

1 Getting Started

help command	Get help on a difmap command
obs file	Load your data file
select I	Select a data stream (here: total intensity)
mapsize 1024,0.1	Define a map grid (here: 1024x1024 pixels of 0.1mas x 0.1mas size)
uvw m,n	Define the weighting (0,n for natural weighting, 2,n for uniform weighting). Weights are scaled with the n-th power of the amplitude error (here: natural, scaling reciprocal to the error)
startmod	Read in a point-source starting model and phase self-calibrate against it

2 Examine and Edit Your Data

tplot	Plot the time sampling of the participating telescopes
uvplot	Plot your u,v-coverage
uvaver 32,true	Average the data and calculate errors from the internal scatter
radplot	Plot visibility amplitudes and/or phases vs. UV radius
projplot 75	Plot visibility amplitudes and/or phases vs. projected UV distance along a specified position angle (here: 75 degrees)
cpplot 2	Plot closure phases for all triangles of telescopes (here: only two triangles will be displayed inside the window; “n” switches to the next two triangles)
vplot 2	Plot visibility amplitudes and/or phases vs. time for all baselines (here: only two baselines will be displayed inside the window; “n” switches to the next two triangles)
corplot	Plot corrections made to the data in previous selfcal steps
edmod	Inspect and modify the current model. This will use the editor specified by the shell environment variable \$EDITOR.

3 Hybrid Imaging

mapplot	(...or just map) Display the residual map
mapl beam	Display the dirty beam
mapl cln	Display the clean map
clean 100,0.03	Clean the residual map
selfcal	Perform a phase self-calibration based on the current model
gscale	Correct telescope amplitudes based on the current model
selfcal	Perform an amplitude and phase self calibration with a specified solution interval (here: 180 minutes) based on the current model
180,true,true	Specify which antennas should be self-calibrated and which not
selfant	Delete all clean components outside of the current clean windows (winmod true will delete all components inside the windows)
winmod	Delete all clean windows
delwin	Delete all clean windows
uvtaper 0.1,200	Weight down the data on long baselines (here: 10 % at 200 Megawavelengths)

4 Tips and Tricks

- Type “?” inside any difmap window to list options
- When you are not sure about the size of your beam, you can give the mapsize command a very large pixel size and difmap will tell you the optimum size
- With the “save” command, you can save all your relevant files (data, model, windows) at any step on your way. Do this often, e.g., after each amplitude self calibration. E.g., save 0 creates a 0.par file, which can be read in again with the command @0.par. See also wobs,obs,wwin,rwin,wmod,rmod.
- Use “-” to plot residuals in the data-examination windows (e.g., radplot)
- Create a difmap.boot file to specify defaults plot options, colors, define loops,etc... (details in the difmap documentation)
- *device “output.ps/ps”* – Redirect the output of the following commands to a postscript file.