Migrating from AnyPlot to TisKit

# Why did we change the name?

There were a lot of things wrong with AnyPlot, partially because it was built on the fly and partly because the Matlab programming language was not very “object-oriented”. With Release 2008b of Matlab, the object-oriented programming language got better and I decided to rewrite AnyPlot to take advantage of the new language. The new language allowed me to structure functions differently, which would have been confusing for anyone used to using AnyPlot. Also, the name “AnyPlot” implies that this is a program to plot anything, which it isn’t. It’s a toolkit to analyse time-series data: hence TiSKit.

Some of the problems with AnyPlot

* The name AnyPlot
* The names of some of the subroutines/classes were stupid, like “filtparms” which hold the instrument responses.
* Anytime you wanted to change a small variable in an object, you had to copy the whole object (i.e. tdata=set(tdata,’latitude’,90); ‘. This is very wasteful when the data contains a lot of data. This was a problem with the old programming language that the new language lets us solve with the command ‘tdata.latitude=90’.
* The data had to all have the same length and sampling rate (the data were all in one array with the same time base).

# Equivalencies

In a lot of cases, you can replace AnyPlot commands with an identical (or better!) TisKit equivalent. Here is a list of old and new names:

## Main classes

|  |  |  |
| --- | --- | --- |
| AnyPlot | TisKit | Comments |
| ap\_datafile | ts\_file |  |
| ap\_filtparm | ts\_response |  |
| ap\_spectra | ts\_spectra |  |
| ap\_time | ts\_datetime |  |
| ap\_timedata | ts\_data |  |
| ap\_xferfunction | ts\_xferfun |  |
|  | ts\_spectrogram | New spectrogram class |

## Subclasses

|  |  |  |
| --- | --- | --- |
| AnyPlot | TisKit | Comments |
| ap\_picks |  | Removed, there are better software for picking |
| ap\_plotinfo | ts\_figureproperties & ts\_figureproperties\_subplot |  |
|  | ts\_data\_channel | Allows channels with different sampling rates & time intervals |
|  | ts\_xferfun\_channel |  |
|  | ts\_event |  |
|  | ts\_data\_channel\_metadata | Station information |
|  |  |  |

## Subsubclasses

|  |  |  |
| --- | --- | --- |
| AnyPlot | TisKit | Comments |
|  | ts\_spectra\_channelinfo |  |
|  | ts\_data\_channel\_metadata |  |
|  | ts\_seqlist |  |
|  | ts\_shotinfo |  |