



OpenCADC - cadcUWS

- Universal Worker Service library
 - provides Job class
 - provides servlet with /async behaviour
 - provides servlet with /sync behaviour
 - provides XML read/write of UWS job
 - plugin architecture enables customisation
 - now with base JobDAO class for RDBMS persistence of jobs
 - plugin configuration in web.xml
- java + restlet, JDOM, log4j



OpenCADDC - cadcVOSI

- VOSI-availability servlet
 - java interface for custom runtime tests
 - configure plugins in web.xml
- VOSI-capabilities servlet
 - no custom code needed
 - configurable via web.xml
- java + JDOM, log4j



OpenCADC - cadcTAP

- VOSI-tables servlet
 - uses TapSchema support in cadcTAP
 - queries and writes VODataService XML on every request (~50ms for our service)
 - no other configuration, just deploy in web.xml
- java + JDOM, spring, log4j



OpenCADDC - cadcTAP

- provides a cadcUWS JobRunner implementation called QueryRunner
- provides extensible validating ADQL parser
 - plugins to support table and column renaming
 - plugins to support ADQL geom -> pg_sphere
 - plugins to support TOP -> LIMIT
- provides STC-S library
- provides ResultSet -> VOTable, CSV, TSV
 - with custom Formatter support
- java + jsqlparser, JDOM, spring, javacsv, log4j



TAP usage @ CADC

- CAOM (Common Archive Observation Model)
<http://www.cadc.hia.nrc.gc.ca/caom/>
- ivoa.ObsCore: view on several joined CAOM tables
 - view described in TAP_SCHEMA according to std
 - do not actually have a schema called “ivoa”
 - do not actually have a column called s_region
 - generate access_url while writing output
 - did have to write code to generate/maintain dataproduct_type and calib_level



TAP usage @ CADDC

- SIAv1 service is a client of our CAOM TAP service

<http://www.cadc.hia.nrc.gc.ca/sia/>

- caom.SIAv1: view on several joined CAOM tables
 - view described in TAP_SCHEMA according to SIA standard
 - cadcTAP query parser + VOTableWriter connect TapSchema metadata to the ADQL select-list: all FIELD metadata set from TAP_SCHEMA
- outputting VOTable 1.2 caused problems



TAP usage @ CADC

- CADC web UI is a client of our CAOM TAP service

<http://www.cadc.hia.nrc.gc.ca/>

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TAP usage @ CADDC

- <http://www.cadc.hia.nrc.gc.ca/>

Search:

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Go

[Advanced Search](#)

— The Query Job description —

OK

[View query job \(UWS xml format\)](#)

[Download query results \(VOTable xml format\)](#)



TAP usage @ CADDC

- <http://www.cadc.hia.nrc.gc.ca/>

Search: All Archives [Advanced Search](#)

– + The Query Job description

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	preview	collection	collectionID	observable	telescope	instrument	RA	DEC	
<input type="checkbox"/>	Preview	HST	U2PY0401T	PROD	HST	WFPC2	187.711995533031	12.3875720046766	
<input type="checkbox"/>	Preview	HST	J8ZH03010	AUX	HST	ACS	187.739186418129	12.429083131396	F6C
<input type="checkbox"/>		CFHT	1153312	RAW	CFHT 3.6m	WIRCam	187.667460912762	11.9780208028536	
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TAP usage @ CADDC

- Javascript to control a UWS job from page was pretty simple
- both SIA service and the web UI use the sync servlet and JobDAO from cadcUWS
 - implement a custom JobRunner to handle params, create and start an async TAP query
 - put result page URL in the Job, sync redirects browser
 - side benefit: we store all user queries for usage analysis and to fix unreported bugs