

After a slightly relaxed previous tutorial on textfields and labels, this tutorial will be about listboxes which is easy but we shall also begin exploring the world of gadget items which is a bit more complicated.

Listbox

A Listbox Gadget displays a list of items from which a user can make a selection from.

Listboxes are created using the **CreateListBox** function:-

```
Function CreateListBox:TGadget(x,y,w,h,group:TGadget,style=0)
```

Here is a very simple Listbox example

SuperStrict

```
Local MyWindow:TGadget=CreateWindow("ListBox Example", 200,200,320,240)
```

```
Local ListBox:TGadget=CreateListBox(10,10,200,100,MyWindow)
```

Repeat

WaitEvent()

Select EventID()

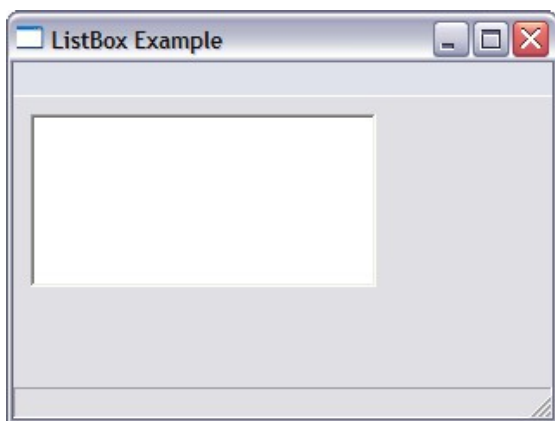
Case EVENT_WINDOWCLOSE

End

End Select

Forever

Being so simple what we get is just a blank listbox as we have not added anything to it.



To add items to our listbox we need to use the **AddGadgetItem** function. The AddGadgetItem function requires the following syntax

```
Function AddGadgetItem(gadget:TGadget,text$,flags=0,icon=-1,tip$="",extra:Object=NULL)
```

Unlike the many Create Gadget functions we have seen, the syntax for AddGadgetItem is slightly different so lets spend some time to explore the parameters in a bit more detail. Lets add a list into our listbox as below (see code in bold)

SuperStrict

```

Local MyWindow:TGadget=CreateWindow("ListBox Example", 200,200,320,240)
Local ListBox:TGadget=CreateListBox(10,10,200,100,MyWindow)
AddGadgetItem ListBox, "This is my first list item"

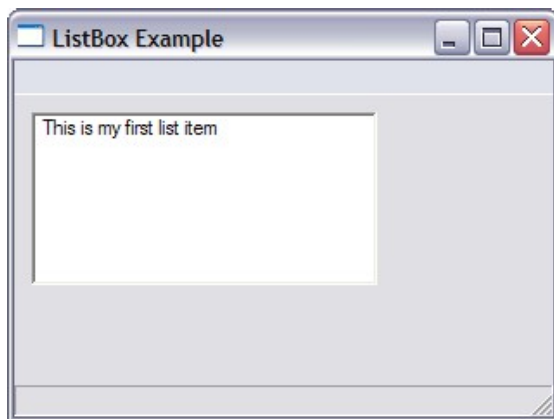
```

```

Repeat
    WaitEvent()
    Select EventID()
        Case EVENT_WINDOWCLOSE
            End
    End Select
Forever

```

We now get an item corresponding to the text we have added with the **AddGadgetItem** function.



```

Function AddGadgetItem(gadget:TGadget,text$,flags=0,icon=-
1,tip$="",extra:Object=NULL)

```

Now let us see what happens when we set the flags parameter to 1 (when we did not specify anything, it defaulted to zero)

SuperStrict

```

Local MyWindow:TGadget=CreateWindow("ListBox Example", 200,200,320,240)
Local ListBox:TGadget=CreateListBox(10,10,200,100,MyWindow)
AddGadgetItem ListBox, "This is my first list item",1

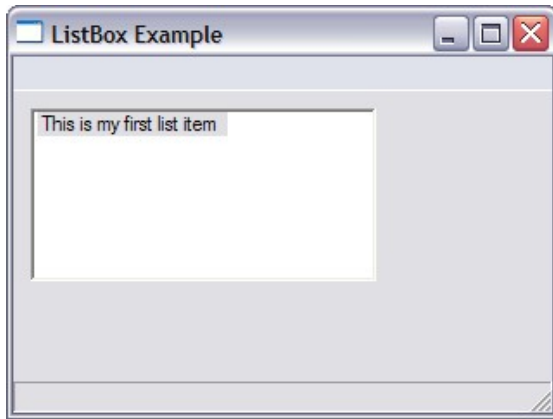
```

```

Repeat
    WaitEvent()
    Select EventID()
        Case EVENT_WINDOWCLOSE
            End
    End Select
Forever

```

We now see that our item is now highlighted.



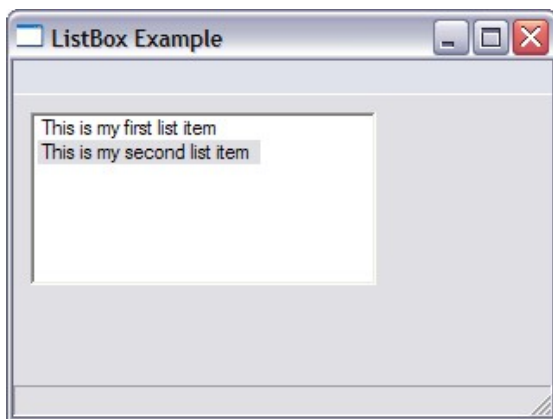
Now lets add a second item to our listbox, also with the flag set to 1 and see what happens

SuperStrict

```
Local MyWindow:TGadget=CreateWindow("ListBox Example", 200,200,320,240)
Local ListBox:TGadget=CreateListBox(10,10,200,100,MyWindow)
AddGadgetItem ListBox, "This is my first list item",1
AddGadgetItem ListBox, "This is my second list item",1
```

```
Repeat
  WaitEvent()
  Select EventID()
  Case EVENT_WINDOWCLOSE
    End
  End Select
Forever
```

From the screenshot below we can see that only one item in the list can be selected (displayed as highlighted). As we can see from the above code, adding items to our listbox can be done simply by adding more **AddGadgetItem** statements.



The next optional parameter in **AddGadgetItem** is the **icon** parameter. Before we can use this we need to introduce ourselves to another MaxGUI concept called Iconstrips

An Iconstrip is a pixmap strip with a series of small images that can be attached to items within some gadgets, listboxes being one of them. An example of an iconstrip would be the toolbar.bmp that came with earlier versions of blitz.



The above iconstrip is a BMP of size 192x16, which means that it has 12 icons (192/16). You can

count it yourself to see the number of icons.

Download the above picture onto your hard-disk and then we can load it in the program below

SuperStrict

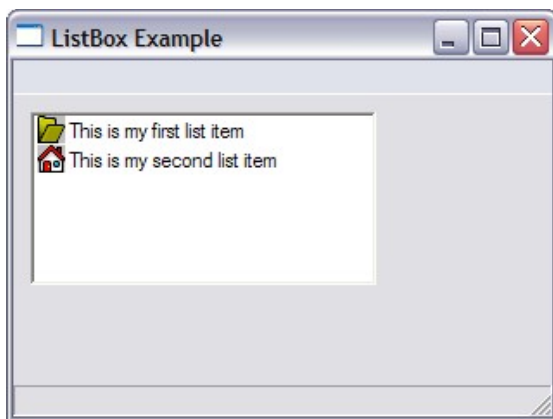
```
Local MyWindow:TGadget=CreateWindow("ListBox Example", 200,200,320,240)
Local ListBox:TGadget=CreateListBox(10,10,200,100,MyWindow)
```

```
Local IconStrip:TIconStrip=LoadIconStrip("D:\My Documents on E\Tutorials\toolbar.bmp")
SetGadgetIconStrip(ListBox, IconStrip)
```

```
AddGadgetItem ListBox, "This is my first list item",0,1
AddGadgetItem ListBox, "This is my second list item",0,9
```

```
Repeat
  WaitEvent()
  Select EventID()
  Case EVENT_WINDOWCLOSE
    End
  End Select
Forever
```

Notice now we have icons next to our items in the toolbox.



The actual icon appearing next to our item corresponds to the icon # that we put in the parameter list. The first item had icon# 1 and the second item icon# 9. (You can count it yourself from the above iconstrip, just remember to start from zero instead of one)

```
AddGadgetItem ListBox, "This is my first list item",0,1
AddGadgetItem ListBox, "This is my second list item",0,9
```

The last AddGadgetItem parameter that we want to look at is the tooltip parameter. Lets place it now in our program. Note the changes in bold below:-

SuperStrict

```
Local MyWindow:TGadget=CreateWindow("ListBox Example", 200,200,320,240)
Local ListBox:TGadget=CreateListBox(10,10,200,100,MyWindow)
```

```
AddGadgetItem ListBox, "This is my first list item",0,-1,"ToolTip for Item 1"
AddGadgetItem ListBox, "This is my second list item",0,-1,"ToolTip for Item 2"
```

```
Repeat
  WaitEvent()
  Select EventID()
  Case EVENT_WINDOWCLOSE
    End
  End Select
Forever
```

Run the above program. If you hover the mouse cursor over the item in the listbox you would see the yellow tooltip appearing over the item.

Note that I have put the number zero over the flag parameter (ie no selection) and -1 for the icon parameter to denote that we don't want any icon image for this item.

The last parameter **extra:Object** is more advanced than the scope of this tutorial so we will not cover it here.

Summary

OK we are now ready to cover more stuff that we can do with our listbox, this we will do in our next tutorial.

To recap what we have learnt so far

- Listboxes can be created using the `CreateListBox`
- To add items to listboxes we need to use the `AddGadgetItem` function
- **AddGadgetItem** have parameters such as **tooltips** and **icons** which allows use to change the appearance of items in listboxes
- Icons can be added to items using the **LoadIconStrip** and **SetGadgetIconStrip** functions.

So that's ends our tutorial for now. Back to Tutorial [Index](#).