



ENGINEERING / CADD SYSTEMS OFFICE

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



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~~

~~W - - - - - X - - - - - W - - - - -~~

~~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 There is a tool for locating and updating the out of date levels:

The screenshot displays the QC Legacy tool interface. On the left, a menu is open under the 'Actions' tab, with 'Quality Control' highlighted. A sub-menu is visible, listing options: QC Batch Report, QC Check, QC Quick, QC Stop, QC Version, and QC Legacy (which is highlighted in orange). The main window, titled 'QC Legacy (v2014.1.3.1)', shows a table of legacy levels. The table has four columns: Model, Element Type, and Legacy Level. The first row is selected, showing 'Default' for Model and Element Type, and 'Tele_ep' for Legacy Level. Below the table, there are checkboxes for 'When correcting levels, set all symbology to ByLevel' and 'Critical File Status: Critical'. There are also input fields for 'Level', 'Color', 'Line Weight', and 'Line Style', all set to 'ByLevel'. A 'Hilite Color' field is set to a pink color. A 'Close' button is at the bottom right.

Model	Element Type	Legacy Level
Default	Line	Tele_ep
Default	Line	Tele_ep
Default	Line	Tele_ep
Default	Line	Power_ep
Default	LineString	Power_ep
Default	Line	Power_ep
Default	LineString	Power_ep
Default	LineString	Power_ep

Quality Levels

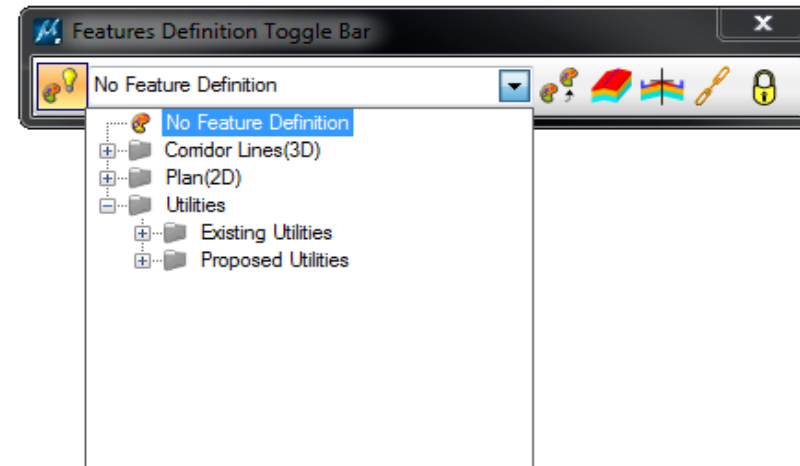
- **Quality Level D:** Lowest level of accuracy. Information is obtained from existing utility records.
- **Quality Level C:** More accurate than Quality Level D. Information is obtained from topographic surveying of visible utility features.
- **Quality Level B:** More accurate than Quality Level C. Information is obtained from the use of scanning technologies.

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

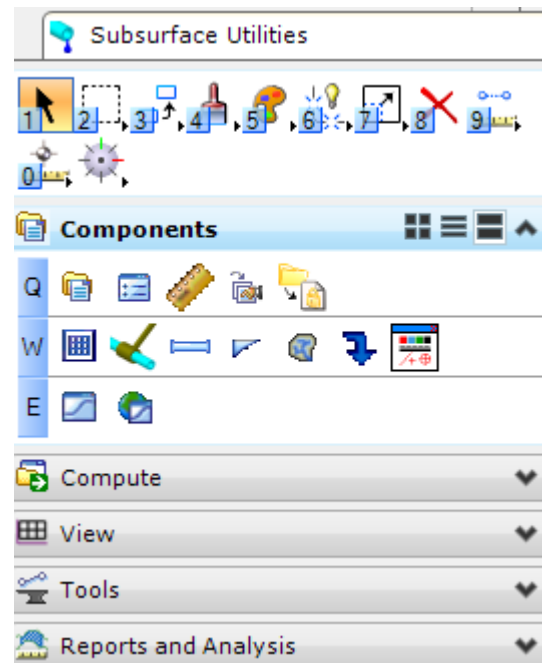


Laying Out Utilities

1. Utility Features:



2. SUE:



What is SUE or SUDA?



Subsurface Utility Engineering (SUE)

StormCAD Hydraulic Analysis/Design Engineering

- Conflict Management / Clash Detection
- SUE Attribution

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

- Storm/Sanitary Hydraulic Analysis and Design
- Hydrology

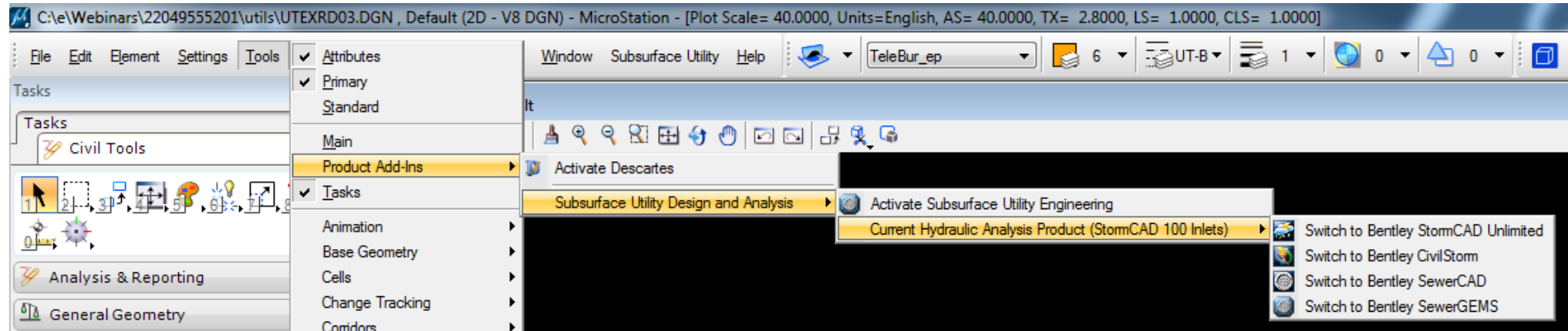
SUDA/SUE Licensing

If you own this license:	Drainage Functions	Utility Functions
Any OpenRoads product: <ul style="list-style-type: none">• GEOPAK• PowerGEOPAK	<ul style="list-style-type: none">• StormCAD which includes storm water design and analysis.• Maximum 100 Inlets per drainage model.• Storm Water Attributes.	<ul style="list-style-type: none">• Utilities can be modeled in 3D.• No SUE Attributes.• No Utility Conflict Tools
OpenRoads plus any of the following: <ul style="list-style-type: none">• StormCAD Unlimited• SewerCAD• CivilStorm• SewerGEMS	<ul style="list-style-type: none">• Additional hydraulic calculations depending on which license is activated.	<ul style="list-style-type: none">• Utilities can be modeled in 3D.• No SUE Attributes.• No Utility Conflict Tools
Any of the products above plus a SUE license.	<ul style="list-style-type: none">• Same hydraulic calculations capabilities as above.	<ul style="list-style-type: none">• SUE Attributes• Utility Conflict Tools



SUDA/SUE Product Add-Ins Activation

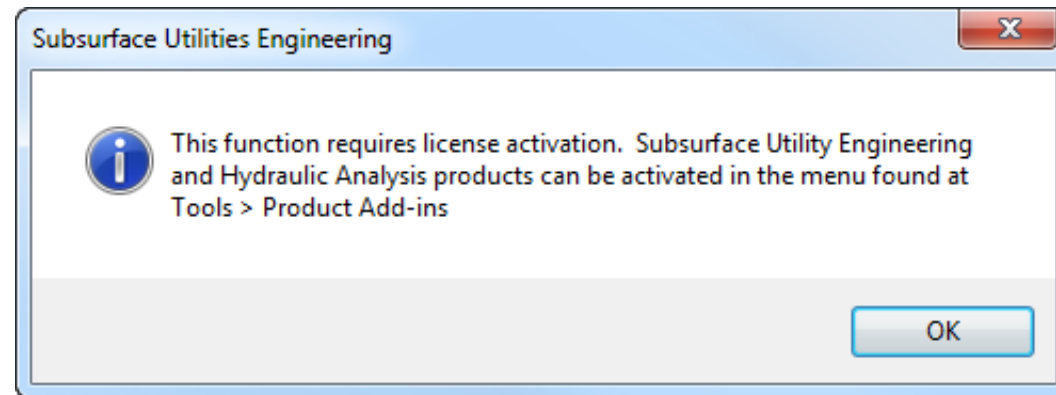
- To activate the different product add-ins use Tools > Product Add-Ins menu.



- 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

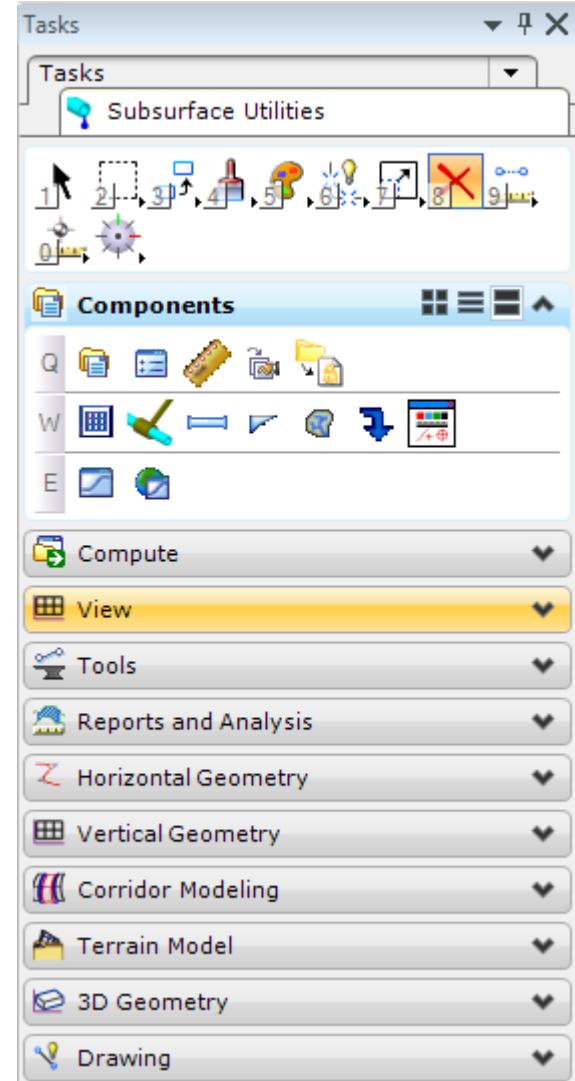
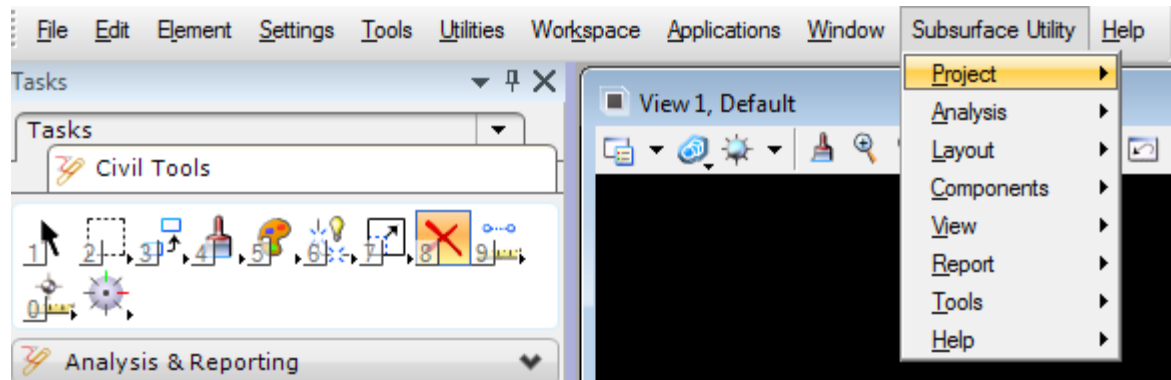
FDOT_DISABLE_CIVILSTORM=TRUE

FDOT_DISABLE_SEWERCAD=TRUE

FDOT_DISABLE_SEWERGEMS=TRUE



SUE



Questions?

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