

# CA Endeavor<sup>®</sup> Software Change Manager

## Footprint Synchronization Guide

Version 17.0.00



This Documentation, which includes embedded help systems and electronically distributed materials, (hereinafter referred to as the "Documentation") is for your informational purposes only and is subject to change or withdrawal by CA at any time.

This Documentation may not be copied, transferred, reproduced, disclosed, modified or duplicated, in whole or in part, without the prior written consent of CA. This Documentation is confidential and proprietary information of CA and may not be disclosed by you or used for any purpose other than as may be permitted in (i) a separate agreement between you and CA governing your use of the CA software to which the Documentation relates; or (ii) a separate confidentiality agreement between you and CA.

Notwithstanding the foregoing, if you are a licensed user of the software product(s) addressed in the Documentation, you may print or otherwise make available a reasonable number of copies of the Documentation for internal use by you and your employees in connection with that software, provided that all CA copyright notices and legends are affixed to each reproduced copy.

The right to print or otherwise make available copies of the Documentation is limited to the period during which the applicable license for such software remains in full force and effect. Should the license terminate for any reason, it is your responsibility to certify in writing to CA that all copies and partial copies of the Documentation have been returned to CA or destroyed.

TO THE EXTENT PERMITTED BY APPLICABLE LAW, CA PROVIDES THIS DOCUMENTATION "AS IS" WITHOUT WARRANTY OF ANY KIND, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NONINFRINGEMENT. IN NO EVENT WILL CA BE LIABLE TO YOU OR ANY THIRD PARTY FOR ANY LOSS OR DAMAGE, DIRECT OR INDIRECT, FROM THE USE OF THIS DOCUMENTATION, INCLUDING WITHOUT LIMITATION, LOST PROFITS, LOST INVESTMENT, BUSINESS INTERRUPTION, GOODWILL, OR LOST DATA, EVEN IF CA IS EXPRESSLY ADVISED IN ADVANCE OF THE POSSIBILITY OF SUCH LOSS OR DAMAGE.

The use of any software product referenced in the Documentation is governed by the applicable license agreement and such license agreement is not modified in any way by the terms of this notice.

The manufacturer of this Documentation is CA.

Provided with "Restricted Rights." Use, duplication or disclosure by the United States Government is subject to the restrictions set forth in FAR Sections 12.212, 52.227-14, and 52.227-19(c)(1) - (2) and DFARS Section 252.227-7014(b)(3), as applicable, or their successors.

Copyright © 2014 CA. All rights reserved. All trademarks, trade names, service marks, and logos referenced herein belong to their respective companies.

## CA Product References

This document references the following CA Technologies products:

- CA Endeavor® Software Change Manager (CA Endeavor SCM)
- CA Endeavor® Software Change Manager Footprint Synchronization (CA Endeavor Footprint Synchronization)

## Contact CA Technologies

### Contact CA Support

For your convenience, CA Technologies provides one site where you can access the information that you need for your Home Office, Small Business, and Enterprise CA Technologies products. At <http://ca.com/support>, you can access the following resources:

- Online and telephone contact information for technical assistance and customer services
- Information about user communities and forums
- Product and documentation downloads
- CA Support policies and guidelines
- Other helpful resources appropriate for your product

### Providing Feedback About Product Documentation

If you have comments or questions about CA Technologies product documentation, you can send a message to [techpubs@ca.com](mailto:techpubs@ca.com).

To provide feedback about CA Technologies product documentation, complete our short customer survey which is available on the CA Support website at <http://ca.com/docs>.

## Documentation Changes

The following documentation updates have been made since the last release of this documentation:

**Note:** In PDF format, page references identify the first page of the topic in which a change was made. The actual change may appear on a later page.

### Version 16.0

- [Library CSECT Listing Report](#) (see page 22)— Updated to change the version and level format to VVLL.
- [Library Zapped CSECT Profile Report](#) (see page 23)— Updated to change the version and level format to VVLL.
- [Footprint Exception Report](#) (see page 25)— Updated to change the version and level format to VVLL.

# Contents

---

<b>Chapter 1: Introduction</b>	<b>7</b>
Footprints.....	7
How Synchronizing Source and Executables Works.....	8
Source Information from Executables.....	9
How CA Endeavor SCM Stores Footprints.....	9
Footprints and Library Data Sets.....	9
Footprints and Sequential Object Data Sets .....	10
Footprints and Load Libraries .....	10
Footprints and PDS/E Load Libraries.....	10
Footprints and USS Directories .....	10
<b>Chapter 2: Installing and Using Remote Footprint Synchronization</b>	<b>11</b>
How to Install Remote Footprint Synchronization .....	11
How to Copy the C1DEFLT5 Table .....	12
How to Create CONLIB .....	12
How to Create the JCL Library.....	12
How to Use the Footprint Synchronization Facility.....	14
<b>Chapter 3: Footprint Reporting</b>	<b>15</b>
Footprint Report Information .....	15
How to Generate Footprint Reports .....	16
How to Specify Data Extract Phase Selection Criteria.....	17
Syntax Examples for Generating Footprint Reports.....	19
Name Masking .....	20
CONRPT80: Library Member Footprint Report .....	20
Library Member Footprint Report .....	20
CONRPT81: Library CSECT Listing .....	22
Library CSECT Listing Report .....	22
CONRPT82: Library Zapped CSECT Profile .....	23
Library Zapped CSECT Profile Report .....	23
CONRPT83: Footprint Exception Report .....	25
Footprint Exception Report.....	25
Executable Module Footprint Report - Sample JCL.....	27
VSE/ESA - Sample JCL.....	27
VM/ESA EXEC - Sample JCL.....	28
z/OS - Sample JCL .....	29



# Chapter 1: Introduction

---

This section contains the following topics:

[Footprints](#) (see page 7)

[Source Information from Executables](#) (see page 9)

[How CA Endeavor SCM Stores Footprints](#) (see page 9)

## Footprints

A *footprint* is a set of encrypted data placed by CA Endeavor SCM processors in generated source, object, or load modules. 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

**Note:** For more information about enabling the footprint capability, see the *Extended Processors Guide*.

## How Synchronizing Source and Executables Works

CA Endeavor SCM 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 doing the following:

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

### FOOTPRINT=VERIFY Statement

Including the FOOTPRINT=VERIFY statement in your processors automates footprint verification each time the processor runs.

**Note:** For more information about enabling this capability, see the *Extended Processors Guide*.

### Footprint Reports

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

#### **CONRPT80—Library Member Footprint Report**

Footprint information stored in the members of load and non-load libraries.

#### **CONRPT81—Library CSECT Listing**

CSECTs in a particular load library, along with corresponding member names and link-edit compile dates, and the footprint, if available.

#### **CONRPT82—Library Zapped CSECT Profile**

CSECTs that were zapped from a load library.

#### **CONRPT83—Footprint Exception Report**

Members, CSECTs, or load modules that either have no footprint or whose footprints were corrupted.

**Note:** For more information about footprints (including sample footprint reports), see the chapter [Footprint Reporting](#) (see page 15).

## Source Information from Executables

CA Endeavor SCM 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, CA Endeavor SCM 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.

**Note:** For more information about using footprints and the procedures and panels required to display source information from executables, see the chapter [Footprint Reporting](#) (see page 15).

## How CA Endeavor SCM Stores Footprints

CA Endeavor SCM stores footprints in:

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

**Note:** CA Endeavor SCM cannot footprint sequential source.

## Footprints and Library Data Sets

For a source or object data set stored in a PDS or a ELIB 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 a footprint library. Doing so overwrites the footprint, which results in future compromise messages such as C1G0118C.

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

- For the CA Endeavor SCM CA Librarian Interface, it is stored as a history record.
- For the CA Endeavor SCM for CA Panvalet Interface, it is stored as a COMMENT field.

## Footprints and 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 FOOTPRNT=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.

## Footprints and 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:** CA Endeavor SCM 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 footprint.

## Footprints and 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.

## Footprints and USS Directories

For source stored in an USS directory, the footprint associated with the source is placed in a 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 CA Endeavor SCM 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: Installing and Using Remote Footprint Synchronization

---

This section contains the following topics:

[How to Install Remote Footprint Synchronization](#) (see page 11)

[How to Copy the C1DEFLTS Table](#) (see page 12)

[How to Use the Footprint Synchronization Facility](#) (see page 14)

## How to Install Remote Footprint Synchronization

The Footprint Synchronization facility allows you to do the following:

- 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.

You need to install the Remote Footprint Synchronization facility available in CA Endeavor SCM. The installation consists of the following steps:

1. Creating a load library at the remote site that contains the footprint synchronization programs.
2. Creating and placing a copy of the C1DEFLTS table in the load library at the remote site.
3. 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.

## How to Copy the C1DEFLTS Table

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

If ASCM is enabled at your site, the C1DEFLTS table must be changed. Disable this facility by removing the ACMROOT and ACMXREF specified in the table and setting ASCM=N. Then reassemble and link the new C1DEFLTS table into the CONLIB created in the previous step. This change is required to prevent the remote footprint job from trying to allocate the ACMROOT and XREF files, which do not exist in the remote site.

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

## How to Create CONLIB

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

## How to Create the 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. This JCL must be customized to execute at each remote site.

**Note:** For more information about sample jobstreams, see [Sample JCL](#) (see page 13).

## Sample JCL

The sample JCL is provided in the *iprfx.igual.JCL* library on the installation cartridge. You need to customize each jobstream for your site.

Sample JCL is provided for the following programs:

### **BC1JFEXT**

The footprint extract program, which executes at the remote site and extracts footprints at the remote site.

### **BC1JFNDM**

The data transmission utility program for sites using the CONNECT:Direct data transmission utility. BC1JFNDM transmits the remote footprint synchronization utility footprint extract data set from the remote site to the central CA Endeavor SCM site.

### **BC1JFNTV**

The data transmission utility program for sites using the Tivoli NetView transmission utility. BC1JFNTV transmits the remote footprint synchronization utility footprint extract data set from the remote site to the central CA Endeavor SCM site.

### **BC1JFBDT**

The data transmission utility program for sites using the Bulk Data Transfer transmission utility. BC1JFBDT transmits the remote footprint synchronization utility footprint extract data set from the remote site to the central CA Endeavor SCM site.

### **BC1JFRPT**

The report generator program. BC1JFRPT generates the reports CONRPT80, CONRPT81, and CONRPT82 at the central site.

## BC1JFEXT

In the BC1JFEXT sample JCL, the analyze statement input refers to a coded ANALYZE statement.

**Note:** For more information about the coded ANALYZE statement, see the chapter [Footprint Reporting](#) (see page 15).

The BC1PFOOT executable program does not have to be called by an authorized program. However, if you are executing the non-authorized program, you must have the requisite security access to the CA Endeavor SCM data sets for the function requested. The caller's security profile must have sufficient CA Top Secret, CA ACF2, or RACF, access to the CA Endeavor SCM control files (catalog, master, package, base, delta), because the CA Endeavor SCM alternate ID facility is not available when running in an unauthorized mode.

If you want to call the footprint extract utility from a non-authorized program, specify the following:

```
EXEC PGM=BC1PF00T
```

## How to Use the Footprint Synchronization Facility

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 CA Endeavor SCM 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.

# Chapter 3: Footprint Reporting

---

This section contains the following topics:

[Footprint Report Information](#) (see page 15)

[How to Generate Footprint Reports](#) (see page 16)

[CONRPT80: Library Member Footprint Report](#) (see page 20)

[CONRPT81: Library CSECT Listing](#) (see page 22)

[CONRPT82: Library Zapped CSECT Profile](#) (see page 23)

[CONRPT83: Footprint Exception Report](#) (see page 25)

[Executable Module Footprint Report - Sample JCL](#) (see page 27)

## Footprint Report Information

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

The following are the Footprint reports:

### **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.

## How to Generate Footprint Reports

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 CA Endeavor SCM for CA Panvalet Interface library, or a CA Endeavor SCM CA Librarian Interface 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 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 CA Endeavor SCM you can extract footprint data about specified data sets by running the BC1JFEXT job. You can use BC1JFEXT alone to extract footprint data before editing and running the report JCL job BC1JRPTS. After running BC1JFEXT, you reference the data set created by BC1JFEXT in your report JCL syntax as shown below.

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

**Note:** When running BC1JFEXT 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 in the following section.

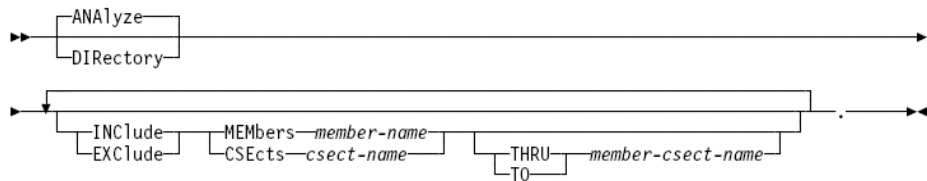
## How to Specify Data Extract Phase Selection Criteria

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

Using selection criteria, you define the members and CSECTs 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:



The following are the options for the syntax:

### ANALYZE/DIRECTORY

Indicates the level of detail you want to extract, as follows.

#### Specify ANALYZE (the default) to extract:

- 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.

#### Specify DIRECTORY to extract:

- 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 CA Endeavor SCM environment.
- For each load member, only the member name.

### **INCLUDE/EXCLUDE**

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.

Specify INCLUDE to extract information for only the members or CSECTs identified by the members/csects parameter. Specify EXCLUDE to exclude from the extract processing those members or CSECTs referenced by the members/csects parameter.

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.

### **MEMBERS *member-name* CSECT *csect-name***

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.

If your INCLUDE or EXCLUDE statements reference both members and CSECTs, all members statements are processed first, then all CSECTs statements.

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).

If you also supply a THRU or TO name, CA Endeavor SCM processes all members or CSECTs starting with the characters specified here through or to the THRU or TO name.

Following up on the previous example, if you specify "INCLUDE MEMBER BA\* THRU C", CA Endeavor SCM 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 previous statement, then the range would extend through all members having names beginning with C.

Similarly, if you specify "INCLUDE MEMBER BA\* TO C", CA Endeavor SCM will process all names beginning with BA to—but not including—the name C.

**THRU/TO *member-csect-name***

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.

**Note:** For more information see [Name Masking](#) (see page 20).

TO defines the member or CSECT name to which processing should go, excluding itself. A name mask is inappropriate (and is ignored) if it is used with a TO *member/csect-name*.

The use of the THRU/TO option is described above for the members/csects parameters.

Each time you run Footprint reports, CA Endeavor SCM returns a report that lists the selection criteria used and the number of extract records written.

## Syntax Examples for Generating Footprint Reports

The following are the examples for generating footprint reports:

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*.
```

- 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*.
```

**Note:** Remember that where CSECT detail is included in a footprint report, that detail is available only if you specify ANALYZE to the Data Extract phase.

## Name Masking

To help you more easily find information and process requests, you can use *name masking*. By substituting a name with the asterisk wildcard character (\*), a character with the percent sign placeholder (%), or by using both together, it is much faster and easier to find information and process requests.

**Note:** For more information about name masking, see the *User Guide*.

## CONRPT80: Library Member Footprint Report

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
REPORT80	1.CSECT 2.Member name	None	None

## Library Member Footprint Report

The following options are shown in the Library Member Footprint Report:

### 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 CA Endeavor SCM 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.

**VVLL**

Current version and level for the element.

**Date**

Generate processor date for the element (ddMMMy).

**Time**

Generate processor time for the element (hh:mm).

**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.

## CONRPT81: Library CSECT Listing

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
REPORT81	1.CSECT 2.Member name	None	None

### Library CSECT Listing Report

The following options are shown in the Library CSECT Listing Report:

**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 (ddMMMy).

**Compiled**

Date the load module was last compiled (ddMMMy).

**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.

**VVLL**

Current version and level for the element.

**Date**

Generate processor date for the element (ddMMMyy).

**Time**

Generate processor time for the element (hh:mm).

**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.

## CONRPT82: Library Zapped CSECT Profile

CONRPT82 lists those CSECTs from a particular load library that were zapped. For each CSECT listed, the report includes footprint information similar to that in Report 81, as well as the date and IDRDATA for each PTF applied.

Selection Statements	Sort Sequence	Page Break	Totals
REPORT82	1.CSECT 2.Member name	None	None

### Library Zapped CSECT Profile Report

The following options are shown in the Library Zapped CSECT Profile Report:

**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 (ddMMMyy).

**Linked**

Date the load module was last link-edited with this CSECT (ddMMMyy).

**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 CA Endeavor SCM element that corresponds to this CSECT.

**Type**

Type for the element.

**Stg**

ID of the stage for the element.

**VLL**

Version and level of the element used to create this CSECT.

**Date**

Generate processor date for the element (ddMMMyy).

**Time**

Generate processor time for the element (hh:mm).

**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.

**Info**

IDRDATA assigned at the time the PTF was applied.

## CONRPT83: Footprint Exception Report

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 CA Endeavor SCM 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, CA Endeavor SCM 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
REPORT83	1.Member name	None	None
ENVIRONMENT	2.CSECT		

### Footprint Exception Report

The following options are shown in the Footprint Exception Report:

**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.

**VVLL**

Current version and level for the element.

**Date**

Generate processor date for the element (ddMMMyy).

**Time**

Generate processor time for the element (hh:mm).

**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 (ddMMMyy) 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—(ddMMMyy) from the MCF file for this member or CSECT.

**VVLL**

Current version and level for the element from the MCF file for this element or CSECT.

**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.

## Executable Module Footprint Report - Sample JCL

This section provides sample report JCL (z/OS 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.

### VSE/ESA - Sample 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
```

## VM/ESA EXEC - Sample 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 BC1PXFP
*
*****
* NOTE: FILE "&2. SYSIPT" SHOULD CONTAIN:
* +-----+
* REPORT .
* LOADLIB = RPTLLIB .
* MEMBER = xxxxxxxx .
* ... ETC ...
*****
```

## z/OS - Sample 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 ---
/*
/*JOBLIB DD DSN=iprfx.igual.CSIQLOAD,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 = xxxxxxxx .
MEMBER = yyyyyyyy .
/*
```



# Index

---

## B

BC1JFEXT JCL sample • 13  
BSTIPT DD statement • 17

## C

C1DEFLTS table, copying • 12  
CONLIB, creating • 12  
CONRPT80 • 8, 20  
CONRPT81 • 8, 22  
CONRPT82 • 8, 23  
CONRPT83 • 8, 25

## D

Data extract phase selection criteria • 17

## F

Footprint Exception report • 8, 25  
FOOTPRNT=VERIFY statement • 8

## J

JCL library, creating • 12  
JCL samples  
    BC1JFEXT • 13

## L

Library CSECT Listing report • 8, 22  
Library data sets, storing footprints in • 9  
Library Member Footprint report • 8, 20  
Library Zapped CSECT Profile report • 8, 23  
Load libraries, storing footprints in • 10

## P

PDS/E load libraries, storing footprints in • 10

## R

### Reports

    Footprint Exception, CONRPT83 • 8, 25  
    Library CSECT Listing, CONRPT81 • 8, 22  
    Library Member Footprint, CONRPT80 • 8, 20  
    Library Zapped CSECT Profile, CONRPT82 • 8, 23

## S

Sequential object data sets, storing footprints in • 10  
Statements  
    BSTIPT DD • 17  
    FOOTPRNT=VERIFY • 8  
Storing footprint information  
    CA Endeavor SCM CA Panvalet Interface • 9  
    for CA Endeavor SCM CA Librarian Interface • 9