

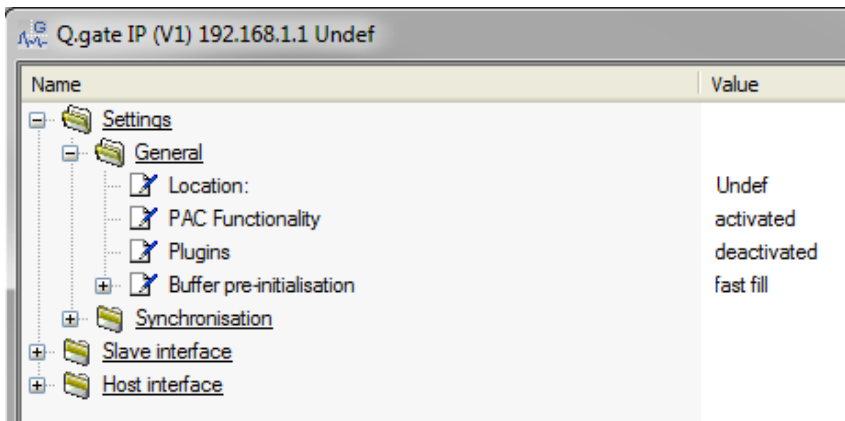


Q.ick Start Guide: How to Auto Name all or some Channels in a Gantner Project using test.commander

Purpose: An average Gantner project can consist of a handful of channels to a couple hundred channels within a single controller. It is easy to manually name a handful of channels but it can be a tedious process to manually name hundreds of channels. A project that is loaded into a Gantner controller (i.e. Q.gate, Q.station), especially if PAC functionality is enabled, has to have variables with unique names.

Procedure:

1. Setup the hardware in the typical manner.
2. A Q.gate that has PAC Functionality activated and all Q.stations must have unique name for all channels.



3. A project with non-unique names will not be able to update to the controller. A RED screen will be displayed in the Design Rule Check window.

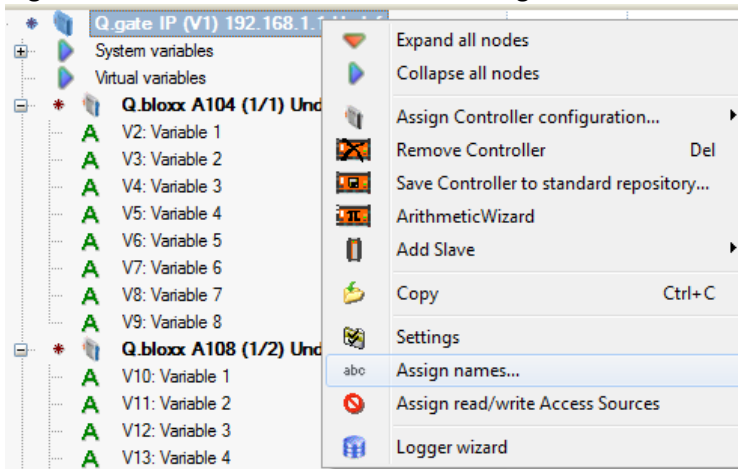


4. By default, the slave modules have standard configuration if loaded for the first time, as shown in the image below. Notice that the variables do not have unique names within the entire project.

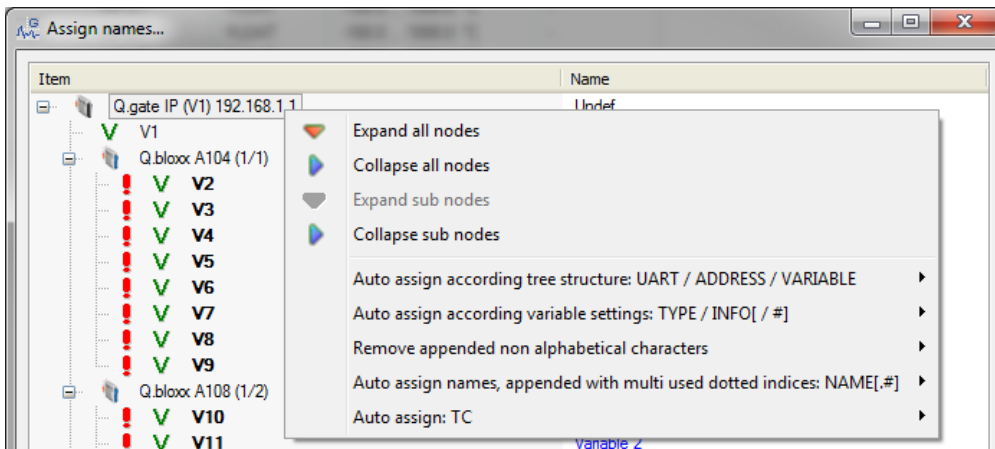


	Channel name	Type	Connection	Formula	Data direction	Data format	Range
Q.gate IP (V1) 192.168.1.1 Undef							
System variables							
Virtual variables							
Q.bloxx A104 (1/1) Undef							
A	V2: Variable 1	Thermocouple	Cold Junc....		INPUT	FLOAT	-100.0 ... 1000.0 °C
A	V3: Variable 2	Thermocouple	Cold Junc....		INPUT	FLOAT	-100.0 ... 1000.0 °C
A	V4: Variable 3	Thermocouple	Cold Junc....		INPUT	FLOAT	-100.0 ... 1000.0 °C
A	V5: Variable 4	Thermocouple	Cold Junc....		INPUT	FLOAT	-100.0 ... 1000.0 °C
A	V6: Variable 5	Thermocouple	Cold Junc....		INPUT	FLOAT	-100.0 ... 1000.0 °C
A	V7: Variable 6	Thermocouple	Cold Junc....		INPUT	FLOAT	-100.0 ... 1000.0 °C
A	V8: Variable 7	Thermocouple	Cold Junc....		INPUT	FLOAT	-100.0 ... 1000.0 °C
A	V9: Variable 8	Thermocouple	Cold Junc....		INPUT	FLOAT	-100.0 ... 1000.0 °C
Q.bloxx A108 (1/2) Undef							
A	V10: Variable 1	Voltage	Differential		INPUT	FLOAT	-10.0 ... 10.0 V
A	V11: Variable 2	Voltage	Differential		INPUT	FLOAT	-10.0 ... 10.0 V
A	V12: Variable 3	Voltage	Differential		INPUT	FLOAT	-10.0 ... 10.0 V
A	V13: Variable 4	Voltage	Differential		INPUT	FLOAT	-10.0 ... 10.0 V
A	V14: Variable 5	Voltage	Differential		INPUT	FLOAT	-10.0 ... 10.0 V
A	V15: Variable 6	Voltage	Differential		INPUT	FLOAT	-10.0 ... 10.0 V
A	V16: Variable 7	Voltage	Differential		INPUT	FLOAT	-10.0 ... 10.0 V
A	V17: Variable 8	Voltage	Differential		INPUT	FLOAT	-10.0 ... 10.0 V
Q.bloxx D101 (1/3) Undef							
D	V18: Variable 1	Input Set			INPUT	FLOAT	0 ... 1
D	V19: Variable 2				INPUT / OUT...	FLOAT	0 ... 1

5. Right-click on the controller and select Assign names:



6. The Assign names window will open. Right-click on the controller to bring up the format selection window:





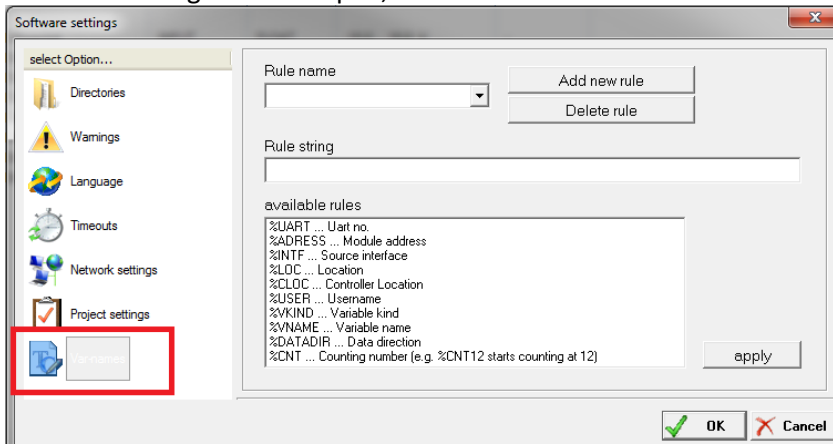
7. There are several options on how to automatically name all the channels. The simplest option is to name according to tree structure: UART / ADDRESS / VARIABLE

	Channel name
Q.gate IP (V1) 192.168.1.1 Undef	
System variables	
Virtual variables	
Q.bloxx A104 (1/1) Undef	
V2: UI#1/A#1/VI#1	UI#1/A#1/VI#1
V3: UI#1/A#1/VI#2	UI#1/A#1/VI#2
V4: UI#1/A#1/VI#3	UI#1/A#1/VI#3
V5: UI#1/A#1/VI#4	UI#1/A#1/VI#4
V6: UI#1/A#1/VI#5	UI#1/A#1/VI#5
V7: UI#1/A#1/VI#6	UI#1/A#1/VI#6
V8: UI#1/A#1/VI#7	UI#1/A#1/VI#7
V9: UI#1/A#1/VI#8	UI#1/A#1/VI#8
Q.bloxx A108 (1/2) Undef	
V10: UI#1/A#2/VI#1	UI#1/A#2/VI#1
V11: UI#1/A#2/VI#2	UI#1/A#2/VI#2
V12: UI#1/A#2/VI#3	UI#1/A#2/VI#3
V13: UI#1/A#2/VI#4	UI#1/A#2/VI#4
V14: UI#1/A#2/VI#5	UI#1/A#2/VI#5
V15: UI#1/A#2/VI#6	UI#1/A#2/VI#6
V16: UI#1/A#2/VI#7	UI#1/A#2/VI#7
V17: UI#1/A#2/VI#8	UI#1/A#2/VI#8
Q.bloxx D101 (1/3) Undef	
V18: UI#1/A#3/VI#1	UI#1/A#3/VI#1
V19: UI#1/A#3/VI#2	UI#1/A#3/VI#2

8. The Design Rule Check will now display a white window, meaning that this project will load correctly into the controller.

Results of Design Rule Check:		
Project: TEST001		
Q.gate IP (V1) 192.168.1.1 Undef		
ETHERNET settings:		OK
Synchronisation:		OK
UART #1:	3 slaves	OK
internal input data count:	8 bytes	OK
Variables count:	19 variables	OK
Input data count:	80 bytes	OK
Output data count:	4 bytes	OK
data count for block transfer:	800 bytes	OK
Multiple used variable names:	none	OK
UART #1:		OK
Base comm. time:	44 µs	OK

9. It is also possible to customize the variable's name rule. Select Extras > Settings. With the Software settings window open, select the Var-names tab.

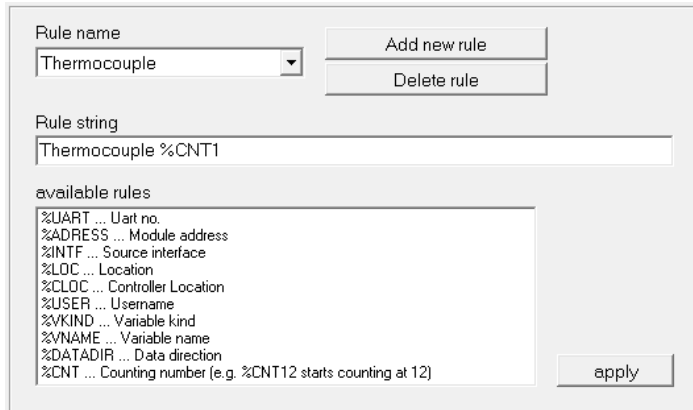




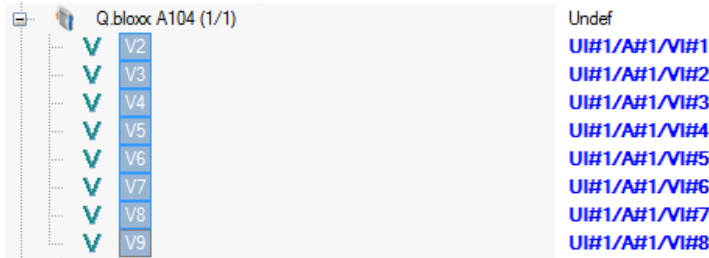
- Select the Add new rule button. Give the rule a name (for this example we will name the thermocouple channels).



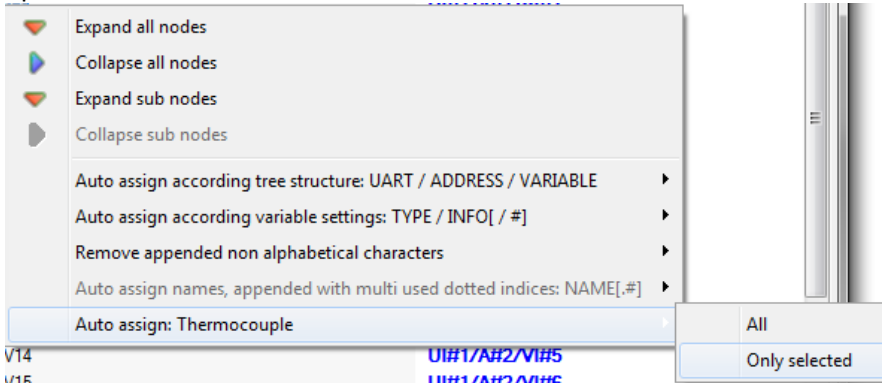
- Now create the string for the rule. Use the available rules with custom test to create the rule. For this example we will use "Thermocouple %CNT1".



- Go to the Assign names window. Highlight the variables to name (for this example, select the channels in the A104).

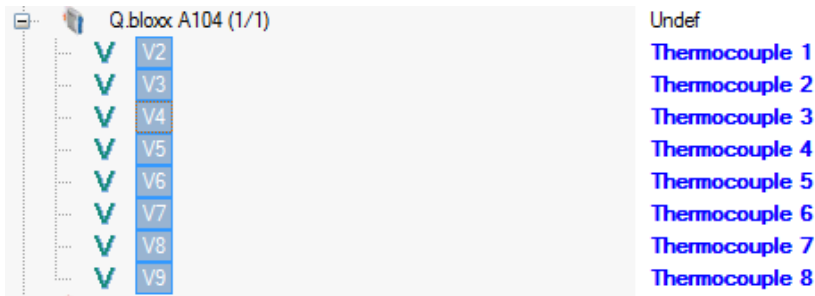


- Right-click on the variables and select the rule that was created above. Choose the only selected option.





14. The selected channels will utilize the rule:



15. Repeat this process for other variable types. Select File > Calculate Statistics > Check to verify that the project passes before loading to the controller.

Contact us today if you have any further questions!