

AllFusion™ Endeavor® Change Manager

Footprints Guide
4.0



Computer Associates™

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First Edition, December 2002

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Chapter 1. Introduction to Endeavor Footprints

1.1 Overview

This guide explains footprints and how to install and use the remote footprint synchronization facility of AllFusion Endeavor Change Manager (formerly known as Endeavor for OS/390, and hereafter referred to as simply Endeavor).

This guide is part of a comprehensive documentation set that fully describes the features and functions of Endeavor and explains how to perform everyday tasks. For a complete list of Endeavor manuals, see the PDF Table of Contents file in the PDF directory, or the Bookmanager Bookshelf file in the Books directory.

This Footprints Guide contains information about Endeavor from Computer Associates and related products on the OS/390 and z/OS operating systems. The Endeavor 4.0 documentation set describes procedures and, in some cases, JCL, for the OS/390 environment. The same procedure and JCL are applicable for the z/OS environment.

This chapter provides a general overview on Endeavor footprints.

1.2 About Footprints

1.2.1 What Is a Footprint?

A footprint is a set of encrypted data placed by Endeavor processors in generated source, object, or load modules. For instructions on enabling the footprint capability, see the *Extended Processors Guide*. Footprints contain location and event information from the Master Control File record for the element:

- Site ID
- Environment
- Stage Number
- System
- Subsystem
- Type
- Element Name
- Version and Level
- Date and time the output was created

By relating an output to an element, footprints allow you to:

- Keep source synchronized with executables
- Display source information from executables

1.3 Synchronizing Source and Executables

1.3.1 Overview

Endevor helps you to keep source synchronized with executables by comparing the date and time that the element was last generated (from the Master Control File) with the date and time information in the footprint.

You can utilize this capability by:

- Including the FOOTPRNT=VERIFY statement in processors. This automates footprint verification each time the processor runs.
- Running footprint reports.

1.3.2 The FOOTPRNT=VERIFY Statement

Including the FOOTPRNT=VERIFY statement in your processors automates footprint verification each time the processor runs. See the *Administration Guide* for instructions on enabling this capability.

1.3.3 Running Footprint Reports

Running footprint reports on a regular basis helps you to monitor footprints. The table below describes each of the four footprint reports.

This Report	Lists
Library Member Footprint Report CONRPT80	Footprint information stored in the members of load and non-load libraries.
Library CSECT Listing CONRPT81	CSECTs in a particular load library, along with corresponding member names and link-edit compile dates, and the footprint, if available.
Library Zapped CSECT Profile CONRPT82	CSECTs that were zapped from a load library.
Footprint Exception Report CONRPT83	Members, CSECTs, or load modules that either have no footprint or whose footprints were corrupted.

See the chapter "Footprint Reporting" for more information about footprints and for sample footprint reports.

1.4 Displaying Source Information from Executables

1.4.1 What You Can Display

Endevor uses footprints to allow you to display:

- A list of members in a library, with footprint information for each
- A list of CSECTs for a specific load module, with footprint information for each CSECT and for the load module

If a member, CSECT, or load module is footprinted, Endevor allows you to display information (current source, change history, changes at the current level, summary of levels, Master Control File information) about it from this selection list.

The procedures and panels required to display source information from executables using footprints are described in the chapter, "Footprint Reporting."

1.5 Where Footprints Are Stored

1.5.1 Overview

Endevor stores footprints in:

- Library data sets
- Sequential object data sets
- Load libraries

Note: Endevor cannot footprint sequential source.

1.5.2 Storing Footprints in Library Data Sets

For a source or object data set stored in a PDS or an Endevor LIB data set, the footprint is kept in the user data area of the directory. Do not use the ISPF RESET STATISTICS function (3.5) to reset statistics of an Endevor footprint library. Doing so overwrites the Endevor footprint, which results in future compromise messages such as C1G0118C.

Footprint information is stored in library data sets as noted below:

- For AllFusion CA-Librarian for OS/390 and z/OS (hereafter referred to as simply "Librarian"), it is stored as a history record.
- For AllFusion CA-Panvalet for OS/390 and z/OS (hereafter referred to as simply "Panvalet"), it is stored as a COMMENT field.

1.5.3 Storing Footprints in Sequential Object Data Sets

For a sequential data set that is an object deck, the footprint is stored as an IDENTIFY statement at the end of the object code.

For a previously footprinted sequential data set (object deck only) that is stored in a PDS (using FOOTPRINT=CREATE), there is a footprint (part of an IDENTIFY statement) at the end of the data set and in the user data area of the directory. If the sequential data set (object deck only) and PDS member are created by the same processor, they are in sync.

1.5.4 Storing Footprints in Load Libraries

For a PDS load module, CSECT footprints are kept in the user IDR record of the load module, one footprint for each CSECT. The footprint for the load module is stored in the ZAPIDR record for that load module.

Note: Endevor does not allow the footprinting of the load module PDS directory because this would compromise the ability of the load module to execute. For PDS

load module footprints, a user update to the IDR or a zap applied to the load module compromises the Endeavor footprint.

1.5.5 Storing Footprints in PDS/E Load Libraries

For PDS/E load library members, known as "program objects," CSECT footprints are stored in the same fashion as they are in conventional load module members. For example, footprint data is introduced through an IDENTIFY card added to the input object modules, and the binder incorporates these footprints into IDRU records in the program object. The module-level footprint is also stored in a special IDRU record and is added using the IEWBIND programming interface. All footprint data is extracted from program objects using the IEWBIND interface.

1.5.6 Storing Footprints in HFS Directories

For source stored in an HFS directory, the footprint associated with the source is placed in an Endeavor footprint subdirectory named @EFP. When a file is created or deleted from the directory, the corresponding footprint is written to or removed from the @EFP subdirectory. Note that Endeavor dynamically creates the @EFP subdirectory if the directory does not already exist. At this time, the @EFP subdirectory is not deleted when the last footprint is removed.

Chapter 2. Remote Footprint Synchronization

2.1 Overview

This chapter describes the installation and use of the remote footprint synchronization facility of Endeavor.

The footprint synchronization facility allows you to:

- Produce all footprint reports at a remote site as if the remote load library existed on a central machine.
- Determine which load modules changed since they were shipped to a remote site by comparing their footprints with Master Control File information at a host site.

2.2 Installation

2.2.1 Overview

Installation consists of:

- Creating a load library at the remote site that contains the Endeavor footprint synchronization programs.
- Creating and placing a copy of the C1DEFLTS table in the load library at the remote site.
- Creating a JCL library at the remote site containing the JCL to execute the footprint extract program, the data transmission utility program and, optionally, the report generator.

2.2.2 Create CONLIB

Copy the contents of the iprfx.igual.CONLIB into a new load library. This library then contains the software necessary to execute the footprint synchronization facility at the remote site.

2.2.3 Copy C1DEFLTS Table

Copy the C1DEFLTS table that was created during Endeavor installation at your base site from your system linklist library to the newly created load library.

Note: If the RACF alternate user ID is enabled at your site, the C1DEFLTS table must be changed. Turn off this facility by removing the RACFUID, RACFGRP, RACFPWD specified in the table, then reassemble and link the new C1DEFLTS table into the CONLIB created in the previous step.

2.2.4 Create JCL Library

Create a library to contain the sample JCL for running the footprint extract program, data transmission utility and optionally, the footprint reports. The member BC1JFEXT in the iprfx.igual.JCL library installed at your base site contains the JCL necessary to extract the footprints at the remote site. This JCL should be copied into the newly created JCL library.

See the section Sample JCL in this chapter for sample jobstreams. This JCL must be tailored to execute at each remote site.

2.3 Using the Footprint Synchronization Facility

2.3.1 Overview

Once the footprint synchronization facility is installed and skeletal JCL customized, you can run reports CONRPT80, CONRPT81, and CONRPT82 at the remote site just as you run them on the host.

To determine if footprints at a remote site are synchronized with Endeavor location information from the central location, do the following:

1. Run job BC1JFEXT at the remote site to extract footprint information and place it in a footprint extract file.
2. Transmit the footprint extract file to the host site.
3. Run job BC1JFRPT at the host site to determine if the remote load module footprints are synchronized with the host inventory information.

2.3.2 Sample JCL

In the utilities that are shown on the following pages, you will see sample JCL for BC1JFEXT, for running reports, and various data transmission utilities. The JCL is provided in the ipfx.igual.JCL library on the installation tape. Remember to customize each jobstream for your site.

2.3.3 BC1JFEXT

This is sample JCL for the footprint extraction utility that is executed at the remote site.

```

/** ( COPY JOBCARD )
/*******
/**
/** NAME: BC1JFEXT
/**
/** FUNCTION: THIS JOB SHOULD BE USED IN CONJUNCTION WITH THE
/** ENDEAVOR REMOTE FOOTPRINT SYNCHRONIZATION UTILITY TO *
/** GENERATE A FOOTPRINT EXTRACT FILE AT THE REMOTE SITE. THE
/** EXTRACT FILE IS WRITTEN TO THE //BSTPCH DD STATEMENT. AN
/** APPROPRIATE TRANSMISSION MECHANISM SHOULD THEN BE USED TO
/** TRANSMIT THE DATASET TO THE CENTRAL ENDEAVOR LOCATION. *
/** USE THE JCL IN MEMBER BC1JFRPT TO GENERATE THE FOOTPRINT
/** EXCEPTION REPORT FOR THIS DATASET.
/**
/*******
//BC1PFOOT EXEC PGM=NDVRC1,PARM='BCIPFOOT',REGION=4096K
//STEPLIB DD DISP=SHR,DSN=uprfx.uqual.AUTHLIB
// DD DISP=SHR,DSN=iprfx.iqual.AUTHLIB
//CONLIB DD DISP=SHR,DSN=iprfx.iqual.CONLIB
//BSTLST DD SYSOUT=*
//BSTPCH DD DSN=uprfx.FOOTEXTR,
// SPACE=(CYL,(1,1)),
// DISP=(NEW,CATLG,DELETE),
// DCB=(LRECL=416,RECFM=FB,BLKSIZE=8320)
/*******
/** THE BSTPDS DATASET IS THE INPUT LIBRARY. CHANGE THE DATASET NAME *
/** TO REFLECT THE APPROPRIATE INPUT DATASET.
/*******
//BSTPDS DD DISP=SHR,DSN=uprfx.LOADLIB,
//BSTIPT DD *
ANALYZE analyze statement input .

```

In this example, analyze statement input refers to an ANALYZE statement coded as described in the chapter, "Footprint Reporting."

2.3.4 BC1JFNDM

This is a sample jobstream for the CONNECT:Direct (formerly Network DataMover) data transmission utility, for execution at the remote site.

```
//* ( COPY JOBCARD )
//*****
//*
//* NAME: BC1JFNDM *
//*
//* FUNCTION: THIS MODEL JCL CAN BE USED TO TRANSMIT THE *
//* ENDEAVOR REMOTE FOOTPRINT SYNCHRONIZATION UTILITY FOOTPRINT *
//* EXTRACT DATA SET FROM THE REMOTE SITE TO THE CENTRAL ENDEAVOR *
//* SITE. *
//* PLEASE CONTACT YOUR CONNECT:Direct ADMINISTRATOR TO *
//* DETERMINE IF ANY CHANGES HAVE TO BE MADE TO THE JCL. *
//*
//*****
//BC1JFNDM EXEC NDMBATCH <== CHECK PROCEDURE NAME
//*****
//* THE FOLLOWING CONTROL STATEMENTS WILL COPY THE FOOTPRINT EXTRACT *
//* FILE FROM THE REMOTE LOCATION TO THE CENTRAL ENDEAVOR LOCATION. *
//* PLEASE CONTACT YOUR CONNECT:Direct ADMINISTRATOR FOR THE *
//* APPROPRIATE VALUES FOR THE "PNODE" AND "SNODE" KEYWORDS AND FOR *
//* THE APPROPRIATE SECURITY INFORMATION FOR THE SIGNON COMMAND. *
//*****
//SYSIN DD *
SIGNON USERID=(USERID,PASSWORD)
SUBMIT PROC=COPY, -
        PNODE=REMOTE.NDM, -
        SNODE=CENTRAL.NDM, -
        &DSN1=UPRFX.FOOTEXTR, -
        &DSN2=UPRFX.FOOTEXTR, -
        &DISP1=NEW -
        &DISP2=CATLG
SIGNOFF
/*
```

2.3.5 BC1JFNTV

This is a sample jobstream for the Tivoli NetView File Transfer Program data transmission utility, for execution at the remote site.

```

/* ( COPY JOBCARD )
*****
/*
/* NAME: BC1JFNTV
/*
/* FUNCTION: THIS MODEL JCL CAN BE USED TO TRANSMIT THE ENDEVOR *
/* REMOTE FOOTPRINT SYNCHRONIZATION UTILITY FOOTPRINT *
/* EXTRACT DATASET FROM THE REMOTE SITE TO THE CENTRAL ENDEVOR *
/* SITE. *
/* PLEASE CONTACT YOUR NETVIEW FILE TRANSFER PROGRAM ADMINISTRATOR *
/* TO DETERMINE IF ANY CHANGES HAVE TO BE MADE TO THE JCL. *
/*
/******
//BC1JFNTV EXEC PGM=DVGIFBI,REGION=4096K
//STEPLIB DD DISP=SHR
// DSN=IQUAL.NVFTP.LOAD <<<=== Verify the steplib
//SYSPRINT DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//DVGLOG DD SYSOUT=*
//SYSIN DD *
ADD
XMODE=TO
STYPE=PS
RTYPE=PS
REMNODE=REMOTE_NODE_NAME
SFILEID=uprfx.FOOTEXR
RFILEID=uprfx.FOOTEXR
RTDISP=CAT
RSPCUNIT=TRK
RSPCPRIM=001
RSPCSEC=001
RUNIT=RSYSDA

```

2.3.6 BC1JFBDT

This is a sample jobstream for the Bulk Data Transfer data transmission utility, for execution at the remote site.

```
//* ( COPY JOBCARD )
//*****
//*
//* NAME: BC1JFBDT
//*
//* FUNCTION: THIS MODEL JCL CAN BE USED TO TRANSMIT THE ENDEVOR *
//* REMOTE FOOTPRINT SYNCHRONIZATION UTILITY FOOTPRINT *
//* EXTRACT DATASET FROM THE REMOTE SITE TO THE CENTRAL ENDEVOR *
//* SITE. *
//* PLEASE CONTACT YOUR BULK DATA TRANSFER ADMINISTRATOR TO DETER- *
//* MINE THE LOCAL MODIFICATIONS THAT ARE REQUIRED. SPECIFICALLY, *
//* VERIFY THE 'SEND' COMMAND NAME, THE 'LOC' KEYWORD AND THE *
//* TO AND FROM DATASET NAMES. *
//*
//*****
//BC1JFBDT EXEC PGM=BDTBATCH,REGION=4096K
//SYSPRINT DD SYSOUT=*
//SYSIN DD *
SEND
        FROM DATASET(uprfx.FOOTEXTR)
           DAP(SEQ) SHR
        TO DATASET(uprfx.FOOTEXTR)
           NEW TRACK RELEASE SPACE(001,005) UNIT(SYSDA)
           LRECL(416) BLKSIZE(8320) RECFM(FB)
        LOC(CENTRAL_SITE)
```

2.3.7 BC1JFRPT

This is a sample jobstream for generating the reports CONRPT80, CONRPT81, and CONRPT82 at the central site.

```

// (PLACE JOBCARD HERE)
//*****
//*
//* NAME: BC1JFRPT
//*
//* FUNCTION: THIS MODEL JCL IS USED IN CONJUNCTION WITH THE REMOTE
//* FOOTPRINT SYNCHRONIZATION UTILITY TO GENERATE THE FOOTPRINT
//* EXCEPTION REPORT. THE INPUT TO THE REPORT PROGRAM IS THE FOOT-
//* PRINT EXTRACT DATASET CREATED ON THE REMOTE SITE BY PROGRAM
//* BC1PFOOT. MODIFY THE //FOOTFILE DD STATEMENT TO REFER TO THE
//* CORRECT INPUT DATASET.
//*
//* THIS JCL CAN ALSO BE MODIFIED TO RUN FOOTPRINT REPORTS 80, 81
//* AND 82. REFER TO THE REPORTS GUIDE FOR INFORMATION ON THE
//* //BSTINP CONTROL STATEMENTS NEEDED TO GENERATE THESE REPORTS.
//*
//*
//*****
//BC1JJRPT EXEC PGM=NDVRC1,PARM='C1BR1000',REGION=4096K
//STEPLIB DD DISP=SHR,DSN=uprfx.uqual.AUTHLIB
// DD DISP=SHR,DSN=iprfx.igual.AUTHLIB
//CONLIB DD DISP=SHR,DSN=iprfx.igual.CONLIB
//*****
//* THE FOOTPRINT EXCEPTION REPORT IS WRITTEN TO THE //BSTRPTS DD
//* STATEMENT.
//*****
//BSTRPTS DD SYSOUT=*
//*****
//* BSTINP CONTAINS THE REPORT GENERATOR CONTROL STATEMENT. REFER
//* TO THE REPORTS GUIDE, REPORT CONRPT83, FOR DETAILED
//* EXPLANATION ABOUT THE PARAMETERS.
//* DO NOT CHANGE THE PARAMETER FOR THE "FOOTPRINT DDNAME" CONTROL
//* STATEMENT.
//* REPLACE THE ENVIRONMENT_NAME PARAMETER WITH THE APPROPRIATE
//* ENDEVOR ENVIRONMENT NAME.
//*****
//BSTINP DD *
// REPORT 83 .
// ENVIRONMENT ENVIRONMENT_NAME .
// FOOTPRINT DDNAME FOOTFILE .
//*****
//* THE FOOTFILE DD STATEMENT REFERS TO THE DATASET CREATED REMOTELY
//* BY PROGRAM BC1PFOOT AND TRANSMITTED TO THE CENTRAL SITE FOR
//* COMPARISON AGAINST THE ENDEVOR MASTER CONTROL FILE *
//* (MCF)
//*****
//FOOTFILE DD DISP=SHR,DSN=uprfx.FOOTEXTR
//*****
//* WORK FILES NEEDED BY THE ENDEVOR REPORT GENERATOR **
//*****
//BSTPCH DD DSN=&&BSTPCH,
// UNIT=SYSDA,SPACE=(CYL,(1,1)),
// DISP=(NEW,PASS),

```

```
//          DCB=(RECFM=FB,LRECL=416,BLKSIZE=4160)
//BSTLST  DD SYSOUT=*
//SORTIN  DD UNIT=SYSDA,SPACE=(CYL,(4,1))
//SORTOUT DD UNIT=SYSDA,SPACE=(CYL,(4,1))
//SORTWK01 DD UNIT=SYSDA,SPACE=(CYL,(5,5))
//SORTWK02 DD UNIT=SYSDA,SPACE=(CYL,(5,5))
//SORTWK03 DD UNIT=SYSDA,SPACE=(CYL,(5,5))
//C1MSG1  DD SYSOUT=*
//SYSOUT  DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
```

Chapter 3. Footprint Reporting

3.1 Overview

This chapter describes Footprint reports.

Footprint reports list the footprint information placed in source and load modules by Endeavor. They also provide a listing of those CSECTs that were zapped, and document those members for which footprint and Endeavor Master Control File information is out of sync.

The Footprint reports are listed below:

Report ID	Title
CONRPT80	Library Member Footprint report
CONRPT81	Library CSECT Listing
CONRPT82	Library Zapped CSECT Profile
CONRPT83	Footprint Exception report

Note: Footprint reports and Package reports are mutually exclusive. If you need both types of reports, you must submit two separate jobs, or two separate jobsteps in the same job.

3.2 Generating Footprint Reports

3.2.1 Overview

The generation of Footprint reports is a two-phase process:

1. The first phase extracts information for the requested members from a partitioned data set, a Panvalet library, or a Librarian library, as appropriate to the report request (and defined by the BSTPDS DD statement).
 - **For non-load libraries**, the extracted information for each member is extracted separately and placed in a single record of the extract file.
 - **For load libraries**, the extracted information is written separately by CSECT to the extract file. For load libraries, this extracted information includes the footprint and, if requested, ZAP, compiler, and link-edit information.
2. The second phase reads the sequential extract file and produces the reports requested.

To request the Footprint reports, execute the BC1JRPTS job (shown in the *Reports Guide*), after supplying appropriate Selection Statements for each of the two phases of processing. Use the BSTIPT DD statement to specify footprint selection criteria, and the BSTINP DD statement to specify the reports you want to produce.

With Endeavor you can extract footprint data about specified data sets by running the BSTPFOOT job. You can use BSTPFOOT alone to extract footprint data before editing and running the report JCL job BC1JRPTS. After running BSTPFOOT, you reference the data set created by BSTPFOOT in your report JCL syntax as shown below.

```
//BSTINP DD *
      FOOTPRINT DDNAME footfile.
//FOOTFILE DD DSN=FOOTPRINT.FILE.DSN, DISP=SHR
```

Note: When running BSTPFOOT separately, no BSTIPT footprint selection criteria is needed when running the subsequent footprint reports. Only the FOOTPRINT DDNAME statement within the BSTINP input is required.

The BSTIPT parameters are unique to Footprint reporting, and are described below.

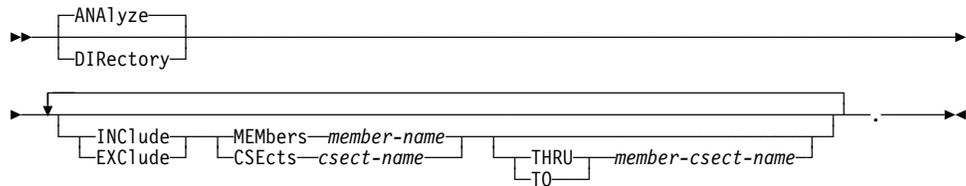
3.2.2 Data Extract Phase Selection Criteria

By specifying selection criteria using the BSTIPT DD statement, you can limit the amount of data included in the Footprint reports.

Using selection criteria, you define the member(s) and CSECT(s) for which information should be extracted, as well as the extent of detail you want to extract for each load member. Only the information requested is available for reporting.

Any selection criteria specified apply across all Footprint reports (80-83). If you specify INCLUDE MEMBERS AR*, for example, only the information for members beginning with AR is provided—for all Footprint reports requested.

The syntax is freeform when coding the BSTIPT DD input. It can be specified across any number of cards, as long as each keyword or name is fully contained on one card. The selection syntax is shown below:



Statement Syntax	Description
ANALYZE/DIRECTORY	<p>Indicate the level of detail you want to extract, as follows. Specify ANALYZE (the default) to extract:</p> <ul style="list-style-type: none"> ■ For each non-load member, the same information as for DIRECTORY, below. ■ For each load member, the member name and, for each CSECT, the CSECT name, date the load module was last link-edited, date the CSECT was last compiled, a record of any PTFs applied to the CSECT, and footprint information. <p>Specify DIRECTORY to extract:</p> <ul style="list-style-type: none"> ■ For each non-load member, the member name as well as all footprint information, the date and time the generate processor was run last, and the Endeavor environment. ■ For each load member, only the member name.

Statement Syntax	Description
INCLUDE/EXCLUDE	<p>Parameters used to restrict the extract to specific members, or CSECTs, or both. By default, extraction occurs for all members and all CSECTs that are in the library being processed.</p> <p>Specify INCLUDE to extract information for only the member(s) or CSECT(s) identified by the members/csects parameter. Specify EXCLUDE to exclude from the extract processing those member(s) or CSECT(s) referenced by the members/csects parameter.</p> <p>You can have any number of INCLUDE or EXCLUDE statements (or both). All the INCLUDEs are processed first; EXCLUDEs are then processed, first for members, then for CSECTs. The effect is to first limit the extract to those members or CSECTs specifically included, and to then exclude—from the included members or CSECTs—those names referenced by the EXCLUDE statements.</p>

Statement Syntax	Description
MEMBERS <i>member-name</i> CSECT <i>csect-name</i>	<p data-bbox="859 310 1344 468">Identifies those MEMBERS (member-name) or CSECTs (csect-name) to which the INCLUDE or EXCLUDE applies. The CSECTs option is only applicable for load members.</p> <p data-bbox="859 495 1344 615">If your INCLUDE or EXCLUDE statements reference both members and CSECTs, all members statements are processed first, then all CSECTs statements.</p> <p data-bbox="859 642 1344 968">The member-name or csect-name fields can specify a full name to process only a specific member or CSECT, or a name mask to process all members or CSECTs whose names begin with the partial name specified. For example, you might specify "INCLUDE MEMBER BA*" to include all members whose names begin with the characters BA (including an exact match on that name if one exists).</p> <p data-bbox="859 995 1344 1115">If you also supply a THRU or TO name, Endeavor processes all members or CSECTs starting with the characters specified here through or to the THRU or TO name.</p> <p data-bbox="859 1142 1344 1434">Following up on our example above, if you specify "INCLUDE MEMBER BA* THRU C", Endeavor will process all names beginning with BA through the member or CSECT named C (exact match). If you had specified "THRU C*" at the end of the statement above, then the range would extend through all members having names beginning with C.</p> <p data-bbox="859 1461 1344 1581">Similarly, if you specify "INCLUDE MEMBER BA* TO C", Endeavor will process all names beginning with BA to—but not including—the name C.</p>

Statement Syntax	Description
THRU/TO <i>member-csect-name</i>	<p>THRU defines the last member or CSECT in the range of names to be processed. If you include a mask character (*) at the end of the THRU MEMBER/CSECT-NAME, the range includes all names beginning with the characters specified. For more information on name masking, see the section 3.2.4, “Name Masking” on page 3-8. TO defines the member or CSECT name to which processing should go, excluding itself. A name mask is inappropriate (and is ignored) if used with a TO <i>member/csect-name</i>.</p> <p>The use of the THRU/TO option is described above for the members/csects parameters.</p>

Each time you run Footprint reports, Endeavor returns a report similar to that shown below, listing the selection criteria used and the number of extract records written:

```

COPYRIGHT (C) COMPUTER ASSOCIATES INTL INC, 2002  E N D E V O R 01/15/02  10:26:43  PAGE  1
                                         RELEASE X.X  SERIAL XNNNN

09:38:50  C1B0113I  PARAMETERS SPECIFIED AS INPUT TO PROGRAM BC1PF00T
          EXC CSECT ILBOC.

09:38:51  C1B0112I  RECORDS WRITTEN TO OUTPUT FILE: 00000043

09:38:51  C1B0111I  END OF JOB

```

3.2.3 Syntax Examples

1. To extract DIRECTORY-level data for all members or CSECTs (or both) in the library:

DIRECTORY.

2. To extract full (ANALYSIS-level) detail for all members whose names begin with the characters C1:

ANALYZE INCLUDE MEMBERS C1*.

or

ANALYZE INCLUDE MEMBERS C1* TO D.

or

INCLUDE MEMBERS C1*.

or

INCLUDE MEMBERS C1* TO D.

3. To extract full detail for members A11B6300, A11B6301, and A11B6302:

INCLUDE MEM A11B6300
INCLUDE MEM A11B6301
INCLUDE MEM A11B6302.

4. To exclude any CSECTs whose names start with ILB:

EXCLUDE CSECTS ILB*.

5. To request only those members whose names start with A200, while excluding from those selected members all CSECTs whose names start with ILB or \$2:

INCLUDE MEMBERS A200*
EXCLUDE CSECTS ILB*
EXCLUDE CSECTS \$2*.

The rest of this chapter details each of the Footprint reports. Remember that where CSECT detail is included in the reports, that detail is available only if you specify ANALYZE to the Data Extract phase.

3.2.4 Name Masking

A name mask allows you to specify all names, or all names beginning with a particular string, to be considered when performing an action.

Name masks are valid on:

- Element names
- System, subsystem, and type names within FROM clauses
- Report syntax
- ISPF panels
- API requests

Name masks are not valid on:

- Environment names
- Element names in the following situations:
 - When entering a LEV_{el} in a statement
 - When using the MEM_{ber} clause with a particular action
 - When building a package

3.2.4.1 Usage

There are three ways to mask names: by using the wildcard character (*), by using the placeholder character (%), and by using both together.

The wildcard (*) can be used in one of two ways to specify external file names:

- When coded as the only character of a search string, Endeavor returns all members of the search field. For example, if you coded the statement `ADD ELEMENT *`, all elements would be added.
- When coded as the last character of a search string, Endeavor returns all members of the search field beginning with the characters in the search string preceding the wildcard. For example, the statement `ADD ELEMENT UPD*` would add all elements beginning with "UPD", such as `UPDATED` or `UPDATE`.

Note: You cannot use more than one wildcard in a string. The statement `ADD ELEMENT U*PD*` would result in an error.

The placeholder (%) can also be used in one of two ways:

- When coded as the last character in a string, Endeavor returns all members of the search field, beginning with the characters in the search string preceding the placeholder, but which have no more characters than were coded in the search string. If you coded the statement `ADD ELEMENT UPD%`, only those elements with four-character-long names beginning with "UPD" (`UPD1` or `UPDA`, for example) would be added.
- It is also possible to use the placeholder multiple times in a single search string. The statement `ADD ELEMENT U%PD%` would return all elements with five-character-long names that have U as the first character, and PD third and fourth.

The wildcard and the placeholder can be used together, provided that the wildcard appears only at the end of the search string and is used only once. An example of a statement using both the wildcard and the placeholder is `ADD ELEMENT U%D*`. This statement would add elements with names of any length that have U as the first character and D as the third.

3.3 CONRPT80: Library Member Footprint Report

COPYRIGHT (C) COMPUTER ASSOCIATES INTL INC 2002											E N D E V O R 01/15/02	10:26:43	PAGE 1
LIBRARY: ENDEVOR RELEASE X.X SOFTWARE											CONRPT80: LIBRARY MEMBER FOOTPRINT REPORT	RELEASE X.X	SERIAL XXXNN
VOLUME: MVS043]-----] F O O T P R I N T -----]												
MEMBER	CSECT	ENVIRON	SYSTEM	SUBSYS	ELEMENT	TYPE	STG	VV.LL	DATE	TIME	LD		
BC1G3200	BC1G3200	QAPROD	MVSPROD	PDM	BC1G3200	ASMI PGMR	2	01.30	17APR01	20:12	* CSECT ZAPPED		
BC1G3300	BC1G3300	QAPROD	MVSPROD	PDM	BC1G3300	ASMI PGMR	2	01.11	17APR01	20:16	* CSECT ZAPPED		
BC1PEFLT	BC1PEFLT	QAPROD	MVSPROD	INTERNAL	BC1PEFLT	ASMI PGMR	2	01.13	17APR01	17:34			
	BSTPEILC	QAPROD	MVSPROD	NDVRXP	BSTPEILC	ASMXPMVS	2	01.01	16APR01	18:41			
BC1POR3I	BC1POR3I	QAPROD	MVSPROD	INTERNAL	BC1POR3I	ASMI PGMR	2	01.17	17APR01	17:50	* CSECT ZAPPED		
BSTPCOMP	BC1TTAPE	QAPROD	MVSPROD	INTERNAL	BC1TTAPE	ASMI PGMR	2	01.08	17APR01	18:21			
	BSTPCOMP	QAPROD	MVSPROD	NDVRXP	BSTPCOMP	ASMXPMVS	2	01.04	16APR01	18:40	* CSECT ZAPPED		
	BSTPMSET	QAPROD	MVSPROD	NDVRXP	BSTPESET	ASMXPMVS	2	01.01	16APR01	18:42			
	BSTPPARS	QAPROD	MVSPROD	NDVRXP	BSTPPARS	ASMXPMVS	2	01.03	16APR01	18:50			
	BSTPRCMP	QAPROD	MVSPROD	NDVRXP	BSTPRCMP	ASMXPMVS	2	01.00	16APR01	18:52			
	BSTPXCMP	QAPROD	MVSPROD	NDVRXP	BSTPXCMP	ASMXPMVS	2	01.02	16APR01	18:55	* CSECT ZAPPED		
CONMSGSP	BSTPEILC	QAPROD	MVSPROD	NDVRXP	BSTPEILC	ASMXPMVS	2	01.01	16APR01	18:41			
	CONMSGSP	QAPROD	MVSPROD	INTERNAL	CONMSGSP	ASMI PGMR	1	01.11	05NOV01	10:59	* CSECT ZAPPED		
CONMSGS1	CONMSGS1	QAPROD	MVSPROD	INTERNAL	CONMSGS1	ASMI PGMR	1	01.10	08NOV01	18:38	* CSECT ZAPPED		
C1BML010	BSTPPARS	QAPROD	MVSPROD	NDVRXP	BSTPPARS	ASMXPMVS	2	01.03	16APR01	18:50			
	C1BML010	QAPROD	MVSPROD	INTERNAL	C1BML010	ASMI PGMR	1	01.06	07NOV01	14:58	* CSECT ZAPPED		
	C1BMPOUT	QAPROD	MVSPROD	INTERNAL	C1BMPOUT	ASMI PGMR	2	01.01	17APR01	18:51			
C1BML020	C1BML020	QAPROD	MVSPROD	INTERNAL	C1BML020	ASMI PGMR	1	01.11	10NOV01	06:48	* CSECT ZAPPED		
C1BM2500	BSTPEILC	QAPROD	MVSPROD	NDVRXP	BSTPEILC	ASMXPMVS	2	01.01	16APR01	18:41			
	C1BM2500	QAPROD	MVSPROD	INTERNAL	C1BM2500	ASMI PGMR	2	01.14	17APR01	18:52	* CSECT ZAPPED		
C1BM3000	BC1PBM30	QAPROD	MVSPROD	INTERNAL	BC1PBM30	ASMI PGMR	1	01.01	25SEP01	12:27	* CSECT ZAPPED		
	BSTPMSET	QAPROD	MVSPROD	NDVRXP	BSTPESET	ASMXPMVS	2	01.01	16APR01	18:42			
	C1BM3000	QAPROD	MVSPROD	INTERNAL	C1BM3000	ASMI PGMR	2	01.23	17APR01	18:53	* CSECT ZAPPED		
	PROC DATA	QAPROD	MVSPROD	INTERNAL	C1BM3000	ASMI PGMR	2	01.23	17APR01	18:53	* CSECT ZAPPED		
C1GPPLOD	C1GPPLOD	QAPROD	MVSPROD	INTERNAL	C1GPPLOD	ASMI PGMR	2	01.08	17APR01	19:33	* CSECT ZAPPED		
	PROC DATA	QAPROD	MVSPROD	INTERNAL	C1GPPLOD	ASMI PGMR	2	01.08	17APR01	19:33			
C1GX0000	C1GX0000	QAPROD	MVSPROD	INTERNAL	C1GX0000	ASMI PGMR	2	01.41	17APR01	17:33	* CSECT ZAPPED		
C1SPPKGL	BSTPEILC	QAPROD	MVSPROD	NDVRXP	BSTPEILC	ASMXPMVS	2	01.01	16APR01	18:41			
	C1SPPKGL	QAPROD	MVSPROD	INTERNAL	C1SPPKGL	ASMI PGMR	1	01.05	05NOV01	11:02	* CSECT ZAPPED		
C1SSFFUN	C1SSFFUN	QAPROD	MVSPROD	INTERNAL	C1SSFFUN	ASMI PGMR	2	01.57	17APR01	19:08	* CSECT ZAPPED		
	C1SSFPGL	QAPROD	MVSPROD	INTERNAL	C1SSFPGL	ASMI PGMR	2	01.01	17APR01	19:10			
	C1SSFTYL	QAPROD	MVSPROD	INTERNAL	C1SSFTYL	ASMI PGMR	2	01.01	17APR01	19:20			

3.3.1 Content

CONRPT80 lists the footprint information stored in the members of a load or non-load library. For a load library, the footprint information is at the CSECT level. For a non-load library, it is at the member level.

Selection Statements	Sort Sequence	Page Break	Totals
REPORT 80	1. Member name 2. CSECT	None	None

3.3.2 Field Descriptions

Report Field	Description
Library and Volume	Data set name for the library being processed, and the volume number of the disk pack on which the library resides.
Member	Name of the (load or non-load) library member for which footprint information is shown to the right.
CSECT	Applicable for load members only. Name of the CSECT for which footprint information is shown to the right. If no footprint information displays to the right, the CSECT was not footprinted.
Environ	Name of the environment under which the corresponding element is defined.
System	Name of the system under which the corresponding element is defined.
Subsys	Name of the subsystem under which the corresponding element is defined.
Element	Name of the Endeavor element that corresponds to this CSECT (for a load member) or member (for a non-load member).
Type	Type for the element.
Stg	ID of the stage under which the corresponding element is defined.
VV.LL	Current version and level for the element.
Date	Generate processor date for the element (<i>ddMMMyy</i>).
Time	Generate processor time for the element (<i>hh:mm</i>).
LD	An entry of Y indicates that the footprint was created by the load utility. A blank (no entry) indicates that the footprint was created by a processor.

Report Field	Description
(no heading)	For CSECTs that were not footprinted, and for any CSECTs that had PTFs applied against them: *NO FOOTPRINT indicates that the member or CSECT was not footprinted. *CSECT ZAPPED indicates that the CSECT had at least one PTF applied.

3.4 CONRPT81: Library CSECT Listing

COPYRIGHT (C) COMPUTER ASSOCIATES INTL INC 2002 E N D E V O R 01/15/02 10:26:43 PAGE 1												
RELEASE X.X SERIAL XXXXXX												
CONRPT81: LIBRARY CSECT LISTING												
LIBRARY: ENDEVOR RELEASE X.X SOFTWARE												
VOLUME:												
CSECT	MEMBER	LINKED	COMPILED	ENVIRON	SYSTEM	SUBSYS	FOOTPRINT ELEMENT	TYPE	STG	VV.LL	DATE	TIME LD
BC1G3200	BC1G3200	17APR01	17APR01	QAPROD	MVSPROD	PDM	BC1G3200	ASMIPGMR	2	01.30	17APR01	20:12
BC1G3300	BC1G3300	17APR01	17APR01	QAPROD	MVSPROD	PDM	BC1G3300	ASMIPGMR	2	01.11	17APR01	20:16
BC1PBM30	C1BM3000	25SEP01	25SEP01	QAPROD	MVSPROD	INTERNAL	BC1PBM30	ASMIPGMR	1	01.01	25SEP01	12:27
BC1PEFLT	BC1PEFLT	17APR01	17APR01	QAPROD	MVSPROD	INTERNAL	BC1PEFLT	ASMIPGMR	2	01.13	17APR01	17:34
BC1POR3I	BC1POR3I	17APR01	17APR01	QAPROD	MVSPROD	INTERNAL	BC1POR3I	ASMIPGMR	2	01.17	17APR01	17:50
BC1TTAPE	BSTPCOMP	17APR01	17APR01	QAPROD	MVSPROD	INTERNAL	BC1TTAPE	ASMIPGMR	2	01.08	17APR01	18:21
BSTPCOMP	BSTPCOMP	17APR01	16APR01	QAPROD	MVSPROD	NDVRXP	BSTPCOMP	ASMXPMVS	2	01.04	16APR01	18:40
BSTPEILC	BC1PEFLT	17APR01	16APR01	QAPROD	MVSPROD	NDVRXP	BSTPEILC	ASMXPMVS	2	01.01	16APR01	18:41
	CONMSGSP	05NOV01	16APR01	QAPROD	MVSPROD	NDVRXP	BSTPEILC	ASMXPMVS	2	01.01	16APR01	18:41
	C1BM2500	17APR01	16APR01	QAPROD	MVSPROD	NDVRXP	BSTPEILC	ASMXPMVS	2	01.01	16APR01	18:41
	C1SPPKGL	05NOV01	16APR01	QAPROD	MVSPROD	NDVRXP	BSTPEILC	ASMXPMVS	2	01.01	16APR01	18:41
BSTPMSSET	BSTPCOMP	17APR01	16APR01	QAPROD	MVSPROD	NDVRXP	BSTPESET	ASMXPMVS	2	01.01	16APR01	18:42
	C1BM3000	25SEP01	16APR01	QAPROD	MVSPROD	NDVRXP	BSTPESET	ASMXPMVS	2	01.01	16APR01	18:42
BSTPPARS	BSTPCOMP	17APR01	16APR01	QAPROD	MVSPROD	NDVRXP	BSTPPARS	ASMXPMVS	2	01.03	16APR01	18:50
	C1BML010	07NOV01	16APR01	QAPROD	MVSPROD	NDVRXP	BSTPPARS	ASMXPMVS	2	01.03	16APR01	18:50
BSTPRCMP	BSTPCOMP	17APR01	16APR01	QAPROD	MVSPROD	NDVRXP	BSTPRCMP	ASMXPMVS	2	01.00	16APR01	18:52
BSTPXCMP	BSTPCOMP	17APR01	16APR01	QAPROD	MVSPROD	NDVRXP	BSTPXCMP	ASMXPMVS	2	01.02	16APR01	18:55
CONMSGSP	CONMSGSP	05NOV01	05NOV01	QAPROD	MVSPROD	INTERNAL	CONMSGSP	ASMIPGMR	1	01.11	05NOV01	10:59
CONMSGS1	CONMSGS1	08NOV01	08NOV01	QAPROD	MVSPROD	INTERNAL	CONMSGS1	ASMIPGMR	1	01.10	08NOV01	18:38
C1BML010	C1BML010	07NOV01	07NOV01	QAPROD	MVSPROD	INTERNAL	C1BML010	ASMIPGMR	1	01.06	07NOV00	14:58
C1BML020	C1BML020	10NOV01	10NOV01	QAPROD	MVSPROD	INTERNAL	C1BML020	ASMIPGMR	1	01.11	10NOV01	06:48
C1BMP0UT	C1BML010	07NOV01	17APR01	QAPROD	MVSPROD	INTERNAL	C1BMP0UT	ASMIPGMR	2	01.01	17APR01	18:51
C1BM2500	C1BM2500	17APR01	17APR01	QAPROD	MVSPROD	INTERNAL	C1BM2500	ASMIPGMR	2	01.14	17APR01	18:52
C1BM3000	C1BM3000	25SEP01	17APR01	QAPROD	MVSPROD	INTERNAL	C1BM3000	ASMIPGMR	2	01.23	17APR01	18:53
C1GPPL0D	C1GPPL0D	17APR01	17APR01	QAPROD	MVSPROD	INTERNAL	C1GPPL0D	ASMIPGMR	2	01.08	17APR01	19:33
C1GX0000	C1GX0000	17APR01	17APR01	QAPROD	MVSPROD	INTERNAL	C1GX0000	ASMIPGMR	2	01.41	17APR01	17:33
C1SPPKGL	C1SPPKGL	05NOV01	05NOV01	QAPROD	MVSPROD	INTERNAL	C1SPPKGL	ASMIPGMR	1	01.05	05NOV01	11:02
C1SSFFUN	C1SSFFUN	17APR01	17APR01	QAPROD	MVSPROD	INTERNAL	C1SSFFUN	ASMIPGMR	2	01.57	17APR01	19:08
C1SSFPGL	C1SSFFUN	17APR01	17APR01	QAPROD	MVSPROD	INTERNAL	C1SSFPGL	ASMIPGMR	2	01.01	17APR01	19:10
C1SSFTYL	C1SSFFUN	17APR01	17APR01	QAPROD	MVSPROD	INTERNAL	C1SSFTYL	ASMIPGMR	2	01.01	17APR01	19:20
PROCDA TA	C1BM3000	25SEP01	17APR01	QAPROD	MVSPROD	INTERNAL	C1BM3000	ASMIPGMR	2	01.23	17APR01	18:53
	C1GPPL0D	17APR01	17APR01	QAPROD	MVSPROD	INTERNAL	C1GPPL0D	ASMIPGMR	2	01.08	17APR01	19:33

3.4.1 Content

CONRPT81 lists the CSECTs in a particular load library, together with the corresponding member name and link-edit/compile dates. For those CSECTs that were footprinted, CONRPT81 also includes footprint information.

Selection Statements	Sort Sequence	Page Break	Totals
REPORT 81	1. CSECT 2. Member name	None	None

3.4.2 Field Descriptions

Report Field	Description
Library and Volume	Data set name for the library being processed, and the volume number of the disk pack on which the library resides.
CSECT	Name of the CSECT for which information is shown to the right.
Member	Name of the load member for the CSECT.
Linked	Date the load module was last link-edited with this CSECT (<i>ddMMMyy</i>).
Compiled	Date the load module was last compiled (<i>ddMMMyy</i>).
Environ	Name of the environment under which the corresponding element is defined.
System	Name of the system under which the element is defined.
Subsys	Name of the subsystem under which the element is defined.
Element	Name of the element that corresponds to this CSECT.
Type	Type for the element.
Stg	ID of the stage for the element.
VV.LL	Current version and level for the element.
Date	Generate processor date for the element (<i>ddMMMyy</i>).
Time	Generate processor time for the element (<i>hh:mm</i>).
LD	An entry of Y indicates that the footprint was created by the load utility. A blank (no entry) indicates that the footprint was created by a processor.
(no heading)	For CSECTs that were not footprinted, and for any CSECTs that had PTFs applied against them: *NO FOOTPRINT indicates that the member or CSECT was not footprinted. *CSECT ZAPPED indicates that the CSECT had at least one PTF applied.

3.5.2 Field Descriptions

Report Field	Description
Library and Volume	Data set name for the library being processed, and the volume number for the disk on which the library resides.
CSECT	Name of the CSECT for which information is shown to the right.
Member	Name of the load member of which the CSECT is a part.
Compiled	Date the load module was last compiled (<i>ddMMMyy</i>).
Linked	Date the load module was last link-edited with this CSECT (<i>ddMMMyy</i>).
Environ	Name of the environment under which the corresponding element is defined.
System	Name of the system under which the corresponding element is defined.
Subsys	Name of the subsystem under which the element is defined.
Element	Name of the Endeavor element that corresponds to this CSECT.
Type	Type for the element.
Stg	ID of the stage for the element.
VV.LL	Version and level of the element used to created this CSECT.
Date	Generate processor date for the element (<i>ddMMMyy</i>).
Time	Generate processor time for the element (<i>hh:mm</i>).
LD	An entry of Y indicates that the footprint was created by the load utility. A blank (no entry) indicates that the footprint was created by a processor.
Cnt	Number of PTFs (ZAPs) that were applied against the CSECT.
Date	Date on which the PTF identified by the Info field (to the right) was applied. One date is included for each PTF.

Report Field	Description
Info	IDRDATA assigned at the time the PTF was applied.

3.6 CONRPT83: Footprint Exception Report

```

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E N D E V O R 01/15/02 10:43:37 PAGE 00004
CONRPT83: FOOTPRINT EXCEPTION REPORT

LIBRARY: BST.XDVRC1S2.OBJLIB
VOLUME: MVS040
]----- F O O T P R I N T -----]]----- MASTER -----]
MEMBER CSECT ENVIRON SYSTEM SUBSYS ELEMENT TYPE STG VV.LL DATE TIME LD GEN/MSTR DATE MOVE/CMP DATE VV.LL MESSAGE
C1BR1000 BST NDVR250 INTERNAL C1BR1000 ASMIPGMR 2 01.05 27JAN01 16:17 27JAN01 16:17 11APR01 12:04 01.05 C1R023W
C1BR2000 BST NDVR250 INTERNAL C1BR2000 ASMIPGMR 2 01.12 03APR01 20:55 17APR01 19:07 17APR01 19:07 01.12 C1R023W
C1BR3000 BST NDVR250 INTERNAL C1BR3000 ASMIPGMR 2 01.10 03APR01 20:55 27JAN01 16:18 11APR01 12:05 01.10 C1R023W
C1BR3010 BST NDVR250 INTERNAL C1BR3010 ASMIPGMR 2 01.13 10FEB01 15:03 17APR01 19:08 17APR01 19:08 01.13 C1R024W
C1BR3020 BST NDVR250 INTERNAL C1BR3020 ASMIPGMR 2 01.06 24JAN01 12:24 Y 27JAN01 16:19 11APR01 12:06 01.06 C1R025W
C1BR3030 BST NDVR250 INTERNAL C1BR3030 ASMIPGMR 3 01.13 27JAN01 16:20 27JAN01 16:19 11APR01 12:06 01.06 C1R026W
C1BR3050 DEMO NDVR250 INTERNAL C1BR3050 ASMIPGMR 2 01.09 08MAR01 22:20 27JAN01 16:19 11APR01 12:06 01.06 C1R022W
C1BR4000 BST NDVR250 INTERNAL C1BR4000 ASMIPGMR 2 01.24 17APR01 19:18 27JAN01 16:21 27DEC01 17:07 01.24 C1R028W
THE FOLLOWING MESSAGES WERE RECEIVED:
C1R022W NO MCF ELEMENT MASTERS FOUND WHICH MATCH FOOTPRINT ID.
C1R023W THE FOOTPRINT DATE/TIME DOES NOT MATCH MCF LAST GENERATE OR MOVE DATE/TIME.
C1R024W THE FOOTPRINT DATE/TIME INDICATES ELEMENT FROM A PRIOR STAGE.
C1R025W THE FOOTPRINT DATE/TIME DOES NOT MATCH LAST LEVEL DATE/TIME.
C1R026W THE FOOTPRINT ENVIRONMENT/STAGE WAS NOT FOUND.
C1R028W THE FOOTPRINT DATE/TIME INDICATES ENV/STAGE MISMATCH.
    
```

3.6.1 Content

CONRPT83 lists those members or CSECTs (or both) of a library that either have no footprint information, or that have footprint information that was compromised. A compromise occurs if the footprint information is out of sync with the Endeavor Master Control File (MCF) for the corresponding element, or when the CSECT has been zapped.

To determine whether the footprint information is out of sync with the MCF, Endeavor compares the member or CSECT footprint against the corresponding element, within the environment and stage specified using the Selection Statements.

For each member or CSECT, a message is included to the far right. This message indicates the reason why the member or CSECT is included in the report.

Selection Statements	Sort Sequence	Page Break	Totals
REPORT 83	1. Member name	None	None
ENVIRONMENT	2. CSECT		

3.6.2 Field Descriptions

Report Field	Description
Library and Volume	Data set name for the library being processed, and the volume number of the disk pack on which the library resides.
CSECT	Applicable for load members only. Name of the CSECT for which either footprint information or the comment "* NO FOOTPRINT PRESENT" displays to the right.
Environ	Name of the environment under which the corresponding element is defined.
System	Name of the system under which the element is defined.
Subsys	Name of the subsystem under which the element is defined.
Element	Name of the element that corresponds to this CSECT (for a load member) or member (for a non-load member).
Type	Type for the element.
Stg	ID of the stage under which the corresponding element is defined.
VV.LL	Current version and level for the element.
Date	Generate processor date for the element (<i>ddMMMyy</i>).
Time	Generate processor time for the element (<i>hh:mm</i>).
LD	An entry of Y indicates that the footprint was created by the load utility. A blank (no entry) indicates that the footprint was created by a processor.
Gen/MSTR Date	Generate processor date for the element (<i>ddMMMyy</i>) from the Master Control File (MCF) for this member or CSECT.
MOVE/CMP Date	Move date for the element—and its associated component list, if there is one—(<i>ddMMMyy</i>) from the MCF file for this member or CSECT.
VV.LL	Current version and level for the element from the MCF file for this element or CSECT.

Report Field	Description
Message	Message number to describe why the member or CSECT is included in the report. The message numbers and meanings are described on the final page of this report.

3.7 Report JCL

3.7.1 Overview

This section provides sample report JCL (OS/390 and VSE/ESA) and EXECs (VM/ESA) used to run the Executable Module Footprint Report. Use the JCL (or EXEC) appropriate to your installation when running this report. Certain variable parameters, indicated by lowercase entries in the JCL or EXEC, must be changed to meet your particular requirements.

3.7.2 VSE/ESA JCL

```
* $$ JOB .....
* $$ .....
*
* BC1PXFPR: LIST FOOTPRINTS FROM PHASE LIBRARY
* --- SUPPLY PROPER VSE/POWER CONTROL CARDS ---
* --- AND ADJUST LIBDEF TO YOUR INSTALLATION ---
*
// JOB FOOTPRT
// LIBDEF PHASE,SEARCH=(bst.cilib,usr.cilib)
// EXEC BC1PXFPR,SIZE=100K
REPORT .
MEMBER = xxxxxxxx .
MEMBER = yyyyyyyy .
/*
/&
* $$ E0J
```

3.7.3 VM/ESA EXEC JCL

```
&TRACE OFF
*****VM/ESA *****
* EXEC TO RUN FOOTPRINT REPORT AGAINST CMS LOADLIB(S) *
* ARG 1 IS THE FILENAME OF THE LOADLIB TO REPORT AGAINST, *
* ARG 2 IS THE FILENAME OF THE CONTROL CARDS (FT=SYSIPT). *
*****
FILEDEF RPTLLIB DISK &1 LOADLIB *
GLOBAL LOADLIB BSTNDVR
FILEDEF SYSLST PRINT
FILEDEF SYSIPT DISK &2 SYSIPT A (LRECL 80 RECFM FB)
OSRUN BC1PXFPR
*
*****
* NOTE: FILE "&2 SYSIPT" SHOULD CONTAIN:
* +-----+
* REPORT .
* LOADLIB = RPTLLIB .
* MEMBER = xxxxxxxx .
* ... ETC ...
*****
```

3.7.4 OS/390 JCL

```
//XXXXXXXX JOB (..... PUT PROPER JOB CARD INFO HERE.
//*
//* BC1PXFPR: LIST FOOTPRINTS FROM LOAD LIBRARY
//* --- SUPPLY PROPER OS/390 JOB CARD INFO ---
//* --- AND ADJUST JOBLIB AS APPROPRIATE ---
//*
//JOB LIB DD DSN=iprfx.igual.CONLIB,DISP=SHR
//*
//* NOTE: REGION MUST BE SUFFICIENT FOR 120K+SIZE OF LARGEST MEMBER
//* TO REPORT ON.
//*
//R EXEC BC1PXFPR,REGION=500K
//*
//* MEMBERS WILL BE LOADED FROM HERE FOR REPORTING
//*
//RPTLIB DD DSN=your.appl.loadlib,DISP=SHR
//SYSLST DD SYSOUT=*
//SYSIPT DD *
REPORT .
LIBRARY = RPTLIB .
MEMBER = xxxxxxx .
MEMBER = yyyyyyy .
/*
```

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