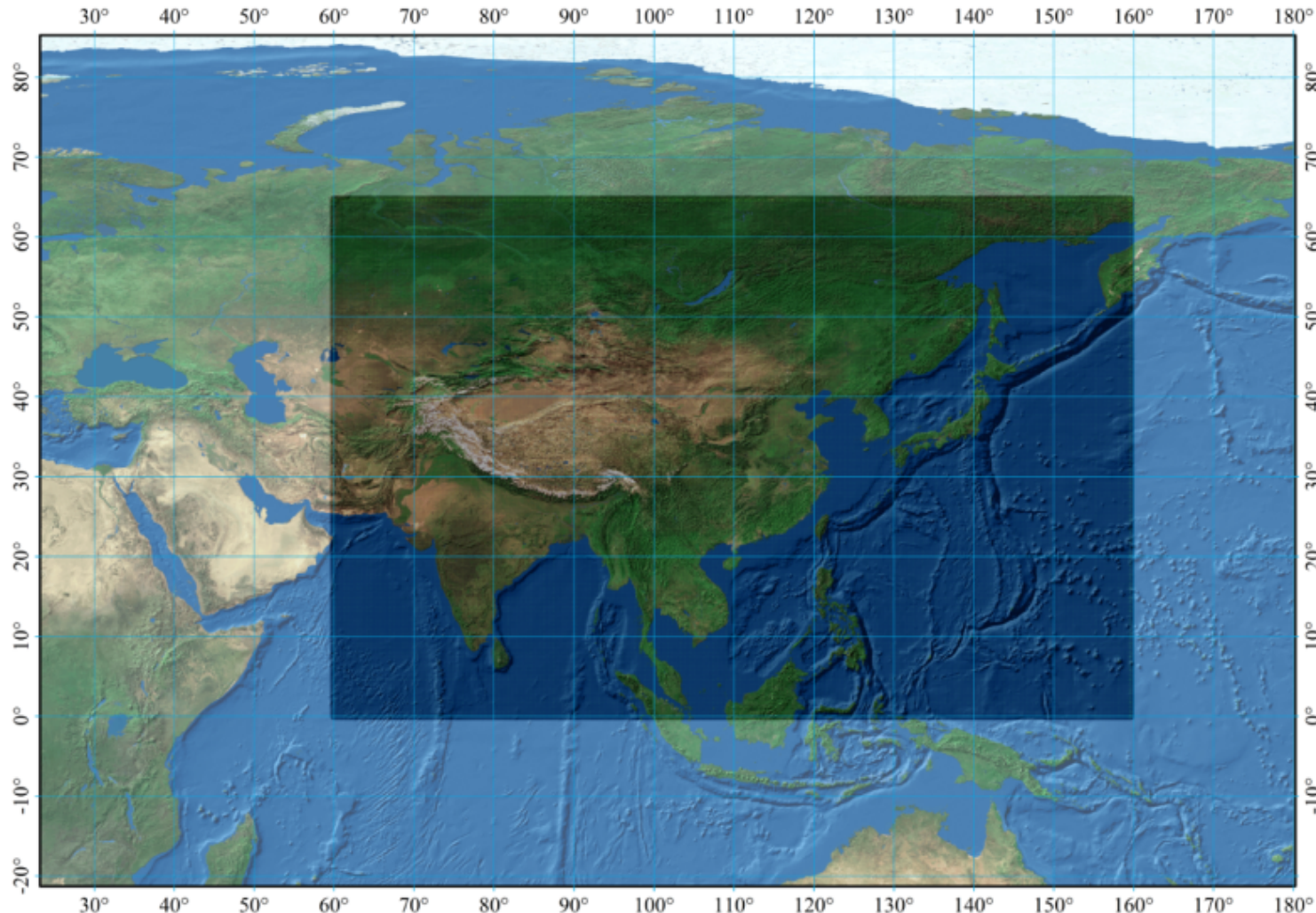




Cold and Arid Regions Science Data Center

China Meteorological Assimilation Datasets for the SWAT model - Soil Temperature Version 1.0

UUID: e30d34a5-e356-4c8a-9e61-9ea5c960bdf5



CMADS-ST V1.0

0 750 1,500 3,000 4,500 6,000 Kilometers

China Meteorological Assimilation Datasets for the SWAT model (Version 1.0)

Abstract

CMADS(The China Meteorological Assimilation Driving Datasets for the SWAT model) uses the high spatiotemporal resolution land-surface atmospheric driving data of the CLDAS produced by the National Meteorological Information Center of China Meteorological Administration (temporal resolution: 1 h; spatial resolution: $1/16^\circ \times 1/16^\circ$ and approximately 6.25 km; time scale: 2009-2013; elements: atmospheric temperature, pressure, specific humidity, wind speed, precipitation and shortwave solar radiation) to drive the CLM3.5 to conduct a numerical simulation of the land surface. The process is repeated 10 times to spin up the CLM model. A basically stable initial field of the model is generated to obtain a high temporal-spatial resolution soil temperature dataset. In addition, the bilinear interpolation method is used to interpolate the soil temperature grid data of the CLM output. The CMADS was constructed using quality control, loop nesting and resampling.

The CMADS-ST covers the whole East Asia (0°N - 65°N , 60°E - 160°E), Spatial resolution of the CMADS-ST V1.0 is $1/3^\circ$, CMADS-ST V1.1: $1/4^\circ$, CMADS-ST V1.2: $1/8^\circ$ and CMADS-ST V1.3: $1/16^\circ$, The CMADS time scale is 2009-2013 years. This page is the CMADS-ST V1.0 version dataset (Spatial resolution: $1/3^\circ$. Time resolution: Daily. Space coverage: East Asia (0°N - 65°N , 60°E - 160°E). Site number: 58500. Providing elements: Daily average soil temperature of 10 layers (First Layer: 0.00710063521m, Second Layer: 0.0279249996m, Third Layer: 0.0622585751m, Fourth Layer: 0.118865065m, Fifth Layer: 0.2121934m, Sixth Layer: 0.3660658m, Seventh Layer: 0.619758487m, Eighth Layer: 1.03802705m, Ninth Layer: 1.72763526m, Tenth Layer: 2.8646071m). Data formats: txt.

CMADS-ST V1.0 Data path description (Take 2009 as an example):

CMADS-ST-V1.0\2009\layer1 to CMADS-ST V1.0\2009\layer10

CMADS-ST-V1.0\2010\ layer1 to CMADS-ST V1.0\2010\layer10

CMADS-ST-V1.0\2011\ layer1 to CMADS-ST V1.0\2011\layer10

CMADS-ST-V1.0\2012\ layer1 to CMADS-ST V1.0\2012\layer10

CMADS-ST-V1.0\2013\ layer1 to CMADS-ST V1.0\2013\layer10

Ten soil temperature data are stored in each of these subdirectories, namely, the depths of the node layers are 0.00710063521m, 0.0279249996m, 0.0622585751m, 0.118865065m, 0.2121934m, 0.3660658m, 0.619758487m, 1.03802705m, 1.72763 526m and 2.8646071m, respectively.

Description of CMADS-ST V1.0 file name

Among them, the layer1-layer10\ directory is the daily soil temperature (ten layers). They are in the following catalogue (in 2009):

\2009\layer1\	2009 level 1 (0.00710063521m) soil temperature catalogue
\2009\layer2\	2009 level second (0.0279249996m) soil temperature catalogue
\2009\layer3\	2009 level third (0.0622585751m) soil temperature catalogue
\2009\layer4\	2009 level fourth (0.118865065m) soil temperature catalogue
\2009\layer5\	2009 level fifth (0.2121934m) soil temperature catalogue
\2009\layer6\	2009 level sixth (0.3660658m) soil temperature catalogue
\2009\layer7\	2009 level seventh (0.619758487m) soil temperature catalogue
\2009\layer8\	2009 level eighth (1.03802705m) soil temperature catalogue
\2009\layer9\	2009 level ninth (1.72763526m) soil temperature catalogue
\2009\layer10\	2009 level tenth (2.8646071m) soil temperature catalogue

Keywords

Theme: Meteorological, Soil Temperature, SWAT,

Place: East & South East Asia,
Temporal: 2008-01-01 to 2014-12-31,
Discipline: Geographic science, Meteorology,
Statrum:

ISO 19115 Category

Category: climatologyMeteorologyAtmosphere

Detail

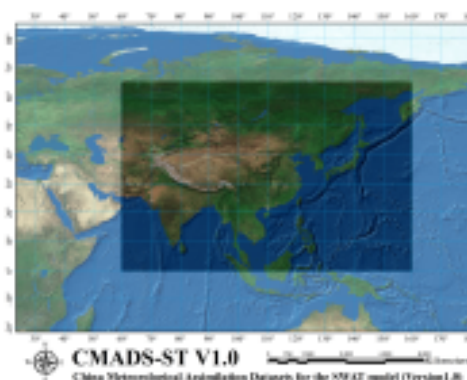
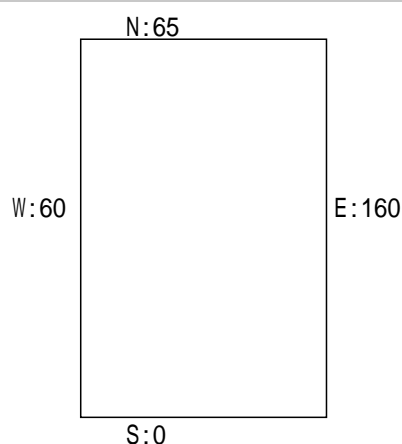
Scale: 10000

Project: +proj=longlat +datum=WGS84 +no_defs

Data Volume(MB): 12000

Data Format: txt

Position and Thumbnail



Temporal Range

Start: 2008-01-01

End: 2014-12-31

Citation

Recommended Publications

DOI

10.3972/westdc.004.2017.db

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Limitation

1. Respect for the protection of intellectual property rights and the interests of the author, the extended data data center service, evaluation of potential data, please data users in the research results generated using the data (including published papers, data products and unpublished research reports, data products and achievements), indicate the source of data author and data. For reprint (two or more times) data, the author must indicate the original data source.

Online Resources

1. <http://card.westgis.ac.cn> <ftp://ftp1.westgis.ac.cn/>

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7. Process

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