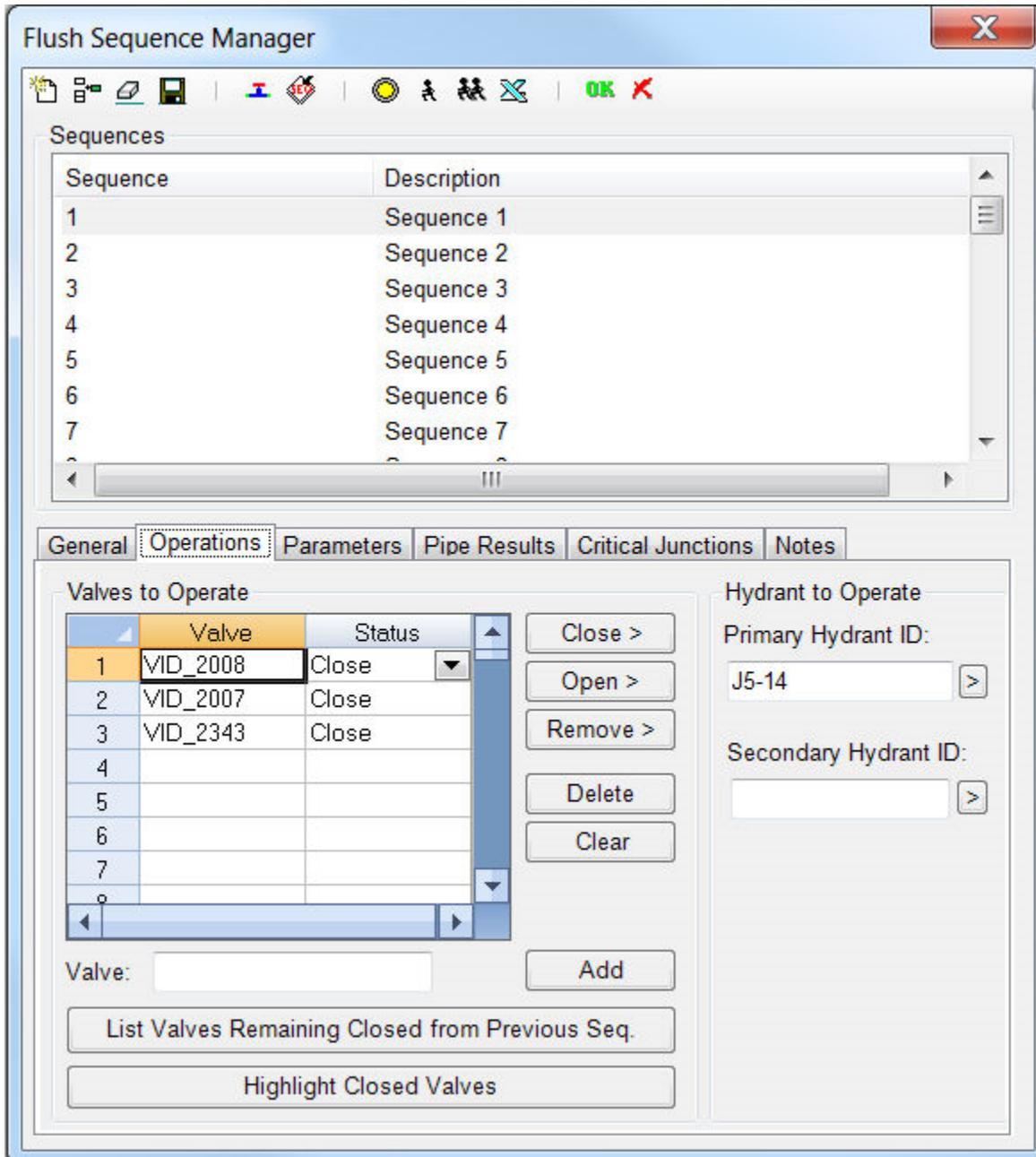


Flush Sequence Manager - Operations Tab

The Flush Sequence Manager is used to specify sequencing and view sequence results within a flush zone. Click from the UDF toolbar to open the Flush Sequence Manager.

The operations tab defines the hydrant that will be operated for each sequence and any changes in valve operation. Information is displayed for the currently highlighted sequence.



Toolbar

New - Creates a new flush zone sequence.

Insert Sequence - Inserts a new sequence in the list and renumbers all subsequent sequences in the list.

Delete - Deletes the currently highlighted sequence and renumbers all subsequent sequences in the list.

Save - Saves the currently highlighted record.

Isolate Target Pipes - Press this button to automatically populate the Valves to Operate table. There are three constraints that must be obeyed to use this tool. A warning will be issued if any of these 3 constraints, listed below, are violated:

- a. There is only one flow path among the pipes defined for flushing (i.e., pipes in the current flush sequence must be in series without branches)
- b. The sequence is continuous (i.e., all pipes in the current flush sequence are connected)
- c. The sequence starts from a clean water source (i.e., a tank, reservoir, or previously flushed sequence.)

Zoom to Active Sequence - Zoom to the currently selected sequence.

Status - Summarizes the status of the simulation:

Green - No warnings or errors. The simulation was successful.

Yellow - Warning message was generated. Warning messages are generated when the simulation results are found to exceed one or more characteristics defined by the flush zone or there was an error with the hydraulic simulation. If a warning message is generated, one of the following occurred:

- A hydraulic warning was detected by the simulation engine.
- The pressure of any junction in current flush zone falls below the required minimum pressure.
- The flushing hydrant's residual pressure is below the required minimum residual pressure.
- The velocity of any flush pipe falls below the required minimum flush velocity.
- Total flush length exceeds the specified (non-zero) maximum flush length.
- Flush volume is greater than the specified (non-zero) maximum flush volume.
- Flush time is less than the computed minimum flushing time.

Grey - The simulation has not been run or was unsuccessful.

Note - Warnings do not affect the results of flush sequences. They simply inform the user that the simulation results do not meet the specified characteristics.

Run - Click to run a simulation of the currently highlighted sequence. Simulations may only be performed within the Flush Sequence Manager.

Batch Run - Click to run a simulation for a group of continuous sequences in the current flush zone. Simulations may only be performed within the Flush Sequence Manager.

Export to Excel - Export the following information for all sequences in the current flush zone into Microsoft Excel:

- Sequence ID
- Description of the sequence operations:
 - Pipes flushed during the current sequence
 - ID's of valves and hydrants operated for the current sequence
- Parameters Data - Model and Field Results

This tool is only found in the Flush Sequence Manager.

OK - Select **OK** to save any change and close the dialog.

Cancel - Select **Cancel** to close the dialog without saving any changes.

Sequences

Sequence - Lists all sequences within the current flush zone

Description - Description for each sequence within the current flush zone. The description is always "Sequence" + ID and cannot be modified.

Operations Tab

Valves to Operate

Valve Table - Valve ID of the valve that will be operated in accordance with the Status setting.

Status Table - Specify if the valve will be opened or closed for the running sequence.

Close - Click on this button to graphically select a valve to insert into the Valves to Operate table. The status of this valve will be entered as 'Close'.

Open - Click on this button to graphically select a valve to insert into the Valves to Operate table. The status of this valve will be entered as 'Open'.

Remove - Click on this button to remove a graphically selected valve from the Valves to Operate table.

Delete - Click on this button to remove the currently highlighted ID from the Valves to Operate table.

Clear - Click on this button to remove all ID's from the Valves to Operate table.

Valve - Type a valve ID into this box then press the button to insert it into the Valves to Operate table.

Add - Click on this button to insert the valve ID in the adjacent box into the Valves to Operate table.

List Valves Remaining Closed from Previous Seq. - This button lists all valves that remain closed from the previous sequence.

Highlight Closed Valves - Click on this button to highlight all valves on the map that are closed for the current flush sequence.

Hydrant to operate

Primary Hydrant ID - The Hydrant that will be opened for the highlighted sequence. Use to select the hydrant in the map view.

Secondary Hydrant ID - The optional secondary hydrant that will be opened for the highlighted sequence. Use to select the hydrant in the map view. Note: Results, field data and water quality parameters are not available for both hydrants if the secondary hydrant option has been selected.