SmartScan™

Advanced Monitoring Solutions

Energy Utilities

SmartScan Technologies

a division of CIMTechniques, Inc.

Monitor Multiple Sites located Anywhere on the Planet

Energy & Water Consumption in Commecial Buildings

Energy & Water Distribution Systems

Geothermal, Solar Array, and Wind Farm Operations

Wastewater Collection & Processing

Hospitals, Clinics, Laboratories, & Repositories

Operation of Remote Pumping Stations

Water Management in Lakes, Reservoirs, Rivers, Canals, Wells

Environments in Cleanroom Operations

Environments in Warehouses and Museums

Bulk Storage Facilities

Sources of Air & Water Pollution

Critical or Essential Operations

Datacenters & Remote Telecom Relay Sites

Condition of Bridges, Dams, & Critical Structures

Temperature
Humidity
AC Current/Voltage
AC Power
Power Factor
Pressure
Liquid or Gas Flow
Liquid Level
Silo Material Level
Distance
Strain/Force
Process Current
Process Voltage
Frequency
DC Voltage/Current
DC Power
Air Pressure/Velocity
Dust/Particles
Noise/Vibration
Weight/Mass
Speed/Cycles/Counts
Energy/Flow/Total
Conductivity
pH/ORP
Dissolved Oxygen
Dissolved Chlorine
Dissolved Ammonia
Suspended Solids
Turbidity
Sulfides
Hydrogen Peroxide
Fluoride
Toxic Gasses
Combustible Gases
Arsine
Bromine
Carbon Monoxide
Free Chlorine
Free Ammonia
Formaldehyde
Hydrogen
Nitric Oxide
Oxygen
Ozone
Phosphine
Phosgene
Hydrogen Chloride
Hydrogen Cyanide
Hydrogen Fluoride
Hydrogen Sulfide
Hydrogen Peroxide
and many more

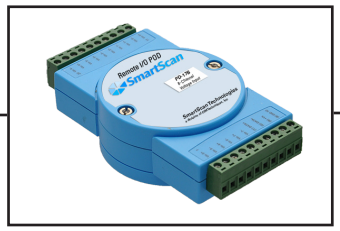
Continuously monitor just about anything with a few inexpensive components and the proper instrumentation

Alerts sent by Email, Text Message, Pager, and voice Telephone

SmartScan Server

Access from Anywhere using a simple web Browser or Smartphone App.

Analog or Pulse Input Data Aquisition Unit



INTERNET

Satellite
(in development)

Cellular

Direct Instrument Interface via Modbus

LAN

Tablet PC Alarm/Value Display

Local Alarm Indicators

Remote Device Controller

Device Controllers have the built-in ability to store at least 12,000 measurements if communication with the server is lost for any reason. Once th fault is cleared the buffered measurements are automatically uploaded as if nothing ever happened

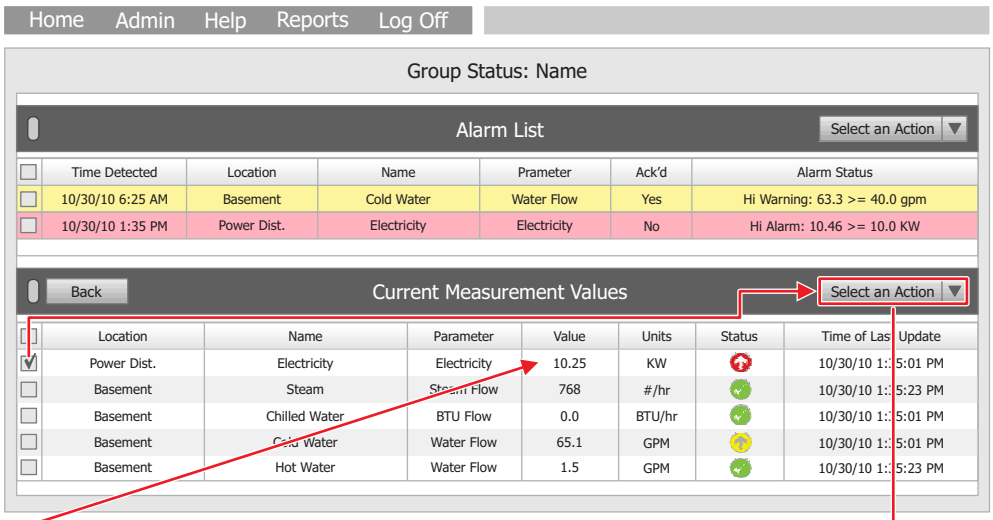
SmartScan™
Advanced Monitoring Solutions

Quickly Respond to Problems as they are Detected

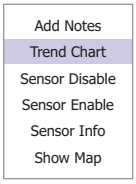
Receive an alert via Email, Text Message, or Voice Telephone.

"The current power consumption for Simpson Hall has exceed its alarm limit of 10 kilowatts."

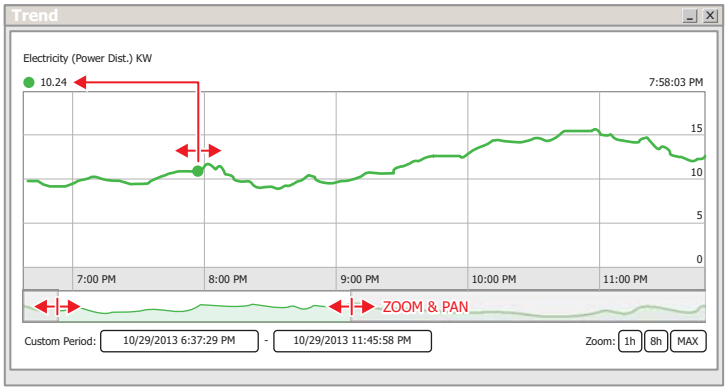
Login from anywhere using a simple web browser or your smartphone and immediately see the monitoring points that need attention.



Check the current measurement values.



Use the built-in tools to determine how to best react to the situation.



Need to know more?

Click on the "Reports" menu and select the "Statistics Detail" Report.

1. Select a Group of Monitoring Points
2. Select the Time Granularity: by Hour, Day Week, or Month
3. Select/Specify the Start and End of the Reporting Period
4. Click on "Submit" for the Report

Consumption Report for Simpson Hall

From 10/23/10 12:00 AM to 10/30/10 12:00 AM 1

Summary 2 | Chart | Detail

Summary over the Reporting Period								
Name	Average		Maximum		Minimum		Total	
Electricity 5	8.1	KW	10.2	10/29 08:36:21 AM	2.6	10/24 06:45:22 PM	1,356	KWH
Steam		#/hr						Lbs
Chilled Water		BTU/hr						KBTU
Cold Water		GPM						Gal
Hot Water		GPM						Gal

Printed on 10/30/10 11:56 AM

Printed By WGP

Print 3 **Export** 4

1. The Consumption Report will be displayed on a new page with the name of the group shown at the top and the reporting period shown below it.
2. The "Summary" tab will be selected when the report is first displayed. The contents of the spreadsheet under the Summary tab will contain the statistics for each monitoring point selected. The Average, Maximum, and Minimum apply to the rate and are calculated over the reporting period. The Total column contains the total consumption over the reporting period.
3. Clicking on the "Print" button will allow the report to be printed to a local printer.
4. Clicking on the "Export" button will allow the user to export the contents of the grid to a CSV file which can be read by Microsoft Excel or virtually any other spreadsheet or data analysis package. The user can also export the data to a DOC file (Word), HTML file, or as a TXT file (plain text).
5. Click on a row such as "Electricity" in the example and then on the detail tab to display the detailed measurement information by Hour, Day, Week, or Month for the reporting period.

Consumption Report for Simpson Hall

From 10/23/10 12:00 AM to 10/30/10 12:00 AM

Summary | Chart 8 | **Detail** 5

Summary for Electricity						
Day	Avg (KW)	Maximum (KW)		Minimum (KW)		Total (KWH)
10/23/10 Sat	8.0	9.2	10:14:50 AM	6.1		192
10/24/10 Sun	8.5	8.5	03:12:00 PM	2.6	06:45:22 PM	205
10/25/10 Mon	7.9	8.1	06:12:09 AM	5.3		189
10/26/10 Tue	9.7	9.9	07:01:32 PM	8.5		232
10/27/10 Wed	6.7	7.0	10:10:08 AM	5.7		160
10/28/10 Thu	7.8	7.9	02:00:54 AM	6.6		188
10/29/10 Fri	9.9	10.2	08:36:21 AM	8.1		190

Printed on 10/30/10 11:56 AM

Printed By WGP

Print 7 **Export**

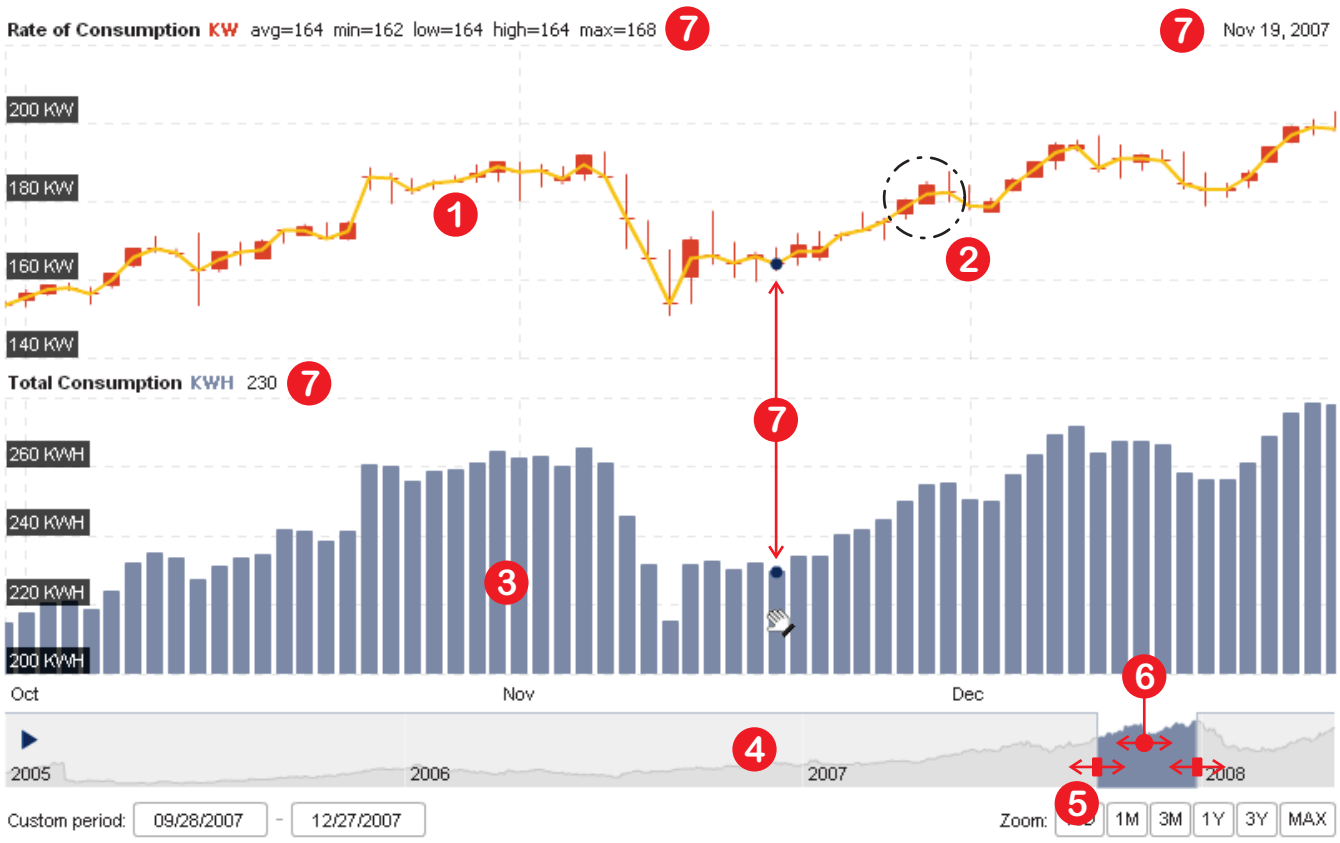
6. The units of measure for each column are contained in the heading.
7. Clicking on the "Print" and "Export" buttons function the same as they do for the Summary tab.
8. Click on the "Chart" tab to display a trend chart containing the information in the spreadsheet under the Detail tab.

Consumption Report for Simpson Hall

From 10/23/10 12:00 AM to 10/30/10 12:00 AM

Summary | **Chart** | Detail

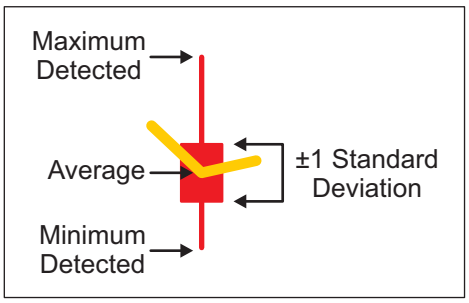
Electricity



Printed on 10/30/10 11:56 AM

Printed By WGP

Print **Export** 8



1. The average rate of consumption is plotted in yellow on the upper trace. The minimum and maximum detected during the day (in this case) is shown as a vertical line.
2. Statistics are gathered by the hour, so a day would have 24 samples. The solid box in the middle shows the variation of these measurements as one standard deviation (31% of the samples) on either side of the average.
3. The total consumption is shown on the lower chart.
4. The chart at the very bottom is the "Pilot" chart and contains all the data from the period selected (the dataset).
5. You can ZOOM the chart over the dataset by dragging the handles on either side of the window into the pilot chart. You can also click on the zoom buttons at the bottom of the chart to select a predefined period.
6. You can PAN the chart by "grabbing" the center of the pilot chart window and dragging it left or right with your mouse.
7. You can "hover" your mouse cursor over either chart to display a small dot over the plotted values. The numeric values of the points will be displayed on the chart headings. The date (and time) that the data was collected will be displayed on the top right side of the upper chart.
8. Clicking on the "Export" button will copy the chart to the local machine's clipboard as a bitmap.

SmartScan's Unrivaled Capabilities

- Completely web-based and accessible from anywhere
- Can be hosted on your computer or one of our servers in "the Cloud"
- Easily handles thousands of monitoring points & hundreds of users
- Remote monitoring wherever a LAN/Internet/Cellular connection exists
- Cloud-Based Systems require absolutely No IT Department Involvement
- Built around a secure SQL Database
- Organized by Departments containing Groups of monitoring points
- Time recorded in GMT and automatically displayed in local time
- Alerts delivered via email, text message, pager, and voice telephone
- Access under strict ID/Password control
- Minimum Password Complexity can be defined
- User Activities limited by Configurable Roles
- User Maintenance handled by supervisor level Group Administrators
- Passwords can be set to Automatically Expire
- All System Settings Changes recorded in an Audit Trail
- Warning and Action Limits for alarm detection
- Supports any Units of Measure with free movement between them
- Alarm List contains monitoring points that need attention
- Alerts can be Acknowledged with an Assignable Cause or Corrective Action
- User-Generated Notes can be linked to one or more monitoring points
- Interactive Trend Charts and Data Analysis Tools are included
- Graphic Displays include Alarm Indicators, Value Displays & Charts
- Accurate Hourly Statistics generated for every monitoring point
- Unlimited User-Configurable Reports
- Free Apps for Android and Apple Smartphones and Tablets
- A Fully Validated System with formal validation documents available
- Pricing model by number of monitoring points, not number of users
- Global Localization (language, number format, dates, etc.)