Rich Content Database

# Development environment

* Visual Studio 2013
* SQL Server Express 2012

# Business requirements

At NetRom, we have a big inventory of rich content files (images, archives containing images, PDF’s, PMM’s) that are stored within a shared location to be used/accessed by all colleagues.

In order to ease the identification of each particular file (and exact contents) we need to create a solution that will organize these files according to type, details and offer users the possibility to quickly identify each file at a click of a button.

# Functional requirements

* Users should copy the files from now on into a “Drop folder” location.
* Once these are dropped into the “drop folder”, the application should get the files from this location and perform the following:
  + Organize them within a separate (remote) location based on Type.
  + Add record of the new file in the database
  + Based on each format, the application should also store all possible file details as follows:
    - exif data (metadata for JPEG/PNG)
    - size / resolution / colorspace of images
    - PDF metadata
    - Printer profile details (for PMMs)
* At any moment, users should be able to open the client side application and access the content database details of the files that have been stored
* The client application should reside in the system tray.
* By default, the application should not display any images but prompt the user with the search screen.
* Users should be able to do the following:
  + Search (based on metadata)
  + Open file (open file location and select file)
  + Enrich each file with custom metadata (any)
* The search results should be shown in a preview screen, displaying the thumbnails of files if possible. Scrolling through the files should be easy and intuitive (tooltip preview with summary metadata).
* The application should also allow to remove content from database and delete file.
* Manual upload should also be possible (with prompt screen for custom metadata).

# Technical requirements

* Desktop application, written in C#.
* The implementation of the application should promote the separation between business rules and GUI.
* The operations on database should be implemented in such a way that the changes of DB provider should affect an isolated part of the application.
* An ORM should be advisable for database operations.
* The code should respect NetRom code conventions.