

# *DataTurbine and HPWREN*

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OPEN SOURCE DATA  TURBINE INITIATIVE  
*Empowering the Scientific Community with Streaming Data Middleware*



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# Outline

- **What is DataTurbine?**
- **Activities with HPWREN**
- **Current status and plans**
- **Open-source DataTurbine initiative**



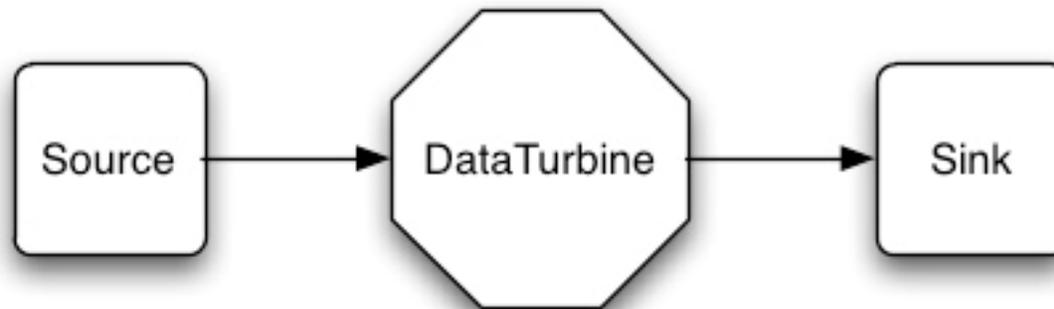
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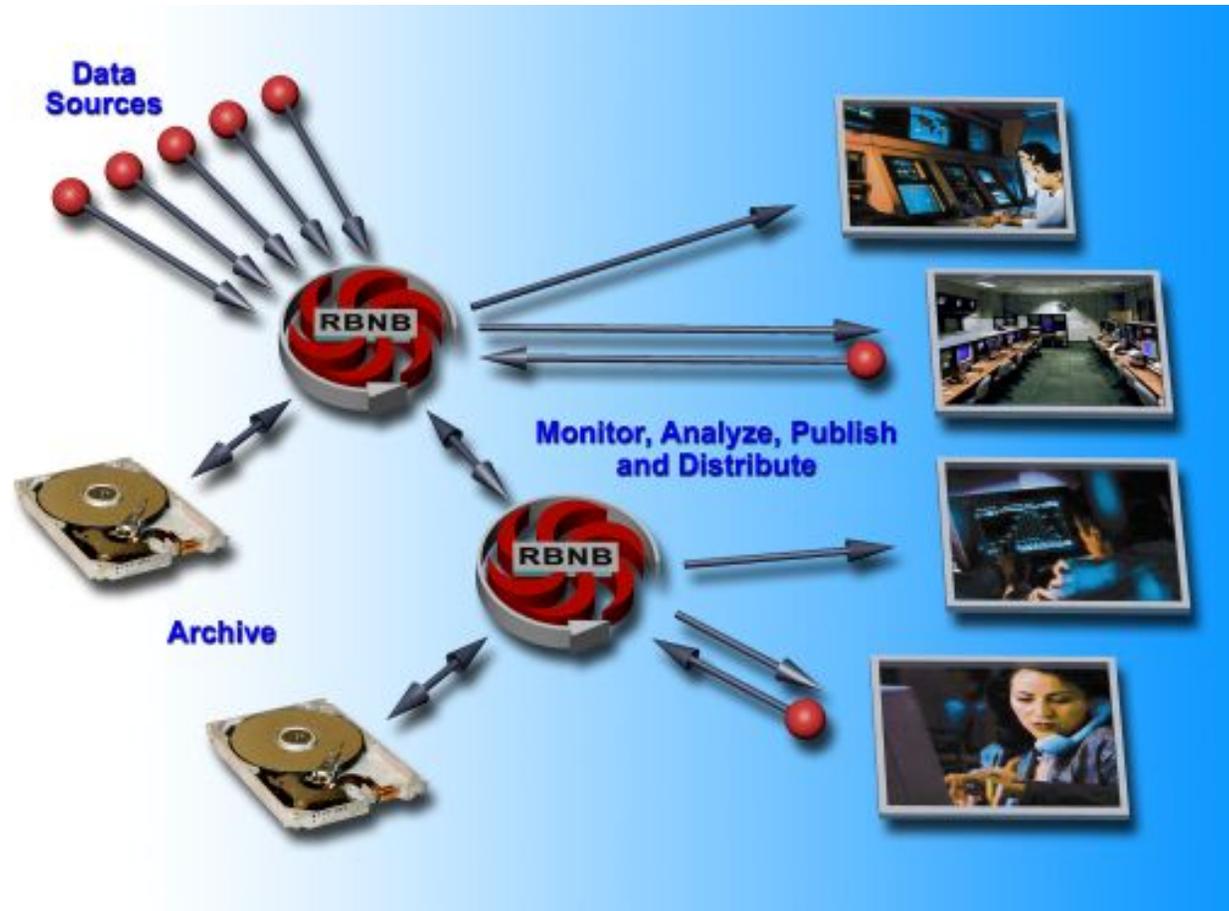
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# What is DataTurbine?

- DataTurbine is an open source, Java based network ring buffer for all sorts of data. You can use memory + disk for the ring, and it runs on almost any JVM.
- The basic division of work looks like this:



# Marketing image



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# *More about DataTurbine*

- **Sources can have multiple channels, with varied types - numeric (e.g. sensors), video, audio, text, binary blobs.**
- **We have a variety of sources and sinks, developed in-house, from the original vendor Create and also community contributed**

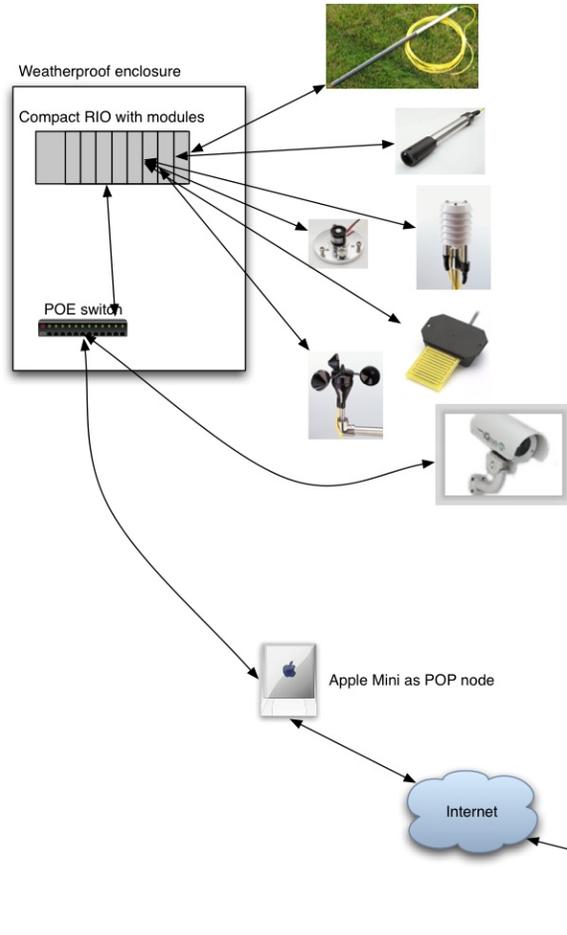


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# HPWREN deployment



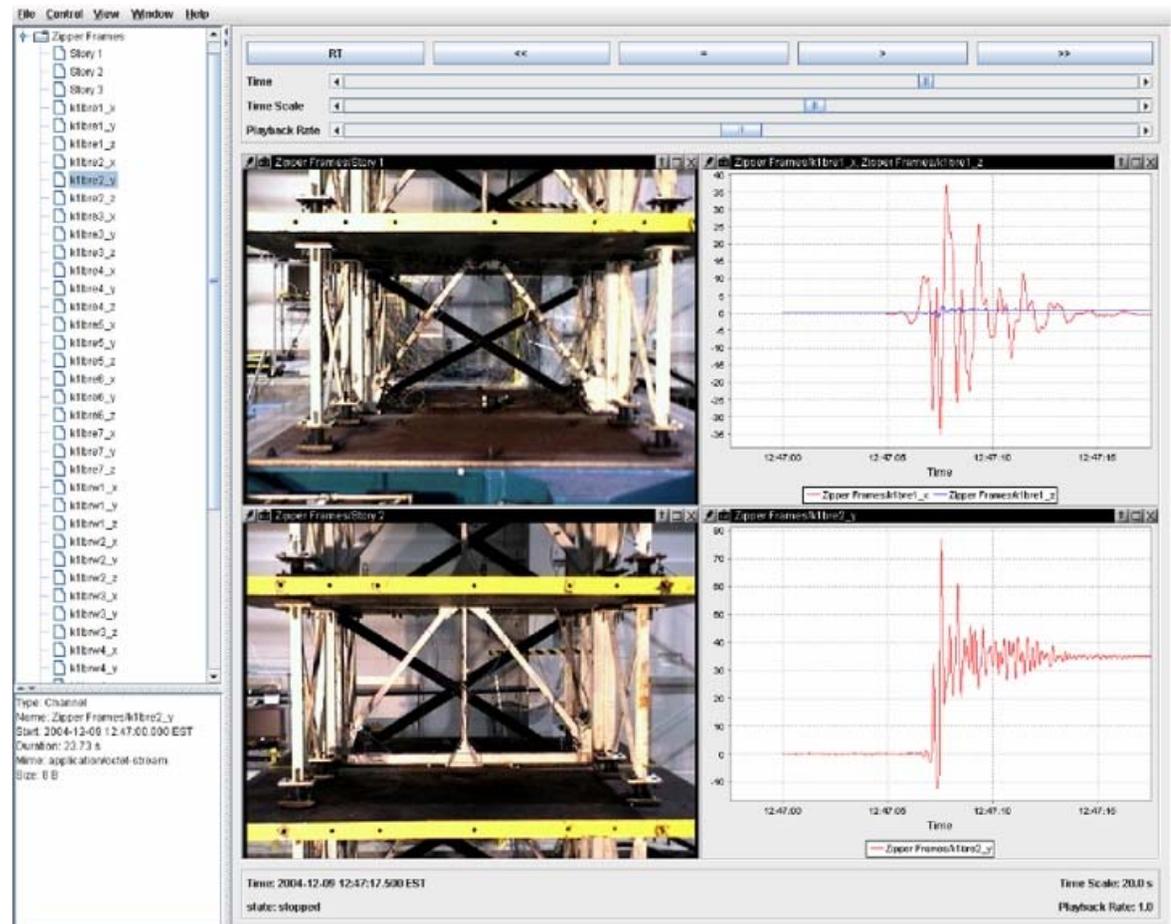
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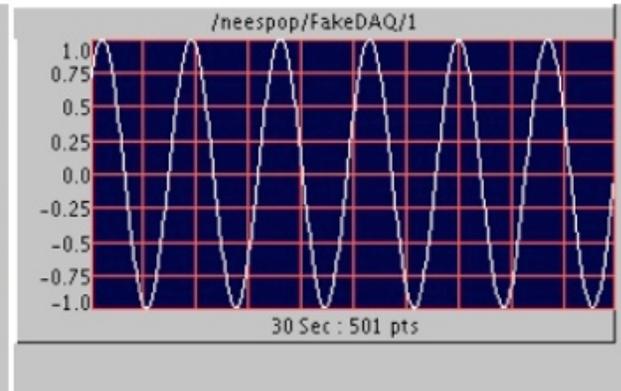
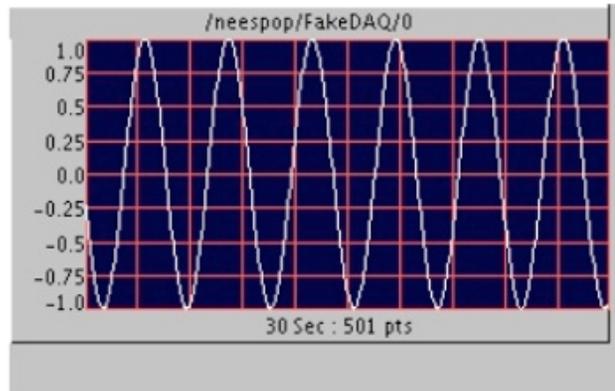
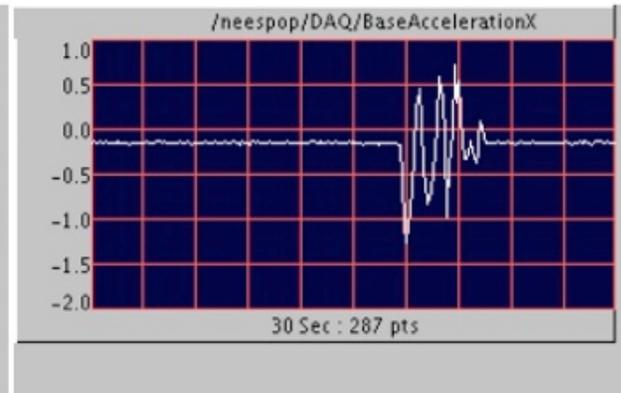
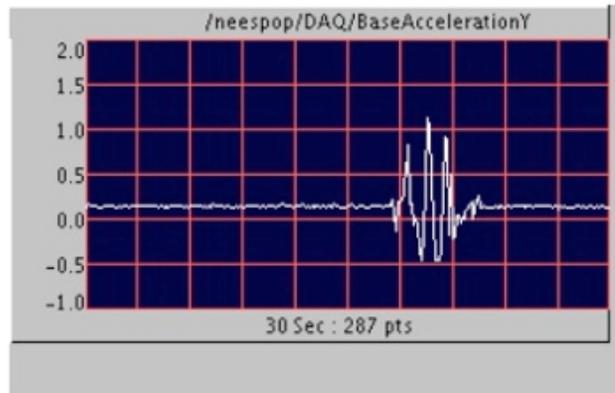
# RDV: Our best DataTurbine client

RDV is the Real-time Data Viewer, written by Jason Hanley at SUNY Buffalo for NEES. It's plugin-based Java, handles time series, X vs Y, FFTs, audio, video, TiVO-style navigation, per-channel metadata, events and more.



# You can also view data via the web

Data, converted to graphs by the PNG plugin



# *Future plans*

- **We have NSF (SDCI) funds to improve, extend and enhance DataTurbine over the next two years, and other funds to support a variety of deployments.**
- **Plan to**
  - **Add triggered video data (iQeye, Axis)**
  - **Web display**
  - **Continue collaboration with HPWREN**



# Where to learn more

- Code, documentation, screenshots, FAQ, wiki and more are all available at
  - <http://dataturbine.org/>
- Thank you!



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