

What is WIDE ?

WIDE is an open source project that aims at providing an image database solution for the use at microscopy and imaging facilities. It provides basic storage functions for images, web access and is intended to be a platform for image analysis tasks in the future.

It allows to upload images from the acquisition machines of the facility in offline mode, i.e. without the need for a user to be logged-in and without disturbing the acquisition. Users can access and manage images in WIDE via a web-interface. Images are presented as files or thumbnails in a filebrowser view. A user can share his images with other users of WIDE or create a public link to an image. A viewer allows to browse all image dimensions and to perform display adjustments. Further planned features are a history function, a tagging system and a selection tool (Region of interest) for the viewer.

WIDE is based on Java EE and runs on the Glassfish application server. It can be accessed from other software using EJB, (Enterprise Java Beans) clients or web services.

3. Manage images with web application

- manage image files
- rich interface
- create online archives
- access metadata

file system structure

Metadata

4. Share files

group access for logged users

world wide web access link

6. Plug-in system to add image analysis feature

Plugins can be added to WIDE

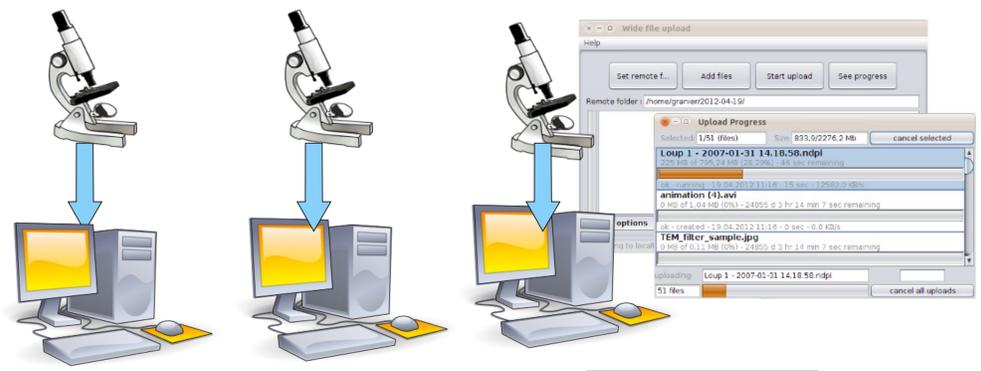
Options dialog can be defined

Label	Area
1 wound healing.tif:0001-0004-1390:wound healing-1	2907885
2 wound healing.tif:0001-0004-1390:wound healing-1	1406758
3 wound healing.tif:0001-0004-1390:wound healing-1	1406758

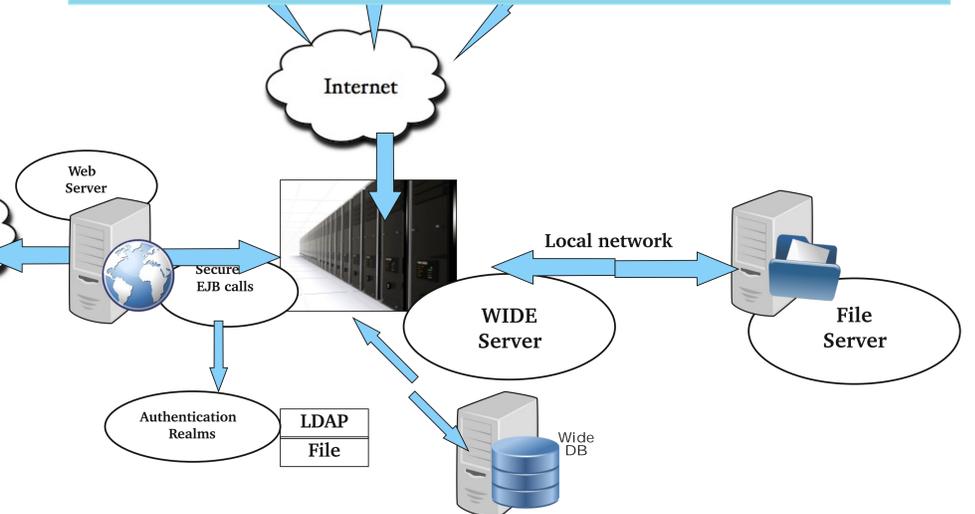
Results are sent to a new folder

control.tif

1. Acquisition



2. Overall architecture



5. View images dimensions

Dimension scroller

Zoom

Channels controls

Thumbnail view

- Tile based viewer to allow big image browsing

Summary and outlook

Current state

At the moment WIDE provides functions to upload, store, access and share image files. Images are organised in a file system like view. The viewer allows basic display adjustments. Focus has been placed on stability, security and user friendliness.

Ongoing developments

- selection tool in viewer
- tags and search engine
- history

Future

- semi-automatic image analysis
- batch processing and image analysis based on a plugin system
- project level organisation

WIDE is open source

The WIDE team participates in the node IPDM (Image Processing and Data Management) of France Bio Imaging to provide an efficient storage, process and analysis tool to the community. You are welcome to participate in the WIDE project.

<http://www.mri.cnrs.fr/wide>

Technologies

Build on standard technologies, pure java project - Java EE 6 application server. Use of Bioformat and ImageJ libraries.

