

Digital photos over generations in the Mikkeli Digital Repository

Osmo Palonen; Mikkeli Polytechnic; Mikkeli, Finland

Abstract

The personal archiving services for citizens and society will be available in Mikkeli Digital Repository before end of 2006. This paper describes some characteristics of the personal photo archiving service with long term preservation plan.

Personal photo archive in Mikkeli Polytechnic

Mikkeli Polytechnic is starting to provide personal digital archiving services for a couple of pilot customers in the first half of 2006. The service, that will find the permanent operation in the last quarter of 2006, is planned to be for the citizens, families and local societies and associations. The digital contents will be archived in the original format, however the distribution copies are held in the web-specific lower resolution format. The originals will be saved in tape library and off-line tapes (LTO) and the distribution copies on disk. The personal archive can hold documents in PDF-format as well.

The basis for archiving tools has been created in the project called ElkaD, in which photo archive software was developed for private companies and other organizations, such as public institutions. The first customer of the Mikkeli digital photo archive is the Finland-based international forest industry giant UPM Kymmene. The contents of the archive are available via UPM worldwide network. The archivists can add and manage the contents when recognised as an archive administrator by using a username and a password.

Digital photos or scanned material

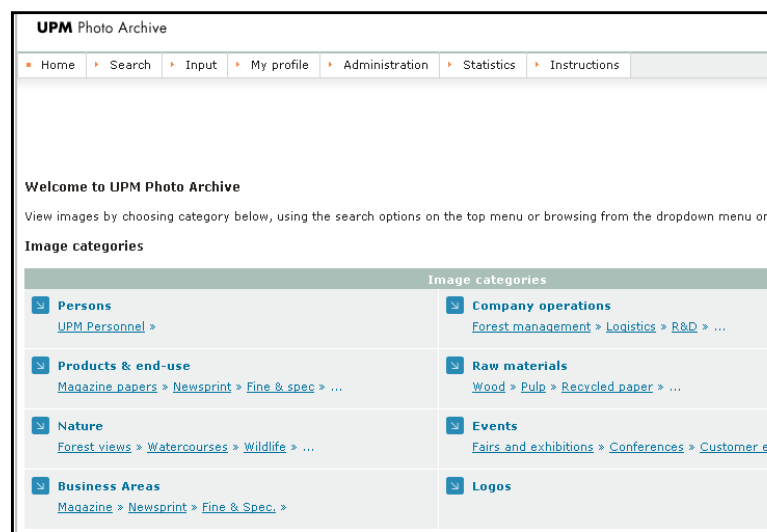
Private citizens can save their digital photos by using the browser-based user interface, which is currently under

development in the Mikkeli Polytechnic. It is also possible to scan traditional photos and slides either at home or by using scanning services. Gathering the metadata will be done automatically when uploading the picture files. Metadata have to be saved in in JPEG properties or XMP by using an XMP-compatible photo editing software such as the Photoshop. The archive owner can also add metadata by using advanced version of the user interface planned for family or association archivists.

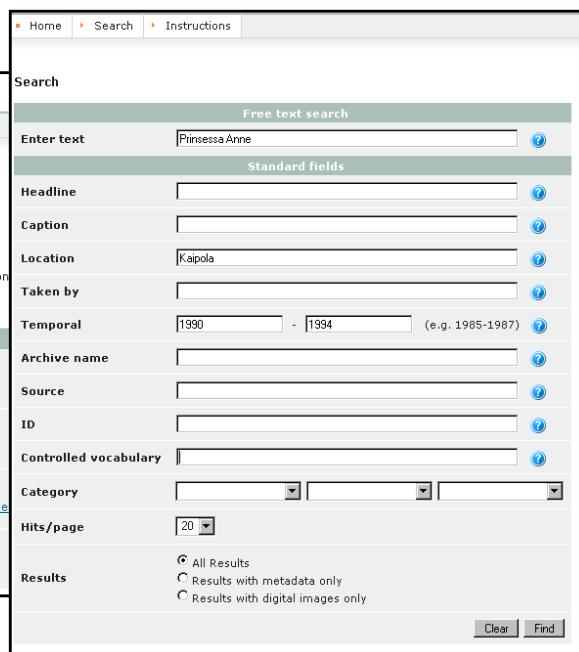
The metadata ingest will be done automatically when the information is written in the file. Metadata fields used in JPEG header are cross-connected to Dublin Core based metadata schema. In addition the important technical metadata will be saved from JPEG file and be utilised in migration process. The migration path is critical in preservation of the picture information over the generations, for decades and centuries.

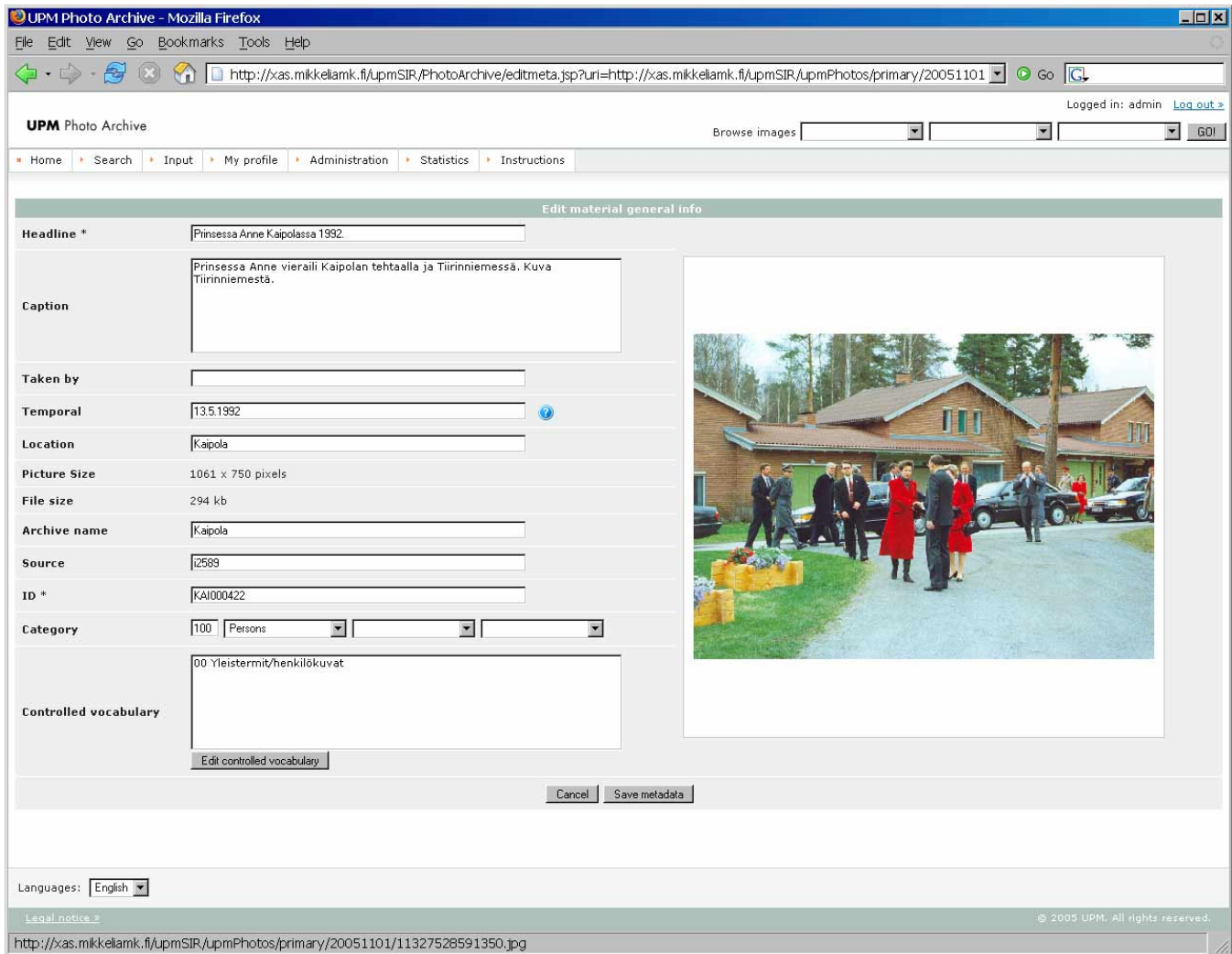
Metadata in RDF schema

The metadata in the personal photo archive is based on RDF schema, in where metadata fields are covered. The number of mandatory metadata fields will be limited when the users are not professional archivists or librarians. The archiving software engine is SIR (Semantic Information Router) from Finnish company Profium Oy. SIR ingests the content and the metadata by using JPEG and XMP input handler. The semantic vocabularies or ontologies will be utilized when available. One option that has been planned to use is SIR-feature of the automatic information routing to the customers as it is done in digital news service. If new contents are added to the personal archive, those who have ordered the service can get e-mail or SMS to the mobile phone.



Picture 1&2. UPM Photo Archive is based on categories and the metadata search.





Picture 3: Screenshot from search results, a photo taken in 1992 during Princess Anne's visit in UPM Kaipola plant.

User recognition by using Novell tools

The user recognition and authentication are controlled by using the user and rights control developed for the digital archive in Mikkeli Polytechnic. This is based on eDirectory and iChain products from Novell. The personal archive is available only to those whom the content owner gives the permit to use the archive, the members of the family or society i.e. The system supports the digital ID-cards and PKI. The limited rights for the digital contents is a standard feature of Mikkeli digital repository, where the medical records and archive information from the private companies are also held.

The Personal archiving service starts with photos, but the target is to include all kind of cultural contents of citizens and organizations in the society. Currently Mikkeli Polytechnic is digitizing narrow films and videos as well as sound recordings. To arrange the preservation and archiving of those contents is already done with Central Archives of the Finnish Business Records, and it will be included in the plan of the private archiving services as well. With the same kind of tools the society can preserve the born digital and digitized documents.

Mikkeli Polytechnic, an higher education organization with 4.000 students and extended R&D activities is located in the city of Mikkeli, south-eastern Finland. As regional development activity Polytechnic has started the digital repository at the end of 2003. The operation serves as a project organization and archiving service provider for medical organizations, as well as digital archiving contracts with different type of private archives and companies. The aim of the operation is to start a public-owned company in the near future. When this is done Mikkeli Polytechnic will concentrate in education and R&D of IT-solutions for digital preservation.

Author Biography

Mr. Osmo Palonen is Project Manager responsible for the digital repository, archiving projects and service contracts at Mikkeli Polytechnic. His first career was in newspaper industry in Finland as a journalist, including project and systems management for the editorial IT-systems. In 1989 he joined Honeywell Industrial Automation, based in Varkaus, Finland. There he worked in sales, sales support and project management for projects in Europe and Americas until he joined Mikkeli Polytechnic in 2003.