

# CO<sub>2</sub> Data Access Application Programming Interface

The CO<sub>2</sub> Data Access Application Programming Interface (API) provides the ability to obtain data-products, directory listings, and other miscellaneous product information through a non-graphical interface. For a graphical view of the data sets, please visit <http://co2.jpl.nasa.gov/data-browser/>

The API for this service is implemented using Apache Object Oriented Data Technology (OODT) Web Grid Product Server technology. An overview of CO<sub>2</sub>'s product server API is detailed below, as well as example use-cases per supported CO<sub>2</sub> data set.

## CO<sub>2</sub> Data Access API URL:

<http://co2.jpl.nasa.gov/my-product-server/prod?q=OFSN=/my-path/+AND+RT%3Dmy-return-type>

Where:

- *my-product-server*: is replaced by the particular product server of interest. Currently supported CO<sub>2</sub> product servers include:
  - co2acos-prodserver
  - co2airs-prodserver
  - co2tcon-prodserver
  - co2esdrtcon-prodserver
  - co2tes-prodserver
- *my-path*: is replaced by the path to a given directory of interest or path to a particular product of interest
- *my-return-type*: is replaced by the type of return format desired. Supported return types include:
  - RAW – returns the requested file without any modification (MIME type application/octet-stream)
  - DIRLIST – returns an XML file with directory names (and only directory names) and total size of files in each directory starting in the requested directory and traversing into the subdirectories.
  - DIRLIST1 – identical to DIRLIST but does not recursively descend into subdirectories.
  - DIRFILELIST – returns an XML document containing all of the filenames (and only the files, not directories) and their sizes, recursing into subdirectories.
  - DIRFILELIST1 – identical to DIRFILELIST except that it does not recurse into subdirectories.
  - RAW\_SIZE – generates an XML document telling the size of the raw file that would be returned by the corresponding RAW type.
  - FILE\_LIST – returns an XML file naming the requested file and also giving its size.

- FILE\_LIST\_ZIP – similar to FILELIST except that it tells what the size of the requested file would be if compressed into a ZIP archive.
- MD5 – returns the MD5 checksum of a requested product

**Examples:**

Directory-listing for all ACOS product directories (non-recursive):

*http://co2.jpl.nasa.gov/co2acos-prodserver/prod?q=OFSN=/+AND+RT%3DDIRLIST1*

Directory-listing for all ACOS product directories (recursive):

*http://co2.jpl.nasa.gov/co2acos-prodserver/prod?q=OFSN=/+AND+RT%3DIRLIST*

File-listing of all ACOS products under the directory “/ACOSL2HDF5v29/2009/363”:

*http://co2.jpl.nasa.gov/co2acos-prodserver/prod?q=OFSN=/ACOSL2HDF5v29/2009/363+AND+RT%3DDIRFILELIST*

Download a specified ACOS product located at “/ACOSL2HDF5v29/2009/363/

*acos\_L2s\_091229\_24\_Production\_v050050\_L2s20900\_r01\_PolB\_110916043244.h5”:*

*http://co2.jpl.nasa.gov/co2acos-prodserver/prod?q=OFSN=/ACOSL2HDF5v29/2009/363/acos\_L2s\_091229\_24\_Production\_v050050\_L2s20900\_r01\_PolB\_110916043244.h5+AND+RT%3DRAW*

File-listing of all TCCON products (recursive):

*http://co2.jpl.nasa.gov/co2tcon-prodserver/prod?q=OFSN=/+AND+RT%3DDIRFILELIST*