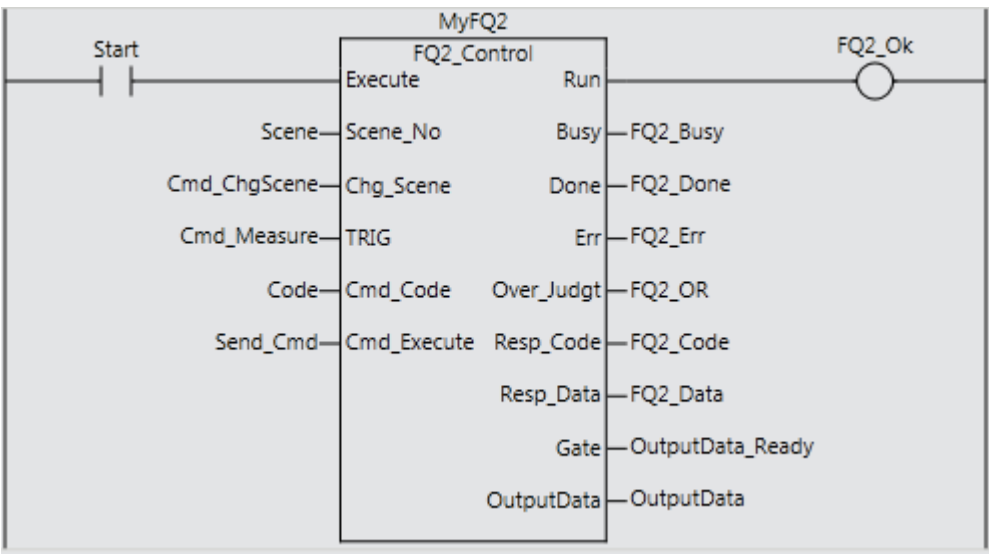


Reference	FQ2_NJ_Control
Revision	1.0
Author	JP Viskovic
Date	13/02/2014
+ Support	http://support-omron.fr/

Control a vision sensor FQ2 via EthernetIP

Function symbol	<p>Measure, change scene & send command to a FQ2</p> 
File	FQ2_NJ_Control.zip
Principe	<p>The FB FQ2_Control regroup in one block several Read/Write commands used through EthernetIP Tags exchanged with the FQ2.</p> <p>The FB FQ2_Control allow :</p> <ul style="list-style-type: none"> - measurement - scene change - send command code (described after) <p>TRIG input executes measurement and the judgment is output to Over_Judgt output. Then the Data Output request bit (DSA) is activated to output data. If no Output Data have been configured in the FQ2, the flag Gate stay always OFF.</p>
EthernetIP	<p>The table of Tags can be created manually or downloaded using the following file FQ2_NJ_Control.nvf. An E-Learning on Network Configurator is also available</p>

1- Input/output variables of FQ2_NJ_Control

Input variables

Name	type	range	Description
Execute	Bool	OFF, ON	ON : FB activation
Scene_No	UDINT	0 - 0032	Scene number to send
Chg_Scene	Bool		Command to change the scene
TRIG	Bool	OFF, ON	Execute Measure
Cmd_Code	DWORD	0-FFFFFFFF	Command Code to send (see after)
Cmd_Execute	Bool	OFF, ON	Send command

Output variables

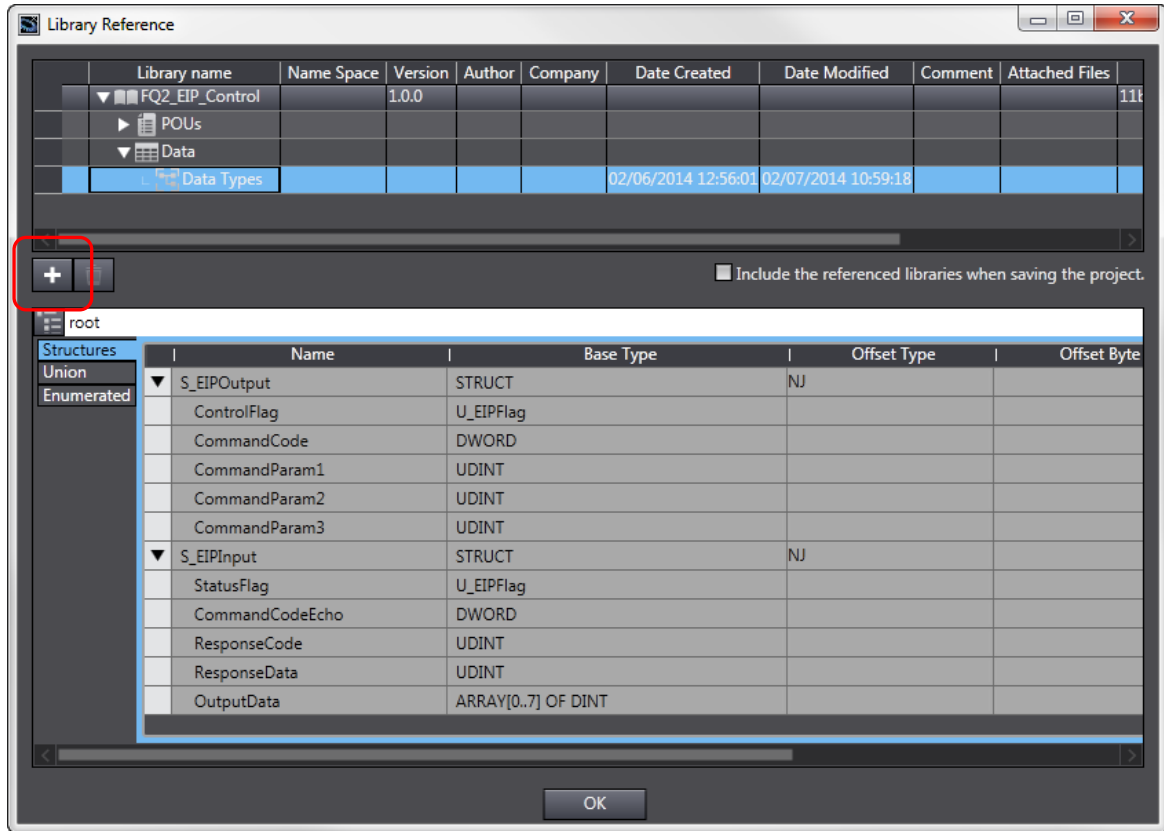
Name	type	range	Description
Run	Bool	OFF, ON	ON : FQ2 in RUN mode and EIP available
Busy	Bool	OFF, ON	FQ2 busy
Done	Bool	OFF, ON	- measure & result OK (Status flag OR) - change scene executed (checked) - command executed (Status flag FLG)
Err	Bool	OFF, ON	FQ2 in Error
Over_Judgt	Bool	OFF, ON	Overall judgment result not good
Resp_Code	UDINT	0-FFFFFFFF	FQ2 response Code
Resp_Data	DINT	0-FFFFFFFF	FQ2 response
Gate	Bool	OFF, ON	Data output completed
OutputData	ARRAY [0-7] DINT	0-FFFFFFFF	Output data bloc

FQ2 command code

Code	Description
0010 1020	Start continuous measurements
0010 1030	End continuous measurements
0010 2010	Clear measurement values
0010 2020	Clear data output buffer
0010 3010	Save data in sensor
0010 4010	Re-register model
0010 4020	Teach
0010 F010	Reset
0020 5000	Get latest error information
0020 1000	Get scene number
0030 1000	Select scene

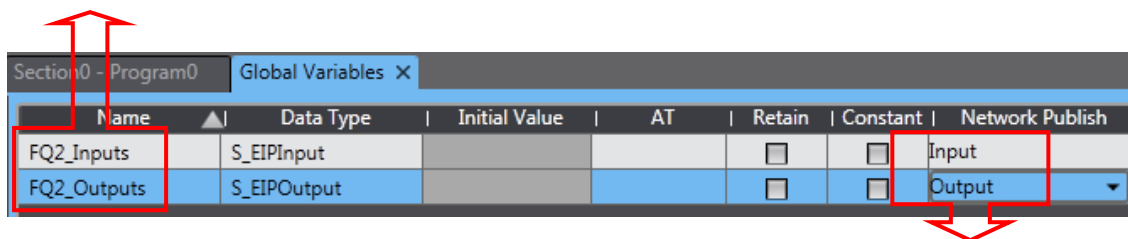
Inserting FQ2_NJ_Control library

Library can be referenced using the library reference window (menu Project/Library).



Tag declaration in the global variables list

Names of variables should be strictly identical to those created in the EthernetIP table [FQ2_NJ_Control.nvf](#) configured with Network Configurator and the type should be declared as S_EIPInput et S_EIPOutput (structures defined in the FQ2_NJ_Control library).



These variables should be published on the EthernetIP network as Input or Output

Annexe

Détail on S_EIPOutput et S_EIPInput structures used in the function block FQ2_Control

Définition de l'Union

Data type name	Base type
U_EIPFlag	UNION
F	BOOL[32]
W	DWORD

Structure of S_EIP_Input (48 bytes)

Data type name	Base type	Destination device data
S_EIPInput	STRUCT	-
StatusFlag	U_EIPFlag	Status flags (32bit)
CommandCodeEcho	DWORD	Command code (CMD-CODE)
ResponseCode	UDINT	Response code (RES-CODE)
ResponseData	UDINT	Response data (RES-DATA)
OutputData	DINT[8] **1	Output data 0 to 7 (DATA0 to 7)

Structure of S_EIPOutput (20 bytes)

Data type name	Base type	Destination device data
S_EIPOutput	STRUCT	-
ControlFlag	U_EIPFlag	Control flags (32bit)
CommandCode	DWORD	Command code (CMD-CODE)
CommandParam1	UDINT	Command parameter (CMD-PARAM)
CommandParam2	UDINT	
CommandParam3	DINT	