Package 'webdav'

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Type Package

Title A Simple Interface for Interacting with 'WebDAV' Servers

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Description An easy-to-use interface for interacting with 'WebDAV' servers, including 'OwnCloud'. It simplifies the use of 'WebDAV' methods such as COPY, MOVE, DELETE and others.
With built-in authentication and request handling, it allows for easy management of files and directories over the 'WebDAV' protocol.

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`handle_response` *Handle HTTP response from Server*

Description

This function processes the response from the WebDAV server, checking for errors.

Usage

```
handle_response(response)
```

Arguments

`response`	The response object from an ‘httr2‘ request.

Value

The processed response object if successful, or an error if the request failed.

webdav_copy_file *Copy a resource on the WebDAV server*

Description

This function copies a resource from one URI to another on the WebDAV server using the COPY method. It validates the provided parameters and handles errors during the copy process.

Usage

```
webdav_copy_file(
  base_url,
  from_path,
  to_path,
  username = Sys.getenv("WEBDAV_USERNAME"),
  password = Sys.getenv("WEBDAV_PASSWORD"),
  overwrite = TRUE,
  verbose = FALSE
)
```

Arguments

base_url	The base URL of the WebDAV server.
from_path	The source path of the resource to copy.
to_path	The destination path where the resource will be copied.
username	The username for WebDAV authentication. Defaults to the "WEBDAV_USERNAME" environment variable.
password	The password for WebDAV authentication. Defaults to the "WEBDAV_PASSWORD" environment variable.
overwrite	Logical. If TRUE (the default, matching the WebDAV protocol default), an existing resource at ‘to_path‘ is overwritten.
verbose	Logical. If TRUE, prints detailed messages during the copy process.

Value

‘TRUE‘ if the resource was copied successfully, ‘FALSE‘ (with a warning) otherwise. Invalid arguments raise an error.

Examples

```
# Example usage with a public WebDAV server.
# Visit test_server$url link to view the results of the operation.
library(httr2)
test_server <- "http://webdavserver.net/" |>
  request() |>
  req_retry(max_tries = 1, max_seconds = 2, backoff =  ~ 1) |>
```

```
  req_perform() |>
  try(silent = TRUE)

# Copy a file on the WebDAV server
if (!inherits(test_server, "try-error"))
  webdav_copy_file(base_url = test_server$url,
    from_path = "Project.pdf",
    to_path = "Project-copy.pdf",
    verbose = TRUE)
```

`webdav_create_directory` *Create a collection (directory) on a WebDAV server*

Description

This function creates a collection (directory/folder) on the WebDAV server using the MKCOL method. It validates parameters and handles errors during the process.

Usage

```
webdav_create_directory(
  base_url,
  folder_path,
  username = Sys.getenv("WEBDAV_USERNAME"),
  password = Sys.getenv("WEBDAV_PASSWORD"),
  verbose = FALSE
)
```

Arguments

`base_url`	The base URL of the WebDAV server (e.g., "https://example.com/remote.php/dav/files/").
`folder_path`	The path of the directory to create.
`username`	The username for WebDAV authentication. Defaults to the "WEBDAV_USERNAME" environment variable.
`password`	The password for WebDAV authentication. Defaults to the "WEBDAV_PASSWORD" environment variable.
`verbose`	Logical. If TRUE, prints detailed messages during the directory creation process.

Value

'TRUE' if the collection was created successfully, 'FALSE' (with a warning) otherwise. Invalid arguments raise an error.

Examples

```
# Example usage with a public WebDAV server.
# Visit test_server$url link to view the results of the operation.
library(httr2)
test_server <- "http://webdavserver.net/" |>
  request() |>
  req_retry(max_tries = 1, max_seconds = 2, backoff =  ~ 1) |>
  req_perform() |>
  try(silent = TRUE)

# Create a directory on the WebDAV server
if (!inherits(test_server, "try-error"))
 webdav_create_directory(base_url = test_server$url, folder_path = "Test_Folder", verbose = TRUE)
```

---

webdav_create_request *Create a request for the WebDAV server*

Description

This function creates a base request for the WebDAV server with proper authentication. It validates the provided parameters and handles errors during the connection setup.

Usage

```
webdav_create_request(
  base_url,
  username = Sys.getenv("WEBDAV_USERNAME"),
  password = Sys.getenv("WEBDAV_PASSWORD"),
  verbose = FALSE
)
```

Arguments

base_url	The base URL of the WebDAV server (e.g., "https://example.com/remote.php/dav/files/").
username	The username for WebDAV authentication. Defaults to the "WEBDAV_USERNAME" environment variable.
password	The password for WebDAV authentication. Defaults to the "WEBDAV_PASSWORD" environment variable.
verbose	Logical. If TRUE, prints detailed messages during the request creation process.

Value

An ‘httr2_request‘ object with authentication and base URL configured, or an error message if the connection fails.

Examples

```
# Example usage with a public WebDAV server.
# Visit test_server$url link to view the results of the operation.
library(httr2)
test_server <- "http://webdavserver.net/" |>
  request() |>
  req_retry(max_tries = 1, max_seconds = 2, backoff =  ~ 1) |>
  req_perform() |>
  try(silent = TRUE)

# Create a request
if (!inherits(test_server, "try-error"))
  req <- webdav_create_request(base_url = test_server$url, verbose = TRUE)
```

`webdav_delete_resource` *Delete a file or directory from the WebDAV server*

Description

This function deletes a file or directory on the WebDAV server using the DELETE method. It validates the provided parameters and handles errors during the process.

Usage

```
webdav_delete_resource(
  base_url,
  resource_path,
  username = Sys.getenv("WEBDAV_USERNAME"),
  password = Sys.getenv("WEBDAV_PASSWORD"),
  verbose = FALSE
)
```

Arguments

`base_url`	The base URL of the WebDAV server.
`resource_path`	The path of the file or directory to delete on the WebDAV server.
`username`	The username for WebDAV authentication. Defaults to the "WEBDAV_USERNAME" environment variable.
`password`	The password for WebDAV authentication. Defaults to the "WEBDAV_PASSWORD" environment variable.
`verbose`	Logical value indicating whether to print detailed debug messages. When TRUE, the function outputs additional information about its progress and actions.

Value

'TRUE' if the file or directory was deleted successfully, 'FALSE' (with a warning) otherwise. Invalid arguments raise an error.

Examples

```
# Example usage with a public WebDAV server.
# Visit test_server$url link to view the results of the operation.
library(httr2)
test_server <- "http://webdavserver.net/" |>
  request() |>
  req_retry(max_tries = 1, max_seconds = 2, backoff =  ~ 1) |>
  req_perform() |>
  try(silent = TRUE)

# Delete a file or directory
if (!inherits(test_server, "try-error"))
 webdav_delete_resource(base_url = test_server$url, resource_path = "Notes.txt", verbose = TRUE)
```

`webdav_download_file` *Download a file from the WebDAV server*

Description

This function downloads a file from the WebDAV server and saves it to a local directory. It validates the provided parameters, handles errors, and optionally prints detailed logs if requested.

Usage

```
webdav_download_file(
  base_url,
  file_path,
  destination_path = ".",
  username = Sys.getenv("WEBDAV_USERNAME"),
  password = Sys.getenv("WEBDAV_PASSWORD"),
  verbose = FALSE
)
```

Arguments

`base_url`	The base URL of the WebDAV server (e.g., "https://example.com/remote.php/dav/files/").
`file_path`	The path of the file on the WebDAV server to download (relative to the ‘base_url‘).
`destination_path`	The local directory where the downloaded file will be saved. Defaults to the current directory.
`username`	The username for WebDAV authentication. Defaults to the "WEBDAV_USERNAME" environment variable.
`password`	The password for WebDAV authentication. Defaults to the "WEBDAV_PASSWORD" environment variable.
`verbose`	Logical. If TRUE, prints detailed messages during the download process.

Value

'TRUE' if the file was downloaded successfully, 'FALSE' (with a warning) otherwise. Invalid arguments raise an error.

Examples

```
# Example usage with a public WebDAV server.
library(httr2)
test_server <- "http://webdavserver.net/" |>
  request() |>
  req_retry(max_tries = 1, max_seconds = 2, backoff =  ~ 1) |>
  req_perform() |>
  try(silent = TRUE)

# Download a file from the WebDAV server
if (!inherits(test_server, "try-error"))
  webdav_download_file(base_url = test_server$url,
    file_path = "Project.pdf",
    destination_path = tempdir(),
    verbose = TRUE)
# Visit test_server$url to view the results of the operation.
```

---

webdav_list_files *List files from a specific folder on WebDAV server*

Description

This function lists the files in a specific folder on the WebDAV server. If no folder path is provided, it lists files from the root directory. The function validates the provided parameters and handles errors during the process.

Usage

```
webdav_list_files(
  base_url,
  folder_path = NULL,
  username = Sys.getenv("WEBDAV_USERNAME"),
  password = Sys.getenv("WEBDAV_PASSWORD"),
  depth = 1,
  verbose = FALSE
)
```

Arguments

base_url	The base URL of the WebDAV server.
folder_path	The path inside WebDAV where the files are located. If not provided or empty, the root folder will be listed.

username	The username for WebDAV authentication. Defaults to the "WEBDAV_USERNAME" environment variable.
password	The password for WebDAV authentication. Defaults to the "WEBDAV_PASSWORD" environment variable.
depth	The depth of the PROPFIND request (default is 1).
verbose	Logical value indicating whether to print detailed debug messages. When TRUE, the function outputs additional information about its progress and actions.

Value

A tibble containing:

display_name The name of the file or directory.

full_path The full URL (href) of the resource.

creation_date The date the resource was created.

last_modified The date the resource was last modified.

content_length The size of the resource in bytes (NA for directories).

is_folder Logical indicating whether the resource is a directory.

Returns ‘NULL‘ if an error occurs during the execution of the function.

Examples

```
# Example usage with a public WebDAV server.
# Visit test_server$url link to view the results of the operation.
library(httr2)
test_server <- "http://webdavserver.net/" |>
  request() |>
  req_retry(max_tries = 1, max_seconds = 2, backoff =  ~ 1) |>
  req_perform() |>
  try(silent = TRUE)

# List files in a directory
if (!inherits(test_server, "try-error"))
  webdav_list_files(base_url = test_server$url, folder_path = "Sales/", verbose = TRUE)
```

---

webdav_move_file *Move or rename a resource on the WebDAV server*

Description

This function moves (or renames) a resource from one URI to another on the WebDAV server using the MOVE method. It validates the provided parameters and handles errors during the move process.

Usage

```
webdav_move_file(
  base_url,
  from_path,
  to_path,
  username = Sys.getenv("WEBDAV_USERNAME"),
  password = Sys.getenv("WEBDAV_PASSWORD"),
  overwrite = TRUE,
  verbose = FALSE
)
```

Arguments

base_url	The base URL of the WebDAV server.
from_path	The source path of the resource to move.
to_path	The destination path of the resource. Moving within the same folder renames the resource.
username	The username for WebDAV authentication. Defaults to the "WEBDAV_USERNAME" environment variable.
password	The password for WebDAV authentication. Defaults to the "WEBDAV_PASSWORD" environment variable.
overwrite	Logical. If TRUE (the default, matching the WebDAV protocol default), an existing resource at ‘to_path‘ is overwritten.
verbose	Logical. If TRUE, prints detailed messages during the move process.

Value

‘TRUE‘ if the resource was moved successfully, ‘FALSE‘ (with a warning) otherwise. Invalid arguments raise an error.

Examples

```
# Example usage with a public WebDAV server.
# Visit test_server$url link to view the results of the operation.
library(httr2)
test_server <- "http://webdavserver.net/" |>
  request() |>
  req_retry(max_tries = 1, max_seconds = 2, backoff =  ~ 1) |>
  req_perform() |>
  try(silent = TRUE)

# Rename a file on the WebDAV server
if (!inherits(test_server, "try-error"))
  webdav_move_file(base_url = test_server$url,
    from_path = "Notes.txt",
    to_path = "Notes-renamed.txt",
    verbose = TRUE)
```

webdav_upload_file *Upload a file to the WebDAV server*

Description

This function uploads a file to a specific folder on the WebDAV server. It validates the provided parameters and handles errors during the process.

Usage

```
webdav_upload_file(
  base_url,
  local_path,
  server_path = "",
  username = Sys.getenv("WEBDAV_USERNAME"),
  password = Sys.getenv("WEBDAV_PASSWORD"),
  timeout = 300,
  verbose = FALSE
)
```

Arguments

base_url	The base URL of the WebDAV server.
local_path	The local path of the file to be uploaded.
server_path	The folder path on the WebDAV server where the file will be uploaded.
username	The username for WebDAV authentication. Defaults to the "WEBDAV_USERNAME" environment variable.
password	The password for WebDAV authentication. Defaults to the "WEBDAV_PASSWORD" environment variable.
timeout	The timeout for the upload request in seconds (default is 300 seconds).
verbose	Logical value indicating whether to print detailed debug messages. When TRUE, the function outputs additional information about its progress and actions.

Value

'TRUE' if the file was uploaded successfully, 'FALSE' (with a warning) otherwise. Invalid arguments raise an error.

Examples

```
# Example usage with a public WebDAV server.
# Visit test_server$url link to view the results of the operation.
library(httr2)
test_server <- "http://webdavserver.net/" |>
  request() |>
  req_retry(max_tries = 1, max_seconds = 2, backoff =  ~ 1) |>
```

```
  req_perform() |>
  try(silent = TRUE)

# Upload a file
file_test <- tempfile(pattern = "teste_", fileext = ".txt")
cat("Text file content", file = file_test)
if (!inherits(test_server, "try-error"))
  webdav_upload_file(base_url = test_server$url, local_path = file_test, verbose = TRUE)
```

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