

CASA Viewers



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Viewer

CARTA

Viewer

- Comes with CASA
- Displays both images and measurement sets
- Also performs image analysis
- No longer maintained
- Buggy

CARTA

Cube Analysis and Rendering Tool for Astronomy

- Does not come with CASA (get CARTA [here](#))
- Displays images
- Also performs image analysis (limited functionality)
- Actively maintained

CARTA

Cube Analysis and Rendering Tool for Astronomy

Provide usability and scalability for the future (huge images) by utilizing modern web technologies and computing parallelization

Viewer

vs

CARTA?

See a comparison [here](#)

Viewer vs CARTA?

Now: Both

Use **CARTA** if it has the functionality you want, if not, use the **Viewer**

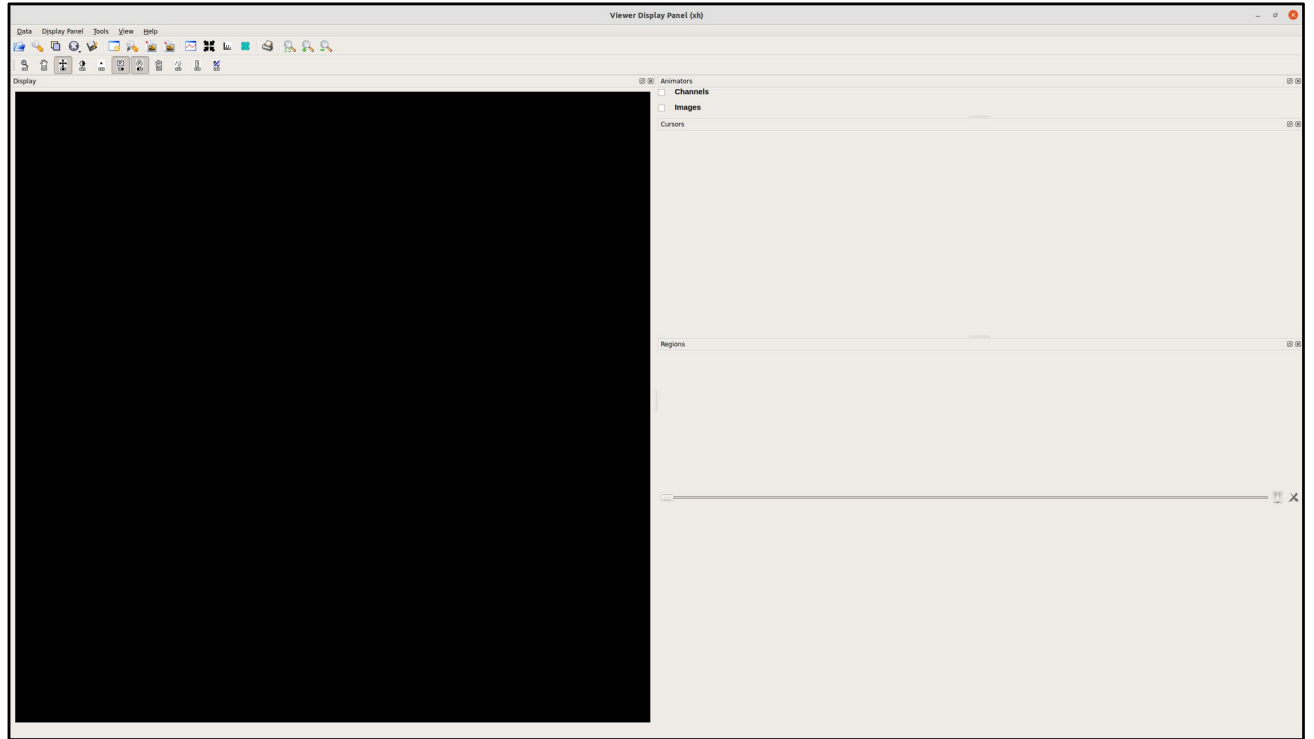
Future: **CARTA**

See a comparison [here](#)

Starting the **Viewer**

- **imview** or **mview** inside CASA
- **casaviewer** in a terminal

See **Viewer** basics [here](#)





Display

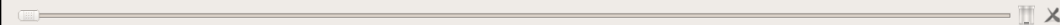


Animators

- Channels
- Images

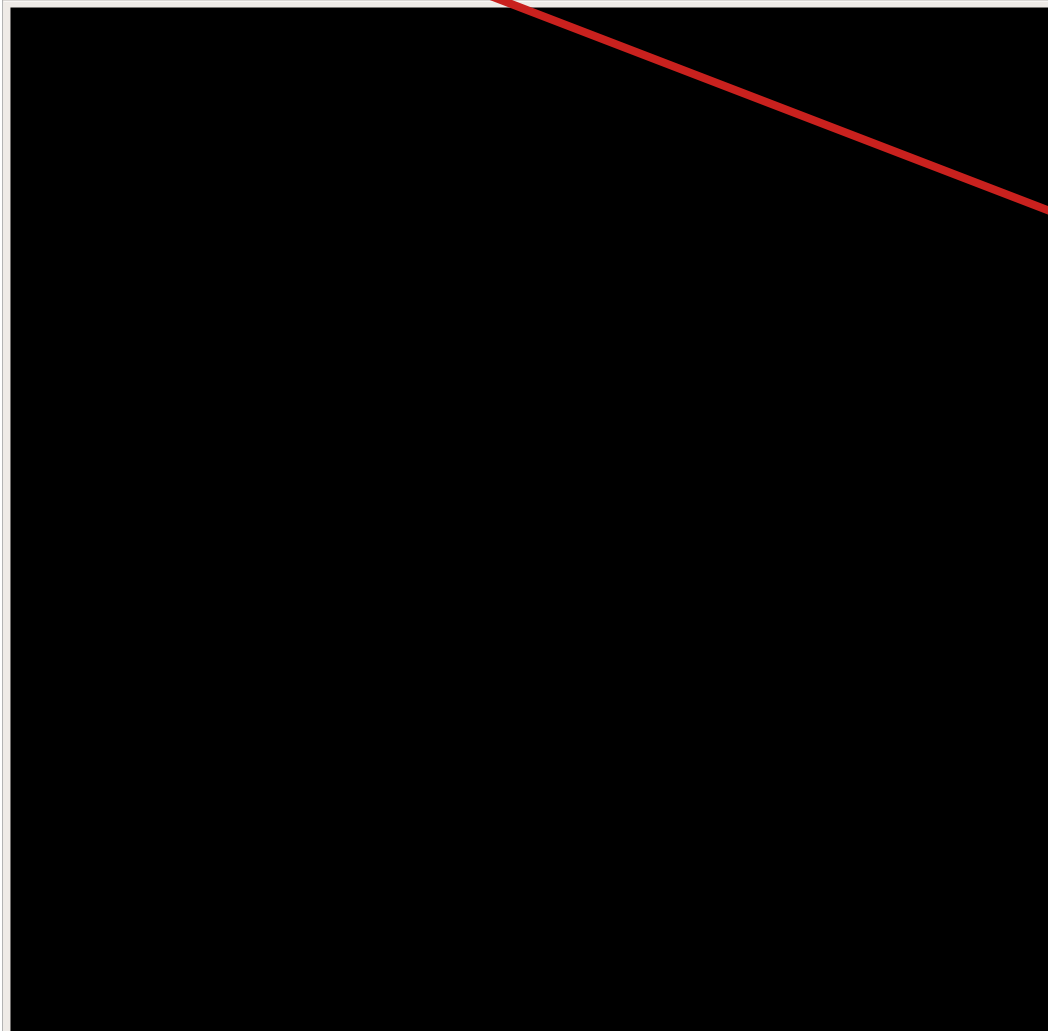
Cursors

Regions





Display



Animators

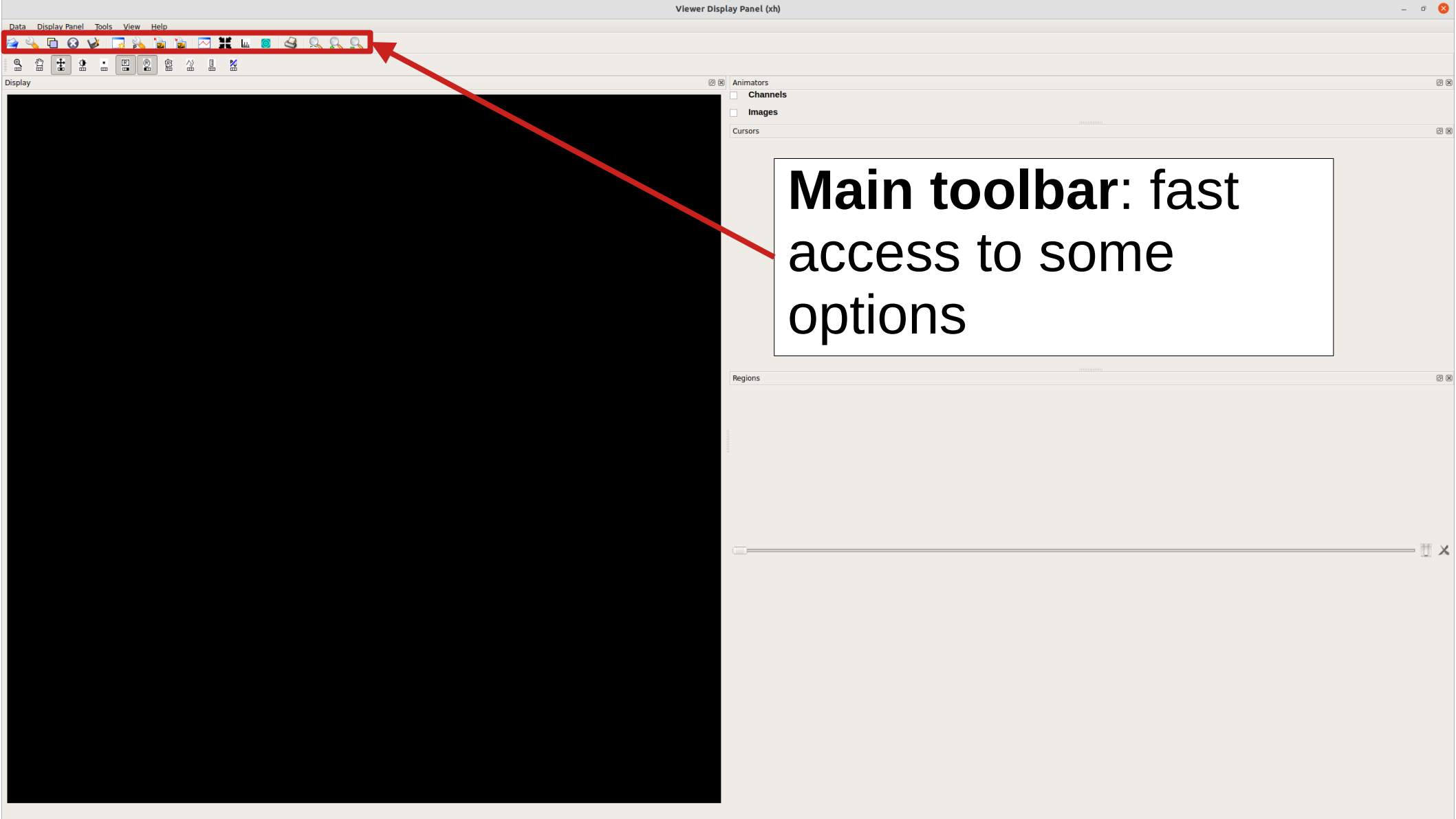
 Channels Images

Cursors

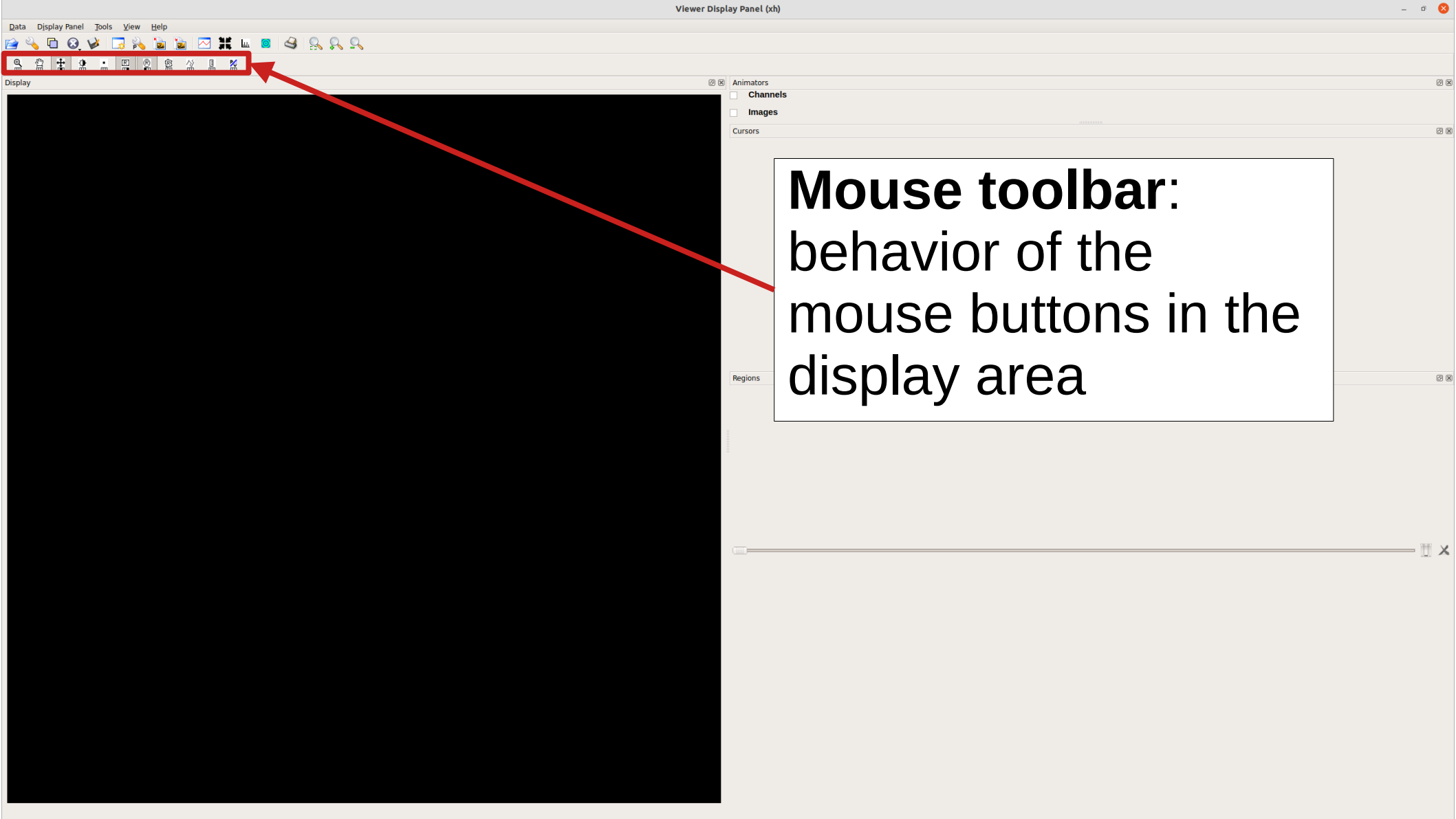
Drop down
menus with all the
available options

Regions

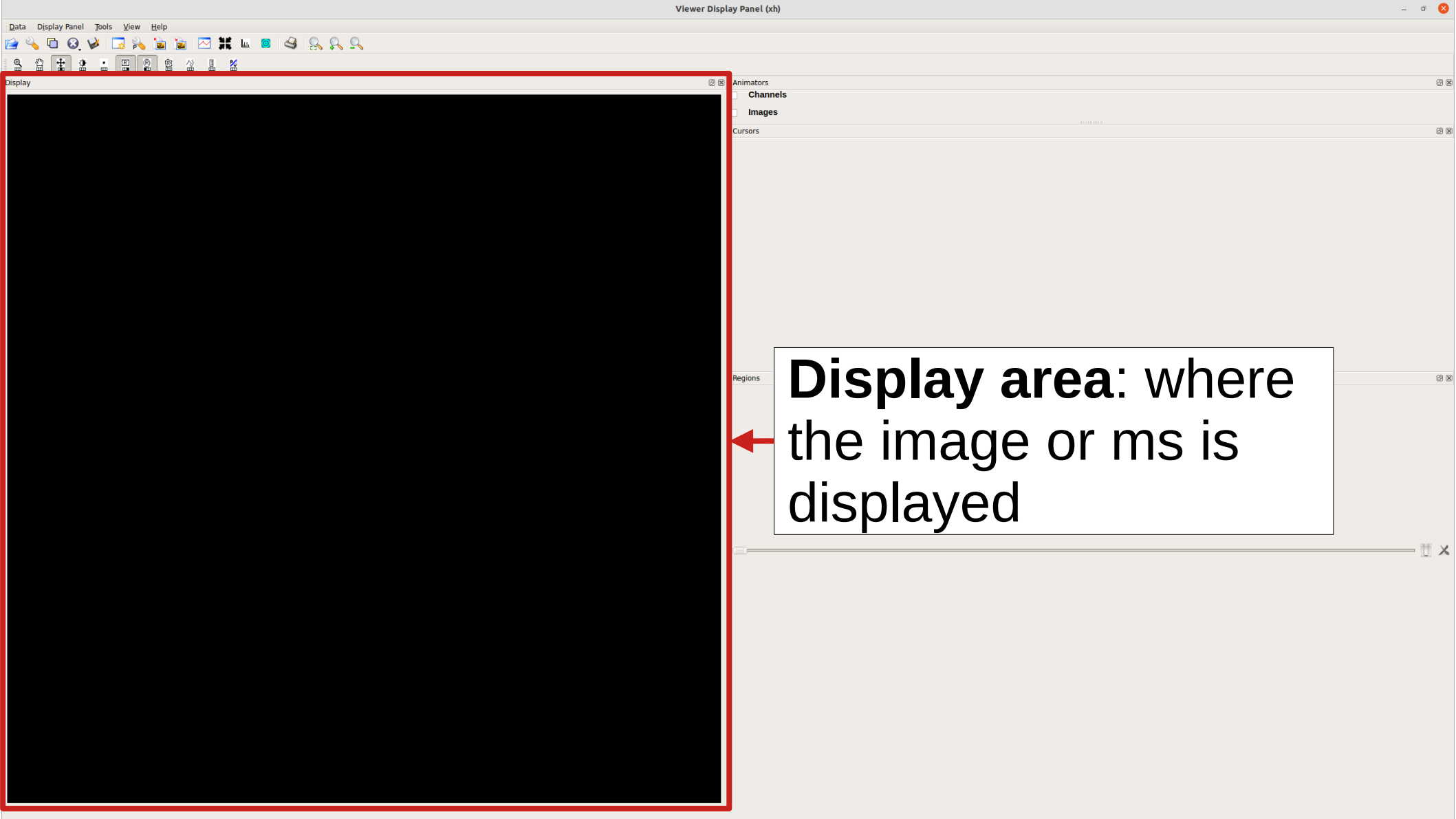




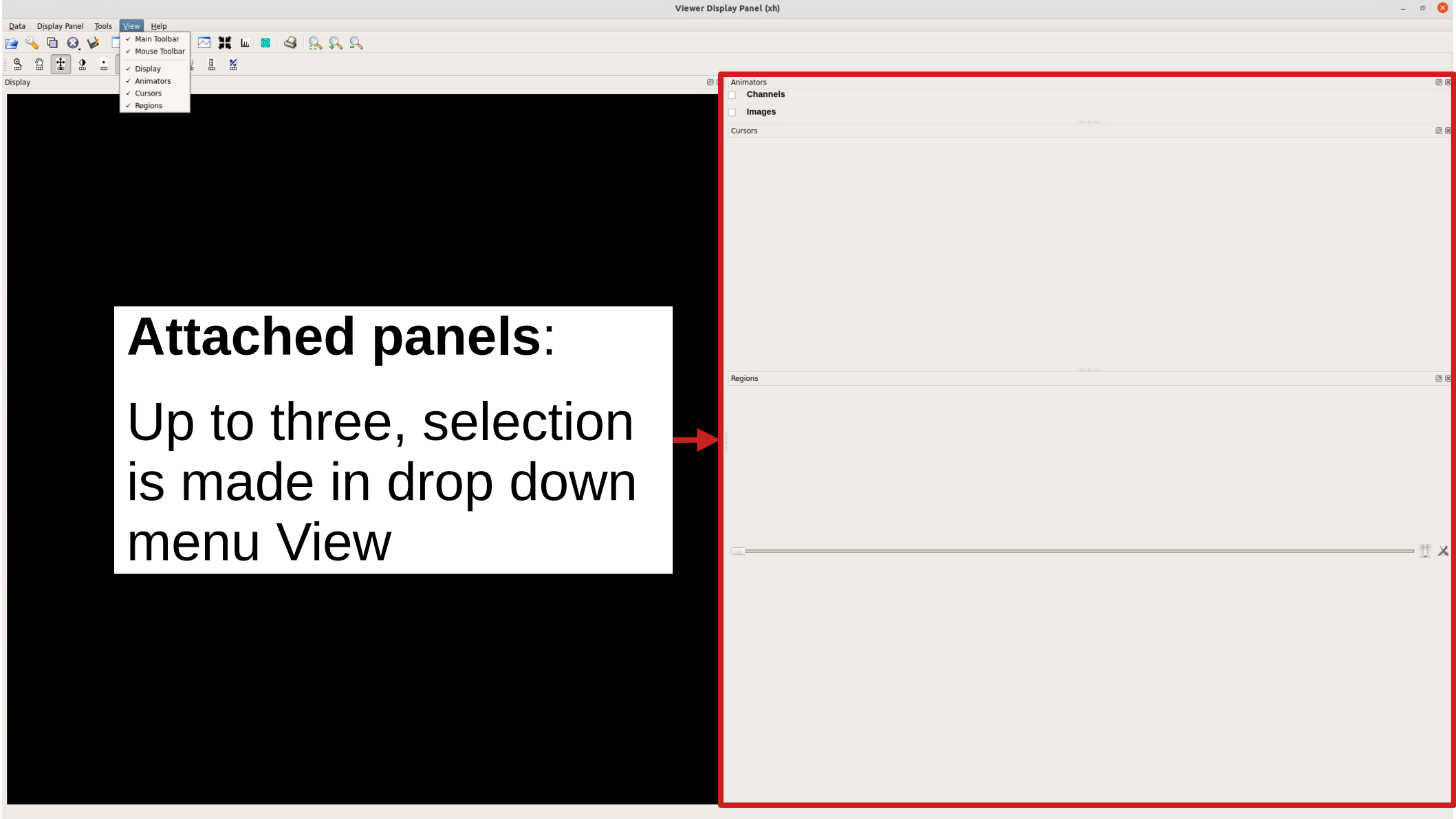
Main toolbar: fast access to some options



Mouse toolbar:
behavior of the
mouse buttons in the
display area

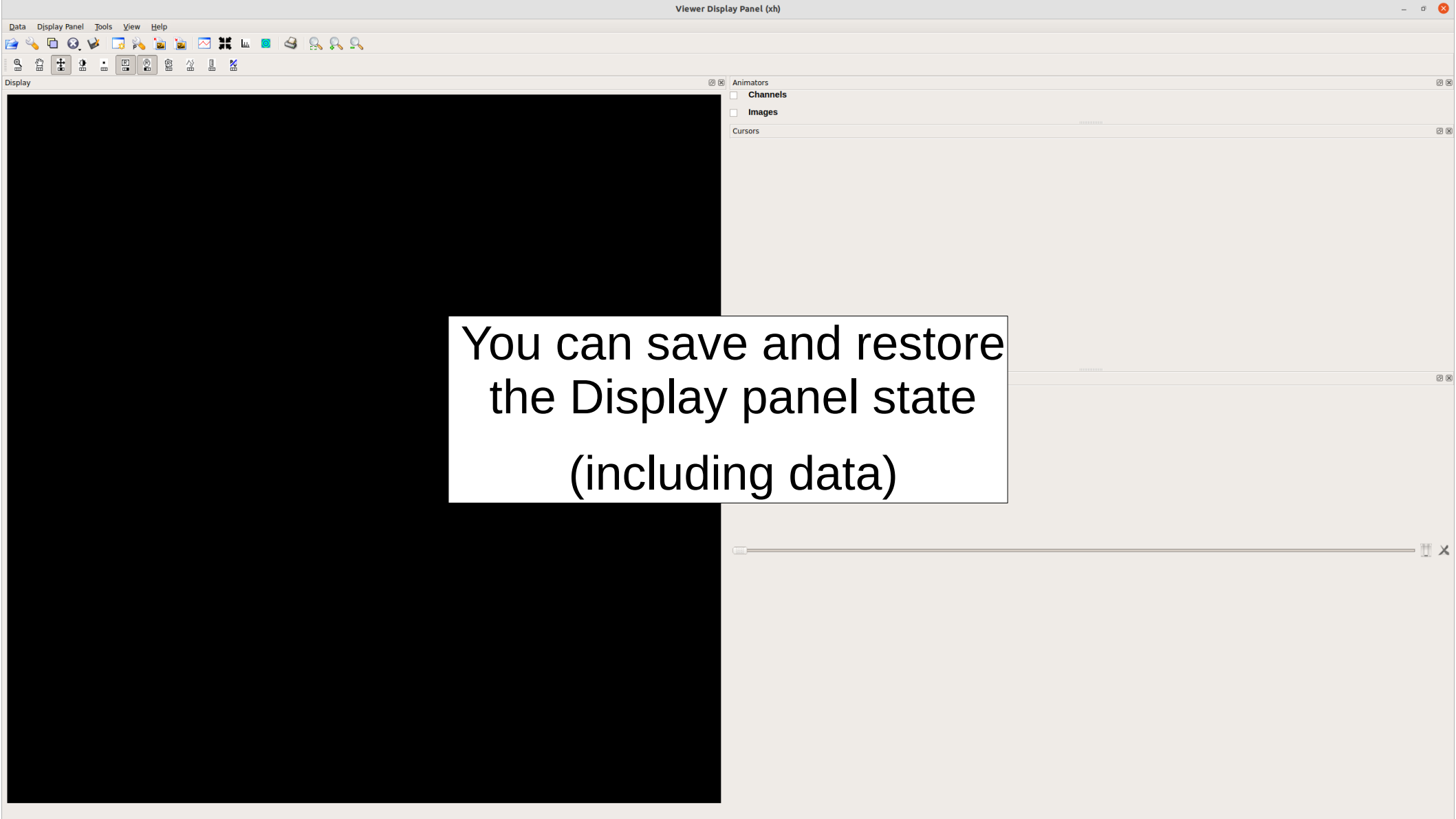


Display area: where the image or ms is displayed



Attached panels:

Up to three, selection is made in drop down menu View



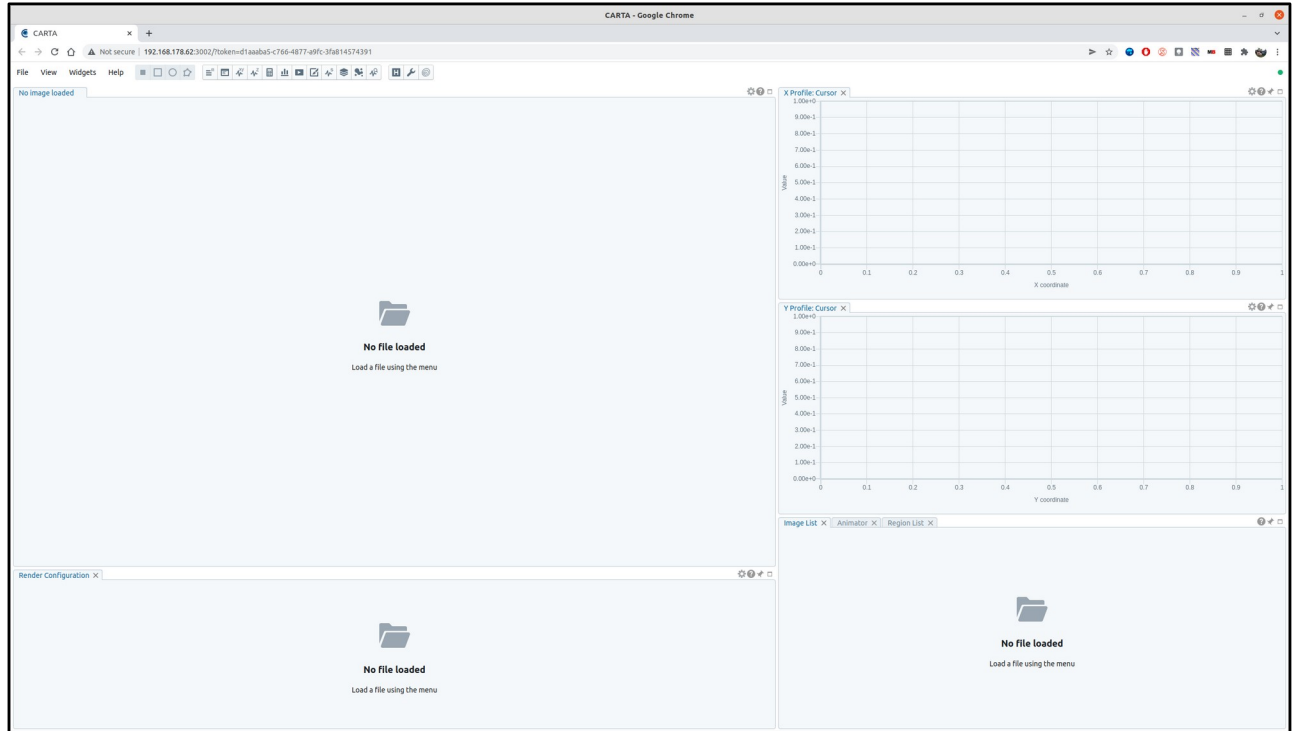
You can save and restore
the Display panel state
(including data)

Viewer Demo

- Continuum image: raster & contour representation, regions, statistics, 2D Gaussian fitting
- Line image: spectrum, line fitting, line identification, moments, pv diagrams, saving panel state and figures


Starting Carta

- **carta** in a terminal (local mode)



See [CARTA User Manual](#) here

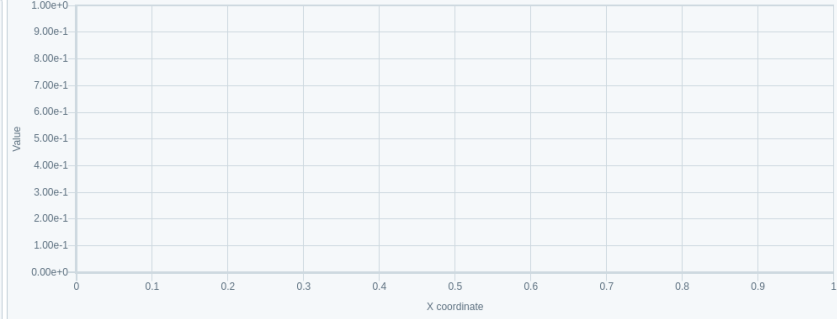
No image loaded



No file loaded
Load a file using the menu



X Profile: Cursor X



Y Profile: Cursor X

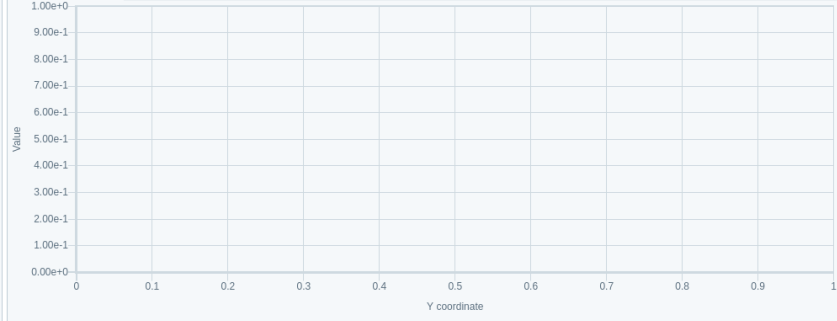



Image List X

Animator X


Region List X



Render Configuration X




No file loaded
Load a file using the menu



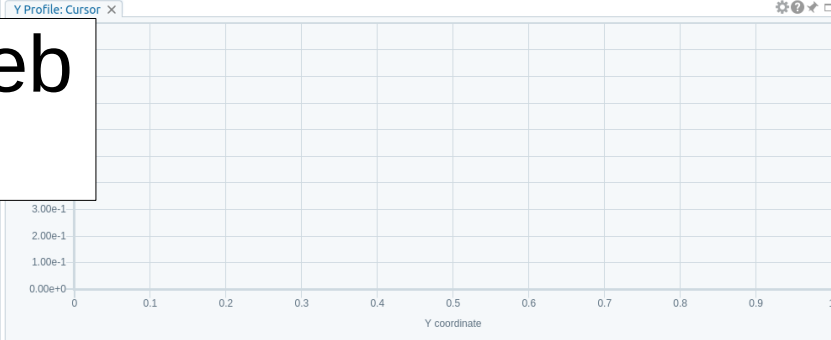
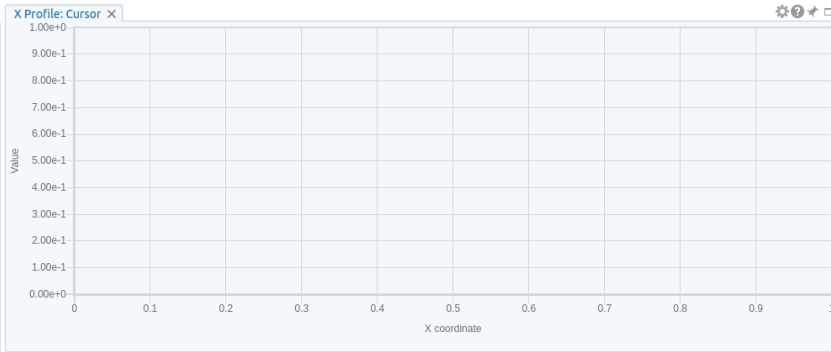
No file loaded
Load a file using the menu

No image loaded




No file loaded
Load a file using the menu

Opens in a web browser




Render Configuration



No file loaded
Load a file using the menu


Image List | Animator | Region List



No file loaded
Load a file using the menu


Menu bar

No image loaded



No file loaded
Load a file using the menu

Render Configuration



No file loaded
Load a file using the menu

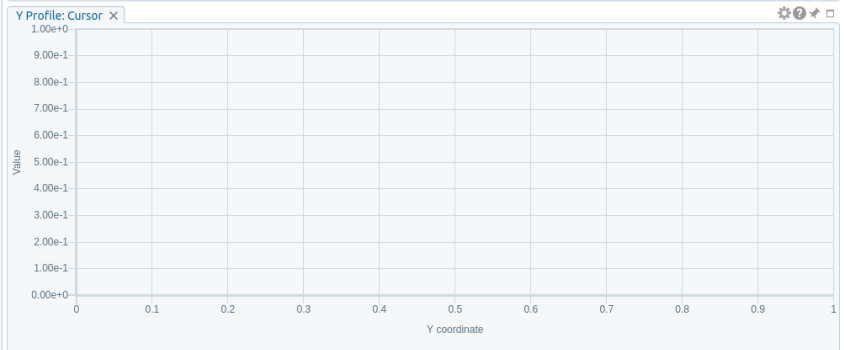
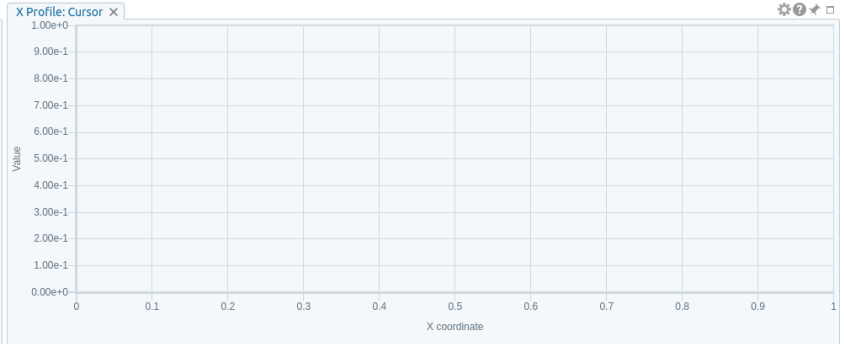



Image List Animator Region List



No file loaded
Load a file using the menu

No image loaded

Region bar



No file loaded

Load a file using the menu

Render Configuration

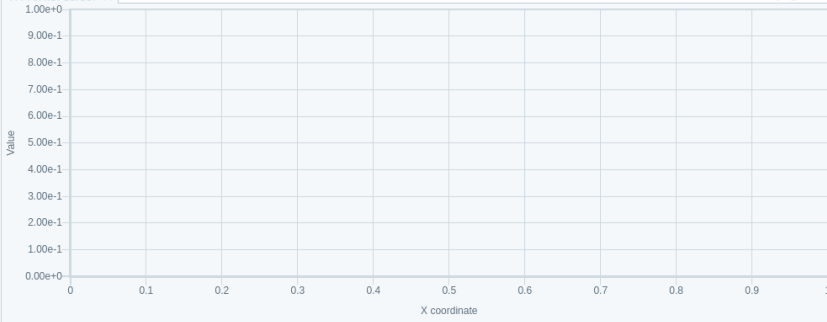


No file loaded

Load a file using the menu



X Profile: Cursor



Y Profile: Cursor

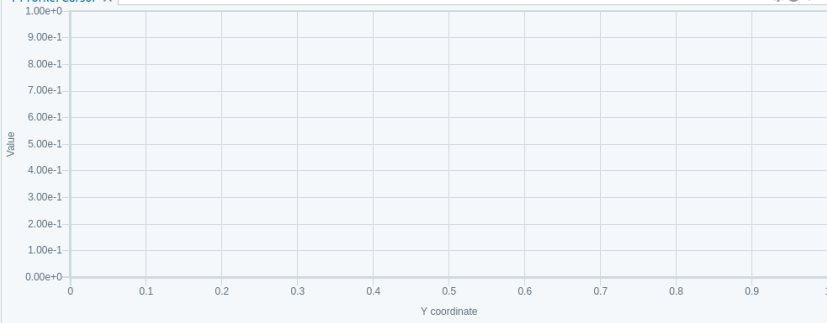


Image List

Animator

Region List



No file loaded

Load a file using the menu

No image loaded

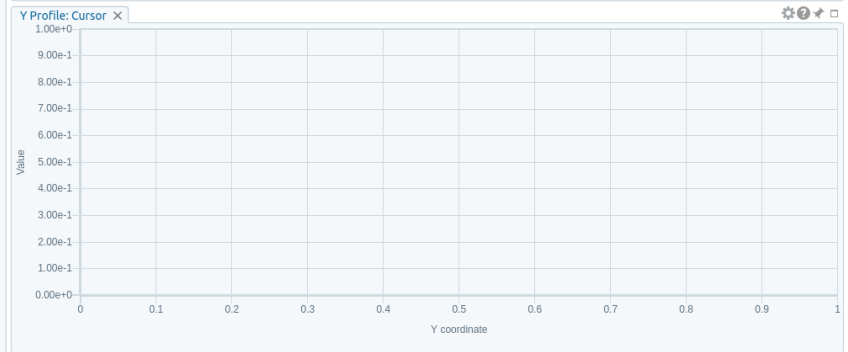
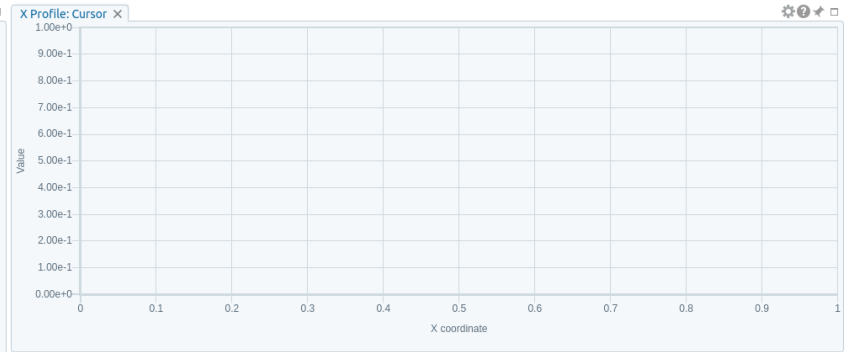
Widget bar



Floating widget

Load a file using the menu

No image loaded



Render Configuration



No file loaded

Load a file using the menu




No file loaded

Load a file using the menu


Image List Animator Region List

Widget bar


No file loaded
Load a file using the menu

Docked widgets

Render Configuration x


No file loaded
Load a file using the menu

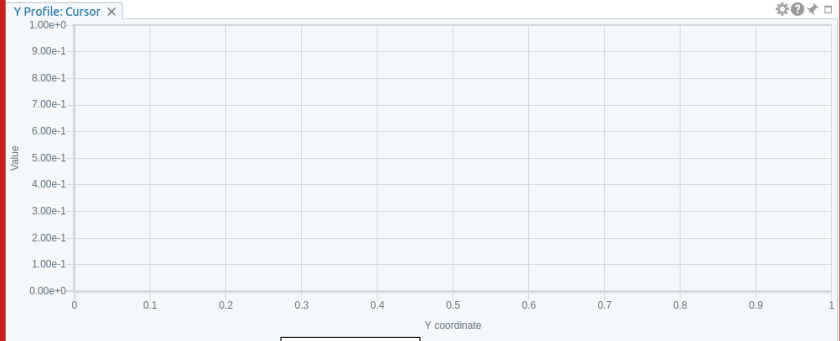
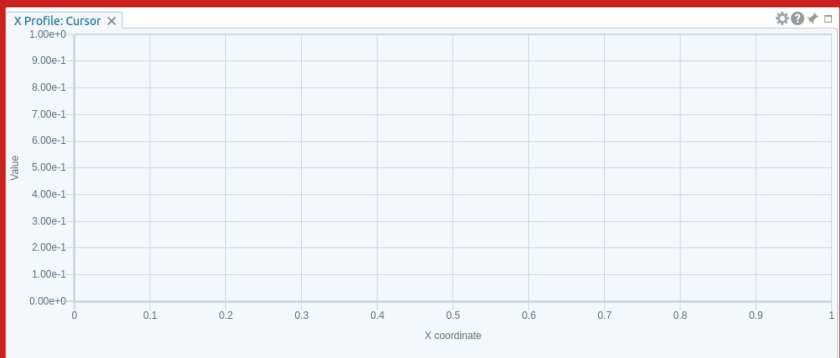



Image List x | Animator x | Region List x

Tabs


No file loaded
Load a file using the menu



Dialog bar



No file loaded

Load a file using the menu

Preferences

Global

Render Configuration

Contour Configuration

Overlay Configuration

Catalog

Region

Performance

Log Events

Theme: Automatic

Auto-launch File Browser:

Initial Layout: Default

Initial Cursor Position: Fixed Tracking

Initial Zoom Level: Zoom to fit Zoom to 1.0x

Zoom to: Cursor Current Center

Enable drag-to-pan:

WCS matching on append: None

Restore defaults Close

Floating dialog



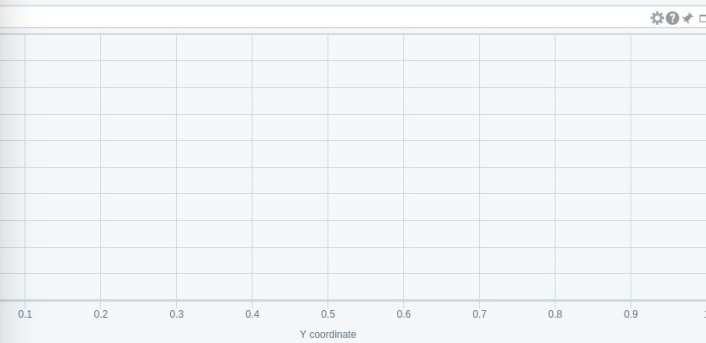
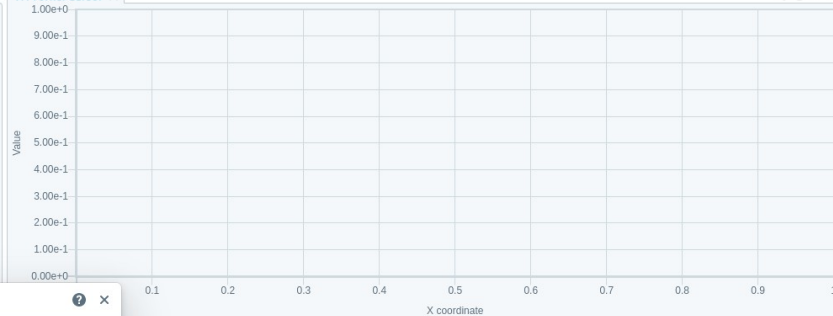
No file loaded

Load a file using the menu




No file loaded

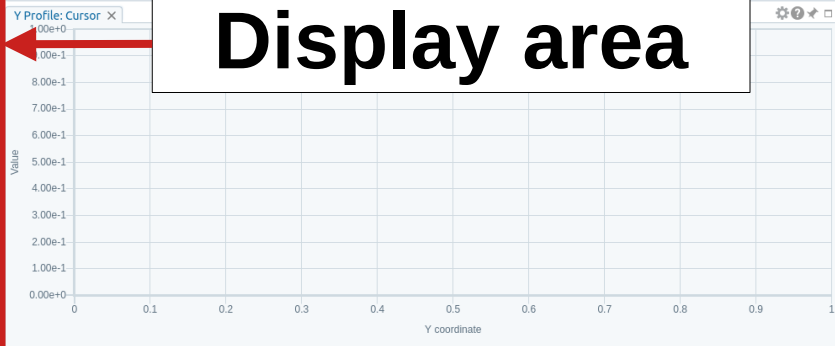
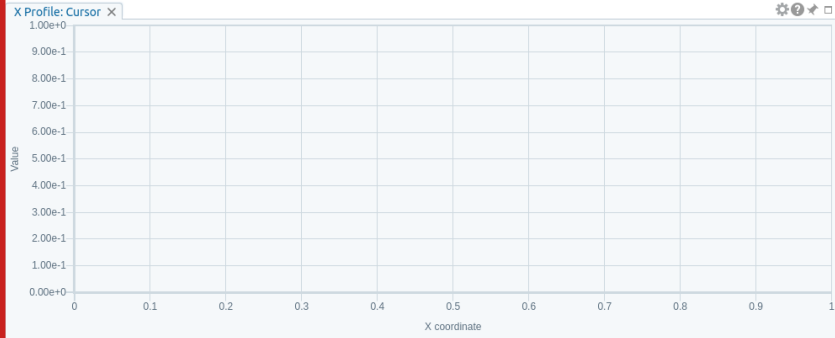
Load a file using the menu



No image loaded




No file loaded
Load a file using the menu




Display area

Image List Animator Region List

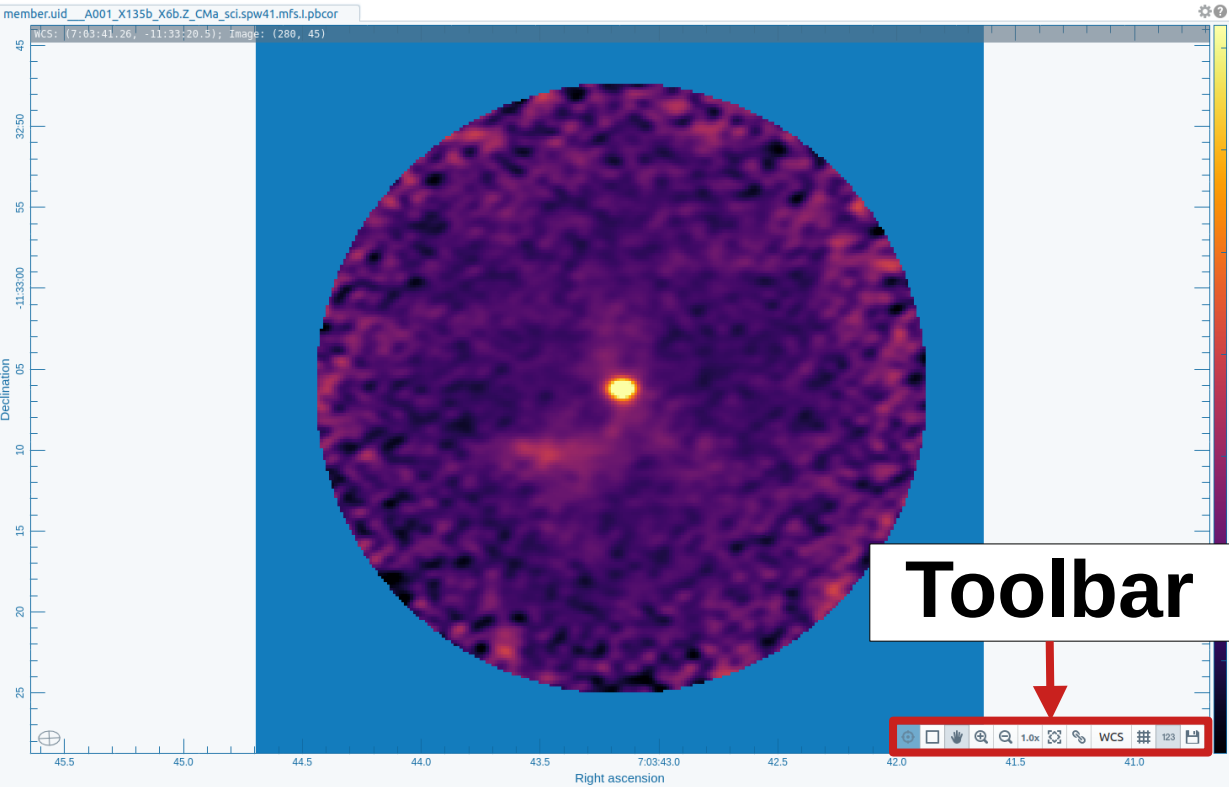


No file loaded
Load a file using the menu

Render Configuration



No file loaded
Load a file using the menu



Toolbar

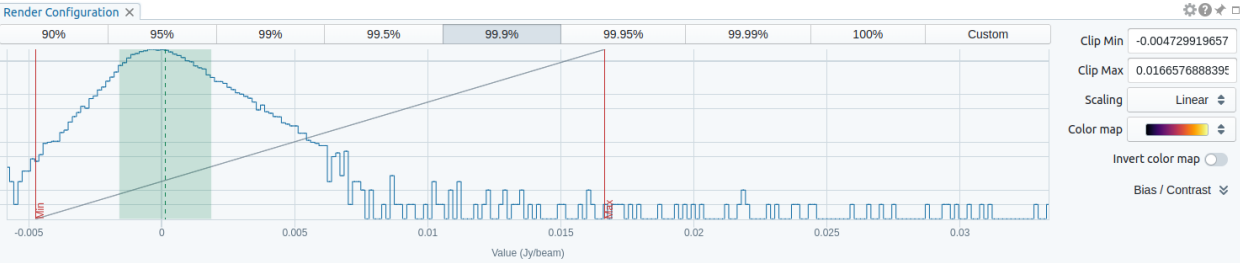
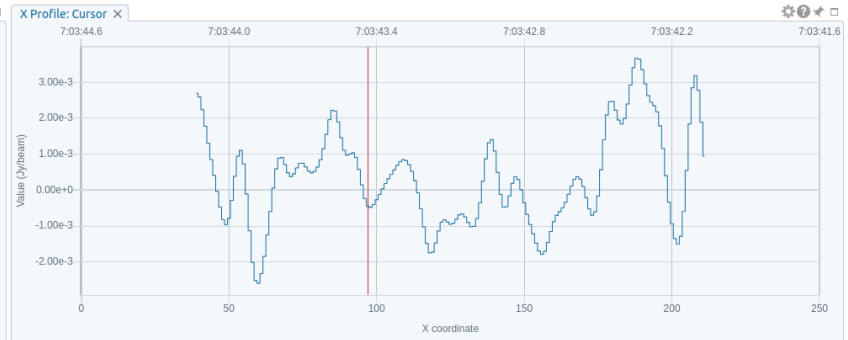


Image List X | Animator X | Region List X

Image	Layers	Matching	Channel	Stokes
0	member.uid_A001	R	XY_R	0

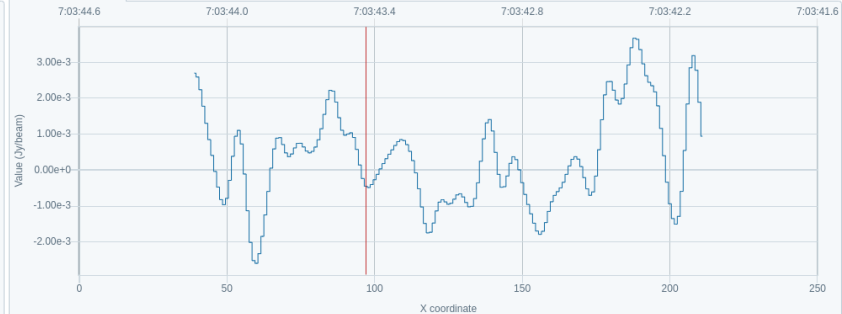
member.uid_A001_X135b_X6b.Z_CMa_sci.spw41.mfs.l.pbcor

WCS: (7:03:41.26, -11:33:20.5); Image: (280, 45)



You can save and restore
the layout and subimages

X Profile: Cursor X



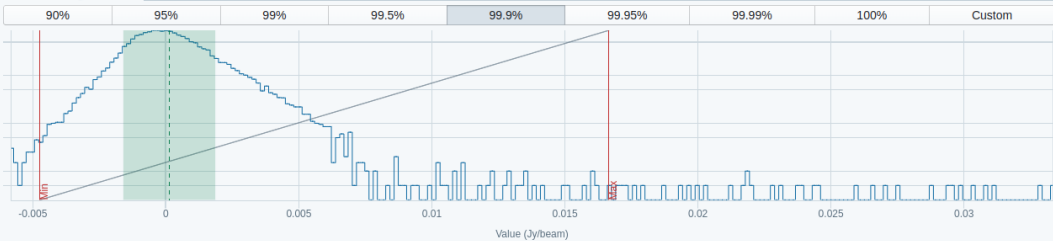
Y Profile: Cursor X



Image List X Animator X Region List X

Image	Layers	Matching	Channel	Stokes
0 member.uid_A001	R	XY_R	0	0

Render Configuration X



Clip Min -0.004729919657

Clip Max 0.016657688839E

Scaling Linear

Color map

Invert color map

Bias / Contrast

CARTA Demo

- Continuum image: raster & contour representation, regions, statistics, ~~2D Gaussian fitting~~ (2D image fitting in v3.0)
- Line image: spectrum, line fitting, line identification, moments, ~~pv diagrams~~, saving ~~panel state and figures~~, **subimages, and layout**
(pv diagrams in v?, saving display panel status not in plan)