Advantage™ VISION:Report®
Advantage™ VISION:Forms™
for z/OS™ and VM/CMS

Installation Guide

16.1

Computer Associates®
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Chapter

1

Installing VISION:Report for z/OS

Thank you for choosing Advantage™ VISION:Report® for z/OS™ 16.1. Two ancillary products associated with Advantage VISION:Report for z/OS are Advantage VISION:Forms™ for z/OS and Advantage VISION:Report Interface to DB2®.

Notes:

- The terms z/OS, OS/390®, and MVS® are used interchangeably throughout the Release 16.1 documentation.
- Advantage VISION:Report for z/OS will be referred to as VISION:Report.
- Advantage VISION:Forms for z/OS will be referred to as VISION:Forms.
- Advantage VISION:Report Interface to DB2 will be referred to as VISION:Report Interface to DB2. VISION:Report Interface to DB2 was previously known as VISION:Interface for DB2 with VISION:Report.

Before you install the software, read the following sections for important information:

- CD-ROM Contents
- About the Online Documentation
- Contacting Total License Care (TLC)
- Contacting Computer Associates®

CD-ROM Contents

- Online documentation
- Adobe® Acrobat® Reader software and Acrobat Help

About the Online Documentation

The CD-ROM contains the documentation for VISION:Report. The documents, called books, are in Adobe Acrobat Portable Document Format (PDF) and are designed for you to read online using the Acrobat Reader.

Each online document contains a table of contents, index, and cross-references.

Installing Online Documentation and the Acrobat Reader

You can install the online documentation on your local hard drive or on a network server. Alternately, you can access the documentation directly from the CD-ROM.

If you do not have Acrobat Reader installed, you can install it from the CD-ROM.

To install the online documentation, the Acrobat Reader, or both on Windows®:

1. Close all application programs.
2. Insert the CD-ROM into the CD-ROM drive.
3. Click the Start menu and select Run.
4. In the Run dialog box, type: D:\Books\Setup.exe, where D:\ is the CD-ROM drive.

   To complete the Run dialog box and continue, click OK.
5. Follow the instructions. Computer Associates recommends that you install the online documentation in the default directory (C:\Program Files\CA\Advantage VISION_Report 16.1 zOS\Books\) or a directory of your choice (for example, C:\VISION_Report 16.1 zOS\Books\).

Viewing Online Documentation

Regardless of the location of the online documentation (on a local hard drive, a network server, or CD-ROM), you can view the online documentation using the following methods:

- In Windows, from the Start menu, click Programs, Advantage VISION_Report 16.1 zOS, and click the document title.
- In Windows Explorer, point to the directory on the hard drive where you installed the online documentation. Double-click the PDF file name.
- In Windows Explorer, point to the Books directory on the CD-ROM drive and double-click the PDF file name.

Using Adobe Acrobat Reader

Use Acrobat Reader to view the online documentation, adjust the size of the page, and perform searches. For more information, use the Acrobat Help menu.

Contacting Total License Care (TLC)

TLC is available Monday-Friday 7 am - 9 pm Eastern Time in North America and 7 am - 7 pm United Kingdom time. Additionally, 24-hour callback service is available for after hours support. Contact TLC for all your licensing requirements.

Be prepared to provide your site ID for product activation.

To activate your product (ask for a license key or validation), use one of the following:

North America:	800-338-6720 (toll free) 631-342-5069	help@licensedesk.cai.com
Europe:	00800-1050-1050	euro.tlc@ca.com

If your company or local phone service does not provide international access, please call your local Computer Associates office and have them route you to the above number.

Australia:	1-800-224-852
New Zealand:	0-800-224-852
Asia Pacific:	800-224-852
Brazil:	55-11-5503-6100
Japan:	JPNTLC@ca.com (email is preferred)

Contacting Computer Associates

For technical assistance with this product, contact Computer Associates Technical Support on the Internet at supportconnect.ca.com. Technical support is available 24 hours a day, 7 days a week.

Installation Overview

This chapter describes the installation procedure for VISION:Report in the z/OS environment. Two ancillary products associated with VISION:Report for z/OS are VISION:Forms for z/OS and VISION:Report Interface to DB2.

The install process includes:

- Understanding the installation tape files.
- Licensing using CA-LMP.
- Installing VISION:Report for z/OS.
- If you are licensed for VISION:Forms, see Chapter 4, Installing VISION:Forms for z/OS in this guide.
- If you are licensed for VISION:Report Interface to DB2, see the *Advantage VISION:Report Interface to DB2 for z/OS Installation Guide*.

Understanding the Installation Tape Files

Notes:

- The JCL listings shown in this guide can vary slightly from the actual distributed members.
- The terms sample programs and test programs are used interchangeably throughout the documentation.

VISION:Report is distributed on a standard label 3480 cartridge tape. The volume serial number of the tape appears on the external tape label.

The VISION:Report for z/OS tape contains:

File	Description
File 1	Installation control library (also referred to as the control library or CNTLLIB)
File 2	VISION:Report load library (also referred to as the VISION:Report load library or LOADLIB)
File 3	VISION:Report object library (also referred to as the object library or OBJLIB)
File 4	VISION:Report Interface to DB2 sample programs library (also referred to as the DB2 sample library or DB2SAMP)
File 5	VISION:Report Accounts Receivable test file (ARFILE) (also referred to as the test file or ARFILE)
File 6	VISION:Report Optional Material source/macro library (also referred to as the source/macro library or OPTMATL) Optional material includes options and optional features.
File 7	Sample programs for VISION:Report and Program Customizing Patches (PCPs) (for the VISION:Report sample programs library or SAMPLIB)
File 8	VISION:Forms load library (for the VISION:Forms load library)
File 9	VISION:Forms sample programs (for the VISION:Forms sample programs library)

Note: All files have the following characteristics unless noted otherwise in the individual file description.

```
LRECL=80, BLKSIZE=16000, RECFM=FB
```

File 1: Installation Control Library (CNTLLIB)

The first step in the installation procedure is to restore the control library (that is, copy the installation tape files to CNTLLIB on the disk). See the section Copying File 1 in this guide. Some of the members are:

Member	Purpose
ASMQJ	JCL procedure for assembling and link editing a VISION:Report Assembler program
CUSTMJCL	JCL procedure for assembling and link editing the option block (QJOPTION) (See the section CUSTMJCL in this guide.)

Member	Purpose
QJINSTL	JCL procedure for installing VISION:Report (See the section QJINSTL in this guide.)
QJOPTDB2	QJOPTION recommended values for VISION:Report Interface to DB2
QJOPTDEF	QJOPTION default values for back level compatibility
QJOPTREC	QJOPTION recommended values for z/OS systems (See the section QJOPTREC in this guide.)
QJTEST	JCL procedure for testing and running VISION:Report programs (See the section QTEST in this guide.)
QJTSTJCL	JCL for executing the QJTSTPGM program (See the section QJTSTJCL in this guide.)
QJTSTPGM	VISION:Report test program
QWINSTL	JCL procedure for installing VISION:Forms

File 2: VISION:Report Load Library (LOADLIB)

This file contains:

- The VISION:Report executable code.
- All the load modules for the base product (The base product or base system is VISION:Report with no options.)
- Load modules for some of the optional materials.

File 2 characteristics are:

```
LRECL=80, BLKSIZE=8192, RECFM=U
```

To use the VISION:Report load library

1. Customize the option block.

   Note: As of VISION:Report 16.1, the product code is no longer used.

   For product activation, see the section Licensing Using CA-LMP in this guide.

2. Review the Holiday Date table used with QUIKDATE routines in case the sample data does not apply to your installation. See the section Date Calculation (QUIKDATE Program/QUIKDATT Macro) in this guide.

3. Review the Edit Mask table if the sample data does not apply to your installation. See the section Modifying Edit Mask Table (QUIKEMSK module/QJEDIT Macro) in this guide.

4. Assemble the option block, Holiday Date table, and Edit Mask table.

File 3: VISION:Report Object Library (OBJLIB)

The object module library contains object modules that the linkage editor must process before they can be executed. They contain references to other modules, usually acting as an interface between VISION:Report and another processor.

File 4: VISION:Report Interface to DB2 Sample Programs Library (DB2SAMP)

Note: You must be licensed to use VISION:Report Interface to DB2.

This file contains VISION:Report Interface to DB2 installation JCL and sample programs. For further details on the various members and their functions, see the *Advantage VISION:Report Interface to DB2 Reference Guide*.

The @SQLINDX member contains a description for most of the members in the library.

File 5: VISION:Report Accounts Receivable Test File (ARFILE)

This test file is a sequential file that some of the sample programs use as part of the installation verification procedures. File 5 characteristics are:

```
LRECL=352, BLKSIZE=17600, RECFM=FB
```

File 6: VISION:Report Optional Material Source/Macro Library (OPTMATL)

This file contains:

- Source code for some optional materials.
- Assembler language macros required for assembling the option block, adding additional edit mask codes, enlarging the EQU tables, and so on.

Note: Do not modify the macros. Computer Associates does not support program source code modification. If you do modify the program source code, always ensure that you retain the original, with its sequence numbers.
See Chapter 2, Installing VISION:Report Optional Material in this guide.

File 7: VISION:Report Sample Programs and PCPs (SAMPLIB)

This library includes:

- Sample programs for testing VISION:Report.
- Program Customizing Patches (PCPs) assist in upward compatibility or special environments. Review PCPs to ensure that they apply to your installation.

  Although you can use Program Customizing Patches (PCPs) from File 7 to assist you, Computer Associates recommends that you modify programs to conform to the proper syntax.
- The @INDEX member contains a description for most of the members in the library.

File 8: VISION:Forms Load Library

Note: You must be licensed to use VISION:Forms.

This file (File 8) contains executable modules for VISION:Forms.
File 8 characteristics are:

```
LRECL=80, BLKSIZE=8192, RECFM=U
```

File 9: VISION:Forms Sample Programs

This library contains sample programs for VISION:Forms.

Licensing Using CA-LMP

This product interfaces with the Computer Associates Licensing System using the CA TNG Framework for OS/390 Common Services CAIRIM and its CA-LMP (License Management Program) facility, which is used to track licensed software.

- CA-LMP is a standardized and automated approach for tracking licensed software.
- CA-LMP is provided as an integral part of CAIRIM, and is required for this product to initialize properly.
- If CAIRIM has not already been installed on your system, you must install it before you install and use this product.

For more information regarding the CA TNG Framework for OS/390 Common Service CAIRIM and its CA-LMP facility, see the *Unicenter TNG Framework for OS/390 Reference Guide* and the *Unicenter TNG Framework for OS/390 Installation and Maintenance Guide*.

Note: Once CAIRIM has been installed or maintained at GenLevel 9212 or above, CA-LMP support will be available for all Computer Associates products that support CA-LMP.

Coding and Integrating Your Licensing Key

Prior to installing the product, code your Computer Associates licensing key (also called CA-LMP key or execution key) information and integrate it into the CAIRIM CA-LMP facility.

- This is a standard function for all Computer Associates software products.
- You must add a record with your product CA-LMP key information, as provided on the key certificate, to the KEYS member in the CAIRIM parameter data set, at the OPTLIB data set DD statement.

The CA-LMP key certificate you received with this product contains the following information:

Field	Description
Product Name	The trademarked or registered product name as licensed for the designated site and the CPUs.
Product Code	A two-character code for this product and two-character codes for each of the licensed options.
Supplement	The reference number of your license for this product, which may be in the format nnnnnn - nnn.
CPU ID	The code identifying the specific CPU on which this product is to be installed.
Execution Key	An encrypted code required by CA-LMP for the initialization of this product. This is also referred to as the LMP key.
Expiration Date	The date (ddmmmyy) your license for this product expires.
Technical Contact	The name of the technical contact at your site who is responsible for the installation and maintenance of this licensed copy of this product. This is the person to whom Computer Associates addresses all CA-LMP correspondence.
MIS Director	The name of the Director of MIS (or the person who performs this function at your site). If the name of the person is omitted from the certificate, you should supply the actual certificate when correcting and verifying it.
CPU Location	The address of the building containing the CPU on which this product is to be installed.

To define a CA-LMP key to the CAIRIM parameters, modify the KEYS member in the OPTLIB data set.

The parameter structure for member KEYS is:

```
PROD(pp) DATE(ddmmmyy) CPU(tttt-mmmm/ssssss) LMPCODE(kkkkkkkkkkkkkk)
```

Parameter	Description
pp	Required. The two-character product code for this product. 13 VISION:Report 2A VISION:Report Interface to DB2 (Optional interface) 2B VISION:Report Interface to IMS™ (Optional interface) 14 VISION:Report Interface to CA-IDMS®/DB (Optional interface) 2C VISION:Forms (Optional feature)
ddmmmyy	The CA-LMP licensing agreement expiration date (for example, 15MAY03).
tttt-mmmm	Required. The CPU type and model (for example, 3090-0600) on which the product is to run. If the CPU type and/or model are less than four characters, insert blank spaces for the unused characters.
ssssss	Required. The serial number of the CPU on which the product is to run.
kkkkkkkkkkkkkk	Required. The CA-LMP key needed to run the product. The CA-LMP key can be found on the key certificate that was shipped with the product.

Here is an example of the parameter entry for the CA-LMP key:

```
PROD(13) DATE(31MAY04) CPU(3090-0600/315109) LMPCODE(5149K01131R08ES)
```

For more information about defining the CA-LMP key in the CAIRIM parameters, see the *Unicenter TNG Framework for OS/390 Installation and Maintenance Guide.*

Installing VISION:Report for z/OS

To install VISION:Report for z/OS

1 Copy the first file on the release tape to disk.

This creates an installation control library that contains the members QJINSTL, QJTEST, QJTSTJCL, and so on. For more details on this first step, see the section Copying File 1 to Disk in this guide.

2 Customize member QJINSTL. See the section QJINSTL in this guide.

The instructions in QJINSTL specify how to tailor the JCL for your installation. For more details, see the section Modifying the VISION:Report Installation JCL (QJINSTL) in this guide. The QJINSTL JCL installs the base VISION:Report system.

3 Verify the installation by running a test program. For more details, see the section Verifying the VISION:Report Installation in this guide.

4 Use the optional materials (options and optional features) to enhance the functionality of the base VISION:Report. To install optional features, follow the instructions in Chapter 2, Installing VISION:Report Optional Material in this guide.

Use the following features to enhance the functionality of VISION:Report.

Feature	Description
QUIKDATE	Date Calculation (See the section Date Calculation (QUIKDATE Program/QUIKDATT Macro) in this guide.)
QUIKRPT	Multiple Reports subroutine (See the section Multiple Reports Subroutine (QUIKRPT) in this guide.)
QUIKVEQU	EQU table for the VAL area (See the section EQU Table for VAL Area (QUIKVEQU) in this guide.)

Use the following features to subtly change the product's functionality:

Feature	Description
QJOPTION	The VISION:Report option block (QJOPTION) (See the section Modifying VISION:Report Option Block (QJOPTION) in this guide.)
QUIKEMSK	The Edit Mask table (See the section Modifying Edit Mask table (QUIKEMSK module/QJEDIT Macro) in this guide.)
QUIKTRNT	The Translate table (See the section Translate Table Changes (QUIKTRNT) in this guide.)

Copying File 1 to Disk

The following example shows the JCL for copying the installation control library contained in the first file on the tape to an in-stream allocated disk file.

JCL to Copy the Control Library

```
 1 //JOBNAME  JOB PUT YOUR JOB ACCOUNTING INFORMATION HERE
 2 //STEP1   EXEC PGM=IEBCOPY,REGION=1M
 3 //SYSPRINT DD  SYSOUT=*
 4 //SYSUT3   DD  UNIT=SYSDA,SPACE=(TRK,20)
 5 //SYSUT4   DD  UNIT=SYSDA,SPACE=(TRK,20)
 6 //INFILE   DD  DSN=QJ.REL161.FILE1,DISP=OLD,
 7 //             LABEL=(1,SL),VOL=SER=tapeser,UNIT=reeltape,
 8 //             DCB=(RECFM=FB,BLKSIZE=16000,LRECL=80)
 9 //OUTFILE  DD  DSN=@@@AAA.@@@BBB.CNTLLIB,
10 //             DISP=(NEW,CATLG,DELETE),SPACE=(TRK,(15,5,10)),
11 //             UNIT=diskunit,VOL=SER=diskser,
12 //             DCB=(RECFM=FB,BLKSIZE=6400,LRECL=80)
13 //SYSIN    DD  *
14   COPY  INDD=INFILE,OUTDD=OUTFILE
15 //
```

Note: Customize the **bold** text.

To customize the JCL

1. Replace the first statement with your JOB statement.
2. In Statement 7:
   - Change `TAPESER` to the volume serial number on the physical label on the product tape.
   - Change the `UNIT` parameter to the proper unit type, such as `UNIT=TAPE` for reel tape, `UNIT=TAPEC` for cartridge, and so on.

3 In Statement 9, change `@@@AAA.@@@BBB` to the high-level and middle-level qualifiers that you associate with the VISION:Report library and file data names.

   The recommended high-level qualifier is the product name, while the recommended middle-level qualifier is the release number.

4 In Statement 11:

   - Change the `UNIT` parameter to a disk unit type (for example, `UNIT=SYSDA`).
   - Change the `VOL=SER` parameter to point to a disk serial number with a type that is compatible with the type of `UNIT` specified.

5 Run this job.

Upon successful completion, your library will contain all of the members you specified in the section Modifying the Option Block (QJOPTION) in this guide. Of special importance are the QJINSTL, QJTEST, and QJTSTJCL members.

Modifying the VISION:Report Installation JCL (QJINSTL)

Modify the JCL in the QJINSTL member to meet your installation standards and provide information unique to your installation, including data set names for all target libraries.

The installation procedure is coded as an in-stream PROC that enables you to make changes by assigning values to symbolic parameters. You can find the symbolic parameters described at the beginning of the procedure. The procedure is internally documented with comment statements, listed in the section QJINSTL in this guide.

Carefully review all of the options (see the OPTION verb in the *Advantage VISION:Report Advantage VISION:Forms Reference Guide*), as this release contains substantial changes and additions.

Use the following option members to customize the option block (QJOPTION).

Member	Description
QJOPTDEF	Default values provided for back level support
QJOPTREC	Recommended values for z/OS systems
QJOPTDB2	Recommended values for VISION:Report Interface to DB2

To customize the option block (QJOPTION)

1 Follow the instructions in QJINSTL.

Note: With VISION:Report 16.1, the `PRODCOD` parameter is not used.

MYOPTION is the member name used in the assembly stage of QJOPTION (see the section QJOPTREC in this guide).

2 Run the job.

Upon successful completion, the procedure restores all of the VISION:Report libraries and files and creates the option block (QJOPTION).

If you need to recreate the option block (QJOPTION), use the CUSTMJCL procedure, provided in the control library, to assemble and link edit the option block (QJOPTION). The procedure includes JCL customization instructions (see the section CUSTMJCL in this guide).

The following are the restored libraries and file for VISION:Report.

File Name	Description	File No.
@@@AAA.@@@BBB.CNTLLIB	Installation control library	File 1
@@@AAA.@@@BBB.LOADLIB	Load library	File 2
@@@AAA.@@@BBB.OBJLIB	Object library	File 3
@@@AAA.@@@BBB.DB2SAMP	DB2 sample library	File 4
@@@AAA.@@@BBB.ARFILE	Test file	File 5
@@@AAA.@@@BBB.OPTMATL	Source/macro library	File 6
@@@AAA.@@@BBB.SAMPLIB	Sample programs library	File 7

`@@@AAA.@@@BBB` are the high-level and middle-level qualifiers that you associate with the VISION:Report library and file data names.

Verifying the VISION:Report Installation

The installation verification process uses:

- QJTEST (procedure for testing and running VISION:Report programs)
- QJTSTJCL (JCL for executing the QJTSTPGM program)
- QJTSTPGM (VISION:Report test program)

Use the following procedure to verify the installation of the VISION:Report system.

To verify the installation and test the system

1 Customize the QJTEST procedure in the control library.

- Globally change the @@@AAA.@@@BBB to the high-level and middle-level qualifiers that you associate with the VISION:Report library and file data names.
- Save the customized QJTEST in one of the following:
  - SYS1.PROCLIB
  - A library that is a part of your JES default PROCLIB concatenation
  - A library referenced by a JCLLIB JCL statement

QJTEST

```
//QJTEST  PROC REG=768K         REGION SIZE DEFAULT
//*****************************************************************
//*                                                               *
//* THIS PROCEDURE MAY BE USED TO TEST THE VISION:REPORT          *
//* PRODUCT.                                                      *
//*                                                               *
//* YOU CAN OVERRIDE THE REG(ION) SIZE.                           *
//*                                                               *
//* YOU WILL NEED TO SUPPLY:                                      *
//*   SYSUT1, OFA, SYSIN, ETC.                                    *
//* IN ANY JOB THAT INVOKES THIS PROC.                            *
//*****************************************************************
//*
//QJ      EXEC PGM=QUIKJOB,REGION=&REG
//STEPLIB  DD  DISP=SHR,DSN=@@@AAA.@@@BBB.LOADLIB    NEW RELEASE
//SYSPRINT DD  SYSOUT=*
//SYSUDUMP DD  SYSOUT=*
//QUIKIPDS DD  DISP=SHR,DSN=@@@AAA.@@@BBB.SAMPLIB
//* ABNLIGNR DD  DUMMY       IF NEEDED TO DISABLE ABENDAID
```

Note: Customize the **bold** text.

2 Customize the QJTSTJCL JCL in the control library.

- Replace the first line with your JOB statement.
- Globally change the `@@@AAA.@@@BBB` to the high-level and middle-level qualifiers you associate with the VISION:Report library and file data names.

QJTSTJCL

```
//JOBNAME  JOB YOUR-JOB-ACCOUNTING INFORMATION
//QJLIB    JCLLIB ORDER=(@@@AAA.@@@BBB.CNTLLIB)
//STEP1     EXEC QJTEST
//QJ.SYSUT1  DD  DSN=@@@AAA.@@@BBB.ARFILE,DISP=SHR
//QJ.SYSIN   DD  DSN=@@@AAA.@@@BBB.CNTLLIB(QJTSTPGM),DISP=SHR
//*
```

3 Run the job.

Upon successful completion of this job, you will have a report similar to the following:

```
05/14/02       ACCOUNTS RECEIVABLE REPORT                          PAGE    1

  ACCOUNT             CUST NAME                        BALANCE            INSTL-BAL

  8006547 BO TORRES,ERNESTO               44.99             42.41
          1                                                 44.99            42.41
  6208657 EO CHO PYUNG,SUH                32.00            261.57
  7082509 EO S.F.MEM.HOSP.                 5.00            272.78
  6002587 EO SANTA FE HOSP A              15.00          2,230.17
          3                                                 52.00         2,764.52
  6107265 FO GENVARDI,G J                 43.00            419.48
  6095631 FO TODIPE,MICHAEL               45.24            486.21
  6123228 FO SILVA,JULIAN                                  273.99
  6059708 FO CHAVEZ,RAY                   15.00             49.39
  6044395 FO CANO,MICHAEL S               15.00            195.74
  6024963 FO HILL,GARY E                   3.80             22.38
  8011508 FO HUGHES,RAY                  178.70             47.88
          7                                                300.74         1,495.07
  2002299 IO PLACIDO,ORTEGA              413.58            486.21
  6123317 IO VASGUEZ,IRENE                                 496.40
  6112536 IO CHAVEZ,NORMA A               55.00            496.84
  6009166 IO LOCKE,JEFFREY                15.00            234.91
  8012644 IO MONTEZ,CARMEN                89.28            484.75
  6218113 IO AGUIERA,EMILIO              108.44            197.85
          6                                                681.30         2,396.96

          17                                             1,079.03         6,698.96
```

You can find additional test programs in the sample programs library.

Customizing VISION:Report

This section briefly describes customizing VISION:Report.

Customizing the Option Block (QJOPTION)

The installation JCL briefly discusses option block (QJOPTION) customization.

To customize the option block for your installation

- Submit an assembly of the QJOPTION macro with the values reflecting your specifications.
- Specify the options that you want to globally change for the product.
  - You can globally change all the parameters used on the OPTION statement in the QJOPTION macro, except INDD.
  - Modify INDD if you want to use a DDNAME other than SYSIN for the VISION:Report statement/table file.
- Carefully review all of the options because this release contains substantial changes. For more information about options, see the OPTION verb in the *Advantage VISION:Report Advantage VISION:Forms Reference Guide* and see Chapter 2, Installing VISION:Report Optional Material in this guide.

Customizing the Edit Mask

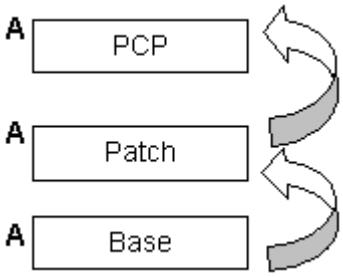
See Chapter 2, Installing VISION:Report Optional Material in this guide for information on customizing the Edit Mask table.

Customizing Patches

Initially, the QJINSTL job creates a base load library and a patch load library. In addition, the ZAPCOMP member of the SAMPLIB library creates a PCP load library.

- The base load library contains all of the product modules.
- The patch load library is used to store Program Temporary Fixes () to one or more of the modules.
- The PCP load library is used to store the Program Customizing Patches (PCPs).

The following picture demonstrates how to properly use the three described load libraries to provide the greatest flexibility for backing out of any problem items:



Once a PTF or PCP is applied to its corresponding library, concatenate the libraries as shown in the preceding picture.

In the preceding picture, module A was copied into the patch load library from the base load library and received a PTF. Then the same module A was copied into the PCP load library from the patch load library and received a PCP. This way, the most recent module A is found first in the concatenated sequence.

If you choose to use a different approach to applying PTFs and/or PCPs, you must determine the proper sequence and/or concatenation of these libraries with respect to PTFs and PCPs.

If there are customizations needed for this release, they are contained in the sample programs library and they start with the prefix PCP.

- Study the comments in these members to determine if you need to change VISION:Report for the customized functionality.
- Seriously consider the caveats associated with each customizing patch before applying the patch.

QJINSTL

QJINSTL is the JCL procedure for installing VISION:Report.

The following QJINSTL JCL is for your convenience. JCL shown in this guide can vary slightly from the actual distributed members.

```
//JOBNAME JOB  YOUR ACCOUNTING INFORMATION
//QJINSTL PROC DISK=SYSDA,
//             DSKSER=999999,        <======= Your disk volser
//             PRTCLAS='*',
//             QJOPTN=MYOPTION,      <======= member name ?
//             REL=161,              <===== Release # - do not change
//             TAPEVOL=tapeser,      <======= CHECK PHYSICAL TAPE
//             TAPEU=3480,
//             TAPELBL='SL,EXPDT=98000',
//             ARFILE='@@@AAA.@@@BBB.ARFILE',          NEW
//             ASMSRC='@@@AAA.@@@BBB.OPTMATL',         NEW
//             DB2SAMP='@@@AAA.@@@BBB.DB2SAMP',        NEW
//             LOADLIB='@@@AAA.@@@BBB.LOADLIB',        NEW
//             OBJLIB='@@@AAA.@@@BBB.OBJLIB',          NEW
//             QJCNTL='@@@AAA.@@@BBB.CNTLLIB',         OLD or EXISTING
//             QJSAMP='@@@AAA.@@@BBB.SAMPLIB',         NEW
//             PATCH='@@@AAA.@@@BBB.PATCHLD'           NEW
//*
//*********************************************************************
//*                                                                   *
//* NOTE:  BE SURE TO SET 'CAPS ON'.  <===========                    *
//*                                                                   *
//*   * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
//*                                                                   *
//* THIS STEP-BY-STEP METHOD IS ALL THAT IS NEEDED TO INSTALL         *
//* VISION:Report ON YOUR SYSTEM.                                     *
//*                                                                   *
//* NOTE:   THE FILES DESIGNATED AS 'NEW' ABOVE WILL BE CREATED BY    *
//*         THIS JCL PROCEDURE.  THE FILE DESIGNATED AS 'OLD' ABOVE   *
//*         MUST PRE-EXIST BEFORE RUNNING THIS JOB.                   *
//*                                                                   *
//* MAKE THE FOLLOWING CHANGES TO THE DEFAULT SYMBOLIC PARAMETERS IN  *
//* THE JCL PROCEDURE BEFORE SUBMITTING IT FOR EXECUTION.             *
//*                                                                   *
//*     1) REPLACE THE FIRST LINE OF THIS FILE WITH THE JOB CARD      *
//*        NECESSARY TO RUN THIS JOB AT YOUR INSTALLATION.            *
//*                                                                   *
//*     2) CHANGE 'SYSDA' IN 'DISK=SYSDA' TO THE DEVICE CLASS TYPE    *
//*        YOU ARE GOING TO INSTALL ON, I.E. 3390, 3380, ETC.         *
//*        (3380 WAS USED TO CALCULATE SIZE ON SPACE PARAMETERS IN    *
//*        THE JCL).                                                  *
//*                                                                   *
//*     3) CHANGE '999999' IN 'DSKSER=999999' TO THE VOLUME SERIAL    *
//*        NUMBER FOR THE DISK UPON WHICH YOU ARE GOING TO INSTALL    *
//*        ALL OF THE VISION:Report LIBRARIES AND FILES.              *
//*                                                                   *
//*     4) CHANGE '*' IN "PRTCLAS='*' TO THE SYSOUT CLASS FOR THE     *
//*        PRINTED OUTPUT FROM THIS RUN.                              *
//*                                                                   *
//*     5) IF YOU HAVE SAVED YOUR MODIFIED QJOPTION ASSEMBLER PROGRAM *
//*        WITH A MEMBER NAME OTHER THAN 'myoption', CHANGE           *
//*        'myoption' IN 'QJOPTN=MYOPTION' TO THAT MEMBER NAME.       *
//*        REFER TO THE DESCRIPTION FOR JOBSTEPS 'STEP2' AND 'STEP3'  *
//*        BELOW FOR MORE INFORMATION ON THE QJOPTION BLOCK.          *
//*                                                                   *
//*     6) DO NOT CHANGE 'REL=161'.  THIS REFERS TO VISION:Report     *
//*        RELEASE NUMBER.                                            *
```

```
//*                                                                    *
//*     7) CHANGE 'TAPESER' IN 'TAPEVOL=tapser' TO THE PHYSICAL        *
//*        RELEASE TAPE.  THIS IS A STANDARD LABELED TAPE, SO IT IS    *
//*        IMPORTANT TO ENTER THE CORRECT VOLUME SERIAL NUMBER.        *
//*                                                                    *
//*     8) CHANGE '3480' IN 'TAPEU=3480' TO YOUR INSTALLATION          *
//*        STANDARD DEVICE CLASS NAME FOR THE TYPE OF TAPE UPON        *
//*        WHICH THE PRODUCT RELEASE RESIDES.                          *
//*                                                                    *
//*     9) IF THE EXPDT PARAMETER IS NOT NECESSARY IN YOUR             *
//*        INSTALLATION, REMOVE ',EXPDT=98000' IN                      *
//*        "TAPELBL='SL,EXPDT=98000'".                                 *
//*                                                                    *
//*    10) GLOBALLY CHANGE '@@@AAA.@@@BBB' TO THE HIGH LEVEL AND       *
//*        MIDDLE LEVEL QUALIFIERS THAT ARE TO BE ASSOCIATED WITH      *
//*        THE VISION:Report LIBRARIES AND FILE DATANAMES.             *
//*                                                                    *
//*    11) VERIFY THAT THE 'QJCNTL=' SYMBOLIC PARAMETER REFERS TO      *
//*        THE LIBRARY THAT WAS INSTALLED FROM THE FIRST FILE OF       *
//*        THE RELEASE TAPE.  IF NOT, CHANGE THE 'QJCNTL=' SYMBOLIC    *
//*        PARAMETER TO POINT TO THAT LIBRARY.                         *
//*                                                                    *
//*    12) YOU ARE NOW READY TO SUBMIT THIS JOB.  IF YOU ENCOUNTER     *
//*        A PROBLEM YOU CANNOT SOLVE OR HAVE ANY QUESTIONS, YOU       *
//*        SHOULD CONTACT COMPUTER ASSOCIATES TECHNICAL SUPPORT.       *
//*                                                                    *
//**********************************************************************
//*                                                                    *
//*  THE JOBSTEPS REQUIRED TO INSTALL VISION:Report+ ARE DESCRIBED     *
//*  BELOW.                                                            *
//*                                                                    *
//*  ===>   + VISION:Report, FORMERLY KNOWN AS DYL-QUIKJOB   OR        *
//*                          STERLING QUIKJOB                          *
//*                                                                    *
//* *************                                                      *
//* *           *                                                      *
//* * JOBSTEP:  *                                                      *
//* *   DELETE  *  DELETE LIBRARIES, JUST IN CASE OF RERUNS, ETC.      *
//* *           *                                                      *
//* *************                                                      *
//* *           *                                                      *
//* * JOBSTEPS: *                                                      *
//* *   STEP1A  *                                                      *
//* *   STEP1B  *                                                      *
//* *   STEP1C  *                                                      *
//* *   STEP1D  *                                                      *
//* *           *                                                      *
//* *************                                                      *
//*                                                                    *
//*    THE DISTRIBUTION TAPE IS MOUNTED FOR LOADING THE REQUIRED       *
//*    LIBRARIES.  THESE LIBRARIES ARE ALLOCATED AND RESTORED IN       *
//*    JOBSTEPS STEP1A, STEP1B, STEP1C AND STEP1D.  YOU MAY WISH TO    *
//*    CHANGE THE SPACE ALLOCATION PARAMETERS AND/OR INCLUDE DCB       *
//*    PARAMETERS FOR THE LIBRARIES.  NOTE: THESE ALLOCATIONS ARE      *
//*    BASED UPON 3380 DISK DEVICES.                                   *
//*                                                                    *
//*    - STEP1A:                                                       *
//*      THE IBM UTILITY, "IEBCOPY", IS USED TO RESTORE THE FOLLOWING *
//*      FILES:                                                        *
//*        2 - THE LOAD LIBRARY        FOR VISION:Report               *
//*        3 - THE OBJECT LIBRARY      FOR VISION:Report               *
//*        4 - THE DB2 INTERFACE SAMPLE LIBRARY                        *
//*                                                                    *
//*            AFTER RESTORING FILE 4, PLEASE REVIEW MEMBER '@INDEX'   *
//*            FOR A BRIEF DESCRIPTION OF EACH MEMBER IN THE DB2       *
//*            SAMPLE LIBRARY.                                         *
```

```
//*                                                                    *
//*    - STEP1B:                                                       *
//*      THE IBM UTILITY, "IEBGENER", IS USED TO RESTORE FILE:         *
//*        5 - THE SAMPLE TEST FILE    FOR VISION:Report               *
//*                                                                    *
//*    - STEP1C:                                                       *
//*      THE IBM UTILITY, "IEBUPDTE", IS USED TO RESTORE FILE:         *
//*        6 - LIBRARY FOR OPTIONAL MATERIALS, MACROS, SOURCE          *
//*            ASSEMBLER CODE          FOR VISION:Report               *
//*                                                                    *
//*    - STEP1D:                                                       *
//*      THE IBM UTILITY, "IEBUPDTE", IS USED TO RESTORE FILE:         *
//*        7 - SAMPLE PROGRAMS LIBRARY FOR VISION:Report               *
//*                                                                    *
//*            AFTER RESTORING, PLEASE REVIEW MEMBER '@INDEX' FOR A    *
//*            BRIEF DESCRIPTION OF EACH MEMBER, AS WELL AS ANY        *
//*            PROGRAM CUSTOMIZING PATCHES (PCP) AVAILABLE.            *
//*                                                                    *
//* *************                                                      *
//* *           *                                                      *
//* * JOBSTEPS: *                                                      *
//* *   STEP2   *                                                      *
//* *   STEP3   *                                                      *
//* *           *                                                      *
//* *************                                                      *
//*                                                                    *
//*    IN JOBSTEPS STEP2 AND STEP3, THE QJOPTION BLOCK IS ASSEMBLED    *
//*    AND LINK-EDITED.  THE PURPOSE OF THE QJOPTION BLOCK IS TO       *
//*    PROVIDE A MECHANISM BY WHICH YOU CAN SPECIFY PROGRAM AND        *
//*    ENVIRONMENTAL DEFAULTS FOR VISION:Report.                       *
//*                                                                    *
//*    ONCE THE QJOPTION MACRO IS ASSEMBLED AND LINK-EDITED,           *
//*    THE QJOPTION BLOCK WILL BE CREATED, AND                         *
//*    VISION:Report WILL BE ENABLED FOR OPERATIONS.                   *
//*                                                                    *
//*    YOU MAY ALSO WANT TO CUSTOMIZE THE OPTIONS TO MEET YOUR         *
//*    COMPANY'S REQUIREMENTS, SUCH AS CHANGING DEFAULT VALUES FOR     *
//*    DDNAMES, GENSIZE, WSTSIZE, ETC.  THE QJOPTION PARAMETERS ARE    *
//*    DESCRIBED IN THE VISION:Report REFERENCE GUIDE.                 *
//*                                                                    *
//*    FOR YOUR CONVENIENCE, THERE ARE THREE MEMBERS, QJOPTDEF,        *
//*    QJOPTREC, AND QJOPTDB2 THAT WERE PROVIDED IN THE VISION:Report *
//*    CONTROL LIBRARY YOU INITIALLY LOADED FROM THE FIRST FILE ON     *
//*    THE TAPE.  IN THIS JCL PROCEDURE, YOU SHOULD USE THE 'QJCNTL'   *
//*    SYMBOLIC PARAMETER TO POINT TO THIS INITIALLY LOADED CONTROL    *
//*    LIBRARY.                                                        *
//*                                                                    *
//*    THE FOLLOWING IS A BRIEF DESCRIPTION OF THE QJOPTION            *
//*    INVOCATION MEMBERS:                                             *
//*                                                                    *
//*       QJOPTDEF - ASSEMBLER INPUT FOR THE QJOPTION BLOCK.  ALL      *
//*                  PARAMETERS ARE INCLUDED, WITH THE STANDARD        *
//*                  DEFAULTS FOR EACH PARAMETER.  THIS MEMBER IS      *
//*                  INCLUDED FOR BACK LEVEL COMPATIBILITY.            *
//*                                                                    *
//*       QJOPTREC - ASSEMBLER INPUT FOR THE QJOPTION BLOCK, WITH      *
//*                  RECOMMENDED VALUES THAT ARE MORE APPROPRIATE FOR *
//*                  IBM z/OS or OS/390 ENVIRONMENTS.  ALL PARAMETERS *
//*                  ARE INCLUDED.  VALUES THAT DIFFER FROM THE        *
//*                  SUPPLIED DEFAULTS ARE MARKED WITH A PLUS (+) SIGN*
//*                  PLACED IMMEDIATELY BEFORE THE COMMENT ON EACH     *
//*                  LINE.                                             *
//*                                                                    *
//*       QJOPTDB2 - ASSEMBLER INPUT FOR THE QJOPTION BLOCK, WITH      *
//*                  RECOMMENDED VALUES FOR                            *
//*                  Advantage VISION:Report Interface to DB2.         *
```

```
//*                  ALL PARAMETERS ARE INCLUDED.                      *
//*                  VALUES THAT DIFFER FROM THE SUPPLIED DEFAULTS     *
//*                  ARE MARKED WITH A PLUS (+) SIGN PLACED            *
//*                  IMMEDIATELY BEFORE THE COMMENT ON EACH LINE.      *
//*                                                                    *
//*    YOU MAY CHANGE ANY OF THESE MEMBERS.                            *
//*    IN THIS JCL PROCEDURE, CHANGE THE 'QJOPTN' SYMBOLIC PARAMETER   *
//*    TO REFER TO THE NEWLY CREATED MEMBER NAME.                      *
//*                                                                    *
//* *************                                                      *
//* *           *                                                      *
//* * NOTES:    *                                                      *
//* *           *                                                      *
//* *************                                                      *
//*                                                                    *
//*    INTERFACES FOR CA-LIBRARIAN*, CA-PANVALET*, CA-IDMS/DB*,        *
//*    IMS+ AND/OR DB2+ MUST BE SETUP BEFORE THEY CAN BE USED.         *
//*    INSTRUCTIONS FOR SETTING UP THESE INTERFACES ARE IN             *
//*    CHAPTER 2 OF THE VISION:Report INSTALLATION GUIDE.             *
//*                                                                    *
//*    FOR Advantage VISION:Report Interface to DB2,                   *
//*    THERE ARE SAMPLE JOBSTREAMS IN THE "DB2SAMP" DATASET.           *
//*                                                                    *
//*    * CA-LIBRARIAN, CA-PANVALET, AND CA-IDMS ARE                    *
//*      TRADEMARKS OR REGISTERED TRADEMARKS OF                        *
//*      COMPUTER ASSOCIATES INTERNATIONAL                             *
//*                                                                    *
//*    + IMS AND DB2 ARE TRADEMARKS OR REGISTERED                      *
//*      TRADEMARKS OF INTERNATIONAL BUSINESS MACHINES CORPORATION     *
//*                                                                    *
//*    NOTE: ===> YOU MUST BE LICENSED TO USE ANY OR ALL OF THE        *
//*               DATABASE INTERFACE PRODUCTS MENTIONED ABOVE.         *
//*                                                                    *
//**********************************************************************
//*                                                                    *
//*    UPON SUCCESSFUL COMPLETION OF THESE STEPS, VISION:Report WILL   *
//*    BE READY TO RUN.                                                *
//*                                                                    *
//**********************************************************************
//*                                                                    *
//* DELETE:                                                            *
//*      ENSURE FILES ARE DELETED                                      *
//*                                                                    *
//**********************************************************************
//DELETE  EXEC  PGM=IEFBR14
//DD1      DD  DISP=(MOD,DELETE),DSN=&ARFILE,
//             DCB=(LRECL=80,BLKSIZE=16000,RECFM=FB),
//             SPACE=(TRK,(1,1)),UNIT=&DISK
//DD2      DD  DISP=(MOD,DELETE),DSN=&ASMSRC,
//             DCB=(LRECL=80,BLKSIZE=16000,RECFM=FB),
//             SPACE=(TRK,(1,1)),UNIT=&DISK
//DD3      DD  DISP=(MOD,DELETE),DSN=&DB2SAMP,
//             DCB=(LRECL=80,BLKSIZE=16000,RECFM=FB),
//             SPACE=(TRK,(1,1)),UNIT=&DISK
//DD4      DD  DISP=(MOD,DELETE),DSN=&LOADLIB,
//             DCB=(LRECL=80,BLKSIZE=16000,RECFM=FB),
//             SPACE=(TRK,(1,1)),UNIT=&DISK
//DD5      DD  DISP=(MOD,DELETE),DSN=&OBJLIB,
//             DCB=(LRECL=80,BLKSIZE=16000,RECFM=FB),
//             SPACE=(TRK,(1,1)),UNIT=&DISK
//DD6      DD  DISP=(MOD,DELETE),DSN=&QJSAMP,
//             DCB=(LRECL=80,BLKSIZE=16000,RECFM=FB),
//             SPACE=(TRK,(1,1)),UNIT=&DISK
//DD7      DD  DISP=(MOD,DELETE),DSN=&PATCH,           NEW IN 15.1
//             DCB=(LRECL=80,BLKSIZE=16000,RECFM=FB),
//             SPACE=(TRK,(1,1)),UNIT=&DISK
```

```
//*******************************************************************
//*                                                                 *
//* STEP1A:                                                         *
//*      RESTORE THE LOAD, OBJECT, AND DB2 SAMPLE LIBRARIES         *
//*                                                                 *
//*******************************************************************
//*
//STEP1A  EXEC PGM=IEBCOPY,REGION=1M              <=== STEP 1A
//*
//SYSPRINT DD  SYSOUT=&PRTCLAS
//SYSUT3   DD  UNIT=&DISK,SPACE=(TRK,20)
//SYSUT4   DD  UNIT=&DISK,SPACE=(TRK,10)
//INDD2    DD  DSN=QJ.REL&REL..FILE2,
//         UNIT=&TAPEU,DISP=OLD,
//         LABEL=(2,&TAPELBL),
//         VOL=(,RETAIN,SER=&TAPEVOL)
//INDD3    DD  DSN=QJ.REL&REL..FILE3,
//         UNIT=&TAPEU,DISP=OLD,
//         LABEL=(3,&TAPELBL),
//         VOL=(,RETAIN,REF=*.INDD2)
//INDD4    DD  DSN=QJ.REL&REL..FILE4,
//         UNIT=&TAPEU,DISP=OLD,
//         LABEL=(4,&TAPELBL),
//         VOL=(,RETAIN,REF=*.INDD2)
//OUTFILEP DD  DSN=&PATCH,      QJ PATCH LOADLIB
//         DISP=(,CATLG,DELETE),VOL=SER=&DSKSER,
//         DCB=(LRECL=80,BLKSIZE=8192,RECFM=U),
//         SPACE=(TRK,(10,5,10)),UNIT=&DISK
//OUTFILE2 DD  DSN=&LOADLIB,    QJ LOADLIB
//         DISP=(,CATLG,DELETE),VOL=SER=&DSKSER,
//         DCB=(LRECL=80,BLKSIZE=8192,RECFM=U),
//         SPACE=(TRK,(25,10,25)),UNIT=&DISK
//OUTFILE3 DD  DSN=&OBJLIB,     QJ OBJECT LIB
//         DCB=(LRECL=80,BLKSIZE=3200,RECFM=FB),
//         DISP=(,CATLG,DELETE),VOL=SER=&DSKSER,
//         SPACE=(TRK,(15,10,15)),UNIT=&DISK
//OUTFILE4 DD  DSN=&DB2SAMP,    QJ INTER. FOR DB2 SAMPLIB
//         DCB=(LRECL=80,BLKSIZE=8000,RECFM=FB),
//         DISP=(,CATLG,DELETE),VOL=SER=&DSKSER,
//         SPACE=(TRK,(15,10,15)),UNIT=&DISK
//*
//*******************************************************************
//*                                                                 *
//* STEP1B:                                                         *
//*      RESTORE AR SAMPLE TEST FILE                                *
//*                                                                 *
//*******************************************************************
//*
//STEP1B  EXEC PGM=IEBGENER,REGION=1M             <=== STEP 1B
//SYSPRINT DD  SYSOUT=&PRTCLAS
//SYSIN    DD  DUMMY
//SYSUT1   DD  DSN=QJ.REL&REL..FILE5,UNIT=&TAPEU,
//         LABEL=(5,&TAPELBL),
//         DISP=OLD,VOL=(,RETAIN,SER=&TAPEVOL)
//SYSUT2   DD  DSN=&ARFILE,     QJ ARFILE
//         DISP=(,CATLG,DELETE),VOL=SER=&DSKSER,
//         DCB=(LRECL=352,BLKSIZE=5280,RECFM=FB),
//         SPACE=(TRK,(3,2),RLSE),UNIT=&DISK
//*
//*******************************************************************
//*                                                                 *
//* STEP1C:                                                         *
//*      RESTORE THE OPTIONAL MATERIALS, SOURCE & MACRO LIBRARY     *
//*                                                                 *
//*******************************************************************
//*
```

```
//STEP1C  EXEC PGM=IEBCOPY,REGION=1M              <=== STEP 1C
//*
//SYSPRINT DD  SYSOUT=&PRTCLAS
//SYSUT3   DD  UNIT=&DISK,SPACE=(TRK,20)
//SYSUT4   DD  UNIT=&DISK,SPACE=(TRK,10)
//INDD1    DD  DSN=QJ.REL&REL..FILE6,UNIT=&TAPEU,
//         LABEL=(6,&TAPELBL),
//         DISP=OLD,VOL=(,RETAIN,SER=&TAPEVOL)
//OUTDD1   DD  DSN=&ASMSRC,     QJ SOURCE & MACROS
//         DISP=(,CATLG,DELETE),VOL=SER=&DSKSER,UNIT=&DISK,
//         DCB=(LRECL=80,BLKSIZE=8000,RECFM=FB),
//         SPACE=(TRK,(25,5,15)),DSORG=PO
//*
//*******************************************************************
//*                                                                 *
//* STEP1D:                                                         *
//*      RESTORE THE SAMPLE PROGRAMS LIBRARY                        *
//*                                                                 *
//*******************************************************************
//*
//STEP1D  EXEC  PGM=IEBUPDTE,REGION=1M,PARM=NEW   <=== STEP 1D
//SYSPRINT DD  SYSOUT=&PRTCLAS
//SYSIN    DD  DSN=QJ.REL&REL..FILE7,UNIT=&TAPEU,
//         LABEL=(7,&TAPELBL),
//         DISP=OLD,VOL=(,RETAIN,SER=&TAPEVOL)
//SYSUT2   DD  DSN=&QJSAMP,     QJ SAMPLE LIBRARY
//         DISP=(,CATLG,DELETE),VOL=SER=&DSKSER,DSORG=PO,
//         DCB=(LRECL=80,BLKSIZE=8000,RECFM=FB),
//         SPACE=(TRK,(20,5,15)),UNIT=&DISK
//*
//*******************************************************************
//*                                                                 *
//* STEP2:                                                          *
//*      ASSEMBLE THE QJOPTION BLOCK.                               *
//*      NOTE: ======> CHANGE THE OPTIONS TO MATCH YOUR             *
//*                    INSTALLATION'S OWN NEEDS!!                   *
//*                                                                 *
//* NOTE: ==> SEE THE 'OPTION' VERB IN THE VISION:Report REFERENCE  *
//*           GUIDE                                                *
//*                                                                 *
//*******************************************************************
//*
//STEP2   EXEC PGM=ASMA90,REGION=1M,            <=== STEP 2
//            PARM=(DECK,ESD,XREF(SHORT))
//SYSPRINT DD  SYSOUT=&PRTCLAS
//SYSLIB   DD  DSN=&ASMSRC,DISP=SHR
//         DD  DSN=SYS1.MACLIB,DISP=SHR
//SYSUT1   DD  UNIT=&DISK,SPACE=(1700,(1000,250))
//SYSUT2   DD  UNIT=&DISK,SPACE=(1700,(1000,250))
//SYSUT3   DD  UNIT=&DISK,SPACE=(1700,(1000,250))
//SYSGO    DD  DUMMY        FOR "OBJECT", F ASSEMBLER
//SYSLIN   DD  DUMMY        FOR "OBJECT", H ASSEMBLER
//SYSPUNCH DD  DSN=&LOADSET,UNIT=&DISK,
//            SPACE=(80,(1500,250)),
//            DISP=(MOD,PASS)
//SYSIN    DD  DISP=SHR,
//            DSN=&QJCNTL.(&QJOPTN)
//*
//*******************************************************************
//*                                                                 *
//* STEP 3:                                                         *
//*      LINK-EDIT THE OPTION BLOCK INTO THE VISION:Report LOADLIB  *
//*                                                                 *
//*******************************************************************
//*
//STEP3   EXEC PGM=IEWL,PARM=(XREF,NCAL,LIST,OL),
```

```
//            COND=(8,LE,STEP2)
//*
//SYSPRINT DD  SYSOUT=&PRTCLAS
//SYSUT1   DD  UNIT=&DISK,SPACE=(1024,(250,20))
//SYSLIN   DD  DSN=&LOADSET,DISP=(OLD,DELETE)
//SYSLMOD  DD  DSN=&LOADLIB(QUIKJOB1),DISP=OLD
//*
//*********************************************************************
//*
//* NOTE:
//*
//*  THE FOLLOWING WILL BE EXECUTED o-n-l-y IF THERE ARE PTF'S
//*  TO BE APPLIED; OTHERWISE, IT WILL BE COMMENTED OUT.
//*
//*********************************************************************
//*                                                                   *
//* STEP 4:                                                           *
//*      Apply all PTFs into the VISION:Report Patch Loadlib          *
//*                                                                   *
//*      NOTE:                                                        *
//*             Step 4 has multiple steps.                            *
//*                                                                   *
//*      STEP4CPY:  Copies all modules from original Loadlib          *
//*                 to Patch loadlib, including QJZARK                *
//*                                                                   *
//*      STEP4ZP1:  This zaps the copied modules with all             *
//*                 PTFs.                                             *
//*      STEP4LK1:  This relinks QJZARK, as it might run out of       *
//*                 IDR space.                                        *
//*           Note: You may get an RC=4.                              *
/*                                                                    *
//*********************************************************************
//*
//* STEP4
//*
//STEP4CPY EXEC  PGM=IEBCOPY,REGION=1M
//SYSPRINT DD  SYSOUT=*
//SYSUT3   DD  UNIT=SYSDA,SPACE=(TRK,(10,5))
//SYSUT4   DD  UNIT=SYSDA,SPACE=(TRK,(10,5))
//IN01     DD  DISP=SHR,DSN=&LOADLIB
//OUT01    DD  DISP=SHR,DSN=&PATCH      QJ PATCH LOADLIB
//*
//STEP4ZP1 EXEC  PGM=AMASPZAP,PARM=IGNIDRFULL,COND=(0,NE)
//SYSPRINT DD  SYSOUT=*
//SYSLIB   DD  DISP=SHR,DSN=&PATCH
//SYSIN    DD  DISP=SHR,DSN=&QJSAMP(PTF001O)   apply ptf's
//         DD  DISP=SHR,DSN=&QJSAMP(PTF002O)
//*
//* REFRESH QJZARK, ELSE IT MIGHT RUN OUT OF IDR SPACE.
//*
//* NOTE:  YOU MAY GET A RETURN CODE OF 4.
//*
//STEP4LK1 EXEC  PGM=IEWL,REGION=1M COND=(0,NE)
//SYSPRINT DD  SYSOUT=*
//SYSLMOD  DD  DSN=&PATCH,DISP=SHR
//SYSLIB   DD  DSN=&PATCH,DISP=SHR
//*
//*
//* =====> END OF PROC   <=========
//*
//   PEND
//*
//RUNIT    EXEC  QJINSTL
//*
//STEP1A.SYSIN  DD  *       RESTORE FILES 2-4
  COPY  INDD=INDD2,OUTDD=OUTFILE2    LOAD LIBRARY
```

```
  COPY  INDD=INDD3,OUTDD=OUTFILE3    OBJECT LIBRARY
  COPY  INDD=INDD4,OUTDD=OUTFILE4    DB2 SAMPLIB
/*
//STEP1C.SYSIN  DD  *       RESTORE FILES 6
  COPY  INDD=INDD1,OUTDD=OUTDD1      SOURCE, MACROS
/*
//STEP4CPY.SYSIN DD *       COPY MODULES TO ZAP
  COPY  INDD=IN01,OUTDD=OUT01
    SELECT MEMBER=((QUIKVSAM,,R),                                       *
                (QUIKTABL,,R),                                          *
                (QUIKCOMP,,R),                                          *
                (QUIKRPT,,R),                                           *
                (QUIKESQL,,R),                                          *
                (QJZARK,,R))
/*
//STEP4LK1.SYSLIN   DD  *   RELINK QJZARK
 INCLUDE SYSLMOD(QJZARK)
   NAME  QJZARK(R)
/*
```

QJOPTREC

QJOPTREC is the control library member, containing the option block QJOPTION recommended values for z/OS systems.

```
         COPY  GOPS                GLOBAL OPERATING SYSTEM SWT
         SPACE 3
*                  *** PROGRAM QJOPTREC ***
*
*****************************************************************
*                                                               *
* THIS PROGRAM CONTAINS THE RECOMMENDED VALUES FOR QJOPTION     *
* FOR Z/OS OR OS/390 ENVIRONMENT, WITHOUT OUR OPTIONAL FEATURE *
* ADVANTAGE VISION:REPORT INTERFACE TO DB2.                     *
*                                                               *
* P-L-E-A-S-E  READ CAREFULLY !                                 *
*                                                               *
* ====>  THE PRODCOD PARAMETER IS NO LONGER NEEDED.   <====     *
*                                                               *
* THE RECOMMENDED VALUES THAT ARE DIFFERENT FROM THE DEFAULTS   *
* ARE SHOWN WITH A PLUS (+) IN FRONT OF THE COMMENT.            *
*                                                               *
* NEW RECOMMENDED VALUES, FOR THIS RELEASE, ARE SHOWN WITH      *
* A VERTICAL BAR (|) IN FRONT OF THE COMMENT.                   *
*                                                               *
* NOTE:  1) A NON-BLANK CHARACTER IN POSITION 72 SIGNIFIES A    *
*           CONTINUATION STATEMENT ONTO THE NEXT LINE, WHICH    *
*           MUST START IN POSITION 16.                          *
*                                                               *
*        2) THE FOLLOWING PARAMETERS ARE NO LONGER NEEDED,      *
*           ALTHOUGH THEY CAN BE LEFT IN FOR COMPATIBILITY:     *
*                                                               *
*           #EQU, CALLCT, CALLSZ, GENSIZE, LITSIZE,             *
*           SORTMAX, SORTMIN, STMTS                             *
*                                                               *
*****************************************************************

         QJOPTION           ,      MVS SAMPLE                   *
               BWZ=NO,             BLANK WHEN ZERO               *
               CALLCT=10,        + NUMBER OF CALL ROUTINES ALLOWED *
```

```
CALLSZ=25,        + NUMBER OF CALLING PARAMETERS        *
CFLEOPT=NO,         FILE TOTALS ON CONSOLE              *
CLRVIP=YES,       + CLEAR INPUT AREA BEFORE READ        *
CLRVOP=YES,       + CLEAR OUTPUT AREA BEFORE WRITING    *
CRSIGN=NO,          CREDIT SIGN                         *
DELUPGM=NO,       + DELETE PROGRAM WHEN NOT IN USE      *
DETDD=SYSDET,                                           *
EDIT=NO,                                                *
EDITALL=NO,         EDIT MASKS FOR ALL, NOT JUST PRT    *
EDTNAME=QUIKEMSK,                                       *
EUROPTN=NO,                                             *
EXPMLOG=NO,         EXPIRATION MESSAGE ON CONSOLE       *
EXPMLST=YES,        EXPIRATION MESSAGE ON PRINTER       *
HDRDOTS=YES,                                            *
IFNUM=NO,          NUMERIC COMPARE BET. UNLIKE DATATYPE *
INADD=SYSINA,                                           *
INBDD=SYSINB,                                           *
INCDD=SYSINC,                                           *
INDD=SYSIN,                                             *
INDDD=SYSIND,                                           *
INEDD=SYSINE,                                           *
INFDD=SYSUT1,                                           *
INGDD=SYSING,                                           *
INHDD=SYSINH,                                           *
INIDD=SYSINI,                                           *
INJDD=SYSINJ,                                           *
INKDD=SYSINK,                                           *
INLDD=SYSINL,                                           *
INMDD=SYSINM,                                           *
INNDD=SYSINN,                                           *
INODD=SYSINO,                                           *
INPDD=SYSINP,                                           *
INQDD=SYSINQ,                                           *
INRDD=SYSINR,                                           *
INSDD=SYSINS,                                           *
INTDD=SYSINT,                                           *
INUDD=SYSINU,                                           *
INVDD=SYSINV,                                           *
INWDD=SYSINW,                                           *
INXDD=SYSINX,                                           *
INYDD=SYSINY,                                           *
INZDD=SYSINZ,                                           *
LIST=YES,                                               *
LISTABL=NO,                                             *
LISTOPT=NO,         'YES'  FOR DEBUGGING                *
MOVCVTX=NO,         MOVE X'..' CONVERTS                 *
MSGROLL=YES,                                            *
OFADD=SYSUT2,       1 OF 4 ORIGINAL OUTPUT FILES        *
OFBDD=SYSUT3,       1 OF 4 ORIGINAL OUTPUT FILES        *
OFCDD=SYSUT4,       1 OF 4 ORIGINAL OUTPUT FILES        *
OFDDD=SYSUT5,       1 OF 4 ORIGINAL OUTPUT FILES        *
OFEDD=SYSOFE,                                           *
OFFDD=SYSOFF,                                           *
OFGDD=SYSOFG,                                           *
OFHDD=SYSOFH,                                           *
OFIDD=SYSOFI,                                           *
OFJDD=SYSOFJ,                                           *
OFKDD=SYSOFK,                                           *
OFLDD=SYSOFL,                                           *
OFMDD=SYSOFM,                                           *
OFNDD=SYSOFN,                                           *
OFODD=SYSOFO,                                           *
OFPDD=SYSOFP,                                           *
OFQDD=SYSOFQ,                                           *
OFRDD=SYSOFR,                                           *
OFSDD=SYSOFS,                                           *
```

```
      OFTDD=SYSOFT,                                          *
      OFUDD=SYSOFU,                                          *
      OFVDD=SYSOFV,                                          *
      OFWDD=SYSOFW,                                          *
      OFXDD=SYSOFX,                                          *
      OFYDD=SYSOFY,                                          *
      OFZDD=SYSOFZ,                                          *
      OVLY=NO,                                               *
      PARMFLD=YES,                                           *
      PFLEOPT=NO,                                            *
      PRNTLCT=54,                                            *
      PRTDD=SYSPRINT,                                        *
      PRTSIZE=133,                                           *
      PUNDD=SYSPUNCH,                                        *
      PUNSIZE=81,                                            *
      QJMDUMP=YES,                                           *
      RPTDD=SYSPRINT,                                        *
      RPTSPCE=0,          SPACE BETWEEN DATA COLUMNS (REPORT) *
      SAVAREA=1024,     + SAV AREA WORKING STORAGE           *
      SEQCHK=NO,        + NO SEQUENCE CHECKING               *
      SORTABL=YES,                                           *
      SPIE=YES,           TRAP PROGRAM CHECKS                *
      SQLA1=0,            LEAVE '0' IF NO DB2, ELSE 8192 ?   *
      SQLA2=0,            LEAVE '0' IF NO DB2, ELSE 4096 ?   *
      SQLA3=0,            LEAVE '0' IF NO DB2, ELSE 1024 ?   *
      SQLA4=0,            LEAVE '0' IF NO DB2, ELSE 1024 ?   *
      SQLA5=0,            LEAVE '0' IF NO DB2, ELSE 8192 ?   *
      SQLPLNM=********,   LEAVE AS IS IF NO DB2, ELSE CHANGE. *
      SQLSYSN=****,       LEAVE AS IS IF NO DB2, ELSE CHANGE. *
      SQLVER=00.00,       LEAVE AS IS IF NO DB2, ELSE CHANGE. *
      SRTADJ=NO,          SORT ADJUST OFFSET                 *
      SRTERCD=150000,   + # OF RECORDS TO BE SORTED          *
      SRTPGM=SORT,                                           *
      SRTSIZE=64,       + MEMORY IN 'K' FOR SORT             *
      SRTWKN=NO,         SORT MULTIPLE FILES/AREAS CONCURRENT *
      STMTEND=71,       + ALLOWS SEQ IN 73-80                *
      STMTLCT=50,                                            *
      STMTS=250,          STATEMENTS IN QJ PROGRAM           *
      SUBSPIE=YES,                                           *
      TRACECT=10,                                            *
      TRLNAME=QUIKTRNT,                                      *
      UABNDMP=NO,                                            *
      UEXIT1=NO,                                             *
      U331DMP=YES,                                           *
      U333ABE=NO,                                            *
      U334DMP=NO,                                            *
      U335DMP=YES,                                           *
      U336DMP=YES,                                           *
      U338DMP=NO,                                            *
      U339DMP=NO,                                            *
      VLABEND=YES,                                           *
      VSAMER=NO,        |  8-BYTE RBA FOR VSAM EXTENDED FMT  *
      WSTSIZE=1000,                                          *
      ZEROPRT=NO
END
```

CUSTMJCL

CUSTMJCL is the JCL procedure for assembling and link editing the option block (QJOPTION).

```
//* YOUR JOB CARD GOES HERE
//ASMLINK PROC DISK=SYSDA,
//          PRTCLAS='*',
//          QJOPTN=myoption,  <==== CHANGE member name ???
//          ASMSRC='@@@AAA.@@@BBB.OPTMATL',    SOURCE/MACROS
//          PATCH='@@@AAA.@@@BBB.PATCHLD',  <======== PATCH LOADLIB
//          QJCNTL='@@@AAA.@@@BBB.CNTLLIB'     WHERE myoption RESIDES
//*
//*********************************************************************
//*                                                                   *
//* NOTE:  MODIFIED SINCE 15.1:                                       *
//*        INSTEAD OF LOADLIB PARM, IT IS NOW PATCH (LOADLIB).        *
//*                                                                   *
//* THIS STEP-BY-STEP METHOD IS ALL THAT IS NEEDED TO ASSEMBLE AND    *
//* LINK-EDIT THE QJOPTION BLOCK IN THE EVENT THAT YOU WISH TO        *
//* RECREATE THE QJOPTION BLOCK AFTER VISION:Report HAS BEEN          *
//* INSTALLED.                                                        *
//*                                                                   *
//* PLEASE READ THE COMMENTS THOROUGHLY BEFORE                        *
//* SUBMITTING THIS JOB.                                              *
//*                                                                   *
//* BE SURE TO EITHER HAVE "CAPS ON" OR HAVE THE "CAPS LOCK" BUTTON  *
//* ON.                                                               *
//*                                                                   *
//* MAKE THE FOLLOWING CHANGES AND DEFAULT SYMBOLIC PARAMETERS IN     *
//* THE JCL PROCEDURE BEFORE SUBMITTING IT FOR EXECUTION.             *
//*                                                                   *
//*     1) REPLACE THE FIRST LINE OF THIS FILE WITH THE JOB CARD      *
//*        NECESSARY TO RUN THIS JOB AT YOUR INSTALLATION.            *
//*                                                                   *
//*     2) CHANGE 'SYSDA' IN 'DISK=SYSDA' TO THE DEVICE CLASS TYPE    *
//*        FOR YOUR DISK WORK SPACE, I.E. 3350, 3380, ETC.            *
//*                                                                   *
//*     3) CHANGE '*' IN "PRTCLAS='*' TO THE SYSOUT CLASS FOR THE    *
//*        PRINTED OUTPUT FROM THIS RUN.                              *
//*                                                                   *
//*     4) IF YOU HAVE SAVED YOUR MODIFIED QJOPTION ASSEMBLER PROGRAM *
//*        WITH A MEMBER NAME OTHER THAN 'myoption', CHANGE           *
//*        'myoption' IN 'QJOPTN=MYOPTION' TO THAT MEMBER NAME.       *
//*        NOTE: ===> THE MEMBER IS ASSUMED TO EXIST IN THE CNTL.     *
//*                                                                   *
//*     5) GLOBALLY CHANGE '@@@AAA.@@@BBB' TO THE HIGH LEVEL AND      *
//*        MIDDLE LEVEL QUALIFIERS THAT ARE ASSOCIATED WITH THE       *
//*        VISION:Report LIBRARIES AND FILE DATANAMES.                *
//*                                                                   *
//*     6) VERIFY THAT THE 'QJCNTL=' SYMBOLIC PARAMETER REFERS TO     *
//*        THE LIBRARY THAT CONTAINS YOUR QJOPTION PARAMETERS.        *
//*                                                                   *
//*     7) YOU ARE NOW READY TO SUBMIT THIS JOB.  IF YOU ENCOUNTER    *
//*        A PROBLEM YOU CANNOT SOLVE OR HAVE ANY QUESTIONS, YOU      *
//*        SHOULD CONTACT COMPUTER ASSOCIATES TECHNICAL SUPPORT.      *
//*                                                                   *
//*                                                                   *
//*********************************************************************
//*********************************************************************
//*                                                                   *
//* STEP1:                                                            *
//*      ASSEMBLE THE QJOPTION BLOCK                                  *
//*      NOTE: ======> CHANGE THE OPTIONS TO MATCH YOUR               *
//*                    INSTALLATION'S OWN NEEDS!!                     *
```

```
//*                                                                    *
//* NOTE: ==> SEE THE 'OPTION' VERB IN THE VISION:Report REFERENCE    *
//*           GUIDE.                                                   *
//*                                                                    *
//**********************************************************************
//*
//STEP1   EXEC PGM=ASMA90,                     <=== STEP 1
//            REGION=1M,PARM=(DECK,ESD)
//SYSPRINT DD  SYSOUT=&PRTCLAS
//SYSLIB   DD  DISP=SHR,        VISION:Report SOURCE/MACRO LIBRARY
//             DSN=&ASMSRC
//         DD  DSN=SYS1.MACLIB,DISP=SHR
//SYSUT1   DD  UNIT=&DISK,SPACE=(1700,(1000,250))
//SYSUT2   DD  UNIT=&DISK,SPACE=(1700,(1000,250))
//SYSUT3   DD  UNIT=&DISK,SPACE=(1700,(1000,250))
//SYSGO    DD  DUMMY        FOR "OBJECT", F ASSEMBLER
//SYSLIN   DD  DUMMY        FOR "OBJECT", H ASSEMBLER
//SYSPUNCH DD  DSN=&LOADSET,UNIT=&DISK,
//            SPACE=(80,(1500,250)),
//            DISP=(MOD,PASS)
//SYSIN    DD  DISP=SHR,        VISION:Report CNTL LIBRARY
//            DSN=&QJCNTL.(&QJOPTN)
//*
//**********************************************************************
//*                                                                    *
//* STEP2:                                                             *
//*      LINK-EDIT THE OPTION BLOCK INTO THE VISION:Report             *
//*      PATCH LOADLIB                                                 *
//*                                                                    *
//**********************************************************************
//*
//STEP2   EXEC PGM=IEWL,PARM=(XREF,NCAL,LIST,OL), <=== STEP 2
//            COND=(0,NE)
//*
//SYSPRINT DD  SYSOUT=&PRTCLAS
//SYSUT1   DD  UNIT=&DISK,SPACE=(1024,(250,20))
//SYSLIN   DD  DSN=&LOADSET,DISP=(OLD,DELETE)
//SYSLMOD  DD  DISP=OLD,
//             DSN=&PATCH(QUIKJOB1)
//*
//   PEND
//*
//RUNIT    EXEC  ASMLINK
//*
```

Chapter 2

Installing VISION:Report Optional Material

VISION:Report optional material includes:

- Assembler language source programs
- Macros
- VISION:Report sample programs
- VISION:Report Interface to DB2 sample library (DB2SAMP)
- Object code

Use these programs to enhance VISION:Report. Install any or all of the options to enhance functionality.

This chapter describes procedures to set up the optional material before you use them. This includes customization, assembly, and link editing activities. If the documentation for the particular program states that the program exists in an executable library, you only have to reassemble it if you want to change its options.

Using the Assembler Programs

Since many of these Assembler programs are identical or similar under z/OS or VSE, some references pertain to either operating system. Most of the terminology is the same.

There are some slight differences, such as “load library” in z/OS and “phase library” in VSE. For documentation purposes, the “executable library” is used to mean either load library (z/OS) or phase library (VSE), as appropriate to your environment.

In this document, VSE references to A.level and E.level (or format) source or macros are the equivalent of sublibraries A and E, respectively.

Note: Certain releases of VSE, in conjunction with the high-level Assembler, no longer support the E.level macros. In this case, convert the E.level macros to A.level macros using the EDECK option of the Assembler or similar methods.

You can choose to assemble some of the Assembler source programs. Usually, comments at the beginning of the program define the symbolic parameters used to control how the program is assembled. Most of the programs contain code for both operating systems.

SYSPARM Parameter Indicates the Operating System

The symbolic parameter SYSPARM indicates which operating system to generate code; thus, code for the other operating system is not assembled. The following are valid SYSPARM parameters.

System	SYSPARM parameter
OS, MVS, OS/390, or z/OS	O
DOS or VSE	D

For example, to invoke the high-level Assembler, use an EXEC statement similar to the following.

```
z/OS    //ASM    EXEC   PGM=ASMA90,PARM='SYSPARM(O),OBJECT'
VSE     // EXEC  PGM=ASM90,PARM='SYSPARM(D),OBJECT'
```

Concatenation Order

Note: Link edit modules to your own executable library and concatenate other libraries ahead of the original release VISION:Report library, including any 'fix' libraries that you use later on. This safeguards the original modules against inadvertent corruption. There are very few exceptions to this rule, such as the QJOPTION module.

Base System Components

When you install the base VISION:Report system, you restore the following libraries and files from the first seven files on the installation tape.

File Name	Description	File No.
@@@AAA.@@@BBB.CNTLIB	Installation control library	File 1
@@@AAA.@@@BBB.LOADLIB	Load library	File 2
@@@AAA.@@@BBB.OBJLIB	Object library	File 3
@@@AAA.@@@BBB.DB2SAMP	DB2 sample library	File 4
@@@AAA.@@@BBB.ARFILE	Test file	File 5
@@@AAA.@@@BBB.OPTMATL	Source/macro library	File 6
@@@AAA.@@@BBB.SAMPLIB	Sample programs library	File 7

`@@@AAA.@@@BBB` is the high-level qualifier and middle-level qualifier that you associate with the VISION:Report library and file data names.

Optional Material Components

Various source materials reside on Files 4, 6, and 7 of the installation tape and, after installation, in the DB2SAMP, OPTMATL, and SAMPLIB libraries. The libraries contain the following files.

File	Library	Description
File 4	DB2SAMP	Contains: ■ JCL to install VISION:Report Interface to DB2. ■ Sample programs for VISION:Report Interface to DB2. See the *Advantage VISION:Report Interface to DB2 Reference Guide*.
File 6	OPTMATL	Contains Assembler source code and macros that customize certain items for your particular use. Source members for many programs are included so that you can modify the items at your installation.
File 7	SAMPLIB	Contains VISION:Report sample programs and PCPs.

Note: You must be licensed to use VISION:Report Interface to DB2.

Printing the User Date Table with QUIKDPRT

The VISION:Report batch utility program, QUIKDPRT, prints the contents of the User Date table in a report format.

The User Date table report produces two contiguous parts.

- The first part prints the weekday and miscellaneous sections of the table. This details the defined length of each day, the day designated as the end of the week, the normal work week length, and default prefixes for two-character year format date values.
- The remainder of the report lists the entries in the holiday dates portion of the table (vertically, in a five column display). The first page of this listing contains up to 80 entries; subsequent pages contain up to 125 entries. The entries on the last page appear in balanced or even-column length.

This program executes as a stand-alone program, in batch mode.

- If needed, use STEPLIB (z/OS) or LIBDEF (VSE) statements to define the desired library if multiple tables exist.
- The output goes to the SYSPRINT file in z/OS and to the system logical unit SYSLST in VSE.

  The z/OS SYSPRINT DD statement DCB parameter must include RECFM=M because printer control characters are machine format. It must also define the record length as 133 characters, including control character.

To route the output to a tape or disk device, provide the JCL statements to define the output data set. Initiate execution with the following statement:

```
//PRINTIT   EXEC PGM=QUIKDPRT
```

Note: Do not call QUIKDPRT using VISION:Report statements.

Modifying the Option Block (QJOPTION)

The default name for this module is QUIKJOB1.

The VISION:Report installation process includes modifying the option block to contain your runtime options. This executable module consists of one control section (CSECT) named QJOPTION. Place it in the same executable library where all VISION:Report executable modules reside.

When customizing the option block to meet your standards and requirements, prepare an Assembler language program that initiates the option block macro QJOPTION. The OPTION statement contains a list of words defining the options with a list or range of valid values and the default values. See the OPTION verb in the *Advantage VISION:Report Advantage VISION:Forms Reference Guide*.

The name of the option is the name of the symbolic parameter used in the macro. All parameters are keyword parameters; you can specify them in any order. The following is an example of your Assembler language program:

```
    CC16                                          CC72
QJOPTION WSTSIZE=1500,                               X
    . options,                                       X
    . ,                                              X
    STMTEND=71
END
```

When you make changes (in this example, the WSTSIZE and STMTEND statements changed), inform your users so that their programs execute properly.

Use an OPTION statement to change all ddnames except INDD. The OPTION verb description (see the *Advantage VISION:Report Advantage VISION:Forms Reference Guide*) states that you can change the INDD ddname only at installation. Note the difference between INDD (the command/table file) and INDDD (the IND file).

When you execute the assembly step, the macro library data set //SYSLIB DD must define the data set into which the sixth file from the installation tape was loaded.

When you execute the link edit step, the target load library data set //SYSLMOD DD must define the load library into which the product was loaded. You must include a linkage editor NAME control statement to allow replacement of an existing load module.

```
//SYSLIN    DD  (define Assembler output file)
//          DD  DDNAME=SYSIN
    .
    .
    .
//SYSIN     DD  *
    NAME QUIKJOB1(R)
/*
```

An alternate method of replacing the new option block is to define the target load library //SYSLMOD DD to include the member name as part of the data set name:

```
//SYSLMOD   DD  DSN=@@@AAA.@@@BBB.LOADLIB(QUIKJOB1),
//          DISP=OLD
```

Note: Control library (CNTLLIB) members CUSTMJCL, QJOPTDB2, QJOPTDEF, and QJOPTREC, assist you in modifying the option block (QJOPTION). For more information about these members, see Chapter 1, Installing VISION:Report for z/OS in this guide.

Date Calculation (QUIKDATE Program/QUIKDATT Macro)

For the extended four-character year date processing, customize the User Date tables to your needs *prior* to using the QUIKDATE program. Some of the date functions require data contained in the date table for proper execution.

The default date table name during execution of QUIKDATE is QUIKDATT; you can override it at execution time. Substitute your table name wherever the table name QUIKDATT appears.

Assembling QUIKDATT

You must assemble the QUIKDATT macro with your parameters to form QUIKDATT even if you have QUIKDATT from a previous release of VISION:Report. Previous versions of QUIKDATT are not upward compatible. The macro has the following four areas of data to permit this execution:

- Windowing technique for Year 2000 (Optional)
- Status of each of the seven days of the week
- Control information
- Holiday Date table

You can find the QUIKDATT macro in the source/macro library (optional materials file on the installation tape which contains Assembler source modules):

- You must assemble QUIKDATT and customize your User Date tables.
- The MYDATT member has an example. If your member name is different from MYDATT, replace MYDATT with that name in the JCL job stream.
- After you change MYDATT, assemble QUIKDATT with the MYDATT member following the QUIKDATT.

Note: Keep the original MYDATT for future reference. Do not modify the source of QUIKDATT. If you think that there is an error, contact Technical Support (see the section Contacting Computer Associates in this guide).

Concatenating MYDATT

Your z/OS users can concatenate the MYDATT member as the second SYSIN DD statement to the Assembler, with the QUIKDATT macro as the first SYSIN DD statement to the Assembler. See the SYSIN DD statement in the JCL to Assemble MYDATT in this guide.

To produce a “clean” Assembler listing of your customized table, the Assembler directive PRINT OFF disables the printing of the text of both macros. Do not remove this directive.

To begin your customization, modify the sample statements that invoke the two macros in the required order. These statements follow the COMPUTER ASSOCIATES INTERNAL HEADER.

Invoking the WEEKDAY Macro

The order you invoke macros is important. Invoke the WEEKDAY macro for each day of the week, beginning with the first day, Monday, and continuing consecutively (day 2, day 3, ..., day 7).

The macro has two keyword parameters, DAY and DAYLEN. Supply the day name, abbreviated to 3 characters (TUE, WED, ..., SUN).

Specifying the WEEKDAY Macro DAYLEN Parameter

The default value for the DAYLEN parameter is WHOLE. You do not need to specify this parameter for a normal workday.

DAYLEN Parameter	Description
WHOLE	Default value.
HALF	The length of that workday is a half day.
OFF	No work is done on that day.

For example:

```
WEEKDAY DAY=MON
WEEKDAY DAY=TUE
WEEKDAY DAY=WED,DAYLEN=HALF
WEEKDAY DAY=THU
WEEKDAY DAY=FRI
WEEKDAY DAY=SAT,DAYLEN=OFF
WEEKDAY DAY=SUN,DAYLEN=OFF
```

Specifying the HOLIDAY Macro

After you invoke the WEEKDAY macro, create the entries for your Holiday Date table with the HOLIDAY macro. The macro contains five keyword symbolic parameters.

HOLIDAY Parameter	Value
DATE	Required. Format is MMDDYYYY (see the section Setting the DATE Parameter in this chapter)
DAYLEN	Default = WHOLE
WKDAEND	Default = 7
CHAR2	Default = 19
CHAR4	Default = 19

The last three parameters are only used the first time you invoke the macro. If you do not specify a value, the default values remain.

The HOLIDAY macro parameters, together with the information from the WEEKDAY macro DAYLEN parameter, create the control information that contains:

- Normal work week length
- The day designating the end of the work week
- Two-part binary flags used to indicate century year prefix digits for two- and four-character date default values.

Summing the DAYLEN parameters of the WEEKDAY macro creates the normal week length.

Note: The DAYLEN parameters in the WEEKDAY macro and the HOLIDAY macro are unrelated.

Set WKDAEND (default = 7) to a value of 1 through 7 designating Monday, Tuesday, ..., and so on as the end of the work week.

Use the CHAR2 and CHAR4 parameters with values of 19 or 20 to specify the default values for the century when it is necessary to expand a 2-character date to a 4-character date format.

- Use CHAR4 in Function 1 only to format the output date.
- Use CHAR2 in Functions 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11 to format the input dates.

Override these defaults by explicitly specifying a century as an optional parameter, or by the windowing option.

For example:

```
HOLIDAY     DATE=01012000,DAYLEN=WHOLE   NEW YEAR'S DAY
HOLIDAY     DATE=12242000,DAYLEN=HALF    CHRISTMAS EVE
```

After the last HOLIDAY entry, you must add an END statement unless you are coding the optional WINDOW parameter or macro (see the section Windowing Technique Parameters for Year 2000 in this guide); you must code the WINDOW macro after the last HOLIDAY macro, and you can only specify it once.

Setting the DATE Parameter

When creating the holiday dates, enter the dates in ascending sequence. Dates use the format MMDDYYYY.

DATE Parameter	Description
MM	Is the two-character month (01=January, ...)
DD	Is the two-character day (01, ...)
YYYY	Is the four-character year

- Your dates can regress as far back as 01011900 (January 1, 1900) and project as far ahead as 12312099 (December 31, 2099).
- Within the restrictions noted, you can indicate any combination of dates as holidays.
- Valid values for the DAYLEN parameter are WHOLE (default) or HALF.
- You can have multiple tables. To do this, link edit each executable module under a separate name.
- The date table default name during execution is QUIKDATT, but if there are multiple date tables, the module name can be different.

Windowing Technique Parameters for Year 2000

QUIKDATE has a 100-year interval windowing technique. The two types of windowing techniques are *fixed* and *sliding*.

Coding the WINDOW Macro

You can code the optional WINDOW macro only once, after the last HOLIDAY macro. If not coded, QUIKDATE uses no windowing techniques. The following are the WINDOW macro parameters.

WINDOW Parameter	Description
FXYEAR	Optional. Fixed specific year. ■ If coded, the windowing technique is fixed. This is a static 100-year interval that generally crosses a century boundary. Use this technique to determine the century of a 2-digit year by comparing the hard-coded 2-digit year against a window of 100 years. ■ If you omit FXYEAR, then the operating system uses the system date year and the windowing technique is sliding or rolling.
PASTYRS	Required. This is the window for nn past years, relative to the FXYEAR if coded, or relative to the system date year if FXYEAR is omitted. This parameter, along with +1 for the current year, plus FUTRYRS, must total a 100-year interval.
FUTRYRS	Required. This is the window for nn future years, relative to the FXYEAR if coded, or relative to the system date year if FXYEAR is omitted. This parameter, along with +1 for the current year, plus PASTYRS, must total a 100-year interval.

Note: If you code the windowing technique parameters, then the optional FXYEAR parameter for century is not valid or accepted for any function in QUIKDATE. Instead, the century that is returned is based on QUIKDATE calculations.

You can apply either of the previous techniques only to dates within a maximum 100-year period at any one time. This is a temporary solution; there is no guarantee that your applications will not expand in the future to process dates that are more than 100 years apart.

Only the FXYEAR parameter is optional; you must code PASTYRS and FUTRYRS parameters. Code the FXYEAR parameter only if you want the fixed windowing technique. The total of PASTYRS and FUTRYRS, plus 1 for the current year, must total 100. For example, if 1995 is the current year, you can code PASTYRS as 35 and FUTRYRS 64.

```
PASTYRS +   FUTRYRS + 1 for current year = 100
  35          64      1                = 100
```

In the previous example, the past 35 years are 1960 until 1995, the system (or current) year; the future 64 years are until 2059.

You can maintain more than one date table with different names at one time. Thus, you can have the "normal" QUIKDATT table module for your regular production work while testing a windowing technique table. Furthermore, you can set one window to process historical dates, one for mortgage dates, one for birth dates, and so on, and QUIKDATE automatically adjusts the system date, with past and future windows to meet specific application needs.

Fixed Window Technique

The fixed window technique uses a static 100-year interval that generally crosses a century boundary. This technique determines the century of a 4-digit year by comparing the 2-digit year against a window of 100 years. You specify the number of years in the past and future, relative to a fixed or specific year within the 100-year interval.

For example, if the years of date-related data of your application fall in the range of January 1, 1960 to December 31, 2059, you can use a 2-digit year to distinguish dates prior to the year 2000 from the year 2000 and beyond. If you use the system year of 1995, code the number of years in the past and future as 35 and 64, in PASTYRS and FUTRYRS parameters, respectively, and code FXYEAR as 1995. QUIKDATE then determines the century based on the following program logic and data checking, assuming xx is the 2-digit FXYEAR:

- xx > 60, it is a 20th century date (19xx).
- xx < 59, it is a 21st century date (20xx).

The inherent future risk in using this technique is obvious: you must adjust this program or parameter each year.

Sliding Window Technique

The sliding window technique uses a self-advancing 100-year interval that generally crosses a century boundary. This technique determines the century of a 2-digit year by comparing the 2-digit year against a window of 100 years. You specify the number of years in the past and future relative to the system year (generally the current year) that the system sets and maintains. QUIKDATE can access the date that the system sets and automatically advances. The principal advantage of this method over a fixed window is that the fixed window is immovable without manually changing the table each year.

For example, the years of date-related data of your application fall in the range of 35 years in the past and 64 years into the future. You code 35 in the PASTYRS parameter and 64 in the FUTRYRS parameters. Based on the year 1995, QUIKDATE can accept and accurately deal with dates of 1960 through 2059.

- Past 35 years is 1960 until 1995, the system (or current) year
- Future 64 years is until 2059.

Both the fixed and sliding window techniques have their inherent risks. You must carefully weigh the pros and cons of both techniques before deciding which technique, if any, to use.

For example:

```
WINDOW        PASTYRS=35,FUTRYRS=64                    Sliding Technique
WINDOW        PASTYRS=35,FUTRYRS=64,FXYEAR=1995        Fixed Technique
```

Note: Windowing is a work-around for 2-digit year fields. It is best to convert date fields to four digits.

Link Editing MYDATT

Link edit MYDATT to a separate executable library and use a PROC to concatenate the required libraries and JCL to run VISION:Report. To avoid possible problems, do not link edit MYDATT to the original VISION:Report installation load library.

The following example shows a sample JCL job stream to assemble MYDATT, as well as the contents of MYDATT. The sample JCL is in member ASMYDATT of the sample library. The sample uses the high-level qualifiers of `@@@AAA.@@@BBB` for data sets as originally installed.

Note: Be sure to globally change occurrences of ?????? to the member name that contains your installation QUIKDATE table, as well as globally change the high-level qualifiers of `@@@AAA.@@@BBB` to the high-level and middle-level qualifiers you associate with the VISION:Report library and file data names.

JCL to Assemble MYDATT

```
//ASMYDATT JOB  (ACCOUNTING INFO),
//     MSGCLASS=X
//*
//* ASSEMBLE  YOUR OWN VERSION (QUIKDATT)  FOR VISION:REPORT
//*
//* CHANGES NEEDED:
//*
//*    1) IN THE FOLLOWING JOBSTREAM, DO A GENERIC CHANGE ALL FROM
//*       '??????'    TO THE MEMBER IN OPTMATL THAT CONTAINS
//*       YOUR INSTALLATION'S QUIKDATE TABLE.
//*       YOU MAY USE 'MYDATT' IN THE MACLIB  THAT WAS DISTRIBUTED
//*       AFTER MODIFYING IT TO FIT YOUR INSTALLATION'S REQUIREMENTS.
//*       - WE RECOMMEND YOU KEEP A COPY OF THE ORIGINAL 'MYDATT'.
//*    2) CHECK THE INPUT STATEMENTS ON THE SYSLIN DD STATEMENT
//*       IN THE LAST JOBSTEP, LKED.
//*       IF YOU DO NOT WANT THE LOAD MODULE NAME TO BE 'QUIKDATT'
//*       CHANGE IT TO THE NAME DESIRED.
//*       - WE RECOMMEND YOU KEEP A COPY OF THE ORIGINAL 'QUIKDATT'.
//*    3) CHANGE ALL DATASET NAMES TO MATCH YOUR INSTALLATION
//*       REQUIREMENTS.
//*
//*       QUIKDATE USES, AS THE DEFAULT TABLE NAME, QUIKDATT,
//*       UNLESS SPECIFIED OTHERWISE.
//*
//ASM     EXEC PGM=ASMA90,REGION=1M,TIME=(,10),
//        PARM=('SYSPARM=O,TERM,DECK,LOAD',
//        'XREF(SHORT),ESD,RLD')
//SYSPRINT  DD  SYSOUT=*
//SYSUT1    DD  UNIT=SYSDA,SPACE=(1700,(1000,250))
//SYSLIB    DD  DISP=SHR,
//            DSN=@@@AAA.@@@BBB.OPTMATL           <=== ORIGINAL PDS
//          DD  DISP=SHR,DSN=SYS1.MACLIB
//          DD  DISP=SHR,DSN=SYS1.AMODGEN
//*
//SYSLIN    DD  DSNAME=&&LOADSET,UNIT=SYSDA,
//            SPACE=(80,(200,50),,CONTIG),
//            DISP=(MOD,PASS),DCB=BLKSIZE=880
//SYSUT1  DD  DSNAME=&&SYSUT1,UNIT=SYSDA,
//            SPACE=(1700,(400,50)),
//            SEP=(SYSLIN)
//SYSUT2    DD  DSNAME=&&SYSUT2,UNIT=SYSDA,
//            SPACE=(1700,(400,50)),
//            SEP=(SYSLIN,SYSUT1)
//SYSUT3    DD  DSNAME=&&SYSUT3,UNIT=SYSDA,
//            SPACE=(1700,(400,50)),
//            SEP=(SYSLIN,SYSUT1,SYSUT2)
//SYSTERM   DD  SYSOUT=*
//SYSPUNCH  DD  DSN=&&OBJECT,DISP=(NEW,PASS),
//              UNIT=SYSDA,SPACE=(TRK,(10,5),RLSE),
//              DCB=(RECFM=FB,BLKSIZE=3120,LRECL=80)
//*
//* DO   N-O-T   CHANGE THE MEMBER NAME, "QUIKDATT" BELOW
//* DO   N-O-T   CHANGE THE MEMBER NAME, "QUIKDATT" BELOW
//* DO   N-O-T   CHANGE THE MEMBER NAME, "QUIKDATT" BELOW
//*
//SYSIN     DD  DISP=SHR,                           ORIGINAL MACRO
//        DSN=@@@AAA.@@@BBB.OPTMATL(QUIKDATT)     <=== MEMBER NAME-KEEP
//          DD  DISP=SHR,                         THIS IS YOUR INPUT
//        DSN=@@@AAA.@@@BBB.OPTMATL(??????)       <=== CHANGE ?
//*
//COPY    EXEC PGM=IEBGENER,COND=(8,LE,ASM)
//SYSPRINT  DD  SYSOUT=*
//SYSUT1    DD  DSN=&&OBJECT,DISP=(OLD,DELETE)
//SYSUT2    DD  DISP=OLD,
```

```
//            DSN=@@@AAA.@@@BBB.OBJLIB(??????)   <=== CHANGE ?
//SYSIN      DD  DUMMY
//*
//LKED    EXEC PGM=IEWL,COND=(8,LE,ASM)
//SYSPRINT   DD  SYSOUT=*
//SYSUT1     DD  UNIT=SYSDA,SPACE=(TRK,(10,4))
//OBJLIB     DD  DISP=OLD,
//            DSN=@@@AAA.@@@BBB.OBJLIB
//SYSLMOD    DD  DISP=OLD,
//            DSN=@@@AAA.@@@BBB.LOADLIB
//*
//*
//* IN THE 'SYSLIN' INPUT, IF YOU WANT A DIFFERENT EXECUTABLE
//* LOAD MODULE NAME (OTHER THAN QUIKDATT), CHANGE IT NOW
//*
//*
//SYSLIN   DD  *    NOTE: ====> CHANGE   MODULE NAME BELOW???
   INCLUDE OBJLIB(??????)
    NAME   QUIKDATT(R)
/*
//
```

Partial Input to MYDATT

```
WEEKDAY DAY=MON
WEEKDAY DAY=TUE
WEEKDAY DAY=WED
WEEKDAY DAY=THU
WEEKDAY DAY=FRI
WEEKDAY DAY=SAT,DAYLEN=HALF
WEEKDAY DAY=SUN,DAYLEN=OFF
HOLIDAY DATE=01011900,DAYLEN=WHOLE       1900
```

Modifying Edit Mask Table (QUIKEMSK module/QJEDIT Macro)

The default name for this module is QUIKEMSK.

Use the default Edit Mask table in the object, executable, and source libraries.

- If you want to customize the Edit Mask table, you need to reassemble and catalog it into the appropriate libraries.
- If you want to create another Edit Mask table, copy the module and retain the original.

The QUIKEMSK module invokes the VISION:Report macro QJEDIT to create the entries for your specific edit masks. To have multiple Edit Mask tables, create each item with a unique link edit name and use the OPTION statement with the EDTNAME=xxxxxxxx operand, where xxxxxxxx is the name of the link edited mask table.

The first time you invoke the macro, you can name the CSECT. It uses the default name if you do not specify one in the name field. If needed, you can choose to match the CSECT name and the link edit name. In any case, notify your users of the customization results (see the *Advantage VISION:Report Advantage VISION:Forms Reference Guide* for more information about QJEPRNT which lists Edit Mask tables).

The syntax of the QJEDIT macro is:

```
Name QJEDIT    CODE=code,                                X
               MASK=(mask),                              X
               FORCE=force,                              X
               Justify=(leftright,truncopt,propatopt)
```

Item	Description
name	Only use this parameter the first time you invoke this macro. The macro generates the name given to the CSECT. The default name is QUIKEMSK. Use this name when the linkage editor processes it and places it into your executable library.
code	This is any letter from A to Z that identifies this mask. VISION:Report reserves codes C, E, H, N, and Y; therefore, you cannot use them. If you specify duplicate codes in more than one QJEDIT macro, VISION:Report finds only the first occurrence.
mask	This is the actual edit mask pattern. Nine supplied patterns make up the VISION:Report default table name. The MOVE verb (see the *Advantage VISION:Report Advantage VISION:Forms Reference Guide*) describes these default masks. Enclose the edit mask in parentheses, not exceeding 132 characters. It consists of data selector characters and punctuation or edit-fill characters. Do not exceed 63 data selector characters.

For example:

Establish a mask table for two types of product codes. Name the table QPCMASK and store it in the phase library with that name.

Copy the module from the optional materials. Modify CSECT to the name QPCMASK the first time you invoke the macro:

```
QPCMASK QJEDIT CODE=A,MASK=(999/99),                      X
             JUSTIFY=(RIGHT,TRUNC,PROPGAT),FORCE=YES
```

Before the Assembler END statement, insert your product code masks, in alphabetical order, if you desire:

```
QJEDIT CODE=N,MASK=(98(999)BZZZ9-999-999),                X
      JUSTIFY=(RIGHT,TRUNC,NOPROPGAT),FORCE=NO
QJEDIT CODE=O,MASK=(9.999/9999-999-999-9),                X
      JUSTIFY=(RIGHT,TRUNC,NOPROPGAT),FORCE=NO
```

Delete or change any of the default codes at this time. See JCL to Assemble and Link the Edit Mask table in this section.

Choose a unique 1-8 character link edited name to reside in your executable library. To conform to the VISION:Report naming standards, begin the name with a Q.

To use this new Edit Mask table phase, your VISION:Report must use OPTION EDTNAME=username. Do this permanently by recompiling the QJOPTION block or including the OPTION EDTNAME=username in the VISION:Report program that references this new table.

You can use only one Edit Mask table in one execution of VISION:Report.

JCL to Assemble and Link Edit Mask Table

You can delete or change any of the default codes now. Invoke the assembler and linkage editor either by a standard procedure or by creating your own JCL statements. Adhere to the following guidelines.

- When you invoke the Assembler, make sure that the macro library data set (SYSLIB) includes the data set containing the VISION:Report macros (File 6) loaded when the product was installed.
- Verify that the Assembler input data (SYSIN) identifies the edited data that you created. A sample is in the OPTMATL library, member QUIKEMSK.
- Verify that the link edit step identifies the load library (SYSLMOD) data set with the member name:

  ```
  //SYSLMOD  DD  DSN=YOUR.REPORT.LOADLIB(PCMASK),DISP=OLD
  ```

  Or, optionally, the link edit step can contain a NAME control statement:

  ```
  //SYSIN    DD  *
      NAME PCMASK(R)
  /*
  ```

- Optionally, include OL as one of the linkage editor parms.
- Notify users of the name of this mask table so that they can specify it as the parameter to use in processing.

  ```
  OPTION  EDTMASK=PCMASK
  ```

QJEDIT JCL

```
//ASM      EXEC PGM=ASMA90,REGION=3M,
//         PARM=('NODECK,OBJECT,XREF(SHORT),NORLD,TERM')
//SYSLIN   DD   UNIT=DISK,SPACE=(80,(1500,250)),DISP=(MOD,PASS)
//SYSUT1   DD   UNIT=DISK,SPACE=(1700,(1000,250))
//SYSLIB   DD   DISP=SHR,DSN=@@@AAA.@@@BBB.OPTMATL
//SYSPRINT DD   SYSOUT=*
//SYSTERM  DD   SYSOUT=*
//SYSIN    DD   *
EMSK     TITLE 'DEFAULT EDIT MASK TABLE'
* NOTE: C, E , H, N, AND Y ARE RESERVED FOR QJ  <====
         QJEDIT CODE=A,MASK=(99/99),                                  X
               JUSTIFY=(RIGHT,TRUNC,PROPGAT),FORCE=YES
         QJEDIT CODE=B,MASK=(99.99),                                  X
               JUSTIFY=(RIGHT,TRUNC,PROPGAT),FORCE=YES
         QJEDIT CODE=D,MASK=(99/99/99),                               X
               JUSTIFY=(RIGHT,TRUNC,PROPGAT),FORCE=YES
         QJEDIT CODE=F,MASK=(99-99-99),                               X
               JUSTIFY=(RIGHT,TRUNC,PROPGAT),FORCE=YES
         QJEDIT CODE=G,MASK=(99.99.99),                               X
               JUSTIFY=(RIGHT,TRUNC,PROPGAT),FORCE=YES
         QJEDIT CODE=H,MASK=(ZZ9),                                    X
               JUSTIFY=(RIGHT,TRUNC,PROPGAT),FORCE=YES
         QJEDIT CODE=L,MASK=(999-9999),                               X
               JUSTIFY=(RIGHT,TRUNC,PROPGAT),FORCE=YES
         QJEDIT CODE=S,MASK=(999-99-9999),                            X
               JUSTIFY=(RIGHT,TRUNC,PROPGAT),FORCE=YES
         QJEDIT CODE=T,MASK=(999-999-9999),                           X
               JUSTIFY=(RIGHT,TRUNC,PROPGAT),FORCE=YES
         QJEDIT CODE=U,MASK=((999)B999-9999),                         X
               JUSTIFY=(RIGHT,TRUNC,PROPGAT),FORCE=YES
         QJEDIT CODE=Y,MASK=(99/99/9999), MM/DD/YY                    X
               JUSTIFY=(RIGHT,TRUNC,PROPGAT),FORCE=YES
         END
/*
//*
//LINK     EXEC  PGM=IEWL,REGION=1M,COND=(0,LT)
//SYSPRINT DD  SYSOUT=*
//SYSLMOD  DD    DISP=MOD,DSN=@@@AAA.@@@BBB.LOADLIB
//SYSUT1   DD    UNIT=DISK,SPACE=(1024,(250,20))
//SYSLIN   DD    DISP=(OLD,DELETE),DSN=*.ASM.SYSLIN
//         DD    *
 NAME QUIKEMSK(R)
/*
//
```

Note: QUIKJOB IS DISTRIBUTED WITH A DEFAULT COPY OF QUIKEMSK WHICH INCLUDES THE ABOVE EDIT MASK CODES. IF THE ABOVE CODES ARE ACCEPTABLE TO YOU, THEN YOU DO NOT HAVE TO PERFORM THIS INSTALLATION STEP.

CA-IDMS/DB Interface (QUIKIDMS)

Note: You must install VISION:Report before you can use the CA-IDMS/DB Interface (QUIKIDMS).

You no longer need to link edit QUIKIDMS.

The CA-IDMS/DB Interface program is in the object and executable libraries loaded with the VISION:Report installation.

CA-Librarian Interface (QUIKILIB)

Note: You must install VISION:Report before you can use the CA-Librarian® Interface (QUIKILIB).

You no longer need to link edit QUIKILIB.

The CA-Librarian Interface is in the object and executable libraries loaded with the VISION:Report installation.

IMS Interface (QUIKIMS)

Note: You must install VISION:Report before you can use the IMS Interface (QUIKIMS).

You no longer need to link edit QUIKIMS.

The IMS Interface program is in the object and executable libraries loaded with the VISION:Report installation. QUIKDLI and QUIKIMS are compatible, so if you switch from VSE to z/OS or vice versa, your IMS/DL/I Interface is the same.

CA-Panvalet Interface (QUIKIPAN)

Note: You must install VISION:Report before you can use the CA-Panvalet® Interface (QUIKIPAN).

The CA-Panvalet Interface program is in the object and executable libraries loaded with the VISION:Report installation. You can choose to link the object module into your load library.

To link edit QUIKIPAN into your load library, run a job stream similar to the following sample.

```
//LINKIPAN   EXEC   PGM=IEWL
//SYSPRINT   DD     SYSOUT=*
//SYSUT1     DD     UNIT=VIO,SPACE=(CYL,(1,1))
//OBJLIB     DD     DISP=SHR,DSN=@@@AAA.@@@BBB.OBJLIB
//SYSLMOD    DD     DISP=OLD,DSN=@@@AAA.@@@BBB.LOADLIB
//PANLOAD    DD     DISP=SHR,DSN=your.PANVALET.LOADLIB
//SYSLIN     DD     *
   INCLUDE  OBJLIB(QUIKIPAN)
   INCLUDE  PANLOAD(PAM)
   NAME QUIKIPAN(R)
/*
```

Multiple Reports Subroutine (QUIKRPT)

The Multiple Reports subroutine, QUIKRPT, is in the object, executable, and source/macro libraries. To customize the multiple reports subroutine, use the source code for the default subroutine that is in the optional materials. Copy this module, QUIKRPT, retaining the original for future reference.

The executable module contains seven report files, the maximum number that this program supports. If you choose to support other than seven report files, you must reassemble and link edit the program into your VISION:Report load library (z/OS) or phase library (VSE).

The following table describes the file control blocks assembled for the z/OS and VSE operating systems.

System	File Control Blocks Assembled
OS/390 or z/OS	DCBs
VSE	DTFPR

The SYSPARM parameter passes the operating system where the program executes to the assembly. The following are valid SYSPARM parameters.

System	SYSPARM parameter
OS, MVS, OS/390, or z/OS	O
DOS or VSE	D

For example, to invoke the high-level assembler, use an EXEC statement similar to the following.

```
z/OS    //ASM    EXEC   PGM=ASMA90,PARM='SYSPARM(O),OBJECT'
VSE     // EXEC  PGM=ASM90,PARM='SYSPARM(D),OBJECT'
```

Comments at the beginning of the program define the symbolic parameters used to control how the program is assembled. The following instruction in the source subroutine sets up the maximum number of reports.

```
&REPTS  SETA  7
```

You can replace 7 with a lower value that is greater than zero.

Time Routine (QUIKTIME)

The Time Routine, QUIKTIME, is in the object, executable, and source libraries. QUIKTIME returns the current time in a 4-byte packed field in the format 0HHMMSSs and in an 8-byte packed field in units of 1/300 seconds.

Translate Table Changes (QUIKTRNT)

The default name for this program is QUIKTRNT.

The default Translate table is in the object, executable, and source libraries. It contains Assembler source statements used to create the VISION:Report default Translate table phase. This table is the object of the translate function for the data displayed in the PRINTHEX or PRINTCHAR statement.

The program contains two 256-byte tables.

- The first table translates data displayed in the first (character) line of a PRINTHEX or PRINTCHAR output.
- The second table translates data in the second (zone) and the third (numeric) lines of a PRINTHEX output.

Optionally, you can change or use this program phase as a guide in generating an alternate translate phase. Make the changes/alterations only to the first (character) table. Do not alter the second table because the results of the HEX character display are unpredictable.

Execution of PRINTHEX or PRINTCHAR uses the existing tables with any changes that you make. If an alternate table is built, you must identify the alternate table to VISION:Report using OPTION TRLNAME=user-table-name.

When the alternate table is link edited into the executable library, it uses a user table name. The name must not exceed 512 bytes in length when assembled. When you link edit the table into your VISION:Report executable library with its new name, be sure to inform your users of its name. You can also describe the effects of the resulting translation.

EQU Table for VAL Area (QUIKVEQU)

The default name for this module is QUIKVEQU.

The default EQU table for the VAL area module is in the object, executable, and source libraries. To customize the EQU table for VAL area, copy this module, retaining the original in case you want to create another EQU table for VAL area.

A table of EQU statements for the VAL area automatically loads during the compile phase.

See the EQU verb in the *Advantage VISION:Report Advantage VISION:Forms Reference Guide* for information about the data names for the VAL areas, their field definitions, and any edit specifications.

To change the EQU statements:

1. Copy the default program name from the Assembler and macro library.
2. Make your changes.
3. Read the restrictions and comments at the beginning of the program. These comments describe the components of an entry and how it is constructed.
4. After assembling and link editing into your VISION:Report executable library, run the following VISION:Report program to print the data names for your new table. The subroutine, QJADDR, places an address into working storage.

```
TITLE 'VAL EQUATE TABLE LISTING'
REPORT  PTA1-14     (DATA NAME)
        PTA15-29    (FIELD DEFINITION)
        PTA30-33    (EDIT SPECS)
EQU     LAST-EQU     WST1-4-B             /* ADDRESS OF LAST-EQU STATEMENT
EQU     THIS-EQU        (4)-B             /* CURRENT ADDRESS
010     LOAD QUIKVEQU  PTA                /* Load statement
   MOVE PTA9-12-B        TO LAST-EQU
   SET PTA  UP 24                         /* SKIP CONSTANTS IN FIRST 24 BYTES
020     PRINT REPORT
   CALL QJADDR  PTA1-4-B  THIS-EQU        /* PLACE ADDRESS IN THIS-EQU
   IF THIS-EQU EQ LAST-EQU                /* ARE WE AT THE END OF EQU TABLE?
       GOTO EOJ.                          /* ... YES
   SET PTA  UP 80                         /* BUMP TO NEXT EQU
   GOTO 020
999999END
```

Chapter 3

Installing VISION:Report for VM/CMS

This chapter provides instructions for installing VISION:Report for VM/CMS.

Note: The VM/CMS files are on a separate tape from the z/OS release tape.

Installing VISION:Report for VM/CMS

Make sure you meet the following requirements to install the VM/CMS version

Unit	Amount
3390	Approximately 5 cylinders
Block size	1024 bytes
Blocks	Approximately 1200

This VM/CMS version runs in OS simulation only. VISION:Report Interface to DB2 is *not* supported under CMS, as well as possibly other products or features.

To install VISION:Report for VM/CMS

1. Have the computer operator attach a tape drive as 181 to your VM machine and mount the VISION:Report release tape on it.
2. Position the tape to the load point (tape rew).
3. Access a CMS disk that has *no* files on it as file mode A, then issue the command `TAPPDS * EXEC A` to load the VISION:Report installation file QINSTALL EXEC.
4. Execute the QINSTALL EXEC.

Several ASSEMBLE, MACLIB, EXEC, and TEXT files now reside on your A disk.

Decide if you want to have the executable modules of VISION:Report in TXTLIB or LOADLIB format.

TXTLIB Format

Follow these steps to use TXTLIB format.

To use TXTLIB format

1 Run TLIBMAKE EXEC to create QJ TXTLIB, and QUIKJOB MODULE.

2 Edit the file QJOPTION ASSEMBLE and review all options.

```
QJOPTION options…
END
```

3 Run TLIBOPTN EXEC.

This assembles the VISION:Report option block, QJOPTION, and adds it to the TXTLIB created in Step 1 of this procedure.

4 Edit the file QUIKDATT ASSEMBLE.

This file contains modifiable default values. Do not change the file if the default values are satisfactory.

5 Run TLIBDATT EXEC.

This assembles the default VISION:Report date table, QUIKDATT, and adds it to the TXTLIB created in Step 1 of this procedure.

6 Run TLIBTEST EXEC.

This runs a sample job to verify that you correctly installed VISION:Report in TXTLIB format. You are now completely finished with the installation of VISION:Report in TXTLIB format.

LOADLIB Format

Follow these steps to use LOADLIB format.

To use LOADLIB format

1. Run LLIBMAKE EXEC to create QJ LOADLIB and QJ MACLIB.
2. Edit the file QJOPTION ASSEMBLE and review all options.

   ```
   QJOPTION options…
   END
   ```

3. Run LLIBOPTN EXEC.

   This assembles and links the VISION:Report option block, QJOPTION, and adds it to the LOADLIB created in Step 1 of this procedure.

4. Edit the file QUIKDATT ASSEMBLE.

   This file contains modifiable default values. Do not change the file if the default values are satisfactory.

5. Run LLIBDATT EXEC.

   This assembles and links the default VISION:Report date table, QUIKDATT, and adds it to the LOADLIB created in Step 1 of this procedure.

6. Run LLIBTEST EXEC.

   This runs a sample job to verify that you correctly installed VISION:Report in LOADLIB format. You are now completely finished with the installation of VISION:Report in LOADLIB format.

VISION:Report for VM/CMS Sample Programs and Customizing Patches

- QJSAMP MACLIB contains sample programs.
- QJFIX MACLIB contains customizing patches.
- QJ MACLIB contains macros required for assembly of QJOPTION and QUIKDATT.
- QJVSAM MACLIB contains sample programs for running VSAM in a CMS environment.

Accounts Receivable File (ARFILE) for VM/CMS

For additional information, see the section File 5: VISION:Report Accounts Receivable Test File (ARFILE) in Chapter 1, Installing VISION:Report for z/OS, in this guide .

This file is named ARFILE DATA. The member ARDEFINE in QJSAMP MACLIB maps the fields in this file.

Chapter

4

Installing VISION:Forms for z/OS

This chapter describes the installation of Advantage VISION:Forms Release 3.08 for z/OS.

Note: This is primarily a 'fix' release for Release 3.07. Install this release to keep your maintenance current and to eliminate potential problems when running VISION:Report Release 16.1 with an older release of VISION:Forms.

To install VISION:Forms, you need:

- QWINSTL in the VISION:Report CNTLLIB library (from File 1)
- File 8 containing the VISION:Forms load library
- File 9 containing the VISION:Forms sample programs

The VISION:Forms installation downloads File 8 from tape into the library `@@@CCC.@@@DDD.SAMPLIB`, where `@@@CCC.@@@DDD` is your name for the high-level and middle-level qualifiers for VISION:Forms.

Download this file now, if necessary, to create a VISION:Forms sample programs library (SAMPLIB).

For additional information on File 8: VISION:Forms load library and File 9: VISION:Forms sample programs, see Chapter 1, Installing VISION:Report for z/OS in this guide.

Installing VISION:Forms

Complete the following steps for the VISION:Forms installation.

To install VISION:Forms

1 Customize member QWINSTL in the VISION:Report CNTLLIB library.

- Modify the JCL to meet your installation standards, including information unique to your execution such as data set names for all target libraries.
- Make changes by assigning the desired value to symbolic parameters coded in an in-stream PROC during the installation procedure.

  The procedure contains documented comment statements, listed in the section QWINSTL in this guide.
- Follow the instructions in QWINSTL to customize the JCL.

2 Run QWINSTL to install VISION:Forms and create the VISION:Forms LOADLIB and VISION:Forms SAMPLIB.

QWINSTL - Installation JCL

```
//JOBNAME  JOB YOUR JOB ACCOUNTING INFORMATION
//QWINSTL PROC DISK=SYSDA,
//             DSKSER=999999,
//             PRTCLAS='*',
//             REL=308,               <===== do not change
//             TAPEVOL=tapeser,       <===== CHECK PHYSICAL TAPE
//             TAPEU=3480,
//             TAPELBL='SL,EXPDT=98000',
//             PATCH='@@@CCC.@@@DDD.PATCHLD',             NEW
//             LOADLIB='@@@CCC.@@@DDD.LOADLIB',           NEW
//             QWSAMP='@@@CCC.@@@DDD.SAMPLIB'             NEW
//*
//*********************************************************************
//*                                                                   *
//* IF EDITING THIS MEMBER, BE SURE TO SET "CAPS ON".                 *
//*                                                                   *
//* THIS STEP-BY-STEP METHOD IS ALL THAT IS NEEDED TO INSTALL         *
//* VISION:Forms, FORMERLY KNOWN AS DYL-QUIKWRITE.                    *
//*                                                                   *
//* NOTE:   THE FILES DESIGNATED AS 'NEW' ABOVE WILL BE CREATED BY    *
//*         THIS JCL PROCEDURE.                                       *
//*                                                                   *
//* MAKE THE FOLLOWING CHANGES TO THE DEFAULT SYMBOLIC PARAMETERS IN  *
//* THE JCL PROCEDURE BEFORE SUBMITTING IT FOR EXECUTION.             *
//*                                                                   *
//*     1) REPLACE THE FIRST LINE OF THIS FILE WITH THE JOB CARD      *
//*        NECESSARY TO RUN THIS JOB AT YOUR INSTALLATION.            *
//*                                                                   *
//*     2) CHANGE 'SYSDA' IN 'DISK=SYSDA' TO THE DEVICE CLASS TYPE    *
//*        YOU ARE GOING TO INSTALL ON, I.E. 3390, 3380, ETC.         *
//*        (3380 WAS USED TO CALCULATE SIZE ON SPACE PARAMETERS IN    *
//*        THE JCL).                                                  *
//*                                                                   *
//*     3) CHANGE '999999' IN 'DSKSER=999999' TO THE VOLUME SERIAL    *
```

```
//*        NUMBER FOR THE DISK UPON WHICH YOU ARE GOING TO INSTALL    *
//*        ALL OF THE VISION:FORMS LIBRARIES AND FILES.               *
//*                                                                   *
//*     4) CHANGE '*' IN "PRTCLAS='*'" TO THE SYSOUT CLASS FOR THE    *
//*        PRINTED OUTPUT FROM THIS RUN.                              *
//*                                                                   *
//*     5) DO NOT CHANGE 'REL=308'.  THE '308' REFERS TO RELEASE      *
//*        3.08 OF VISION:Forms.                                      *
//*                                                                   *
//*     6) CHANGE tapeser IN 'TAPEVOL=tapeser' TO MATCH THE VOLUME    *
//*        SERIAL NUMBER ON THE PHYSICAL TAPE.                        *
//*        THIS IS A STANDARD LABELED TAPE, SO IT IS IMPORTANT        *
//*        TO ENTER THE CORRECT VOLUME SERIAL NUMBER.                 *
//*                                                                   *
//*     7) CHANGE '3480' IN 'TAPEU=3480' TO YOUR INSTALLATION         *
//*        STANDARD DEVICE CLASS NAME FOR THE TYPE OF TAPE UPON       *
//*        WHICH THE PRODUCT RELEASE RESIDES.                         *
//*                                                                   *
//*     8) IF THE EXPDT PARAMETER IS NOT NECESSARY IN YOUR            *
//*        INSTALLATION, REMOVE ',EXPDT=98000' IN                     *
//*        "TAPELBL='SL,EXPDT=98000'".                                *
//*                                                                   *
//*     9) GLOBALLY CHANGE '@@@CCC.@@@DDD' TO THE HIGH LEVEL AND      *
//*        MIDDLE LEVEL QUALIFIERS THAT ARE TO BE ASSOCIATED WITH     *
//*        THE VISION:Forms LIBRARIES AND FILE DATANAMES.             *
//*                                                                   *
//*    10) YOU ARE NOW READY TO SUBMIT THIS JOB.  IF YOU ENCOUNTER    *
//*        A PROBLEM YOU CANNOT SOLVE OR HAVE ANY QUESTIONS, YOU      *
//*        SHOULD CONTACT COMPUTER ASSOCIATES TECHNICAL SUPPORT.      *
//*                                                                   *
//*********************************************************************
//*                                                                   *
//*  THE JOBSTEPS REQUIRED TO INSTALL VISION:FORMS+ ARE DESCRIBED     *
//*  BELOW.                                                           *
//*                                                                   *
//*  NOTE:  VISION:Report, FORMERLY KNOWN AS DYL-QUIKJOB              *
//*       + VISION:Forms,  FORMERLY KNOWN AS DYL-QUIKWRITE            *
//*                                                                   *
//*  JOBSTEP DELETE:                                                  *
//*     DELETE LIBRARIES, JUST IN CASE OF RERUNS, ETC.                *
//*                                                                   *
//*  JOBSTEP STEP1:                                                   *
//*     IN JOBSTEP STEP1, THE VISION:Forms LOAD LIBRARY IS LOADED     *
//*     FROM THE EIGHTH FILE ON THE RELEASE TAPE.  IBM'S UTILITY      *
//*     IEBCOPY IS UTILIZED.  NOTE THAT ALL ALLOCATIONS ARE BASED     *
//*     UPON 3380 DISK DRIVES.                                        *
//*                                                                   *
//*  JOBSTEP STEP2:                                                   *
//*     IN JOBSTEP STEP2, THE VISION:Forms SAMPLE PROGRAMS LIBRARY IS *
//*     LOADED FROM THE NINTH FILE ON THE RELEASE TAPE.  IBM'S        *
//*     UTILITY IEBCOPY IS UTILIZED.                                  *
//*                                                                   *
//*********************************************************************
//*                                                                   *
//*  UPON SUCCESSFUL COMPLETION OF THESE STEPS, VISION:FORMS WILL BE  *
//*  READY TO RUN.                                                    *
//*                                                                   *
//*********************************************************************
//*                                                                   *
//*      ENSURE FILES ARE DELETED                                     *
//*                                                                   *
//*********************************************************************
//DELETE  EXEC  PGM=IEFBR14
//DD1      DD  DCB=(LRECL=80,BLKSIZE=8192,RECFM=U),
//           DISP=(MOD,DELETE),
//           DSN=&LOADLIB,
```

```
//           SPACE=(TRK,(1,1)),UNIT=&DISK
//DD2      DD  DCB=(LRECL=80,BLKSIZE=8000,RECFM=FB),
//           DISP=(MOD,DELETE),
//           DSN=&QWSAMP,
//           SPACE=(TRK,(1,1)),UNIT=&DISK
//DD3      DD  DCB=(LRECL=80,BLKSIZE=8000,RECFM=FB),
//           DISP=(MOD,DELETE),
//           DSN=&PATCH,
//           SPACE=(TRK,(1,1)),UNIT=&DISK
//*
//*********************************************************************
//*                                                                   *
//*      LOAD VISION:Forms  LOADLIB                                   *
//*                                                                   *
//*********************************************************************
//STEP1   EXEC PGM=IEBCOPY,REGION=1M
//*
//SYSPRINT DD  SYSOUT=&PRTCLAS
//SYSUT3   DD  UNIT=&DISK,SPACE=(TRK,20)
//SYSUT4   DD  UNIT=&DISK,SPACE=(TRK,10)
//INDD1    DD  DISP=OLD,
//           DSN=QW.REL&REL..FILE8,
//           LABEL=(8,&TAPELBL),
//           UNIT=&TAPEU,
//           VOL=(,RETAIN,SER=&TAPEVOL)
//OUTFILEP DD  DCB=(LRECL=80,BLKSIZE=8192,RECFM=U),
//           DISP=(,CATLG,DELETE),VOL=SER=&DSKSER,
//           DSN=&PATCH,
//           SPACE=(TRK,(10,5,10)),
//           UNIT=&DISK
//OUTFILE1 DD  DCB=(LRECL=80,BLKSIZE=8192,RECFM=U),
//           DISP=(,CATLG,DELETE),VOL=SER=&DSKSER,
//           DSN=&LOADLIB,
//           SPACE=(TRK,(20,10,30)),
//           UNIT=&DISK
//*
//*********************************************************************
//*                                                                   *
//*      LOAD VISION:Forms  SAMPLE PROGRAMS                           *
//*                                                                   *
//*********************************************************************
//STEP2   EXEC PGM=IEBCOPY,REGION=1M
//*
//SYSPRINT DD  SYSOUT=&PRTCLAS
//SYSUT3   DD  UNIT=&DISK,SPACE=(TRK,20)
//SYSUT4   DD  UNIT=&DISK,SPACE=(TRK,10)
//INDD1    DD  DISP=OLD,
//           DSN=QW.REL&REL..FILE9,
//           LABEL=(9,&TAPELBL),
//           UNIT=&TAPEU,
//           VOL=(,RETAIN,SER=&TAPEVOL)
//OUTFILE1 DD  DCB=(LRECL=80,BLKSIZE=8000,RECFM=FB),
//           DISP=(,CATLG,DELETE),
//           DSN=&QWSAMP,
//           SPACE=(TRK,(4,2,8)),
//           UNIT=&DISK,
//           VOL=SER=&DSKSER
//*
//         PEND
//*
//RUNIT    EXEC QWINSTL
//*
//STEP1.SYSIN  DD  *
  COPY  INDD=INDD1,OUTDD=OUTFILE1     LOAD LIBRARY
//STEP2.SYSIN  DD  *
  COPY  INDD=INDD1,OUTDD=OUTFILE1     SAMPLE LIBRARY
```

```
/*
//COPY.SYSIN   DD  *
  COPYMOD OUTDD=OUT01,INDD=IN01
  SELECT MEMBER=((QKWREXEC,,R),                                        *
                 (QKWRITE,,R),                                         *
                 (QKWRRRHD,,R))
/*
//
//
```

Verifying the VISION:Forms Installation

Verify the installation by running a test program with the VISION:Forms system. Follow these steps.

1 Customize QWRUN (in the VISION:Forms SAMPLIB library) as shown in the following section.

- Change the `@@@CCC.@@@DDD` in the LIB1= and LIB2= statements to the high-level and middle-level qualifiers you associate with the VISION:Forms library and file data names.
- Change the `@@@AAA.@@@BBB` in the LIB3= and LIB4= statements to the high-level and middle-level qualifiers you associate with the VISION:Report library and file data names.

2 If you are licensed for VISION:Report Interface to DB2 and have it installed, remove the * from the LIB5 statement, and make certain that the LIB5= statement points to your IBM supplied DB2 load library.

3 Save the customized QWRUN in one of the following:

- SYS1.PROCLIB
- A library that is a part of your JES default PROCLIB concatenation
- A library that can be referenced by a JCLLIB JCL statement

QWRUN - Run JCL

```
//*        QWRUN - VISION:FORMS  RUN-MODE PROCEDURE.
//QWRUN   PROC FILE='&&FILE',    YOUR INF INPUT FILE.
//             LIB1='@@@CCC.@@@DDD.PATCHLD',  NEW! YOUR QW PATCH
//             LIB2='@@@CCC.@@@DDD.LOADLIB',       YOUR QW LOADLIB
//             LIB3='@@@AAA.@@@BBB.PATCHLD',  NEW! YOUR QJ PATCH
//             LIB4='@@@AAA.@@@BBB.LOADLIB',       YOUR QJ LOADLIB
//*            LIB5='DB2.DB2710.SDSNLOAD',    ??  POINT TO YOUR DB2 LIB ??
//*            LIBX='YOUR.LOADLIB',      ??  POINT TO YOUR LOADLIB ??
//             LIST='*',
//             LISTBLK=2660,
//             OFASPAC=10,
//             OFAUNIT=SYSDA,
//             SORTDEV=SYSDA,
//             SORTSPC=10,
//             UDICDEV=SYSDA,
//             UDICSPC=2,
```

```
//             WORK=SYSDA,
//             WORKSPC=2
//* ************************************************************
//*
//*        YOU MAY WANT TO ADD YOUR OWN LIBRARY
//*        BEHIND THE PATCH LOADLIB.
//*
//* ************************************************************
//STEP1   EXEC PGM=QKWREXEC,REGION=1M
//STEPLIB  DD  DSN=&LIB1,DISP=SHR
//         DD  DSN=&LIB2,DISP=SHR
//         DD  DSN=&LIB3,DISP=SHR
//         DD  DSN=&LIB4,DISP=SHR
//*        DD  DSN=&LIB5,DISP=SHR   ===>  POINT TO YOUR DB2 LOADLIB ?
//SYSPRINT DD  SYSOUT=&LIST
//QUIKIPDS DD  DISP=SHR, DSN=@@@AAA.@@@BBB.,SAMPLIB
//QWINF    DD  DSN=&FILE,DISP=OLD
//QWLLIST  DD  SYSOUT=&LIST,DCB=BLKSIZE=&LISTBLK
//QWOFA    DD  UNIT=&OFAUNIT,SPACE=(CYL,(&OFASPAC,&OFASPAC))
//QWPLIST  DD  SYSOUT=&LIST
//QWPRINT  DD  SYSOUT=&LIST
//QWPUNCH  DD  UNIT=&WORK,SPACE=(CYL,(&WORKSPC,&WORKSPC))
//QWUDICT  DD  UNIT=&UDICDEV,SPACE=(CYL,(&UDICSPC,&UDICSPC))
//QWWORK   DD  UNIT=&WORK,SPACE=(CYL,(&WORKSPC,&WORKSPC))
//SORTLIB  DD  DSN=SYS1.SORTLIB,DISP=SHR
//SORTWK01 DD  UNIT=&SORTDEV,SPACE=(CYL,(&SORTSPC,&SORTSPC))
//SORTWK02 DD  UNIT=&SORTDEV,SPACE=(CYL,(&SORTSPC,&SORTSPC))
//SORTWK03 DD  UNIT=&SORTDEV,SPACE=(CYL,(&SORTSPC,&SORTSPC))
//SYSIN    DD  UNIT=&WORK,SPACE=(CYL,(&WORKSPC,&WORKSPC))
//SYSOUT   DD  SYSOUT=&LIST
```

Customizing QWTEST JCL

Customize QWTEST (in the VISION:Forms SAMPLIB Library), shown in the following section.

1. Replace the first line with your JOB statement.
2. Globally change the `@@@CCC.@@@DDD` to the high-level and middle-level qualifiers you associate with the VISION:Forms library and file data names.
3. Make certain that the QWRUN procedure is available to this job by:
   - Verifying that QWRUN is in a system-accessible procedure library, or
   - Including a JCLLIB JCL statement that points to the library that contains QWRUN.
4. Run the job.

QWTEST

```
//JOBNAME  JOB PUT YOUR JOB ACCOUNTING INFORMATION HERE
//QWLIB    JCLLIB ORDER=(ISPQW.PROCLIB)
//DEMO01  EXEC QWRUN
//STEP1.QWINF    DD  DISP=SHR,
//             DSN=@@@CCC.@@@DDD.SAMPLIB(PAYRDICT)
//STEP1.QWSYSIN  DD  DISP=SHR,
//             DSN=@@@CCC.@@@DDD.SAMPLIB(PAYRDICT)
//         DD  DSN=@@@CCC.@@@DDD.SAMPLIB(QWDEMO01),DISP=SHR
//*
```

When this job completes successfully, verify that your report looks similar to the following one.

```
05/14/02          VISION:Forms DICTIONARY LISTING - DEMO01              PAGE    1
                     DATANAME SEQUENCE WITHIN FILE
   FILE
   NAME
   TO           FIELD          DATA      DATA    DATA    PRINT
..USE...     ...NAME…..       START      END    TYPE    SPECS   DECIMALS  DEFAULT COLUMN HEADING

 PAYROLL     CARD-CODE          0080    0080
 PAYROLL     DEPT-NR            0003    0005
 PAYROLL     DT-OF-BIRTH        0026    0031
 PAYROLL     DT-OF-EMPLYMT      0032    0037
 PAYROLL     EDUCATION          0038    0039
 PAYROLL     EMPLOYEE-NR        0006    0009
 PAYROLL     HOURLY-RATE        0046    0049               3       3
 PAYROLL     HOURS-WORKED       0050    0053               2       2
 PAYROLL     NAME               0010    0025
 PAYROLL     PLANT-NR           0001    0002
 PAYROLL     PREV-YTD-GROSS     0054    0057     P         2C      2
 PAYROLL     SKILL-CODES        0040    0045
 PAYROLL     YTD-FICA           0062    0066               2       2
 PAYROLL     YTD-ST-TAX         0058    0061     P         2       2

05/14/02          VISION:Forms DICTIONARY LISTING - DEMO01              PAGE    2
                     DATANAME SEQUENCE WITHIN FILE
   FILE
   NAME
   TO           FIELD          DATA      DATA    DATA    PRINT
 ..USE...     ...NAME…..       START      END    TYPE    SPECS   DECIMALS  DEFAULT COLUMN HEADING

 QWDICT      D-FILENAME         0001    0008                        (THIS IS,YOUR,FILE NAME)
 QWDICT      DATA-END           0032    0035                     0
 QWDICT      DATA-START         0027    0030                     0
 QWDICT      DATA-TYPE          0037    0037
 QWDICT      DECIMALS           0040    0040
 QWDICT      DICT-CODE          0009    0009
 QWDICT      FIELD-NAME         0012    0025
 QWDICT      OVER-RIDE-HDR   0051       0080                        (DEFAULT COLUMN HEADING,)
 QWDICT      PRINT-SPECS        0038    0039
```

For additional VISION:Forms test programs, run the QWDEMO job streams. The sample library contains several test members.

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