Laying Out Utilities in SS4

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Topics Covered

- Retired Utility Levels, QC Legacy
- Laying out utilities using Features and viewing them in Cross Sections
- Explain SUE and SUDA and the licensing
- Laying out utilities using SUE and viewing them in the Cross Sections
- Clash Detection
- Flex Tables
- Drainage Preview
Retired Utility Levels and Updating them

• All utility levels without Quality Levels have been retired.
• Other utility level names have been updated to for consistency:
  • All “power” levels have been changed to “elec”
  • Fiber Optic has been broken out into 3 different types (FOCable, FOElec, and FOTele)
  • Other miscellaneous changes have been made also.

EXIST. WATER

EXIST. WATER QUALITY LEVEL B  W(B) - - - - - - - - W(B)
EXIST. WATER QUALITY LEVEL C  W(C) - - - - - - - - W(C)
EXIST. WATER QUALITY LEVEL D  W(D) - - - - - - - - W(D)
Retired Utility Levels and Updating them

• Good News!! There is a tool for locating and updating the out of date levels:
Quality Levels

• **Quality Level D:** Lowest level of accuracy. Information is obtained from existing utility records.

• **Quality Level C:** More accurate than Quality Level D. Information is obtained from topographic surveying of visible utility features.

• **Quality Level B:** More accurate than Quality Level C. Information is obtained from the use of scanning technologies.

This information can be found in the PPM Ch. 5; Section 5.3: Utility Locates.
Laying Out Utilities

1. Utility Features:

2. SUE:
What is SUE or SUDA?

Subsurface Utility Engineering (SUE)

- Conflict Management / Clash Detection
- SUE Attribution

StormCAD Hydraulic Analysis/Design Engineering

- 3D Modeling of underground objects.
- Integrate with OpenRoads

- Storm/Sanitary Hydraulic Analysis and Design
- Hydrology

Subsurface Utility Design and Analysis (SUDA)
<table>
<thead>
<tr>
<th>If you own this license:</th>
<th>Drainage Functions</th>
<th>Utility Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any OpenRoads product:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• GEOPAK</td>
<td>• StormCAD which</td>
<td>• Utilities can</td>
</tr>
<tr>
<td>• PowerGEOPAK</td>
<td>includes storm</td>
<td>be modeled in</td>
</tr>
<tr>
<td></td>
<td>water design and</td>
<td>3D.</td>
</tr>
<tr>
<td></td>
<td>analysis.</td>
<td>• No SUE</td>
</tr>
<tr>
<td></td>
<td>• Maximum 100</td>
<td>Attributes.</td>
</tr>
<tr>
<td></td>
<td>Inlets per</td>
<td>• No Utility</td>
</tr>
<tr>
<td></td>
<td>drainage model.</td>
<td>Conflict Tools</td>
</tr>
<tr>
<td></td>
<td>• Storm Water</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attributes.</td>
<td></td>
</tr>
<tr>
<td>OpenRoads plus any of</td>
<td>• Additional</td>
<td>• Utilities can</td>
</tr>
<tr>
<td>the following:</td>
<td>hydraulic</td>
<td>be modeled in</td>
</tr>
<tr>
<td>• StormCAD Unlimited</td>
<td>calculations</td>
<td>3D.</td>
</tr>
<tr>
<td>• SewerCAD</td>
<td>depending on which</td>
<td>• No SUE</td>
</tr>
<tr>
<td>• CivilStorm</td>
<td>license is</td>
<td>Attributes.</td>
</tr>
<tr>
<td>• SewerGEMS</td>
<td>activated.</td>
<td>• No Utility</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Conflict Tools.</td>
</tr>
<tr>
<td>Any of the products above</td>
<td>• Same hydraulic</td>
<td></td>
</tr>
<tr>
<td>plus a SUE license.</td>
<td>calculations</td>
<td>• SUE Attributes</td>
</tr>
<tr>
<td></td>
<td>capabilities as</td>
<td>• Utility</td>
</tr>
<tr>
<td></td>
<td>above.</td>
<td>Conflict Tools.</td>
</tr>
</tbody>
</table>
SUDA/SUE Product Add-Ins Activation

- To activate the different product add-ins use Tools > Product Add-Ins menu.

- If activated, an alert that additional license usage will be logged which may result in additional cost.
SUE Licensing

• The Subsurface Utility Engineering product has three main functions:
  • Model Utilities
  • Clash Detection **(Requires Product Add-In)**
  • Enhanced Utility Attribution **(Requires Product Add-In)**

• Tools > Product Add-Ins > Activate Subsurface Utility Engineering.
Disabling SUDA Products

• A customized DGNLIB is provided with the FDOTSS4 workspace.
  1. Copy the CivilCommands.dgnlib from the \FDOTSS4\RESOURCES\Dgnlibs\General folder on the server to the C:\Program Files (x86)\Common Files\Bentley Shared\Civil Platform\08.11.09 folder on each client PC.
  2. Add these variables to a file named CustomVars.txt file in the \FDOTSS4\Workspace\Users folder on the server.

Config Variables:

- FDOT_DISABLE_SUE=TRUE
- FDOT_DISABLE_STORMCADUNLIMITED=TRUE
- FDOT_DISABLE_CIVILSTORM=TRUE
- FDOT_DISABLE_SEWERCAD=TRUE
- FDOT_DISABLE_SEWERGEMS=TRUE
Questions?

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