SIMPLIFICATION OF THE CADASTRE UPDATING FOR SMALL MUNICIPALITIES
Pavel HÁJEK
Karel JEDLIČKA
Martina VICHROVÁ
Karel JANEČKA
Václav ČADA
Radek FIALA
Jana STREJCOVÁ
Jan JEŽEK

Abstract
The Terezín Memorial has been established in 1947 as a commemorative place of the victims from the Nazi political and racial persecution era during the occupation of the Czech lands in the Second World War. In the scope of the project called “Landscape of memory – Dresden and Terezín as places of memories on Shoah”, the 3D model of the Terezín City is created at the Czech side, showing the state-of-art how the city looked like in the period of the Second World War. The largeness of the Terezín Memorial and its inner complexity do not allow orienting here without previous reading; furthermore, documents that are available directly at Terezín Memorial premises are very hard to understand immediately. Therefore the project aims to accentuate Terezín urban area for its history and Terezín Memorial for its depth of knowledge. As mentioned above, the project has a cross-border scope therefore also the model of destroyed historical center of Dresden city is created at the German side. These two models will be used as examples of virtual presentation of landscape capturing the memories in times of so called Third Reich.
The Terezín Memorial part of the project

Landscape of memory – Dresden and Terezín as places of memories on Shoah

The project “Landscape of memory. Dresden and Terezín as places of memories on Shoah” aims to accentuate both Dresden and Terezín urban areas for its history, where the Czech part of the project focuses on Terezín Memorial for its depth of knowledge. The project consortium consists of Technische Universität Dresden, Mitteleuropa-Zentrum für Staat-, Wirtschafts- und Kulturwissenschaften (lead partner), Terezín Memorial, Section of Geoinformatics at Faculty of Applied Sciences, University of West Bohemia.

Source data

All visual data and documents were obtained by the following institutions:
Terezín Memorial (http://www.pametni-park.cz/)
- State Regional Archive in Liberec (http://www.stavarchiv.cz/)
- Austrian State Archive in Vienna – Military Archive (http://www.oesti.at/)
- Military Historical Archive in Prague as a department of Military Culture Institute in Prague (http://www.masnepameta.cz/)

Historical maps, contemporary maps and survivals

Conceptual model

The concept of the virtual model of the Terezín Memorial comprises of two main parts: the geometry and related descriptive data. The geometry part consists of 3D models which reflect how the Terezín ghetto looked like. The descriptive part of the virtual model includes data that describe the Holocaust on rationally structured spreadsheets. The concentric data which includes the history of the buildings, the virtual model of the buildings and the historical data.

For these main parts of the model have been used two main approaches:
- a Content Management System (CMS) for the descriptive data and principle called AvisoCAD (AVC) for the geometry data ( outlining the building).
- a relational database with the descriptive data (historical documents of visual characters describing the building).

There is also a need for dealing with this huge amount of spatial 3D data in the virtual environment, which requires special data, data visualization and serving relevant data to the user. The principle of the virtual 3D model is implemented. The principle consists of the 3D scene, application and 3D data, with different objects and the principle of the interaction of the building. The display of a particular model’s 3D2D is viewer-dependent according to the viewer’s location. (The R2D2 rendering is displayed on the screen associated with a particular building. The large displayed 3D building, the more description is decoded for display.)