

GOBii API

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Overview

The GOBii web service API provides a comprehensive set of RESTful methods for accomplishing the following core tasks in the GOBii Genomic Data Management (GDM) system. This manual explains the GOBii web architecture and its web service operations.

Version information

Version : 1.0

License information

License : Apache 2.0

License URL : <http://www.apache.org/licenses/LICENSE-2.0.html>

URI scheme

Host : localhost:8081

BasePath : /api

Schemes : HTTP

System Architecture

DTO Models

Content TBD

Data Access

Content TBD

DTO Mapping

Content TBD

Services

Content TBD

The Web Controller

Content TBD

Web Service Operations

Request/Response Structure

The http body structure is the same for all responses as well as for the body of POST and PUT requests. Here is a high level schematic of the body structure:

```
{  
  "payload":{  
    "linkCollection":{  
      "linksPerDataItem":[
```

```
],  
    "exploreLinksPerDataItem":[
```

```
]  
  },  
  "data":[
```

```
]  
  },  
  "header":{  
    "gobiiProcessType": "",  
    "dtoHeaderAuth":{  
      "userName": null,  
      "password": null,  
      "token": "",  
      "gobiiCropType": ""  
    },  
    "status":{  
      "succeeded": true,  
      "statusMessages": [
```

```
],  
    "statusMessagesByCode":{
```

```

    }
  },
  "pagination":null,
  "gobiiVersion":"2.0_2018-07-31",
  "cropType":""
}
}

```

For requests, the following keys can be omitted:

- payload.linkCollection
- header

The content of the "data" array will vary depending on the type of the call. For example, for a POST to the the /project resource, it will contain a project object.

After a successful POST to the /auth resource, the "token" key in "dtoHeaderAuth" contains the token value, which should be used to set the X-Auth-Token header for subsequent requests.

Authentication

A valid token may be acquired by doing a POST to the /auth resource with an empty body and the following request headers set:

X-Username X-Password

The username and password depend on how the destination GOBii server is configured (per the gobii-web.xml file):

If gobiiAuthenticationType of the server is TEST, the username and password are hard-coded to USER_READER and reader, respectively. If the server is configured for LDAP authentication: The username/password must be provisioned in the configured LDAP server (if it is not, the error from the server will be 401: Unauthorized) There must be an entry for the user in contact table, where the username value matches the ldap user name; NOTE: if no such record is found, the error will be 403: Forbidden: Missing contact info for user <user-name> in crop database <crop-db>; a contact record must have username = <user-name>

When authentication succeeds, the response headers will contain a X-Auth-Token key whose value is a valid token. For subsequent requests, it is sufficient to supply X-Auth-Token in the request headers with the token that was received from the /auth POST. Some browsers prevent the client code from reading custom response headers. In this case, the token can also be retrieved from the meta data portion of the response body (see below).

Error Handling

Errors internal to GOBii are reported in the "header" key accompanying the response. An example of how to retrieve error data is provided in the following code fragment.

```

1 2 3 4 5 6 7 8 9 10 11 12 13 14 if (!header.getStatus().isSucceeded() || header .getStatus()
.getStatusMessages()
.stream()
.filter(headerStatusMessage
→
headerStatusMessage.getGobiiStatusLevel().equals(GobiiStatusLevel.VALIDATION)) .count() > 0) {
returnVal = true; System.out.println(); System.out.println("* Header errors: "); for
(HeaderStatusMessage currentStatusMesage : header.getStatus().getStatusMessages()) {
System.out.println(currentStatusMesage.getMessage()); } }

```

Paths

/analyses

POST /gobii/v1/analyses

Description

Creates an analysis entity. Consult the [Request/Response Section](#) before attempting to use this call.

Parameters

| Type | Name | Description | Schema | Default |
|------|------|-------------|-----------------------------|---------|
| Body | body | | AnalysisDTO | |

Responses

| HT TP Co de | Description | Schema |
|----------------------|----------------------|-----------------------------|
| 200 | successful operation | AnalysisDTO |

/auth

POST /gobii/v1/auth

Description

The user credentials are specified in the request headers; the response and the response headers include the token, which can which the client will include in the request headers for subsequent requests.

Parameters

| Type | Name | Description | Schema | Default |
|------|------|-------------|--------|---------|
| Body | body | | string | |

Responses

| HTTP Code | Description | Schema |
|-----------|----------------------|--------|
| 200 | successful operation | string |

/configsettings

GET /gobii/v1/configsettings

Description

Provides generic configuration information about the GOBii instance

Responses

| HTTP Code | Description | Schema |
|-----------|----------------------|-----------------------------------|
| 200 | successful operation | ConfigSettingsDTO |

Definitions

AnalysisDTO

| Name | Description | Schema |
|-----------------------|-------------|---|
| algorithm | | string |
| allowedProcessesTypes | | < enum (CREATE, READ, UPDATE, DELETE, NONE) > array |
| analysisDescription | | string |

| Name | Description | Schema |
|-----------------------|-------------|---|
| analysisId | | integer(int32) |
| analysisName | | string |
| anlaysisTypeId | | integer(int32) |
| createdBy | | integer(int32) |
| createdDate | | string(date-time) |
| entityNameType | | enum (UNKNOWN, ANALYSIS, CONTACT, DATASET, CV, CVGROUP, PROJECT, ORGANIZATION, PLATFORM, MANIFEST, MAPSET, MARKER_GROUP, EXPERIMENT, REFERENCE, ROLE, DISPLAY, MARKER, PROTOCOL, VENDOR_PROTOCOL) |
| id | | integer(int32) |
| modifiedBy | | integer(int32) |
| modifiedDate | | string(date-time) |
| parameters | | < EntityPropertyDTO > array |
| program | | string |
| programVersion | | string |
| referenceId | | integer(int32) |
| sourceName | | string |
| sourceUri | | string |
| sourceVersion | | string |
| statusId | | integer(int32) |
| timeExecuted | | string(date-time) |

ConfigSettingsDTO

| Name | Description | Schema |
|------------------------------|-------------|---|
| allowedProcessesTypes | | < enum (CREATE, READ, UPDATE, DELETE, NONE) > array |

| Name | Description | Schema |
|----------------------------|-------------|--|
| id | | integer(int32) |
| maxUploadSizeMbytes | | integer(int32) |
| serverCapabilities | | < string, boolean > map |
| serverConfigs | | < string, ServerConfig > map |

EntityPropertyDTO

| Name | Description | Schema |
|----------------------|-------------|----------------|
| entityIdId | | integer(int32) |
| propertyId | | integer(int32) |
| propertyName | | string |
| propertyValue | | string |

Header

| Name | Description | Schema |
|-------------------------|-------------|---|
| cropType | | string |
| dtoHeaderAuth | | HeaderAuth |
| gobiiProcessType | | enum (CREATE, READ, UPDATE, DELETE, NONE) |
| gobiiVersion | | string |
| pagination | | Pagination |
| status | | Status |

HeaderAuth

| Name | Description | Schema |
|----------------------|-------------|--------|
| gobiiCropType | | string |
| password | | string |
| token | | string |
| userName | | string |

HeaderStatusMessage

| Name | Description | Schema |
|----------------------------------|-------------|---|
| gobiiStatusLevel | | enum (ERROR, VALIDATION, WARNING, INFO, OK) |
| gobiiValidationStatusType | | enum (NONE, UNKNOWN, VALIDATION_COMPOUND_UNIQUE, VALIDATION_NOT_UNIQUE, NONEXISTENT_FK_ENTITY, BAD_REQUEST, MISSING_REQUIRED_VALUE, ENTITY_DOES_NOT_EXIST, ENTITY_ALREADY_EXISTS, UNKNOWN_ENUM_VALUE) |
| message | | string |

Link

| Name | Description | Schema |
|--------------------|-------------|---|
| description | | string |
| href | | string |
| methods | | < enum (GET, POST, PUT, PATCH, DELETE, OPTIONS) > array |

LinkCollection

| Name | Description | Schema |
|--------------------------------|-------------|--|
| exploreLinksPerDataItem | | < < Link > array > array |
| linksPerDataItem | | < Link > array |

Pagination

| Name | Description | Schema |
|--------------|-------------|-------------------|
| currentPage | | integer(int32) |
| pageSize | | integer(int32) |
| pagedQueryId | | string |
| queryTime | | string(date-time) |
| totalPages | | integer(int32) |

PayloadAnalysisDTO

| Name | Description | Schema |
|----------------|-------------|--|
| data | | < AnalysisDTO > array |
| linkCollection | | LinkCollection |

PayloadConfigSettingsDTO

| Name | Description | Schema |
|----------------|-------------|--|
| data | | < ConfigSettingsDTO > array |
| linkCollection | | LinkCollection |

AnalysisDTO

| Name | Description | Schema |
|---------|-------------|------------------------------------|
| header | | Header |
| payload | | PayloadAnalysisDTO |

ConfigSettingsDTO

| Name | Description | Schema |
|---------|-------------|--|
| header | | Header |
| payload | | PayloadConfigSettingsDTO |

ServerConfig

| Name | Description | Schema |
|-----------------------|-------------|------------------------|
| confidentialityNotice | | string |
| contextRoot | | string |
| domain | | string |
| fileLocations | | < string, string > map |
| gobiiCropType | | string |
| port | | integer(int32) |

Status

| Name | Description | Schema |
|----------------------|------------------------|---|
| statusMessages | | < HeaderStatusMessage > array |
| statusMessagesByCode | | < string, string > map |
| succeeded | Default : false | boolean |