



QUANTLABS.NET

Quant Resources for Traders

MATLAB SIMULINK

FROM VISUAL TRADING MODEL TO C++, C, OR FPGA HDL FOR FULL HFT

Why MATLAB?

- ▶ All toolboxes play nice instead of R or Python packages which can get out of sync or end up useless full of bugs
- ▶ Future proof your scripts
- ▶ Extend trading ideas to Java .NET assemblies, Code Generate to C++/C/HDL for FPGA
- ▶ Easily integrate with Java, .NET or Python client code (and growing) via MATLAB Production Server
- ▶ Scale to infinity with MATLAB Distributed Cluster Server (DCS)
- ▶ Simulink visual development is much more rapid

Why MATLAB Continued?

- ▶ MuPAD integration to integrate scientific notation into workflow of trading idea
- ▶ Did we talk about the prototyping power with backtesting capabilities
- ▶ Direct connections into high end trading data providers (Bloomberg, Reuters) and platforms (Trading Technologies)
- ▶ Major Databases can be integrated way easier than you know
- ▶ Documentation is slick and community is advanced and friendly

SIMULINK for HFT?

- ▶ MATLAB is standard in all financial institutions
- ▶ Used widely by many banks ('secretly') for HFT needs?
<https://www.youtube.com/watch?v=jRTT2N7E9R8>
- ▶ Is this the Holy Grail of visual developing trading to FPGA HDL for ultimate lowest latency? What about C++ or C?
- ▶ These self contained end to end trading systematic trading models can be deployed onto major operating system including Windows, Linux, or even MAC OSX.
- ▶ Did you know Simulink has added the ability to deploy as native Android or Apple IOS apps?