### Modbus using in LabVIEW

1. Free download NI's Modbus library (for LabVIEW 7.1) <u>http://sine.ni.com/apps/we/niepd\_web\_display.display\_epd4?p\_guid=F15</u> 82737BACF5CA8E0340003BA7CCD71

or download the MGIModbus (for LabVIEW 6.1) http://sine.ni.com/apps/we/niepd\_web\_display.display\_epd4?p\_guid=F15 82737BACF5CA8E0340003BA7CCD71

2. Install NI's Modbus library, or unzip MGIModbus and copy the two folders into LabVIEW.

#### Modbus/TCP

1. Open MB Ethernet Example Master.vi from

"Functions Palette" >> "User Libraries">> "NI Modbus">> "MB Ethernet Example Master.vi"



#### 2. Double-click the icon to open it

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3. Create MBAP Header of "MB Ethernet Master Query.vi" and link the controller to "MB Ethernet Master Query.vi" in frame0 ~ frame 3



4. Set IP and NetID of remote Modbus slave

10.0.8	3.100		502	
Data to	write to the s	slave		
Coils to	Write	MBAP	Header	
0	100	Tran	saction ID	0 1
Registe	rs to Write		=	Net ID
0	0	0	0	
Slave R Slave D Slave Ir	ead-only Reg iscrete Inputs	isters ; s (Read On	ly)	
Slave R Slave D Slave Ir	ead-only Reg iscrete Inputs	isters ; s (Read On	ly)	

5. Run the VI.

# Modbus/RTU

# 1. Make sure the PC have VISA runtime installed.

## 2. Open MB Serial Example Master.vi from

"Functions Palette" >> "User Libraries">> "NI Modbus">> "MB Serail Example Master.vi"

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Exec Ctrl	Arith/Compare	Sig Manip	All Functions	User Libraries
				NI Modbus
				MB Serial Example Master.vi
				Init abox Slave mastr RW01
				register mänag

3. Double-click the icon to open it

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4. Set the baud rate of "MB Serial Init.vi" corresponding with baud rate of Modbus Slave.



5. Modify "MB Serial Example Query.vi" in frame0 ~ frame3: Set "False" to "Use Modbus Data Unit?" and "NetID" of Slave to "Slave Address".



# 6. Select COM port

VIDATE	source name				
ľ%	•	Ĩ			
COM COM LPT1	11 12 5 write	slave -			
J.					
0	0	<b>.</b>		0	
— Slave F	Read-only Re	gisters -			
Slave [	Discrete Inpu	lts			
		ers (Reac	Only)		
Slave I	input Registe				

7. Run the VI.