Universal Worker Server (UWS) Status

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UWS Status

- ## Document at PR
  - http://www.ivoa.net/Documents/UWS/

- ## RFC period just completed
  - http://www.ivoa.net/cgi-bin/twiki/bin/view/IVOA/UWSV1RFC
  - Basic protocol seems solid
    - But document requires clarifications
    - Assumptions about fallback to standard REST/HTTP behaviour need to be made explicit.

What is UWS?

- It is a *pattern* for the behaviour of part of a service
  - How to run and control a process (job) and retrieve the results
- Other Standards (e.g. TAP) should implement it
  - Factors out common behaviour c.f. VOSI, SSO
  - Interdependency good ➔ re-use ➔ shallower learning curve
    - Need Architecture document though
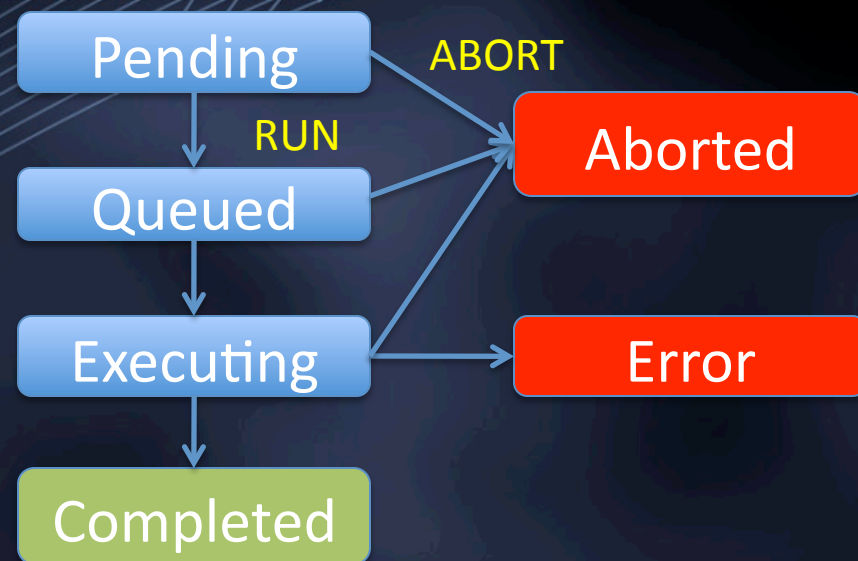
UWS is as simple as you want

- Tried to keep the interface as simple as possible
  - Document also minimal
  - However implementation can be sophisticated (e.g use condor/cloud etc.) and extend capabilities
    - But expected behaviour for generic UWS client must not be compromised.

RFC issues

- Quick Start

- Job Phases

- Errors

- Destruction Time/Execution Duration

- Quote

Phases / Quick Start

- Job created as "pending"
- Change state by POST *requests* to PHASE
  - Service can queue
- Quick Start
  - Add PHASE=RUN to initial POST

Pending —ABORT→ Aborted

Pending —RUN→ Queued

Queued → Aborted

Queued → Executing

Executing → Error

Executing → Completed

Destruction Time/ Execution Duration

- Execution Duration
  - Amount of CPU time

- Destruction Time
  - How long will the results be kept i.e. a data storage commitment
  - Allows simple workflow use case – the results from one job can be passed to the next step without intervening VOSpace.

Quote

- Attempt to estimate the CPU time required for the job.

- How to specify "don't know"

- How to specify "too much" – i.e. will not do it
  - Implicit, set to greater than Execution Duration

Implementations

- CEA from AstroGrid
  - Doc http://software.astrogrid.org/doc/cea/cec/
  - Service http://astrogrid.jb.man.ac.uk:8080/cea-commandline/
- CADC prototype
  - http://www.cadc.hia.nrc.gc.ca/cadcSampleUWS/

- Others
  - CDS, Petr Skoda (this Interop)
- TAP services!

Conclusions

- Need another version of the document to address RFC issues
  - Will be done asap after Interop