Technical Issue Notification

TECHNICAL SUPPORT P/N TIN00023

EST4: N Var functionality in rule scripts

Introduction

This Technical Issue Notification is to inform you that the Edwards business is aware of an issue with N Variables. Currently when writing rules in the 4-CU which contain N Variables can result in those rules not capturing all devices within the specified range, when the device type is not specified on the input side of the rule.

Issue

N Variable objects are not being found when a rule is written to include devices within the specified numerical value range

When using the N Variable feature in the EST4 4-CU there are times based on how the rule is formatted, it will not capture devices in the rule. During these scenarios the “Input/Output Objects Rules Report” may incorrectly show that the input and output objects are being pulled from the actual rule. The examples below show the issue being present and what you are likely to encounter.

Example numbered list:

1. Device type not specified with issue present.
   - Rule Example:

```
//FLOOR ALARM DOOR RELEASE
@ Alarm 'FL<n:1-2>*' : On .DoorControl 'FL<n> DOOR RELEASE';
```

- The Input/Output Objects Report for the Door Release rule example:

Input Output Objects

Inspect in: Selected Branch Inspect/Refresh

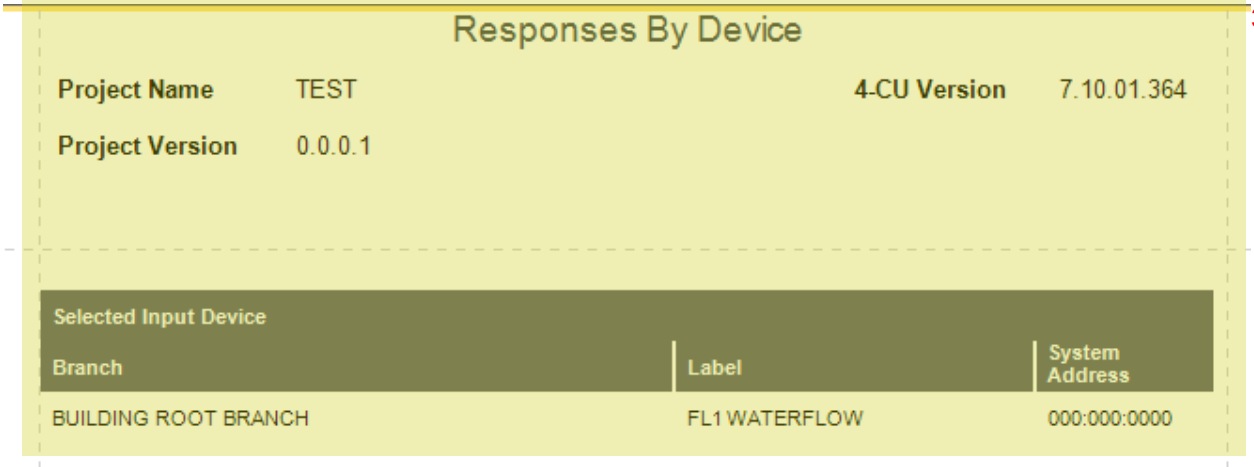
Drag a column header here to group by that column

Rule Id	Line No.	Rulescript Label	Rulescript Path	Input Label	Input Path	Output Label	Output Path	Command	Event	Rule
1	2	ROOT RULES	BUILDING ROOT BRANCH	FL1 SMOKE	BUILDING ROOT BRANCH	FL1 DOOR RELEASE	BUILDING ROOT BRANCH	On	Alarm	@ Alarm 'FL<n:1-2>*' : On .DoorControl 'FL<n> DOOR RELEASE';
1	2	ROOT RULES	BUILDING ROOT BRANCH	FL1 WATERFLOW	BUILDING ROOT BRANCH	FL1 DOOR RELEASE	BUILDING ROOT BRANCH	On	Alarm	@ Alarm 'FL<n:1-2>*' : On .DoorControl 'FL<n> DOOR RELEASE';
1	2	ROOT RULES	BUILDING ROOT BRANCH	FL1 PULL	BUILDING ROOT BRANCH	FL1 DOOR RELEASE	BUILDING ROOT BRANCH	On	Alarm	@ Alarm 'FL<n:1-2>*' : On .DoorControl 'FL<n> DOOR RELEASE';
1	2	ROOT RULES	BUILDING ROOT BRANCH	FL2 PULL	BUILDING ROOT BRANCH	FL2 DOOR RELEASE	BUILDING ROOT BRANCH	On	Alarm	@ Alarm 'FL<n:1-2>*' : On .DoorControl 'FL<n> DOOR RELEASE';
1	2	ROOT RULES	BUILDING ROOT BRANCH	FL2 SMOKE	BUILDING ROOT BRANCH	FL2 DOOR RELEASE	BUILDING ROOT BRANCH	On	Alarm	@ Alarm 'FL<n:1-2>*' : On .DoorControl 'FL<n> DOOR RELEASE';
1	2	ROOT RULES	BUILDING ROOT BRANCH	FL2 WATERFLOW	BUILDING ROOT BRANCH	FL2 DOOR RELEASE	BUILDING ROOT BRANCH	On	Alarm	@ Alarm 'FL<n:1-2>*' : On .DoorControl 'FL<n> DOOR RELEASE';

- (FIG.1)

- In Fig. 1 above notice that a check of the Input/Output Objects report shows Input devices on Floors 1&2 turning On the Door Release relays for Floors 1&2. 1
- In Fig.2 below running the Responses by Device Report for the Floor 1 Waterflow, only has one line. The Input device is listed but no Output devices. Based on this report we can now see that Door Release relay on Floor 1 will not activate. 2

3



Responses By Device

Project Name	TEST	**4-CU Version**	7.10.01.364
Project Version	0.0.0.1		

Selected Input Device

Branch	Label	System Address
BUILDING ROOT BRANCH	FL1 WATERFLOW	000:000:0000

(Fig.2)

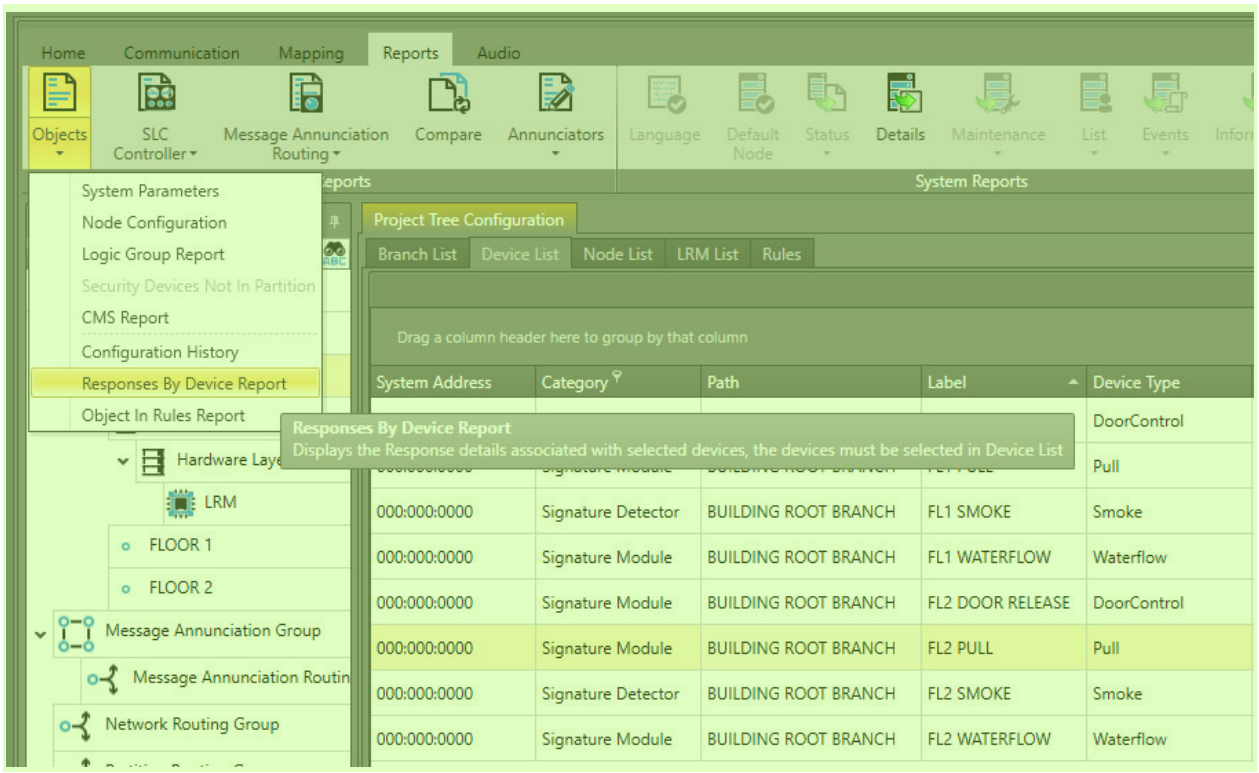
Solution 4

The technical issue is still under investigation and the Edwards business will provide you with a solution once the issue is resolved. 5

Run the Responses by Device Report in the 4-CU to verify that the rulescripts is working as intended. 6

How to run the Responses by Device Report: 7

1. Select an object in your branch, can be a smoke, heat, etc. 8
2. Go to the Objects button on the ribbon bar in the top left.
3. Select Responses by Device Report in the drop down and let the report run, picture below.



1

Adding the Device type into the rulescript will prevent the issue. In the rules example below we are using the same rule script shown in the Issue section but have edited the rules to include the device types. 2

- Rule Example: 3

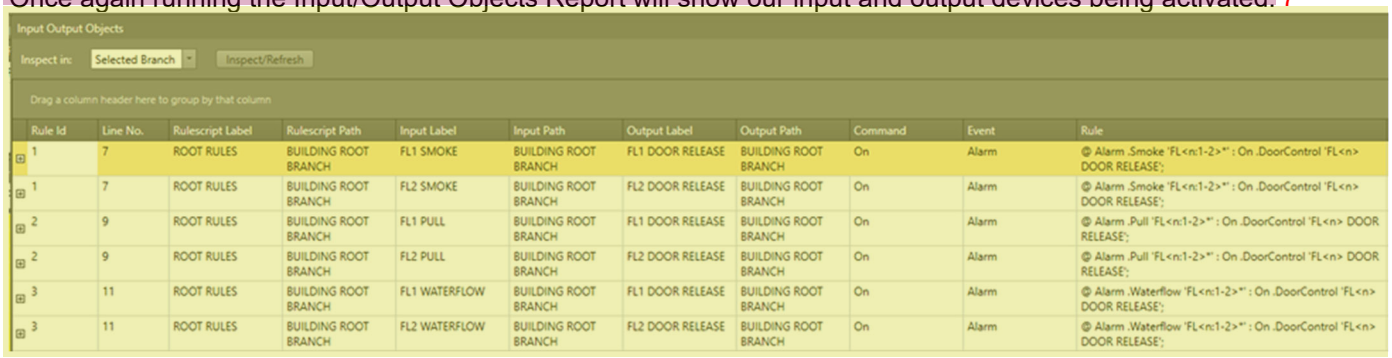
```
//FLOOR ALARM DOOR RELEASE SPECIFYING INPUT EVENT BY DEVICE TYPE 4
@ Alarm .Smoke 'FL<n:1-2>*' : On .DoorControl 'FL<n> DOOR RELEASE';

@ Alarm .Pull 'FL<n:1-2>*' : On .DoorControl 'FL<n> DOOR RELEASE'; 5

@ Alarm .Waterflow 'FL<n:1-2>*' : On .DoorControl 'FL<n> DOOR RELEASE'; 6
```

Input/Output Objects Report:

Once again running the Input/Output Objects Report will show our input and output devices being activated. 7



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(Fig.3) 8

Responses by Device Report with Device types in rule shows the input and output devices: 1

Figures 4,5 &6 below now show the door relays as part of the rule script when running the Response by Device report.. 2

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Responses By Device

Project Name TEST **4-CU Version** 7.10.01.364

Project Version 0.0.0.2

Selected Input Device

Branch	Label	System Address
BUILDING ROOT BRANCH	FL1 PULL	000:000:0000

Rule Event Information

Prefix	Event Type
	Alarm

Command Information

Direction	Command Type	Description
	Activate	Output, Priority Low

Devices Affected By the Command

Branch	Label	System Address
BUILDING ROOT BRANCH	FL1 DOOR RELEASE	000:000:0000

(Fig.4 Response report for Pull) 4

Responses By Device

Project Name	TEST	**4-CU Version**	7.10.01.364
Project Version	0.0.0.2		

Selected Input Device

Branch	Label	System Address
BUILDING ROOT BRANCH	FL1 SMOKE	000:000:0000

Rule Event Information

Prefix	Event Type
	Alarm

Command Information

Direction	Command Type	Description
	Activate	Output, Priority Low

Devices Affected By the Command

Branch	Label	System Address
BUILDING ROOT BRANCH	FL1 DOOR RELEASE	000:000:0000

(Fig.5 Response by Device Report for Smoke)

Responses By Device 1

2

Project Name	TEST	**4-CU Version**	7.10.01.364
Project Version	0.0.0.1		

Selected Input Device

Branch	Label	System Address
BUILDING ROOT BRANCH	FL1 WATERFLOW	000:000:0000

Rule Event Information

Prefix	Event Type
	Alarm

Command Information

Direction	Command Type	Description
	Activate	Output, Priority Low

Devices Affected By the Command

Branch	Label	System Address
BUILDING ROOT BRANCH	FL1 DOOR RELEASE	000:000:0000

(Fig.6 Response by Device Report for Waterflow) 3