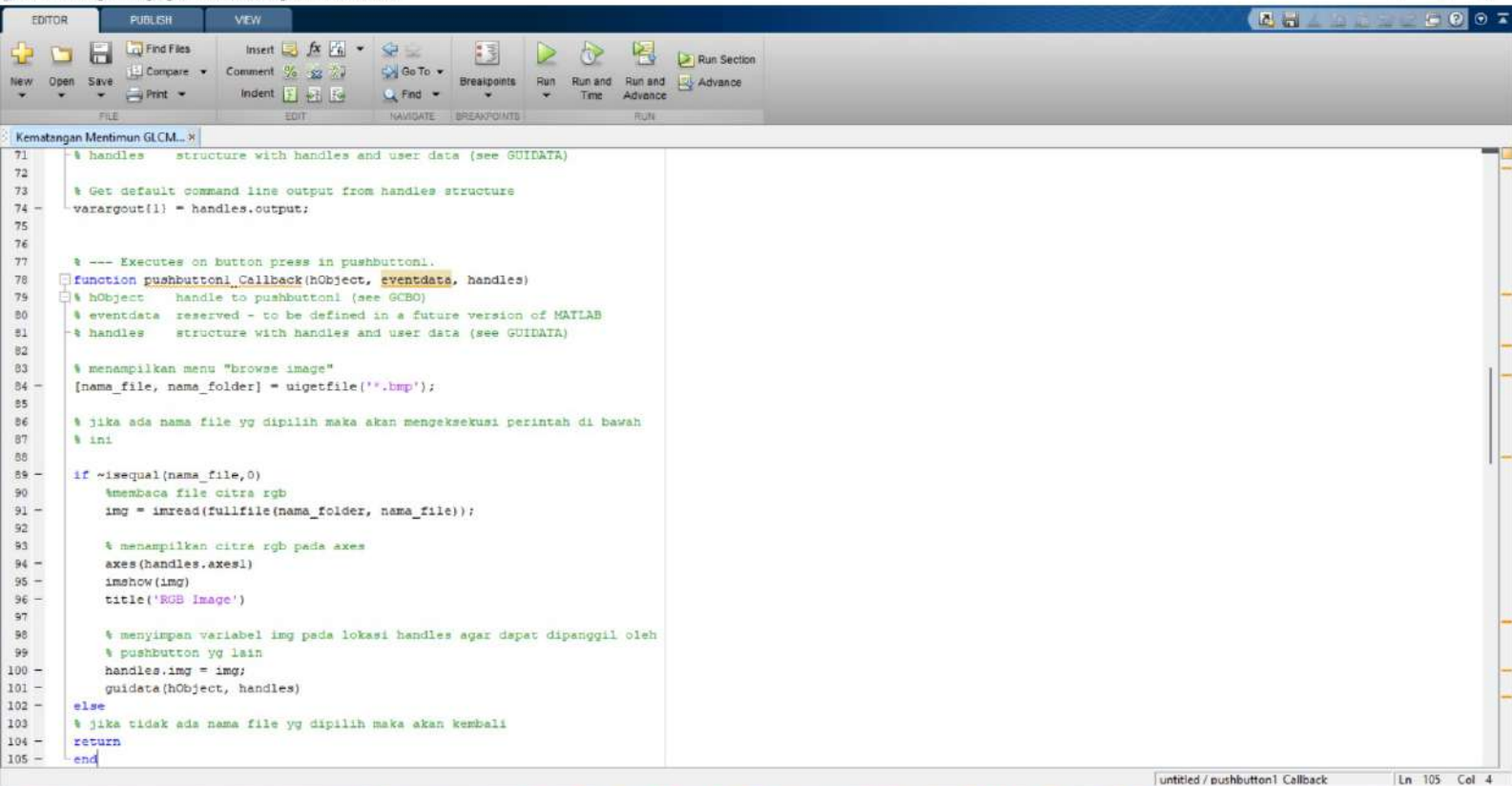


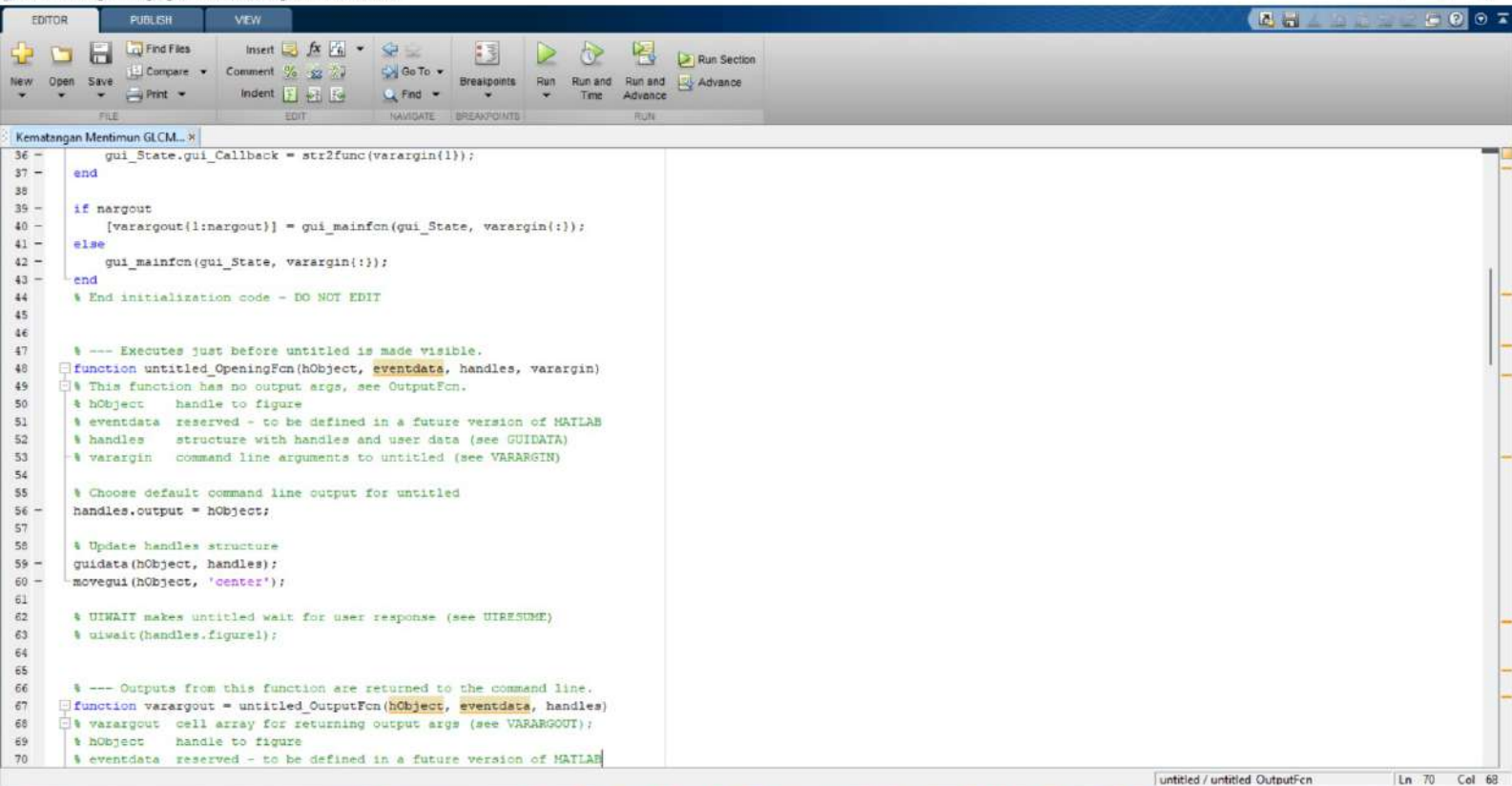
```
1 function varargout = untitled(varargin)
2 % UNTITLED MATLAB code for untitled.fig
3 % UNTITLED, by itself, creates a new UNTITLED or raises the existing
4 % singleton*.
5 %
6 % H = UNTITLED returns the handle to a new UNTITLED or the handle to
7 % the existing singleton*.
8 %
9 % UNTITLED('CALLBACK',hObject,eventData,handles,...) calls the local
10 % function named CALLBACK in UNTITLED.M with the given input arguments.
11 %
12 % UNTITLED('Property','Value',...) creates a new UNTITLED or raises the
13 % existing singleton*. Starting from the left, property value pairs are
14 % applied to the GUI before untitled_OpeningFcn gets called. An
15 % unrecognized property name or invalid value makes property application
16 % stop. All inputs are passed to untitled_OpeningFcn via varargin.
17 %
18 % *See GUI Options on GUIDE's Tools menu. Choose "GUI allows only one
19 % instance to run (singleton)".
20 %
21 % See also: GUIDE, GUIDATA, GUIHANDLES
22
23 % Edit the above text to modify the response to help untitled
24
25 % Last Modified by GUIDE v2.5 03-Jan-2023 12:32:31
26
27 % Begin initialization code - DO NOT EDIT
28 gui_Singleton = 1;
29 gui_State = struct('gui_Name',       mfilename, ...
30                  'gui_Singleton',   gui_Singleton, ...
31                  'gui_OpeningFcn', @untitled_OpeningFcn, ...
32                  'gui_OutputFcn',  @untitled_OutputFcn, ...
33                  'gui_LayerFcn',    [], ...
34                  'gui_Callback',    []);
35 if nargin && ischar(varargin{1})
```

untitled

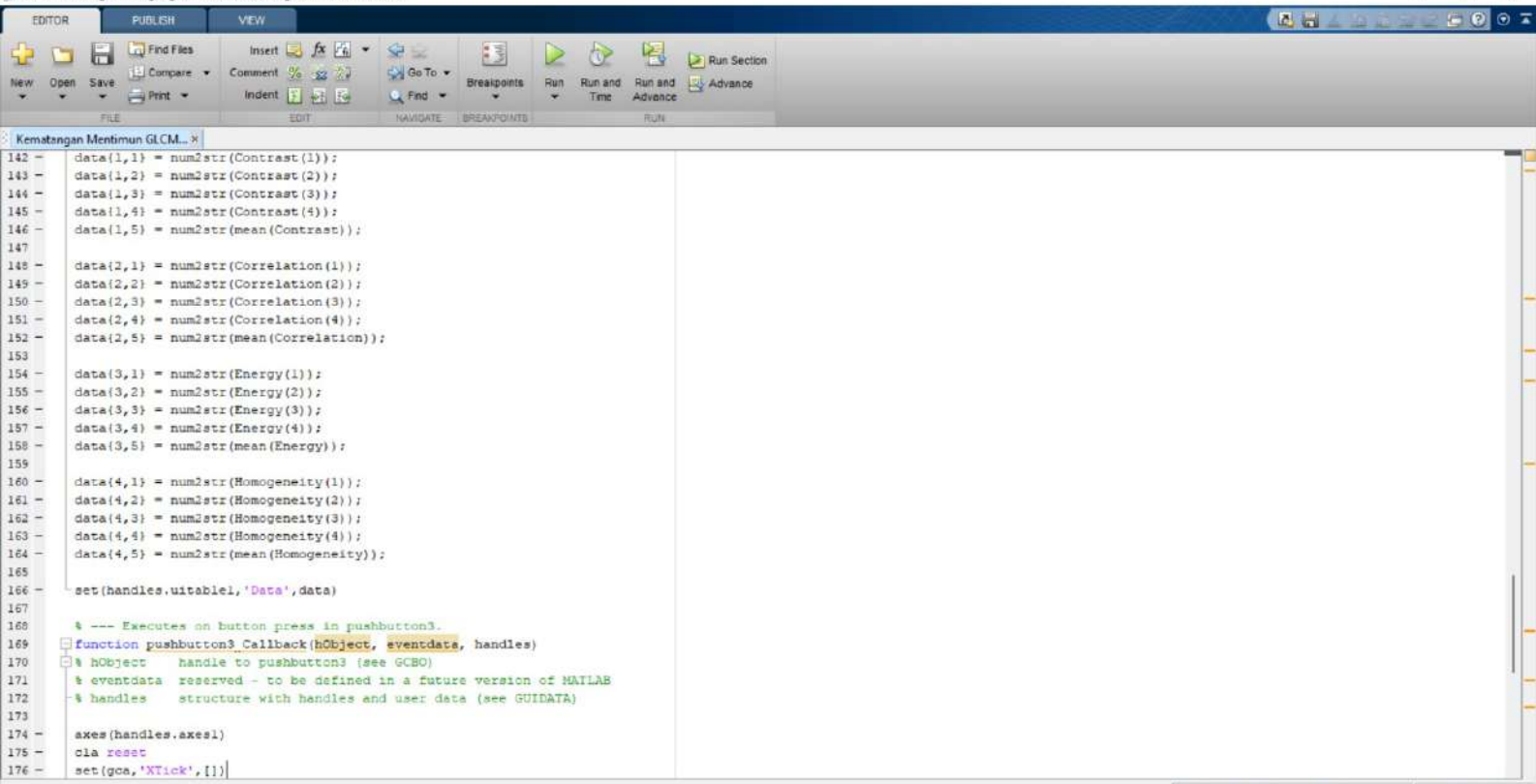
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```
71 % handles structure with handles and user data (see GUIDATA)
72
73 % Get default command line output from handles structure
74 varargout{1} = handles.output;
75
76
77 % --- Executes on button press in pushbutton1.
78 function pushbutton1_Callback(hObject, eventdata, handles)
79 % hObject handle to pushbutton1 (see GCBO)
80 % eventdata reserved - to be defined in a future version of MATLAB
81 % handles structure with handles and user data (see GUIDATA)
82
83 % menampilkan menu "browse image"
84 [nama_file, nama_folder] = uigetfile('*.bmp');
85
86 % jika ada nama file yg dipilih maka akan mengeksekusi perintah di bawah
87 % ini
88
89 if ~isempty(nama_file,0)
90     %membaca file citra rgb
91     img = imread(fullfile(nama_folder, nama_file));
92
93     % menampilkan citra rgb pada axes
94     axes(handles.axes1)
95     imshow(img)
96     title('RGB Image')
97
98     % menyimpan variabel img pada lokasi handles agar dapat dipanggil oleh
99     % pushbutton yg lain
100     handles.img = img;
101     guidata(hObject, handles)
102 else
103     % jika tidak ada nama file yg dipilih maka akan kembali
104     return
105 end
```



```
36 - gui_State.gui_Callback = str2func(varargin(1));
37 - end
38 -
39 - if nargin
40 -     [varargout(1:nargout)] = gui_mainfcn(gui_State, varargin{:});
41 - else
42 -     gui_mainfcn(gui_State, varargin{:});
43 - end
44 - % End initialization code - DO NOT EDIT
45 -
46 -
47 - % --- Executes just before untitled is made visible.
48 - function untitled_OpeningFcn(hObject, eventdata, handles, varargin)
49 - % This function has no output args, see OutputFcn.
50 - % hObject    handle to figure
51 - % eventdata  reserved - to be defined in a future version of MATLAB
52 - % handles    structure with handles and user data (see GUIDATA)
53 - % varargin   command line arguments to untitled (see VARARGIN)
54 -
55 - % Choose default command line output for untitled
56 - handles.output = hObject;
57 -
58 - % Update handles structure
59 - guidata(hObject, handles);
60 - movegui(hObject, 'center');
61 -
62 - % UIWAIT makes untitled wait for user response (see UIRESUME)
63 - % uiwait(handles.figure1);
64 -
65 -
66 - % --- Outputs from this function are returned to the command line.
67 - function varargout = untitled_OutputFcn(hObject, eventdata, handles)
68 - % varargout  cell array for returning output args (see VARARGOUT);
69 - % hObject    handle to figure
70 - % eventdata  reserved - to be defined in a future version of MATLAB
```

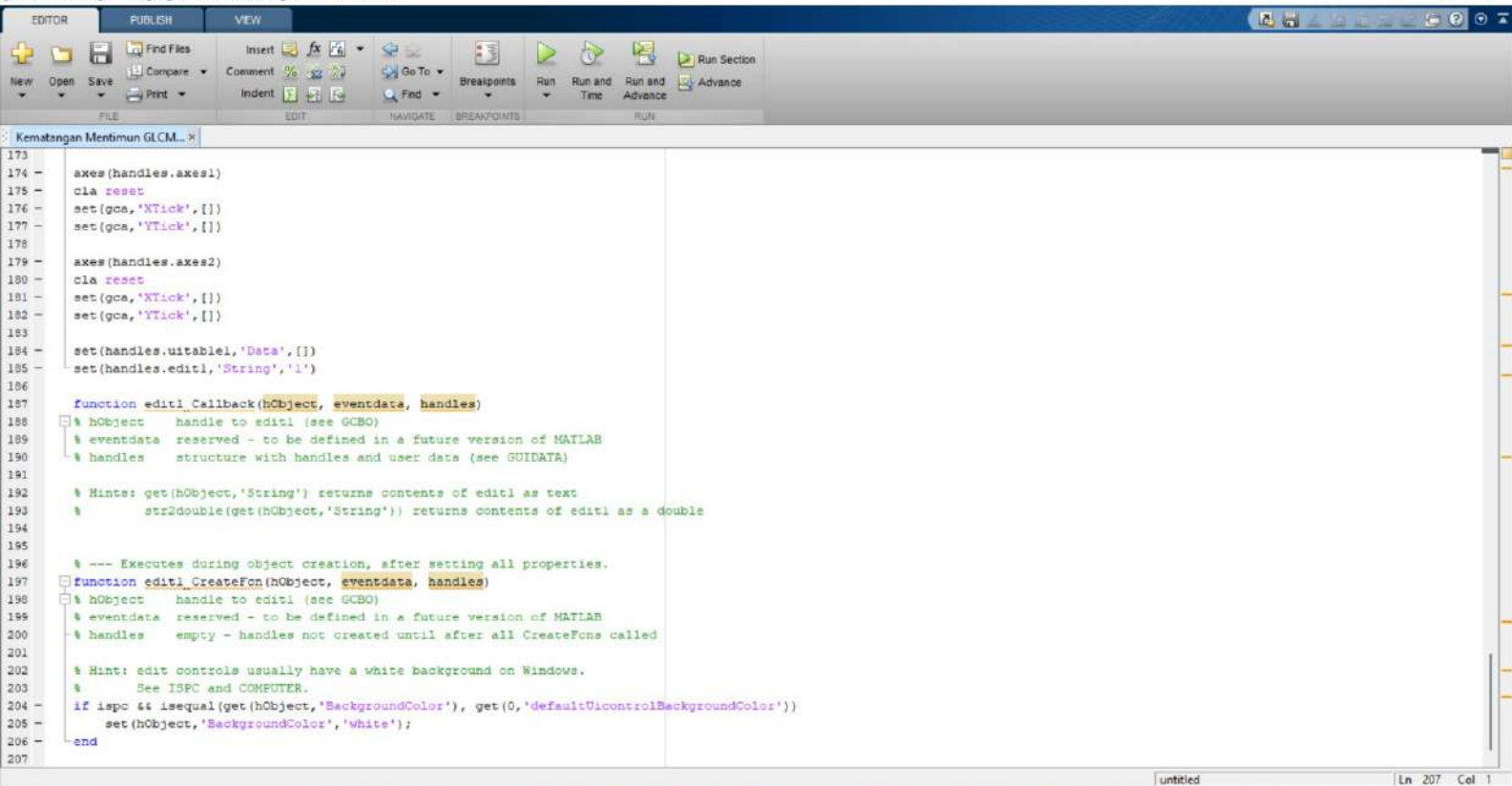


```
142 - data(1,1) = num2str(Contrast(1));
143 - data(1,2) = num2str(Contrast(2));
144 - data(1,3) = num2str(Contrast(3));
145 - data(1,4) = num2str(Contrast(4));
146 - data(1,5) = num2str(mean(Contrast));
147
148 - data(2,1) = num2str(Correlation(1));
149 - data(2,2) = num2str(Correlation(2));
150 - data(2,3) = num2str(Correlation(3));
151 - data(2,4) = num2str(Correlation(4));
152 - data(2,5) = num2str(mean(Correlation));
153
154 - data(3,1) = num2str(Energy(1));
155 - data(3,2) = num2str(Energy(2));
156 - data(3,3) = num2str(Energy(3));
157 - data(3,4) = num2str(Energy(4));
158 - data(3,5) = num2str(mean(Energy));
159
160 - data(4,1) = num2str(Homogeneity(1));
161 - data(4,2) = num2str(Homogeneity(2));
162 - data(4,3) = num2str(Homogeneity(3));
163 - data(4,4) = num2str(Homogeneity(4));
164 - data(4,5) = num2str(mean(Homogeneity));
165
166 - set(handles.uitable1,'Data',data)
167
168 % --- Executes on button press in pushbutton3.
169 function pushbutton3_Callback(hObject, eventdata, handles)
170 % hObject handle to pushbutton3 (see GCBO)
171 % eventdata reserved - to be defined in a future version of MATLAB
172 % handles structure with handles and user data (see GUIDATA)
173
174 - axes(handles.axes1)
175 - cla reset
176 - set(gca,'XTick',[])
```

```

107 % --- Executes on button press in pushbutton2.
108 function pushbutton2_Callback(hObject, eventdata, handles)
109 % hObject handle to pushbutton2 (see GCBO)
110 % eventdata reserved - to be defined in a future version of MATLAB
111 % handles structure with handles and user data (see GUIDATA)
112
113 % memanggil variabel img yg ada di lokasi handles
114 img = handles.img;
115
116 % mengkonversi citra rgb menjadi citra grayscale
117 img_gray = rgb2gray(img);
118
119 % menampilkan citra grayscale pada axes
120 axes(handles.axes2)
121 imshow(img_gray)
122 title('Grayscale Image')
123
124 % membaca pixel distance yg ada pada edit text
125 pixel_dist = str2double(get(handles.edit1, 'String'));
126
127 % membentuk matriks korelensi
128 GLCM = graycomatrix(img_gray, 'Offset', [0 pixel_dist; ...
129     -pixel_dist pixel_dist; -pixel_dist 0; -pixel_dist -pixel_dist]);
130
131 % mengekstrak fitur GLCM
132 stats = graycoprops(GLCM, {'Contrast', 'Correlation', 'Energy', 'Homogeneity'});
133
134 % membaca fitur GLCM
135 Contrast = stats.Contrast;
136 Correlation = stats.Correlation;
137 Energy = stats.Energy;
138 Homogeneity = stats.Homogeneity;
139
140 % menampilkan fitur GLCM pada tabel
141 data = get(handles.uitable1, 'Data');

```



```
173
174 - axes(handles.axes1)
175 - cla reset
176 - set(gca,'XTick',[])
177 - set(gca,'YTick',[])
178
179 - axes(handles.axes2)
180 - cla reset
181 - set(gca,'XTick',[])
182 - set(gca,'YTick',[])
183
184 - set(handles.uitable1,'Data',[])
185 - set(handles.edit1,'String','1')
186
187 function edit1_Callback(hObject, eventdata, handles)
188 % hObject handle to edit1 (see GCBO)
189 % eventdata reserved - to be defined in a future version of MATLAB
190 % handles structure with handles and user data (see GUIDATA)
191
192 % Hint: get(hObject,'String') returns contents of edit1 as text
193 %       str2double(get(hObject,'String')) returns contents of edit1 as a double
194
195
196 % --- Executes during object creation, after setting all properties.
197 function edit1_CreateFcn(hObject, eventdata, handles)
198 % hObject handle to edit1 (see GCBO)
199 % eventdata reserved - to be defined in a future version of MATLAB
200 % handles empty - handles not created until after all CreateFcns called
201
202 % Hint: edit controls usually have a white background on Windows.
203 %       See ISPC and COMPUTER.
204 if ispc && isequal(get(hObject,'BackgroundColor'), get(0,'defaultUicontrolBackgroundColor'))
205     set(hObject,'BackgroundColor','white');
206 end
207
```