

Command Summary and Syntax

This section describes all debugger commands that directly execute debug functions or navigate in debugger screens.

For an explanation of more complex command structures with user-defined operands, see *Syntax Diagrams* below.

This section covers the following topics:

- All Debug Commands
- Syntax Diagrams

All Debug Commands

The debug commands listed in the table below can be entered in the command line of any debugger screen. An underlined portion of a debug command or subcommand represents its minimum abbreviation.

Command	Subcommand(s)	Explanation
-		Scrolls one page down in a list.
--		Scrolls to the beginning of a list.
TOP		
+		Scrolls one page down in a list.
++		Scrolls to the end of a list.
<u>B</u> OTTOM		
<u>A</u> CTIVATE (syntax below)	BREAKPOINT or BP	Activates breakpoints as described in <i>Breakpoint Maintenance</i> .
	<u>S</u> PY	Activates breakpoints <i>and</i> watchpoints: see also Activate Spy in <i>Spy Maintenance</i> .
	WATCHPOINT or WP	Activates watchpoints as described in <i>Watchpoint Maintenance</i> .
BM		Invokes the Breakpoint Maintenance menu described in <i>Breakpoint Maintenance</i> .
BREAK		Displays the Debug Break window: see also BREAK in <i>Navigation and Information Commands</i> .
<u>C</u> ANCEL		Cancels the current operation and/or exits screens without saving modifications.

Command	Subcommand(s)	Explanation
DBLOG	A or Q or D	Invokes the DBLOG utility (see the <i>Utilities</i> documentation) from within the debugger. To specify a database environment, use one of the subcommands: <ul style="list-style-type: none"> ● A = Adabas (this is the default) ● Q = SQL ● D = DL/I <p>Note: During a debug interrupt, you can only specify one of the subcommands listed above.</p>
DEACTIVATE or DA (syntax below)	BREAKPOINT or BP <u>SPY</u> WATCHPOINT or WP	Deactivates breakpoints as described in <i>Breakpoint Maintenance</i> . Deactivates breakpoints <i>and</i> watchpoints: see also <i>Deactivate Spy</i> . Deactivates watchpoints as described in <i>Watchpoint Maintenance</i> .
<u>DELETE</u> (syntax below)	BREAKPOINT or BP <u>SPY</u> WATCHPOINT or WP <u>ENVIRONMENT</u>	Deletes breakpoints as described in <i>Breakpoint Maintenance</i> . Deletes breakpoints <i>and</i> watchpoints: see also <i>Delete Spy</i> . Deletes watchpoints as described in <i>Watchpoint Maintenance</i> . Deletes the specified debug environment: see also <i>Delete Debug Environment</i> .

Command	Subcommand(s)	Explanation
<u>D</u> ISPLAY (syntax below)	BREAKPOINT or BP	Displays breakpoints as described in <i>Breakpoint Maintenance</i> .
	<u>S</u> PY	Displays breakpoints <i>and</i> watchpoints: see also <i>Display Spy</i> .
	WATCHPOINT or WP	Displays watchpoints as described in <i>Watchpoint Maintenance</i> .
	CALL	Displays statistics on Natural objects invoked during the execution of an application: see also <i>Display Called Objects</i> .
	<u>E</u> XEC	Displays statistics on executed statement lines of invoked Natural objects: see also <i>Display Executed Statement Lines</i> .
	<u>H</u> EXADECIMAL	Displays the contents of variables in hexadecimal format.
	<u>N</u> OCALL	Displays statistics on Natural objects that have not been invoked during the execution of an application: see also <i>Display Non-Called Objects</i> .
	<u>N</u> OEXEC	Displays statistics on non-executed statement lines of invoked Natural objects: see also <i>Display Non-Executed Statement Lines</i> .
	<u>O</u> BJECT	Displays statistics on the call frequency of objects: see also <i>Display All Objects</i> .
	<u>S</u> TATEMENT	Display statistics on executed and non-executed statement lines of invoked Natural objects: see <i>Display All Statement Lines</i> .
	<u>V</u> ARIABLE	Displays variables for interrupted Natural objects as described in <i>Variable Maintenance</i> .
	<u>X</u> STATISTICS	Displays a statistical summary of execution statistics: see also <i>Display Statement Execution Statistics</i> .
	<u>E</u> M		Invokes the Debug Environment Maintenance menu described in Debug Environment Maintenance.
<u>E</u> SCAPE	<u>B</u> OTTOM	Stops processing a loop and escapes to the first statement after the loop: see ESCAPE BOTTOM in <i>Execution Control Commands</i> .
	<u>R</u> OUTINE	Stops processing an interrupted Natural object and continues with another object, if available: see ESCAPE ROUTINE in <i>Execution Control Commands</i> .
<u>E</u> XIT		Leaves the current screen: see EXIT in <i>Execution Control Commands</i> .

Command	Subcommand(s)	Explanation
<u>F</u> LIP		Switches between the display of the two PF-key lines (PF1 to PF12 and PF13 to PF24).
<u>G</u> O		Returns control to the execution of the interrupted Natural object: see <i>GO</i> in <i>Execution Control Commands</i> .
LAST		Displays the command entered last. The last three commands are stored and can be recalled.
<u>L</u> LEFT		Shifts to the left side of a source code listing.
<u>L</u> IST		Displays the source code of a object.
(syntax below)	<u>B</u> REAK	Shows the object source with the current break. The relevant statement line is highlighted.
	<u>L</u> ASTLINE	Shows the object source with the last line executed before the current break.
<u>L</u> OAD	<u>E</u> NVIRONMENT	Loads the debug environment specified: see <i>Load Debug Environment</i> .
(syntax below)		
<u>M</u> ENU		Invokes the Debug Main Menu .
<u>M</u> ODIFY	BREAKPOINT	Modifies breakpoints as described in <i>Breakpoint Maintenance</i> .
(syntax below)	or	
	BP	
	<u>S</u> PY	Invokes the Modify Breakpoint or Modify Watchpoint screen: see also <i>Modify Spy</i> in <i>Spy Maintenance</i> .
	WATCHPOINT	Modifies watchpoints as described in <i>Watchpoint Maintenance</i> .
	or	
	WP	
	<u>H</u> EXADECIMAL	Modifies the contents of variables in hexadecimal format.
	<u>V</u> ARIABLE	Invokes the Display Variable screen for modification as described in <i>Modify Variable</i> .
<u>N</u> EXT		Executes the next command specified for a breakpoint or watchpoint.
<u>O</u> BJCHAIN		Displays executed objects at various program levels: see <i>OBJCHAIN</i> in <i>Navigation and Information Commands</i> .
ON		Switches test mode on or off. See also <i>Switching Test Mode on and Off</i> .
or		
OFF		

Command	Subcommand(s)	Explanation
<u>P</u> RINT (syntax below)	<u>C</u> ALL	Prints statistics on Natural objects invoked during the execution of an application: see also <i>Display Called Objects</i> .
	<u>E</u> XC	Prints statistics on executed statement lines of invoked Natural objects: see also <i>Display Executed Statement Lines</i> .
	<u>N</u> O <u>C</u> ALL	Prints statistics on Natural objects that have not been invoked during the execution of an application: see also <i>Display Non-Called Objects</i> .
	<u>N</u> O <u>E</u> XC	Prints statistics on non-executed statement lines of invoked Natural objects: see also <i>Display Non-Executed Statement Lines</i> .
	<u>O</u> B <u>J</u> E <u>C</u> T	Prints statistics on the call frequency of objects: see also <i>Display All Objects</i> .
	<u>S</u> T <u>A</u> T <u>E</u> M <u>E</u> N <u>T</u>	Prints statistics on executed and non-executed statement lines of invoked Natural objects: see also <i>Display All Statement Lines</i> .
	<u>X</u> S <u>T</u> A <u>T</u> I <u>S</u> T <u>I</u> C <u>S</u>	Prints statistics on executed statement lines: see also <i>Display Statement Execution Statistics</i> .
<u>P</u> R <u>O</u> F <u>I</u> L <u>E</u>		Displays the User Profile screen where you can modify the profile of the debugger as described in <i>Navigation and Information Commands</i> .
<u>R</u> E <u>S</u> E <u>T</u> (syntax below)	<u>E</u> N <u>V</u> I <u>R</u> O <u>N</u> M <u>E</u> N <u>T</u>	Resets the current debug environment: see <i>Reset Debug Environment</i> .
<u>R</u> I <u>G</u> H <u>T</u>		Shifts to the right side of a source code listing.
<u>R</u> U <u>N</u>		Switches off test mode and continues program execution.
<u>S</u> A <u>V</u> E (syntax below)	<u>E</u> N <u>V</u> I <u>R</u> O <u>N</u> M <u>E</u> N <u>T</u>	Resets the current environment and saves the debug specifications. See also <i>Save Debug Environment</i> .
<u>S</u> C <u>A</u> N	<u>A</u> B <u>S</u>	Only applies when using the function List object source (see <i>List Object Source</i>). Searches for a value in the source code of an object: see <u>S</u> C <u>A</u> N in <i>Navigation and Information Commands</i> and <i>Syntax Diagrams</i> below.
<u>S</u> C <u>R</u> E <u>E</u> N		When entered upon interruption of an object, displays the current screen output of the interrupted Natural object. <u>E</u> N <u>T</u> E <u>R</u> takes you back to debug mode.

Command	Subcommand(s)	Explanation
<u>SET</u> (syntax below)	BREAKPOINT or BP	Invokes the Set Breakpoint screen described in <i>Breakpoint Maintenance</i> .
	CALL ON or CALL OFF	Activates or deactivates call statistics as described in <i>Call Statistics Maintenance</i> .
	<u>OBJECT</u>	Changes the default object specified for the debugger. See also SET OBJECT in <i>Navigation and Information Commands</i> .
	WATCHPOINT or WP	Invokes the Set Watchpoint screen described in <i>Watchpoint Maintenance</i> .
	<u>XSTATISTICS</u> ON or <u>XSTATISTICS</u> COUNT or <u>XSTATISTICS</u> OFF	Activates (ON or COUNT) deactivates (OFF) the statement execution statistics as described in <i>Set Statement Execution Statistics</i> .
SM		Invokes the Spy Maintenance menu described in <i>Spy Maintenance</i> .
<u>STACK</u>		Displays the contents of the entry at the top of the Natural stack: see STACK in <i>Navigation and Information Commands</i> .
<u>STEP</u>	[<i>n</i>]	Continues an interrupted Natural object for the number (<i>n</i>) of executable statements specified with the command. If you do not specify <i>n</i> , one executable statement is skipped by default. See also STEP in <i>Execution Control Commands</i> .
	<u>SKIPSUBLEVEL</u> [<i>n</i>]	Continues step-mode processing of Natural objects without entering programs at sub-levels. You can specify a level number (<i>n</i>). See also SKIPSUBLEVEL in <i>Execution Control Commands</i> .
<u>STOP</u>		Terminates both the debugger and any interrupted Natural object; the NEXT prompt appears.
<u>SYSVARS</u>		Displays the current values of a limited set of system variables (except the database-related system variables). See also <i>Display Variables</i> .

Command	Subcommand(s)	Explanation
<u>TEST ON</u> or <u>TEST OFF</u>		Switches test mode on or off. See also <i>Switching Test Mode on and Off</i> .
WM		Invokes the Watchpoint Maintenance menu described in <i>Watchpoint Maintenance</i> .

Syntax Diagrams

The syntax diagrams listed below refer to more complex command sequences.

For detailed explanations of the symbols used within the syntax descriptions, see the section *System Command Syntax* in the *System Commands* documentation.

For better readability, synonymous keywords are omitted from the syntax diagrams below. An underlined portion of a keyword represents an acceptable abbreviation.

Valid synonyms are:

Keyword	Synonym
BREAKPOINT	BP
DEACTIVATE	DA
WATCHPOINT	WP

This section covers the following topics:

- ACTIVATE
- DEACTIVATE
- DELETE
- DISPLAY
- LIST
- LOAD
- MODIFY
- PRINT
- RESET
- SAVE

- SET

ACTIVATE

ACTIVATE	{	SPY	[	{	<i>name</i>	}]]
					<i>number</i>			
		BREAKPOINT	[	<i>object</i>	]	[	<i>line</i>]
		WATCHPOINT	[	[	<i>object</i>	]	<i>variable</i>]
	}							}

DEACTIVATE

DEACTIVATE	{	SPY	[	{	<i>name</i>	}]]
					<i>number</i>			
		BREAKPOINT	[	<i>object</i>	]	[	<i>line</i>]
		WATCHPOINT	[	[	<i>object</i>	]	<i>variable</i>]
	}							}

DELETE

DELETE	{	SPY	[	{	<i>name</i>	}]]		
					<i>number</i>					
				BREAKPOINT	[<i>object</i>]	[<i>line</i>]
				WATCHPOINT	[[<i>object</i>]	<i>variable</i>]
				XSTATISTICS	[[<i>library</i>]	<i>object</i>]
		ENVIRONMENT	[	<i>name</i>]]		
	}							}		

DISPLAY

DISPLAY	SPY	[{ <i>name</i> }]	}
		[<i>number</i>]	
	BREAKPOINT	[<i>object</i>] [<i>line</i>]	
	WATCHPOINT	[[<i>object</i>] <i>variable</i>]	
	CALL	[<i>library</i> [<i>object</i>]]	
	OBJECT		
	NOCALL		
	XSTATISTICS		
	STATEMENT		
	EXEC		
	NOEXEC		
	VARIABLE	[<i>variable-name</i> [<i>index-specification</i>], ...]	
	HEXADECIMAL		

LIST

LIST	LASTLINE	}
	BREAK	
	[<i>object</i>] [<i>line</i>]	

LOAD

LOAD ENVIRONMENT [<i>name</i>]

MODIFY

MODIFY	SPY	[{ <i>name</i> }]	}
		[<i>number</i>]	
	BREAKPOINT	[<i>object</i>] [<i>line</i>]	
	WATCHPOINT	[[<i>object</i>] <i>variable</i>]	
	VARIABLE	[<i>variable</i> [= <i>new value</i>]]	
	HEXADECIMAL		

PRINT

PRINT	CALL	[<i>library</i> [<i>object</i>]]
	OBJECT	
	NOCALL	
	XSTATISTICS	
	STATEMENT	
	EXEC	
	NOEXEC	

RESET

RESET ENVIRONMENT [<i>name</i>]
--

SAVE

SAVE ENVIRONMENT [<i>name</i>]

SET

SET	OBJECT	<i>object</i>
	BREAKPOINT	<i>object</i> { <i>line</i> <i>label</i> }
	WATCHPOINT	[[<i>object</i>] <i>variable</i>]
	CALL	{ OFF ON }
	XSTATISTICS	{ OFF [<i>library</i> [<i>object</i>]] ON COUNT }