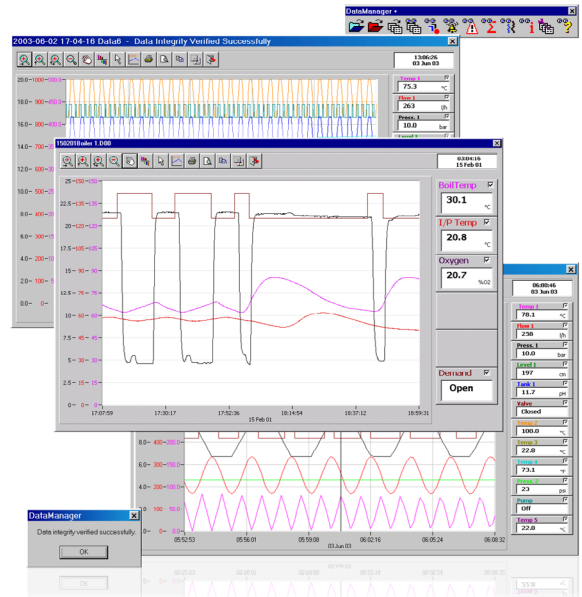


# DataManager Data Review Software

## Validation and detailed analysis of SM Series data archives



### Data security from process to PC

- completing the SM Series Videographic Recorder data security path
- compliant with 21CFR Part II

### Automatic validation of archived data

- clear indication of data file integrity

### Graphical representation of process data

- horizontal trending including analysis tools

### An instantly familiar easy-to-use package

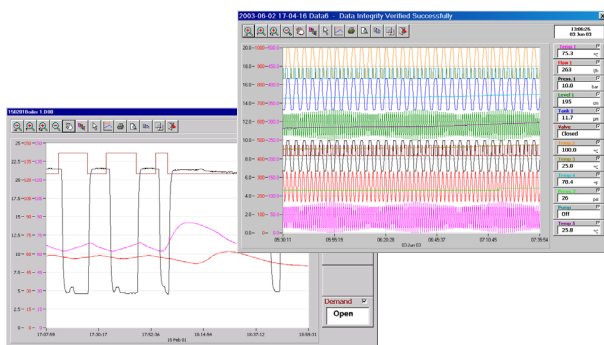
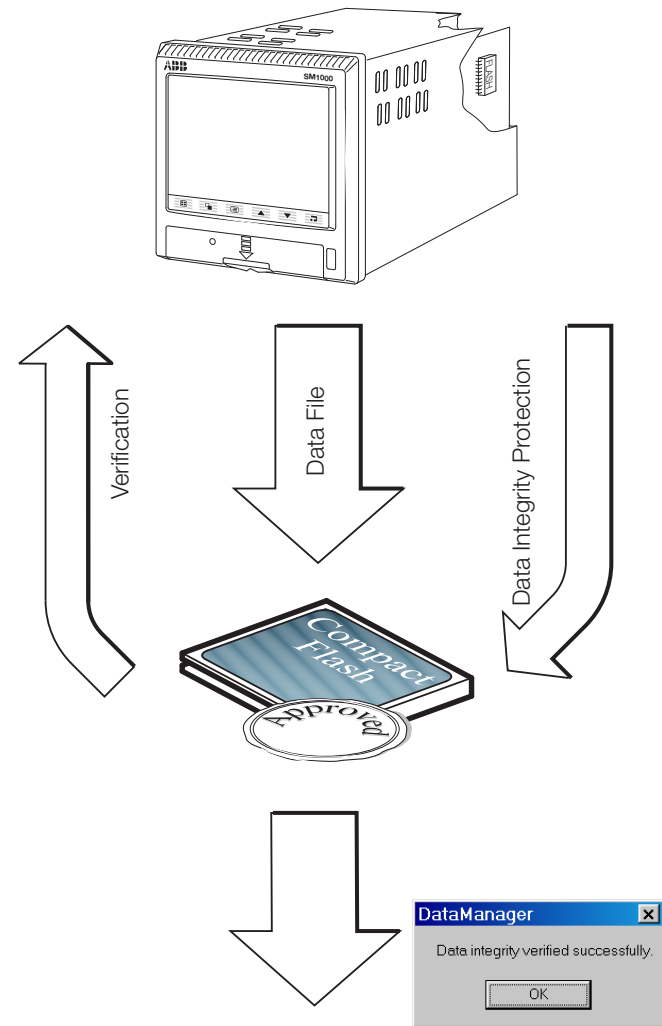
- designed as an 'Add-in' to Microsoft Excel™

### Database management of archived data files

- automatic storage and retrieval of process data

## DataManager

DataManager is an Excel 'add-in' review tool used for analyzing data archived by SM Series Videographic Recorders. It provides the ability to review archived data in both a tabular and chart format. Historical logs, for example, totalizer and audit logs, can also be reviewed. DataManager also provides the ability to check the integrity of data archives to ensure the validity of the process data contained within them. Database management of archived data files is also provided, simplifying the storage and retrieval of process data.



## Data Security from Process to PC

Through its internal flash memory, removable media options and DataManager software the SM Series provides optimum data security from the process to the PC. The diagram below details the three different aspects of the data security path.

### SM Series Videographic Recorders

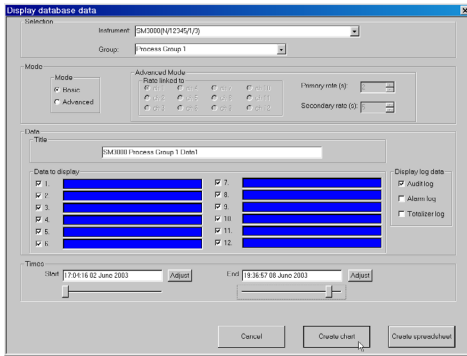
- The SM Series feature extensive physical and electronic security ensuring compliance with 21CFR Part II
- The use of Flash memory technology ensures that the Recorder is not reliant on batteries to preserve stored data during a power failure.
- In the large internal flash memory, data is stored in small blocks with each block containing a checksum to ensure the integrity of that data.
- An enhanced error detection/correction code is built-in to the internal Flash memory, ensuring safe storage of your process data.
- A door lock is fitted as standard to SM Series recorders ensuring the physical security of the removable media card.

### Removable Media Memory Card

- All transfers of process data from internal memory onto the removable media are verified to ensure data integrity.
- The solid state design of the Compact Flash cards used by the SM Series ensure optimum reliability within the widest possible range of ambient temperature and humidity.
- Two formats are available for storage of process data, CSV (Comma-Separated Value) and compressed binary. Data files stored in CSV format are attributed with an Encrypted Digital Signature. This digital signature represents a unique fingerprint of the data file. Compressed binary data files are stored in a highly secure tamper-proof format.

### DataManager Review Software

- When process data is viewed, DataManager checks the validity of the associated data files automatically and gives clear confirmation of the data's integrity.
- As well as process data, DataManager can be used to review historical logs created by an SM Series recorder, for example, the Audit log. The Audit log provides a detailed log of all system events on the recorder, including configuration and calibration changes, as well as data file creations. This information provides a full audit trail further reinforcing the security of your process data.

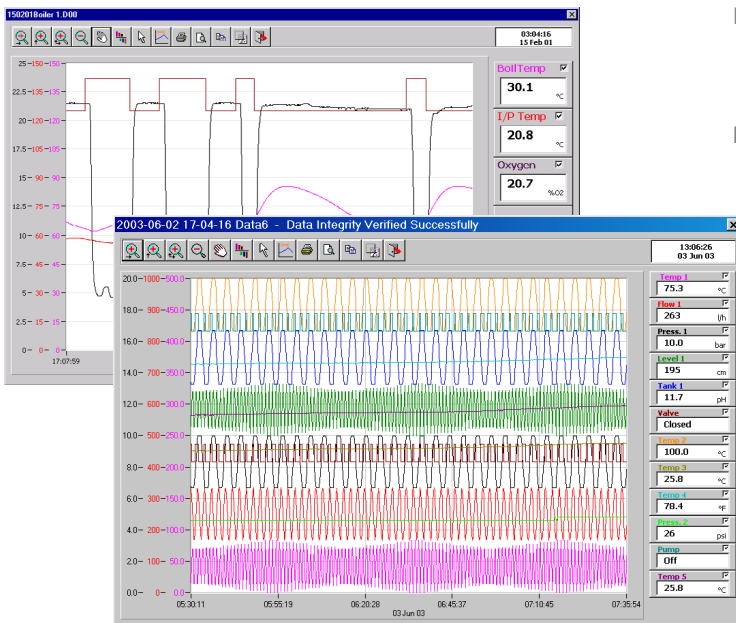









## Database Management of Process Data Files

Data files from multiple SM Series Recorders can be imported into DataManager and a database of them created automatically. When analysis of any process data is required, it can be retrieved from the database very easily. First select the time period required then, at the press of a single button, a chart is drawn of the data. Where necessary, any number of individual data files are joined together seamlessly to give the operator a continuous graph of the selected time period. If selected, events from the associated historical logs are displayed automatically as well. A graphical representation of data available within the database is shown during the retrieval of process data. A selection of password-protected administrative tools enables maintenance of the database to be performed.

## Chart View

Advanced graphing capabilities are included within DataManager. A number of tools are provided within the chart view, enabling detailed analysis of process data.



- Zoom in (  ,  and  ) and zoom out (  ) enable the user to enlarge specific sections of a chart confined to the x, y or x and y axes.
- A pan function (  ) enables the user to drag the chart from side to side.
- Chart settings (  ) enables the user to change the chart's appearance.
- At any time the cursor tool (  ) can be selected. The cursor tool can be used to interrogate the trends on the chart. The exact value of all the trends is shown on the digital indicator on the right-hand side of the screen complete with engineering units.
- As with the Chart View on the Recorder itself, trends can be temporarily removed from the screen. This gives a clear, uncluttered view of selected trends only; enabling easy interrogation or comparison.
- Once a section of data has been identified, the chart view can be printed providing a paper copy of the data in question.

## Reporting

Through the ability to copy the chart view onto the clipboard and paste it into other documents, DataManager enables easy electronic reporting of the results of your process. Be it writing an e-mail or an official quality report, DataManager enables a graphical representation of your process data to be included easily.

## Minimum PC Requirements

- Windows™ 2000 or XP
- Excel 2000

## Ordering Information

- DataManager Software Package – part no. SW/DATMGR

## Standard Excel Add-In

DataManager is designed as an 'Add-in' to Microsoft Excel and is, therefore, instantly familiar to the user and exceptionally easy to use. SM Series data archive can be opened and formatted as a table within a standard Excel spreadsheet. This enables the extensive mathematical power of Excel to be used whilst interrogating your process data. In addition to its standard functions, DataManager provides Excel with additional charting capabilities described in this specification sheet. DataManager also provides Excel with the ability to verify the integrity of all process data files and database management of archived data files from multiple recorders.

# Contact us

## **ABB Limited**

### **Process Automation**

Howard Road

St. Neots

Cambridgeshire PE19 8EU

UK

Tel: +44 (0)1480 475321

Fax: +44 (0)1480 217948

## **ABB Inc.**

### **Process Automation**

125 E. County Line Road

Warminster

PA 18974

USA

Tel: +1 215 674 6000

Fax: +1 215 674 7183

[www.abb.com](http://www.abb.com)

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