

PLOTXY HISTORY AND ROAD-MAP

May 2015

PlotXY was created initially in 1998 as an answer to the need of the community that used the well-known electromagnetic transients program EMPT/ATP to have a Windows-based fast and practical program to make plots. The programs available at those times were mainly based on old Microsoft DOS and were, in the opinion of the writer, either too slow or a bit tricky to use.

Since then PlotXY has grown steadily over the years, up to 2011.

During 2013, after 15 years from the first version, the program showed its age. The compiler (Borland's C++ Builder 1.0) with which it was written no longer existed, and newer versions of that compiler were not compatible with one key component that PlotXY internally used, that was taken from the Internet. Any new feature had to be implemented using that very old compiler. Otherwise very large programming efforts were required.

Moreover the whole scenario of ITC had changed with many more operating systems in the arena: Mac computers had become common, and other such as Linux were increasingly popular.

Finally, it was decided that time had come to make a large effort of rewriting the program, using a compiler that would reduce future needs of rewrite, especially in case new platforms had to be supported. A compiler allowing this indeed existed, it is the Qt compiler that is distributed in both commercially and open source version.

It was decided to use the open source Qt. The program you are now receiving has been built using the newest version of this compiler, i.e. Qt 5.2 and is compiled and tested under both Microsoft Windows and Apple Macintosh.

This new version has important enhancements over the old one:

- Now it is input compatible with National Instrument's lab-view files
- Now it is able to create copies of the plots it makes in SVG, PNG and PDF formats
- It is much faster. In particular, the old version was dramatically slow when resizing complex plots (since it redrew them continuously during resizing). This does not happen anymore.
- Now you have much more freedom in post-processing data: you can create algebraic combinations of the data plots (earlier you could just sum, subtract or multiply two plots).
- The program comes with a tutorial that explains all of its features with examples that the user can reproduce since the corresponding data files are provided

There are plans to further enhance the program.

The highest priority enhancement is to make the manipulation of variables even more powerful, allowing mixing plots taken from different files (possibly having different sampling times).

Between April 2014 and May 2015 only bug corrections have been made. There were several issues, especially regarding the “function of variables” feature and the Fourier chat, that have been fixed. The document “Tutorial.pdf” has been continuously kept updated.