

**Sub-task Number:** CB-09-05a

**Sub-task Title:** Open Source Software

**Overarching Task:** Infrastructure Development and Technology Transfer for Information Access

**Area:** CAPACITY BUILDING

**Relevant Committee:** CBC

**Related Targets:** (to be included in 2009)

**Sub-task Definition** (as given in the 2009-2011 Work Plan):

Encourage the development of open-source solutions across and along the Earth observation value chain – by building upon existing efforts and drawing upon networks of Open Source Software (OSS) developers. Use the TerraView and Terralib platform to encourage the development of OSS for end-users dealing with integrated Earth observation and GIS data. Related activities will include: (1) Provide new versions of the SPRING image processing software and GIS software for use with CBERS images, TerraView and Terralib; (2) Develop TerraView and TerraLib training material, courses, tutorials and documentation for both programmers and end-users (available in English), and develop specialized training material for e-learning; and (3) Translate into French: interfaces of TerraView and SPRING, websites of SPRING, TerraView and CBERS Catalog, and tutorials and manuals of TerraView and SPRING.

**Leads** (GEO Member or PO, Entity carrying out the work, Contact: e-mail):

Brazil (INPE), Point of Contact: Karine Ferreira Gomes, karine@dpi.inpe.br, lubia@dpi.inpe.br

**Motivation/Background**

The combination of open data access and open source software is the best way to combine the efforts of developed and developing nations to promote the use of space-derived geospatial data for sustainable development.

**Outputs**

Planned:

- Motivate end-users to be part of SPRING WIKI-Best Practices community, exchanging information, learning material and experiences.
- 2009: launching of TerraView homepage in English, tutorial, help online and manuals.
- Make TerraView and SPRING training material, courses, tutorials and documentation for end users (Portuguese, English and French).
- TerraLib team has been working on keeping updated versions aiming at: interoperability (fully OGC - Open Geospatial Consortium - compliant) and enhanced efficiency.

Produced (current status):

- April 2009: TerraLib 3.3.1 is launched. It fixes the bugs found in the previous release and is now considered as the latest stable release of TerraLib.
- Inclusion of SPRING in the WIKI-Best Practices. There are already too many on-line SPRING communities. It has been hard to motivate SPRING users to use WIKI.
- JUNE, 2008: launching of a totally new version of SPRING 5.0 (increased speed and efficiency, assistant for importing images from CBERS satellite)
- December of 2008: release on the Internet for download: French version of SPRING with tutorial.
- July 30: Launching of the TerraView and TerraLib version 3.2.1 (basically fixes bugs found on 3.2.0 version).

**Activities**Planned:

- Regarding the Open Source Inventory, think about the kind of questions a novice (or even experienced person) would ask. Identify the metadata fields that help to answer them and construct the inventory around that. I.e., the inventory would be useful as a searchable "catalogue".
- Provide new versions of the SPRING image processing software (correction of bugs and improvements)
- Provide new versions TerraLib and TerraView:
- An open source version of SPRING has been studied and evaluated by a group of specialists. By the end of 2009, a decision should be made regarding pursuing or not this new endeavour.
- Translation to French of SPRING help-online and manuals.

Progress (current status):

- In 2008, CISR has prepared a preliminary list of Open Source Earth Observation software (Open Source Inventory).

**Resources** (indication of resources – e.g. financial, human – contributed by GEO Members or Participating Organizations to produce outputs)

**Architecture and Data Component**

1) Please briefly describe any task-related Earth observation resources (data set, system, website/portal) and any related Web Service interfaces that are contributed to GEOSS. State whether these items are or will be registered with the GEOSS Component and Service Registry for access via the GEO Web Portals, and whether any associated standards or other interoperability arrangements will be registered in the Standards and Interoperability Registry.

2) Please also describe what data and information your activity/system needs that you would request to be accessible through the GEOSS Common Infrastructure.

**Capacity Building Component**

(capacity building is defined to include the development of capacity related to: (i) Infrastructure and technology transfer (Hardware, Software and other technology required to develop, access and use EO); (ii) Individuals (education and training of individuals to be aware of, access, use and develop EO) and (iii) Institutions – building policies, programs & organizational structures to enhance the value of EO data and products).

1) In accordance with the above definition does this Task have a capacity-building component? If so, please provide a short description of this component including a description of end users.

2) Have any additional CB needs for this Task been identified? Please provide a short description.

**User Engagement Component**

(please briefly describe to what extent end users are engaged in this Task and influence the nature of the outputs produced)

**Science and Technology (S&T) Component**

1) Please briefly describe the elements of scientific research or technological development contained in this Task.

2) *In relation to the S&T component(s) of this task, please describe gaps, priorities, continuity needs, barriers, scientific expertise and additional resource needs (this information will be used for developing a gaps and needs assessment in Task ST-09-01)*

***Members and POs' Contributions to Outputs and Activities above:***

*(Input is optional. This section gives the chance to Members and POs to provide more details (3-5 lines) on their individual activities, making a clear connection with the Outputs and Activities outlined above).*

***Participation (Table to be filled in 2009):***

Type	Member or PO	Representing	Contact Name	EmailAddress
Lead(PoC)	Brasil	INPE	Karine Ferreira Gomes	karine@dpi.inpe.br
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