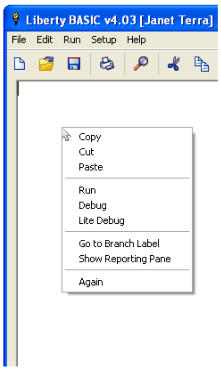
Menus: The Liberty BASIC Popup Menu

Table of Contents



Unlike the Menu Bar which is appended to the window caption, the popup menu coordinates are dependent upon the cursor coordinates. The x, y coordinates of the mouse cursor become the x, y coordinates of the upper left corner of the popup menu. Another name for the popup menu is the context menu.

The POPUPMENU Command

The command is **POPUPMENU**. **POPUPMENU** is *case-insensitive*, meaning you can write **POPUPMENU** or **popupmenu** or **Popupmenu** or any other combination of upper and lower case letters. The code for popup windows comes after the window is opened. In fact, a popup menu is not dependent upon a window being opened at all. The **POPUPMENU** command is followed by the listed item and place of execution.

```
    INPUT "See a popup menu? ";yn$
    IF INSTR(UPPER$(yn$), "Y") > 0 THEN
        POPUPMENU "Selection 1", [sel1], "Selection 2", [sel2]
    END IF
    END

[sel1]
    NOTICE "Selection 1";Chr$(13);"You chose the first item."
    END
```

```
[sel2]
    NOTICE "Selection 2";Chr$(13);"You chose the second item."
    END
```

POPUPMENU, the command

"Selection 1", the first listing of the popup menu

[sel1], the block of code to be executed if Selection 1 is clicked

"Selection 2", the second listing of the popup menu

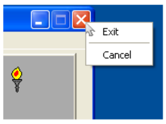
[sel2], the block of code to be executed if Selection 2 is clicked

The advantage of a context menu is that the menu is brought to the mouse cursor, eliminating the need for the mouse to travel to the stationary menu bar. This is especially helpful in a program that traps mouseclicks. (For more information on trapping mouse events, see Trapping Mouse Actions and the When Commands.)

```
    WindowWidth = 400
    WindowHeight = 300

    GRAPHICBOX #main.gb, 0, 0, 400, 300

    OPEN "SpiroDot" for Window as #main
    PRINT #main.gb, "Trapclose [EndProgram]"
    PRINT #main.gb, "Down; Fill Lightgray; Flush"
    PRINT #main.gb, "When leftButtonUp [SelColor]"

WAIT

[SelColor]
    xVar = MouseX
    yVar = MouseY
    POPUPMENU "Red", [col1], "Blue", [col2], "Yellow", [col3]
WAIT

[col1]
    PRINT #main.gb, "Color Red; Backcolor Red"
    PRINT #main.gb, "Place ";xVar;" ";yVar
    PRINT #main.gb, "Circlefilled 10"
    PRINT #main.gb, "Flush"
WAIT
```

```
[col2]
    PRINT #main.gb, "Color Blue; Backcolor Blue"
    PRINT #main.gb, "Place ";xVar;" ";yVar
    PRINT #main.gb, "Circlefilled 10"
    PRINT #main.gb, "Flush"
WAIT

[col3]
    PRINT #main.gb, "Color Yellow; Backcolor Yellow"
    PRINT #main.gb, "Place ";xVar;" ";yVar
    PRINT #main.gb, "Circlefilled 10"
    PRINT #main.gb, "Flush"
WAIT

[EndProgram]
    CLOSE #main
    END
```

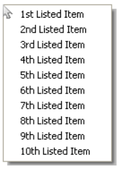
Popup menus can be used to confirm user action. Again, the advantage is the proximity of the popup menu to the mouse cursor.



Menu Listings

```
    POPUPMENU "1st Listed Item", [BranchTo1],
"2nd Listed Item", [BranchTo2], "3rd Listed Item", _
        [BranchTo3], "4th Listed Item", [BranchTo4],
"5th Listed Item", [Branchto5], "6th Listed Item", _
        [BranchTo6], "7th Listed Item", [BranchTo7],
"8th Listed Item", [BranchTo8], "9th Listed Item", _
        [BranchTo9], "10th Listed Item", [BranchTo10]
```

There is really no limit to the number of listed items a popup menu can contain. If there are many listings, it may be advisable to use Liberty BASIC's *line continuation character*, which is the underscore, to break up the listing onto multiple lines.



Menu Separators

```
     POPUPMENU "New", [newFile], "Load", [loadFile], "Save", [
saveFile],|, "Exit", [EndProgram]
```

Similar menu items can be grouped by inserting a menu separator (horizontal) line. Instead of a listing and its associated branch label, insert a pipe **|**.

Accelerator or 'Hot Key' Selection

The ampersand (**&**) key is a special key when added to any menu item. This allows menu selection by keypress rather than mouse click. The associated alphanumeric key is case-insensitive. Any alphanumeric key can be combined with the **&** key for menu selection. The **&** character doesn't appear on the popupmenu. Often the **&** precedes the first character in the menu title or item, but that isn't always the case. **`E&xit`**, or **X**, is frequently used as a menu item to close a window and quit an application. Without the addition of the ampersand (**&**) key, only the first letter acts as the 'Hot Key.'

Branch Events and Subs

Menu selection directs the code execution to the area specified by the branch label. The SpiroDot program uses branch labels to direct code execution. The **`POPUPMENU`** statement must be followed by a **`WAIT`** statement to prevent the code from *falling through*.

```
    WindowWidth = 400
    WindowHeight = 300

    GRAPHICBOX #main.gb, 0, 0, 400, 300

    OPEN "SpiroDot" for Window as #main
    PRINT #main.gb, "Trapclose [EndProgram]"
    PRINT #main.gb, "Down; Fill Lightgray; Flush"
    PRINT #main.gb, "When leftButtonUp [SelColor]"

WAIT

[SelColor]
    xVar = MouseX
    yVar = MouseY
    POPUPMENU "Red", [col1], "Blue", [col2], "Yellow", [col3]
WAIT
```

```
[col1]
    PRINT #main.gb, "Color Red; Backcolor Red"
    PRINT #main.gb, "Place ";xVar;" ";yVar
    PRINT #main.gb, "Circlefilled 10"
    PRINT #main.gb, "Flush"
WAIT

[col2]
    PRINT #main.gb, "Color Blue; Backcolor Blue"
    PRINT #main.gb, "Place ";xVar;" ";yVar
    PRINT #main.gb, "Circlefilled 10"
    PRINT #main.gb, "Flush"
WAIT

[col3]
    PRINT #main.gb, "Color Yellow; Backcolor Yellow"
    PRINT #main.gb, "Place ";xVar;" ";yVar
    PRINT #main.gb, "Circlefilled 10"
    PRINT #main.gb, "Flush"
WAIT

[EndProgram]
    CLOSE #main
    END
```

When code is directed to a branch label, that complete block of code must also end with a **WAIT** statement. If there is no **WAIT** statement, code execution will continue through the lines in succession until a **WAIT** statement is reached, the **END** statement is reached, or the code encounters an error.

A **POPUPMENU** can not be directed to or call a **SUB**.

See also Menu Bar.

If you have a favorite Popupmenu or other custom menu you'd like to share, please consider submitting an article.