Instant Color Radio Group Demo
Created by Dr. C. S. Tritt
Last revised: January 24, 2007

Background and Equations

None required.

Operational Description

In this demonstration, the color of an unlabeled panel changes in response to radio button selections. The color change happens immediately when the radio button selection is change requiring the use of the *SelectionChangeFcn*. Note that GUIDE does not automatically create this function nor allow its name to be specified using the property inspector on the corresponding control. However, it can be automatically generated by right clicking on the box and selecting View Callbacks > SelectionChangeFcn.

User Interface Description

A button group (colorGroup) containing three radio buttons (redButton, greenButton, blueButton). Note that GUIDE displays controls using black as the foreground color regardless of the specified foreground color. However, the specified color is used in the running program.

A panel (colorPanel) that changes color in response to radio button selections. Note the String for this control was left blank and the font size was set to 0 to create an unbroken border around it.

Algorithms

colorGroup_SelectionChangeFcn

switch on the Tag property hObject (the button group which will contain the Tag of the selected option)

       case redRadio: Set the colorPanel background to red.
       case greenRadio: Set the colorPanel background to green.
       case blueRadio: Set the colorPanel background to blue.

Source Code

```
function varargout = instantGroup(varargin)
% INSTANTGROUP M-file for instantGroup.fig
%
% See my Instant Color Radio Group Demo documentation
% (InstantGroupDemo.doc) for more information.
%
% Created by Dr. C. S. Tritt
% Last revsied: 1/24/07 (version 1.0)
%
% See also: GUIDE, GUIDATA, GUIHANDLES


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% Edit the above text to modify the response to help instantGroup

% Last Modified by GUIDE v2.5 23-Jan-2007 19:16:23

% Begin initialization code - DO NOT EDIT
gui_Singleton = 1;
gui_State = struct('gui_Name',       mfilename, ...
                   'gui_Singleton',  gui_Singleton, ...
                   'gui_OpeningFcn', @instantGroup_OpeningFcn, ...
                   'gui_OutputFcn',  @instantGroup_OutputFcn, ...
                   'gui_LayoutFcn',  [] , ...
                   'gui_Callback',   []);
if nargin && ischar(varargin{1})
    gui_State.gui_Callback = str2func(varargin{1});
end

if nargout
    [varargout{1:nargout}] = gui_mainfcn(gui_State, varargin{:});
else
    gui_mainfcn(gui_State, varargin{:});
end
% End initialization code - DO NOT EDIT

% --- Executes just before instantGroup is made visible.
function instantGroup_OpeningFcn(hObject, eventdata, handles, varargin)
% This function has no output args, see OutputFcn.
% hObject    handle to figure
% eventdata  reserved - to be defined in a future version of MATLAB
% handles    structure with handles and user data (see GUIDATA)
% varargin   command line arguments to instantGroup (see VARARGIN)

% Choose default command line output for instantGroup
handles.output = hObject;

% Update handles structure
guidata(hObject, handles);

% UIWAIT makes instantGroup wait for user response (see UIRESUME)
% uiwait(handles.figure1);


% --- Outputs from this function are returned to the command line.
```

```
function varargout = instantGroup_OutputFcn(hObject, eventdata,
handles)
% varargout  cell array for returning output args (see VARARGOUT);
% hObject     handle to figure
% eventdata  reserved - to be defined in a future version of MATLAB
% handles     structure with handles and user data (see GUIDATA)

% Get default command line output from handles structure
varargout{1} = handles.output;

% -------------------------------------------------------------------
function colorGroup_SelectionChangeFcn(hObject, eventdata, handles)
% hObject     handle to colorGroup (see GCBO)
% eventdata  reserved - to be defined in a future version of MATLAB
% handles     structure with handles and user data (see GUIDATA)

% Dr. Tritt's Comments...
% The group tag is used to generate the name of the ChangeFcn callback.
% The hObject passed to this callback is the newly selected button.

switch get(hObject,'Tag')
    case 'redRadio'
        set(handles.colorPanel, 'backgroundColor', [1 0 0]);
    case 'greenRadio'
        set(handles.colorPanel, 'backgroundColor', [0 0.7 0]);
    case 'blueRadio'
        set(handles.colorPanel, 'backgroundColor', [0 0 1]);
end
```