Karma (Author: Richard Gooch)

Karma Home Page : <u>http://www.atnf.csiro.au/computing/software/karma/</u>

- Karma is a **toolkit** for interprocess communications, authentication, encryption, graphics display, user interface and manipulating the Karma network data structure.
- It contains KarmaLib (the structured libraries and API) and a large number of modules (**applications**) to perform many standard tasks.
- A suite of **visualisation tools** are distributed with the library .
 - <u>kvis</u>, the general-purpose image/movie display tool which can load multiple datasets, display multiple windows, overlay contours, annotations, show multiple overlaid profiles, and much more
 - <u>koords</u>, a tool for applying a co-ordinate system header to an image
 - <u>kpvslice</u>, a tool for interactively displaying position-velocity slices
 - <u>krenzo</u>, a tool for displaying contours of channel maps
 - <u>kshell</u>, a tool for finding and analysing expanding shells
 - <u>khuei</u>, a tool for displaying complex or amplitude/phase data using hue and intensity
 - <u>kslice_3d</u>, a tool for displaying three orthogonal slices through a volume

Start

To start karma prompt> tcsh or csh prompt> source /where_you_install_karma>.login prompt> source /where_you_install_karma>.cshrc prompt> kvis



NB: Make sure keys like CapsLock, NumLock, ScrollLock and AltLock are turned off

Load data – Chandra smoothed 15 pix image



Change Intensity Load Radio image

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Close Destroy Copy Active VShow: all
▽Data: Arrays Advanced Make Data
A 3c301,im.fits:Ext[0] 3c301.im.fits:Ext[1] I P ds9_1Spix.fits
FB: O lir: /hown/ndewn/Docuents/ter/PostDoc/Workshop/Synthesis_school Object: 3C391 C1 Format: unknown Unit: JY/BEAM Size: 1024 KiB Dim: 512*512 float Min: -0.003165385919 Max: 0.2699151039 Histogram Clone Unload
▼Image: alt VContour: off VMovie: off
Low: 0.003165385919 High: 2.699151039
Map Contour Levels: 210:90+10
-ve Cont. Width 0.0 +ve Cont. Width 0.0
-Colour: grey70 +Colour: green
Renzo Contour Levels:
Renzogram Channels:
∀Profile: off Profile Colours:
Dark: Dlack Light: Dhite

Map Contour Levels - the contour levels for normal contours. The syntax for the contour levels is as follows:

- just type the levels you want e.g. 0.001 0.002 0.003 0.004
- levels with a constant increment: 0.001:0.004+0.001 means that the first level is 0.001, that this level is incremented with 0.001 until 0.004 is reached. So this example gives the same levels as in the first case
- levels incremented by a factor: 0.001:0.016*2. This gives levels 0.001 0.002
 0.004 0.008 0.016
- levels as percentage of the peak: first character should be %, numbers are taken as

percentage, the rest of the syntax is as above, e.g. %10:40+10 gives 10, 20, 30 and 40 % of the maximum of the data

• the special values min and max indicate the minimum and maximum value

These options can be mixed, i.e. -0.03:-0.01+0.01 0.003:0.1+0.02 0.2 0.3 is interpreted correctly. You should press the enter key for your changes to take effect

Overlay Axes

Intensity Policy

Export



Overlay Optical and Xray