MaxGIS™

Integrating IBM Maximo® and ESRI ArcGIS® to Effectively Manage Assets, Work, and Customer Service

Nancy Lerner, Vice President
Skip Heise, GIS Business Manager
Agenda

1. Company Overview
2. MaxGIS™ Solution Overview
3. Q&A
Company Overview

• Employee owned
• More than 30 years of experience
• Offices throughout North America
• Service areas
  – Maximo implementation, training, and upgrades
  – Management and organizational consulting/process optimization
  – Performance management
  – GIS and IT planning, design, implementation, & integration
  – Control systems engineering
• Market Focus
  – Utilities
  – Local governments
  – Process control industries
IBM Business Partner

- Leading implementer of Maximo software for utilities
- Maximo expertise in public sector, process control, and EAM best practices
- Advanced-level business partner with IBM
- 2006 Maximo “Partner of the Year”
- Staff certified in Maximo deployment
- Specialize in GIS integration with Maximo
Leading GIS Implementation Firm

• **Environmental Systems Research Institute (ESRI)**
  – 2003/04 ESRI Foundation Partner Award winner

• **Geospatial Information & Technology Association (GITA)**
  – Leading joint GITA/Department of Homeland Security initiative for a national geospatial critical infrastructure protection framework

• **American Water Works Association Research Foundation**
  – Leading joint AwwaRF and GITA ROI for GIS research project

• **Water Environment Research Federation (WERF)**
  – Asset management research project – lead developer
Solutions for the Unique Requirements of Field Infrastructure Management

MaxGIS™

Solutions for the Unique Requirements of Field Infrastructure Management
Map Views and Analysis Key to Managing Field Assets, Work and Customer Service

- Efficiently plan and assign work
- Avoid duplicate service requests / work orders
- Ensure work orders refer to the correct asset
- Build efficient preventative maintenance routes
- Understand root cause of asset failure
- Dispatch emergencies to the closest crews
## EAM and GIS are Complementary

<table>
<thead>
<tr>
<th>EAM</th>
<th>GIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage asset lifecycle</td>
<td>Manage asset geographic location</td>
</tr>
<tr>
<td>Plan and schedule work</td>
<td>Analyze work locations to create efficient bundles / assignments</td>
</tr>
<tr>
<td>Create service request for customer call</td>
<td>Display existing requests and work in the vicinity to avoid duplication</td>
</tr>
<tr>
<td>Create work order against infrastructure / asset</td>
<td>Select from map to ensure proper asset</td>
</tr>
<tr>
<td>Create preventative maintenance routes</td>
<td>Sequence route stops based on proximity</td>
</tr>
<tr>
<td>Asset failure reporting</td>
<td>Analyze spatial patterns of failure to determine cause</td>
</tr>
<tr>
<td>Dispatch crew to emergency work</td>
<td>View crew and work locations to dispatch closest available resource</td>
</tr>
</tbody>
</table>
MaxGIS is Complete Solution for Integrating ESRI ArcGIS® and IBM Maximo®

MaxGIS™

- eMap
- Sync
- Mobile
- MapSketch+
- Isolation Manager
- MultiMedia
- AVL

(Automatic Vehicle Location)
Requirements

• ESRI
  – ArcIMS or ArcGIS Server (map service)
  – ArcSDE (versioned geodatabase)
  – ArcGIS Editor

• IBM Maximo
  – Version 5.x or 6.x
  – Future support for 7.x

• Database
  – Oracle or SQL/Server
eMap Capabilities

• Embedded map in *Work Order (WO) Tracking*, *Service Request (SR)*, and *Assets* applications

• Display, filter, and color-code SR and WO locations on map

• Attach asset or location to WO or SR by selecting feature from map

• “Mouse-over” WO symbol to view details

• Highlight Maximo query results on map

• Modify query results using spatial filter

• Easy-to-use map navigation tools
Select Asset in Maximo and View on Map
Select Features on Map and View Associated Assets in Maximo
View WO and SR Locations on Map
Show Maximo Query Results on Map
Display Current WO Location on Map
Create New WO Using Map to Find Asset
Sync Capabilities

• Tools to keep GIS and Maximo databases aligned
• New GIS “features” become “assets” or “location” records in Maximo
• Deleted or retired features in GIS are decommissioned assets in Maximo
• Ability to load Maximo assets with data from GIS
• Ability to link existing Maximo assets to new GIS features
• Bi-directional synchronization
Configuration Properties

- Set Maximo and GIS database instances
- Associate Maximo asset classification to GIS feature classes
- Cross reference Maximo and GIS attribute table columns
- Set link column for Maximo asset and GIS feature class
- Set synchronization direction rules
MaxGIS Mobile Capabilities

- Provide GIS maps and Maximo work orders to mobile workforce
- Easy-to-use map navigation (address, street name, intersection, GPS feed)
- Access up-to-date infrastructure information
- View work orders and service request locations on map
- Reassign work order to proper asset using map to “pick” asset
- Works with Maximo Mobile SE (Syclo Edition)
- Future support for IBM Maximo
Display Infrastructure Information

- Mains
- Hydrants
- Valves
- Meters
- Streets
- Premises
- Signs
- Traffic Signals
- Parks
- ...

[Map and Attribute Viewer]
Easy-to-Use Map Navigation Tools
Easily Find Assets by Location

Locate Street Intersection

Street Name: Lumi St
Cross Street: Lumi

Locate

GPS
Parcel Address
Street Intersection
By Feature

8 candidate(s) found that match the search criteria
View Work Order and Service Request Locations on Map

<table>
<thead>
<tr>
<th>WO#</th>
<th>Pri</th>
<th>Location</th>
<th>Description</th>
<th>Status</th>
<th>Work Address</th>
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<tbody>
<tr>
<td>M37744</td>
<td>4</td>
<td>PREM1015432</td>
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<td>ALDAII ST 85</td>
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<td>ACADA RD 1</td>
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</table>

[Map showing locations with markers]
Reassign Work Order to Proper Asset
MaxGIS Extensions

MapSketch+

Isolation Manager

MultiMedia

AVL
MaxGIS Provides Real Business Benefits

• More efficient work planning and scheduling
• Reduction in work order and service request duplication
• Ensures that work is tracked to the proper asset
• More efficient preventative maintenance routes
• More accurate asset failure analysis
• More efficient work assignment and dispatching
Questions?

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Meet us at Pulse 2008 May 18-22
Booth # E207