

# **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)

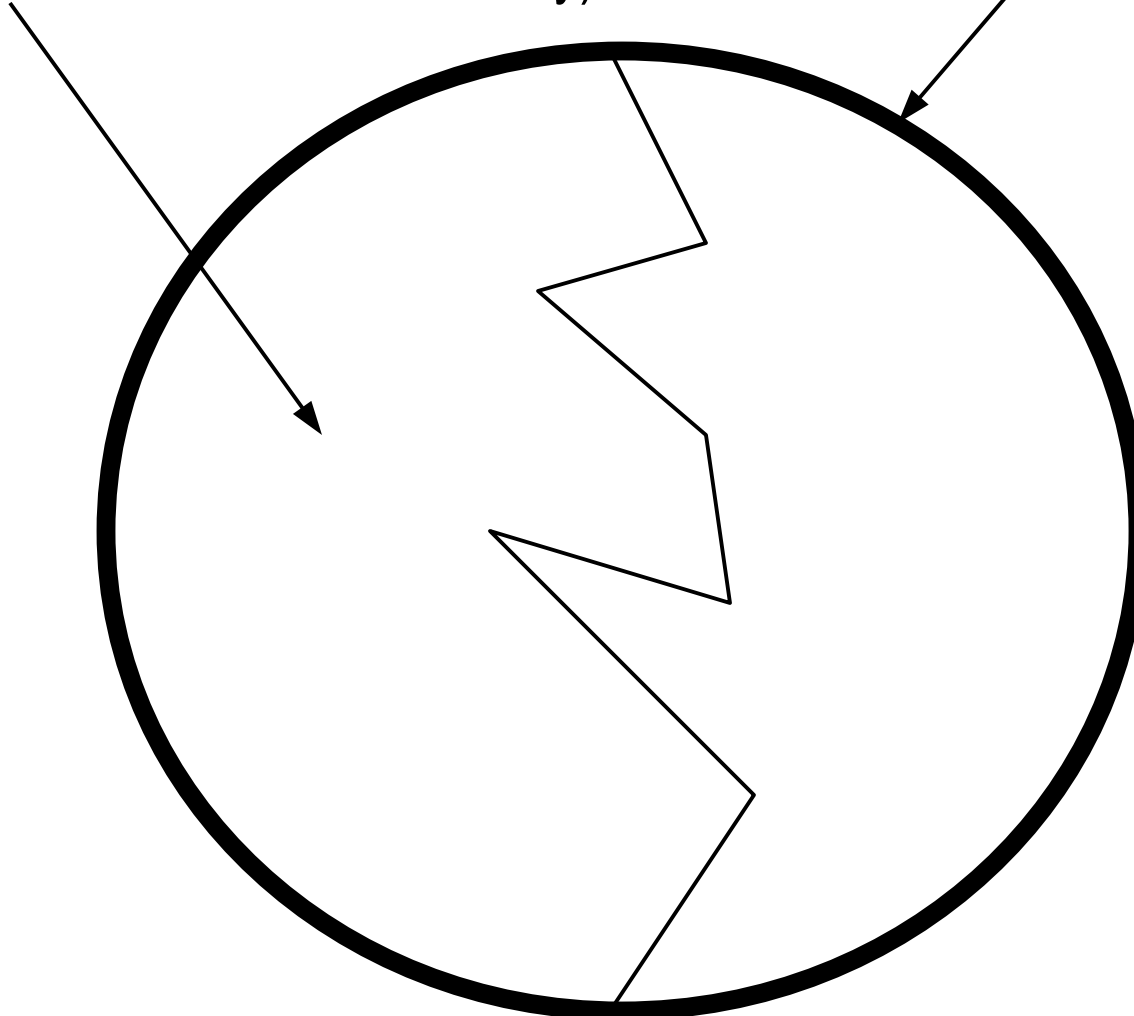
# Profile

- 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?