Coordination of Infrastructure Projects with GIS and SharePoint

Richard Weiss
Geocom Informatik AG
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About Richard Weiss

1991: Bsc Geography
Pennsylvania State University, USA

GIS Consultant, Programmer

1997-2012: Esri Inc and Esri UK
• Senior GIS Consultant
• Product Development Manager
• International Business Dev Mgr

2012 – Present: Geocom Informatik AG
• Head of Product Management
Geocom in a Nutshell

1995  Spin-Off of an engineering Company
2001  Change to ESRI ArcGIS technology
2010  Member of the Esri Germany Group
2010  Beginning of International expansion
2013  Becomes Esri Platinum partner

- Currently around 100 employees
- Part of 500 employees in Group
- 6 Geocom offices in Switzerland and Germany
- Present with partners in more than 20 countries on all continents
Market segments

- Energy
- Plant Management
- Cadastral Survey
- Public Infrastructure
- Transportation and Logistic
SharePoint and GIS
The Power of Microsoft SharePoint

• Collaboration
• Document Management
• Workflows
• Business system integration
The Power of GIS

- Mapping
- Visualization
- Spatial reference
- Attributive information
- Geo-analysis

A picture tells a thousand words

A map tells more than “just data”!
GIS and SharePoint – a Perfect Team
About Integration
Interoperability on Different Levels

Processes

GUI/functions

Data transfer
• A software system forces an organization to work with structured processes!

• Define responsibilities
• Define in which system the data will be stored
• Define the lead system and object identifiers
• User requirement: One system, mature integration
• Find an appropriate way to integrate the map
• Find a good way of interaction between map and SharePoint
• Define if data must be transferred between GIS database and SharePoint

• There is no way to directly use the SharePoint database

• Use REST services!
## Technologies for Sharepoint and GIS Integration

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Esri Maps for SharePoint</th>
<th>Geocom Solution (in cooperation with IOZ AG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>Project-specific Development</td>
<td></td>
</tr>
<tr>
<td>Relation between SharePoint &amp; GIS</td>
<td>Based on Geocoding (Place names, addresses, coordinates etc.)</td>
<td>Based on Keyfields</td>
</tr>
<tr>
<td>Geometry Editing</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Technology Frontend</td>
<td>Javascript or Silverlight</td>
<td>Javascript</td>
</tr>
<tr>
<td>Technology Backend</td>
<td>.NET (C#)</td>
<td>.NET (C#)</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>ArcGIS Online for Organizations Plan</td>
<td>ArcGIS for Server or ArcGIS Online Webmap</td>
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</tbody>
</table>
Example: Construction Coordination, City of Luzern
Project Goals:

• Build a system to handle the complete coordination of infrastructure projects
• One platform
• Intuitive handling
• Inform citizens about current projects, construction work on public places, etc.

• Possibility to extend as “Event Coordination System”
Sample Videos

**Interaction between map and SharePoint list**

**Select event in map and show details in SharePoint**

**Create new event**
Other Project Ideas?

Contract Management
- Manage contracts in SharePoint
- Visualize spatial relevance of each contract

Map Archive
- Archive maps (pdf, dxf, etc) in SharePoint
- Visualize spatial relevance
- Find archived maps based on location

Many others…
Thank you for your attention

richard.weiss@geocom.ch