

Optimize^{IT} Data Manager (DM)

- ✓ Are you still using scissors and glue to paste your dot-matrix trend printouts into reports?
- ✓ Are you trouble-shooting the control configuration for a process unit, but find that you can't trend key variables because they were not properly configured?
- ✓ Are you frustrated by the plant historian compression mechanism which hides all the crucial trend details?
- ✓ Don't you wish you had a better way of visualizing data in real-time? Wouldn't it save time if you were able to examine correlations between variables using xy plots, trend position and time dependent data (e.g., reactor temperature profiles), and use 3D plots?
- ✓ Wouldn't it be nice to do calculations on real-time data in the same software environment without exporting to standard spreadsheet programs or custom programs?
- ✓ Have you collected enough data to fill the Library of Congress, but found it difficult to analyze?
- ✓ Have you tried importing the data into spreadsheet programs, but found it time consuming to rebuild the plots every time you want to look at a different set of variables or a different time range of data?

Optimize^{IT} Data Manager (DM) is the solution to your problems.

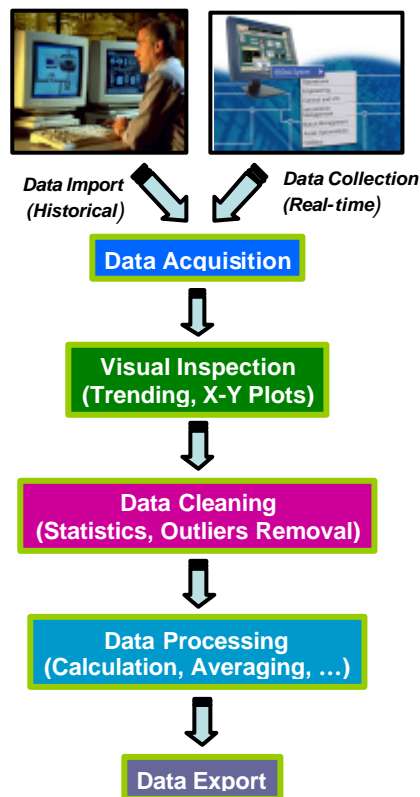
Data Manager is a powerful software package for:

- real-time collection,
- importing of historical data,
- importing of file data,
- trending of real-time and off-line data,
- data manipulation and evaluation,
- exporting of the data collected by the software.

Data Manager is a valuable and practical tool for many everyday activities of Process Engineers. While plant historians are able to collect huge amounts of data for very long periods,

this is often achieved through either sampling times not short enough or through data compression methods. Either way the result is that lots of detailed information goes lost. Data Manager fills the gap providing the "magnifying lens" every process engineer needs to properly take care of the assets he/she is responsible for. Used stand-alone or in conjunction with the ABB Optimize^{IT} APC products, Data Manager replaces the former ABB WindowView Data Collection and Trending package.

The package has been designed to allow actual plug-&-play connectivity to a multiplicity of platform. Once acquired, high-definition, uncompressed data can be quickly trended and processed to unveil hidden, essential information about plant operation.



HIGHLIGHTS

- A powerful data acquisition, analysis and trending package
- Collect data, view real-time trends,
- View x-y plots, view historical data
- Import/Export data from/to the most common data formats
- Easy to install and configure

DM FEATURES

Data Collection

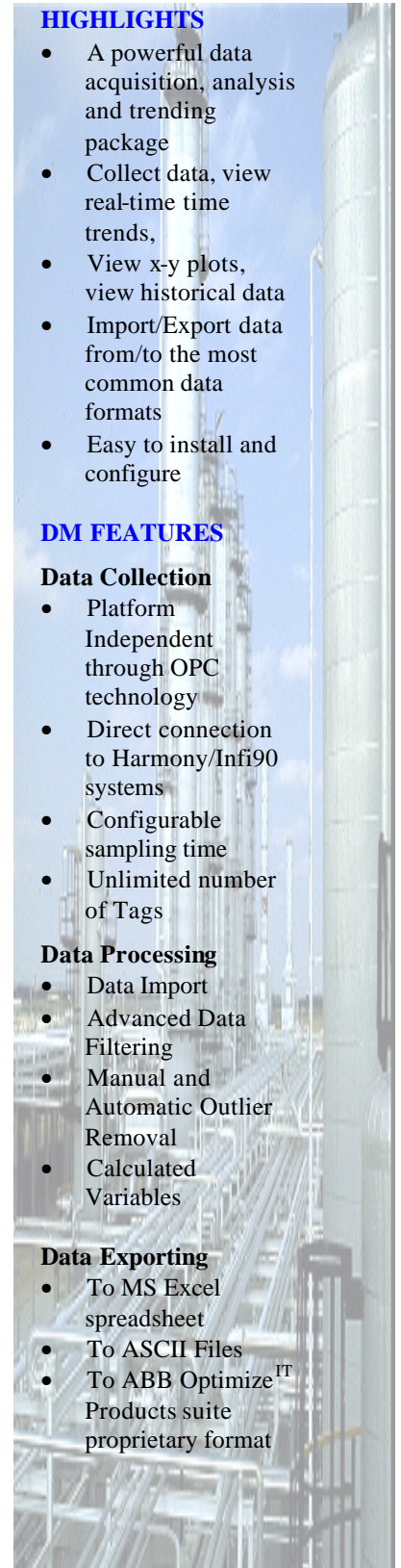
- Platform Independent through OPC technology
- Direct connection to Harmony/Infi90 systems
- Configurable sampling time
- Unlimited number of Tags

Data Processing

- Data Import
- Advanced Data Filtering
- Manual and Automatic Outlier Removal
- Calculated Variables

Data Exporting

- To MS Excel spreadsheet
- To ASCII Files
- To ABB Optimize^{IT} Products suite proprietary format



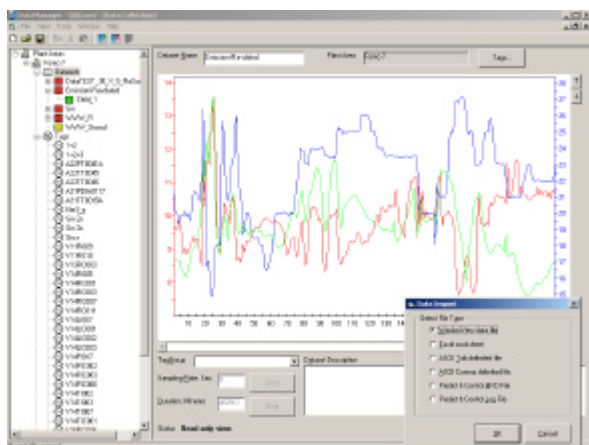
Data Manager Overview

Optimize^{IT} Data Manager is a native Windows, client-server software tool designed and developed to provide a powerful package for troubleshooting process control problems. While there is no limit to the number of tags that can be configured for data collection, the software is not - and should not be used as - an historian.

Data Collection/Data Import

Data can be acquired both in real-time through an OPC connection to the controls system (data acquisition) and in off-line mode importing from most common data repositories (spreadsheets, historian databases, etc).

For Infi90/Symphony systems direct data collection is available through native API connection.



Tag Groups

Data collection groups are defined to allow data to be collected for different groups of tags at different sampling rates. A tag can belong to more than one data collection group. Tag Groups are used for grouping common tags for the purpose of displaying real-time and non-real-time trends. Data from tag groups can be exported to different file formats.

Data Processing

A unique characteristic of Data Manager is its capability to process, condition and filter the acquired data for analysis purpose. One of the biggest concern when working on data-driven technologies is that data are misleading because of outliers or unnecessary signals.



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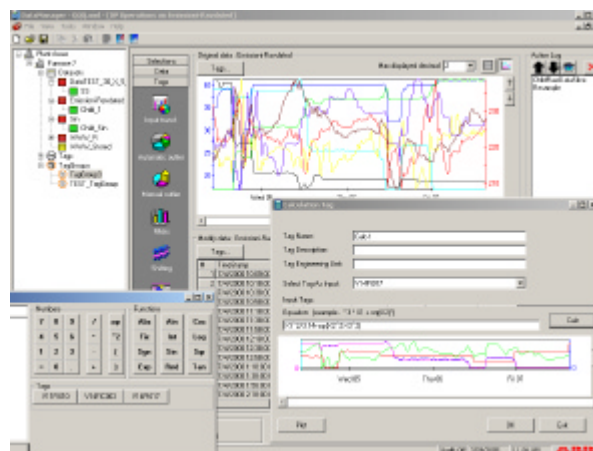
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Data Manager makes available many built-in functions for data processing, including:

- Data handling (data set merging and splitting, data editing, calculated tags, etc.)
- Data analysis (statistical analysis, filtering, etc.)
- Automatic outlier removal
- Data Shifting (in time)
- Creation and management of calculated variables
- Multi-chart (2D and 3D) visualization facility

The GUI has been designed to put powerful routines at user's fingertips, removing all the unnecessary mathematical complexity.



Pre-processed data can then be used to build either empirical models (e.g. for Advanced Process Control projects or for monitoring and maintenance purposes) or baseline for statistical control purposes.

Data Export

Once the data has been acquired, inspected and properly filtered out, they are ready to be exported towards a number of application software.

Data Manager allows to export data to:

- Microsoft Excel
- ASCII Files
- Optimize^{IT} Predict&Control
- Optimize^{IT} Inferential Modeling Platform
- Optimize^{IT} Loop Performance Manager

For the latter, Data Manager makes available a tailored tool able to export historical data for auditing purposes.

Remark for Infi90 Users:

Data collection in Data Manager is not limited to exception reporting function blocks; data can be collected from any block outputs. This flexibility requires the use of polling method of data collection. Block output values are polled from the control modules at regular intervals – the data is polled regardless of whether the block values have changed since the last sample cycle (i.e., not exception based).