
DRS-cli

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Modules

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1.1 drs_cli package

1.1.1 Submodules

1.1.2 drs_cli.client module

Class implementing DRS client.

```
class drs_cli.client.DRSCient (uri: str, port: Optional[int] = None, base_path: Optional[str] =  
'ga4gh/drs/v1', use_http: bool = False, token: Optional[str] =  
None)
```

Bases: object

Client to communicate with a GA4GH DRS instance. Supports additional endpoints defined in DRS-filer (<https://github.com/elixir-cloud-aai/drs-filer>).

Parameters

- **uri** – Either the base URI of the DRS instance to connect to in either ‘https’ or ‘http’ schema (note that fully compliant DRS instances will use ‘https’ exclusively), e.g., <https://my-drs.app>, OR a hostname-based DRS URI, cf. https://ga4gh.github.io/data-repository-service-schemas/preview/develop/docs/#_hostname_based_drs_uris.
- **port** – Override default port at which the DRS instance can be accessed. Only required for DRS instances that are not fully spec-compliant, as the default port is defined in the DRS documentation, cf. https://ga4gh.github.io/data-repository-service-schemas/preview/develop/docs/#_hostname_based_drs_uris.
- **base-path** – Override default path at which the DRS API is accessible at the given DRS instance. Only required for DRS instances that are not fully spec-compliant, as the default port is defined in the DRS documentation, cf. https://ga4gh.github.io/data-repository-service-schemas/preview/develop/docs/#_hostname_based_drs_uris.

- **use_http** – Set the URI schema of the DRS instance to *http* instead of *https* ‘when a DRS URI was provided to *uri*.
- **token** – Bearer token to send along with DRS API requests. Set if required by DRS implementation. Alternatively, specify in API endpoint access methods.

uri

URI to DRS endpoints, built from *uri*, *port* and *base_path*, e.g.,”https://my-drs.app:443/ga4gh/drs/v1”.

token

Bearer token for gaining access to DRS endpoints.

headers

Dictionary of request headers.

delete_object (*object_id*: str, *token*: Optional[str] = None) → Union[str, drs_cli.models.Error]

Delete DRS object.

Parameters

- **object_id** – Implementation-specific DRS identifier OR hostname-based DRS URI pointing to a given object, cf. https://ga4gh.github.io/data-repository-service-schemas/preview/develop/docs/#_hostname_based_drs_uris.
- **token** – Bearer token for authentication. Set if required by DRS implementation and if not provided when instatiating client or if expired.

Returns ID of previously registered DRS object in case of a *200* response, or an instance of *Error* for all other responses.

Raises

- `requests.exceptions.ConnectionError` – A connection to the provided DRS instance could not be established.
- `drs_cli.errors.InvalidResponseError` – The response could not be validated against the API schema.

get_access_url (*object_id*: str, *access_id*: str, *token*: Optional[str] = None) → Union[drs_cli.models.AccessURL, drs_cli.models.Error]

Retrieve access URL of DRS object.

Parameters

- **object_id** – Implementation-specific DRS identifier OR hostname-based DRS URI pointing to a given object, cf. https://ga4gh.github.io/data-repository-service-schemas/preview/develop/docs/#_hostname_based_drs_uris.
- **access_id** – Identifier of one of a DRS object’s access methods.
- **token** – Bearer token for authentication. Set if required by DRS implementation and if not provided when instatiating client or if expired.

Returns Unmarshalled DRS response as either an instance of *AccessURL* in case of a *200* response, or an instance of *Error* for all other reponses.

Raises

- `requests.exceptions.ConnectionError` – A connection to the provided DRS instance could not be established.
- `drs_cli.errors.InvalidResponseError` – The response could not be validated against the API schema.

get_object (*object_id*: str, *token*: Optional[str] = None) → Union[drs_cli.models.Error, drs_cli.models.DrsObject]
Retrieve DRS object.

Parameters

- **object_id** – Implementation-specific DRS identifier OR hostname-based DRS URI pointing to a given object, cf. https://ga4gh.github.io/data-repository-service-schemas/preview/develop/docs/#_hostname_based_drs_uris.
- **token** – Bearer token for authentication. Set if required by DRS implementation and if not provided when instatiating client or if expired.

Returns Unmarshalled DRS response as either an instance of *DRSObject* in case of a 200 response, or an instance of *Error* for all other JSON reponses.

Raises

- `requests.exceptions.ConnectionError` – A connection to the provided DRS instance could not be established.
- `drs_cli.errors.InvalidResponseError` – The response could not be validated against the API schema.

post_object (*object_data*: Dict[KT, VT], *token*: Optional[str] = None) → Union[str, drs_cli.models.Error]
Register DRS object.

Parameters

- **object_data** – DRS object data.
- **token** – Bearer token for authentication. Set if required by DRS implementation and if not provided when instatiating client or if expired.

Returns ID of registered DRS object in case of a 200 response, or an instance of *Error* for all other responses.

Raises

- `requests.exceptions.ConnectionError` – A connection to the provided DRS instance could not be established.
- `drs_cli.errors.InvalidObjectData` – The object data payload could not be validated against the API schema.
- `drs_cli.errors.InvalidResponseError` – The response could not be validated against the API schema.

1.1.3 drs_cli.errors module

exception `drs_cli.errors.InvalidObjectData`

Bases: `Exception`

Exception raised when object data cannot be validated against the API schema.

exception `drs_cli.errors.InvalidResponseError`

Bases: `Exception`

Exception raised when an invalid API response is encountered.

exception `drs_cli.errors.InvalidURI`

Bases: `Exception`

Exception raised for invalid URIs.

```
drs_cli.errors.exception_handler (_type: type, value: BaseException, traceback: traceback) →  
None
```

Error handler for all exceptions.

1.1.4 drs_cli.models module

API models; autogenerated by <https://github.com/koxudaxi/datamodel-code-generator/>.

```
class drs_cli.models.AccessMethod  
    Bases: pydantic.main.BaseModel
```

```
class drs_cli.models.AccessPostMethod  
    Bases: pydantic.main.BaseModel
```

```
class drs_cli.models.AccessURL  
    Bases: pydantic.main.BaseModel
```

```
class drs_cli.models.Checksum  
    Bases: pydantic.main.BaseModel
```

```
class drs_cli.models.DrsObject  
    Bases: pydantic.main.BaseModel
```

```
class drs_cli.models.Error  
    Bases: pydantic.main.BaseModel
```

```
class drs_cli.models.PostDrsObject  
    Bases: pydantic.main.BaseModel
```

```
class drs_cli.models.Type  
    Bases: enum.Enum
```

An enumeration.

```
file = 'file'
```

```
ftp = 'ftp'
```

```
globus = 'globus'
```

```
gs = 'gs'
```

```
gsiftp = 'gsiftp'
```

```
htsget = 'htsget'
```

```
https = 'https'
```

```
s3 = 's3'
```

CHAPTER 2

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