

JRC Dataset

Rivers and Catchments of Europe - Catchment Characterisation Model (CCM)

Description:

The Catchment Characterisation Model (CCM2) database covers the entire European continent, including the Atlantic islands, Iceland and Turkey. It includes a hierarchical set of river segments and catchments based on the Strahler order, a lake layer and structured hydrological feature codes based on the Pfafstetter system. It allows for analysis from the regional to the continental scale, corresponding to traditional mapping scales of up to 1:500,000. CCM2 covers an area of about 12,000,000 square kilometers and includes more than 2,000,000 primary catchments. These can be aggregated to drainage basins at different hierarchical levels, forming, for example, about 650 river basins of more than 1000 square kilometers. CCM2 further includes a coastline, fully congruent with the river basins, and some 70,000 lakes. The layers are generated from a 100 meters resolution digital terrestrial elevation model. The following layers are available: Seaoutlets: the major river basins, Main drains: the major rivers, Lakes: all surface water larger than 25x25 metres, Coastlines: coast line extracted from Image2000 imagery, River segments: Drainage channels from the primary catchments, Catchments: Primary catchments. This data-set refers to Lakes and River basins.

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How to cite:

De Jager, Alfred; Vogt, Jürgen(2007): Rivers and Catchments of Europe - Catchment Characterisation Model (CCM). European Commission, Joint Research Centre (JRC) [Dataset] PID: <http://data.europa.eu/89h/fe1878e8-7541-4c66-8453-afd4e7469221>

Keywords:

Feature coding, Hydrography, River network, Seaoutlet, catchments, drainage basins, river basin development, river management

Related resources:

Data access

CCM view service

Web Map Service (WMS) - GetCapabilities

<http://edo.jrc.ec.europa.eu/mapserv/mapserv?map=/var/www/ccm/site/water/viewer/mapfiles/ccm.map&version;=1.3.0&service;=WMS>

CCM landing page

General description of Catchment Characterisation and Modelling (CCM) activity and access to the datasets download page. Data access requires registration.

<http://ccm.jrc.ec.europa.eu/>

Publications

A pan-European river and catchment database

DOI:[10.2788/35907](https://doi.org/10.2788/35907)

Additional information:

Last Modified: 2008-07-01

Issue date: 2007-06-01

Landing page: <http://ccm.jrc.ec.europa.eu/>

Language: English

Data theme(s): Environment; Science and technology

EuroVoc domain(s): 36 SCIENCE

EuroVoc concept(s): hydrology

Identifier: <http://data.europa.eu/89h/fe1878e8-7541-4c66-8453-afdae7469221>

Geographic information:

Lineage: Drainage networks and associated drainage basins form complex functional entities not only for hydrological processes but also for environmental processes at large. This has been recognised in recent European legislation such as the Water Framework Directive (WFD). In order to study the underlying processes and cause-effect relationships at regional to European scales, comprehensive digital data of river networks, drainage basins (catchments) and their characteristics are required. JRC's Catchment Characterisation and Modelling (CCM) activity responded to this need through the development of a pan-European database of river networks and catchments. Version 1.0 of CCM has been published in 2003. In July 2007 an geographically extended and substantially improved CCM Version 2.0 has been released. The current Version 2.1 of July 2008 is an update of version 2.0. It includes the correction of noted errors as well additional functionality. A detailed report on the development of CCM 2.0 as well Release Notes for CCM 2.1 are provided at http://ccm.jrc.ec.europa.eu/documents/CCM2-Report_EUR-22920-EN_2007_STD.pdf

Geographic bounding box: 72.0° N, 61.0° E, 27.0° S, -32.0° W

Coordinate Reference System: ETRS89,WGS 84