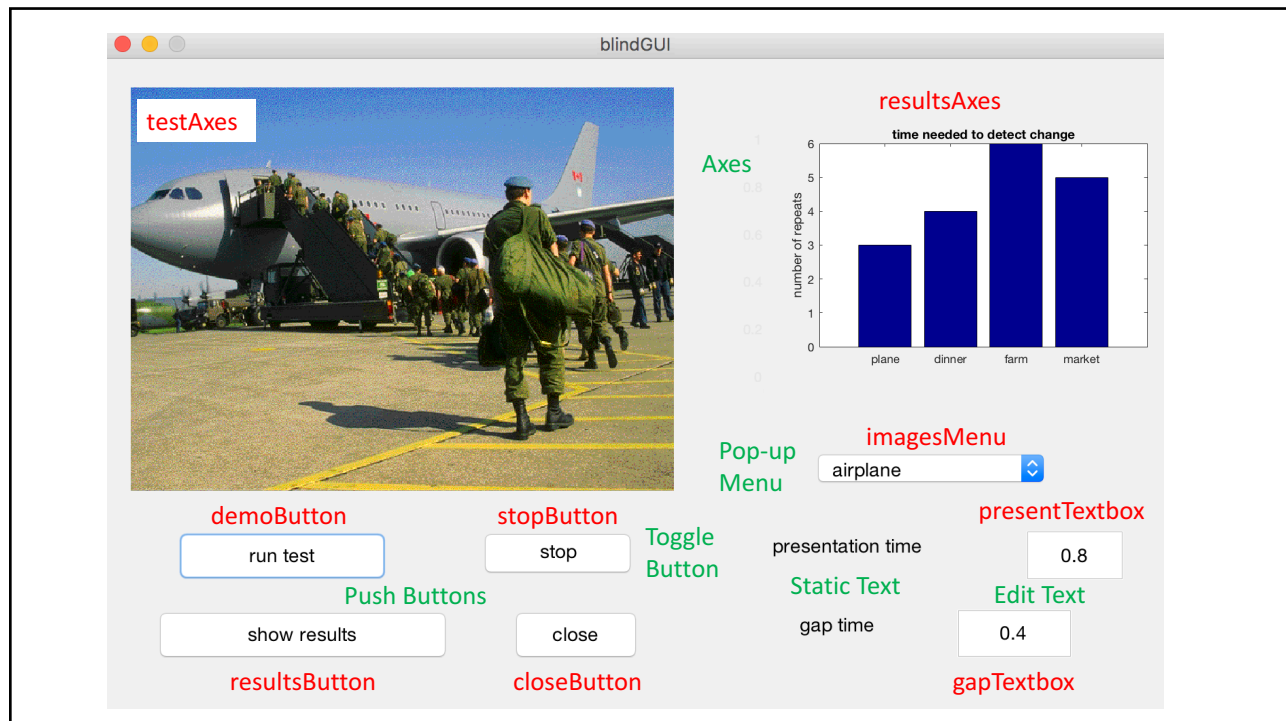
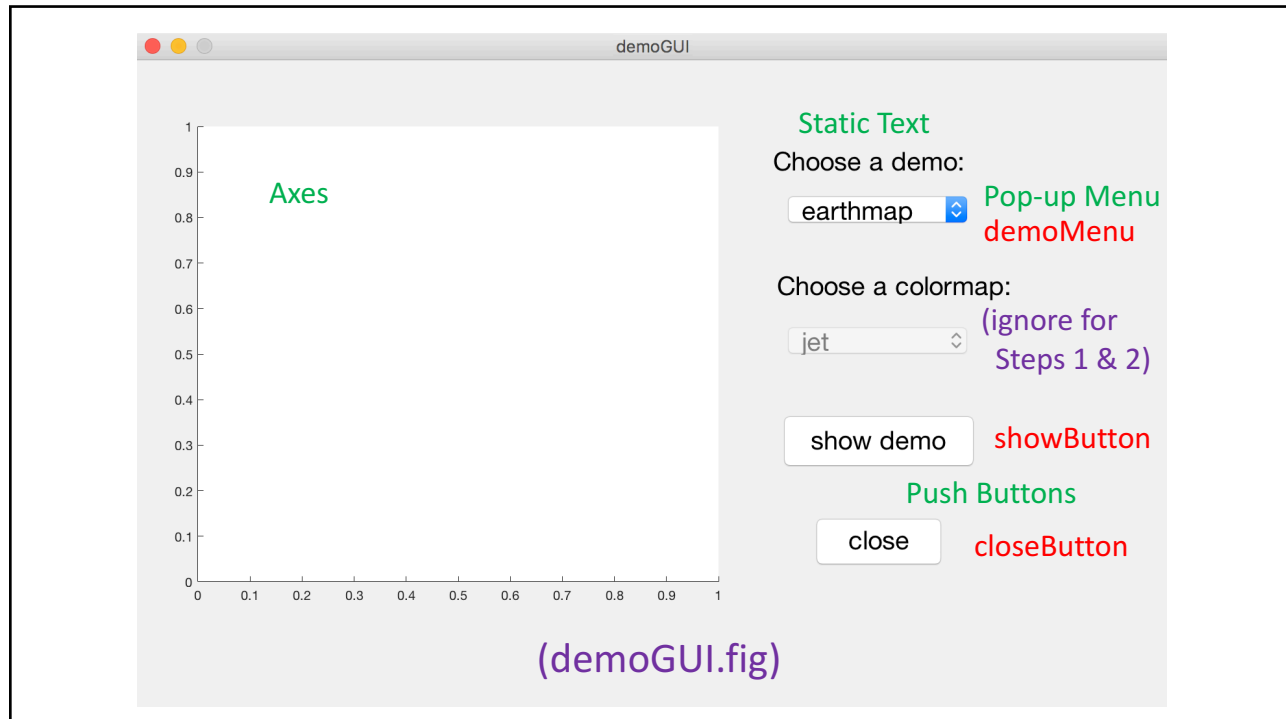




```
function ... = blindGUI ( ... )

function blindGUI_OpeningFcn ( ... )           % setup matrices for images & results
function imagesMenu_Callback ( ... )           % load user's choice of images
function presentTextbox_Callback ( ... )
function gapTextbox_Callback ( ... )
function demoButton_Callback ( ... )           % display images until user hits stop
                                              % and record result
function stopButton_Callback ( ... )
function resultsButton_Callback ( ... )         % display experimental results
function closeButton_Callback ( ... )          % terminate program
```



Step 1: Create visual layout of GUI components & set initial properties

- (1) `>> guide`
Blank GUI (Default) → OK
MATLAB → Preferences... → GUIDE → (check) Show names in component palette → OK
- (2) drag & drop, then resize: Axes, Static Text, Pop-up Menu, (two) Push Button
- (3) double-click on **Static Text** (open Property Inspector) (hit return key after each property change)
String: Choose a demo:
FontSize: 20.0
- (4) double-click on **Pop-up Menu**
Tag: demoMenu
String (click on icon): earthmap
penny
surface
FontSize: 20.0
- (5) double-click on first **Push Button**
Tag: showButton
String: show demo
FontSize: 20.0
- (6) double-click on second **Push Button**
Tag: closeButton
String: close
FontSize: 20.0
- (7) Save As: **demoGUI** (creates demoGUI.fig and demoGUI.m)

Run!

Step 2: Code actions for two push buttons

(demoGUI.m)

```
function ... = demoGUI ( ... )

function demoGUI_OpeningFcn ( ... )

function demoMenu_Callback ( ... )

function showButton_Callback ( ... )      % display user's choice of demo

function closeButton_Callback ( ... )     % terminate program
```

```
showButton_Callback
    get the user's demo choice
    if user selected first demo
        earthmap
    otherwise if user selected second demo
        penny
    otherwise
        surf(peaks)
```



What's up with the surface colors???

Step 3 (optional): Allow user to select colormap for surface

- (1) >> guide demoGUI.fig
- (2) drag & drop, then resize: Static Text, Pop-up Menu
- (3) double-click on **Static Text**

```
String: Choose a colormap:
FontSize: 20.0
```
- (4) double-click on **Pop-up Menu**

```
Tag: colorMenu
String (click on icon): jet
                        spring
                        hot

FontSize: 20.0
Enable (click icon at far right): off
```
- (5) Save!!
- (6) modify **showButton_Callback**:

```
else
    colors = get(handles.colorMap, 'String');
    index = get(handles.colorMap, 'Value');
    colormap(colors{index});
    surf(peaks);
end
```
- (7) add code to **demoMenu_Callback**:

```
if the user selected the third demo
    disable the handles.colorMenu
otherwise
    enable the handles.colorMenu
end
guidata(hObject, handles);
```