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## Lineups

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After a system is modeled in PIPE-FLO or Flow of Fluids, it is often desirable for users to be able to easily look at the operation of the system with various operating parameters or to consider "What if?" scenarios. For this reason PIPE-FLO offers the capability to create Lineups. A lineup is a copy of your system with changes made to one or more device settings. In simple terms, a lineup is a different operating scenario for the system. When working with lineups, it is important for the user to know and understand the difference between the Design Case Lineup and subsequent lineups that the user creates.

### Lineup Overview

A piping system can be run under a variety of different conditions. PIPE-FLO's lineup feature allows you to create these different operating scenarios, and save them within the project for easy access. Some possible lineup scenarios might include:

- Startup conditions
- Shut down conditions
- Minimum or maximum flow rates to various parts of the system
- High or low tank levels or pressures
- Parts of the system isolated
- System operating at different fluid temperatures

The purpose of lineups is to allow the user to make changes to certain device settings. The following list details which settings can be changed in each of the system devices.

- Fluids – you can change fluid characteristics under different lineups.
- Tanks – pressures and liquid levels can be changed.
- Pumps – can be sized for a particular flow rate, or run at fixed speed or variable speed.
- Control valves – can be set fully open, run to automatic flow or pressure control, or set to a manual valve position.
- Demands (flow or pressure boundary conditions) – can be switched between flow or pressure demands. Flow and pressure set points can also be changed.
- Pipelines - can be opened or closed using the Open / Close tool button

### The Design Case Lineup

The Design Case lineup is the default lineup in the project. Whenever you initiate a piping system project, the design case lineup is automatically created. As you design the system, you are creating your design case lineup. Some other important points about the design case lineup are:

- It should describe the piping system operating under design conditions.
- It sets the basic conditions for all newly created lineups. All new lineups are initially a duplication of the settings in the design case.
- It will always appear at the top of the list of lineups.
- It will always be italicized.

### Creating Additional Lineups

Additional lineups can be created by going to the "System" menu, and selecting "Lineups...", then clicking on the "New" button and giving the lineup a name, as shown in Figure 1 and 2.



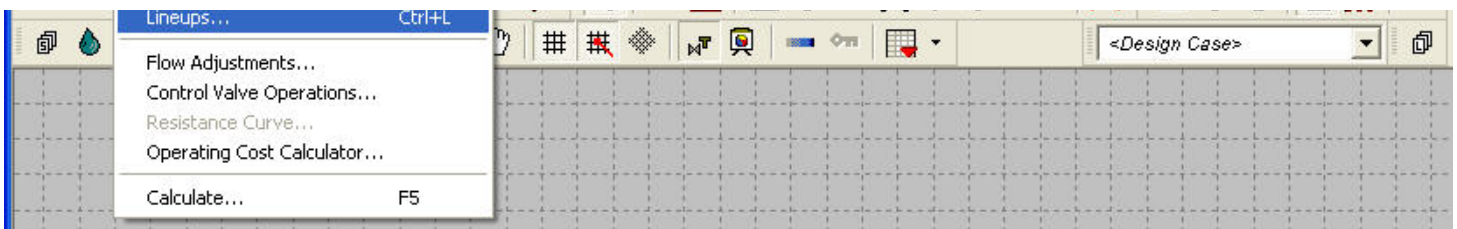


Figure 1: Creating a new lineup.

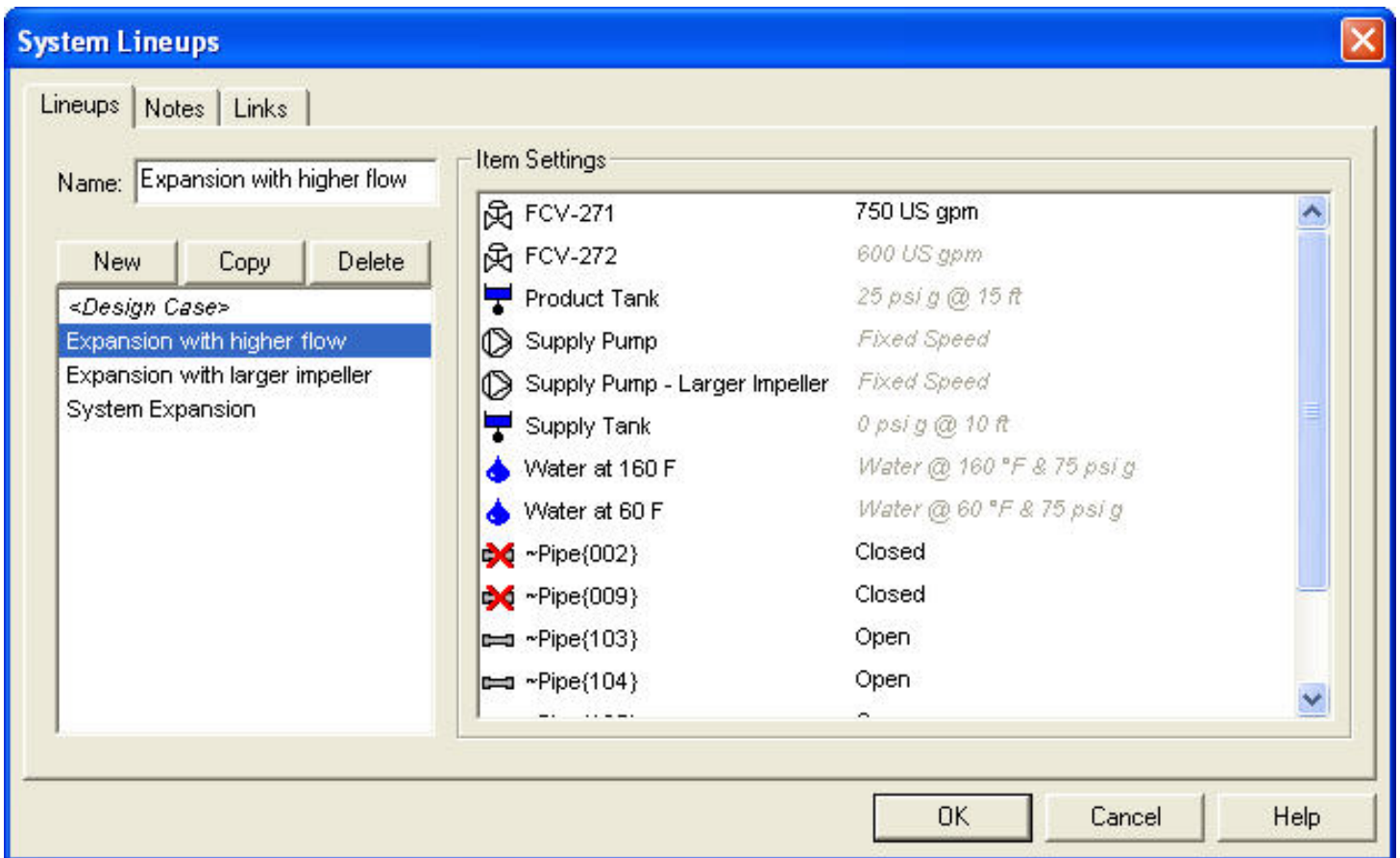


Figure 2: Lineups can be created, copied, or deleted.

For any device that has a "Lineup Setting" on its dialog box, the setting can be changed between lineups. Select the lineup from the drop down menu on the toolbar that lists the names of all the lineups in the model, then open the device dialog box and change the lineup setting.