Intelligent Asset Management for Utilities

Andrew Evans

Topcon
Walk or Drive?
Drive!

- Cost
- Duration
- Coverage
- Simplicity
- Safety
Deliver – Quickly

Map

Extract

Deliver
• Navigating the Infobahn
Update Regularly
Utility Management

GeoNav - USA
• Rural Utility Mapping

• Details
  ❖ Up to 50 attributes per pole
  ❖ 1400 Rural Utilities
  ❖ Average 70,000 poles / utility

• Field Productivity
  ❖ 65 poles / person / day  **OR**  Up to 800 poles / hour
Common Electrical Distribution Lines

Primary wires up to 34,500 volts of electricity

Secondary wires up to 240 volts of electricity

Transformer reduces primary voltage to secondary voltage

Electric Service to house up to 240 volts of electricity

Phone and Cable TV service to house
• Deliverables / Goals

◆ Provide clients with:
  Utility Pole location
  Vegetation encroachment
  Splices
  Joint Use
  Pole heights
  Clearance
  Sag
• Rural Co-Op Utility Mapping
<table>
<thead>
<tr>
<th>Utility Mapping - ROI</th>
<th>3D MMS</th>
<th>Traditional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets Collected</td>
<td>151,000</td>
<td>Same</td>
</tr>
<tr>
<td>Project Time Period (Months)</td>
<td>11 Mo.</td>
<td>20 Mo.</td>
</tr>
<tr>
<td>Field – Office Staff</td>
<td>5 People</td>
<td>9 People</td>
</tr>
<tr>
<td>Data Accuracy</td>
<td>5-8 cm</td>
<td>Sub-meter</td>
</tr>
<tr>
<td>Data Entry and Spatial Errors</td>
<td>2% or Less</td>
<td>5%+</td>
</tr>
<tr>
<td>Cost Savings:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field Collection</td>
<td>Processing</td>
<td>Feature Extraction</td>
</tr>
<tr>
<td>Time Savings</td>
<td>55%</td>
<td>--</td>
</tr>
</tbody>
</table>
Underground Utility Management

CAT Surveys - UK
Safe and Efficient Asset Location and Reference
Safe and Efficient Asset Location and Reference
Clear communication
Clear communication
Nuclear Facility Management

Sellafield - UK
Sellafield Site Maps v2.0
Summary

Questions?

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Exhibition Location: Stand #2