Integration of Orthanc into GNU Health

GNU Health Con 2023
Master thesis

- **Title**: Integration of the DICOM server Orthanc into the hospital information system GNU Health
- **Author**: Patryk Rosik
- **Finished**: July 2023
- **Repository**: https://gibraltar.chi.uni-hannover.de/rosik/integration-orthanc/
Imaging workflow

- We need a precise description of the imaging workflow:
  - That is already possible
  - That is desired

- The desired workflow should be based on a medical perspective that knows hospital procedures

- Information gathered in Developer’s Corner:
  - https://en.wikibooks.org/wiki/GNU_Health/Developer%27s_corner#Orthanc_integration
  - https://docs.gnuhealth.org/hmis/devcorner/devcorner.html#orthanc-integration
Patient assignment

- Orthanc: Takes DICOM tag *Patients ID* and generates new UUID using SHA-1

- GNU Health: Generates random 9-digit *Patient ID*, requires name & gender

  → Automatic mapping would not be necessarily correct if only based on mandatory fields of GNU Health and DICOM fields are possibly empty

  → Unless we find a way? Common ID? Unique ID mapping?
Synchronization

- Subject of synchronization?
  - Only referrals, not actual data

- Periodical or real time?
  - Cron could be used for periodical

- Use Tryton Cron?
  - Should be preferred over OS Cron
Python API

- Currently *beren* is used:
  - Beta status
  - Last commit July 2021

- But *pyorthanc*:
  - Was just presented
  - Last commit within September

- Should we consider switching to *pyorthanc*?
- Will it be maintained long-term?
Coding Conventions – For this and other modules

- Comments inside the code
- Doc Strings for generating documentation
- Documentation for all relevant functionalities inside the GUI
- Linting
- Test cases
- Understandable error messages inside the GUI
Who?

Now who will work on that?