

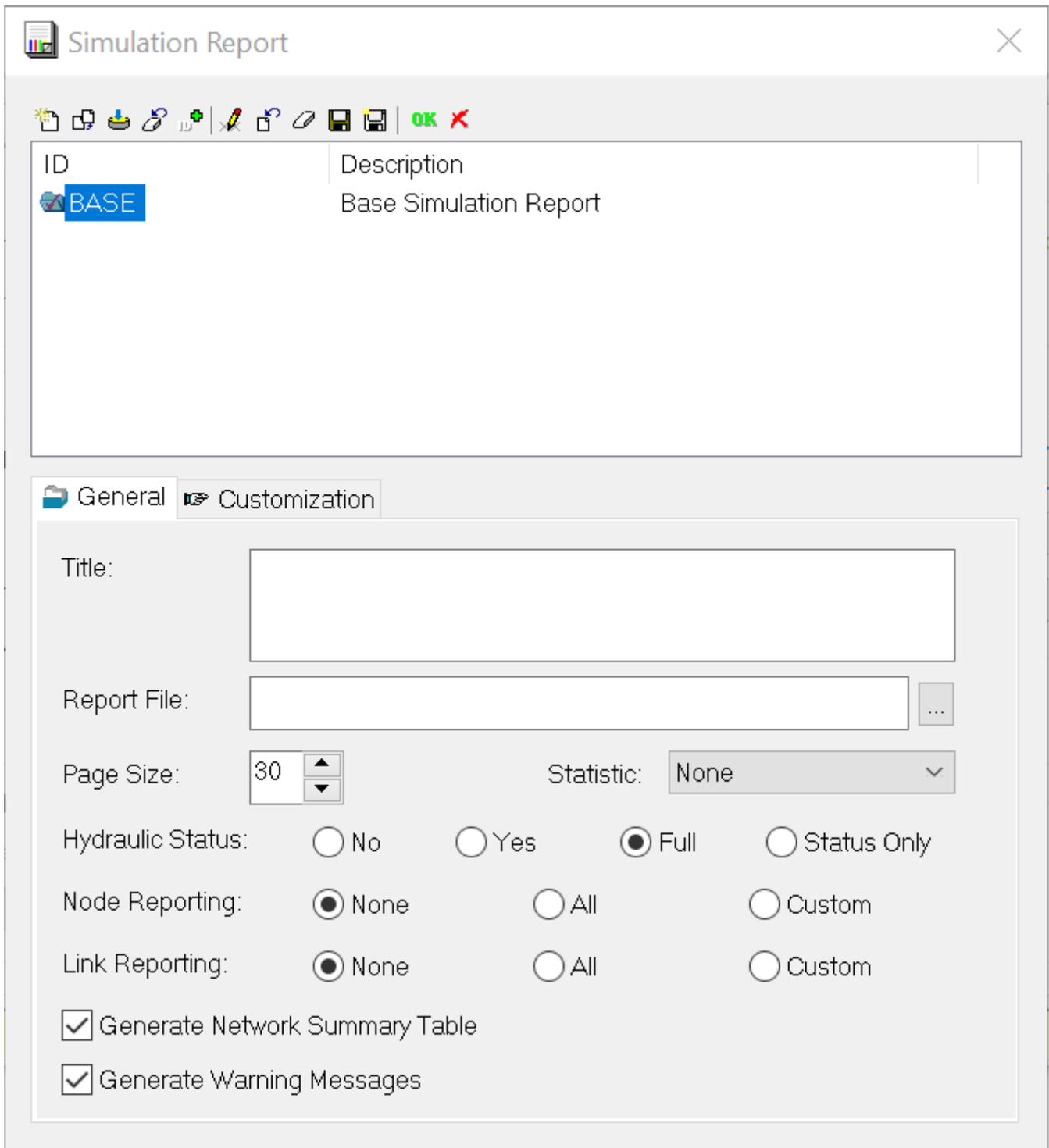
Simulation Report

The **Simulation Report** allows you to create a simulation run text report that you can customize according to your specific purposes.

A simulation report can be created as part of a scenario or simulation run, and may be different from the native analysis model report. It contains the results from the simulation run itself. The model specific data for the simulation run consists of items including error messages, pump status, trial runs, element actions at time steps, connectivity problems, etc.

To create, modify, or delete a Simulation Report option, you can open up the **Simulation Report** dialog box from the **Operation tab of the Model Explorer** or from the **Report Options' Browse** button in the **Run Manager**.

General



Toolbar

The Simulation Report toolbar allows you to delete, modify, save, create a new report, etc.

ID and Description

This section of the Simulation Report displays the IDs and Descriptions of all the created Reports.

General Tab

Title - The title header to be shown at the top of each page in the output report.

Report File - The name and network location of the output report.

Page Size - Sets the number of lines written per page of the output report. The default is 0, meaning that no line limit per page is in effect.

Statistic - This report may also be used to display statistical variation. Choose the option from among the below:

? Unknown Attachment

Hydraulic Status - Determines whether a hydraulic status report should be generated. If **YES** is selected, the report will identify all network components that change status during each time step of the simulation and report the simulation time, the number of trials as well as the total demand, the total supply and the total stored. If **FULL** is selected, then the status report will also include information from each trial of each hydraulic analysis. This level of detail is only useful for de-bugging networks that become hydraulically unbalanced. If **STATUS ONLY** is selected, only the component status change is reported. The default is **NO** where no hydraulic information is reported.

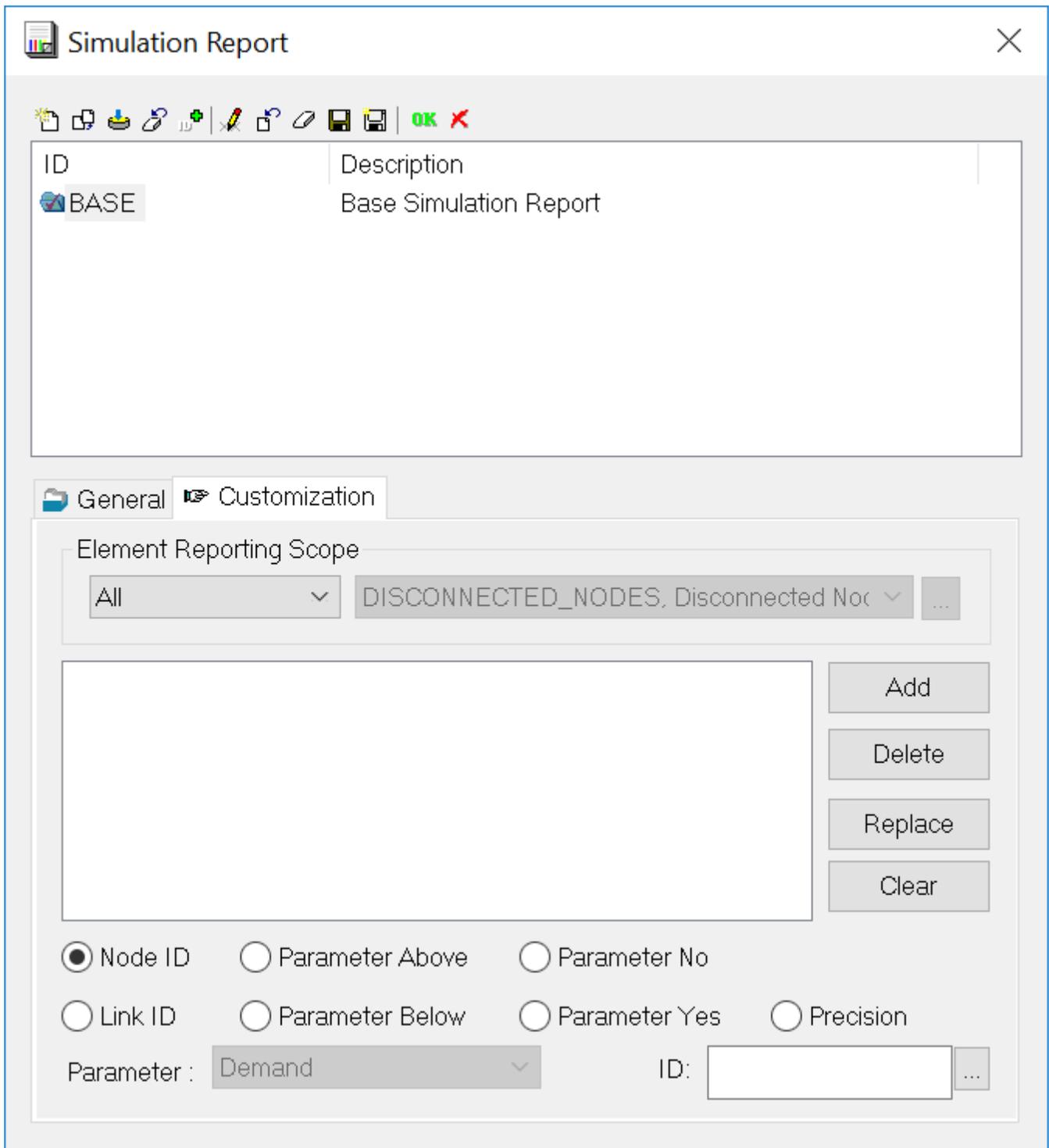
Node Reporting - Identifies which nodes will be reported on. Select to have ALL, NONE or a CUSTOM output. The CUSTOM option allows you to specify a set of conditions for the node output. If CUSTOM is selected, a custom condition must be created with the Customization tab. The default is NONE.

Pipe Reporting - Identifies which links will be reported on. Select to have ALL, NONE or a CUSTOM output. The CUSTOM option allows you to specify a set of conditions for the link output. If CUSTOM is selected, a custom condition must be created with the [Customization](#) tab. The default is NONE.

Generate Network Summary Table - Determines whether a summary table of number of network components and key analysis options are generated.

Generate Warning Messages - Generate a detailed report of warning conditions which alerts you to various situations. This may include a pump that cannot deliver head or flow, a FCV valve that cannot maintain the specified flow setting, etc. A yellow light will be displayed on the Run Manager (traffic signal) when a model run contains warning messages.

Customization



The Customization tab allows you to specify a set of conditions (criteria) that are desired for the simulation report.

Once all options are specified for a simulation report, click **OK** to close the dialog box. The new report can now be tied to a specific scenario through the Scenario Manager.

Element Reporting Scope - Use the element reporting scope to limit the elements in the report.



As shown in the above figure, report customization supports selective system elements for the text output report. The selection scope includes the following items:

- **All** - The entire network elements are included in the report.
- **Domain** - Only those elements defined in the currently active domain will be included in the report.
- **Selection Set** - Only those elements defined in the given Selection Set will be included in the report. Use the pull-down list to select

an existing Selection Set or use the **Browse** button to open the Selection Set Manager. If current Domain or Selection Set contains an empty definition, the reporting option will revert to All network elements in the run report.

Selected Criteria

Displays the Selected Criteria for your Reports. Choose the options below, and click **Add** to add new criteria. Use the other buttons such as **Delete**, **Replace**, and **Clear** to operate on this section and to delete, update and remove all the selected criteria.

- **Add** - Click on the **Add** button to add a new Report criteria. Select the **Parameter**, the **Parameter clause**, in the case when an element has been specified, add the ID and click on **Add** to add the new criteria.
- **Delete** - Click on the criteria that you want to delete and click on the **Delete** button to remove the criteria.
- **Replace** - Select the criteria that you want to replace from the customized report and click on the **Replace** button. The new choices will overwrite the existing options.
- **Clear** - Use the **Clear** button to clear all the customization criteria for your report.

Node ID - Prepare a custom report for the node specified. Use the **ID box** to specify a node ID, or use the **Browse** button to locate the node in the map view.

Link ID - Prepare a custom report for the link specified. Use the **ID box** to specify the link ID, or use the **Browse** button to locate the link in the map view.

Parameter Above/Below - A condition for which the specified parameter is satisfied to be included in the output report. Use the **Setting box** to indicate the parameter value.

Parameter No/Yes - Include or do not include the selected parameter. For example, Velocity Yes, Flow No.

Precision - The decimal precision for the selected parameter. Use the **Setting Box** to set the precision.

Parameter - Use to specify a parameter box to specify the parameter to use for the custom report. Select the desired parameter from the drop-down box.

