

Call Statistics

The Call Statistics function can be used to obtain statistical information on which Natural objects were invoked during the execution of an application, and information on how often an object was invoked. Call statistics are deleted after resetting the debug environment.

To invoke the Call Statistics Maintenance function

- On the Debug Main Menu enter Function Code **C**.
Or enter the direct command **CS**.

The Call Statistics Maintenance screen is displayed which provides the following functions:

- Set Test Mode ON/OFF
(see the relevant section)
- Set Call Statistics ON/OFF
- Display All Objects
- Display Called Objects
- Display Non-Called Objects
- Print All Objects
- Print Called Objects
- Print Non-Called Objects

The print functions above are described under Print Objects below.

Set Call Statistics ON/OFF

When executing a Natural object with Call Statistics ON, all calls made to a specific object are counted and the resulting statistics can afterwards be displayed or printed.

To activate or deactivate Call Statistics

- On the Call Statistics Maintenance menu enter Function Code **C** to activate and deactivate.
Or enter the direct command SET CALL ON or SET CALL OFF.

Display All Objects

The Display Call Statistics screen provides an overview of the call frequency of the objects in your current library.

To display all objects of a library

- On the Display Call Statistics Maintenance screen, enter Function Code **1** and a library name.
Or enter the direct command DISPLAY OBJECT *library*
(see also the syntax of DISPLAY in Command Summary and Syntax).
If you do not specify a library name, the library where you are currently logged on is assumed by default.

The Display Call Statistics screen lists all objects in your current library and indicates their call frequency in the Calls column on the right-hand side. For each call statement, such as FETCH or CALLNAT, an entry with the name of the object and a counter variable is written into the debug buffer. The counter is then increased for each call of the corresponding object.

For an example screen, see Display Called Objects below.

Display Called Objects

The Display Called Objects screen corresponds to the Display Call Statistics screen, but only the objects that have been invoked are displayed.

To display called objects of a library

- On the Call Statistics Maintenance menu, enter Function Code **2** and a library name.
Or enter the direct command `DISPLAY CALL library`
(see also the syntax of `DISPLAY` in Command Summary and Syntax).
The Display Called Objects screen appears:

16:06:53		***** NATURAL TEST UTILITIES *****						2002-02-15		
Test mode ON		- Display Called Objects -						Object		
Object	Library	Type	DBID	FNR	S/C	Ver	Cat	Date	Time	All Calls
*_____	SAG_____									
MAINPGM	SAG	Program	10	32	S/C	3.1		2002-02-15	11:51	1
SUBPGM	SAG	Subprogram	10	32	S/C	3.1		2002-02-15	11:50	3
EMP-PGM	SAG	Program	10	32	S/C	3.1		2002-01-22	11:49	2
EMPLIND	SAG	Program	10	32	S/C	3.1		2001-08-13	11:18	1

If you do not specify a library name, the library where you are currently logged on is assumed by default.

Display Non-Called Objects

The Display Non-Called Objects screen corresponds to the Display Call Statistics screen, but only the objects that have **not** been invoked are displayed.

To display non-called objects

- On the Call Statistics Maintenance menu, enter Function Code **3** and a library name.
Or enter the direct command `DISPLAY NOCALL library`
(see also the syntax of `DISPLAY` in Command Summary and Syntax).

If you do not specify a library name, the library where you are currently logged on is assumed by default.

For an example screen, see Display Called Objects above.

Print Objects

With the print functions, you can directly route a generated list of call statistics to a printer.

If you do not specify a library name, the library where you are currently logged on is assumed by default.

As listed under Print Options below, to invoke one of the print functions, you can either enter a function code on the Call Statistics Maintenance menu, or enter a direct command:

Print Options

Print Function	Function Code	Direct Command
All Objects	4	PRINT OBJECT <i>library</i> .
Called Objects	5	PRINT CALL <i>library</i> .
Non-Called Objects	6	PRINT NOCALL <i>library</i> .

See also the syntax of PRINT in Command Summary and Syntax.