

Web-based and Inter-organizational DSS Chapter 11

We can use the Internet and World-Wide Web to extend the reach and range of Decision Support Systems



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1

What is a Web-based DSS?

- Distributed DSS applications
- TCP/IP and Web server software
- "Thin client" browser



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Inter-organizational DSS

- Supports Customer/Supplier Decision-making
- Shared access to company data
- Delivery: Internet vs. Private networks
- Web-based Interfaces
- Create Information Partnerships

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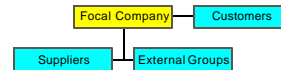
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Intranets and Extranets

- Portals for internal and external stakeholders
- What is a portal?

An External network (Extranet)

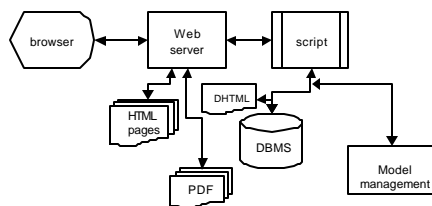


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Web-Based DSS Architecture



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Tools for building Web-Based DSS

- HTML and XML
- Common Gateway Interface
- Java
- JavaScript
- ActiveX
- Microsoft Access and Excel
- Front Page, Cold Fusion, dbProbe

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Managing Web-based DSS

- Ask questions - business, technical and legal issues
- Find new opportunities for information gathering and sharing
- Examine value chains to enhance collaboration
- Examine organizational structures to enhance collaboration

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Inter-Organizational DSS examples

- PCS Health Systems – data collection and analytics
- Dayton Hudson

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Examples -- Cognos

The following screenshots are of a typical example of Impromptu Web Query in action.

Impromptu Web Query uses "Query-then-Navigate" capability.

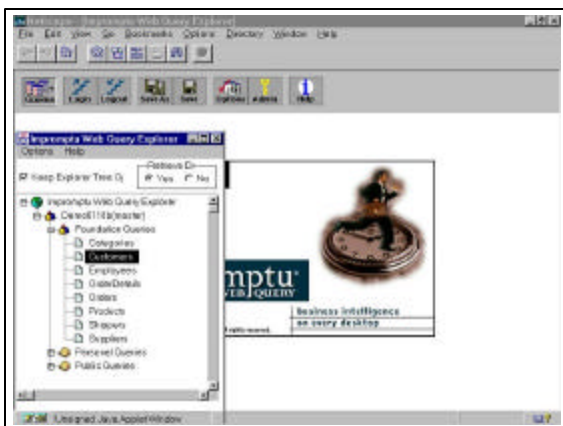
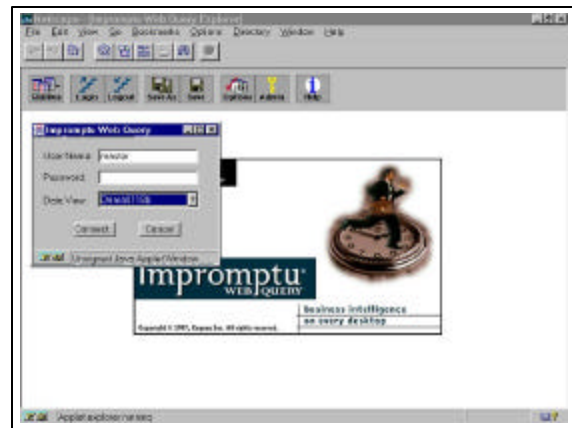
Starting Impromptu Web Query (IWQ) involves selecting a bookmark in your Web browser.

Every IWQ session starts with a logon. IWQ uses your user name and password to determine which information you may view.

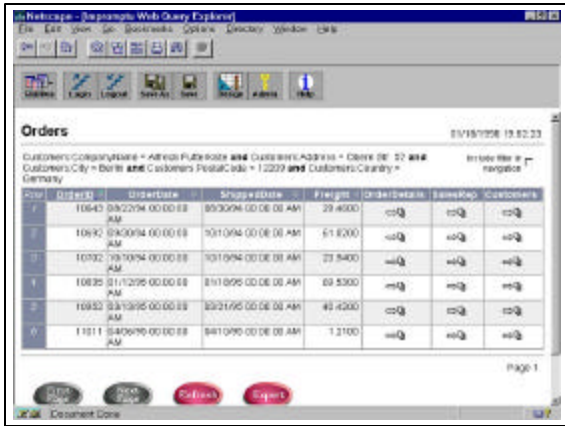
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9



Company Name	Address	City	Postal Code	Country	Orders
ARNOX Publications	Calle 90, 81	Berlin	12208	Germany	10
Arco Triplex Empresarial	Avenida de la Constitución	México D.F.	06001	Mexico	10
Antonio Madero	Independencia 2512	México D.F.	06000	Mexico	10
Armand the firm	120 Hercules Sq.	London	W41 1DP	UK	10
UK Beverages	Plumbery Circus	London	EC2 8HT	UK	10
Berglund's	Bergendagen 8	Luleå	S-900 22	Sweden	10
Busser & Co. Maschinen	Pfaffenst. 67	München	85008	Germany	10
Bonard père et fils	24, place Helder	Strasbourg	67008	France	10
BONOL Comercio Exterior	C/ Arcolet, 67	Madrid	28003	Spain	10
Bonapp	12, rue des Bouchers	Marseille	13008	France	10



Comshare DecisionWeb

Total Year	Competition	Cap
Year	Year	Current Year
Total Product	Total Region	Total Region
	Variable	Value
	Current	Retail

Retail Value, Total Region, Current Year, Cap

Month 1, Month 2, Month 3, Month 4, Month 5

Internetivity dbProbe 4.11

Product	Unit	Price	Cost
Product 1	100,000.00	\$25,000.00	\$12,500.00
Product 2	50,000.00	\$5,000.00	\$2,500.00
Product 3	25,000.00	\$2,500.00	\$1,250.00
Product 4	12,500.00	\$1,250.00	\$625.00

Pilot Internet Publisher

Year	Total Product	Women's	Accessories	Men's
Mar 95	20,100,952	10,370,656	307,494,150	11,352,604
Apr 95	22,493,080	147,871,456	13,122,504	38,602,080
May 95	48,576,682	31,389,282	32,781,978	38,368,082
Jun 95	115,199,008	126,807,878	123,682,112	58,211,678

TCBWorks

Site Selection Example using a Web-Based DSS

Type	Standalone	Access
DISTRIBUTION		
1. Chicago, Indiana		
2. Atlanta, Georgia		
3. Dallas, Texas		
4. Jackson, Miss., USA		
5. Taipei, Taiwan		
6. Hong Kong		
7. Seoul, S. Korea		
8. Montreal, Quebec, Canada		
9. Seoul, Korea		
10. Munich, Germany		
11. Seoul, Korea		
12. Seoul, Korea		
13. Seoul, Korea		
14. Seoul, Korea		
15. Seoul, Korea		
16. Seoul, Korea		
17. Seoul, Korea		
18. Seoul, Korea		
19. Seoul, Korea		
20. Seoul, Korea		

Web-Based DSS Implementation Examples

- Bell Canada -- business, operations and sales managers
- John Deere Data Mining
- Wal-Mart suppliers
- EDS knowledge management
- Societe Generale USA
- Hannaford Brothers Grocery

More Examples of Web-Based DSS

- A Model-Driven, Interorganizational Web-based DSS
 - SimScope, Artesyn's Virtual PowerLab
 - Competitive advantage?
- A Data-Driven, Web-based DSS development environment
 - Cognos Impromptu Web Query
 - Off-the-shelf package
 - Audience?

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19

Web-Based Decision Aids

Microsoft Office Word 2003 Document

Cost/Benefit Analysis

The Cost/Benefit Analysis Decision Aid is based on a common financial decision model for evaluating projects to propose. Enter annual costs and benefits and then click Calculate. The results are then displayed. The data screen supports scroll to test different sets of assumptions and to see results change. Click on [sample data](#).

Discount Rate: %

	Initial Costs	Subsequent Costs	Initial Benefits	Subsequent Benefits
Year 1:	<input type="text" value="10000"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Year 2:	<input type="text" value="10000"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Year 3:	<input type="text" value="10000"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Year 4:	<input type="text" value="10000"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Year 5:	<input type="text" value="10000"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

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20

Advantages and Disadvantages



- Lower cost to distributed locations ★
- Increased access and use ★
- Reduce support and training costs ★
- Extensive capabilities ★
- Unrealistic expectations
- Infrastructure problems and issues
- Taking out the trash -- old pages and data

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Building Web-based DSS: Conclusions



- Provide a competitive advantage? Sometimes
- Cost advantages? Usually
- Speed development and deployment? Yes
- Improve decision-making? Perhaps
- Deploy globally? Yes
- Improve profitability? Yes

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22

Questions for Review and Discussion

- What is a Web-Based DSS?
- What is an Inter-organizational DSS?
- What is an Intranet? Extranet?
- What vendors have the "best" Web-Based DSS development products?
- Visit vendor Web sites
- JavaScript DSS Programming Exercise

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23