

# Package ‘trud’

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**Title** Query the 'NHS TRUD API'

**Version** 0.2.1

**Description** Provides a convenient R interface to the 'National Health Service NHS Technology Reference Update Distribution (TRUD) API', allowing users to list available releases for their subscribed items, retrieve metadata, and download release files. For more information on the API, see <https://isd.digital.nhs.uk/trud/users/guest/filters/0/api>.

**License** MIT + file LICENSE

**Encoding** UTF-8

**RoxygenNote** 7.3.2

**Depends** R (>= 4.2.0)

**Imports** cli, dplyr, httr2, purrr, rlang, rvest, stringr, tibble

**URL** <https://docs.ropensci.org/trud/>, <https://github.com/ropensci/trud>

**BugReports** <https://github.com/ropensci/trud/issues>

**Suggests** knitr, rmarkdown, spelling, testthat (>= 3.0.0), withr

**Config/testthat/edition** 3

**Language** en-US

**VignetteBuilder** knitr

**NeedsCompilation** no

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download_item	<i>Download NHS TRUD item</i>
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### Description

Downloads files for a specified NHS TRUD item. By default this downloads the latest release. Use the item numbers from [trud\\_items\(\)](#) or [get\\_subscribed\\_metadata\(\)](#).

#### Subscription Required

You must subscribe to TRUD items individually through the NHS TRUD website before you can access them using [get\\_item\\_metadata\(\)](#) or [download\\_item\(\)](#). Simply having an API key is not sufficient. To see items you're already subscribed to, use [get\\_subscribed\\_metadata\(\)](#). To browse all available items, use [trud\\_items\(\)](#).

### Usage

```
download_item(
  item,
  directory = ".",
  file_type = c("archive", "checksum", "signature", "publicKey"),
  release = NULL,
  overwrite = FALSE
)
```

### Arguments

item	An integer, the item to be downloaded. Get these from <a href="#">trud_items()</a> or <a href="#">get_subscribed_metadata()</a> .
directory	Path to the directory to which this item will be downloaded to. This is set to the current working directory by default.
file_type	The type of file to download. Options are "archive" (the main release file), "checksum", "signature", or "publicKey". Defaults to "archive".
release	The release ID to be downloaded. Release IDs are found in the id field of each release from <a href="#">get_item_metadata()</a> . If NULL (default), the latest item release will be downloaded.
overwrite	If TRUE, existing files will be overwritten. If FALSE (default), existing files will be skipped and the function will return the existing file path.

**Value**

The file path to the downloaded file, returned invisibly.

**Working with specific releases**

To download a specific (non-latest) release:

1. Use `get_item_metadata()` with `release_scope = "all"` to retrieve metadata for all releases
2. The release IDs are stored under the `id` item for each release
3. Pass the desired release ID to the `release` parameter of `download_item()`

**See Also**

- `trud_items()` to find item numbers
- `get_subscribed_metadata()` to see items you can access
- `get_item_metadata()` to explore available releases before downloading

**Examples**

```
# Download Community Services Data Set pre-deadline extract XML Schema
x <- download_item(394, directory = tempdir())

# List downloaded files
unzip(x, list = TRUE)

# Download a previous release
# First get all releases to see available options
metadata <- get_item_metadata(394, release_scope = "all")
release_id <- metadata$releases[[2]]$id

y <- download_item(394, directory = tempdir(), release = release_id)

unzip(y, list = TRUE)

# Overwrite existing files if needed
z <- download_item(394, directory = tempdir(), overwrite = TRUE)

# An informative error is raised if your API key is invalid or missing
try(withr::with_envvar(c("TRUD_API_KEY" = ""), download_item(394)))
```

**Description**

Sends a request to the release list endpoint, returning a list of metadata pertaining to the specified NHS TRUD item. Use the `item` numbers from `trud_items()` or `get_subscribed_metadata()`.

**Subscription Required**

You must subscribe to TRUD items individually through the NHS TRUD website before you can access them using `get_item_metadata()` or `download_item()`. Simply having an API key is not sufficient. To see items you're already subscribed to, use `get_subscribed_metadata()`. To browse all available items, use `trud_items()`.

**Usage**

```
get_item_metadata(item, release_scope = c("all", "latest"))
```

**Arguments**

<code>item</code>	An integer, the item to be downloaded. Get these from <code>trud_items()</code> or <code>get_subscribed_metadata()</code> .
<code>release_scope</code>	Which releases to retrieve metadata for. Use "all" to get all releases, or "latest" to get only the most recent release.

**Value**

A list containing item metadata, including release information that can be used with `download_item()`. Release IDs for specific downloads are in the `id` field of each release.

**See Also**

- `trud_items()` to find item numbers
- `get_subscribed_metadata()` to see items you can access
- `download_item()` to download files using this metadata

**Examples**

```
# Get metadata for Community Services Data Set pre-deadline extract XML Schema
get_item_metadata(394) |>
  # Display structure without showing sensitive API keys in URLs
  purrr::map_at("releases", \(release) purrr::map(release, names))

# Include metadata for any previous releases using `release_scope = "all"`
get_item_metadata(394, release_scope = "all") |>
  # Display structure without showing sensitive API keys in URLs
  purrr::map_at("releases", \(release) purrr::map(release, names))

# An informative error is raised if your API key is invalid or missing
try(withr::with_envvar(c("TRUD_API_KEY" = ""), get_item_metadata(394)))
```

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`get_subscribed_metadata`*Get metadata for subscribed NHS TRUD items*

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## Description

A convenience wrapper around `trud_items()` and `get_item_metadata()`, retrieving metadata for only items that the user is subscribed to. This is particularly useful for seeing what data you can download with `download_item()`. If you need access to additional items, browse available options with `trud_items()`, then subscribe through the NHS TRUD website.

## Usage

```
get_subscribed_metadata(release_scope = c("all", "latest"))
```

## Arguments

`release_scope` Which releases to retrieve metadata for. Use "all" to get all releases, or "latest" to get only the most recent release.

## Value

A tibble, with item metadata stored in the list column `metadata`. Use the `item_number` column values with `download_item()`.

## See Also

- `trud_items()` to browse all available items
- `get_item_metadata()` for detailed metadata on specific items
- `download_item()` to download items you're subscribed to

## Examples

```
# Get metadata for all subscribed items
subscribed <- get_subscribed_metadata()

# Show structure without exposing API keys in URLs
subscribed$metadata[[1]] |>
  purrr::map_at("releases", \(release) purrr::map(release, names))
```

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`trud_items`*Get available NHS TRUD items*

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**Description**

Scrapes [this page](#) from the NHS TRUD website for all available items. The `item_number` column in the result contains the identifiers you need for `get_item_metadata()` and `download_item()`.

**Subscription Required**

You must subscribe to TRUD items individually through the NHS TRUD website before you can access them using `get_item_metadata()` or `download_item()`. Simply having an API key is not sufficient. To see items you're already subscribed to, use `get_subscribed_metadata()`. To browse all available items, use `trud_items()`.

**Usage**

```
trud_items()
```

**Value**

A tibble, with columns `item_number` and `item_name`. Use the `item_number` values as arguments to `get_item_metadata()` and `download_item()`.

**See Also**

- `get_subscribed_metadata()` to see only items you're subscribed to
- `get_item_metadata()` to get detailed information about a specific item
- `download_item()` to download files for a specific item

**Examples**

```
trud_items()
```

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