

Project "FLOSS-Cadastre"

Report of Workshop in Dunedin, 8-9 May 2008

The workshop – by the title of **Free/Libre Open Source Cadastre and Land Registration Shell Seminar** – had the aim to bring together representatives from countries with an interest in investigating the potential of using free/libre open source software (FLOSS) to support digital cadastre and land registration. It also served the research team to get input for the development of a possible software shell. The workshop was funded through the FAO and took place in the context of the FLOSS Cadastre project undertaken by FAO. It was organized by the School of Surveying at the University of Otago in Dunedin, New Zealand.

Participants at the workshop came from New Zealand, Australia, Switzerland, Albania, Kyrgyzstan, Nepal, Fiji, Samoa, Cambodia and the FAO. Each of the participants gave a presentation about the situation of the cadastre and use of FLOSS in their countries.

Mika Törhönen, FAO – *Overview of Open Source Cadastral Projects and the Role of the FAO*

Gertrude Pieper, FM-International Oy
FINNMAP – *FLOSS in Cadastre and Land Registration*

David Goodwin, Brent Hall, Don McKinnon,
School of Surveying, University of Otago, and
Gertrude Pieper, FM-International Oy
FINNMAP – *Developing Sustainable Tools for Land Administration – Part 1*

Daniel Steudler, swisstopo, FIG Commission
7 – *FIG and Developments on Open Source Cadastral Initiatives*

Neil Pullar, Cadastre Limited, New Zealand –
Project Initiatives and Challenges

Anselm Haanen, Land Information New Zealand –
Land on Line Approach and Implementation

Warwick Jones, Tony Bevin, Michael Ellyett, LandZone International, Wellington, New Zealand – *Open Source Software tools in Land Registration in Vietnam*

Geoff Hay, Michael Leahy, Brent Hall,
School of Surveying, University of Otago –
Sustainable Tools for Land Administration – Part 2 Open Source Cadastral Application

Rajunath Jha – Nepal

Gertrude Pieper, He Sophannara – Cambodia

Nguyen Hong Chau – Vietnam

Chris Lunnay, Land Equity International, Australia – *Land Administration & Computerisation - what are the Issues?*

Pele Fuatai – Samoa

Sonila Jazaj – Albania

Jipar Davletova – Kyrgyz Republic

Rohitesh Prasad – Fiji



The presentation of the Kyrgyz delegate showed that the Kyrgyz Land Information System (KLIS) has chosen FLOSS tools (PostgreSQL and PostGIS) as its base. We have heard earlier that BiH has selected a FLOSS approach for their cadastral data exchange development and that the Cambodian land register database is likely to be migrated to PostgreSQL in the future. It became clear in the workshop that many FLOSS tools are quite ready to be used in Cadastre and Land Registration and that there is a certain momentum in the adoption of open-source software.

During the discussions, the country delegates pointed out the needs of their respective land administration systems, where FLOSS may be supportive and could play a role.

Albania:

- Updating land register rights
- Cadastral information

Cambodia:

- Database migration from MS Access to PostgreSQL

Fiji:

- DOS based survey software needs modernising
- Computerise land registration
- Archive for back-up
- Integrate titles and survey

Kyrgyz Republic:

- Cadastral plans in digital form
- Real-time database management and archiving
- Network communications

Nepal:

- Paper maps are of poor quality, "island maps" are NTS, and not con-joint parcels need to be surveyed

Samoa:

- Welcome open-source software
- Replace DOS based survey software
- Computerise land registration
- Archive for back-up
- Integrate titles and survey

Vietnam:

- Conversion from existing formats (paper)
- Integrate planning data
- Application for data integration
- Localisation language

While there are many similarities between FLOSS and commercial-off-the-shelf (COTS) software products – such as the need for local support facilities, education and training possibilities, and national language service – there are some advantages of FLOSS over COTS. The most obvious ones are: no license fees, highly motivated developers, and very flexible and scalable products. The users, however, have themselves to formulate their needs and when there is no product available in the open-source field, they have to be prepared to commission and pay for its realization. A very crucial benefit will result in so far that local know-how is being established that remains there. It seems that there are opportunities for private companies in terms of consulting, support, and education and training.

The discussion in the workshop also showed that a tremendous benefit could result when big national projects declare their software developments as open-source, many others could potentially benefit. The international community in the cadastre and land registration field should be more aware of high costs of software license fees and the potential of FLOSS.

Further information and presentations can be accessed at the Otago wiki website «http://source.otago.ac.nz/osca/FAO_Seminar/». On that website, it is possible to make comments and suggestions concerning the project, something that is very much appreciated.

Bern, 4 June 2008

Daniel Steudler, Chair of Working Group 7.3