Status of NeuroTools Modules
utilities and plotting

History: Both modules were rather orderless collections of user- and problem-specific helper functions

For NT release 0.1: Code cleaning

- Some functions moved from utilities to plotting

- Others removed

- `utilities` now contains only one single submodule:
  SRB interface (by Andrew)

- For remaining `plotting` code:

  - commented according to NT style conventions

  - Wiki description

  - Unit tests written (coverage 93%... ok)

`plotting:` Functions and Classes

- **Class** `SimpleMultiplot`

  object that creates and handles a figure consisting of multiple panels, all with the same datatype and the same x-range.

- **Function** `get_display`

  returns a pylab object with a plot() function to draw the plots.

- **Function** `progress_bar`

  prints a progress bar to stdout, filled to the given ratio.

- **Function** `pylab_params`

  returns a dictionary with a set of parameters that help to nicely format figures by updating the pylab run command parameters dictionary 'pylab.rcParams'.

- **Function** `set_axis_limits`

  defines the axis limits in a plot.

`plotting`: Functions and Classes

- Function `set_labels`

  defines the axis labels of a plot.

- Function `set_pylab_params`

  updates a set of parameters within the the pylab run command parameters dictionary 'pylab.rcParams' in order to achieve nicely formatted figures.

- Function `save_2D_image`

  saves a 2D numpy array of gray shades between 0 and 1 to a PNG file.

- Function `save_2D_movie`

  saves a list of 2D numpy arrays of gray shades between 0 and 1 to a zipped tree of PNG files.

This is not enough...
`plotting` and `utilities` could be great modules!

- More back-ends supported

- More flexible multi-panel plots

- Enhanced movie generation

- 3+x dimensional data

  - 2D color / gray-scale maps

  - 3D graphs

- Visualization of neuron positions / network connections in 3D

- Generic function `plotEverything()`

  - intelligently determines the type of the passed object and chooses an appropriate visualization

- Fitting support

- Histograms

… Your ideas!?