Wayne E. King <weking@llnl.gov> writes:

> I seek a high speed Hough transform algorithm for detection of lines in
> images. IDL code preferred.

  My IDL library has a routine called radon which I made to do exactly
  what you state above. The built-in help for this routine is:

IDL> help,radon(/help)
 Compute the Radon Transform using the FFT method.
 t = radon(img)
   img = input image. Must be square.   in
   t = Radon Transform of img.   out
  Keywords:
   EMBED=n size of zero image to embed given image in.
     Def=no embed.
   START=a1 start angle in degrees, default=0.
   STOP=a2 stop angle in degrees, default=179.
   STEP=da angle step in degrees, default=1.
   ANGLES=ang returned list of angles used.
   /DEBUG does a debug stop.
 Notes: Images must be byte.
   No preprocessing is done.
   It may be useful to subtract the mean.
   Ref: Linear feature detection and enhancement in noisy
     images via the Radon transform,
     Lesley M. Murphy, Patt. Rec. Letters 4 (1986) 279.

  Make sure you use the EMBED keyword to embed your image in a
  larger image of zeros, it greatly improves the transform. I use this
  routine to successfully detect linear features in ocean images.
  I only did two cases. You are on your own, I can do much support
  for this routine, other than make it available.

The JHU/APL/S1R IDL library is available by anonymous ftp as follows.

    ftp fermi.jhuapl.edu
      login: anonymous
      password: enter your email address
    cd pub/idl
    get README
    bye

Follow the instructions in the README (~6.6k bytes) file to get the
actual library. You may also
want to get the one line description file cat.one (~30kb).

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