Avista and the Magnificent Favorites
Betsy Rush – Schneider Electric
Welcome to the Inland Northwest

Avista Key Stats - 2016

Electric
- 384,000 Electric Customers
- 26,600 miles of primary electric lines
- 8,300 miles of transmission
- 8 Hydro Facilities

Gas
- 352,000 Gas Customers
- 7,800 miles of distribution gas main
- 124 miles of transmission main
The Designer Project at Avista
Enter Favorites
It’s All in the Name
Keeping Them Fresh
The Ultimate Click Reduction
Avista’s Environment

- ArcGIS 10.2.1
- Oracle 11g -> 12c
- IBM Maximo 7.5
- Oracle CC&B 2.4
- Citrix XenApp 6.5
- Windows Server 2012
- Safe Software FME 2016
- TC Technologies Mapbook
Avista’s Environment

• A very large and COMPLEX ArcObjects-based solution
  • Started with ArcGIS 8.0 Beta in 1999
    • Outage Management Tool
      • Editing tools
        • Mobile inspections
          • Electric Design Tool
          • Gas Design Tool
          • And much, much more….
The Designer Project

- Design tools chosen first in quest for COTS
- Year-long project preceded by a Phase 0
- Shared geodatabase decision
- Integrations to Maximo, CC&B and Avista’s solution
- Minimize customizations but...keep everyone happy!
- The Designer Project at Avista
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Four Kinds of Favorites

**Feature Favorite**
- One sketchable CU
- Unlimited related objects and attribute values
- Include Non-GIS CUs

**Composite Favorite**
- One or more CUs
- Unlimited related objects and attribute values
- Features appear in the same arrangement every time – sketch like a point
- Include Non-GIS CUs

**Template Favorite**
- One or more CUs
- Unlimited related objects and attribute values
- Feature arrangement can differ every time – sketch like a line
- Include Non-GIS CUs and Composite Favorites

**Macro Favorite**
- One or more CUs – must be same geometry type
- Unlimited related objects and attribute values
- Include Non-GIS CUs
Goals – Using Designer Favorites

• Increase productivity of Customer Project Coordinators (CPCs)
• Support standards based construction
• Support GIS mapping standards
• Maintain Avista’s customized GIS data model
• Maintain Avista’s short hand Macro names
• Maintain callout information for crews
Overhead Construction
Align Standards to Favorites
Underground Construction
Align Standards to Favorites
- The Designer Project at Avista
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Our Trial and Error Learning Process

• Schneider cautioned Avista about having too many favorites, however….

• Naming of Favorites at the feature class level
  • Changing a GIS CU renames Favorite name

• Simple Favorite names act differently when contained in a Template Favorite

• Composite Favorites (OH/UG XFMRs)

• Template Favorite requires minimum 2 Clicks
It’s All in the Name

Macro Name

C-1 Three Phase Tangent
Framing Guideline
It’s All in the Name

- Favorite name is lost when a Simple Favorite is placed with Designer
- Favorite is renamed to the Feature Class
It’s All in the Name

- Simple Favorite names act differently when in a Template Favorite
- Favorite name was preserved at the Feature Class level
It’s All in the Name

Naming of Favorites at the object class level

- Changing a GIS CU renames favorite name to GIS CU description
- This only occurs in the Design Tab vs. the Targets Tab
Applying What We Learned

Created related table

- To maintain Macro name
- Helped support automated callout creation

Work Function – Through Favorites

- Used Removal Favorites (Avista Macros) to replace Designer Work Function

<table>
<thead>
<tr>
<th>Removal Favorites (Avista Macros)</th>
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<tr>
<td>R PP E \ OH \ PI (POLE TOP PIN SINGLE 15-35KV)</td>
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<tr>
<td>R 1RH E \ OH \ SR (SEC RACK, 1 SPOOL - HEAVY DUTY)</td>
</tr>
<tr>
<td>R 9WA E \ OH \ CA (PRN ONLY-XARM 9 FT SINGLE W8 BR)</td>
</tr>
<tr>
<td>3 R P113 E \ OH \ IN (PRN ONLY - INSULATOR PIN 13KV)</td>
</tr>
<tr>
<td>2 R WP9 E \ OH \ PI (PRN ONLY - PIN WOOD 1.5X9 IN)</td>
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Applying What We Learned

Quick grab bag of CUs

- Using Templates and offsets to replace Avista’s customized double snap for OH Transformers
- Used offsets to create a complete install Gas job
- Create complex relationships using Auto Updaters
- The Designer Project at Avista
- Enter Favorites
- It’s All in the Name
- Keeping Them Fresh
- The Ultimate Click Reduction
Keeping Them Fresh: Managing Favorites

- Automated processes to update Favorites when CUs change in Maximo
- Using Feature Manipulation Engine (FME) to support large Favorite updates / manipulation
- Solid communication between Designer admin and Standards group
- Reports to show CU change impacts to existing designs
- Reduced (but not eliminated) manual maintenance
- The Designer Project at Avista
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The Ultimate Click Reduction - Electric

- Favorites aligned well with Avista’s current Macro architecture
- Favorites are organized similarly to the Construction Standards for easy navigation
- Fit nicely even in Avista’s complex data model

- Rapid design through Favorites based on standards
- Reduce clicking
- Almost completely eliminated typing in CU names
- Favorite tree structure helped direct designers to the correct standards based construction.
- Using Favorites to support mapping standards
The Ultimate Click Reduction - Gas

- Using favorites to support Gas Construction Standards
- Using favorites to support mapping standards
- Gas reduced clicks 400% for a typical gas service
- Fewer Favorites than electric
Questions?

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Thank you
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- Click the surveys link on the app nav bar
- Take Overall Link and Marketplace surveys
Surveys – Session Feedback

**STEP 1**
Go to agenda
Add session

**STEP 2**
Click session
Check in

**STEP 3**
After session
Go to app
Take survey