



ILMATIETEEN LAITOS
METEOROLOGISKA INSTITUTET
FINNISH METEOROLOGICAL INSTITUTE

SEN3APP

Workshop on Remote Sensing Products of Cryosphere using Sentinels

Project Geoportal & Access

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GAMMA REMOTE SENSING



SYKE





Content

- **Project geoportal background**
- **Products Description page**
- **Products Access**
- **Tools to access the Products**



Project Geoportal Background

- **Hardware**

- intel xeon cpu e5645 @2.4GHz , 12GB ram and 6 cores
- 60TB hard disk storage

- **Software:**

- Commercial software ERDAS APOLLO Advantage
- ERDAS APOLLO is an enterprise-class, comprehensive data management, analysis, and delivery system enabling an organization to catalog, search, discover, process, and securely disseminate massive volumes of both file-based and web-enabled data.



Products Description Page

- The Sen3App products description page contains each product description and details on how to access the product
- <http://sen3app.fmi.fi/index.php?style=main&page=Products>

SEN3APP
PROCESSING LINES AND OPERATIONAL SERVICES COMBINING SENTINEL AND IN-SITU DATA FOR TERRESTRIAL CRYOSPHERE AND BOREAL FOREST ZONE

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Products

In these pages, the products generated within the EU FP7 project SEN3APP are described and information on how to access the products is provided.

SEN3APP products can be downloaded via the FMIARC GeoPortal (<http://saana.nsdcm.fmi.fi/fmiarc-geoportal>) and the CryoLand GeoPortal (<http://meso1.cryoland.enveo.at/cryoclient/>). For more information about the FMIARC geoportal and the CryoLand GeoPortal contact Mwaba Hiltunen () fmi.fi and gabriele.bippus () enveo.at, respectively.

Methods of downloading data:

- WebClient: FMIARC- GeoPortal and CryoLand GeoPortal
- FTP services
- Web Coverage Service (WCS)
- Web Map Service (WMS)
- Drop box
- Http

SEN3APP products are grouped into four categories: Land cover and phenology; Snow, Glacier and Lake Ice products.

You may use the left side menu or the links below for details about the products and method to access each product. Pages for some products are not available yet.

Notice board

15-04-2016: The Copernicus Value Chain Workshop will take place at the Crowna Plaza, Brussels, Belgium on the 29th and 27th of April 2016.

Snow Products



Snow Products Access ...(1)

- Fractional Snow Cover Extent for Northern Hemisphere from optical data (FMI & SYKE)
- Extended Baltic Sea drainage basin direct broadcast FSC based on NPP VIIRS/Sentinel-3 SLSTR (SYKE&FMI)
- High Resolution (5km) Pan-European SWE Product (Augmented Using Optical FSC Data) (FMI)

ACCESS:

- <http://saana.nsd.c.fmi.fi/fmiarc-geoportal/>
- FTP on request



Snow Products Access ...(2)

- Regional wet snow cover from Sentinel-1 data (ENVEO)
- Regional and Pan-European Fractional Snow Cover product from synergistic Sentinel-3 SLSTR/OLCI data (ENVEO)

ACCESS:

- <http://neso1.cryoland.enveo.at/cryoclient/>

Example product available from

- <http://saana.nsd.c.fmi.fi/fmiarc-geoportal/>



Lake Ice Extent Product Access

ACCESS:

- <http://neso1.cryoland.enveo.at/cryoclient/>



Glacier Products Access

GLO – Glacier outlines and Snow / Ice areas on Glaciers products (ENVEO)

- Products are provided only on demand via FTP or e-Mail.

Ice velocity (GAMMA)

- Products are provided on demand. Access is provided via a unique http link.

Example product is available from

- <http://saana.nsd.c.fmi.fi/fmiarc-geoportal>



Land Cover and Phenology Products Access

Phenology and Crop / vegetation classification products (SYKE)

ACCESS:

- Available on request

Example products are available from

- <http://saana.nsdci.fmi.fi/fmiarc-geoportal/>



Tools to access the Products

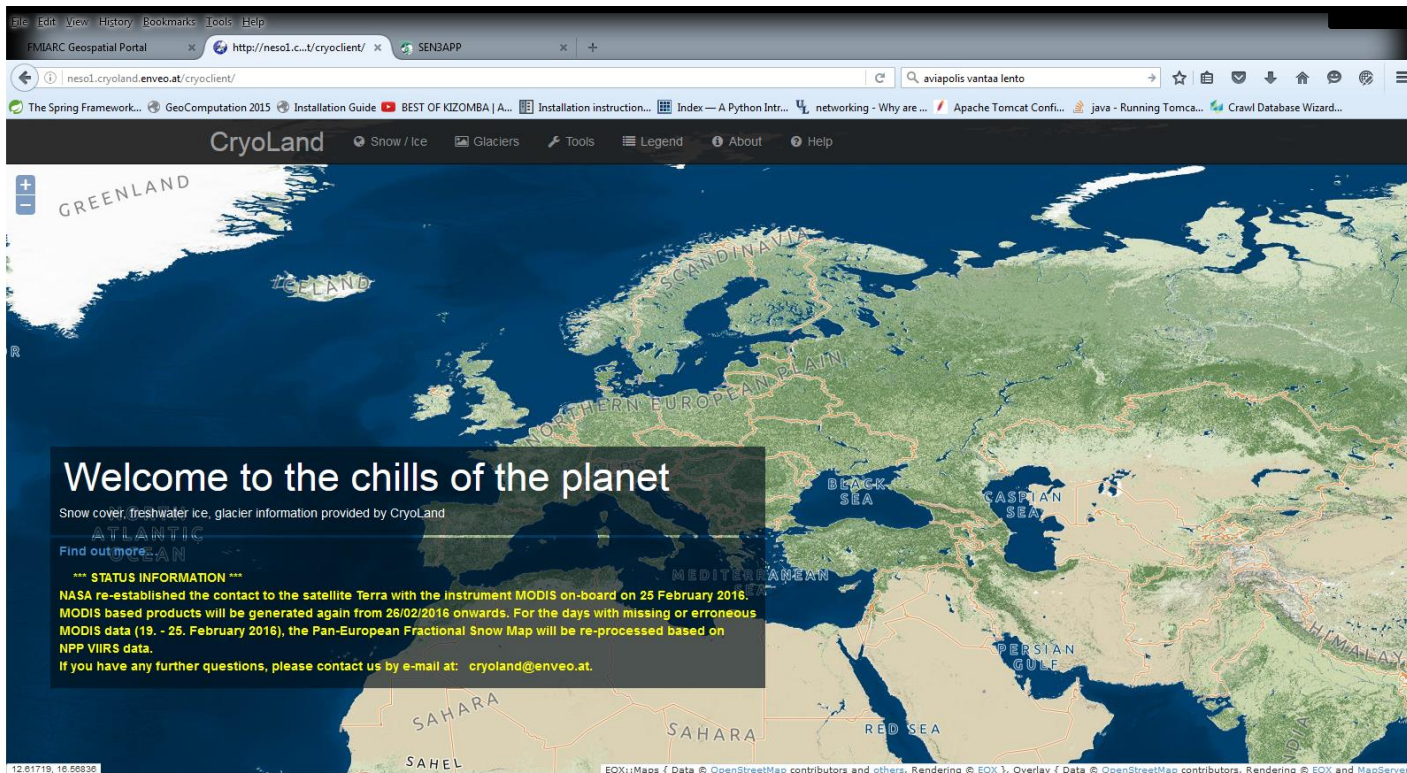
- **FMIARC-geoportal**
 - <http://saana.nsd.c.fmi.fi/fmiarc-geoportal/>

The screenshot shows the FMIARC Geospatial Portal interface. The browser address bar displays <http://saana.nsd.c.fmi.fi/fmiarc-geoportal/>. The page title is "FMIARC Geospatial Portal" and the logo for "GDCC FMIARC NSDC" is visible in the top right. The main content area features a map of Europe with a data overlay. The left sidebar contains a "Map Content" section with a search bar and a "Browse FMIARC Catalog" section. The "Browse FMIARC Catalog" section is expanded to show a tree view of services and projects, including "CryoLand", "GlobSnow", "SEN3APP", "FSC", "GLACIER", "LandCover", "PHENOLOGY", "SCAW", "SWE", and "SnowCarbo". The "SWE" layer is selected, and its metadata is displayed in the bottom right panel. The metadata includes the name "20150216_fm1_superswe", title "20150216_fm1_superswe", registration date "2016-03-10T07:47:34Z", SRS "EPSG:4326", and extents "-24.97,24.99,44.99,75.03". The description states: "Description: The Snow Water Equivalent (SWE) product is based on passive microwave observations and SYNOP weather station snow depth observation. The product is generated by an assimilation process resulting in maps of SWE estimates (0.05 degrees WGS84 grid) over the Pan-European region, covering all land surface [...].". The keywords are "Land cover,SWE,FMI". The bottom of the page shows a pagination bar with "Page 1 of 39" and "10 Items per page".



Tools to access the Products

- **CryoLand geoportal**
 - <http://neso1.cryoland.enveo.at/cryoclient/>





Tools to access the Products

- **HTTP Requests – browser example**

http://saana.nsdci.fmi.fi/erdas-apollo/coverage_public/EAIM?

[VERSION=1.1.1&](#)

[SERVICE=WMS&](#)

[STYLES=default&](#)

[LAYERS=20160405_fmi_superswe&](#)

[Request=GetMap&](#)

[WIDTH=500&HEIGHT=1024&](#)

[SRS=EPSG:3067&](#)

[BBOX=50199.481399999997,6582464.03579999997,761274.62470000004,7795461.188468289&](#)

[FORMAT=image/png](#)



Tools to access the Products

- **Other Clients that support OGC WMS, WCS Requests**
 - GIS Tools / softwares
 - Quantum GIS
 - Erdas imagine
- **Batch or automated requests can be implemented through scripting**
 - Curl , wget, Gdal



Links

- <http://sen3app.fmi.fi/index.php?style=main&page=Products>
- <http://saana.nsd.c.fmi.fi/fmiarc-geoportal/>
- <http://neso1.cryoland.enveo.at/cryoclient/>



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THANK YOU!
Feedback & Questions?