CASA Viewer

Developer Meeting
May 10-14, 2010
Background

- Developed by Several People Including
- Harold Ravlin
- David Barnes
- Malte Marquarding
- David King
- Honglin Ye
Background

- Developed over a long period of time
  - display toolkit (1998–2004) [glish+tk]
  - display toolkit++ (2004–2005) [python+tk]
  - casaviewer (2005–present) [Qt]
Problems

- AipsView – not sufficiently programmable
- display toolkit – too slow (but very programmable)
- display toolkit++ – redo
- casaviewer – not sufficiently programmable
Qt Layer

QtDBusViewerAdaptor

List<QtDisplayPanelGui>

List<QtDisplayData>

QtViewer

Factory

QtDisplayPanelGui

List<QtDisplayData>

QtDisplayData

WedgeDD
ActiveCaching2dDD
CachingDisplayData
DisplayData
LatticeAsRaster<float>
PrincipalAxesDD
DisplayData
Canvas Layer

- Qt Independent
- Event Driven
- Labeling via PGPLOT
Scripting

- DBus based
- adaptor manages bookkeeping
- higher-level functions than previous toolkit
- integer handles for display panels and data
- optional panel/data handle arguments
Scripting

- (Un)load rasters, contours & restore state
- Select channel & zoom
- Output file
  - type (pdf, (e)ps, jpg, png, ppm)
- resolution
- GUI & non-GUI operation
Casaviewer Issues

- PGPLOT Labeling
- Secondary Plotting
- Complexity
- Remote Visualization
- Piecemeal Development Investment
RVS (2005)
Anil & Malte

- Java frontend
- CORBA
- PixelCanvas