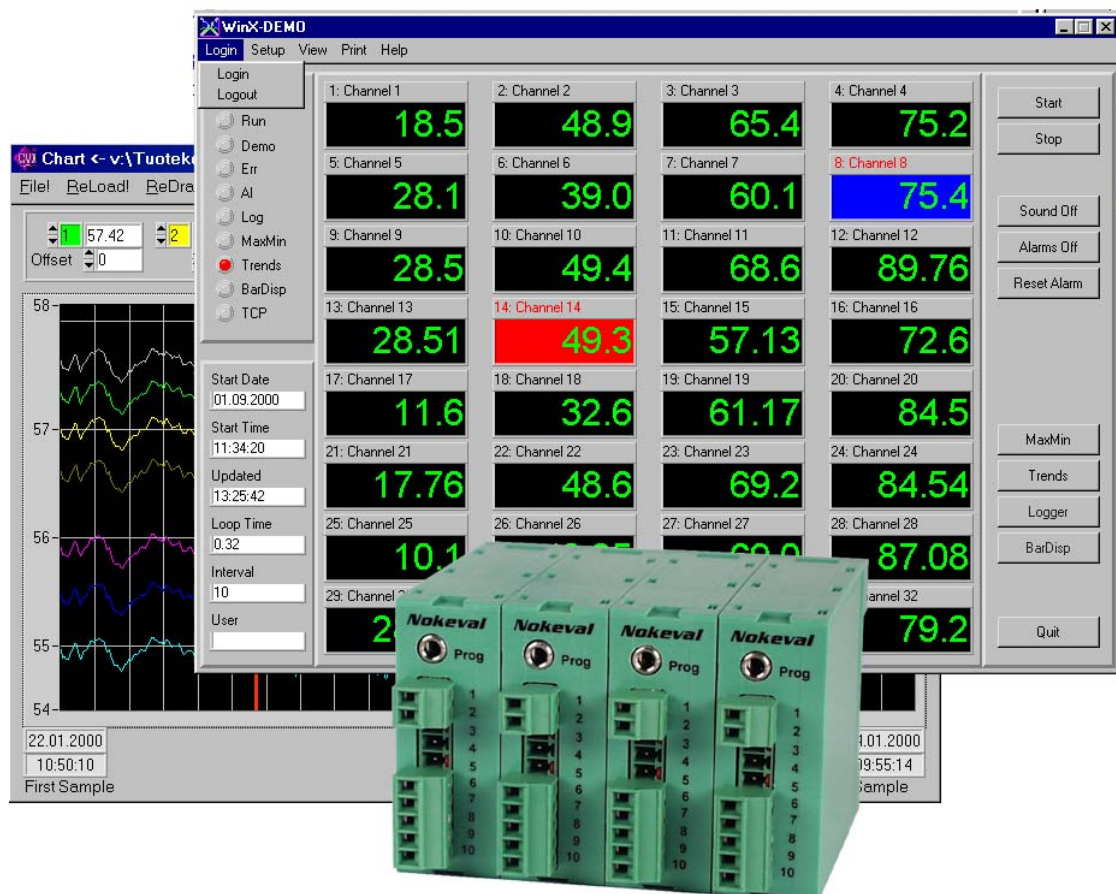


# WinX - versatile Data Acquisition Systems

- 8...96 input channels per serial port
- Four serial ports
- Four opened softwares accepting 384 channels
- Large digital displays
- Saved data file in ASCII-format for spreadsheet and text-file compatible
- Using eight loggers at the same time
- Trend recording
- Bar displays
- Low and high alarms for every channel
- Transmitting 16 alarms to external I/O-units
- Sound card option for alarms
- Min and max memory on each channel
- Redrawing from data files
- Accepts different types of devices on one bus
- One Data Acquisition Software for all our devices
- Sending inputs/alarms to GSM-mobile phones
- Reading data from other WinX via network/Intranet
- Starting and stopping loggers based on input limits
- Windows 95/98, NT/2000 operating systems

WinX is a comprehensive and versatile data acquisition system designed for measuring and controlling needs in industry. The use of the program is simple and does not require any special training of its users. Transmitters with serial ports are simply connected to serial port of PC and WinX has to be informed which devices to read. The most important feature of the program is saving and processing of information for various needs of the industry. Eight separate loggers make it possible to save following information of data: start time of work, device name or position, work phase, work number, worker name and channel numbers of that work. Loggers can be started or stopped by using logical functions on three channels - accepting only important process happenings for savings.

WinX can easily be extended from 8 to 96 channels without new installation of the program. Several alternative transmitters are available for collecting data. Measuring data can be collected from other WinX programs with modem via telenet or internet. Alarms and measuring data can be transferred to GSM-phones as text messages.



# How to save data to files

Measuring data is saved as text-files (ASCII) for later viewing and can be read by the most common data spreadsheet softwares e.g. Excel, Lotus, Word etc. Eight logger functions can be in operation simultaneously from freely selectable channels. Channels for each logger can be chosen from every incoming channel. This function is very handy when saving customer works or when timed savings are done. Starting, interrupting or stopping of logger is selectable by different trigger functions or only by timing. Saving interval, amount etc. settings are given separately to each logger. When the file is full, a new file is started added with a new file number.

User's setting window

Log	Name	Job name	Job ID	Worker	File Status	Start/Stop
1	Firma Oy	Exilla	TAB/3007	Päätalo	<input type="checkbox"/>	On
2	Firma Ky	Palomuuuri	PAL200	Jussilainen	<input type="checkbox"/>	On
3	Puulaaki	Puusouvi	PUL/AB	Mies ja Kirves	<input type="checkbox"/>	Off
4					<input type="checkbox"/>	Off
5	Tiistai	13.3.2001			<input type="checkbox"/>	On
6	Viikko 10	2001			<input type="checkbox"/>	ON
7	Viikko 11	2001	Viikkotalletus		<input type="checkbox"/>	On
8	Maaliskuu	2001	Kaikki työt		<input type="checkbox"/>	On

All loggers have their own setting window

Bar display of saving stage

All loggers start and stop separately

## Logger settings

**Logger 2 Settings**

- Path: c:/Nokeval/WinX/logger
- File Name: Firma12001.txt
- First file number: 12001
- Log period per sec: 60 sek
- Sample / file: 3600 näyttettä
- Start Control:  Direct,  Trigger,  Timer
- Stop Control:  Direct,  Trigger,  Timer
- Pause:  Timer
- Start Condition: Ch 1: Under 200.0
- Stop Condition: Ch 1: over 350.0
- Pause Condition: Ch 3: over 250.0 and Ch 5: under 145.0 or Ch 12: over 200.0
- Channels: Uuni 1, Uuni 2, Pinnankorkeus, Yläpaine, Alapaine, Öljyn lämpötila

You can select how and when savings happen; continue or using trigger functions or timer

Saving name, starting number, how many rows to be saved and time interval for saving are set to each logger.

Starting, stopping or pause are adjusted logger by logger in a separate setting window for conditions.

Saving channels are selected separately to each logger. Same channel can be simultaneously in many loggers.

## Saving as text-file

Each logger saves its own file, which can be read by the most common data spreadsheet softwares such as Excel or Word. Measuring data is saved in order date, time, channel 1, channel 2 etc.

### When file is full

When the file is full, WinX starts a new file by raising the file serial number by one. Saving interval and the number of rows are defined in the configuration menu.

## All loggers have their own data file

1 Firma Oy, Exilla, TAB 3007, Päätalo					
Date	Time	Uuni 2	Uuni 3	Sammio	Säliö 3
27.10.2000	08:37:39	428,7	429,2	5002,0	129,3
27.10.2000	08:37:49	428,8	429,0	5001,3	129,3
27.10.2000	08:37:59	428,5	428,5	5002,6	129,2
27.10.2000	08:38:09	428,4	428,4	5002,1	129,3
27.10.2000	08:38:19	428,5	428,6	5001,3	129,4
27.10.2000	08:38:29	428,9	429,1	5002,0	129,4

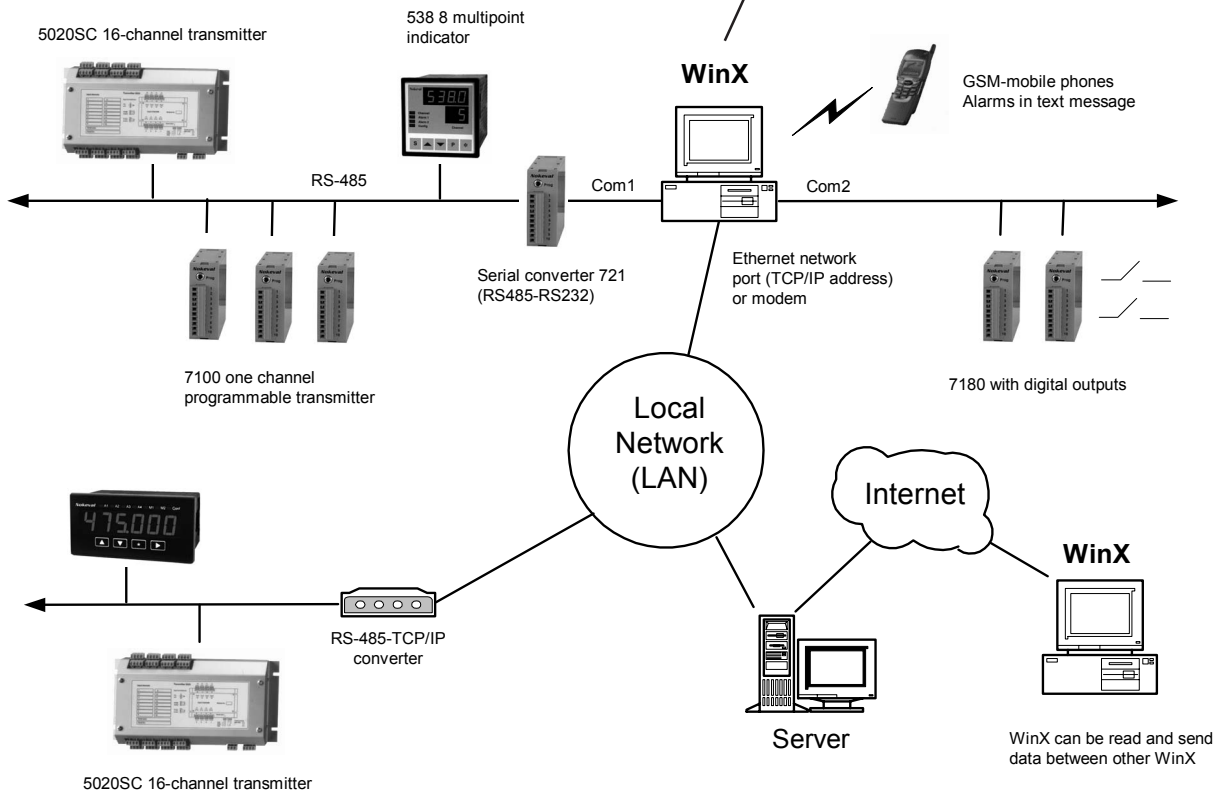
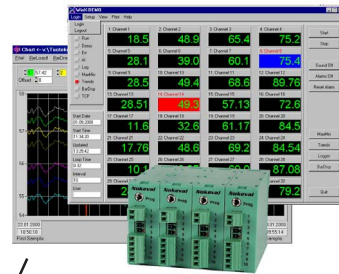
# WinX Data Acquisition System

WinX can read data from other WinX programs or transmitters via serial port with TCP/IP address in local network or Internet. Alarms can be transferred as text messages to GSM-mobile phones by using a M20 GSM-modem or to external I/O-units (7180).

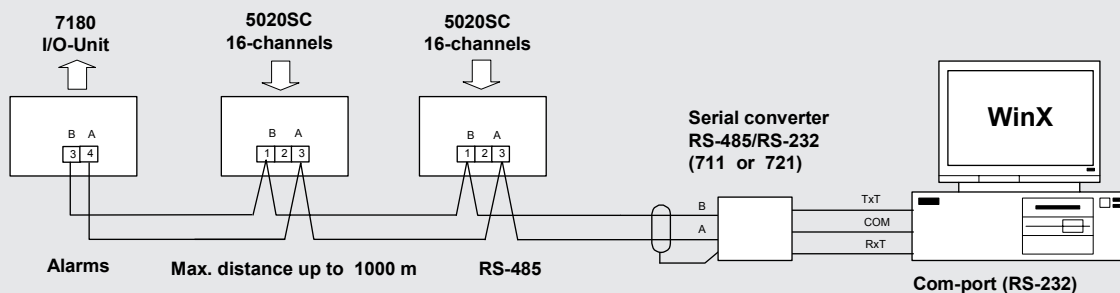
The basic version has only one WinX-program for connecting the transmitters through serial port. By using serial bus RS-485 up to 31 devices can be connected to same serial bus. One device can be connected using only the RS-232 if the distance is not over 10 m. The RS-485 connection always has to be used by longer distances.

The WinX supports four serial ports allowing four independent WinX to run at same time in one PC. 4 x 96 channels = max. 384

## WinX



## Typical connections with serial bus RS-485



## GENERAL DESCRIPTION

WinX is delivered with 8...96 channels, at intervals of 8 channels. Four independent WinX softwares can be opened at the same time accepting 384 channels (4 x 96). In main window you have large digital displays for all channels, height of the numbers is smaller with a large number of channels. Individual names, alarms and message-windows for users can be set for channels. Transmitters are scaled to chosen units which WinX simply reads. The program has the correction possibility of measuring data (offset, multiplier). Min and max values are saved from each channel. Main window has large buttons which open other operative windows. They are very easy to use.

## SAVING EVENTS

Measuring data is saved as text-files (ASCII) and can be read by the most common data spreadsheet softwares as Excel (or Word). Max. capacity in one file is 100.000 rows. When the file is full, creating a new file will start automatically added with one file number. Path, name, total number of rows, starting number, number of samples and time intervals can be adjusted. All input channels are written in one row one after another separated with dot and space. Logging file can be stopped and ended using logical functions between three channels.

## ALARMS

Low and high alarm for each channel. Background colour of display turns blue or red at alarm. Alarms can be sent to sound card or external I/O-units (7180). In addition alarms can be sent as text messages to several GSM-mobile phones. Reset of alarms can be made manually, automatically or by GSM-phone. Use of GSM-option requires a M20 GSM-modem. Alarm events are saved to their own log-file.

## TRENDS

Trends are displayed in two four-channel windows. Channel order in window can be freely chosen e.g. channels 2,4,12,56. Digital displays from each trend. Trend window can be printed as view. X and Y –axes are freely adjustable.

## BAR DISPLAY GROUPS

You can set 16 bars per window. Adjacent channels can be selected freely as well as scaling so that important channels are easy to read. Bar displays can be printed as view.

## REDRAWING FROM FILE

Logged data can be redrawn in groups of eight channels. All trends can be shifted on Y-axes so important happenings can be seen at one glance. However, redrawing is limited to 500 samples. You can print one trend channel or all as view.

## LOCAL NETWORK AND INTERNET

WinX can read data from other WinX programs or transmitters with TCP/IP address in local network or Internet. The modem connection is also available. Maximum number of TCP/IP addresses is four. WinX can send or read measuring values between other WinX softwares.

## LIMITATIONS FOR USERS

Individual user rights can be defined for the program by means of passwords. The password at the start of the program defines the user's rights.

## READING OF MEASURING DATA FROM TRANSMITTERS

WinX is designed to collect measuring data from relatively slow process e.g. temperatures. Smallest adjustable time interval is 1 second for reading data from all transmitters. With

large number of channels you must consider whether the data can be transferred by selected baudrate within one second.

## ENLARGING OF FEATURES

WinX can be easily enlarged. Additional features or adding of channels is made by filling a form in Licence-window. The form can be sent to the seller or direct to Nokeval. We will deliver a new code key according to order to enable immediate use of new features.

## CONNECTING TRANSMITTERS TO SERIAL-PORTS

Transmitters are connected to serial port by 3-wire cable, max. four ports. One Serial port RS-232 accepts only one device with distance under 10 m. A more reliable connection is serial bus RS-485 that accepts up to 31 devices to same serial bus. Using serial converter RS-485/RS-232, model 711 or 721, you can place devices at distance up to 1 km. The models 711 and 721 have two RS-485 bus which accept 2 x 31 devices.

## TRANSMITTERS

WinX accepts different kind of devices as 7100, 5020SC, 2000 series, 538 and 440 as well as other devices which are using Nokeval SLC-protocol. WinX is not configuration software for transmitters and indicators. Most 1-4 channel transmitters can be configured by general MekuWin software.

## REQUIREMENTS FOR PC

Computer recommendation is minimum Pentium 90 MHz, 64 Mb RAM, CD-ROM, Parallell port, COM-port (RS-232) and min. 10 Mb on hard disk. The WinX is delivered in CD-Rom, size of software is 6 Mb.

# How to order

## Type WinX-16-EXP-GSM-NET

Channel number can be freely selected at intervals of 8 channels e.g. 8, 16, 24 etc. Max. 96. channels. The number of channels is added after the type and then the options. The above order example: 16 channels with the options.

### Options:

- LT** Limited version is delivered without trigger functions: starting, stopping and pausing of loggers by alarms (e.g. WinX-8-LT).
- EXP** Alarms (max. 16) to external 7180 I/O-units. Two alarms can be set for all the channels, but only 16 can be sent to external I/O-units.
- NET** Network functions. WinX (max. 4) can read data from other WinX software connecting with TCP/IP address in local network or Internet.
- GSM** Alarms to GSM-mobile phones. Alarms or measuring data can be sent to GSM-mobile phones. The use requires an external GSM-modem (to com port) , type Siemens M20.