# Software Status and Future Plans

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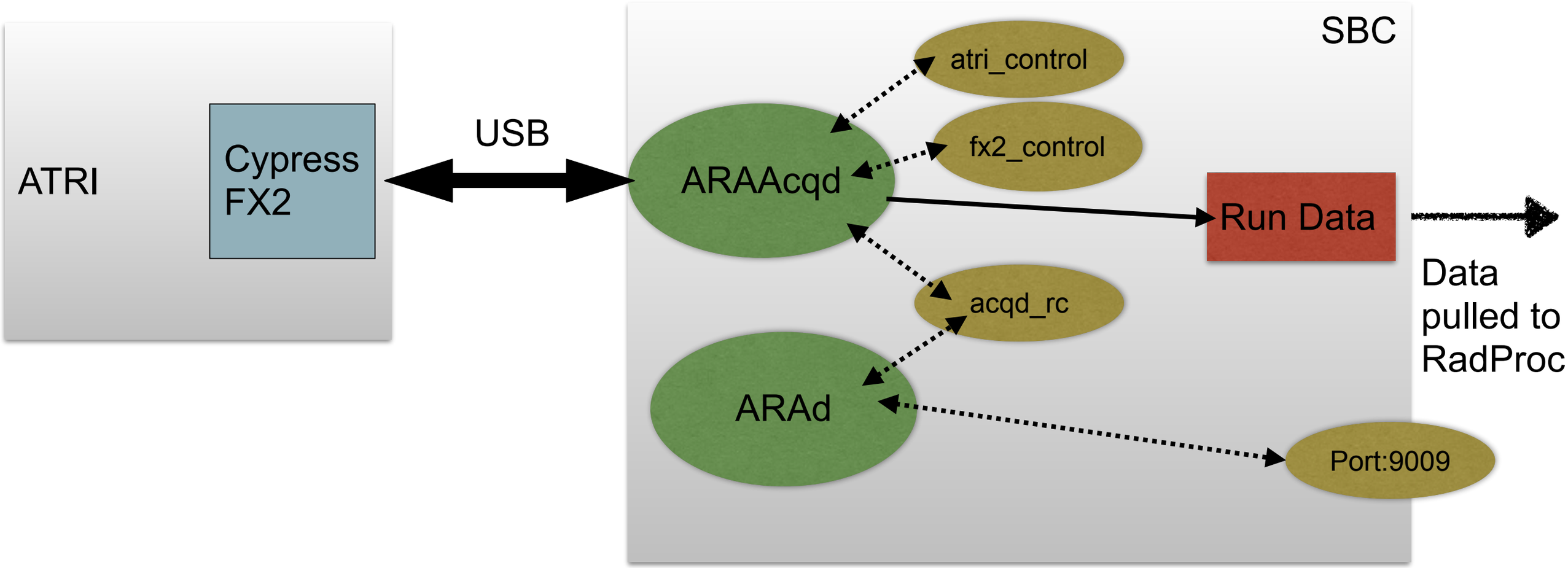
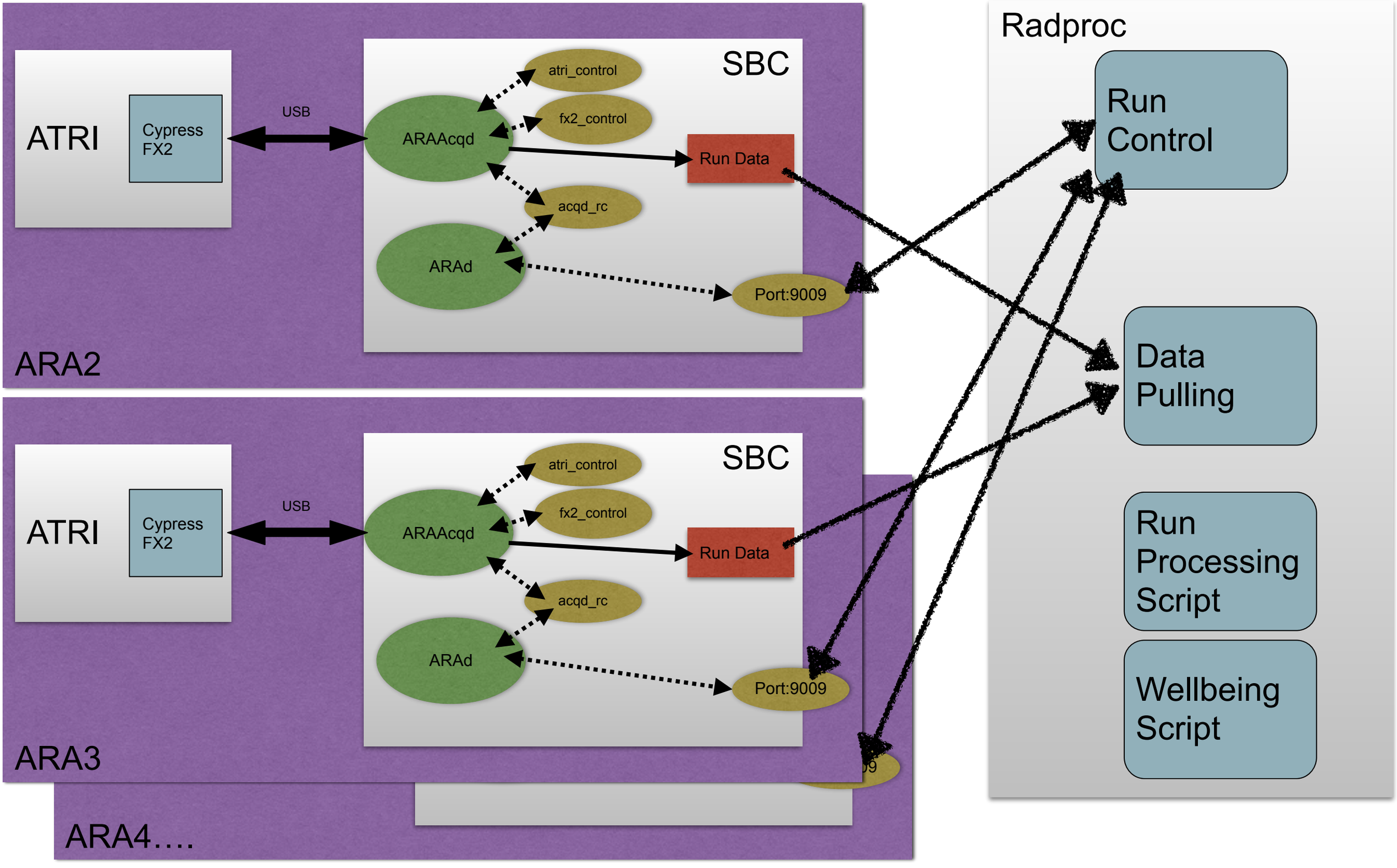
# AraSoft




- ARAAcqd
  - Reads events & HK from ATRI
  - Writes to local ramdisk
  - Services control and run control sockets
- ARAd
  - Starts and stops runs
  - Gets run number from local file
  - Listens for global RC on port 9009, currently not using this facility[2]

# Proposed Modified System



# Global Run Control on Radproc

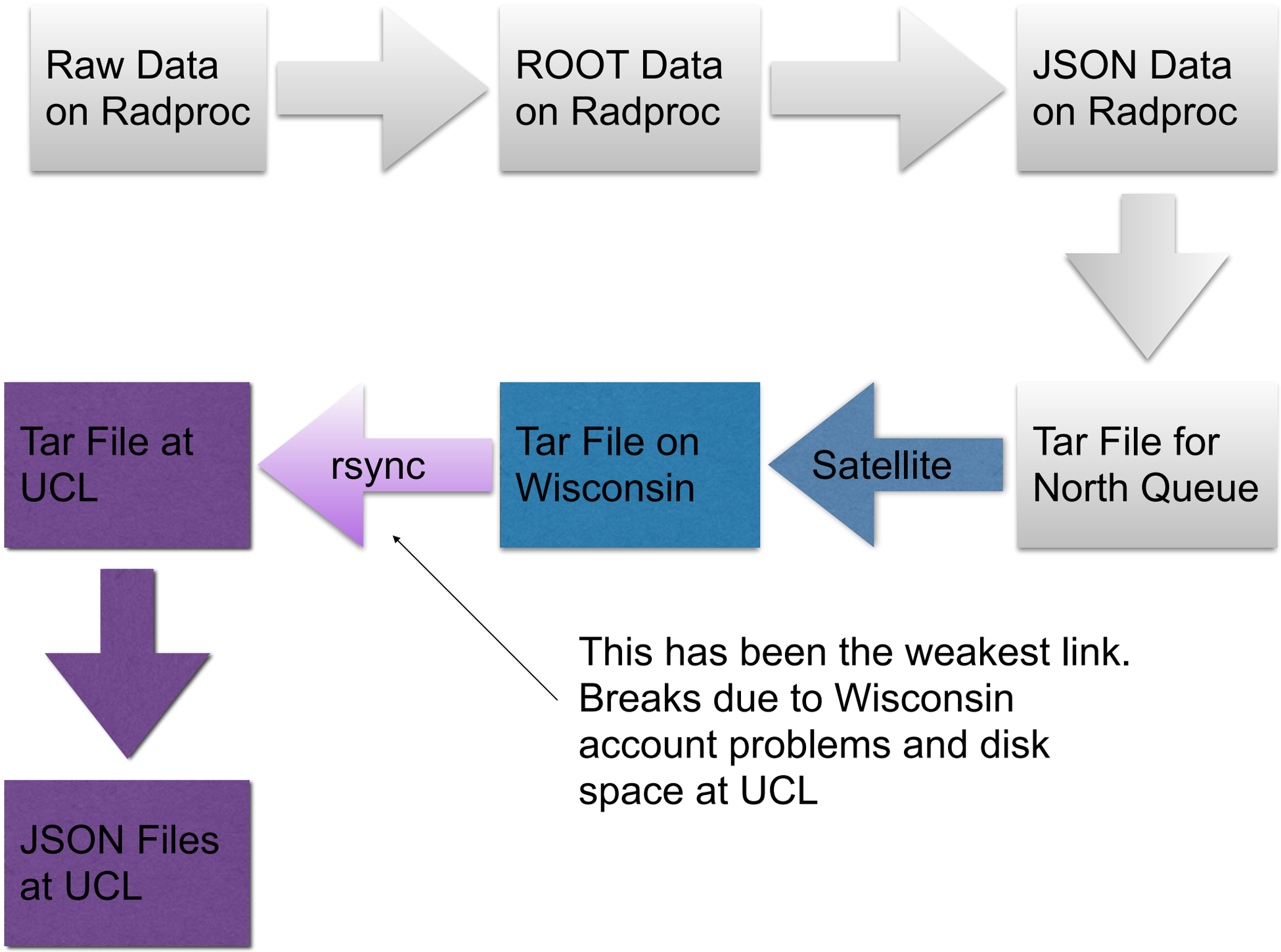
- A global run control on radproc would provide:
  - One stop shop for system status and control
  - Harmonise run numbers and run stop-start boundaries across all stations
  - Simplify the operation as we hopefully move beyond three (two) stations

- Other software/SBC upgrades
  - Remote boot from image on radproc
  - Improve noise servo
    - Start from last threshold rather than config file thresholds
  - Any other suggestions

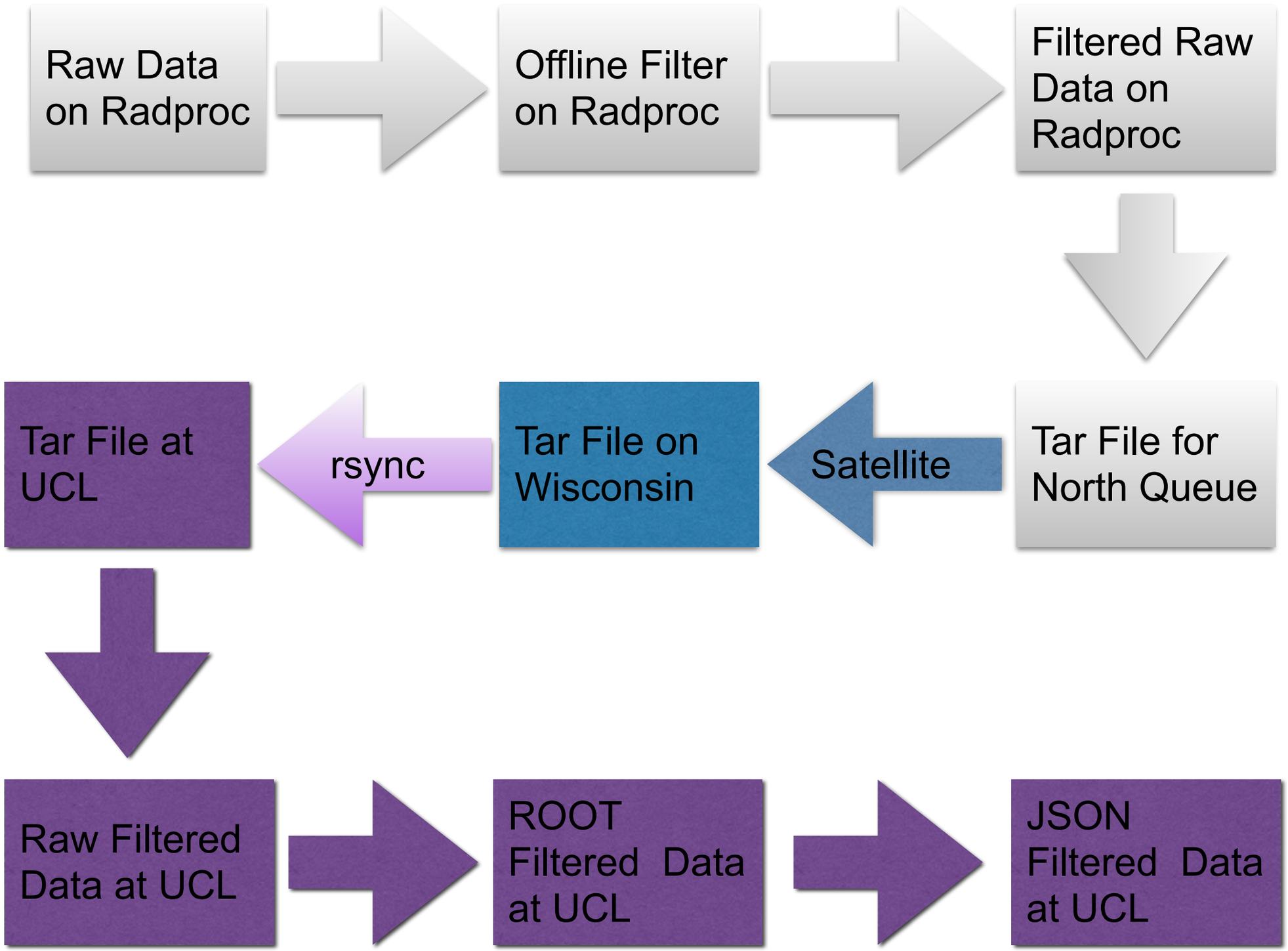
# AWARE

- Active Web for Antarctic Radio Experiments or Another Weird Acronym Ryan Established
- The web based monitoring system used for the ARA experiment
- There are basically two parts to AWARE:
  - A set of programs that process the raw(ROOT) data and create JSON (Javascript Object Notation) files from each run
  - A javascript powered web site that displays the JSON files using the FLOT graphing library

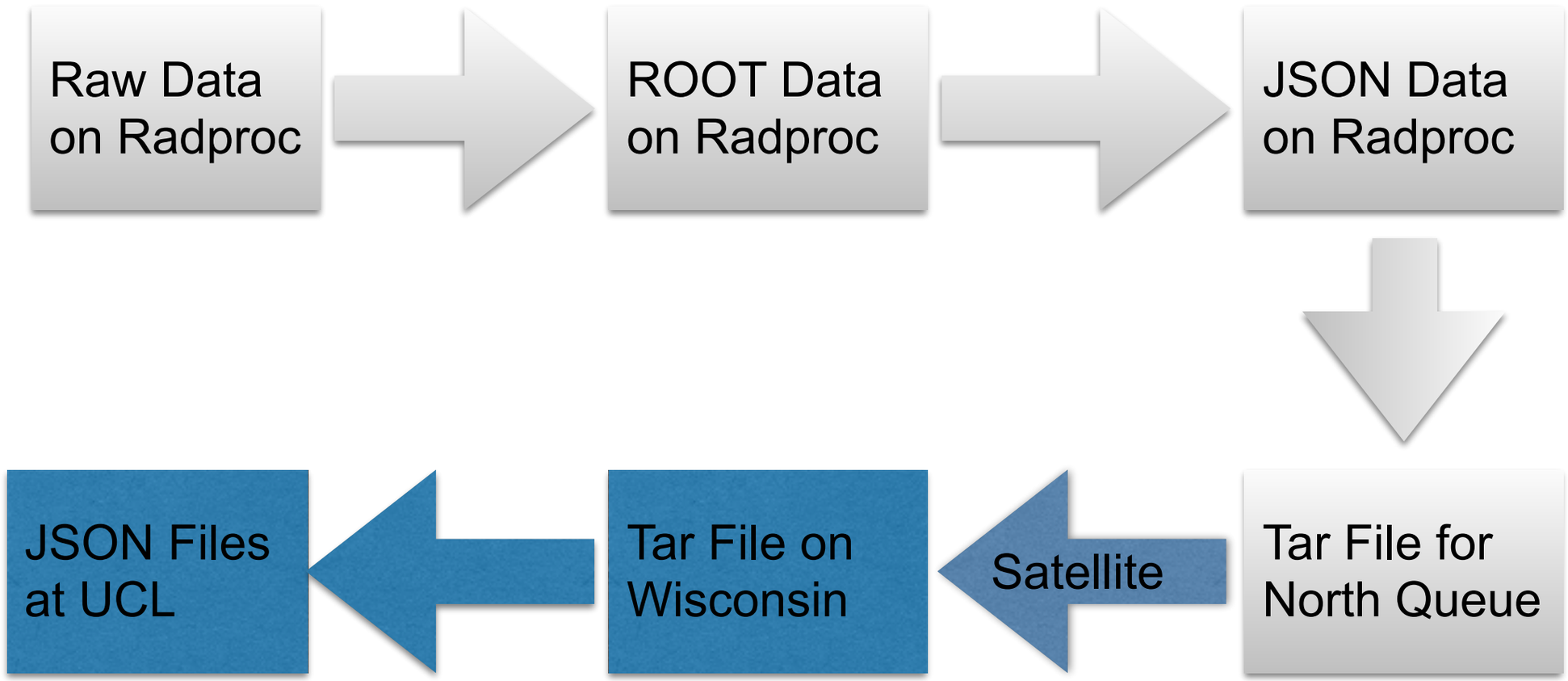
# AWARE Hk UCL Data Flow Chart



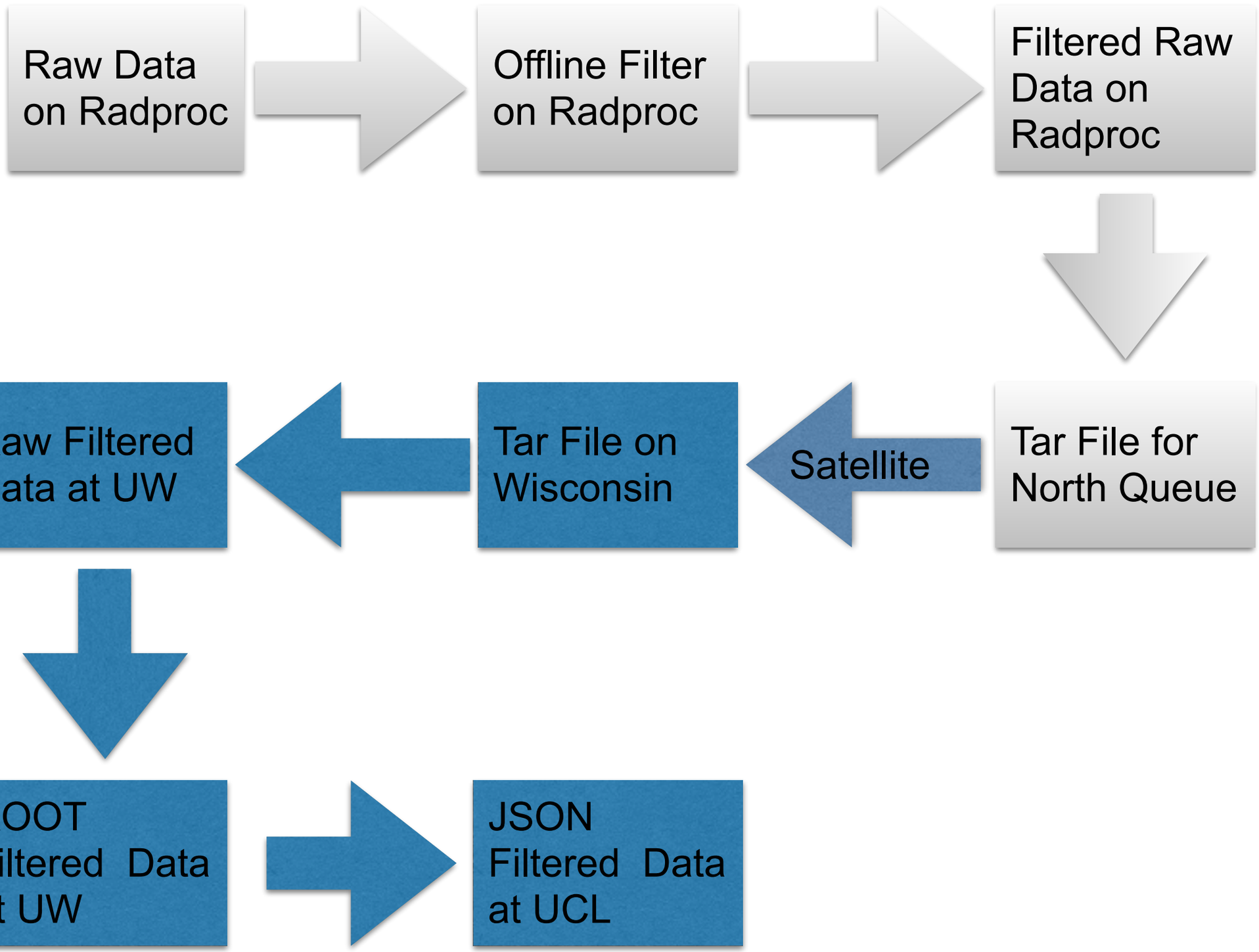
# AWARE Event UCL Data Flow Chart



# AWARE Hk UW Data Flow Chart

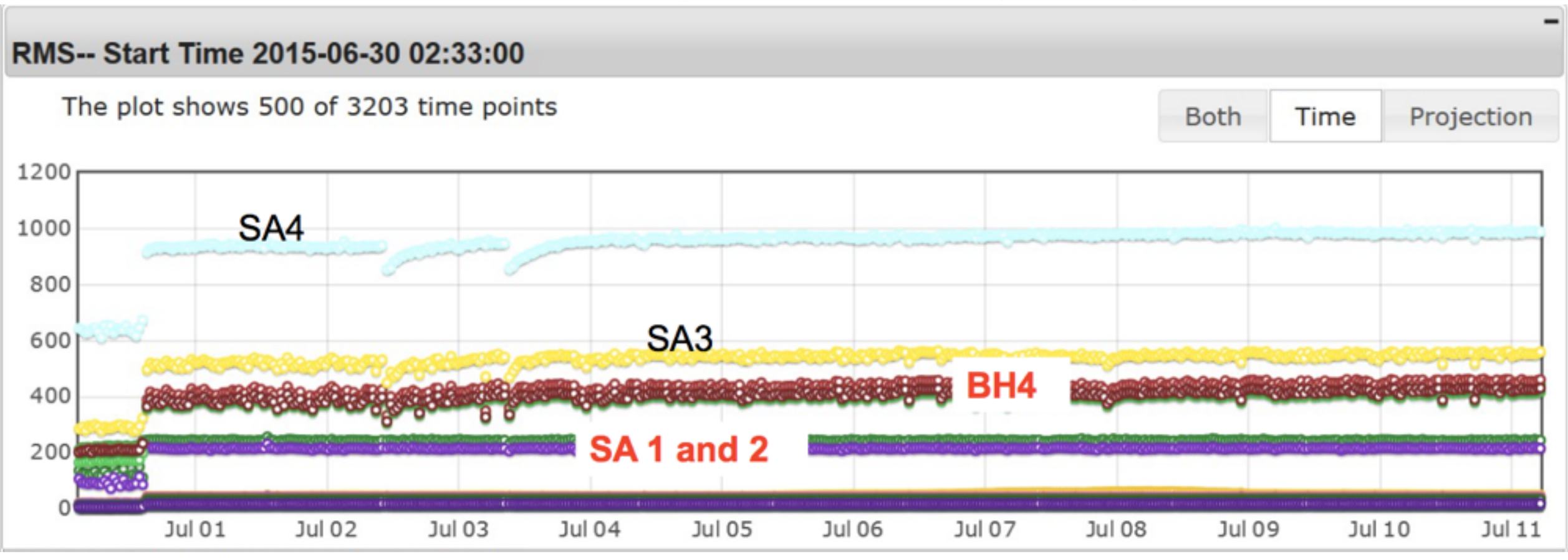


# AWARE Event UW Data Flow Chart



# AWARE Caveats

- There are two ways to get the header housekeeping JSON files:
  A. Generate on Radproc using the full data from a run
  B. Generate at UW/UCL using only the filtered (~1%)
- Clearly option A gives much more information.
- Several of the jumps in AWARE distributions come from the data switching between A) & B)



# AWARE Status

- Ryan Caulfield, Ming-Yuan et al have worked on revitalising the WIPAC version of AWARE, will hopefully fix that this week
- Ultimately the WIPAC version should replace UCL as the default AWARE

# AWARE Upgrades

- Other than fixing the stability of the data transfer there are a number of potential upgrades. Most of these focus on adding extra information derived from the
  - Adding frequency (Fourier) information
  - Adding event reconstruction information
  - Adding other waveform summary information
  - Adding other SBC health information (disk space, etc.)
  - Some behind the scenes javascript tidying up
  - Maybe replacing flot with a more actively developed plotting library
- If you have suggestions please feel free to add issues at:
  - https://github.com/nichol77/aware