Dream Report® 10 Key Advantages vs MS SQL Server Reporting Services (SSRS)

General Information

Dream Report® is the first complete, web-enabled Data Integration and Reporting software package, specially designed for industrial and process automation. Being built on modern technologies, Dream Report provides direct connectivity to automation systems and equipment; collecting and archiving real-time data and alarms; providing online analysis and doing automatic generation and e-distribution of professional reports; and enabling web management over the internet and intranet. The Intuitive and easy interface allows fast project development with low engineering cost. Dream Report is also able to access external history databases and proprietary archives and produce reports, based on their historical data and alarms.

The bottom line of all competitive advantages of Dream Report is that this product is dedicated to, and is specially designed for, use in automation systems, and therefore has numerous integrated automated reporting tools, which significantly reduces engineering cost and enables using Dream Report by non-programming users.

Despite the extensive set of functions which exist in Dream Report and not in SSRS, this document focuses on the main functional differences, which we consider as most valuable and most important.

1. Professional Software for Non-Programming Users

As well-known, SQL Server Reporting Services (SSRS) is programming-based tool, which is integrated into both SQL Server development studio and C# Software Development Studio (MS Visual Studio). Any design or modification of a report, or any of its properties, requires a high cost software developer with C#, SQL Server, Visual Studio, and SSRS development skills. This requirement makes maintaining a SSRS reporting project very expensive.

The main advantage of Dream Report is that it doesn't require any knowledge of software development or programming skills. Dream Report doesn't use C# programming and all configurations are done on a checkbox/drop-down box configuration level. It's possible to develop complete reporting project without any single line of code. The key distinction here is that Dream Report is a report configuration and distribution toolset, not a programming environment in which to develop reports.

In most cases, a Dream Report project can be developed and supported by automation engineers without software development skills.

SQL Queries and stored procedures *are* supported in Dream Report. If a reporting project uses SQL queries, knowledge of SQL scripting may be required, which is still much more common and intuitive for automation engineers than C# and SSRS programming knowledge.

2. Considerable Difference in Engineering Time and Engineering Resource Skills

Customer feedback of Dream Report shows that design and configuration of a reporting project with Dream Report requires up to 15-20 times less than doing the same project using SSRS. This means that one day of reporting project design and configuration with Dream Report can be equal to up to 3-4 weeks of development of the same project in SSRS.

There are examples, where reporting projects developed in 5 days with Dream Report were replacing SSRS reporting projects, which were developed in SSRS in about 6 months.

The same cost saving will be realized with reporting project maintenance: the cost of any changes or modifications in reporting project will be considerably lower than using SSRS.

It's well known that the cost of maintaining reporting project (or any software project, for that matter) after commissioning is much more significant than its initial development cost - the cost efficiency of Dream Report is considerably more competitive compared with SSRS.

3. Direct Native Connectivity to Industrial Software and Hardware

Besides connectivity to open databases, such as MS SQL Server or Oracle or MySQL, Dream Report has direct connectivity to most common automation products, such as SCADA, PLC's, Historians, proprietary archives, etc. for real-time and historical data and alarms.

Dream Report contains more than 60 native different communications drivers, enabling direct native connectivity to most of Invensys Wonderware products (e.g. Wonderware Historian, InTouch, System Platform, WW Alarms database, Galaxy, etc.) as well as to products of other vendors, like Rockwell, Citect, Siemens, Eurotherm, Aspentech, etc.
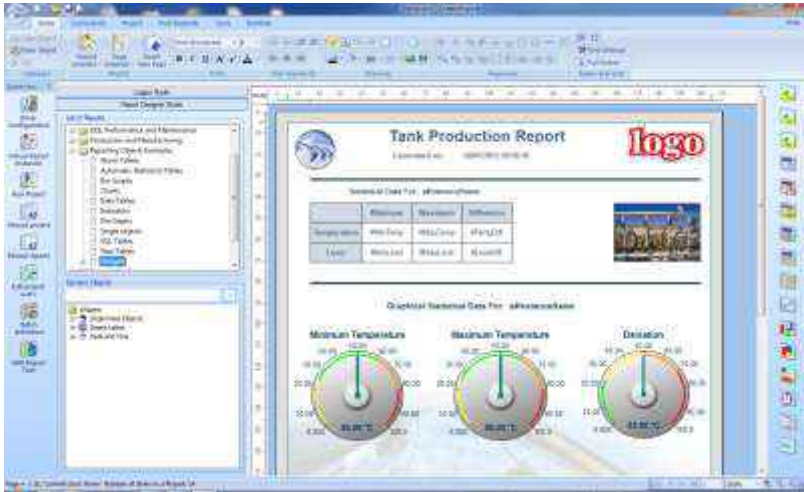
There are a number of existing drivers which enables access even to proprietary archive data files (e.g. InTouch LGH binary historical files) and generating reports directly based on their data - this is not possible with SSRS.

Open protocols, like OPC (DA/AE/HDA), Modbus, ODBC, OLE DB and BACnet enable Dream Report to connect directly to a variety of data sources. This opens a lot of different opportunities to report developers. Dream Report allows using up to 2000 different data sources in one reporting project!

That open connectivity simply doesn't exist in SQL Server Reporting Services, where the primary source of data is a SQL database.

4. User-Friendly Designer Studio

Dream Report features a user-friendly report designer studio, significantly different from that used by SSRS. Dream Report designer studio has an easy to use approach, with the emphasis on tools for report configuration, versus a programming environment. It has integrated library of tabular, statistical and graphic objects, and an integrated library of statistical calculations. A user simply drags and drops reporting objects onto a report, configures them using simple selections, and report is ready to use. This studio is intended for use for automation engineers:

SSRS utilizes the Visual Studio programming environment, which has complex approach and requires special skills and appropriate knowledge.

For example, even simple tasks like placing a page counter on a report (drag-and-drop in Dream Report) require the SSRS programmer to program the task:

="Page " + Globals!PageNumber.ToString() + " of " + Globals!TotalPages.ToString()

Does this look intuitive?

5. Native Functionality for Reports Scheduling

Dream Report has native functionality to schedule or trigger report generation – on a calendar time or periodic basis, or on an event trigger, e.g. automatic generation by the end of a batch or work order. Configuring report generation requires a simple selection of appropriate check boxes and doesn't require any line of coding - i.e., this can be easily managed and edited directly by plant automation engineers:
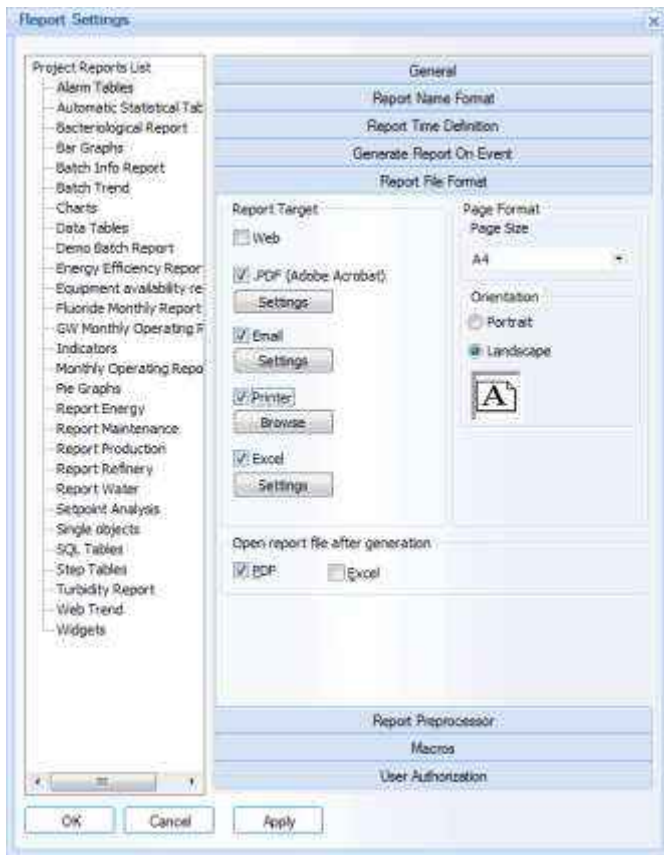
Ocean Data Systems Ltd.

To provide the same or similar functionality in SSRS requires coding in C# and any change or modification requires again involvement of high cost software developer or other IT resources.

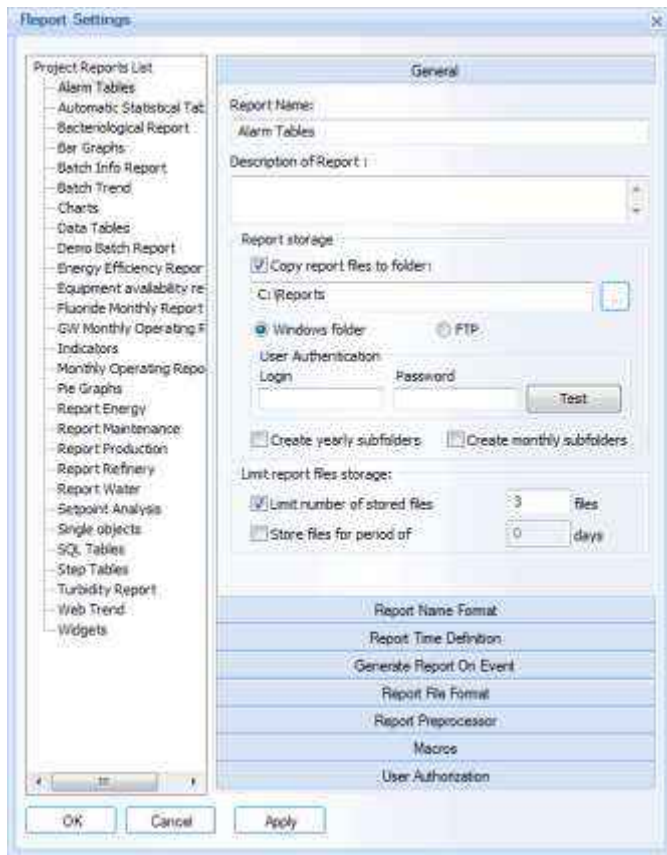## 6. Direct Report Generation in Most Common Document Formats. Printing and Emailing

Dream Report is able to generate reports directly in a secure PDF, MS Excel and CSV file formats, as well as Web reports. Configuration of report format requires only check box configuration.

Also, as shown on image below, reports can be automatically printed on one or multiple printers, and/or sent by email to multiple email recipients. This configuration is done by a check box and simple selection. Again, no coding is required.

Generated report files can be automatically stored on local or remote file servers or uploaded to an FTP server. Also, Dream Report can automatically limit number of stored report files by age/period or by number of files.

Pic.1   Pic.2

Report printing is not a standard function in SSRS. Neither is emailing. This functionality is possible, but requires using external 3rd party software with additional considerable coding efforts. There is a known SSRS reporting project, where required report printing functionality couldn't be achieved with all possible development efforts.

Standard report representation in SSRS is a web page. Directly generating reports in standard document formats, like secure PDF or Excel, is not possible. A report must be manually exported by the user to one of these formats, only after being generated as a web page.

7. Data Aggregation

Dream Report has integrated built-in engine for data aggregation. Using this engine, a user can:

A) Periodically perform pre-defined calculations, and automatically store the calculation results into Dream Report database (e.g., SQL Server). Then those aggregated results can be used in reports like any "regular" data. Example: If a temperature is stored every 10 seconds and user wants to have a chart on hourly average values, Dream Report can calculate an average every hour, store result in a database and then build charts on those hourly averages using ready values in a database. This also significantly speeds up report generation times, especially when reporting over long periods.

This aggregation archiving capability function doesn't exist in SSRS.

B) Calculate aggregated data on the fly - if we take the example from above - Dream Report can also calculate hourly average during report generation and use it within the report. This allows aggregation for retroactive data, but reduces report generation performance and doesn't save calculated reported data.

8. FDA CFR 21 Part 11 Compliance. User Management. Reports Version Control. Audit-Trail

Dream Report fully complies with FDA CFR 21 Part 11 requirements. The corresponding document is available upon request.

Dream Report has an integrated user management system, which allows defining local users, as well as access to Windows users and user groups - either by importing users and user groups from Windows domain active directory, or accessing local Windows list of users and user groups.

Windows or local users and user groups may have different access rights to different software modules.

Also, every report can have a list of users (either local or Windows users or user groups), which have access to that specific report.

This functionality doesn't exist directly in SSRS. Implementing any part of that functionality requires considerable development efforts.

Windows-based user-management ensures appropriate required user control for accessing and configuring data extraction.

Report version control - is the unique functionality in Dream Report, which allows users to control all changes in reports, done by report developers. When saving report, which contains any changes, a user will be required to enter comments, and every such a save will be recorded as a new report version with the corresponding record in the project audit trail database. This tracks which user, at what date and time, had modified which report, under which version, and what exactly was had done.
At any point, the user can select any existing report version and roll back to that version of the report. The Audit trail database enables users to create reports on modifications done to the reports.

This functionality is unique and presently does not exist for any other reporting software.

9. Web Interface

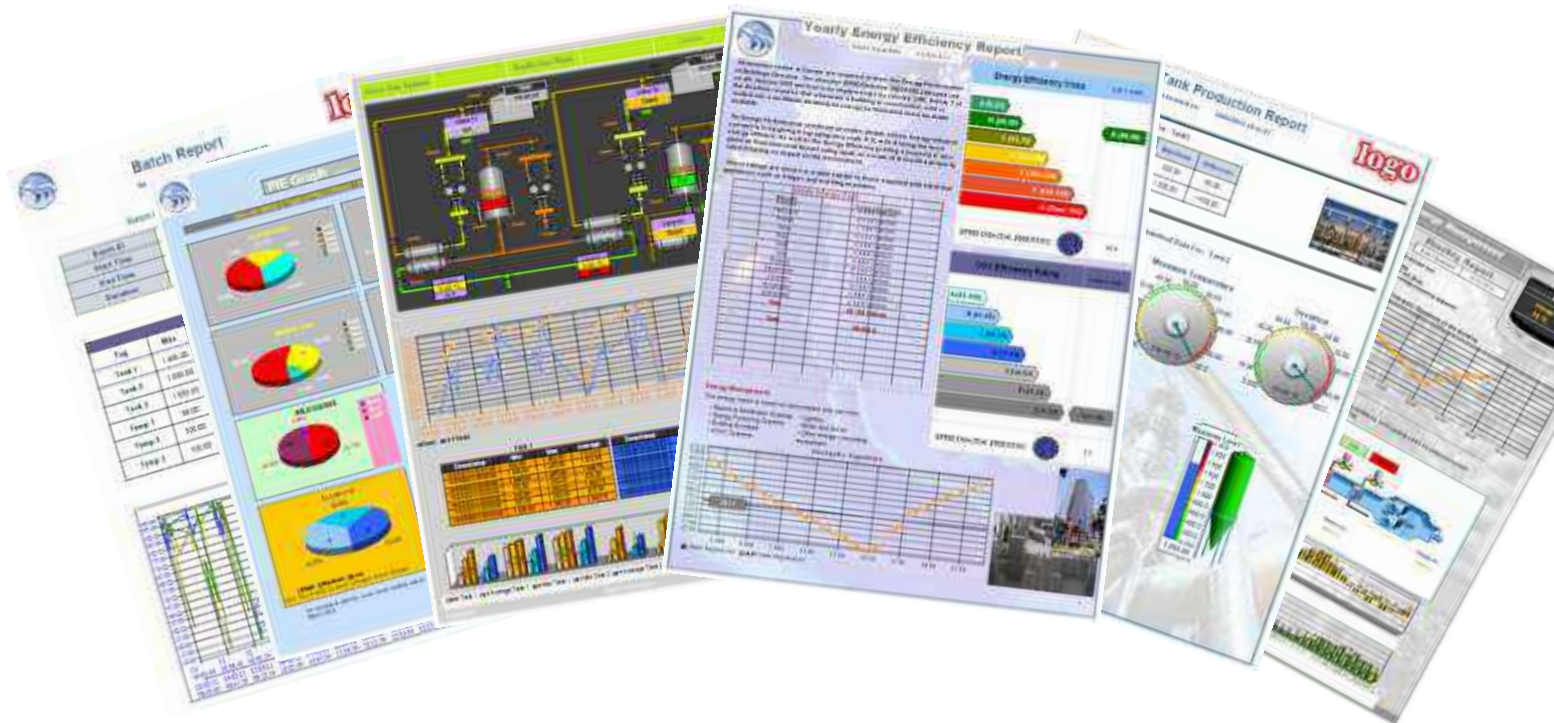Dream Report web reports are generated automatically from reports, designed in Dream Report designer studio.

Dream Report interactive reporting objects (drop-down/combo boxes, buttons, date/time pickers, hyperlinks) enable report designer to create any dynamic web pages with variou0073 filtering components.

Web reports may also contain manual data entry fields with advanced manual data management. This is a significant feature with benefit in many industries, where a user is often required to manually record values (e.g., test results, visual inspections, sign-off, etc.) which need to be included in a report primarily based of automated data collection.

So, Dream Report web reports can have much of the rich web content of SSRS, but with minor designer efforts.

10. Rich Graphic Reports Output

Dream Report produces reports with rich graphic content requiring minor engineering efforts, comparing to basic graphics, available in SSRS.

Please, feel free to contact us for any further information at:

Tel +33 4 78 19 83 88   **Fax** +33 9 58 03 39 30   **Mobile** +33 6 89 07 94 83
support@dreamreport.net   **Skype**: amazal2904   www.dreamreport.net
Address : 24 Chemin des Verrieres, 69260 Charbonniere les Bains, France