

Microsoft®  
**Visio** 2010



# Visio 2010 Tips and Techniques

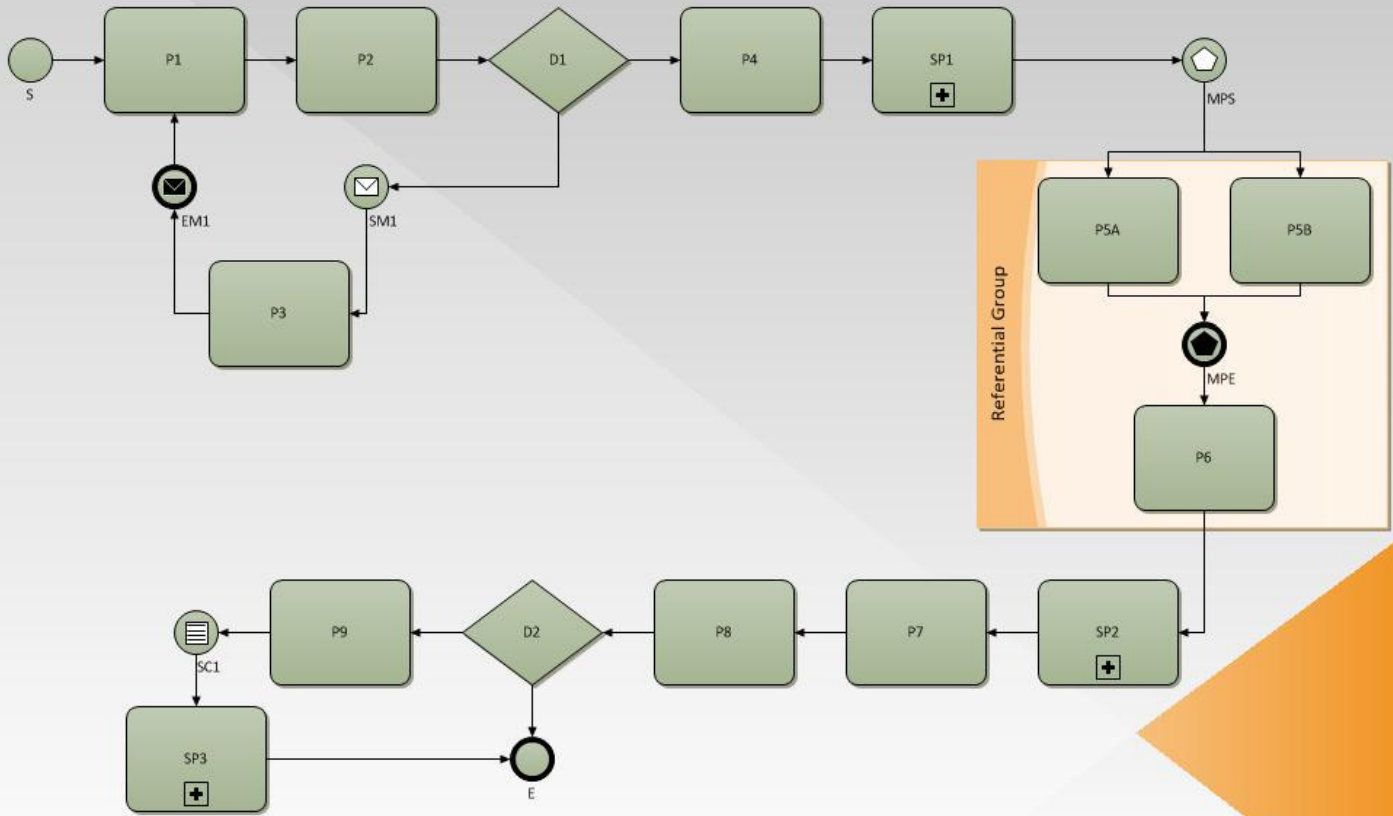
*Advanced Concepts and Solutions*

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Visibility.biz  
CTE / Director of Consulting Services

# Agenda

- **Advanced Process Modeling (BPMN)**
- **Data Connectivity & Data Graphics**
- **Understanding Visio Services**
- **Database Modeling**
- **Logical & Physical Network Diagrams**
- **Timeline Diagramming**
- **Visio Custom Reports**
- **Introduction to Extending Visio Through ShapeSheets and Object Model Automation**

# Advanced Process Modeling (BPMN)



# Advanced Process Modeling (BPMN)

- BPMN SmartShapes
- Subprocesses
- Process Validation
- SharePoint Workflow Diagrams



# Advanced Process Modeling (BPMN)

- BPMN SmartShapes
  - BPMN Basic Shapes
  - BPMN Events



# DEMO

*BPMN SmartShapes*

# Advanced Process Modeling (BPMN)

- Subprocesses
  - Create New
  - Link To Existing
  - Create Drom Selection



# DEMO

*Subprocesses*

# Advanced Process Modeling (BPMN)

- Diagram Validation
  - Check Diagram
  - Rules To Check
  - Issues Window
  - Ignoring Issues
  - Importing Rules



# DEMO

*Diagram Validation*

# Advanced Process Modeling (BPMN)

- SharePoint Workflow Diagrams
  - Import SharePoint Workflow
  - Export SharePoint Workflow

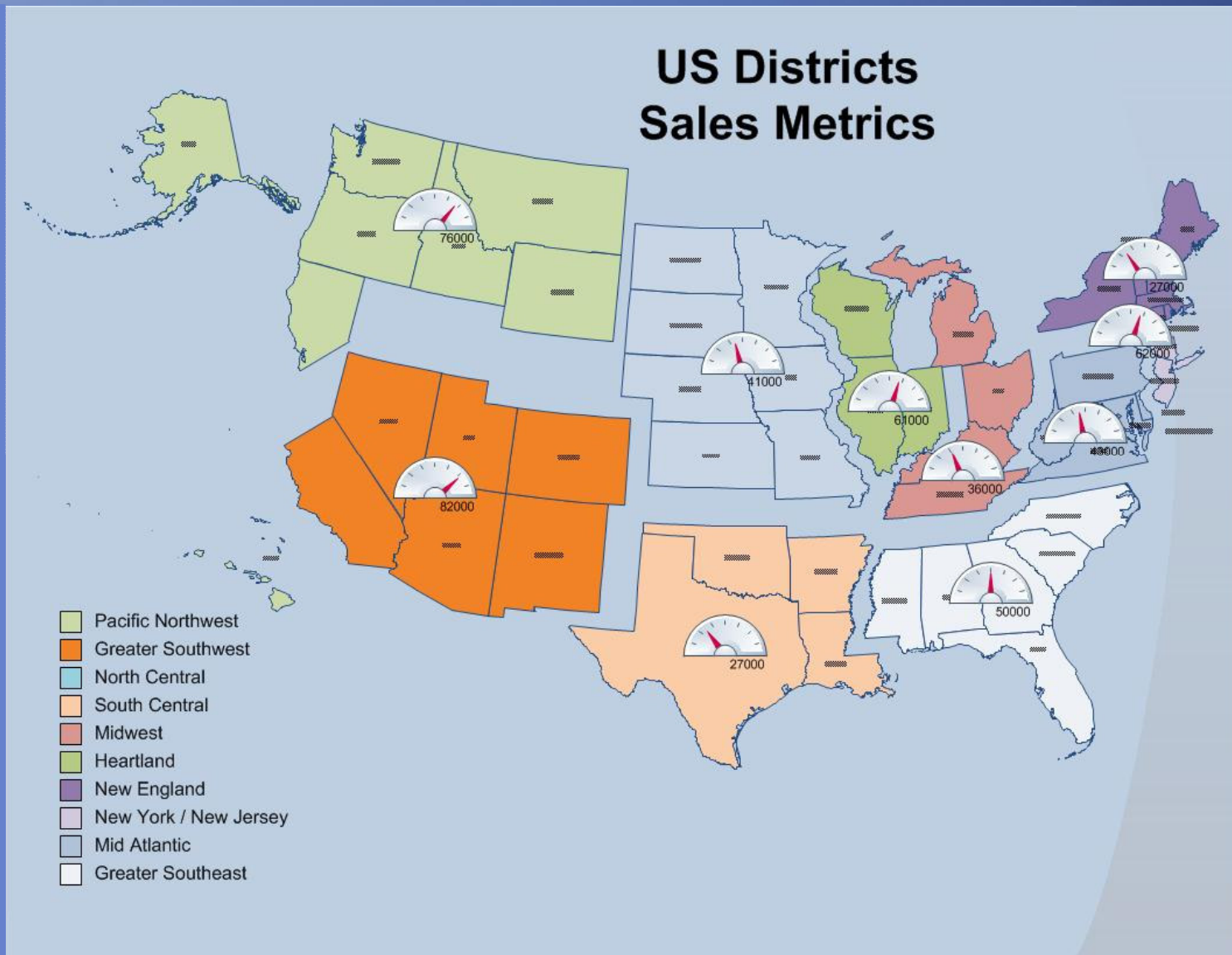


# DEMO

*SharePoint Workflow Diagrams*



# Data Connectivity & Data Graphics



# Data Connectivity & Data Graphics

- Data Connectivity
  - External Data
    - Link Data To Shapes
    - Automatically Link
    - Refresh All
- Data Graphics
  - Data Graphics
  - Data Legends

# Data Connectivity & Data Graphics

- Data Connectivity
  - External Data
    - Link Data To Shapes
    - Automatically Link
    - Refresh All



# DEMO

*Data Connectivity*

# Data Connectivity & Data Graphics

- Data Graphics
  - Data Graphics
  - Data Legends

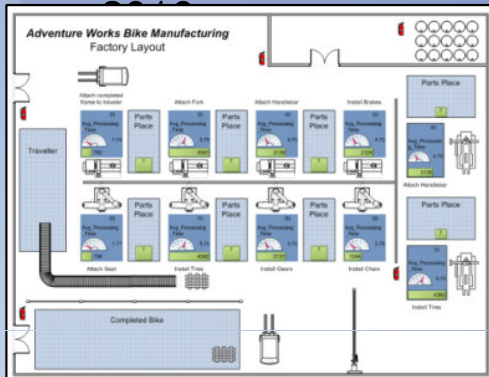


# DEMO

*Data Graphics*

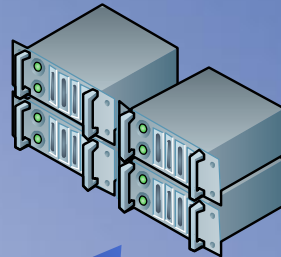
# Understanding Visio Services

**2** Publish "VDW" file to SharePoint Server



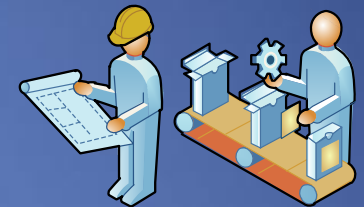
**1** Content Creator  
Create Data-linked Diagram just as in Visio 2007

Microsoft  
**SharePoint** 2010



**3** Data Consumer

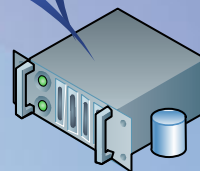
- Views data-linked diagram in web browser
- Can open the diagram in Visio



**4** Data Consumer

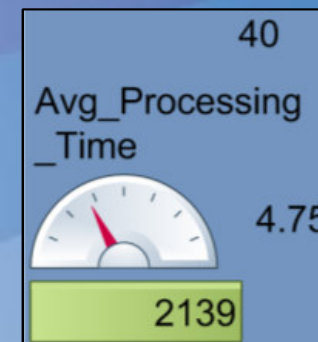
- Updates Data Graphics by clicking refresh button
- Data refresh can be automated by setting interval time

**5** Import latest data to update Data Graphics



Data Source

- Excel Services
- SharePoint Service List
- SQL Server
- OLEDB / ODBC



# Understanding Visio Services

- The New Visio \*.VDW Diagram Type
- SharePoint Data Providers
- Saving Visio Diagrams to SharePoint
- Refreshing Visio Diagrams in SharePoint
  - Data Graphics ONLY Update





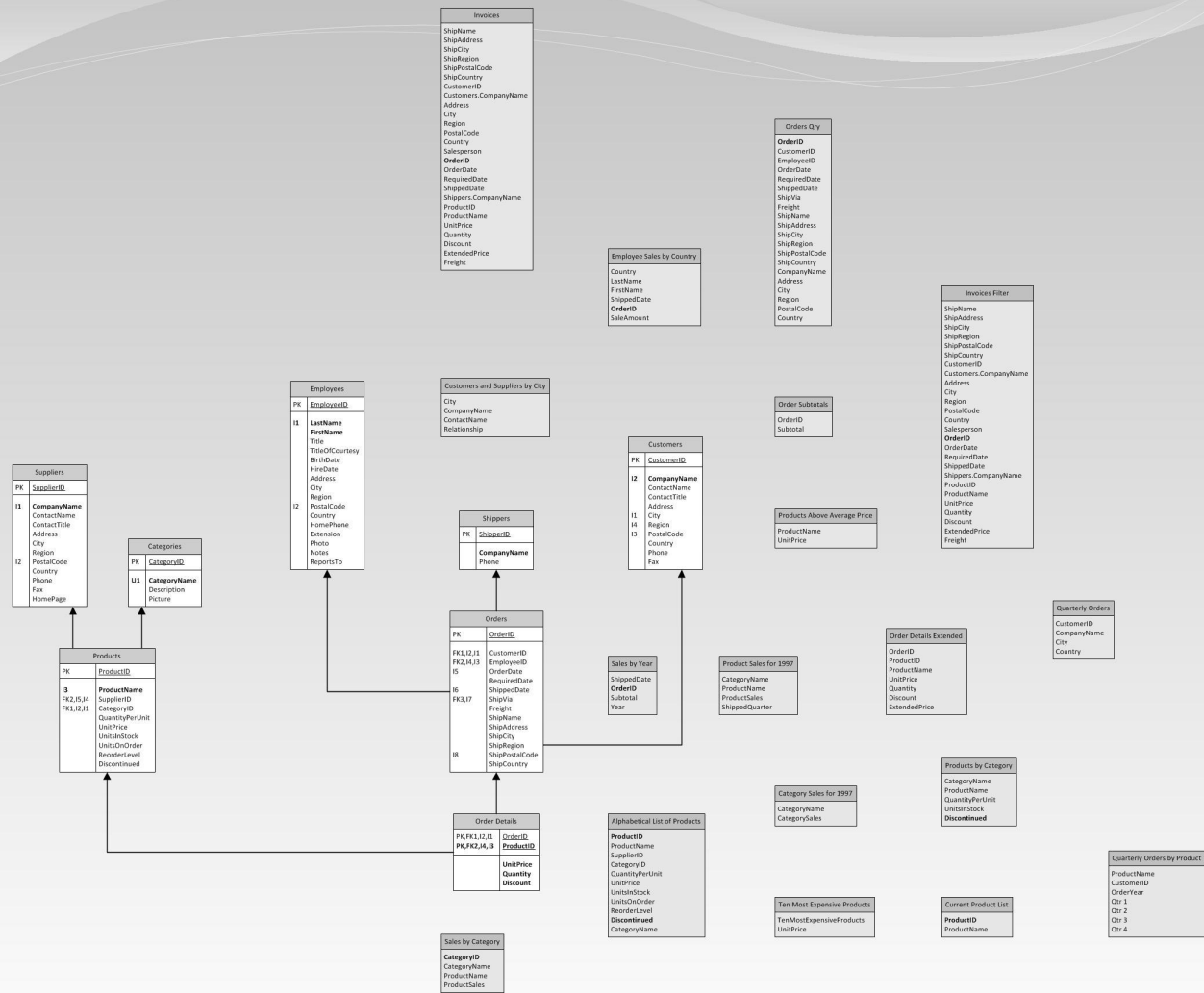
# DEMO

*Understanding Visio Services*

# Database Modeling

Database Model (Reverse Engineer Northwind.MDB)

May 4, 2010



# Database Modeling

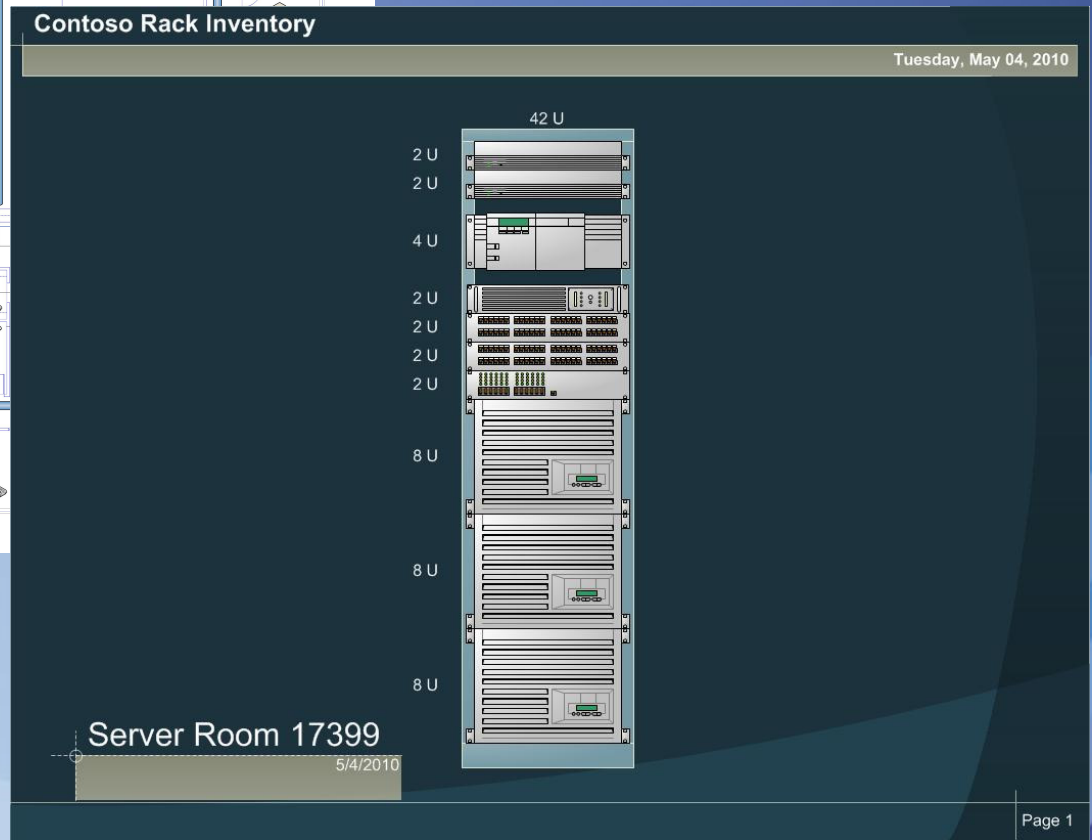
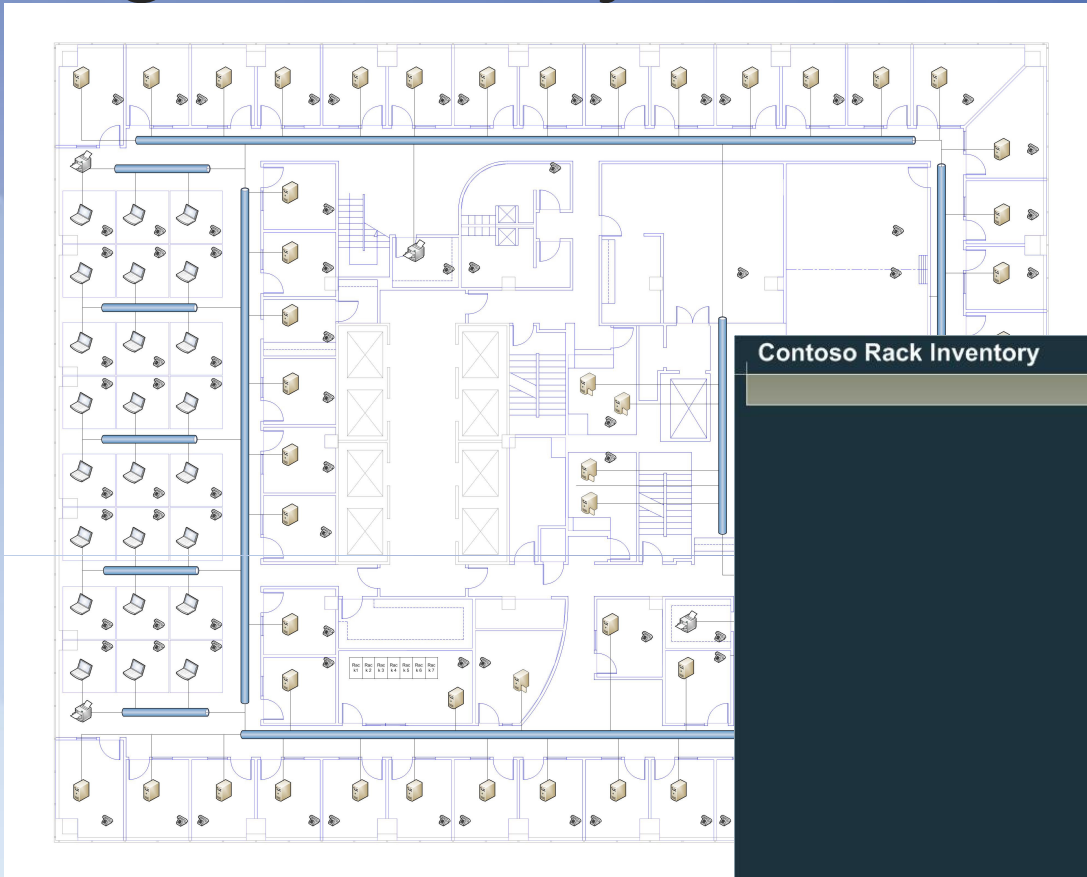
- Reverse Engineering a Data Source
- Documenting the Data Source
- Changing the Data Source Schema
- Methods for Updating the Data Source via Visual Studio.NET 2003 or 2005 Enterprise Architect Edition



# DEMO

*Database Modeling*

# Logical & Physical Network Diagrams



# Logical & Physical Network Diagrams

- Logical Network Topologies
- Physical Network Diagrams
  - Rack Diagrams

# Logical & Physical Network Diagrams

- Logical Network Topologies



# DEMO

*Logical Network Topologies*



# Logical & Physical Network Diagrams

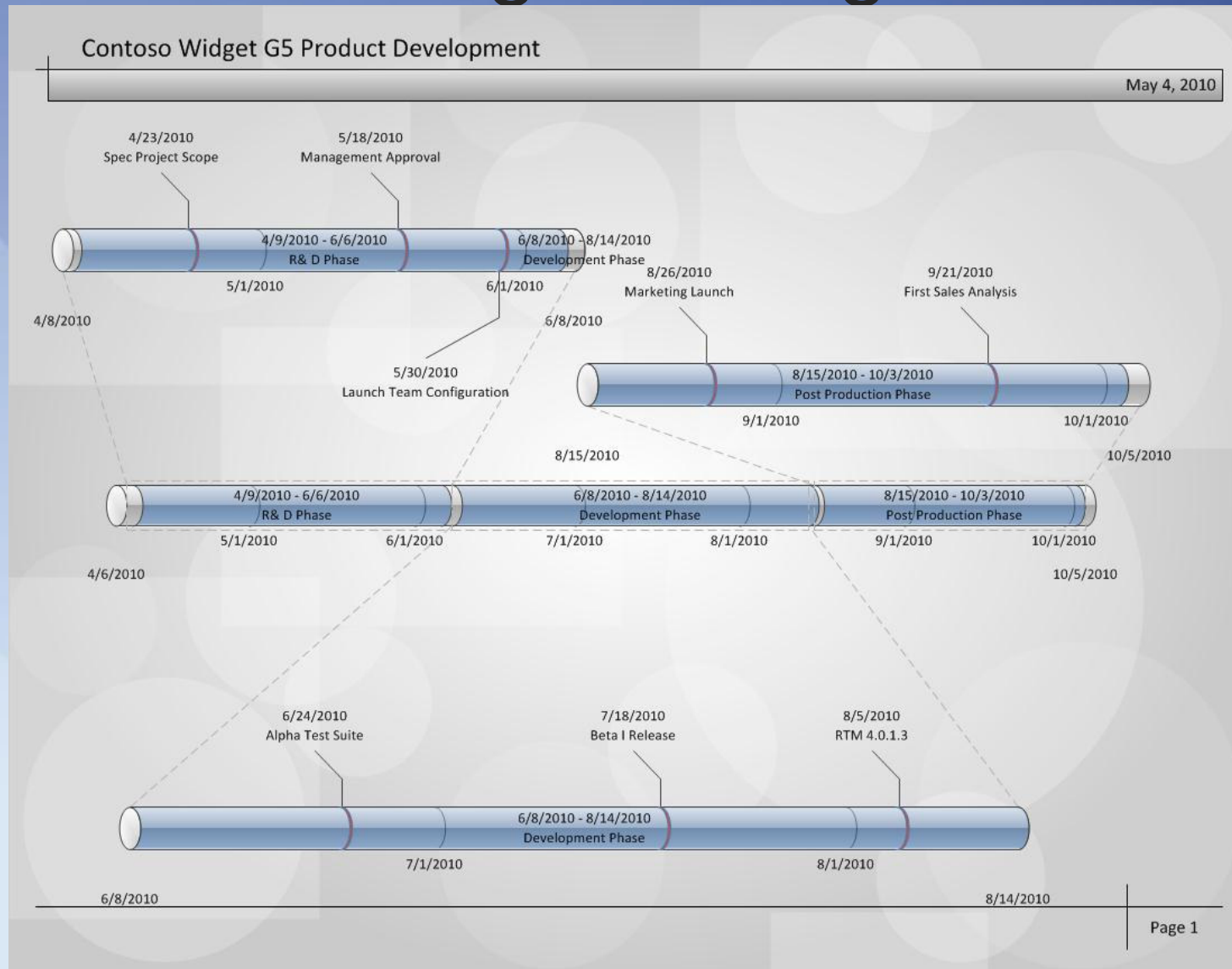
- Physical Network Diagrams
  - Rack Diagrams



# DEMO

*Rack Diagrams*

# Timeline Diagramming



# Timeline Diagramming

- Choosing & Creating the Timeline
- Adding Milestones
- Adding Intervals
- Creating Expanded Timelines
- Additional Timeline Features
- Exporting Timelines to Microsoft Project
- Importing Timelines from Microsoft Project



# DEMO

*Timeline Diagrams*

# Visio Custom Reports

The screenshot displays a floor plan drawing in Visio with a 'Reports' dialog box open. The dialog box contains a list of reports and their locations. The 'Space Report' is highlighted. Below the list, there is a description of the selected report and a checkbox for 'Show only drawing-specific reports' which is checked. At the bottom of the dialog are buttons for 'Run...' and 'Close'.

Report	Location
Asset Report	C:\Program Files\Microsoft O
Detailed Space Report	Visio Drawing
HVAC Duct	C:\Program Files\Microsoft O
Inventory	C:\Program Files\Microsoft O
Move	C:\Program Files\Microsoft O
<b>Space Report</b>	<b>C:\Program Files\Microsoft O</b>

Description  
Space Plan: Department, Room Number, Use, Area

Show only drawing-specific reports

Run... Close



# Visio Custom Reports

- Predefined Report Definitions
- Report Output Formats
- Creating Custom Report Definitions
- Editing & Reusing Report Outputs as Inputs for Data Connectivity



# DEMO

*Visio Custom Reports*



# Visio Personalization & Automation

The screenshot displays the VBA editor in Microsoft Visio 2010. The main window shows the VBA code for a procedure named `LocateStationStops`. The code defines three geometry objects (Geometry 1, 2, 3) and a procedure to locate station stops based on shape properties.

**Geometry 1 Properties:**

Name	X	Y	A	B	C	D
1	MoveTo	Width*0	Height*0			
2	LineTo	Geometry1.X1	Height*1			
3	LineTo	Width*1	Height*1			
4	LineTo	Width*1	Height*0			
5	LineTo	Geometry1.X1	Geometry1.Y1			

**Geometry 2 Properties:**

Name	X	Y	A	B	C	D
1	MoveTo	User.Margin	User.Margin			
2	LineTo	Geometry2.X1	Height-User.Margin			
3	LineTo	Width-User.Margin	Height-User.Margin			
4	LineTo	Width-User.Margin	User.Margin			
5	LineTo	Geometry2.X1	Geometry2.Y1			

**Geometry 3 Properties:**

Name	X	Y	A	B	C	D
1	MoveTo	User.Margin	User.Margin			
2	LineTo	Geometry2.X1	Height-User.Margin			
3	LineTo	Width-User.Margin	Height-User.Margin			
4	LineTo	Width-User.Margin	User.Margin			
5	LineTo	Geometry2.X1	Geometry2.Y1			

**VBA Code:**

```

Dim prpStation As Visio.cell
Dim stnName As String
Dim shName As String
Dim SuccessRate As Integer

Set allShapes = Visio.ActivePage.Shapes

ReDim StationArray(1, allShapes.Count)

SuccessRate = 0
StationArray(0, 0) = "<not Assigned>"
For ShapesCount = 1 To allShapes.Count
    Set scannedShape = allShapes.Item(ShapesCount)
    If scannedShape.CellExists("User.Class", 0) = True Then
        Set usrClass = scannedShape.Cells("User.Class")
        If usrClass.Formula = ""&"TubeStation"&"" Then
            SuccessRate = SuccessRate + 1
            shName = scannedShape.Name
            Set prpStation = scannedShape.Cells("Prop.Station")
            stnName = prpStation.ResultStr(0)
            StationArray(0, SuccessRate) = stnName
            StationArray(1, SuccessRate) = shName
        End If
    End If
Next ShapesCount
ReDim Preserve StationArray(1, SuccessRate)
    
```

# Introduction to Extending Visio Through ShapeSheets and Object Model Automation

- Introduction to ShapeSheet Programming
- Introduction to Visio Automation via the Visio Object Model
- An Example of Visio Automation  
“The London Underground”

# Introduction to Extending Visio Through ShapeSheets and Object Model Automation

- Introduction to ShapeSheet Programming
- Introduction to Visio Automation via the Visio Object Model



# DEMO

*The Visio ShapeSheet*



# DEMO

*The Visio Automation Interface*

# Introduction to Extending Visio Through ShapeSheets and Object Model Automation

- An Example of Visio Automation  
“The London Underground”



# DEMO

*The London Underground*



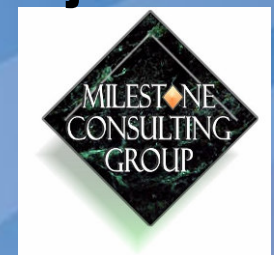


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The visualization division of  
Milestone Consulting Group, Inc.

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- Consulting Services & Custom Visio Solutions
- Education for Visio Usage & Developer Training
- Additional Information: <http://www.visibility.biz>
- Sister company Milestone Consulting Group, Inc. provides Consulting & Educational Services for **Microsoft Project and Project Server**

[www.milestoneconsultinggroup.com](http://www.milestoneconsultinggroup.com)





# Additional Resources

- The Visio Toolbox site

<http://www.visiotoolbox.com>

- Visibility.biz

<http://www.visibility.biz>



# Downloadable Resources

- .PDF version of the Presentation Slides
- .PDF version of the 74+ page Tips & Techniques Handout

# Additional Resources

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<http://www.visiotoolbox.com>

- Visibility.biz

<http://www.visibility.biz>





*Download & Install Visio 2010*

*Go to <http://www.visiotoolbox.com>*

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