

DataLad is a data management and publication multitool based on Git and Git-annex with a command line interface and a Python API. With DataLad, you can version control arbitrarily large data, share or consume data, record your data's provenance, and work computationally reproducible.

Dataset location: path to root, or ^ for superdataset

A location description (e.g., "my backup server")





datalad [--GLOBAL-OPTION <opt. flag spec.>] COMMAND [ARGUMENTS] [--OPTION <opt. flag spec>]

MAND

-c KEY=VALUE

Set config variables (overrides configurations in files)

-f/--output-format default|json|json_pp|tailored Specify the format for command result renderung

-l/--log-level critical|error|warning|info|debug Set logging verbosity level

-d/--dataset OPTIONS

-D/--description -f/--force

-m/--message -r/--recursive Force execution of a command (Dangerzone!) A description about a change made to the dataset Perform an operation recursively across subdatasets

-R/--recursion-limit <n> Limit recursion to n subdataset levels

Each datalad invocation can have two sets of options: general options are given first, commandspecific ones ao after the subcommand.

Dataset operations

create

-d -D -f

[-c <config-proc] -ГРАТН]

Create a new dataset from scratch. If executed within a dataset and the -d/--dataset flag, it is created as a subdataset.

datalad create -c yoda my_first_ds

save

get

-d -m -R -r

-u/--updated] [PATH ...]

Save the current state of a dataset. Use -u/--updated to leave untracked files untouched, and --to-git to save modifications to Git instead of Git-annex

datalad save -m "did XY" file1

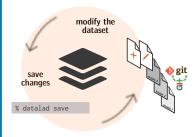
status

-d -R -r --annex <mode>]

____ [PATH ...]

Report on the state of a dataset and/or its subdatasets. --annex {None|basic availability|all} reports additional information on annex contents.

datalad status



Consume existing datasets and stay up-to-date



Create sibling datasets to publish to or update from

-d -D -R -r

-s/--source <label>l -n/--no-datal PATH

Get dataset content (files/directories/ subdatasets). Will get directory but not subdataset content recursively by default.

Specify the label of a data source (e.g., sibling) with -s/--source.

datalad get file_xyz directory_1

clone install

ΓDEST-PATH1 -d -D -R -r

s URL/PATH [DEST-PATH

Install an existing dataset from path/url/ open data collection (///). Providing -d installs a dataset as a subdataset. Install allows recursive operations.

datalad clone ///openneuro datalad install -r -s ///openneuro -d -R -r

[-s <siblingname>]

-merge]

Update a dataset from a sibling. Updates are by default on branch remotes/origin/master. Changes can be merged with --merge. Without -s/ -sibling, all siblings are updated.

datalad update --merge -s origin

uninstall

-d -R -r

Uninstall subdatasets. Availability of at least one remote copy needs to be verified - disable with --nocheck. PATH can not be the current directory.

datalad uninstall --nocheck subds/

remove

-d -m -R -r --nocheckl

Remove datasets + contents, unregister from potential top-level datasets. Availability of at least one remote copy needs to be verified - disable with --nocheck. PATH can not be the current directory.

datalad remove --nocheck subds/

unlock

-d -R -r

ГРАТНП

Unlock file(s) of a dataset to enable editing their content. If PATH is not provided, all files are unlocked. Requires datalad save to lock again afterwards.

datalad unlock my_data_file

update

-d -R -r PATH

Drop file content from dataset (remove data, retain symlink). Availability of at least one remote copy needs to be verified - disable with --nocheck. Drops all contents if no PATH is given.

datalad drop -r --nocheck dir_1/

Reproducible execution and provenance capture

link input, code, containerized software environments, and output, or re-run previous executions

from web sources

capture the origin of files obtained % datalad download-url

% datalad run

% datalad rerun

% datalad run-procedure

siblings

-d -R -r -D

s <siblingname>l [--url <url>l -publish-depends]

Manage sibling configurations with either add, query (default), remove, configure, or enable. Provide a name with -s, a URL/path with --url, and publication dependencies with --publish-depends.

datalad siblings add \ -s different-place --url some/path publish

-d -m

-d -R -r -f -since <since>1 -transfer-data auto|none|all]

Publish a dataset to a known sibling and specify level of data-transfer with

--transfer-data. --since allows to specify commit/tag from which to look for changes to publish.

datalad publish --transfer-data all

run

[-i input][-o output]

[--explicit] <CMD>

Run arbitrary shell command and record its impact. Only creates record if dataset is modified. Gets any -i/--input and unlocks any -o/--output Requires clean dataset or --explicit.

datalad run -m "rename" -i file \ -o file.txt "mv file file.txt" rerun

-since COMMITISH] -onto COMMITISH] COMMITTISH

Re-execute a previous run command identified by its hash, and save resulting modifications.

datalad rerun my-analysis-tag

run-procedure

-d

[--discover] <NAME> [ARGS ...]

Run prepared procedures (executables) on a dataset. To find available procedures, use --discover as the only argument, else specify the name of the procedure to run.

datalad run-procedure cfg voda

download-url

<URL> [-0 PATH] [-o/--overwrite]

Download, save, and record origin of content from websources. Specify a path to save under (-0/--path).

-o/--overwrite enables overwriting existing files.

datalad download-url \

www.example.com/file -O file