



Julia in Production

A personal journey



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JuliaCon 2014



We recommend a SELL for ACXM at 22.5 with a take profit limit of 29.66 and cut loss level of 15.34. This recommendation is based on technical analysis of daily prices for this stock, and has an estimated holding period of 20 days.

We base our recommendation on the technical indicators Hodrick-Prescott Filter and MACD. The Price has crossed the Hodrick-Prescott filter line from above signaling that the trend is downward and likely to continue, generating a sell signal. Formation of a bearish divergence seen on the daily MACD is hinting that the uptrend may be nearly over, suggesting at a possible correction in the coming sessions.

The overall analysis indicates support for our SELL recommendation on ACXM with above mentioned risk management levels.



Core numerics to compute indicators and generate recommendation

Charts

Generate sentences

Put it all together into a nice looking PDF

Why Julia



Why Not?

Core technical analysis algorithms written in
Julia



3 Developers

Remote team

3-4 months

Packages



Datetime

ODBC

Decision Tree

Gadfly

Call out to Java for Natural Language Generation,
PDF Generation



Stable, nightly or source?



Packages – to upgrade or not to upgrade

Package backward compatibility

Travis / pkg.julialang.org



PLEASE support last released julia version for all packages



There be bugs ...



Minimal Test Cases

Logging



kmsquire/Logging.jl

forio/Lumberjack.jl

Testing



Diversity of solutions

- Base.Test
- zachallaun/FactCheck.jl
- pao/QuickCheck.jl
- burrowsa/Fixtures.jl
- burrowsa/RunTests.jl
- arypurnomoz/JulieTest.jl
- analyzere/UnitTest.jl
- Veraticus/testfast.jl
- milktrader/Jig.jl
- milktrader/Saute.jl

Deployment



Custom AWS image with Julia and packages.

Code deployed via git



Bundler for Julia?



Stability? Cron!



Publication quality charts?

Wishlist



Visual Debugger

Easier binary dependencies

Package documentation

And finally



Not as risky as it sounds

Just need to keep your eyes open