## Install Windmill serial communication:

Name 🔺	
indmill	

Get the windmill zip file, from http://www.windmill.co.uk/, and extract it



SETUP.EXE Use default settings during install for best result.

Setup Complete		$\times$
Secur complete	Setup has finished copying files to your computer. Setup will now launch the program. Select your option below.	
	< <u>B</u> ack. <b>Finish</b>	-

Installation is now complete

## Configure windmill serial instrument handler

Confini Under start menu->programs->windmill Start configure IML driver

Configure IML Hardware	×
Hardware <u>D</u> evice	Save
	Cancel
	S <u>e</u> ttings
	<u>C</u> omms
Description	Add
	<u>R</u> emove
	<u>H</u> elp
ConfIML P 2.1 Release 1 - Serial Number 10895	
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If anything is present and not needed, remove it by selecting the line, and click Remove button. Now, click Add

Add IML Hardware		×
Available Hardware		
Software Signal Generator LabIML RS232 ASCII Instrument handler - User defined	Add Cancel	

Choose "LabIML RS232...." And click Add

New LabIML Instrument	×
Define a new instrument by entering the name, number of channels and description. Or select an existing instrument from the drop down list.	ОК
Instrument name: SYLVAC  Channels: 1	Lancel
	Help
SYLVAC	

Name the instrument used and set to 1 channel and click OK

SYLVAC - Settings	×
Reading Protocol <u>Request/Response</u> - On demand Request/Response - <u>B</u> ackground Request/Response - Multi Channel Request/Response - Multi - Background Continuous <u>F</u> low	OK Cancel <u>H</u> elp <u>C</u> hannels
<u>T</u> imeout (mSecs): 1000 <u>I</u> nstrument idle time (mSecs): 0 Returned <u>M</u> essage length: 10 Instrument Initialisation <u>S</u> tring:	N <u>o</u> n-printable Insert <u>D</u> elay
Description The maximum size of any reply received from	the instrument.

Request on demand Returnlength=10 or more characters (or bytes)

Click "Channels..."

SYLVAC - Channel set	tings		×		
Select each <u>C</u> han	Select each <u>C</u> hannel in turn so it may be configured: 0				
Channel <u>a</u> ttributes – © Read channel © Write channel © Dummy channel	<u>M</u> aximum val Mi <u>n</u> imum val En <u>q</u> . Units:	ue: 55 Co ue: 0 Pa mm Pa	DFY Cancel <u>H</u> elp		
Initialisation string:					
P <u>r</u> ompt string: x					
Reply <u>P</u> arse string: 🚺	I"+"\E"\C013"				
Ac <u>k</u> nowledge string:					
		(			
Non-printable	<u>S</u> tring search	Ignore until char	Extract <u>U</u> ntil char		
Insert <u>D</u> elay	Insert <u>V</u> alue	Ignor <u>e</u> next n	Extract next n		
Description This sequence of characters tells LabIML how to extract a reading from the characters received from the instrument. Data will be parsed as follows: Ignore until + Extract until <cr></cr>					

## Channel = Read

Max = Optional. This does not impose any limits on the data, it is just a guide for chart scaling etc. Units = Whatever is sent by your gauge.

Prompt=x (command to send to get a value. Could be anything)

Reply Parse = I''+''E''C013'' (ignore everything until a + sign then extract everything up to the carriage return)

Click ok to finish Channel settings

And OK to finish Settings and you are sent to com port settings

SYLVAC - S	erial commun	ications protoc	ol 🗙	
Com Port	Baud rate 4800 💌	Data bits Parity 7 💌 Even	Flow control       None	
	ОК	Cancel	Help	

Choose the right com port where the Sylvac meter is connected. The com port number may be different on other PCs Setup the setting as above. These are used by the meter. Click OK

Now Click Save on Configure Window.

ConfIML	×
1	If you have been running any IML applications during this Windows session you must now restart Windows

If you have been running Windmill programs and made changes, you must close the programs and any IML icons on the taskbar. There is no need to restart Windows

## Setup hardware settings

Under start menu->programs->windmill Start Setup IML driver

Dpen Setup	×
Load setup file from disk Create new setup	
croute new source	
	_
OK Cance	I

Choose Create new Setup Click OK

SetupIML - Create new setup	×
<u>Name:</u> SYLVAC (max 8 letters and/or numbers)	
Description: Sylvac	
OK Cancel	

Choose a name for hardware setup Click OK

MT SetupIML			IX	
<u>File D</u> evice <u>M</u> ode D	escription <u>H</u> elp			
Device 0 : type La	abIML	Mode : Configuring Channels		
Setup SYLVAC : S	Sylvac			
00 Sylvac				
00000				
			<b>–</b>	
•	1		•	
Device 0 Module 00 Channel 00 (Included)				

Double click on the channel (00000)

Device 0 Module 0 Channel 0	×
Channel <u>N</u> ame: read <u>M</u> easurement / Transducer:	Usage Enable for <u>I</u> nput Enable for Output
Analogue 💌	Engineering Units
Input <u>R</u> ange / Mode:	<u>U</u> nits: mm
V	<u>S</u> cale: 1
Low-pass <u>F</u> ilter	Offset: 0
Settling <u>T</u> ime: mS	Max: 55 mm Min: 0 mm
<u>A</u> larms	
S <u>p</u> ecial <u>D</u> efault	OK Cancel <u>H</u> elp

Rename channel to Read Click OK

🎆 Setup IM	-			
File Device	<u>M</u> ode	D <u>e</u> scription	Help	
<u>O</u> pen <u>S</u> ave	)e L	_abIML		Mode :
Save <u>a</u> s Close		Sylvac		
E <u>×</u> it				
		_		
read				

Mneu: file->save as..

Save the setting as "SYLVAC.IMS" (default) And close Setup window

# Setup Logging.



Under start menu->programs->windmill Start Logger driver

🊈 Windmill Logger								
Eile	Inputs	Settings	<u>D</u> ataFile	<u>H</u> elp				
Dat	a File:	.wi		<u>S</u> tart	Stop	Pause	<u>R</u> esume	
T 10:	ime 50:15							
Sto	oped		C:/	WINDMILL		Interval:	1.00 seconds	

¥= ¥	/indmill	Logger		
File	Inputs	Settings	<u>D</u> ataFile	<u>H</u> elp
Lo	oad <u>H</u> ardv	vare Setup	)	<u>S</u> tar
5	ave Loggi	er Setup		
R	estore Lo	gger Setup	o	
D	DE			
E	≤it			

Load hardware setup

Load Hardware Setup		×
File <u>N</u> ame: sylvac.ims DEMO1.IMS SYLVAC.IMS	Directories: c:\windmill Compared c:\ Compared WINDMILL	OK Cancel Network
List Files of <u>T</u> ype: Hardware Setup (*.IMS) <b>v</b>	Dri <u>v</u> es: c:	Loaded <u>S</u> etups

Choose SYLVAC.IMS			
Channel Connections			×
Avail	able channels in Setup : SY	LVAC	
	Sylvac		
<u>Unconnected Channels</u> read	<u>Connect&gt;</u> < <u>D</u> isconnect Connect <u>A</u> ll	C <u>o</u> nnected Channels	
OK Select read and Connect		Cancel	



Windmill Logger Settings X Interval OK Read inputs every 0.2 Seconds • Cancel <u>T</u>ime stamps: Seconds and hundredths since start -<u>H</u>elp Options ☑ Display data on screen Display digital data as text ✓ Indicate empty scans Column Width 12 Characters • Logger Title : Windmill Logger

On menu line : settings

Set the values. Note, 0.2 secs is the fastest Windmill can go with RS232 instruments.

Data File Settings	X
✓ Log data to file	OK
File <u>n</u> ame <u>D</u> irectory	Cancel
data.wl     c:\windmill       []	<u>H</u> elp
File <u>Type</u> : Commas, separate heading file	
Periodically open new log file         Settings	

On menu line : settings

For best performance, uncheck logging to screen and log only to file