Project no. 018340

Project acronym: EDIT

Project title: Toward the European Distributed Institute of Taxonomy

Instrument: Network of Excellence

Thematic Priority: Sub-Priority 1.1.6.3: "Global Change and Ecosystems"

C5.156 Comprehensive report on technical continuity and sustainability of Geoplatform tools beyond the EDIT project

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Start date of project: 01/03/2006　　　　　　　　　　　　　　Duration: 5 years

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Revision: final

This report describes plans, demands and suggestions for continuity and sustainability of Geoplatform tools beyond the EDIT project scope. It was compiled by Marcin Gąsior with a generous input from Patricia Mergen, James Davy and Franck Theeten and the colleagues from the EDIT developer mailing list.

Introduction

EDIT Geoplatform components were established under the Work Package 5, task 4: 'Internet Platform for Cybertaxonomy: Tools, Sharing, Networking and Integration'. The idea is to provide an integrated framework for all users of taxonomy hosted and controlled by institutions focussing on taxonomic research. There are two geographic tools being developed under Work Package 5.4: EDIT MapViewer and EDIT Map REST Service. Both are operational but undergoing a constant development in order to improve their functionality and stability.
As the EU-funded EDIT project period ends in February 2011, specific steps have to be undertaken to assure the continued operation of the Geoplatform.

It is overall the goal of EDIT WP5 to maintain the entire Platform for Cybertaxonomy with all its components beyond EDIT. The geospatial components are an integral part of the Platform, so long term sustainability has to be ensured.

Maintenance

The EDIT GeoServices were migrated in April 2010 from CSIC, Madrid to the Royal Museum for Central Africa (RMCA), Tervuren. The reason was that CSIC's main developer left and the server broke down after a hacker's attack. The new server was created as a virtual machine in a way that allows seamless migration to other place (compare the report C5.154).

There is a commitment from RMCA (given at the Board of Directors) to maintain the entire system in collaboration with the National Botanic Garden of Belgium (NBGB) in Meise. Other EDIT partners are interested in mirroring the services. If the number of service-providing partners turns out to be insufficient for the growing demand, we recommend to turn to an external service provider to ensure 24-7 service availability with high performance.

For the time being, mirroring of operating servers to several institutions ensures the continuous functioning of the Geoplatform. When one server fails, others can take on the task. A load balancing function would add performance enhancement to protection against failure, so this should be implemented by the end of the EDIT project period. We recommend to place the load balancer on an external (EDIT independent) service provider to assure uninterrupted query distribution.

EDIT Geoplatform tool development

The EDIT geographic components are under constant development and the main tasks, bugs and user requests are listed in the developer's TRAC system (more in the report C5.155). They are supposed to be completed until the release of MapViewer and REST Services version 3 in September but also after that date if needed. It may happen that some important issues will not have been completed by the end of the EDIT project. Those should be tackled after the EDIT lifetime; the current perspective is to integrate these tasks into new soft-money projects.

A list of subjects which were deliberately postponed after EDIT as there is no possibility to address them in time is presented below:

It was suggested to use the REST Service functionality for the MapViewer. This would greatly simplify the maintenance, bug fixing and development of both tools. However, this modification implies a major change of the low level architecture of the MapViewer and requires considerable resources (at least 2 person months developer time).

1. Functionality to upload user defined shapefiles (vector maps) via the REST Service and display them as a component of requested image. Despite a high interest from users, this issue was postponed due to its technical complexity.
2. Additional analysis tools for taxonomists in the MapViewer. So far only essential instruments for inventory completeness assessment are provided. Some more sophisticated methods would be welcomed by users (compare with the report C5.110).
3. Improved compatibility of the MapViewer with internet browsers other than Mozilla Firefox. As most of the code is written in JavaScript it requires a code-cleaning exercise and the addition of alternative code for other browsers.

Strategic and Financial sustainability

Previous reports and assessments showed that there is already a quite important user community, especially of the Map Rest services. Several internationally or nationally funded projects have already expressed their interest in using the services, asking help and advice or dedicated outputs to be produced.

In general, the staff of RMCA Biodiversity Information and Cybertaxonomy Services provides such services as part of their core business activities. However, should the demand grow and dedicated outputs become too specific and resource-consuming, a financial contribution will be asked either in form of being partner to the related project or in form of sub-contracting.

In EDIT overall it is the plan to have committee within CETAF that would sit together and find means to continue the EDIT activities. There is also an ISTC committee continuation planned where the Geoplatform will be taken into account.

EDIT is making use of the TDWG layers provided by the Biodiversity Information Standards organisation. Users have expressed that this layers are very handy and useful, but to basic for some purposes. The TDWG layers community has contacted TDWG to set up a task group within their Geospatial Interest Group to further enhance the TDWG layers to the benefit of the current users. This will also be very beneficial for the EDIT Geoplatform and its future.