

L'utilizzo dei dati e dei risultati attraverso la data platform del progetto ORIENTGATE

The use of data results through the data platform of the ORIENTGATE project

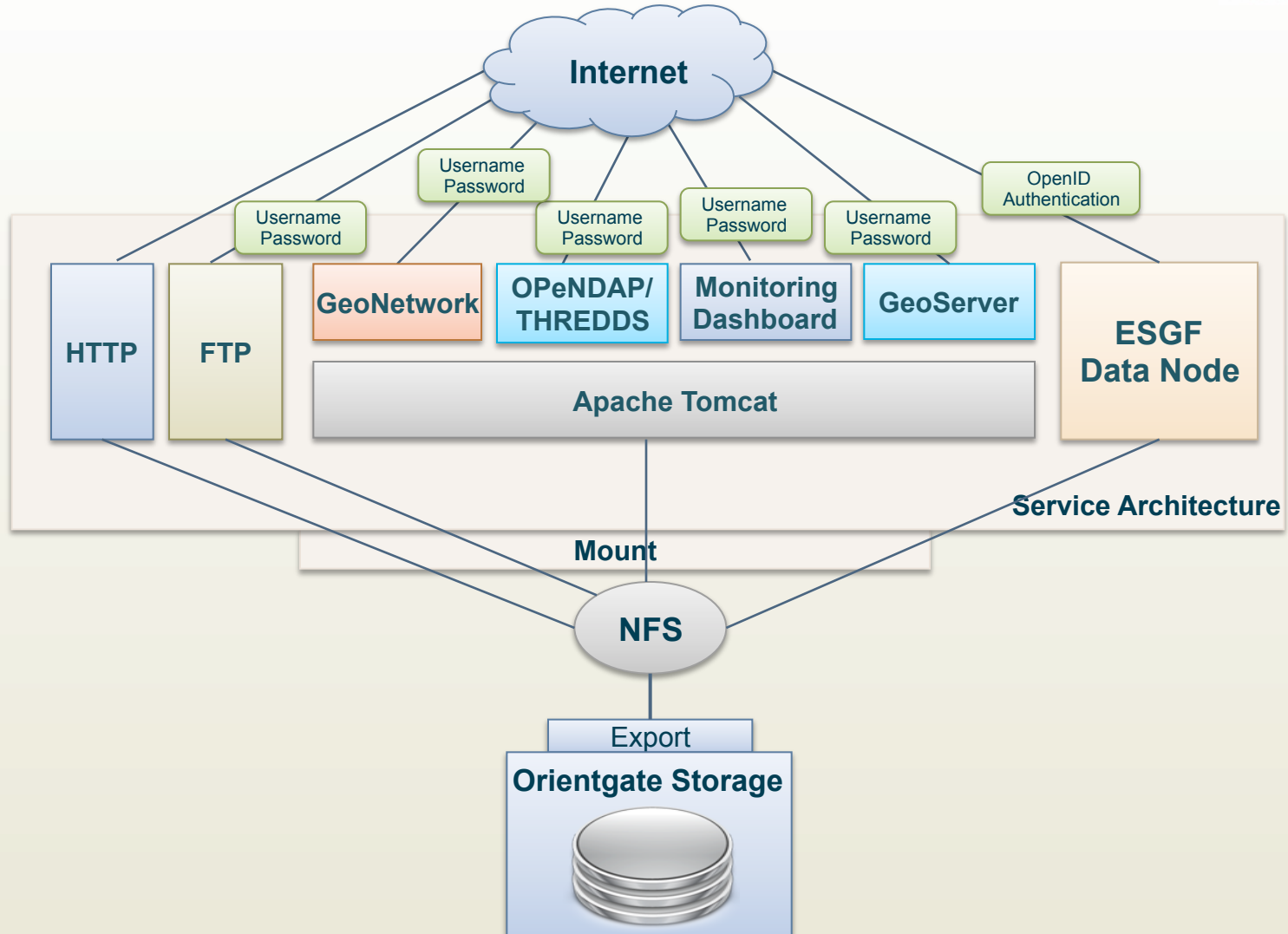
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Scientific Computing and Operations Division, CMCC*

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Impacts on Agriculture, Forest, and Natural Ecosystems Division, CMCC*

1. *The ORIENTGATE data platform: main objective*
2. *Climate datasets*
3. *Impact indicator datasets*
4. *Main services and exploitation examples*



ORIENTGATE data platform: main objective



ORIENTGATE data platform: main objective

Service Registry

Data Browsers

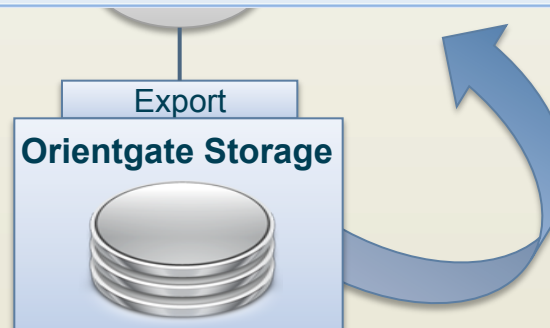
FTP THREDDS GEONETWORK GEOSERVER

Port: 21

Indice di ftp://orientgate02.cmcc.it/impacts/

Vai alla cartella superiore

Nome	Dimensione	Ultima modifica
adaptivecapacity_IPCC-AR4		11/10/13 00:00:00
exposure_IPCC-AR4		23/04/14 16:30:00
exposure_UN-DRR		30/04/14 08:53:00
hazard_UN-DRR		30/04/14 09:16:00
potentialimpact_IPCC-AR4		18/12/13 00:00:00
risk_UN-DRR		11/10/13 00:00:00
sensitivity_IPCC-AR4		11/10/13 00:00:00
vulnerability_IPCC-AR4		11/10/13 00:00:00
vulnerability_UN-DRR		18/12/13 00:00:00



The data platform gadget

The data platform gadget will be reachable under the section “Data” of the Orientgate website:

<http://www.orientgateproject.org/>

Service Registry

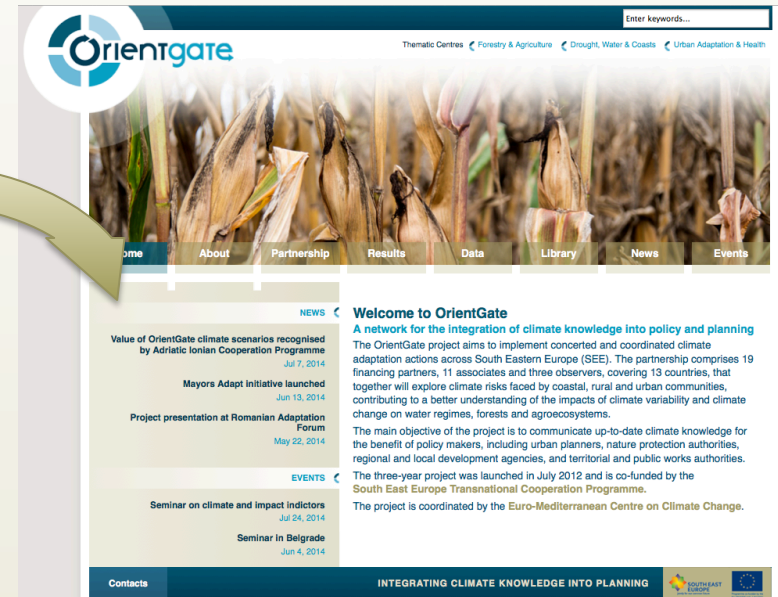
FTP | THESIS | GONETWORK | GOSERVER

Port 21

Indice di ftp://orientgate02.cmcc.it/impacts/

⚙️ Vai alla cartella superiore

Nome	Dimensione	Ultima modifica
adaptn_capacity_PCC-AB4		11/10/13 00:00:00
expansion_PCC-AB4		20/04/14 16:30:00
expansion_UN-DBR		30/04/14 08:53:00
resilient_UN-DBR		30/04/14 09:16:00
potential_impact_PCC-AB4		18/12/13 00:00:00
resilient_UN-DBR		11/10/13 00:00:00
resilient_PCC-AB4		11/10/13 00:00:00
vulnerability_PCC-AB4		11/10/13 00:00:00
vulnerability_UN-DBR		18/12/13 00:00:00



Enter keywords...

Thematic Centres: Forestry & Agriculture, Drought, Water & Coasts, Urban Adaptation & Health

Home About Partnership Results Data Library News Events

NEWS

Welcome to OrientGate
A network for the integration of climate knowledge into policy and planning
The OrientGate project aims to implement concerted and coordinated climate adaptation actions across South Eastern Europe (SEE). The partnership comprises 19 financing partners, 11 associates and three observers, covering 13 countries, that together will explore climate risks faced by coastal, rural and urban communities, contributing to a better understanding of the impacts of climate variability and climate change on water regimes, forests and agroecosystems.
The main objective of the project is to communicate up-to-date climate knowledge for the benefit of policy makers, including urban planners, nature protection authorities, regional and local development agencies, and territorial and public works authorities.
The three-year project was launched in July 2012 and is co-funded by the South East Europe Transnational Cooperation Programme.
The project is coordinated by the Euro-Mediterranean Centre on Climate Change.

EVENTS

Value of OrientGate climate scenarios recognised by Adriatic Ionian Cooperation Programme
Jul 7, 2014

Mayors Adapt Initiative launched
Jun 13, 2014

Project presentation at Romanian Adaptation Forum
May 22, 2014

Seminar on climate and impact indicators
Jul 24, 2014

Seminar in Belgrade
Jun 4, 2014

Contacts

INTEGRATING CLIMATE KNOWLEDGE INTO PLANNING

SOUTH EAST EUROPE
Programme co-funded by the EUROPEAN UNION

Climate datasets

Climate datasets are output of climate simulations within the Work Package 3 and they will be taken in input by the pilot studies.

A dataset is composed by a series of NetCDF files, one for each year of simulation, and are encoded following the rules that we know:

Dataset



acp

acp_2000.nc

acp_1999.nc

acp_1998.nc

acp_1997.nc

acp_1996.nc

acp_1995.nc

acp_1994.nc

acp_1993.nc

acp_1992.nc

acp_1991.nc

acp_1990.nc

acp_1989.nc

acp_1988.nc

institutenam_e_forcinginfo_modelinginfo_geographicalinfo_resolution_temporalsubset

Example of dataset:

RHMSS_ERA40_NMMB_Balkan_8km_1971-2000

Impact indicator datasets

Impact indicator datasets, instead, are the output of the pilot studies and consist of different kind (vector or raster, excel, table, netcdf, etc.) of files related to a specific indicator.

Notice that more than one dataset can refer to a single indicator.

Similarly to climate datasets, impact indicators are uniquely identified.

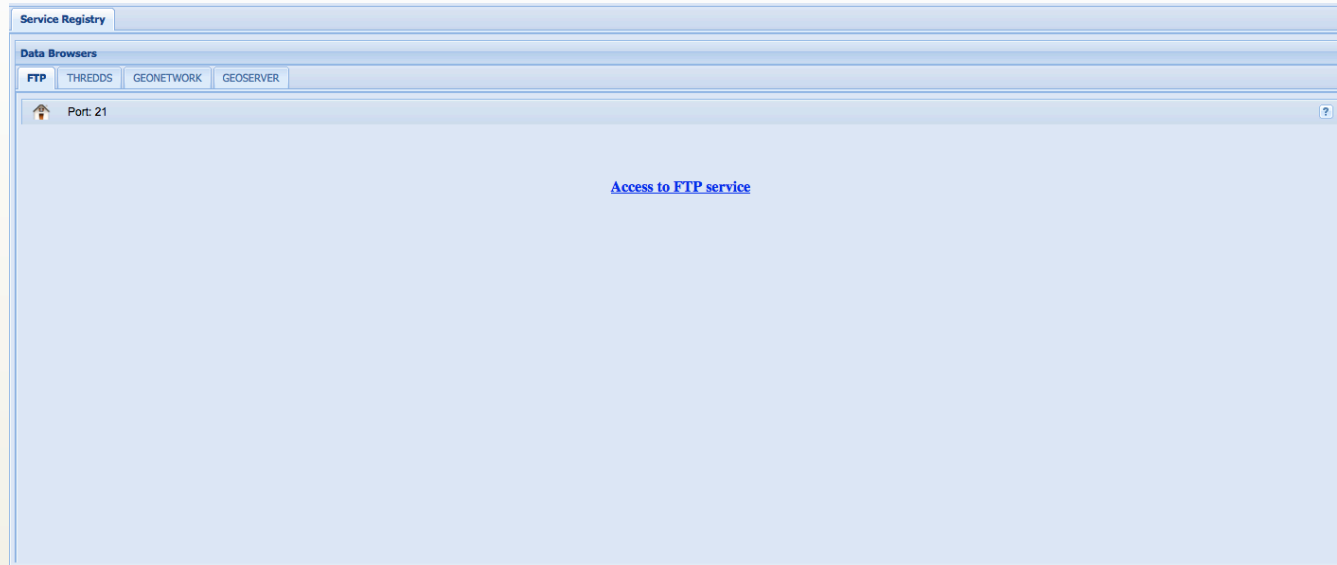
They are encoded in the following way:

<indicator_identifier>_<time_frequency>_<spatial_resolution>_<temporal_subset>_<scenario>

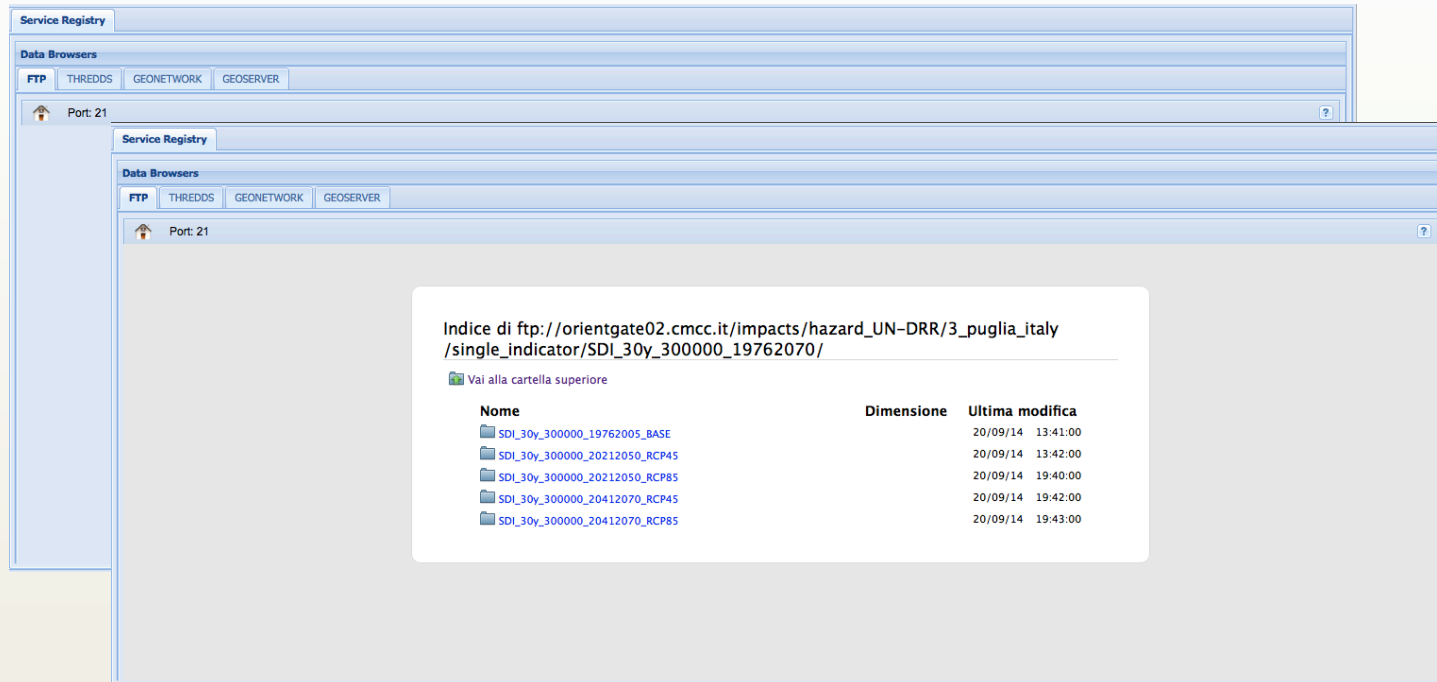
Example:

SDI_ 30y_ 300000_19762005_BASE

1. FTP (File Transfer Protocol)



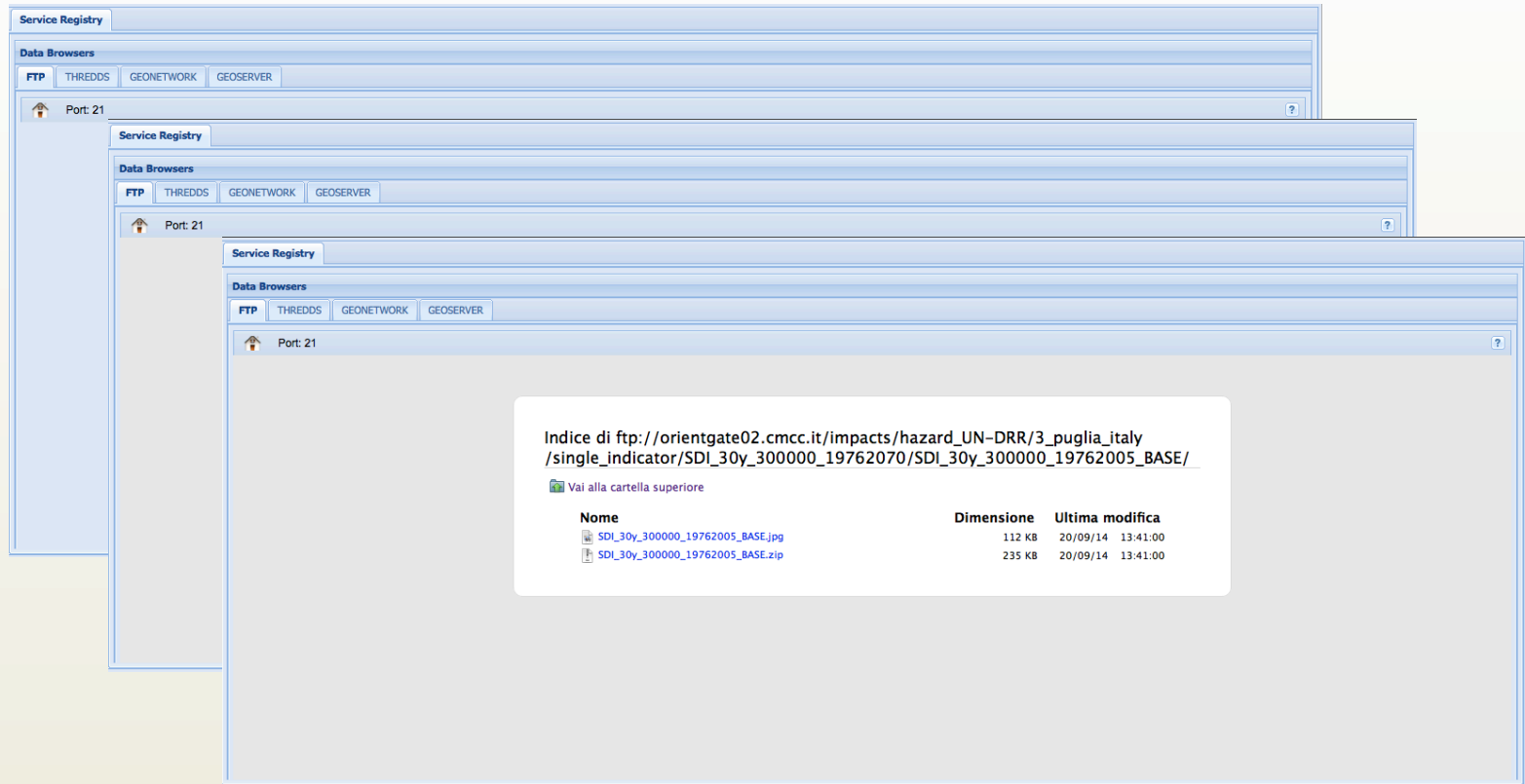
1. FTP (File Transfer Protocol)



The screenshot shows a web-based FTP client interface. The top navigation bar includes 'Service Registry' and 'Data Browsers'. Under 'Data Browsers', there are tabs for 'FTP', 'THREDDS', 'GEONETWORK', and 'GEOSEVER'. The 'FTP' tab is selected, and the address bar shows 'Port: 21'. The main content area displays a directory listing for the path `ftp://orientgate02.cmcc.it/impacts/hazard_UN-DRR/3_puglia_italy/single_indicator/SDI_30y_300000_19762070/`. A link 'Vai alla cartella superiore' is provided above the listing. The listing itself is a table with three columns: 'Nome', 'Dimensione', and 'Ultima modifica'.


Nome	Dimensione	Ultima modifica
SDI_30y_300000_19762005_BASE		20/09/14 13:41:00
SDI_30y_300000_20212050_RCP45		20/09/14 13:42:00
SDI_30y_300000_20212050_RCP85		20/09/14 19:40:00
SDI_30y_300000_20412070_RCP45		20/09/14 19:42:00
SDI_30y_300000_20412070_RCP85		20/09/14 19:43:00



1. FTP (File Transfer Protocol)



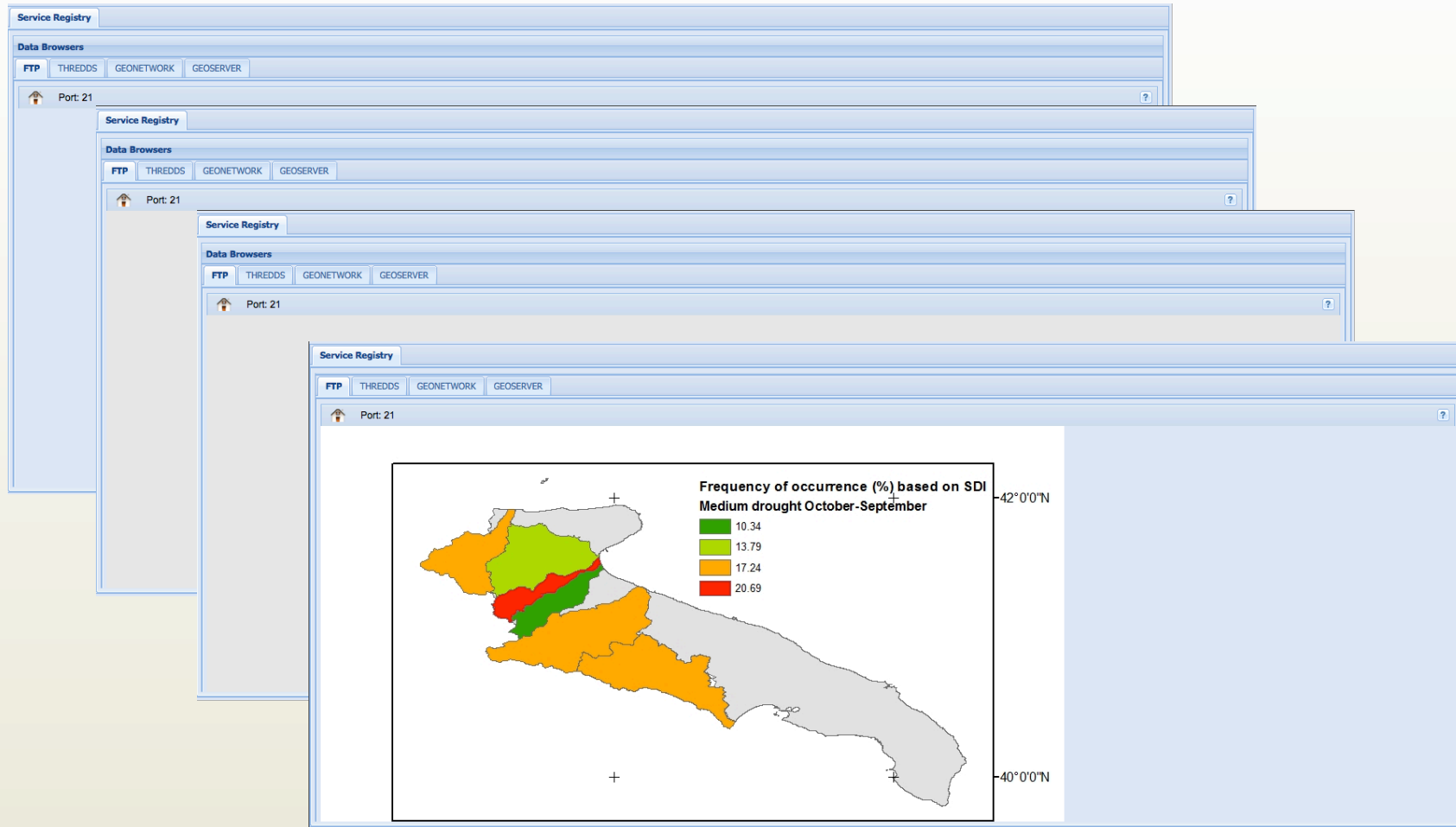
The screenshot shows a web-based FTP client interface with multiple overlapping windows. The active window displays a directory listing for the path: `ftp://orientgate02.cmcc.it/impacts/hazard_UN-DRR/3_puglia_italy/single_indicator/SDI_30y_300000_19762070/SDI_30y_300000_19762005_BASE/`. The interface includes tabs for 'Service Registry', 'Data Browsers', and 'FTP'. The 'FTP' tab is selected, showing a list of files with their names, sizes, and modification dates.

Indice di `ftp://orientgate02.cmcc.it/impacts/hazard_UN-DRR/3_puglia_italy/single_indicator/SDI_30y_300000_19762070/SDI_30y_300000_19762005_BASE/`

 [Vai alla cartella superiore](#)

Nome	Dimensione	Ultima modifica
 SDI_30y_300000_19762005_BASE.jpg	112 KB	20/09/14 13:41:00
 SDI_30y_300000_19762005_BASE.zip	235 KB	20/09/14 13:41:00

1. FTP (File Transfer Protocol)



GeoNetwork is a catalog application to manage spatially referenced resources.

It provides:

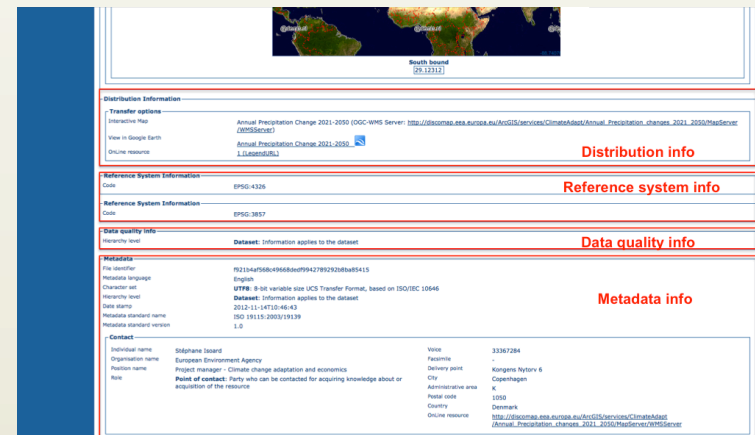
- Search&Discovery in multiple catalogs through a website
- Data download
- Users and Group management
- Access to interactive maps
- Support for multiple metadata standards
- Metadata editing tool



Identification info

Point of contact info

Geographical info




Distribution info

Reference system info

Data quality info

Metadata info

2. GeoNetwork



Geographic data sharing for everyone







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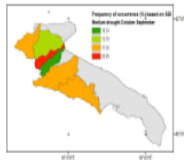
Username Password [Login](#)

[Simple Search](#) [Advanced Search](#)

☒ Show map

FIND INTERACTIVE MAPS, GIS DATASETS, SATELLITE IMAGERY AND RELATED APPLICATIONS



IDENTIFICATION INFO

Title SDI_30y_300000_19762005_BASE
Date 2014-09-19T13:00:00
Date type **Creation:** Date identifies when the resource was brought into existence


Cited responsible party

Individual name Monia Santini
Organisation name Centro Euro-Mediterraneo sui Cambiamenti Climatici
Position name Researcher
Role **Author:** Party who authored the resource

Presentation form **Digital map:** Map represented in raster or vector form
Abstract This dataset represents the frequency of classes of the Streamflow Drought Index (SDI; Nalbantis and Tsakiris 2008) calculated for six significant hydrographic basins in Puglia (IT), namely Fortore, Candelaro, Cervaro, Carapelle, Ofanto, Bradano. The frequency was calculated for multi-month periods (3, 6, 9, 12 months) along a 30-year time frame from 1976 to 2005 being the baseline of Pilot 3. Streamflow data were derived from

Reset
[Options](#)

- Applications
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- Case studies, best practices
- Conference proceedings
- Datasets
- Directories
- Interactive resources
- Maps & graphics
- Other information resources
- Photo
- Physical Samples
- Registers
- Z3950 Servers

 **GeoRSS**

- SDI_30y_300000_19762005_BASE
- SDI_30y_300000_20212050_RCP45
- SDI_30y_300000_20212050_RCP85
- SDI_30y_300000_20412070_RCP45
- SDI_30y_300000_20412070_RCP85

2. GeoNetwork



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English


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- Any -

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- Conference proceedings
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- Directories
- Interactive resources
- Maps & graphics
- Other information resources
- Photo
- Physical Samples
- Registers
- 23950 Servers

 **GeoRSS**

- SDI_30y_300000_19762005_BASE
- SDI_30y_300000_20212050_RCP45
- SDI_30y_300000_20212050_RCP85
- SDI_30y_300000_20412070_RCP45
- SDI_30y_300000_20412070_RCP85



West bound 14.60929

East bound 16.86578

South bound 40.34407

DISTRIBUTION INFORMATION

Name	Shapefile
Transfer options	
Transfer size	0.234
Transfer options	
Online resource	ftp://orientgate02.cmcc.it/impacts/hazard_UN-DRR/3_puglia_italy/single_indicator/SDI_30y_300000_19762070/SDI_30y_300000_19762005_BASE/

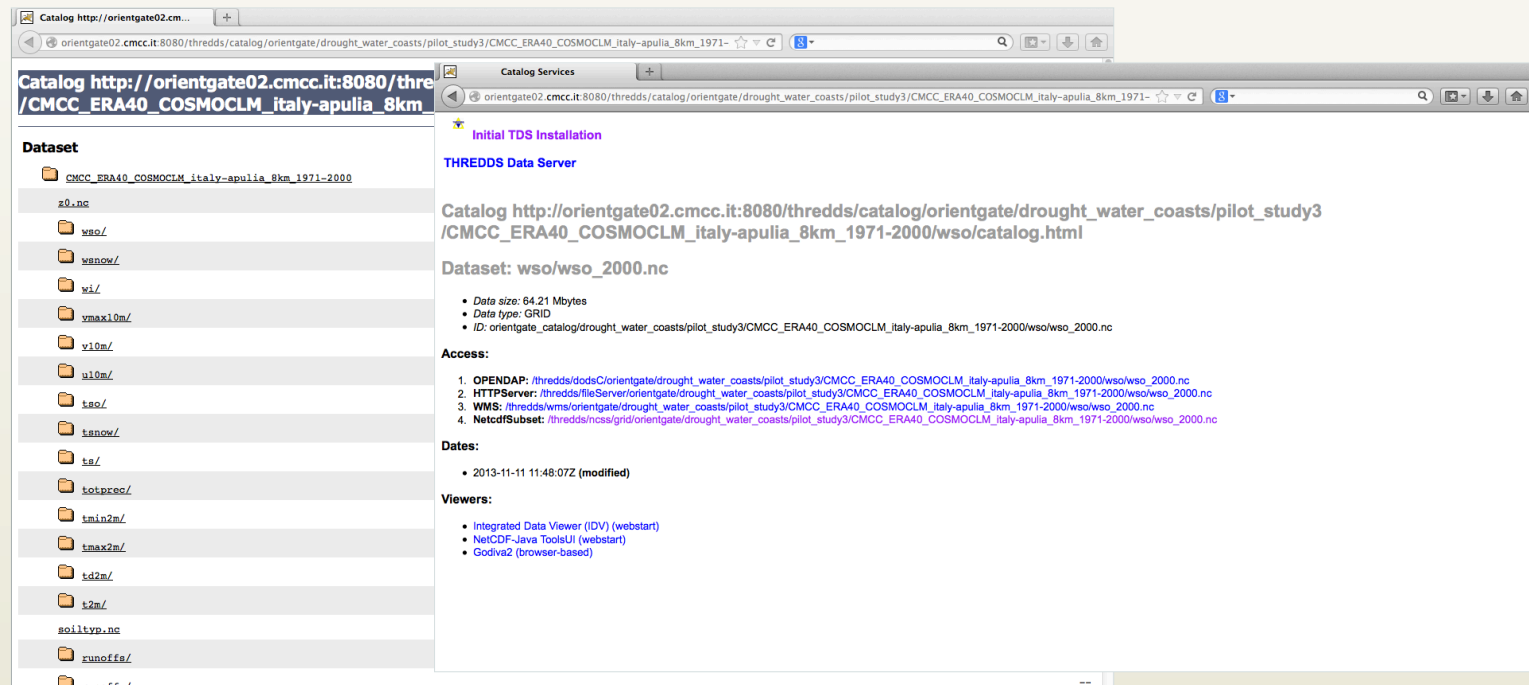
ftp://orientgate02.cmcc.it/impacts/hazard_UN-DRR/3_puglia_italy/single_indicator/SDI_30y_300000_19762070/SDI_30y_300000_19762005_BASE/

3. THREDDS (Thematic Realtime Environmental Distributed Data Services)



The THREDDS service aims at bridging the gap between data providers and data users.

The goal is to simplify the discovery and use of scientific data and to allow scientific publications and educational materials to reference scientific data.



Catalog http://orientgate02.cmcc.it:8080/thredds/catalog/orientgate/drought_water_coasts/pilot_study3/CMCC_ERA40_COSMOCLM_italy-apulia_8km_1971-2000/wso/catalog.html

Dataset

- CMCC_ERA40_COSMOCLM_italy-apulia_8km_1971-2000
 - z0.nc
 - wso/
 - wnow/
 - wi/
 - vmax10m/
 - v10m/
 - v10m/
 - iso/
 - snw/
 - ts/
 - totprec/
 - imin2m/
 - imax2m/
 - sd2m/
 - z2m/
 - soiltvp.nc
 - runoffs/
 - runoffn/

Initial TDS Installation

THREDDS Data Server

Catalog http://orientgate02.cmcc.it:8080/thredds/catalog/orientgate/drought_water_coasts/pilot_study3/CMCC_ERA40_COSMOCLM_italy-apulia_8km_1971-2000/wso/catalog.html

Dataset: wso/wso_2000.nc

- Data size: 64.21 Mbytes
- Data type: GRID
- ID: orientgate_catalog/drought_water_coasts/pilot_study3/CMCC_ERA40_COSMOCLM_italy-apulia_8km_1971-2000/wso/wso_2000.nc

Access:

- OPENDAP: thredds.dods/orientgate/drought_water_coasts/pilot_study3/CMCC_ERA40_COSMOCLM_italy-apulia_8km_1971-2000/wso/wso_2000.nc
- HTTPServer: thredds/fileServer/orientgate/drought_water_coasts/pilot_study3/CMCC_ERA40_COSMOCLM_italy-apulia_8km_1971-2000/wso/wso_2000.nc
- WMS: thredds/wms/orientgate/drought_water_coasts/pilot_study3/CMCC_ERA40_COSMOCLM_italy-apulia_8km_1971-2000/wso/wso_2000.nc
- NetcdfSubset: thredds/netcdf/orientgate/drought_water_coasts/pilot_study3/CMCC_ERA40_COSMOCLM_italy-apulia_8km_1971-2000/wso/wso_2000.nc

Dates:

- 2013-11-11 11:48:07Z (modified)

Viewers:

- Integrated Data Viewer (IDV) (webstart)
- NetCDF-Java ToolsUI (webstart)
- Godiva2 (browser-based)

3. THREDDS (Thematic Realtime Environmental Distributed Data Services)

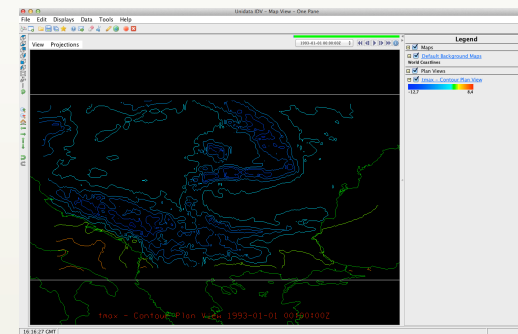
THREDDS is a web server providing features of metadata and data access using:

- **HTTP**, to download the data using a web browser
- **OPeNDAP** protocol, to subset data with the web browser without downloading the entire file
- **WMS** and **WCS**, XML file to be used by visualization tools
- **NetCDF subset service**, a web service for subsetting data in order to allow partial download of huge climate datasets and permit users to get exactly what they need.

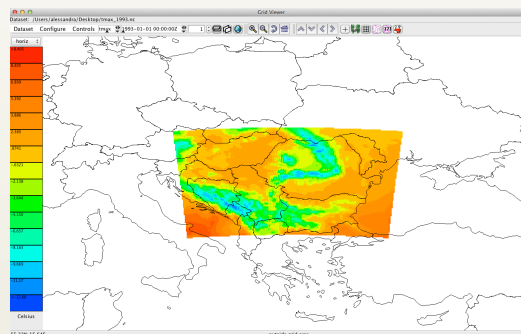
THREDDS Integrated Viewers

THREDDS also offers the possibility to visualize the data, through some integrated viewers:

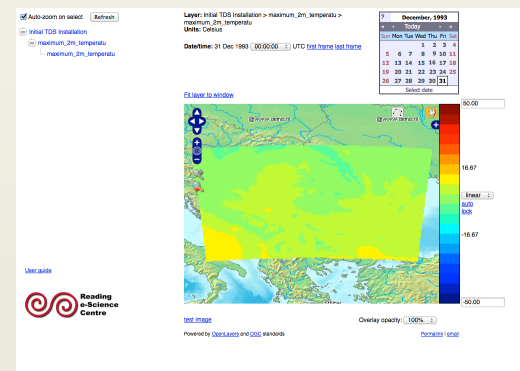
IDV (Integrated Data Viewer)



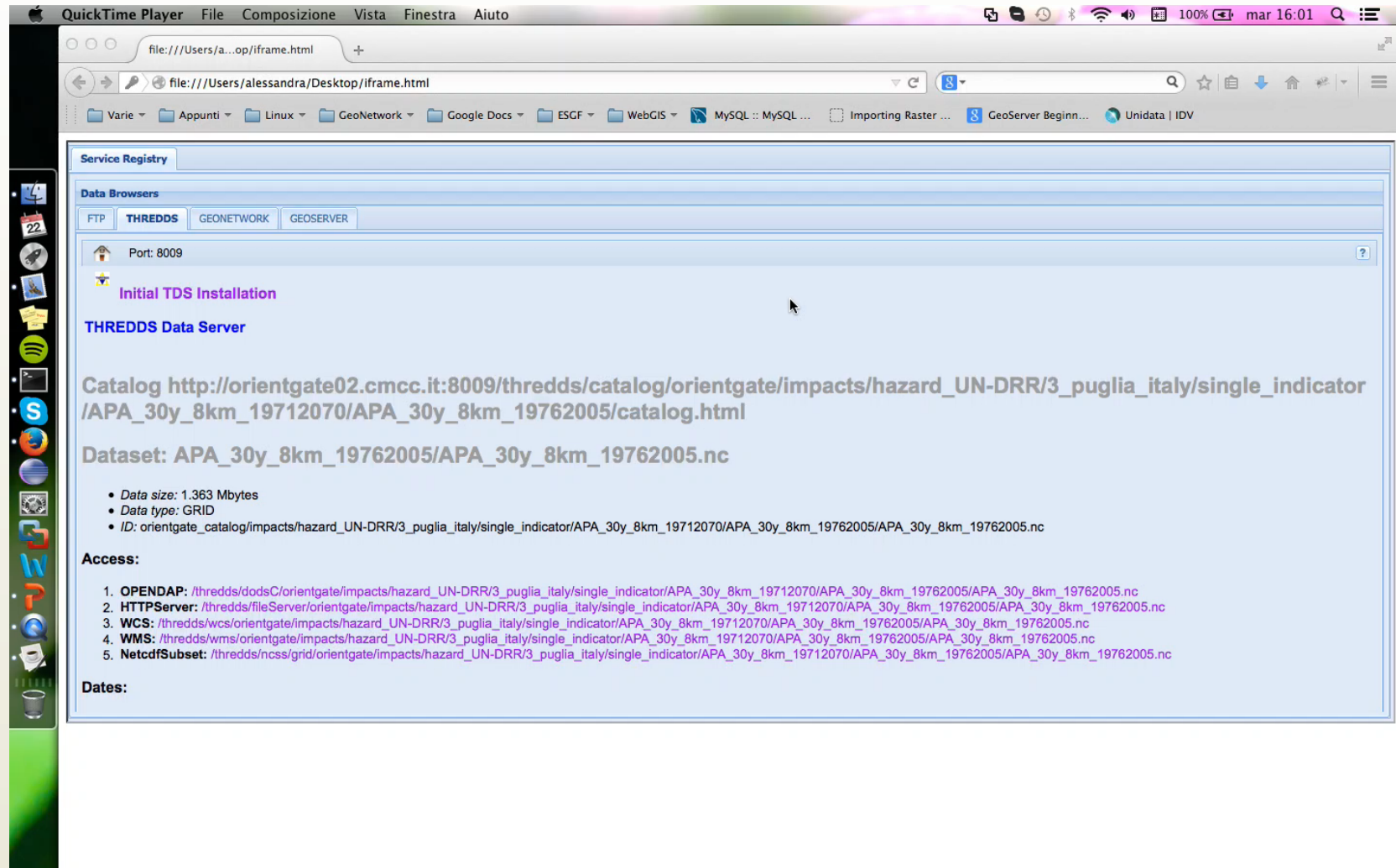
Java Tools UI



GODIVA 2



THREDDS viewers example



QuickTime Player File Composizione Vista Finestra Aiuto

file:///Users/a...op/iframe.html

file:///Users/alessandra/Desktop/iframe.html

Varie Appunti Linux GeoNetwork Google Docs ESGF WebGIS MySQL :: MySQL ... Importing Raster ... GeoServer Beginn... Unidata | IDV

Service Registry

Data Browsers

FTP THREDDS GEONETWORK GEOSERVER

Port: 8009

Initial TDS Installation

THREDDS Data Server

Catalog http://orientgate02.cmcc.it:8009/thredds/catalog/orientgate/impacts/hazard_UN-DRR/3_puglia_italy/single_indicator/APA_30y_8km_19712070/APA_30y_8km_19762005/catalog.html

Dataset: APA_30y_8km_19762005/APA_30y_8km_19762005.nc

- Data size: 1.363 Mbytes
- Data type: GRID
- ID: orientgate_catalog/impacts/hazard_UN-DRR/3_puglia_italy/single_indicator/APA_30y_8km_19712070/APA_30y_8km_19762005/APA_30y_8km_19762005.nc

Access:

1. OPENDAP: [/thredds/dodsC/orientgate/impacts/hazard_UN-DRR/3_puglia_italy/single_indicator/APA_30y_8km_19712070/APA_30y_8km_19762005/APA_30y_8km_19762005.nc](http://thredds/dodsC/orientgate/impacts/hazard_UN-DRR/3_puglia_italy/single_indicator/APA_30y_8km_19712070/APA_30y_8km_19762005/APA_30y_8km_19762005.nc)
2. HTTPServer: [/thredds/fileServer/orientgate/impacts/hazard_UN-DRR/3_puglia_italy/single_indicator/APA_30y_8km_19712070/APA_30y_8km_19762005/APA_30y_8km_19762005.nc](http://thredds/fileServer/orientgate/impacts/hazard_UN-DRR/3_puglia_italy/single_indicator/APA_30y_8km_19712070/APA_30y_8km_19762005/APA_30y_8km_19762005.nc)
3. WCS: [/thredds/wcs/orientgate/impacts/hazard_UN-DRR/3_puglia_italy/single_indicator/APA_30y_8km_19712070/APA_30y_8km_19762005/APA_30y_8km_19762005.nc](http://thredds/wcs/orientgate/impacts/hazard_UN-DRR/3_puglia_italy/single_indicator/APA_30y_8km_19712070/APA_30y_8km_19762005/APA_30y_8km_19762005.nc)
4. WMS: [/thredds/wms/orientgate/impacts/hazard_UN-DRR/3_puglia_italy/single_indicator/APA_30y_8km_19712070/APA_30y_8km_19762005/APA_30y_8km_19762005.nc](http://thredds/wms/orientgate/impacts/hazard_UN-DRR/3_puglia_italy/single_indicator/APA_30y_8km_19712070/APA_30y_8km_19762005/APA_30y_8km_19762005.nc)
5. NetcdfSubset: [/thredds/netcdf/orientgate/impacts/hazard_UN-DRR/3_puglia_italy/single_indicator/APA_30y_8km_19712070/APA_30y_8km_19762005/APA_30y_8km_19762005.nc](http://thredds/netcdf/orientgate/impacts/hazard_UN-DRR/3_puglia_italy/single_indicator/APA_30y_8km_19712070/APA_30y_8km_19762005/APA_30y_8km_19762005.nc)

Dates:

4. GeoServer

GeoServer is an open-source software allowing users to share, process and edit geospatial data.

It allows data publication from any major spatial data source using open standards, such as WMS (Web Map Service), WFS (Web Feature Service) and WCS (Web Coverage Service)

- GeoServer reads a variety of data formats, including:
 - ☐ Shapefile
 - ☐ GeoTIFF
 - ☐ GTOPO30
 - ☐ ECW, MrSID
 - ☐ JPEG2000
 - ☐ Post GIS
 - ☐ MySQL
 - ☐ DB2
 - ☐ ArcSDE
 - ☐ Oracle Spatial
- Output formats: KML, GML, Shapefile, GeoRSS, PDF, GeoJSON, JPEG, GIF, SVG, PNG and other more formats.
- Integrated OpenLayers client for previewing data layers.
- Efficient publishing of geospatial data to Google Earth, using KML language.


Service Registry

Data Browsers


FTP THREDDS GEONETWORK **GEOSERVER**

Port: 8081


GeoServer

Username Remember me ☐  Login

About & Status

 About GeoServer

Data






 Layer Preview

Demos

Layer Preview

List of all layers configured in GeoServer and provides previews in various formats for each.

<< < 1 > >> Results 1 to 5 (out of 5 items)

Type	Name	Title	Common Formats	All Formats
	orientgate:SDI_30y_300000_20212050_RCP45	SDI_30y_300000_20212050_RCP45	OpenLayers KML GML	Select one
	orientgate:SDI_30y_300000_20412070_RCP85	SDI_30y_300000_20412070_RCP85	OpenLayers KML GML	Select one
	orientgate:SDI_30y_300000_20212050_RCP85	SDI_30y_300000_20212050_RCP85	OpenLayers KML GML	Select one
	orientgate:SDI_30y_300000_19762005_BASE	SDI_30y_300000_19762005_BASE	OpenLayers KML GML	Select one
	orientgate:SDI_30y_300000_20412070_RCP45	SDI_30y_300000_20412070_RCP45	OpenLayers KML GML	Select one

<< < 1 > >> Results 1 to 5 (out of 5 items)


GeoServer example


Service Registry

Data Browsers

FTP THREDDS GEONETWORK **GEOSEVER**

Port: 8081

 **GeoServer**

Username Remember me ☐  Login

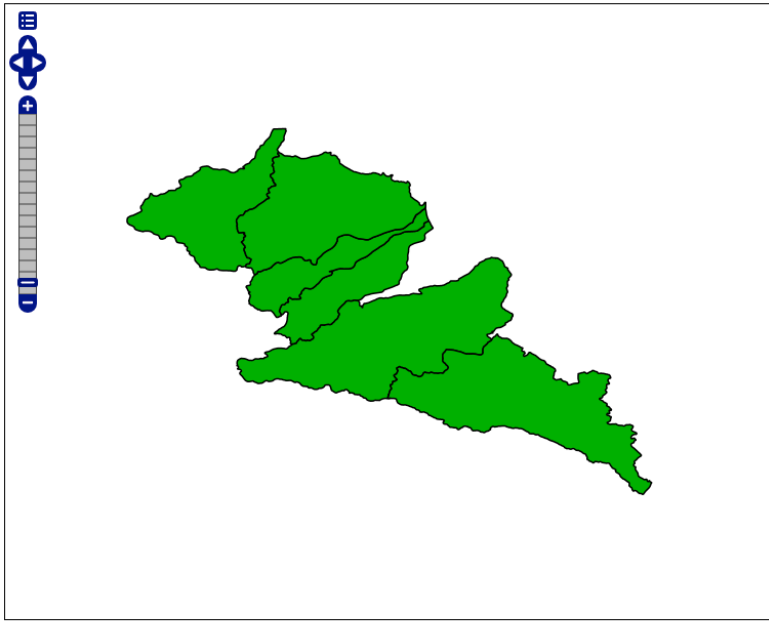
About & Status

[About GeoServer](#)

Data

[Layer Preview](#)

Demos

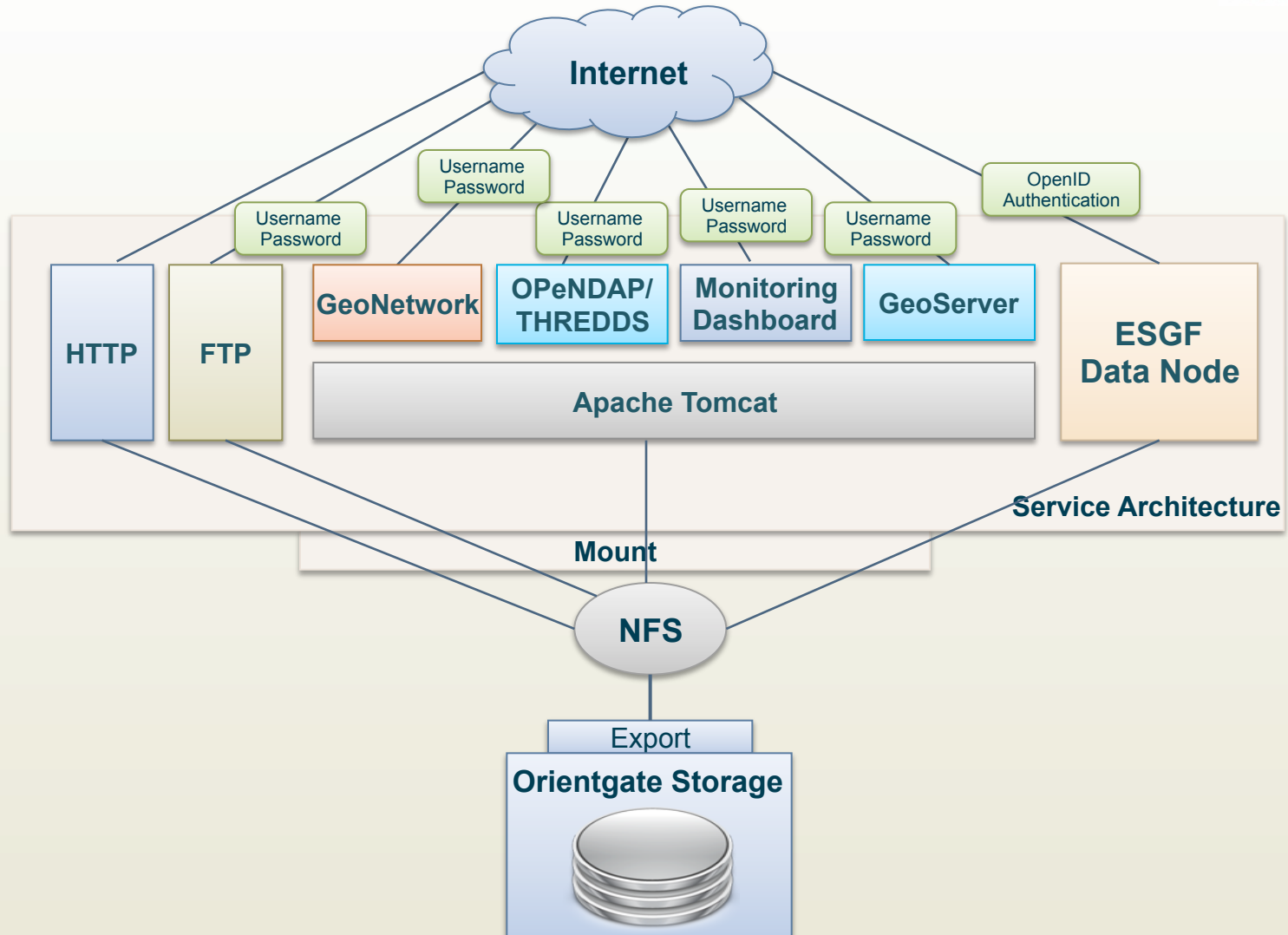


Scale = 1 : 2M 16.34132, 41.05338

SDI_30y_300000_19762005_BASE

fId	NOME	area_km2	SDI1_N	SDI1_L	SDI1_M	SDI1_H	SDI1_E	SDI2_N	SDI2_L	SDI2_M	SDI2_H	SDI2_E	SDI3_N	SDI3_L	SDI3_M	SDI3_H	SDI3_E	SDI4_N	SDI4_L	SDI4_M	SDI4_H	SDI4_E
SDI_30y_300000_19762005_BASE.4	Ofanto	3117.80043091	43.33	56.67	0.0	0.0	0.0	48.28	37.93	10.34	3.45	0.0	44.83	34.48	20.69	0.0	0.0	44.83	37.93	17.24	0.0	0.0

ORIENTGATE data platform: main objective





CLIMATE-ADAPT

European Climate Adaptation Platform

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About Climate Change Adaptation in Europe

The European Climate Adaptation Platform (Climate-ADAPT) aims to support Europe in adapting to [climate change](#). It is an initiative of the European Commission and helps users to access and share information on:

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Thank you!

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