## WIS - GEOSS interoperability

## Abstract

The WIS metadata catalogue is included in GEOSS (Global Earth Observation System of Systems) operational since 13th July 2012. Changes in any WIS metadata are automatically synchronized in the GEOSS portal. Technically this is realized via the “Euro-GEOSS Broker” which harvests the WIS catalogue form GISC Offenbach; GISC Tokyo serves as backup gateway.

## Introduction

One function of the GISCs is to provide a WIS metadata catalogue for meteorological data and products, the WIS catalogue is synchronized between the GISCs. GEOSS offers a Web portal to search for any kind of Earth observation data at <http://geoportal.org>; data and products described in the WIS metadata catalogue can be found in the GEOSS portal since 13th July 2012. Any operational update of WIS metadata from a NC, DCPC or GISC is automatically available at the GEOSS portal.

## Methods

The GISCs use the “Open Archive Initiative Protocol for Metadata Harvesting” (OAI-PMH) to synchronize the WIS metadata catalogue.

An example for an OAI request is:

<http://www.wis-jma.go.jp/meta/oaiprovider.jsp?verb=ListIdentifiers&metadataPrefix=iso19139&set=WIS-CATALOGUE>

This example requests a list of the metadata identifiers of the WIS-CATALOGUE set from GISC Tokyo.

An example for an OAI request with the “from” attribute and a datestamp:

http://oai.dwd.de/oai/provider?verb=ListIdentifiers&metadataPrefix=iso19139&set=WIS-CATALOGUE&from=2013-06-28T10:33:49z

This example requests a list of the metadata identifiers of the WIS-CATALOGUE set from GISC Offenbach from a given datestamp.

The Euro-GEOSS broker (<http://www.eurogeoss.eu/broker/>) uses OAI-PMH Protocol to harvest the WIS-CATALOGUE from GISC Offenbach with a harvesting interval of about 20min and an incremental request of the changes since the last harvesting request, taking also into account the deleted records. After harvesting the WIS Metadata Catalogue, the Euro-GEOSS broker inserts the records into geoportal.org. GISC Tokyo serves as a backup gateway for GEOSS.

There might be additional ways how metadata records can be inserted into GEOSS. In Germany, for instance, all metadata of georeferenced data and products of all federal institutions shall be collected at <http://geoportal.de>. This “german” catalogue shall be also harvested from the Euro-GEOSS broker in the future. Checks for the identifier of the records can avoid double entries in the catalogues.

From the GISCs, SRU can be used to search the GEOSS catalogue. As an example, <http://gisc.dwd.de/SRU2JDBC/> gives the possibility to issue a search at the GEOSS Clearinghouse.

## Links

* http://geoportal.org
* http://geoportal.de
* <http://gisc.dwd.de>
* http://oai.dwd.de/oai/
* http://www.eurogeoss.eu/broker/
* http://www.wis-jma.go.jp

## Recommended Text

Mr. Markus Heene (DWD) presented the paper on WIS - GEOSS interoperability. The WIS metadata catalogue is included in GEOSS (Global Earth Observation System of Systems) operational since 13th July 2012. Changes in any WIS metadata are automatically synchronized in the GEOSS portal. Technically this is realized via the “Euro-GEOSS Broker” which harvests the WIS catalogue form GISC Offenbach via OAI-PMH; GISC Tokyo serves as backup gateway.