ConeSearch-1.1 status



IVOA November 2026 Interoperability Meeting
Data Access Layer session
Saturday 7 November 2026
Perth (AUS)

Marco Molinaro

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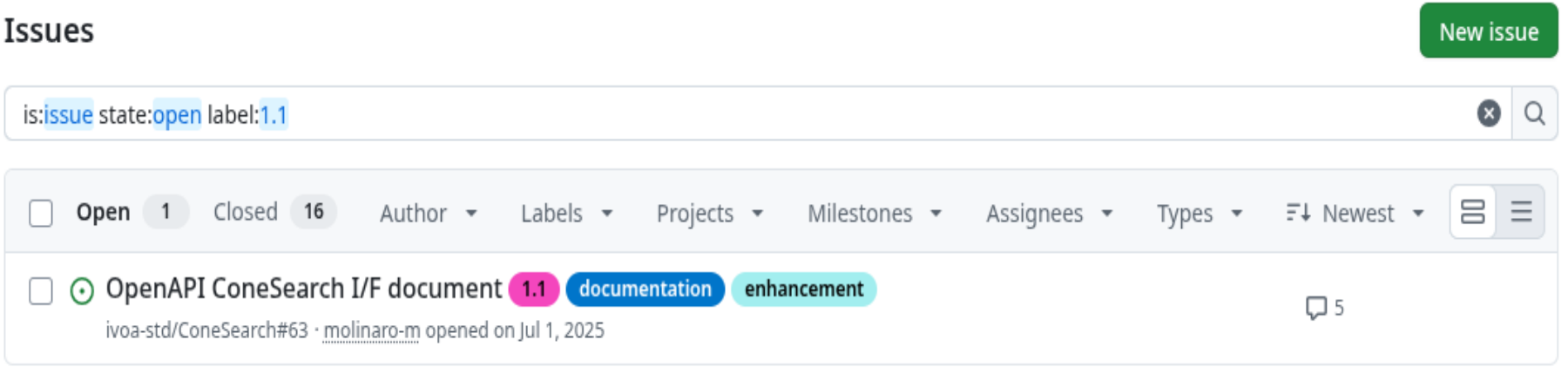
WD-ConeSearch-1.1

- Simple Cone Search v.1.1 Working Draft
  - https://ivoa.net/documents/ConeSearch/20260609/index.html
  - https://github.com/ivoa-std/ConeSearch



OpenAPI document

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first openapi draft #72

Draft molinaro-m wants to merge 1 commit into `ivoa-std:main` from `molinaro-m:conesearch-openapi`

Conversation 0 | Commits 1 | Checks 1 | Files changed 2

molinaro-m commented 7 hours ago — Member

first OpenAPI document for ConeSearch-1.1
this merge request will stay draft while discussing it with the DAL WG, including its place in the document

`first openapi draft` ✓ `378a318`

molinaro-m commented now — Member, Author

meant to complete issue #63

OpenAPI document

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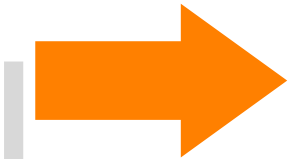

```yaml
openapi: 3.0.0
info:
  title: IVOA Simple Cone Search
  description: |
    This is the OpenAPI representation of the ConeSearch-1.1
    specification
  version: 1.1
servers:
- url: /cone
paths:
  /search:
    get:
      summary: The Simple Cone Search base query endpoint
      description: |
        Parametric HTTP GET queries following ConeSearch
        to retrieve astrophysics source within the cone
      parameters:
```

OpenAPI document

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```yaml
parameters:
  - name: RA
    in: query
    required: true
    description: |
      A right-ascension in the ICRS coordinate system for the positon
      of the center of the cone to search, given in decimal degrees
    schema:
      type: number
      format: float
  - name: DEC
    in: query
    required: true
    description: |
      A declination in the ICRS coordinate system for the positon of
      the center of the cone to search, given in decimal degrees
    schema:
      type: number
      format: float
  - name: SR
    in: query
    required: true
    description: |
      The radius of the cone to search, given in decimal degrees. If set
      to zero (SR=0) it should not return an error condition because the
      request might describe an interest in retrieving only the metadata
      structure of the service's response (i.e. discovery of the FIELDs
      delivered by the service). Returning data alongside metadata with
      SR=0 is also allowed. The metadata enquiry behaviour is similar
      to setting MAXREC=0, i.e. a service metadata request as prescribed
      by DALI
    schema:
      type: number
      format: float
```



```yaml
  - $ref: ../dali/dali-maxrec.yaml
  - $ref: ../dali/dali-responseformat.yaml
  - name: VERB
    in: query
    required: false
    description: |
      An integer indicating verbosity which determines how many columns
      are to be returned in the resulting table. If supported by the service,
      1 means that the bare minimum number of columns the provider considers
      useful in describing the returned objects. A value of 2 is intended for
      requesting a medium number of columns considered by the provider the
      most typically useful. When the value is 3, the service should return
      all of the columns that are available for describing the objects.
      If not provided, it defaults to 2.
    schema:
      type: integer
      format: int32
```

OpenAPI document

```yaml
responses:
  "200":
    description: |
      Successful query, returns a table containing the astronomical
      sources whose positions are within the cone described by RA, DEC, SR
    content:
      application/x-votable+xml:
        schema:
          type: object
          xml:
            name: VOTable
            namespace: http://www.ivoa.net/xml/VOTable/v1.5
  "400":
    $ref: ../vosi/vosi-std-responses.yaml#/bad-request
```

```
.
├── dali
│   ├── dali-maxrec.yaml
│   └── dali-responseformat.yaml
├── vosi
│   └── vosi-std-responses.yaml
└── openapi.yaml
```

collateral TODOs

- move “2.x” & “time” issues to SCS-2.0
- SimpleDALRegExt erratum
- document cleanup
  - architecture check
  - dependencies check

TODO

- reference implementations
  - contact me if you have already one
- validator
- Proposed Recommendation
- RFC

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Thank you for your attention!

https://github.com/ivoa-std/ConeSearch

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