CET W/32: NEW FUNCTIONS FOR VERSION 9.31I

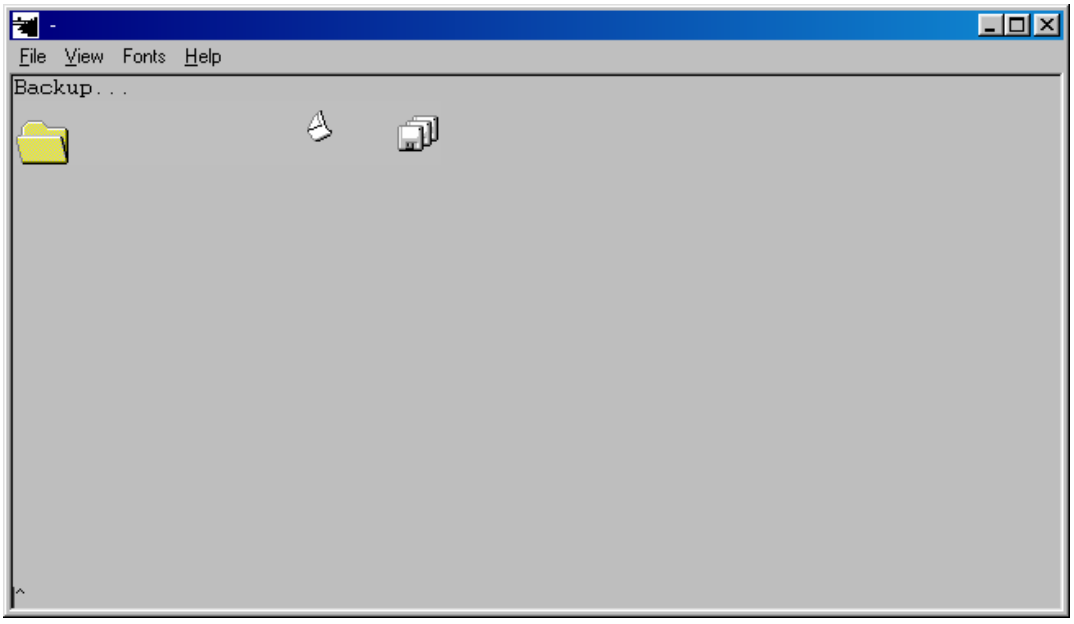
Introduction

The following functions are available to CET BASIC developers by a set of OBJ files or a LIB file. In general, these OBJ files (or LIB file) must be saved to the folder where the source code files (.b) are.

You can execute these functions from your BASIC program using the *CALL* sentence.

When compiling your programs you must specify the name of the functions that you are calling.
For example:
Here is a sample program (see function #63) that uses CALL sentences to execute several of these functions. Suppose that the following code is saved to a file called backup.b

```
print at$(1,1);"Backup..."
call w32CreateAnimation(1,15,150,50,addrof(ani%))
call w32AnimationOpen(ani%,".\file.avi",addrof(ret%))
call w32AnimationPlay(ani%,addrof(ret%))
wait
call w32AnimationStop(ani%,addrof(ret%))
wait
call w32DestroyWindow(ani%)
print at$(1,1);"End Backup"
wait
```



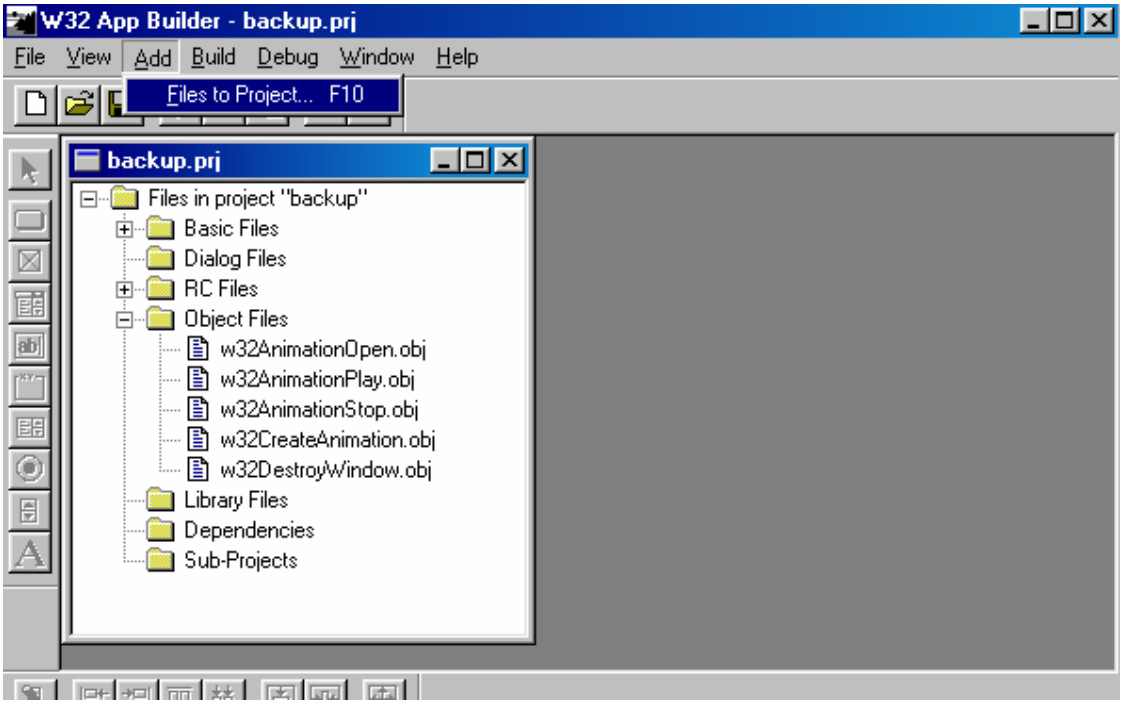
To compile this program:
Command Line (or .bat file):
Obw32 –o backup backup.b w32CreateAnimation.obj w32AnimationOpen.obj w32AnimationPlay.obj w32AnimationStop.obj w32DestroyWindow.obj

or

obw32 –o backup backup.b w32*.obj

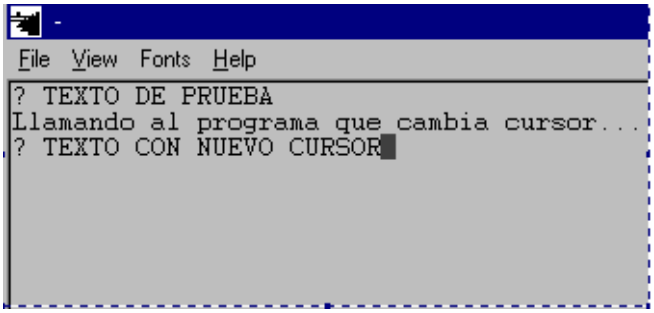
Using CET W32 Application Builder:

You must use the option (Add /Files to Project... F10) to add all OBJ files you call from your program. This files will be showed in the ‘Object Files’ group.



Or just add the file w32funcs.lib and all functions will be available

w32CreateCaret(nWidth%,nHeight%,addrof(retcode%)), creates a new shape for the system caret and assigns ownership of the caret to the specified window.
NWidth%, caret width in logical units
NHeight%, caret height in logical units
If the function succeeds, the *retcode%* value is nonzero



Sample: cc.b

w32ExitWindows (code%,addrof(retcode%)) either logs off, shuts down, or shuts down and restarts the system.

Code% values:

0 logs the user off
1 Shuts down the system to a point at which it is safe to turn off the power
2 Shuts down the system and then restarts the system
5 Shuts down the system .Forces processes to terminate
6 Shuts down the system and then restarts the system. Forces processes to terminate

If the function succeeds, the *retcode%* value is nonzero

Sample: ew.b

w32PlaySound(filename$,addrof(retcode%)) plays a sound specified by the given *filename$*

filename$, the name is interpreted as a audio filename

If the function succeeds, the *retcode%* value is nonzero

Sample: ps.b

w32MessageBox(message$,title$,style%,addrof(retcode%)) function creates, displays, and operates a message box. The message box contains an application-defined message and title, plus any combination of predefined icons and push buttons

message$, the message to be displayed

title$, the dialog box title
style$, determine the contents and behavior of the dialog box. This parameter can be a sum of values of flags from the following groups.

0 The message box contains one push button: OK. This is the default
1 The message box contains two push buttons: OK and Cancel
2 The message box contains three push buttons: Abort, Retry, and Ignore
3 The message box contains three push buttons: Yes, No, and Cancel
4 The message box contains two push buttons: Yes and No
5 The message box contains two push buttons: Retry and Cancel

16 A stop-sign icon appears in the message box
32 A question-mark icon appears in the message box.
48 An exclamation-point icon appears in the message box
64 An icon consisting of a lowercase letter *i* in a circle appears in the message box

0 The first button is the default button.
256 The second button is the default button
512 The third button is the default button

0 The user must respond to the message box before continuing work in the application window . However, the user can move to the windows of other applications and work in those windows
4096 Same as the previous one except that the message box is the top most of the windows stack .

The return value is zero if there is not enough memory to create the message box.
If the function succeeds, the return value is one of the following menu-item values returned by the dialog box:

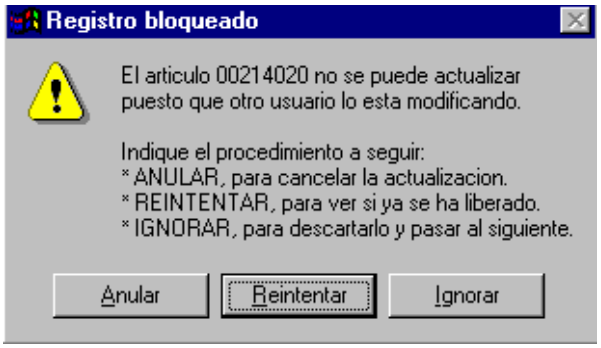
1 OK button was selected
2 Cancel button was selected
3 Abort button was selected
4 Retry button was selected
5 Ignore button was selected
6 Yes button was selected
7 No button was selected

Here is a sample program:

```
call cForceExit
call cAppTitle("Mi aplicacion")
```

```
arti$="00214020"
titulo$="Registro bloqueado"
linea1$="El articulo "&arti$&" no se puede actualizar"
linea2$="puesto que otro usuario lo esta modificando."
linea3$="Indique el procedimiento a seguir:"
linea4$="* ANULAR, para cancelar la actualizacion."
linea5$="* REINTENTAR, para ver si ya se ha liberado."
linea6$="* IGNORAR, para descartarlo y pasar al siguiente."

texto$=linea1$&chr$(10)&linea2$&chr$(10)&chr$(10)&linea3$&c
hr$(10)&linea4$&chr$(10)&linea5$&chr$(10)&linea6$
call w32MessageBox(texto$,titulo$,4402,addrof(retcode%))
```

The result is the following:



The number 4402 is the sum of 2, 48, 256 and 4096 .

Sample: mb.b

w32SetWindowText(window$,title$,addrof(retcode%)) search for the last opened window which title be equal to the text specified in the window$ parameter, and then change the title of that window to the value of the title$ parameter.

If the function succeeds, the *retcode%* value is nonzero

Here is an example:

```
call cForceExit
call cWinExec("sndrec32",1)


call w32SetWindowText("Sound – Sound Recorder","Grabe
'Buenos dias'",addrof(retcode%))
wait
```

Sample: swt.b

w32GetWindowSessions(window$,addrof(retcode%)), return the number% of opened window which title be equal to the text specified in the window$ parameter.

```
call cAppTitle("Mi ventana")
call w32GetWindowSessions("Mi ventana",addrof(numero%))
print numero%
if numero% <5
then
call cWinExec(".\gws",1)
ifend
wait
```

Sample: gws.b

w32LBoxResetContent( ) , remove all items from a list box.
Focus must be placed over the list box control. (Use cSetFocus function for this purpose).

Sample: lbrc.prj

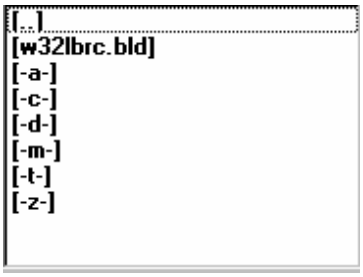
w32LBoxDir(directories$,addrof(retorno%)), add a list of folders and drives to a list box.
Focus must be placed over the list box control. (Use cSetFocus function for this purpose).

Directories$, specifies the directories to add to the list. If it contains wildcards (for example, *.*), all files that match the wildcards are added to the list.

Subdirectory names are showed enclosed in square brackets ([ ])

Drives are listed in the form [-*x*-], where *x* is the drive letter.

The return value is the zero-based index of the last item added to the list.



Sample: lbrc.prj

w32BLoadImage(filename$,addrof(retcode%)) associate a new image (bitmap) with the button over which the focus is placed.

Filename$, the path of the .bmp file.

Sample: lbrc.prj

w32BFLoadImage(fichero$,addrof(retorno%)) associate a new image (bitmap) with the button over which the focus is placed. Besides, the button becames a flat button.

Sample: lbrc.prj

11) **w32ClipCopyData(text$,addrof(retcode%))**. This function places the string text$ on the clipboard in TEXT format.
If the function succeeds, the *retcode%* value is nonzero.

12) **w32ClipIsAvailable(addrof(result%))**. This function determines whether the clipboard contains data in TEXT format.
Result%: Nonzero indicates that the clipboard format is available.

13) **w32ClipPasteData(addrof(text$),addrof(retcode%))**. This function retrieves data from the clipboard and place the information on text$. If the function succeeds, the *retcode%* value is nonzero

14) **w32CopyFile(source$,target$,addrof(error$),addrof(retcode%))**. This function copies an existing file to a new file. If the target$ file already exists, the function overwrites the existing file and succeeds, that is return a nonzero value. If an error occurs the error message is returned in the *error$* parameter.

```
call w32CopyFile("c:\windows\w32app.w32",
"\\omega\publico\w32app.w32",addrof(error$),addrof(retcode%
))
```

15) **w32CreateDirectory(dir$,addrof(retcode%))**. This function creates a new directory.
Retcode%: Zero indicates failure.

16) **w32EditUndo( )**. Undo the last edit control operation. Focus must be placed over the edit control. (Use cSetFocus function for this purpose).

17) **w32FileSize(file$,addrof(size%),addrof(retcode%))**. Returns the *size%* in bytes of the specified *file$*.
Retcode%: Zero indicates failure.

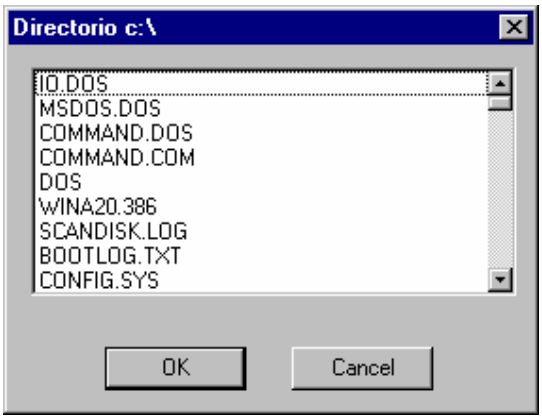
18)
w32FileTime(file$,addrof(year%),addrof(month%),addrof(day%),addrof(hour%),addrof(min%),addrof(sec%),addrof(retcode%)). Returns the time of the last write in the *file$* .
Retcode%: Zero indicates failure.

19) **w32FindFirstFile(pattern$,addrof(firstfile$),addrof(handle%)).** The **w32FindFirstFile** function opens a search *handle%* and returns the name of the *firstfile$* whose name matches the specified *pattern$.* Once the search *handle%* is established, you can use the **w32FindNextFile** function to search for other files that match the same *pattern$.*

20) **w32FindNextFile(handle%,addrof(nextfile$),addrof(retcode%))**. This function continues a file search from a previous call to the **w32FindFirstFile** function.

Handle%: Search handle returned by a previous call to the **w32FindFirstFile** function.
NextFile$: The name of the found file or directory.
Retcode%: Zero indicates failure or that no more files can be found.

```
dim matriz$(500)
indice=1
call w32FindFirstFile("c:\*.*",addrof(fichero$),addrof(handle%))
if handle%<>0
then
        matriz$(indice)=fichero$
        call
w32FindNextFile(handle%,addrof(fichero$),addrof(retorno%))
        while retorno%<>0
                indice=indice+1
                matriz$(indice)=fichero$
                call
w32FindNextFile(handle%,addrof(fichero$),addrof(retorno%))
        wend
ifend
call cChoiceListNS("Directorio c:\",mataddrof(matriz$),addrof(sel$))
```



21) **w32GetComputerName(addrof(name$)).** Retrieve the computer name.

22) **w32GetDiskFreeSpace(drive$,addrof(bytesfree%),addrof(retcode%).** Returns how much free space there is on a specified disk drive.
Retcode%: Zero indicates failure.

23) **w32GetWindowsDirectory(addrof(path$))** retrieve the path of the Windows directory.

24) **w32GetDriveType(drive$,addrof(retcode%))**. Returns the type of the *drive$*.
Retcode% can be:
0 ERROR

```
1     DRIVE DOES NOT EXIST, OR THERE IS NO MEDIA INSERTED
2     DRIVE REMOVABLE
3     DRIVE FIXED
4     DRIVE REMOTE
5     DRIVE CDROM
6     DRIVE RAMDISK


call cOpenBrowser(addrof(nombre$),"Imagenes para Botones
(*.bmp)|*.bmp||")
if sch(0,nombre$,"\")<>0
then
        for i=1 to len(nombre$)
                if nombre$[i:i]="\" then break
        next i
        call w32GetDriveType(nombre$[1:i],addrof(retorno%))
        SELECT retorno%
        CASE 2
                Msgbox "No se permiten las unidades removibles"
        CASE 3
                rem call cSetFocus...
                rem call w32BLoadImage(nombre$,addrof(valor%))
        CASE 4
                Msgbox "No se permiten las unidades de red"
        CASE 5
                Msgbox "No se permiten las unidades de CD-ROM"
        CASE 6
                Msgbox "No se permiten los discos RAM"

        CEND
ifend
```

25) **w32keybd_event(char$,char%).** This function may be used to put a character into the input buffer just as the key had been entered by the operator.
Char$: The character to be entered.
Char%: The ASCII value of the character.

26) **w32Skeybd_event_down(key%)**. This function may be used to simulate a key press.
Key%: One of the following values:

```
BACKSPACE   8
TAB         9
RETURN      13
SHIFT       16
CONTROL     17
ALT         18
PAUSE       19
CAPITAL     20
ESCAPE      27
SPACE       32
PRIOR       33
NEXT        34
END         35
HOME        36
LEFT        37
UP          38
RIGHT       39
DOWN        40
```

```
INSERT      45
DELETE      46
'0' thru '9' (48 - 57)
'A' thru 'Z' (65 - 90)
Function Keys F1 thru F12 (112 - 123)
```

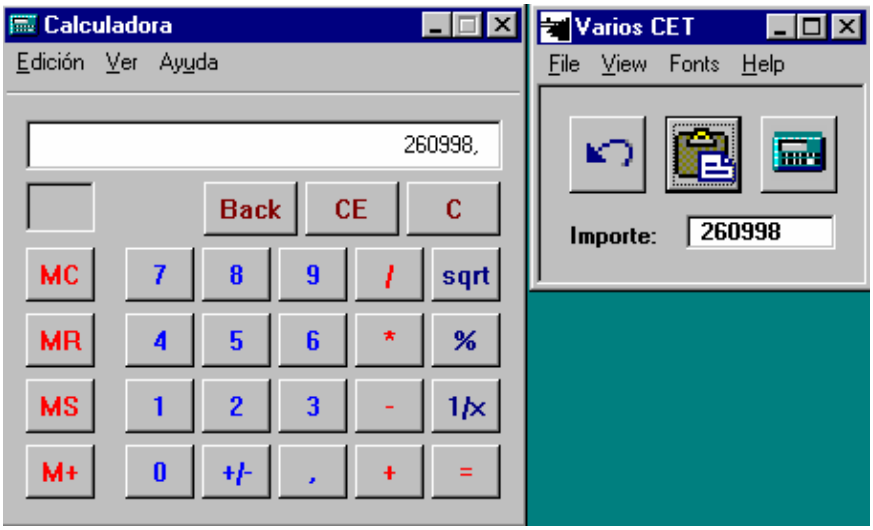
27) **w32Skeybd_event_up(key%)**. This function may be used to simulate a key release.

28) **w32MoveWindow(title$,x%,y%,width%,height%,addrof(retcode%))**. Allows to change the position and size of the last opened window which title be equal to the text specified in the title$ parameter.
Retcode%: Zero indicates failure.

29) **w32RemoveDirectory(dir$,addrof(retcode%))**. This function remove the directory specified in the dir$ parameter. The directory must be empty.
Retcode%: Zero indicates failure.

30) **w32SetForegroundWindow(title$,addrof(retocode%))**. Set the last opened window which title be equal to the text specified in the title$ parameter as the foreground window.
Retcode%: Zero indicates failure.

Here is a sample of the program **cal.prj** that shows the use of several functions.




```
$SUB dlg1BtnClick
REM     Button Click save area
REM@# btnstart
SELECT CMDID%
CASE 202
       Rem Undo- Boton Deshacer
       call cSetFocus(dlg1HDLG%,100)
       call w32EditUndo()
CASE 205
       Rem Paste- Boton Pegar
```

```
       call
w32GetWindowSessions("Calculator",addrof(sesiones%))
       if sesiones%>0
       then
       call
w32SetForegroundWindow("Calculator",addrof(retorno%))
       Rem - Simular CONTROL+C
       call w32Skeybd_event_down(17)
       call w32keybd_event("C",asc("C"))
       call w32Skeybd_event_up(17)
       call cAppWindowTop
       call w32ClipIsAvailable(addrof(ava%))
       if ava%<>0
       then
              call
w32ClipPasteData(addrof(text$),addrof(retcode%))
              call cSetCtrlValue(dlg1HDLG%,100,text$)
       ifend
       ifend
CASE 206
       call
w32GetWindowSessions("Calculator",addrof(sesiones%))
       if sesiones%=0
       then
              call cWinExec("calc.exe",1)
       ifend
       call cAppWindowTop
       call
w32MoveWindow("Calculator",0,0,276,272,addrof(retorno%))
       call
w32SetForegroundWindow("Calculator",addrof(retorno%))
       Rem -Ver la calculadora Estandard
       call w32Skeybd_event_down(18) \rem Pulsar ALT
       call w32keybd_event("V",asc("V"))
       call w32Skeybd_event_up(18) \rem Liberar ALT
       call w32keybd_event("E",asc("E"))

CEND
REM@# btnend
GOSUB dlg1.BTNEND
$EXIT
```

31) **call w32BMultiline( )**
Allow to show several text lines over the button in which the focus is placed.

32) **call w32B3D( )**
Set the state of the button in which the focus is placed as not pushed.

33) **call w32BFlat( )**
Set the state of the button in which the focus is placed as pushed.

34) **call w32GetDiskSpace (unit$,addrof(space%),addrof(ret%))**
Determine how much disk space a drive has.
Ret%: Zero indicates failure.

35) **call w32SetFont(font$,points%,angle%,bold%,italics%,underline%,strike_out%)**

Specify the font that the control in which the focus is placed is to use when drawing text.

Angle%.- Angle, in degrees, counterclockwise from the x-axis of the baseline of the character

36) **call w32CreateProgress(x%,y%,width%,height%,smooth%,vertical%,addrof(hand%))**

Creates a progress bar control inside the window over which the focus be placed .

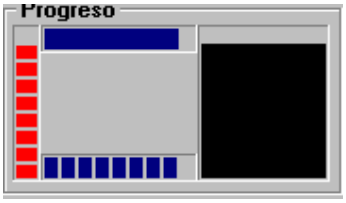
37) **call w32ProgressSetRange(hand%,min%,max%)**
Sets the minimum and maximum values for a progress bar and redraws the bar to reflect the new range.

38) **call w32ProgressSetStep(hand%,step%)**
Specifies the step increment for a progress bar. The step increment is the amount by which the progress bar increases its current position whenever the function w32ProgressStepIt is called. By default, the step increment is set to 10.

39) **call w32ProgressStepIt(hand%)**
Advances the current position for a progress bar by the step increment and redraws the bar to reflect the new position.
When the position exceeds the maximum range value, this function resets the current position so that the progress indicator starts over again from the beginning.

40) **call w32ProgressSetColor(hand%,r%,g%,b%)**
Sets the color of the progress indicator bar in the progress bar control.

r % – r(ed) component value [0..255]
g% – g(reen) component value [0..255]
b% – b(lue) component value [0..255]



Sample: Create.prj

41) **call w32CreateCalendar(x%,y%,width%,height%,addrof(cal%))**

Creates a month calendar control inside the window over which the focus be placed

Ejemplo: Create.prj

42) **call w32CalendarGetSel(cal%,addrof(year%),addrof(month%),addrof(day%))**
Retrieves the currently selected date.

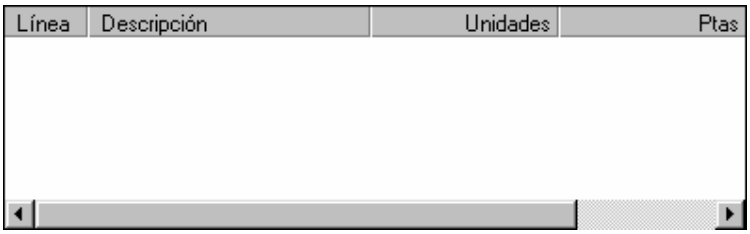
43) **call w32CreateList(x%,y%,width%,height%,addrof(lis%))**
Creates a list view control inside the window over which the focus be placed

44) **call w32ListInsertColumn(lis%,title$,width%,alig%,index%,addrof(ret%))**

Inserts a new column in a list view control

Title$ -Title of the column showed in the list header
width% - Width of the column in pixels.
Alig% - Text alignment
0.- Text is left-aligned.
1.- Text is centered
2.- Text is right-aligned
index% - Index of the new column

Ret% - Returns the index of the new column if successful, or -1 otherwise



Sample: *Create.prj*

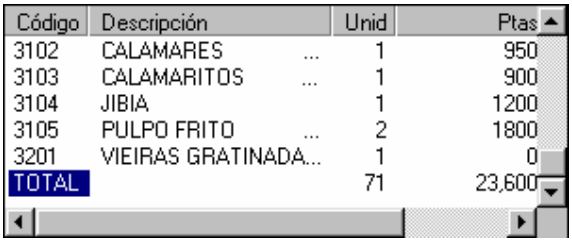
45) **call w32ListInsertItem(lis%,text$,item%,addrof(resu%))**
Inserts a new item in a list view control.
Returns the index of the new item if successful, or -1 otherwise.

46) **call w32ListSetText(lis%,text$,item%,subitem%,addrof(resu%))**
Changes the text of a list view subitem.
If the function succeeds, the *resu%* value is nonzero

47) **call w32ListGetText(lis%,item%,subitem%,addrof(text$),addrof(ret%))**
Retrieves the text of a list view item or subitem

48) **call w32ListGetSelItem(lis%,addrof(item%))**
Retrieves the index of the selected item.

49) **call w32ListSetSelItem(lis%,item%,addrof(ret%))**
Sets the item #item% of the list as selected
If the function succeeds, the *ret%* value is nonzero



50) **call w32ListGetItemCount(lis%,addrof(count%))**
Retrieves the number of items in a list view control

51) **call w32ListFindItem(lis%,key$,addrof(item%))**

Searches for a list view item which #0 field value be *key$*.

Returns the index of the item if successful, or -1 otherwise

52) **call w32ListSetColor(lis%,r%,g%,b%)**

Sets the color of the text of the list view control

r % – r(ed) component value [0..255]
g% – g(reen) component value [0..255]
b% – b(lue) component value [0..255]

53) **call w32ListDeleteItem(lis%,item%,addrof(ret%))**

Removes an item from a list view control.

Item%

Index of the list view item to delete.

If the function succeeds, the *ret%* value is nonzero

54) **call w32ListDeleteAllItems(lis%,addrof(ret%))**
Removes all items from a list view control
If the function succeeds, the *ret%* value is nonzero

55) **call w32ListDeleteColumn(lis%,column%,addrof(ret%))**
Removes a column from a list view control.

Column%

Index of the column to delete

If the function succeeds, the *ret%* value is nonzero

56) **call w32SetFocus(hand%,addrof(ret%))**
The function sets the keyboard focus to the specified window.

Hand%.- handle to window to receive focus. If this parameter is NULL, keystrokes are ignored.

If the function succeeds, the return value is the handle to the window that previously had the keyboard focus.

57) **call w32CreateAnimation(x%,y%,width%,height%,addrof(ani%))**

Creates a animation control inside the window over which the focus be placed

58) **call w32AnimationOpen(ani%,file$,addrof(ret%))**

Opens an AVI *file$* and displays its first frame in an animation control
You can only open silent AVI clips. W32AnimationOpen fails if *file$* specifies an AVI clip that contains sound.

Returns nonzero if successful, or zero otherwise.

59) **call w32AnimationPlay(ani%,addrof(ret%))**

Plays an AVI clip in an animation control. The control plays the clip in the background while the thread continues executing.

Returns nonzero if successful, or zero otherwise.

Sample: Create.prj

60) **call w32AnimationStop(ani%,addrof(ret%))**

Stops playing an AVI clip in an animation control

Returns nonzero if successful, or zero otherwise.

61) **call w32MAPISendDocuments(FullPaths$,filenames$,addrof(ret%))**

The w32MAPISendDocuments function sends a standard mail message with one or more attached files and a cover note. The cover note is a dialog box that allows the user to enter a list of recipients and an optional message.

FullPaths$: This list is formed by concatenating correctly formed file paths separated by the character ';'. An example of a valid list is:

```
C:\TMP\TEMP1.DOC;C:\TMP\TEMP2.DOC
```

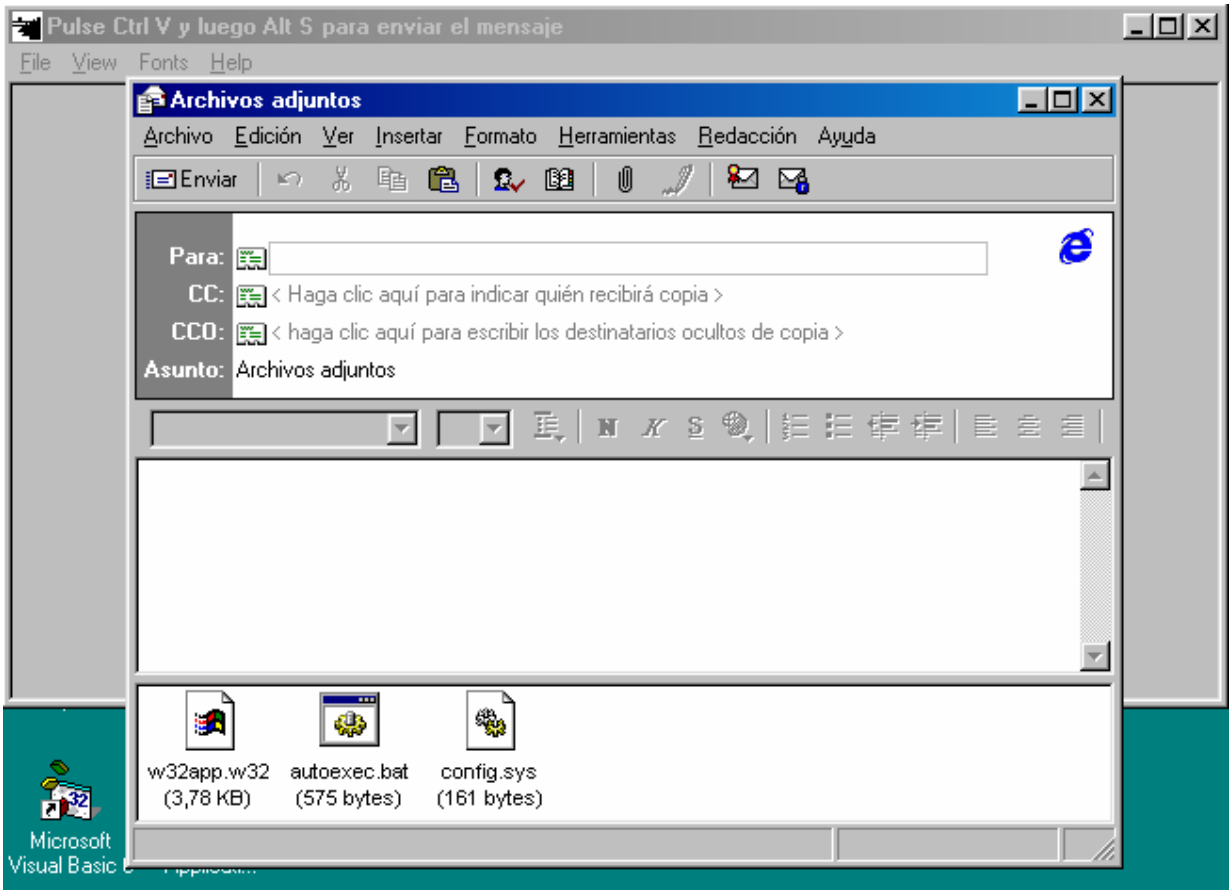
The files specified in this parameter are added to the message as file attachments. If this parameter contains an empty string, the Send Note dialog box is displayed with no attached files.

FileNames$: List of the original filenames as they should appear in the message. When multiple names are specified, the list is formed by concatenating the filenames separated by the character ':'. An example is:

```
TEMP3.DOC;TEMP4.DOC
```

Sample:

```
call
w32MAPISendDocuments("c:\windows\w32app.w32;C:\autoexec.bat;c:\config.
sys","w32app.w32;autoexec.bat;config.sys",addrof(ret%))
```



62) **call w32MAPIReadMail(directory$,originator$,addrof(files%),addrof(mes%))**

Process all messages found in the 'Inbox' folder in which originator field occurs the text specified in the originator$ parameter, file attachments are saved to folder specified in the *directory$* paramater, and finally deletes the message.

files% returns the number of attached files that have been saved.
mes% returns the number of processed messages, or –1 in error case.

Sample:

```
call
w32MAPIReadMail("c:\cet\mail\","@activanet.es",addrof(files%),addrof(r
et%))
```

63) **call w32DestroyWindow(handle%)**

Destroy the control created by the call to the function **w32Create [Calendar|Progress|List|Animation|...]**

Sample:

```
print at$(1,1);"Backup..."
call w32CreateAnimation(1,15,150,50,addrof(ani%))
call w32AnimationOpen(ani%,".\file.avi",addrof(ret%))
```

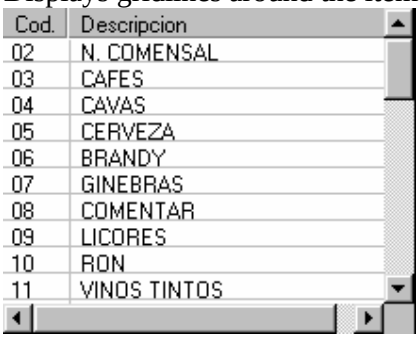
```
call w32AnimationPlay(ani%,addrof(ret%))
wait
call w32AnimationStop(ani%,addrof(ret%))
wait
call w32DestroyWindow(ani%)
print at$(1,1);"End Backup"
wait
```

64) **call w32ListEnsureVisible(lis%,item%,addrof(ret%))**

Call this function to ensure that a list view *item*% is fully visible. The list view control is scrolled if necessary.

65) **call w32ListGridLines(lis%,addrof(ret%))**

Displays gridlines around the items and subitems of the list view control.



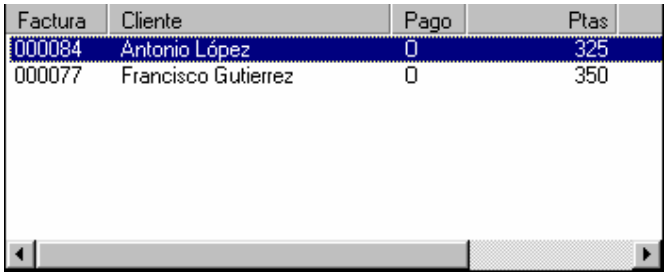
66) **call w32ListClearGridLines(lis%,addrof(ret%))**

67) **call w32CalendarSetSel(cal%,year%,month%,day%)**

Sets the currently selected date for the month calendar control *cal%* created with w32CreateCalendar. A four digit number must be used as *year%* parameter.

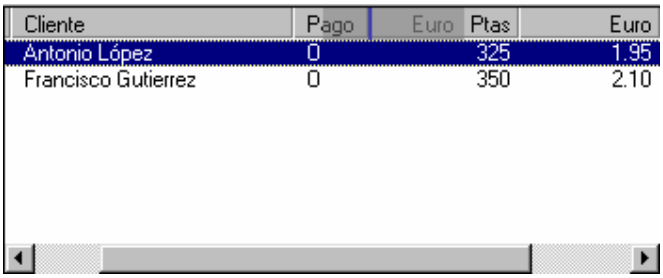
68) **call w32ListFullRowSel(lis%,addrof(return%))**

When an item is selected, the item and all its subitems are highlighted.



69) **call w32ListDragDrop(lis%,addrof(return%))**

Enables drag-and-drop reordering of columns in a list view control.



70) **call w32CreateTip(text$,addrof(tip%))**
Create a small pop-up window that displays several lines of *text* appearing only when the user puts the cursor on the control and leaves it there for approximately one-half second.

Just before calling this function the focus must be placed over the desired control. (Use cSetFocus function for this purpose).

This function returns a reference for the Tip. This is the value that must be used if an update of the *text* is needed. (*See w32TipUpdateText function)*

71) **call w32TipUpdateText(tip%,newtext$,addrof(retorn%))**
Update the text of the Tip Control *tip%*.
Just before calling this function the focus must be placed over the desired control. (Use cSetFocus function for this purpose).

72) **call w32GetParent(addrof(parent%))**
Returns a reference to the parent windows of the control over which the focus is placed. This function can be used to get a reference to the Dialog when the focus is over a control.

73) **w32ResizeDialog(parent%,x%,y%, width%,height%,addrof(return%))**
This routine may be used to specify a new location and size for a Dialog Box.
The first parameter must be the value returned by the function w32GetParent.

74) **call w32ListSetBkColor(lis%,r%,g%,v%)**

Sets the background color of text in a list view control.
r % – r(ed) component value [0..255]
g% – g(reen) component value [0..255]
b% – b(lue) component value [0..255]

75) **call w32EnableWindow(hand%,state%)**

Enables (state%=1) or disables (state%=0) a control.
The first parameter must be the value returned by the function **w32Create [Calendar|Progress|List|Animation|...]**

A disabled control is grayed out and cannot obtain the input focus.

76) **call w32FtpGet(ftpsite$,user$,password$,ftpfile$,localfile$,addrof(return%))**

Downloads a file from a ftp site and save it as a local file.
The file cetftp.dll is required.

The return value can be:

1 Success.
-1 Error when connecting to the ftp site.
-2 Error when saving the file.

Sample:

```
call
w32FtpGet("ftp.microsoft.com","omega","pass","/usr/www/users/omega/license.txt","c:
\microsoft\license.txt",addrof(return%))
```

77) **call w32FtpPut(ftpsite$,user$,password$,ftpfile$,localfile$,addrof(return%))**
Sends a local file to a ftp site. The file cetftp.dll is required.

The return value can be:

1 Success.
-1 Error when connecting to the ftp site.
-2 Error when saving the file.

78) **call w32PrinterDlg(addrof(context%),addrof(printer$),addrof(o%),addrof(copies%))**

Shows a dialog box that allows the user to select a printer and to specifiy printer options such as number of copies and orientation. The cetprint.dll file is required.

-*context%*, Reference to the printer object.
-*printer$*, name of the printer selected by the user.
-*o%*, orientation (1-Portrait, 2-Landscape)
-*copies%*, number of copies.

Sample: prt.b

79) **call w32PrinterContext(printer$,addrof(context%))**

Creates a reference to the printer *printer$*. The cetprint.dll file is required.

Sample: prt.b

80) **call w32PrinterDeleteContext(context%)**
Destroy the printer reference. The cetprint.dll file is required.

Sample: prt.b

81) **call w32PrinterOffsetX(context%,addrof(offsetx%))**
Returns the distance from the left edge of the physical page to the left edge of the printable area of the printer associated with *context%*, in pixels. The cetprint.dll file is required.

Sample: prt.b

82) **call w32PrinterOffsetY(context%,addrof(offsety%))**
Returns the distance from the top edge of the physical page to the top edge of the printable area of the printer associated with *context%*, in pixels. The cetprint.dll file is required.

Sample: prt.b

83) **call w32PrinterWidth(context%,addrof(totalwidth%))**
Returns the width of the physical page, in pixles. The cetprint.dll file is required.

Ejemplo: prt.b

84) **call w32PrinterHeight(context%,addrof(totalheight%))**
Returns the height of the physical page, in device pixels. The cetprint.dll file is required.

Ejemplo: prt.b

85) **call w32ListSortItems(lis%,column%,alphanum%,order%,addrof(ret%))**

Sorts the items of a list view control. The index of each item changes to reflect the new sequence.

lis%, Reference to the List View Control
column%, number of column that states the relative order of list items

alphanum%, 0-alphabetic order, 2-numerical order
order%, 1-ascending, 2-descending.

86) **call w32CreateUpDown(min%,max%,addrof(updown%))**
Create an *up-down control* consisting of a pair of arrow buttons that the user can click to increment or decrement an edit control's value.

Just before calling this function the focus must be placed over the desired edit control. (Use cSetFocus function for this purpose).

The parameters *min%* and *max%* set the minimum and maximum positions (range) for an up-down control.

The maximum position can be less than the minimum position. Clicking the up arrow button moves the current position closer to the maximum position, and clicking the down arrow button moves towards the minimum position.

Sample:

```
call cSetFocus(dlg2HDLG%,100)
call w32CreateUpDown(1,10,addrof(updown%))
```

87) **call w32ListCheckBoxes(lis%,addrof(return%))**
Enables check boxes for items in a list view control

88) **call w32ListGetCheck(lis%,item%,addrof(sel%))**
Determine the state of the check box for a given *item%.*
Returns nonzero if the given item is selected, or zero otherwise.

89) **call w32ListSetCheck(lis%,item%,state%,addrof(retcode%))**
Sets the state of the item checkbox.
State%, 0-unchecked, 1-checked

90) **call w32GetFont(addrof(font$),addrof(points%),addrof(angle%),addrof(bold%),addrof(italics%),addrof(underline%),addrof(strike_out%))**

The routine w32GetFont retrieve the font values of the control over which the focus is placed.

(See function w32SetFont to get an explanation of the parameters)

91) **call w32GetWindow(parent%,ID%,addrof(hand%))**

Returns a handle to a dialog box control. The first parameter must be the value returned by the function *w32GetParent*. The second parameter must be the ID of the control.

92) **call w32SetFontH(font$,points%,angle%,bold%,italics%,underline%,strike_out%)**

Specify the font that the control referenced by *hand%* is to use when drawing text.

Sample:

```
$SUB dlg1Init
REM     Initialize dialog save area
REM@# inistart
Rem Set the focus over a control to get the dialog handle
Call cSetFocus(dlg1HDLG%,203)

call w32GetParent(addrof(padre%))

Rem Get the handle of the control 100
Call w32GetWindow(padre%,100,addrof(ed100%))

Rem Set the font
Call w32SetFontH(ed100%,”Tahoma”,13,0,0,0,0,0)

REM@# iniend
```

93) **w32ResizeWindowH(hand%,x%,y%, width%,height%,addrof(retorno%))**
This routine may be used to specify a new location and size for the control referenced by *hand%*.

94) **call w32CreateImageH(hand%,file$,x%,y%, width%,height%,addrof(ret%))**
Allows to show an image (bitmap) in the dialog/control referenced by *hand%*.
File$, the path of the .bmp file.

Sample:

```
$SUB dlg1Init
REM     Initialize dialog save area
REM@# inistart
Rem Set the focus over a control to get the dialog handle
Call cSetFocus(dlg1HDLG%,200)
```

```
call w32GetParent(addrof(padre%))

...

call
w32CreateImageH(padre%,"logo.bmp",15,10,270,135,addrof(ret%
))

REM@# iniend
```

95) **call w32EditENTER*n*(hand%,IDbuttonESC%)**

Where *n* is a value between 1 and 9. Calling this group of functions allows the user to move the focus to the next control by pressing ENTER key.

This special behaviour only affects to the control referenced by the first parameter.

Hand%, reference to the control.
IDbuttonESC%, value between 200 and 299 that indicates the ID of the button (real or dummy) which code in *BtnClick Subroutine* will be executed each time the user press ESC key.

In all of the dialog boxes that make up a .exe program, it must be used a different function name for each control. So, to associate this behaviour to three controls the functions to use would be ...

Call w32EditENTER1...
Call w32EditENTER2...
Call w32EditENTER3...

Sample:

```
$SUB dlg1Init
REM     Initialize dialog save area
REM@# inistart
Call cSetFocus(dlg1HDLG%,200)

call w32GetParent(addrof(padre%))
...

Call w32GetWindow(padre%,100,addrof(ed100%))
Call w32GetWindow(padre%,101,addrof(ed101%))

...

call w32EditENTER1(ed100%,201)
call w32EditENTER2(ed101%,201)
REM@# iniend
```

96) call w32SetCtrlColor*n*(padre%,control%,rf%,gf%,bf%,rb%,gb%,bb%)
Where *n* is a value between 1 and 9. Calling this group of functions allows to specify the foreground and background colors of Edit, List Box and Combo Box (Drop down list), text, radio, check and group controls.

This special behaviour only affects to the control referenced by the second parameter.

Parent%, handle to the Dialog Box. (Value returned by w32GetParent)
Control%, reference to the control.
rf % – r(ed) component value for foreground color. (-1 to use the default color)
gf% – g(reen) component value for foreground color.
bf% – b(lue) component value for foreground color.
rb % – r(ed) component value for background color. (-1 to use the default color)
gb% – g(reen) component value for background color.
bb% – b(lue) component value for background color.

In all of the dialog boxes that make up a .exe program, the same function must be called once only. So, to change the color properties of the controls three times the functions to use would be ...

Call w32SetCtrlColor1...
Call w32SetCtrlColor2...
Call w32SetCtrlColor3...

Sample:

```
$SUB dlg1Init
REM     Initialize dialog save area
REM@# inistart
Call cSetFocus(dlg1HDLG%,200)



call w32GetParent(addrof(padre%))
```

```
...

call w32GetWindow(padre%,701,addrof(c701%)) \rem Caja Combo
call w32GetWindow(padre%,504,addrof(c504%)) \rem Importe
call w32GetWindow(padre%,101,addrof(c101%)) \rem Año
call w32GetWindow(padre%,800,addrof(c800%)) \rem Facturas
call w32GetWindow(padre%,801,addrof(c801%)) \rem
presupuestos
call w32GetWindow(padre%,900,addrof(c900%)) \rem Por fecha
call w32GetWindow(padre%,901,addrof(c901%)) \rem Por
importe
call w32GetWindow(padre%,300,addrof(c300%)) \rem List Box

call w32SetCtrlColor1(padre%,c701%,255,0,0,-1,0,0)
call w32SetCtrlColor2(padre%,c504%,-1,0,0,255,255,0)
call w32SetCtrlColor3(padre%,c101%,128,0,0,-1,0,0)
call w32SetCtrlColor4(padre%,c800%,255,0,255,-1,0,0)
call w32SetCtrlColor5(padre%,c801%,128,0,128,-1,0,0)
call w32SetCtrlColor6(padre%,c900%,0,0,255,-1,0,0)
call w32SetCtrlColor7(padre%,c901%,0,0,128,-1,0,0)
call w32SetCtrlColor8(padre%,c300%,0,128,0,-1,0,0)

...

REM@# iniend
```

97) call w32CreateListH(dialog%,x%,y%,width%,height%,addrof(lis%))
Creates a list view control in the Dialog Box referenced by *dialog%*.(Use the value returned by w32GetParent as the first parameter)

Use this function to create the control if it is neccesary to trap events generated by list view controls. (*See w32ListGetEventsn)*

98) call w32ListGetEvents*n*(dialog%,lis%,button%,addrof(event%),addrof(param1%),addrof(param2%))
Where *n* is a value between 1 and 9. Calling this group of functions allows to trap events generated by list view controls.

Dialog%, reference to the Dialog Box. (Value returned by w32GetParent).
lis%, reference to the list view control (Value returned by w32CreateListH).
button%, value between 200 and 299 that indicates the ID of the button (real or dummy) which code in *BtnClick Subroutine* will be executed each time an event occurs.
Event%, event number. (See table below)
Param1%, first property for the event. (See table below)
Param2%, second property for the event. (See table below)

Event	*Description*	*Property 1*	*Property 2*
1	The user clicks an item with the left mouse button	Item	Subitem
2	An item has been selected or cheked	Item	-1
3	The user double-clicks an item with the left mouse button	Item	Subitem
4	The user clicks an item with the right mouse button	Item	Subitem
5	A key has been pressed	Code for the key (See w32Skeybd_event_down)	-1
6	a column was clicked	-1	Column

In all of the dialog boxes that make up a .exe program, the same function must be called once only. So, to define event processing for three list view controls the functions to use would be ...

Call w32ListGetEvents1...
Call w32ListGetEvents2...
Call w32ListGetEvents3...

Sample:

```
$SUB dlg1BtnClick
REM     Button Click save area
REM@# btnstart
SELECT CMDID%
...
CASE 250
       Rem Notifications for list view lis%
       Rem evento%->Event number
       Rem l_item%->Property 1
       Rem l_sub%->Property 2
       SELECT evento%
       CASE 1
              Rem Click
              rem Msgbox "Click:
"&str$(l_item%)&","&str$(l_sub%)

       CASE 2
              Rem Item selected or checked
              rem Msgbox "Item changed: "&str$(l_item%)
              call w32ListGetSelItem(lis%,addrof(item%))
              if item%<>-1
              then
              call
w32ListGetText(lis%,item%,0,addrof(text$),addrof(ret%))
              call cSetCtrlValue(dlg1HDLG%,100,text$)
              ifend

       CASE 3
              Rem Double-Click
              Msgbox "Double-Click:
"&str$(l_item%)&","&str$(l_sub%)
```

```
       CASE 4
              Rem Right mouse button click
              Msgbox "Right mouse button click:
"&str$(l_item%)&","&str$(l_sub%)

       CASE 5
              Rem A key has been pressed
              Msgbox "Key code: "&str$(l_item%)

       CASE 6

              Rem Column click
              Msgbox "Column: "&str$(l_sub%)
              call
w32ListSortItems(lis%,l_sub%,0,1,addrof(ret%))

       CEND

...
CEND
REM@# btnend
GOSUB dlg1.BTNEND
$EXIT



$SUB dlg1Init
REM     Initialize dialog save area
REM@# inistart
Call cSetFocus(dlg1HDLG%,200)

call w32GetParent(addrof(padre%))
...
call w32CreateListH(padre%,10,195,475,180,addrof(lis%))
...
call
w32ListGetEvents1(padre%,lis%,250,addrof(evento%),addrof(l_
item%),addrof(l_sub%))
...
REM@# iniend
```

99) call w32EditENTER(index%,hand%,IDbutton%,addrof(key%))

Calling this function allows the user to move the focus to the next control by pressing ENTER key. Besides, every key% the user press can be processed.

This special behaviour only affects to the control referenced by the first parameter.

Index%, an integer value between 1 and 99
Hand%, reference to the control.

IDbutton%, value between 200 and 299 that indicates the ID of the button (real or dummy) which code in *BtnClick Subroutine* will be executed each time the user press a key when the focus be over that control.
Key%, Code for the key that has been pressed. (See w32Skeybd_event_down function for the code list)

In all of the dialog boxes that make up a .exe program, it must be used a different index% value for each control. So, to associate this behaviour to three controls the sintax of the functions to use would be ...

Call w32EditENTER(1,...
Call w32EditENTER(2,...
Call w32EditENTER(3,...

Sample:

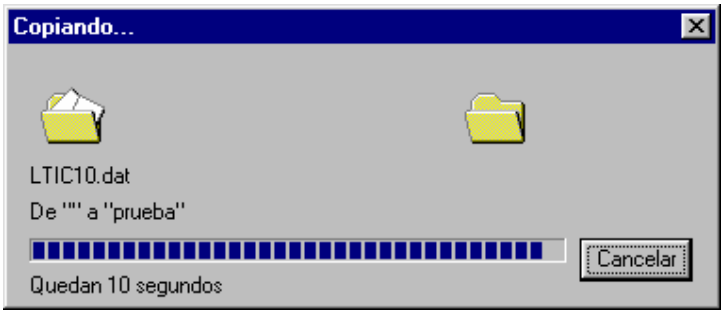
```
$SUB dlg1BtnClick
REM     Button Click save area
REM@# btnstart
SELECT CMDID%
...
CASE 230
       SELECT tecla100%
        CASE 112
                    Rem Handling F1 key pressing

        CEND

CASE 231
    SELECT tecla101%
    CASE  33
            Rem Pg. Down
    CASE 34
            Rem Pg. Up
    CEND
CEND
REM@# btnend
GOSUB dlg1.BTNEND
$EXIT



$SUB dlg1Init
REM     Initialize dialog save area
REM@# inistart
Call cSetFocus(dlg1HDLG%,200)
call w32GetParent(addrof(padre%))
...
```

```
Call w32GetWindow(padre%,100,addrof(ed100%))
Call w32GetWindow(padre%,101,addrof(ed101%))

...

call w32EditENTER(1,ed100%,230,addrof(tecla100%))
call w32EditENTER(2,ed101%,231,addrof(tecla101%)

REM@# iniend
```

100) call w32BrowseForFolder(Dialog%,title$,addrof(dir$),addrof(ret%))
Creates a dialog box that allows the user to select a folder
Dialog%, reference to the Dialog Box. (Value returned by w32GetParent).
title$, Help text to be showed in the dialog box.
dir$, Path selected by the user
ret%, Return Value.(0 if Cancel button was pressed)
Sample:
call w32BrowseForFolder(padre%,"Seleccione el directorio destino para la copia de seguridad",addrof(texto$),addrof(ret%))

101) call w32FileCopyProgress(Dialog%,from$,to$,addrof(ret%))
Copies the files specified in the *from$* parameter to the location specified in the *to$* parameter displaying a progress dialog box.

Dialog%, reference to the Dialog Box. (Value returned by w32GetParent).
If the path specified in *from$* ends with *.* a recursive copy will be make.
Ret%, Zero if successful, or nonzero otherwise



102) call w32FileDeleteProgress(Dialog%,from$,addrof(ret%))

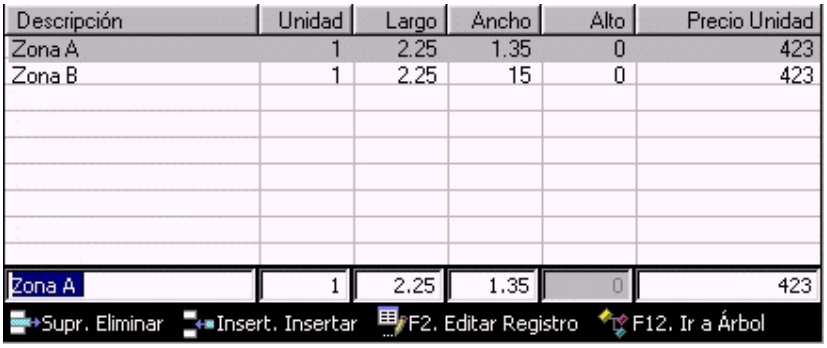
103) call w32FileRenameProgress(Dialog%,from$,to$,addrof(ret%))

104) call w32FileMoveProgress(padre%,from$,to$,addrof(ret%))

105)call w32ListFindItemPartial(lis%,string$,position%,addrof(where%))
Searches, from a *position%*, for a list view item whose first column text begins with the *string$* specified as the second parameter.

lis%, reference to the list view control.
string$, string to compare with the item text.
position%, starting position to search from.
where%, returns the index of the item if successful, or -1 otherwise

106)call w32ControlFlat(control%)
Specifies that a *control%* has a border with a sunken edge.
Control%, reference to the control



107)call w32CreateImageList(width%,file$,addrof(ima%))
Creates a reference to a .bmp *file$* that must contain an image list.
The *width%* in pixels of each image in the list must be specified as the first parameter.

A reference to the image list is returned. Calling to this function has no visual effect, only creates a reference to a image list to be used with List View and Tree View controls.

108)call w32ListImageList(lis%,ima%,addrof(ret%))

Assigns an image list (*ima%*) to a list view control (*lis%*).
ret%, returns the handle to the image list previously associated with the control if successful, or 0 otherwise.

109)call w32ListSetImage(lis%,item%,ima_index%,addrof(ret%))
Set the image (# ima_index%) of an *item%* of the list view *(lis%)* from the list's image list.

lis%, reference to the list view control.
item%, zero-based index of the item of the list whose image is to be assigned.
ima_index%, zero-based index of the item's icon in the control's image list

110) call w32ListInsertItemEx(lis%,text$,item%,ima_index%,addrof(resu%))
This function adds a new paramater to **w32ListInsertItem** to allow to specify a zero-based index (*ima_index%*) of the item's icon in the control's image list.

Sample:
To contain all the icons that will be showed in a list view control the following file, called image.bmp, has been created:


Each icon is 20 pixels width.

```
call w32CreateImageList(20,".\image.bmp",addrof(ima%))
call w32ListImageList(lis%,ima%,addrof(ret%))
call w32ListSetImage(lis%,0,1,addrof(ret%)).
```

Here is the result:

111) call w32CreateTreeH(dialog%,x%,y%,width%,height%,addrof(tree%))
Creates a tree view control in the Dialog Box referenced by *dialog%*.(Use the value returned by w32GetParent as the first parameter)

112) call w32TreeInsertItem(tree%,text$,parent%,index%,childrens%,addrof(ret%))
Inserts a new item in alphabetical order in the tree view control referenced by *tree%* .

Tree%, reference to the tree view control (Value returned by w32CreateTreeH)
Text$, string that contains the item text.
Parent%, handle to the parent item. If this member is the 0, the item is inserted at the root of the tree view control. (This value must be get by a previous call to w32TreeInsertItem)

Index%, a integer value to associate with the item.
Childrens%, Flag that indicates whether the item has associated child items.
This member can be one of the following values:

zero The item has no child items.
one The item has one or more child items

Ret%, returns a handle to the just inserted item, that should be used in any function that requieres it.

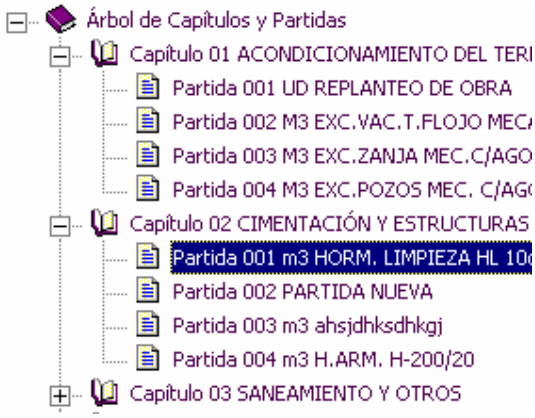
Sample: The following lines produce the tree below.

```
call w32TreeInsertItem(tree%,"Capítulo 1",0,0,0,addrof(cap1%))
call w32TreeInsertItem(tree%,"Capítulo 2",0,0,1,addrof(cap2%))
call w32TreeInsertItem(tree%,"Partida 5",cap2%,002001,0,addrof(ret%))
call w32TreeInsertItem(tree%,"Partida 8",cap2%,002002,0,addrof(ret%))
```

113) call w32TreeImageList(tree%,ima%,addrof(ret%))
Assigns an image list (*ima%*) to a tree view control (tree*%*).
ret%, returns the handle to the image list previously associated with the control if successful, or 0 otherwise.

114) call w32TreeInsertItemEx(tree%,text$,parent%,index%,childrens%,ima_index%,addrof(ret%))

This function adds a new paramater to **w32TreeInsertItem** to allow to specify a zero-based index (*ima_index%*) of the item's icon in the control's image list.



115) call w32TreeExpand(tree%,parent%,addrof(ret%))
Expands the list of child items associated with the specified parent item, if any.
Tree%, reference to the tree view control.
Parent%, handle of the item to be expanded
Ret%, returns nonzero if a change took place, or zero otherwise.

116)call w32TreeEnsureVisible(tree%,item%,addrof(ret%))
Ensures that a tree view item is visible, expanding the parent item or scrolling the tree view control, if necessary
Tree%, reference to the tree view control.
item%, handle of the item.
Ret%, returns nonzero if the system scrolled the items in the tree view control and no items were expanded. Otherwise, the message returns zero.

117) call w32TreeDeleteItem(tree%,item%,addrof(ret%))
Removes an item from a tree view control.
Tree%, reference to the tree view control.
item%, handle of the item.
Ret%, returns 1 if successful, or 0 otherwise.

118) call w32TreeDeleteAllItems(tree%,addrof(ret%))
Removes all items from a tree view control.
Tree%, reference to the tree view control.
Ret%, returns 1 if successful, or 0 otherwise.

119) call w32TreeSetColor(tree%,r%,g%,b%)
Sets the text color of the control.
Tree%, reference to the tree view control.

r % – r(ed) component value [0..255]
g% – g(reen) component value [0..255]
b% – b(lue) component value [0..255]

120) call w32TreeSetSel(tree%,item%,addrof(ret%))

Selects the specified tree view item.
Tree%, reference to the tree view control.
item%, handle of the item.
Ret%, returns 1 if successful, or 0 otherwise.

121) call w32TreeGetSelItem(tree%,addrof(ret%))
Retrieves the currently selected item in the tree view control
Tree%, reference to the tree view control
Ret%, returns the handle to the item if successful, or 0 otherwise

122) call w32TreeGetItem(tree%,item%,addrof(text$),addrof(index%))
Returns the item text and the intenger value associated with the item (index%)
Tree%, reference to the tree view control.
item%, handle of the item.
Text$, buffer that receives the item text.
Index%, integer value associated with the item

123) call w32TreeGetParent(tree%,item%,addrof(parent%))
Tree%, reference to the tree view control.
item%, handle of the item.
Parent%, handle to the item's parent.

124) call w32TreeGetChild(tree%,parent%,addrof(child%))
Retrieves the first child item of the item specified by the *parent%* parameter

125) call w32TreeGetNextSibling(tree%,item%,addrof(sibling%))
Retrieves the next sibling item of a specified *item%* in a *tree%* view control

126) call w32TreeGetEvents*n*(dialog%,tree%,button%,addrof(etree%),addrof(ptree%))

Where *n* is a value between 1 and 9. Calling this group of functions allows to trap events generated by tree view controls.

Dialog%, reference to the Dialog Box. (Value returned by w32GetParent).
tree%, reference to the tree view control (Value returned by w32CreateTreeH).
button%, value between 200 and 299 that indicates the ID of the button (real or dummy) which code in *BtnClick Subroutine* will be executed each time an event occurs.
Etree%, event number. (See table below)
Ptree%, property for the event. (See table below)

Event	*Description*	*Property*
1	The user clicks an item with the left mouse button	Handle to the item
2	An item has been selected	Handle to the item
3	The user double-clicks an item with the left mouse button	Handle to the item
4	The user clicks an item with the right mouse botton	Handle to the item
5	A key has been pressed	Code for the key (See w32Skeybd_event_down)

6	A parent item's list of child items has expanded	Handle to the item

In all of the dialog boxes that make up a .exe program, the same function must be called once only. So, to define event processing for three tree view controls the functions to use would be ...

Call w32TreeGetEvents1...
Call w32TreeGetEvents2...
Call w32TreeGetEvents3...

127) call w32DefineRegion*n*(dialog%,button%,addrof(control%),addrof(left%),addrof(top%),addrof(right%),addrof(bottom%))

Where *n* is a value between 1 and 9. Calling this group of functions allows users to draw a rectangle on a dialog.

This function specifies an ID of a dummy button which code in *BtnClick Subroutine* will be executed each time the user releases the left mouse button.

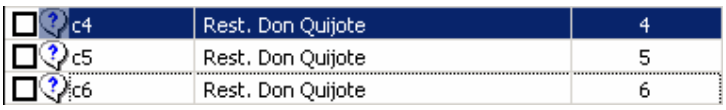
Besides returning the coordinates of the rectangle, the last four parameters can be use as *input* parameters to delimit the region where user can drag the mouse to draw.

Dialog%, reference to the Dialog Box. (Value returned by w32GetParent).
button%, value between 200 and 299 that indicates the ID of the button (real or dummy) which code in *BtnClick Subroutine* will be executed each time the user releases the left mouse button.
Control%, name of the variable which value will determine if the user is allowed to drag the mouse to draw. A value of 0 enables and a value of 1 disables. Each time the user finish the draw releasing the left mouse button this variable will be set to 0

In all of the dialog boxes that make up a .exe program, the same function must be called once only.

128) call w32ListSetFocusItem(lis%,item%,addrof(ret%))

Set the input focus to the desired item of the list, so it is surrounded by a standard focus rectangle.



129) call w32ListSetHotItem(lis%,item%,addrof(ret%))

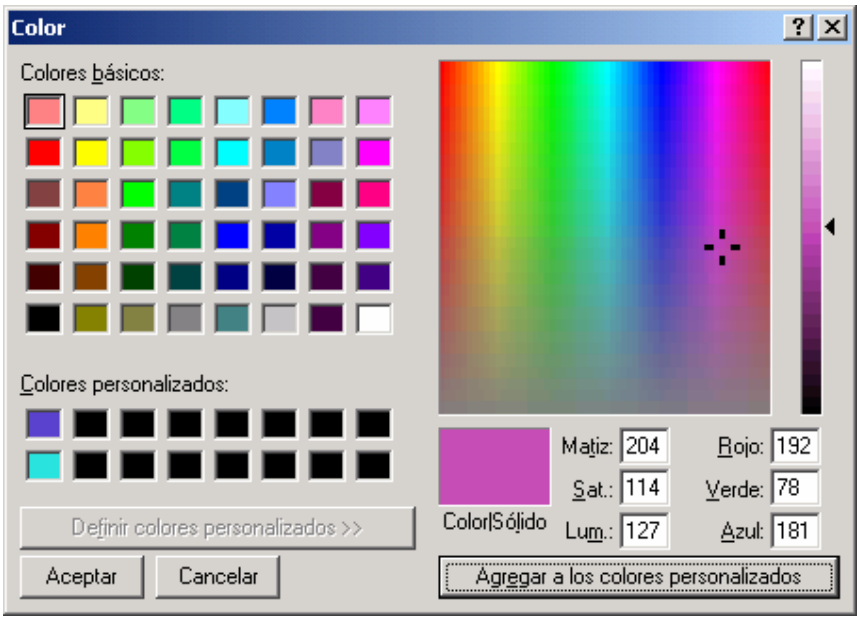
Sets the hot item in a list view control. Each list can have only one hot item simultaneously. To disable this property, call this function setting the second parameter to –1.

c6	Rest. Don Quijote	6
c7	Rest. Don Quijote	7

130) call w32CreateProgressH(parent%,x%,y%,width%,height%,smooth%,vertical%,addrof(hand%))

Creates a progress bar control over the form specified as the first parameter.

131) call w32ChooseColor(parent%,r%,g%,b%,addrof(red%),addrof(green%),addrof(blue%),addrof(ret%))



132) call w32DeleteObject (objeto%)
This function frees the memory used by program objects (images and fonts)

133)call w32GetBitmapDimensions(path$, addrof(w%), addrof(h%))

134) call w32CreateImageHEx(hand%,path$,x%,y%,w%,h%,addrof(image%),addrof(control%))

135) call w32B3DH(button%)

136) call w32BFlatH(button%)

137) call w32BMultilineH(button%)

138) call w32BLoadImageH(button%,file$,w%,h%,addrof(image%))

139) call w32BFLoadImageH(button%,file$,w%,h%,addrof(image%))

140) call w32ComboGetCurSel(combo%,addrof(sel%))

141) call w32ComboResetContent(combo%,addrof(ret%))

142)call w32CreateCalendarH(parent%,x%,y%,w%,h%,addrof(cal%))

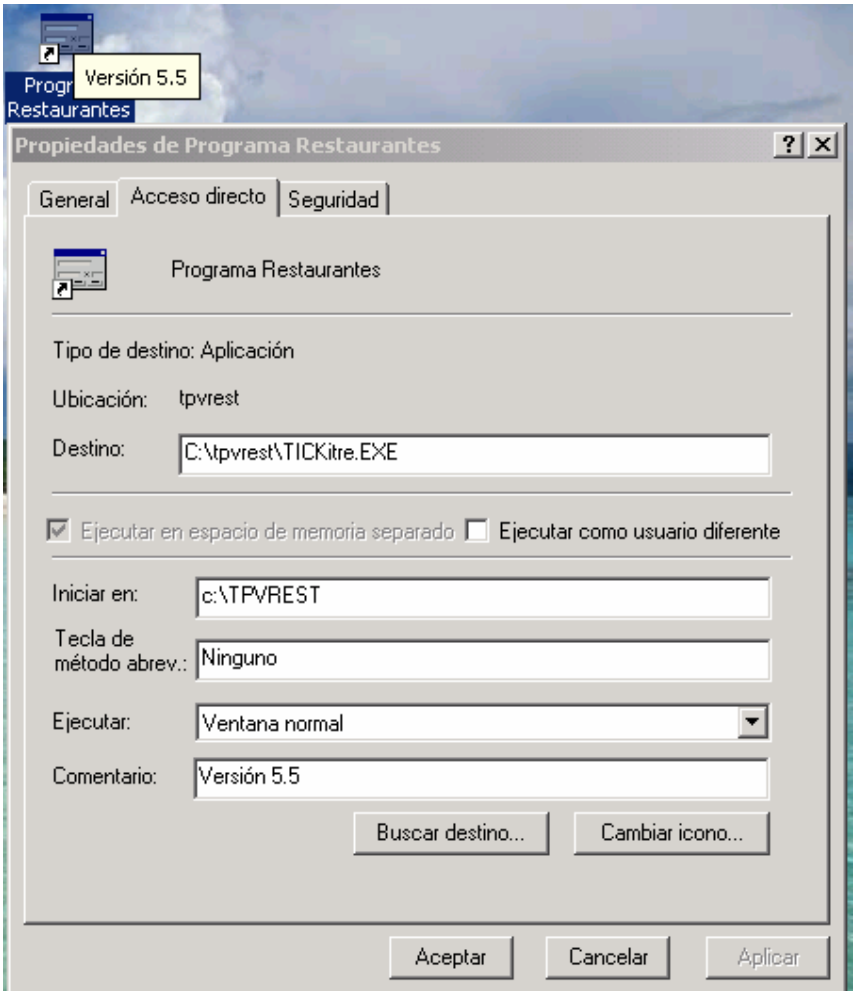
143)call w32CreateProcess(command$,addrof(retorno%))

Sample: call w32CreateProcess("command.com /c sound 900 3",addrof(ret%))

144) call w32CreateShortCut(program$,access_lnk$,work_dir$,comment$,addrof(ret%))

Sample:

```
Rem Find Desktop  path... (See registry functions)
call cRegOpenKey(80000001H,"Software",addrof(sub%),0,addrof(ret%))
call cRegOpenKey(sub%,"Microsoft",addrof(sub1%),0,addrof(ret%))
call cRegOpenKey(sub1%,"Windows",addrof(sub2%),0,addrof(ret%))
call cRegOpenKey(sub2%,"CurrentVersion",addrof(sub3%),0,addrof(ret%))
call cRegOpenKey(sub3%,"Explorer",addrof(sub4%),0,addrof(ret%))
call cRegOpenKey(sub4%,"Shell Folders",addrof(sub5%),0,addrof(ret%))
call cRegQueryValue(sub5%,"Desktop",addrof(donde$),addrof(ret%))

call w32CreateShortCut("c:\TPVREST\tickitre.exe",donde$&"\Programa
Restaurantes.lnk","c:\TPVREST","Versión 5.5",addrof(ret%))
```



145) call w32CreateTipH(control%,text$,addrof(tip%))

146) call w32CreateWindowH(parent%,ID%,type%,style%,style_ex%,title$,x%,y%,w%,h%,addrof(control%))

Sample:

```
call w32CreateWindowH(parent%,106,"SysDateTimePick32",WS_BASE% OR
WS_TABSTOP% OR WS_GROUP% OR DTS_SHOWNONE%, WS_EX_CLIENTEDGE%, "", 470,
60, 300, 30, addrof(r106%))

call cSetFocus(dlg1HDLG%,106)
```

Types of controls and styles:

```
Rem Generic styles
WS_OVERLAPPED% = 00000000H
WS_POPUP% = 80000000H
WS_CHILD% = 40000000H
WS_VISIBLE% = 10000000H
WS_DISABLED% = 08000000H
WS_MINIMIZE% = 20000000H
WS_MAXIMIZE% = 01000000H
WS_CAPTION% = 00C00000H
WS_BORDER% = 00800000H
WS_DLGFRAME% = 00400000H
WS_VSCROLL% = 00200000H
WS_HSCROLL% = 00100000H
WS_SYSMENU% = 00080000H
WS_MINIMIZEBOX% = 00020000H
WS_MAXIMIZEBOX% = 00010000H
WS_GROUP% = 00020000H
WS_TABSTOP% = 00010000H
WS_BASE%=(WS_CHILD% OR WS_VISIBLE%)


Rem Extended styles
WS_EX_CLIENTEDGE% = 00000200H


Rem Static Controls. Type: “Static”
SS_LEFT% = 00000000H
SS_CENTER% = 00000001H
SS_RIGHT% = 00000002H
SS_ICON% = 00000003H
SS_BLACKRECT% = 00000004H
SS_GRAYRECT% = 00000005H
SS_WHITERECT% = 00000006H
SS_BLACKFRAME% = 00000007H
SS_GRAYFRAME% =  00000008H
SS_WHITEFRAME% = 00000009H
SS_SIMPLE% = 0000000BH
SS_LEFTNOWORDWRAP% = 0000000CH
SS_NOPREFIX% = 00000080H
SS_NOTIFY% =00000100H

Rem Buttons. Type: “Button”
BS_PUSHBUTTON% = 00000000H
BS_DEFPUSHBUTTON% = 00000001H
BS_CHECKBOX% = 00000002H
```

```
BS_AUTOCHECKBOX% = 00000003H
BS_RADIOBUTTON% = 00000004H
BS_3STATE% = 00000005H
BS_AUTO3STATE% = 00000006H
BS_GROUPBOX% = 00000007H
BS_USERBUTTON% = 00000008H
BS_AUTORADIOBUTTON% = 00000009H
BS_OWNERDRAW% = 0000000BH
BS_LEFTTEXT% = 00000020H
BS_MULTILINE%= 00002000H
BS_VCENTER% =  00000C00H

Rem Edit Controls. Type: “Edit”
ES_LEFT% = 00000000H
ES_CENTER% = 00000001H
ES_RIGHT% = 00000002H
ES_MULTILINE% = 00000004H
ES_UPPERCASE% = 00000008H
ES_LOWERCASE% = 00000010H
ES_PASSWORD% = 00000020H
ES_AUTOVSCROLL% = 00000040H
ES_AUTOHSCROLL% = 00000080H
ES_NOHIDESEL% = 00000100H
ES_OEMCONVERT% = 00000400H
ES_READONLY% = 00000800H
ES_WANTRETURN% = 00001000H
ES_NUMBER% = 00002000H

Rem Scroll Bar. Type: “ScrollBar”
SBS_HORZ% = 0000H
SBS_VERT% = 0001H
SBS_TOPALIGN% = 0002H
SBS_LEFTALIGN% = 0002H
SBS_BOTTOMALIGN% = 0004H
SBS_RIGHTALIGN% = 0004H
SBS_SIZEBOXTOPLEFTALIGN% = 0002H
SBS_SIZEBOXBOTTOMRIGHTALIGN% = 0004H
SBS_SIZEBOX% = 0008H

Rem List Box. Type: “ListBox”
LBS_NOTIFY% = 0001H
LBS_SORT% = 0002H
LBS_NOREDRAW% = 0004H
LBS_MULTIPLESEL% = 0008H
LBS_OWNERDRAWFIXED% = 0010H
LBS_OWNERDRAWVARIABLE% = 0020H
LBS_HASSTRINGS% = 0040H
LBS_USETABSTOPS% = 0080H
LBS_NOINTEGRALHEIGHT% = 0100H
LBS_MULTICOLUMN% = 0200H
LBS_WANTKEYBOARDINPUT% = 0400H
LBS_EXTENDEDSEL% = 0800H
LBS_DISABLENOSCROLL% = 1000H
LBS_NOSEL% = 4000H
LBS_STANDARD% = (LBS_NOTIFY% OR WS_VSCROLL% OR WS_BORDER% OR
WS_HSCROLL% OR LBS_USETABSTOPS%)

Rem Combo Box. Type: “ComboBox”
CBS_SIMPLE% = 0001H
CBS_DROPDOWN% = 0002H
CBS_DROPDOWNLIST% = 0003H
CBS_OWNERDRAWFIXED% = 0010H
```

```
CBS_OWNERDRAWVARIABLE% = 0020H
CBS_AUTOHSCROLL% = 0040H
CBS_OEMCONVERT% = 0080H
CBS_SORT% = 0100H
CBS_HASSTRINGS% = 0200H
CBS_NOINTEGRALHEIGHT% = 0400H
CBS_DISABLENOSCROLL% = 0800H


Rem Date Time Picker Control. Type: "SysDateTimePick32"
DTS_TIMEFORMAT% = 0009H
DTS_SHOWNONE% = 0002H
```

147) call w32DTPSetSel(control%,null%,year%,month%,day%,hour%,min%,sec%,addrof(ret%))

Set the value for a Date Time Picker control .

148) call w32DTPGetSel (control%, addrof(year%), addrof(month%), addrof(day%), addrof(hour%), addrof(min%), addrof(sec%), addrof(ret%))

Get the current value for a Date Time Picker control.

149) call w32EditGetLineCount (control%,addrof(lines%))

150) call w32EditGetLine (control%, line_number%, addrof(text$), addrof(length%))

151) w32GetDiskFreeSpaceEx(unit$,addrof(bytesfree$),addrof(retcode%).

152) call w32GetDiskSpaceEx (unit$,addrof(espace$),addrof(ret%))

153) call w32GetVersion(addrof(ver%))

Return value:
1 – 95/98/Me
2 - NT/2000/XP

154) call w32GetWindowID(control%,addrof(id%))

155)call w32GetWindowRectEx(control%,addrof(left%),addrof(top%),addrof(right%),addrof(bottom%),addrof(ret%))

156) call w32ImageBackground*n*(parent%,image$,w%,h%,addrof(ret%))

Where *n* is a value from 1 to 9.

157) call w32LBoxResetContentH(control%)

158) call w32ListGetRect(lis%,item%,subitem%,addrof(left%),addrof(top%),addrof(right%),addrof(bottom%),addrof(ret%))

159) call w32ListSetColumn(list%,column%,title$,addrof(ret%))

160) call w32ListSetFullBkColor(lis%,r%,g%,b%)

161) call w32MAPISendMail(subject$,content$,destination_address$,name$,number_of_files%,file$,addrof(ret%))

162) call w32CreateMenu(addrof(menu%))
Creates a reference to a context menu.

163) call w32MenuInsertItem(menu%, id%, type%, text$, addrof(ret%))
Adds an element at the end of a context menu

Menu%, (Value returned by w32CreateMenu)

ID%, ID associated to the item

Type%,
0, Normal Item
1, Subtitem
2, SEPARATOR

164) call w32MenuItemBitmap(menu%,ID%,image$,addrof(image%))

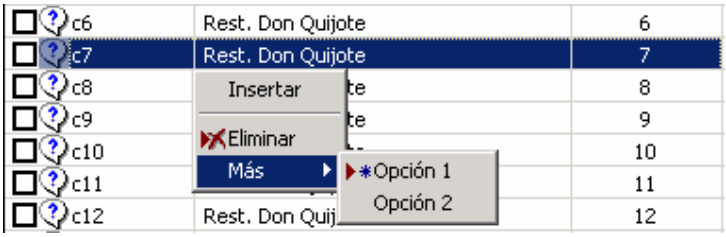
165) call w32MenuPopup(menu%, control%, left%, top%, addrof(sel%))
Shows a context menu associated to the control specified as the second parameter.

166) call w32MenuDestroy(menu%,addrof(ret%))
Frees memory.

Sample:

```
$SUB dlg1Init
REM     Initialize dialog save area
REM@# inistart
.
.
.
call w32CreateMenu(addrof(submenu%))
call w32MenuInsertItem(submenu%,6,0,"Opción 1",addrof(ret%))
call w32MenuInsertItem(submenu%,7,0,"Opción 2",addrof(ret%))

call w32CreateMenu(addrof(menu%))
```

```
call w32MenuInsertItem(menu%,1,0,"Insertar",addrof(ret%))
call w32MenuInsertItem(menu%,2,2," ",addrof(ret%))
call w32MenuInsertItem(menu%,3,0,"Eliminar",addrof(ret%))
call w32MenuInsertItem(menu%,submenu%,1,"Más",addrof(ret%))

Rem ancho 13, alto 13
call w32MenuItemBitmap(menu%,3,".\eliminar.bmp",addrof(ret%))
call w32MenuItemBitmap(menu%,6,".\insertar.bmp",addrof(ret%))
.
.
.
call
w32ListGetEvents2(padre%,lis%,250,addrof(evento%),addrof(l_item%),addr
of(l_sub%))

REM@# iniend
$EXIT

$SUB dlg1BtnClick
REM     Button Click save area
REM@# btnstart
SELECT CMDID%

CASE 250
        Rem Notificaciones para la lista lis%
        Rem evento%->Numero de evento
        Rem l_item%->item de la lista (row)
        Rem l_sub%->Sub-item de la lista (column)
SELECT evento%

CASE 4
Rem Click con el botón de derecho en un campo
call w32GetWindowRectEx(lis%, addrof(izq%), addrof(alto%),
addrof(der%), addrof(fondo%),addrof(ret%))
desx%=izq%
desy%=alto%
Rem Coordenadas relativas a la lista, por eso se aplica desplazamiento
call w32ListGetRect(lis%, l_item%, l_sub%, addrof(izq%),
addrof(alto%), addrof(der%), addrof(fondo%),addrof(ret%))
donde%=fondo%+desy%
call w32MenuPopup(menu%,lis%,izq%+desx%,donde%,addrof(sel%))
        SELECT sel%
        CASE 3
                Call w32ListDeleteItem(lis%,l_item%,addrof(ret%))
        .
        .
        .
        CEND


CEND
CEND
REM@# btnend
GOSUB dlg1.BTNEND
$EXIT
```



167) call w32SetWindowOrder(control%,control_ref%,addrof(ret%))
Set that the control specified as the first parameter will follow, in tabulation order, to the control specified as the second parameter.

168) call w32TabStopWindow(control%,yes_no%)
Set if a control will be reachable pressing tab key.

169) call w32TipUpdateTextH(tip%, control%, new_text$, addrof(retorno%))

170) call w32TreeGetRect(tree%, item%, addrof(left%), addrof(top%), addrof(right%), addrof(bottom%),addrof(ret%))

171) call w32WinHelp(parent%,help_file$,operation%,value$,addrof(ret%))

Samples:

```
Rem 11 Show the search index
call w32WinHelp(padre%,"videos31.hlp",11,"",addrof(ret%))
Rem  4 Help about how to use help
call w32WinHelp(padre%,"videos31.hlp",4,"",addrof(ret%))
Rem 257 Search for a key word
call w32WinHelp(padre%,"videos31.hlp",257,"CINTES VIDEO",addrof(ret%))
```

172) call w32ListGetColumnsOrder(lis%,number_of_cols%,addrof(columns_order$),addrof(ret%))

173) call w32CreateGrid(parent%,title$,ID%,x%,y%,w%,h%,addrof(grid%))

Requires file CETgrid.dll and versión 9.32m or higher

Notes:
- Up to 20 simultaneous grid in the same executable
- Up to 32000 rows
- Up to 256 columns
- Up to 150 rows

Ejemplo: Grid.prj

174) call w32GridDeleteAllItems(grid%)

175) call w32GridDeleteColumn(grid%, col%)

176) call w32GridDeleteItem(grid%, temp%)

177) call w32GridEditCurCell(grid%)

178) call w32GridEditing (grid%, addrof(editting%))

179) call w32GridGetCellProtection(grid%, row%, col%, addrof(protected%))

180) call w32GridGetCol(grid%, addrof(current_col%))

181) call w32GridGetColCount(grid%, addrof(num_of_cols%))

182) call w32GridGetEditString(grid%, addrof(txt$))

183) call w32GridGetEvent(grid%, addrof (event%))

Returns the number of the event generated by the grid. Functions *w32GridGetEventP1 and w32GridEventP2* should be called to obtain the properties for the event.

Event	Description	Property 1	Property 2
1	*F1*	Current row	Current column
2	*F2* (Reserved for edition)		
3	*F3*	Current row	Current column
4	*F4*	Current row	Current column
5	*F5*	Current row	Current column
6	*F6*	Current row	Current column
7	*F7*	Current row	Current column
8	*F8*	Current row	Current column
9	*F9*	Current row	Current column
10	*F10* (Reserved)		
11	*F11*	Current row	Current column
12	*F12*	Current row	Current column
13	Edit Begin	Row	Column
14	Edit End	Row	Column
15	Delete Key	Current row	Current column
16	*Insert Key*	Current row	Current column
17	Home Key	Current row	Current column
18	End key	Current row	Current column
19	Arrow up.	1	Current column
20	Arrow dowm.	Last Row	Current column
21	*Prior Pag key*.	1	Current column
22	*Next Pag key*	Last Row	Current column
23	(Reserved)		
24	Clic beyond cells area .	Corresponding row, -1 otherwise	Corresponding column, -1 otherwise
25	Row change	Previous row	Previous column
26	Column change	Previous row	Previous column
27	The grid has obtained the focus	ID of the previously focused control or 0 if the previous control belongs to other dialog or application	-1
28	The grid has lost the focus	ID of the control that has just obtained the focus or 0 if the control belongs to other dialog or application	-1
29	Right button click.	Corresponding row, -1 otherwise	Corresponding column, -1 otherwise
30	Double-Click beyond cells area	Corresponding row, -1 otherwise	Corresponding column, -1 otherwise
31	ENTER pressed	Current row	Current column
32	ESC pressed	Current row	Column

Sample:

```
$SUB grid1Event
SELECT CET_EVTYPE%
```

```
REM     Event notification save area
REM@# evtstart
CASE 15
        Rem 15 → Special events....
        SELECT CMDID%
        Rem 400 → ID associated by w32CreateGrid
        CASE 400
                call w32GridGetEvent(grid%,addrof(ev%))
                SELECT ev%
                CASE 9
                        call w32GridGetEventP1(grid%,addrof(p1%))
                        call w32GridGetEventP2(grid%,addrof(p2%))
                        call
w32GridGetText(grid%,p1%,p2%,addrof(txt$))
                        texto$=" (F9 pressed: "&txt$&" ) "

                CEND


        CEND
REM@# evtend
CEND
$EXIT


REM
REM     The dialog is being initialized
REM     Set the initial contents and state of the list box(s)
REM     and other controls
REM

$SUB grid1Init
REM     Initialize dialog save area
REM@# inistart
di%=grid1HDLG%
call cSetFocus(di%,200)
call w32GetParent(addrof(padre%))
call w32CreateGrid(padre%,"Líneas de la Factura
08541"&chr$(13)&"(Versión Beta 1.0)",400,10,15,625,285,addrof(grid%))
```

184) call w32GridGetEventP1(grid%, addrof (p1%))

185) call w32GridGetEventP2(grid%, addrof (p2%))

186) call w32GridGetItemCount(grid%, addrof (rows%))

187) call w32GridGetRect (grid%, row%, col%, addrof(left%), addrof(top%), addrof(right%), addrof(bottom%))

188) call w32GridGetRow(grid%, addrof (row%))
Return the current active row.

189) call w32GridGetText(grid%, row%, col%, addrof(text$))

190) call w32GridInsertColumn(grid%, position%)

191) call w32GridInsertItem(grid%, position%)

192) call w32GridIsHilighted(grid%, addrof(yes_no%))

193) call w32GridProtectCell(grid%, row%, col%, protect%)

194) call w32GridSetAllowColResize(grid%, redim%)

195) call w32GridSetBkColor(grid%, r%, g%, b%)

196) call w32GridSetCellBkColor(grid%,row%,col%,r%,g%,v%)

197) call w32GridSetColMaxChars(grid%,column%,max_char%)

198) call w32GridSetColsNumbered(grid%, auto_numbered%)

199) call w32GridSetColWidth(grid%, col%,width%)

200) call w32GridSetCursorColor(grid%,r%,g%,b%)

201) call w32GridSetCursorPos(grid%,row%, column%)

202) call w32GridSetDim(grid%,num_rows%, num_columns%)

203) call w32GridSetEditable(grid%, editable%)

204) call w32GridSetEnterMode (grid%, mode%)

212) call w32GridSetSelColor (grid%, r%, g%,b%)

213) call w32GridSetSelTextColor (grid%, r%, g%, b%)

214) call w32GridSetText(grid%, row%, column%, text$)

215) call w32GridSetTitleFont(grid%, font$, points%, orientation%, bold%, italic%,inderline%,strike_through%)

206) call w32GridSetTitleHeight(grid%,height%)

207) call w32GridShowHilight(grid%,yes_no%)

208) call w32EditENTEREx(index%,hand%,ID%,addrof(key%))

Sample:

```
$SUB dlg1Event
SELECT CET_EVTYPE%
REM     Event notification save area
REM@# evtstart
CASE 15

        Rem Special events processing
        SELECT CMDID%
        CASE 100
                SELECT tecla100%
                CASE 112
                    Rem F1 pressed

                CEND

        CASE 101
                SELECT tecla101%
                CASE  33
                    Rem NEXT
                CASE 34
                    Rem PRIOR
                CEND
        CEND
REM@# evtend
CEND
$EXIT


$SUB dlg1Init
REM     Initialize dialog save area
REM@# inistart
Call cSetFocus(dlg1HDLG%,200)

call w32GetParent(addrof(padre%))
...

Call w32GetWindow(padre%,100,addrof(ed100%))
Call w32GetWindow(padre%,101,addrof(ed101%))

...

call w32EditENTEREx(1,ed100%,100,addrof(tecla100%))
call w32EditENTEREx(2,ed101%,101,addrof(tecla101%)

REM@# iniend
```

209) call w32ListGetEventsEx*n*(parent%,lis%,ID%,addrof(event%),addrof(param1%),addrof(param2%))

Sample:

```
$SUB dlg1Event
SELECT CET_EVTYPE%
REM     Event notification save area
REM@# evtstart
CASE 15
SELECT CMDID%
...
CASE 400
        Rem Notifications for list control lis%
        Rem evento%->Event number
        Rem l_item%->Property 1
        Rem l_sub%->Property 2
        SELECT evento%
        CASE 1
                Rem Click
                rem Msgbox "Click: "&str$(l_item%)&","&str$(l_sub%)

        CASE 2
                Rem Selection changed
                rem Msgbox "Selection Changed: “&str$(l_item%)
                call w32ListGetSelItem(lis%,addrof(item%))
                if item%<>-1
                then
                call
w32ListGetText(lis%,item%,0,addrof(text$),addrof(ret%))
                call cSetCtrlValue(dlg1HDLG%,100,text$)
                ifend

        CASE 3
                Rem Double-Click
                Msgbox "Double-Click: "&str$(l_item%)&","&str$(l_sub%)

        CASE 4
                Rem Right Button
                Msgbox "Right Button: "&str$(l_item%)&","&str$(l_sub%)

        CASE 5
                Rem Key pressed:
                Msgbox "Tecla: "&str$(l_item%)

        CASE 6

                Rem Column clicked
                Msgbox "Click en column: "&str$(l_sub%)
                call w32ListSortItems(lis%,l_sub%,0,1,addrof(ret%))

        CEND

...
```

```
CEND
REM@# evtend
CEND
$EXIT



$SUB dlg1Init
REM     Initialize dialog save area
REM@# inistart

call w32GetParent(addrof(padre%))
...
call w32CreateListH(padre%,10,195,475,180,addrof(lis%))
...
call
w32ListGetEventsEx1(padre%,lis%,400,addrof(evento%),addrof(l_item%),ad
drof(l_sub%))
...
REM@# iniend
```

210)call w32TreeGetEventsEx*n*(parent%,tree%,ID%,addrof(etree%),addrof(ptree%))

211) call w32TreeSetImage(tree%,ref%,image_index%,addrof(ret%))