

# TOPCAT

Tool for OPerations on Catalogues And Tables

'Does what you want with tables'



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# Loading TOPCAT

The screenshot shows a Linux desktop environment with a scenic background image of a river and a large rock formation. A file manager window is open on the left, displaying a directory with several CSV files: ATL.csv, ATL\_region1.csv, ATL\_region2.csv, and ATL\_region3.csv. A terminal window is open on the right, showing the command 'starjava/bin/topcat' being executed. The TOPCAT application window is open in the foreground, displaying a 'Table List' and 'Current Table Properties' panel.

**File Manager Window:**

- Places: Recent, Home, Desktop, Documents, Downloads, Music, Pictures, Videos, Rubbish Bin
- Devices: Computer
- Bookmarks: Dropbox
- Network: Browse Network, Connect to Server

**Terminal Window:**

```
mxs191@phy-hrs-152: ~/software
mxs191@phy-hrs-152: ~/Dropbox/phd_y2.1
mxs191@phy-hrs-152:~$ cd software/
mxs191@phy-hrs-152:~/software$ starjava/bin/topcat
```

**TOPCAT Window:**

- Menu: File, Views, Graphics, Joins, Windows, VO, Interop, Help
- Table List: 33 / 1707 M
- Current Table Properties:
  - Label:
  - Location:
  - Name:
  - Rows:
  - Columns:
  - Sort Order:
  - Row Subset:
  - Activation Action: ☐ Broadcast Row
- SAMP: Messages: ☐ Clients: ☒



# Loading data and Sky Plotting

The screenshot displays a Linux desktop environment with a scenic background image of a rocky coastline. The desktop features a vertical dock on the left with icons for various applications and files. Two windows are open:

**Sky Plot**

The Sky Plot window shows a circular plot of the sky with a red background and white grid lines. The plot is titled "Sky Plot" and has a menu bar with "Window", "Layers", "Subsets", "Plot", "Export", and "Help". The plot area shows a dense distribution of red points, likely representing stars or galaxies. The axes are labeled with Galactic coordinates (l, b).

**TOPCAT**

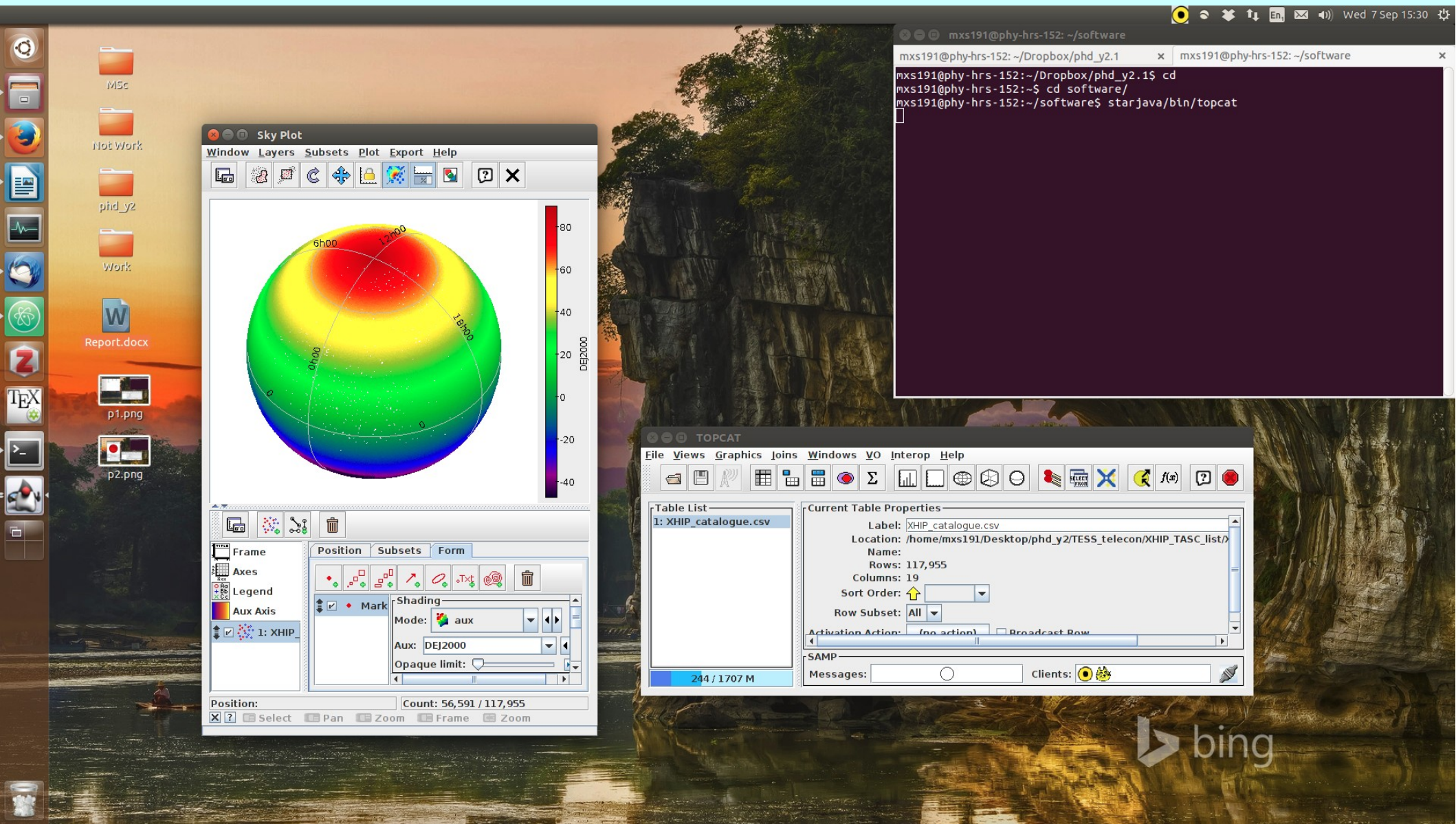
The TOPCAT window is a data management tool. It has a menu bar with "File", "Views", "Graphics", "Joins", "Windows", "VO", "Interop", and "Help". The window is divided into several panes:

- Table List:** Shows a list of tables, including "1: XHIP\_catalogue.csv".
- Current Table Properties:** Displays details for the selected table, including Label, Location, Name, Rows (117,955), Columns (19), Sort Order, Row Subset, and Activation Action.
- SAMP:** Shows the status of the SAMP (Simple Array Messaging Protocol) connection, including Messages and Clients.

The TOPCAT window also includes a toolbar with various icons for file operations, viewing, and data manipulation. The status bar at the bottom of the window shows "623 / 1707 M".

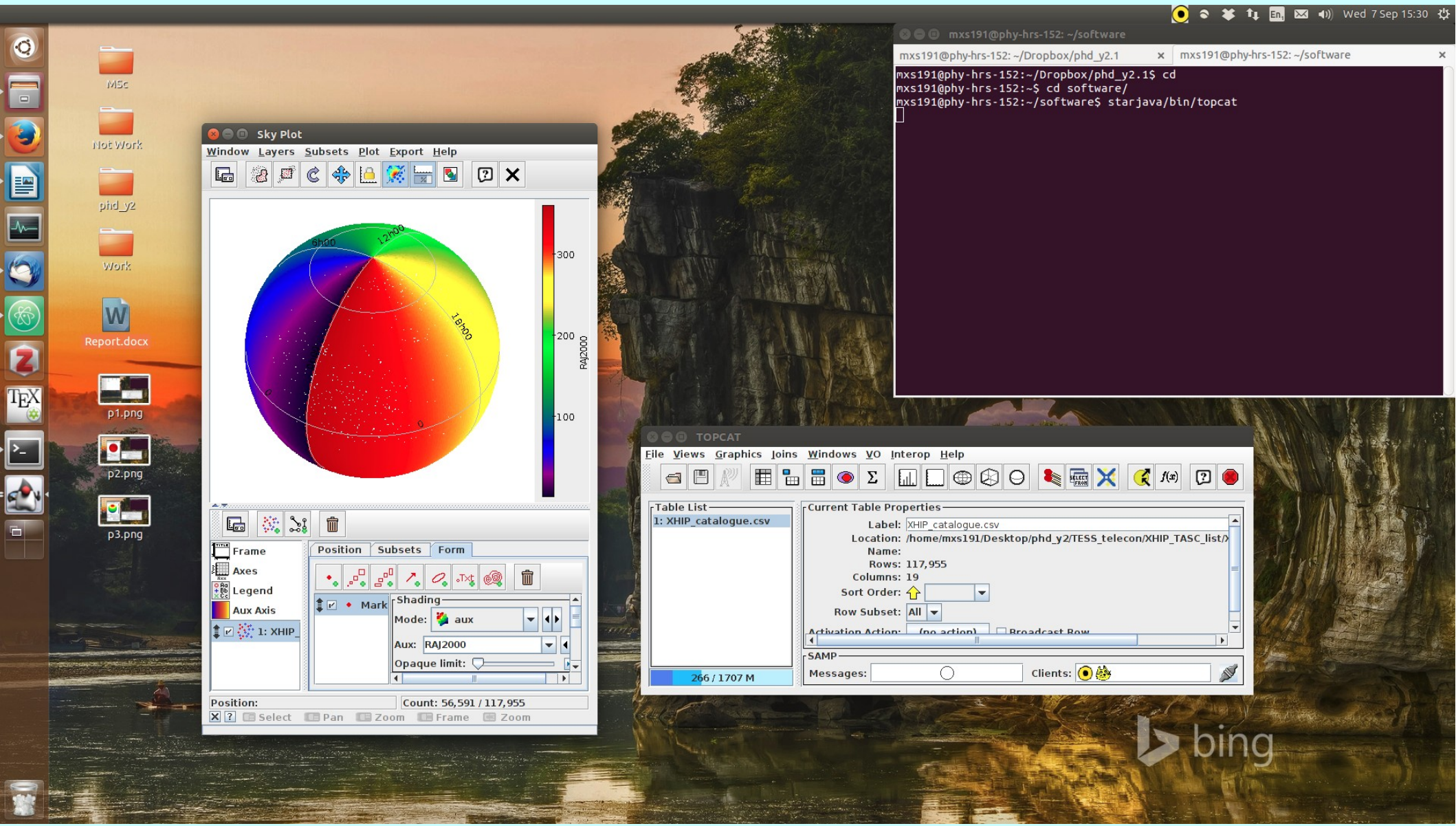


# Colourbar



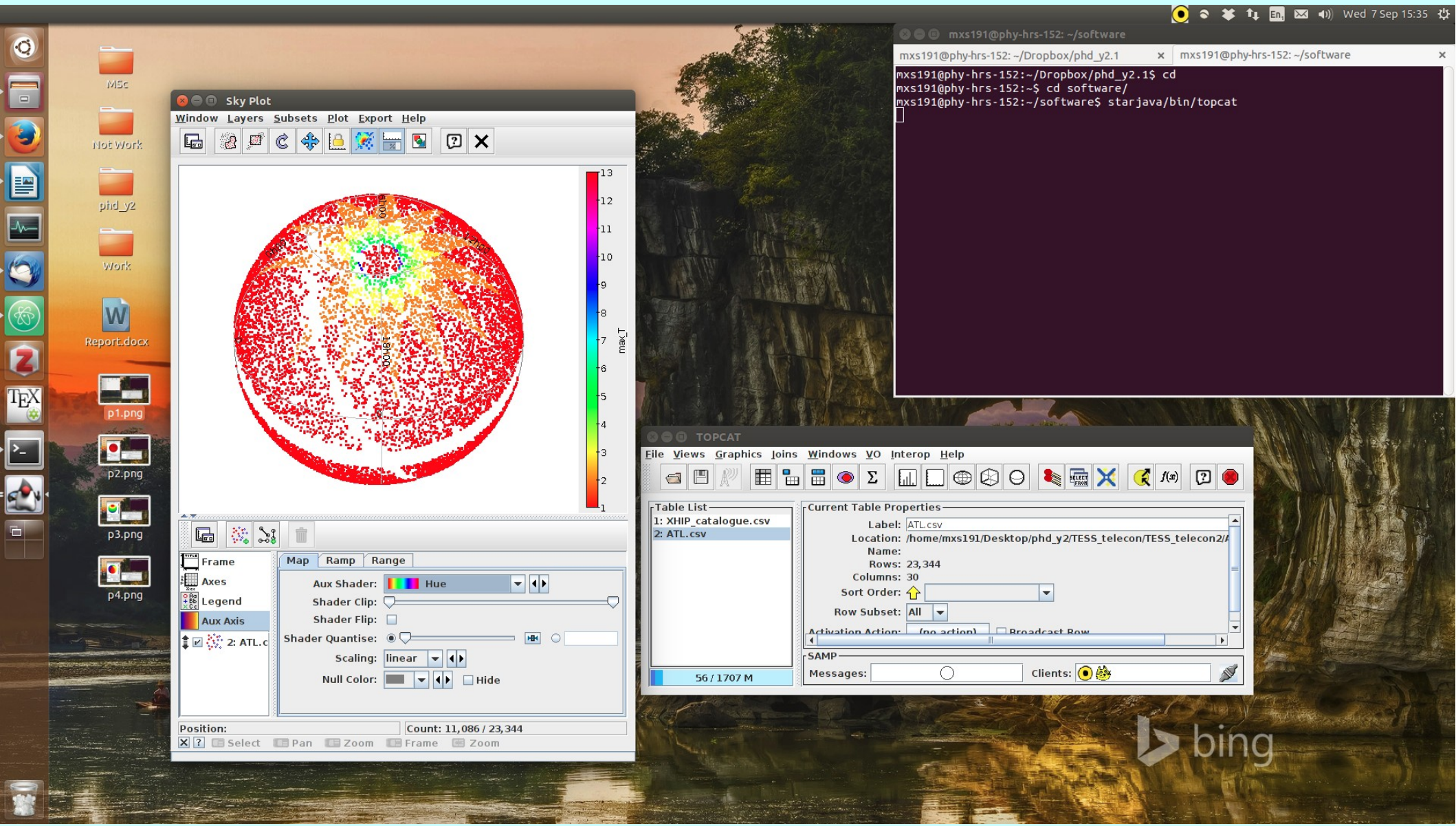


# Colourbar



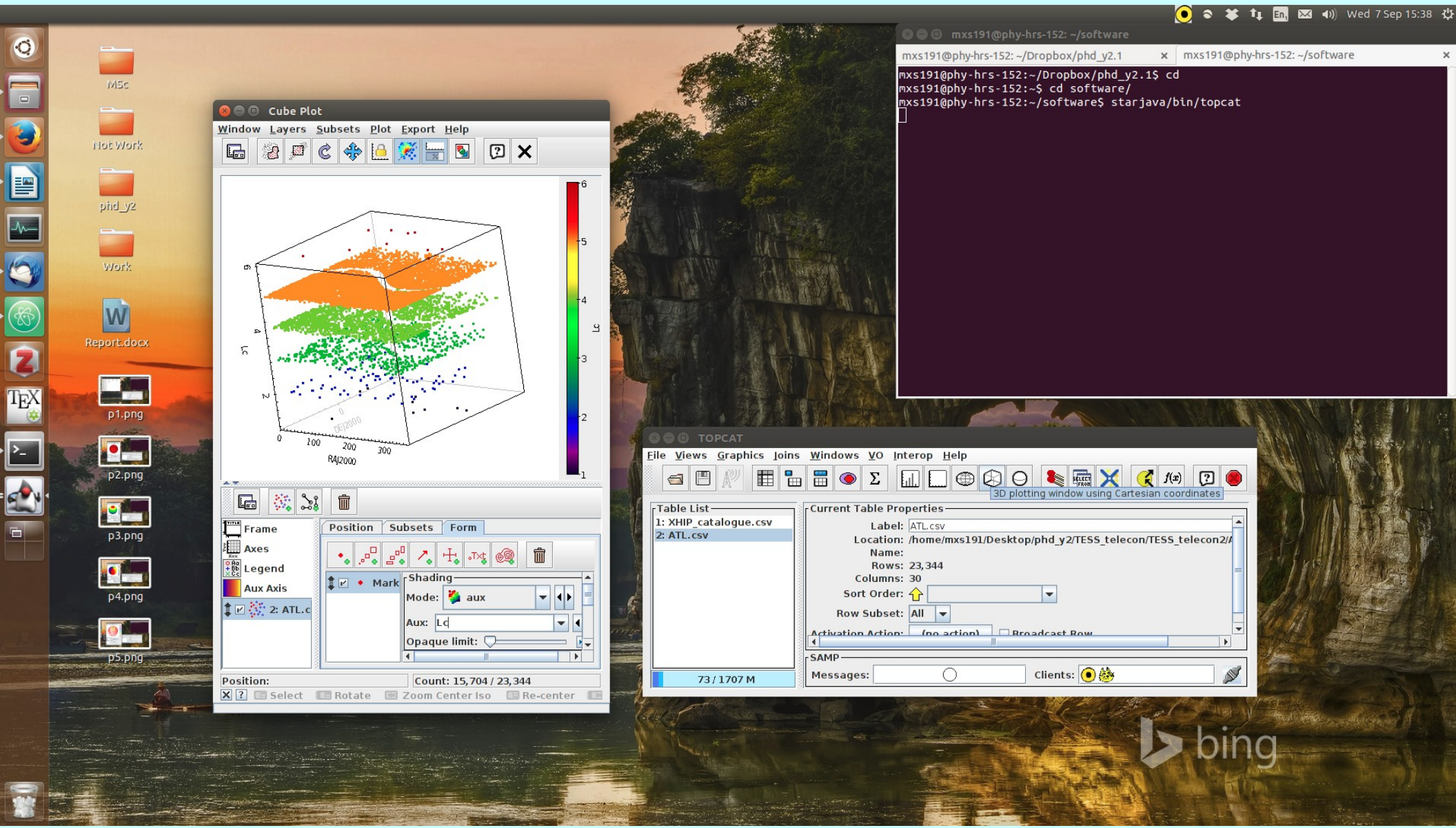


# Colourbar





# 3D plotting in cartesian coordinates





# 3D plotting using spherical polar coordinates

