

## ***Fungsi untuk Pushbutton 1***

```
[nama_file,nama_path] =  
uigetfile({'*.jpg','*.bmp','*.png','*.tif'},... 'Buka Citra');  
if ~isequal(nama_file,0)  
    Img = imread(fullfile(nama_path,nama_file));  
    axes(handles.axes1)  
    imshow(Img);  
    title('Citra RGB');  
    R = Img(:,:,1);  
    G = Img(:,:,2);  
    B = Img(:,:,3);  
else  
    return  
end  
handles.Img = Img;  
handles.R = R;  
handles.G = G;  
handles.B = B;  
guidata(hObject, handles)
```

## ***Fungsi untuk RadioButton 1***

```
set(hObject, 'Value', 1)
set(handles.radioButton2, 'Value', 0)
set(handles.radioButton3, 'Value', 0)
set(handles.radioButton4, 'Value', 0)
set(handles.radioButton5, 'Value', 0)
set(handles.radioButton6, 'Value', 0)
Img = handles.Img;
R = handles.R;
G = handles.G;
B = handles.B;
axes(handles.axes1)
imshow(Img)
title('Citra RGB')
axes(handles.axes2)
h = histogram(R, 256);
h.FaceColor = 'r';
h.EdgeColor = 'r';
xlim([0, 255])
grid on
hold on
h = histogram(G, 256);
h.FaceColor = 'g';
h.EdgeColor = 'g';
xlim([0, 255])
grid on
h = histogram(B, 256);
h.FaceColor = 'b';
h.EdgeColor = 'b';
xlim([0, 255])
grid on
hold off
title('Histogram RGB')
```

## ***Fungsi untuk RadioButton 2***

```
set(hObject, 'Value', 1)
set(handles.radioButton1, 'Value', 0)
set(handles.radioButton3, 'Value', 0)
set(handles.radioButton4, 'Value', 0)
set(handles.radioButton5, 'Value', 0)
set(handles.radioButton6, 'Value', 0)
R = handles.R;
G = handles.G;
B = handles.B;
axes(handles.axes1)
Red = cat(3, R, G*0, B*0);
imshow(Red)
title('Kanal Merah')
axes(handles.axes2)
h = histogram(R, 256);
h.FaceColor = 'r';
h.EdgeColor = 'r';
xlim([0, 255])
grid on
title('Histogram Channel Merah')
```

### ***Fungsi untuk RadioButton 3***

```
set(hObject, 'Value', 1)
set(handles.radioButton1, 'Value', 0)
set(handles.radioButton2, 'Value', 0)
set(handles.radioButton4, 'Value', 0)
set(handles.radioButton5, 'Value', 0)
set(handles.radioButton6, 'Value', 0)
R = handles.R;
G = handles.G;
B = handles.B;
axes(handles.axes1)
Red = cat(3, R*0, G, B*0);
imshow(Red)
title('Kanal Hijau')
axes(handles.axes2)
h = histogram(G, 256);
h.FaceColor = 'g';
h.EdgeColor = 'g';
xlim([0, 255])
grid on
title('Histogram Channel Hijau')
```

#### ***Fungsi untuk RadioButton 4***

```
set(hObject, 'Value', 1)
set(handles.radioButton1, 'Value', 0)
set(handles.radioButton2, 'Value', 0)
set(handles.radioButton3, 'Value', 0)
set(handles.radioButton5, 'Value', 0)
set(handles.radioButton6, 'Value', 0)
R = handles.R;
G = handles.G;
B = handles.B;
axes(handles.axes1)
Red = cat(3, R*0, G*0, B);
imshow(Red)
title('Kanal Biru')
axes(handles.axes2)
h = histogram(B, 256);
h.FaceColor = 'b';
h.EdgeColor = 'b';
xlim([0, 255])
grid on
title('Histogram Channel Biru')
```

### ***Fungsi untuk RadioButton 5***

```
set(hObject, 'Value', 1)
set(handles.radioButton1, 'Value', 0)
set(handles.radioButton2, 'Value', 0)
set(handles.radioButton3, 'Value', 0)
set(handles.radioButton4, 'Value', 0)
set(handles.radioButton6, 'Value', 0)
Img = handles.Img;
Img_Gray = rgb2gray(Img);
axes(handles.axes1)
imshow(Img_Gray)
title('Citra Grayscale')
axes(handles.axes2)
h = histogram(Img_Gray, 256);
h.FaceColor = [.5 .5 .5];
h.EdgeColor = [.5 .5 .5];
xlim([0, 255])
grid on
title('Histogram Citra Grayscale')
```

### ***Fungsi untuk RadioButton 6***

```
set(hObject, 'Value', 1)
set(handles.radioButton1, 'Value', 0)
set(handles.radioButton2, 'Value', 0)
set(handles.radioButton3, 'Value', 0)
set(handles.radioButton4, 'Value', 0)
set(handles.radioButton5, 'Value', 0)
Img = handles.Img;
Img_Gray = rgb2gray(Img);
Img_bw = im2bw(Img_Gray);
axes(handles.axes1)
imshow(Img_bw)
title('Citra Biner')
axes(handles.axes2)
h = histogram(Img_bw, 2);
h.FaceColor = 'k';
h.EdgeColor = 'w';
h.FaceAlpha = 1;
xlim([0, 1])
grid on
title('Histogram Citra Biner')
```