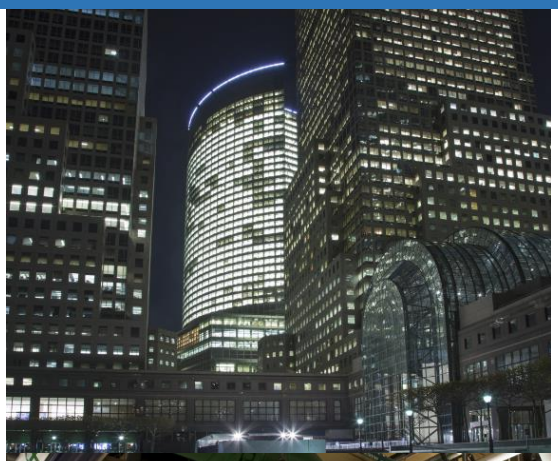
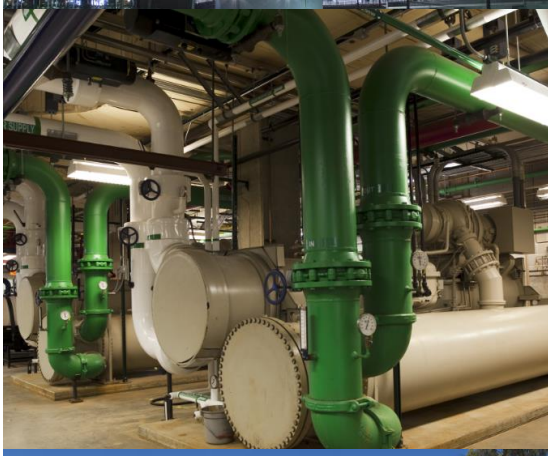
OCEAN DATA SYSTEMS

The Art of Industrial Intelligence

Dream **Report**





User Friendly & Programming Free ™

Reporting

Building Automation Systems & Facilities Management

Applications

Energy Performance of Buildings Directive (EPBD)

Equipment Monitoring

Performance & Efficiency Calculations

Security Reports

Energy Audits

Compliance Reports

Maintenance Reports

Energy Accounting

Department Billing

HVAC

LEED Rating

Green Buildings

BACnet ®

Lighting Controls

Occupancy Accounting

Smart Buildings

Building Automation Systems (BAS)

Facilities Management Systems (FMS)

Utilities Mgmt.

Asset Management

Building Management Systems (BMS)

Fire and Safety Reporting

Fuel Accounting

Carbon Emissions

Renewable Energy Accounting

Solar Energy

Wind Energy

Remote Monitoring

Web Data Access

Mobile Access

Building Automation and Facilities Management

Ocean Data Systems Ltd. has created the ideal Report Generation and Data Analysis solution for Building Automation Systems (BAS) and Facilities Management. We know - our customers have told us, guided us, and helped us perfect Dream Report for your most demanding applications.

"Dream Report is designed for the BAS/BMS market by the BAS/BMS market."

We listened to your needs and we've addressed them head on. Dream Report has all the tools required to monitor and deliver reports on your facility and equipment performance. With Dream Report installed, you'll be able to demonstrate just how smart your building can be.

Dream Report isn't a combination of business tools augmented with connectivity and automation to get by in these applications. Dream Report is a "Purpose Built" software product by a company that understands industry, your automation technologies, and your need for 24x7x365 reliability.

Dream Report is the reporting and data analysis solution, perfectly addressing the needs of this demanding vertical.

Typical Applications:

Energy Performance of Buildings Directive (EPBD) – The European Union (EU) guidelines for building performance. The Directive 2002/91/EC, first published in 2002, requires all EU countries to enhance their building regulations and introduce energy certification processes for buildings. Dream Report is purpose built to deliver the analysis and formatting of data to meet the intent of the initial Directive and that of 2010/31/EU, an enhancement.

LEED EBOM-2009 EAc3.1: Performance Measurement - Building Automation System Performance Management guidelines from the US Green Building Council. Dream Report will interface with all BAS and will format and deliver reports for performance and maintenance purposes.

Equipment Performance Monitoring – Dream Report delivers the statistics to calculate runtimes, on-times, off-times, duty-cycles and evaluate operation against other variables. Is equipment operation at expected levels for these ambient conditions or current occupancy? Dream Report will let you know.

Energy Accounting – Dream Report knows how to analyze and totalize meter data, even after rollover conditions. Dream Report is aware of fuels, BTU content and stoichiometric burning. Dream Report can calculate building efficiencies and can calculate CO_2 emissions.

Department or Tenant Reporting/Billing – The results of Dream Report data analysis and custom formatting can be delivered to any department or individual at any time and in many ways.

Equipment Maintenance – To be as cost effective as possible and reduce the possibility of downtime, equipment should be monitored, checked on a regular basis, and maintained based on duty cycle. Dream Report delivers the math, logic and analysis to generate maintenance reports and work orders for effective management.

Security Reporting and Occupancy Tracking – With access to all business systems, in addition to the basic building automation, Dream Report can deliver reports of occupants and their whereabouts.

Integrate with All Existing BAS/BMS/FMS

Unlike traditional business intelligence solutions, Dream Report understands automation data. Dream Report understands the structures that sources provide, data formats, time formats, alarm and message formats, and intelligently works with them all. It can even write the results back to your systems.

Dream Report integrates with every building automation system through the over 60 interfaces including those for proprietary interfaces, industry standards and business (IT) standards. Connectivity typically includes access to Real-time, Alarm and Historic Data.

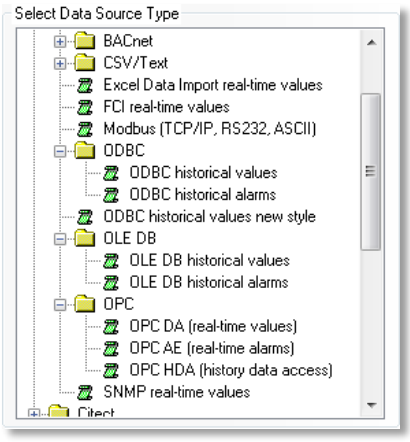
Proprietary Interfaces - Specifically built for a particular product or solution. Examples abound in Dream Report, and you can refer to our driver list for current connectivity.

Industry Standards – These include BACnet®, MODBUS and Open Protocols including OPC DA, OPC AE, and OPC HDA. These standards provide connectivity to industrial automation and BAS/BMS products and also enable the use of various other interface solutions provided by third parties. If you have a specific need, contact Ocean Data Systems for connectivity options.

Business Standards – Includes the unique ability to automatically read and import Comma Separated Variable (CSV) and Microsoft

Excel files. Dream Report also will connect to local or remote Relational Database (RDB) sources through either Open Database Connectivity (ODBC) or OLE-DB. Dream Report understands both Historic Data Logs and Alarm Message Logs.

Once data drivers are in place, Dream Report abstracts all connectivity to simple Tags, your data names, to represent that stream of information.



Open Standards Interfaces in Dream Report

Security – Important Component of the Solution

Dream Report is a safe and proven solution. It has been applied to thousands of applications around the world. Dream report has been tested and approved by NIST and is listed in their database.

NVD.NIST.GOV

Security and User Authentication:

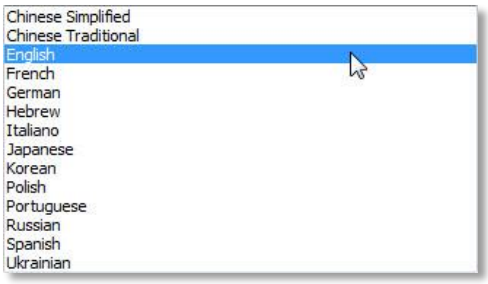
- Domain Based Security that is Role oriented – The right functionality for the logged in user. Security can be node based or Windows Active Directory based.
- Report Template Version Management - Template modifications are archived and managed. Templates may be rolled back to previous versions.
- Report Signing – Reports can be electronically routed and signed. Digital signatures are applied on-line.

Manual Data Entry

Not all data is available programmatically. Operator Logs need to be entered and properly integrated with collected data. Manual Data Entry "Selectors" enable operators and authorized users to quickly select variables and enter corresponding results, along with timestamps to match their actual collection times. Worried about getting the data entry right? Data Validation will apply bounds to variables, ensuring that a typo doesn't make it into the record. Manual Data Entry can be human audited, validated, and corrections can be submitted. Reports can be set up to only report on validated data. Data entry can also be Mobile – entered from Smart Phones.

Localization

Tools for your team, in the language that they dream in. Your reporting requirements aren't likely limited to one location. You may have buildings around the globe and your team will want to work in local languages. Dream Report supports localization, configured at the server, or defined by the user login. Standard support for over a dozen languages, switched on the fly, means Dream Report is the right solution for your diverse development team and user base.



Language Settings

Interactive Reporting

You'll want to select a template, select a building, area, or piece of equipment and generate a report. You'll want the reports to be completely automatic, sensing process conditions to trigger their operation, but you'll also want to go back and recreate that report from last month, last year or for a particular department or tenant. Dream Report handles all that, and the use of "Pickers" in a report gives you the interface to make date and time selections, department/tenant selections or equipment selections. Dream Report's Web Portal delivers that capability to you in the office or away, on any device, with complete security.

Smart Reporting

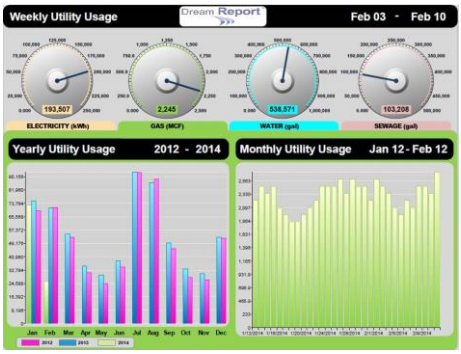
Gone are the days of complicated Excel formulas for report generation. While that is always an option and Dream Report can create Excel Workbooks as its report generation, there is a more powerful solution, one that delivers the understanding of what you're trying to accomplish, and it does it simply and automatically. Dream Report "Widgets" are smart reporting objects that deliver data, analytics and visualization. You simply select the widget, drop it into your report through the WYSIWYG (What You See Is What You Get) editing environment, define its data sources and desired customizations and you are done. No hassles or macros. No errors in calculations and no scripting or software development.

Report Design

Dream Report takes the effort and complexity out of even the most demanding reporting tasks. With connectors that understand their sources of data, to beautiful formatting and display objects, Dream Report will WOW you with its elegance. It's not just about getting data and displaying it. It's about understanding the data, using powerful analytics to turn your data into information and knowledge. Dream Report, through a wide range of Analytic Functions, delivers on that front, reducing your development efforts, improving your quality and increasing your productivity.

Widgets (Smart Objects) do most of the work for you. Need page numbers, there's a widget for that. File Name? Directory Name? Issue date, start and end times? Data displays, bar graphs, trend charts, pie charts and results tables - they are all there. Dials, gages, tanks and more. Drag them onto the report, configure a few parameters for data source and calculation functions and you are all set. Smart Report Objects are one area of Dream Report's value and the analysis functions that can be attached to them are another.

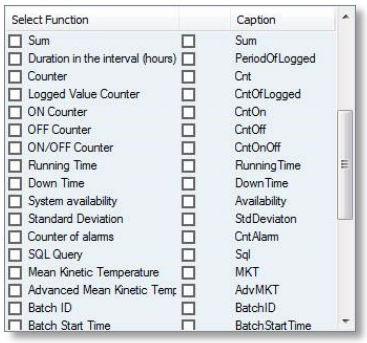
The combination of purpose built calculation functions with visualization objects create the world's most sophisticated and easy to use solution for reporting and data analysis for industrial applications. Gone are the days of difficult scripting, macro development or the need for specialized IT support.



Web Portal Display with Widgets

Dream Report Delivers a Complete Array of Statistical Functions

Dream Report Analytic functions understand their purpose. They have been specially crafted to deliver the results you're expecting, from the data sets your automation systems are providing.



Simply Click for Function Selection

Calculation Functions

Value, Maximum, Minimum, Average, Sum, Standard Deviation, Associated Timestamps

Logged Value Counter – How many times a value is encountered

Duration Interval – Calculates time a value was in a range

Counter or Period Totals – Last variable minus first variable and rollover aware (for tracking energy meters & totalizers)

Advanced Functions

ON and OFF and Transition Counters – Delivers a count of variable transitions

Running Time – Totalizes the time a variable was on

Down Time – Totalizes the time a variable was off

System Availability – Percentage of time for a specified period during which a condition was met

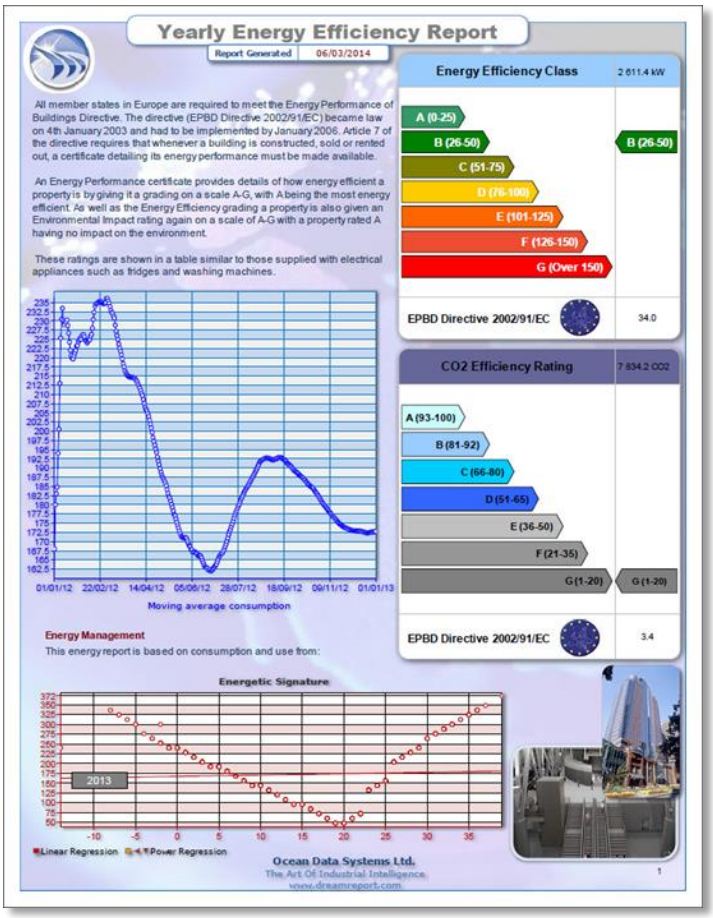
Energy Management (Facility) Functions

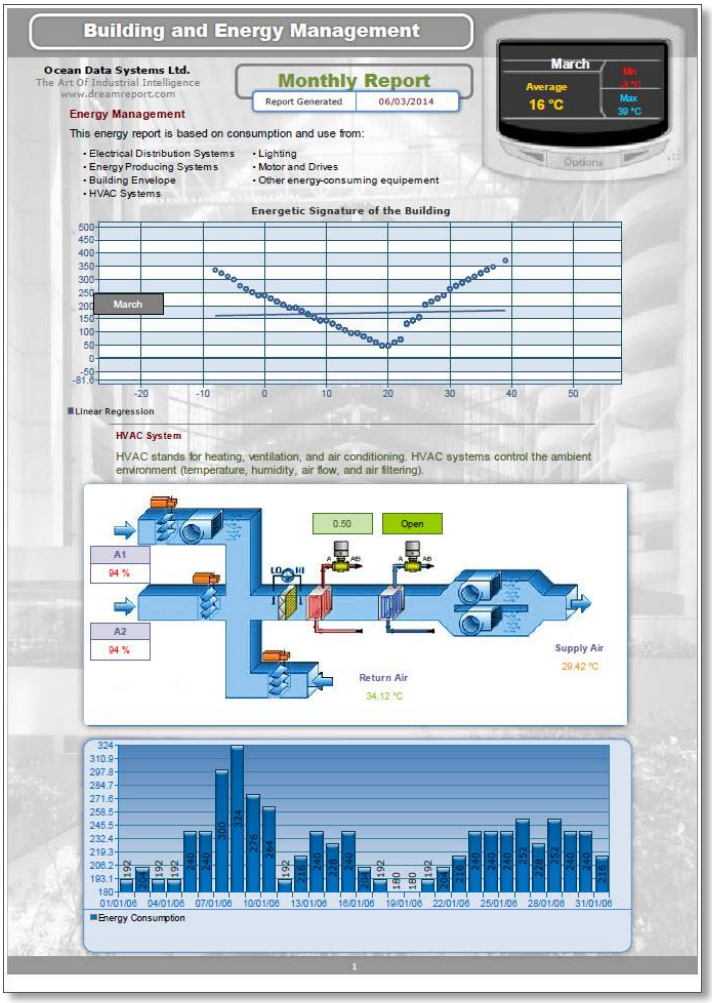
Produced Energy – The heat energy produced by the consumption of various fuels

Produced Emissions – The emissions byproducts from the consumption of various fuels

Alarm Analysis Functions

Alarm Counters – Calculates the number of alarms, by filter, for a specified period





SQL Functions

Direct SQL Query, with Dynamic Tokens – Use Dream Report Variables as items in a SQL Query

Pulse Analysis Functions

Excursion Analysis - Positive pulses, negative pulses, peak maximum and peak minimum functions will count variable excursions beyond a limit, over a period

Compound Data Functions

Functions over a Data Group - These functions calculate minimums, maximums, average, sum, and standard deviation of a set of other Dream Report data items

Expression Data Functions

Mathematical Expressions - Accepts a manually entered expression involving one or more statistical objects, mathematical operators and constants.

String Functions

Text String Operations - Includes concatenation, extraction, string lookups and conversions to and from numeric values

Manual Data

Operator Entered Data - Objects in a report are invisible for final output but come alive when used in the Dream Report Web Portal. Manual Data enables the selection or entry of variables, dates and times, with range validation and user security

Report Storage and Distribution Store reports in a directory. Automatically build the directory structure. Automatically name your reports. Names can include any combination of date, time, batch I.D., fixed text, and data variables

Distribute Reports via Email - Built-in SMTP functionality lets you distribute reports to an email list

Print Reports - Use a specific printer. Designate an automatic backup for when a printer is unavailable.

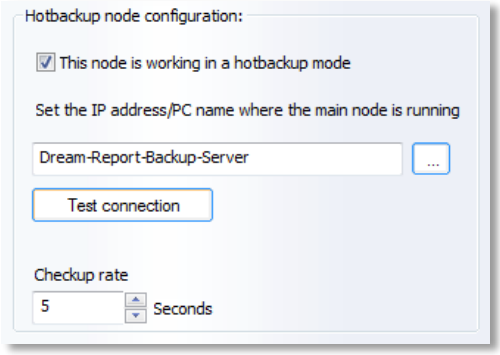
Send Reports to a Web Portal - No effort involved. Dream Report sets up IIS and configures a Web Portal and automatically displays your reports (if you choose to do so), in a browser based and mobile friendly environment.

Through the benefits of HTML-5, your reports will work in any browser and on any Mobile device, iOS, Android, Windows or other. PC or MAC - it's up to you. Need a Web Dashboard of Key Performance Indicators (KPIs)? Configure a report for automatic update and you have it.

Web Portal for Interactive Report Generation

Reliability

Of crucial importance in this market. When facilities house critical operations, you must be sure the reporting is available and your systems are reliable. There is no room for error. For optimum reliability, redundancy is the solution. If reports are generated, and one printer is unavailable, then Dream Report will automatically transfer to a backup printer. If one reporting node becomes unavailable, possibly due to a server hardware failure, a second Dream Report system will automatically recognize the failure of its counterpart and take over reporting.

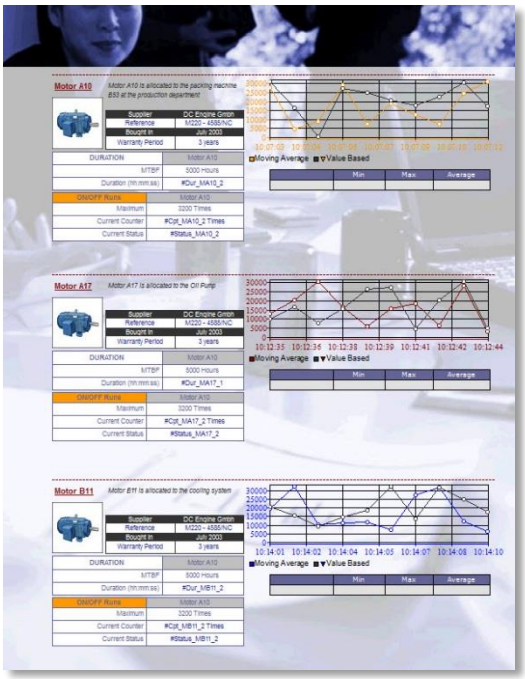


Dream Report Hot Backup Server Selection

So, What Are You Waiting For?

You may think automated report generation is just for compliance reporting, generating the necessary documentation for product approval, FDA or EPA submissions. That is certainly important.

Dream Report can deliver the power of automated business intelligence to your entire organization. If you don't have an automated report generation and data analysis solution as a part of every automation system, then you aren't as efficient as you could be.

Today, when you're tasked with continuous improvement, the old adage of "Out of sight, out of mind," continues to be the primary obstacle. Having business intelligence delivered to you, in a regular and automated fashion, will keep you informed of the usual, so that you can react to the unusual.

To learn more about Dream Report, visit our Website at www.DreamReport.net and download a fully functional, time limited version of the product.