

PowerPivot Workshop Outline

The workshop outline, in full detail, is as follows:

- **Introduction**
 - What is PowerPivot?
 - What is a PivotTable?
 - Example with classical Excel PivotTable
 - PowerPivot setup
 - Example with PowerPivot
- **Basic PowerPivot Concepts**
 - Formatting Numbers
 - Handling Technical and Useless Columns
 - Understanding Calculated Columns
 - Using Lookup Tables
 - Understanding Measures
 - Handling Many Tables
 - Refreshing Data
 - Using Slicers
- **Introduction to DAX**
 - Calculation Foundations
 - DAX Data Types
 - DAX Operators
 - Calculated Columns Examples
 - Measures Examples
 - Introduction to the Execution Context (Row and Filter)
 - Choosing Between Calculated Columns and Measures
 - Handling Errors in DAX
 - Common DAX Functions Examples
 - Statistical Functions
 - Logical Functions
 - Information Functions
 - Mathematical Functions
 - Text Functions
 - Date and Time Functions
- **Understanding Data Models**
 - What is a Data Model?
 - Why PowerPivot Users need Data Modeling?
 - Difference Between Classical and PowerPivot PivotTable
 - Physical and Logical Data Models
 - Normalization and Denormalization
 - Empty and Default Values
 - Understanding How and When to Denormalize
 - The SQL Query Designer as a Data Modeling Tool
 - Different kinds of Joins
 - Setting Relationship Manually
 - Understanding OUTER Joins
- **Loading Data and Models**
 - Understanding Data Connections
 - Different Kind of Connections
 - Using Existing Connections
 - Loading Tables from SQL Server
 - Filtering Options
 - Loading and Detecting Relationships
 - Loading from Views
 - Loading from Access
 - Issues in the Query Designer
 - Best Practices
 - Loading Data from Analysis Services
 - The MDX Query Designer
 - Handling of Keys in SSAS
 - Common Issues with SSAS 2000
 - OLAP cube or DataMart?
 - Using Linked Tables
 - Loading from Excel Workbooks
 - Loading from Text Files
 - Using the Schema.INI configuration
 - Using Copy & Paste Operations
 - Loading From Data Feeds
 - Reporting Services Reports
 - Internet Data Feeds
 - Loading From SharePoint
 - Loading From SharePoint Reports
 - Loading From SharePoint Excel Workbooks
 - Loading From PowerPivot in Excel Workbooks
 - Loading From SharePoint Lists

- **Understanding the Evaluation Context**
 - What is the Row Context
 - What is the Filter Context
 - Filter Context on a Single Table
 - Updating the Filter Context on a Single Table
 - Evaluation Context in Detail
 - Filter Context + Row Context
 - Updating the Filter Context
 - Restricting the Context
 - Enlarging the Context
 - Moving From Row Context To Filter Context
 - Evaluation Context And Relationships
 - Row Context for Multiple Tables
 - Filter Context for Multiple Tables
 - Updating the Filter Context with Relationships
 - The EARLIER and EARLIEST Functions
 - What is the EARLIER Function
 - Examples of usage of EARLIER
 - The EARLIEST Function
 - Examples of usage of EARLIEST
- **CALCULATE**
 - Introduction to Calculate
 - Examples of CALCULATE
 - Detailed Analysis of CALCULATE Behavior
- **The Calendar Table in PowerPivot**
 - Why a Calendar Table is Useful
 - Attribute Consolidation
 - Common Calendar Calculations
 - Creating a Calendar Table with Excel
 - Excel Tips to Create a Calendar Table
 - Handling Holydays for One Country
 - Handling Holydays for Multiple Countries
 - Working Days Calculation
 - Common Calendar Calculations
 - Year To Date
 - Quarter To Date
 - Month To Date
 - Same Period Last Year
 - Other Custom Aggregation Function and CALCULATE
 - Delta Over Previous Year
 - Creating a Period Table
 - Simplify Browsing with a Period Table
 - DAX pattern for Period Table
 - Semi Additive Measures
 - Closing Balance Over Time
 - The FirstNonBlank and LastNonBlank Functions
 - The OPENINGBALANCE and CLOSINGBALANCE Functions
 - Balance Updated at Transactions
- **Mastering Pivot Tables**
 - Different Kind of Pivot Tables
 - Classical Pivot Table
 - Pivot Table on SSAS OLAP cubes
 - Pivot Table on PowerPivot
 - Flattened Pivot Table
 - Using Custom Sorting
 - Example with the Calendar Table
 - Implementing Custom Sorting
 - Computing Ratios and Percentage
 - Implementing Custom Aggregation
 - Creating Excel Dashboards
 - Using Linked Tables on PivotTables
 - Adding new Data to Existing Tables
 - Defining Sets
 - The User Interface
 - The MDX Editor to Create Static Sets
 - The MDX Editor to Create Dynamic Sets
 - Dynamic Sets at work
 - Static Sets of Measures
- **Advanced DAX Patterns**
 - Advanced Ratio and Percentage
 - Computing Standard Deviation
 - Ranking Over a Measure
 - ABC and Pareto Analysis
 - Event in Progress Pattern
- **Advanced Data Model Patterns**
 - Banding
 - Band Expansion
 - Pure DAX Banding
 - Banding with CALCULATE
 - Courier Simulation
 - Data Loading and Transformation
 - DAX to resolve Complex Relationships
 - Using Many To Many Relationships
- **SharePoint Integration**
 - PowerPivot for SharePoint
 - PowerPivot Gallery
 - Publishing an Excel Workbook
 - Parameters Pane
 - PowerPivot Data Refresh
 - Data Connections
 - User Credentials