Simulators

There are 3 simulator drivers in Ignition, and all can be used to read and write tags without any network or PLC connection.

Generic Simulator

The generic simulator provides a variety of tags that offer different data types and value generation styles. For example, there are ramps, sine waves, and random values. Additionally, there is a set of static writable tags whose values will persist while the device is running.

There are no configurable settings for the generic simulator.

Simulator tags

Read Only	**Static values that do not change for read only purpose.**		
Tag Name	**Value**		
ReadOnlyBoolean1	False		
ReadOnlyBoolean2	True		
ReadOnlyShort1	1		
ReadOnlyShort2	2		
ReadOnlyInteger1	1		
ReadOnlyInteger2	2		
ReadOnlyInteger3	3		
ReadOnlyInteger4	4		
ReadOnlyInteger5	5		
ReadOnlyLong1	1		
ReadOnlyLong2	2		
ReadOnlyFloat1	1.1		
ReadOnlyFloat2	1.2		
ReadOnlyDouble1	1.1		
ReadOnlyDouble2	1.2		
ReadOnlyString1	ABCDEFG"		
ReadOnlyString2	"ZYXWVUT"		
Writeable	**Static values that you can read/write to.**		
Tag	**Initial Value**		
WriteableBoolean1	False		

WriteableBoolean2	False		
WriteableShort1	0		
WriteableShort2	0		
WriteableInteger1	0		
WriteableInteger2	0		
WriteableLong1	0		
WriteableLong2	0		
WriteableFloat1	0		
WriteableFloat2	0		
WriteableDouble1	0		
WriteableDouble2	0		
WriteableString1	'' (empty string)		
WriteableString2	'' (empty string)		
Random	**Random values updating at some rate, they follow Java Random(rate) - rate is the seed.**		
Tag Name	**Update Rate**		
RandomBoolean1	10 sec		
RandomBoolean2	10 sec		
RandomShort1	5 sec		
RandomShort2	5 sec		
RandomInteger1	1 sec		
RandomInteger2	1 sec		
RandomLong1	2 sec		
RandomLong2	2 sec		
RandomDouble1	10 sec		
RandomDouble2	10 sec		
Sine	**Different sine waves with low, high, and period.**		
Tag Name	**Low**	**High**	**Period (Time it takes to go from low to high then back to low)**
Sine0	-100	100	60 s
Sine1	-10	10	10 s
Sine2	0	50	15 s
Sine3	-40	60	20 s
Sine4	-100	100	40 s
Sine5	-100	100	60 s

Sine6	-10	10	10 s
Sine7	.-20	30	15 s
Sine8	-40	60	20 s
Sine9	-85	115	40 s
Ramp	**Ramp signals starting from some value going up to some value at the specified rate. When they reach their upper limit, they are reset to zero.**		
Tag Name	**Low**	**High**	**Period (Time it takes to go from low to high)**
Ramp0	0	1000	75 s
Ramp1	0	100	10 s
Ramp2	-25	175	15 s
Ramp3	10	310	20 s
Ramp4	0	400	40 s
Ramp5	0	500	60 s
Ramp6	0	600	12.5 s
Ramp7	-5	695	17.5 s
Ramp8	10	810	30 s
Ramp9	-10	890	50 s
Realistic	**Values determined by adding a random number (between -10 and 10) to the current value.**		
Tag Name	**Low**	**High**	**Rate of Change**
Realistic0	-50	50	5000 ms
Realistic1	-50	50	500 ms
Realistic2	-50	50	1000 ms
Realistic3	-50	50	1500 ms
Realistic4	-50	50	2000 ms
Realistic5	-50	50	2500 ms
Realistic6	-50	50	3000 ms
Realistic7	-50	50	3500 ms
Realistic8	-50	50	4000 ms
Realistic9	-50	50	4500 ms

Allen Bradley SLC Simulator

The SLC simulator driver creates a simple device whose address structure mimics a basic SLC structure. There are currently no configurable parameters.

Simulators Dairy Demo Simulator

A simulator for use with the legacy IA Dairy Demo project. It has a ControlLogix like structure with Compressor, Tank, Motor tags and more.