WEASIS : A FREE WEB-BASED VIEWER AIMED FOR TELEMEDICINE AND GENERAL PRACTITIONERS

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OPEN-SOURCE DEVELOPMENTS AT GENEVA

- A long story starting in 1990…

- The “Osiris” adventure

  - General medical image manipulation and analysis software
  - First radiological imaging viewer <u>freely distributed</u>
    (about 35’000 downloads per year)
  - Not fully open-source…
    - Free compiled version
    - Code free for academic and research institutes
    - License for commercial developments

OPEN-SOURCE DEVELOPMENTS AT GENEVA

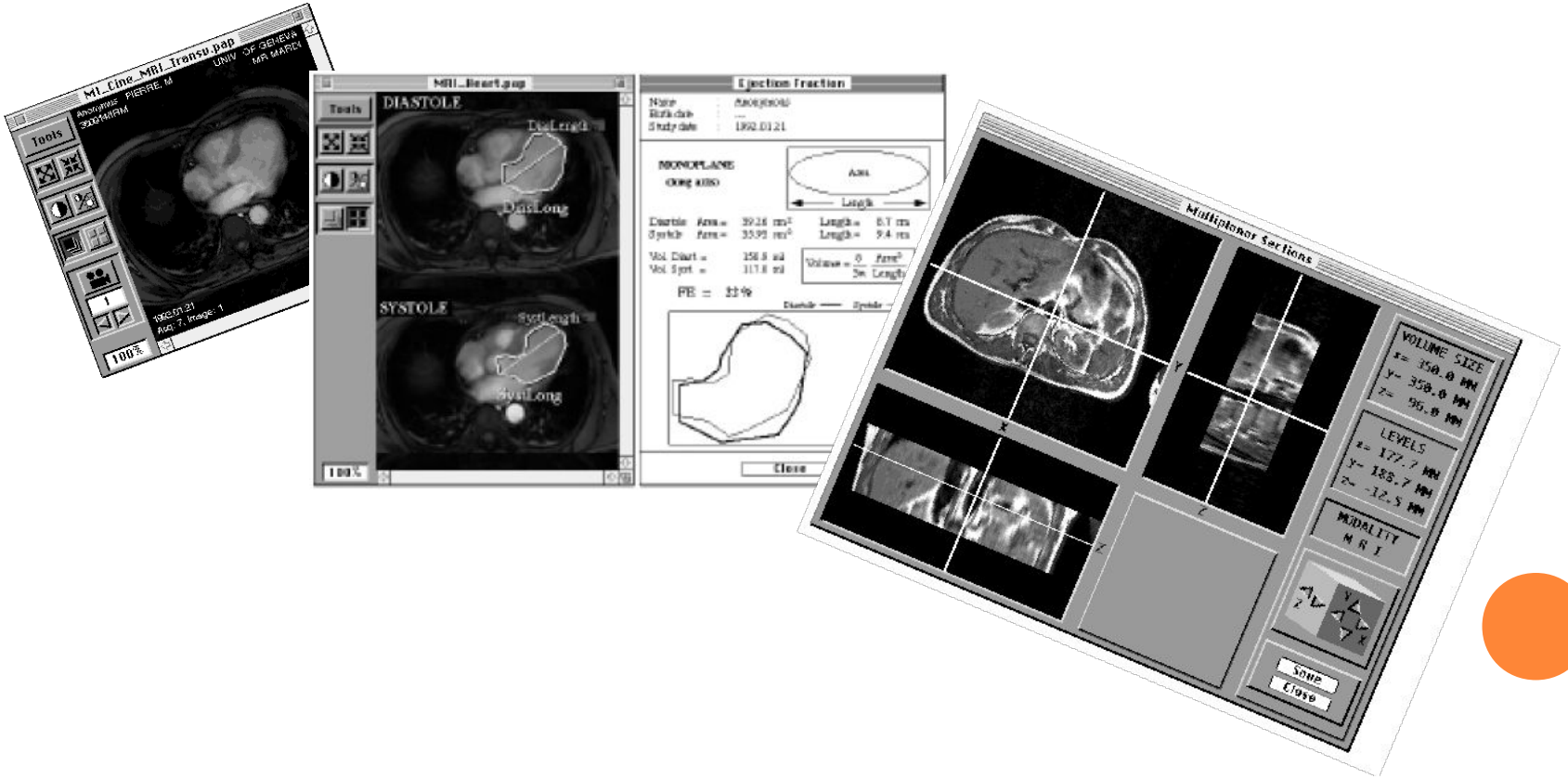
- From the beginning, compatible with DICOM (ACR/NEMA 1985)!
- C/C++, cross-platform Unix / Windows / Mac OS
- Open-source “Papyrus” toolkit (C/C++)

PAPYRUS

- Reads DICOM / DICOMDIR / PAPYRUS / TIFF…

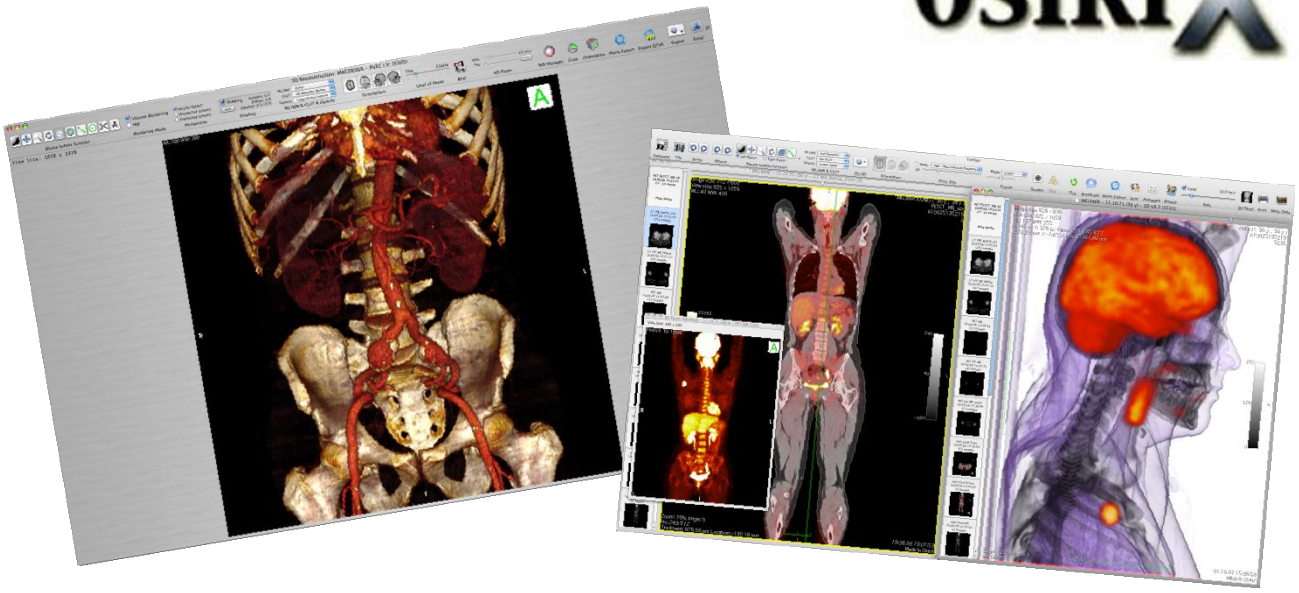
OPEN-SOURCE DEVELOPMENTS AT GENEVA

- Osiris: last release (v 4.19), 2002
- Used for telemedicine purposes at the HUG until 2007 (TELIM project)



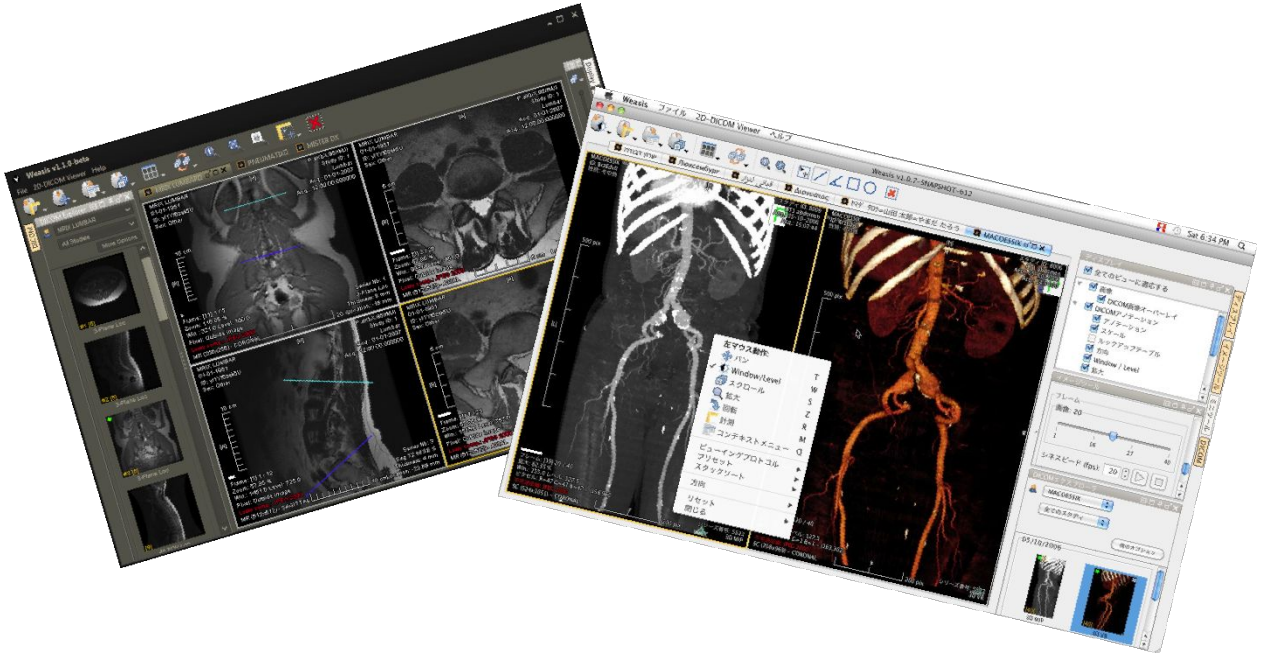
OPEN-SOURCE DEVELOPMENTS AT GENEVA

- Next generation of open-source viewers…
  - OsiriX:
    - running on Mac platform
    - LGPL open-source license
    - 3D/4D/5D navigation



OPEN-SOURCE DEVELOPMENTS AT GENEVA

- Next generation of open-source viewers…
  - Weasis:
    - Web-based access to radiological images
    - Cross-platform, full Java developments
    - Eclipse Public License (EPL)



OPEN SOURCE SOFTWARE

- Provided as open source project under Eclipse Public License (EPL)
- EPL allows to build new plug-ins in any license type (open source, freeware, commercial...)

MULTIPLATFORM SOFTWARE

- A multiplatform Java viewer (Windows, Linux, Mac, Solaris…)
- Using Java Advanced Imaging library (JAI)
- Compliant with JRE 1.6 and JRE 1.7 (SUN, IBM and OpenJDK)

PLUG-IN BASED ARCHITECTURE

- A highly modular architecture
- OSGI technology: the dynamic module system for Java
- Using the OSGI framework: Apache Felix

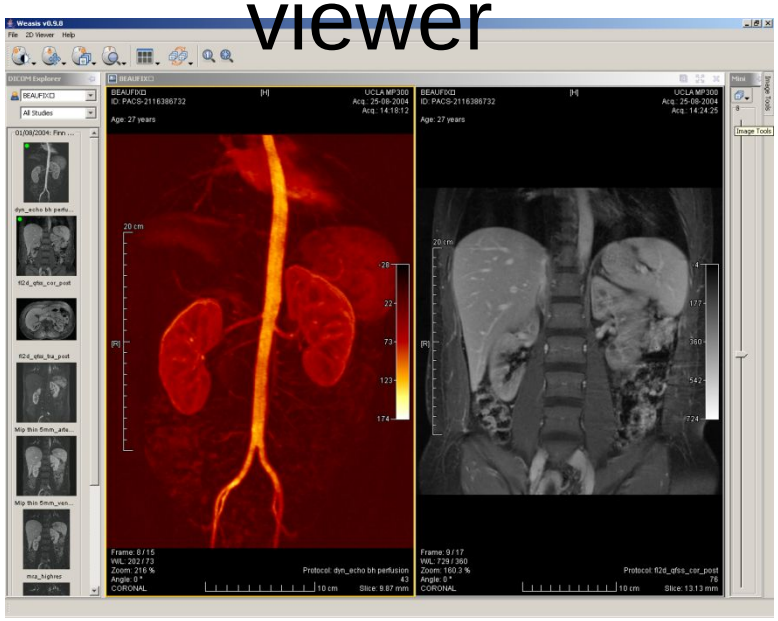
HEALTHCARE STANDARDS

- High degree of standardization for a better HIS integration

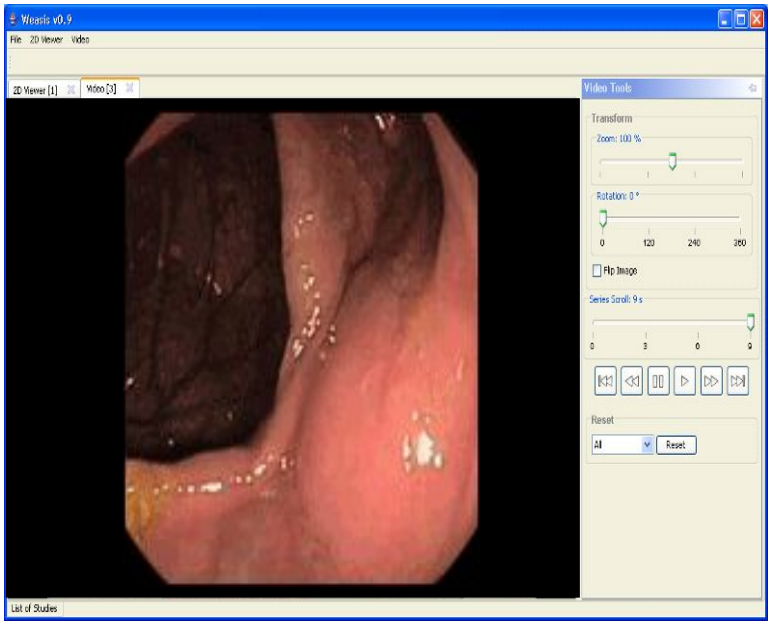
- Follows the DICOM and the IHE (Integrating the Healthcare Enterprise) recommendations

MULTIPURPOSE WEB-BASED VIEWER

Dicom 2D viewer

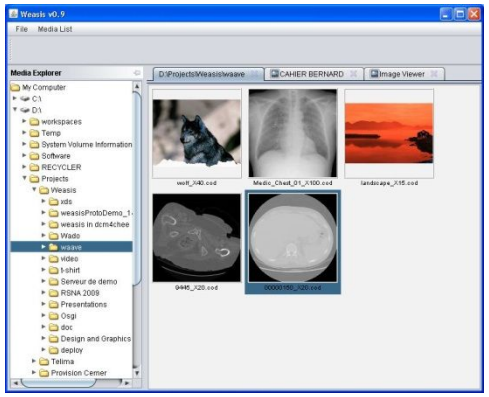


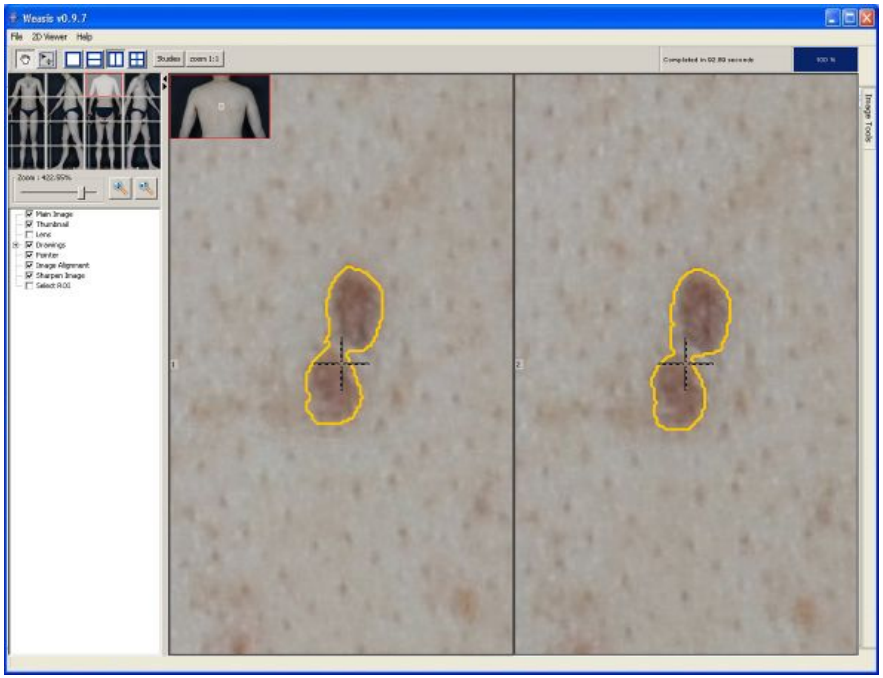
Dicom Video

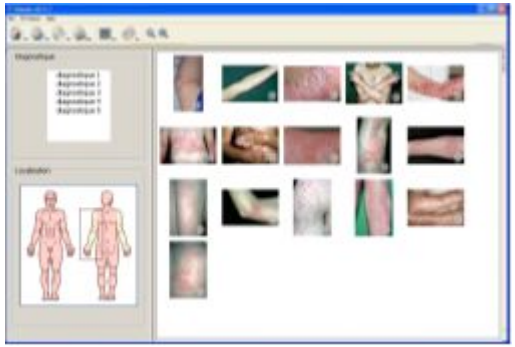


MULTIPURPOSE WEB-BASED VIEWER

- Handling digital photography (dermatology, plastic surgery…)







WEASIS DEMO

- http://www.dcm4che.org/confluence/display/WEA/Home

- Launching Weasis from a dcm4chee portal
  http://dicom.vital-it.ch:8089/dcm4chee-web/
  (Login: user – Password: user)