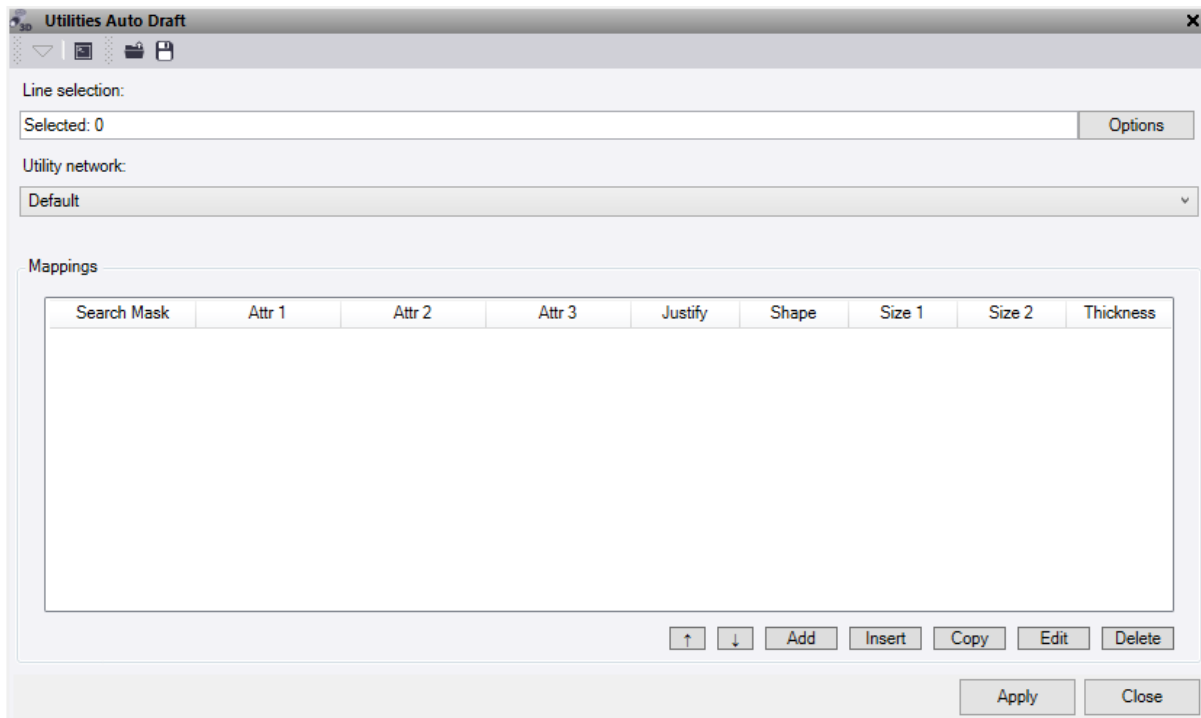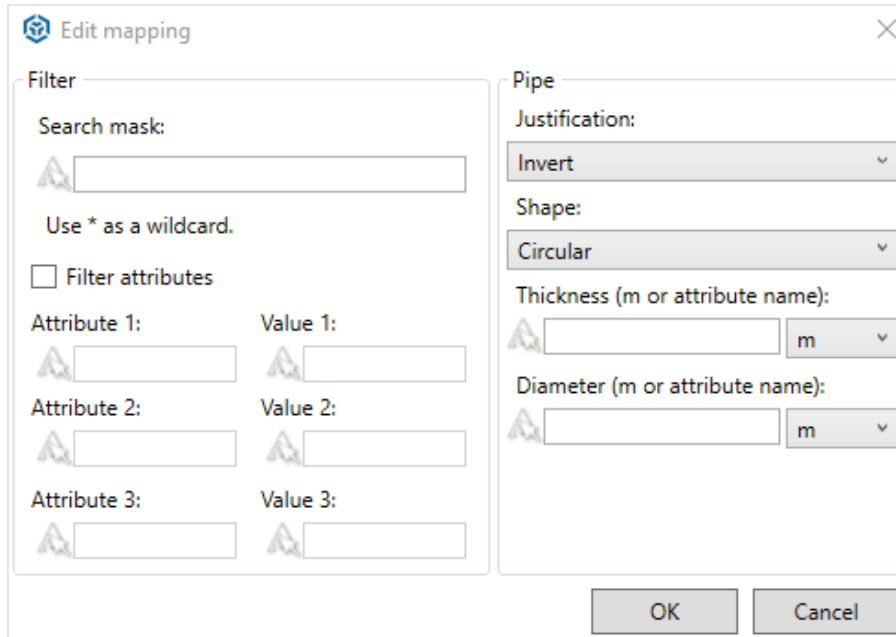**3D** Utilities Auto Draft

Command Description

The Utilities Auto Draft command allows the user, based on a feature codes and attributes, to create utility pipes automatically from as-built or design 3d data. You create a mapping rule set and by selecting a group of lines using all or part of a line name (using the wildcard asterisk "*") and attributes, apply rules to those objects simultaneously. In addition, you can import mapping rule sets into your project, or export the ones you create, using *.utilitiesautodraft files.

1. Click in the **Line selection** field and then in a graphic view select all the points and CAD objects you want to map. Click **Options** for additional selection options.

2. Select a **Utility network** for the pipes to be a part of or create a new network.

3. To import previous rule sets into your project from a *.utilitiesautodraft* file and populate the **Mappings** table, click the 📂 button at the top of the command pane and select the file you want to import. Else start a new rule set as shown below.

4. To add mappings to the bottom of the table, click the **Add** button to display the **Edit Mapping** dialog and do the following:

Filter:

- In the **Search mask** field, enter all or part (using the wildcard asterisk "*") of the string name you want to map.

For example, if you enter *Conduit* (preceded and followed by an asterisk), all objects with *Conduit* in their name will be mapped. This would include, for example, *BottomConduit1*, *TopConduit2*, and *MiddleConduit1.*

- **Filter attributes** can be applied to the above mask as a secondary filter option.

  o Enter the attribute name and value you wish to search, then leave the second and third attribute options empty or add another to refine further. Once the mask is found true it then checks the attributes and if they are found true, it will apply the pipe details. *Note, these values are decimal point sensitive.*

Pipe:

- Select the required **Justification** from the list for the pipe being drawn.

- Select the required **Shape** from the list for the pipe being drawn.

- Based on the Shape used there are the following options.

  o Circular – **Thickness**. This is applied to the pipe shape and can be directly entered, or an attribute name can be entered so that it will apply the value from that attribute each time.

  o Circular – **Diameter**. This is applied for the pipe size and can be directly entered, or an attribute name can be entered so that it will apply the value from that attribute each time.

  o Rectangular – **Thickness**. This is applied to the box shape and can be directly entered, or an attribute name can be entered so that it will apply the value from that attribute each time.

  o Rectangular – **Width**. This is applied to the box size and can be directly entered, or an attribute name can be entered so that it will apply the value from that attribute each time.

  o Rectangular – **Height**. This is applied to the box size and can be directly entered, or an attribute name can be entered so that it will apply the value from that attribute each time.

Note: all values for the above can be entered in metre, millimetre or inch units based on your selection.

- Click **OK**.

Your selections are displayed in a new row in the **Mappings** table in the **Utilities Auto Draft** command pane.

5. To delete a row from the **Mappings** table, select the row and click **Delete**. To delete multiple rows, select the top row and hold shift and select the bottom row, then delete.

6. To move the row order, use the **Up** and **Down** arrows and to edit a previously entered row use the **Edit** button or double click on the row in the table. Note that the order of the mapping file matters as the command looks at the Name Mask from top to bottom.

7. To insert a row above an existing one, click on the row location and press the **Insert** button. To copy an existing row, highlight the row and press the **Copy** button and this will be added directly below.

8. To export the contents of the **Mappings** table as rule sets into a "*.utilitiesautodraft"* file that can be shared with others, click the button at the top of the command pane and select a location for the new file.

9. Click **Apply** to apply the mapping changes and keep the **Utilities Auto Draft** command pane open.

The pipes are created from the selected lines and the number of pipes created is displayed.

Note: *If the same object mask is selected in more than one row in the **Mapping** table, the mapping rules specified first will apply.*

Example: