

Google Earth and the ALOS KC Wiki

Preparing Imagery for Google Earth

Scaling

- Scale from integer to byte

$$b(i,j)=\text{byte}(254.0 * \text{float}(\text{data}(i,j)-\text{minvalue}) / \text{float}(\text{maxvalue}-\text{minvalue}))$$

- Save as an image file
- Convert image to a transparent gif
- drawOrder determines which image is drawn on top

Multi-resolution construction

- A series of images at different resolutions
 - Very low res image at top (256x256 pixels)
 - Divide into 4x4 images each 256x256
 - Divide each of above into 4x4 images each 256x256
 - Etc.
 - See earth.google.com/kml

Kyoto & Carbon (K&C) Initiative

Provision of theme-specific wikis

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Overview

- The Institute of Geography and Earth Sciences, University of Wales Aberystwyth can host one or several wiki sites from September, 2007.
- A suggestion is to generate wiki sites for each of the four themes:
 - Wetlands
 - Forests
 - Deserts
 - Mosaics
- Within these themes, more specific sites can be generated:
 - Wetlands theme
 - Mangroves

What is wiki

- Wiki is an online system where users can freely create or edit web page content using only a browser.
- Content can be introduced, altered or removed.
- Wikis will allow collaboration between team members and institutions.

Practicalities

- Templates are available to rapidly create a wiki.
 - The default page is the home page which can be edited.
 - New pages can be created.
- The default template has sufficient documentation to allow users to understand generation and use of the wiki.
- On every wiki page, there are action buttons including those for:
 - Editing
 - can be done in the browser, in real time and using inbuilt tools
 - Discussion
- Changes can be managed.
 - Tracking changes
 - Maintaining a version history.
 - Changes can be rolled back.
- Very simple to get going
 - Once started, content can be added on a regular basis.
 - All users can participate.

What we will use

- Information Services (IS) with the University of Wales Aberystwyth are utilising Microsoft SharePoint Server 2007.
- Provides a platform for sharing information and working in teams.
- K&C members will be able to:
 - Provide information on their projects and progress on these.
 - Coordinate activities through shared calendars, alerts and notifications (e.g., new results, processing routines etc.)
 - Discuss technical issues (e.g., pre-processing and results) through provision of material and also services such as messaging.
 - Coordinate timelines (e.g., with Gantt charts).
 - Create collaborative documents or distribute programmes etc.

Other features

- Members will also be able to:
 - Collect information on data acquired, processed etc within a specific form or spreadsheet.
 - Directly input word documents, powerpoint presentations, illustrations etc.
 - Interactively comment on documents and also ideas/results.
 - Archive data/documents over extended periods.
 - Record the history of documents.

Requirements for Wiki

- Prior to setting up the wiki site(s), we need to know:
 - How should topics be grouped within wiki?
 - Individual projects and their status?
 - Sub-topics (e.g., biomass, deforestation, inundation, desertification)?
 - Regions (e.g., Siberia, Africa, South America).
 - Who should organise the content?
 - Theme coordinators
 - Individuals
 - What should the main discussion areas be in the first instance?
 - Pre-processing
 - Biophysical retrieval and/or mapping techniques.

Steps towards implementation

- To allow access, IS requires completion of the registration forms.
 - This is best done during the K&C meeting.
- To populate each site, relevant material from the scientific members needs to be provided.
 - In the first instance, this could include:
 - A brief overview of the project
 - A description of the study areas

More information

- An overview of Microsoft Office Sharepoint Server
 - <http://www.microsoft.com/sharepoint/default.mspx>
 - <http://www.microsoft.com/technet/technetmag/issues/2007/01/SharePoint/?related=/technet/technetmag/issues/2007/01/SharePoint>
- An overview of wiki
 - <http://www.microsoft.com/technet/technetmag/issues/2007/01/Wiki/default.aspx>
- An video demonstration of MOSS.
 - <http://channel9.msdn.com/Showpost.aspx?postid=208577>