FactorAnalytics Development Plan for a CRAN Package

This document provides a brief description of a development plan set of tasks for the first few releases of FactorAnalytics (FA) on CRAN.

## Create Proper CRSP Names for stocksCRSP Monthly Data

We have decided to use official CRSP names for the stocksCRSP data sets (monthly, weekly and daily, but focusing only on monthly for now). Please see Issues #80 and #81 for all the relevant details, including documents in the FactorAnalytic/sandbox/Data Details CRSP SPGMI, especially the document FAdataCRSPandSPGMI.pdf.

NOTE: The current names for the 14 factors in the factorsSPGMI data set are already the official SPGMI (Standard and Poors Global Market Intelligence) names.

## Create Nice Names for stocksCRSP Monthly Data

These are the NiceNamesMonthly in the Table at top of page 4 of FAdataCRSPandSPGMI.pdf. I will use these for all “user friendly” documentation, including Man pages examples, etc. I can write the simple function to do this as the first thing after loading stocksCRSP or factorsSPGMI, or the merged

## Create Short Sector Names in stocksCRSP$Sector and factorsSPGMI$Sector

These should be the names in the FA Sector Choice 1 column of the Table on page 5 of the document FAdataCRSPandSPGMI.pdf.

## Next Step for stocksCRSP

See Note 5 on page 5 of FAdataCRSPandSPGMI.pdf.

## Get FA Prepared for a V1.0 Submission to CRAN

This requires that there are no Errors upon build, and I think at most some small number of Warnings (need to check).

## Other FA Development Projects

There are a number of these with the following titles, which I will describe more fully in the next version of this document, the first three of which are in order of priority, but not the others:

* Make sure code for the fundamental factor models document “vignette fitFfmDT 07 31 21.pdf” works
* Fix examples in man pages for fitFfm and fitTsfm functions, and several related functions, mainly replacing old data sets with stocksCRSP and factorsSPGMI
* Resurrect the fitSfm (statistical factor models) functionality, man pages and vignette that was developed some time ago by Sangeetha Srinivasin. It will be interesting and useful to further develop this functionality using modern eigenvalue shrinkage methods.
* Integrate into FA a global data set that will be provided by Arun Soni, an acquaintance of mine in Berlin
* Integrate into FA the unequalHistories package, developed by Pushpak Sarkar under a Google Summer of Code (GSoC) project a couple of years ago.
* Integrate into the Factor Model Monte Carlo package, developed by Rohit Arora several years ago
* Factor model ideas and functionality of the Vestcor team