

Model Guidelines

Simplicity: Each SimBit should illustrate a single simple concept. Try to eliminate as many complications and diversions as possible. Focus only on the solution to the stated problem.

Size: To make it possible to include lots of SimBits, each must be very small. Use only default symbols; no custom animation unless it is essential to the problem.

Clarity: The model file should have enough floor labels and similar on-screen explanation to allow basic understanding of what is happening (See Figure 1). But don't try to get too detailed – that is the purpose of the documentation.

Identification: A SimBit is of little use unless people can find it when they need it. Provide a good description, set of categories, and keywords (see documentation instructions below). Adding those fields to the model is what allows them to be searched (See Figure 2).

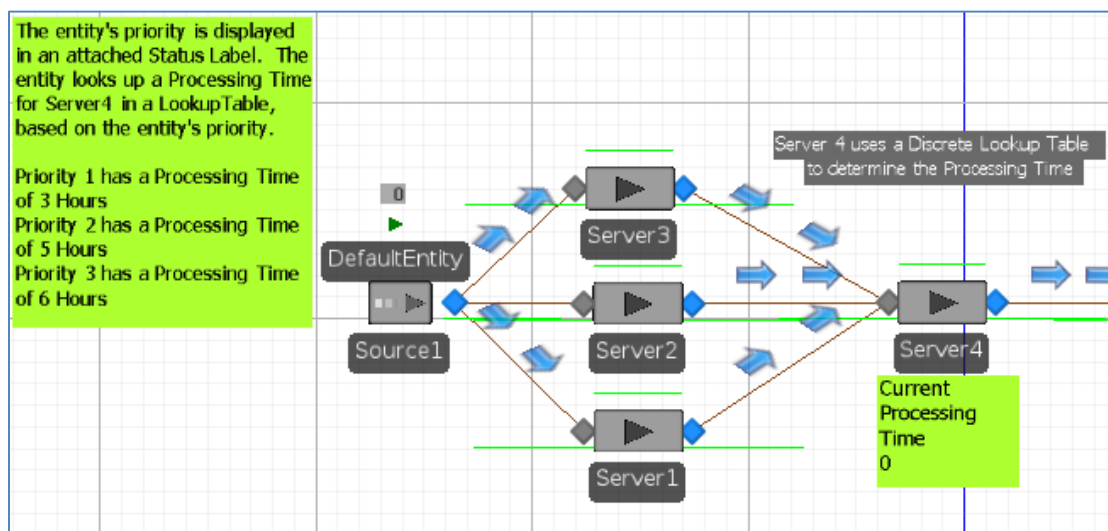


Figure 1 – Provide good documentation in the facility view.

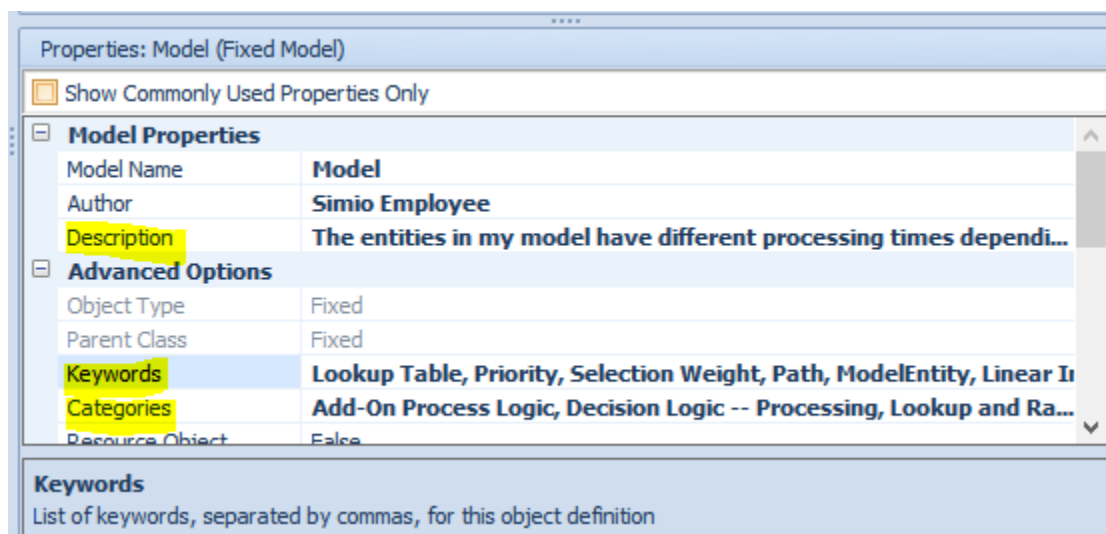


Figure 2 – Provide good Description, Keywords, and Categories in the Model Properties Window.

Documentation Guidelines

THIS IS A GUIDLINE FOR DOCUMENTING SIMBITS.DOCX / .PDF FILES – PLEASE ADHERE TO THESE STANDARDS

- IN RED, you'll see notes about what to do, IN BLACK, you'll see an example
- The words in bold are required and should have exact same wording.
- The words underlined should be changed to fit the logic of the model, although Simple System Setup is very typical as the first category

Problem:

Here you should given a sentence or two description about what the problem is supposed to help the user to do. For example, Batch multiple entities together for subsequent processing. Only entities with identical state values can be batched together.

Categories:

Here you will specify 1 or 2 categories that the SimBit falls under. Whenever possible, you should use categories that already exist in the file: Simbits_Keywords_Categories_Description.xlsx.

For example:

Decision Logic -- Paths

Key Concepts:

Here you will specify multiple Keywords that will be used by the search mechanism to help user find information. Whenever possible, you should use keywords that already exist in the file: Simbits_Keywords_Categories_Description.xlsx.

For example:

Allow Passing, BasicNode, Bidirectional Path, Deadlock, Path, Prefer Desired Direction, Traffic Direction Rule

Assumptions:

Here you will write any assumptions that are made about entity types, vehicles, logic, etc. For example, Entities are able to pass each other at 'bypass' areas along various bidirectional paths.

Technical Approach:

Here you will give a brief (2-3 sentences max) summary of the types of logic that you will use or any specific feature to be noted. For example:

The path network is set up with multiple bidirectional paths. The paths are separated at various points along the path with a small triangle of unidirectional paths so that entities may sit/wait for passing in the opposite direction to occur.

Details for Building the Model: (This section is desired, but not required. If Details are not included, then the Technical Approach section should be more verbose.)

Simple System Setup

- Here, you will have bullet items of steps to take, for example, Place a Source (Source1) and Sink (Sink1) at the left and right sides, respectively, of the Facility window.
- Within each bulleted item, the name of a property should be in *italics*, while the value for a property should be enclosed in a single quote '. For example, Place two ModelEntity objects Change *Entity Type* of Source1 to 'Green' and *Entity Type* of Source2 to 'Red'.

This could be the title of the second section, for example, Placing the Paths

- Try not to have any diagrams within the simbit documentation, if possible.
- The Details for Building the Model should include enough detail that the user could build the exact SimBit without having to look at the *.spfx file. That is, include any changes in default values to standard library object properties, document paths that are connected, processes that are added, properties / states that

are added, etc. Be sure to reference which 'window' you are in when changing from Facility to Processes, etc.

- Add another set of bullets under these bullets if necessary for more detail. For example, .
 - (Entity Object Reference) PartType : PartA, PartB, PartC
 - (Integer) ProductMix : 10, 20, 30
 - (String) SequenceType : A, B, C

Embellishments:

This section is optional. You may also have a section called Discussion which provides additional information and is typically in paragraph form (instead of bullets).