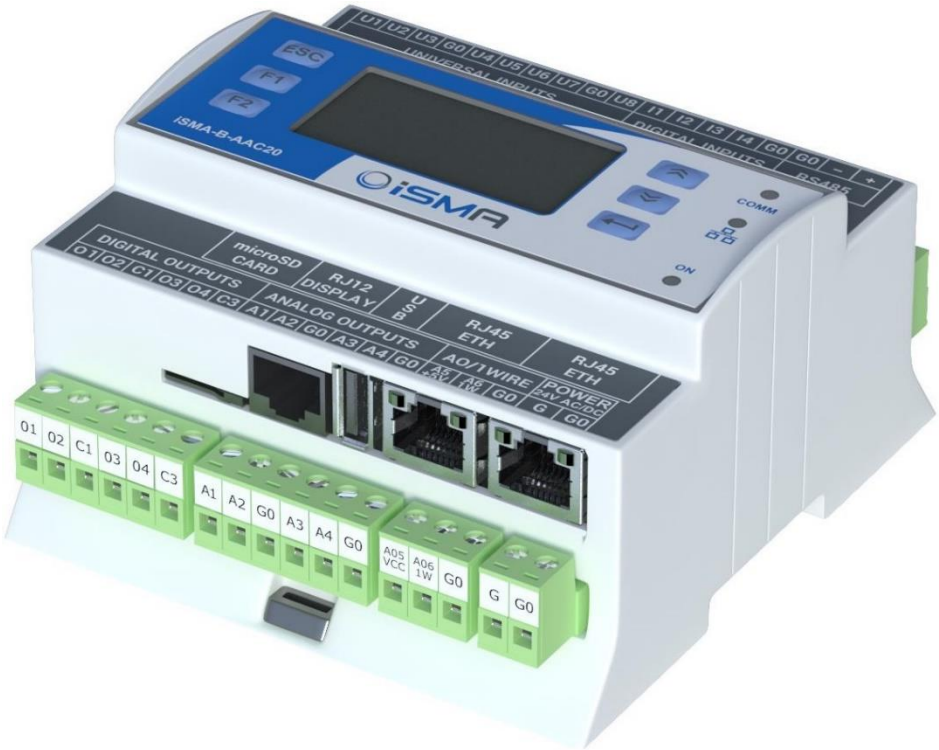
Intelligent Solution Managing Automation

iSMA-B-AAC20

User Manual

iSMA Advance Control Kit



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1 Introduction

This manual contains information about advanced kits for iSMA-B-AAC20, which were developed separately from the main Control kits for special needs of advanced users.

1.1 Revision History

Rev	Date	Description
1.0	29.01.2018	First edition
1.1	01.03.2020	Replaced environment of programming from Workplace to iSMA Tool

Table 1 Revision history

2 Advance Control Kit

Advance Control kit has been developed in order to facilitate creating of user applications. With this kit components, an advanced application can be built in a simple way. The kit contains the following components:

- Raise value;
- Raise Out: Digital Output out for Rising function;
- Lower Out: Digital Output out for Lowering function;
- In: Valve position demand;
- Full Open Time: Time for valve position to open in seconds;
- Full Close Time: Time for valve position to close in seconds;
- Adjustment Active: Remote adjustment procedure trigger;
- Adjustment Period: Adjustment procedure recall period in hours;
- Next Adjustment In: Remaining time in minutes for next adjustment procedure.

Out Value	Rise	Lower	Description
0	Off	Off	Off
4	Off	On	Lower
7	Off	Off	Static

10	On	Off	Rise

Table 1 Analog Output voltage level function

2.1 Dimmer Switch

The component has been created to control a light dimmer with the use of a single (one Digital Input) or two buttons (two Digital Inputs).

In a Single Switch mode Switch 1 has defined functions for short and long press. The short press is when the button is pressed for less than the time defined in the slot Short In. The long press is when the button is pressed for longer than the time defined in the slot Short In. The short press is dedicated for On/Off switching, the long press is dedicated for changing dimming value. Each short press toggles between on and off state. During long press the component increases or decreases the dimming value.

In a Double Switch mode, each button has defined functions: Switch 1 is for switching on (short press) and increasing dimmer value (long press), Switch 2 is for switching off (short press) and decreasing dimmer value (long press). The short press is when the high state time is less than the time defined in the Short In slot. The long press is when the short time elapses, and the button is still in the high state.

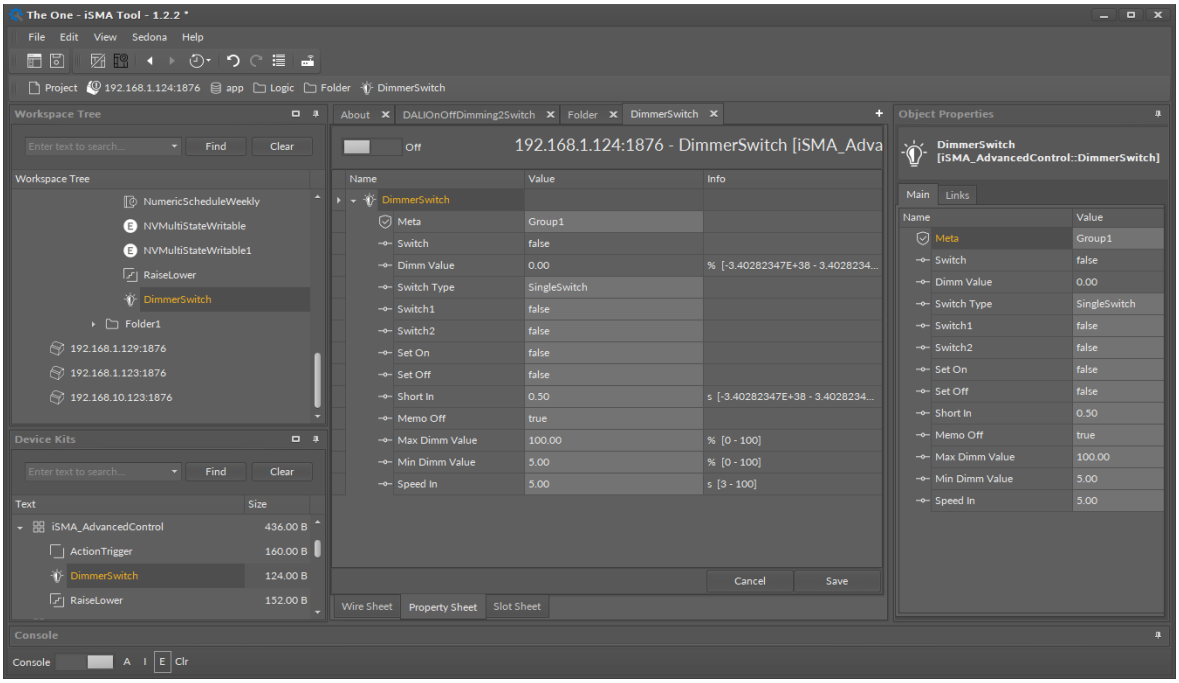

Figure 2 Dimmer Single Switch property sheet view

The component has the following slots:

- Switch: Out slot for dimmer, digital value for On and Off state;
- Dimm Value: Out slot for dimmer, analog 0-100% value;
- Switch Type: Button input;
- Switch1: Button input, main for the Single Switch mode, On or increasing output in the Double Switch mode;
- Switch2: Button input, not active for the Single Switch mode, Off or decreasing output in the Double Switch mode;
- Set On: Triggers the dimmer switch to On state (to max level);
- Set Off: Triggers the dimmer switch to Off state;
- Short In: Time of short button press;
- Memo Off: Enables / Disables a memory function of Dimm Value during switch off;
- Max Dimm Value: Max. dimmer analog value;
- Min Dimm Value: Min. dimmer analog;
- Speed In: Dimming speed time.

2.2 Action Trigger

This component has been created to remotely recollect the action from a Sedona component. Sedona does not allow to create links to component's actions, and actions can be recalled manually from programming software (for example iSMA Tool) or by a dedicated component. The Action Trigger component has 3 input slots, each dedicated to a Sedona variable type (as a standard we use only the one corresponding to the component type). The programmes create a link to the component, from which the action will be recalled to the Action Trigger component input slot. The slot Action Name defines which action is to be recalled.

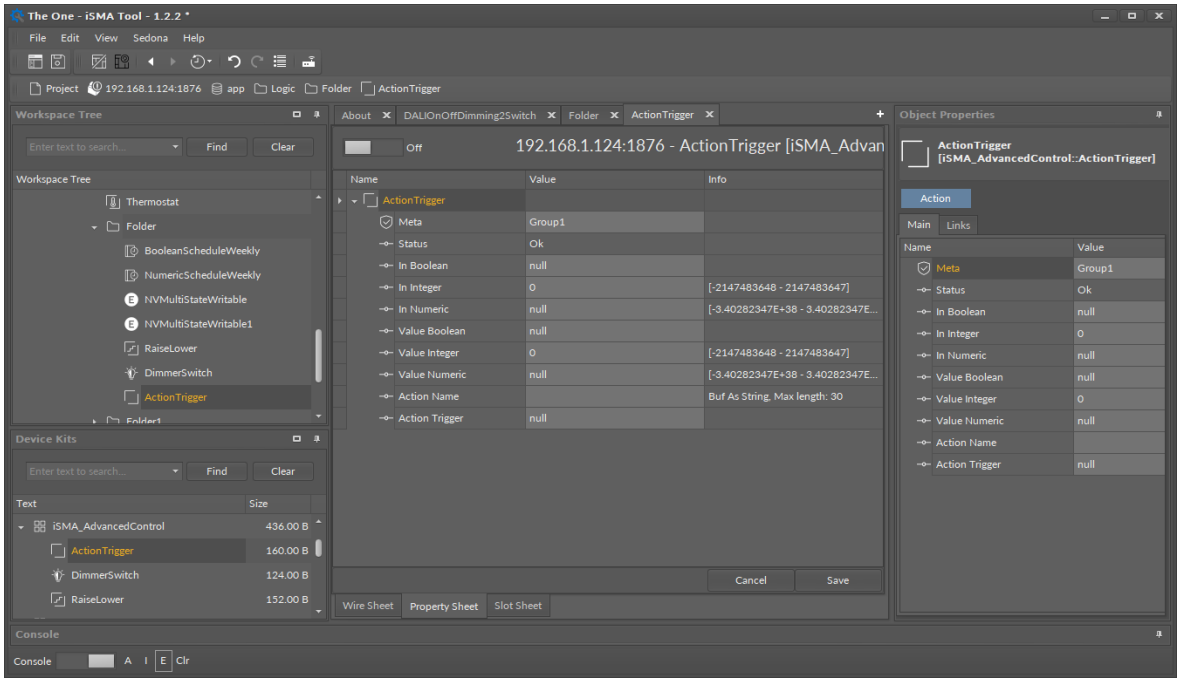

Figure 3 Action Trigger property sheet view

The component has the following actions:

- Action: Manually recalls action from a linked component

The component has the following slots:

- Status: Component status,
- In Boolean: Input slot to make a link connection between components – Boolean type,
- In Integer: Input slot to make a link connection between components – Integer type,
- In Numeric: Input slot to make a link connection between components – Numeric/Float type,
- Value Boolean: Boolean output value,
- Value Integer: Integer output value,
- Value Numeric: Numeric output value,
- Action name: Action name from the linked component which will be recalled,
- Action Trigger: Recalls action from the component linked to one of the input slots defined in Action Name.