

Birds-of-a-Feather Session: Future Directions for the RTSJ

JTRES 2007

Everyone

Topics

- RTSJ Profiles (~20 min)
- Benchmarks (<5 min)
- Multiprocessor support (~20 min)

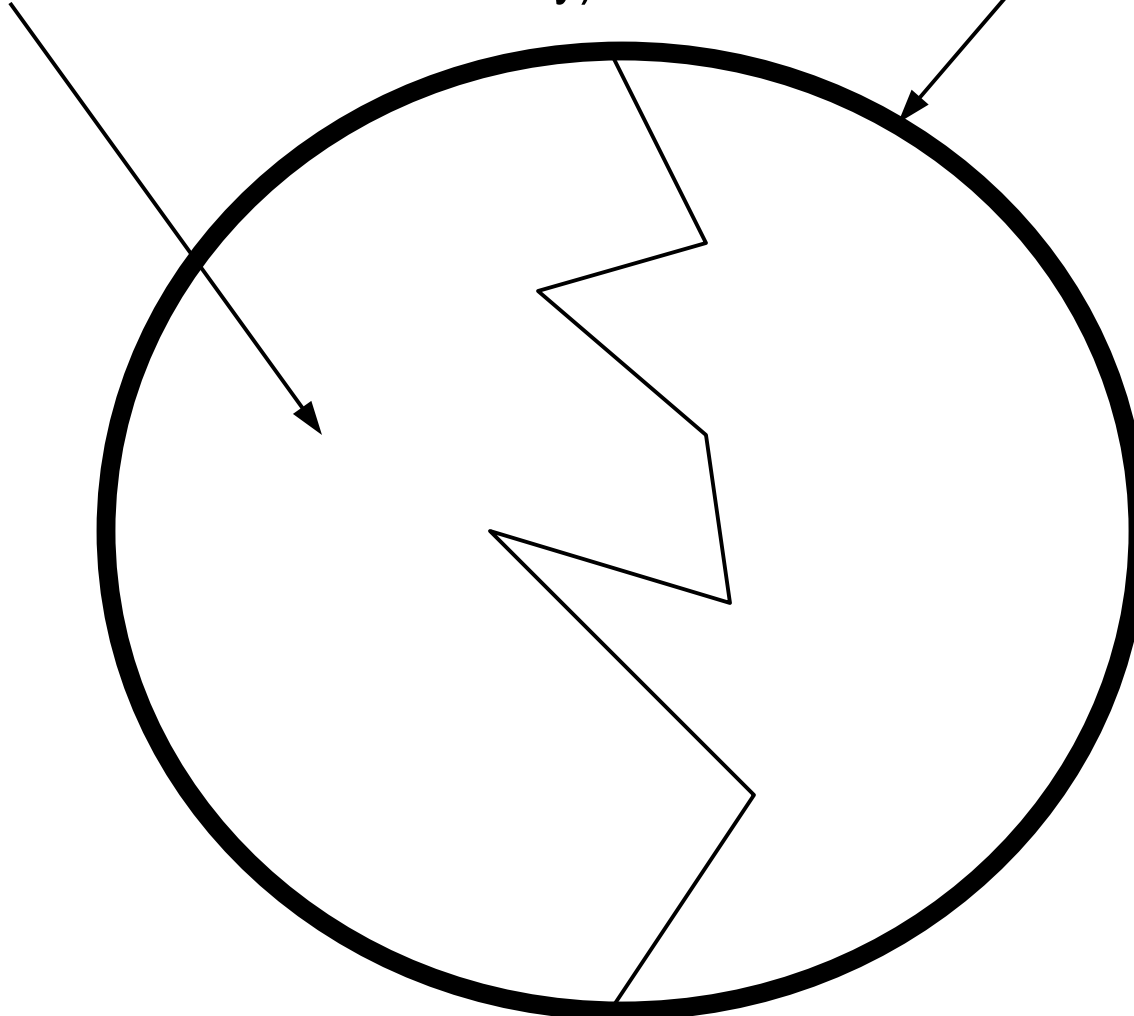
Profile

- RTSJ is big
 - > Some applications may not need all of it
 - > is this actually a concern?
 - > Non-RTSJ JVMs trying to accommodate these apps
- Implementation of RTSJ is a significant effort
 - > not enough commercial implementations

Partial Proposal

Sue (Subset that's useful and easy)

Tor (The Original RTSJ)



Partial Proposal

- What's in Sue? What's in Tor?
- Perhaps a better view
 - > What's in Tor that shouldn't be in Sue?
 - > Immortal Memory
 - > Scoped Memory
 - > NHRTs
 - > AEH with NoHeap == true
 - > POSSIBLY AIE???
- What might be in Sue that isn't in Tor?
 - > Eventrons, Reflexes, Exotasks, XTRs?

How to move forward?

- In decreasing order of complexity/length/effort
 - > Jump into JSR-282
 - > New JSR with feedforward to JSR-282
 - > Command-line option

Command-line Option

- +/- UseNHRT
- Default value “*IMPLEMENTATION DEPENDANT*”
- +UseNHRT
 - > Implies -> Tor
- -UseNHRT
 - > Exceptions thrown if the obvious constructors / methods are invoked
 - > e.g., new NoHeapRealtimeThread() throws ClassNotFoundException

Benchmarks (SPEC)

- Sun is going to do this.
 - > Please join us

Multiprocessor Support in RTSJ

- Andy?