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THE ART OF INDUSTRIAL INTELLIGENCE

Release Notes

Dream Report[®]

Version 4.7

**User Friendly Programming-Free[™]
Reporting for Automation**

Version: 4.7

Contents

Release Notes	1
Summary of the New Functionality (compared to the original version 4.6 R4)	4
Brief Description of New Functions	5
New module – SPC (Statistical Process Control).....	5
Data Modeler	5
Display Raw Data on Object Click in Web Portal	5
New Web Object – Tags Selector from a Tree.....	5
New Web Object – Check-Box for Boolean Manual Data Entry	5
New Web Object – Multi-Line Edit Box	5
DSN-less Connection to Databases – Enhanced DSN Manager	5
Vertical Orientation for Charts.....	6
New Report Page Sizes (A0, A1, A2)	6
Dynamic Control for Reporting Objects Position by Script	6
New Runtime Management Console	6
New Dynamic Report Generator.....	6
New Advanced Text Editor for LUA Script	6
Use Dynamic Tokens in Data Source Definition.....	6
Ability to Change the Order of Lines in a Footer of Tables	6
Ability to Execute SQL Queries or Stored Procedures from LUA Script	6
New Mode in a Step Table – Step Based on Tag Value Change.....	7
New License Value Packs	7
New Options in a Combo Box	7
NEW DRIVERS.....	8
New driver – OPC UA real-time	8
New driver – Citect Historian historical values.....	8
New driver – Citect Historian historical alarms	8
Enhanced driver – Citect SCADA real-time values (native).....	8
New driver – Citect SCADA historical alarms (native).....	8
New driver - LUA historical data access.....	8
Wonderware Historian driver enhancement.....	8
Yokogawa GX recorders driver update	8
GE IP Proficy Historian driver enhancement.....	9
Eurotherm Review driver enhancement.....	9
Corrected Problems/SCRs (compared to the previous version 4.64)	10
System Requirements	10
Operating Systems Supported	10

Databases Supported	10
Web Browsers Support for Web Portal	10
Additional Software Requirements.....	10
Demo Version Limitations.....	11
To buy Dream Report®	11
Contact our technical support	11
Visit our web site	11

Summary of the New Functionality

(compared to the original version 4.6 R4)

- SPC (Statistical Process Control) module
- Data Modeler
- Display raw data on object click in web
- New web object – tree-view tag selection
- New web object – check box for boolean manual data entry
- New web object – multi-line edit box
- Ability to define direct (DSN-less) connection to databases
- Vertical orientation for charts
- New report page sizes (A0, A1, A2)
- Dynamic control for reporting objects position by script
- New Runtime Management Console
- New Dynamic Report Generator
- New advanced text editor for scripts
- Use of dynamic tokens for data source definition
- Ability to change the order of lines in tables footer
- Ability to execute SQL queries from scripts
- New mode in a step table – steps by item value change
- New license models value packs
- New option to display pie graph based on SQL query
- New option in combo box

Drivers

- New driver – OPC UA (real-time)
- New driver – Citect Historian historical values
- New driver – Citect Historian historical alarms
- New driver – Citect historical alarms (native)
- New driver - LUA Script HDA Item
- Citect real-time values driver enhancement – remote nodes support
- WW Historian driver enhancement – supports tag description
- Yokogawa GX recorders driver update – support multi-batch firmware
- GE Proficy Historian – milliseconds support, advanced filtering
- Eurotherm Review driver – expanded options for values statuses

Brief Description of New Functions

(For more details, please, refer to the Dream Report® Help documentation)

New module – SPC (Statistical Process Control)

Dream Report has brand new module – SPC. This module enables all calculations and objects required to calculate and display SPC information in report. The following SPC objects are available: X-bar chart, R-chart, S-chart, Histogram, tables to display SPC values and Histogram values.

The following functions and calculations are available: LCL, UCL, Cp, Cpk, +/- 1 Sigma, +/- 2 Sigma, etc.

Data Modeler

New module “Data modeler” allows creating logical organization of physical tags, including hierarchical tree and logical tagnames. Then you can map logical tags to physical ones. As such, instead of using physical tags with their naming, a specific tag organization and naming space can be used. Also, as the data modeler configuration is stored in XML file, you can design all reports based on logical tags, and then make a static or dynamic mapping to real physical tags, just by editing the configuration XML file(s).

Display Raw Data on Object Click in Web Portal

New function enables users to set a statistical object (single data object) or a chart as a hyperlink to display source raw values, used for that calculation or for that chart. Raw values for single data object can be displayed as a table or as a chart. Raw values for a chart can be displayed as a table. Raw values can be exported into a CSV file directly from a web browser and also copied into a clipboard.

New Web Object – Tags Selector from a Tree

New object can display tags browse list as a tree, which simplifies the process of browsing through complex and nested tag hierarchy.

New Web Object – Check-Box for Boolean Manual Data Entry

If user has to input manual value of Boolean type, instead of using an edit box and typing 1 or 0, now user can just add a check box and link it to a manual parameter. Dream Report will use True or False value from the check box and will write it into its manual parameter.

New Web Object – Multi-Line Edit Box

New function allows user to add an edit box with extended height and input text, which can contain more than one line. This edit box will display the inserted text in multiple lines, for improved readability and report layout.

DSN-less Connection to Databases – Enhanced DSN Manager

New function in the Connectivity Manager enables you to connect to a database without an ODBC DSN – just select a database type, name, set login and password and Dream Report will be able to connect to it without DSN. This significantly simplifies project deployment to the end-customer environment – no need to re-create DSNs (external to the Dream Report project), make sure that DSN names match the reporting project, etc. Now, you can simply copy the project to another

PC and database connectivity should work as is (assuming correct SQL Server and login criteria).

Vertical Orientation for Charts

A Line Chart object has new setting – “Chart Orientation”. By default, chart objects are displayed horizontally. Users can now select whether the chart will be displayed horizontally or vertically, with several X- and Y- scale orientation options.

New Report Page Sizes (A0, A1, A2)

In the report settings, when selecting report page size, there are new large page sizes available – A0, A1 and A2 – both portrait and landscape orientation.

Dynamic Control for Reporting Objects Position by Script

New scripting functionality enables controlling position of reporting objects from LUA script. User can dynamically set positions of every object, which can be calculated, so position of any object (e.g. picture, chart, etc.) on report page will be defined at the moment of generation, depending on report values/calculations.

New Runtime Management Console

Dream Report 4.7 has a brand new Runtime Management Console (RMC). Developed using modern WPF graphical technology, it has an updated and look-and-feel, with much improved ergonomics over the previous versions.

New Dynamic Report Generator

Dream Report 4.7 has a brand new Dynamic Report Generator (DRG) window. It's developed using modern WPF graphical technology with much improved ergonomics over the previous versions. The corresponding ActiveX control is also reworked and enhanced. The issue of embedding DRG ActiveX control into some applications (e.g. iFix) is fixed.

New Advanced Text Editor for LUA Script

When writing or editing LUA script code in Expression objects, the user can open a large editor window, where the script code will be displayed with highlighting functions and operators. This significantly increases scripting ergonomics and ease of use of with LUA scripting.

Use Dynamic Tokens in Data Source Definition

If multiple data sources (e.g., redundant historians) have the same tag naming space, you now have the ability to dynamically switch data source. You can add a combo box with the list of data sources, and then in your reporting objects set a dynamic token ([f#.]) instead of a an actual data source, which will use dynamic data source from the combo box selection during report generation from the web portal.

Ability to Change the Order of Lines in a Footer of Tables

New buttons (Up and Down arrows) have been added to the Footer configuration section of the Automatic Statistic Table (AST) and the SQL table, which allows the user to change the order of lines in the table footer.

Ability to Execute SQL Queries or Stored Procedures from LUA Script

New function enables users to execute a SQL statement (SQL query or stored procedure) from inside a LUA script. Of course, any variables or reporting objects can be used as parameters. Also, the results of SQL query can be received back and processed by the script as required.

New Mode in a Step Table – Step Based on Tag Value Change

Step table has now a mode to calculate and generate step lines. You can define a mode “On tag value change”, select a tag, and a tolerance. The Step table will read all values of selected tag and each time a tag value was changed, a new step will be created in the resulting table. Start and End time for each such a step will be the start and end times of each distinct value (e.g. batch ID, phase change, etc.)

New License Value Packs

Dream Report 4.7 has increased the value of large licenses. The following licenses have additional options included in the base license:

- 10,000 Tags license now has 5 concurrent web clients and *Life Sciences* option included in the base license.
- Unlimited Tags license now has 15 concurrent web clients, as well as both the *SPC* and *Life Science* options, included in a base license.

New Options in a Combo Box

The Combo box has two new important enhancements:

- Display tag lists with a large number of tags: Previously, if a tag list displayed in a combo box had over 1,000 tags, the web browser would stop responding. Now, a combo box will display 500 tags with “...” (indicating additional tags in the list) with the ability to find requested tag in the rest by context sub-string.
- Context search filter: If user wants to find an entry (e.g. a tag) in a combo box, substring can be typed directly in the combo box and it will be filtered with all entries containing the entered substring.

NEW DRIVERS

New driver – OPC UA real-time

A new OPC UA driver enables communication with various data sources over OPC UA communication protocol. Anonymous and authentication communication are available.

New driver – Citect Historian historical values

The Citect Historian historical values driver enables direct connection to Citect Historian SQL Server database, retrieve its data model, directly display tag browse using CH data model and retrieve values for reporting. Advanced SQL conditions are available.

New driver – Citect Historian historical alarms

The Citect Historian historical alarms driver enables direct connection to Citect Historian SQL Server database, retrieve all available alarms properties and enable users to define multiple alarm filters using any available alarm property. Also, alarms are retrieved with all available alarms properties, which can be displayed in Dream Report alarm table.

Enhanced driver – Citect SCADA real-time values (native)

Citect SCADA real-time values driver was re-worked using the latest ctAPI. The new driver allows connecting to a local and/or remote Citect server station. It supports connectivity to Citect ver. 7.5 as well as previous legacy versions.

New driver – Citect SCADA historical alarms (native)

Brand new Citect SCADA historical alarms driver was developed using the latest ctAPI. The new driver allows connecting to a local and/or remote Citect server station. It supports connectivity to Citect ver.7.5 as well as previous legacy versions. It can retrieve all alarm properties, which can be displayed in alarm table. Also, user can define multiple alarm filters using any available alarm property and then filter displayed alarms or alarm counters using those custom alarm filters.

New driver - LUA historical data access

The LUA driver is an internal driver which can generate a simple or complex calculated set of data. This driver can be used for simulation, to build “ideal profiles” for comparison or other tasks, which require generating specific datasets with certain rules. A user can write any script which can generate and manipulate data using simple, complex or very complex rules using all the power of the “open” LUA scripting language.

Wonderware Historian driver enhancement

Enhanced Wonderware Historian driver can retrieve description for tags, so that users will see tags names and tag descriptions in the tag browser window.

Yokogawa GX recorders driver update

The updated driver is able read new format of data files, generated by GX recorders with multi-batch support and generate reports from those files. This is supported by all three drivers – historical values, historical alarms/messages and batch monitor.

GE IP Proficiency Historian driver enhancement

New enhanced GE IP Proficiency Historian driver supports milliseconds, when retrieving values.

Eurotherm Review driver enhancement

The enhanced Eurotherm Review driver has new capability to filter retrieved values by status. Now user can select either to retrieve values with status 0 and 10 or another option is to retrieve values with status 0 and all statuses more than 10. This can be configured in the driver itself.

Corrected Problems/SCRs (compared to the previous version 4.64)

SCR #	Description	Company
2396	Macro doesn't work with the option "Before report generation".	ODS
2431	An Expression from MultiTagAggregation adds a tag to the license count	YPSYS

System Requirements

CPU: Dual Core 2.4 GHz+

RAM: 8 Gb+

HDD: 500Mb (for installation) minimum, 7200 rpm or higher (or SSD)

Video adapter: Minimum memory 128 Mb

Network adapter: No special requirements

Monitor resolution: 1280x768

Operating Systems Supported

- Windows 2003 Server (incl. R2)(Web Portal requires Service Pack 2)
- Windows Vista (Web Portal requires Service Pack 1 and higher)
- Windows 2008 Server (incl.R2), any SP and (32-bit) and (64-bit)
- Windows Server 2012 (incl.R2), any SP, (32-bit and 64-bit editions)
- Windows 7 (32-bit) and (64-bit) with and without SP1
- Windows 8 Professional and Enterprise (32-bit and 64-bit editions), incl. SP1 and SP1 R2
- Windows 8.1 Professional and Enterprise
- Windows 10

Databases Supported

- MS SQL Server 2005 Express, 2008 Express, 2012 Express (using ODBC SQL Native Client 11) , 2014 Express (using ODBC SQL Native Client 11)
- MS Access 2000, 2003, 2007, 2010, 2013
- MS SQL Server 2005, 2008 (incl. R2)
- MS SQL Server 2012 over ODBC SQL Native Client 11
- MS SQL Server 2014 over ODBC SQL Native Client 11
- MySQL 4.x and 5.x versions over ODBC driver 3.51, 5.1
- Oracle 11 over Oracle XE ODBC driver

Web Browsers Support for Web Portal

- Internet Explorer 9 and higher (IE 11 recommended)
- Edge
- Chrome
- Mozilla
- Opera

Mobile operating systems:

Web portal is supported in a web browser on Android, iOS (both iPad and iPhone) and Windows Phone 8.1.

Additional Software Requirements

- To visualize PDF files you need to install Adobe Acrobat or other PDF viewer (the latest versions are recommended)

- To use Web Portal, you have to install a web server (Internet Information Server or other) before Dream Report® installation.
- .NET Framework 3.5 **and** .NET Framework 4.5 or higher has to be installed before Dream Report® installation.

Demo Version Limitations

If you have installed the Demo version, it will have the following limitations:

- Dream Report® runtime will run a project continuously for 30 minutes and then shut down.
- Demo license is limited to 100 data items, which can be used in a project.
- Web portal is enabled with one concurrent web client connection.
- A red line will be added on top of each report page, which says that report has been generated with the demo version of Dream Report®.

Note:

Please, refer to the **Dream Report® online help** to get information about any specific functionality. Online help can be opened in **Help** menu of *Dream Report* studio or using **Start** menu.

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