TSmatch

TSmatch application get connected with a Tekla Structures model and material repository in local information bases to seek and setup the materials in model matched with ones, listed in the repository. The result as a *TSmatch* Report file placed into the model directory in Excel file. This Report could be updated, when the model is changed. The repository in also matter of updates -- both manually, and automatically from the Internet sources, however, always after user command.

TSmatch technical description

1. ***Access to Tekla model*** is available over Tekla Open API. In future we expect to make this access bi-directional: when materials get changed, the model in Tekla should also being upgraded. To the moment we only read Tekla model into Report.
2. Material **Repository** consist on the **Documents**. Now the *Documents* are just the Excel files - tables with list is available materials from the variety of suppliers. Further we are going to expand it with the html (XML?) files, taken from Internet.
3. The Documents in Repository are recognized with their **Stamps** - small text fragments existing in the original Documents. It is necessary, when the Document get upgraded from the external file; during *getDoc* sub-program to check the Repository consistency.
4. List of Documents as well as other detailed information, including Stamp descriptions, checksum, hyperlinks ets is stored in TSmatch.xlsx file in *TOC* - Table Of Content.

TSmatch concept value

Many CAD vendors nowadays are trying to provide the reports, which calculate total weight, steel and concrete volume, works and material price of designed construction. This trend is forced by recent BSI standard *PAS 1192-2:2013* in Procurement Chapter, describing preparation of the supply information. However, beyond of supply chain preparation, the designers on the early stages of the project preparation need to have estimation numbers, similar to ones generated by TSmatch, for a lot of large and small decisions, doing over the project development process: Could we do this block, engine, another one room, etc, or it is out of our budget? parameters, set for the project, like weight, volume and others?

Typical issue - the designer cannot keep all details, like local availability of supplies components on target territory in his mind. As a result, many construction projects run out of defined time and budget. When the designer is based on the general, or his local data, when the target construction and procurement happened far away, the changes in supply process are not reflected in the design model, which often comes to the issues later on.

TSmatch could help with the estimation values immediately, and could help to keep the model updated. It not always required interaction with Tekla, but could get a snapshot in Excel file, allow to edit it with the local supply base modifications without Tekla, and get these changes reflected back in Tekla model later, when designer could approve or reject proposed changes.

TSmatch History

In 2010-2012 Alexander Pass and I used to word on the project match-- initially as a VBA code, later on as a C#. The aim of this application was to provide connection and data exchange between cloud CRM Salesforce, Autodesk portal partnercenter.com, local accounting application 1C. Later this code was adapted to Tekla Structure with Alexander Bobtsov.