

# Grids and Layout

## In Layout Mode

There should be no fixed grids – in layout mode it should always be possible to grab any object and manipulate it.

There should be ***cleanup layout->default grid*** and ***cleanup layout->custom grid*** rmb menu options, as there are in kst1.x.

- The ***Custom Grid*** option will move all container objects which are children of the TLV (ie, Plots, Legends, Boxes) onto a grid with a specified number of columns, with an attempt made to move the plots as little as possible in the resizing. When executed from the rmb, a dialog will pop up to request the number of columns.
- The ***Default Grid*** option will attempt to find a good grid to resize and move everything on, with the goal of moving plots as little as possible. As a minimum, it should recreate the functionality of the similar option in 1.x, though permitting autogridded objects to have rowspan and col span of up to 3 would be nice.

## When Creating New Objects from Dialogs

When a plot is created from a dialog, it will be placed into the current window in one of three modes, selectable by radio buttons:

- **Default Grid:** Adjust the plots using the ***Default Grid*** algorithm, leaving room for the new plot with a rowspan and colspan of 1. Place the new plot in the leftmost empty spot on the highest row with an empty spot. If there are no spaces, make a new bottom row.
- **Custom Grid of \_\_\_ columns:** Adjust the plots using the ***Custom Grid*** algorithm, leaving room for the new plot. Place the new plot in the leftmost empty spot on the highest row with an empty spot. If there are no spaces, make a new bottom row.
- **Protect Current Layout:** Place the new plot in the window without changing the current positions of any of the plots. The plot should be sized to fill and placed in the largest empty spot, if there is an empty spot larger than 1/5 the width and height of the TLV. If there is not a sufficiently large spot, the new plot should be of a size typical of the exiting plots, placed randomly, to avoid being exactly aligned with existing plots.