function expandAxes(hndls,rotEnable)

if nargin == 0

hndls = gca;

end

if nargin < 2

rotEnable = 0;

end

warning('off','MATLAB:gui:latexsup:UnableToInterpretTeXString');

for ii = 1:numel(hndls)

% Ignore any handles that are not of type axes

if strcmp(get(hndls(ii),'type'),'axes')

% Create a structure of handles for each axes in the list

clear hndlSet;

% The axes itself:

hndlSet.ax = hndls(ii);

% The parent figure

tmp = hndls(ii);

hndlSet.oldfig = ancestor(hndls(ii),'figure');

allchildren = findall(hndls(ii));

% All children WITH EMPTY BUTTONDOWNFCNs

if isempty(get(allchildren,'buttondownfcn'))

hndlSet.objectsOfInt = allchildren;

else

hndlSet.objectsOfInt=allchildren(cellfun(@isempty,get(allchildren,'buttondownfcn')));

end

% Modify buttondownfcns of all ("valid") axes and children

set(hndlSet.objectsOfInt,'buttondownfcn',{@expandIt,hndlSet,rotEnable});

end

end

function expandIt(varargin)

hndlSet = varargin{3};

rotEnable = varargin{4};

selType = get(gcf,'SelectionType');

parentWindowStyle = get(gcf,'WindowStyle');

switch selType

% EXPAND

case 'normal'

new\_fig = figure('numbertitle','off',...

'name','CLICK ON THE FIGURE TO CLOSE AND CONTINUE;

RIGHT-CLICK TO SAVE IMAGE IN BASE WORKSPACE!!!...',...

'units',get(hndlSet.oldfig,'units'),...

'windowstyle','normal',...

'position',get(hndlSet.oldfig,'position'),...

'color',get(hndlSet.oldfig,'color'),'toolbar','figure','tag','new\_fig',...

'colormap',get(hndlSet.oldfig,'colormap'),'menubar','none',...

'toolbar',get(hndlSet.oldfig,'toolbar'));

% Ignore default docking status, use that of parent

set(new\_fig,'buttondownfcn',@figureClicked,...

'WindowStyle',parentWindowStyle);

new\_ax = copyobj(hndlSet.ax,new\_fig);

set(new\_ax,'units','normalized','position',[0.1 0.1 0.8 0.8]);

% Click anywhere in the new figure to close it

set(findobj(new\_fig),'buttondownfcn',@figureClicked);

if rotEnable

rotate3d(new\_fig);

set(new\_fig,'name','Close axis manually')

end

case 'alt'

% RESET

tmp = questdlg('Disable expandAxes capabilities for this axes?','Disable

Expansion?','DISABLE','Cancel','DISABLE');

if strcmp(tmp,'DISABLE')

set(hndlSet.objectsOfInt,'buttondownfcn','');

end

end

end

function figureClicked(varargin)

selType2 = get(gcf,'SelectionType');

switch selType2

case 'normal'

closereq

case 'alt'

try

vn = createUniqueName('selectedImage');

tmpimg = findall(gcf,'type','image');

cdat = get(tmpimg,'cdata');

if isempty(cdat)

beep;

tmpimg = getframe(gca);

cdat = tmpimg.cdata;

fprintf('Current axes includes a non-image!\nExtracting and exporting a

snapshot of your data with |GETFRAME|.\n')

end

assignin('base',vn,cdat);

fprintf('Selected image written as %s to base workspace!\n',vn);

catch %#ok

beep

disp('Unable to extract axes data!')

end

end

end

end