
OH Auto Statistical REST API

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Version 0.2

Analyses

POST /api/v0/analyses/

Submits an OH Auto Statistical analysis to be undertaken asynchronously. Returns a `Location` header with a URL to retrieve the analysis task status.

Form Parameters

- **(any)** – .xml catchment file
- **(any)** – .am annual maximum flow data file (optional)
- **nrfa-id** – NRFA gauging station number (optional, to be used *instead of* catchment files)

Request Headers

- **Authorization** – OAuth2 Bearer token for authentication

Response Headers

- **Content-Type** – `application/json`
- **Location** – URL to retrieve task status

Status Codes

- **202 Accepted** – Analysis task accepted
- **400 Bad Request** – Uploaded files invalid
- **401 Unauthorized** – Authentication error

Request:

```
POST /api/v0/analyses/ HTTP/1.0
Accept: */*
Authorization: Bearer secrettoken
Host: localhost:5000
```

Response:

```
HTTP/1.0 202 ACCEPTED
Content-Type: application/json
Content-Length: 3
Location: http://localhost:5000/api/v0/analysis-tasks/124cce24-b02f-4ad8-9475-e8826fb4e655
Server: Werkzeug/0.10.4 Python/3.4.3
Date: Thu, 05 Nov 2015 17:45:04 GMT
```

GET /api/v0/analyses/ (task_id)

Returns the OH Auto Statistical analysis report as Markdown-formatted text using the completed task's

`task_id`. Note that this endpoint does not need to be called explicitly as the task status will redirect to here.

Parameters

- **`task_id`** – Task identifier

Response Headers

- **Content-Type** –
 - `text/plain; charset=utf-8` (analysis report)
 - `application/json` (error message)

Status Codes

- **200 OK** – Report successfully returned
- **404 Not Found** – Not a completed analysis task for `task_id`

Response:

```
HTTP/1.0 200 OK
Content-Type: text/plain; charset=utf-8
Content-Length: 6412
Server: Werkzeug/0.10.4 Python/3.4.3
Date: Thu, 05 Nov 2015 19:16:01 GMT

# Flood Estimation Report

Date:          05/11/2015
Software:      OH Auto Statistical version 0.8.0

## Input data

River:         Urr
(...)
```

Analysis tasks

GET `/api/v0/analysis-tasks/` (*task_id*)

If the analysis task is not yet completed the task's status is returned (json). Otherwise redirects to the analysis report itself.

Parameters

- **task_id** – Task identifier

Response Headers

- **Content-Type** – *application/json*
- **Location** – URL to retrieve task results (when completed)

Status Codes

- **200 OK** – Status successfully returned
- **303 See Other** – Redirect to `/api/v0/analyses/` (*task_id*)

Request:

```
GET /api/v0/analysis-tasks/124cce24-b02f-4ad8-9475-e8826fb4e655 HTTP/1.0
Accept: */*
Host: localhost:5000
```

Response (task in progress):

```
HTTP/1.0 200 OK
Content-Type: application/json
Content-Length: 56
Server: Werkzeug/0.10.4 Python/3.4.3
Date: Thu, 05 Nov 2015 20:06:26 GMT

{
  "message": "",
  "state": "PROGRESS"
}
```

Response (task completed):

```
HTTP/1.0 303 OK
Content-Type: application/json
Content-Length: 3
Location: http://localhost:5000/api/v0/analysis/124cce24-b02f-4ad8-9475-e8826fb4e655
Server: Werkzeug/0.10.4 Python/3.4.3
Date: Thu, 05 Nov 2015 20:06:30 GMT
```

Data imports

POST /api/v0/data-imports/

Load new data into the peak flow database by providing a URL for a zip file of .cd3 and .am files. The zip file is retrieved and files are parsed and then inserted (update) into the database.

Request Headers

- **Content-Type** – *application/json*
- **Authorization** – OAuth2 Bearer token for authentication

Status Codes

- **202 Accepted** – Import task accepted
- **400 Bad Request** – Invalid request body
- **401 Unauthorized** – Authentication error
- **403 Forbidden** – Authorisation error

Request:

```
POST /api/v0/data-imports/ HTTP/1.0
Accept: */*
Authorization: Bearer secrettoken
Content-Type: application/json
Host: localhost:5000

{
  "url": "https://github.com/OpenHydrology/flood-data/archive/master.zip"
}
```

Response:

```
HTTP/1.0 202 ACCEPTED
Content-Type: application/json
Content-Length: 3
Server: Werkzeug/0.10.4 Python/3.4.3
Date: Thu, 05 Nov 2015 17:45:04 GMT
```


/api

GET /api/v0/analyses/(task_id),3
GET /api/v0/analysis-tasks/(task_id),5
POST /api/v0/analyses/,3
POST /api/v0/data-imports/,7