



Dear Attendee,

Thank you for joining us in San Diego for our *TDWI World Conference—Summer 2004*, and for participating in our conference evaluation. We hope you had a productive and enjoyable week at the conference. This trip report is written by TDWI's research department, and is divided into nine sections. We hope it will provide a valuable way for you to summarize your educational experience for your manager and peers.

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I. Conference Overview -----

For the Summer Conference, our most of our attendees came from the United States, but we had visitors from Africa, Asia, Australia, Europe, and Central America. This was truly a worldwide event! Our most popular courses of the week were “TDWI Data Warehousing Architectures,” The Business Intelligence Strategies Program, and “TDWI Data Modeling.”

Business intelligence and data warehousing professionals devoured books for sale at our Membership desk, especially The CBIP Examination Guide. Other popular titles were:

- *Show Me the Numbers* (Few)
- *Corporate Information Factory*, 2nd Edition (Inmon, Imhoff, and Sousa)
- *Data Modeler's Workbench* (Hoberman)
- *Meta Data Solutions* (Tannenbaum)
- *Mastering Data Warehouse Design* (Galemmo, Imhoff, and Geiger)
- *Data Warehouse Lifecycle Toolkit* (Kimball, Reeves, Ross, and Thornthwaite)

For a complete list and descriptions of all courses offered in San Diego, download the conference brochure at: http://www.dw-institute.com/education/conferences/sandiego2004/images/sandiego2004_bro.pdf



II. Quarterly Technology Survey -----

By Wayne W. Eckerson, TDWI Director of Research

This quarter's conference survey results follow some long-term industry trends. First, Oracle is still the predominant database used for data warehousing. However, whereas Oracle could claim 50 percent or more market penetration several years ago, it appears that Microsoft, IBM, and Teradata have made inroads.

Perhaps the biggest gainer is Teradata, which rarely had many users in our past surveys. And since Teradata's implementations are usually in the terabyte range, its market share expressed in revenue is much greater than its market penetration, or total number of accounts.

On the architecture front, we continue to see that a hub-and-spoke data warehouse is the most prevalent DW architecture by far. However, our recent report *In Search of a Single Version of Truth: Consolidating Analytic Silos* shows that most hub-and-spoke data marts are centrally located and managed. In fact, most hub-and-spoke marts are either database views or star schemas within the central data warehouse. So, there is a definite trend towards *physical* consolidation.

	Count	Percent
1. Which relational database platform(s) do you use for your production data warehouse? (select ALL that apply)		
(Not Answered)	1	0.34 %
IBM DB2	52	17.93 %
Oracle	128	44.14 %
Microsoft SQL Server	61	21.03 %
Informix	5	1.72 %
Sybase	5	1.72 %
Teradata	25	8.62 %
MySQL, PostgreSQL, or open source RDBMS	5	1.72 %
Other	8	2.76 %
Total Responses	290	100 %

2. What is your decision support architecture, including DW and marts? (choose ONE)		
(Not Answered)	10	4.69 %
Central data warehouse only	38	17.84 %
Data warehouse with dependent data marts (i.e., "hub and spoke")	90	42.25 %
Independent data marts (no consistent design)	40	18.78 %
"Conformed" data marts (consistent design)	33	15.49 %
Virtual data warehouse (i.e., pulls data dynamically from source systems when needed)	2	0.94 %
Total Responses	213	100 %



	Count	Percent
3. Our production DW, marts, or analytic applications provide the following benefits (select ALL that apply):		
(Not Answered)	10	1.52 %
Customer buying recommendations: cross selling, upselling	49	7.47 %
Customer profiling, customer segmenting	99	15.09 %
Market trend analysis	98	14.94 %
Brand management	25	3.81 %
Fraud detection to reduce costs	54	8.23 %
Product forecasting, demand planning to reduce inventory	57	8.69 %
Production control, variance analysis, machine reliability	21	3.20 %
Supply chain optimization	27	4.12 %
Logistics/distribution optimization	24	3.66 %
Human resources	34	5.18 %
Summary reporting	123	18.75 %
Other	35	5.34 %
Total Responses	656	100 %

**How often is your DW updated?
TODAY:**

(Not Answered)	10	4.69 %
Daily	141	66.20 %
Weekly	14	6.57 %
Monthly	30	14.08 %
Many times a day	9	4.23 %
Near real time	8	3.76 %
Real time	1	0.47 %

Total Responses 213 100 %

18 MONTHS FROM NOW:

(Not Answered)	99	46.48 %
Daily	56	26.29 %
Weekly	6	2.82 %
Monthly	4	1.88 %
Many times a day	23	10.80 %
Near real time	22	10.33 %
Real time	3	1.41 %

Total Responses 213 100 %

III. Keynotes-----

Monday, August 9: Business Intelligence Goes Mobile

Jaclyn Easton, Business Technology Futurist

Jaclyn Easton's Monday morning keynote address was a real eye-opener. Addressing a topic that is barely on the radar screen of most BI and data warehousing practitioners, Easton made everyone aware that wireless technology is here today, and that it will affect



every one of us in the very near future. Emphasizing that “wireless is much bigger than we think,” she likened it to a whale whose tail fluke is barely visible to us today, revealing little of what lies beneath the surface.

Wireless technology, says Easton, is not a revolution, but an evolution. It has been quietly advancing for years. But it is over the next two to three years that we’ll see the breakthrough impacts. Wireless technologies will make BI more relevant and more in demand than ever imagined. As anytime-anywhere commerce becomes a reality we will experience an exponential increase in data volumes, and corresponding growth in the demand for data analysis and business intelligence. Although positioned as a futurist, Easton contends that her prediction is not one of a distant future, but a change that has already started. As an example she cites UPS, a company that is currently investing \$120 million to implement wireless technology throughout their business operations.

High-impact wireless applications fall into three categories: m-commerce, wireless tracking, and wireless monitoring. M-commerce—the use of wireless to facilitate sale of goods anyplace at any time—is likely to be the first application that will directly affect BI practitioners. Transactional m-commerce (e.g., selling music downloads), cell-and-mortar m-commerce (purchase via wireless to be delivered within a few hours), and pure-play m-commerce (purchase and instant fulfillment via wireless) are all in practice today and will become commonplace over the next several months. M-commerce creates an entirely new stream of click tracks, similar to those of e-commerce but in much larger quantities. The challenge for BI and data warehousing is in staying ahead of the data curve.

Wireless tracking and monitoring may be the revolutionary part of wireless technology. Based on radio frequency identification (RFID) technology, this application of wireless enables companies to track any aspect of their business—both tangible and intangible—in real time. RFID offers two significant advances over bar code identification. It actively broadcasts identities instead of requiring them to be read by a scanner. And data can be written back to RFID tags. The implications for BI are huge: more points of data, more kinds of information, and emergence of new kinds of business rules. Yet the real impact, according to Easton, is not in data management but in how the data changes business management. Wireless tracking can, for example, do more than help with supply-chain management; it can “unchain the suppliers!”

Wireless is here to stay, says Jaclyn Easton. It will touch each and every one of us. It will change the job of every BI professional. Wireless brings more data into the BI domain. BI brings meaning to wireless technology.

Thursday, August 12: Visualizing the BI of the Future: Building on the BI of the Past

Howard A. Spielman, Ph.D., President, Management Semiotics International, Inc.



Howard Spielman's keynote address on Thursday morning was entertaining, enlightening, and packed with information. Spielman, an authority in the field of information visualization, is also a history buff. He opened his talk with a BI-focused history lesson, presenting a variety of charts and graphs dating back as far as the 1700s.

While fascinating to the audience, these historical illustrations offered more than entertainment from the speaker's perspective. Using historical charts and graphs, Spielman demonstrated that the three primary techniques for visualizing business data today—line charts, bar charts, and pie charts—have been in use for more than 200 years. He further emphasized the size of visualizations from the 18th century. These charts and graphs were rendered in much larger sizes and higher resolutions than is commonplace with today's computer technology.

Building from BI's historical foundation, Spielman asks, "What's new in the 21st century?" Not data collection and analysis, he says, citing an example from 1912; not storage and display systems for charts and graphs, he contends, using another example from 1912; not key performance indicators (KPIs) for business, he states, again citing a 1912 example; not executive dashboards, with yet another 1912 illustration. And not advanced graphical display, he argues, illustrating three-dimensional visualizations from 1880 to 1935.

So what is new in the 21st century? According to Spielman, the true differentiator is real-time access to detailed data. To realize any *business* intelligence impact from this difference, we need to focus on how it relates to *human* intelligence. Real-time is defined as "a time span in accord with the thought process of human intelligence"—fast enough to keep pace with human need to know. Data is defined as "a foundation for the use of human intelligence to understand reality."

From these definitions, Spielman raised the questions "With our BI tools is reality being understood or obscured? Communicated or confused?" With today's BI tools, he says, it is easy for inexperienced practitioners to create nice looking charts and graphs that miscommunicate and distort reality. He supported this assertion with several examples of charts and graphs that, while technically and mathematically correct, misrepresent and/or hide important information.

In closing, the speaker impressed on his audience that we have mastered the software interfaces that turn data into information and information into visual displays. But we have much work to do in the area of perceptual interfaces—those between a visual display and a human brain. However advanced our data-to-information-to-display processes, business impact will continue to be erratic and uncertain until we master this final and most important point of communication.

IV. Business Intelligence Strategies Program ----- *Best Practices in Data Warehousing and Business Intelligence*



Our one-day program drew a very large audience, who were treated to a series of fantastic presentations covering a range of important issues. For instance, Barb Wixom, associate professor at the McIntire School of Commerce at the University of Virginia, explained that some organizations mistakenly try to justify data warehouses on the basis of “data intelligence” instead of “business intelligence.” Data intelligence benefits include:

- Creating a single version of truth
- Creating reports faster
- Reducing manual data gathering
- Creating data that didn’t exist before

In contrast, business intelligence addresses real business pain, reduces costs, increases revenues, and enables specific business objectives.

Greg Jones, IT Director at Nextel Communications, used his own experience to provide tremendous insights into how to sell a DW project. Jones was given six months and \$3 to \$5 million to turn around a lackluster DW initiative at Nextel. He succeeded in selling a roughly \$20 million DW initiative that has paid off more than 10 times that amount. The key, Jones said, is to “align with key people who can sponsor the project, deliver in short bursts, and create real business value.” In terms of value, Jones promised to take \$100 million out of the human resources budget in one year and was successful. Jones said the hardest part is getting going, but once you have an initial success then you will be swamped with requests from the business.

Kevin Fleet shared lessons learned and burned from his experiences leading the global DW and BI teams at Pfizer Global Research and Development. A big obstacle that Fleet faced was synchronizing a development team based in California with an administration team in Connecticut. Pfizer learned that one person needs to own the DW/BI program end to end and that each project needs the required resources to do its job. Also, report developers need to work more closely with the DW team to avoid architectural problems down the road. Fleet also learned that when starting a project, the initial development team should consist of business analysts with minimal ETL support. You can add ETL staff as the project progresses, but make sure a DBA is dedicated to the project full time.

Louis Barton, executive vice president of Frost National Bank, talked about the seven-step stewardship program his company established to achieve zero defects with the company’s mission critical data elements. He focused on how a BI dashboard is used to measure baseline data quality, identify opportunities to improve, monitor variances, and make adjustments. Barton talked about the process the bank used to select the data elements to measure, and provided numerous screen shots of the dashboard application.

Finally, John O’Brien, principal architect at Level3 Communications, talked about his experiences managing an offshoring program as well as his thoughts about Service



Oriented Architectures. O'Brien provided a wealth of tips to apply to optimize an offshoring program, which he thinks can provide good value to the business if managed properly. He also talked about common misconceptions of offshoring, including:

- Cultural differences won't matter
- You won't have to travel
- There are no hidden costs (add 25–40% of contract cost)
- The vendor will shield time zones
- It's easy to use time zones to accelerate development
- Offshore means "not as good data quality."

Despite the challenges, O'Brien said companies should expect to break even in year one but reduce costs by 35–60% by year three.

V. Certification Program -----

TDWI continued the industry's newest certification program at our San Diego conference. In partnership with the Institute for Certification of Computing Professionals, TDWI offered both a day-long Exam Cram course and opportunities to test for certification.

TDWI offers certification at the Practitioner and Mastery levels. Becoming certified requires a combination of in-depth education and real experience to pass examinations that test knowledge, skill, and understanding of application. The new credential is offered in five specialties: Leadership & Management, Business Analytics, Data Analysis & Design, Data Integration, and Administration & Technology.

Information on certification and testing: cbip@dw-institute.com

VI. Evening Education -----

Night School Courses

Night School sessions were offered after regular courses ended, to promote networking among attendees and test new topics. Summaries of those courses are included here. For a complete list and descriptions of all courses offered in San Diego, download the conference brochure at:

http://www.dw-institute.com/education/conferences/sandiego2004/images/SanDiego2004_bro.pdf

Sunday, August 8: Business Services and Customer Care for Business Intelligence

Jennifer Hay, Education Services Coordinator, TDWI

The internal BI customer experience is a critical factor in achieving significant value from a data warehouse. This experience begins with a recognized need for information and ends when information is



applied to business advantage. A customer's expectations and perception of value are influenced by a number of factors—needs analysis, support services, availability of relevant data, use of metadata, and ease of access. Unfortunately, the customer experience receives less attention in design than the more technical aspects of the data warehouse.

This class helped attendees understand the importance of internal BI customer experience issues and gave them an overview of some of the skills and techniques for improving the customer experience of the data warehouse.

Participants learned:

- The components of the TDWI Business Intelligence framework that are impacted by customers
- The different ways that IT and their customers view information services delivery
- Techniques for creating a cooperative relationship by bringing the IT and customer views together into a common focus
- How to become an information services organization by providing more than just information delivery
- The knowledge necessary to customize services for individual customers
- The benefits of being customer-focused

Sunday, August 8: Information Visualization for BI and DW: What Works, and Why?

Richard Hackathorn, President and Founder, Bolder Technology

The vast majority of information from BI/DW systems is delivered through some type of visualization. From tables, graphs, and pivot tables to realistic simulations of manufacturing processes, our eyes provide a channel of huge bandwidth for us to absorb details about our business. Yet, there is little attention by the BI/DW community to the concepts and proper design for information visualization or InfoViz.

The factors enabling actionable InfoViz are: relevance, motivation, ability, and resources. Relevance to the user's business context and understandability within that context are key objectives of any visualization. In fact, the visualization should embody the current best practices for that context. Motivation is often the overlooked factor. Professionals are usually so overloaded with responsibilities that a new InfoViz thing seems like the last straw on their poor back. Striving toward a sense of relief, rather than burden, is the objective. User ability is also required, in terms of skills and education. Finally, resources, such as time and tools, must be adequate for the proper use of the InfoViz. All of these factors must be considered when designing an InfoViz application.

The course started with a sampling of business applications, followed by the key concept and design criteria for Actionable InfoViz. A survey of 20 InfoViz products was given. The course concluded with suggested steps for successful InfoViz applications.

Monday, August 9: Beyond the Data Warehouse: Architectural Options for Data Integration

Evan Levy, Partner, Baseline Consulting Group

A recent Morgan Stanley study identified integration as the number one priority of the CIOs surveyed. While ERP, EAI, EII, and data warehousing vendors all claim to provide integration solutions, the differences are neither apparent nor clear.

- Metadata management for end users and developers
- Query processing and data propagation
- Incompatible security models
- Lack of centralized administration



This session separates the facts from fiction for enterprise integration from the various technology perspectives. It provides an architectural framework to identify the most effective use of the integration alternatives of ERP, EAI, EII, and data warehousing.

Participants learned:

- The relationship of key emerging technologies in integration
- How to differentiate the different types of integration
- EAI and EII: How to separate the facts and the fiction
- How to leverage the right integration solution to limit data propagation

Monday & Wednesday, August 9 & 11: Building a Data Warehousing Strategy Document

Michael L. Gonzales, President, The Focus Group, Ltd.

A mix of lecture and lab was used to expose participants to the core elements necessary in any data warehouse (DW)/business intelligence (BI) strategy document. Using the hands-on strategy document service, participants created a draft strategy document of about 40 pages, customized to their warehouse/BI initiatives, including figures, tables, and appendices.

Topics covered in the lecture and strategy document creation included:

- Conceptual View—describing the overall vision of the DW/BI environment, its goals and objectives
- Data Architecture—formal definition of the data structures used to support the environment, now and in the future, including the expected process flow and data propagation
- Technical Architecture—formal definition of the technical components of the environment required to support the expected environment, now and in the future
- Implementation View—identify, define, and prioritize project iterations using the Dysfunction, Impact, and Feasibility (DIF) Matrix

Wednesday, August 11: The Knowledge Worker: The Missing Link in the Data Warehouse's Success

Sid Adelman, Principal, Sid Adelman & Associates

Who is the knowledge worker

The knowledge worker, sometimes called the user, end-user, analyst, or business analyst is the person who writes the queries, creates the reports and delivers critical information to management. While management their own reports, our focus is the person who compiles information so that management will have the knowledge needed to take action based on this information. The knowledge worker may be a power user writing their own queries or a more casual user who only uses pre-defined queries and reports.

Leveraging the data warehouse to enhance the knowledge worker's career

The knowledge worker should be able to better understand what their organization and their bosses need and want, and to present their actionable results in a manner that delights management. They should be able to enhance their productivity as measured by the quantity and quality of their queries, and they should be able to leverage their relationships with the business intelligence (BI) tool vendors and with IT.

Measuring benefits

You are in a position to help measure the benefits of what you are doing with the data warehouse. You can measure your own improved productivity. You are in a position to measure, or at least estimate, the benefits of the actions taken as a result of your analysis. These may include lower inventory costs, a higher



quality product or service, improved customer retention, a higher rate of cross-sell, or a higher response to marketing campaigns.

Summary

The knowledge worker has to be very sensitive to the business and to constantly evolving management requirements and changes in the business environment. The knowledge worker can modify his or her job to provide significant value to the organization and to make his or her boss look good but should do so in a way that these actions are recognized and rewarded.

Peer Networking

Peer Networking sessions provide a forum where you can network with your peers and TDWI instructors on a variety of topics. Topics offered in San Diego included:

- BI Standardization
- How to Sell and Market a Data Warehouse
- Build a Data Mart in 90 Days—Your Experiences
- Data Quality
- Progress Assessments
- Dashboards for the IT PMO and the Data Warehouse Administrator
The Operational Data Store

If you have ideas for additional topics for future sessions, please contact Nancy Hanlon at nhanlon@dw-institute.com.

Guru Sessions

Throughout the week in San Diego, attendees also had the opportunity to schedule free, 30-minute, one-on-one consultations with a variety of course instructors. These “guru sessions” provided attendees time to obtain expert insight into their specific issues and challenges.

VII. Vendor Exhibit Hall-----

The following vendors exhibited at TDWI’s World conference in San Diego, MA, and showcased the following products:

DATA WAREHOUSE DESIGN

<i>Vendor</i>	<i>Product</i>
Ab Initio Software Corp	Ab Initio CO>OPERATION™ Software
Ascential Software	DataStage™ Enterprise Edition Version 7.5
Business Objects	Data Integrator, Rapid Marts
Cognos Inc.	DecisionStream, Cognos Analytic Applications
DataFlux	Blue Fusion® SDK
DataLever Corporation	DataLever™ Enterprise Server
Group 1 Software	Sagent Data Flow, DataSight
Hummingbird Ltd.	Hummingbird Integration Suite: Genio, Met@Data
HyperRoll	HyperRoll for OLAP, HyperRoll for Relational
IBM	DataWarehouse Extended Edition



Informatica Corporation	Informatica PowerCenter, Informatica Metadata Exchange
Microsoft Corporation	SQL Server 2000
MicroStrategy	MicroStrategy Report Services, MicroStrategy Office, MicroStrategy Architect, MicroStrategy BI Developer Kit
Pervasive Software	Pervasive Data Integrator
SAP	SAP NetWeaver '04
Siebel Systems	Siebel Analytic Applications
SolverBI	Professional Services focused on Microsoft SQL Server Platform.
Sybase	Sybase PowerDesigner, Sybase Industry Warehouse Studio Infrastructure
Teradata, a division of NCR	Teradata Professional Services

DATA INTEGRATION

<i>Vendor</i>	<i>Product</i>
Ab Initio Software Corp	Ab Initio CO>OPERATION™ Software
Actuate	Actuate 8; i.Server
Applix	TurboIntegrator
Ascential Software	DataStage™ Enterprise Edition Version 7.5
Business Objects	Data Integrator, Rapid Marts
Cognos	DecisionStream, Cognos Analytic Applications
Composite Software, Inc.	Composite Information Server
DataFlux	dfPower® Studio
DataLever Corporation	DataLever™ Data Integration Suite
DataMirror	Transformation Server™ (Real-time, multi-platform change data capture, transform and flow), DB/XML Transform™ (Database-to-XML transformation), Constellar Hub™ (Enterprise data warehouse integration and infrastructure), LiveAudit™ (Data monitoring, E-Records audit trails)
Embarcadero Technologies	DT/Studio
Firstlogic, Inc.	Information Quality Suite
Group 1 Software	Sagent Data Flow
Hummingbird Ltd.	Hummingbird Integration Suite: Genio, Met@Data
IBM	DB2 Information Integrator
Indraweb	ProcinQ, OCI Concept Taxonomies
Informatica Corporation	Informatica PowerCenter, Informatica PowerExchange, Informatica PowerConnect (ERP, CRM, Real-time), Informatica Metadata Exchange, Informatica SuperGlue (enterprise metadata management solution that links metadata from multiple systems)
Information Builders	iWay Software
Microsoft Corporation	SQL Server Data Transformation Services (DTS)
Pervasive Software	Pervasive Data Integrator, Pervasive Business Integrator
SAP	SAP NetWeaver '04
Siebel Systems	Siebel Analytic Applications
SolverBI	Professional Services focused on Microsoft SQL Server Platform.
Syncsort Inc.	SyncSort

INFRASTRUCTURE

<i>Vendor</i>	<i>Product</i>
Ab Initio Software Corp	Ab Initio CO>OPERATION™ Software
Actuate	Actuate 8; i.Server
Applix	TM1
Ascential Software	DataStage™ Enterprise Edition Version 7.5



Business Objects	Data Integrator, Rapid Marts
Cognos	DecisionStream, Cognos Analytic Applications
DataFlux	Blue Fusion [®] SDK
DataMirror	Constellar Hub
HyperRoll	HyperRoll for OLAP, HyperRoll for Relational
IBM	DB2 OLAP Server, DB2 Cube Views
Indraweb	ProcinQ
Metapa Inc.	Metapa Cluster DataBase (CDB)
Microsoft Corporation	SQL Server 2000
MicroStrategy	MicroStrategy Intelligence Server
Pervasive Software	Pervasive Business Integrator, Pervasive Data Integrator, Data Junction Migration Toolkit
SAP	SAP NetWeaver '04
Siebel Systems	Siebel Enterprise Analytics Platform (Siebel Analytics Server)
Teradata, a division of NCR	Teradata RDBMS
Unisys Corporation	ES7000 Enterprise Server

ADMINISTRATION AND OPERATIONS

<i>Vendor</i>	<i>Product</i>
Ab Initio Software Corp	Ab Initio CO>OPERATION [™] Software
Business Objects	Data Integrator, Supervisor, Designer, Auditor
DataMirror	iCluster [™] (IBM iSeries high availability), iReflect [™] (high data availability and data distribution for Oracle)
Hummingbird Ltd.	Hummingbird BI, Hummingbird Integration Suite: Genio, Met@Data
Indraweb	ProcinQ, Editor's Desktop, Web Portal, Notification System
Microsoft Corporation	SQL Server 2000
MicroStrategy	MicroStrategy Administrator, MicroStrategy Intelligence Server
SAP	SAP NetWeaver '04
Siebel Systems	Siebel Enterprise Analytics Platform (Siebel Analytics Server, Siebel Analytics Server Administrator)

DATA ANALYSIS

<i>Vendor</i>	<i>Product</i>
Ab Initio Software Corp	Ab Initio CO>OPERATION [™] Software
Actuate	Actuate 8; i.Server, e.Spreadsheet, e.Analysis, Actuate Analytics, Actuate Query
Applix	TM1
Ascential Software	DataStage [™] Enterprise Edition Version 7.5
Business Objects	WebIntelligence, InfoView, Business Query, Crystal Enterprise
Cognos	Cognos Series 7, Cognos Metrics Manager, Cognos ReportNet
DataFlux	dfPower [®] Studio
DataLever Corporation	DataLever [™] Data Investigator
Firstlogic, Inc.	IQ Insight
Group 1 Software	DataSight, Data Quality Connector for Siebel
Hummingbird Ltd.	Hummingbird BI
IBM	DB2 Cube Views
Indraweb	ProcinQ, OCI Concept Taxonomies
Informatica Corporation	Informatica PowerAnalyzer
Information Builders	WebFOCUS



Microsoft Corporation	SQL Server 2000 Analysis Services (OLAP, DM)
MicroStrategy	MicroStrategy Desktop, MicroStrategy Web, MicroStrategy MDX Adapter, MicroStrategy 7i OLAP Services
PolyVista, Inc.	PolyVista Discovery Client with Data Mining and Text Mining Solutions
ProClarity Corporation	ProClarity Analytics Suite
SAP	SAP NetWeaver '04
Siebel Systems	Siebel Enterprise Analytics Platform (Siebel Analytics Server, Siebel Data Mining Engine, Siebel Miner, Siebel Data Mining Workbench, Siebel Answers)
Teradata, a division of NCR	Teradata Warehouse Miner
XLCCubed	XLCCubed Explorer

INFORMATION DELIVERY

<i>Vendor</i>	<i>Product</i>
Ab Initio Software Corp	Ab Initio CO>OPERATION™ Software
Actuate	Actuate 8; i.Server, e.Report, e.Spreadsheet, e.Analysis, Actuate Analytics, Actuate Query
Applix	TM1 Web
Ascential Software	DataStage™ Enterprise Edition Version 7.5
Business Objects	InfoView, InfoView Mobile, Broadcast Agent
Cognos	Cognos Series 7, Cognos ReportNet
Composite Software, Inc.	Composite Information Server
DataFlux	dfIntelliServer™
Hummingbird Ltd.	Hummingbird BI, Hummingbird Integration Suite: Met@Data
Indraweb	ProcinQ Server & API, Classification Server, Editor's Desktop, Web Portal, Notification System
Informatica Corporation	Informatica PowerAnalyzer, Informatica SuperGlue
Information Builders	WebFOCUS
Microsoft	SQL Server Reporting Services, Microsoft Office 2003, SharePoint Portal Server, Data Analyzer
MicroStrategy	MicroStrategy Narrowcast Server
ProClarity Corporation	ProClarity Analytics Suite
SAP	SAP NetWeaver '04
Siebel Systems	Siebel Enterprise Analytics Platform (Siebel Answers, Siebel Intelligence Dashboard, Siebel Delivers, Siebel Intelligent Interaction Manager) and Siebel Analytic Applications
SolverBI	MS-Sharepoint, ProClarity Platform, MS Enterprise Reporting, MS Reporting Services, XLReporter.
XLCCubed	XLCCubed

ANALYTIC APPLICATIONS AND DEVELOPMENT TOOLS

<i>Vendor</i>	<i>Product</i>
Ab Initio Software Corp	Ab Initio CO>OPERATION™ Software
Actuate	Actuate 8; e.Report Designer Pro, e.Spreadsheet Designer Pro, Information Object Designer, e.Report Designer Java Edition, Reporting Engines
Applix	TM1
Business Objects	Application Foundation, Customer Intelligence, Product and Service Intelligence, Operations Intelligence, Supply Chain Intelligence, Data Integrator, Rapid Marts, Crystal Reports



Cognos	Cognos Analytic Applications (Supply Chain Analytics, Customer Analytics, Financial/Operational Analytics)
DataFlux	Blue Fusion® SDK
Hummingbird Ltd.	Hummingbird BI, Hummingbird Integration Suite: Genio, Met@Data
IBM	IBM Healthcare Information on demand
Indraweb	Editor's Desktop, Web Portal, Notification System ProcinQ Server & API, Classification Server
Informatica Corporation	Informatica PowerAnalyzer
Microsoft Corporation	SQL Server Accelerator for BI, Visual Studio.net
MicroStrategy	MicroStrategy BI Developer Kit, MicroStrategy Analytic Modules -- Customer Analysis -- Financial Reporting Analysis -- HR Analysis -- Sales Force Analysis -- Sales & Distribution Analysis -- Web Traffic Analysis MicroStrategy Software Development Kit, MicroStrategy Transactor, MicroStrategy Architect
PolyVista, Inc.	PolyVista Warrantee Mgt Solutions
ProClarity Corporation	ProClarity Analytics Platform
SAP	SAP NetWeaver '04
Siebel Systems	Siebel Customer Analytic Applications, Siebel Sales Analytics, Siebel Service Analytics, Siebel Marketing Analytics, Siebel Partner Manager Analytics, Siebel Order Analytics, Siebel Product and Pricing Analytics, Siebel Workforce Analytics, Siebel Partner Portal Analytics, Siebel Executive Analytics, Siebel Incentive Compensation Analytics. Siebel Industry Analytic Applications, including analytic applications for Pharma, Retail Finance, Commercial Banking, Insurance, Healthcare, Communications, Media, Energy, Automotive, Consumer Goods, High Tech, and others.
SolverBI	ProClarity Platform implementation services.
Sybase	Sybase IQ Analytic Applications and Development Tools, Sybase Industry Warehouse Studio

BUSINESS INTELLIGENCE SERVICES

<i>Vendor</i>	<i>Product</i>
Ab Initio Software Corp	Ab Initio CO>OPERATION™ Software
Actuate	Actuate e.Services
Ascential Software	DataStage™ Enterprise Edition Version 7.5
DataFlux	Comprehensive data management solutions supporting CRM, ERP, data warehousing and database marketing.
DataMirror	Expertise in deploying data warehouses and operational data stores on IBM DB2, Oracle, SQL Server, Sybase and Teradata. Real-time change data capture, transform and flow across heterogeneous data sources.
HyperRoll	HyperRoll for OLAP, HyperRoll for Relational
Indraweb	Indraweb Solution Services
Informatica Corporation	Informatica PowerAnalyzer, Informatica SuperGlue
Information Builders	WebFOCUS



Knightsbridge	End-to-end data warehousing and business intelligence solutions, including information strategy, data integration, and DW/BI education. Trusted advisor, strategic business partner, expert implementer to Fortune 500 clients.
Microsoft Consulting Services	BI Quickstart - proof of concept for BI
MicroStrategy	MicroStrategy Technical Account Services
PolyVista, Inc.	PolyVista Discovery Solution Services
ProClarity Corporation	ProClarity Analytics Suite
SAP	SAP NetWeaver '04
Siebel Systems	Siebel Global Services
SolverBI	In house expertise in deploying information solutions on the Microsoft platform including SQL Server, Analysis Services, Sharepoint, Reporting Services, and the ProClarity Platform.
Teradata, a division of NCR	Teradata Solutions Methodology

The following vendors also exhibited in San Diego:

- | | |
|------------------|----------------------------|
| Braun Consulting | MAYA Viz |
| Celequest | PeopleSoft, Inc. |
| ClickCadence | Q4bis, Inc. |
| Hewlett-Packard | Teleran Technologies, Inc. |

VIII. Hospitality Suites and Labs -----

HOSPITALITY SUITES

The following sponsored events offered attendees a chance to enjoy food, entertainment, informative presentations, and networking in a relaxed, interactive atmosphere.

Monday

- Cognos Inc.: *Learn How Frost Bank Used Cognos BI Solutions to Monitor Data Quality*
- Firstlogic, Inc.: *Don't Miss This Summer's Blockbuster Event*
- IBM Corporation and Siebel Systems: *IBM and Siebel Systems Cocktail Reception*

Tuesday

- Microsoft Corporation: *Microsoft & Partners Casino Night*
- SAP: *SAP Cocktail Reception*

HANDS-ON LABS

Hands-on Labs offered Tuesday's participants the chance to learn about specific business intelligence and data warehousing solutions.

- Teradata, a Division of NCR: *Hands-On Teradata*



IX. Onsite Training, Upcoming Events, and Publications -----

TDWI Onsite Courses

Education on your timeline, in your environment, within your budget.

TDWI's Onsite Training Program brings superior content and skilled instructors to your location with a commitment to delivering the highest quality business intelligence and data warehousing education available. We can tailor TDWI's courses to meet your company's unique challenges and issues, so everyone involved in a project shares a common knowledge base and learns in support of the same corporate objectives. For more information, contact Yvonne Baho at 978.582.7105 or ybaho@dw-institute.com, or visit www.dw-institute.com/onsite.

TDWI Seminar Series

In-depth training in a small class setting.

Whether you are embarking on a new data warehousing project or working in a mature business intelligence environment, TDWI Seminars offer courses to meet your specific needs and advance your project goals. From the fundamentals of business intelligence to advanced techniques for data modelers, you will learn concepts and techniques to accelerate your professional development. Additionally, TDWI Seminars are offered throughout the United States and Canada, so you can get the training you need when and where your schedule allows.

Remaining Seminars in 2004:

Minneapolis, MN September 13–16

Washington, D.C. October 4–7

For more information on course offerings, please visit:

<http://dw-institute.com/seminars>.

TDWI Hands-On Business Intelligence Training

TDWI offers a special series of hands-on lab courses with in-depth BI and DW training you won't find anywhere else. TDWI's Hands-On BI Series feature simulated environments and exercises, giving you real-world know-how on a broad range of BI tools and technology.

Remaining Hands-On BI Series in 2004:

Washington, D.C. October 4–7

For more information on TDWI Hands-On Business Intelligence training, please visit:

www.dw-institute.com/hands-on.

Upcoming TDWI World Conferences

TDWI World Conference—Fall 2004



TDWI World Conference—Summer 2004
Post-Conference Trip Report

<http://www.dw-institute.com/orlando2004>

October 31–November 5, 2004

JW Marriott Orlando Grande Lakes Hotel, Orlando, FL

TDWI World Conference—Winter 2005

Feb 27–March 4, 2005

Venetian, Las Vegas, NV

TDWI World Conference—Spring 2005

May 15–20, 2005

Baltimore Marriott, Baltimore, MD

TDWI World Conference—Summer 2005

August 14–19, 2005

Manchester Grand Hyatt Hotel, Sand Diego, CA

TDWI Online

TDWI's *Marketplace* provides you with a comprehensive resource for quick and accurate information on the most innovative products and services available for business intelligence and data warehousing today.

Visit <http://www.dw-institute.com/marketplace/index.asp>

Recent Publications

- ***Business Intelligence Journal, Volume 9, Number 3*** contains articles, research, book reviews, case studies, and expert perspectives from leading industry and academic gurus furthering the practice of BI and DW. A Members-only publication.
- ***What Works: Best Practices in Business Intelligence and Data Warehousing*** (volume 17), a compendium of industry case studies and lessons from the experts.
- ***Ten Mistakes to Avoid When Dealing with Vendors*** (Quarter 3). This series examines the 10 most common mistakes managers make in developing, implementing, and maintaining BI and DW projects. A Members-only publication.
- ***In Search of a Single Version of Truth: Strategies for Consolidating Analytic Silos***, part of the 2004 Report Series, with findings based on interviews with industry experts, leading-edge customers, and survey data.

For more information on TDWI Research please visit <http://dw-institute.com/research/index.asp>