

Invoking and Operating SYSBPM

The functions of the SYSBPM utility always refer to Natural programming objects currently loaded in the Natural buffer pool and/or BP cache. Note that the buffer pool or BP cache only contains executed Natural programming objects that have been stowed or cataloged. Objects executed with the RUN command are not loaded into the buffer pool or BP cache.

The SYSBPM utility is menu-driven. You can use a function code, SYSBPM direct commands (see the relevant section) and a PF key to perform a specific function.

This section describes how to invoke the SYSBPM utility, obtain online help text and select functions by using the SYSBPM Main Menu. The functions are described in detail in the relevant sections of the SYSBPM documentation.

In addition, information is provided on the use of SYSBPM in a Sysplex environment.

The following topics are covered below:

- Invoking SYSBPM
- Online Help
- SYSBPM Main Menu - Fields and Functions
- SYSBPM in a Sysplex Environment

Invoking SYSBPM

 **To invoke the SYSBPM utility**

- In the command line, enter the system command SYSBPM.

The SYSBPM Main Menu is displayed:

```

16:12:23          ***** NATURAL SYSBPM UTILITY *****          2002-08-27
BPNAME QA41GBP          - Main Menu -          Type Global Nat
BPPROP OFF          Loc DAEF QA41
          Preload QA41GBPL

          Object Functions          Object Pool Statistics

L List Objects          A Buffer Pool
D Delete Object          C BP Cache
I Directory Information
H Hexadecimal Display          Other Functions
W Write to work file          S Select Buffer Pool
X Display sorted extract          B Blacklist Maintenance
? Help          P Preload List Maintenance
. Exit

Code .. _ Library ... *_____
Object .... *_____
DBID ..... 0_____ FNR .. 0_____ Object Pool ... B (B,C,*)

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
          Help          Exit Last          Flip          Canc
    
```

- On the SYSBPM Main Menu, specify the executed object(s) loaded in the buffer pool or BP cache by choosing either of the options below:
 - Complete the input fields as described in SYSBPM Main Menu - Fields and Functions below.
 - Or, in the command line, enter a SYSBPM direct command as described in SYSBPM Direct Commands.

Online Help

The online help function of SYSBPM provides information on all input fields that appear in any SYSBPM screen.

To invoke the online help function for a SYSBPM input field

- On any SYSBPM screen, position the cursor in any input field and press PF1 or enter a question mark (?).

The Help window appears for the relevant field with a list of all valid input values.

SYSBPM Main Menu - Fields and Functions

Below is information on:

- Fields
- Functions

Fields

Listed below are the fields displayed on the SYSBPM Main Menu:

Code	Fields	Explanation						
	BPNAME	The name of the global buffer pool as specified with the profile parameter BPNAME. For a local buffer pool, no name but a blank field is displayed for BPNAME. See also BPNAME in the Natural Parameter Reference documentation.						
	BPPROP	The setting of the profile parameter BPPROP to control the propagation of changes to an object in a buffer pool. See also BPPROP in the Natural Parameter Reference documentation.						
	Type	The type of buffer pool, such as Global Nat, Local Nat, Global Sort or Global DL/I.						
	Loc	The location. Displays the host ID (in the example screen above: DAEF) and the subsystem ID (in the example screen above: QA41).						
	Preload	The name of a preload list, if loaded. See also Preload List Maintenance.						
	Library	The name of the library where the executed object is stored. You can specify a name or use asterisk (*) notation. The default, asterisk (*), selects all libraries.						
	Object	The name of the executed object loaded in the buffer pool. You can specify a name or use asterisk (*) notation. The default, asterisk (*), selects all objects.						
	DBID/FNR	The database ID (DBID) and file number (FNR) of the system file FNAT or FUSER where the executed object is stored and from where it is loaded. If you specify 0 (this is the default) as DBID or FNR, the specified object(s) will be selected regardless of their DBID and FNR. Any value other than 0 represents a particular DBID or FNR specification.						
	Object Pool	Applies to the functions L , I , W or X as described below. Selects the type of object pool(s) for applying any of the functions listed above: <table style="margin-left: 40px;"> <tr> <td style="padding-right: 20px;">B</td> <td>Buffer pool. This is the default.</td> </tr> <tr> <td>C</td> <td>BP cache.</td> </tr> <tr> <td>*</td> <td>Both buffer pool and BP cache.</td> </tr> </table>	B	Buffer pool. This is the default.	C	BP cache.	*	Both buffer pool and BP cache.
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Functions

The functions provided on the SYSBPM Main Menu are organized in three sections:

- The Object Functions section contains functions for displaying or manipulating objects in the buffer pool or BP cache.
- The Object Pool Statistics section contains functions for obtaining object-independent statistical data on the buffer pool or BP cache including hash tables. Object-independent data do not include any individual information on the object, such as object name, size or addresses.
- The Other Functions section contains functions for selecting a buffer pool and for specifying the objects to be loaded into the buffer pool or BP cache.

The individual functions are listed below. You invoke a function by entering in the Code field the code that corresponds to the function desired:

Code	Function	Explanation
L	List Objects	Displays information on the objects loaded in the buffer pool and/or the BP cache (if used). Each list item can be accessed individually and various functions can be performed for each object.
D	Delete Objects	Deletes one or more objects from the buffer pool and the BP cache.
I	Directory Information	Displays the full directory information of a specified object loaded in the buffer pool or the BP cache.
H	Hexadecimal Display	Displays in hexadecimal format a specified object loaded in the buffer pool.
W	Write to Work File	Writes to a local file or a PC text file the object directory information located in the buffer pool and/or BP cache.
X	Display Sorted Extract	Displays a sorted list of 50 object directories located in the buffer pool or BP cache. The list items can be arranged by using any of the sort criteria provided.
A	Buffer Pool Statistics	Invokes the BP Statistics Main Menu. From this menu, you can invoke object-independent statistics functions for the buffer pool including hash table statistics.
C	BP Cache Statistics	BP cache required. Invokes the BP Cache Statistics Main Menu. From this menu, you can invoke object-independent statistics functions for the BP cache including hash table statistics.
S	Select Buffer Pool	Displays a selection list of all available buffer pools.
B	Blacklist Maintenance	Invokes the Blacklist Maintenance menu which is used to maintain a blacklist of objects which are not to be executed.
P	Preload List Maintenance	Invokes the Preload List Maintenance menu. In a preload list, you can specify the names of objects which are to be loaded into the buffer pool when the buffer pool is initialized.

SYSBPM in a Sysplex Environment

Whenever Natural switches to another operating system image (host), Natural also switches buffer pools. A switch of buffer pools is indicated by a different host ID which is displayed in the Loc field of the SYSBPM screen.

Switching can take place after each terminal I/O, that is, after choosing any function key or by choosing ENTER. After switching buffer pools, browsing and positioning functions will not be executed (top, bottom, +, -, left, right). Instead, the list starts from the top of the new buffer pool.

If the BPPROP profile parameter (see the relevant section in the Natural Parameter Reference documentation) is set to PLEX or to GPLEX, SYSBPM commands, such as manipulating blacklists, deleting objects or initializing the buffer pool are first executed as usual, and then propagated to other buffer pools available on the same subsystem. If a BP switch caused a function to be aborted or propagated, a corresponding message is issued. A corresponding message also appears if Natural has successfully switched to another host and changed buffer pools.