# Scaffold User's Manual

Last updated by Daniel Patterson on Wednesday, December 30, 2020

## Contribution

You can contribute to this document and its contents by submitting an issue on the GitHub project site at <https://www.github.com/AscendantDesign/Scaffold>, or by submitting a pull request of this document with your requested changes already completed. If you intend to create a pull request, please refer to the CONTRIBUTING document at <https://github.com/AscendantDesign/Scaffold/blob/main/Docs/CONTRIBUTING.md> for general steps on creating a fork and submitting a change.

## Philosophy

The philosophy of this application is simple. If it's difficult to use or confusing in any way, then the UI developers did something wrong and will need to fix it. Sometimes that will take a couple of iterations to get right and other times, everything will just work the way we thought it would. Your interaction with us is important for determining our level of success though.

In other words, we want you to be able to use this application by following your own intuition.

There are bound to be certain procedures in the future that will come up where following a checklist is the safest and most consistent way to accomplish your goal, but for all practical intents and purposes, anything that the application can do for you should be accessible in the place or manner that you expect it would be.

With all of that aside, please remember that Scaffold is still just infant software, and will be for some time.

## Getting Started

Scaffold currently has three main sections, Decision Tree, Slide Editor, and HTML viewer.

### Decision Tree

In the current version, the most developed component is the Decision Tree, a node-based flow editor particularly well suited for the following activities.

* Chatbot interaction.
* Conversational micro-lesson.
* Non-linear interaction.
* Scenario-based training.
* Story-based training.

#### Decision Tree Terms

Following are the terms used in the decision tree editor.

* **Node**. The full object with its connections, attached media, and all other attributes.
* **Socket**. Any inbound or outbound connector on the node.
* **Question**. The main text of the node.
* **Answer**. Also known as an outbound or output socket, the answer is a choice you make available to the learner on the sockets list in response to the question text.
* **Response**. Also known as an inbound or input socket, the response is directly connected to one of the previous answers that have been selected. The response has its own media assignments.

#### Decision Tree Objects

The objects available in the decision tree layout are few but limited. Following is a list of the available objects.

* **Start**. This object begins a flow or a conversation. There are no inputs available from other sockets, but as many output . You only need one of these items per conversation.
* **Fork**. The fork object is placed inline with the conversation and neither begins that conversation nor ends it. The object has one input socket and any number of output sockets.
* **Delay**. Introduces a designer-defined delay into the flow. Similar to a fork object, the delay has one input socket and any number of output sockets although this version doesn't yet have any particular handling for outputs subsequent to the first one defined.
* **Termination**. This object ends the flow of conversation. It has one input socket and no outputs.

#### Decision Tree Basic Usage

To use the decision tree editor, select the Decision Tree tab near the top of the window, and follow these steps to create your first fully terminated conversation.

* Click once on the **Start** tool icon. This will grab the icon.
* Click anywhere on the layout area to place the object.
* Click once on the **Fork** icon.
* Click anywhere on the layout area to place the object.
* Click and hold on the start object's connector, then drag a new connection to the left-side connector of the fork then release. The two objects will be attached.
* Click once on the **Termination** tool.
* Click anywhere on the layout area to place the object.
* Click and hold on the fork object's right connector, then drag a new connection to the connector on the termination object.
* A basic conversation has been completed.

### Command-Line Options

Following are the available options when starting Scaffold.

/local - Use local networking mode for conversing with servers. This is used mostly for debugging server services like ScaffoldSlackPack on the local PC with IIS Express.

## Tips and Tricks

Following are some tips and tricks with your maximum productivity in mind.

### Animation

Height And Width Required When Rotating

When preparing to rotate an object in the animation sequencer, this version requires that you have defined a height and width for the object. If height or width are not predefined, the object will be rotated around the top left corner of the image.

## Limitations

The Scaffold application is still in the earliest stages of development so there are bound to be a number of limitations not documented here. Your input is welcome about the limitations you have perceived.

### Animation - Data Only

The animation engine does not yet have a user interface. However, the sequencer itself has been tested and is working fairly well. For more information about the .TIMELINE.JSON file format, read the animation file structure document.

### Node Editor - Attached Media

Following are the current limitations on media resources.

**Audio** - Audio file attachments are currently only useful at the question level.

**Images** - Image files can be used at the question, response socket, and output socket locations.

**Links** - External links are currently only useful at the question level.

**Videos** - Video files are currently only useful at the question level.