Font Behavior

Aspect Ratio
It should not be possible to change the aspect ratio of text, or to distort the font in any way (eg, by any combination of resizes and rotations).

What sets the font size?
- Font sizes are proportional to (Width + Height) of the TLV[1]. Resizing a window will change the font size (not the aspect ratio), but resizing a plot within a window will not.

- Font sizes are defined assuming the TLV has been printed or displayed at a ***reference plot size***[2] which is set in the configuration dialog. So, if a TLV is displayed or printed at the reference plot size, then the font size will be as requested. If the TLV is displayed or printed smaller/larger than the reference plot size, then the fonts will be smaller/larger than requested.

- The default reference plot size should be a typical display/print size. Lets try 10cm x 7cm.

- Font sizes are in double precision DTP points relative to a ***reference font size*** which is set in the configuration dialog. Setting a font in a label to size 0 will cause it to be printed/displayed at the reference font size. Setting a font to size 10 will cause it to be printed 10 points larger than the reference font size.

- Changing the *reference font size* or the *reference plot size* in the configuration dialog will cause all fonts in kst to change.

- There will be a ***minimum font size***, defined in physical points defined in the configuration dialogs. Fonts smaller than this will be enlarged to this size. The default should be 5 points. The goal of this is to preserve readability, even if the window is resized to tiny dimensions.

- The ***minimum font size***, ***reference font size***, and ***reference plot size*** are sticky between settings, and are also stored in the kst file.

What sets the font?
- Fonts are selected on a per-item basis, but default to the default font defined in the configuration dialog, which defaults to the Desktop default font.

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1 In 1.4, font sizes were proportional to the W+H of the parent, so larger plots had larger fonts. We are changing this behavior for 2.0.

2 In 1.4, this was set by hard coded magic numbers whose origin are now shrouded in mystery and legend.