

# Blocks Supported by BlockImporter

## Description

- The following Simulink(TM) blocks are supported by BlockImporter.

### Continuous

**Derivative** computes the time derivative of the input.

**Integrator** computes the integral of the input with respect to time.

**State-Space** simulates a constant-coefficient state-space system.

**Transfer-Fcn** simulates a transfer function.

**Zero-Pole** simulates a zero-pole block.

### Discontinuous

**Saturation** limits the range of a signal.

### Lookup Tables

**Lookup Table (1D)** approximates a one-dimensional function with a lookup table.

### Math Operations

**Abs** computes the absolute value of the input.

**Gain** scales the input. Supports element-wise and matrix multiplication.

**Product** multiplies the inputs. Supports element-wise and matrix multiplication. The sign of the exponent of each input is configurable.

**Math Function** applies a selected math function to the input.

**Sum** sums the inputs. The sign (+/-) of each input is configurable.

**Trigonometric Function** applies a trigonometric function to the input.

### Signal Routing

**Bus Creator** combines sets of signals into a bus.

**Bus Selector** selects signals from a bus.

**Mux** combines sets of signals into a vector signal.

**Demux** separates the sets of signals of multiplexed bus.

**Selector** selects specified signals from a bus.

**From** connects a signal from a **Goto** block.

**Goto** connects a signal to a **From** block.

### Sinks

**Display** numeric display of input values.

**Scope** display scope.

**Terminator** terminates output signals.

**ToWorkspace** writes input to an array in the workspace.

## ▼ Sources

**BandLimited White-Noise** acts as a dummy connection.

**Chirp** generates a sinusoidal output whose frequency increases with time.

**Clock** generates an output proportional to the simulation time.

**Constant** generates a constant output.

**FromWorkspace** acts as a dummy connection.

**Ground** generates a constant zero output.

**Ramp** generates a waveform with a constant slope.

**Signal Generator** generates one of three waveforms: a sine wave, a square wave, or a sawtooth waveform. The Simulink signal generator allows a random waveform, however, that is currently not supported.

**Sine** generates a sine waveform.

**Step** generates a step waveform.

## ▼ Subsystems

**In1** an input port of a subsystem.

**Out1** an output port of a subsystem.

**Subsystem** a collection of blocks that form a unit.

## ▼ User-Defined Functions

**Fcn** applies a C-style expression to the input.

**MATLABFcn** applies a function to the input.