fixed block standard (FBS) record format. Do not change this record format when you unload the dictionaries.

The EOVOPTS member shipped with BookManager READ specifies:

QDICTDFT = "EIJENGL"

Following is a list of languages that BookManager supports and the name of the synonym dictionary associated with that language.

<table>
<thead>
<tr>
<th>Language Name</th>
<th>Dictionary Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgian Dutch</td>
<td>EIJDUTC</td>
</tr>
<tr>
<td>Belgian French</td>
<td>EIJFREN</td>
</tr>
<tr>
<td>Brazilian Portuguese</td>
<td>EIJBPOR</td>
</tr>
<tr>
<td>Canadian French</td>
<td>EIJCFRE</td>
</tr>
<tr>
<td>Danish</td>
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</tr>
<tr>
<td>Swiss German</td>
<td>EIJGERM</td>
</tr>
<tr>
<td>Swiss Italian</td>
<td>EIJITAL</td>
</tr>
<tr>
<td>U.K. English</td>
<td>EIJUKEN</td>
</tr>
<tr>
<td>U.S. English</td>
<td>EIJENGL</td>
</tr>
</tbody>
</table>
2.2.3 Scrolling Indicators

Variable QMORECUA specifies the scrolling indicators used in BookManager READ/MVS. BookManager READ indicates that a list contains more information than can be shown on the screen in one of the following ways:

1. The following line is displayed:
   
   Topic lines 1/zero to 2/zero of 4/zero
   
   This indicates that you can scroll backwards to see lines 1 through 9 of the book, or forward to see lines 21 through 40.

2. The following line is displayed:
   
   More: + -
   
   The symbols are used to show that additional data is available after (+) and before (-) the displayed lines. This line also indicates if there is data to the left (<) or right (>) of the current information.

If you want to see the scrolling indicator appear as in example 1, specify QMORECUA="0". If you want to see the scrolling indicator appear as in example 2, specify QMORECUA="1". The EOXVOPTS member shipped with BookManager READ specifies:

QMORECUA = "0"

Note: All of the examples in BookManager READ/MVS: Displaying Online Books assume that QMORECUA = "0".

2.2.4 Network Node Identification

QNODE identifies the one- to eight-character network node on which you are executing. This value is placed in BookManager notes to identify the location where the notes originated. The value cannot contain imbedded blanks. The EOXVOPTS member shipped with BookManager READ specifies:

QNODE = "READ/MVS"

If you support multiple nodes, you can use a REXX case statement to set the QNODE based on the MVS SYSNAME value obtained from the SYS1.PARMLIB member IEASYXxx. This value is available in the ISPF variable ZSYSID. The SYSNAME parameter is described in the MVS/ESA: Initialization and Tuning Guide, GC28-1634.

To set the QNODE based on the MVS SYSNAME value, replace the default QNODE value in the EOXVOPTS member with the following lines:

ispexec "vget (ZSYSID)"
QNODE = "ZSYSID"

2.2.5 GDDM Symbol Set Libraries

QGDDMSYM specifies the data set names that contain the GDDM symbol sets. These data set names are needed to show graphics and output page segments (PSEGs) for printing. The EOXVOPTS member shipped with BookManager READ specifies:

QGDDMSYM = "'SYS1.GDDM.GDDMSYM'"
BookManager READ allocates these data set names, if specified, to the ADMSYMBL DDNAME during its initialization. If the user already has a data set allocated to the ADMSYMBL DDNAME, then the user's allocation is replaced.

If you do not have GDDM installed on your system, you can change this setting to read as follows:

QGDDMSYM = ""

### 2.2.6 GDDM Host Feature Code for OS/2-LINK and PCLK

QGDDMSAM specifies the data set name that contains the GDDM host feature code required for OS/2-LINK and PCLK. This data set is needed to show graphics on some programmable workstations. The EOXVOPTS member shipped with BookManager READ specifies:

QGDDMSAM = "'SYS1.GDDM.GDDMSAM'"

BookManager READ allocates this data set name, if specified, to the ADMPC DDNAME during its initialization. If the user already has a data set allocated to the ADMPC DDNAME, then the user's allocation is replaced.

If you do not have GDDM installed on your system, you can change this setting to read as follows:

QGDDMSAM = ""

### 2.2.7 GDDM Defaults Data Set Name

QGDDMDEF specifies the data set name that contains the GDDM defaults. For example, it specifies if GDDM is to check for PCLK being installed on the workstation. The EOXVOPTS member shipped with BookManager READ specifies:

QGDDMDEF = ""

BookManager READ allocates this data set name to the ADMDEFS DDNAME during its initialization, if nothing is currently allocated to ADMDEFS and the specified data set name exists.

### 2.2.8 Printer Font Data Set Names

The following variables are used to specify the font data set name for different types of printers:

- **QFNT38PP**
  - The data set name that contains the IBM 3800 Model 3 fonts. This data set name is used when the user asks to print a portion of a book using either BookMaster or Starter Set General Markup Language (SSGML) on a 3800 Model 3.

- **QFNT3820**
  - The data set name that contains the IBM 3820 Page Printer fonts. This data set name is used when the user asks to print a portion of a book using either BookMaster or SSGML on a 3820 page printer.

- **QFNT4250**
  - The data set name that contains the IBM 4250 printer fonts. This data set name is used when the user asks to print a portion of a book using either BookMaster or SSGML on a 4250 printer.

The EOXVOPTS member shipped with BookManager READ specifies:
BookManager READ uses the Gothic BookManager 8 Semilight (C0BKGL15, C1BKGL15, or C2BKGL15) font to support SSGML. If you do not have this font installed, copy it from the BookManager SEOFONT library and install it as documented in the Document Composition Facility: SCRIPT/VS Text Programmer's Guide.

2.2.9 BookMaster Data Set Names

If BookMaster is installed at your site, you must specify the name of the profile and macro libraries for it. These data set names are used to print a portion of a book using BookMaster. If BookMaster is not installed at your site, then do not specify anything between the quotation marks.

The following variables are used to specify the data set names containing the BookMaster profile and macro libraries:

- QBMPROF: The data set name that contains the BookMaster profile. This data set name is used when the user asks to print a portion of a book using BookMaster.
- QBMSMAC: The data set name that contains the BookMaster macro library. This data set name is used when the user asks to print a portion of a book using BookMaster.
- QBMUMAC: The data set name that contains the installation modifications to the BookMaster macro library. This data set name is used when the user asks to print a portion of a book using BookMaster. It is concatenated in front of the BookMaster macro library (defined by QBMSMAC).

The EOXSVOPTS member shipped with BookManager READ specifies:

- QBMPROF = "'SCRIPT.EDFPRF3/zerodot.TEXT'"
- QBMSMAC = "'SCRIPT.EDFLIB3/zerodot.MACLIB'"
- QBMUMAC = ""

2.2.10 GML Starter Set Data Set Names

If the GML Starter Set is installed at your site, specify the name of the profile and macro library for it. These data set names are used to print a portion of a book using the GML Starter Set. If the GML Starter Set is not installed at your site, then do not specify anything between the quotation marks.

The following variables are used to specify the data set names containing the GML Starter Set profile and macro libraries:

- QSSPROF: The data set name that contains the GML Starter Set profile. This data set name is used when the user asks to print a portion of a book using the GML Starter Set.
- QSSSMAC: The data set name that contains the GML Starter Set macro library. This data set name is used when the user asks to print a portion of a book using the GML Starter Set.
QSSUMAC  The data set name that contains the installation modifications to the GML Starter Set macro library. This data set name is used when the user asks to print a portion of a book using the GML Starter Set. It is concatenated in front of the GML Starter Set macro library (defined by QSSSMAC).

The EOXVOPTS member shipped with BookManager READ specifies:

QSSPROF = "'SCRIPT.DCF32.MACLIB(DSMPROF3)'"
QSSSMAC = "'SCRIPT.DCF32.MACLIB'"
QSSUMAC = ""

2.2.11 ProcessMaster Interface

QPUBSCMD specifies the name of the REXX EXEC used to invoke ProcessMaster to edit the source associated with a book. If you do not use ProcessMaster, then do not specify anything between the quotation marks. If supplied, ensure that its SELECT statement specifies NEWAPPL(EOXR), and not NEWAPPL(PUBS). Please see the member EOXRPUBS in the BookManager READ SEOYCLIB target library for an example.

The EOXVOPTS member shipped with BookManager READ specifies:

QPUBSCMD = ""

2.2.12 Online User Guide Data Set Name

QHELPDSN specifies the data set name that contains the online version of BookManager READ/MVS: Displaying Online Books. The EOXVOPTS member shipped with BookManager READ specifies:

QHELPDSN = "'EOY.ENU.EOX/zerodot3MST.BOOK'"

Note: ENU represents the U.S. English version of the book.

2.2.13 List of Bookshelves Available to All Users

QLSHELF specifies the data set names that contain the list of bookshelves available to all users. At least one data set name must be specified in the QLSHELF variable. If you don't want any bookshelves to be available to everyone, then this data set should be empty. Please see 2.5, “System Bookshelf List” on page 19 for information on creating this data set.

The EOXVOPTS member shipped with BookManager READ specifies:

QLSHELF = "'EOY.BKLSHELF'"

2.2.14 Default Link Bookshelf

QXSHELF specifies the name of the default link bookshelf for associative links. QXSHELF allows you to specify a bookshelf for BookManager READ to use to attempt to find associative information about words appearing in your text. When you select a word to request associative information, BookManager READ will look in this bookshelf for the associated information if it was not found in the book you are in or in the current bookshelf. For more information about associative links, see BookManager READ/MVS: Displaying Online Books.

The EOXVOPTS member shipped with BookManager READ specifies:

QXSHELF = ""
2.2.15 Print Code Page

QCODEPG specifies the code page used to generate your printed output. The EOXVOPTS member shipped with BookManager READ specifies:

QCODEPG = "0037"

Specify one of the following values:

<table>
<thead>
<tr>
<th>Language Name</th>
<th>Code Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgian Dutch</td>
<td>0274</td>
</tr>
<tr>
<td>Belgian French</td>
<td>0274</td>
</tr>
<tr>
<td>Brazilian Portuguese</td>
<td>0037</td>
</tr>
<tr>
<td>Canadian French</td>
<td>0037</td>
</tr>
<tr>
<td>Danish</td>
<td>0277</td>
</tr>
<tr>
<td>Dutch</td>
<td>0037</td>
</tr>
<tr>
<td>French</td>
<td>0297</td>
</tr>
<tr>
<td>German</td>
<td>0273</td>
</tr>
<tr>
<td>Italian</td>
<td>0280</td>
</tr>
<tr>
<td>Norwegian</td>
<td>0277</td>
</tr>
<tr>
<td>Portuguese</td>
<td>0282</td>
</tr>
<tr>
<td>Spanish</td>
<td>0284</td>
</tr>
<tr>
<td>Swedish</td>
<td>0278</td>
</tr>
<tr>
<td>Swiss French</td>
<td>0500</td>
</tr>
<tr>
<td>Swiss German</td>
<td>0500</td>
</tr>
<tr>
<td>Swiss Italian</td>
<td>0500</td>
</tr>
<tr>
<td>U.K. English</td>
<td>0285</td>
</tr>
<tr>
<td>U.S. English</td>
<td>0037</td>
</tr>
</tbody>
</table>

2.2.16 Display Code Page and Character Set

QDCODEPG and QDCHRSET specify the code page and character set used by your display terminals. These values are only used if BookManager READ cannot determine this information from the terminal, or the values returned by the terminal are unknown. The EOXVOPTS member shipped with BookManager READ specifies:

QDCODEPG = "0037"
QDCHRSET = "0101"

Following is a list of code page and character set combinations supported by BookManager READ.

<table>
<thead>
<tr>
<th>Country</th>
<th>Code Page</th>
<th>Character Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>0274</td>
<td>0269</td>
</tr>
<tr>
<td>Belgium</td>
<td>0500</td>
<td>1114</td>
</tr>
<tr>
<td>Brazil (obsolete)</td>
<td>0275</td>
<td>0273</td>
</tr>
<tr>
<td>Brazil</td>
<td>0037</td>
<td>0697</td>
</tr>
<tr>
<td>Canadian Bilingual</td>
<td>0037</td>
<td>0905</td>
</tr>
<tr>
<td>French (AZERTY)</td>
<td>0297</td>
<td>0682</td>
</tr>
<tr>
<td>German/Austria</td>
<td>0273</td>
<td>0265</td>
</tr>
<tr>
<td>International</td>
<td>0500</td>
<td>0103</td>
</tr>
<tr>
<td>Italy</td>
<td>0280</td>
<td>0293</td>
</tr>
<tr>
<td>Japan (English)</td>
<td>0281</td>
<td>0297</td>
</tr>
<tr>
<td>Japan (Katakana)</td>
<td>0290</td>
<td>0332</td>
</tr>
<tr>
<td>Norway/Denmark</td>
<td>0277</td>
<td>0281</td>
</tr>
<tr>
<td>Portugal</td>
<td>0037</td>
<td>1114</td>
</tr>
<tr>
<td>Portugal</td>
<td>0282</td>
<td>0301</td>
</tr>
<tr>
<td>Spain/Latin America</td>
<td>0284</td>
<td>0309</td>
</tr>
<tr>
<td>Spain/Latin America</td>
<td>0284</td>
<td>0650</td>
</tr>
</tbody>
</table>
BookManager READ issues a Read Partition Query to determine the character set and code page of the terminal. It uses the first set of returned values. If no character sets are returned, or the values returned by the terminal are unknown, BookManager READ uses the values specified by QDCODEPG and QDCHRSET.

To determine the code page and character set of a terminal:

1. Start ISPF, and go to option 0.7 (ISPF ENVIRON COMMAND SETTINGS).
2. Set the value for Invoke TERMSTAT to YES, and press ENTER.
3. Look for the output line CHARACTER SETS. For example, you might see:

   CHARACTER SETS
   001B81B8 82000C14 00000000 07000000 00650025 0100F103 C30136

   The fifth word (X'00650025' in this example) contains the 2-byte character set and 2-byte code page of the terminal. In this example, the terminal is using character set 0101 (X'0065') and code page 0037 (X'0025'). If this data is not returned, then the terminal does not provide this information.
BookManager READ supports the code pages and character sets listed in the preceding table. In addition, it supports the following country extended code pages:

<table>
<thead>
<tr>
<th>Country</th>
<th>Code Page</th>
<th>Character Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland/Belgium</td>
<td>0500</td>
<td>0697</td>
</tr>
<tr>
<td>USA/Canada</td>
<td>0037</td>
<td>0697</td>
</tr>
<tr>
<td>Portugal/Netherlands</td>
<td>0037</td>
<td>0697</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0285</td>
<td>0697</td>
</tr>
<tr>
<td>Austria/Germany</td>
<td>0273</td>
<td>0697</td>
</tr>
<tr>
<td>Brazil (obsolete)</td>
<td>0275</td>
<td>0697</td>
</tr>
<tr>
<td>Brazil</td>
<td>0037</td>
<td>0697</td>
</tr>
<tr>
<td>Denmark/Norway</td>
<td>0277</td>
<td>0697</td>
</tr>
<tr>
<td>Finland/Sweden</td>
<td>0278</td>
<td>0697</td>
</tr>
<tr>
<td>France</td>
<td>0297</td>
<td>0697</td>
</tr>
<tr>
<td>Italy</td>
<td>0280</td>
<td>0697</td>
</tr>
<tr>
<td>Spain/Latin America</td>
<td>0284</td>
<td>0697</td>
</tr>
<tr>
<td>Iceland</td>
<td>0871</td>
<td>0697</td>
</tr>
</tbody>
</table>

2.2.17 Session Language for BookManager

QZLANG specifies the three-character language abbreviation used as the suffix for the respective literal module to be loaded. The EOXVOPTS member shipped with BookManager READ specifies:

QZLANG = "ENU"

**Note:** The literal module EOXLLENU will be loaded at BookManager start-up. This value should be changed if your site uses a language other than English and a translated literal module exists in the SEOYLPA target library. The literal module is EOXLLLxxx, where xxx = QZLANG.

Following is a list of languages that BookManager supports and the three-character abbreviations for each language:

<table>
<thead>
<tr>
<th>Language Name</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazilian Portuguese</td>
<td>PTB</td>
</tr>
<tr>
<td>Canadian French</td>
<td>FRC</td>
</tr>
<tr>
<td>Dutch</td>
<td>NLD</td>
</tr>
<tr>
<td>French</td>
<td>FRA</td>
</tr>
<tr>
<td>German</td>
<td>DEU</td>
</tr>
<tr>
<td>Italian</td>
<td>ITA</td>
</tr>
<tr>
<td>Spanish</td>
<td>ESP</td>
</tr>
<tr>
<td>U.S. English</td>
<td>ENU</td>
</tr>
</tbody>
</table>

2.3 EOXMNALC New Data Set Allocation REXX EXEC

The member EOXMNALC in the BookManager READ SEOYCLIB target library is invoked when BookManager READ must create a new permanent data set. This REXX EXEC uses the TSO ALLOCATE command to create the data set. You can modify or add parameters to meet requirements at your site. For example, you may need to specify the UNIT parameter to have the data set created on a volume that is not scratched at the end of the day.

**Note:** You must not change the following parameters in this REXX EXEC:

- Data set name (DATASET)
- Record format (RECFM)
- Logical record length (LRECL)
Data set organization (DSORG).

Figure 4 shows a portion of the EOXMNALC REXX EXEC.

```
/*REXX*/
:
  installopts = "" /* No installation options */
:
  arg func dsname . /* get command arguments */
  if dsname="" then return -1 /* data set name required */
  select
    when (func=1) then do /* Dataset for BOOKSHELF */
      "ALLOCATE DATASET('"dsname"') installopts ,
      "NEW RECFM(V B) LRECL(259) BLKSIZE(0000)" ,
      "TRACKS SPACE(1,1) DSORG(PS)"
    lastrc=rc
    if (lastrc = 0) then "FREE DA('"dsname"')"
    end
  
  end
  return lastrc
```

Figure 4. EOXMNALC New Data Set Allocation REXX EXEC

The REXX EXEC is passed two parameters: the type of data set to allocate (func) and the data set name to allocate (dsname). The REXX EXEC uses a REXX select construct to handle the different types of data sets. For each type, the REXX EXEC:

1. Allocates (creates) the data set.
2. Frees the data set. It will later be re-allocated by the program.

If there are parameters that should be added to all these allocations, you can set the REXX variable installopts to these values. For example, you could specify:

```
installopts = "UNIT(TSO)"
```

to add UNIT(TSO) to all the allocation requests.
The following table lists the func values, and the use of the data set:

<table>
<thead>
<tr>
<th>func</th>
<th>Data Set Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bookshelf</td>
</tr>
<tr>
<td>2</td>
<td>Personal notes</td>
</tr>
<tr>
<td>3</td>
<td>Closing bookmarks</td>
</tr>
<tr>
<td>4</td>
<td>Print and copy output</td>
</tr>
<tr>
<td>5</td>
<td>List of bookshelves</td>
</tr>
<tr>
<td>6</td>
<td>PSEGs (Page Segments for printing)</td>
</tr>
<tr>
<td>7</td>
<td>GDDM picture data set</td>
</tr>
</tbody>
</table>

The func 8 value is used to allocate an existing data set. Do not change this entry.

### 2.4 BookManager READ/MVS Function Keys

The BookManager READ program defines function keys 2 and 9 as the traditional ISPF “split screen” and “swap.” This is the default setting for the program. As an option, BookManager READ allows you to use the IBM Systems Application Architecture* (SAA*) Common User Access* (CUA*) definitions, where F2 is “Toggle function key sets” and F9 is “Retrieve” (when showing help panels, F2 is extended help and F9 is keys help).

**Note:** All of the examples in BookManager READ/MVS: Displaying Online Books and BookManager READ/MVS Online Help assume that F2 is split and F9 is swap.

BookManager READ ships two sets of function key definitions. The default set contains members EOXRKEY2 and EOXNKEY2, and the CUA-defined set contains members EOXRKEY1 and EOXNKEY1. The function key members are located in the SEOYTENU target library.

The default keys are automatically installed during product installation. To use the CUA definitions, you must replace EOXRKEYS and EOXNKEYS with the EOXRKEY1 and EOXNKEY1 members. To do this, issue the following TSO commands:

```
DELETE 'EOY.SEOYTENU(EOXRKEYS)'
DELETE 'EOY.SEOYTENU(EOXNKEYS)'
RENAME 'EOY.SEOYTENU(EOXRKEY2)' 'EOY.SEOYTENU(EOXRKEYS)' ALIAS
RENAME 'EOY.SEOYTENU(EOXNKEY2)' 'EOY.SEOYTENU(EOXNKEYS)' ALIAS
```

The first two lines delete the alias entries EOXRKEYS and EOXNKEYS. The remaining lines create EOXRKEYS as an alias of EOXRKEY1, and EOXNKEYS as an alias of EOXNKEY1.

Use the SMP/E UCLIN function to update your target zone (and, optionally, the distribution library) to reflect the changed alias pointers so that any subsequent maintenance to the function key definitions will be correctly installed.

Run the following UCLIN to redefine the ALIAS pointers.

```
SET BDY(zone-name). /* Point to the appropriate zone */
UCLIN. /* Start the UCL function */
DEL TBLENU(EOXRKEY2) ALIAS(EOXRKEYS). /* Remove ALIAS from EOXRKEY2 */
ADD TBLENU(EOXRKEY1) ALIAS(EOXRKEYS). /* Add the ALIAS to EOXRKEY1 */
DEL TBLENU(EOXNKEY2) ALIAS(EOXNKEYS). /* Remove ALIAS from EOXNKEY2 */
ADD TBLENU(EOXNKEY1) ALIAS(EOXNKEYS). /* Add the ALIAS to EOXNKEY1 */
ENDUCL. /* Complete the UCL function */
```
2.5 System Bookshelf List

The data sets containing the list of bookshelves available to all users are shipped with BookManager READ. The data set names are specified in the QLSHELF parameter in the EOXVOPTS REXX EXEC. This parameter is described in 2.2.13, “List of Bookshelves Available to All Users” on page 13. The EOXVOPTS member shipped with BookManager READ specifies:

QLSHELF = "'EOY.BKLSHELF'"

Add the BookManager READ bookshelf to the EOY.BKLSHELF data set before making the product available to others. You can add the bookshelf during the installation verification procedure described in 3.2, “Setting Bookshelf Defaults and Verifying the Installation” on page 26.

2.6 Providing Help for Users at Your Site

Several of the BookManager READ online help panels instruct the user to contact the organization at your site that supports BookManager. The user is told to use Help for help on the Help pull-down to display the name of the person or organization to contact.

Since this information varies from site to site, you must write this help panel. The BookManager READ panel EOXVX99, located in the ISPF panel library SEOYPENU, is provided for this purpose. This help panel uses the scrollable help panel support provided by ISPF Version 3, Release 3. See the ISPF Dialog Management Guide and Reference for a description of this help panel support. If you would prefer to use the ISPF Dialog Tag Language (DTL) to generate this help panel, you can use the member EOXVX99X from the SEOYGENU target library. (The member EOXVX99X in the SEOYGENU target library is converted from the DTL and placed in the SEOYPENU target library as member EOXVX99.)

2.7 Customizing the Index Utility

The Index Utility creates a bookshelf and associates a synonym dictionary with each bookshelf search index to be used for synonym searching. Each bookshelf search index can have a different default language. Table 1 on page 22 lists the languages BookManager supports and the abbreviations and data set names of the linguistic dictionaries associated with each language.

To customize the Index Utility, you must perform the following steps:

- Update the EOYINDEX member
- Update the EOYPARM member.

These members are also used by BookManager BUILD. If you install BookManager READ and BUILD (or install BUILD at a later date), the same installation defaults are used for both products.
2.7.1 Updating the EOYINDEX Member

You must copy the EOYINDEX member to your system PROCLIB or to a user PROCLIB concatenated to the Job Entry Subsystem (JES) start-up procedure.

If you change the default value for the high-level qualifier in the BookManager READ data set names, you must update the EOYINDEX member. To update this member, specify the high-level qualifier for the Bookmanager READ data set names you choose to replace ‘EOY’. (See Figure 5 on page 21.)

EOYINDEX has two symbolic parms, DATCLS1 and DATCLS2. These parms allow users of System Managed Storage (SMS) to have SMS allocate the EXJINDEX search index and index utility temporary files. If you want SMS to allocate these files, you must customize these two parms in the EOYINDEX member.

English (ENU) is the default language for background messages. If you want READ/MVS Index Utility messages and panels to appear in the language of the READ/MVS product, find the following line in the EOYINDEX member of the SEOYPROC target library (shown in Figure 5 on page 21):

```
//MSGFILE DD DSN=&HLQ..SEOYBENU(EOYMSGS),DISP=SHR
```

Change SEOYBENU to reflect the language of the READ/MVS product.

Figure 5 on page 21 is the EOYINDEX member of the SEOYPROC target library.
Note: You may want to use an SMP/E usermod when you update the EOYINDEX member. This will help you keep track of changes to the member. For more information on usermods, see IBM System Modification Program Extended: Reference, SC28-1107.

2.7.2 Updating the EOYPARM Member

Figure 6 on page 22 is the EOYPARM member of the SEOYCLIB target library.
To update the EOYPARM member:

1. The eoyPROCLIB field is only used by BookManager BUILD. This specifies the location of the EOYBUILD member.

2. Specify the high-level qualifier for the BookManager READ data set names in place of ‘EOY’ in the eoyBLDhlq field. If BookManager BUILD is installed, the high-level qualifier must be the same for both products.

3. Specify the high-level qualifier for the synonym dictionary to be used with a bookshelf search index in the eoyLEXhlq field. The default high-level qualifier for the synonym dictionary is ‘EOY’.

4. Specify the abbreviation of the default language in the eoyLEXlang field. This is used to identify the synonym dictionary. Table 1 lists the abbreviations for the languages. In the EOYPARM member, U.S. English (‘ENGL’) is the default value.

5. Specify the high-level qualifier for temporary data set names in the eoyNOPREFhlq field. If the user's TSO profile is set to NOPREF (no prefix), this field will be used as the high-level qualifier for temporary data set names.

   User temporary data sets are usually allocated with the USERID as the high-level qualifier. If this is true at your installation, do not change the USERID keyword. The user's ID will be substituted during job execution in place of the USERID keyword.

   If the users at your site use a common high-level qualifier for data set allocation, change the USERID keyword to suit your installation.

Table 1 on page 22 lists the languages BookManager supports and the abbreviations and data set names of the linguistic dictionaries associated with each language.

<table>
<thead>
<tr>
<th>Language Name</th>
<th>Abbreviation</th>
<th>Dictionary Data Set Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgian Dutch</td>
<td>BDUT</td>
<td>E0Y.EIJDUTC.LEXIS</td>
</tr>
<tr>
<td>Belgian French</td>
<td>BFRE</td>
<td>E0Y.EIJFREN.LEXIS</td>
</tr>
<tr>
<td>Brazilian Portuguese</td>
<td>BPOR</td>
<td>E0Y.EIJBPOR.LEXIS</td>
</tr>
<tr>
<td>Canadian French</td>
<td>CFRE</td>
<td>E0Y.EIJCFRE.LEXIS</td>
</tr>
<tr>
<td>Danish</td>
<td>DANI</td>
<td>E0Y.EIJDANI.LEXIS</td>
</tr>
</tbody>
</table>
**Table 1** (Page 2 of 2). Synonym Languages, Abbreviations, and Dictionary Data Set Names

<table>
<thead>
<tr>
<th>Language Name</th>
<th>Abbreviation</th>
<th>Dictionary Data Set Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dutch</td>
<td>DUTC</td>
<td>EOY.EIJDUTC.LEXIS</td>
</tr>
<tr>
<td>French</td>
<td>FREN</td>
<td>EOY.EIJFREN.LEXIS</td>
</tr>
<tr>
<td>German</td>
<td>GERM</td>
<td>EOY.EIJGERM.LEXIS</td>
</tr>
<tr>
<td>Italian</td>
<td>ITAL</td>
<td>EOY.EIJITAL.LEXIS</td>
</tr>
<tr>
<td>Norwegian</td>
<td>NORW</td>
<td>EOY.EIJNORW.LEXIS</td>
</tr>
<tr>
<td>Portuguese</td>
<td>PORT</td>
<td>EOY.EIJPORT.LEXIS</td>
</tr>
<tr>
<td>Spanish</td>
<td>SPAN</td>
<td>EOY.EIJSPAN.LEXIS</td>
</tr>
<tr>
<td>Swedish</td>
<td>SWED</td>
<td>EOY.EIJSWED.LEXIS</td>
</tr>
<tr>
<td>Swiss French</td>
<td>SFRE</td>
<td>EOY.EIJFREN.LEXIS</td>
</tr>
<tr>
<td>Swiss German</td>
<td>SGER</td>
<td>EOY.EIJGERM.LEXIS</td>
</tr>
<tr>
<td>Swiss Italian</td>
<td>SITA</td>
<td>EOY.EIJITAL.LEXIS</td>
</tr>
<tr>
<td>U.K. English</td>
<td>UKEN</td>
<td>EOY.EIJUKEN.LEXIS</td>
</tr>
<tr>
<td>U.S. English</td>
<td>ENGL</td>
<td>EOY.EIJENGL.LEXIS</td>
</tr>
</tbody>
</table>

**Note:** You may want to use an SMP/E usermod when you update the EOYPARM member. This will help you keep track of changes to the member. For more information on usermods, see *IBM System Modification Program Extended: Reference.*
3.0 Final Steps

This section explains procedures for making BookManager READ available to other users. It then explains how to verify that the product has been successfully installed.

3.1 Making BookManager READ Available to Users

After you have installed BookManager READ, you must perform the following tasks:

- Add the SEOYLPA target library to PLPA or the LINKLIST. You should add the SEOYLPA target library to the SYS1.PARMLIB member LPALSTxx concatenation.

- Add the SEOYLOAD target library to the LINKLIST. Its members should not be placed in PLPA. You should add the SEOYLOAD target library to the SYS1.PARMLIB member LNKLSTxx concatenation.

For more information, see the descriptions of members LPALSTxx and LNKLSTxx in the MVS/ESA: Initialization and Tuning Guide and MVS/XA: Initialization and Tuning.

It is recommended that the load modules in the SEOYLPA target library reside in PLPA. This creates one copy of BookManager READ in memory for all users to access, thus reducing the amount of real storage required. Since these load modules are marked with RMODE(ANY), they will reside in extended PLPA (that is, above 16 megabytes virtual). These modules need approximately 1 megabyte of virtual storage.

Note: If BookManager BUILD/MVS is installed and EOYBOOK already resides in the LINKLIST, you must replace the module or library entry for EOYBOOK only. You must ensure that the DDDEF for the SEOYLOAD target library specifies the target library that contains EOYBOOK.

If you decide to copy the members of the SEOYLOAD target library to an existing LINKLIST data set, it is only necessary to copy EOYBOOK. Modules EOXMBMG1 and EOYBOOK1 are only used in SMP/E processing and the POST LINK-EDIT step, and modules EOXLCDE and EOXLCADR are only used in SMP/E processing.

After the SEOYLPA target library has been added to the LPALSTxx member, you must perform an initial program load (IPL).

You will also need to make the READ panel libraries, tables, messages, and REXX EXECs available to users. Table 2 on page 26 shows the names of the default libraries that must be concatenated to the proper ISPF DDNAMEs in the TSO logon procedure or a user-supplied ISPF start-up CLIST. The READ libraries are listed by the default target names; if you change them for your installation, remember to use the new names. Also, as an option, you could copy the members into the appropriate libraries that you are using for ISPF.
You should use the ISPF ISPPREP facility to build preprocessed versions of the panels. This step is optional, but **highly recommended**. An example would be to convert the entire partitioned data set EOY.SEOYPENU and unconditionally write the preprocessed panels to the partitioned data set EOY.PREP.SEOYPENU. Both data sets are cataloged. The command for this example would look like this:

```
SELECT PGM(ISPPREP) PARM(INPAN('EOY.SEOYPENU(/c5197)'),
| OUTPAN('EOY.PREP.SEOYPENU( )'),
| REPLACE) NEWAPPL
```

The partitioned data set containing the preprocessed panels must be concatenated into the ISPPLIB search string for the ISPF start-up CLIST. Do not replace EOY.SEOYPENU with the partitioned data set created by the preprocessing procedure.

For more information on using ISPPREP, see the *ISPF Dialog Management Guide and Reference*.

### Table 2. Libraries To Be Concatenated

<table>
<thead>
<tr>
<th>READ Data Set Name (default)</th>
<th>DDNAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOY.SEOYCLIB</td>
<td>SYSPROC (or SYSEXEC)</td>
</tr>
<tr>
<td>EOY.SEOYPENU</td>
<td>ISPPLIB</td>
</tr>
<tr>
<td>EOY.SEOYTENU</td>
<td>ISPTLIB</td>
</tr>
<tr>
<td>EOY.SEOYMENU</td>
<td>ISPMLIB</td>
</tr>
</tbody>
</table>

3.2 Setting Bookshelf Defaults and Verifying the Installation

To make the BookManager READ/MVS bookshelf available to everyone and to verify that BookManager READ has been installed properly, perform the following steps.

**Note:** For more information on the panels described in this section, see *BookManager READ/MVS: Displaying Online Books*.

Each BookManager READ user requires access to the product libraries and a recommended region size of 4 megabytes. If you use large books or use many books, you may require a larger region size.

1. Logon to a user ID that has all the required libraries allocated. If you have not yet added the BookManager READ/MVS modules to PLPA, concatenate the SEOYLOAD and SEOYLPA target libraries to the ISPPLIB DDNAME.

2. Start ISPF.

3. Do one of the following:
   - If you added BookManager READ to an ISPF selection panel, enter the required ISPF option.
   - Otherwise, go to ISPF option 6, type `%BOOKMGR`, and press ENTER. BookManager READ logo information is displayed.

4. Press ENTER. A bookshelf list is displayed. However, there are no bookshelves currently available. Press **F12** to cancel the pop-up window.

5. If your function key definitions are not showing at the bottom of the screen, type **fka** on the command line and press ENTER.
6. Select **Books** on the action bar. The **Books** pull-down is displayed.

7. Select **Perform file functions** in the **Books** pull-down. The **Perform File Functions** window is displayed.

8. Select **Add** in the **Function to perform** field. The **Add Bookshelf** window is displayed.

9. Type the BookManager READ bookshelf data set name in the **Data set name** field and press ENTER. This data set was created when the online books were copied from the SMP/E target libraries to sequential data sets. If you used the data set names specified in the supplied sample JCL, type the following for the bookshelf data set name:

   `'EOY.ENU.BOOKMGRR.BK SHELF'`

   Be sure to type single quotation marks immediately before and after the name.

   **Note:** This value is the fully qualified default data set name, as specified in the provided unload job. The ENU qualifier specifies English.

   The **Bookshelf List Data Set to be Modified** window is displayed. The **Data set name** field contains the data set name of your personal bookshelf list.

10. Replace the bookshelf list data set name in the **Data set name** field with the data set name of your site's system bookshelf list. This data set name is specified in the EOXVOP TS option QLSHELF (see 2.2.13, “List of Bookshelves Available to All Users” on page 13). Be sure to type single quotation marks immediately before and after the name. Then press ENTER. Press **F12** to cancel the pop-up window.

   The **Bookshelf List Data Set to be Modified** window is removed and the bookshelf is added to the system bookshelf list.

11. Press **F5** to refresh the bookshelf list. The BookManager READ bookshelf is now in the list.

12. If you installed the BookManager READ bookshelf search index and books using the default data set names, go to step 13 on page 28. Otherwise, modify the BookManager READ bookshelf before using it by following these procedures:

   a. Type a slash (/) over the underscore to the left of the bookshelf name.

   b. Select **Books** on the action bar.

   c. Select **Perform file functions**. The **Perform File Functions** window is displayed.

   d. Select **Edit** in the **Function to perform** field.

   It is assumed that you used the default data set names, except for a different high-level qualifier. If you chose completely different data set names, please see the chapter “Performing File Functions” in *BookManager READ/MVS: Displaying Online Books*.

   e. Select **Change high-level qualifiers** in the **Edit Bookshelf** window. The **Change High-level Qualifiers** window is displayed.

   f. Type **EOY.ENU** in the **From** field. Type the new high-level qualifier(s) in the **To** field.

      **Note:** The ENU qualifier specifies English.

   g. Press ENTER. A confirmation window is displayed.
h. Select **Yes** to accept the change and return to the **Edit Bookshelf** window.

i. Press **F12** twice to return to the bookshelf list.

13. Move the cursor to the bookshelf listed and press ENTER. The bookshelf is displayed with the list of books on it. The cursor is next to the first book in the list.

14. Press ENTER to display the book.

15. Move the cursor to the command line, and type the following command:

   SEARCH online

   Then press ENTER. The **List All Topics with Matches** window is displayed. The cursor is next to the first entry.

16. Press ENTER to see the selected topic.

17. Select **Books** on the action bar.

18. Select **Exit BookManager** in the **Books** pull-down. A confirmation window is displayed.

19. Select **Yes** in the confirmation window to exit BookManager.

The installation verification is complete.

**Note:** If you are also installing BookManager BUILD/MVS, you should add its online bookshelf data set name to the system bookshelf list data set.
4.0 Installation-Wide Exits

BookManager READ/MVS provides the following installation-wide exits that allow you to extend your site's capabilities:

- A synonym exit to provide additional synonyms for a word (EOXVX01)
- A book open/close exit to collect statistics about a book's usage (EOXVX02)
- A search expansion exit to modify the search request before the BookManager READ search (EOXVX03)
- A changed bookshelf exit to invoke the BookManager Index Utility when a bookshelf has been changed or created (EOXVX51)
- A print facility exit to choose an alternative print facility (EOXVXPR). If any exit is not included, BookManager READ just ignores it.

It is recommended that you use SMP/E to install and maintain these exits.

4.1 Synonym Exit — EOXVX01

Exit EOXVX01 allows your site to provide its own synonyms. When you request a synonym, BookManager READ invokes this exit and gives it the word you entered. The exit can use any facility it chooses to locate synonyms. BookManager READ adds the returned synonyms to its own list of synonyms. You are allowed to select entries from the combined list. Only one-word synonyms are allowed.

A sample exit is contained in the SEOYSAMP target library as member EOXVX01.

4.1.1 Exit Routine Environment

- EOXVX01 must be written in S/370* assembler, or a language that supports standard MVS linkage conventions.
- EOXVX01 receives control in AMODE 31. It must return in the same AMODE. RMODE can be 24 or ANY.
- EOXVX01 should not change the general-purpose register 12.

4.1.2 Installing the Exit

BookManager READ/MVS provides a synonym exit in the SEOYLOAD target library. This module must be available when BookManager READ executes. This exit is link-edited as its own module. The name of the module must be EOXVX01. This exit should be re-entrant and placed in PLPA, thus replacing the IBM-supplied exit. For testing purposes, this member can be in a data set allocated to the ISPF ISPLLIB.

The provided exit does not return any synonyms.
4.1.3 Entry and Exit Specifications

All addresses are 31-bit.

The register contents on entry to EOXVX01 are:

<table>
<thead>
<tr>
<th>Register</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Not applicable</td>
</tr>
<tr>
<td>1</td>
<td>Address of the parameter list</td>
</tr>
<tr>
<td>2-12</td>
<td>Not applicable</td>
</tr>
<tr>
<td>13</td>
<td>Register save area</td>
</tr>
<tr>
<td>14</td>
<td>Return address</td>
</tr>
<tr>
<td>15</td>
<td>Entry point address of EOXVX01</td>
</tr>
</tbody>
</table>

Register 1 on entry points to the following parameter list:

**Word 1** The address of a fullword containing the version level for this exit. This word is currently 1.

**Word 2** The address of a fullword containing an installation-wide exit communication value. This communication value is passed to all the installation-wide exits. This field is initialized to binary zeros when BookManager READ begins execution.

**Word 3** The address of a fullword containing an EOXVX01 exit communication value. This communication value is passed to EOXVX01 every time it is invoked. This field is initialized to binary zeros when BookManager READ begins execution. Note that this communication value is unique to this exit, while the value pointed to by word 2 is common to all the installation-wide exits.

**Word 4** The address of a fullword containing the reason this exit was called. This exit is called for one of the following reasons:

<table>
<thead>
<tr>
<th>Value</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Find synonyms for the word</td>
</tr>
<tr>
<td>1</td>
<td>Synonym processing complete for this word</td>
</tr>
<tr>
<td>2</td>
<td>BookManager READ is initializing</td>
</tr>
<tr>
<td>3</td>
<td>BookManager READ is terminating</td>
</tr>
</tbody>
</table>

**Word 5** The address of 8192 bytes of storage that can be used by this exit for temporary storage. This area is located below 16 megabytes of virtual storage (that is, it can be addressed if executing in 24-bit mode).

**Word 6** The address of a character string containing the word for which the exit is to find synonyms. This word is terminated by a X'00' character. This word is in CECP 500. The content is meaningful only for entry reason 0 (find synonyms).

**Word 7** The address of the search wildcard character. This is a 1-byte field. The content is meaningful only for entry reason 0 (find synonyms).

**Word 8** The address of a fullword containing the type of search requested:

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fuzzy search</td>
</tr>
<tr>
<td>2</td>
<td>Exact match, ignore case</td>
</tr>
<tr>
<td>3</td>
<td>Exact match, including case</td>
</tr>
</tbody>
</table>

The content is meaningful only for entry reason 0 (find synonyms).
Word 9  The address of a fullword containing the type of object being searched:

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Book</td>
</tr>
<tr>
<td>1</td>
<td>Bookshelf</td>
</tr>
</tbody>
</table>

The content is meaningful only for entry reason 0 (find synonyms).

Word 10  The address of a character string containing the data set name of the
book or bookshelf being searched. The character string is terminated by
a X'00'. The content is meaningful only for entry reason 0 (find synonyms).

Word 11  The address of a character string containing the document number of
the book. The character string is terminated by a X'00'. The string is
empty (that is, the first character is a X'00') if the book does not have a
document number or a bookshelf is being searched. The content is
meaningful only for entry reason 0 (find synonyms).

Word 12  The address of a fullword that is set by the exit to point to the list of
returned synonyms. This fullword is initialized to binary 0 by
BookManager prior to calling the exit to find synonyms (reason 0). The
value returned by the exit is passed to the exit when it is called at
synonym processing completion (reason 1). The content is meaningful
only for entry reasons 0 (find synonyms) and 1 (synonym processing
complete).

Word 13  The address of a fullword that is set by the exit to the number of
synonyms returned in the list pointed to by parameter 12. This fullword
is initialized to binary 0 by BookManager prior to calling the exit to find synonyms (reason 0). The
value returned by the exit is passed to the exit when it is called at
synonym processing completion (reason 1). The content is meaningful
only for entry reasons 0 (find synonyms) and 1 (synonym processing
complete).

On return from EOXVX01, the register contents must be:

<table>
<thead>
<tr>
<th>Register</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-14</td>
<td>Restored to contents on entry</td>
</tr>
<tr>
<td>15</td>
<td>A value of 0</td>
</tr>
</tbody>
</table>

### 4.1.4 Programming Considerations

This exit is called by BookManager READ during its initialization processing with a
reason code (parameter 4) of 2. This allows the exit to initialize any control blocks
or data sets needed to find synonyms during this session.

This exit is again called by BookManager READ when it is terminating. This time
the reason code (parameter 4) is 3. This allows the exit to release any resources it
has acquired.

This exit is called twice whenever a user asks for synonyms.

- The first time (reason 0), the exit returns the site-unique synonyms. The exit
sets parameter 13 to the number of synonyms being returned. It then sets
parameter 12 to point to a string containing the single-word synonyms. Each
synonym is ended by a X'00'. For example, if the site provides the words CPU
and CEC as synonyms for the word PROCESSOR, the exit would set parameter
13 to 2, and parameter 12 to point to a string containing:
where | is the hexadecimal character X’00’.

- The second time (reason 1), the exit frees any resources it obtained finding the synonyms.

### 4.2 Open/Close Book Exit — EOXVX02

Exit EOXVX02 allows a site to monitor use of an online book. This exit is called whenever a book is opened or closed.

A sample exit is contained in the SEOYSAMP target library as member EOXVX02.

#### 4.2.1 Exit Routine Environment

- EOXVX02 must be written in S/370 assembler, or a language that supports standard MVS linkage conventions.
- EOXVX02 receives control in AMODE 31. It must return in the same AMODE. RMODE can be 24 or ANY.
- EOXVX02 should not change the general-purpose register 12.

#### 4.2.2 Installing the Exit

BookManager READ/MVS provides a synonym exit in the SEOYLOAD target library. This module must be available when BookManager READ executes. This exit is link-edited as its own module. The name of the module must be EOXVX02. This exit should be re-entrant and placed in PLPA, thus replacing the IBM-supplied exit. For testing purposes, this member can be in a data set allocated to the ISPF ISPLLIB.

The provided exit returns immediately to the caller.

#### 4.2.3 Entry and Exit Specifications

All addresses are 31-bit.

The register contents on entry to EOXVX02 are:

<table>
<thead>
<tr>
<th>Register</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Not applicable</td>
</tr>
<tr>
<td>1</td>
<td>Address of the parameter list</td>
</tr>
<tr>
<td>2-12</td>
<td>Not applicable</td>
</tr>
<tr>
<td>13</td>
<td>Register save area</td>
</tr>
<tr>
<td>14</td>
<td>Return address</td>
</tr>
<tr>
<td>15</td>
<td>Entry point address of EOXVX02</td>
</tr>
</tbody>
</table>

Register 1 on entry points to the following parameter list:

**Word 1**  
The address of a fullword containing the version level for this exit. This word is currently 1.

**Word 2**  
The address of a fullword containing an installation-wide exit communication value. This communication value is passed to all the installation-wide exits. This field is initialized to binary zeros when BookManager READ begins execution.
Word 3  The address of a fullword containing an EOXVX02 exit communication value. This communication value is passed to EOXVX02 every time it is invoked. This field is initialized to binary zeros when BookManager READ begins execution. Note that this communication value is unique to this exit, while the value pointed to by word 2 is common to all the installation exits.

Word 4  The address of a fullword containing the reason this exit was called. This exit is called for the following reasons:

<table>
<thead>
<tr>
<th>Value</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Book being opened</td>
</tr>
<tr>
<td>1</td>
<td>Book being closed</td>
</tr>
<tr>
<td>2</td>
<td>BookManager READ is initializing</td>
</tr>
<tr>
<td>3</td>
<td>BookManager READ is terminating</td>
</tr>
</tbody>
</table>

Word 5  The address of 8192 bytes of storage that can be used by this exit for temporary storage. This area is located below 16 megabytes of virtual storage (that is, it can be addressed if executing in 24-bit mode).

Word 6  The address of a character string containing the data set name of the book being opened or closed. The character string is terminated by a X'00'. The content is meaningful only for entry reason 0 (book being opened) and 1 (book being closed).

Word 7  The address of a character string containing the document number of the book. The character string is terminated by a X'00'. The string is empty (that is, the first character is a X'00') if the book does not have a document number. The content is meaningful only for entry reasons 0 (book being opened) and 1 (book being closed).

Word 8  The address of a fullword that is set by BookManager READ to binary zero before calling the exit for reason 0 (book being opened). The value placed in this word by the exit is returned to the exit when it is called for reason 1 (book being closed). The content is meaningful only for entry reasons 0 (book being opened) and 1 (book being closed).

On return from EOXVX02, the register contents must be:

<table>
<thead>
<tr>
<th>Register</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-14</td>
<td>Restored to contents on entry</td>
</tr>
<tr>
<td>15</td>
<td>A value of 0</td>
</tr>
</tbody>
</table>

4.2.4 Programming Considerations

This exit is called by BookManager READ during its initialization processing with a reason code (parameter 4) of 2. This allows the exit to initialize any control blocks or data sets needed when a book is opened or closed during this session.

This exit is again called by BookManager READ when it is terminating. This time the reason code (parameter 4) is 3. This allows the exit to release any resources it has acquired.

This exit is called twice for every book the user asks to read. The first call occurs when the user opens the book. The second call occurs when the user closes the book.
You may have several books open concurrently. You can also open the same book multiple times. For example, you could:

3. Open book 1 (for the second time).

In this case, the EOXVX02 exit would be called three times for reason 0 (book being opened). In addition, word 8 would be set to 0 for each call. When you closed the book, EOXVX02 would be passed the word 8 value set in the corresponding open call.

### 4.3 Search Expansion Exit — EOXVX03

Exit EOXVX03 allows your site to modify the search request before the BookManager READ search. When a user enters a search string and then requests that a search be done, BookManager READ invokes this exit and gives it the search request that the user entered. The exit can use any facility it chooses to modify the search request. BookManager READ uses the modified search string as well as the modified search parameters in its own search.

A sample exit is contained in the SEOYSAMP target library as member EOXVX03.

#### 4.3.1 Exit Routine Environment

- EOXVX03 must be written in S/370 assembler, or a language that supports standard MVS linkage conventions.
- EOXVX03 receives control in AMODE 31. It must return in the same AMODE. RMODE can be 24 or ANY.
- EOXVX03 should not change the general-purpose register 12.

#### 4.3.2 Installing the Exit

BookManager READ/MVS provides a search expansion exit in the SEOYLOAD target library. This module must be available when BookManager READ executes. This exit is link-edited as its own module. The name of the module must be EOXVX03. This exit should be re-entrant and placed in PLPA, thus replacing the IBM-supplied exit. For testing purposes, this member can be in a library allocated to the ISPF ISPLLIB.

The provided exit returns the original search string and parameters that the user entered, unmodified.

#### 4.3.3 Entry and Exit Specifications

All addresses are 31-bit.

The register contents on entry to EOXVX03 are:

<table>
<thead>
<tr>
<th>Register</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Not applicable</td>
</tr>
<tr>
<td>1</td>
<td>Address of the parameter list</td>
</tr>
<tr>
<td>2-12</td>
<td>Not applicable</td>
</tr>
<tr>
<td>13</td>
<td>Register save area</td>
</tr>
<tr>
<td>14</td>
<td>Return address</td>
</tr>
</tbody>
</table>
Entry point address of EOXVX03

Register 1 on entry points to the following parameter list:

**Word 1** The address of a fullword containing the version level for this exit. This word is currently 1.

**Word 2** The address of a fullword containing an installation-wide exit communication value. This communication value is passed to all the installation-wide exits. This field is initialized to binary zeros when BookManager READ begins execution.

**Word 3** The address of a fullword containing an EOXVX03 exit communication value. This communication value is passed to EOXVX03 every time it is invoked. This field is initialized to binary zeros when BookManager READ begins execution. Note that this communication value is unique to this exit, while the value pointed to by word 2 is common to all the installation-wide exits.

**Word 4** The address of a fullword containing the reason this exit was called. This exit is called for one of the following reasons:

<table>
<thead>
<tr>
<th>Value</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Modify the search request</td>
</tr>
<tr>
<td>1</td>
<td>Expansion processing complete for this search</td>
</tr>
<tr>
<td>2</td>
<td>BookManager READ is initializing</td>
</tr>
<tr>
<td>3</td>
<td>BookManager READ is terminating</td>
</tr>
</tbody>
</table>

**Word 5** The address of 8192 bytes of storage that can be used by this exit for temporary storage. This area is located below 16 megabytes of virtual storage (that is, it can be addressed if executing in 24-bit mode).

**Word 6** The address of a character string containing the request the exit is to modify. This character string is terminated by a X'00' character and will be no longer than 256 characters, including the X'00' terminating character. This request is in CECP 500. The content is meaningful only for reason code 0 (modify search request).

**Word 7** The address of the search wildcard character. This is a 1-byte field. The content is meaningful only for entry reason 0 (modify search request). This character may be changed. Only one character is allowed.

**Word 8** The address of the search phrase separator character. This is a 1-byte field. The content is meaningful only for entry reason 0 (modify search request). This search phrase separator character may be changed by the exit. Only one character is allowed.

**Word 9** The address of a fullword containing the type of search requested:

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fuzzy search</td>
</tr>
<tr>
<td>2</td>
<td>Exact match, ignore case</td>
</tr>
<tr>
<td>3</td>
<td>Exact match, including case</td>
</tr>
</tbody>
</table>

The content is meaningful only for entry reason 0 (modify search request). This fullword may be changed, but only the three values above are allowed. If a value other than that appears, BookManager READ will use the value 1.
Note: If you are searching a bookshelf (word 10 contains a value of 1), a fuzzy search is always performed.

**Word 10** The address of a fullword containing the type of object being searched:

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Book</td>
</tr>
<tr>
<td>1</td>
<td>Bookshelf</td>
</tr>
</tbody>
</table>

The content is meaningful only for entry reason 0 (modify search request).

**Word 11** The address of a character string containing the data set name of the book or bookshelf being searched. The character string is terminated by a X'00'. The content is meaningful only for entry reason 0 (modify search request).

**Word 12** The address of a character string containing the document number of the book. The character string is terminated by a X'00'. The string is empty (that is, the first character is a X'00') if the book does not have a document number or a bookshelf is being searched. The content is meaningful only for entry reason 0 (modify search request).

**Word 13** The address of a fullword that is set by the exit to point to the modified search string. The modified search string should not be longer than 256 characters, including the X'00' terminating character. This fullword is initialized to binary 0 by BookManager prior to calling the exit to modify search request (reason 0). The value returned by the exit is passed to the exit when it is called at search processing completion (reason 1). The content is meaningful only for entry reasons 0 (modify search request) and 1 (search processing complete).

On return from EOXYX03, the register contents must be:

<table>
<thead>
<tr>
<th>Register</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-14</td>
<td>Restored to contents on entry</td>
</tr>
<tr>
<td>15</td>
<td>A value of 0</td>
</tr>
</tbody>
</table>

### 4.3.4 Programming Considerations

This exit is called by BookManager READ during its initialization processing with a reason code (parameter 4) of 2. This allows the exit to initialize any control blocks or data sets needed to modify the search request during this session.

This exit is again called by BookManager READ when it is terminating. This time the reason code (parameter 4) is 3. This allows the exit to release any resources it has acquired.

This exit is called twice whenever a user asks for search.

- The first time (reason 0), the exit returns the modified search request. The exit may set parameters 7, 8, and 9. It then sets parameter 13 to point to a string containing the modified search string. This string is ended by a X'00' and is no longer than 255 characters. For example, if the user entered CPU as the search string and the exit provides the expansion for this acronym, then the exit would set parameter 13 to point to a string containing:

  CPU; Central Processing Unit
where | is the hexadecimal character X'00'. The exit would also set parameter 8 to be the semicolon in this case.

- The second time (reason 1), the exit frees any resources it obtained in modifying the search request.

### 4.4 Changed Bookshelf Exit — EOXVX51

Exit EOXVX51 is given control when a bookshelf data set is created, modified or deleted. A possible use of this exit is to invoke the BookManager Index Utility.

#### 4.4.1 Exit Routine Environment

EOXVX51 must be a REXX EXEC or CLIST.

#### 4.4.2 Installing the Exit

BookManager READ/MVS provides a REXX EXEC in member EOXVX51 in the SEOYCLIB target library. This REXX EXEC must be available when BookManager READ executes.

The provided exit returns immediately.

#### 4.4.3 Entry and Exit Specifications

Parameters on entry to EOXVX51 are space delimited values. There are three (3) parameters:

- **Action**
  - This is a numeric code indicating the action that was taken on the bookshelf whose data set name appears in the second parameter. Valid values are:
    - 1 A book or books have been removed from the named bookshelf.
    - 2 A book or books have been added to the named bookshelf.
    - 3 A book or books have replaced the contents of the existing bookshelf.
    - 4 The named bookshelf has been created using the Copy a Bookshelf function.
    - 5 The named bookshelf has been created with selected books from an existing bookshelf.
    - 6 The named bookshelf has been deleted.
    - 7 The bookshelf index for the named bookshelf has been deleted.
    - 8 The named bookshelf and its associated index have been deleted.
    - 9 Changes have been made to the named bookshelf using the Edit a Bookshelf function.
    - 10 Changes have been made to the named bookshelf using the Bookshelf Validation process.

- **Bookshelf Data Set Name**
  - The fully qualified data set name of the bookshelf that has been created, modified, or deleted. The data set name is not enclosed in single quotation marks (').

- **Index Data Set Name**
  - This is an optional parameter that contains the fully qualified data set name of the index specified for the bookshelf identified above. If the parameter is not present, this indicates that no index was specified in the bookshelf. The data set name is not enclosed in single quotation marks (').
On return from EOXVX51, the REXX EXEC should terminate with a return code of zero (0).

4.4.4 Programming Considerations
This exit is called once for each modification to a bookshelf, such as copying a bookshelf. Due to the many reasons that will cause this exit to be activated, the programmer should consider using the Action code whenever invoking another process from this exit.

4.5 Print Facility Exit — EOXVXPRT
Exit EOXVXPRT is given control when a print data set is submitted to a print facility that defaults to SCRIPT/VS PROCESSOR or PDF HARDCOPY UTILITY. This exit allows you to choose a print facility other than one of the defaults.

4.5.1 Installing the Exit
BookManager READ/MVS provides a REXX EXEC in member EOXVXPRT in the SEOYCLIB target library. This REXX EXEC must be available when BookManager READ executes.

The provided exit invokes the default print facility.

4.5.2 Entry and Exit Specifications
Parameters on entry to EOXVXPRT are space delimited values. There are two parameters:

Printopt This is a numeric code indicating the choice of print facilities followed by space for the name of the print facility you choose. Valid values are:

1 The hardcopy print facility. (The default is ISRUHC.)
2 SCRIPT/VS Processor or your choice. (The default is ISFRPR.)

Printdsn This is the fully qualified data set name of the data set to be printed. The data set name is not enclosed in single quotation marks (').

On return from EOXVXPRT, the REXX EXEC should terminate with a return code of 0.

4.5.3 Programming Considerations
This exit is called once for each print job submitted to the print facility. This exit may be used in conjunction with an ISPF print utility exit. If an ISPF print exit is used, the ISPF variable TCMD in the application profile pool should contain P if the data set were printed successfully. When the hardcopy print facility is used as the default, the variable ZUHOPT should not contain " " (in place of, for example, PK or PD) if the data set were printed successfully.

Note: See IBM Interactive System Productivity Facility (ISPF) and ISPF/Program Development Facility (ISPF/PDF): Planning and Customizing, SC34-4257, for more information on ISPF print exits.

________________________ End of Product-Sensitive Programming Interfaces __________________
Glossary of Terms and Abbreviations

This glossary defines all new terms and abbreviations used in this manual. If you do not find the term you are looking for, refer to the index or to the IBM Dictionary of Computing, SC20-1699.

This glossary includes terms and definitions from:

- The American National Standard Dictionary for Information Systems, ANSI X3.172-1990, copyright 1990 by the American National Standards Institute (ANSI). Copies may be purchased from the American National Standards Institute, 1430 Broadway, New York, New York 10018. Definitions are identified by the symbol (A) after the definition.

- The Information Technology Vocabulary, developed by Subcommittee 1, Joint Technical Committee 1, of the International Organization for Standardization and the International Electrotechnical Commission (ISO/IEC JTC1/SC1). Definitions of published parts of this vocabulary are identified by the symbol (I) after the definition; definitions taken from draft international standards, committee drafts, and working papers being developed by ISO/IEC JTC1/SC1 are identified by the the symbol (T) after the definition, indicating that final agreement has not yet been reached among the participating National Bodies of SC1.

- The Military Specification MIL-STD-1840A: Automated Interchange of Technical Information. Definitions are identified by the symbol (M) after the definition.

A

access. (1) To obtain the possibility to use a computer resource. (T) (2) The manner in which files or data sets are referred to by the computer.

action bar. The area at the top of a panel containing keywords that give a user access to actions available on that panel. For example, when a user selects Help on the action bar, the Help pull-down is displayed. See also pull-down and window.

advanced function printer. A printer that supports IBM's advanced function printing family of software products. Examples include the IBM 3800 Printing Subsystem Model 3, IBM 3812, 3920, and 3927 Page Printers, and IBM 4250 Printer.

allocation. The process of requesting access to a data set.

alphanumeric display device. Synonym for character display device.

ASCII. American National Standard Code for Information Interchange. The standard code, using a coded character set consisting of 7-bit coded characters (8-bits including parity check), used for information interchange among data processing systems, data communication systems, and associated equipment. The ASCII set consists of control characters and graphic characters. (A)

attribute. A format characteristic of an MVS data set, such as track size.

author. The originator of an item such as a document, a data set, or an application.

authorize. To permit or give authority to a user to communicate with or make use of an object, resource, or function. IBM's RACF, or an equivalent security product, is used to provide this authorization checking.

B

book. (1) A publication or other written material; a document. (2) A soft-copy document, created by BookManager BUILD, that can be viewed and searched at a display device with BookManager READ.

BookManager. A family of IBM licensed programs that lets users create and display online books. See BookManager BUILD/MVS, BookManager BUILD/VM, BookManager READ/DOS, BookManager READ/MVS, BookManager READ/VM, and BookManager READ/2.

BookManager BUILD/MVS. An IBM licensed program that lets users create online books on an MVS host system from source files (called data sets) formatted using DCF.

BookManager BUILD/VM. An IBM licensed program that lets users create online books on a VM host system from source files formatted using DCF.

BookManager READ/DOS. An IBM licensed program that lets users display, search, organize, and annotate online books built on a VM or MVS host system using a programmable workstation running the DOS operating system.

BookManager READ/MVS. An IBM licensed program that lets users on an MVS host system display, search, organize, and annotate online books built with BookManager BUILD/MVS or BookManager BUILD/VM.
BookManager READ/VM. An IBM licensed program that lets users on a VM host system display, search, organize, and annotate online books built with BookManager BUILD/VM or BookManager BUILD/MVS.

BookManager READ/2. An IBM licensed program that lets users display, search, and annotate online books built on a VM or MVS host system using a programmable workstation running the OS/2 operating system.

BookMaster. An IBM licensed program consisting of a generalized markup language that is more extensive than the GML Starter Set. Its full name is IBM Host Publishing Systems BookMaster.

bookshelf. (1) A logical grouping of online books that allows users to organize their online books according to how they intend to use them. (2) A data set containing the definition of a bookshelf.

bookshelf list. A list of bookshelves with similar data set names or a list of all of the bookshelves that a user can access.

bookshelf search index. (1) A comprehensive index, created with the Index Utility, based on the information in all the books on a bookshelf. A bookshelf search index allows for a rapid search of all the books on a bookshelf. (2) A data set containing the search index for a bookshelf.

cartridge. A storage device that consists of magnetic tape, on supply and takeup reels, in a protective housing.

catalog. The collection of all data set indexes that are used by the control program to locate a volume containing a specific data set.

cataloged data set. A data set that is represented in an index, or hierarchy of indexes, in the system catalog; the indexes provide the means for locating the data set.

country extended code page. An 8-bit code page that has a 93-character set on its nationally standardized code points but is extended to the multilingual character set for the national languages of some countries. See code page. See also code point.

customize. To change system or document characteristics to meet user or site requirements. See also tailor.

cylinder. A term used to describe specific space on disk devices.

C/370 Compiler. The IBM Systems Application Architecture C language compiler for the IBM System/370. IBM C/370 is a general-purpose, high-function programming language.
D

DASD. Direct access storage device.

Data Facility Hierarchical Storage Manager (DFHSM). An IBM licensed program that is an integral part of the IBM Data Facility Storage Management Subsystem (DFSMS*) architecture. It manages low-activity and inactive data in a hierarchy of storage devices having different costs, capacities, and access attributes.

Data Facility Storage Management Subsystem (DFSMS). A combination of IBM storage products and licensed programs, as well as practices and procedures, that automates the storage management processes required to handle data placement, performance, availability, space utilization, and security.

data set. A unit of information that can be stored and retrieved. See partitioned data set and sequential data set.

data set name. A unique name that identifies each data set. It consists of one or more parts separated by periods, and has a maximum length of 44 characters, including the periods. See qualified name and qualifier.

DCF. Document Composition Facility.

default. A value used by the system when no other value is specified. This value can be set by the system beforehand and can be overridden by a user, or chosen by the system after the user has declined the opportunity to enter or select one.

DFHSM. Data Facility Hierarchical Storage Manager.

DFSMS. Data Facility Storage Management Subsystem.

direct access storage device (DASD). A device in which access time is effectively independent of the location of the data.

Disk Operating System (DOS). An IBM licensed program that interacts with the processor in the system unit and the fixed-disk or diskette drives of the workstation to control the flow of data.

display device. A device that presents information on a screen. See also screen.

distribution library. An IBM-supplied partitioned data set on tape containing one or more components that the user restores to disk for subsequent inclusion in a new system.

distribution tape. A magnetic tape that contains, for example, the BookManager BUILD/MVS program. This tape is shipped to the customer for program installation.

document. In word processing, a collection of information that pertains to a particular subject or related subjects.

Document Composition Facility (DCF). A text-processing program; its main component is the formatter called SCRIPT/VS. The composed DCF output can be directed to a variety of output devices, including advanced function printers and PostScript printers. See also SCRIPT/VS.

document element. Any part of a document identified with a GML tag or an SGML tag, such as a paragraph.

DOS. Disk Operating System.

download. To send information from a computer to an attached workstation.

E

edit. (1) To alter or refine information, especially text and illustrations, for publication or display.

(2) To use the ISPF/PDF editor to make changes to a topic's source file while looking at an online book.

editor. A person or program that edits.

enter. To submit all selected choices and entry-field information to the computer for processing; for example, to type information on a keyboard and press the ENTER key.

ENTER. A key on a keyboard that, when pressed, causes information to be submitted to a computer for processing.

exact matching, any case. A type of search request where text that matches the request must be the same as the word or phrase entered, except for case. Contrast with exact matching, including case and fuzzy matching.

exact matching, including case. A type of search request where text that matches the request must be the same as the word or phrase entered, including case. Contrast with exact matching, any case and fuzzy matching.

EXEC. A sequence of instructions and control statements in the REXX language.

exit. (1) To end the current BookManager READ session. (2) To close the currently displayed book, bookshelf, or bookshelf list.
filter. The function of specifying a collection of data sets with similar names. Filtering is done by using one or more wildcard characters either as a qualifier or characters in a qualifier of a data set name. See also qualifier and wildcard character.

fullword. Synonym for computer word. See computer word.

fully qualified name. The complete MVS data set name. A fully qualified name is usually enclosed in quotes. See qualified name.

function key. A key that can be used to represent a command or series of commands. Keyboards can have 12 or 24 function keys (sometimes called program function keys). Each is labelled with its number, such as F1.

function key area. The area on a panel or in a window in which the function key meanings are displayed, or, on a keyboard, the area reserved for placing the function keys.

fuzzy matching. A type of search request where text that matches the request can be different forms of the same root word. For example, a fuzzy search for the word computer would match the words computing and computers. Contrast with exact matching, any case and exact matching, including case.

GDDM. Graphical Data Display Manager.

generalized markup language (GML). A language that can be used to identify the parts of a source document without respect to a particular processing system.

Generalized Markup Language (GML) Starter Set. A generalized markup language application provided as part of DCF.

GML. Generalized markup language.

GML Starter Set. See Generalized Markup Language Starter Set.

graphic. Pertaining to pictorial material or the output of graphics software, in contrast to text. Character graphics appear with the text of an online book. Complex (vector) graphics are displayed by selecting the picture indicator or entering the PICTURE command. See character graphics and vector graphics. Contrast with image and text.

Graphical Data Display Manager (GDDM). An IBM licensed program that lets users display graphic, image, and text information on a display device.

graphics device. A display device that gives a representation of data in the form of graphic symbols. Contrast with character display device.

H

hard copy. Printed copies of books, manuals, or other information. Contrast with soft copy.

heading. Words indicating the beginning of a new topic or section.

high-level qualifier. The characters before the first period in a fully qualified data set name. The high-level qualifier can be from 1 to 8 characters.

highlighting. Highlighting is associated with document markup. Highlighting in online books is expressed using underscoring, blinking, and reverse video. Highlighting in print is expressed using italics, underscoring, uppercase, bold type, color, and type style.

host system. (1) The data processing system to which a network is connected and with which the system can communicate. (2) The controlling or highest level system in a data communication configuration; for example, a System/370 is the host system for the programmable workstations connected to it.

hypertext link. A way to link information within a book or between books for easy navigation. The link is a pointer from a location in an online book to another location in the same book or in another book on the same bookshelf. When selected, it lets a user move to the new location containing related information. BookManager associates terms with related information such as the glossary, a message or code, an index entry, or a language element reference. Cross-references indicated by markup are automatically linked to the referenced location. Authors also can provide links in online books to point the user to additional information.

image. In GDDM, a picture made up of points that are either black or white. Images are displayed by selecting the picture indicator or entering the PICTURE command. See raster. Contrast with graphic and text.

Index Utility. A utility of BookManager BUILD/MVS, BookManager BUILD/VM, BookManager READ/MVS, and BookManager READ/VM that creates a bookshelf
and a search index of all the information in the books on a bookshelf.

**initialization.** Preparation of a system, device, or program for operation.

**installation.** In system development, preparing and placing a functional unit in position for use. (T)

**Interactive System Productivity Facility (ISPF).** An IBM licensed program that serves as a dialog manager for interactive applications in several host computer environments.

**Interactive System Productivity Facility/Program Development Facility (ISPF/PDF).** A dialog application that provides application development services. It is used to create and maintain interactive applications and other types of data, and includes library control facilities accessible from 3270 display terminals.

**invoke.** To start a command, procedure, or program.

**ISPF.** Interactive System Productivity Facility.

**ISPF/PDF.** See Interactive System Productivity Facility/Program Development Facility.

**ISPF/PDF editor.** The text editor provided as part of ISPF/PDF.

**job.** (1) A unit of work defined by a user that is to be accomplished by a computer. Loosely, the term job is sometimes used to refer to a representation of a job. This representation may include a set of computer programs, files, and control statements to the operating system. (I) (A) (2) A collection of related programs, identified by appropriate job control statements.

**LAN.** Local area network.

**language element reference.** The section of a document that describes the data elements of programming languages, such as statements, macros, or commands. This section begins with an :LERS tag. A user can link to a language element reference from a location in the same or another book.

**linguistic dictionary.** A tool used to compile a list of words, word roots, and variant forms of words. This list, which is stored in an online book, provides a user with the most meaningful and complete list of matches that meet a fuzzy match search request. A linguistic dictionary also lets a user find synonyms for selected search request words. For example, a search for the word *formats* would match the words *format*, *formatting*, *formatted*, and, if selected, its synonym *layout*. See synonym dictionary.

**link.** See hypertext link.

**local area network (LAN).** A network established in a limited area to permit sharing of common computer resources.

**low-level qualifier.** The last qualifier in a data set name, after the last period. For example, for the data set *johnson.finance.script(finmst)*, the low-level qualifier is *script*. (The member name, *finmst*, is enclosed in parentheses.)

**macro.** An instruction in a source language that is to be replaced by a defined sequence of instructions in the same source language. In ISPF, a macro is a program that customizes the ISPF/PDF editor. In DCF, SCRIPT/VS replaces a macro in a source file with a macrodefinition containing control words, symbols, text, and GML markup.

**mark up.** To insert markup into a source document.

**markup.** Information added to a document to enable a person or system to process it. Markup information can describe the document's characteristics, or it can specify the actual processing to be performed; for example, in SCRIPT/VS, markup consists of GML tags, attribute labels and values, and control words.

**match.** A word or phrase that is identical or similar to a search word or phrase.

**matching types.** The different ways that a match for a search request is determined. See exact matching, any case; exact matching, including case; and fuzzy matching.

**member.** One of the files in a partitioned data set. See also partitioned data set.

**message.** Information presented to a user that is generated by a computer.

**Multiple Virtual Storage.** See MVS.

**Multiple Virtual Storage/Enterprise Systems Architecture.** See MVS/ESA.

**Multiple Virtual Storage/Extended Architecture.** See MVS/XA.

**MVS.** Multiple Virtual Storage, consisting of MVS/System Product and the MVS/370 Data Facility
Product operating on a System/370 processor. MVS is an operating system for S/370 processors, and it supports multiple address spaces. See also MVS/ESA and MVS/XA. Multiple Virtual Storage/Enterprise Systems Architecture, which offers all the capabilities of MVS/XA and in addition enhanced data-handling capabilities, increased addressability, faster data access, enhanced services for application development, and improved reliability and serviceability.

MVS/XA. Multiple Virtual Storage/Extended Architecture, consisting of MVS/System Product Version 2 and the MVS/XA Data Facility Product. MVS/XA is an operating system for S/370 processors.

N

NLS. National language support.

O

online. Connected to, served by, or available through a system or computer.

online book. A soft-copy document, created by BookManager BUILD, that can be viewed and searched at a display device with BookManager READ. An online book usually has a low-level qualifier of BOOK.

operand. Information entered with a command name to define the data on which a command processor operates and to control the execution of the command processor.

operating system. An organized collection of programs that controls the overall operation of a computer.

Operating System/2 (OS/2). An advanced IBM operating system for the IBM Personal System/2, IBM Personal Computer XT Model 286, and IBM Personal Computer AT. OS/2 Standard Edition is intended for environments that do not have extensive communications or data base requirements. OS/2 Extended Edition provides intersystem communications, improved connectivity, terminal emulation, and access to shared network resources.

option. A specification in a statement that may be used to influence the execution of the statement.

OS/2. Operating System/2.

P

page. In a virtual storage system, a fixed-length block that has a virtual address and is transferred as a unit between real storage and auxiliary storage. (I) (A)

page number. In System/370 virtual storage systems, the part of a virtual storage address needed to refer to a page.

page segment (PSEG). A data-stream object containing images and possibly text; the object can be included when a document is formatted for viewing or printing. As an addressable point on a page or electronic overlay, it assumes the environment of an object in which it is included.

panel. An arrangement of information that fits on a screen and allows a user to interact with a program. If some of the information is not visible, a user can scroll through the information.

parameter. A variable used in conjunction with a command to affect its result.

partitioned data set (PDS). A data set in direct access storage that is divided into partitions, called members, each of which can contain a program, part of a program, text, or data. Synonymous with program library. See also member.

PDF. Program Development Facility.

PDS. Partitioned data set.

Personal Computer AT. An IBM personal computer system designed for professional applications and office environments.

Personal System/2 (PS/2). A family of IBM personal computer systems ranging from a low-price, general-purpose computer system offering approximately two times the processor performance of 8088-based IBM Personal Computers up to high-performance systems that support advanced multitasking and multi-user applications and network services.

phrase separator. A special character used in a search request to separate different words or phrases. For example, the search request conduct, behavior uses a comma as the separator to tell BookManager READ to search for either the word conduct or the word behavior.

private library. A user-owned library that is separate and distinct from the system library.

process. (1) In data processing, the course of events that occurs under the execution of all or part of a
program. (T) (2) Any operation or combination of operations on data.

**ProcessMaster.** An IBM licensed program that provides a set of menus to help a user create, manage, and process document source files. Its full name is IBM Publishing Systems ProcessMaster.

**profile.** A set of characteristics that defines the way the system processes information.

**Program Development Facility.** See Interactive System Productivity Facility/Program Development Facility.

**program library.** (1) An organized collection of computer programs, or parts of computer programs, and possibly information pertaining to their use. A program library is often called according to the characteristic of its elements; for example, a procedure library, a source program library. (T) (2) Synonym for partitioned data set.

**programmable workstation.** A workstation that has some degree of processing capability and that allows a user to change its functions.

**prompt.** A symbol or action that requests a user entry or selection.

**PSEG.** (1) Page segment. (2) The IBM advanced function printer data format for raster images.

**PS/2.** Personal System/2.

**pull-down.** An extension of an action bar that appears when a user selects a choice on the action bar. A pull-down displays a list of choices. See also action bar and window.

**R**

**RACF.** Resource Access Control Facility.

**raster.** The closely spaced, parallel lines produced on a display device. An image is formed by modulating the intensity of the individual pixels. A binary representation of the pixels can be used to digitally represent an image. (M) See image. Contrast with character graphics and vector graphics.

**read-only.** A type of access to data that allows it to be read but not modified.

**read/write.** A type of access that allows any member in the data set to be read or written.

**Resource Access Control Facility (RACF).** An IBM licensed program that provides for access control by identifying and verifying users to the system, authorizing access to protected resources, logging the detected unauthorized attempts to enter the system, and logging the detected accesses to protected data sets.

**REXX.** Restructured extended execution language.

**S**

**screen.** The physical surface of a display device upon which information is shown to a user.

**SCRIPT.** See SCRIPT/VS.

**SCRIPT/VS.** The formatting component of the Document Composition Facility. It provides capabilities for text formatting and document management, macro processing and symbol substitution, and GML tag recognition and processing. See also Document Composition Facility.

**scroll.** To move a display image vertically or horizontally to view data that is not otherwise visible in a display screen or in a window.

**search index.** See **bookshelf search index.**

**search request.** The words and phrases you want BookManager READ to find in a book or bookshelf. A single search request can include any combination of words and phrases as long as the complete request does not exceed 44 characters.

**sequential data set.** A data set in which records are organized on the basis of their successive physical positions.

**severe message.** Information provided by BookManager that describes a condition alerting a user to take an action so that BookManager can continue.
SMP/E. System Modification Program/Extended.

soft copy. One or more data sets that can be electronically distributed, manipulated, and printed by a user. Contrast with hard copy.

SSGML. See Generalized Markup Language Starter Set.

subsystem. A secondary or subordinate system, usually capable of operating independently of, or asynchronously with, a controlling system. (T)

symbol. A name in a SCRIPT source file that is replaced during processing with a number, a character string, a control word, or another symbol.

synonym. (1) A word that has essentially the same meaning as another word so that the words can be used interchangeably. For example, job is a synonym of work. (2) A shorter version of a command allowed by a program.

synonym dictionary. A compilation of root words for a given language that allows users to search for information in that language. One use of a linguistic dictionary is as a synonym dictionary. See linguistic dictionary and synonym dictionary language.

synonym dictionary language. The language of the synonym dictionary to be used in a search. BookManager READ displays the synonyms of the words in the indexed books on a bookshelf when a search is performed. See synonym dictionary.

syntax. The rules governing the structure of commands and their parameters.

system library. A collection of data sets or files in which the parts of an operating system are stored.

System Modification Program/Extended (SMP/E). An IBM licensed program that provides enhanced system enabling and change management capability, improved product usability, and improved product reliability, availability, and serviceability (RAS) in the MVS/370, MVS/XA, and VS1 system environments.

target library. The data sets that contain the executable code for a product.

terminal. A device, usually equipped with a keyboard and display, capable of sending and receiving information.

text. A graphic representation of information on an output medium. Text can consist of alphanumeric characters and symbols arranged in paragraphs, tables, columns, or other shapes. Contrast with graphic and image.

text editor. A program used to create, modify, and print or display text data sets.

time sharing option (TSO). An option on the operating system; for System/370, the option provides interactive time sharing from remote terminals.

Time Sharing Option Extensions (TSO/E). An IBM licensed program that runs under the MVS operating system, allowing users to interactively share computer time and resources and improving productivity and usability.

topic. A heading and its subsequent text up to the next heading or subheading; BookManager's basic unit of information.

TSO. Time sharing option.

TSO/E. Time Sharing Option Extensions.

user. A person who requires the services of a computing system.

user exit. A point in BookManager execution where a user routine, if it exists, will take control.

user ID. A shortened form of user identification.

user identification. A string of characters that uniquely identifies a user to a system.

vector graphics. (1) Computer graphics in which display images are generated from display commands and coordinate data. (I) (A) (2) A method of representing a computer graphic as a pattern of lines. See graphic. Contrast with character graphics and raster.

Virtual Machine/Extended Architecture System Product (VM/XA SP). An IBM licensed program that supports System/370 and 370-XA mode virtual machines. It offers, in the XA environment, an interactive environment capable of supporting large numbers of users.

Virtual Machine/System Product (VM/SP). An IBM licensed program that manages the resources of a single computer so that multiple computing systems appear to exist. Each virtual machine is the functional equivalent of a real machine.

Virtual storage. The addressable space available to a virtual machine to execute programs and manipulate data.

VM/SP. Virtual Machine/System Product.

VM/XA SP. Virtual Machine/Extended Architecture System Product.

W

Wildcard character. The character used to substitute for unknown or unspecified characters or words in a search word or phrase. An asterisk (*) is an example of a wildcard character.

Window. A part of a display screen with visible boundaries in which information is displayed. A window can be smaller than or equal in size to the display screen. Windows can overlap and give the appearance of one window being on top of another. See also action bar and pull-down.

Word. (1) A character string considered as a unit for a given purpose. (T) (2) A character string or a bit string considered as an entity. (A) (3) In System/370, 32 bits or 4 bytes.

Workstation. One or more programmable or nonprogrammable devices that allow a user to do work on a computer. See also programmable workstation.
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