



# AJA KUMO IP v1.0

## SIMPL Window Module Application Guide

### Description

This SIMPL Windows Module allows control of AJA KUMO SDI routers including, discrete source routing, ability to set input and output labels as well as feedback for current labels, salvo names, executing salvos, XY routing, and general informational status of the KUMO.

This module was developed against a KUMO 1616, and tested against a KUMO 6464. It is expected to work with the KUMO 1604, 1616, 1616-12G, 3232, 3232-12G, 6464, and 6464-12G, however the module has not been tested with all devices.

### Supported Processors

Any 3-series or 4-series processor.

Compatibility				Processor Requirements	

## Contents

Description .....	1
Supported Processors .....	1
Module Application .....	3
Signal and Parameter Descriptions .....	4
DIGITAL INPUTS .....	4
ANALOG INPUTS .....	4
SERIAL INPUTS .....	5
DIGITAL OUTPUTS .....	5
ANALOG OUTPUTS .....	5
SERIAL OUTPUTS .....	5
PARAMETERS .....	5
Support .....	6
Distribution Package Contents .....	6
Revision History .....	7
Development Environment .....	8
ControlWorks Consulting, LLC Module Instance License Agreement.....	9

## Module Application

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The processor must be able to connect to the KUMO using TCP port 80 (HTTP); if the processor is unable to connect to the KUMO on port 80, the module will not function.

### Knowledge Base

Please be sure to visit our Knowledge Base for additional information that can assist in developing your solutions. <http://controlworks.com/ResourceLibrary/KnowledgeBase.aspx>

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# Signal and Parameter Descriptions

Bracketed signals such as "[signal\_name]" are optional signals

## **DIGITAL INPUTS**

[enable_debug] .....	set high to print debug messages to the console. Setting low stops debug messages from being printed.
[start/stop_polling] .....	pulse to start or stop polling. Polling must be enabled for feedback to update.
[panel_lock/unlock].....	pulse to lock or unlock the front panel on models that have a front panel.
[identify_led_off/blink/on].....	pulse the desired signal to set the Identify LED to off/blink/on state.
[routing_change_updates_feedback_immediately] .....	set high to immediately receive feedback for outputs [Source_For_Output_01-64_Fb] in-between polls. This allows the inputs [Source_For_Input_01-64_Set] to immediately pass the set value to the output until the next poll cycle.
[xy_routing_take_now].....	pulse to route the source to the destination as defined by [xy_routing_source_number] and [xy_routing_destination_number].
[xy_routing_automatically_take_on_source_change].....	latch high to execute a routing change when a source changes. The module will send [xy_routing_source_number] and [xy_routing_destination_number] when a source changes. [xy_routing_take_now] should not be used when this signal is set high.
[xy_routing_automatically_take_on_destination_change]	latch high to execute a routing change when a destination changes. The module will send [xy_routing_source_number] and [xy_routing_destination_number] when a source changes. [xy_routing_take_now] should not be used when this signal is set high.

## **ANALOG INPUTS**

[source_for_input_01-64_set] .....	input to set the output source number. Initialize to immediately set the route. Valid values are 1d-64d. 0d is not a valid route.
[destination_01-64_lock_state_set].....	Sets the lock status of a destination; when locked the destinations routes cannot be changed. 0d = unlock, 1d = lock.
[execute_salvo#].....	Executes a salvo. Note that if the salvo is not configured it will not be executed. Most KUMO products support salvos 1d-8d.
[xy_routing_source_number].....	analog input that identifies the source number to be routed in XY routing mode. Valid values are 1d-64d. 0d is not a valid route.
[xy_routing_destination_number] .....	analog input that identifies the destination number that should route the input to in XY routing mode. Valid values are 1d-64d. 0d is not a valid route.

## **SERIAL INPUTS**

[ip_address_or_hostname_override\$].....	used to override the IP Address or Hostname Parameter input.
[system_name_set].....	serial to set the system name. Sending any string will set the name, send the entire string at one time.
[destination_01-64_Line1-2_Label_Set\$] .....	serial used to set the name of an output consisting of two lines. Sending any string will set the name, send the entire string at one time.
[source_01-64_Line1-2_Label_Set\$] .....	serial used to set the name of an input consisting of two lines. Sending any string will set the name, send the entire string at one time.

## **DIGITAL OUTPUTS**

[polling_active/inactive_fb] .....	high when polling is active/inactive.
[temperature_alarm_temperature_error_fb].....	high when the device reports a temperature alarm or error.
[panel_locked/unlocked_fb].....	high when the device's front panel is locked or unlocked.
[product_type_..._fb] .....	high when the device the module is talking to matches the device type.
[reference_alarm_sync_error_fb] .....	high when the device reports a alarm with sync.
[power_supply_alarm_fb] .....	high when the device reports a power supply alarm.
[identify_led_off/blink/on_fb] .....	high when the devices identify is in the off/blink/on condition.

## **ANALOG OUTPUTS**

[system_temperature_fb] .....	reports the current system temperature in degrees C.
[number_of_sources_fb].....	reports the total number of sources for the connected KUMO.
[number_of_destinations_fb].....	reports the total number of destinations for the connected KUMO.
[detected_reference_format_fb] .....	reports the current reference format. See the demo program for a list of analog values and associated formats.
[source_for_output_01-64_fb].....	reports the currently routed input number for that destination.
[destination_01_lock_state_fb].....	reports if the destination is locked from routing. 0d = unlocked, 1d = locked.
[execute_salvo_fb].....	reports the last executed salvo.
[xy_routing_source_number_fb] .....	analog reporting the currently selected source number.
[xy_routing_destination_number_fb].....	analog reporting the currently selected destination number.

## **SERIAL OUTPUTS**

[system_name_fb] .....	serial indicating the current system name as reported by the KUMO.
[destination_01-64_line1-2_label_fb\$] .....	serial indicating the current destination name for lines 1 and 2.
[source_01-64_line1-2_label_fb\$].....	serial indicating the current source name for lines 1 and 2.
[salvo_01-08_name_fb\$].....	serial indicating the current salvo name.

## **PARAMETERS**

IP Address or Hostname.....	Enter the IP address or hostname of the KUMO.
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## Support

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This module is supported by ControlWorks Consulting, LLC. Should you need support for this module please email [support@controlworks.com](mailto:support@controlworks.com) or call us at 440-449-1100. ControlWorks normal office hours are 9 AM to 5 PM Eastern, Monday through Friday, excluding holidays.

Before calling for support, please ensure that you have loaded and tested operation using the included demonstration program and touchpanel(s) to ensure that you understand the correct operation of the module. It may be difficult for ControlWorks to provide support until the demonstration program is loaded.

Updates, when available, are automatically distributed via email notification to the address entered when the module was purchased. In addition, updates may be obtained using your username and password at <https://www.controlworks.com/Customers/Login.aspx>.

### Distribution Package Contents

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The distribution package for this module should include:

<b>Distribution Contents</b>	
AJA_KUMO_IP_v1.0_(ControlWorks).umc	Crestron User Module.
AJA_KUMO_IP_Engine_v1.0_(ControlWorks).usp	SIMPL+ file used within the processor module.
AJA_KUMO_IP_Engine_v1.0_(ControlWorks).ush	SIMPL+ header file.
AJA_KUMO_REST_ControlWorks.clz	SIMPL# Library
AJA_KUMO_IP_Demo_v1.0_(ControlWorks).umc	Demo program for PRO3 processor

## Revision History

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V1.0 caleb@controlworks.com 2021.09.22  
-initial release

## Development Environment

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This Module and Driver version was developed on the following hardware and software. Different versions of hardware or software may or may not operate properly. If you have questions, please contact us.

<b>Manufacturer Hardware</b>	<b>Software Version</b>
KUMO 1616	4.6.1.6
<b>Crestron Hardware</b>	<b>Firmware Version</b>
Crestron PRO4 Processor	v2.6000.00026
Crestron PRO3 Processor	v1.603.4298.28152
<b>Software</b>	<b>Software Version</b>
SIMPL Windows	4.14.31
Vision Tools Pro-e	6.2.00
Smart Graphics Controls	2.15.04.01
Crestron Database	202.05.002.00
Device Database	200.40.004.00

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# ControlWorks Consulting, LLC Module Instance License Agreement

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