How to set-up communication between LabVIEW and a RS232 device connected to an Agilent Technologies E5810 LAN/GPIB Gateway

1) Make sure that no Agilent I/O Library is installed. If it is installed, remove it: Agilent I/O Library Suite needs to be installed as "secondary VISA library". (See Documentation "side-by-side installation").

2) Install NI-VISA

Info at <u>http://www.ni.com/visa/</u> Download at <u>http://joule.ni.com/nidu/cds/fn/p/sn/n23:3.1637/lang/en</u>

3) Install Agilent I/O Library Suite as "secondary VISA library" (<u>Note:</u> I experienced troubles with Agilent I/O Library Suite 14.2 for which step 5 does not seem to work. Thus, I moved to 15.0.)



-) Clear "Install Agilent VISA as primary VISA"

	Agilant TO Librarias Suito 15.0 - InstallShield Wizard	
Agilent IO Libraries Suite 15.0 - InstallShield Wizard	Agricite to cloraries successore instalisment wizard	
Install Agilent VISA	Select Features Select the features setup will install.	
National Instruments's VISA is currently installed in the standard VISA directory as the primary VISA. For more information, see the Agilent ID Libraries Suite Getting Started Guide. Clear the check box to keep the other vendor's VISA as the primary VISA, and install Agilent VISA in side-by-side mode. Select the check box to replace the other vendor's VISA with Agilent VISA as the primary VISA, and rename the other vendor's VISA to visa32 dll bak.	Select the features you want to install, and deselect the features you do r Carl Agilent ID Libraries Suite Agilent VISA as primary VISA Manuals Sample Programs Sample Programs	ot want to install. . COM, SICL, , and the Agilent IO ite, together with a rivers for forms of IO used with Agilent
InstallStrield	81.89 MB of space required on the C drive 3961.39 MB of space available on the C drive InstallShield	
< <u>Back</u> <u>N</u> ext> <u>Cancel</u>	< Back Next	> Cancel

-) Complete installation

4) Open NI's Measurement and Automation Explorer (MAX) -) Go to Tools → NI-VISA → VISA Options

<u> E</u> dit <u>Y</u> iew <u>T</u> o	ols Help							
Configurati	Install legacy driver support National Instruments Product Updates NI Registration <u>W</u> izard <u>R</u> T Disk Utilities			🖉 Show He				
Data N			Natio	National Instruments				
	NI-DAQm <u>x</u> Configuration	•	Picas	di ciliciti di Adtolliditoli Explorei				
	NI-VIS <u>A</u>		MISA Interactive Control	accurament & Automation Explorer?				
H- Correction (Soft Front Panels		VISA Options	easurement & Automation Explorer? ent & Automation Explorer (MAX) provides access to your instruments products.				
	User Preferences		National Ins					
_			What do	you want to do?				

-) in General Settings \rightarrow Passports: Check "NiVisaTulip.dll", save and exit MAX (maybe even reboot system)



5) Open Agilent Connection Expert (which is part of the secondary VISA library)
 -) Go to Tools → Options



-) in Agilent 488 Options: Check "Enable Agilent GPIB cards for 488 programs"

agilent Connection Expert Options	×				
Agilent VISA Options Configuration Settings Agilent 488 Options					
Enable Agilent GPIB cards					
Enabling this option allows Agilent GPIB cards to work in NI- 488.2-compatible programs.					
This can cause valid or unwarranted error messages from National Instruments software.					
More Information					
Enable Agilent GPIB cards for 488 programs					
Do not show Agilent 488 status messages					
OK Cancel Help					

-) LabVIEW is now able to connect to any device configured in the Agilent Connection Expert

Example:

Add instrument to Agilent Connection Expert for an instrument which is connected to the RS232 port at Agilent Technologies E5810 LAN/GPIB Gateway

- open Agilent Connection Expert
 Add Interface

Interface						
💽 Agilent Conn	ection Expert					
<u>File E</u> dit <u>V</u> iew	I/O Configuration I	ools <u>H</u> elp				
🍣 Refresh All	්රී Undo	Properties	😰 Interactive IO	2	Add Instrument 📑 Add Interface 🌖	🗙 Delete
Task Guide X Instrument I/O on this PC			System Name - TITAN9			
		1			The instrument t/O sustain and	tealled by this po

3) Add "Remote RS-232 (via E5810 or Remote IO Server)"



4) Set "Hostname" (here:gpib13.triumf.ca) and "Interface name on remote host"(here: COM2)

Remote R5-232 Serial Interface - Remote COM						
Set comparable prop	erdes for dills remote K3-232 senarinterface					
VISA interface ID:	ASRL2					
TCPIP interface ID:	ТСРІРО					
	ation					
Find Interfaces.						
Hostname:	gpib13.triumf.ca					
O IP address:						
Interface name on remote host: COM2						
Test connection						
	OK Cancel Help					
		//				

5) The instrument is now listed in "Instrument I/O on this computer" as "Remote COM (ASRL2)"



and can be accessed directly in LabVIEW as ASRL2::INSTR

KASRL2::INSTR	Ŧ	
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