



EUROPEAN
SPALLATION
SOURCE



SciCat PROJECT UPDATES

SDK & custom dataset view

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Overview

2025 project update



What we shipped this year

- SDK Generation for backend API
 - *Clients get up-to-date, type-safe code out of the box*
 - *Reduces manual work and mistakes*
- Custom Dataset View on the frontend
 - *Let site admin order widget and metadata based on the needs*
 - *Speeds up data exploration*

SDK generation

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How it works

- OpenAPI specification
 - NestJS automatically produces an OpenAPI spec from decorators.
- OpenAPI generator
 - It reads auto-generated OpenAPI spec and emits SDKs
- Where to access
 - GitHub Action artifacts
 - Corresponding package platform (npm, pypi)

```
@ApiOperation({  
  summary: "It returns  
  description:  
    "It returns the tl  
})  
@ApiParam({  
  name: "pid",  
  description: "Persis  
  type: String,  
})
```





SDK generation

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Where to access

Latest SDKs

tsconfig.build.jsonbuild(tsconfig): include only src when building the project...2 years ago

tsconfig.jsonbump @nestjs/axios from 0.1.0 to 3.0.02 years ago

READMEBSD-3-Clause licenseSecurity

SciCat Backend

Version: v4.x

NestJS implementation

Test passing Deploy passing Generate and upload latest SDK artifacts passing deepscan Good Snyk security monitored

IMPORTANT!!!!

As of 2023/06/15, this repository holds the official version of SciCat backend This is the only version that is officially supported. It is commonly referred to as backend, BE, v4.x or a combination of them.

You can find the old backend (v3.x, loopback implementation) at (<https://github.com/SciCatProject/backend>). The repo for backend v3.x is archived and read-only

Stable SDKs (scicat-sdk)

npm

scicat

4 packages found

@scicatproject/scicat-sdk-ts-angular

OpenAPI client for @scicatproject/scicat-sdk-ts-angular

openapi-clientopenapi-generator

junjiequan · 4.17.1 · 17 days ago · 0 dependents · Unlicense

@scicatproject/scicat-sdk-ts-fetch

OpenAPI client for @scicatproject/scicat-sdk-ts-fetch

junjiequan · 4.17.1 · 17 days ago · 0 dependents

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scicat-sdk-py 4.16.0

pip install scicat-sdk-py

SciCat backend API

Navigation

Project description

Project description

Project description

This is the API for the SciCat Backend

SDK generation

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When does it happen – trigger points:

1. Pull request
 - *Ensures code change do not break SDK build pipe*
2. Merged into master branch
 - *Generates zipped SDK file and upload as artifacts*
3. New release
 - *Publish SDK to its corresponding package platform*

Limitations

- Lack of tests for generated SDKs



Custom Dataset view

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How it looks

Default view

General Information

Dataset Name

Last Neutrons Ever at HZB.

Description

V20 data

Pid

20.500.12269/2511nicos_00002511.hdf

Type

raw

Creation time

2019-12-11 13:48

Keywords

v20

neutron

Edit

Creator Information

Owner

test owner

Principal Investigator

test investigator

Orcid

default

Contact Email

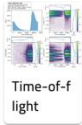
test@email

Owner Group

ess

Access Groups

ess,brightness



Time-of-flight

Custom view

General Information

Start Time

2025-03-05T10:29:45.968Z

Run Number

49595

Creation Time

2025-03-04T10:29:45.968Z

type

raw

Dataset Name

tbl

Keywords

CODA

TEST BEAMLINE MULTIBLADE

CODA / TEST BEAMLINE MULTIBLADE

Contact Information

Principal Investigator

test name

contactEmail

testemail

Files Information

numberOfFiles

1

size

17631116

Related Documents

proposalsids

977695

instrumentids

20.500.12269/765b3dc3-f658-410e-b371-04dd1adc0520

sampleids

-

inputDatasets

-

creationLocation

ESS.CODA:Test Beamline Multiblade

Gallery

Scientific Metadata Table

Name	Value
Start Time	2025-03-04 11:26
End Time	2025-03-04 11:29

Scientific Metadata JSON

```
{
  "start_time": Object {"value":"2025-03-04T10:26:47.642000+00:00"},
  "end_time": Object {"value":"2025-03-04T10:29:59.357000+00:00"},
  "run_number": Object {"value":49595,"unit":"","human_name":"Run N"},
  "job_id": Object {"value":"1e34ab16-f8e3-11ef-a244-fa163e9aae0a"},
  "acquisition_team_members": Object {"value":"Anders Pettersson, A"},
  "simulated_instrument_name": Object {"value":"Test Beamline Multi"},
  "simulated_instrument_id": Object {"value":"20.500.12269/633761af"}
}
```

Custom Dataset view

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Where to configure

- In a JSON file (src/config/frontend.config.json) stored on the backend
- Fetched at runtime by the frontend

What you can customize

- Widget Size
- Field/Element Type (aka. How the value is displayed)
- Source (Which schema field to be shown)
- ScientificMetadata display mode
- Label & order

```
"datasetDetailComponent": {  
  "enableCustomizedComponent": true,   
  "customization": [  
    {  
      "type": "attachments",  
      "label": "Gallery",  
      "order": 1,  
      "col": 2,  
      "row": 2,  
      "options": {  
        "limit": 5,  
        "size": "medium"  
      }  
    },  
    {  
      "type": "regular",  
      "label": "Files Information",  
      "order": 2,  
      "col": 8,  
      "row": 2,  
      "fields": [  
        {  
          "element": "text",  
          "source": "scientificMetadata.runnumber",  
          "order": 0  
        },  
        {  
          "element": "copy",  
          "source": "sourceFolderHost",  
          "order": 1  
        },  
        {  
          "element": "tag",  
          "source": "numberOfFiles",  
          "order": 2  
        }  
      ]  
    }  
  ]  
}
```


Custom Dataset view

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Limitations

- Applies the same layout to every dataset
- Every custom setting lives in a single JSON
- No live editing or live preview



Finish presentation