



OCEAN DATA SYSTEMS
The Art of Industrial Intelligence

Dream Report

User Friendly & Programming Free™
Reporting



**Water and Wastewater
Industrial and Municipal**

Applications

40-CFR-141

EPA and State Reports

Performance & Efficiency Calculations

Monthly Operating Report (MOR)

Discharge Monitoring Report (DMR)

Electronic (eDMR)

European Environmental Agency (EEA)

EPA National Pollutant Discharge Elimination System (NPDES)

Surface Water Treatment

Safe Drinking Water Act

CFE Turbidity Reporting

Pumpage Reports

Filter Bed Performance

Lift Station Status

Maintenance Reports

Work Order Reports

SCADA and Historian Interfaces

Reverse Osmosis

EC Water Reporting

Coagulant Monitoring

Disinfectant Monitoring

Urban Waste Water Treatment (UWWT)

Asset Management

Web Data Access

Mobile Access



Water Quality Management

Whether it's water for consumption or water discharged back into the environment, the key is to deliver that water as purely as possible and as economically as possible. And as a highly regulated market, data analysis and subsequent reporting is an extremely important part of the process.

“Dream Report is designed for the Water and Wastewater market by the Water and Wastewater market.”

We listened to your needs and we've addressed them head on. Dream Report has all the tools required to monitor and deliver the compliance reports you need in Water and Wastewater applications. These include reports to address USA Environmental Protection Agency (EPA) and State regulations as well as International European Environmental Agency (EEA) for both drinking water and discharge water.

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:

EPA Safe Drinking Water Act (SDWA) – EPA Guidelines for States, to ensure the quality of water. Dream Report will perform the calculations and generate the reports to show compliance.

40-CFR-141 – National Primary Drinking Water Regulations – These regulations are the specific regulations and requirements to be implemented with regard to the Safe Drinking Water Act. They define coliform and turbidity sampling, as well as defining the reporting requirements of each.

State Specific Reporting – Generate Monthly Operating Reports (MOR), Discharge Monitoring Reports (DMRs) and Electronic Discharge Monitoring Reports (eDMRs) and CFE Turbidity Reports. Dream Report is a flexible reporting solution with templates provided by Ocean Data Systems and its network of System Integrators, to meet federal and state requirements.

Equipment Performance Monitoring – Dream Report delivers the statistics to calculate runtimes, on-times, off-times, duty-cycles

and to evaluate operation against other variables. Is equipment operation at expected levels for these ambient conditions? Dream Report will let you know.

Energy Accounting – Municipalities are always looking to save on their energy costs, their single greatest expense. Dream Report knows how to analyze and totalize meter data, allocate that data to various operations and aid in running those assets as efficiently as possible.

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.

The Ideal System Integrator Solution

Dream Report delivers the tools for sophisticated data analysis, formatting and presentation and it delivers the tools for value added services. Reports can be password protected and System Integrators can work with Ocean Data Systems to market their report templates. Need a State report? Working with an integrator near you will result in the exact report you need, combined with the ongoing support for changes and enhancements. Contact Ocean Data Systems for more information.

Integrate with All Existing Controls

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 control systems.

Dream Report integrates with every control 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.

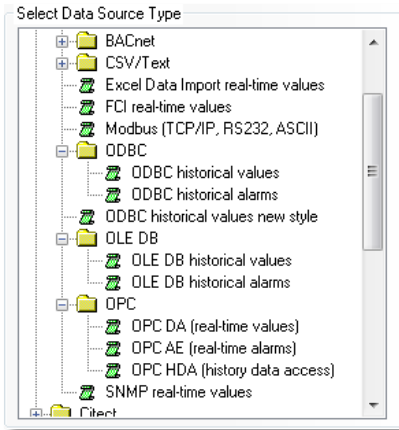
Proprietary Interfaces - Specifically built for a particular product or solution. Examples abound in Dream Report, and you can refer to our driver list for current connectivity.

Industry Standards – These include MODBUS and Open Protocols including OPC DA, OPC AE, and OPC HDA. These standards provide connectivity to any control system from Programmable

Logic Controllers (PLCs) to HMI/SCADA and Distributed Control Systems (DCS). If you have a specific connectivity need, contact Ocean Data Systems and we'll help you select an interface.

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 – A Very Important Component of the Solution

Dream Report is a safe and proven solution, having 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.

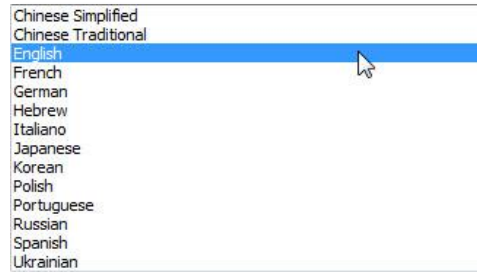
Manual Data Entry

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? Automatic Data Validation will apply bounds to manually entered 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 report only on validated data. Data entry can also be Mobile –

entered from Smart Phones. Laboratory Information Management Systems (LIMS) are easy to integrate with Dream Report through Manual Data Entry or the use of our Business Standard Interfaces.

Localization

Tools for your team, in the language that they dream in. Your reporting requirements aren't likely to be limited to one location. You may have facilities 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 facility, 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 piece of equipment. Dream Report handles all that, and the use of “Pickers” in a report gives you the interface to make date and time 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.

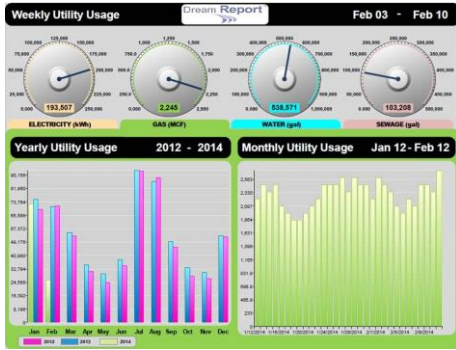
Report Design

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 aspect 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.

Select Function	Caption
<input type="checkbox"/> Sum	<input type="checkbox"/> Sum
<input type="checkbox"/> Duration in the interval (hours)	<input type="checkbox"/> PeriodOfLogged
<input type="checkbox"/> Counter	<input type="checkbox"/> Crit
<input type="checkbox"/> Logged Value Counter	<input type="checkbox"/> CritOfLogged
<input type="checkbox"/> ON Counter	<input type="checkbox"/> CritOn
<input type="checkbox"/> OFF Counter	<input type="checkbox"/> CritOff
<input type="checkbox"/> ON/OFF Counter	<input type="checkbox"/> CritOnOff
<input type="checkbox"/> Running Time	<input type="checkbox"/> RunningTime
<input type="checkbox"/> Down Time	<input type="checkbox"/> DownTime
<input type="checkbox"/> System availability	<input type="checkbox"/> Availability
<input type="checkbox"/> Standard Deviation	<input type="checkbox"/> StdDeviation
<input type="checkbox"/> Counter of alarms	<input type="checkbox"/> CritAlarm
<input type="checkbox"/> SQL Query	<input type="checkbox"/> Sql
<input type="checkbox"/> Mean Kinetic Temperature	<input type="checkbox"/> MKT
<input type="checkbox"/> Advanced Mean Kinetic Temp	<input type="checkbox"/> AdvMKT
<input type="checkbox"/> Batch ID	<input type="checkbox"/> BatchID
<input type="checkbox"/> Batch Start Time	<input type="checkbox"/> BatchStartTime

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

MONTHLY OPERATING REPORT

FOR PUBLIC WATER SYSTEMS THAT ARE USING GROUND WATER SOURCES OR ARE PURCHASING TREATED WATER FROM ANOTHER PUBLIC WATER SYSTEM

PUBLIC WATER SYSTEM NAME: _____ PWS ID No.: _____

Report for the Month of: **March 2014** Number of Active Service Connections this Month: _____

WATER PRODUCTION						
Date	Pumpage to storage and distribution X 1000 Gals					
	From Wells Directly to Distr.	From Wells to Storage Tank	Purchased Water to Distr.	Purchased Water into Storage	From SWTP or GWUDI Plant	Total Daily Production
01/02/2014	1 125.00	675.00	1 500.00	1 500.00	1 500.00	6 300.00
02/02/2014	1 350.00	825.00	75.00	75.00	75.00	2 400.00
03/02/2014	1 300.00	975.00	225.00	225.00	225.00	2 970.00
04/02/2014	900.00	75.00	750.00	750.00	750.00	2 625.00
05/02/2014	1 350.00	675.00	225.00	225.00	225.00	2 970.00
06/02/2014	150.00	30.00	1 500.00	1 500.00	1 500.00	4 680.00
07/02/2014	1 485.00	750.00	1 170.00	1 170.00	1 170.00	5 745.00
08/02/2014	1 200.00	375.00	750.00	750.00	750.00	3 885.00
09/02/2014	1 350.00	825.00	1 125.00	1 125.00	1 125.00	5 430.00
10/02/2014	1 345.00	1 200.00	900.00	900.00	900.00	5 295.00
11/02/2014	900.00	450.00	225.00	225.00	225.00	2 625.00
12/02/2014	1 200.00	675.00	375.00	375.00	375.00	3 000.00
13/02/2014	1 385.00	525.00	225.00	225.00	225.00	2 965.00
14/02/2014	600.00	225.00	225.00	225.00	225.00	1 500.00
15/02/2014	1 380.00	900.00	450.00	450.00	450.00	3 630.00
16/02/2014	700.00	375.00	150.00	150.00	150.00	1 575.00
17/02/2014	1 380.00	900.00	450.00	450.00	450.00	3 630.00
18/02/2014	1 385.00	1 200.00	900.00	900.00	900.00	5 285.00
19/02/2014	900.00	450.00	225.00	225.00	225.00	2 625.00
20/02/2014	1 200.00	675.00	375.00	375.00	375.00	3 000.00
21/02/2014	150.00	30.00	1 500.00	1 500.00	1 500.00	4 680.00
22/02/2014	1 200.00	675.00	375.00	375.00	375.00	3 000.00
23/02/2014	150.00	30.00	1 500.00	1 500.00	1 500.00	4 680.00
24/02/2014	750.00	375.00	150.00	150.00	150.00	1 575.00
25/02/2014	1 380.00	900.00	450.00	450.00	450.00	3 630.00
26/02/2014	975.00	525.00	375.00	375.00	375.00	2 625.00
27/02/2014	1 410.00	1 500.00	1 200.00	1 200.00	1 200.00	6 110.00
28/02/2014	1 425.00	1 385.00	1 170.00	1 170.00	1 170.00	6 300.00
Total	29 715.00	13 430.00	19 540.00	19 540.00	19 540.00	103 915.00
Ave	1 061.25	860.00	662.14	662.14	662.14	3 707.68
Max	1 485.00	1 500.00	1 500.00	1 500.00	1 500.00	6 510.00
Min	150.00	30.00	75.00	75.00	75.00	1 500.00

Any additional information you wish to provide:

I certify that I am familiar with the information contained in this report and that, to the best of my knowledge, the information is true, complete, and accurate.

Operator's Signature: _____ Date: 17/03/2014 10:08:28

Ocean Data Systems Ltd.
The Art Of Industrial Intelligence
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TC02 - 0811 (DRAFT 3-08) GW-PW/OK

Maintenance

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Report Generated on : 06/03/2014 20:18:11

- Paul White - Project Manager
- Alan Smith - Operations and Maintenance
- Romano Estevez - Field Services engineer
- Nancy Morgan - Store Room Manager

Motors and Pumps Summary					
	Motor A10	Motor A17	Motor B11	Pump C54	Pump C55
Status	Run	Run	Run	Run	Run
DURATION	Motor A10	Motor A17	Motor B11	Pump C54	Pump C55
MTBF	5000 Hours	5000 Hours	5000 Hours	4500 Hours	4500 Hours
Duration (hh:mm:ss)	38579:18:34	39829:28:39	31368:41:04	36456:58:01	36727:26:07
ON/OFF Runs	Motor A10	Motor A17	Motor B11	Pump C54	Pump C55
Maximum	3200 Times	7000 Times	4000 Times	5000 Times	4500 Times
Current Counter	11 546 Times	11 142 Times	8 202 Times	10 868 Times	10 347 Times

MTBF: Mean Time Between Failure
The average time the motor will function before failing. MTBF ratings are measured in hours

Chart Week

MB11 30.83 %

MA10 28.33 %

MA17 30.83 %

Temperature (°C)	MA10	MA17	MB11	PC54	PC55
Min	0.05	0.01	0.03	0.07	0.09
Max	99.97	99.99	99.98	150.00	149.99
Average	50.87 °C	51.10 °C	60.80 °C	75.82 °C	74.84 °C
Current value	94.16 °C	94.16 °C	94.16 °C	141.23 °C	141.23 °C

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

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, 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 automatically and configures a Web Portal to display your reports (if you choose to do so), in a browser based and mobile friendly environment.

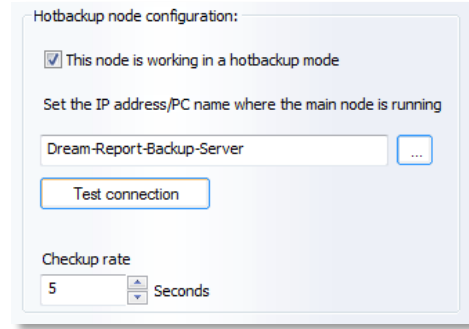
Through the benefits of HTML-5, your reports will work in any browser and on any Mobile device, iOS, Android, Windows or other. PC or MAC - it’s up to you. Need a Web Dashboard of Key Performance Indicators (KPIs)? Configure a report for automatic update and you have it.



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 State or EPA compliance. That is certainly important, however, 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 could be losing out on efficiencies.

Today, when you’re tasked with continuous improvement, the old adage “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.

