

Export of key-images to MIRC image database

OsiriX Foundation

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1 General Conditions

Please refer to <http://www.osirixfoundation.com/awards.html> for General Conditions.

2 Category

This document describes a **Category 1** Plugin Award Project.

3 Description

The MIRC (Medical Imaging Resource Center) project (<http://www.rsna.org/MIRC/>) was initiated by the RSNA Radiology Informatics Committee to construct a library of medical information, globally accessible to the imaging community through the Internet. The project has evolved to support communities of cooperating libraries, individually managed by healthcare and educational institutions, whose content can be accessed by a user as if it were a single library. The libraries can provide all kinds of digital information, including teaching files, clinical and technical documents, electronic presentations, and imaging datasets for research and clinical trials.

The RSNA manages an open-source project that has produced software making it easy to install a system for teaching files and clinical trials at no cost. Numerous other developers have produced complete or partial MIRC implementations. A set of open source tools called TCE selector allowing easy integration of PACS workstations and MIRC databases for semiautomated teaching file generation was developed by the university of Mainz in Germany (http://mircwiki.rsna.org/index.php?title=TCE_Selector). Using RadLex for indexing and categorization systems for efficient keyword based retrieval.

The goal of this project is to develop a simple and convenient way to export images from OsiriX to a MIRC database allowing the user to add the appropriate indexing and information data to be added to the case for creating a simple teaching file.

4 Requirements

The goal of this plugin is to allow the user to export all key images of a study to a MIRC database for creating a teaching files according to IHE TCE standard protocol. The program should also include all image annotations and overlays that were generated in OsiriX. It should fulfill the following requirements:

- Automatic export function to a predefined MIRC database using DICOM send to TCE Selector
- Anonymisation of clinical cases by removing and replacing patient demographic information from image headers
- Provide simple interactive dialog to generate Radlex keywords and general description of the case and of specific image findings

5 Deliverable

1. A fully functional plugin that checks if there are key images in the current study and automatically extracts them to be send to a MIRC database with DICOM instances, TCE manifests and ATFI to MIRC for automated generation of teaching file
2. A simple step-by-step workflow guidance that allows users to annotate the study and images with comments and information as well as sets of Radlex keywords
3. Options to export these selected images as a separate study in DICOM or in other standard formats such as a PDF file or a template-based MS word or Pages format would be desirable

6 Contact

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