RootSpy/Archiver

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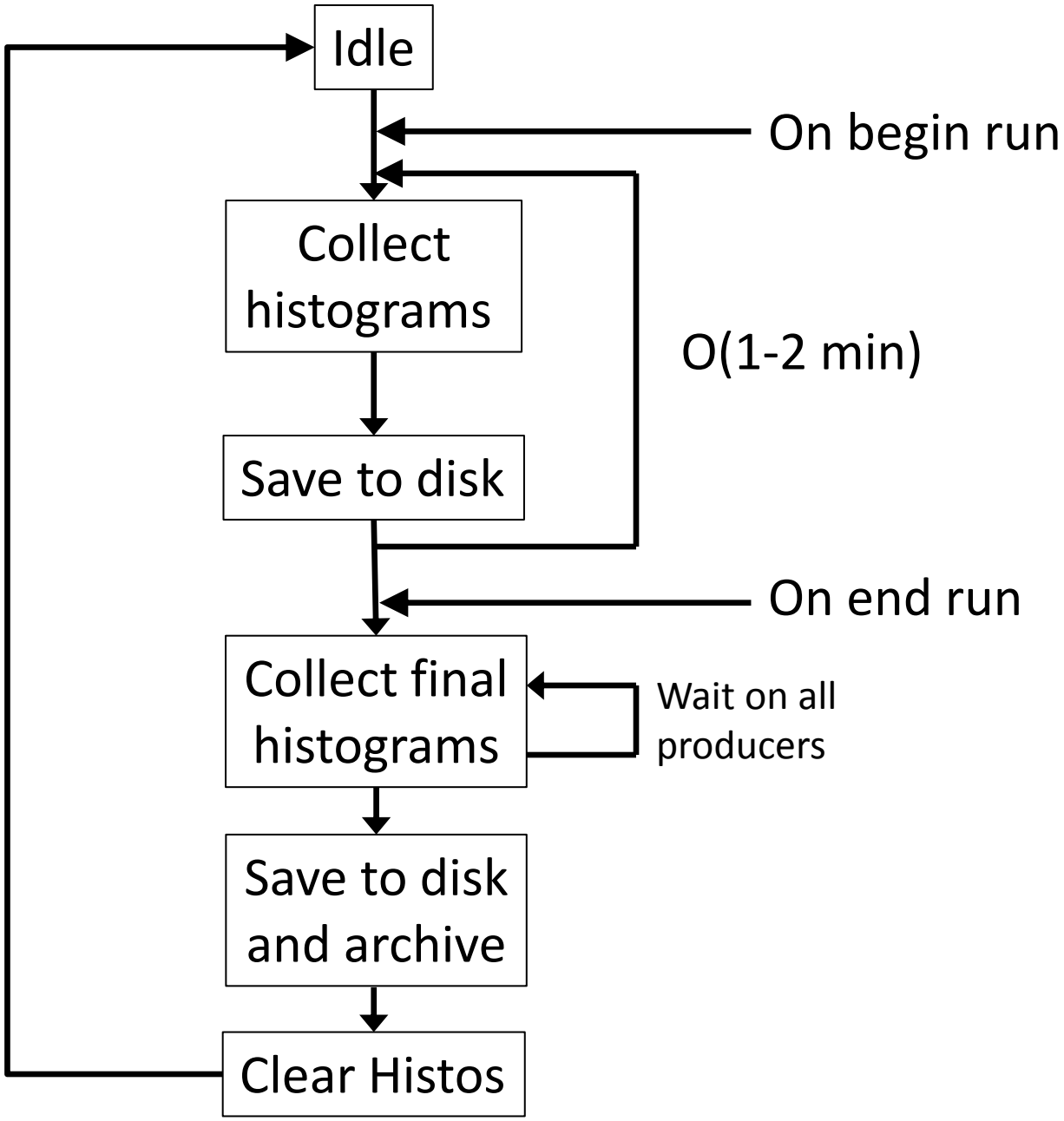
Online ROOT Archiving

- During online processing, various histograms and auxillary data streams will be generated
- These need to be collected for monitoring and other processing.
- This information will be collected using the RootSpy interface
  - RootSpy plugin runs as an extra thread in JANA program
  - Archiver runs as separate process, can be either single or multithreaded (will require finer-grained mutex locking of internal data structures).
- Concept is to poll online processors, keep a running total of results for monitoring in memory and/or file.
- After every run, collect final results in ROOT files and store for later.


Idle
On begin run
Collect histograms
O(1-2 min)
Save to disk
On end run
Collect final histograms
Wait on all producers
Save to disk and archive
Clear Histos

Questions

- Should RootSpy plugin have an extra thread to send final histograms to Archiver?
- Should Archiver grab all of the histograms from processors, or should the processors decide on the list of histograms to publish?
- How to implement begin/end run signalling?
- Need to define standards for archive file naming (maybe monitoring-$timestamp.root)
- Easily extendible to more complicated usages.