

Device: Lawo Ember+ VSM Studio Support



Introduction

SKAARHOJ controllers support Ember+ access to internal registers so you can integrate and manage your controllers from VSM Studio or another Ember+ consumer. For inspiration see the videos below for a demonstration. Please notice our integration is as a Ember+ Provider, which may be unusual in a sense for a control panel. We have no ETA for Ember+ Consumer functionality.



Lawo Ember+ VSM Studio support in SKAARHOJ GPI controllers, part I

<https://youtu.be/UCkwHoNrA4I>



RCP management with VSM Studio and Ember+, part II

<https://youtu.be/2MU0hW742iw>

Getting Started

SKAARHOJ Controller

On the SKAARHOJ Controller add the "Ember+ Provider" Device Core. Remember to activate the Device Core but do not put any IP strings for the Device Core.

SKAARHOJ

Configuration of your Rack Fusion II with S/N #434668

The following default configurations are available for your controller:


Configuration

Description

Installed Devices


☐

SW-P-08 Test




☒

Ember+
Active




☐

Raw Panel - Server Mode



☐

Raw Panel



Network configuration

☐ DHCP

☒ Static

IP

192

168

10

98

Subnet

255

255

255

0

Gateway

192

168

10

1

DNS

192

168

10

1

Devices

Enabled

Name

IP

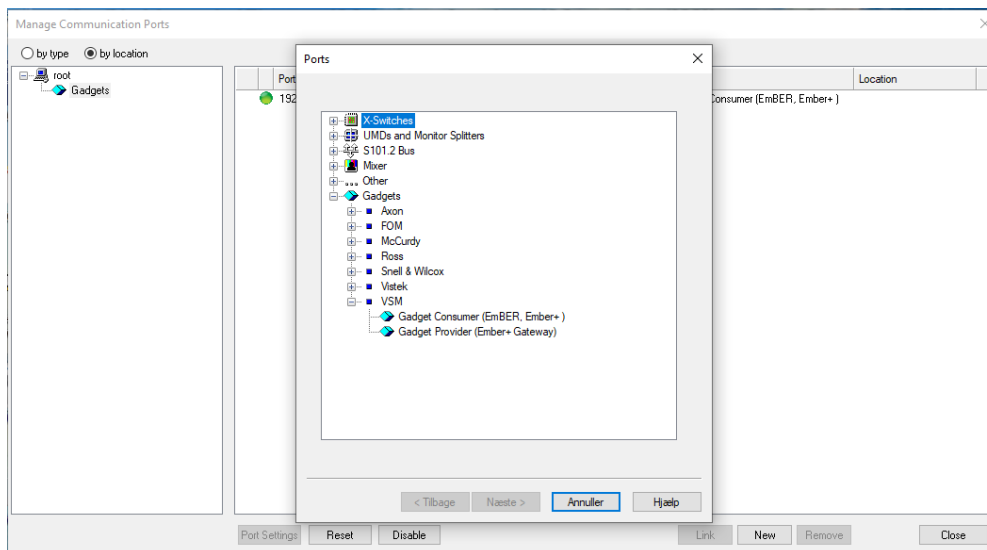
☒

EMBER+ Provider

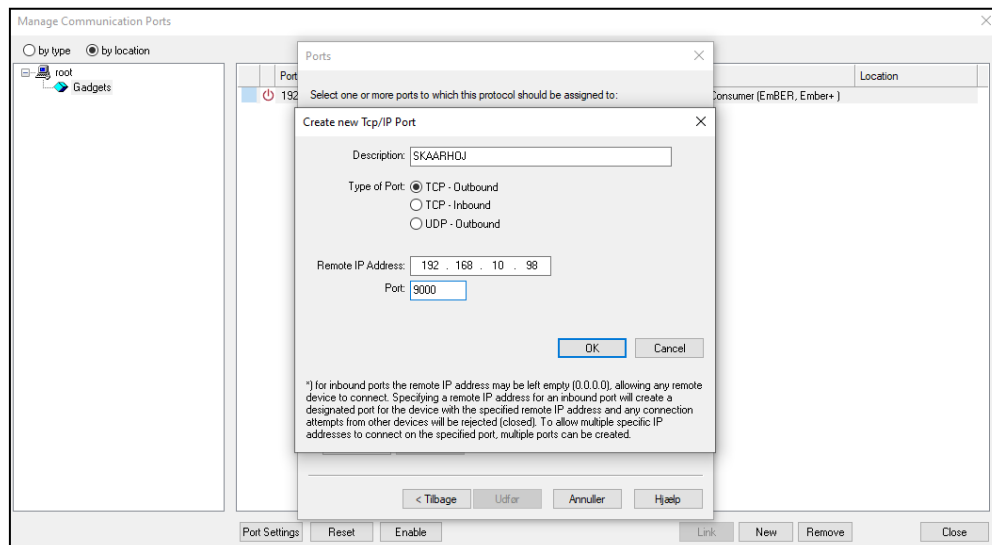
Save Network Configuration

VSM Studio

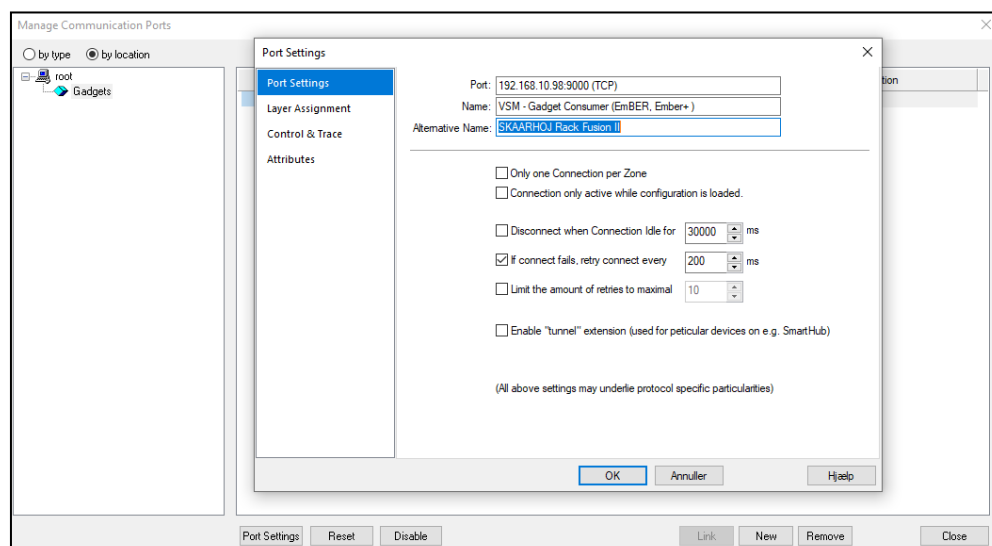
Go to Communication Setup and add: Gadget - VSM - Gadget Consumer (EmBER, Ember+)



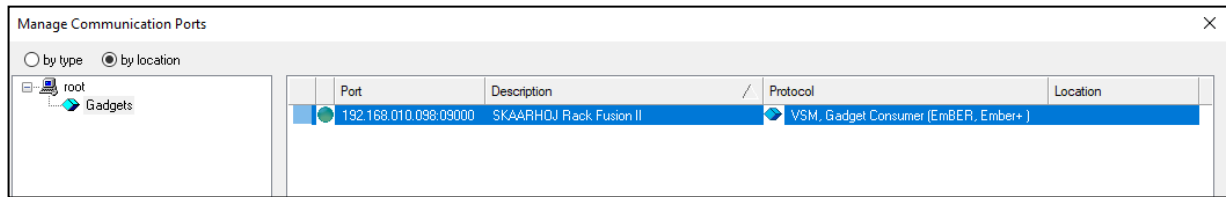
Add a New Port (the IP of the SKAARHOJ controller and port: 9000)



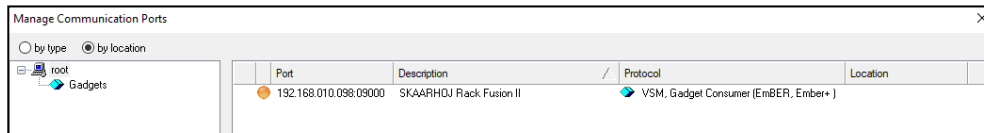
Default Port settings are used



When VSM connects to the SKAARHOJ Controller the Green Link connection indicator will come on



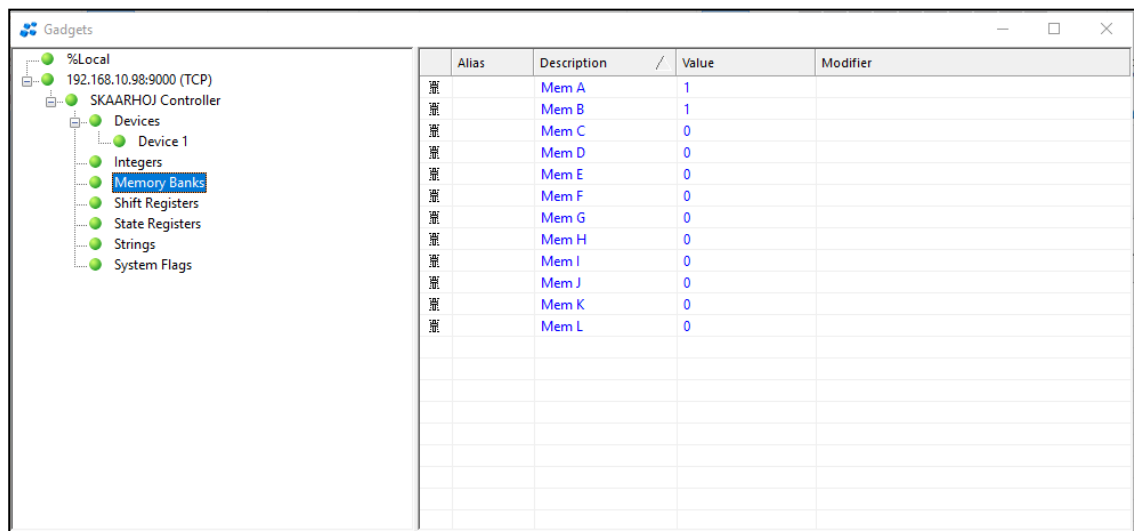
If no project is open, the connection indicator will often light yellow. Any interaction with the SKAARHOJ controller (such as pressing a button, will typically turn the connection status to green)



Now Open the Gadget tree



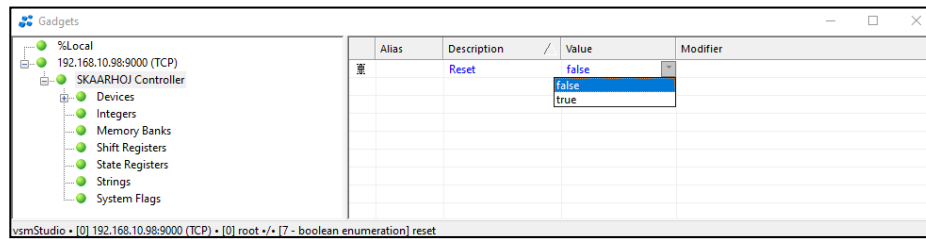
The SKAARHOJ controller will appear where you can access the various registers



Register Possibilities

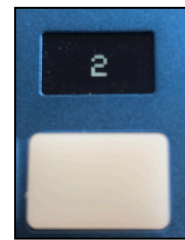
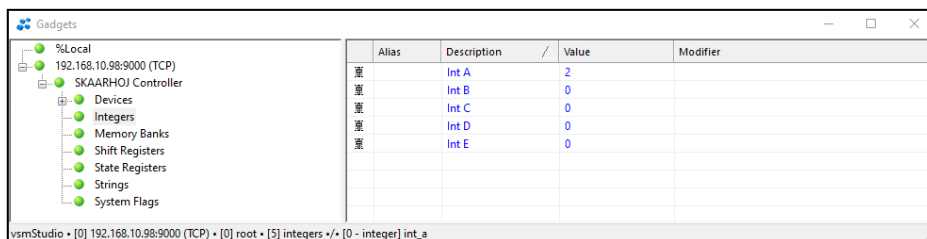
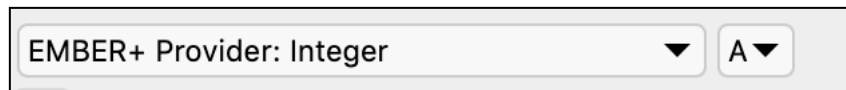
Reset

The SKAARHOJ controller can be reset by setting the value to true.



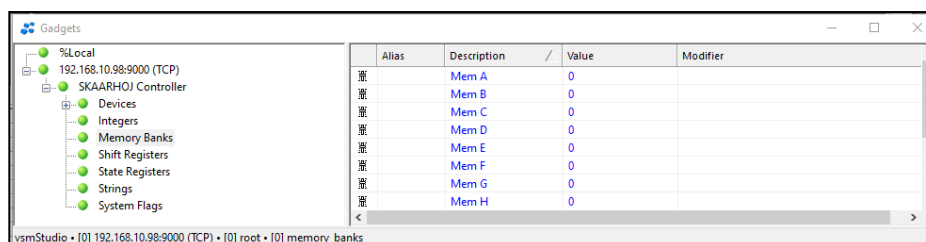
Integers

If assigning the action "Ember+ Provider: Integer" to a button or a display on a SKAARHOJ controller the value put into VSM will be displayed on the SKAARHOJ controller



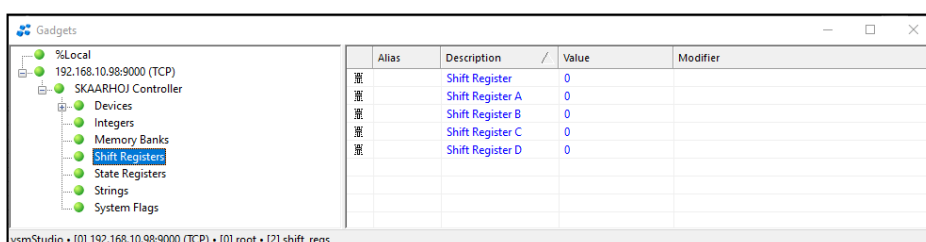
Memory Banks

The SKAARHOJ system action "System: Memory" can be manipulated via VSM



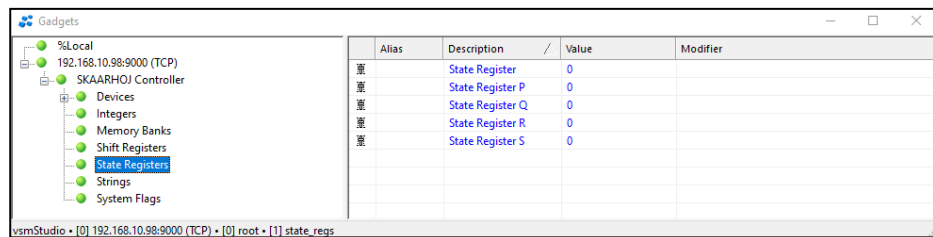
Shift Registers

The general shift level and the local shift registers on a SKAARHOJ controller can be controlled from VSM



State Registers

The general state level and the local stage registers on a SKAARHOJ controller can be controlled from VSM



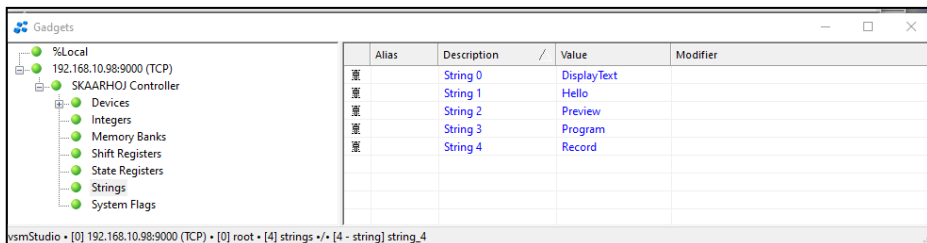
| Alias | Description | Value | Modifier |
|------------------|-------------|-------|----------|
| State Register | | 0 | |
| State Register P | | 0 | |
| State Register Q | | 0 | |
| State Register R | | 0 | |
| State Register S | | 0 | |

Strings

If assigning the action "Ember+ Provider: String" to a button or a display on a SKAARHOJ controller the value put into VSM will be displayed on the SKAARHOJ controller

EMBER+ Provider: String

Index: 0



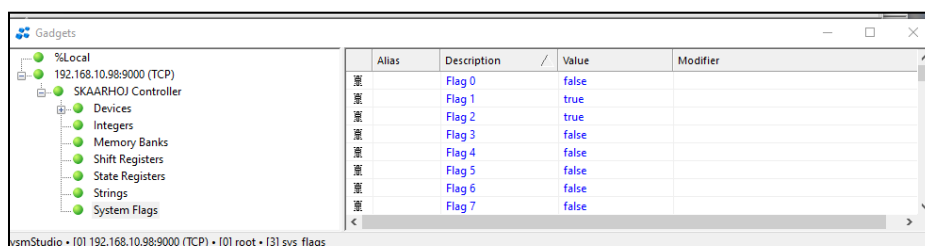
| Alias | Description | Value | Modifier |
|----------|-------------|-------|----------|
| String 0 | DisplayText | | |
| String 1 | Hello | | |
| String 2 | Preview | | |
| String 3 | Program | | |
| String 4 | Record | | |



System Flags

The SKAARHOJ system action "System: Flags" can be manipulated via VSM

System: Flag Flag: 1 Toggle Feedback Flag: 0 Label: 0



| Alias | Description | Value | Modifier |
|--------|-------------|-------|----------|
| Flag 0 | | false | |
| Flag 1 | | true | |
| Flag 2 | | true | |
| Flag 3 | | false | |
| Flag 4 | | false | |
| Flag 5 | | false | |
| Flag 6 | | false | |
| Flag 7 | | false | |

Examples:

Simple memory parameter control

Changing memory parameters in VSM from SKAARHOJ controllers. Example of assigning Mem A 1-3 and Mem B 1-3 on buttons:

#1 **X1**

System: Memory A 1 Label: 0

#2 **X2**

System: Memory A 2 Label: 0

#3 **X3**

System: Memory A 3 Label: 0

#4 **X4**

System: Memory B 1 Label: 0

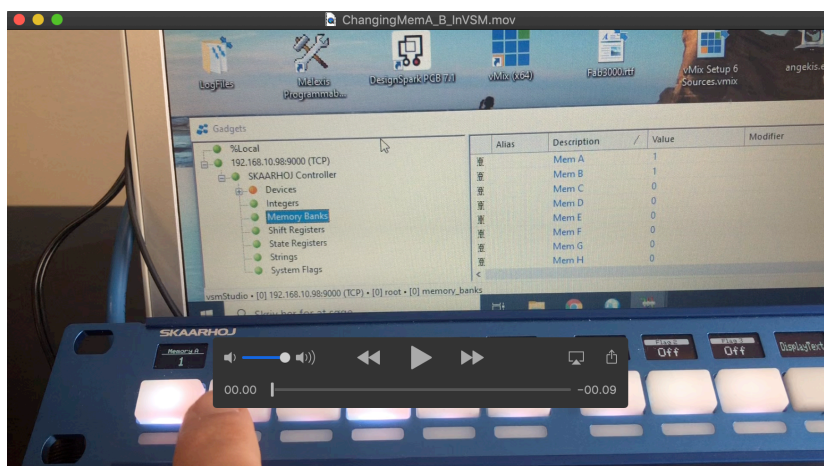
#5 **X5**

System: Memory B 2 Label: 0

#6 **X6**

System: Memory B 3 Label: 0

Video demonstration: https://github.com/SKAARHOJ/Support/raw/master/Manuals/Videos/Ember%2B/ChangingMemA_B_InVSM.mov

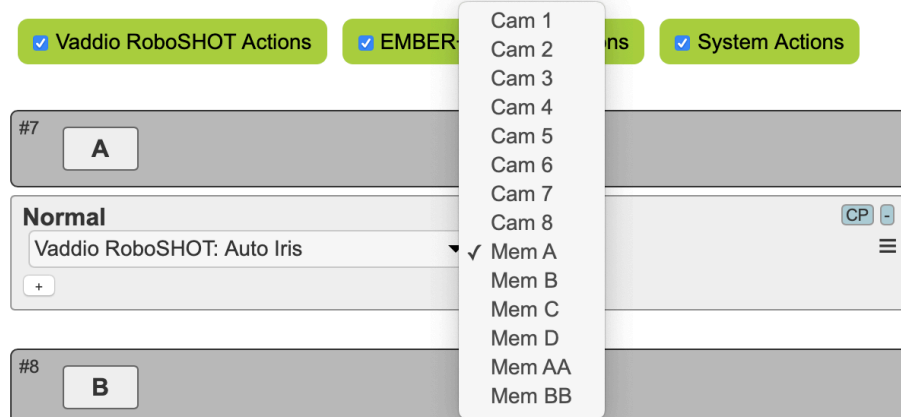


Selecting Camera on a SKAARHOJ controller via VSM

Camera selection on a SKAARHOJ controller can typically be done by changing the memory parameter. In this example we change the memory parameter A to A=1 and A=2 via VSM. It is important to remember the camera actions on the SKAARHOJ controller should be assigned to Mem A and not Mem AA.

Example of a camera action on the SKAARHOJ controller:

Devicecore actions can be hidden from the select lists as well to make configuration faster. (Note)



When set to "Mem A" then:

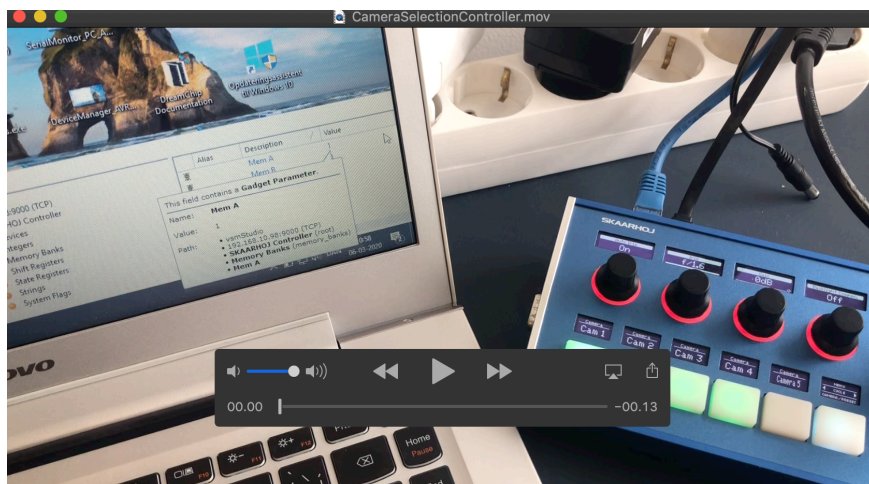
Mem A = 1 equals Cam 1

Mem A = 2 equals Cam 2

And so forth

| Gadgets | | | |
|---|-------------|--|-------|
| <ul style="list-style-type: none"> %Local 192.168.10.98:9000 (TCP) SKAARHOJ Controller <ul style="list-style-type: none"> Devices Integers Memory Banks Shift Registers | | | |
| Alias | Description | | Value |
| Mem A | Mem A | | 0 |
| Mem B | Mem B | | 0 |
| Mem C | Mem C | | 0 |
| Mem D | Mem D | | 0 |
| Mem E | Mem E | | 0 |

Video demonstration: <https://github.com/SKAARHOJ/Support/raw/master/Manuals/Videos/Ember%2B/CameraSelectionController.mov>



Controlling the SKAARHOJ Tally Box via VSM Studio via System Flags

Controlling the SKAARHOJ Tally box can be done by using the system Flags which can be set to true or false.

Example below for the SKAARHOJ controller.


Feedback Flag 1 = PGM on output 1

Feedback Flag 2 = PRV on output 1

Feedback Flag 3 = PGM on output 2

Feedback Flag 4 = PRV on output 2

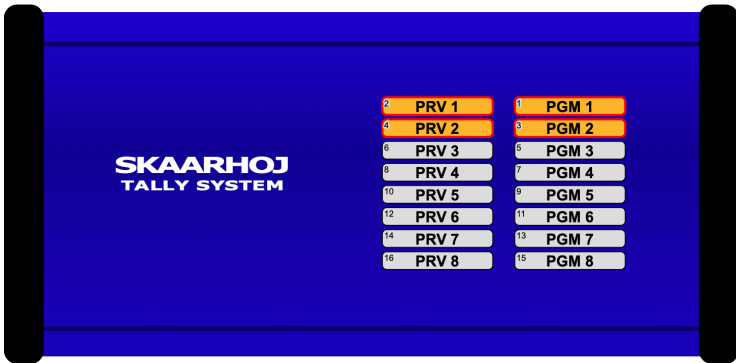
Ember+ Test ▾



Add devices

Size:

Simple Config



☐ Open All Configuration

Devicecore actions can be hidden from the select lists as well to make configuration faster. (Note: This does not work in Safari)

☒ EMBER+ Provider Actions

☒ System Actions

| | | | | | | | |
|----|----------------|-----------|-------|--|--|--------------------|------------|
| #1 | PGM 1 | | | | | | PGM 1 |
| | System: Flag ▾ | Flag: 0 ▾ | Set ▾ | | | Feedback Flag: 1 ▾ | Label: 0 ▾ |
| | ≡ CP ⓘ | | | | | | |
| #2 | PRV 1 | | | | | | PRV 1 |
| | System: Flag ▾ | Flag: 0 ▾ | Set ▾ | | | Feedback Flag: 2 ▾ | Label: 0 ▾ |
| | ≡ CP ⓘ | | | | | | |
| #3 | PGM 2 | | | | | | PGM 2 |
| | System: Flag ▾ | Flag: 0 ▾ | Set ▾ | | | Feedback Flag: 3 ▾ | Label: 0 ▾ |
| | ≡ CP ⓘ | | | | | | |
| #4 | PRV 2 | | | | | | PRV 2 |
| | System: Flag ▾ | Flag: 0 ▾ | Set ▾ | | | Feedback Flag: 4 ▾ | Label: 0 ▾ |
| | ≡ CP ⓘ | | | | | | |

SKAARHOJ DEVICE CORES

Video demonstration: <https://github.com/SKAARHOJ/Support/raw/master/Manuals/Videos/Ember%2B/TallyBoxViaSystemFlags.mov>

