

Using a scope with multiple input signals in Simulink

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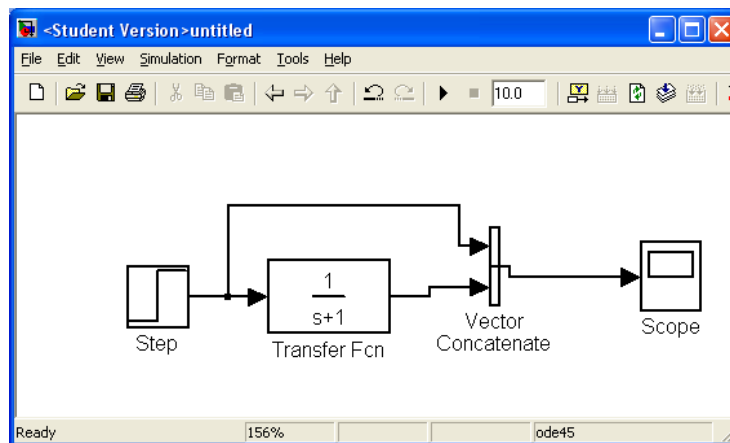
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Matlab's Simulink scope (in the Commonly used blocks) has only one input port. This can be inconvenient if one wishes to display more than one signal on the same axis, for instance, to display both the input and the output signals of a system being simulated, which would allow for a better comparison of the signals.

This below is a method I just found using Simulink which allows one to have more than one signal displayed on the same scope window and on the same axis.

The trick is to use a **vector concatenate** block (from the Math operations blocks) to collect all the signals to be displayed, and then to connect the output from the vector concatenate block to the scope one input port.

Simulink will automatically generate different colors for each signal. This below is an example showing how to plot the input signal and the response on the same scope.



When running the above simulation, this is the output displayed in the scope. You see both the input (unit step) and the output response of the system, and Simulink has used different colors automatically.

