WHAT'S NEW?

VERSION 7.5

INTRODUCTION

This document is meant to provide a more detailed overview of the new or improved features in FlexSim 7.5, the latest version of FlexSim's flagship general purpose simulation package. This edition of the software builds on version 7.3 and introduces a powerful new method for building conveyor systems.

Anyone can download FlexSim 7.5 at www.flexsim.com to test its functionality in the free Express version. Users with current maintenance can upgrade their license through their FlexSim Account or within the FlexSim 7.5 software.

CONVEYOR MODULE: BENEFITS

Conveyor Module

This powerful library contains a new set of objects and options for simulating conveyor systems. It was designed to be user friendly yet capable of modeling complex material handling systems. *This module replaces the conveyor objects found in previous versions of FlexSim, which have been deprecated.*

Slug Building and Release
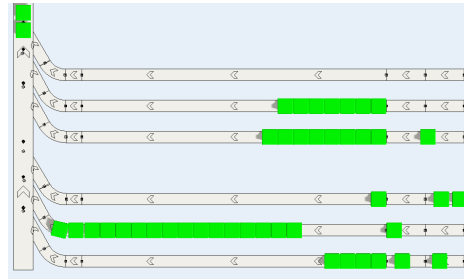
Different conveyor types can be customized to accumulate a slug of items on a conveyor and then release it once the slug is ready. Used in conjunction with the new Merge Controller object, you can easily implement saw tooth merges without writing any code.

Power and Free

The module makes it easy to simulate power and free systems. Simply check a box and specify the chain's dog gap.

Realistic Picking Operations
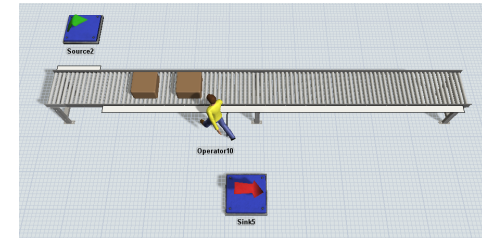
Operators can now pick up or drop off items from a range of possible transfer points along the conveyor. And when picking from a conveyor, operators will automatically predict a proper pickup point on the conveyor based on item speed, operator speed, and distance.

Item Orientation

The orientation of items on a conveyor can be defined and will persist across different conveyor sections. The item's orientation will properly change when the item moves through side transfers.

Movement Controls

There are now many options for controlling how items transfer between conveyors, including speed, delay time, and pop-up distance. The roller skew angle on a conveyor can be adjusted so that items will accumulate on one side or another if needed. Items can be made to tilt, translate, and rotate while moving along the conveyor.

CONVEYOR MODULE: OBJECTS

Conveyor Building

There are now several options for laying out a conveyor system in FlexSim. You can still drag and drop conveyor pieces from the Library just as before, but with some added power and flexibility: there are now straight and curved conveyor pieces, and each piece can be moved as a single unit or have its head or tail ends moved and resized as separate units.
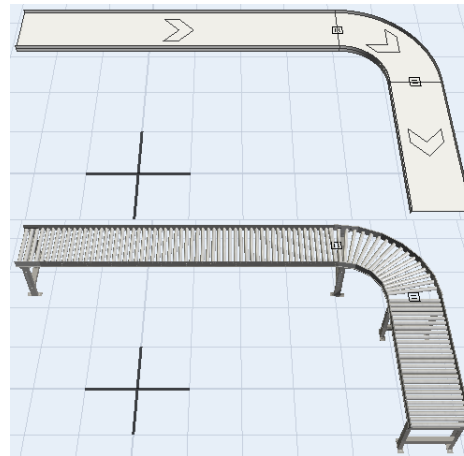
Alternatively, straight or curved conveyors can be clicked once in the Library to enter *Conveyor Building Mode*. This mode allows you to click once in the model to define a start point, and then click again to define an end point, with a conveyor appearing between the two points. Curved conveyors can even have their radius and angle set in this mode. And by using the Join Conveyors object, two conveyors can be automatically connected with a properly sized joining piece between them.

Connecting conveyors has never been easier — simply drag one conveyor close to the edge of another, and when they get close enough they will snap together and create a transfer point that connects them.

Decision Points

These objects can be used in place of code to build complex logic into a conveyor system. For example, you can place Decision Points on a conveyor to act as a sensor for control logic, or a communication point for other objects (such as the Merge Controller).
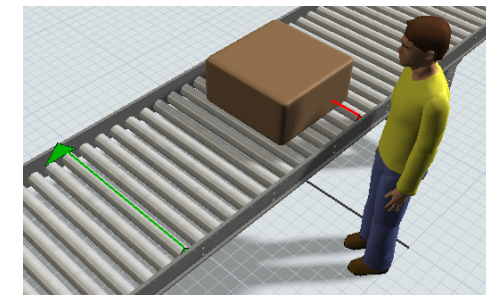
Improved Photo Eyes

Photo eyes can now be programmed to trigger certain events or behaviors if they are blocked or clear for a specific amount of time. In addition, the height and angle of photo eyes on the conveyor can be adjusted with greater precision.
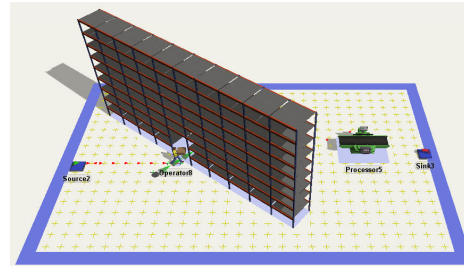
CONVEYOR MODULE: OBJECTS

Merge Controller

This powerful object can control how different conveyor lanes merge together. For example, it can be used together with Decision Points to define a lane release strategy for the merge.

OTHER

AStar Module Additions

- **Preferred Paths** now take priority over barriers, so that you can make a Preferred Path act as a "bridge" across an area where an object barrier would otherwise block it.

- The rotations of objects members are now taken into account.

User Manual Improvements

- Contents in the Quick Properties can be expanded and contracted by clicking anywhere on the topic.

- Images that have been shrunk to fit in the User Manual frame can be clicked to pop out the original sized image.