

**Something to think about while you wait
for everyone to get ready**

- A woman from New York married ten different men from that city, yet she did not break any laws. None of these men died and she never divorced. How was this possible?
- How many times can you subtract the number 5 from 25?
- An electrician and a plumber were waiting in line for admission to the "International Home Show." One of them was the father of the other's son. How could this be possible?

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**Information Resource
Management Association of
Canada**

How to select a BI system

Presented by Michael Burns of 180 Systems

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Introduction

- **Michael Burns, MBA, CA**
 - President of 180 Systems – independent consulting company
 - Part-time lecturer at Ryerson University teaching an ERP and an eBusiness course
 - Regular contributor to Bottom Line and CAmagazine
 - Career includes
 - Director of PwC's Canadian Mid Market Consulting practice
 - IT Partner at Toronto CA Firm
 - Project Manager for Minicom Data Corporation – software developer
 - Managing Director – H&A - consulting
 - President of Eminex Corporation – software developer

What's in a name?

- **BI or**
 - Executive Information Systems
 - Decision Support
 - Business Intelligence
- **Business Performance Management (BPM) or**
 - Corporate Performance Management (CPM)
 - Enterprise Performance Management (EPM)
- **Difference between BI and BPM**

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BI

- **Turning data into information to make decisions**
 - Could be simple report, or
 - OLAP
 - Extract, cleanse, transform, load data into OLAP cube
 - Slice and dice across multiple dimensions

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BPM

- **BI**
- **Strategic planning**
- **Budgeting**
- **Forecasting**
- **Consolidation**
- **Scorecarding (linking goals and objectives to corporate-wide key performance indicators, or KPIs).**

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The 1st mile

- In telecommunications, the problem is the last mile.
- In BI, the problem is in the first mile.
 - You need to first extract, transform and load (ETL)
 - Could be 50% of the cost

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What's the business case for BI

- Hours saved doing it manually
- Alignment with corporate strategy
- Getting the information in time to do something about it
- Anticipating threats and opportunities
- Improving customer service
- Compliance

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Compliance - Sarbanes-Oxley (SOX)

- What Y2K was to ERP...SOX could be to BPM
- CEO's and CFO's threatened with civil and criminal penalties if
 - financial statements and disclosures don't fairly present operations and financial condition
 - inadequate internal control structure and procedures for financial reporting
- BPM offers
 - Elimination of error prone manual processes
 - Internal control framework
- Use SOX and Canadian equivalent to improve business process

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Consolidation

- Geac Computer buys Comshare on August 1, 2003 – Comshare now called Geac Performance Management
- Hyperion acquires Brio – maybe finalized tomorrow
- Business Objects acquires Crystal Decisions
- Who is next?

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ERP VS Best of Breed

- | | |
|--|--|
| <ul style="list-style-type: none">• ERP Advantages<ul style="list-style-type: none">– Integration– Infrastructure/platform consistency– User interface consistency– One number to call – no finger pointing | <ul style="list-style-type: none">• Best of Breed Advantages<ul style="list-style-type: none">– Cost– BI/BPM Focus – best practices– Span Multiple ERP's |
|--|--|

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Differences between products

- Not web-based – price of admission
- Breadth
- Industry expertise
- Scalability
- ETL tools
- Local expertise
- Cost – especially for occasional user
- One product
- Functionality – Write-back, attach documents / knowledge management...

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Awake?

anydroptime

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Microsoft BI

- **Platform.**
 - ETL
 - Data Transformation Services (DTS)
 - BizTalk
 - Host Integration Server (HIS)
 - Data warehouse - Microsoft SQL Server
 - OLAP - SQL Server Analysis Services
 - Reporting and enquiry
 - Excel, Data Analyzer, Office Web Components...
- **Cost.** Microsoft SQL Server includes DTS and Analysis Server. Microsoft Office includes Excel and Data Analyzer.

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Microsoft BI

- **DTS.** With knowledge of the data structures being extracted, DTS is the tool of choice as you don't need to invest in expensive ETL tools. DTS will connect to the data sources using OLE DB, Open Database Connectivity (ODBC), or directly to text-only files. If data scrubbing is required, you will need additional tools.
- **BizTalk.** BizTalk provides enterprise application integration using XML and includes data mapping for many of the leading ERP systems.
- **HIS.** With HIS, you can connect to legacy host systems with client/server and Web networks.

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Microsoft BI

- **SQL Server Analysis Services.**
 - OLAP engine
 - Open - third party tools
 - Real time updates from Microsoft SQL Server
 - Write-back
- **Excel – PivotTable**
 - slicing and dicing across multiple dimensions
 - drag and drop dimensions across rows or columns
 - drill down and drill through
 - graphing results
 - lacks tools to customize rows or columns with new calculations.
- **Office Web Components**
 - Dashboards or portals that access OLAP over the internet.

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Break

L O O K
U L E A P

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GEAC Performance Management

- **Install Base.** 500 Customers
- **End to End BPM.** Geac includes strategy management, planning, budgeting, consolidation, and forecasting, and reporting and enquiry.
- **Statistical Engine.** Geac will automatically seed budgets and forecasts based on statistical models.
- **Unified Product.** Geac is a single unified product rather than a collection of integrated programs.

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GEAC Performance Management

- **Forecasting.** Includes rolling forecast and 3 scenarios (most likely, best case and worst case)
- **Excel.** Users can use Excel to view and manipulate the data which is stored centrally.
- **Alerts.** Alerts can be automatically triggered based on variances.
- **Industry Specific Applications.** Geac offers pre built BPM applications for Construction, Restaurants, Public Safety, Real Estate, and Libraries.

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Information Builders

- **Targeted to companies with Revenues > \$300 Million** in a heterogeneous environment. Targeted industries include financial, telco, insurance and government.
- **Cost.** About \$175,000 US for a 50 user license. Starts at about \$30k Canadian.
- **Install Base.** About 12,000 worldwide with about 300 in Canada.
- **Roots.** Information Builders morphed from a developer of 4th Generation Languages (4GL), to middleware and now Business Intelligence. The company reinvented itself in 1996 with components of 4GL and middleware included in a server-based internet BI product.

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Information Builders

- **Multiple platforms.** Information Builders extracts data from all major platforms including Microsoft operating systems, Linux, multiple flavors of UNIX and mainframes. Information Builders also reports natively from data on all major platforms.
- **Scalability.** Information Builders will handle 1000's of concurrent users.
- **Accessibility.** Information Builders supports ad hoc enquiries, production reports, OLAP and parameterized reporting (self-service).
- **Parameterized Reporting.** Rather than proliferate reports or cubes, users can filter their reports using parameters.

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Information Builders

- **Drill Through.** You can access transactions from the source systems.
- **Native Security.** Information Builder will leverage NT authentication, database security, and 3rd party tools such as RSA.
- **Write-back.** You can update an OLAP cube directly within system.

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Business Objects

- **Targeted to small, medium and large companies.**
- **Cost.** Starts at about \$25k for licensing.
- **Install Base.** 18k customers worldwide.
- **Data Integration.** Business Objects has pre-built mapping tables for the leading ERP and CRM systems.
- **Incremental extraction.** Performance is enhanced by extracting only what has changed.

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Business Objects

- **Data Warehouse.** Business Objects will pull data from multiple sources, apply conflict resolution rules and build the data warehouse.
- **Real Time Alerts.** Business Objects can generate real times alerts based on changes in the source systems.
- **OLAP independence.** Business supports OLAP cubes from Microsoft, Hyperion, IBM, Oracle, and SAP.
- **SDK Kit.** SDK allows customers or 3rd parties to build applications based on Business Objects code. 40% of Business Objects revenue is attributed to 3rd party developers.

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Business Objects

- **Analytic Applications.** Business Objects has pre-built analytical applications that include customer analysis, supply chain and human resources.
- **Performance Management.** Business Objects includes goal setting, metric management, dashboard...
- **On Report Analysis.** Non technical users can make changes to reports over the web including adding new columns.
- **Impact Analysis.** For example, when changing a data transformation rule, you can see all the objects and reports that could be impacted.

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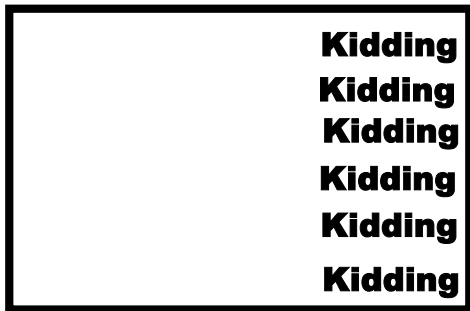
Business Objects

- **System Monitoring.** You can monitor the use of the system to see which parts of the system are being used.
- **Crystal.** Business Objects has announced its plans to acquire Crystal Decisions, which is expected to close in 4Q03. The combined organization will be the revenue leader of the business intelligence market, with \$736 million in revenue for the twelve months ended March 31, 2003. Crystal also opens new channels of opportunity for Business Objects. Crystal is the leading reporting tool and is bundled with many systems.

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Break



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OutlookSoft

- **Targeted to small to medium-sized companies** with Revenues > \$100 Million.
- **Cost.** About \$175,000 US for a 50 user license.
- **Install Base.** About 100 with 4 in Canada.
- **Business Performance Management.** OutlookSoft includes strategic planning, budgeting, forecasting, consolidation, business intelligence and scorecarding (linking goals and objectives to corporate-wide key performance indicators, or KPIs).

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OutlookSoft

- **Unified product.** All OutlookSoft functionality is available from a single application rather than multiple systems as you may find with competitors. A unified product leads to less training and real-time access from all modules within the system.
- **User Interface.** You just need to know Microsoft Excel and Internet Explorer.
- **Excel.** You download data over the internet to Excel, make all your changes in Excel and save it to the central database (not on your PC).
- **Microsoft centric.** Microsoft tools are used to store, view, update

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OutlookSoft

- **Security.** Security is at the dimension, level or cell level.
- **Portal.** You can build a portal without being a programmer that communicates performance.
- **Knowledge Management.** You can attach notes and documents as supporting documentation.
- **Integration tools.** OutlookSoft also contains mapping rules that are maintained using Excel.
- **Write-back.** You can update OLAP cube directly within system

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Selection Project - Why

- **Client generates key performance metrics on Excel with a significant amount of manual intervention**
 - inefficient and error prone
 - a small change in one spreadsheet can cause a huge amount of work to update all the related spreadsheets
 - Biggest problem is that it takes about 1 ½ months to generate the KPI's resulting in lost opportunities to fix problems sooner.

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Still paying attention...

- **The maker doesn't want it; the buyer doesn't use it; and the user doesn't see it. What is it?**
- **A child is born in Boston, Massachusetts to parents who were both born in Boston, Massachusetts. The child is not a United States citizen. How is that possible?**
- **Before Mount Everest was discovered, what was the highest mountain on earth?**
- **What is one thing that all wise men, regardless of their religion or politics, agree is between heaven and earth?**

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Selection Project - Methodology

- **Scope meeting**
- **Review existing processes – read documentation, interview staff – to understand existing requirements, problems, opportunities for improvement, business process, and prepare proof of concept**
- **Create Requirements Report based on generic checklists and input from meeting and interviews – key/unique requirements defined unambiguously**
- **Requirements meeting to confirm requirements and their priority.**
- **Publish Scope report that includes CSF's, major problems, opportunities for improvement, key requirements, scope and schedule.**
- **Publish 1st draft RFP that contains requirements**
- **Review and approval**

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The Process - Selection

- **Prepare list of potential vendors**
- **Issue Request for Information (RFP)**
- **Prepare preliminary analysis of potential vendors includes costs, scoring of their responses, similar customers...**
- **Attend demonstrations of short listed vendors**
- **Call References**
- **Proof of concept**
- **Contract negotiations**

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Criteria

	Weighting
Ability to develop KPI system	25%
Ability to meet requirements	21%
Ease of use for power users	5%
Ease of use for regular users	5%
Ability to create/update cubes	5%
Total cost of ownership over 3 years	10%
Technology	5%
Vendor	5%
Implementer	5%
Vendor also has CRM	2%
Vendor also has Payroll/HRMS	2%
Vendor also has PSA	2%
Vendor also has Financials	1%
Vendor integrated with CRM	2%
Vendor integrated with Payroll/HRMS	2%
Vendor integrated with PSA	2%
Vendor integrated with Financials	1%
	100%

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RFP - Word Document

- **Objectives**
- **Company description**
- **Existing business process**
- **Existing software – product, applications, database, # of databases, # of servers**
- **Proposed business process**
- **Dimensions/Levels**
- **KPI's – type, metric, calculation, source of data**
- **Volumes of data**
- **Schedule**
- **Vendor Requirements**
- **Confidentiality**

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RFP – Excel document

- **Columns - #, Question, Weighting, Vendor Response, Additional Comments**
- **Sections**
 - **Product Information**
 - **Contact Information**
 - **Applications - Yes/No/Third Party**
 - **Cost Information**
 - **Developer Information**
 - **Implementer Information**
 - **Technology**
 - **Top 5 reasons to select your system**
 - **Requirements**

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Examples of Requirements

OLAP client
Skip missing levels - support ragged dimensions
Write back - update OLAP cube (used by management to explain variances)
With audit trail if changing values
Includes charting tools
Access multiple cubes at a time
Calculations
Counts
Percentage of total
Allocations

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Examples of Requirements

Formatting
By dimension
By level
By cell
Highlight cells differently for above, below or equal to threshold
Returns text (Eg - if value > 90, returns "Excellent")

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Weighting

- 5 = Critical**
- 4 = High**
- 3 = Medium**
- 2 = Low**

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Vendor Response

- 7 = In current release and included in cost estimate**
- 6 = In Current Release**
- 5 = In Next 6 Months**
- 4 = Minor Modification or Workaround**
- 3 = Third Party**
- 2 = In Next Year**
- 1 = Major Modification or Workaround**
- 0 = Not Available**

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Preliminary Vendor Analysis

- **Ranking of Weighting X Vendor Response**
- **Strengths**
- **Weaknesses**
- **Short Listed Vendors**
 - Cognos
 - Business Objects
 - Panorama
 - OutlookSoft

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Detailed Vendor Analysis

- Columns - strengths, weaknesses, score (1-10), importance (1-10), result, follow-Up required
- Sections
 - Vendor and Developer Qualifications / background
 - Product
 - Software Development Approach/Capability
 - Costs
 - Ease of Use
 - Integration
 - Implementation Process
 - Technology

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Other Analysis

- Reference Checks (See reference checklist)
- Follow-up items
- Proof of Concept
- Contract Negotiations
- Finalists
 - Cognos
 - Panorama

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Cognos Strengths

- Metrics Manager is available today and appears to be an excellent product to present KPI's to staff in an easy way. There is also the ability to link metrics to OLAP cubes for additional analysis.
- Competent resources at Newcomp - confirmed with reference calls
- PowerPlay is the leading BI tool
- Cognos is the leading BI vendor and largest software developer in Canada.

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Cognos Weaknesses

- One reference, Centre for Addiction & Mental Health - did a pilot with Metrics Manager and had reservations with the 1st release of the product. Despite being a Cognos shop, they are issuing an RFP for a balanced scorecard system. In discussions with another reference, GlaxoSmithKline, most of the issues were resolved.
- Cost - Need to buy a license for both Metrics Manager and PowerPlay each of which is about the same price as Panorama
- Multiple databases - 1 for Metrics Manager and another for PowerPlay
- The latest report writer from Cognos, ReportNet is not included, it costs \$10K for a server license plus a sliding scale for each user starting at \$3k, \$1.6k, .9k, .4k... for each user license. Newcomp has quoted Impromptu instead which serves the needs now but will probably need to be replaced later. Panorama uses Microsoft's new report writer - but we have not seen it yet.
- Maintenance high at 25%

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Panorama Strengths

- One system
- Microsoft centric - uses Microsoft OLAP cube and Microsoft report writer (new)
- Panorama will consider client critical to their success and is allocating their resources to the project
- Microsoft purchased their OLAP server from Panorama
- Prepared to provide a fixed fee - although Newcomp is not prepared to give a fixed fee, their references said they delivered on time and in budget
- Cost
- Panorama setup their head office location in Toronto

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Panorama Weaknesses

- Panorama is a small company - but has strong management team - they are prepared to share financial information with Bayshore
- VAR (Catalytics) is new to Panorama and a small company - but strong management and Panorama will back them up.
- Concern about the development effort to create something similar to Metrics Manager. Panorama also say that they will have their own Metrics Manager next year.
- Need to develop something to track comments related to KPI's

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