Matlab Graphical User Interface (GUI) Reference (Version 0.9) Prepared by Dr. C. S. Tritt; Last revised 11/27/11; ©2006-11 MSOE

About This Document and Getting Help

This document is intended to be used with Matlab's extensive built in and online help system. It is not so much a quick reference as a collection of symbols, terms and concepts intended to make it easier to look up help information. Access the Matlab Help Browser window from Matlab Desktop using *Help | Matlab Help* or by pressing *F1* while in the Command Window. Corrections and suggestions to tritt@msoe.edu are encouraged.

Selected Matlab GUI Components

Component	Creating F'n	Description
		Containers
Figure	figure	A figure is a container that can hold components and other containers. Figures are windows that have title bars and can have menus.
Panel	uipanel	Panels are like figures accept they do not have title bars or menus. Panels can be placed inside figures or other panels.
Button	uibuttongroup	A special kind of panel that automatically manages groups of radio buttons or toggle buttons
Group		assuring that only one item of the group is on at any given time.
	1	Graphical Controls
Pushbutton	uicontrol	A Pushbutton triggers a specified callback function when clicked.
Toggle Button	uicontrol	A Toggle Button is always in one of two states, "on" or "off," and changes states each time it is clicked. Each mouse click also triggers a callback.
Radio Button	uicontrol	A Radio Button is a type of toggle button that appears as a small circle with a dot in the middle when in its "on" state. Groups of Radio Buttons (contained within a given Button Group) are used to implement mutually exclusive choices. Each mouse click also triggers a call back.
Check Box	uicontrol	A Check Box is a type of toggle button that appears as a small square with a check mark in it when in its "on" state. Each mouse click triggers a callback.
Edit Box	uicontrol	An Edit Box displays a text string (which can initially be empty) and allows user to modify its contents (the displayed text). A callback is triggered when the user presses the <i>Enter</i> key or when the control losses focus (say by the user clicking elsewhere on the figure). Also called editable text fields.
List Box	uicontrol	A List Box displays a series of text strings and allows the user to select one of them by double clicking on it. A callback is triggered when this occurs.
Popup Menu	uicontrol	A Popup Menu displays a series of text strings in response to a mouse click. When a Popup Menu is not clicked on, only the currently selected string is displayed. A callback is triggered whenever an item is selected.
Slider	uicontrol	A Slider allows the adjustment of a numeric quantity using the mouse. A callback is triggered whenever the Slider is changed.
Static Text	uicontrol	Static text is displayed as a label located at the specified location within a Frame or Panel. Static text never triggers callbacks. Also called text fields and static text labels.
Frame	uicontrol	A deprecated visual grouping control that should no longer be used.
	•	Other Graphical Elements
Menu Items	uimenu	A Menu Item triggers a callback when the mouse is released over it.
Context Menus	uicontextmenu	A Context Menu is a menu that appears over a graphical object when the user right-clicks on the object.
Toolbar	uitoolbar	A bar across the top of a Figure that contains toolbar buttons for quick access to program functionally.
Toolbar Pushbutton	uipushtool	A pushbutton that can be placed on a toolbar. Toolbar pushbuttons can trigger callbacks.
Toolbar Toggle Button	uitoggletool	A toggle button that can be place on a toolbar. Toolbar toggle buttons can trigger callbacks.
Axes	axes	A set of axes on which data can be displayed. Axes never trigger callbacks.

In general, callback functions need not be set or used.