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era5cli: The command line tool to download ERA5 data

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With the release of the ERA5 dataset, worldwide high resolution reanalysis data became available with open access for public use. The Copernicus CDS (Climate Data Store) offers two options for accessing the data: a web interface and a Python API. Consequently, automated downloading of the data requires advanced knowledge of Python and a lot of work. To make this process easier, we developed era5cli.

The command line interface tool era5cli enables automated downloading of ERA5 using a single command. All variables and options available in the CDS web form are now available for download in an efficient way. Both the monthly and hourly dataset are supported. Besides automation, era5cli adds several useful functionalities to the download pipeline.

One of the key options in era5cli is to spread one download command over multiple CDS requests, resulting in higher download speeds. Files can be saved in both GRIB and NETCDF format with automatic, yet customizable file names. The ``info`` command lists correct names of the available variables and pressure levels for 3D variables. For debugging purposes and testing the ``--dryrun`` option can be selected to return only the CDS request. An overview of all available options, including instructions on how to configure your CDS account, is available in our documentation. Source code is available on <https://github.com/eWaterCycle/era5cli>.

In this PICO presentation we will provide an overview of era5cli, as well as a short introduction on how to use era5cli.