App Note 129

Multiple Device Control from one switch

Problem
A homeowner wants to control a laundry room light and fan from one switch. Here is the action you can build for them:

Single tap top rocker: Turn on light
Double tap top rocker: Turn on light and fan
Single tap bottom rocker: Turn off light and fan
Double Tap bottom rocker: Turn off light and fan

But the "smart bit" you can implement for them is that a single tap of the top rocker when the fan is already on, will turn the fan off but not change the light.

The homeowners action is to enter the room, double tap to turn on the light and fan. If they want the fan off later, they single-tap the top rocker and the fan goes off, but the light remains on.

Method to accomplish this:

This takes two scenes and programming in both the light and the fan. Here is the transmit components of the light:

Rocker Switch Transmission

Upon any type of rocker switch press, this device can be configured to transmit a specified command on a specified scene

	Scene Name	Mode	Single-Tap	Double-Tap	Hold	Release
Top	ControlTop	Custom Rocker	Activate	Goto On	Activate	No Command
Bottom	ControlBottom	Activator	Activate	Activate	Activate	No Command

The Inventors Of:

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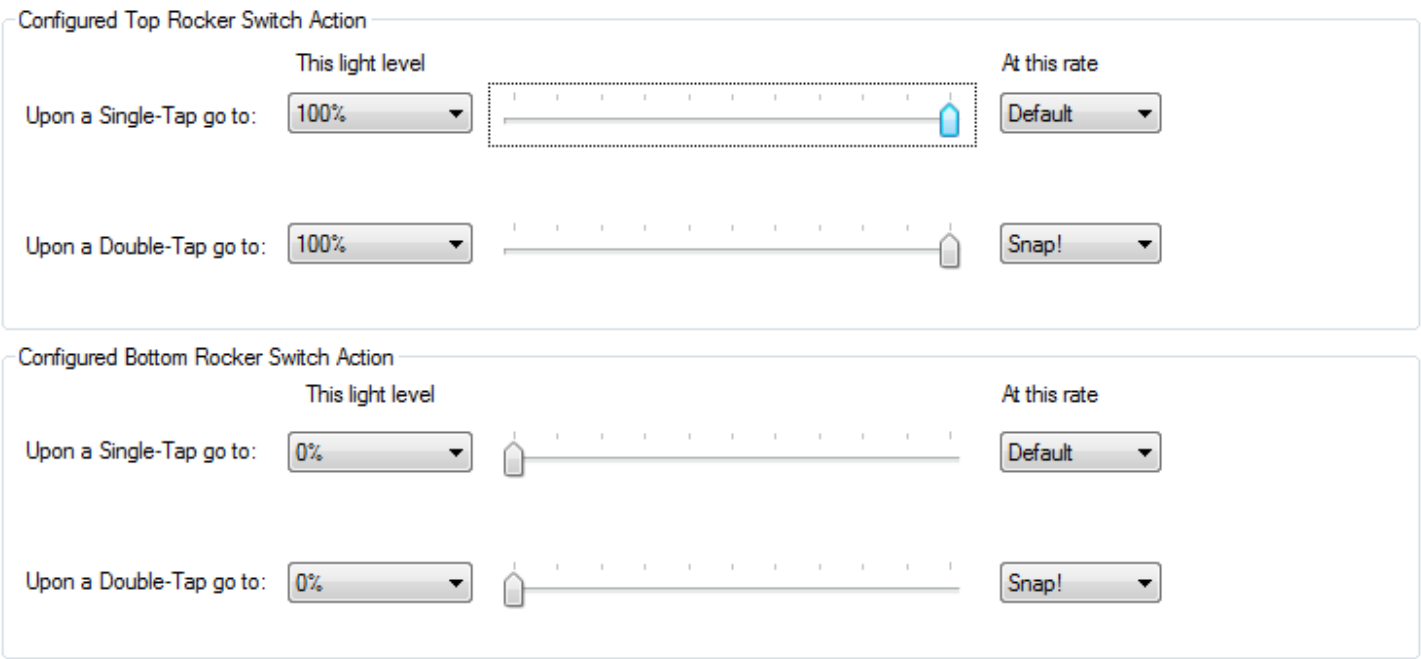
And the action of the switch rocker:



Here is the receive components of the fan module:

Why this works

A **single-tap** of the top rocker turns the light on because the switch rocker is connected to the light and as shown on the "Rocker switch" tab of its properties, the single tap is configured to control the light to 100% – no scenes are involved. It also transmits an Activate command of the "Control Top" scene. This is received by the fan module and because the level is set to 0% in its receive components, it goes off.

A **double-tap** of the switch top turns on the switch load because the "rocker switch" configuration has it go to 100%, and also transmits a "Goto ON" command for the "Control Top" scene. Unlike an "Activate" command the "Goto" command contains the level as part of the command. All needed for a receiver to respond to a "Goto" command is that the scene must be listed in the receivers "receive components" table. Whatever level

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specified in the “receive components” table is ignored, and the level provided by the command is used instead.

The use of the “Goto” command rather than an activate command in the action of the switch rocker is the key feature of this application and why it works.

The actions of the bottom rocker are simpler in that the switch goes off and the fan module does too because the bottom rocker transmitted an “Activate” of the “Control Bottom” scene. When received by the fan module, it goes to the level in its “receive components” table, which is 0%.

##end##

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