

# the CM SAF R Toolbox Cheat Sheet

## #1 From tar to nc

### Background

#### Network Common Data Form

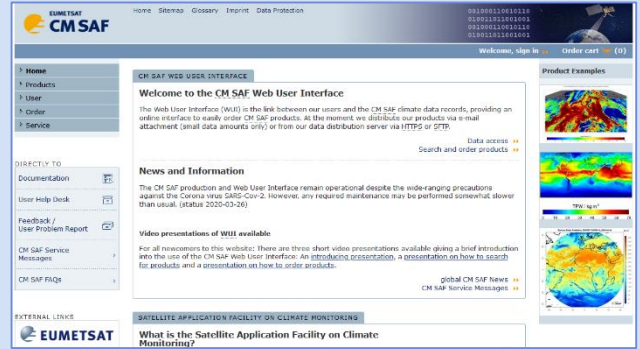
NetCDF (.nc) is a data format that supports the creation, access, and sharing of array-oriented scientific data.

#### Tarball

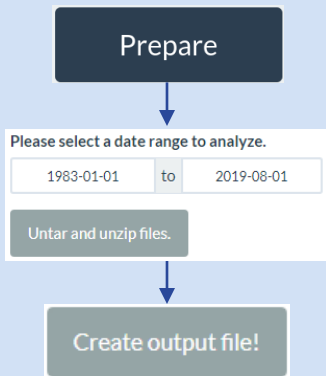
tar is a computer software utility for collecting many files into one archive file.

#### Web User Interface

Ordered CM SAF data will be provided in form of a .tar-file including one NetCDF file per time step.



### Workflow



Click on **Prepare** and choose a .tar-file (e.g., ORD12345.tar).

**Select a date range** (optional): Click the *Untar* button to start the process.

**Create a NetCDF**: Select your region of interest (optional). Clicking the *Create* button will give one merged NetCDF file.

#### Good to know

- CM SAF data can be downloaded for free via <https://wui.cmsaf.eu>
- .tar-files with the same order number are handled as one (e.g., ORD12345.tar, ORD12345\_2.tar, ...)
- File merging can also be done in R (type: ?cmsaf::box\_mergetime)

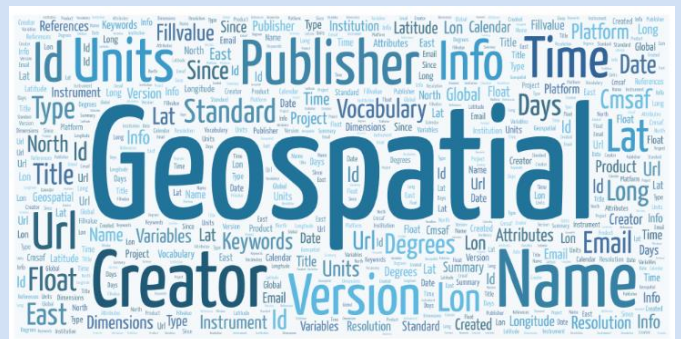
### Results

Start for the *Analyze* step is one NetCDF file including all time steps.

NetCDF data contain lots of metadata – data that provides information about the data.

Check out the metadata by using the *Visualize* step in the *File Summary* tab.

Further adaptations of your file can easily be done by help of the Toolbox. Explore the possibilities!



NetCDF Metadata