



PANORAMA X

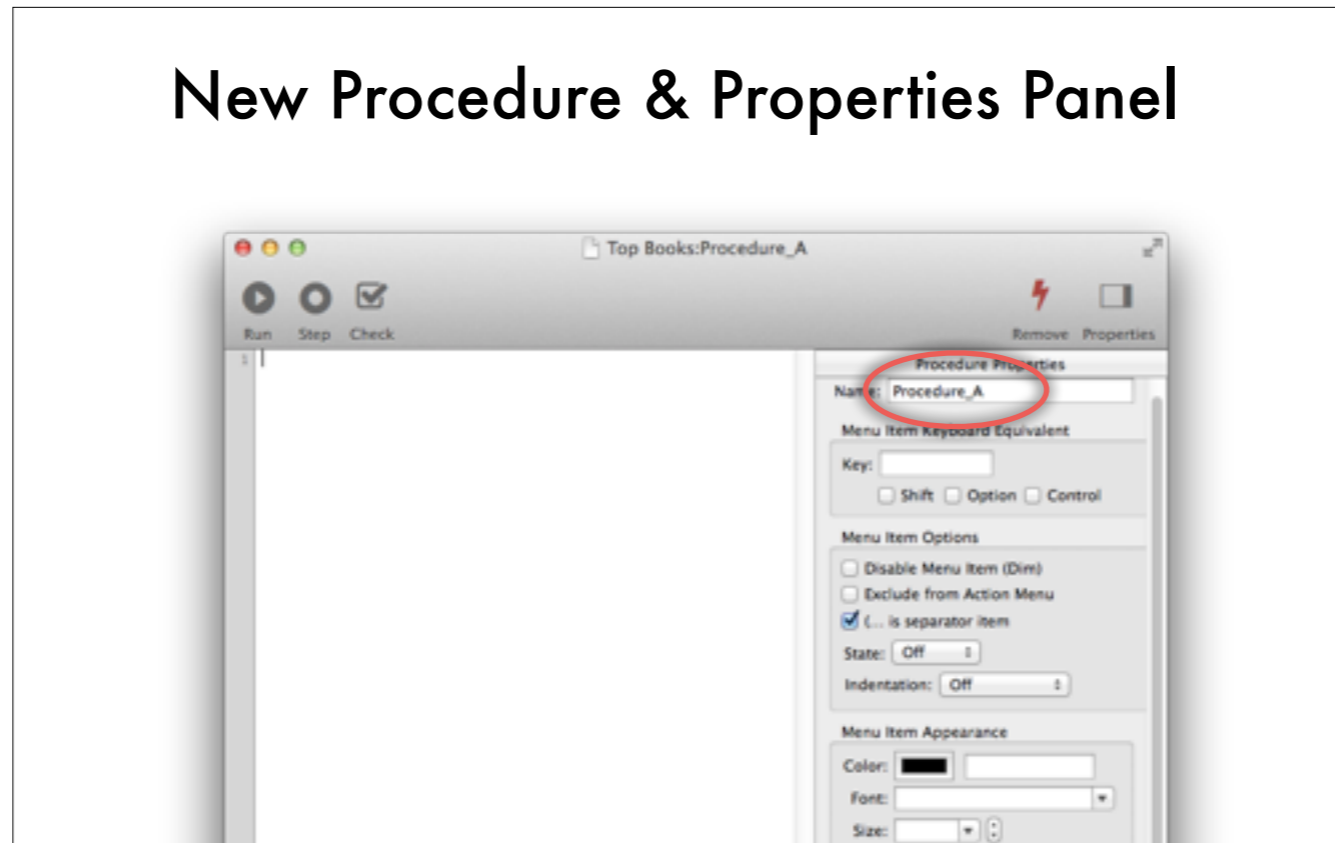
DEVELOPER CERTIFICATION TRAINING

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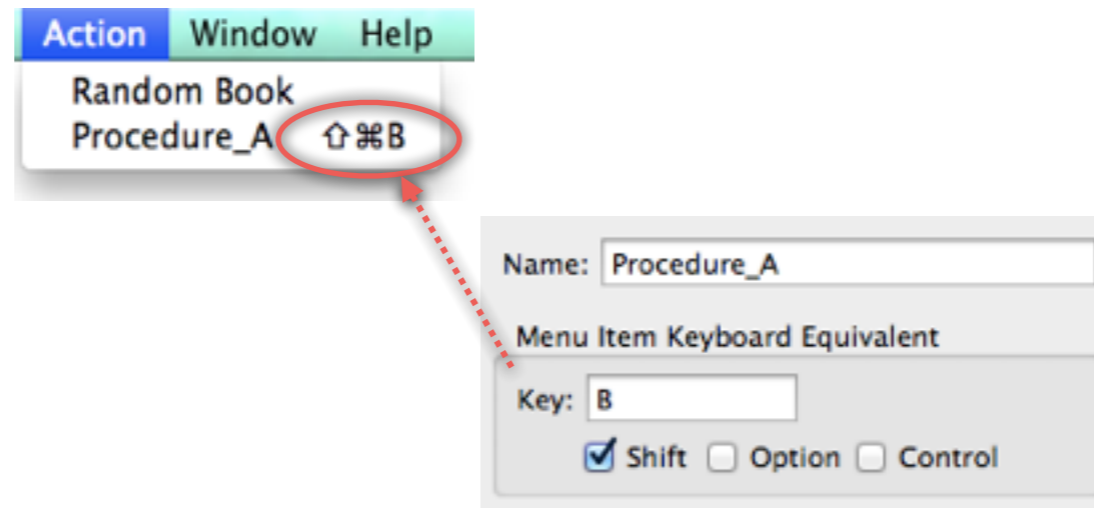
Fundamentals of Procedures

New Procedure & Properties Panel



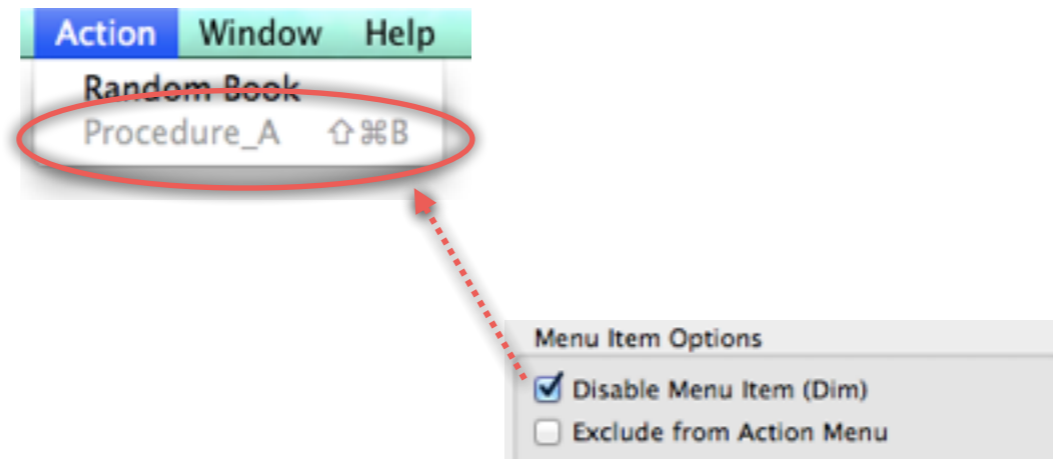
Use New Procedure in the View menu to create a new procedure
You don't have to give a new procedure a name, you can just start using it.
Use View Organizer to put it in a specific spot

Command Key Equivalents



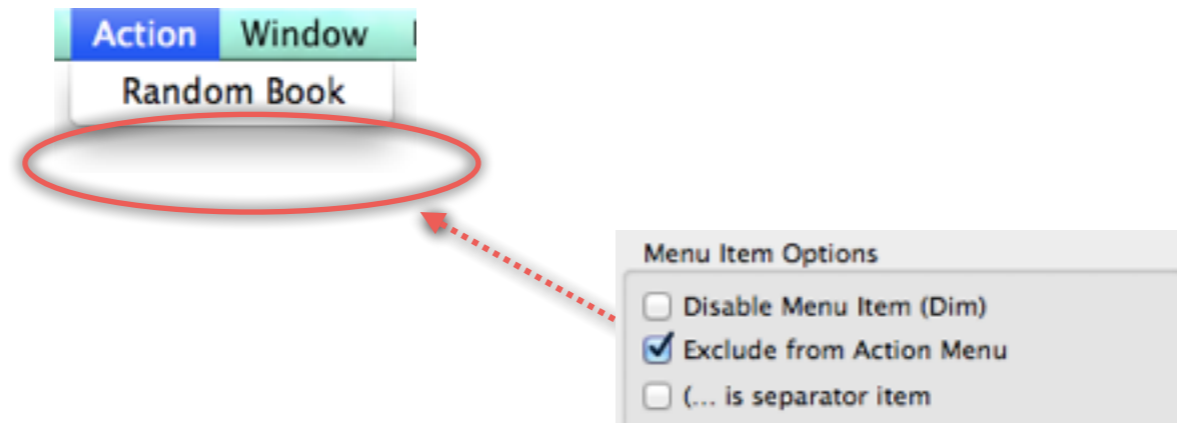
In Panorama X, Command key equivalents are set up in the property inspector instead of with special suffixes on the procedure name.
Also you can use the Shift, Option and/or Control keys with Command Key equivalents

Disabled Menu Items



Check option to disable menu item

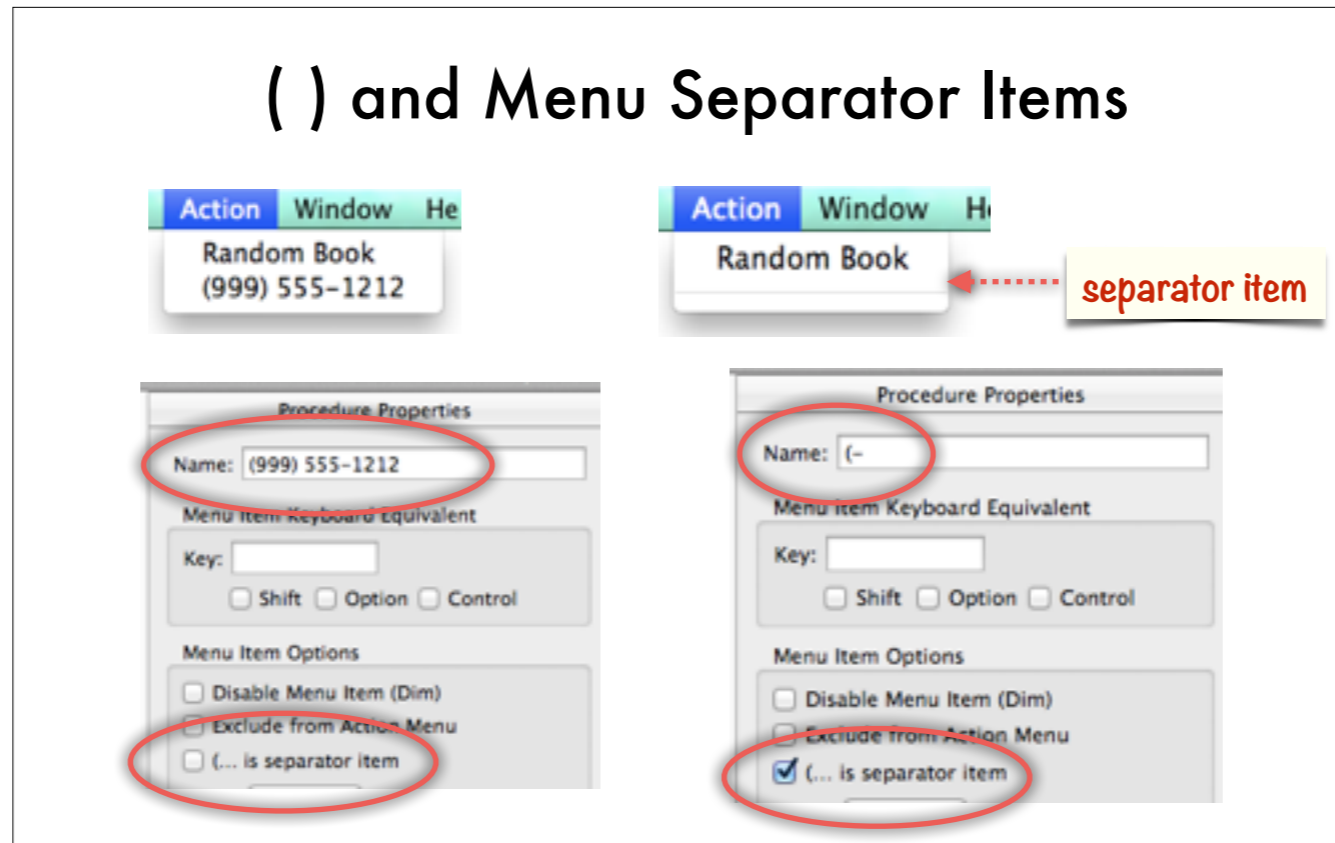
Excluding a Procedure from the Menu



Check option to exclude procedure from menu

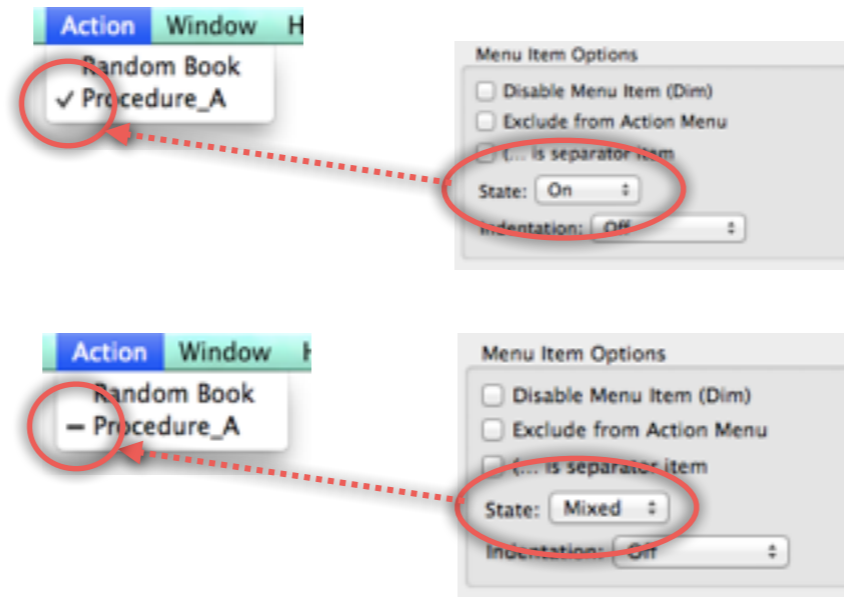
Starting the procedure name with a period also excludes item, as it did before

() and Menu Separator Items



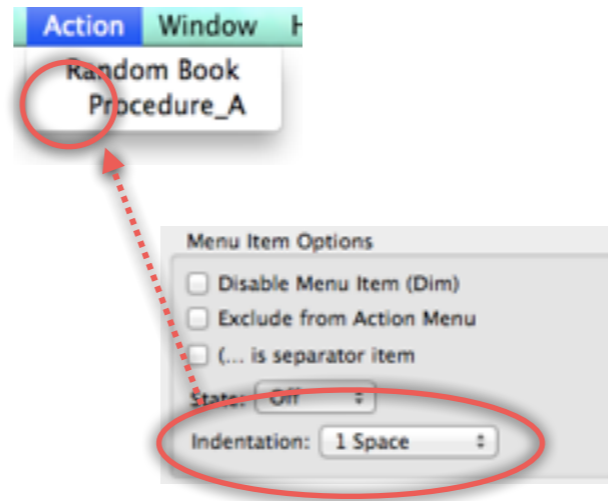
Uncheck option to allow (and) in menu item
Check option and (-, (—, (— etc. are separator items
(...) is a new menu

Menu Item State



Not that useful in the *Action* menu, but you can change this in a procedure with the *setprocedureoptions* statement.

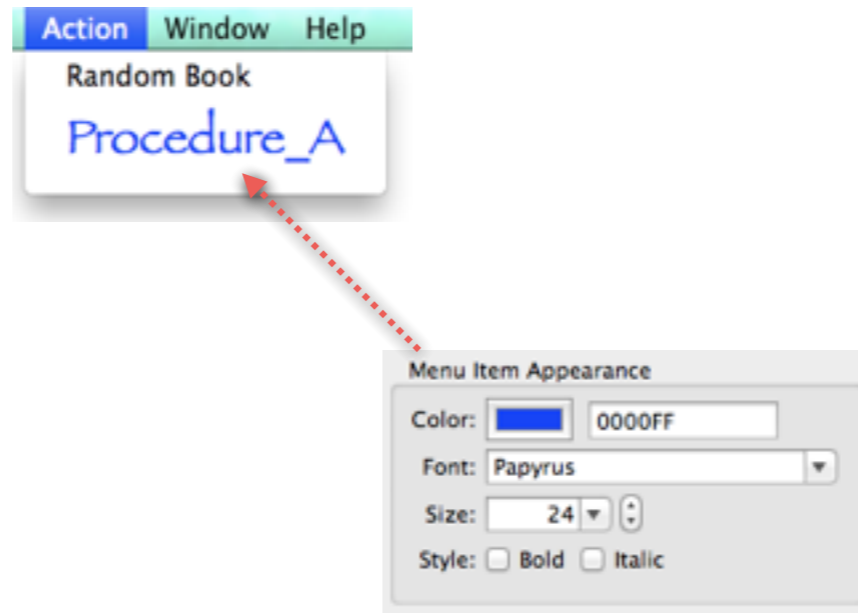
Menu Indentation



Menu items can be indented from 1 to 8 spaces.

Procedure name doesn't change — no space in front of procedure name

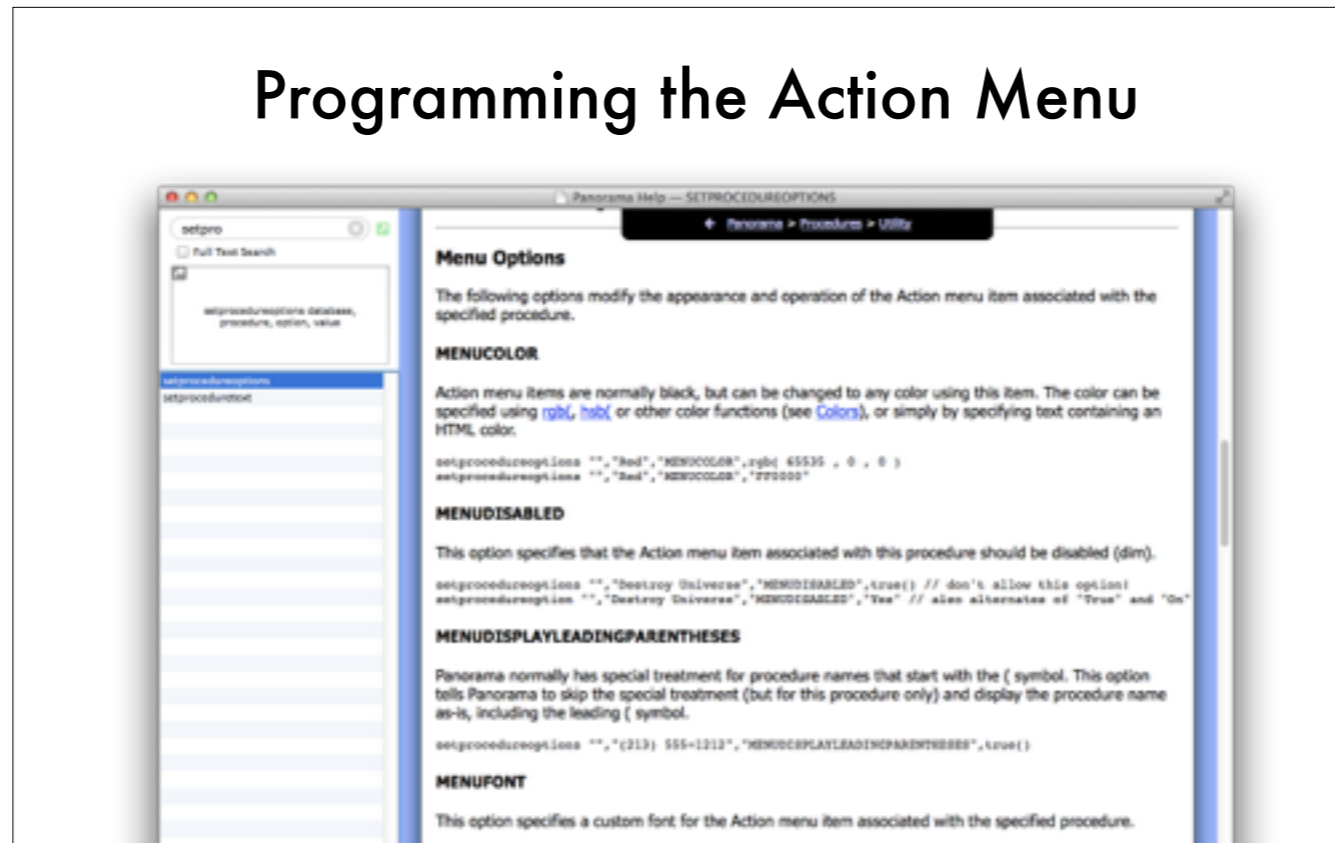
Menu Font, Style & Color



Each menu item can have separate font, style and color

Bug: Clicking on color box doesn't work right now, you have to type in the hex value of the color.

Programming the Action Menu



All of these options can be programmed with the `setprocedureoptions` statement.

I won't say anything more about that at this time, except that this is generally true — *anything* that can be done in the Panorama X user interface can be programmed.

If you really want fully custom and dynamic menus, use Live Menus, which will be discussed later.

Syntax Coloring

```
1 fileglobal usageStatistics,totalDataBytes
2 local files,file,fileStats
3 files = arraysort(info("files"),cr())
4
5 /*
6
7 Build cr/tab delimited array:
8
9 (1) filename
10 (2) # of fields
11 (3) # of records
12 (4) # of bytes (data)
13 (5) % of ram
14
15 */
16
17 usageStatistics = ""
18 totalDataBytes = 0
19 looparray files,cr(),file
20   if file <> "Memory Usage" // don't include this file!
21     fileStats = file+tab()+
22       pattern(dbinfo("fieldcount",file),"#")+tab()+
23       pattern(dbinfo("records",file),"#")+tab()+
24       bytewidth(dbinfo("databytes",file))+tab()+
25       pattern(dbinfo("databytes",file)+100)/info("ram"),"#.##")+
26       ""
27   usageStatistics = usageStatistics + fileStats + cr() // add line to end of array
28   totalDataBytes = totalDataBytes + dbinfo("databytes",file)
```

Text is automatically colored as it is edited (you cannot control the coloring)

- green for comments

- blue for string constants

some bugs, especially when editing multi-line comments

- close and re-open window to fix it up

can be fooled by special characters, for example `/*` in a string

Indenting

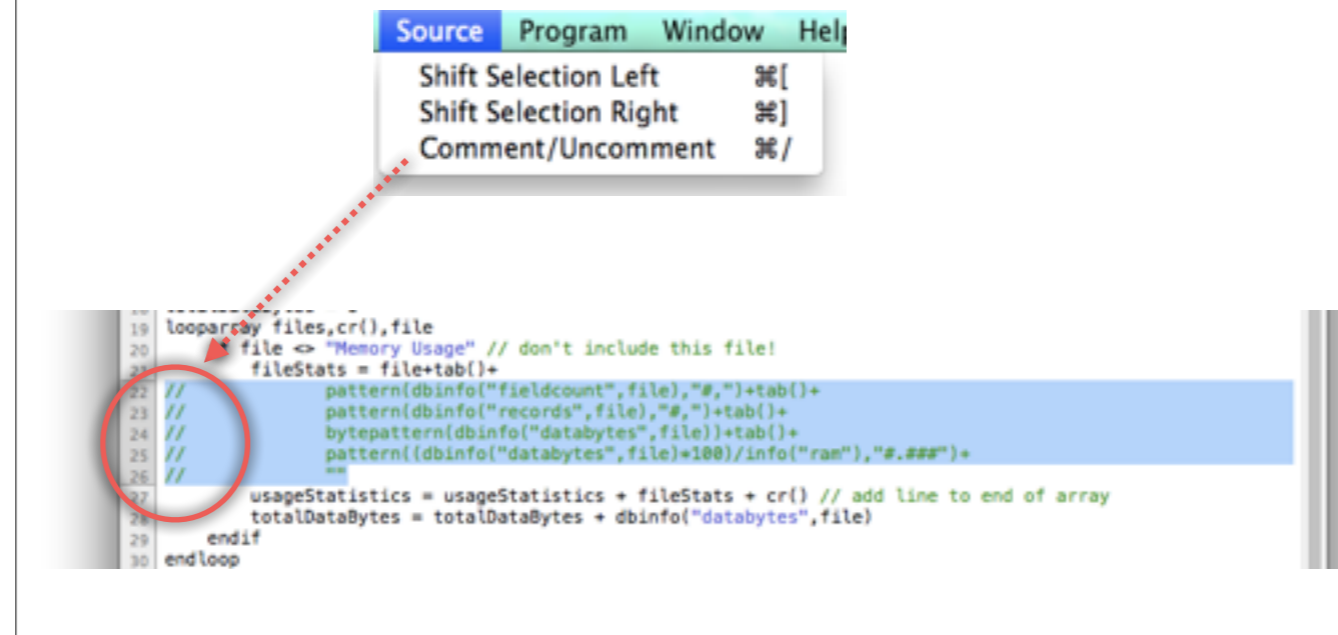
The screenshot shows a code editor window with a menu bar containing 'Source', 'Program', 'Window', and 'Help'. A dropdown menu is open under 'Source', listing three options: 'Shift Selection Left' (⌘[), 'Shift Selection Right' (⌘]), and 'Comment/Uncomment' (⌘/). Below the menu, a block of code is highlighted in blue. Two large blue arrows point horizontally from the center of the highlighted block to the left and right edges. Two red dotted arrows originate from the 'Shift Selection Left' and 'Shift Selection Right' menu items and point to the left and right edges of the highlighted code block, respectively. The code in the background is as follows:

```
17 usageStatistics = ""
18 totalDataBytes = 0
19 looparray files,cr(),file
20 if file <> "Memory Usage" // don't include this file!
21   fileStats = file+tab()+
22     pattern(dbinf("fieldcount",file),"#")+tab()+
23     pattern(dbinf("records",file),"#")+tab()+
24     bytewidth(dbinf("databytes",file))+tab()+
25     pattern((dbinf("databytes",file)+100)/info("ram"),"#.##")+
26     ""
27   usageStatistics = usageStatistics + fileStats + cr() // add line to end of array
28   totalDataBytes = totalDataBytes + dbinf("databytes",file)
29 endif
30 endloop
31
32 usageStatistics=strip(usageStatistics)
```

This is not new, but I think many people don't know about it
You can easily shift a block of text left or right 4 spaces
I recommend using indentation to make program structure clear
indent for if/loop etc.

DEMO

"Commenting Out" a Section of Code



```
19 looparray files,cr(),file
20   file <> "Memory Usage" // don't include this file!
21   fileStats = file+tab()+
22   //   pattern(dbinfo("fieldcount",file),"#")+tab()+
23   //   pattern(dbinfo("records",file),"#")+tab()+
24   //   bytewidth(dbinfo("databytes",file))+tab()+
25   //   pattern(dbinfo("databytes",file)+100)/info("ram"),"#.###")+
26   //   ""
27   usageStatistics = usageStatistics + fileStats + cr() // add line to end of array
28   totalDataBytes = totalDataBytes + dbinfo("databytes",file)
29   endif
30 endloop
```

Again, this is not new, but I think many people don't know about it
You can easily temporarily remove a section of code, then put it back.

Code Everywhere

- Procedures
- Fields
- Graphic Objects
- Menus
- Formulas
- Hotkeys
- Timers
- Notifications



Panorama X allows for code just about anywhere, not just in standard procedures.

- A field can contain code that is executed when data is entered
- A graphic object can contain code that is executed when it is clicked
- A menu can contain code that is executed when it is selected (popup menus also)
- A formula can contain code with the `executelocal()` function
- A timer contains code that is executed after a delay or at specific intervals
- A notification can contain code that is executed when you click on a notification

All of these will be covered in detail later



Fundamentals of Procedures