EE-206

Systèmes de mesure

NI MAX

First of all, on NI MAX check whether the instrument is well connected to the PC.

COM1" - Measurement & Automation Explorer		eld040lwb03			
File Edit View Tools Help					
 My System Data Neighborhood Devices and Interfaces ASRL1::INSTR "COM1" ASRL2::INSTR "COM2" 	Save Refresh 20 Open VISA Test Panel				
	Settings				
> L Network Devices	Name	COM1			
 A Scales Software Remote Systems 	Port Binding	COM1			
	Port Description	Communications Port			
	Status	Present			
	VISA Resource Name	ASRL1::INSTR			

Devices and Interfaces \rightarrow COM1 \rightarrow Open VISA Test Panel

VISA Test Panel

In the VISA Test Panel we can check the instrument state directly from the PC.

💥 ASRL1::INSTR	- VISA Test Panel	_			_	
Configu	uration	t Advanced	NI I/O Trace	Help		FIONAL TRUMENTS
Serial Settings	Flow Control Settings I/O Settir	ugs View Attributes		Return Data No Error		
Bau 960	d Rate Data Bits 0 8 🗸	Stop Bits Parity 1 V None	~			
	tions					
Burrer Opera	Transmit Buffer 0	Receive Buffer 0				
	Set Size Flush Buffer	Set Size Flush Buffer				
		Refresh	Apply Changes			

Input / Output

In the Input / Output menu we can send some messages to the instruement in order to know its state.



LabVIEW

Let's now launch LabVIEW...





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Driver library

In a blank VI, let's open the Function Palette (right click):





Yokogawa WT200 Series

In the library we find:





Initialization

In order to initialize the communication with the instrument:



<u>к</u>	
	COM1
	COM3
	TCPIP0::100.100.100.100::inst0::INSTR
	Refresh



Configure

Configure			
↑ Q Search	🔦 Customize 🔻		
	YRWT200 CONFIG Sync. Seurce	YKWT200 Frg filter	
Config Mode.vi	Config Sync	Config Filter.vi	Config Average vi
[1000.000.00]			
Config Voltage	Config Current	Config Ext	Config
Range.vi	Range.vi	Sensor	Scaling.vi
		YRWT200	VKUT200 BISPLAY
Config Math.vi	Config	Config Max	Config
	Integration.vi	Hold.vi	Display.vi
VKUT200 VKUT200 VKUT200 PRES NOR	YRWT200 VIDERAU NORMAL	YRWT200 VIESD21 PRES.HAR	ҮКШТ200 1997-24 НАЯМО.
Config Measure	Config Measure	Config Measure	Config Measure
Preset Normal.vi	Normal.vi	Preset	Harmonics.vi
	YKWT200 Lo J ^{ar} ^{HK} Campar, MODE	YRWT200 La z ^{yr} ^{er} Campar, NORMAL	10 Jac ^{Mar} Compar. HARMO.
Config	Config	Config	Config
Harmonics.vi	Comparator	Comparator	Comparator
Config D-A	Config D-A	YKWT230	Config Sample
Output.vi	Output Lime.vi	Config Wiring.vi	Kate.vi

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Data



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Example of Read Data





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Exercise 1

- initialize the communication
- configure the measurement mode RMS
- auto-range the voltage and current channel
- configure the average mode (linear, meas. # 8)
- acquire the values of V, A and W
- close the communication



Exercise 2

- initialize the communication
- configure the measurement mode RMS
- manual set of the voltage and current channel
- acquire 8 consecutive measurements of V, A and W
- compute the algebraic mean of the measurements
- close the communication

