



## **IBM Cognos reporting on PowerCubes**

High-definition reports and  
dashboards for your  
dimensional data

## Contents

**3 Business problems**

**3 Business drivers**

**4 The solution**

The power of two

How it works

**8 Conclusion**

## Abstract

When IBM Cognos® 8 Business Intelligence (BI) reporting is integrated with IBM Cognos PowerPlay analysis, you get the best of two worlds – the sophisticated functionality needed to integrate and format dimensional data in a tool that supports timely, broad dissemination of business information.

## Overview

Your organization has invested in IBM Cognos PowerPlay software to transform data into information about the business. PowerCubes show relationships and trends across key business dimensions, so users see critical information in the right context. This kind of analysis provides greater business insight and supports more informed decisions.

Dimensional analysis *coupled with effective reporting* takes business information to the next level. It lets people analyze trends and get answers to business questions by way of managed reports or dashboards.

## Business problems

Having the right reporting tool is essential. Most reporting applications don't provide the sophisticated functionality needed to integrate and format dimensional data. Moreover, they don't support timely, broad dissemination of business information.

IBM Cognos 8 Business Intelligence reporting integrated with PowerPlay analysis offers the best of both worlds. It provides high-definition reporting on the comprehensive business information stored in your PowerCubes.

IBM Cognos reporting allows your organization to extend the boundaries of traditional reporting, giving you unprecedented ways to view your business information. It covers the complete range of reporting needs, from simple inventory lists and managed reports to high-impact business dashboards. And it meets the needs of every kind of user, from report consumers to professional authors and developers.

Through the strengths of managed and production reporting, IBM enhances your PowerPlay investment to improve business information flow and decision-making across the business.

## Business drivers

IBM delivers on all reporting requirements with drag-and-drop ease of use and simplified deployment. A flexible reporting infrastructure also means you don't have to migrate your PowerPlay environment or other IT investments.

IBM Cognos 8 BI reporting is built on a single, native Web services architecture. It works with your existing application and Web servers, portals, browsers, applications, platforms, databases, and security models. Further, it supports Microsoft® Windows®, UNIX®, and Linux® operating systems in uniform and mixed platform deployments.

A modern, Web-based BI architecture that snaps into your existing infrastructure is deployable faster and helps maximize return on investment. Moreover, by integrating into mixed application environments, it minimizes administration and maintenance costs. The powerful, zero-footprint IBM Cognos architecture provides not only significant reporting capability. It also enhances the value of your existing PowerPlay deployment without the need for modification.

## The solution

### The power of two

IBM Cognos reporting integrated with PowerPlay data provides a complete business picture. It delivers analysis and sophisticated reports across departments and functions to enable broad consumption of critical business information.

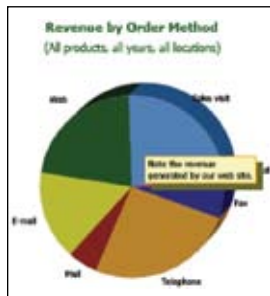
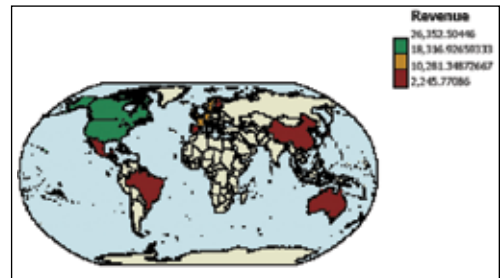
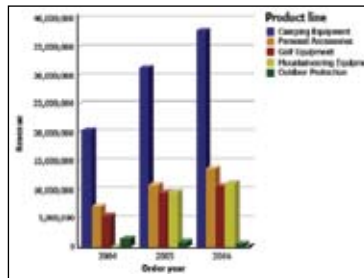
With both capabilities, your organization benefits from:

- The details and the big picture view.
- Powerful analysis.
- Reporting by table and exploring and navigating by dimensions.
- High user interactivity.

Formatting and data access limitations are removed, allowing people to access and view information the way they want. The result is higher productivity across the board.

Business users can build dashboards or reports from PowerCubes to view information at-a-glance. For example, a sales manager can review where the sales force is with respect to quotas, how much budget has been used, and what new sales opportunities exist. HR may want to review a staff benefits or compensation cube.

A CIO can utilize powerful production reporting and ad hoc capabilities to track and understand IT resource allocation and usage. Finance can report against financials and drill down into an income statement cube for in-depth analysis.



IBM Cognos reporting provides powerful charting and advanced formatting and visuals to enhance your reports and dashboards

**Self-service reporting**

With IBM Cognos reporting users don't have to understand database logic or computer languages. Authors create reports by dragging and dropping PowerCube data and format elements onto a blank page.

The rich visualization options can be used to create interactive reports for maximum visual impact. Users can create dashboards or reports that use geographic or spatial maps to present dimensional data in different ways such as city or country maps, floor plans, or seats in an airplane.

These can be combined with interactive charts such as gauges, horizontal progress charts, and combination charts. Since charts are typically used to integrate different cubes or dimensions, authors can build multiple queries into the same chart.

The drag-and-drop environment also means users can create and enhance reports quickly. Removing any barriers between queries and reports simplifies overall authoring.

Divisions, departments, and regions together all work from the same data. Users can leverage information by reusing queries and report objects created by others. Moreover, sharing responsibility for report creation eases the reporting workload for IT.

#### **Distribution of information**

IBM Cognos production-ready reporting capabilities ensures timely distribution of PowerCube-based reports:

- Create and deploy a single report that can be executed across multiple languages and output formats such as HTML, Adobe® PDF, and Microsoft Excel®.
- Deliver information to a broad range of users with scheduling, bursting, and email.
- Schedule simultaneous or sequential batch reporting jobs for multiple output formats, destinations, and views.
- Distribute reports on-demand or based on time, calendar, events, or an external trigger.
- Choose viewing preferences for the reporting interface including time, currency, and data formats.

**How it works**

Reporting leverages IBM Cognos PowerPlay cubes. It also integrates other industry-standard OLAP sources, including Microsoft SQL Server® Analysis Services, SAP BW, Hyperion Essbase, and IBM OLAP for DB2®.

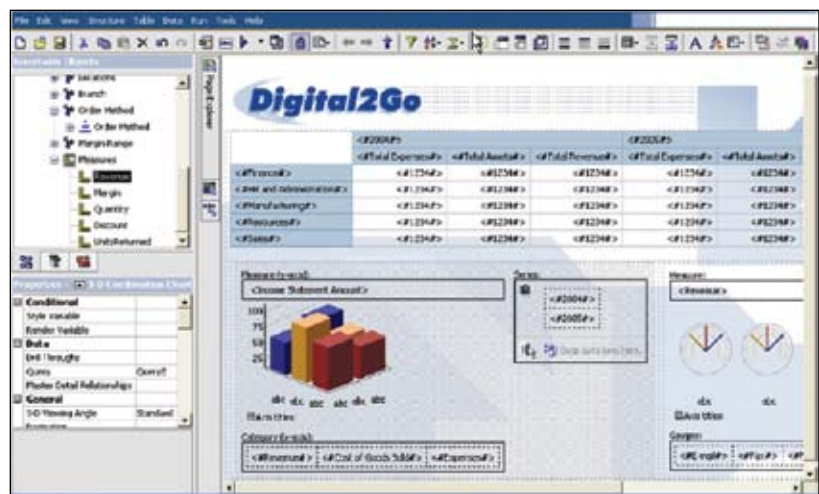
Users can build reports directly from PowerCubes or other OLAP data. Alternatively, administrators can model and publish dimensional information packages for reporting purposes.

**Building OLAP reports**

Users can create highly formatted reports directly from PowerCubes or other OLAP sources. The ability to integrate multiple cubes at the same time allows users to get all the information they need in one report or dashboard.

The user simply authors the report in the IBM Cognos reporting environment, including formatting and adding visual elements to replicate or enhance the cube components (such as graphs, charts, and crosstabs). To see the data, the author drops in a cube as an insertable object.

IBM Cognos reporting also provides hierarchical awareness, so the author can control the drill behavior. This allows users to drill up and down into the source cube from within the report.



*Integrate data from multiple cubes to create one report or dashboard.*

### **Building OLAP models**

Administrators can use IBM Cognos Framework Manager to publish a multiple OLAP information package. The data manager presents a single, business-friendly view of information while modeling data from different dimensional data sources.

Once an information package is created, users can build a range of reports and dashboards from it. The modeling process requires no changes to the original data infrastructure, and it ensures all reporting is based on an accurate and consistent view of the source data.

### **Common metadata**

Framework Manager leverages everything it can from the data source in terms of metadata including joins, cardinality, dimensions, hierarchies, attributes, and measures. Through this metadata, administrators can apply consistent business rules, dimensions, and calculations to the data:

- In a single model, defines all the logical query subjects, dimensions, and hierarchies that run an organization, and packages them for broad user consumption.
- Provides automatic recognition of dimensional data hierarchies and drill-up and drill-down for text reports and charts.
- Offers a multilingual environment including data, formats, column titles, and descriptions in a single metadata layer.
- Enables a federated (multi-developer) modeling environment and source code control integration.

## **Conclusion**

Users need both analysis and reporting to gain a complete business picture. One PowerCube can answer thousands of business questions. With enterprise reporting, you can extend the reach of this critical information and multiply the benefit.

IBM Cognos 8 BI provides a sophisticated reporting infrastructure that gives you the ability to deliver enterprise-wide quality reports against your PowerCubes and other OLAP data sources. The result is broader consumption of business information to accelerate and improve decision-making across the organization.





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February 2009  
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