

FOCUS for S/390

CA-Datcom Data Adapter Installation Guide
Version 7.0

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Preface

This guide describes how to install the FOCUS® CA-Datcom® Data Adapter. It is applicable to FOCUS Version 7.0 and subsequent releases. You should use this guide in conjunction with the FOCUS for S/390® Documentation Set Version 7.0.

To use this guide effectively, you must be familiar with MVS and have some knowledge of CA-Datcom data sources. If you are installing the product to work under the Information Builders Multi-Session Option, MSO knowledge is required

How This Guide Is Organized

The remainder of this document describes how to install the CA-Datcom Data Adapter. The guide consists of two chapters:

- Chapter 1, *Before You Begin*, contains important information about installation prerequisites and maintenance procedures.
- Chapter 2, *Installing the CA-Datcom Data Adapter*, describes how to install the data adapter and the AUTODATACOM facility in the MVS environment. These instructions apply to FOCUS Version 7.0 and higher.

Note: If you need additional information on the use of FOCUS, consult your FOCUS documentation.

Documentation Conventions

The following syntax conventions and terminology are used in this guide:

Convention	Description
<code>THIS TYPEFACE</code> or <code>this typeface</code>	Denotes syntax that you must enter exactly as shown.
<code>this typeface</code>	Represents a placeholder (or variable) in syntax for a value that you or the system must supply.
<code><u>underscore</u></code>	Indicates a default setting.
<code>this typeface</code>	Represents a placeholder (or variable) in a text paragraph, indicates a cross-reference, or emphasizes an important term.
{ }	Indicates two choices from which you must choose one. You type one of these choices, not the braces.
[]	Indicates a group of optional parameters. None are required, but you may select one of them. Type only the information within the brackets, not the brackets.
	Separates two mutually exclusive choices in a syntax line. You type one of these choices, not the symbol.

Convention	Description
...	Indicates that you can enter a parameter multiple times. Type only the parameters, not the ellipsis points (...).
. . . .	Indicates that there are (or could be) intervening or additional commands.

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You can also visit our World Wide Web site, <http://www.informationbuilders.com>, to view a current listing of our publications and place and order.

Customer Support

Do you have questions about the CA-Datcom Data Adapter or FOCUS?

Call Information Builders Customer Support Services (CSS) at (800) 736-6130 or (212) 736-6130. Customer Support Consultants are available Monday through Friday between 8:00 a.m. and 8:00 p.m. EST to address your FOCUS questions. Information Builders consultants can also give you general guidance regarding product capabilities and documentation. Please be ready to provide your six-digit site code number (xxxx.xx) when you call.

You can also access support services electronically, 24 hours a day, with InfoResponse Online. InfoResponse Online is accessible through our World Wide Web site, <http://www.informationbuilders.com>. It connects you to the tracking system and known-problem database at the Information Builders support center. Registered users can open, update, and view the status of cases in the tracking system, and read descriptions of reported software issues. New users can register immediately for this service. The technical support section of www.informationbuilders.com also provides usage techniques, diagnostic tips, and answers to frequently asked questions.

To learn about the full range of available support services, ask your Information Builders representative about InfoResponse Online, or call (800) 969-INFO.

Information You Should Have

To help our consultants answer your questions most effectively, be ready to provide the following information when you call:

- Your six digit site code number (xxxx.xx).
- The FOCEXEC procedure (preferably with line numbers).
- Master File with picture (provided by CHECK FILE).

- Run sheet (beginning at login, including call to FOCUS), containing the following information:
 - ? RELEASE
 - ? FDT
 - ? LET
 - ? LOAD
 - ? COMBINE
 - ? JOIN
 - ? DEFINE
 - ? STAT
 - ? SET/? SET GRAPH
 - ? USE
 - ? TSO DDNAME OR CMS FILEDEF
- The exact nature of the problem:
 - Are the results or the format incorrect; are the text or calculations missing or misplaced?
 - The error message and code, if applicable.
 - Is this related to any other problem?
- Has the procedure or query ever worked in its present form? Has it been changed recently? How often does the problem occur?
- What release of the operating system are you using? Has it, FOCUS, your security system, or an interface system changed?
- Is this problem reproducible? If so, how?
- Have you tried to reproduce your problem in the simplest form possible? For example, if you are having problems joining two databases, have you tried executing a query containing just the code to access the database?
- Do you have a trace file?
- How is the problem affecting your business? Is it halting development or production? Do you just have questions about functionality or documentation?

User Feedback

In an effort to produce effective documentation, the Documentation Services staff at Information Builders welcomes any opinion you can offer regarding this manual. Please use the Reader Comments form at the end of this manual to relay suggestions for improving the publication or to alert us to corrections. You can also use the Document Enhancement Request Form on our Web site, <http://www.informationbuilders.com>.

Thank you, in advance, for your comments.

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1 Before You Begin

Topics:

- Pre-installation and Maintenance Requirements

This chapter describes the pre-installation and maintenance requirements for the CA-Datcom Data Adapter.

Note: In the remainder of this guide, the CA-Datcom Data Adapter will be referred to as the Datcom Data Adapter.

The instructions in this guide assume that the person performing the installation and maintenance procedures has a working knowledge of MVS. If you are installing the data adapter with the FOCUS Multi-Session Option (MSO), MSO knowledge is required.

Your Datcom database administrator (DBA) should provide you with site-specific information.

Read this guide thoroughly before installing the Datcom Data Adapter to ensure correct installation.

Pre-installation and Maintenance Requirements

Before you install the Datcom Data Adapter, you should be aware of installation prerequisites and consider maintenance procedures that affect the installation process.

Software Requirements

The following is a list of software requirements:

- CA-Datcom/DB must be installed and fully operational. If it is not, contact your Datcom database administrator.
- FOCUS must be installed and fully operational. If it is not, contact your FOCUS database administrator or consult the appropriate FOCUS installation guide for installation instructions.
- All program temporary fixes (PTFs) issued to you for FOCUS or the data adapter must have been applied to the appropriate FOCUS or data adapter libraries.

You also need to know the FOCUS Version and Release. There are two ways to identify your version and release:

- Check the label of the FOCUS distribution tape used to install FOCUS; the numbers are printed on it.
- Invoke FOCUS if it is already installed. The release is displayed each time you begin a FOCUS session. You can also issue the FOCUS ? RELEASE query command.

Every copy of FOCUS has a version and release number.

Memory Requirements

Enough main memory must be available to execute FOCUS, Datacom, and the Datacom Data Adapter. The recommended memory requirements for FOCUS are adequate to run the Datacom Data Adapter.

Refer to the appropriate Datacom documentation for Datacom requirements.

Maintenance

There are no maintenance procedures that you must perform regularly to ensure proper functioning of the Datacom Data Adapter. However, three situations that require data adapter maintenance may occur:

- If you install a new release of FOCUS (including maintenance releases), you must reinstall the data adapter (module DATACOM) from the same release.
- If you receive a program temporary fix (PTF) that affects the Datacom Data Adapter, it will be accompanied by a cover letter containing installation instructions. If you still have installation questions after reading the cover letter, contact Information Builders Customer Support Services in New York at (800) 736-6130 or your local Information Builders representative.
- If you install a new version of Datacom, you must reinstall the data adapter (re-link the FOCUS URTs).

2 Installing the CA-Datcom Data Adapter

Topics:

- Distribution Tape Contents
- Unload the Distribution Tape
- Create the User Requirements Table (URT) Access Modules
- Prepare the Run-time Libraries
- Allocate the Datcom Data Adapter Load Library
- Install the AUTODATACOM Facility
- Customize the FOCUS CLIST or JCL
- Verify the Data Adapter Installation

The Datcom Read-Only Data Adapter is available for the OS/390 (MVS) batch, TSO interactive, and MSO environments. It provides multiple URT (User Requirements Table) capability.

These instructions assume that all of your FOCUS production data sets are catalogued under the same high-level qualifier. The remainder of this manual uses the identifier *prefix* to refer to this high-level qualifier.

Distribution Tape Contents

The Datcom Read-Only Data Adapter is distributed on the same tape/cartridge as the base FOCUS product.

The table below shows the file numbers and data set attributes of the Datcom Data Adapter libraries:

FILE #	DATA SET NAME	TYPE	DCB and SPACE* Requirements
25	DATACOM.LOAD	PDS	LRECL=0 BLKSIZE=13030 RECFM=U SPACE=TRK(10,5,45)
26	DATACOM.DATA	PDS	LRECL=80 BLKSIZE=1600 RECFM=FB SPACE=TRK(15,5,45)

* Sizes are from the default JCL and should be allocated to conform to your company's requirements.

Installing the CA-Datcom Data Adapter

These files are partitioned data sets (PDS) in IEBCOPY dump format:

- The DATACOM.LOAD library contains the load modules needed to run the Datcom Data Adapter.

Allocate a separate load library using the space guidelines listed in the preceding table.

- In your FOCUS CLIST, concatenate this library to the allocation for ddname FOCLIB or USERLIB.
- In your FOCUS JCL, concatenate this library to the allocation for ddname STEPLIB. This technique allows data adapter load modules to be maintained separately from standard FOCUS modules.
- The DATACOM.DATA library is a maintenance library. You need it to apply PTFs and generate FOCUS URTs.

Unload the Distribution Tape

Submit the following JCL after editing it to conform to your site's standards. This job allocates the data adapter libraries and unloads the distribution tape contents into them.

```
//job card goes here
//UNLOAD EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//INDD1 DD DSN=DATACOM.LOAD,DISP=SHR,
// UNIT=unit,VOL=SER=volser,LABEL=(25,SL),
//INDD2 DD DSN=DATACOM.DATA,DISP=SHR,
// UNIT=unit,VOL=SER=volser,LABEL=(26,SL)
//OUTDD1 DD DSN=prefix.DATACOM.LOAD,DISP=(NEW,CATLG,DELETE),
// UNIT=SYSDA,SPACE=(TRK,(10,5,45),RLSE)
//OUTDD2 DD DSN=prefix.DATACOM.DATA,DISP=(NEW,CATLG,DELETE),
// UNIT=SYSDA,SPACE=(TRK,(15,5,45),RLSE)
//SYSIN DD *
COPY INDD=INDD1,OUTDD=OUTDD1
COPY INDD=INDD2,OUTDD=OUTDD2
/*
```

where:

unit

Is the tape/cartridge.

volser

Is the tape/cartridge serial number.

prefix.DATACOM.LOAD

Is the data adapter load library.

prefix.DATACOM.DATA

Is the data adapter source library.

Upon successful completion there are two new PDS data sets cataloged on your system. The data set names will depend on what you specified on your IEBCOPY OUTDD1 and OUTDD2 DD cards.

Create the User Requirements Table (URT) Access Modules

In order to access Datacom data sources, you must have one or more User Requirements Tables. URTs specify which Datacom data sources the FOCUS application can access and the types of access allowed. In order to access a Datacom data source, the data adapter must load the appropriate URT first.

For each URT, the data adapter requires a URT Access Module that identifies the correct URT to load for each request. The URT Access Module is a data adapter construct that you create by link-editing the URT 'BEGIN' CSECT with object deck USNTRY, which is located in the '*prefix*.DATACOM.DATA' PDS. You give each access module a unique name at link-edit time. You must also create an Access File that contains the name of this access module. You must create a separate URT Access Module for each URT needed by the data adapter.

When processing a request, the Datacom Data Adapter uses the Access File to load the appropriate URT Access Module. The URT Access Module, in turn, loads the URT load module whose name is contained in the 'BEGIN' CSECT that is linked to it.

For example, the following Access File attribute indicates that the URT Access Module to be loaded is FOCLOAD1:

```
USERTABLE=FOCLOAD1
```

FOCLOAD1 contains the 'BEGIN' CSECT that points to the name of the URT load module (for example, URTLOAD1) that provides read access to the data source.

At installation time, you must create at least one URT Access Module in order to test the data adapter installation. You can create additional URT Access Modules at any time without making any changes to the data adapter.

Select Appropriate User Requirements Tables

Before creating a URT Access Module, you must choose or create a URT that is appropriate for the data adapter. Any URT to be used with FOCUS must allow multiple users to read the data source concurrently and must allow both random and sequential access.

In addition, the data source must have temporary Index Areas (IXXes) available so that the Datacom Compound Boolean Selection Facility (CBS), which the data adapter uses, can build indices to records. If the data source does not have these IXXes explicitly defined, you can make them available by creating a URT that specifies UPDATE=YES.

Installing the CA-Datacom Data Adapter

For example, a URT created using the following DBURSTR and DBURTBL macro parameters is FOCUS-usable, assuming IXEs exist:

```
DBURSTR                                                    X
  ABEND=YES,                                              X
  MULTUSE=YES,                                           X
  PRTY=7
DBURTBL                                                    X
  TBLNAM=PAY,                                             X
  DBID=143,                                               X
  SYNONYM=NO,                                             X
  ACCESS=RANSEQ,                                         X
  ELMCHG=NO,                                             X
  SEQBUFS=2,                                             X
  [GETBLK=0,                                             X]
  UPDATE=NO
DBURTBL                                                    X
  TBLNAM=PMF,                                             X
  DBID=143,                                               X
  SYNONYM=NO,                                             X
  ACCESS=RANSEQ,                                         X
  ELMCHG=NO,                                             X
  SEQBUFS=2,                                             X
  [GETBLK=0,                                             X]
  UPDATE=NO
DBUREND                                                    X
  USRINFO=UMAN RESOURCE URTLOAD1
END
/*
```

Note: The GETBLK=0 parameter may be needed in the DBURTBL macro to address memory management issues.

Submit the GENFDTCM Job to Create URT Access Modules

Create each URT Access Module by submitting the GENFDTCM JCL (supplied as member GENFDTCM in the '*prefix*.DATACOM.DATA' PDS) after editing it to conform to your site's standards:

```

/* * * * * * * * * * * JOB CARD GOES HERE * * * * * * * * * *
/*
/* * JCL FOR DATACOM INTERFACE URT CREATION
/*
/* * THIS JCL WILL ASSEMBLE AND LINK THE INTERFACE URT, FOCURT1
/* * TO DYNAMICALLY LOAD THE DATACOM URT, URT1
/*
/*ASMBL      EXEC   PGM=IEV90,PARM='OBJECT,NODECK,LIST',REGION=1024K
/*SYSLIB     DD   DSN=highlvl.DATACOM.MACLIB,DISP=SHR
//          DD   DSN=SYS1.MACLIB,DISP=SHR
/*SYSPRINT   DD   SYSOUT=*
/*SYSPUNCH  DD   SYSOUT=*
/*SYSUT1     DD   DSN=&&SYSUT1,UNIT=SYSDA,SPACE=(1700,(600,100))
/*SYSUT2     DD   DSN=&&SYSUT2,UNIT=SYSDA,SPACE=(1700,(300,50))
/*SYSUT3     DD   DSN=&&SYSUT3,UNIT=SYSDA,SPACE=(1700,(300,50))
/*SYSLIN     DD   DSN=&&OBJPASS,UNIT=SYSDA,
//          SPACE=(TRK,10),DISP=(NEW,PASS)
/*SYSIN      DD   *
                DBURINF                                X
                URTABLE=LOAD,                          X
                OPEN=USER,                              X
                USRNTRY=USNTRY,                        X
                LOADNAM=urt1
                DBUREND                                X
                USRINFO=DYNAMIC LOAD OF URT1
                END
/*
/*LINKEDIT  EXEC   PGM=IEWL,PARM='LET,NCAL,LIST,MAP,SIZE=1024K'
/*SYSPRINT  DD   SYSOUT=*
/*SYSUT1    DD   UNIT=SYSDA,SPACE=(CYL,(10,1))
/*OLDMOD    DD   DSN=prefix.DATACOM.DATA,DISP=SHR
/*DBNTY     DD   DSN=&&OBJPASS,DISP=(OLD,DELETE)
/*SYSLMOD   DD   DSN=prefix.DATACOM.LOAD,DISP=SHR
/*SYSLIN    DD   *
                INCLUDE DBNTY                          <----- URT 'BEGIN' STUB
                INCLUDE OLDMOD(USNTRY)                  <----- OBJECT DECK 'USNTRY'
                ENTRY   USNTRY
                NAME    focurt1(R)                      <----- NAME TO BE PLACED IN ACCESS FILE
/*

```

where:

highlvl

Is the high-level qualifier for the Datacom macro library.

urt1

Is the name of the URT to be loaded by the URT Access Module.

Installing the CA-Datcom Data Adapter

prefix

Is the high-level qualifier for your FOCUS production data sets.

focurt1

Is the name to be assigned to the URT Access Module.

Note that the URT Access Module must have a different name from the URT load module. It may be convenient to use some sort of naming convention to associate the Access Modules with their accompanying URTs.

For example, consider the following URTs to be used: with the data adapter:

URTLOAD1, URTLOAD2, URTLOAD3, and URTLOAD4

You must perform the assembly and link-edit in the GENFDTCM job four times. The Access Modules created can be named:

FOCLOAD1, FOCLOAD2, FOCLOAD3, and FOCLOAD4

FOCLOAD1 points to URTLOAD1, FOCLOAD2 points to URTLOAD2, and so on. Access Files to be used with the data adapter must specify either USERTABLE=FOCLOAD1, USERTABLE=FOCLOAD2, USERTABLE=FOCLOAD3, or USERTABLE=FOCLOAD4, depending on which URT provides access to the data sources required.

For example, assume Master File PAY describes the Datcom data source named PAY. Assume that this data source can be made accessible by loading a Datcom URT named URTLOAD1. Access Module FOCLOAD1 points to URTLOAD1. The PAY Access File could be:

```
TRACE=NO, USERTABLE=FOCLOAD1, $  
SEGNAME=PAYROLL, DBID=143, TABLENAME=PAY, KEYNAME=EMPNO, $
```

When you apply a PTF to the Datcom Data Adapter or update it to a new release, the URT Access Modules are not affected and do *not* have to be regenerated.

Prepare the Run-time Libraries

Each user of the Datcom Data Adapter needs access to a number of libraries. Three of these libraries were created during FOCUS installation. You must create one additional library as part of the data adapter installation.

FOCEXEC Library (FOCUS Procedures)

A stored FOCUS procedure is called a FOCEXEC. A FOCEXEC is stored as a member of a partitioned data set (PDS) allocated to ddname FOCEXEC in the JCL or CLIST used to run FOCUS. The FOCEXEC PDS was created when FOCUS was installed.

MASTER Library (Master Files)

The FOCUS description of a Datcom data source is called a Master File. It is stored as a member of a PDS that is allocated to ddname MASTER in the JCL or CLIST used to run FOCUS. The MASTER PDS was created when FOCUS was installed.

FOCDTCM Library (Access Files)

Each Master File must have an accompanying Access File. Access Files are stored as members of a PDS that is allocated to ddname FOCDTCM in the JCL or CLIST used to run FOCUS. Every user of the Datacom Data Adapter must have access to this library, which was *not* created during FOCUS installation.

Using your site criteria, allocate a partitioned data set (PDS) for your Access Files. This library (or libraries) can be a mirror image of ddname MASTER and should have the same DCB parameters. Refer to your FOCUS MVS/TSO installation guide for assistance in selecting DCB parameters. Two suggested names for this data set are:

- *prefix*.ACCESS.DATA or
- *prefix*.FOCDTCM.DATA

ERRORS Library (Error Messages)

FOCUS error messages are stored as member of a PDS that is allocated to ddname ERRORS in the JCL or CLIST used to run FOCUS. This library was created during FOCUS installation. Every user of the Datacom Data Adapter must have access to this library.

- Copy member FOCDTCM of the *prefix*.DATACOM.DATA PDS to the library each user allocates to ddname ERRORS.

If the ERRORS library is not accessible or is not allocated, error conditions encountered during a FOCUS session or batch job may generate the following message:

(FOC000) ERROR MESSAGE TEXT MISSING

Allocate the Datacom Data Adapter Load Library

You must allocate the Datacom Data Adapter load library prior to its first access by FOCUS. You can do this in either of the following ways:

- Concatenate *prefix*.DATACOM.LOAD to the *prefix*.FOCLIB.LOAD library in the TSO logon procedure or, in batch jobs, to ddname STEPLIB.
- Concatenate *prefix*.DATACOM.LOAD in front of *prefix*.FUSELIB.LOAD in the allocation for ddname USERLIB in the JCL or CLIST used to run FOCUS. Also, allocate *prefix*.FOCLIB.LOAD to ddname FOCLIB in the FOCUS JCL or CLIST.

It is important to note that in TSO, the data adapter load module will be searched for in USERLIB first, followed by FOCLIB, then STEPLIB. For batch jobs, allocate all load libraries to ddname STEPLIB.

Install the AUTODATACOM Facility

To install the AUTODATACOM facility, you must perform the following steps:

1. Unload the AUTODATACOM members.
2. Create the Datcom URT to access the dictionary structures.
3. Create the URT Access Module for AUTODATACOM.
4. Optionally, customize the default data sets.

Unload the AUTODATACOM Members

Unload and rename the AUTODATACOM members with the following steps:

1. For FOCUS Version 7.0 Release 9 and below, you must download two members from the Information Builders FTP site, <ftp.informationbuilders.com>. FTP them in alphanumeric mode into the '*prefix*.DATACOM.DATA' data set.

Note: In FOCUS releases later than Version 7.0 Release 9, the required members are unloaded from the distribution tape as part of the normal installation. If you are running a FOCUS release later than Version 7.0 Release 9, continue with Step 2.

Since the procedure to FTP at your site may be different, use the following procedure as a general guideline only. The FTP commands on MVS are not case sensitive but are shown in upper case in this example:

- a. Issue the following command from the TSO Ready prompt to enter FTP mode and connect to the Information Builders FTP site:

```
FTP FTP.INFORMATIONBUILDERS.COM
```

When asked, enter your user ID and password.

- b. Issue the following command to change to the correct directory:

```
CD PUB/PMS/IBMDIV/DATACOM
```

- c. Issue the following commands to transfer the DTCMRELX and AUTDTCMX members from the FTP site to your DATACOM.DATA data set and rename them:

```
GET DTCMRELX 'prefix.DATACOM.DATA(DTCMRELM)' (REPLACE  
GET AUTDTCMX 'prefix.DATACOM.DATA(AUTODTCM)' (REPLACE
```

where *prefix* is the high-level qualifier for your FOCUS production data sets. Enclose fully qualified names in single quotation marks. Use the REPLACE option to replace the existing members in your data set.

- d. Enter the following command to exit FTP:

```
quit
```

2. Uncomment the last four copy statements in the following JCL (member GENFADTC in the '*prefix*.DATACOM.DATA' data set) by spacing over the asterisks in column 1, edit the JCL to conform to your site's standards, and submit it:

```
//job card goes here
//COPYPDS EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//INDD1 DD DSN=prefix.DATACOM.DATA,DISP=SHR
//OUTDD1 DD DSN=prefix.MASTER.DATA,DISP=SHR
//OUTDD2 DD DSN=prefix.ACCESS.DATA,DISP=SHR
//OUTDD3 DD DSN=prefix.FOCEXEC.DATA,DISP=SHR
//SYSIN DD *
COPY INDD=INDD1,OUTDD=OUTDD1
      SELECT MEMBER=( (DTCMAGRM,DTCMAGR) )
COPY INDD=INDD1,OUTDD=OUTDD1
      SELECT MEMBER=( (DTCMRELM,DTCMREL) )
COPY INDD=INDD1,OUTDD=OUTDD1
      SELECT MEMBER=( (DTCMKEYM,DTCMKEY) )
COPY INDD=INDD1,OUTDD=OUTDD1
      SELECT MEMBER=( (DTCMFLDM,DTCMFLDS) )
COPY INDD=INDD1,OUTDD=OUTDD2
      SELECT MEMBER=( (DTCMAGRA,DTCMAGR) )
COPY INDD=INDD1,OUTDD=OUTDD2
      SELECT MEMBER=( (DTCMRELA,DTCMREL) )
COPY INDD=INDD1,OUTDD=OUTDD2
      SELECT MEMBER=( (DTCMKEYA,DTCMKEY) )
COPY INDD=INDD1,OUTDD=OUTDD2
      SELECT MEMBER=( (DTCMFLDA,DTCMFLDS) )
COPY INDD=INDD1,OUTDD=OUTDD3
      SELECT MEMBER=( (AUTODTCM,,R) )
*COPY INDD=INDD1,OUTDD=OUTDD1
*      SELECT MEMBER=( (DTCMK81M,DTCMKEY,R) )
*COPY INDD=INDD1,OUTDD=OUTDD2
*      SELECT MEMBER=( (DTCMK81A,DTCMKEY,R) )
/*
```

where:

prefix

Is the high-level qualifier for your FOCUS production data sets.

Create the Datcom URT to Access the Dictionary Structures

Member DTCMURT1 in *'prefix.DATACOM.DATA'* contains JCL to create the DATACOM URT (AUTOURT1) needed to access the dictionary structures.

You must make the following changes to the DTCMURT1 JCL before submitting it:

- Supply a valid JOB card.
- Supply the high-level qualifier for the DATACOM macro library on the SYSLIB DD card.
- Provide the name of any valid PDS on the SYSLIN DD card in the ASMBL step. Also provide the name of the same PDS on the TEMPLIB DD card in the LINKEDIT step. The assembly step allocates and creates a member named URT in this PDS. The URT member is later referenced by the link-edit step. The URT member is not deleted after the job runs; it is used in the next step, job DTCMURT2.
- Provide the name of the data adapter load library, *'prefix.DATACOM.LOAD'* on the SYSLMOD DD card in the LINKEDIT step.

Create the URT Access Module for AUTODATACOM

Member DTCMURT2 in *'prefix.DATACOM.DATA'* contains the JCL to create the FOCUS URT Access Module (AUTOURT) that is referenced in the AUTODATACOM Access files. You must submit member DTCMURT1 before member DTCMURT2. It is recommended that you keep the library allocations of these two members consistent to avoid problems.

You must make the following changes to the DTCMURT2 JCL before submitting it:

- Supply a valid JOB card.
- Supply the name of the DATACOM macro library on the SYSLIB DD card.
- Provide the name of any valid PDS on the SYSLIN DD card in the ASMBL step. Also provide the name of the same PDS on the TEMPLIB DD card in the LINKEDIT step. The SYSLIN DD card allocates member named URT in this PDS, which was created in the DTCMURT1 job. The URT member is later referenced by the link-edit step. The URT member is not deleted after the job runs. You can delete this member after the job completes successfully.
- Provide the name of the data adapter source library, *'prefix.DATACOM.DATA'* on the OLDMOD DD card in the LINKEDIT step.
- Provide the name of the data adapter load library, *'prefix.DATACOM.LOAD'* on the SYSLMOD DD card in the LINKEDIT step.

Customize the Default Data Sets (Optional)

You can control the DATASET names that display on the AUTODTCM menu screen by changing the default output data set names to conform to site-specific standards. The defaults for FOCUS and EDA are contained in member AUTODTCM of the '*prefix*.FOCEXEC.DATA' data set. To make a change to the AUTODTCM FOCEXEC, scan for the line that specifies CHANGE THIS SET OF DEFAULTS. The total length of each value must be exactly 44 characters (&USERID accounts for 8 characters):

```

-* Change this set of defaults for FOCUS access.
-SET &DSNP0=&USERID || '.FOCSQL.DATA                ';
-SET &DSNM0=&USERID || '.MASTER.DATA                ';
-SET &DSNF0=&USERID || '.FOCSQL.DATA                ';
-SET &DSND0=&USERID || '.FOCDEF.DATA                ';
-IF &EDAAFD_DSN EQ ' ' GOTO DSN_DONE;
-----
-* Change this set of defaults for EDA access.
-SET &DSNP0=&USERID || '.EDAAFD.DATA                ';
-SET &DSNM0=&USERID || '.EDAMFD.DATA                ';
-SET &DSNF0=&USERID || '.EDAAFD.DATA                ';
-SET &DSND0=&USERID || '.FOCDEF.DATA                ';

```

Customize the FOCUS CLIST or JCL

The FOCUS CLIST or JCL must be modified to include the Access File PDS and the PDS containing the Datacom Data Adapter load modules. The CLIST or JCL must allocate:

1. The PDS containing Access Files.
2. The PDS containing Master Files.
3. The PDS containing FOCUS procedures (FOCEXECs).
4. The PDS containing FOCUS error messages.
5. The PDS containing the data adapter load modules and FOCUS load modules.

The following chart identifies the allocations needed to execute a FOCUS procedure (FOCEXEC) against a Datacom data source:

PDS Containing:	Concatenate To DDNAME:
Access Files	FOCDTCM
Master Files	MASTER
FOCUS Procedures	FOCEXEC
Error Messages	ERRORS
Data Adapter Load Module FOCUS Load Modules	USERLIB, FOCLIB or STEPLIB. Note: For batch jobs, allocate all load modules to ddname STEPLIB.
Datacom Run-Time Load Modules	The Datacom libraries, the DSGEN, the common CA LIB and the library containing URTs must be allocated to STEPLIB in the batch FOCUS JCL or to ISPLLIB or STEPLIB in the TSO logon procedure.

Example **Interactive Access From TSO**

Use the following CLIST as a model for access FOCUS interactively in TSO:

```
ALLOC F(FOCEXEC)   DA('prefix.FOCEXEC.DATA') SHR REUSE
ALLOC F(MASTER)   DA('prefix.MASTER.DATA') SHR REUSE
ALLOC F(FOCDTCM)  DA('prefix.FOCDTCM.DATA') SHR REUSE
ALLOC F(ERRORS)   DA('prefix.ERRORS.DATA') SHR REUSE
ALLOC F(USERLIB)  DA('prefix.FOCLIB.LOAD' -
                  DA('prefix.DATAACOM.LOAD' -
                  DA('prefix.FUSELIB.LOAD') SHR REU
ALLOC F(FOCLIB)   DA('prefix.FOCLIB.LOAD') SHR REUSE
CALL 'prefix.FOCLIB.LOAD(FOCUS)'
```

where:

prefix

Is the high-level qualifier for your FOCUS production data sets.

Remember to allocate the CA-Datcom load libraries in the TSO logon procedure. The *prefix.DATAACOM.LOAD* library is the load library supplied by Information Builders.

Example **Interactive Access From MSO**

For interactive access in MSO, modify the MSO startup JCL to include the following allocations. See the *Multi-Session Option Installation and Technical Reference Guide* for further information:

```
//STEPLIB DD DSN=highlvl.loadlib,DISP=SHR
// DD DSN=highlvl.urllib,DISP=SHR
// DD DSN=prefix.FOCLIB.LOAD,DISP=SHR
// DD DSN=prefix.DATAACOM.LOAD,DISP=SHR
// DD DSN=prefix.FUSELIB.LOAD,DISP=SHR
//FOCEXEC DD DSN=prefix.FOCEXEC.DATA,DISP=SHR
//MASTER DD DSN=prefix.MASTER.DATA,DISP=SHR
//FOCDTCM DD DSN=prefix.FOCDTCM.DATA,DISP=SHR
//ERRORS DD DSN=prefix.ERRORS.DATA,DISP=SHR
```

where:

highlvl.loadlib

Represents all of the CA-Datcom run-time load libraries, including the CA-Datcom libraries, the DSGEN, and the common CA LIB.

highlvl.urllib

Is the CA-Datcom URT load library.

prefix

Is the high-level qualifier for your FOCUS production data sets.

Example**Batch Access**

Use the following JCL as a model for batch access to FOCUS:

```
//job card goes here
//DATACOM EXEC PGM=FOCUS
//STEPLIB DD DSN=highlvl.loadlib,DISP=SHR
// DD DSN=highlvl.urllib,DISP=SHR
// DD DSN=prefix.FOCLIB.LOAD,DISP=SHR
// DD DSN=prefix.DATACOM.LOAD,DISP=SHR
// DD DSN=prefix.FUSELIB.LOAD,DISP=SHR
//FOCEXEC DD DSN=prefix.FOCEXEC.DATA,DISP=SHR
//MASTER DD DSN=prefix.MASTER.DATA,DISP=SHR
//FOCDTCM DD DSN=prefix.FOCDTCM.DATA,DISP=SHR
//ERRORS DD DSN=prefix.ERRORS.DATA,DISP=SHR
//SYSIN DD *
TABLE FILE DTCMKEY
PRINT STATUS
IF RECORDLIMIT EQ 10
END
FIN
/*
```

where:

highlvl.loadlib

Represents all of the CA-Datcom run-time load libraries, including the Datcom libraries, the DSGEN, and the common CA LIB.

highlvl.urllib

Is the CA-Datcom URT load library.

prefix

Is the high-level qualifier for your FOCUS production data sets.

Verify the Data Adapter Installation

To verify that the data adapter was installed properly, start FOCUS using the standard allocations described in *Customize the FOCUS CLIST or JCL* on page 2-11, and issue the following request:

```
TABLE FILE DTCMKEY
PRINT STATUS
IF RECORDLIMIT EQ 10
END
```

FOCUS should return formatted report output as a result of this request.

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