



WHAT'S NEW?

FLEXSIM 2018 UPDATE 2

INTRODUCTION

This is an overview of the new features and improvements found in FlexSim 2018 Update 2, the latest version of FlexSim's flagship simulation modeling package. This update reflects our commitment to regularly develop and refine our software, and this version includes Cloud experiments and optimizations, milestone event tracking and charting, reversible conveyor functionality, and more.

Anyone can download FlexSim 2018 Update 2 at www.flexsim.com and try it out under the free Express license. Users with current maintenance can upgrade their license through their FlexSim Account or within the FlexSim 2018 Update 2 software.



DATA & ANALYSIS


Cloud Experiments and Optimizations


Ready to run FlexSim on the Cloud? This version has the ability to use distributed CPUs in the Experimenter and Optimizer—either using Cloud computing, your own computers in a local network, or both. This feature can significantly reduce the time to run an experiment if the following are true:


- The time to run a single replication is high (longer than a few minutes)
- The number of replications to run is high

The option to Use Distributed CPUs is found in the Advanced tab of the Simulation Experiment Control window.

Use Distributed CPUs



IP Address CPUs Status 

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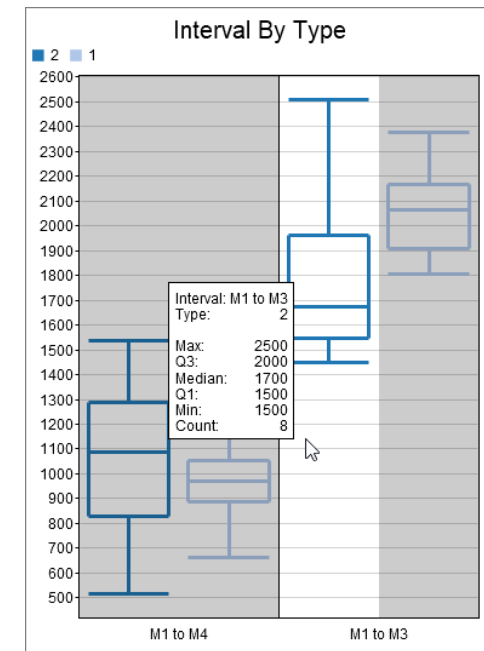
Go to <http://flexsim.com/aws> for detailed instructions on how to use Amazon Web Services to run your FlexSim replications.

Milestones

The **Milestone Collector** tool is similar to the Statistics Collector and is used to track and collect data on milestone events. For example, you may want track orders as they move through different steps in a warehouse, or you may want to know the

time between various stages in a manufacturing process.

There are also several new templates to chart your milestone data, including our first Sankey diagram and box plot templates.

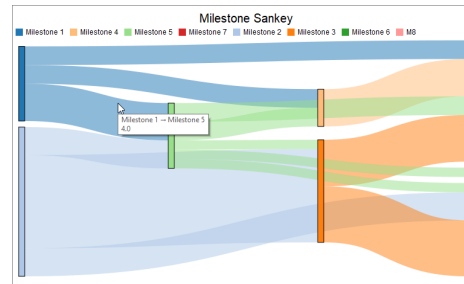


Sankey Diagram

This popular flow diagram is now available as a chart type in the Dashboard. There is also an easy-to-use template for charting milestones as a Sankey diagram.



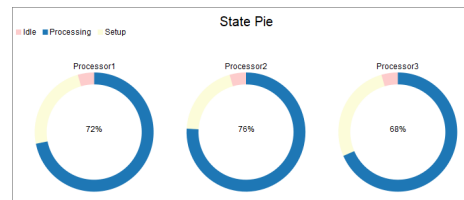
DATA & ANALYSIS



- Added duration settings to the Gantt chart.

Pie Chart Improvements

Pie charts are faster and have seen several small enhancements. Utilized states appear before un-utilized states when the chart draws, and there are now options for draw sequence order (either by largest segment or by table order).



Other Charts

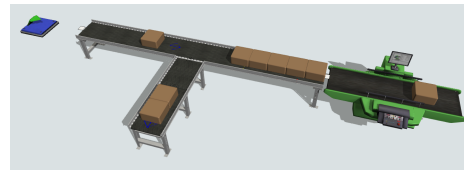
- Added events to the Statistics Collector, so you can chain Statistics Collectors to listen to each other's events.
- Added options for sorting rows in Statistics Collectors.
- You can now add charts as Experimenter performance measures.

LOGIC & MODEL BUILDING

Reversible Conveyor

There is now the option to reverse the direction of a conveyor segment. To do this, simply set a conveyor's `targetSpeed` to a non-zero negative value. This feature is in its early stages and was developed with a specific scenario in mind—the ability to model accumulation buffers, where items can be pulled off a main conveyor line when the line gets backed up, and then moved back onto the line when it clears out.

Visit <http://flexsim.com/reverse-conveyor> to watch a video of this feature in action.



Other Conveyor

- Added a *Max Count* slug building property to the conveyor type.
- Added a catch condition to the power and free functionality to customize whether a given dog will actually catch an item.
- The User Library has been updated to better handle conveyor types and containers.

Stop/Start Token

There are new methods—`stop()` and `resume()`—on the Token class that allow you to stop and resume the flow of a token. This is useful for models that include preemption.

List Improvements

There are several enhancements that improve how lists act in FlexSim. *Resources* can now point to lists, and *Acquires* can act like *Pull from List*. You can also configure a list to always leave its entries on the list.

There is also an option to sort back orders independent of entries when re-evaluating back orders, in addition to several scripting enhancements when modeling back orders.

Process Flow Improvements

- Wait for Event can now listen to arrays of objects. For example, you can listen to an array on a label.
- Added a checkbox in the Quick Properties to turn off all trace histories.



VISUAL & UI

Improved Visuals + Customization

You now have the ability to customize meshes in a 3D shape, which can improve visual functionality for people and other objects. This allows you to change specific shapes and textures to override what's being drawn.

Better UI Options

We've made improvements to picklist options in FlexSim. You now have Label options in the pop-up menus for certain picklist options. In addition, the Sampler has been improved in various places around FlexSim.

User Manual Updates

Our in-house technical writer has been closely collaborating with FlexSim's lead trainer and senior consultant to add new material on *Tasks*. The result is several new, high-quality tutorials about task logic, as well as a new chapter about working with task executers.

