

# Package ‘galvanizer’

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---

create\_results\_analyses

*Create, Update or Delete Results - Analyses*

---

**Description**

Create, Update or Delete Results - Analyses

**Usage**

create\_results\_analyses(auth, collection\_id, name, ...)

update\_results\_analyses(auth, analysis\_id, ...)

delete\_results\_analyses(auth, analysis\_id)

**Arguments**

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
collection_id	The ID number of the collection
name	The name of the Results object to create
...	List(s) to add additional data
analysis_id	The ID number of the analyses

## Details

Each endpoint has a list of required elements, as listed in the parameters.

For optional data, such as attributes, you may pass additional lists. The top level name of this optional list should match the name of the json level to be added, with key-value pairs within the list. Ultimately, this list object will be added as a child json level, under the 'data' top level json.

For example: attributes is a json is nested under data, and therefore should be created as the name of the object. Then additional information can be added to it as a key-value pair to the list.

## Value

If creating or updating, a data frame with the new details. When deleting, JSON response indicating success or failure.

## Functions

- update\_results\_analyses: Update an analyses
- delete\_results\_analyses: Delete an analyses

---

create\_results\_collections

*Create, Update or Delete Results - Collections*

---

## Description

Create, Update or Delete Results - Collections

## Usage

```
create_results_collections(auth, name, ...)
```

```
update_results_collections(auth, collection_id, ...)
```

```
delete_results_collections(auth, collection_id)
```

## Arguments

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
name	The name of the Results object to create
...	List(s) to add additional data
collection_id	The ID number of the collection

## Details

Each endpoint has a list of required elements, as listed in the parameters.

For optional data, such as attributes, you may pass additional lists. The top level name of this optional list should match the name of the json level to be added, with key-value pairs within the list. Ultimately, this list object will be added as a child json level, under the 'data' top level json.

For example: attributes is a json is nested under data, and therefore should be created as the name of the object. Then additional information can be added to it as a key-value pair to the list.

## Value

If creating or updating, a data frame with the new details. When deleting, JSON response indicating success or failure.

## Functions

- update\_results\_collections: Update a collection
- delete\_results\_collections: Delete a collection

## Examples

```
## Not run:
# Create and delete a Collection
auth <- setup_highbond(Sys.getenv('highbond_openapi'),
  Sys.getenv('highbond_org'),
  Sys.getenv('highbond_datacenter'))

name <- 'galvanizer Test Collection'
response <- create_results_collections(auth, name)
collection_id <- response$id[[1]]
response <- delete_results_collections(auth, collection_id)

# Create a Collection with attributes
myattr <- list(description = 'My first description')
response <- create_results_collections(auth, name, attributes = myattr)
collection_id <- response$id[[1]]

# Update a Collection with attributes
myattr <- list(name = 'galvanizer Super Test Collection', description = 'My second description')
response <- update_results_collections(auth, collection_id, attributes = myattr)

# Delete a Collection
response <- delete_results_collections(auth, collection_id)

## End(Not run)
```

---

`create_results_columns`*Create or Delete Results - Columns*

---

## Description

`post_results_records` will upload a data frame with the correct specification for the fields uploaded. You can use this function to add columns manually if preferred, especially if a non-standard column type.

## Usage

```
create_results_columns(auth, table_id, columns)
```

## Arguments

<code>auth</code>	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
<code>table_id</code>	The ID number of the table
<code>columns</code>	A data frame with columns to be added

## Details

When creating columns, the argument will accept a data frame. This data frame must only have three columns - `field_name`, `display_name`, and `data_type`. See API for allowable `data_type`.

When deleting columns, the argument will accept a data frame. This data frame must only have one column - `field_name`

## Value

If creating or updating, a data frame with the new details. When deleting, JSON response indicating success or failure.

## Examples

```
## Not run:
auth <- setup_highbond(Sys.getenv('highbond_openapi'),
  Sys.getenv('highbond_org'),
  Sys.getenv('highbond_datacenter'))

field_name <- c("a", "b", "c", "d", "e", "f", "g")
display_name <- c("field_one", "field_two", "field_three",
  "field_four", "field_five", "field_six", "field_seven")
data_type <- c("character", "numeric", "logical",
  "date", "datetime", "file", "digital_signature")
columns <- data.frame(field_name, display_name, data_type)

table_id <- 12345
response <- create_results_columns(auth, table_id, columns)
```

```
## End(Not run)
```

---

create\_results\_tables *Create, Update or Delete Results - Tables*

---

### Description

Create, Update or Delete Results - Tables

### Usage

```
create_results_tables(auth, analysis_id, name, ...)
```

```
update_results_tables(auth, table_id, ...)
```

```
delete_results_tables(auth, table_id)
```

### Arguments

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
analysis_id	The ID number of the analyses
name	The name of the Results object to create
...	List(s) to add additional data
table_id	The ID number of the table

### Details

Each endpoint has a list of required elements, as listed in the parameters.

For optional data, such as attributes, you may pass additional lists. The top level name of this optional list should match the name of the json level to be added, with key-value pairs within the list. Ultimately, this list object will be added as a child json level, under the 'data' top level json.

For example: attributes is a json is nested under data, and therefore should be created as the name of the object. Then additional information can be added to it as a key-value pair to the list.

### Value

If creating or updating, a data frame with the new details. When deleting, JSON response indicating success or failure.

### Functions

- update\_results\_tables: Update an analyses
- delete\_results\_tables: Delete an analyses

---

get_projects	<i>Retrieve Highbond Projects - Projects</i>
--------------	--

---

## Description

Downloads the primary details of one or all projects

## Usage

```
get_projects(  
  auth,  
  project_id = NULL,  
  fields = NULL,  
  pagesize = 50,  
  waittime = 0.2  
)
```

## Arguments

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
project_id	Project ID number. NULL will default to all items.
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

## Details

Fields allowed: name, state, status, created\_at, updated\_at, description, background, budget, position, certification, control\_performance, risk\_assurance, management\_response, max\_sample\_size, number\_of\_testing\_rounds, opinion, opinion\_description, purpose, scope, start\_date, target\_date, tag\_list, project\_type, entities

## Value

A tibble of projects

## Examples

```
## Not run:  
projects <- get_projects(auth)  
projects <- get_projects(auth, fields = c('name', 'state', 'status'))  
  
## End(Not run)
```

---

get\_project\_actions     *Retrieve Highbond Project - Actions*

---

### Description

"An action is a specific follow-up measure that is associated with an identified issue. You can add actions and assign action owners. You can also set up reminders for yourself to retest issues or track hours spent on retesting by self-assigning actions."

### Usage

```
get_project_actions(
  auth,
  issue_id = NULL,
  action_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

### Arguments

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
issue_id	Required if other parameter is blank. May obtain multiple rows.
action_id	Required if other parameter is blank. Will get only one.
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

### Details

possible fields: title, created\_at, updated\_at, owner\_name, owner\_email, send\_recurring\_reminder, include\_issue\_details, include\_remediation\_details, description, due\_date, priority, closed, completed\_date, status, submitted\_on, custom\_attributes, issue, assigned\_by, cc\_users

### Value

A tibble of actions



---

`get_project_collaborators`*Retrieve Highbond Projects - Collaborators*

---

## Description

Get the collaborators, aka user roles in Project or Framework.

## Usage

```
get_project_collaborators(  
  auth,  
  project_id = NULL,  
  encoded_uid = NULL,  
  fields = NULL,  
  pagesize = 50,  
  waittime = 0.2  
)
```

## Arguments

<code>auth</code>	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
<code>project_id</code>	Required if other parameter is blank.
<code>encoded_uid</code>	Required if the other parameter is blank. Base64 encoded parent resource id (project or framework) and user uid, encoded from format <code>parent_resource_id:user_uid..</code>
<code>fields</code>	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
<code>pagesize</code>	Defaults to 50. Maximum is 100.
<code>waittime</code>	Time in seconds to wait between requests.

## Details

Fields allowed: `project`, `framework`, `user`, `project_role`, `effective_role`, `organization_role`, `created_at`, `updated_at`, `group`

## Value

A tibble of collaborators

---

get\_project\_controls    *Retrieve Highbond Project - Controls*

---

### Description

"A control is a program, policy, routine, or activity that is intended to mitigate a risk. Controls are organized by objectives, and can be associated with one or more risks. The combination of identified risks and corresponding controls defines the Risk Control Matrix. Controls are also known as procedures."

### Usage

```
get_project_controls(
  auth,
  objective_id = NULL,
  control_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

### Arguments

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
objective_id	Required if other parameter is blank. May obtain multiple rows.
control_id	Required if other parameter is blank. Will get only one.
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

### Details

possible fields: title, description, control\_id, owner, frequency, control\_type, prevent\_detect, method, status, position, created\_at, updated\_at, custom\_attributes, objective, walkthrough, control\_test\_plan, control\_tests, mitigations, owner\_user, entities

### Value

A tibble of controls

---

`get_project_control_tests`*Retrieve Highbond Project - Control Tests*

---

**Description**

"Control tests evaluate the operating effectiveness of a control."

**Usage**

```
get_project_control_tests(  
  auth,  
  control_test_id,  
  fields = NULL,  
  pagesize = 50,  
  waittime = 0.2  
)
```

**Arguments**

<code>auth</code>	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
<code>control_test_id</code>	Will get only one.
<code>fields</code>	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
<code>pagesize</code>	Defaults to 50. Maximum is 100.
<code>waittime</code>	Time in seconds to wait between requests.

**Details**

Only applicable to test plans with Internal Control types

**Value**

A tibble of control tests

---

`get_project_control_test_plans`*Retrieve Highbond Project - Test Plans*

---

### Description

"A test plan is a document that details how controls are assessed. Test plans identify the testing method or type of evidence obtained, specify the total sample size (split amongst testing rounds), and illustrate test steps or attributes."

### Usage

```
get_project_control_test_plans(  
  auth,  
  control_test_plan_id,  
  fields = NULL,  
  pagesize = 50,  
  waittime = 0.2  
)
```

### Arguments

<code>auth</code>	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
<code>control_test_plan_id</code>	Will get only one.
<code>fields</code>	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
<code>pagesize</code>	Defaults to 50. Maximum is 100.
<code>waittime</code>	Time in seconds to wait between requests.

### Details

Only applicable to test plans with Internal Control types

possible fields: `testing_round_number`, `not_applicable`, `sample_size`, `testing_results`, `testing_conclusion`, `created_at`, `updated_at`, `control`, `assigned_user`

### Value

A tibble of control test plans

---

get\_project\_entities    *Retrieve Highbond Projects - Entities*

---

**Description**

Get all the entities

**Usage**

```
get_project_entities(  
  auth,  
  entity_id = NULL,  
  fields = NULL,  
  pagesize = 50,  
  waittime = 0.2  
)
```

**Arguments**

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
entity_id	NULL will default to all entities.
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

**Details**

Fields allowed: title, description, created\_at, updated\_at, parent, children\_count, entity\_category

**Value**

A tibble of entities

---

get\_project\_entity\_categories  
*Retrieve Highbond Projects - Entity Categories*

---

**Description**

Get all the entity categories

**Usage**

```

get_project_entity_categories(
  auth,
  entity_category_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)

```

**Arguments**

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
entity_category_id	NULL will default to all entity categories
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

**Details**

Fields allowed: title, description, position, entities\_count, created\_at, updated\_at, entities

**Value**

A tibble of entities

---

get_project_issues	<i>Retrieve Highbond Project - Issues</i>
--------------------	---

---

**Description**

"An issue is a problem, control gap, or exception that has been identified within a project. Adding an issue involves recording basic information about the issue and assigning the issue to an owner. Issues may also be known as deficiencies, findings, or another customized term."

**Usage**

```

get_project_issues(
  auth,
  project_id = NULL,
  issue_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)

```

**Arguments**

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
project_id	Required if other parameter is blank. May obtain multiple rows.
issue_id	Required if other parameter is blank. Will get only one.
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

**Details**

possible fields: title, description, creator\_name, created\_at, updated\_at, position, owner, recommendation, deficiency\_type, severity, published, identified\_at, reference, reference\_prefix, risk, scope, escalation, cause, effect, cost\_impact, executive\_summary, executive\_owner, project\_owner, closed, remediation\_status, remediation\_plan, remediation\_date, actual\_remediation\_date, retest\_deadline\_date, actual\_retest\_date, retesting\_results\_overview, custom\_attributes, project, entities

**Value**

A tibble of issues

---

```
get_project_mitigations
```

*Retrieve Highbond Project - Mitigations*

---

**Description**

The mapping between controls and risks

**Usage**

```
get_project_mitigations(
  auth,
  mitigation_id,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

**Arguments**

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
mitigation_id	Will get only one.
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

**Value**

A tibble of mitigations

---

```
get_project_narratives
```

*Retrieve Highbond Project - Narratives*

---

**Description**

"A narrative is a description of a business process or area under review. Narratives are also known as policies, process narratives, process descriptions, or control guides."

**Usage**

```
get_project_narratives(  
  auth,  
  objective_id = NULL,  
  narrative_id = NULL,  
  fields = NULL,  
  pagesize = 50,  
  waittime = 0.2  
)
```

**Arguments**

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
objective_id	Required if other parameter is blank. May obtain multiple rows.
narrative_id	Required if other parameter is blank. Will get only one row.
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

**Details**

possible fields: title, description, created\_at, updated\_at, objective

**Value**

A tibble of narratives



---

`get_project_objectives`*Retrieve Highbond Project - Objectives*

---

**Description**

Downloads the primary details of one or multiple objectives for a project. Also known as sections, processes, cycles, functional areas, application systems, or another custom term.

**Usage**

```
get_project_objectives(  
  auth,  
  project_id = NULL,  
  objective_id = NULL,  
  fields = NULL,  
  pagesize = 50,  
  waittime = 0.2  
)
```

**Arguments**

<code>auth</code>	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
<code>project_id</code>	Required if other parameter is blank. May obtain multiple rows.
<code>objective_id</code>	Required if other parameter is blank. Will get only one row.
<code>fields</code>	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
<code>pagesize</code>	Defaults to 50. Maximum is 100.
<code>waittime</code>	Time in seconds to wait between requests.

**Details**

possible fields: title, description, reference, division\_department, owner, executive\_owner, created\_at, updated\_at, project, assigned\_user, custom\_attributes, position, risk\_control\_matrix\_id, walkthrough\_summary\_id, testing\_round\_1\_id, testing\_round\_2\_id, testing\_round\_3\_id, testing\_round\_4\_id, entities

**Value**

A tibble of objectives

---

`get_project_planning_files`*Retrieve Highbond Project - Planning Files*

---

## Description

Downloads the primary details of one or multiple planning files for a project.

## Usage

```
get_project_planning_files(  
  auth,  
  project_id = NULL,  
  planning_file_id = NULL,  
  fields = NULL,  
  pagesize = 50,  
  waittime = 0.2  
)
```

## Arguments

<code>auth</code>	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
<code>project_id</code>	Required if other parameter is blank. May obtain multiple rows.
<code>planning_file_id</code>	Required if other parameter is blank. Will get only one row.
<code>fields</code>	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
<code>pagesize</code>	Defaults to 50. Maximum is 100.
<code>waittime</code>	Time in seconds to wait between requests.

## Details

possible fields: name, reference\_id, description, position, created\_at, updated\_at, custom\_attributes, project

## Value

A tibble of planning files.

---

`get_project_request_items`*Retrieve Highbond Project - Request Items*

---

**Description**

Capture what you asked for

**Usage**

```
get_project_request_items(  
  auth,  
  request_id,  
  fields = NULL,  
  pagesize = 50,  
  waittime = 0.2  
)
```

**Arguments**

<code>auth</code>	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
<code>request_id</code>	Will get only one.
<code>fields</code>	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
<code>pagesize</code>	Defaults to 50. Maximum is 100.
<code>waittime</code>	Time in seconds to wait between requests.

**Value**

A tibble of walkthroughs

---

`get_project_result_files`*Retrieve Highbond Project - Result Files*

---

**Description**

Downloads the primary details of one or multiple result files for a project.

**Usage**

```
get_project_result_files(
  auth,
  project_id = NULL,
  results_file_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

**Arguments**

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
project_id	Required if other parameter is blank. May obtain multiple rows.
results_file_id	Required if other parameter is blank. Will get only one row.
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

**Details**

possible fields: name, reference\_id, description, position, created\_at, updated\_at, custom\_attributes, project

**Value**

A tibble of result files

---

get_project_risks	<i>Retrieve Highbond Project - Risks</i>
-------------------	--

---

**Description**

"A narrative is a description of a business process or area under review. Narratives are also known as policies, process narratives, process descriptions, or control guides."

**Usage**

```
get_project_risks(
  auth,
  objective_id = NULL,
  risk_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

**Arguments**

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
objective_id	Required if other parameter is blank. May obtain multiple rows.
risk_id	Required if other parameter is blank. Will get only one.
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

**Details**

possible fields: title, description, risk\_id, position, impact, likelihood, custom\_attributes, created\_at, updated\_at, objective, mitigations, entities

**Value**

A tibble of Risks

---

get_project_types	<i>Retrieve Highbond Projects - Project Types</i>
-------------------	---

---

**Description**

Downloads the primary details of one or all project types.

**Usage**

```
get_project_types(
  auth,
  project_type_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

**Arguments**

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
project_type_id	NULL Defaults to all project types
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

**Details**

Possible fields include: name, description, workflow, project\_terms, certification\_terms, control\_terms, finding\_terms, control\_test\_terms, finding\_action\_terms, narrative\_terms, objective\_terms, planning\_terms, results\_terms, risk\_terms, test\_plan\_terms, walkthrough\_terms

**Value**

A tibble of project types

---

get\_project\_type\_custom\_attributes

*Retrieve Highbond Projects - Project Type Custom Attributes*

---

**Description**

Get the custom attributes set within a project type. Note these are different than the custom terms used to rename fields. For those, see [get\\_project\\_types](#)

**Usage**

```
get_project_type_custom_attributes(
  auth,
  project_type_id = NULL,
  custom_attributes_id = NULL,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

**Arguments**

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
project_type_id	Required if other parameter is blank.
custom_attributes_id	Required if the other parameter is blank. Base64 encoded parent resource id (project or framework) and user uid, encoded from format parent_resource_id:user_uid..
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

**Value**

A tibble of custom attributes

---

 get\_project\_walkthroughs

*Retrieve Highbond Project - Walkthroughs / Execute Procedures*


---

### Description

"A walkthrough is a series of steps you perform to establish the reliability of controls and test the design of controls. Each control you define has a corresponding walkthrough that is used to verify that the control is designed appropriately. In a Workplan workflow project, a walkthrough is called an execute procedure."

### Usage

```
get_project_walkthroughs(
  auth,
  walkthrough_id,
  fields = NULL,
  pagesize = 50,
  waittime = 0.2
)
```

### Arguments

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
walkthrough_id	Will get only one.
fields	OPTIONAL. A character vector each field requested within the project. NULL will default to all fields.
pagesize	Defaults to 50. Maximum is 100.
waittime	Time in seconds to wait between requests.

### Value

A tibble of walkthroughs

---

 get\_results\_analyses *Retrieve Highbond Results - Analyses*


---

### Description

Downloads a list of Analyses in a Collection

### Usage

```
get_results_analyses(auth, collection_id = NULL, analysis_id = NULL)
```

**Arguments**

auth                    Highbond authentication credentials, created from [setup\\_highbond](#)  
collection\_id        Collection ID. Required if other parameter is blank.  
analysis\_id         Analyses ID. Required if other parameter is blank.

**Value**

A data frame of Analyses in a Collection

---

get\_results\_collections

*Retrieve Highbond Results - Collections*

---

**Description**

Downloads a list of collections

**Usage**

```
get_results_collections(auth, collection_id = NULL)
```

**Arguments**

auth                    Highbond authentication credentials, created from [setup\\_highbond](#)  
collection\_id        Collection ID. Optional.

**Value**

A data frame of Collections

---

get\_results\_columns

*Retrieve Highbond Results - Columns*

---

**Description**

Gets the schema of a single table.

**Usage**

```
get_results_columns(auth, table_id)
```

**Arguments**

auth                    Highbond authentication credentials, created from [setup\\_highbond](#)  
table\_id              Table ID. Required.



**Value**

A data frame column name and types of a single Table

---

get_results_records	<i>Retrieve Highbond Results - Records</i>
---------------------	--

---

**Description**

Downloads the content in the structure as saved by Highbond Results, including metadata and questionnaire responses (if applicable).

**Usage**

```
get_results_records(auth, table_id, timezone = Sys.timezone())
```

**Arguments**

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
table_id	The table to be downloaded
timezone	Defaults to Sys.timezone(). See OlsonNames() for a list of allowable time-zones.

**Details**

Table ID can be found in the path of your Result table. [https://<company\\_name>.results.highbond.com/projects/<COLLECTI](https://<company_name>.results.highbond.com/projects/<COLLECTI)

**Value**

A list containing the contents, table requested and the original response

**Examples**

```
## Not run:  
response <- get_results_records(auth, 567890)  
  
## End(Not run)
```

---

get\_results\_tables     *Retrieve Highbond Results - Tables*

---

**Description**

Downloads the primary details of one or all tables in an Analyses

**Usage**

```
get_results_tables(auth, analysis_id = NULL, table_id = NULL)
```

**Arguments**

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
analysis_id	Analysis ID. Required if other parameter is blank.
table_id	Table ID. Required if other parameter is blank.

**Value**

A data frame of Tables in an Analyses

---

post\_results\_records     *Upload Highbond Results - Records*

---

**Description**

Uploads the content in to Highbond Results.

**Usage**

```
post_results_records(  
  auth,  
  table_id,  
  upload = NULL,  
  purge = FALSE,  
  skipquestions = FALSE,  
  sizelimit = 75000  
)
```

## Arguments

auth	Highbond authentication credentials, created from <a href="#">setup_highbond</a>
table_id	The table to be downloaded
upload	A data frame to be uploaded. Classes supported are c('character', 'numeric', 'logical', 'Date', 'POSIXct', 'POSIXlt')
purge	FALSE by default. Whether or not to delete the contents of the table before overwriting.
skipquestions	FALSE by default. Set TRUE if not purging and you don't want to overwrite the responses within the Results table already.
sizelimit	75000 bytes (~75 kb) by default. Used to estimate chunk size. Reduce size if upload chunks tend to fail.

## Details

Current Results in the table can be purged or not. If data is not purged, a check is performed that compatible types are being upload and all fields exist. If purged, there will be no checks done beforehand, which may alter structure of existing table.

If the Result table contains questionnaire responses, then any records that are being updated may need to have the responses also included as well. These fields are usually prefixed with a 'q'.

A result row is generally appended, however a Primary Key field within the Data Analytic Settings for that table may be specified so a record with the same primary key may be merged, rather than duplicated.

## Value

No return value, although errors will be verbose

## Examples

```
## Not run:
upload <- data.frame(field_one = c('A','B','C'),
  field_two = c(1, 2, 3),
  field_three = c(10L, 11L, 12L),
  field_four = c(TRUE, FALSE, TRUE),
  field_five = c(as.Date('2019-01-01'), as.Date('2020-01-01'), as.Date('2021-12-31')),
  field_six = c(as.POSIXct(Sys.time()), as.POSIXct(Sys.time()), as.POSIXct(Sys.time())))
post_results_records(auth, upload = upload, purge = TRUE)

## End(Not run)
```

---

setup_highbond	<i>Highbond Authentication credentials</i>
----------------	--

---

**Description**

Assembles all the core authentication needed to connect to a Highbond instance.

**Usage**

```
setup_highbond(apikey, instance, datacenter)
```

**Arguments**

apikey	Highbond API token
instance	The HighBond instance ID, also known as the organization number
datacenter	The region code. Can be 'us', 'ca', 'eu', 'ap', 'au'

**Details**

Requires a Highbond API token. Activate a token from [https://help.highbond.com/helpdocs/highbond/en-us/Content/launchpad/getting\\_started/managing\\_access\\_tokens.html](https://help.highbond.com/helpdocs/highbond/en-us/Content/launchpad/getting_started/managing_access_tokens.html).

The Instance (Organization) number and datacenter can both be found from the Highbond launchpad, then accessing Options and Organization. [https://accounts.highbond.com/orgs/<ORG\\_ID>/details](https://accounts.highbond.com/orgs/<ORG_ID>/details)

**Value**

A Highbond Authentication credentials object to pass to your requests

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