

Factory Wizard - Plant Monitoring Systems

The Streat Instruments Factory Wizard system can be as simple as a PC Based Chart Recorder or built into a full Plant Monitoring and Control System.

Factory Wizard - PC Chart Recorder

Conventional Chart Recorders have been used extensively to record and trend plant variables. These conventional Chart Recorders generally have a limited number of inputs (typically up to four) and are becoming increasingly expensive compared to new technology

The new Factory Wizard PC Chart Recorder system offered by Streat Instruments offers significant benefits including:

- S Multiple inputs mean many plant variables can be recorded and trended (base unit has 16 analog inputs and this can be increased in blocks of 16 up to several thousand inputs)
- S Real time line graphs (trends) and data screens on PC
- S Different screens can be assigned to separate groups of inputs (eg. in different areas of the plant)
- S Batch and continuous recording
- S Batch reporting
- S All data stored to disk
- S Data can be recalled for historical analysis and tracking
- S Total time run and downtime reporting
- S Hard copy to printer as required
- S Alarm and event handling
- S Multi level passwords for security
- S User log on audit
- S Easily expandable to allow more inputs or to upgrade to a full SCADA system.

Configuration

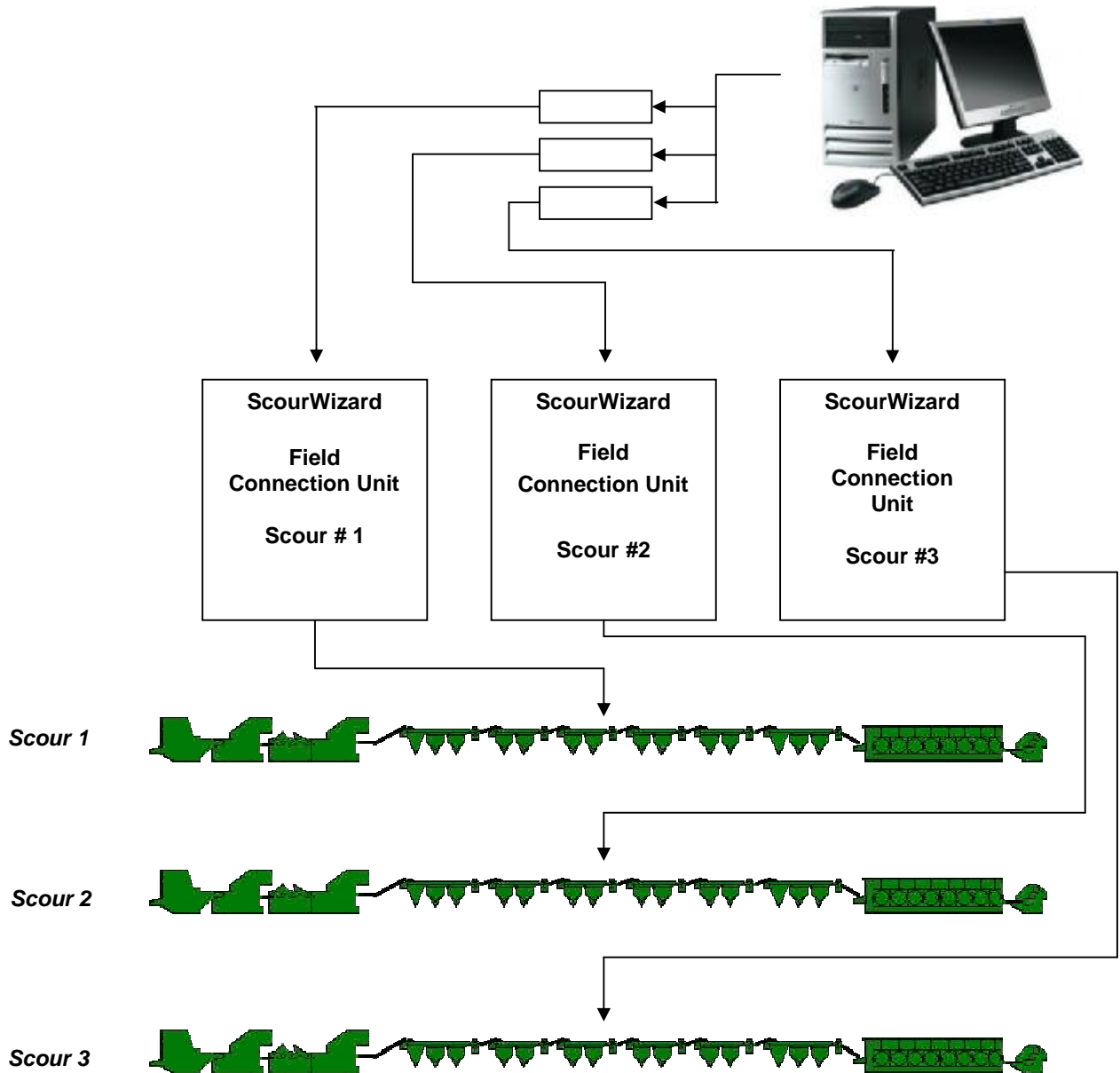
As the system is incredibly flexible it can be configured in many different ways depending on the clients requirements.

Two popular variants of the Factory Wizard system are:

- S **ScourWizard**
ScourWizard has been designed to provide a reliable, cost effective and easily serviceable Process Monitoring & Control System for existing wool scouring plants.
- S **MillWizard**
This system has been a joint development between Streat Instruments and their sister company Garnett Controls to provide a monitoring and reporting system to provide mill management with accurate production and processing information.

ScourWizard

ScourWizard has been designed to provide a reliable, cost effective and easily serviceable Process Monitoring & Control System for existing wool scouring plants.



ScourWizard Benefits include:

- S Increased Productivity**
ScourWizard allows the User to configure his plant for optimised processing. Simple recipe selection and automated control ensures maximum productivity.
- S Improved Product Quality**
ScourWizard allows the User to set critical plant control parameters to ensure optimum product quality and throughput.
- S Recipe Control**
ScourWizard recipes are used to enable the plant to be set up consistently for each type of wool, customers requirements etc. ScourWizard recipe selection is as simple as a mouse click – this keeps setup time between batches to a minimum, further improving productivity.
- S Chemical Savings**
ScourWizard can provide significant savings in chemical usage as the detergent and soda ash (and other chemicals) are accurately metered according to the flow of product over the weighbelt.
- S Energy Savings**
ScourWizard can provide significant energy savings – especially in the dryer which is the most energy intensive part of the scouring operation.
The Streat Instruments DRYCOM Moisture Control System is integrated into the ScourWizard system and ensures the scoured wool is at the correct regain thus providing considerable energy savings.
- S Process Information**
ScourWizard automatically records all process variables, plant setup parameters etc and provides detailed quality assurance, production and management reports.
All vital process information can be recalled at any time to provide full traceability.
- S Reduced down-time**
Continuous monitoring allows items of plant that are causing stoppages and delays to be identified and remedial action taken.
- S Improved control**
Automatic monitoring and control (with easily configurable control routines) ensures optimum process control.
- S Ease of Operation**
All ScourWizard operator displays and controls are standardised to allow operators to easily adapt to using the system.
- S Improved efficiency**
- S Ease of installation and commissioning**
The ScourWizard system has been designed to allow simple installation and configuration. Competent electricians or technicians who have been trained on the system can carry out future support and upgrades.
- S Ensured accuracy of data collected by the system**
- S Automatic collection of detailed plant performance data**

ScourWizard - Batch Report**Scour 2**

Batch Name	22223/A	Total Time	4303 minutes
Recipe	XYZ1	Downtime	603 minutes
Type	44/60FNF	% Downtime	14.01 %
Created	Sep 13, 2002. 17:07		
Started	Sep 13, 2002. 17:55		
Stopped	Sep 16, 2002. 17:38		

MCS Calibration XYZ1

	Set	Avg	Min	Max	
FeedRate	1200.0	982.9	4.0	1896.1	kg/hr
Bowl 1 Temp		53.0	13.9	64.9	°C
Bowl 2 Temp		49.3	13.8	60.5	°C
Bowl 3 Temp		49.9	13.8	60.5	°C
Bowl 4 Temp		46.1	13.7	57.1	°C
Bowl 5 Temp		37.3	13.7	46.4	°C
Dryer Zone 1 Temp		59.2	20.9	105.9	°C
Dryer Zone 2 Temp		57.1	19.9	103.2	°C
Dryer Zone 3 Temp		54.1	17.6	101.9	°C
Dryer Zone 1 Output		30.1	0.0	100.0	%
Dryer Zone 2 Output		29.8	0.0	99.9	%
Dryer Regain	16.0	10.2	0.0	25.4	%
Water Flow		2.6	0.0	10.1	l/s

Total Wool 166.793 Tonnes

Total Water 2155492.810 litres

Notes:

MillWizard

The MillWizard system has been developed in conjunction with Garnett Controls, our sister company in the UK.

MillWizard has been developed in response to requests from the market. It is a flexible and inexpensive data acquisition system that collects the information you want and presents it in the format you require in order to provide you with the necessary tools to run your plant as effectively and efficiently as possible.

MillWizard offers unrivalled flexibility in the collection and reporting of real-time production information. The system is modular, thereby allowing entry-level evaluation with easy and cost-effective upgrades to incorporate additional machines, areas of plants etc.

The system accepts a wide range of inputs allowing it to collect all plant data, including:

- S Machine Running Status
- S Machine Speeds
- S Temperatures
- S Humidity
- S Product Moisture Content
- S Energy Used
- S Flow rates
- S Efficiency
- S Productivity
- S etc

MillWizard Benefits include:

- S **Unrivalled Value and Performance**
- S **Increased Productivity**
MillWizard information and reports allow the User to monitor and configure his plant for optimised processing. Bottlenecks and inefficient machines can be quickly identified.
- S **Improved Product Quality**
MillWizard allows the User to monitor critical plant parameters to ensure optimum product quality and throughput.
- S **Automatic Operation**
No Operator input required, thus ensuring accurate data is collected when it should be collected.
- S **Multiple Input Formats**
Allows collection of all vital plant and production information.
- S **Energy Savings**
Optimisation of plant operation by use of MillWizard information ensures efficient energy usage.
- S **Easily Expandable**
- S **Presentation of Data to suit application**
Easy to read reports and summaries of plant operation.
- S **Information Provided When and Where You Need It**
MillWizard information is available in the Plant or Managers office or anywhere required via a Local Area Network.

- S Information Provided in the Format You Require**
MillWizard reports are easy to understand and are designed in consultation with the customer. Shift patterns can be easily programmed, all information is provided in real engineering units, information can be printed out on demand or automatic printouts can be set up.
- S Historical Process Information**
MillWizard automatically records all process variables, plant setup parameters etc and provides detailed quality assurance, production and management reports. All vital process information can be recalled at any time to provide full traceability.
- S Data Transfer**
If required MillWizard data can be transferred to other formats or systems.
- S Ease of installation and commissioning**
The MillWizard system has been designed to allow simple installation and configuration. Competent electricians or technicians who have been trained on the system can carry out future support and upgrades.
- S Ensured accuracy of data collected by the system**
- S Automatic collection of detailed plant performance data**

Contact us and we will engineer a solution to meet your requirements.



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