

# Package ‘condathis’

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**Title** Run Any CLI Tool on a 'Conda' Environment

**Version** 0.1.3

**Description** Simplifies the execution of command line interface (CLI) tools within isolated and reproducible environments. It enables users to effortlessly manage 'Conda' environments, execute command line tools, handle dependencies, and ensure reproducibility in their data analysis workflows.

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**URL** <https://github.com/luciorq/condathis>,  
<https://luciorq.github.io/condathis/>

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---

clean\_cache

*Clean Conda Cache*

---

### Description

This function cleans the Conda cache by removing all packages and tarballs from the local cache directory. It is useful for freeing up disk space and ensuring that the cache does not contain outdated or unnecessary files.

### Usage

```
clean_cache(verbose = c("output", "silent", "cmd", "spinner", "full"))
```

### Arguments

**verbose** A character string indicating the verbosity level of the output. It can be one of "silent", "cmd", "output", or "full". The default is "output".

### Details

Packages that are still linked with existing environments are not be removed. If you expect to clean the whole cache, consider removing all existing environments first using `list_envs()` and `remove_env()`.

### Value

Invisibly returns the result of the underlying command executed.

**Examples**

```
## Not run:
condathis::with_sandbox_dir({
  clean_cache(verbose = "output")
})

## End(Not run)
```

---

create\_env

*Create a Conda Environment*


---

**Description**

Create Conda Environment with specific packages installed to be used by run().

**Usage**

```
create_env(
  packages = NULL,
  env_file = NULL,
  env_name = "condathis-env",
  channels = c("bioconda", "conda-forge"),
  method = c("native", "auto"),
  additional_channels = NULL,
  platform = NULL,
  verbose = c("output", "silent", "cmd", "spinner", "full"),
  overwrite = FALSE
)
```

**Arguments**

|          |   |
|----------|---|
| packages | Character vector. Names of the packages, and version strings if necessary, e.g. 'python=3.13'. The use of the packages argument assumes that env_file is not used.  |
| env_file | Character. Path to the YAML file with Conda Environment description. If this argument is used, the packages argument should not be included in the command.   |
| env_name | Character. Name of the Conda environment where the packages are going to be installed. Defaults to 'condathis-env'.   |
| channels | Character vector. Names of the channels to be included. By default 'c("bioconda", "conda-forge")' are used for solving dependencies.  |
| method   | Character. Backend method to run micromamba, the default is "auto" running "native" with the micromamba binaries installed by condathis. This argument is <b>soft deprecated</b> as changing it don't really do anything. |

|                     |   |
|---------------------|---|
| additional_channels | Character. Additional Channels to be added to the default ones.   |
| platform            | Character. Platform to search for packages. Defaults to NULL which will use the current platform. E.g. "linux-64", "linux-32", "osx-64", "win-64", "win-32", "noarch". Note: on Apple Silicon MacOS will use "osx-64" instead of "osx-arm64" if Rosetta 2 is available and any of the packages is not available for "osx-arm64".  |
| verbose             | Character string specifying the verbosity level of the function's output. Acceptable values are: <ul style="list-style-type: none"> <li>• <b>"output"</b>: Print the standard output and error from the command-line tool to the screen. Note that the order of the standard output and error lines may not be correct, as standard output is typically buffered.</li> <li>• <b>"silent"</b>: Suppress all output from internal command-line tools. Equivalent to FALSE.</li> <li>• <b>"cmd"</b>: Print the internal command(s) passed to the command-line tool. If the standard output and/or error is redirected to a file or they are ignored, they will not be echoed. Equivalent to TRUE.</li> <li>• <b>"full"</b>: Print both the internal command(s) ("cmd") and their standard output and error ("output").</li> <li>• Logical values FALSE and TRUE are also accepted for backward compatibility but are <i>soft-deprecated</i>. Please use "silent" or "output" instead.</li> </ul> |
| overwrite           | Logical. Should environment always be overwritten? Defaults to FALSE.   |

## Value

An object of class `list` representing the result of the command execution. Contains information about the standard output, standard error, and exit status of the command.

## Examples

```
## Not run:
condathis::with_sandbox_dir({
  # Create a Conda environment and install the CLI `fastqc` in it.
  condathis::create_env(
    packages = "fastqc==0.12.1",
    env_name = "fastqc-env",
    verbose = "output"
  )
  #> ! Environment fastqc-env succesfully created.
})

## End(Not run)
```

---

|            |  |
|------------|--|
| env_exists | <i>Check If Environment Already exists</i> |
|------------|--|

---

## Description

This function checks whether a specified Conda environment already exists in the available environments. It returns TRUE if the environment exists and FALSE otherwise.

## Usage

```
env_exists(env_name, verbose = "silent")
```

## Arguments

- |          |   |
|----------|---|
| env_name | Character. Name of the Conda environment where the packages are going to be installed. Defaults to 'condathis-env'.   |
| verbose  | Character string specifying the verbosity level of the function's output. Acceptable values are: <ul style="list-style-type: none"><li>• <b>"output"</b>: Print the standard output and error from the command-line tool to the screen. Note that the order of the standard output and error lines may not be correct, as standard output is typically buffered.</li><li>• <b>"silent"</b>: Suppress all output from internal command-line tools. Equivalent to FALSE.</li><li>• <b>"cmd"</b>: Print the internal command(s) passed to the command-line tool. If the standard output and/or error is redirected to a file or they are ignored, they will not be echoed. Equivalent to TRUE.</li><li>• <b>"full"</b>: Print both the internal command(s) ("cmd") and their standard output and error ("output").</li><li>• Logical values FALSE and TRUE are also accepted for backward compatibility but are <i>soft-deprecated</i>. Please use "silent" or "output" instead.</li></ul> |

## Value

Boolean. TRUE if the environment exists and FALSE otherwise.

## Examples

```
## Not run:
condathis::with_sandbox_dir({
  # Create the environment
  condathis::create_env(
    packages = "fastqc",
    env_name = "fastqc-env"
  )

  # Check if the environment exists
  condathis::env_exists("fastqc-env")
})
```

```
#> [1] TRUE

# Check for a non-existent environment
condathis::env_exists("non-existent-env")
#> [1] FALSE
})

## End(Not run)
```

---

get\_env\_dir                      *Retrieve Path To Environment*

---

### Description

Retrieve path to where environment should be created. **Note:** It retrieves the Path even if the environment is **not** created yet.

### Usage

```
get_env_dir(env_name = "condathis-env")
```

### Arguments

|          |   |
|----------|---|
| env_name | Character. Name of the Conda environment where the packages are going to be installed. Defaults to 'condathis-env'. |
|----------|---|

### Value

A character string indicating the path where environments will be created.

### Examples

```
condathis::with_sandbox_dir({
  # Get the default environment directory
  condathis::get_env_dir()
  #> "/path/to/condathis/envs/condathis-env"

  # Get the directory for a specific environment
  condathis::get_env_dir("my-env")
  #> "/path/to/condathis/envs/my-env"
})
```

---

|                 |   |
|-----------------|---|
| get_install_dir | <i>Retrieve and Create the condathis Data Directory</i> |
|-----------------|---|

---

**Description**

Retrieves the installation directory for the condathis package, creating it if it does not exist. This function ensures that the package data directory complies with the [freedesktop's XDG Base Directory Specification](#). The base path can be controlled by the XDG\_DATA\_HOME environment variable. Additionally, on Windows, %LOCALAPPDATA% is also accepted as the base installation directory.

**Usage**

```
get_install_dir()
```

**Details**

If the directory does not exist, it will be created. On macOS, special handling is applied to avoid spaces in the path, as micromamba run fails if there are spaces in the path (e.g., in ~/Library/Application Support/conda). Therefore, Unix-style paths are used on macOS.

**Value**

A character string representing the normalized, real path to the condathis data directory.

**Examples**

```
condathis::with_sandbox_dir({  
  print(condathis::get_install_dir())  
  #> /home/username/.local/share/condathis  
})
```

---

|              |   |
|--------------|---|
| get_sys_arch | <i>Retrieve Operating System and CPU Architecture</i> |
|--------------|---|

---

**Description**

This function retrieves the operating system (OS) name and the CPU architecture of the current system. The output combines the OS and CPU architecture into a single string in the format "<OS>-<Architecture>".

**Usage**

```
get_sys_arch()
```

**Value**

A character string indicating the operating system and CPU architecture, e.g., "Darwin-x86\_64" or "Linux-aarch64".

**Examples**

```
# Retrieve the system architecture
condathis::get_sys_arch()
#> [1] "Darwin-x86_64"
```

---

|                                 |   |
|---------------------------------|---|
| <code>install_micromamba</code> | <i>Install Micromamba Binaries in the condathis Controlled Path</i> |
|---------------------------------|---|

---

**Description**

Downloads and installs the Micromamba binaries in the path managed by the condathis package. Micromamba is a lightweight implementation of the Conda package manager and provides an efficient way to create and manage conda environments.

**Usage**

```
install_micromamba(
  micromamba_version = "2.3.3-0",
  timeout_limit = 3600,
  download_method = "auto",
  force = FALSE,
  verbose = c("output", "silent", "cmd", "spinner", "full")
)
```

**Arguments**

|                                 |   |
|---------------------------------|---|
| <code>micromamba_version</code> | Character string specifying the version of Micromamba to download. Defaults to "2.3.3-0".   |
| <code>timeout_limit</code>      | Numeric value specifying the timeout limit for downloading the Micromamba binaries, in seconds. Defaults to 3600 seconds (1 hour).  |
| <code>download_method</code>    | Character string passed to the method argument of the <code>utils::download.file()</code> function used for downloading the binaries. Defaults to "auto".                                   |
| <code>force</code>              | Logical. If set to TRUE, the download and installation of the Micromamba binaries will be forced, even if they already exist in the system or condathis controlled path. Defaults to FALSE. |
| <code>verbose</code>            | Character string indicating the verbosity level of the function. Can be one of "full", "output", "silent". Defaults to "output".  |

## Details

This function checks if Micromamba is already installed in the condathis controlled path. If not, it downloads the specified version from the official GitHub releases and installs it. On Windows, it ensures the binary is downloaded correctly by setting the download mode to "wb". If the download fails, appropriate error messages are displayed.

## Value

Invisibly returns the path to the installed Micromamba binary.

## Examples

```
## Not run:
condathis::with_sandbox_dir({
  # Install the default version of Micromamba
  condathis::install_micromamba()

  # Install a specific version of Micromamba
  condathis::install_micromamba(micromamba_version = "2.0.2-2")

  # Force reinstallation of Micromamba
  condathis::install_micromamba(force = TRUE)
})

## End(Not run)
```

---

install\_packages

*Install Packages in a Existing Conda Environment*

---

## Description

Install Packages in a Existing Conda Environment

## Usage

```
install_packages(
  packages,
  env_name = "condathis-env",
  channels = c("bioconda", "conda-forge"),
  additional_channels = NULL,
  verbose = c("output", "silent", "cmd", "spinner", "full")
)
```

**Arguments**

|                     |   |
|---------------------|---|
| packages            | Character vector with the names of the packages and version strings if necessary.   |
| env_name            | Name of the Conda environment where the packages are going to be installed. Defaults to 'condathis-env'.  |
| channels            | Character vector. Names of the channels to be included. By default 'c("bioconda", "conda-forge")' are used for solving dependencies.  |
| additional_channels | Character. Additional Channels to be added to the default ones.   |
| verbose             | Character string specifying the verbosity level of the function's output. Acceptable values are: <ul style="list-style-type: none"> <li>• <b>"output"</b>: Print the standard output and error from the command-line tool to the screen. Note that the order of the standard output and error lines may not be correct, as standard output is typically buffered.</li> <li>• <b>"silent"</b>: Suppress all output from internal command-line tools. Equivalent to FALSE.</li> <li>• <b>"cmd"</b>: Print the internal command(s) passed to the command-line tool. If the standard output and/or error is redirected to a file or they are ignored, they will not be echoed. Equivalent to TRUE.</li> <li>• <b>"full"</b>: Print both the internal command(s) ("cmd") and their standard output and error ("output").</li> <li>• Logical values FALSE and TRUE are also accepted for backward compatibility but are <i>soft-deprecated</i>. Please use "silent" or "output" instead.</li> </ul> |

**Value**

An object of class `list` representing the result of the command execution. Contains information about the standard output, standard error, and exit status of the command.

**Examples**

```
## Not run:
condathis::with_sandbox_dir({
  condathis::create_env(
    packages = "fastqc",
    env_name = "fastqc-env"
  )
  # Install the package `python` in the `fastqc-env` environment.
  # It is not recommended to install multiple packages in the same environment,
  # # as it defeats the purpose of isolation provided by separate environments.
  condathis::install_packages(packages = "python", env_name = "fastqc-env")
})

## End(Not run)
```

---

|           |  |
|-----------|--|
| list_envs | <i>List Installed Conda Environments</i> |
|-----------|--|

---

## Description

This function retrieves a list of Conda environments installed in the {condathis} environment directory. The returned value excludes any environments unrelated to {condathis}, such as the base Conda environment itself.

## Usage

```
list_envs(verbose = "silent")
```

## Arguments

**verbose** A character string indicating the verbosity level for the command. Defaults to "silent". See [run\(\)](#) for details.

## Value

A character vector containing the names of installed Conda environments. If the command fails, the function returns the process exit status as a numeric value.

## Examples

```
## Not run:
condathis::with_sandbox_dir({
  # Create environments
  condathis::create_env(
    packages = "fastqc",
    env_name = "fastqc-env"
  )
  condathis::create_env(
    packages = "python",
    env_name = "python-env"
  )

  # List environments
  condathis::list_envs()
  #> [1] "fastqc-env" "python-env"
})

## End(Not run)
```

list\_packages

*List Packages Installed in a Conda Environment***Description**

This function retrieves a list of all packages installed in the specified Conda environment. The result is returned as a tibble with detailed information about each package, including its name, version, and source details.

**Usage**

```
list_packages(
  env_name = "condathis-env",
  verbose = c("output", "silent", "cmd", "spinner", "full")
)
```

**Arguments**

- |          |   |
|----------|---|
| env_name | Character. The name of the Conda environment where the tool will be run. Defaults to "condathis-env". If the specified environment does not exist, it will be created automatically using create_env().   |
| verbose  | Character string specifying the verbosity level of the function's output. Acceptable values are: <ul style="list-style-type: none"> <li>• <b>"output"</b>: Print the standard output and error from the command-line tool to the screen. Note that the order of the standard output and error lines may not be correct, as standard output is typically buffered.</li> <li>• <b>"silent"</b>: Suppress all output from internal command-line tools. Equivalent to FALSE.</li> <li>• <b>"cmd"</b>: Print the internal command(s) passed to the command-line tool. If the standard output and/or error is redirected to a file or they are ignored, they will not be echoed. Equivalent to TRUE.</li> <li>• <b>"full"</b>: Print both the internal command(s) ("cmd") and their standard output and error ("output").</li> <li>• Logical values FALSE and TRUE are also accepted for backward compatibility but are <i>soft-deprecated</i>. Please use "silent" or "output" instead.</li> </ul> |

**Value**

A tibble containing all the packages installed in the specified environment, with the following columns:

**base\_url** The base URL of the package source.

**build\_number** The build number of the package.

**build\_string** The build string describing the package build details.

**channel** The channel from which the package was installed.

**dist\_name** The distribution name of the package.  
**name** The name of the package.  
**platform** The platform for which the package is built.  
**version** The version of the package.

### Examples

```
## Not run:
condathis::with_sandbox_dir({
  # Creates a Conda environment with the CLI `fastqc`
  condathis::create_env(
    packages = "fastqc",
    env_name = "fastqc-env"
  )
  # Lists the packages in env `fastqc-env`
  dat <- condathis::list_packages("fastqc-env")
  dim(dat)
  #> [1] 34 8
})

## End(Not run)
```

---

micromamba\_bin\_path     *Retrieve Path to the micromamba Executable*

---

### Description

This function returns the file path to the micromamba executable managed by the condathis package. The path is determined based on the system's operating system and architecture.

### Usage

```
micromamba_bin_path()
```

### Value

A character string representing the full path to the micromamba executable. The path differs depending on the operating system:

**Windows** <install\_dir>/micromamba/Library/bin/micromamba.exe

**Other OS (e.g., Linux, macOS)** <install\_dir>/micromamba/bin/micromamba

### Examples

```
condathis::with_sandbox_dir({
  # Retrieve the path to where micromamba executable is searched
  micromamba_path <- condathis::micromamba_bin_path()
  print(micromamba_path)
})
```

---

parse\_output

*Parse the output of a Condathis command*

---

### Description

This function processes the result of a `run()` call by parsing the specified output stream ("stdout", "stderr", or "both") into individual, trimmed lines.

### Usage

```
parse_output(res, stream = c("stdout", "stderr", "both", "plain"))
```

### Arguments

|                     |   |
|---------------------|---|
| <code>res</code>    | A list containing the result of <code>run()</code> , typically including stdout and stderr as character strings.  |
| <code>stream</code> | A character string specifying the data stream to parse. Must be either "stdout", "stderr", or "both". Additionally, "plain" can be used to provide raw text as the res input. Defaults to "stdout". |

### Value

A character vector where each element is a trimmed line from the specified stream.

### Examples

```
# Example result object from condathis::run()
res <- list(
  stdout = "line1\nline2\nline3\n",
  stderr = "error1\nerror2\n"
)

# Parse the standard output
parse_output(res, stream = "stdout")

# Parse the standard error
parse_output(res, stream = "stderr")

# Merge both
parse_output(res, stream = "both")

# # Parse plain text
plain_text <- "This is line one.\nThis is line two.\nThis is line three."
parse_output(plain_text, stream = "plain")
```

---

|            |                                   |
|------------|-----------------------------------|
| remove_env | <i>Remove a Conda Environment</i> |
|------------|-----------------------------------|

---

### Description

Remove a Conda environment previously created by `create_env()`.

### Usage

```
remove_env(
  env_name = "condathis-env",
  verbose = c("silent", "cmd", "output", "spinner", "full")
)
```

### Arguments

|          |   |
|----------|---|
| env_name | Character. Name of the Conda environment where the packages are going to be installed. Defaults to 'condathis-env'.   |
| verbose  | Character string specifying the verbosity level of the function's output. Acceptable values are: <ul style="list-style-type: none"> <li>• <b>"output"</b>: Print the standard output and error from the command-line tool to the screen. Note that the order of the standard output and error lines may not be correct, as standard output is typically buffered.</li> <li>• <b>"silent"</b>: Suppress all output from internal command-line tools. Equivalent to FALSE.</li> <li>• <b>"cmd"</b>: Print the internal command(s) passed to the command-line tool. If the standard output and/or error is redirected to a file or they are ignored, they will not be echoed. Equivalent to TRUE.</li> <li>• <b>"full"</b>: Print both the internal command(s) ("cmd") and their standard output and error ("output").</li> <li>• Logical values FALSE and TRUE are also accepted for backward compatibility but are <i>soft-deprecated</i>. Please use "silent" or "output" instead.</li> </ul> |

### Value

An object of class `list` representing the result of the command execution. Contains information about the standard output, standard error, and exit status of the command.

### Examples

```
## Not run:
condathis::with_sandbox_dir({
  condathis::create_env(
    packages = "fastqc",
    env_name = "fastqc-env"
  )
  condathis::remove_env(env_name = "fastqc-env")
})
```

```

})

## End(Not run)

```

---

run

---

*Run Command-Line Tools in a Conda Environment*


---

## Description

This function allows the execution of command-line tools within a specified Conda environment. It runs the provided command in the designated Conda environment using the Micromamba binaries managed by the `condathis` package.

## Usage

```

run(
  cmd,
  ...,
  env_name = "condathis-env",
  method = c("native", "auto"),
  verbose = c("output", "silent", "cmd", "spinner", "full"),
  error = c("cancel", "continue"),
  stdout = "|",
  stderr = "|",
  stdin = NULL
)

```

## Arguments

|                       |  |
|-----------------------|--|
| <code>cmd</code>      | Character. The main command to be executed in the Conda environment.   |
| <code>...</code>      | Additional arguments to be passed to the command. These arguments will be passed directly to the command executed in the Conda environment. File paths should not contain special characters or spaces.  |
| <code>env_name</code> | Character. The name of the Conda environment where the tool will be run. Defaults to <code>"condathis-env"</code> . If the specified environment does not exist, it will be created automatically using <code>create_env()</code> .  |
| <code>method</code>   | Character string. The method to use for running the command. Options are <code>"native"</code> , <code>"auto"</code> . Defaults to <code>"native"</code> . This argument is <b>soft deprecated</b> as changing it don't really changes anything.   |
| <code>verbose</code>  | Character string specifying the verbosity level of the function's output. Acceptable values are: <ul style="list-style-type: none"> <li><b>"output"</b>: Print the standard output and error from the command-line tool to the screen. Note that the order of the standard output and error lines may not be correct, as standard output is typically buffered.</li> </ul> |

- **"silent"**: Suppress all output from internal command-line tools. Equivalent to FALSE.
- **"cmd"**: Print the internal command(s) passed to the command-line tool. If the standard output and/or error is redirected to a file or they are ignored, they will not be echoed. Equivalent to TRUE.
- **"full"**: Print both the internal command(s) ("cmd") and their standard output and error ("output").
- Logical values FALSE and TRUE are also accepted for backward compatibility but are *soft-deprecated*. Please use "silent" or "output" instead.

|        |  |
|--------|--|
| error  | Character string. How to handle errors. Options are "cancel" or "continue". Defaults to "cancel".  |
| stdout | Default: " " keep stdout to the R object returned by run(). A character string can be used to define a file path to be used as standard output. e.g: "output.txt". |
| stderr | Default: " " keep stderr to the R object returned by run(). A character string can be used to define a file path to be used as standard error. e.g: "error.txt".   |
| stdin  | Default: NULL (no stdin stream). A character string can be used to define a file path to be used as standard input. e.g: "input.txt".                              |

### Details

The run() function provides a flexible way to execute command-line tools within Conda environments. This is particularly useful for reproducible research and ensuring that specific versions of tools are used.

### Value

An object of class list representing the result of the command execution. Contains information about the standard output, standard error, and exit status of the command.

### See Also

[install\\_micromamba](#), [create\\_env](#)

### Examples

```
## Not run:
condathis::with_sandbox_dir({
  ## Create env
  create_env("samtools", env_name = "samtools-env")

  ## Run a command in a specific Conda environment
  samtools_res <- run(
    "samtools", "view",
    fs::path_package("condathis", "extdata", "example.bam"),
    env_name = "samtools-env",
    verbose = "silent"
  )
  parse_output(samtools_res)[1]
#> [1] "SOLEXA-1GA-1_6_FC20ET7:6:92:473:531\t0\tchr1\t10156..."
```

```

})

## End(Not run)

```

---

|         |   |
|---------|---|
| run_bin | <i>Run a Binary from a Conda Environment Without Environment Activation</i> |
|---------|---|

---

### Description

Executes a binary command from a specified Conda environment without activating the environment or using its environment variables. This function temporarily clears Conda and Mamba-related environment variables to prevent interference, ensuring that the command runs in a clean environment. Usually this is not what the user wants as this mode of execution does not load environment variables and scripts defined in the environment `activate.d`, check `run()` for the stable function to use.

### Usage

```

run_bin(
  cmd,
  ...,
  env_name = "condathis-env",
  verbose = c("output", "silent", "cmd", "spinner", "full"),
  error = c("cancel", "continue"),
  stdout = "|",
  stderr = "|",
  stdin = NULL
)

```

### Arguments

|          |   |
|----------|---|
| cmd      | Character. The main command to be executed in the Conda environment.  |
| ...      | Additional arguments to be passed to the command. These arguments will be passed directly to the command executed in the Conda environment. File paths should not contain special characters or spaces.   |
| env_name | Character. The name of the Conda environment where the tool will be run. Defaults to "condathis-env". If the specified environment does not exist, it will be created automatically using <code>create_env()</code> .   |
| verbose  | Character string specifying the verbosity level of the function's output. Acceptable values are: <ul style="list-style-type: none"> <li>• <b>"output"</b>: Print the standard output and error from the command-line tool to the screen. Note that the order of the standard output and error lines may not be correct, as standard output is typically buffered.</li> <li>• <b>"silent"</b>: Suppress all output from internal command-line tools. Equivalent to FALSE.</li> </ul> |

- **"cmd"**: Print the internal command(s) passed to the command-line tool. If the standard output and/or error is redirected to a file or they are ignored, they will not be echoed. Equivalent to TRUE.
- **"full"**: Print both the internal command(s) ("cmd") and their standard output and error ("output").
- Logical values FALSE and TRUE are also accepted for backward compatibility but are *soft-deprecated*. Please use "silent" or "output" instead.

|        |  |
|--------|--|
| error  | Character string. How to handle errors. Options are "cancel" or "continue". Defaults to "cancel".  |
| stdout | Default: " " keep stdout to the R object returned by run(). A character string can be used to define a file path to be used as standard output. e.g: "output.txt". |
| stderr | Default: " " keep stderr to the R object returned by run(). A character string can be used to define a file path to be used as standard error. e.g: "error.txt".   |
| stdin  | Default: NULL (no stdin stream). A character string can be used to define a file path to be used as standard input. e.g: "input.txt".                              |

### Value

An object of class list representing the result of the command execution. Contains information about the standard output, standard error, and exit status of the command.

### Examples

```
## Not run:
condathis::with_sandbox_dir({
  # Example assumes that 'my-env' exists and contains 'python'
  # Run 'python' with a script in 'my-env' environment
  condathis::run_bin(
    "python", "-c", "import sys; print(sys.version)",
    env_name = "my-env"
  )

  # Run 'ls' command with additional arguments
  condathis::run_bin("ls", "-la", env_name = "my-env")
})

## End(Not run)
```

---

with\_sandbox\_dir

*Execute Code in a Temporary Directory*


---

### Description

Runs user-defined code inside a temporary directory, setting up a temporary working environment. This function is intended for use in examples and tests and ensures that no data is written to the user's file space. Environment variables such as HOME, APPDATA, R\_USER\_DATA\_DIR, XDG\_DATA\_HOME, LOCALAPPDATA, and USERPROFILE are redirected to temporary directories.

**Usage**

```
with_sandbox_dir(code, .local_envir = base::parent.frame())
```

**Arguments**

`code` [expression](#) An expression containing the user-defined code to be executed in the temporary environment.

`.local_envir` [environment](#) The environment to use for scoping.

**Details**

This function is not designed for direct use by package users. It is primarily used to create an isolated environment during examples and tests. The temporary directories are created automatically and cleaned up after execution.

**Value**

Returns NULL invisibly.

**Examples**

```
condathis::with_sandbox_dir(print(fs::path_home()))  
condathis::with_sandbox_dir(print(tools::R_user_dir("condathis")))
```

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