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cesar_soil_heat_la1_t10

History

Version        Date Description
    1.0 28-jan-2010 Creation

Documentation on the CESAR in-situ observational program in general and the
parameters in this dataset in particular can be downloaded as a pdf-file from:

http://projects.knmi.nl/cabauw/insitu/observations/documentation/Cabauw_TR/Cabauw_TR.pdf

For easy access it is advised to open the document with the navigation panel visible.

For gapfilled datasets (lc1) also consult the pdf file at:

http://projects.knmi.nl/cabauw/insitu/observations/documentation/gapfilling/cabcon_gapfilling.pdf

Further information including near real time display can be found via:

http://projects.knmi.nl/cabauw/insitu/index2.htm

Below follows a header dump of one of the NetCdf dataset files.
Refer to the attribute long_name of the variables for explanation.


>>>>> Header dump of NetCdf file  <<<<<

netcdf test {
dimensions:
        time = UNLIMITED ; // (144 currently)
        nv = 2 ;
        day_in_time_interval = 1 ;
variables:
        char iso_dataset ;
                iso_dataset:hierarchyLevel = "dataset" ;
                iso_dataset:url = "http://www.cesar-database.nl" ;
                iso_dataset:protocol = "website" ;
                iso_dataset:topic = "climatologyMeteorologyAtmosphere" ;
                iso_dataset:westbound_longitude = "4.926" ;
                iso_dataset:eastbound_longitude = "4.926" ;
                iso_dataset:southbound_latitude = "51.97" ;
                iso_dataset:northbound_latitude = "51.97" ;
                iso_dataset:datasetDateType = "publication" ;
                iso_dataset:code = "28992" ;
                iso_dataset:codeSpace = "EPSG" ;
                iso_dataset:accessConstraints = "CESAR data policy" ;
                iso_dataset:useLimitation = "None" ;
                iso_dataset:organisationName_dataset = "Royal Netherlands Meteorological Institut
e (KNMI)" ;
                iso_dataset:email_dataset = "fred.bosveld@knmi.nl" ;
                iso_dataset:role_dataset = "Principle Investigator" ;
                iso_dataset:organisationName_metadata = "Royal Netherlands Meteorological Institu
te (KNMI)" ;
                iso_dataset:role_metadata = "Principle Investigator" ;
                iso_dataset:email_metadata = "fred.bosveld@knmi.nl" ;
                iso_dataset:url_metadata = "http://www.knmi.nl/~bosveld" ;
                iso_dataset:metadataDateType = "creation" ;
                iso_dataset:language = "eng" ;
                iso_dataset:metadataStandardName = "ISO-19115" ;
                iso_dataset:metadataStandardNameVersion = "Nederlands profiel op ISO 19115 voor g
eografie, v1.2" ;
                iso_dataset:title = "CESAR soil heat, unvalidated" ;
                iso_dataset:abstract = "Soil temperature profile and soil heat fluxes at Cabauw a
t 10 minute time base, unvalidated." ;
                iso_dataset:status = "onGoing" ;
                iso_dataset:uid_dataset = "fff8e322-0dbf-11df-8a39-0800200c9a66" ;
                iso_dataset:keyword = "soil heat flux temperature" ;
                iso_dataset:temporal_extent = "2001-08-01,onGoing" ;
                iso_dataset:date = "2010-01-28" ;
                iso_dataset:statement = "Continuous observations are performed and archived. The
data product is published in daily intervals. " ;
                iso_dataset:metadata_id = "fff8e323-0dbf-11df-8a39-0800200c9a66" ;
                iso_dataset:datestamp = "2010-01-28" ;
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        char product ;
                product:format_version = "netCDF,3.6" ;
                product:originator = "Bosveld, F.C., KNMI" ;
                product:software_version = "see http://www.knmi.nl/~bosveld -> software -> Mobiba
se" ;
                product:command_line = " mb_ncselect.x cabsurf b10 [M]cesar,[O]cesar_soil_heat_la
1_t10_v1.0 20170320 -f/usr/people/bosveld/CDS/test.nc" ;
                product:date_start_of_data = "2017-03-20T00:00Z" ;
                product:date_end_of_data = "2017-03-20T23:59Z" ;
                product:revision_date = "2017-03-21" ;
                product:ref_doc = "cesar_soil_heat_la1_t10_v1.0.pdf" ;
                product:ref_doc_version = "v1.0" ;
        char station_details ;
                station_details:name = "CESAR observatory" ;
                station_details:latitude = "51.97" ;
                station_details:longitude = "4.926" ;
                station_details:elevation = "-0.7" ;
                station_details:WMO_id = "06348" ;
                station_details:address = "Zijdeweg 1" ;
                station_details:postal_code = "3411 MH" ;
                station_details:city = "Lopik" ;
                station_details:administration_area = "Utrecht" ;
                station_details:country = "the Netherlands" ;
        float time(time) ;
                time:units = "hours since 2017-03-20 00:00:00 0:00" ;
                time:long_name = "hours since 2017-03-20 00:00:00 (UTC)" ;
                time:standard_name = "time" ;
                time:axis = "T" ;
                time:bounds = "time_bnds" ;
        int date(time) ;
                date:long_name = "yyyymmdd" ;
        byte valid_dates(day_in_time_interval) ;
                valid_dates:comment = "indicates whether any data are included for a particular d
ay: 0=none, 1=data, index runs from date indicated by \"units\" attribute of the time variable" ;
        float time_bnds(time, nv) ;
        float FG0(time) ;
                FG0:units = "W m-2" ;
                FG0:long_name = "Soil heat flux at 0 cm, Fourrier extrapolation G05,G10" ;
                FG0:standard_name = "downward_heat_flux_at_ground_level_in_soil" ;
                FG0:accuracy = "10%10" ;
                FG0:_FillValue = -9999.f ;
                FG0:cell_methods = "time: mean" ;
        float G05(time) ;
                G05:units = "W m-2" ;
                G05:long_name = "Soil heat flux at  5 cm averaged over three sensors" ;
                G05:standard_name = "downward_heat_in_soil" ;
                G05:_FillValue = -9999.f ;
                G05:cell_methods = "time: mean" ;
        float G10(time) ;
                G10:units = "W m-2" ;
                G10:long_name = "Soil heat flux at 10 cm averaged over three sensors" ;
                G10:standard_name = "downward_heat_in_soil" ;
                G10:_FillValue = -9999.f ;
                G10:cell_methods = "time: mean" ;
        float TS00(time) ;
                TS00:units = "degC" ;
                TS00:long_name = "Soil temperature   0 cm" ;
                TS00:standard_name = "soil_temperature" ;
                TS00:_FillValue = -9999.f ;
                TS00:cell_methods = "time: mean" ;
        float TS02(time) ;
                TS02:units = "degC" ;
                TS02:long_name = "Soil temperature  -2 cm" ;
                TS02:standard_name = "soil_temperature" ;
                TS02:_FillValue = -9999.f ;
                TS02:cell_methods = "time: mean" ;
        float TS04(time) ;
                TS04:units = "degC" ;
                TS04:long_name = "Soil temperature  -4 cm" ;
                TS04:standard_name = "soil_temperature" ;
                TS04:_FillValue = -9999.f ;
                TS04:cell_methods = "time: mean" ;
        float TS06(time) ;
                TS06:units = "degC" ;
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                TS06:long_name = "Soil temperature  -6 cm" ;
                TS06:standard_name = "soil_temperature" ;
                TS06:_FillValue = -9999.f ;
                TS06:cell_methods = "time: mean" ;
        float TS08(time) ;
                TS08:units = "degC" ;
                TS08:long_name = "Soil temperature  -8 cm" ;
                TS08:standard_name = "soil_temperature" ;
                TS08:_FillValue = -9999.f ;
                TS08:cell_methods = "time: mean" ;
        float TS12(time) ;
                TS12:units = "degC" ;
                TS12:long_name = "Soil temperature -12 cm" ;
                TS12:standard_name = "soil_temperature" ;
                TS12:_FillValue = -9999.f ;
                TS12:cell_methods = "time: mean" ;
        float TS20(time) ;
                TS20:units = "degC" ;
                TS20:long_name = "Soil temperature -20 cm" ;
                TS20:standard_name = "soil_temperature" ;
                TS20:_FillValue = -9999.f ;
                TS20:cell_methods = "time: mean" ;
        float TS30(time) ;
                TS30:units = "degC" ;
                TS30:long_name = "Soil temperature -30 cm" ;
                TS30:standard_name = "soil_temperature" ;
                TS30:_FillValue = -9999.f ;
                TS30:cell_methods = "time: mean" ;
        float TS50(time) ;
                TS50:units = "degC" ;
                TS50:long_name = "Soil temperature -50 cm" ;
                TS50:standard_name = "soil_temperature" ;
                TS50:_FillValue = -9999.f ;
                TS50:cell_methods = "time: mean" ;

// global attributes:
                :institution = "Royal Netherlands Meteorological Institute (KNMI)" ;
                :comment = "none" ;
                :Conventions = "CF-1.4" ;
                :location = "CESAR observatory, the Netherlands" ;
                :file_creation_date_time = "20170321 12:02:48 (UTC)" ;
                :history = "Continuous observations are performed and archived. The data product
is published in daily intervals. " ;
                :references = "cesar_soil_heat_la1_t10_v1.0.pdf @ http://www.cesar-database.nl" ;
}
```