

Business Intelligence Software

Java Beans not Coffee Beans

August 2005



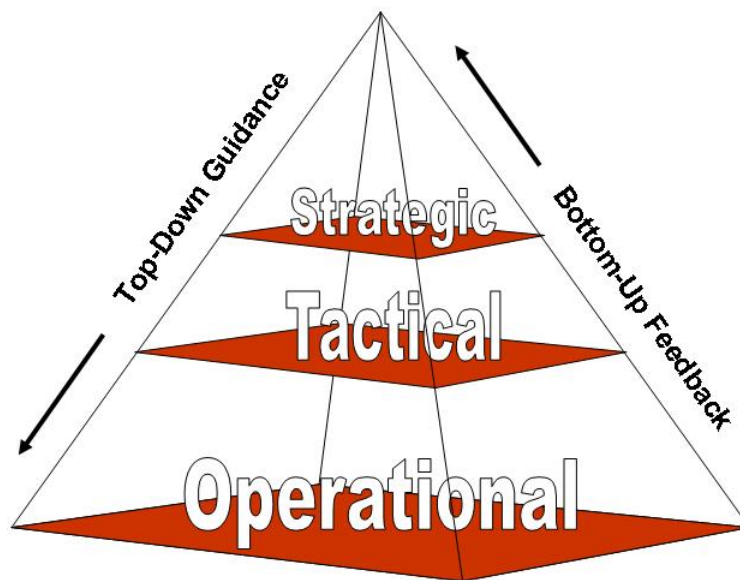
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Introduction

Today's successful Business Intelligence solution provides a Company with a Web Services (Java Beans – a Java programming construct) architecture that delivers functionality from the mail room to the board room and from the reception desk to the shipping dock. On such a foundation, BI provides staff throughout the Company with access to valuable information assets where and when needed in the appropriate form and format. Such a Web Services solution, by providing universal access to the corporate BI architecture can eliminate the previous needs for Business Analysts to be up all night (Coffee Beans), compiling data from disparate, dissimilar and disconnected systems in hopes of compiling a single version of the Truth.

Business Intelligence is not a single product; rather it is a suite of integrated tools running on an enterprise-wide architecture providing access to information assets at the strategic, tactical, and operational levels (See Figure 1).



**Business Intelligence
Business Performance Management**

Figure 1

The BI Continuum

Today's standard suite of Business Intelligence tools includes the following:

- Planning,
- Budgeting,
- Forecasting,
- Information Integration
- Analytics
- Scorecarding (w. Dashboard),
- Predictive Modeling,
- Reporting,
- Decision Support, and
- Corrective Action.

These tools sit atop a foundation of a data warehouse tool, i.e., Business Performance Management (BPM) (see Figure 2.).

The BI Continuum

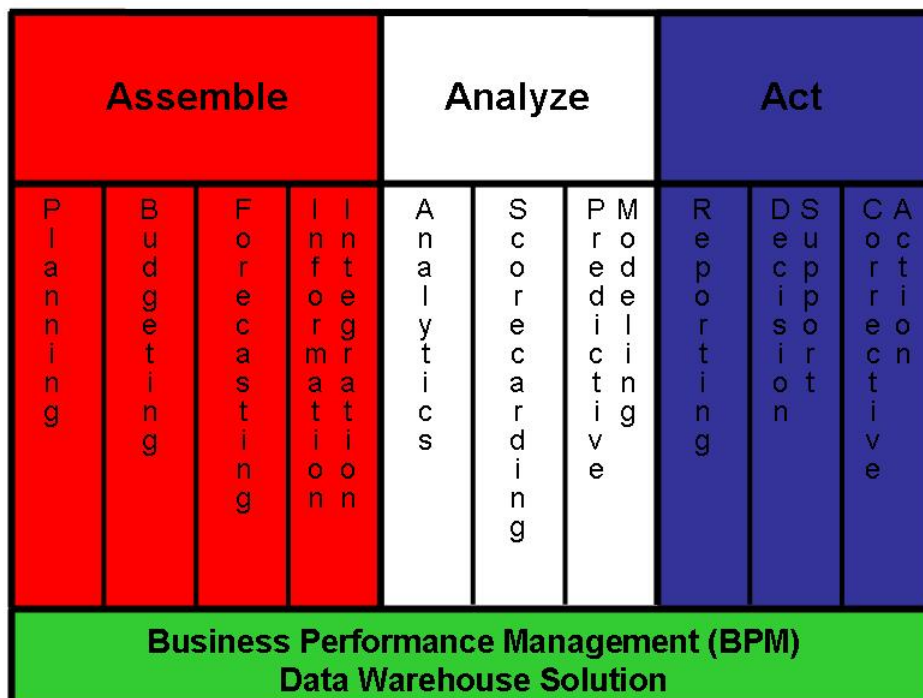


Figure 2

Planning

Planning is the first and perhaps most important component of any BI solution. Planning sets the strategy and maps the top-down direction to the tactical and operational actions that will assure successful performance. Today's planning component must be both versatile and robust to meet the challenges of today's ever-changing markets and competitive environments.

Budgeting

The Budget is a static look at and conversion of the Strategic Plan into a financial view of operations. It includes all the resources needed to accomplish the strategy spread across the resource units of the company. The Budget document represents a snapshot in time about where you thought the business was and where it was going at a particular point in time.

Forecasting

Forecasting provides a continual update of market conditions, competitive analysis, customer satisfaction, and budget actuals based on the original strategy and plan. Forecasts show how well we measure our markets, customers, brands, products and competitors and how accurately we can convert these and other metrics into key performance indicators.

Information Integration

A recent addition to the Business Intelligence landscape is the addition of Information Integration, chiefly the work of two Companies: Informatica and Ascential, who have extended their ETL toolkits to take on more. Both Companies now purport to offer Master Data Management solutions, wherein they can integrate the Master Files from their transactional, operational, and third party or legacy systems. The integration is actually "cleaning" up the data by removing duplicate records, standardizing on key data fields, e.g., the name of the customer is the same in both the Financials and Sales files. This transformation significantly improves the quality of data.

Scorecarding

The Corporate Balanced Scorecard, by Kaplan & Norton, is perhaps the most versatile tool in the BI tool set. The Balanced Scorecard is founded on the adage that ... "You can't manage what you can't measure". The Scorecard measures actions and activities according to Key Performance Indicators (KPI's), Key Business Objectives (KBO's), and Critical Success Factors (CSF's). The Scorecard lends itself to a Dashboard monitoring tool, and thus provides immediate feedback for corrective actions and business decisions.

Predictive Modeling

Predictive Analysis and Modeling utilizes current and historic data to predict future trends and conditions in the marketplace, the competitive environment, and in customer expectations. Predictive Modeling provides a view into the not too distant future, thus decision making can be accomplished based on data from the past, present, and future.

Reporting

Reporting presents the Business Intelligence in straight forward, plain English reports that have immediate and obvious impact on the “Human Being” using the reports. There is no need for further processing, decoding, or translations. The reporting tools utilize Data Marts and Hypercubes for reporting by OLAP & MOLAP reporting tools.

Decision Support

Decision Support tools, the actionable intelligence, information assets, and data resources provided from other components of the Business Intelligence continuum, are gathered for rapid analyses and quick response decision making. These decisions are highly informed so as to provide immediate impact and future value.

The types of decisions here are those that affect marketing programs, sales strategies, product/brand management, manufacturing and supply chain, customer satisfaction, business process management, organizational learning, and information systems and infrastructure.

Corrective Action

The Decision Support tools will suggest — if not send automated alerts and alarms to initiate corrective actions for immediate response to events and situations affecting sales, revenues, profitability, manufacturing, supply chain, etc. Corrective action tools can also be setup to utilize automated workflow tools to engender multiple actions and activities.

Business Performance Management (BPM)

BPM also known as Enterprise Performance Management (EPM) and Corporate Performance Management (CPM) is a Data Warehouse Tool that provides the architectural foundation for the BI tools and technologies in use today.

The Data Warehouse can be used to load data, in near real-time, to dimensional and multi-dimensional tables where it can be further processed into the data marts and hypercubes used by today’s OLAP (On-Line Analytical Processing) and MOLAP (Multi-dimensional On-Line Analytical Processing) reporting tools, e.g., MicroStrategy, Hyperion Essbase, Cognos PowerPlay, Business Objects, etc. These Analytical

Reporting tools provide the data, information, and knowledge needed for optimal bottom-up feedback, rapid decision making and top-down guidance (See Figure 3.).

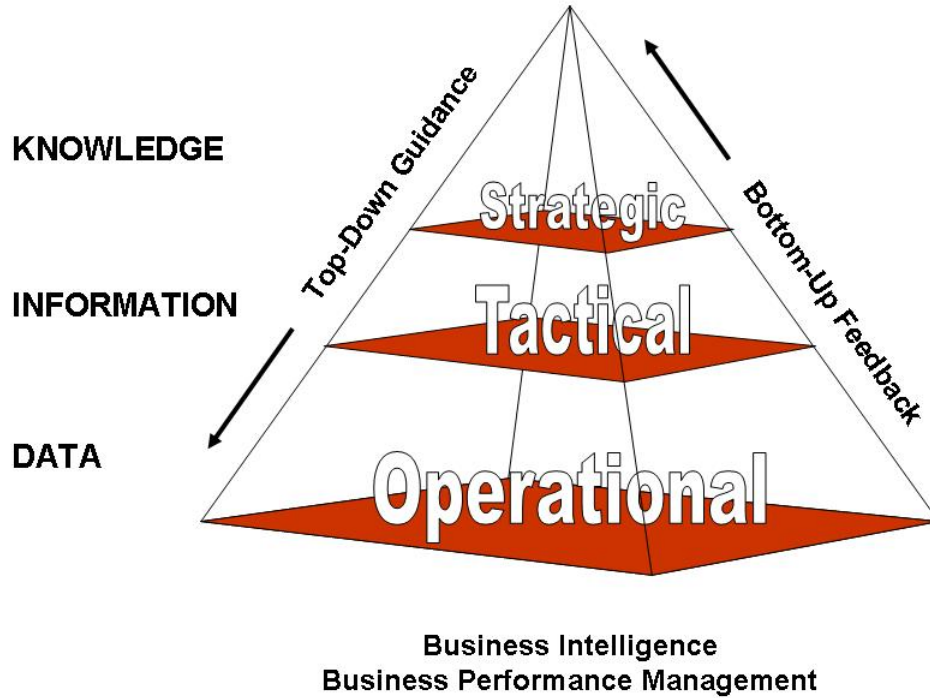


Figure 3

The Business Intelligence Marketplace

Today's BI marketplace is highly volatile with some companies growing through mergers and acquisitions to fill out their BI Suite of Tools e.g., Business Objects with Crystal Reports or Hyperion with Brio, while others are growing organically by adding functionality to existing well developed and well known products, i.e., Cognos PowerPlay and MicroStrategy.

For the last few years there has been an annual survey of On-Line Analytical Processing (OLAP) tools. The survey is conducted by Nigel Pendse and Survey.com. This is the fourth year for the survey and the results are summarized below.

The BI Tools in the survey this year numbered 11, including:

1. Applix[®] TM1,
2. Business Objects[®],
3. Cognos[®] PowerPlay,
4. Hyperion[®] Essbase,
5. Microsoft[®] Analysis Services
6. MicroStrategy,
7. MIS Alea[®],
8. Oracle[®] Discoverer
9. Oracle[®] Express
10. Oracle 9i/10g OLAP Option, and
11. SAP[®] BW

Other tools such as Hyperion Intelligence (formerly Brio), Information Builders' WebFocus, and Siebel Analytics did not make the survey because of the lack of successful deployments.

In the survey this year, a "Peer" group was set up to allow for effective comparison with MicroStrategy the annual leader in most measures of the survey. The other members of the peer group include Hyperion Essbase, Cognos PowerPlay, Business Objects, and Oracle Discoverer. This Peer group helps to set an appropriate scale for all graphical outputs from the Survey measures.

Project Success & Business Benefit

Product	Rank: Achievement of Business Goals
MicroStrategy	1
Hyperion Essbase	2
Oracle Discoverer	3
Cognos PowerPlay	4
Business Objects	5

Customer Loyalty

Product	Overall Customer Loyalty Score*
MicroStrategy	83.4
Business Objects	70.7
Hyperion Essbase	67.3
Oracle Discoverer	64.9
Cognos PowerPlay	62.8

*Would not switch from existing BI solution. See no worth while alternatives.

Preferred Products to Standardize On

Product	Rank: Preferred Products to Standardize On
MicroStrategy	1
Business Objects	2
Cognos PowerPlay	3
Hyperion Essbase	4
Oracle Discoverer	5

Product Prevalence (Reach)

Product	Rank: Prevalence (Reach)*
MicroStrategy	66.2
Cognos PowerPlay	55.4
Business Objects	51.4
Hyperion Essbase	50.7
Oracle Discoverer	38.5

*Used widely, not just purchased.

Number of Seats Purchased

Product	Rank: Number of Seats Purchased
MicroStrategy	1056
Business Objects	711
Cognos PowerPlay	569
Hyperion Essbase	358
Oracle Discoverer	184

Number of Seats Deployed

Product	Rank: Number of Seats Deployed
MicroStrategy	746
Business Objects	406
Cognos PowerPlay	352
Hyperion Essbase	298
Oracle Discoverer	132

Average Data Volume

Product	Rank: Average Data Volume Median Database Size (GB)
MicroStrategy	250.0
Oracle Discoverer	75.0
Business Objects	14.4
Cognos PowerPlay	8.8
Hyperion Essbase	4.2

Web-Deployment Rate

Product	Rank: Median Web-Deployment Rates
MicroStrategy	90
Cognos PowerPlay	45
Business Objects	40
Hyperion Essbase	38
Oracle Discoverer	35

Fewest Product-Related Problems

Product	Rank: Fewest Product-Related Problems
MicroStrategy	1
Cognos PowerPlay	2
Hyperion Essbase	3
Business Objects	4
Oracle Discoverer	5

Product Support Quality

Product	Rank: Product Support Quality
MicroStrategy	1
Hyperion Essbase	2
Business Objects	3
Oracle Discoverer	4
Cognos PowerPlay	5

Query Performance

Product	Rank: % of Customers Reporting Performance Complaints
Hyperion Essbase	14.0
MicroStrategy	16.0
Cognos PowerPlay	17.0
Business Objects	27.1
Oracle Discoverer	42.1

Survey Conclusion*

“The OLAP 4 Survey, the leading independent survey of real-world BI implementations, provides unique, statistically significant insight into actual BI implementations and customers’ experience with various BI products. The results of the OLAP Survey provide an important guide map to the product capabilities and support you can expect from the various product vendors. Survey respondents are both critical and candid in their assessments. Since the choice of BI product has a significant impact on overall BI project success, it is recommended that meaningful product evaluations, starting with a close review of the product benchmarks in The OLAP Survey 4, should be conducted when embarking on new BI projects.”



Cardinal Point Solutions is small and highly-focused consultancy operating out of California but with personnel spanning the country. Our Practice areas include Business Intelligence and Data Warehousing and we look forward to an opportunity to help you plan and execute a successful BI solution.

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