Esri Maps for SharePoint

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Agenda

- Location Analytics
- Microsoft SharePoint
- Esri Maps for SharePoint 3.0
- Road Ahead
Geo-enable the enterprise

- The power of location
  - There is a wealth of decision-support information hidden in your data that you cannot ever see when you look at it in systems like Excel, SharePoint, SAP
  - This the information about location
    - Where are things happening?
    - Why are things happening there?
    - What is different about here vs. there

- The power of the ArcGIS platform
  - Content
    - Maps
    - Data about locations
  - Analysis
Esri Location Analytics core capabilities:

Mapping visualization
• See your data on maps in innovative ways, far beyond simple “dots on a map” solutions.
• Answers the “Where” question

Spatial analytics
• Why?
• Bi-directional communication between the map and other key business data enables analysis based on location.

Geographic information enrichment
• External spatial data including demographics, lifestyle, business, and weather.
• Here

(This slide really sets the stage for the demo)
Map Visualization is about putting your data on a map and letting it speak. It is visual analytics where patterns become apparent when you see your data on a map.

More than dots on a map:
- Clustered points – identify
- Heat maps
- Color coded thematic maps
- Graduated sizes
- Custom boundaries
Spatial analytics enables you to delve deeper into spatial patterns in your data To answer questions like:
- Find me the customers within 30 miles of an event I am planning so that I can market it to them: Select and Find nearby
- Where do I locate a warehouse based on customer locations and sales per customer: Find hot spots
ArcGIS includes a living atlas to the world, with beautiful and authoritative maps on hundreds of topics, including demographics, businesses, consumer lifestyles, and natural hazards.

You can use this information to enrich the maps you create
- enrich your data, like your spreadsheets
- Illustrate characteristics of your location using rich infographics

The benefit: by getting a more complete picture of your market you can make much more informed decisions.
Quickly and securely share the maps you create across business systems and devices.

Use this capability to collaborate and break down silos across your organization.

Deploy Esri’s mapping solutions in the cloud, on-premises, or a hybrid of both.
BI – microstrategy
CRM – Dynamics CRM
ERP – SAP
CMS – sharepoint and cognos
Democratizing and accessible
SharePoint is a platform not really a product. Some analysts say SharePoint is like a large toolbox or the plumbing. Analogous to a home improvement superstore which welcomes a range of skills from do it yourself types to certified professional in the use of the tools and frameworks capable of building enterprise-class solutions.
Typical Use of SharePoint: Project Collaboration
SharePoint is a platform not really a product. Some analysts say SharePoint is like a large toolbox or the plumbing. Analogous to a home improvement superstore which welcomes a range of skills from do it yourself types to certified professional in the use of the tools and frameworks capable of building enterprise-class solutions
An LOB (line-of-business) application is one of the set of critical computer applications that are vital to running an enterprise, such as accounting, supply chain management, and resource planning applications. LOB applications are usually large programs that contain a number of integrated capabilities and tie into databases and database management systems.

Increasingly, LOB applications are being connected with network applications with user interfaces on the Web and with personal applications such as e-mail and address books. This is the break-out use case for SharePoint---it is a tool to “un-silo” mission-critical business data.
## Microsoft SharePoint - Growing

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enterprise Penetration</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fortune 500 Adoption</strong></td>
<td>78%</td>
<td>66%</td>
</tr>
<tr>
<td><strong>Users</strong></td>
<td>100,000,000</td>
<td>135,000,000</td>
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<tr>
<td><strong>Microsoft Revenue</strong></td>
<td>$1,300,000,000</td>
<td>$2,000,000,000</td>
</tr>
<tr>
<td><strong>Market</strong></td>
<td>$6,500,000,000</td>
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</tr>
</tbody>
</table>

- **Client Access Licenses (CALs):**
- 35% growth over last 3 yrs. (11.7% annual avg.)
- 20,000 new users every day between 2004-2009
- 32,000 new users every day between 2009-2012
- 53.8% growth over last 3 yrs. (17.9% annual avg.)

Fastest revenue growth of any product ever at Microsoft

*Data from: SharePoint 2010: The First 5 Years, presentation by SharePoint Director of Product Management, Microsoft Ignite, September 2011.*

*Note: SharePoint 2010 users have grown at an average annual rate of 11.7%, with an estimated 35% growth in the last 3 years.*

*Source: SharePoint Conference 2012, Las Vegas, November 2012.*


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Esri Maps for SharePoint
The Components
We going to go over a popular Esri Maps for SharePoint solution option in the short time that we have. In this particular instance, we are covering the JavaScript-based HTML5 Map Web Part. Let’s see how Esri Maps for SharePoint’s 5 primary components map enable your origination's investment in the SharePoint .platform.
Your organization’s business data may come from a variety of sources within your organization.
The departments or lines of business may deal with all kinds of different data that may be in different silos within the organization.
Most of these data have a location component associated with them.
SharePoint Lists are a popular way to store, share, and collaborate around tabular data within organizations through their SharePoint platform. They’re essentially shared tables of information and the data behind them can be added/edited/deleted manually, automatically, or programmatically depending on the List’s purpose. Imagine if you will that the organization leverages their investment in the SharePoint platform to share these data to authorized users throughout the organization.
ArcGIS is Esri enterprise sharing and collaboration platform and it is available in Esri-hosted and on-premises flavors which can consist of federated/registered/hosted instances of your geospatial assets.
The Esri Maps Locate workflow geo-enables SharePoint Lists by geocoding addresses with robust and flexible global geocoding services and with a custom Location field that is able to associated SharePoint List Items with locations or areas.
The Esri Maps Web part provides SharePoint Site Page authors with several configuration-only (no programming necessary---if you can create a SharePoint page, you can create a and publish maps within SharePoint!) options to quickly and easily create maps, customize them with symbols, tools, and out-of-the-box spatial analysis functions. In this case, we can also create these maps with one or more map-enabled SharePoint Lists and content and services from your connection to ArcGIS including basemaps, features services, thematic layers, and more. As a bonus, the connection that is established between the SharePoint Lists and map web part is bi-directional and can recognize changes or edits to your connected and geo-enabled SharePoint Lists. Updated to the List will be reflected on your mapped layers derived from them.
Not only do you have the option to publish and share your custom and configured interactive maps of your business data with your entire organization through access-controlled SharePoint sites, you can also publish them out to ArcGIS and make them available to your enterprise through a variety of platforms, services, and custom apps which support a connection to the ArcGIS platform—essentially, if there is anything at this conference that does not support connecting to this now, it will soon!
We talked about SharePoint Lists…but it doesn’t stop there.
For the first time ever, Esri’s SharePoint offers support for geo-enabling your external data warehouse where their line of business data may reside!
Esri Maps for SharePoint supports a Esri Maps Connect workflow which sets up a Business Connectivity Services (BCS) connection to your external data living as records in tables outside of SharePoint. The connection to ArcGIS is leveraged to geocode addresses to make this happen. Your data may also already have mappable spatial information associated with them. Again, as a bonus, the connection that is established is bi-directional and polls or listens for changes or edits to your connected and geo-enabled external tables.
Even better, we have this notion of geoenrichment. Yes, all of the stuff you saw and heard at the plenary can be optional leveraged to geoenrich your external data warehouse with additional contextual. Demographic, landscape, business and other types of attributes that your existing data alone may not contain. These enriches tables can be leveraged for further visualization, analysis, and insights for understanding processes and making better decisions.
Like with SharePoint Lists, you can add map layers to your embedded map within SharePoint Site Pages consisting of data (including the geoenriched data) from your external data warehouse and publish and share through SharePoint to your entire organization.
And/Or publish to ArcGIS. Did I forget to mention that you can not only publish fully-styled and configured interactive maps but you can publish and securely share your geo-enabled data as individual layers maybe representing a layer of stores, a layer of competitors, and a layer of all of your customers with geoenriched attributes such as their demographics, their spending potential, and their ages.
New: global geocoder; place names, boundaries
New support for Esri Maps Connect Workflow – external database support starting with SQL Server
Custom geocoder from settings list
Seamless handling of “Single-line” or “Multi-line” address

Map-enabled SharePoint List data changes will be handled and any associated mapped layers will be updated accordingly
Connect and configure with no programming required
Creates an External Content Type which points directly to your data warehouse – SQL Server supported initially
Supports associating all types of geometry (point, line, polygon) with your table records
Enrich or append additional attributes to your connected tables with GeoEnrichment
List created from external data updated once a day
Map Web Part
Design time (edit) and runtime modes for customization

HTML5 / JavaScript and Silverlight app architectures

Updated for the ArcGIS API for Silverlight and Extensibility SDKs
The information in this session applies to JavaScript web part
Quickly and easily find geo-statistical outliers based on either
- Density/clustering of mapped features
- User-selected numeric attribute
Bi-directional Interaction
From the SharePoint list view to the map and back

- Select a row in SharePoint list view to select item on the map
- Filter a list view by selecting on the map
Select a row in SharePoint list view to select item on the map
Filter a list view by selecting on the map
Tight Integration with Your Organization
Through ArcGIS Online or Portal

- Use your organization’s base maps and default map
- Use custom geocoder from your Portal
- Share maps and layers
- Selecting basemaps
- Custom geocoder for org
Road Ahead
Location Analytics
Descriptive and Predictive Analytics

Discover the pattern: Where do things occur? Where do I sell more?

Understand the pattern: What’s special about these places? Why do I sell more here and not here?

Predict patterns: What is changing about this place? What will this place look like in the future?

Find and locate: Now that I know I do well in places like these, find me more places that fit these criteria
• 3 major releases a year
• Features from Silverlight Map Part
  • Which ones are more important to you?
• More external databases for BCS
  • Which ones are more important to you?
• What more?
  • Let us know: #EsriMapsSharePoint

What else do you want? || Let us know
Presenters:

Offering ID
- this is in your presenters schedule or the printed agenda (not in the online agenda this year)
- please be sure to update the slide with both IDs if you have more than one session

For attendees: Here are the instructions for users to access the system.

The UC surveys can be accessed from:
1. My UC Homepage > Evaluate sessions
2. www.esri.com/ucsurveyssessions

The MyUC login is on the back of their badges.

The session can be found through:
1. My planner listings on survey search page
2. Using the Search based on:
   • Topic, Date, workshop type and event
   • Offering ID – this is in your schedule or the printed agenda (not in the online agenda this year)

There are 6 quick multiple choice questions plus a space for comments