

Installing the ARPACK libraries:

1. Run Cygwin and create a directory to store the files for the Extreme Multidimensional Scaling code. (I called the directory X-MDS).
2. Download the ARPACK96 and patch files from <http://www.caam.rice.edu/software/ARPACK/>  
From the homepage, click on “download software” and follow the instructions. Save the files arpack96.tar and patch.tar in your X-MDS directory (C:\cygwin\home\compuer\_name\X-MDS)
3. From command prompt in your Cygwin window, use the following commands to unpack the files you just downloaded:  
tar -xvf aprack.96.tar  
tar -xvf patch.tar
4. Use your favorite text editor to view the README file in the newly created ARPACK directory and follow the directions. It may be helpful to print this file.

At a minimum, you will need to make the following change to the ARmake.inc file (this is step #5 in the README file):  
home = \$(HOME)/X-MDS/ARPACK

5. Type “make lib” in the ARPACK directory to make the standard ARPACK Library “libarpack\_\$(PLAT).a” (This also includes the LAPACK library.)  
(I had to move the file “libarpack\_\$(PLAT).a” into the X-MDS directory in order for the code to compile.)

Note -

When you compile the CMDS or PCA-GMA source code, you need to include the ARPACK library in the command:

```
g77 pca-gma.f -O libarpack_$(PLAT).a -o pca-gma.exe  
g77 cmds.f -O libarpack_$(PLAT).a -o cmds.exe
```