

Product Position

iManageData is an essential tool to access, clean, filter and convert data extracted from data warehouses, data marts, relational databases, text files, workbooks and real-time data historians. iManageData also accesses real-time data streams through OPC in industrial applications. Professionals use iManageData to create data preprocessing templates for use in BioComp's iModel, iUnderstand and Intellect, BioComp's intelligence server or prepare data for use in other vendors' applications.

Without a tool like iManageData, most commercial data is simply unusable due to errors and omissions.

Key Features

- Access a wide variety of data sources, including Oracle, SQL Server, Excel workbooks, Microsoft Access, text files, OSIsoft PI Data Archive, and OPC ("OLE for Process Control")
 - Row and column count limited only by your memory and cpu speed. No more Excel limitations.
 - Filter data by dragging your mouse over graphs of your data
 - Handle missing values
 - Convert text to numeric values
 - Convert ranges of values to binary indicators
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Applications

iManageData's flexible data handling technology is an essential, ground-floor foundation for Business Intelligence applications in banking, finance, manufacturing, medicine and marketing and critical for engineering applications in industrial monitoring and control.

Process Engineers access real-time process data historians to extract, clean and filter data easily then with a push of a button, send the data to iModel to build process models. When these solutions are deployed on-line with Process Intellect, iManageData's handling is passed on and used automatically behind the scenes.

Marketing Analysts can easily convert scalar variables, such as incomes, to discrete levels, convert alpha-encoded variables to flags, filter-out census outliers and much more. You can create data handling schemes on smaller samples and then apply them to large volumes of records. iManageData is used heavily in BioComp's marketing projects because it saves so much time and effort.

Features and Benefits

Data Quality is Key to Your Success

Business Intelligence and Process Intelligence systems are data driven. Your results depend heavily on your data quality. iManageData helps you improve the quality of your data by filtering out bad values, filling in holes and converting your data into meaningful variables.

Diverse Data Access

iManageData supports data access to text files, Microsoft Excel workbooks, Microsoft Access, SQL Server, Oracle and other relational databases, and real-time data sources such as OSIsoft's PI Data Archive and OPC, heavily employed in manufacturing operations.

Data Conversions

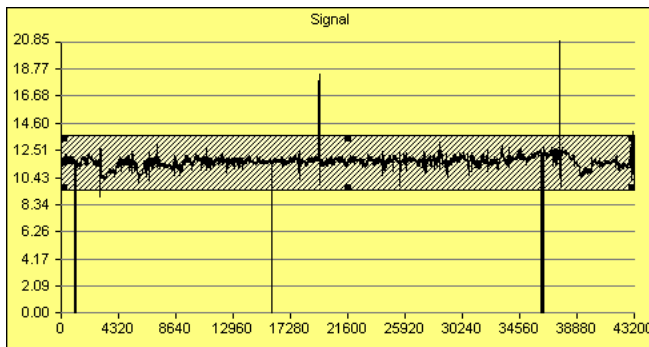
iManageData makes it easy to convert columns of text to numeric with either substitutions (change all occurrences of "Chevy" to "32") or create new columns of binary flags (if you encounter "Chevy" in this column, write a "1" to the Chevy column). You can also create new variables based on ranges of values within your data. For example, new variables indicating ranges of salaries can be created easily (High Income, Medium Income, Low Income).

Data Transformations

iManageData provides 50 mathematical functions you can apply to your data, including logs, moving averages, time delays, ratios, sums, products and many trigonometric functions.

Broad Application

iManageData is an excellent tool for many applications in manufacturing, marketing, business analytics and e-commerce. iManageData is designed to be a "horizontal tool", applicable to nearly every data analysis application.

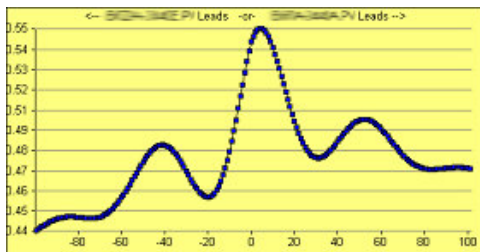


Graphical Filtering

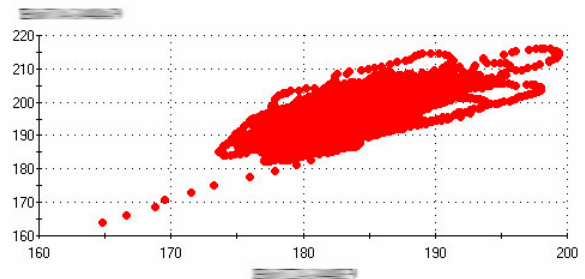
iManageData enables you to view your data and apply graphical filters to include or exclude data merely by clicking a filter type and dragging it across your data. MULTIPLE filters can be applied to EACH variable in your data set for maximal flexibility. Filter out values that don't make sense, data entry errors and other "goofy things" in your data.

Scatter Plots

Do a quick inspection of the relationships in your data by clicking two variables and viewing a scatter plot.



Scatter plot of _____ versus _____



Time-Correlation Plots

View time lags vs. correlation to see when one variable impacts another.

Ease of Use

iManageData is complete with Wizards providing step-by-step guidance for accessing data, data cleansing, data conversion, missing value handling and filtering. Follow the easy wizards to configure iManageData data management schemes for your task at hand.

Integration with Intellect

iManageData data handling schemes can be directly implemented within our Intellect on-line server. Intellect is then empowered to properly pre-process data without user intervention.

Specifications

Data Sources

- Text files
- Microsoft Excel workbooks
- Microsoft Access
- Microsoft SQL Server
- Oracle RDBMS
- OSI PI Data Archive
- OPC

Data Conversions

- Convert Numeric Values to Other Numeric Values
- Convert Textual Values to Numeric Values
- Convert a Range of Numeric Values to a New Column of Binary Flags

Data Substitutions

- Substitute Numeric Values for Other Numeric Values
- Convert Textual Values to Numeric Values
- Convert a Range of Numeric Values to a New Column of Binary Flags

Data Transformations

- Change
- Percent Change
- Binary +/-
- Binary 0/1
- Sum
- Difference
- Product
- Division
- Ratio
- Delay
- Simple Moving Average
- Exponential Moving Average
- Absolute Value
- X power N
- X Power Y
- SQRT
- Exponent
- Minimum
- Maximum
- N-Log
- Natural Log
- N-Root
- Sine
- Cosine
- Tangent
- ArcSine
- ArcCos
- ArcTan
- SinH
- CosH
- TanH
- ArcSinH
- ArcCosH
- ArcTanH Secant
- CoSecant
- CoTangent
- ArcSecant
- ArcCoSecant
- ArcCoTangent
- SecantH
- CoSecantH
- CoTangentH
- ArcSecantH
- ArcCoSecantH
- ArcCoTangentH

Filters

- Horizontal (filters range on all records)
- Vertical (filters indicated set of records)
- Free Form (filters ranges on specified records)
- Support for including/excluding inside/outside filter and eight (8) other exclusionary methods

Data Sampling for Large Data Sets

- Load All Data From Source
- Take Every Nth From Source
- Take N Randomly From Source
- Take Last N From Source
- Take First N from Source
- Real-Time Sources:
 - Take last N records every X seconds, minutes, hours, days ending at a particular date and time
 - Take records every X seconds, minutes, hours, days between particular dates and times

Wizards

- Data Access
- Data Conversions
- Data Substitutions
- Filters
- Missing Value Replacement

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