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Grow with Denim Group



Data Strategies for Growing Companies: Moving beyond Access and Excel

November 30, 2005

Agenda

- Denim Group Introduction
- Overview
- Case Studies
 - *Excel and Data Relationships*
 - *Excel and Auditability*
 - *Access and Growing Data*
- Questions

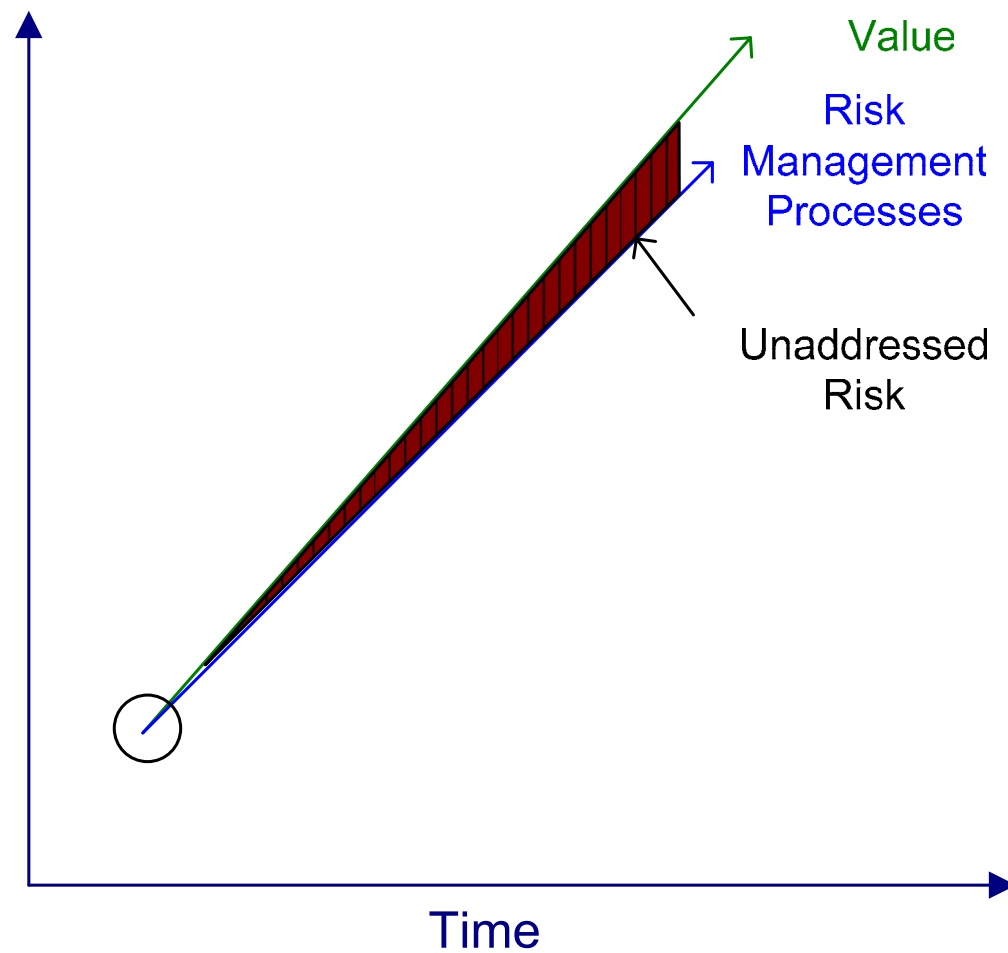
Denim Group Introduction

- Presenters:
 - *Peter Haik, MCAD*
 - *Dan Cornell, MCSD*
- Texas-based consultancy
- Services
 - *Software development*
 - *Systems Integration*
 - *Application security*
- Microsoft partner
 - *Information worker technologies*

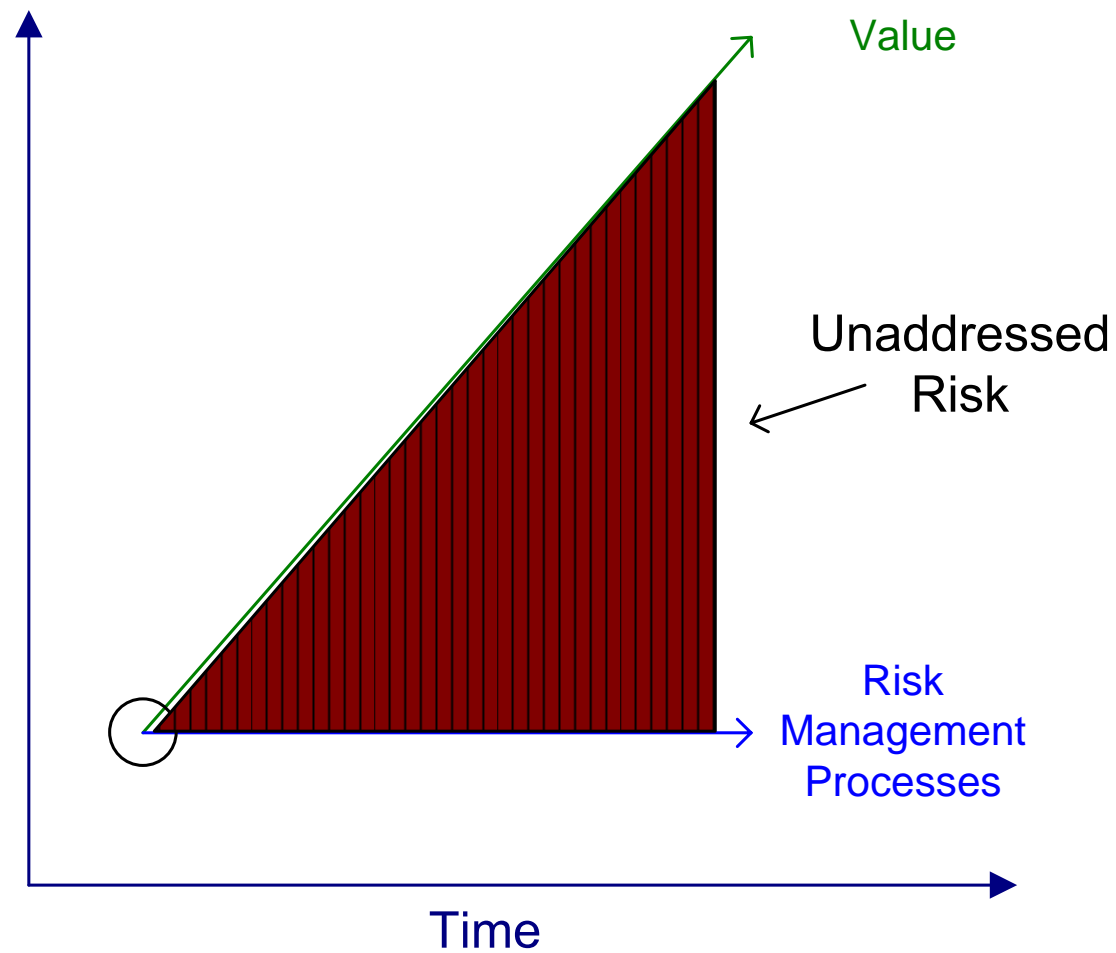
Overview

- Microsoft Office tools such as Excel and Access offer tremendous capabilities
 - *Perform calculations*
 - *Data analysis*
 - *Data management*
- Often solutions built with these technologies grow in value and organizations fail to address the related risks

Ideal Situation



Actual Situation



Sound Familiar?

- Excel spreadsheets stored on individual workstations
- Excel spreadsheets shared via email
- Excel spreadsheets stored on shared drives with little access control
- Access databases stored on shared drives

Addressing the Risk

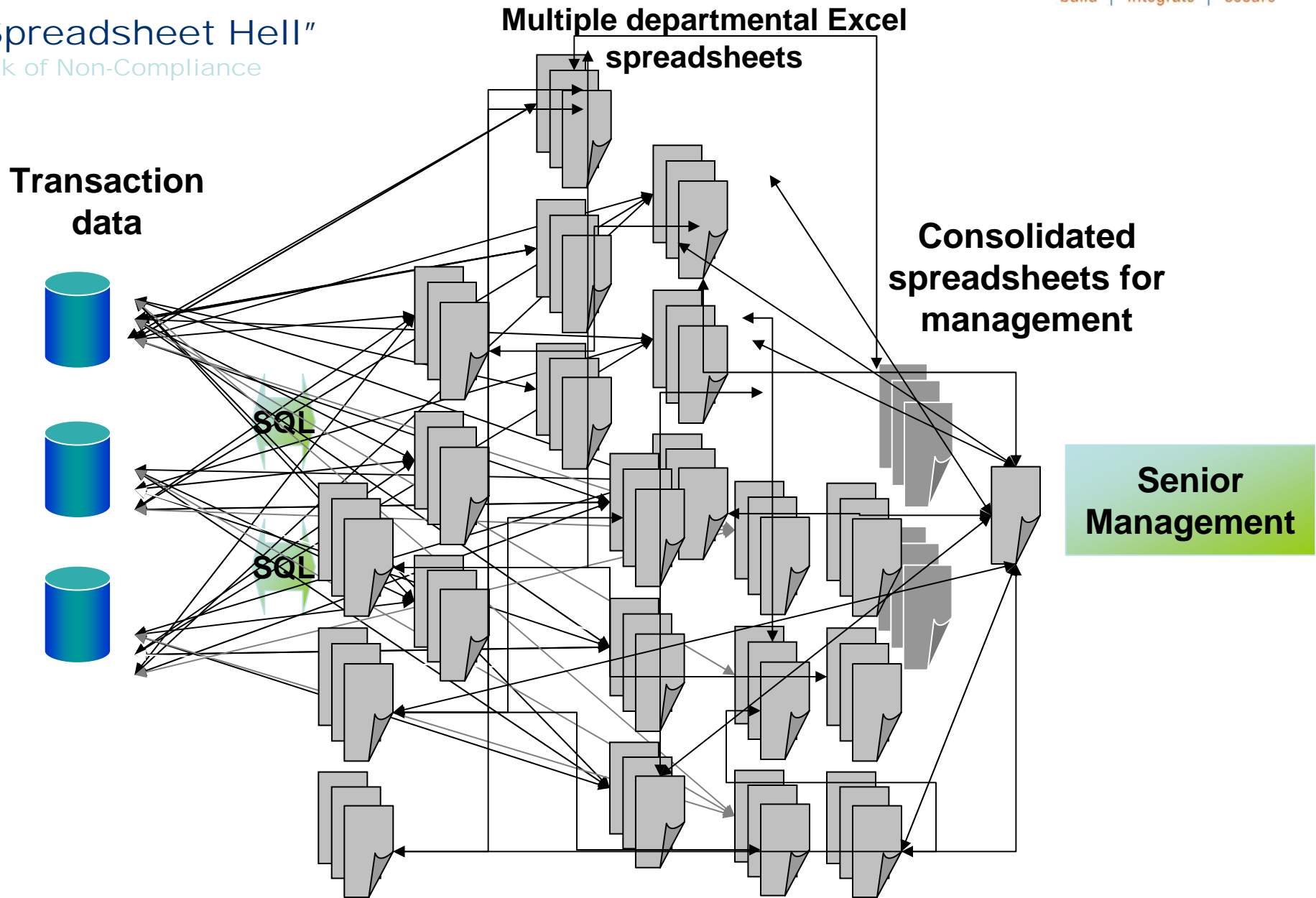
- Identify valuable assets
- Identify possible risks
- Address the risks
 - *Backups*
 - *Assessments and audits*
 - *Insurance*
 - *Technology changes*
- Our focus today is on making technology changes

Microsoft Excel

- Excellent tool for:
 - *Data analysis*
 - *Performing calculations*
 - *Graphing*
- Downside: Spreadsheet hell
- Two examples:
 - *Excel and Data Relationships*
 - *Excel and Auditability*

"Spreadsheet Hell"

Risk of Non-Compliance



Case Study – Excel and Data Relationships

- Bauhaus software is a leading provider of 2-Dimensional animation software and hardware
- Excel spreadsheets used to manage sales leads, software licenses and other records
- 2500 Customers, 5 excel worksheets.

Case Study – Excel and Data Relationships

- Problems:
 - *Difficult to use*
 - *Bulky - too much data*
 - *Data redundancy issues*

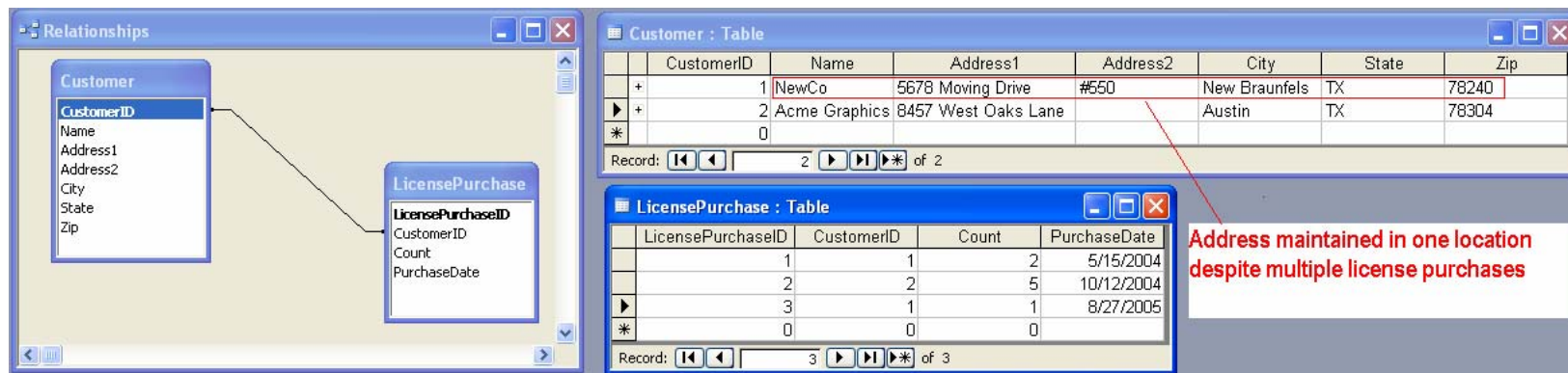
The screenshot shows a Microsoft Excel spreadsheet with the following data:

	A	B	C	D	E	F	G	H	I
1	Customer Name	Address 1	Address 2	City	State	Zip	Num. Licenses	Date Purchased	
2	NewCo	1234 Corporate Drive	Suite 315	San Antonio	TX	78229	2	5/15/2004	
3	Acme Graphics	8457 West Oaks Lane		Austin	TX	78304	5	10/12/2004	
4	NewCo	5678 Moving Drive	#550	New Braunfels	TX	78240	1	8/27/2005	
5									
6									
7									
8									

Red lines and arrows highlight data redundancy and address changes. A red arrow points from the text "Address has changed" to the Zip column of the third row (78304).

Case Study – Excel and Data Relationships

- Microsoft Access may be a better tool
- Provides a true relational database
 - *No more redundant data*
- Easy-to-use screens used for data entry
- More flexible reporting
- Non-programmer friendly development environment
 - *To a certain point*



The screenshot displays the Microsoft Access interface. On the left, the 'Relationships' window shows a one-to-many relationship between the 'Customer' table (primary key: CustomerID) and the 'LicensePurchase' table (foreign key: CustomerID). The 'Customer' table fields are Name, Address1, Address2, City, State, and Zip. The 'LicensePurchase' table fields are LicensePurchaseID, CustomerID, Count, and PurchaseDate.

Two data tables are shown:

Customer : Table

CustomerID	Name	Address1	Address2	City	State	Zip
1	NewCo	5678 Moving Drive	#550	New Braunfels	TX	78240
2	Acme Graphics	8457 West Oaks Lane		Austin	TX	78304

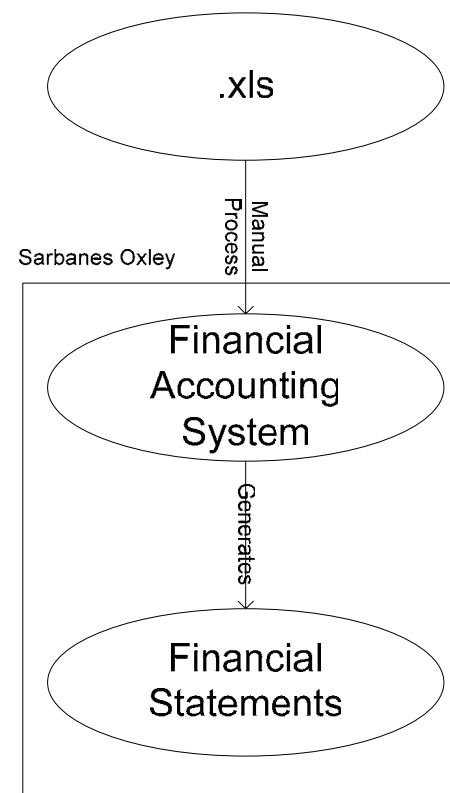
LicensePurchase : Table

LicensePurchaseID	CustomerID	Count	PurchaseDate
1	1	2	5/15/2004
2	2	5	10/12/2004
3	1	1	8/27/2005

A red callout box points to the 'Address1' and 'Address2' columns in the Customer table, stating: **Address maintained in one location despite multiple license purchases**.

Case Study – Excel and Auditability

- A Financial Services company oversees transactions for 100 major clients
- Data, formulas, and accounts kept in Microsoft Excel spreadsheets
 - *On a shared drive*
 - *Exchanged via email*
- Account representatives use spreadsheets to manage data and make calculations fed to the Financial Accounting System



Assumes Excel file is still untouched and formulas are correct.

Case Study – Excel and Auditability

- Problem: What if the Excel spreadsheet has been modified?
 - *Intentional change or unintentional*
- Financial figures fed to accounting system will be calculated differently
- Financial statements will reflect different calculations
- Who authorized the change? Who knows it occurred?
- Bad for any organization
 - *Especially bad for organizations subject to Sarbanes Oxley*

Case Study – Excel and Auditability

- Microsoft SharePoint technologies can help
 - *Centralize location of critical spreadsheets online*
 - *Control versions of documents in Document Libraries*
 - *Notify spreadsheet owners of changes with Alerts*
 - *Allow approval before changes are published and made available to all users*
- Two versions:
 - *Windows SharePoint Services (**free** with Windows Server 2003)*
 - *Windows SharePoint Portal Server 2003*

Microsoft Access

- Excellent tool for:
 - *Quick and dirty applications*
 - *Non-programmer development*
- Downside: Scalability limitations put organizations at risk of poor performance, data corruption, and data loss
- Example:
 - *Access and Growing Data*

Case Study – Access and Growing Data

- Foam Products of San Antonio have implemented an Access application which is run at every cashier terminal for their four stores
- Complex business logic in front end application
- “Clunky”, slow application due to volume of data under management

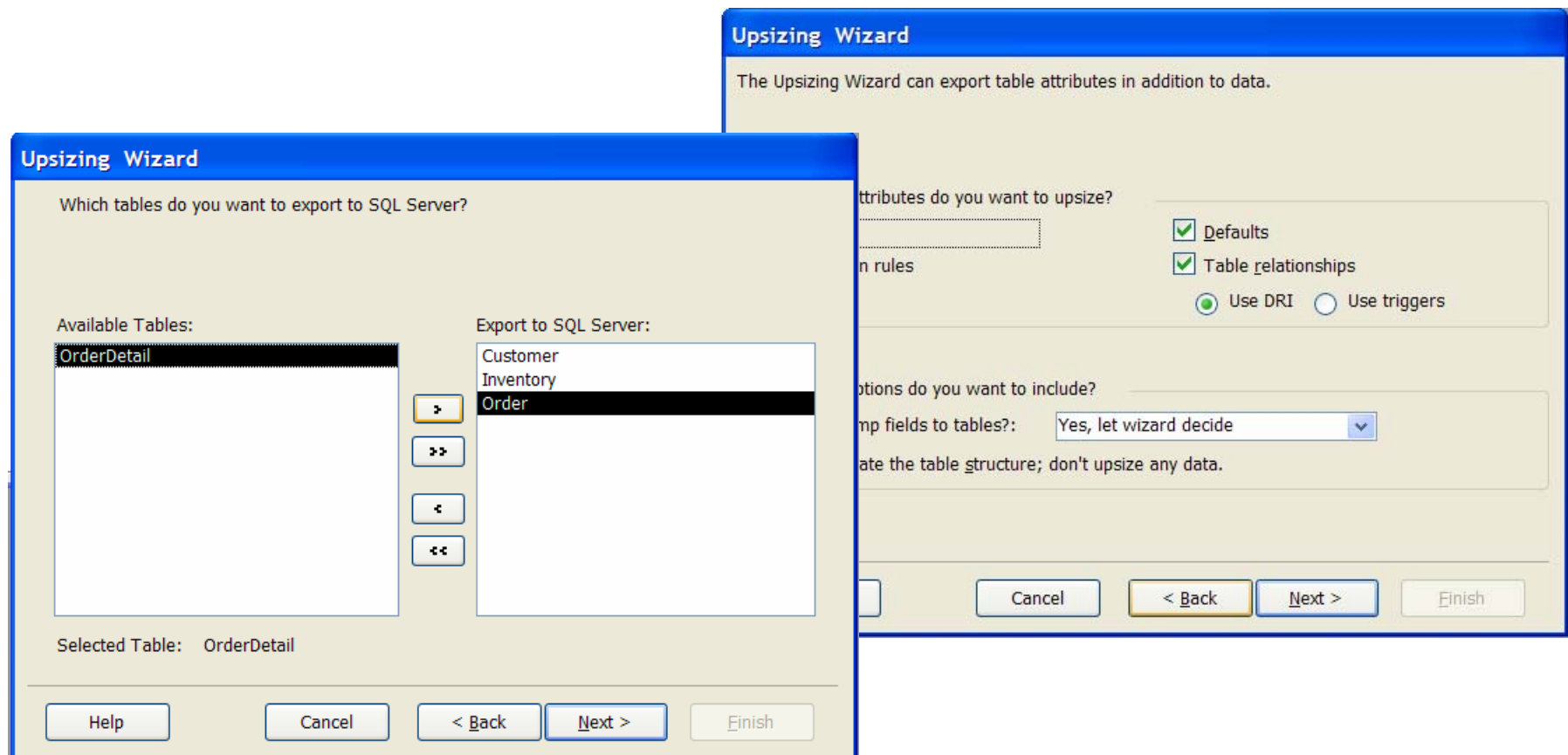
Case Study – Access and Growing Data

- Problem: The solution had grown beyond the limits of Access
- Slow performance crushed worker productivity
- Data corruption issues caused distrust of the system
- Data loss issues threatened the bottom line

Case Study – Access and Growing Data

- Microsoft SQL Server is an enterprise-grade database engine
 - *Designed for use by many concurrent users*
 - *ACID transaction capabilities*
 - *No practical limit to how much data can be managed*
- “Upsize Wizard” automates much of the transition
 - *Existing Access screens can be used to eliminate user retraining*
 - *Most existing Access business logic can be used to eliminate code rewrites*
 - *Some hand-coding required to complete migration*
 - *Six easy steps*

Case Study – Access and Growing Data



Case Study – Access and Growing Data

- Microsoft ASP.NET might be a better development technology
 - *Centralized deployment and management*
 - *Web-based interface can be used across Internet, Intranet or Extranet*

Conclusions

- Microsoft tools such as Excel and Access allow organizations to create powerful solutions quickly
- Organizations need to be careful that these solutions do not outstrip the capabilities of the implementation technologies
- There are Microsoft technologies available providing a viable upgrade path

Questions

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General Information:

<http://www.denimgroup.com/>

This Presentation and Resources on Technologies such as
Sharepoint:

<http://www.denimgroup.com/Knowledge/>