### 4.2.15 Menu Buttons

Like listboxes, menu button controls allow the user to choose from a set of text options. The button usually looks flat, like a simple static text. When the user moves the cursor over the button area, it raises and a mouse button becomes tied to some menu. If that mouse button is pressed, the menu pops up, from which the user may select one entry. The callback function associated with the menu is then called to perform some action.

Unlike listboxes, the menus associated with menu buttons must be previously created with `glutCreateMenu`. These menus are cascaddable, allowing longer, and more complex menus than listboxes. The function passed as an argument to `glutCreateMenu` becomes the callback function for the menu button.

**add_menubutton, add_menubutton_to_panel**

Adds a new menu button to a GLUI window.

**Usage**

```c
#include <GLUI.h>

GLUI_MenuButton *add_menubutton( char *name,  
    int data_type=GLUI_MENUBUTTON_FLAT, 
    int menu=0, 
    int tied_button=GLUT_LEFT_BUTTON );

GLUI_MenuButton *add_menubutton_to_panel( 
    GLUI_Panel *panel,  
    char *name, 
    int data_type=GLUI_MENUBUTTON_FLAT, 
    int menu=0, 
    int tied_button=GLUT_LEFT_BUTTON );
```

- **name** - Name of button.
- **data_type** - How to draw the menu button. The options are:
  - `GLUI_MENUBUTTON_FLAT` - Draw the button as flat text.
  - `GLUI_MENUBUTTON_PLAIN` - Draw the button just like a plain button.
- **menu** - ID of the menu that will be popped up when the associated mouse button is pressed. This must be the ID returned by a previous call to `glutCreateMenu`
- **tied_button** - The mouse button that will be tied to the menu when the cursor passes over the menu button. The options are: `GLUT_LEFT_BUTTON`, `GLUT_MIDDLE_BUTTON`, `GLUT_RIGHT_BUTTON`.
- **panel** - An existing GLUI panel (or rollout) to add the control to.

**Returns:** Pointer to new menu button control.
**get_menu, set_menu**

Gets or sets the menu associated with an existing menu button.

**Usage**

```cpp
int GLUI_MenuButton::get_menu( void );
```

**Returns:** The ID of the menu currently associated with the menu button.

```cpp
void GLUI_MenuButton::set_menu( int new_menu );
```

`new_menu` - ID of the new menu that will be popped up when the associated mouse button is pressed. This must be the ID returned by a previous call to `glutCreateMenu`.

**get_tied_button, set_tied_button**

Gets or sets the mouse button tied to an existing menu button.

**Usage**

```cpp
int GLUI_MenuButton::get_tied_button( void );
```

**Returns:** The mouse button that is currently tied to the menu when the cursor passes over the menu button. This is one of the following values: `GLUT_LEFT_BUTTON`, `GLUT_MIDDLE_BUTTON`, `GLUT_RIGHT_BUTTON`.

```cpp
void GLUI_MenuButton::set_tied_button( int new_tied_button );
```

`new_tied_button` - The mouse button that will be tied to the menu when the cursor is over the menu button. The options are: `GLUT_LEFT_BUTTON`, `GLUT_MIDDLE_BUTTON`, `GLUT_RIGHT_BUTTON`.

**set_font**

Sets the GLUT bitmap font used for the name of an existing menu button. `GLUT_BITMAP_HELVETICA_10` provides the look most similar to MS Windows applications, and is also the font GLUT uses for its menu in its MS Windows implementation.

**Usage**

```cpp
void GLUI_MenuButton::set_font( void *new_font );
```

`new_font` - One of the following values: `GLUT_BITMAP_8_BY_13`, `GLUT_BITMAP_9_BY_15`, `GLUT_BITMAP_TIMES_ROMAN_10`, `GLUT_BITMAP_HELVETICA_10`, `GLUT_BITMAP_HELVETICA_12` (default). Larger fonts are not handled correctly for buttons in the current GLUI release.