

## Document and Data Management Solution for Building and Construction Companies



**Industry:** Construction services

**Customer:** Company specialized in inspection of buildings and constructions (under NDA), Finland

### Challenge

The aims of this project is to reduce time and labor expenses for structural quality and general safety inspections of buildings which Customer Company performs for owners of buildings and/or structures under construction, and also to raise data quality and safety.

### Problem Statement

The Customer is a company that performs monitoring and technical inspections for various types of buildings, providing technical surveys for design and construction management purposes. While performing the process, personnel had been experienced different issues with huge volume of paper based documents that increase the risk of incomplete data recording, discrepancy or even loss. Moreover, input to the Data Base manually takes a major time.

The Customer's decision was to automate the process by providing inspectors with mobile devices equipped with barcode scanner that could help in assisting on place without using hard copies by exchanging data with the central DB in real time via GPRS. The Customer Company hadn't been used for such goal the software system before. Therefore, they were seeking for an offshore development company, which was able to implement such kind of system devoted to automate building inspection processes.

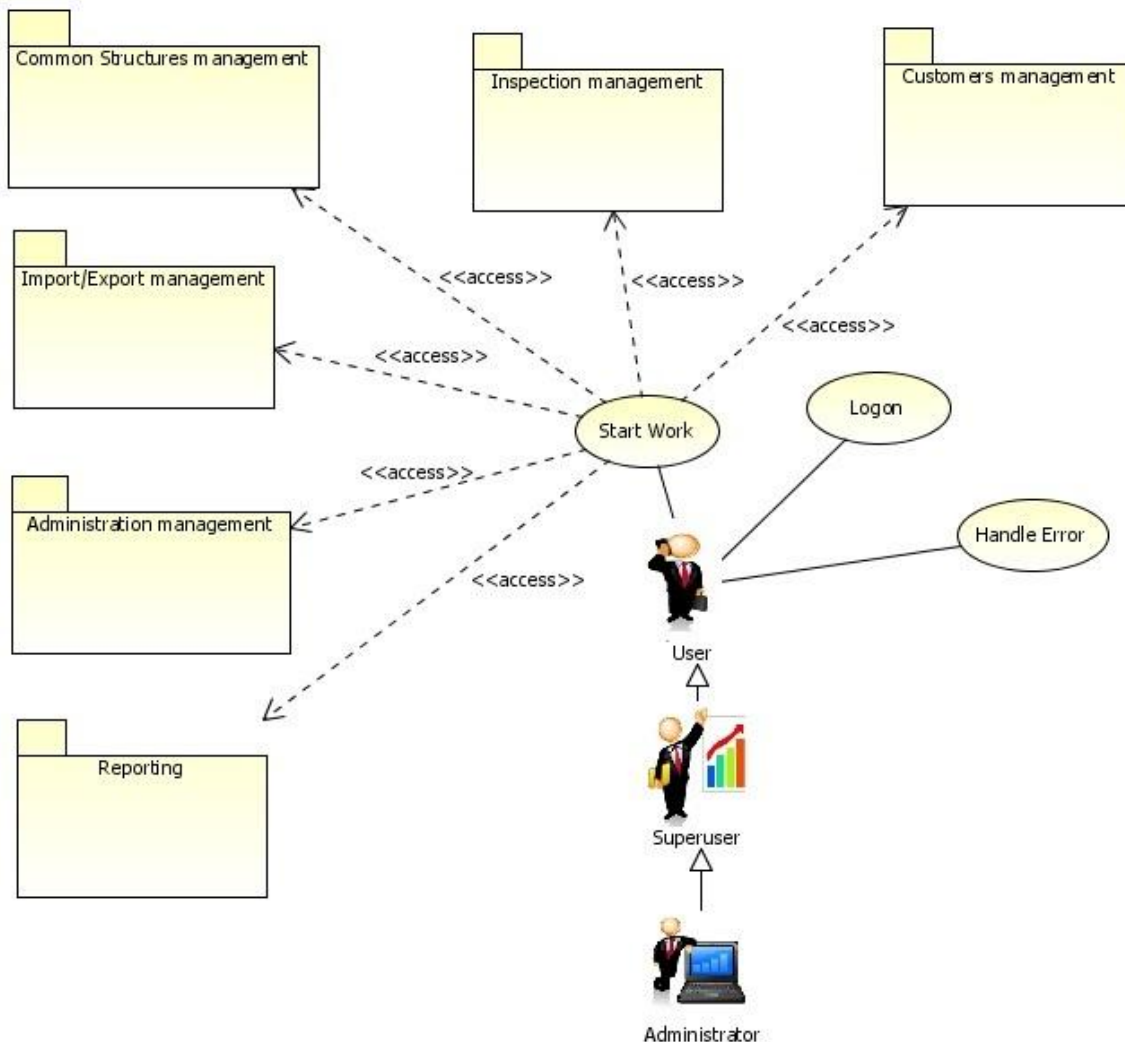
Astrosoft Development proposed the solution which allowed implement the system in optimal timeframe and at acceptable cost with stated requirements:

- Mobile devices maintenance
- Barcode option support
- Specific documentation handling (drawings and images)

### Solution

The system consists of two parts: Web-part and mobile-part. At first, inspectors use mobile devices with the mobile software for purpose of entering all collected statistic data for object been inspecting. Inspector may have several such objects. Then inspector uploads data to the central data-storage (when he has ability to connect the central data-storage system). The second part of system is devoted for generating special type reports based on entered data for inspected objects.

The basic use cases cover reporting, administration management, import/export management as well as common structures management that aims to improve the quality of work, increase performance of each inspector, thus reduce labor input and overall cost as a result.



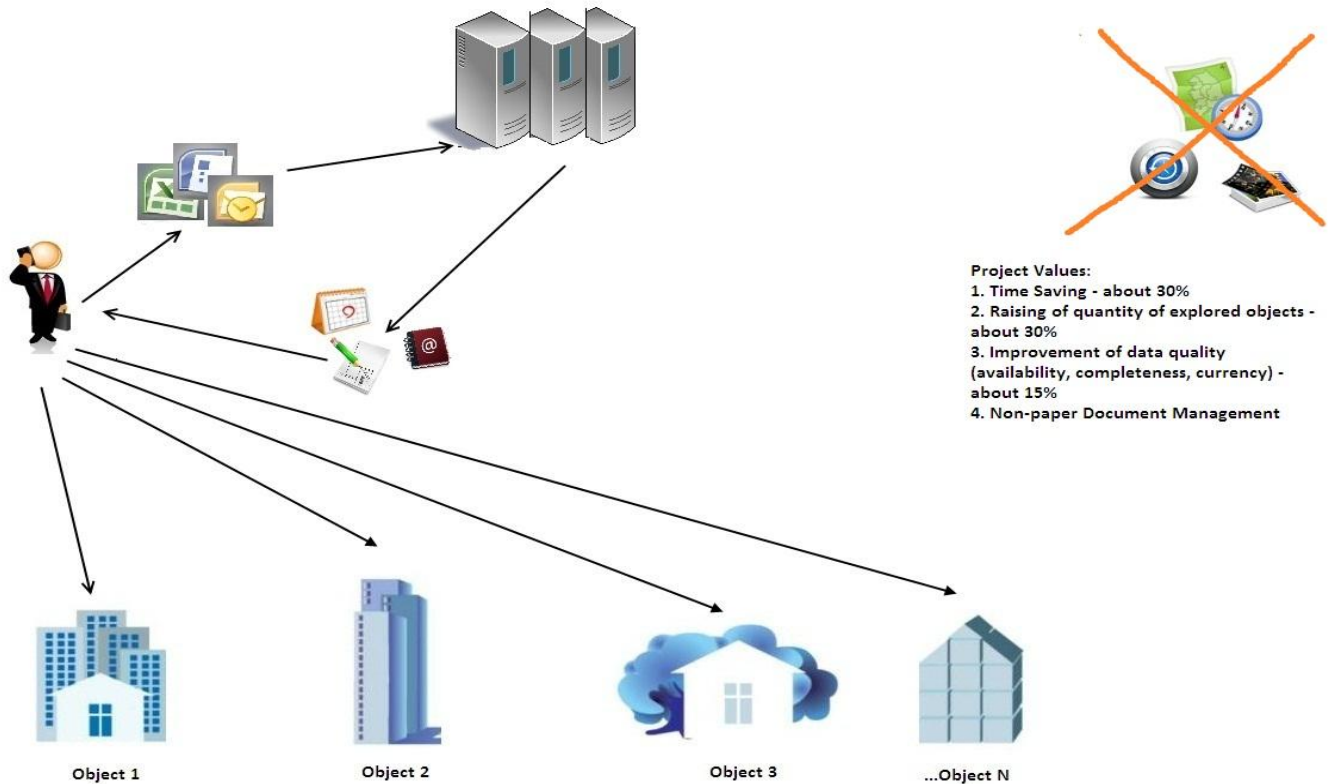
## Result

Astrosoft Development has successfully completed 6-month work on the release version of the software, with all planned functionality to be ready for the further product usage. The Customer is very satisfied with the gained results.

Implemented application completely covers the needs for any building inspector. It tracks all aspects of building features including lighting, steps and stairs, ramps, railings, walls, gates and fences, patios, loading bays, drainage, vegetation, paving, and overall condition. This application tracks any possible visible damage, location of the damage, material damage, and the expertise required to fix the damage.

In summary, the collection of field data through human input on mobile handheld computers with installed system developed by Astrosoft Development, plus technology like GPS enable inspectors to effectively manage processes remotely e.g. generate reports in different forms, transfer data securely and avoid data

losses comparing to the previous approach with paper-based operations. This reduces risk, promotes field accountability and quality of work.



<p><b>Technologies</b></p> <ul style="list-style-type: none"> <li>○ Microsoft Visual Studio 2005</li> <li>○ Microsoft .Net 2.0</li> <li>○ Microsoft .Net Compact Framework 2.0</li> <li>○ Microsoft SQL-Server</li> </ul>	<p><b>Project Team:</b></p> <ul style="list-style-type: none"> <li>○ Project Manager</li> <li>○ 1 System Architect</li> <li>○ 5-7 Developers</li> <li>○ 1 Tester</li> </ul>
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**Company information**

Astrosoft Development specializes in custom software development since 1991. We provide services worldwide helping our customers to gain advantages and real value working with high-qualified software created by high-qualified experts. The company is headquartered in USA, has 3 R&D offices in Russia (Saint-Petersburg, Novgorod, Krasnoyarsk) and representative offices in Germany and Finland.

In order to get more information please visit [www.astrosoft-development.com](http://www.astrosoft-development.com).

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