

```

313 %      Y = LOOKUP(FUNTABLE, R, X)
314 %      FUNTABLE - table of function values.
315 %      R          - table resolution.
316 %      X          - values whos correspodng function valu
317 %                  are to be looked up.
318
319 % Dummy variables intended to optimize speed
320 tVar1 = (1/res); % Multiplication is faster than divi
321 tVar2 = length(funTable)/2;
322
323 Y = funTable(ceil(X*tVar1+tVar2));
324 % -----
325
326 % ----- SHOWGRAPHS -----
327 function showGraphs(j,alpha,tMin,tMax,sigma,egagTable
328 %SHOWGRAPHS Displays graphs of thresholding and enhan
329 x = linspace(-1,1,1/res);
330 numC = floor(j/2);
331 % Plot softThresh for fine scale levels of DWT
332 fig1 = figure;
333 set(fig1,'Name','Thresholding and enhancement functio
334 for channel = 1:numC
335     subplot(1,numC+1,channel);
336     plot(x,softThresh(x, tMax, tMin, sigma, alpha, ch
337     axis square;title(sprintf('softThreshold in chann
338     xlabel x;ylabel('softThresh(x)');
339 end
340 %Plot egag function
341 subplot(1,numC+1,numC+1);plot(x,lookUp(egagTable,res,
342 title('Generalized Adaptive Gain function');xlabel x;
343 % -----
344
345 function [ x1 x2 ] = getUserCoordinates(img)
346 %GETUSERCOORDINATES
347 %      [ X1 X2 ] = GETUSERCOORDINATES(IMG)
348 % Lets the user choose two points in an image and ret
349 % the coordinates of each point in the row vectors X1
350
351 x1 = zeros(1,2);
352 x2 = zeros(1,2);
353
354 fig = figure;
355 imshow(img,[min(img(:)),max(img(:))]);axis image;colo
356 set(fig,'Name','Select area for estimation of standar
357
358 disp('Select upper left corner of preferred area with
359 t = waitforbuttonpress;
360 [x1(1,1) x1(1,2)] = ginput(1);
361 disp('Select lower right corner of preferred area wit
362 t = waitforbuttonpress;
363 [x2(1,1) x2(1,2)] = ginput(1);
364
365 x1 = ceil(x1);
366 x2 = floor(x2);
367 close(fig);
368 % -----

```