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**Proposal of conception of spatial
information system of historical site**

Thesis of dissertation

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Prague, august 2002

SUMMARY

Progress in information technologies together with development of methods of geodetic documentation brings up question about creation and usage of spatial models of buildings. Dissertation "Proposal of conception of spatial information system of historical site" is focused on seeking of possible ways from gathering spatial documentation, to creation of spatial information system (IS). The results of dissertation could be summarised in three parts.

1. Spatial data are the basis of any spatial IS. Therefore, the technology of its acquisition is a key issue. To determine relevant technology, I analysed current status of acquisition of metric documentation, i. e. which data, which format and for which purpose are currently acquired. The analysis showed that even though it is already possible acquire 3D data directly, it is only rarely used, because of higher price of this kind of product. For most of historical sites is available historical plan documentation. Proposed technology is based on this knowledge and it combines usage of archive data and new measurements.
2. When I was making the conception of IS I have to define what kind of data it should contain and on which field of usage it should be oriented. I made research among potential users of the proposed system (the management of sites). The research revealed some facts about current using of IS, about interest in new technologies and about constraints of their wider spreading. Although the used data are continuously digitised, most of them are still in classic paper form. Finance are again the main barrier of wider usage of information technology.

Another research was focused on presentation of historical sites on Internet in Czech Republic and abroad, noticing mainly use of spatial models and virtual reality.

Proposed conception of IS builds on results collected during above mentioned researches. The conception of IS has three main areas - subsystems. These are aimed at management of site, research of site and presentation of site. The subsystems have the same set of original data. The basic technical requirement is network technology.

3. Conclusions acquired during the previous stages were used in creating of conception of IS for specific site - the baroque theatre at Český Krumlov castle. I created the scheme of data for each subsystem. I was also concentrating on functionality of subsystems, bearing in mind work with spatial model and spatial information.

The contribution of the dissertation is complex view on the topic. I tried to reflect current trends in spatial information technologies and their application in the area of cultural heritage. These trends are concretised in conditions of Czech Republic.