

## Task Language Statements

**ARRAY** *user\_var1# [size1]*  
[...*,user\_varN# [sizeN]*]

Declares one or more array variables. The brackets around size are required.

**BEEP** [*duration, pitch*]  
Sounds a tone.

**CLEARWINDOW** [*window\_id*]  
Clears a conversational window.

**CLOSEWINDOW** [*window\_id*]  
Closes a conversational window.

**DEFINWINDOW** *window\_id size\_region*  
{ **CBT** | **POPUP** [*title\_str*] }  
Defines a conversational window.

**DO** *procedure\_name*  
Moves task execution to the named procedure.

**DO KEYSTROKES** "*key\_str*"  
Sends keystrokes to the object that currently has the Agent's FOCUS.

**EDITBOX** *window\_id user\_var#*  
*length\_int AT origin\_point*  
Displays a text box in a conversational window.

**END**  
Ends task execution.

**FOCUS** *object\_type title\_str*  
Directs the Agent to focus on an object.

**GOTO** *label\_name*  
Moves task execution to the named label.

**IF** *conditional\_statement*  
if-statements

**[ELSE**  
else-statements]

**ENDIF**  
Conditional IF statement with optional ELSE clause.

**INPUT** *user\_var# [LENGTH*  
*length\_int][prompt\_string]*  
Displays an input conversational window.

**LABEL** *label\_name*  
Defines a label to be referenced by a GOTO statement.

**LOCATE** [*window\_id*] [*col\_int row\_int*]  
Positions the pointer in a conversational window.

**MENU\_COMMAND** "*command\_name\_str*"  
[*command\_id*]  
Sends a menu command to the object that currently has the Agent's FOCUS.

**MESSAGE** *user\_var# [prompt\_str] [HAND |*  
**EXCLAMATION\_POINT | QUESTION |**  
**STOP] [OK | OKCANCEL**  
**| RETRYCANCEL |**  
**ABORTRETRYIGNORE | YESNO |**  
**YESNOCANCEL | USER** *button\_str*]  
Displays a message conversational window.

**ON ERROR DO** *procedure\_name*  
Sets a trap for task execution errors.

**ON ESCAPE DO** *procedure\_name*  
Sets a trap for interrupting a running task.

**ON TIMEOUT DO** *procedure\_name*  
Sets a trap for processing timeout errors.

**OPENWINDOW** [*window\_id*]  
Opens a conversational window.

**OUTPUT** [*window\_id*] [*output\_str1;*  
*output\_str2; output\_str [;]*]  
Displays lines of text in a conversational window.

**PAUSE** *time\_int*  
Pauses task execution.

**PERFORM\_TASK** *task\_id [parameter1, ...,*  
*parameterN]* [**RECEIVE** *user\_var1#, ...,*  
*user\_varN#*]  
Performs an Agent task with internal object ID *task\_id*. Parameters are passed to the called task. Variables specified after **RECEIVE** get the return values from the called task.

**PROCEDURE** *procedure\_name*  
*statements*

**ENDPROC**  
Groups a set of commands into a procedure.

**PUSHBUTTON** *window\_id user\_var#*  
*text\_str AT location\_point*  
**[DEFAULT][ESCAPE]**  
Displays a button in a conversational window.

**RETURN** [*return\_value1, ..., return\_valueN*]  
Returns task execution to the line immediately following the call to a procedure or to a task. Return values cannot be specified inside procedures.

**SCREEN** *width\_int height\_int*  
Switches the mapping of conversational window coordinates from physical to logical coordinates.

**SET ERROR** [**ON** | **OFF**]  
Sets error trapping on or off.

**SET ESCAPE** {{{**TO**} [**ALT**] [**CTRL**]  
*key\_str*} | **OFF**]  
Sets escape trapping on or off. Defines the escape key.

**SET RATE** {{{**TO**} *time\_int*} | **OFF**]  
Sets the rate of task execution.

**SET TIMEOUT** {{{**TO**} *time\_int*} | **OFF**]  
Sets the length of time a task will wait for a command to execute. Default is 120 seconds.

**TASK** [*user\_var1#* [[ '=' *literal\_val1* ] |  
*size1*] ] ... [ *user\_varN#*  
[[ '=' *literal\_valN* ] | *sizeN*] ]  
*statements*

**ENDTASK**  
Defines the boundaries of a task. **TASK** command may optionally include formal parameters. The brackets around size are required.

**TITLEWINDOW** [*window\_id*] *title\_str*  
Changes the title of a defined conversational window.

**WAIT**  
Suspends task execution until an event is trapped (e.g. clicking a button in a conversational window).

**WHILE** *conditional\_statement*  
*statements*

**ENDWHILE**  
Conditional while statement.



## Task Language Functions

**ABS** (*numeric*)  
Returns the absolute value of *numeric*.

**ASC** (*string*)  
Returns an int containing the ASCII value of the first character in *string*.

**CENTER** (*region*)  
Returns the center point of the supplied *region*.

**CHR** (*int*)  
Returns a one-character string whose ASCII value is *int*.

**DDEGETDATA** (*item\_str, application\_str, topic\_str*)  
Returns a string containing data received from an application via DDE. Returns a null string if an error occurred.

**DDESENDCOMMAND** (*command\_str,*  
*application\_str, topic\_str*)  
Sends a command to an application via DDE. Returns 1 if successful, 0 otherwise.

**DDESENDDATA** (*item\_str, value\_str,*  
*application\_str, topic\_str*)  
Sends data to an application via DDE. Returns 1 if successful, 0 otherwise.

**DLLCALL** (*dll\_id, function\_name\_str,*  
*return\_type* [, *parm1\_type, parm1,*  
*parm2\_type, ...*])  
Calls a function in the specified DLL. Returns the return value from the DLL's function. *return\_type#* should be VOID! (0) for functions that don't return a value.

**DLLFREE** (*dll\_id*)  
Frees a previously loaded DLL. Always returns 0.

**DLLLOAD** (*dll\_filename\_str*)  
Returns an internal ID that identifies the DLL library just loaded. Returns 0 if the file is not a library, and returns numbers less than 32 for other errors.

**EDITBOX** (*user\_var#*)  
Returns a string containing the contents of the editbox identified by *user\_var#*.

**FIND** (*str1, str2, index*)  
Returns an int containing the number of characters beyond *index* (3rd parm) where *str1* starts in *str2*. If *str1* is not found then -1 is returned.

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### FINDNEXTOBJECT ( )

Returns an internal ID that identifies the next object that was found by the previously called FINDOBJECT function. Returns 0 when there are no more found objects.

### FINDOBJECT ([text\_id, object\_title])

Returns an internal ID that identifies the first object in the system that is found that matches the specified text\_id and object\_title. The ID for any additional objects found by this function call may be retrieved via FINDNEXTOBJECT. Returns 0 if no objects are found. If no parameters are specified, the ID for the object that currently has the Agent's FOCUS will be returned. If object\_title = "" then all objects of type text\_id will be found.

### GETCLIPBOARDTEXT ( )

Returns a string containing the TEXT data on the clipboard.

### GETFIRSTOBJECT ([text\_id, object\_title])

Returns an internal ID that identifies the first object found in the specified container object. If no parameters are provided, the object with the Agent's FOCUS is searched. Zero is returned if no objects are found.

### GETNEXTOBJECT ( )

Returns an internal ID that identifies the next object found; used in conjunction with GETFIRSTOBJECT and GETOBJECT. Zero is returned when all objects have been enumerated.

### GETOBJECT ([object\_id, get\_type])

Enumerates a specified set of objects. Returns an internal ID that identifies the first object in the set. The internal ID for any additional objects enumerated by this function may be retrieved via GETNEXTOBJECT. Returns 0 if no objects are found in the set. object\_id is the internal ID of the object whose parents or children are enumerated. get\_type is the type of enumeration to perform and is either TOOLS!, CHILDREN!, PARENTS!, HIDDENCHILDREN!, or HIDDENPARENTS! If no parameters are specified, the children of the object that currently has the Agent's focus are enumerated. If only the object\_id parameter is specified, the children of that object are enumerated.

### GETPTRVALUE (pointer\_name, byte\_offset, value\_type)

Returns data referenced by pointer\_name starting from byte\_offset bytes. The returned value is of value\_type type.

### GETTASKOBJECT ( )

Returns the internal ID that corresponds to the performing task itself.

### HEIGHT (region)

Returns the height of the supplied region.

### IN (point, region)

Returns a 1 if point is in region, else returns 0.

### INT (real)

Returns an int containing the integer portion of real.

### LEFT (string, int)

Returns int chars from the left of string.

### LEN (string)

Returns an int containing the number of chars in string.

### MAKEBYTE (number) MAKEINT (number) MAKEDOUBLE (number) MAKELONG (number) MAKEFLOAT (number)

Returns the number as the specified type, doing any necessary truncation.

### MID (string, int1, int2)

Returns int2 chars from position int1 in string.

### MOD (int1, int2)

Returns the modulus of int1 divided by int2.

### OPENOBJECT (object\_id, open\_type)

Opens the object specified by internal ID object\_id. Returns 1 if the open is successful, else it returns 0. open\_type is either OPEN! or OPEN\_SHIFTED!.

### SETPTRVALUE (pointer\_name, byte\_offset, value\_type, newvalue)

Places newvalue into the memory buffer referenced by pointer\_name starting from byte\_offset bytes. The data is of value\_type type. Returns 1 if successful, 0 otherwise.

### VAR (variable#)

Returns the variable ID of variable. This variable ID can be used in DLLCALL() to allow the Agent to modify a variable.

## Object Attribute Functions

### OBJxxx (object\_id)

where xxx is described below and object\_id identifies the target object. object\_id should have been retrieved via GETFIRSTOBJECT, GETNEXTOBJECT, GETOBJECT, FINDOBJECT, FINDNEXTOBJECT, or GETTASKOBJECT. If no parameter is specified then the object with the Agent's FOCUS is assumed.

### Function Return Value

|                      |                                    |
|----------------------|------------------------------------|
| <b>OBJCLASS</b>      | string, class name                 |
| <b>OBJCOMMENTS</b>   | string, comments                   |
| <b>OBJCREATED</b>    | int, creation date                 |
| <b>OBJCREATOR</b>    | string, creator's name             |
| <b>OBJCRMALADDR</b>  | string, creator's mail address     |
| <b>OBJLASTWRITER</b> | string, last writer's name         |
| <b>OBJLINKSDOWN</b>  | int, # of child objects            |
| <b>OBJLINKSUP</b>    | int, # of parent objects           |
| <b>OBJLWMAILADDR</b> | string, last writer's mail address |
| <b>OBJMODIFIED</b>   | int, modification date             |
| <b>OBJTITLE</b>      | string, object's title             |
| <b>OBJTYPE</b>       | string, object's type or TEXT_ID   |

### ORIGIN (region)

Returns the origin point of region.

### PUTCLIPBOARDTEXT (string)

Puts string on the clipboard in TEXT format. Returns 1 if successful, else returns 0.

### RIGHT (string, int)

Returns int characters from the right side of string.

### STR (numeric)

Returns a string representing numeric.

### SYSDATE ( )

Returns an int that is the current date in the internal NewWave system date format.

### SYSDATETOSTR (date\_int)

Returns a string representation of date\_int. If no parameter is supplied then the string for the current date is returned.

### SYS\_ERROR ( )

Returns an int containing the error number of the last task execution error.

### SYSTEM ( )

Returns an int that is the current time in the internal NewWave system time format.

### SYSTEMTOSTR (time\_int)

Returns a string representation of time\_int. If no parameter is supplied then the string for the current time is returned.

### STRTOSYSDATE (date\_str)

Returns an int that corresponds to date\_str.

### STRTOSYSTIME (time\_str)

Returns an int that corresponds to time\_str.

### TESTBUTTON (button\_id)

Returns 1 if the button has been pushed, else 0.

### VAL (string)

Returns a numeric for string. Returns 0 if string does not represent a valid numeric.

### WIDTH (region)

Returns the width of region.

### X (point)

Returns the X coordinate of point.

### Y (point)

Returns the Y coordinate of point.

### Syntax Key:

- [ ] = optional keyword or parameter
- { } = required choice of one or another keyword or parameter
- [ [ ] = required choice of one or more keywords or parameters