

## User guide

# BUILDING REPETITIVE LAYOUTS IN FLEXSIM: QUICK GUIDE TO USER COMMANDS

When your simulation layout includes many similar objects (machines, stations, racks, AGVs, etc.), manual modeling becomes repetitive and time-consuming. In these cases, FlexSim offers a powerful tool: User Commands, **customizable scripts** that automatically create, configure, and connect layout elements.

These instructions are for the sample FlexSim model we provide free of charge.

It includes a working User Command that automatically creates a sequence of machines or stations, based on a custom table. It can be used as an example to learn how to automate layout design using User Commands.

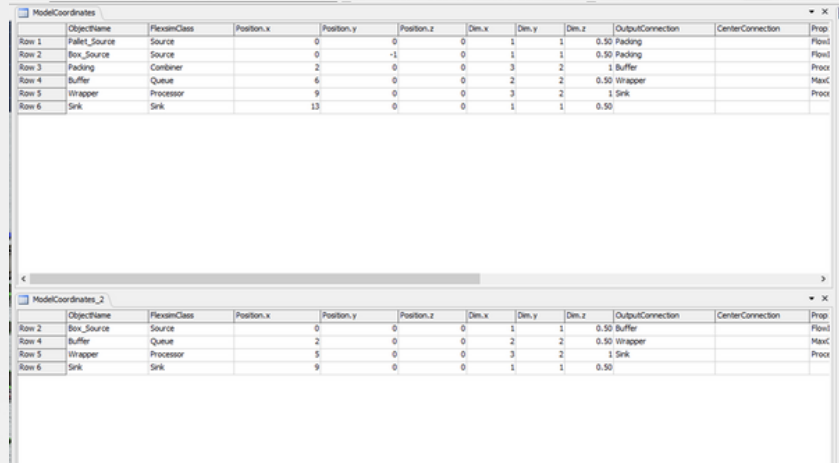
## 1. What the “CreateModel” user command does

This command reads a predefined table and automatically creates a sequence of 3D objects — already positioned and connected.



## 2. The data table: where everything starts

The user command is based on a **custom table** embedded in the FlexSim model. Each row represents an object to create, and the columns define its attributes and parameters.



	ObjectName	FlexSimClass	Position.x	Position.y	Position.z	Dim.x	Dim.y	Dim.z	OutputConnection	CenterConnection	Prop
Row 1	Pallet_Source	Source	0	0	0	1	1	1	0.50 Picking		Floor
Row 2	Box_Source	Source	0	-1	0	1	1	1	0.50 Picking		Floor
Row 3	Picking	Combiner	2	0	0	3	2	2	1 Buffer		Proc
Row 4	Buffer	Queue	6	0	0	2	2	2	0.50 Wrapper		MaxC
Row 5	Wrapper	Processor	9	0	0	3	2	2	1 Sink		Proc
Row 6	Sink	Sink	13	0	0	1	1	1	0.50		

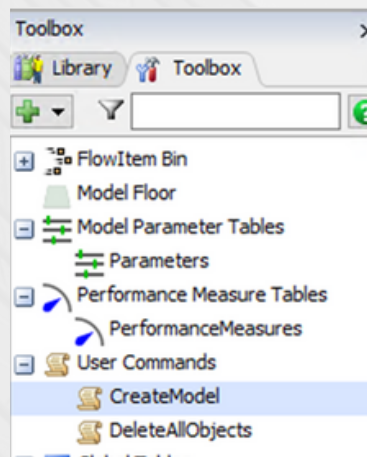
	ObjectName	FlexSimClass	Position.x	Position.y	Position.z	Dim.x	Dim.y	Dim.z	OutputConnection	CenterConnection	Prop
Row 2	Box_Source	Source	0	0	0	1	1	1	0.50 Buffer		Floor
Row 4	Buffer	Queue	2	0	0	2	2	2	0.50 Wrapper		MaxC
Row 5	Wrapper	Processor	5	0	0	3	2	2	1 Sink		Proc
Row 6	Sink	Sink	9	0	0	1	1	1	0.50		

*Structure of the table with objects, positions, dimensions, and connections.*

## 3. How to create a user command in flexsim

To access the tool, go to: Toolbox → User Commands. Click Add and create a new command, such as CreateModel. In the window that opens, you can define:

- the name of the command
- required parameters (e.g. table name)
- the code to be executed (in FlexScript)



*The created user command visible in the toolbox.*

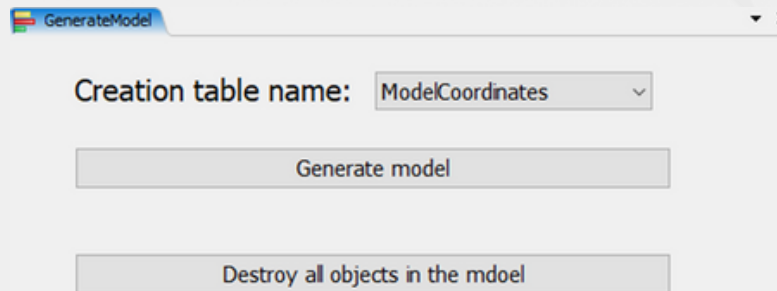


## 4. User interface to run the command

You can trigger the command via a button or call it directly from a script.

In our example, we created a button that calls:

CreateModel("ModelCoordinates"), referring to the input table.



*Buttons that triggers the user command using the data table.*

## 5. What the script does in the model

The model we provide includes a ready-to-use user command that reads a table named **ModelCoordinates** and automatically creates all the specified objects.

This command:

- reads the type of object to create from each row (e.g. source, queue, processor...)
- assigns its position, size, and name
- applies any additional properties
- and finally creates the logical connections (e.g. output, center connection)

All of this happens with a single click, using the **Generate Layout** button included in the model.

If you've received the script, just open the model in FlexSim, click the button, and your production line or logistics layout will be generated automatically.





## 6. Want to modify or write your own user command?

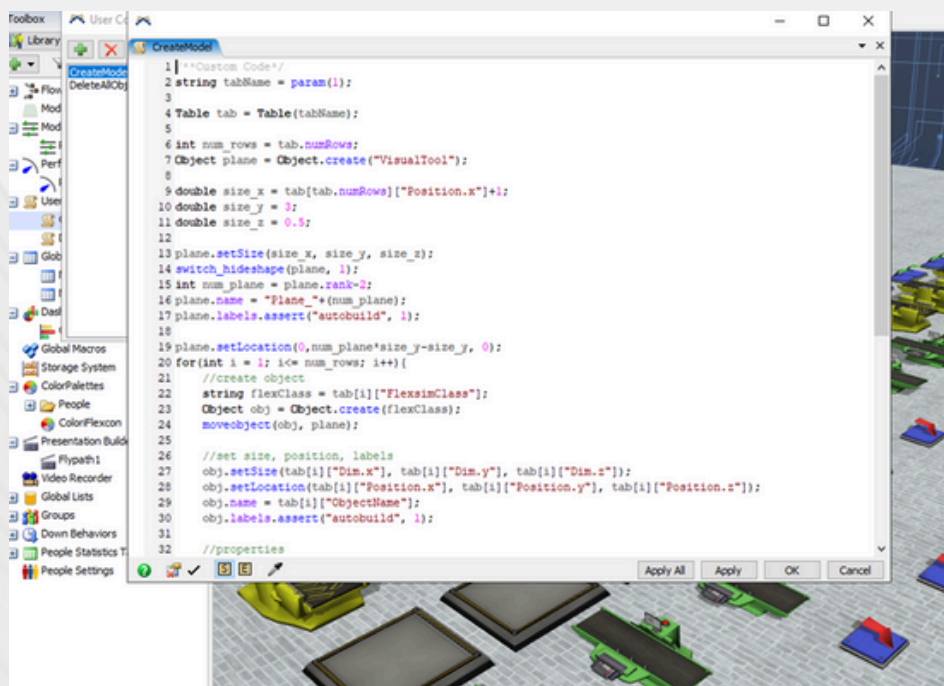
The script is written in **FlexScript**, FlexSim's native language.

While coding isn't required to use the model, you can always access the command via:

### **Toolbox → User Commands → CreateModel**

For those interested in going deeper, FlexSim provides full documentation on writing custom logic and interacting with objects:

### **Writing logic in FlexScript - FlexSim Docs**



*FlexScript editor showing the CreateModel user command code.*

## 7. What you get with this command

By executing the command, FlexSim automatically generates the full sequence of objects described in the table — with all sizes, positions, connections, and properties already assigned.



## Useful resources

[Official flexsim manual \(v25.2\): user commands reference](#)


## Want to receive our ready-to-use example script?


 Request it from our blog or contact us directly!

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