LAMPIRAN

```matlab
function varargout = encix(varargin)
% ENCIX M-file for encix.fig
%      ENCIX, by itself, creates a new ENCIX or raises the
existing
%      singleton*.
%
%      H = ENCIX returns the handle to a new ENCIX or the handle
to
%      the existing singleton*.
%
%      ENCIX('CALLBACK',hObject,eventData,handles,...) calls the
local
%      function named CALLBACK in ENCIX.M with the given input
arguments.
%
%      ENCIX('Property','Value',...) creates a new ENCIX or raises
the
%      existing singleton*.  Starting from the left, property
value pairs are
%      applied to the GUI before encix_OpeningFcn gets called.  An
%      unrecognized property name or invalid value makes property
application
%      stop.  All inputs are passed to encix_OpeningFcn via
varargin.
%
%      *See GUI Options on GUIDE's Tools menu.  Choose "GUI allows
only one
%      instance to run (singleton)".
%
% See also: GUIDE, GUIDATA, GUIHANDLES

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

% Last Modified by GUIDE v2.5 16-Jun-2011 21:01:38

% Begin initialization code - DO NOT EDIT
gui_Singleton = 1;
gui_State = struct('gui_Name',       mfilename, ...
                   'gui_Singleton',  gui_Singleton, ...
                   'gui_OpeningFcn', @encix_OpeningFcn, ...
                   'gui_OutputFcn',  @encix_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 encix is made visible.
function encix_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 encix (see VARARGIN)


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


% Update handles structure
guidata(hObject, handles);


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


% --- Outputs from this function are returned to the command line.
function varargout = encix_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 editambil_Callback(hObject, eventdata, handles)
% hObject    handle to editambil (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)


% Hints: get(hObject,'String') returns contents of editambil as
text
%        str2double(get(hObject,'String')) returns contents of
editambil as a double


% --- Executes during object creation, after setting all
properties.
function editambil_CreateFcn(hObject, eventdata, handles)
% hObject    handle to editambil (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called


% Hint: edit controls usually have a white background on Windows.
%        See ISPC and COMPUTER.
```

```
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end


% --- Executes on button press in mulai.
function mulai_Callback(hObject, eventdata, handles)
% hObject    handle to mulai (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
proyek =guidata (gcbo);
vid = videoinput('winvideo',1,'rgb24_640x480');
triggerconfig ( vid , 'manual' );
start ( vid );
while(1);
pause(2)
a=getsnapshot(vid);
subplot(2,2,2);
imshow(a);
title('A');
red1=a(:,:,1);
green1=a(:,:,2);
blue1=a(:,:,3);
gray1=rgb2gray(a);
[q,w]=size(gray1);
for i=1:q
    for j=1:w
        k=gray1(i,j);
        if (k>=245)&&(k<253);
            k=255;
        else if k>=253;
                k=0;
        else if k<245;
                k=0;
            end
            end
        end
        gray1(i,j)=k;
    end
end
aa=im2bw(gray1);
x=find(aa==1);
bx=sum(sum(aa))
set(proyek.editgambar1,'string',(bx));
h=str2double(get(proyek.editpause,'string'));
pause(h);
set(proyek.editpause,'string',num2str(h));
b=getsnapshot(vid);
subplot(2,2,4);
imshow(b);
title('B');
red2=b(:,:,1);
green2=b(:,:,2);
blue2=b(:,:,3);
gray2=rgb2gray(b);
```

```matlab
[m,n]=size(gray2);
for i=1:m
    for j=1:n
        l=gray2(i,j);
        if (l>=245)&&(l<253);
            l=255;
        else if l>=253;
                l=0;
        else if l<245;
                l=0;
            end
            end
        end
        gray2(i,j)=l;
    end
end
bb=im2bw(gray2);
y=find(bb==1);
by=sum(sum(bb))
set(proyek.editgambar2,'String',(by));
c=0.25*bx+bx;
round(c)
d=0.5*bx+bx;
round(d)
if (bx>=0)&&(bx<=300);
    api='Tidak Ada Api'
    set(proyek.editketerangan,'String',(api));
    else if (by>=0)&&(by<=c);
        api='Tidak Ada Api'
      set(proyek.editketerangan,'String',(api));
        else if (by>c)&&(by<=d);
    api='Api Kecil'
set(proyek.editketerangan,'String',(api));
s = wavread('d:\sirine.wav');
Fs = 44100;
wavplay(s,Fs);
    else if (by>d)&&(bx>300);
            api='Terbakar'
            set(proyek.editketerangan,'String',(api));
ss = wavread('d:\sirine.wav');
Fs = 11025;
wavplay(ss,Fs);
break
        end
            end
        end
end
end


% --- Executes on button press in tutup.
function tutup_Callback(hObject, eventdata, handles)
% hObject    handle to tutup (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
close;
```

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

% Hints: get(hObject,'String') returns contents of editketerangan
as text
%        str2double(get(hObject,'String')) returns contents of
editketerangan as a double


% --- Executes during object creation, after setting all
properties.
function editketerangan_CreateFcn(hObject, eventdata, handles)
% hObject    handle to editketerangan (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end


% --- Executes on button press in preview.
function preview_Callback(hObject, eventdata, handles)
% hObject    handle to btnpreview (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
% Create a video input object.
% Create a video input object.
vid = videoinput('winvideo',1,'RGB24_640x480');

% Create a figure window. This example turns off the default
% toolbar, menubar, and figure numbering.

figure('Toolbar','none',...
       'Menubar', 'none',...
       'NumberTitle','Off',...
       'Name','My Preview Window');

% Create the image object in which you want to display
% the video preview data. Make the size of the image
% object match the dimensions of the video frames.

vidRes = get(vid, 'VideoResolution');
```

```matlab
nBands = get(vid, 'NumberOfBands');
hImage = image( zeros(vidRes(2), vidRes(1), nBands) );

% Display the video data in your GUI.

preview(vid, hImage);




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


% Hints: get(hObject,'String') returns contents of editpause as
text
%        str2double(get(hObject,'String')) returns contents of
editpause as a double


% --- Executes during object creation, after setting all
properties.
function editpause_CreateFcn(hObject, eventdata, handles)
% hObject    handle to editpause (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end


% --- Executes during object creation, after setting all
properties.
function ambil_CreateFcn(hObject, eventdata, handles)
% hObject    handle to ambil (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called



% --- Executes during object deletion, before destroying
properties.
function ambil_DeleteFcn(hObject, eventdata, handles)
% hObject    handle to ambil (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
```

```matlab
% handles    structure with handles and user data (see GUIDATA)


function editgambar1_Callback(hObject, eventdata, handles)
% hObject    handle to editgambar1 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of editgambar1 as
text
%        str2double(get(hObject,'String')) returns contents of
editgambar1 as a double

% --- Executes during object creation, after setting all
properties.
function editgambar1_CreateFcn(hObject, eventdata, handles)
% hObject    handle to editgambar1 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end

function editgambar2_Callback(hObject, eventdata, handles)
% hObject    handle to editgambar2 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of editgambar2 as
text
%        str2double(get(hObject,'String')) returns contents of
editgambar2 as a double

% --- Executes during object creation, after setting all
properties.
function editgambar2_CreateFcn(hObject, eventdata, handles)
% hObject    handle to editgambar2 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end
```