



R/Finance/Chicago

Friday October 3, 2008

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The University of Illinois at Chicago's
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Today's Agenda:

Meet, Discuss, Exchange,
Collaborate

Thanks for coming!

The new **xts** (v2)

eXtensible time series

- Nearly 3000 lines of custom C to speed up all aspects of time-series interaction
- New C API, use xts functionality in your C code `#include "xts.h"`
- New plotting tools in the works
- Persistent storage integration on the horizon
- Release date: TBA

Some preliminary **xts** benchmarks

Timing*(one million obs.)

	matrix	vector	ts	timeSeries	fts	zoo/xts	xts (v2)
construct	0.052	0.537	0.022	65.00*	0.128	1.032	0.055
subset by time	0.130	0.132	0.003	103.40*	0.247	0.453	0.007
merge/cbind*	0.031*	0.031	0.257	170.00*	1.146*	16.77	0.052
rbind	0.05	0.035	0.024	0.30**	1.853	9.527	0.048
diff	0.164	0.205	1.049	56.35*	0.133	11.49	0.053
lag	0.047	0.052	0.016	57.55*	0.024	1.226	0.024
x + x	0.018	0.028	1.068	0.270*	1.483	8.920	0.018
x + x[-1]	error	error	error	error	1.737	9.200	0.145

* memory limits limited timeSeries objects to 100,000 obs, so these are extrapolated timings

* results in an *unordered* time series

* timing on a very modest 2.2 GHz MacBook with 2GB RAM calling: `.xts(1:1e6L, 1:1e6L)`

More...

www.quantmod.com

Examples of xts, financial charting tools, overall documentation, and slides from large Rmetrics 2008 presentation

www.insightalgo.com

Consulting for R and open-source integration, future R programming resource page