



IVOA May 2020 Virtual Interoperability Meeting May 4-8 2020

ConeSearch status & discussion



Marco Molinaro / Ada Nebot INAF / CDS







ESCAPE The need for a ConeSearch revision



Simple Cone Search Version 1.03

IVOA Recommendation 22 February 2008

- 2 milestones to work on
 - The protocol is not up to date with current landscape
 - A new requirement comes in from the **Time Domain**
- 3rd one (1/2 milestone)
 - Registry & Capabilities
- 1 decision to take
 - 1.1 or 2.0









Landscape Update



- Some updates already done (~2 years ago)
- Some didn't reach agreement
- ...and some smaller editorial matters to fix

(wait a few slides or look at the etherpad for finer details)









ESCAPE Time Domain



1 new optional parameter: TIME

- the time **interval** to be searched for data
 - open or closed interval with numeric values
- interpreted as MJDs
 - values interpreted as **UTC time scale and UNKNOWN reference position**
 - as specified in DALI in the section on literal values
 - MJD values always in days
- constraint is satisfied if the interval intersects the time coverage of the observation
- (VOTable) response addition
 - exactly one FIELD, representing the time of the observation, MUST
 - have ucd="time.epoch;meta.main"
 - have datatype set to "float" or "double" (ISO? [char])







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Registry & Capabilities



- (currently) inclusion of SimpleDALRegExt
 - Need to follow "caproles" discussion
- Time Domain addition
 - Discovery of services w/ or w/o time filtering feature

(wait a couple of slides or look at the etherpad for finer details)









minor or MAJOR



Landscape, time, registry and interface description ... makes it more complicated to keep a minor revision

but ...

Switching MAJOR revisions has its own hurdles ...

- Take up
- Clean transition

https://indico.in2p3.fr/event/20005/sessions/13085/attachments/57308/76506/MajorRevisionProcess_hack-a-thon.txt





















ConeSearch-1.03-Erratum-1: <INFO name="Error"> uniqueness clarification



- Longer the title than the issue
 - https://wiki.ivoa.net/twiki/bin/view/IVOA/SCS-1_03-Err-1

in running document	1.x	2.0	Time Domain related	new issue?
NO	Add		NO	1.x: yes 2.0: no









Error Response



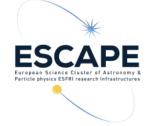
- DALI compliant instead of ConeSearch custom solution
 - Kept heritage as deprecated solution

in running document	1.x	2.0	Time Domain related	new issue?
YES	keep deprecate	DALI onlv	NO	NO









Resource Registration



- Copy/pasted content from SimpleDALRegExt to replace custom solution
 - With "caproles" discussion may need to be revisited

in running document	1.x	2.0	Time Domain related	new issue?
YES	?	?	YES	YES

NOTE: filtering TIME capable service!









RA & Dec datatype



- Simply relaxed to allow float alongside double
 - If 2.0 there may be discussion on parameter choices
 - e.g. POS vs. RA,Dec,SR

in running document	1.x	2.0	Time Domain related	new issue?
YES	keep	?	NO	1.x: no 2.0: yes?









MAXREC & RESPONSEFORMAT



- Added following DALI
 - SR=0 for metadata, kept
 - VOTable mandatory response, kept

in running document	1.x	2.0	Time Domain related	new issue?
YES	keep?	DALI only	NO	NO

NOTE: suggest usage of RESPONSEFORMAT for binary output.









ESCAPE DALI/VOSI endpoints



- Added support for capabilities & availability
 - Issue with heritage <GET-EXTRA-ARGS>
 - "caproles" discussion

in running document	1.x	2.0	Time Domain related	new issue?
YES	?		NO	YES









ESCAPE VOTable response version



- Relaxed version number
 - Never closed discussion on back-compatibility
 - Needs examples to be fixed

in running document	1.x	2.0	Time Domain related	new issue?
YES	VOTable 1.0+	VOTable 1.4+	YES TIMESYS	YES









Metadata discovery



- Added MAXREC=0
 - Kept heritage SR=0

in running document	1.x	2.0	Time Domain related	new issue?
YES	keep heritage	DALI only	NO	NO







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- Allowing POST alongside GET (DALI)
 - But <GET-EXTRA-ARGS> ?

in running document	1.x	2.0	Time Domain related	new issue?
YES	?	?	NO	YES









RESOURCE type & number



- There exist 1.03 services not using the RESOURCE@type
- To allow DataLink the number of RESOURCE/TABLE has to be relaxed

in running document	1. x	2.0	Time Domain related	new issue?
NO	?		NO	YES









ReST vs query-param



- Would solve many issue
 - Minor revision would get messy

in running document	1.x	2.0	Time Domain related	new issue?
NO	?		NO	YES











Move to UCD1+ strictly?

in running document	1.x	2.0	Time Domain related	new issue?
NO	?		YES	YES

NOTE: no back-compatibility chance with minor revision.











Correct choice of sky positions at different server-side epochs

in running document	1.x	2.0	Time Domain related	new issue?
NO	?		YES	YES











- Get whole catalogue
 - Possibly allow TIME (or other) filtering

in running document	1.x	2.0	Time Domain related	new issue?
NO	?	?	YES	?

NOTE: SR=180, leave it to DALI, ...











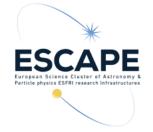
- As a filtering parameter
- Possibly leave it for later, i.e. 2.0 or even 2.1+

in running document	1.x	2.0	Time Domain related	new issue?
NO	NO	?	YES	?









ESCAPE MAJOR vs minor



- Based on all the updates/feature described previously...
- Considering the transition hurdles...
- ... and the take-up time span ...











ESCAPE Links & Discussion



- GitHub (ivoa-std) repo
 - https://github.com/ivoa-std/ConeSearch
- Simple Cone Search on DAL TWiki
 - https://wiki.ivoa.net/twiki/bin/view/IVOA/ConeSearch
- Etherpad for this session's discussion
 - https://yopad.eu/p/IVOA_Virtual2020_ConeSearch (*)







Later persisted within https://wiki.ivoa.net/twiki/bin/view/IVOA/InterOpMay2020DAL contents