

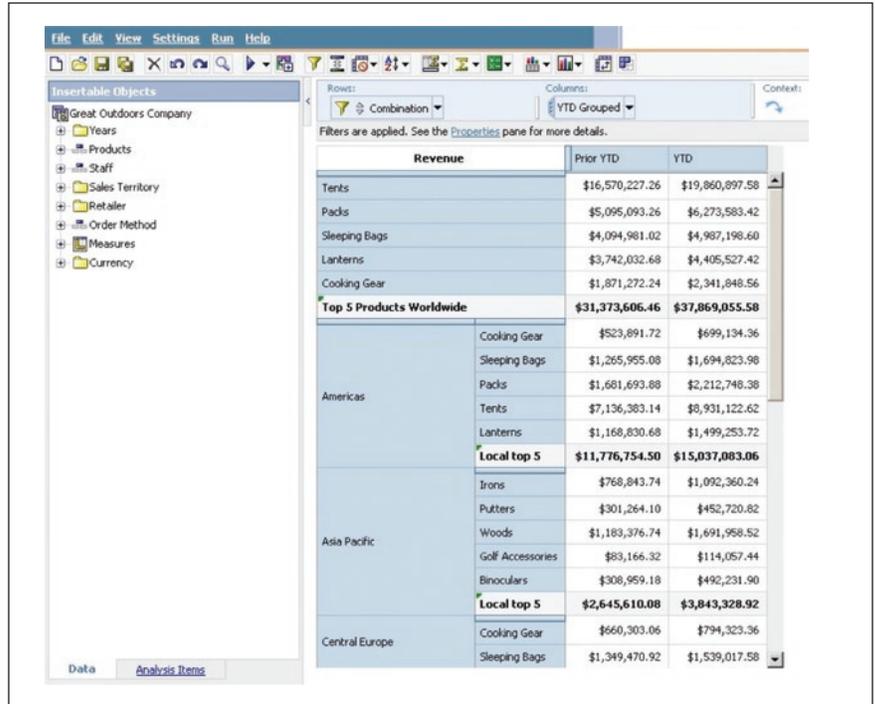
IBM Cognos 8 Business Intelligence Analysis

Discover the factors driving business performance

Overview

Multidimensional analysis is a powerful means of extracting maximum value from your corporate data. It organizes information into dimensions such as time periods, products, customers and locations, and measures such as revenue, profitability and customer retention.

By organizing information in this way, multidimensional analysis lets you better understand your business. You can follow trends in customer behavior, spot anomalies across products, compare annual sales in a region by product line or customer type, see performance trends over time or even test a strategic plan.



The screenshot displays a software interface with a menu bar (File, Edit, View, Settings, Run, Help) and a toolbar. On the left, an 'Insertable Objects' pane shows a tree structure for 'Great Outdoors Company' with dimensions: Years, Products, Staff, Sales Territory, Retailer, Order Method, Measures, and Currency. The main window shows a table with columns for 'Revenue', 'Prior YTD', and 'YTD'. The table is filtered to show 'Top 5 Products Worldwide' and is further broken down by region: Americas, Asia Pacific, and Central Europe. The data is presented in a hierarchical format, allowing for drilling down into specific product lines and regional performance.

Revenue		Prior YTD	YTD
Tents		\$16,570,227.26	\$19,860,897.58
Packs		\$5,095,093.26	\$6,273,583.42
Sleeping Bags		\$4,094,981.02	\$4,987,198.60
Lanterns		\$3,742,032.68	\$4,405,527.42
Cooking Gear		\$1,871,272.24	\$2,341,848.56
Top 5 Products Worldwide		\$31,373,606.46	\$37,869,055.58
	Cooking Gear	\$523,891.72	\$699,134.36
	Sleeping Bags	\$1,265,955.08	\$1,694,823.98
	Packs	\$1,681,693.88	\$2,212,748.38
	Tents	\$7,136,383.14	\$8,931,122.62
	Lanterns	\$1,168,830.68	\$1,499,253.72
Local top 5		\$11,776,754.50	\$15,037,083.06
Americas			
	Irons	\$768,843.74	\$1,092,360.24
	Putters	\$301,264.10	\$452,720.82
	Woods	\$1,183,376.74	\$1,691,958.52
	Golf Accessories	\$83,166.32	\$114,057.44
	Binoculars	\$308,959.18	\$492,231.90
Local top 5		\$2,645,610.08	\$3,843,328.92
Asia Pacific			
	Cooking Gear	\$660,303.06	\$794,323.36
	Sleeping Bags	\$1,349,470.92	\$1,539,017.58
Central Europe			

Asymmetrical analysis

Feature Overview

The best-selling multidimensional analysis solution

IBM Cognos® 8 BI Analysis is based on the industry's acknowledged best-selling OLAP and analysis software, IBM Cognos PowerPlay. The new analysis capability with IBM Cognos 8 BI expands this functionality to cover a complete range of data sources and to provide seamless movement among reports, queries and analysis.

You can perform multidimensional analysis quickly and easily with IBM Cognos 8 BI Analysis. Access and analyze large data sets efficiently with fast and predictable response times. View trends over time and isolate and explore issues, drilling down to details and moving from one dimension, or level of information, to another. As a business analyst, you can take advantage IBM Cognos 8 BI Analysis to improve productivity and leverage set definitions across user groups.

Features and Benefits

Deep comparative analysis

IBM Cognos analysis complements the conventional multidimensional analysis features –drill-down, slice-and-dice, ranking and sorting – with extensive features and functions that simplify the complex analysis of large data sets.

Faster analysis by design

New analysis capabilities can help you increase your productivity. Create crosstab set definitions without running a full query after each action.

This provides you with a faster way to create your analyses and validate against the data only when needed. Save time and collaborate on a shared view of the business by using sharable sets among groups of IBM Cognos analysis users. Modify your calculations directly and simplify the process of analysis when you create calculations that reference other calculations, instead of having to delete and recreate the various component calculations.

Extended multi-measure analysis

Extend your analysis and make comparisons easily by nesting measures on the outside of the crosstab axis.

More formatting capabilities

You can now identify the freshness of the data in your report by using the cube updated date variable. You can now apply formatting templates to the output of your saved analyses to apply a corporate style for the analyses created by certain users, groups or roles. These templates can include

custom titles, headers and footers. You can also modify how special characters such as nulls, division by zero and overflows, appear. You can create your own formats to replace these characters so that the analysis process is easier.

Sophisticated filtering

Filtering excludes unnecessary data and helps you focus on only the most relevant information. Filtering options include context (showing a particular view of the data), suppression of nulls/zeros, and top/bottom values (top 100 customers or lowest 50 sales performers).

You can also create and combine user-defined filters to show information based on specific criteria; for example, a filter to find those products that are discounted more than 10 percent for the current year.

Asymmetrical analysis

Asymmetrical analysis lets you use different levels of nesting to integrate several rows and columns of data in a single crosstab or report. This provides easier recognition of key performance

factors and other business influences. For example, you can quickly build one analysis that shows sales by geography together with sales by product, over a period of time.

Management of large data volumes

IBM Cognos analysis manages large data volumes to improve software performance and limit overwhelming details. This allows you to perform faster, more focused analysis. Options for data management include searching the data tree only for required data (intersection values are not retrieved), filtering on crosstabs and using subtotals to control the presentation of rolled up data.

Business-oriented calculations

You can perform calculations that exclude unimportant information (e.g., average performers) and provide comparisons or ratios that don't exist in the data source.

This provides deeper insight into trends, changes, and other issues that can affect your business. Calculations include ranking, arithmetic (sum,

Revenue	2005	2006	Rank (2005)	Rank (2006)	Change in Rank	Total
Tents	\$16,570,227.26	\$19,860,897.58	1	1	0	\$36,431,124.84
Packs	\$5,096,093.26	\$6,273,583.42	3	2	1	\$11,368,676.68
Woods	\$5,140,278.52	\$5,811,129.12	2	3	-1	\$10,951,407.64
Rope	\$4,843,338.62	\$5,638,465.80	4	4	0	\$10,481,804.42
Sleeping Bags	\$4,094,981.02	\$4,987,198.60	5	5	0	\$9,082,179.62
Lanterns	\$3,742,032.68	\$4,406,527.42	6	6	0	\$8,147,560.10
Irons	\$3,259,908.94	\$3,630,962.32	7	8	-1	\$6,890,871.26
Watches	\$3,065,788.98	\$3,750,424.80	8	7	1	\$6,816,213.78
Knives	\$2,403,362.68	\$2,999,448.92	9	9	0	\$5,402,811.60
Tools	\$2,304,252.88	\$2,806,973.34	10	10	0	\$5,191,226.22

Analysis showing product ranking

difference, round up or down), percentage (% difference, % of total), analytic (minimum, maximum, average, rollup) and statistical functions (standard deviation, percentile, quartile).

Subsets

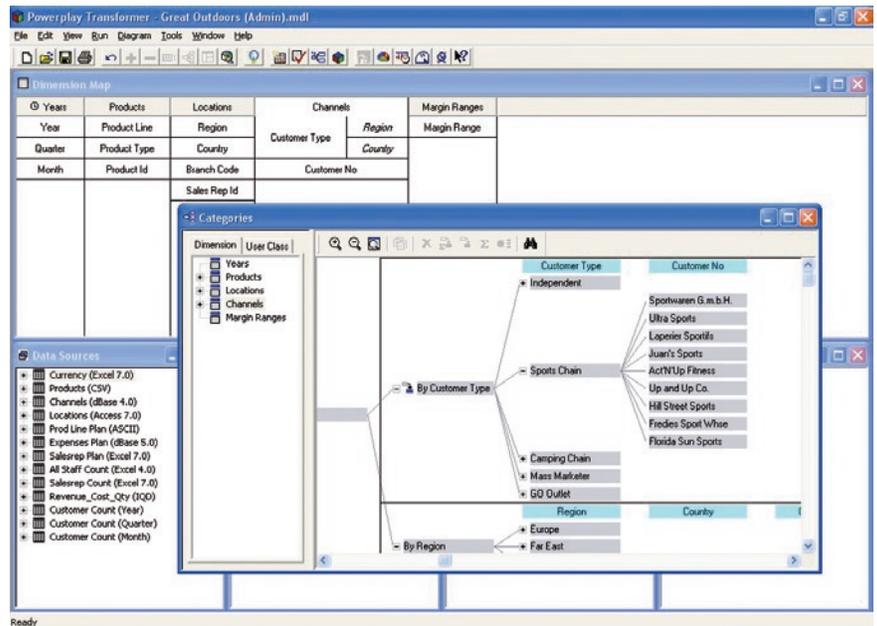
Subsets let you create logical groupings of information, based on criteria you choose. Examples include pattern matches and value thresholds (e.g., specific products or customers of interest). This provides faster access to relevant information and quicker response to business demands.

Scenario dimensions

Scenario dimensions help you analyze financial data. Instead of calculating just one set of figures, you can include several sets of figures or scenarios. Each scenario is based on different assumptions such as planned, budget and actual values, or best case and worst case. With this feature, comparative analysis between scenarios is much easier.

Drill-through to the underlying data

IBM Cognos 8 BI Analysis lets you drill through to the underlying information to isolate and understand business performance or operational details. To get to the most relevant information quickly, you can control target destinations by the level in the dimensional hierarchy. Limiting a query in this way also reduces the impact on the database, since only the most relevant information is retrieved.



Data modeling is done in the IBM Cognos Transformer design environment

Technical Specifications

Flexible data modeling

IBM Cognos Transformer, the IBM data modeling and cube generation tool with IBM Cognos 8 BI, extracts data from multiple data sources and transforms it into IBM Cognos PowerCube. These dimensionally modeled data sets can contain hundreds of millions of consolidated rows of data and millions of categories.

The IBM data modeling environment lets you design your IBM Cognos PowerCube by visually defining dimensions, levels, categories (members), measures and other multidimensional data structures. You can also build business rules and calculations into your cubes.

IBM Cognos Transformer detects and suggests hierarchical structures automatically, and verifies the integrity of data elements that are specified as unique identifiers.

Business analysts can get the answers they need with the IBM Cognos PowerCube. Because IBM Cognos Transformer is part of the IBM Cognos 8 platform, you can increase your decision making performance through faster access to data. Leverage the platform and security of IBM Cognos 8, and provide users with a business-friendly tool for OLAP cube building. IBM Cognos Transformer capabilities allow you to create and share datasets optimized for exploration and analysis.

IBM Cognos 8 Business Intelligence Analysis

IBM Cognos Transformer provides advanced modeling capabilities, and leverages the star and snowflake schemas that dominate today's warehouse landscape. Here are some examples:

- Time-dependent processing that augments straight year/quarter/month reporting with relative time data, such as month-to-month and year-over-year, QTD, YTD and custom time periods (e.g. 13-month years).
- Alternate drill paths in a single dimension that provide different perspectives on the same data – view HR data by region, then by job function for example.
- Distinct category counts that handle market basket and survey requirements.

For example, see how many unique customers made purchases within a series of transactions.

Manageability

With IBM Cognos Transformer, you can build IBM Cognos PowerCube quickly from any source. Automatic parti Cube, and platform independence lets you leverage your existing environment.

Comprehensive logging and checkpoints

Designers can define the level of logging that occurs during IBM Cognos PowerCube builds and easily monitor cube build status. IBM Cognos PowerCube administrators can also configure checkpoints so that cube builds are efficiently restarted in case of hardware problems or query failures.

Automated cube builds

Using IBM Cognos Transformer's Model Definition Language, designers are able to automate cube updates with a fully documented, open API.

Security

Based on user classes, administrators can restrict access to measures, whole or partial dimensions, or NewsBoxes in the IBM Cognos portal. In large installations, user and user class security definitions can be managed in batch mode.

Adaptable to any data source

To take full advantage of the complete business view provided by multidimensional analysis, you need access to different types of sources including OLAP and dimensionally aware relational data. IBM Cognos Transformer reads and handles source data from all major databases and in all major file formats.

OLAP data

In addition to IBM Cognos PowerCube, IBM Cognos TM1 cubes and Cubing Services from IBM InfoSphere Warehouse, IBM Cognos analysis leverages third-party cubes from Microsoft® SQL Server® Analysis Services (MSAS), SAP BW, and Oracle Essbase, without additional development. This includes extended support for MSAS security, member properties, name sets and actions as well as support for Essbase and IBM DB2® substitution variables and member properties.

Relational data

By leveraging relational database modeling systems (RDBMS), IBM provides analysis of relational databases, including dimensionally aware sources such as IBM DB2 Cube Views, Oracle Materialized Views, and Teradata Aggregate Join Indexes.

Modern data

IBM Cognos analysis also uses XML, JDBC, LDAP, and WSDL data, as well as sources such as Microsoft® Excel® and flat files.

Faster query response times

IBM Cognos 8 BI optimizes network efficiency to give you fast query response times. The BI server

IBM Cognos 8 Business Intelligence Analysis

processes and summarizes data in the application layer and only returns summarized results, conserving bandwidth and optimizing network performance. Users start with the highest-level information and then perform trend and top-down analyses, so data access is minimized.

The server also processes queries and stores the results in the server cache. New queries are served from this cache when possible, speeding up query time and increasing throughput.

Web-based deployment

Reporting with IBM Cognos 8 BI uses a zero-footprint, Web-based deployment model. This open, Web standards-based environment is built on the proven IBM Cognos architecture. The reach of the Web means users can easily access, administer and distribute their BI data from anywhere in the organization with continuous availability.

IBM Cognos 8 BI is built on a single, native Web services architecture for maximum flexibility. It works with your existing application and Web servers, portals, browsers, enterprise applications, platforms, databases and security models. It supports UNIX[®],

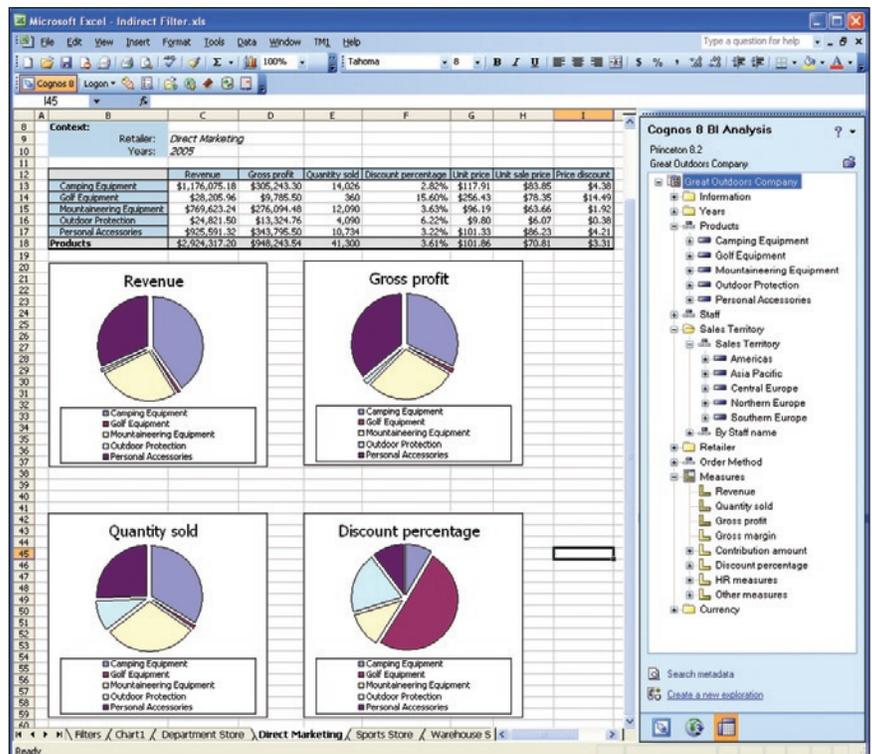
Linux[®] and Microsoft[®] Windows[®] operating systems in uniform and mixed platform deployments. A single, fully documented API allows developers and IT users to customize, integrate, and rebrand the reporting interface to suit the organization.

Designed for enterprise-level deployment, IBM Cognos 8 BI offers proven scalability to hundreds of thousands of users through an N-tiered, multi-server, multi-threaded architecture. This design provides full failover recovery and dynamic load balancing.

Better performance management

Analysis is a key capability within IBM Cognos 8 Business Intelligence. IBM Cognos 8 BI is the only solution that provides complete BI functionality in one product on a single, proven architecture. It delivers seamless reporting, analysis, scorecarding, dashboards and event management.

This simplifies your IT environment and the way everyone works with information. A variety of access modes let users interact with BI content using familiar applications or devices, such



IBM Cognos 8 BI Analysis for Microsoft Excel

as a BlackBerry, search engine, or Microsoft® Office application. The result is high user adoption, better decisions, and greater agility across the organization. IBM Cognos 8 BI is the clear choice for BI standardization and a cornerstone of better performance management.

IBM Cognos 8 BI Analysis for Microsoft Excel

IBM Cognos 8 BI Analysis for Microsoft Excel is for those who want to explore and analyze trusted, secure, multidimensional information from IBM Cognos 8 BI and other data sources in a familiar Microsoft Excel spreadsheet.

Built for use with Microsoft Excel, this product joins solutions already in place for IBM Cognos 8 Controller and IBM Cognos 8 Planning – two important data sources for IBM Cognos 8 BI. Users can perform ad hoc analysis of planning and financial data and combine this information with other trusted data sources. In addition, this software augments IBM Cognos 8 Go! Office, which allows users to view existing BI content in Microsoft® Word, Microsoft® PowerPoint®, and Microsoft Excel.

About IBM Cognos BI and Performance Management:

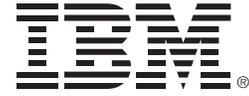
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An IBM Cognos representative will respond to your enquiry within two business days.



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