

Hands On Labs

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Business Solutions (Dynamics)

Walk Through using the new CLR Interop feature of Microsoft Dynamics™ AX

In this HOL you can walk through at your own pace to get an understanding of the CLR Interop feature. In this example you will use it to access a .NET class method from Microsoft Dynamics™ AX to return data into the application.

Deploying a New Enterprise Portal Site with Microsoft SharePoint Services and Microsoft Dynamics AX

Walk through this technical lab to understand how to deploy a new Microsoft Dynamics AX Enterprise Portal site based on Windows SharePoint Services. Windows SharePoint Services technology makes it simple for IT professionals like you to implement and manage a team collaboration infrastructure and deliver immediate benefits to your users.

Report Creation with SQL Server Reporting Services and Microsoft Dynamics AX

In this HOL you can walk through at your own pace creating a report for Microsoft Dynamics™ AX with SQL Server Reporting Services enhancements. Understand how the report is build and the new experience for the report developer and user.

Walk-through: Microsoft Dynamics™ AX Business Application Project Accounting fundamentals

In this HOL you can walk through at your own pace the main features of the Project Accounting functionality in Microsoft Dynamics AX.

Walk Through Using the New .NET Business Connector to Create a Microsoft Office Smart Document to Consume Data from Microsoft Dynamics™ AX

In this HOL you can walk through at your own pace to get an understanding of the .NET Business Connector. In this example you will use it to access data from Microsoft Dynamics™ AX to populate content in a Microsoft Office Smart Document.

Using the Application Integration Framework to Deploy a Web Service from Microsoft Dynamics™ AX

In this HOL you can walk through at your own pace to get an understanding of the Application Integration Framework. Use this to deploy a Web Service from Microsoft Dynamics™ AX.

Walk-through: Microsoft Dynamics™ AX Business Application Sales Management fundamentals

In this HOL you can walk through at your own pace the main features of the Sales Management functionality in Microsoft Dynamics AX covering the embedded CRM capabilities.

Walk-through: Microsoft Dynamics™ AX Business Application Human Resource Management fundamentals

In this HOL you can walk through at your own pace the main features of the Human Resource Management functionality in Microsoft Dynamics AX.

Building and Implementing Efficient Microsoft Dynamics CRM Business Processes

This lab will give CRM Administrators the opportunity to learn how to automate and implement business processes using Microsoft CRM 3.0 workflow, use product functionality to hide unused features, and use system settings to effectively manage your organizational structure and application security.

Discover the Differences with Microsoft SQL 2005 and Microsoft Dynamics GP

Here is a great chance for you to take a hands-on look at some of the differences between Microsoft SQL 2005 and SQL 2000 from a SQL Administration point of view. Use this opportunity to increase your understanding of the differences after implementing Microsoft Dynamics GP 9.0 around the new SQL Security Policy enforcement opportunities now available to IT Administrators with Microsoft SQL 2005.

Unlocking the Power of Extensibility with Microsoft Dynamics CRM 3.0

This in-depth technical Microsoft CRM 3.0 lab will give you the opportunity to create many-to-many relationships, personalize your CRM experience, and use client side scripting on various events (onLoad, onSave, hierarchical picklists, etc.) to make end-user data entry more simplified and powerful.

Get Connected with C# in the Developer Toolkit for Microsoft Dynamics GP

This hands on lab will provide you an overview of the Developer Toolkit for Microsoft Dynamics GP, with specific focus on C# component of the Toolkit. We will discuss the C# components in detail in the toolkit and learn how to integrate with and extend Microsoft Dynamics GP.

Connected Systems

WF: Getting Started with Windows Workflow Foundation

This is an introductory lab to developing workflows in Windows Workflow Foundation. It is based on Visual Studio 2005 with Windows Workflow Foundation RC0 and you are guided through a developer experience using Windows Workflow Foundation for the first time. In this lab you will learn creating and debugging a hello world workflow, receive data into the workflow using parameters, and create an expense reporting workflow using IF/Else, declarative conditions and custom activities.

WF: Creating Custom Activities with Windows Workflow Foundation

Activities are the primary unit of execution, re-use and composition in a workflow. Create simple activities using the activity designer and add it to a workflow in the workflow designer. Exercises include creating an activity with the designer and with code, adding properties to an activity, creating a custom validator, and creating a custom activity design image. As a pre-requisite to this lab you should have completed the Getting Started with Windows Workflow Foundation lab.

WF: Hosting Workflows in Windows Workflow Foundation

To execute workflows you need to host the workflow runtime in your application. A host process is your application that hosts the workflow runtime classes. In this lab you will learn how to create a host process using a few lines of code and add services to it. Exercises include building a console host application, learning about the hosting environment, starting workflows from the host and using the SqlTrackingService in your host. You will also learn to build a custom tracking service. As a pre-requisite to this lab you should have completed the Getting Started with Windows Workflow Foundation lab.

WF: Creating State Machine Workflows in Windows Workflow Foundation

State machine workflow model structure is a valuable alternative to the sequential workflow structure. Create state machine workflows using the state machine designer. Exercises include creating an order processing state machine and using the State Machine tracking service. As a pre-requisite to this lab you should have completed the Getting Started with Windows Workflow Foundation lab.

WF: Communicating with the Host Application for Windows Workflow Foundation

Because workflow execution context is managed by the workflow runtime, all communication with the workflow must be managed by the host. Local Connection Services allows for method calls to be made into a workflow from the host environment and vice versa. This lab walks through creating an activity library which provides the interface for this communications mechanism, correlating that communication with the workflow instance, adding roles for security in communication and how you can handle processing a long running operation. As a pre-requisite to this lab you should have completed the Getting Started with Windows Workflow Foundation lab.

WF: Windows Workflow Foundation and Web Services

Web services can be called by workflows and workflows can be exposed in whole or in part as a web service for other software to call. This lab walks through making calls to web services from workflows and also how you can create a web service using a workflow and then expose that web service in an ASP.NET web services project. As a pre-requisite to this lab you should have completed the Getting Started with Windows Workflow Foundation lab.

WF: Creating Rules Driven Workflow in Windows Workflow Foundation

Rules are used in several activities in Windows Workflow Foundation including if else, conditioned activity group, replicator and policy activities. This lab walks through using the conditioned activity group, we look at how we can limit the conditioned activity group, it shows the Replicator activity and using a Replicator for handling a variable sized bill of materials and we try out the policy activity. As a pre-requisite to this lab you should have completed the Getting Started with Windows Workflow Foundation lab.

WF: Transactional Behavior in Windows Workflow Foundation

This lab examines some of the transaction processing areas of Workflow. Exercises include handling exceptions in workflow, wrapping activities in atomic short running transactions and also compensating for failed long running transactions. As a pre-requisite to this lab you should have completed the Getting Started with Windows Workflow Foundation lab.

WF: Modifying Workflow Models at Runtime with Workflow Change in Windows Workflow Foundation

Workflow can also be modified at runtime by suspending the workflow and manipulating the workflow model using API calls. Exercises include updating the model of a workflow instance from within the workflow and updating the model of a workflow instance from the host process and changing the conditions in an if else activity of a running workflow. As a pre-requisite to this lab you should have completed the Getting Started with Windows Workflow Foundation lab.

WF: Embedding the Workflow Designer for Windows Workflow Foundation

The workflow designer as seen in Visual Studio 2005 can be used in a user application. Exercises include displaying a workflow in the designer in a Windows forms application, interacting programmatically with the workflow designer, adding activities to the design surface, and implementing file operations Open Save Compile and Run in a Windows forms application. As a pre-requisite to this lab you should have completed the Getting Started with Windows Workflow Foundation lab.

WF: Build a Simple Human Workflow Solution in Windows Workflow Foundation

This scenario based lab will walk you through creating a Simple Human Workflow solution using Windows Workflow Foundation. An instructor will guide you through building human communication activities required for the solution and they will walk you through creating a workflow that includes human interactions using these activities. The completed solution can be used as a quick start for a customer solution where Simple Human Workflow is required. As a pre-requisite to this lab you should have completed the Getting Started with Windows Workflow Foundation lab.

BTS: New Features for Flat Files

In this lab, you work for a book supplier who needs to be able to accept batched flat file orders. You have been provided samples of a single order, a batched order that contains three orders, and a batched order which contains bad data. You will create a flat file schema for the order using the Flat-File Schema Wizard. After you have created the schema you will create and test a custom pipeline which will be used to process the single order flat file message. Once the pipeline is configured to receive individual orders, you will configure it to receive a process batched orders. You will then configure it to allow recoverable interchange processing. After completing this lab, you will be able to:

- Create a schema using the Flat File Schema Wizard,

- Create and configure a pipeline to use a flat-file disassembler component,
- Configure the receive pipeline of a BizTalk receive location,
- Configure pipeline for recoverable interchange processing.

BTS: New Features for POP3, SharePoint, and Error Handling

This lab will demonstrate how to configure the new POP3 and SharePoint adapters for BizTalk Server 2006. Additionally it will demonstrate how to build and configure an orchestration that subscribes to failed messages. First you will test an existing application to learn how it works. Then you will configure a receive location to use a POP3 adapter to receive expense reports sent as email attachments. Next, you will create a send port that writes new expense reports to a SharePoint site for manual approval or denial. Then, you will configure a second send port that will write the processed expense reports to another SharePoint library. Finally, you will configure a receive location to process the approved or denied expense reports. Once you have tested the configuration of these new adapters, you will build an orchestration that will subscribe to any failed messages that are generated when an invalid expense report is submitted. The orchestration will add error details to the original message and write the message to a SharePoint site where it can be reviewed and fixed. After completing this lab, you will be able to:

- Create and configure a receive location that uses the POP3 adapter.
- Configure send ports and receive locations that use the Windows SharePoint Services adapter.
- Create an orchestration that subscribes to failed messages and adds error information to the original message.

BTS: New Features for Deployment and Management

This lab will demonstrate the new deployment and management features in BizTalk Server 2006. Specifically, you will see how BizTalk artifacts can now be grouped and managed as an application and how the newly redesigned BizTalk Server 2006 Administration Console enables and simplifies the deployment and administration of BizTalk solutions. After completing this lab, you will be able to:

- Assign an application name to a BizTalk Server project,
- Use the BizTalk Server 2006 Administration Console to create receive ports, receive locations,
- Use the BizTalk Server 2006 Administration Console to import port binding information,
- Bind orchestration ports to physical ports
- Export a BizTalk application to an MSI package
- Import a BizTalk application from an MSI package
- Use the Group Hub to manage suspended messages

BTS: Working with Schemas

Northwind Traders has chosen to create a custom schema to meet their business requirements for submitting orders to a supplier. In this lab you will create a BizTalk project for the schema, and then define a customer order schema to define the structure of messages (documents) to be exchanged within the solution. You will also promote several of the

schema properties so that the property values can be referenced for content-based routing purposes in the BizTalk orchestration that you will create in later labs. After you have created the schemas and promoted the schema properties, you will use the BizTalk Editor to generate a sample instance message and validate the schemas to check for any inconsistencies. After completing this lab, you will be able to:

- Create a new BizTalk project,
- Create an XML schema by using the BizTalk Editor,
- Promote a schema property,
- Create a flat file schema by using the BizTalk Editor,
- Validate a schema and generate a sample instance message,
- Create a strong name and assign it to an assembly,
- Build a schema project.

BTS: Working with Maps

As part of a business-to-business (B2B) process, Northwind Traders needs to send orders to a supplier named Fabrikam. Northwind Traders uses a file format for customer orders that is different from the purchase order format that Fabrikam, requires. Because of this, you must create a schema map to transform Northwind Trader's customer order schema format to the purchase order schema format required by Fabrikam. In this lab, you will create a schema map to associate specific fields in a customer order (the source schema) to corresponding fields in Fabrikam's purchase orders (the destination schema). You will then add functoids to the map to perform special transforms between fields in the source schema and destination schema. Finally, you will validate the map, and then build the project to compile the map and associated schemas and to confirm that there are no errors in the project. After completing this lab, you will be able to:

- Create a schema map by using BizTalk Mapper,
- Add functoids to a map,
- Validate a map,
- Build a schema map project.

BTS: Working with Pipelines

At times, you may receive certain types of messages that do not require any detailed processing. Message routing provides a solution for forwarding messages to a specific send port, based solely on the contents of the message. Northwind Traders wants to immediately route customer orders to its supplier, Fabrikam, when the order amount is equal to or less than \$500. Orders greater than \$500 require additional approval, and should be routed internally for additional processing. Northwind Traders also requires that all business-to-business (B2B) messages exchanged with trading partners be secure. In this lab, you will configure two custom pipelines. First you will configure a send pipeline that includes the S/MIME decoder component for encrypting all outbound messages. Next you will configure a receive pipeline to decrypt all inbound messages from trading partners. After completing this lab, you will be able to:

- Create a receive port and a receive location,
- Create send ports and define message filters,

- Start the send ports, enable the receive location, and test the configuration,
- Configure BizTalk group and host security settings,
- Create a custom send pipeline,
- Modify a send port to use a custom pipeline,
- Create a custom receive pipeline,
- Build and test the pipeline solution.

BTS: Creating an Orchestration

In this lab, you will use BizTalk Orchestration Designer to create and test a simple orchestration. Then, you will add additional shapes to the orchestration to add correlation and parallel actions. Finally you will build and test the application.

BTS: Implementing Transactions

In this lab, you will update an existing order-fulfillment orchestration to include transaction handling. This includes providing support for compensating transactions and exception handling. Transactions will be added to each section of the Parallel Action shape and around the entire Parallel Action shape.

BTS: Integrating Business Rules

Northwind Traders, like many organizations, has many dynamic business rules that govern its business processes. Most of these rules are embedded deep within code that is difficult to change. Traditionally, changing an embedded rule requires costly code changes, and also requires that the BizTalk processing system be brought down, resulting in further costs because of lost uptime.

The BizTalk Business Rules Engine provides the tools to abstract business rules from orchestration code and to modify those business rules without stopping the orchestration process. For this reason, Northwind Traders plans to move most of its business logic to the Business Rules Engine toolset. In this lab, you will create and deploy a rule set and execute those rules from within an orchestration.

BTS: Enabling Business Activity Monitoring

In this lab, you will learn how to enable a specific application using BAM for true real-time end to end visibility in the context of a business activity. After completing this lab, you will be able to:

- Define a complete BAM observation model (Business Analyst),
- Deploy BAM observation model (IT Professional),
- Map BAM observation model to implementation (Developer),
- View KPI's and create business alerts on them (Business User).

BTS: Using the SharePoint Adapter

In this lab, you will configure a BizTalk orchestration to process incoming Purchase Order messages from a SharePoint form library. The processed Purchase Order will then be written back to the SharePoint library after the orchestration has processed it. After completing this lab, you will be able to:

- Configure a receive location to use the SharePoint Adapter,
- Configure a send port to use the SharePoint adapter.

HIS: Accessing vital information using the Microsoft .NET Framework Data Provider for DB2

To directly access information in IBM DB2 database servers, enterprise developers can use the new Microsoft .NET Framework Data Provider for DB2 that is based on an improved Microsoft network client for DB2 (pooling, schemas, transaction, static SQL). The DB2 managed provider extends the standard Visual Studio 2005 design tools, server explorer and data set designer, to allow enterprise developers to generate code based on intuitive drag-drop and wizards. After completing this lab, you will be able to configure a connection to a DB2 Database and build a simple XML Webservice to expose DB2 tables data using ASP.NET.

HIS: Accessing data records using the Microsoft .NET Framework Data Provider for Host Files

To access data records stored in IBM mainframe z/OS (VSAM) datasets and midrange AS/400 physical files, enterprise developers can use the new Microsoft .NET Framework Data Provider for Host Files that is based on an updated Microsoft network client for host files (nested records, SQL commands). The host files provider includes a Visual Studio 2005 design tool, including COBOL and RPG source code import wizards that allow developers to map host program-described records to ADO.NET data tables. The provider offers intuitive SQL commands for accessing (SELECT) and updating (INSERT, UPDATE, and DELETE) host records. The host file provider offers built-in data conversion from host machine types, including nested records (COBOL OCCURS, COBOL REDEFINE, and RPG OVERLAY) and EBCDIC strings, to .NET Framework CLS data types and UNICODE. After completing this lab, you will be able to:

- Configure a connection to a Host File Data Set and build a simple XML Webservice to expose Host Files data using ASP.NET,
- Retrieve a recordset of information from a Host File and return that recordset as a .NET DataSet via a XML Webservice.

BTS: Extending BizTalk Solutions using the Microsoft BizTalk Adapter for DB2

The Microsoft BizTalk Adapter for DB2 connects BizTalk Server 2006 to vital data stored in IBM mainframe DB2 for z/OS, IBM midrange DB2/400, and IBM DB2 Universal Database for open platforms (AIX, Linux, Solaris, and Windows). The DB2 adapter is based on the Microsoft .NET Framework Data Provider for DB2 and supports a broad range of functions, including static and dynamic send ports, receive ports, and distributed transactions across traditional SNA and open TCP/IP network connections. Using standard SQL commands defined within port configuration wizards built into the BizTalk Server administration tools, IT professionals can easily create solutions that securely and efficiently integrate DB2 databases without the need for custom programming. After completing this lab, you will be able to:

- Use the BizTalk administration console to configure the BizTalk adapter for DB2,
- Define a Send Port to send records to a DB2 Database,
- Define a Receive Location to poll data from a DB2 Database then Connect the Receive Location and Send Port to setup an update and retrieve scenario against DB2 Database.

BTS: Extending BizTalk Solutions using the Microsoft BizTalk Adapter for Host Files

The Microsoft BizTalk Adapter for Host Files connects BizTalk Server 2006 to vital data stored in IBM mainframe zSeries VSAM datasets and IBM midrange iSeries AS/400 physical files. The host file adapter is based on the Microsoft .NET Framework Data Provider for Host Files, offering built-in data conversions from host data types to XSD data types, including a broad set of EBCDIC and UNICODE string conversions. The adapter offers an intuitive Visual Studio 2005 designer, including host COBOL and RPG source code import wizards, with which to define metadata maps of the host records. The adapter configuration wizards are integrated into the BizTalk Server administration tools, allowing IT professionals to define

static and dynamic send ports, solicit response receive ports, based on a simplified set of SQL commands. After completing this lab, you will be able to:

- Use the BizTalk administration console to configure the BizTalk adapter for Host Files.
- Define a Send Port to send records to a VSAM Dataset.
- Define a Receive Location to poll data from a VSAM Dataset Then Connect the Receive Location and Send Port to setup a update and retrieve scenario against Host Files.

HIS: Microsoft Session Integrator for .NET-enabling host programs

Session Integrator includes ""screen-scraping"" runtime services and programming interfaces (COM and .NET) allowing enterprise developers to emulate and automate access to LU2 3270-based and LU0 LUA-based host mainframe programs, producing new solutions for customer care and retail operations. Compared to competing solutions, Session Integrator offers tight integration with the core SNA service runtime within Microsoft Host Integration Server 2006 offering greater potential for deploying highly scalable solutions, when connecting LU2-based and LU0-based applications. After completing this lab, you will be able to:

- Use the LU2.NET class to establish a connection,
- Send and Receive 3270 data using a Windows Form Application then disconnect from a 3270 connection,
- Use the LU0.NET class to establish a connection,
- Once connected Send and Receive LU0 data using a Windows Form Application and then Disconnect from a LU0 connection.

HIS: Microsoft Host Integration Server 2006 network services

Enterprises that have distributed operations (manufacturing, government) or utilize a branch-based computing infrastructure (banking, brokerage, insurance, retail, services) need to connect their remote Windows desktops, devices, and servers with centralized IBM host mainframe zSeries data centers. The Microsoft Host Integration Server 2006 core SNA services (protocol gateway, print and TN offload services, remote NetView management, SNA APIs, SNA client emulators) represent significant value to enterprise organizations seeking to consolidate their network infrastructure and reduce overall networking costs. In this lab, you will use the various configuration tools to export and import the configuration. These tools include command-line utilities, WMI providers and the MMC snapin. These tasks can aid in the backup and restore of configuration, migration and consolidation or provisioning. You will also learn how to use the HIS 2006 MOM Pack to Review and control the Host Integration Server components. Verify health state changes of monitored Host Integration Server components and use supplied scripts to create automated responses to events.

HIS: Microsoft Transaction Integrator for Windows-Initiated Processing

Transaction Integrator allows enterprises to move towards a services-oriented architecture based on XML web services that extend their existing investments in host systems to offer new products and services, while reaching out to new customers and partners. The new Transaction Integrator for Windows-initiated processing offers a deployment option to generate web services from within the TI administration tool, enabling a no-coding-required means to web-enable host mainframe CICS and IMS transactions or AS/400 callable programs. The TI runtime and Visual Studio 2005 design tool have been extended to support dynamic discriminators on unions of REDEFINES or OVERLAYS, allowing enterprise developers to re-use complex host business rules to access data stored in nested VSAM records, IMS/DB tables, and AS/400 physical files. In this lab, you will create a TI WIP ASMX

file (web service) that will subsequently be accessed using the browser and through C# console application. You will also use TI designer to create a TI .NET assembly that contains a Discriminated Union. You will then use TI manager to deploy and configure to use the new TI Self Host model. You will then create a C# console application that calls the host using the TI assembly created in the TI Designer.

HIS: Host Application Integration using Host Initiated Processing

The innovative TI for Host-Initiated Processing has been extended to support AS/400 host clients, while essential updates to the design tools and runtime infrastructure enables access to dynamically defined data structures. TI HIP has been enhanced to offer persistent network connections, allowing IT professionals to efficiently deploy HIP into high volume deployment scenarios. After completing this lab, you will be able to: Install and connect the TI component. Create a TI HIP component by using TI Designer. Create a C# .NET server project. Configure a HIP application for a .NET server and call the HIP process by executing a C# Windows program.

BTS: Extending BizTalk Solutions using the Microsoft BizTalk Adapter for Host Applications

The Microsoft BizTalk Adapter for Host Applications is based on technology in Transaction Integrator allowing enterprises to connect BizTalk solutions to existing IBM mainframe zSeries (CICS and IMS) or midrange iSeries (AS/400) server programs. The adapter offers an intuitive Visual Studio 2005 designer, including host COBOL and RPG source code import wizards, with which to generate XSD schemas for use in BizTalk projects. The administration tools are integrated with the BizTalk port configuration and deployment tools. Using the BizTalk Adapter for Host Applications, IT professionals can efficiently extend host programs with new solutions based on BizTalk Server 2006. In this lab, you will create a BizTalk Application that uses the Host Application Adapter to initiate a request for an account balance to be returned from a simulated IBM Host.

BTS: Enterprise Single Sign On

To secure user access to host applications and data, IT professionals utilize Enterprise Single Sign-On. EntSSO v4 offers intuitive user interface tools for administrations and end users to define and maintain affiliate applications, account mappings, and runtime services. All key features of HIS 2006 and the BizTalk Host Adapters offer EntSSO as the preferred means of authenticating application and user access to remote systems. After completing this lab, you will be able to:

- Understand Enterprise SSO (EntSSO) key concepts,
- Use Enterprise SSO tools efficiently,
- Learn how to integrate Microsoft Identity Integration Server (MIIS) with Enterprise SSO services,
- Learn how to configure BizTalk Adapters to use EntSSO. Understand Password Management.

WCF: First Steps with the Windows Communication Foundation

In this lab, you will construct a simple Windows Communication Foundation Service that you will host both within IIS and a custom .NET host. You will secure the service and consume it from client.

WCF: Reliable, Transacted and Instrumented Messaging with the Windows Communication Foundation

In this lab, you will see how to manage state within Windows Communication Foundation Services, experiment with reliable sessions, and with queued and transacted messaging, and explore some of the management facilities provided by the Windows Communication Foundation.

WCF: Using the Windows Communication Foundation and the Windows Workflow Foundation Together to Implement Federated Security

In this lab, you will learn how to authorize access to Windows Communication Foundation Services in Intranet scenarios. Then you will see how to transition an Intranet service to a B2B scenario, in which the security is federated between the cooperating business partners. What will be remarkable is that you will accomplish the transition without modifying the code of either the original service or the original client.

Database

Developing a SQL Server Everywhere Application

In this self-paced, hands-on lab, learn how to use SQL Everywhere to synchronize data between a client application or mobile device and a SQL Server 2005 back-end database. Set up and configure SQL Server 2005, IIS, and a .NET application. When you have completed this lab, you will know how to easily build an offline-enabled application that must keep mission-critical data in sync with a back-end database.

SQL Server 2005 Analysis Services

SQL Server 2005: Integration Services

SQL Server 2005 Report Builder

Adventure Works, the bicycle sales company you work for, wants to roll out end user reporting to its employees using Reporting Services' features: Model Designer and Report Builder. You have been tasked with defining the report model these business users will interact with when building their ad hoc reports. Your data is already in a SQL Server database called Adventure Works, and you have Model Designer and Report Builder installed and ready to be tested. Your task is to build the report model and refine it so that your end users can use it.

SQL Server 2005: Table and Index Partitioning Exercises

These exercises are based on the SQL Server 2005 High Availability VPC image created specifically for Microsoft Tech*Ed and TechReady. The DVD includes a VPC that has all of the needed instances already installed and configured. However, the needed lab scripts have not been installed. In the root directory of the DVD is a copy of these files to be copied over for the lab exercises.

The goal of these hands-on lab materials is to get an understanding of when to use one of the more advanced new features of SQL Server 2005: Table and Index Partitioning.

The intent of these labs is to provide you with a general feel for some of the more important tools and settings in the next release of SQL Server. As with all software development projects, the final version may differ from beta builds in both features and user interface. For the latest details on SQL Server 2005, please visit <http://www.microsoft.com/sql/2005/>.

SQL Server 2005: Web Services

This lab will show you how to create HTTP endpoints, view the WSDL exposed by the endpoints, and consume the HTTP endpoints.

How to Upgrade to SQL Server 2005 - Prescriptive Guidance and Practical Techniques

Relational Engine Lab 1 of 6: Performing an In-Place Upgrade of a SQL Server 2000 Relational Database Environment

In this lab, you upgrade a SQL Server 2000 relational database by performing an in-place version upgrade of the relational database engine and all of its databases. You begin by executing Microsoft SQL Server 2005 Upgrade Advisor to assist you in analyzing and determining possible upgrade issues with the SQL Server 2000 relational database environment. You then examine the report generated by Upgrade Advisor and fix the upgrade issues that are identified. Next, you prepare for the upgrade and then perform an in-place version upgrade of the SQL Server 2000 environment.

Relational Engine Lab 2 of 6: Performing a Side-by-Side Upgrade of a SQL Server 2000 Relational Database Environment

In this lab, you upgrade a SQL Server 2000 database to SQL Server 2005 by using two different side-by-side upgrade methods. You perform an upgrade by using the backup and restore side-by-side upgrade method, and then use the Copy Database Wizard side-by-side upgrade method.

Relational Engine Lab 3 of 6: Upgrading a Clustered SQL Server 2000 Environment by Using the Detach and Attach Method

In this lab, you upgrade a clustered SQL Server 2000 database to a new SQL Server 2005 instance by using the detach and attach method. Alternatively, you can use the backup and restore method or the Copy Database Wizard method to upgrade a clustered environment.

Business Intelligence Lab 4 of 6: Upgrading Reporting Services

In this lab, you perform upgrades of Reporting Services 2000 to Reporting Services 2005 by using two different upgrade methods: the in-place upgrade method and the side-by-side upgrade method. In addition, you perform individual report project upgrades and deployments using a new instance of Reporting Services 2005. Finally, you review the security requirements and execution features of Report Builder, the new ad-hoc reporting tool included with

SQL Server 2005: SQL Server and ADO.NET (Lab A)

This lab will show you how to use new functionality in ADO.NET 2.0 with SQL Server 2005. In the first exercise, you will learn how to utilize the asynchronous capabilities of ADO.NET 2.0 by building a User Interface that will allow continued user activity even when it is still servicing a long running query.

SQL Server™ 2005: CLR Integration

Integration of the Common Language Runtime with SQL Server 2005 opens the door to a myriad of possible solutions to problems that were very hard or near impossible to perform in T-SQL. Solutions that used to require C/C++, now can be done using safer, more productive languages like Visual Basic 2005 and Visual C#.

SQL Server 2000 Migration Assistant

In this lab you will perform the following steps to generate an Assessment Report:

- Open an existing Workspace File,
- Create an Assessment Report,
- Identify potential conversion problems,
- Generate an Expanded HTML Report to display the overall percentage of automatically converted code and estimated timeline for manual conversion of the remaining part.

SQL Server 2005 Data Mining

SQL Server 2005: Database Mirroring

The goal of these hands-on lab materials is to get an understanding of when to use one of the more advanced new features of SQL Server 2005: Database Mirroring.

The intent of these labs is to provide you with a general feel for some of the more important tools and settings in the next release of SQL Server. As with all software development projects, the final version may differ from beta builds in both features and user interface. For the latest details on SQL Server 2005, please visit <http://www.microsoft.com/sql/2005/>

SQL Server 2005: T-SQL Enhancements

SQL Server 2005 has made enhancements to T-SQL -This lab walks you through the changes to T-SQL as part of SQL Server 2005.

SQL Server 2005: XML Capabilities

SQL Server 2005 will introduce significant enhances in native XML support including having an XML datatype. This lab will provide you with exercises on working with native XML data in a SQL Server database including storing XML data, validating data using XML schemas, querying mechanisms and modifying the XML data in-place.

SQL Server 2005: SQL Server and ADO.NET (Lab B)

This lab will show you how to use new functionality in ADO.NET 2.0 with SQL Server 2005. You will learn to use SqlDependency and SqlNotifications to build applications that will notify users if a dataset that he/she is currently working on has changed.

SQL Server 2005: SQL Query Tuning

You are the database administrator for the AdventureWorks database.

Your users are experiencing frequent deadlocks and you are concerned that the deadlocks might be a cause of poor system performance. You have isolated a query that is often involved in deadlocks. You will capture a trace of the events leading up to the deadlock and the details of the deadlock itself, using SQL Profiler.

After tracking down the cause of the deadlocks, you realize that it is not a major cause of system performance degradation, so you decide to investigate key queries. You will analyze the queries by inspecting the query plans being used for them, and you will employ the Index Tuning Advisor to suggest optimum indexes.

Development Tools & Technologies

Streamlining your Development Process with Visual Studio 2005 Team System

This lab illustrates four common tasks when getting your enterprise started with Visual Studio Team System and Team Foundation Server. In this lab, perform the following exercises: create a Visual Studio Team System Team Project; build your software development team; migrate existing assets; and start working on your Project Check List.

An In-Depth Exploration of Visual Basic 2005 (Part 1)

Explore the new and enhanced features of Visual Basic 2005 aimed at improving developer productivity. Part 1 of this lab series includes drag-and-drop data-binding, error correction, Xml commenting, the new My namespace, symbolic renaming, edit and continue, code snippets and strongly-type settings and resources. Further examples also cover new client

data features such as the Data Sources window, the TableAdapter and BindingSource and building data bound forms without having to write code, to name a few.

Developing with Visual Studio 2005 for Microsoft Office 2007

The objective of this lab is to introduce you to the new features of Visual Studio Tools for Office "v3" and to demonstrate the new Add-in projects available across the Office 2007 applications, creating custom task panes, extending the host application ribbon, and binding data to controls in Word and Excel.

An In-Depth Exploration of Visual Basic 2005 (Part 2)

Part 2 of this lab covers how to migrate existing VB6 applications to VB 2005. Migration can be achieved by accessing existing VB6 code from VB 2005 code using the COM Interoperability (COM Interop) feature of VB 2005 or by upgrading and modifying existing VB6 so that the code will compile and run in VB 2005. Use the Code Advisor for Visual Basic 6.0 to prepare a VB6 project for upgrading and use the Visual Basic Upgrade Wizard to upgrade the application to VB 2005. Also, utilize COM Interop to use existing VB6 code and COM Objects from a new VB 2005 application.

Developing with Visual Studio 2005 for Microsoft Office 2003

The objective of this lab is to demonstrate how to use Visual Studio Tools for Office to bind controls in an Excel workbook and Word document to a data source, caching data in a Word document, and creating actions panes.

An In-Depth Exploration of ASP.NET 2.0 (Part 2)

Part 2 this lab takes you deeper into components of ASP.NET 2.0 development including ASP.NET 2.0 Configuration API and Health Monitoring, ASP.NET 2.0 Data Access and ASP.NET 2.0 Providers.

An In-Depth Exploration of ASP.NET 2.0 (Part 3)

Part 3 of this lab wraps up with a look at ASP.NET 2.0 components including ASP.NET 2.0 Membership, Login Controls, and Role Management, Creating Personalisable applications using Web Parts and .NET 2.0 Profiles and Localization.

An In-Depth Exploration of ASP.NET 2.0 (Part 1)

ASP.NET is a rich programming framework for building Web-based applications. Offering outstanding support for both developers and administrators, it provides improved ease-of-use, tool support, reliability, scalability, administration and security. Part 1 of this lab takes you through many of these new enhancements for ASP.NET 2.0 development, including creating an ASP.NET 2.0 Web site, ASP.NET 2.0 User Interface enhancements such as Master Pages, Themes, and Controls and ASP.NET 2.0 site navigation.

Take a Tour of Visual Studio 2005 Team System for Database Professionals

Using Data Binding in WPF

This lab teaches you the WPF databinding model by walking through an online auction scenario that allows posting an auction item for sale and viewing the list of items.

Building WPF Applications

In this lab you will learn how to use the WPF application model, its navigation and layout systems, and other features to build a rich client application with immersive UI.

Building WPF XAML Browser Applications

In this lab you will create a XAML Browser Application for XBOX. The application includes these features: Multiple xaml pages, communication with a web service, 3D, video, animations, vector graphics, flow documents, and more.

Creating Rich Reading Experiences in WPF Applications

In this .NET Rocks! video, Tim Huckaby talks about developing for Windows Presentation Foundation ("Avalon"), AJAX, and Windows Vista in general

Creating Rich 2D and 3D Content in WPF

This lab demonstrates the integration of the 2D, 3D, Media, and Animation systems in Windows Presentation Foundation.

Creating Rich 2D and 3D Content with Windows Presentation Foundation

This lab demonstrates the integration of the 2D, 3D, Media, and Animation systems in WPF. The lab begins with the creation of static 2D content. This 2D content then has several properties animated via WPF's animation system. Next, video is added to the animated 2D content. Finally, this content is mapped onto a 3D surface which itself is animated.

What's New in Windows SharePoint Services Feature Walkthrough

Learn about the new and enhanced features in Windows SharePoint Services (version 3) such as site creation, site administration, adding Web Parts, the permissions trimmed UI, list settings, navigation, list and library security, notifications, and email integration.

Introducing Content Types for Windows SharePoint Services

Learn about the installation and configuration options available in Windows SharePoint Services V3 such as installing a new farm, configuring global workflow settings, configuring incoming e-mail, administrative tasks, farm topology and provisioning new web applications.

Microsoft Windows SharePoint Services Installation and Configuration

Learn about the enhanced backup and restore options for Windows SharePoint Services (version 3). Topics include the multi-level Recycle Bin, the new browser-based user interface, and new options for the command line (stsadm.exe) interface.

Information Worker

What's New in Microsoft Office SharePoint Server 2007 Feature Walkthrough

Learn about the new features in SharePoint Server 2007 including integration points with Microsoft Office system client applications.

Microsoft Office SharePoint Server 2007 People and Permissions

Learn about new and enhanced people and permissions options including import from Active Directory, support for LDAP and other authentication providers, SharePoint Groups, Active Directory Security Groups, Active Directory Discussion Lists, Permissions Inheritance, and per-item security.

Microsoft Office SharePoint Server 2007 My Sites and Personalization

Learn about new and enhanced features involving personalization and My Sites in SharePoint Server 2007. Topics include user profile editing and security, audience targeting, social networking, content roll-up, and personal views of public page.

Microsoft Office SharePoint Server 2007 Installation

Learn about the installation and configuration options available in Microsoft Office SharePoint Service 2007 such as installing a new farm, configuring global workflow settings, configuring incoming e-mail, administrative tasks, farm topology, provisioning new web applications and configuring alternate forms based authentication.

Microsoft Office SharePoint Server 2007 Enterprise Features Administration

Learn about the administration of Forms Server and Excel Services, components of the Enterprise edition of SharePoint Server 2007.

Microsoft Office SharePoint Designer 2007 - CSS and the Data Form Web Part

This lab will give the participant an understanding of how Microsoft Office SharePoint Designer 2007 can customize SharePoint pages and applications using Cascading Style Sheets (CSS) and the Data Form Web Part.

Using Features to Provision Sites in Windows SharePoint Services

The objective of this lab is to gain an understanding of the new Features framework in Windows SharePoint Services V3 through an overview of the concepts and a walkthrough of several examples. The first exercise will walk through the creation and provisioning of a custom document library. The second exercise walks through the elements of the custom document library related to Content Types. Finally, in the third exercise you will walk through associating Custom Actions to an existing Announcements list. The functionality illustrated in this lab was either very difficult to do with custom lists or not possible at all in the previous version.

ASP.NET 2.0 Interoperability with Windows SharePoint Services - Web Parts and Master Pages

Learn about the Microsoft Windows SharePoint Services (version 3) Web Part and Master Pages framework, designed and built on the Microsoft ASP.NET 2.0 Web Part and Master Pages infrastructure. The Windows SharePoint Services V3 Web Part framework uses many controls in the ASP.NET 2.0 Web Part control set, and introduces several of its own that inherit from base classes supplied by the ASP.NET 2.0 Web Part control set.

Getting Started with the Business Data Catalog in Microsoft Office SharePoint Server 2007

In this lab you'll connect Microsoft Office SharePoint Server 2007 to the SQL Server 2005 AdventureWorksDW database, and create two business applications: one with web parts and one with SharePoint lists.

Getting Started with Search Central in Microsoft Office SharePoint Server 2007

Take a look at the architecture and customization options of Search Central, an exciting new feature in Microsoft Office SharePoint Server 2007.

Understanding the 2007 Microsoft Office System User Experience and Interface Design

The objective of this lab is to become familiar with the new 2007 Microsoft Office system user interface.

Using Microsoft Office Excel 2007 Spreadsheets for Web Service-Based Calculations and Browser Rendering

This lab introduces you to the ability to publish and work with Office Excel 2007 spreadsheets in Microsoft Office system servers, including the ability to create complex Web pages that integrate published spreadsheets with other data points exposed on the server (such as a Web part that shows data from a back-end system).

Microsoft Office InfoPath 2007 Forms Development

The objective of this lab is to become familiar with some of the new development features of Office InfoPath 2007.

Building InfoPath Forms That Run as Both Rich Client and Browser Applications

The objective of this lab is to become familiar with browser-based scenarios for Office InfoPath 2007 forms.

Microsoft Windows SharePoint Services Backup and Restore

Learn about the enhanced backup and restore options for Windows SharePoint Services (version 3). Topics include the multi-level Recycle Bin, the new browser-based user interface, and new options for the command line (stsadm.exe) interface.

Microsoft Windows SharePoint Services Site Templates

Learn about the configuration and new options around the site template architecture in Windows SharePoint Services (version 3).

Designing Content-Driven Web Sites with Microsoft Office SharePoint Server 2007

The objective of this lab is to give you an overview of creating content-driven sites within Office SharePoint Server 2007 using the new content management functionality.

Microsoft Office SharePoint Server 2007 Records Management Deployment and Configuration

Learn about the Record Management capabilities included in SharePoint Server 2007. Topics include creating content types for categorizing documents, configuring a central records repository, setting up records management policies, and available options for automation.

Synchronizing Data Between Microsoft Office Groove 2007 and Microsoft Office SharePoint Server 2007

With Microsoft Office Groove 2007 project teams collaborate inside contextual workspaces, providing one place for teams to share information and work together more securely. This Lab will help you learn about the architecture and design of Groove applications and how they can be connected to enterprise systems such as Windows SharePoint Services.

OLAP Analysis in Microsoft Office Excel 2007

Microsoft Office Excel 2007 builds on the innovative features in SQL Server 2005, allowing for powerful analysis and reporting from Analysis Services. This lab walks you through the creation of OLAP PivotTables and working with KPIs, Server defined formatting, Actions, Member properties, Translations and Perspectives.

Using Business Scorecard Manager 2005 and ProClarity for Performance Management.

Business Scorecard Manager 2005 and ProClarity together offer comprehensive scorecarding, dashboarding and analytics providing deep contextual insight into business drivers affecting business performance. This lab walks you through the creation of a Business Scorecard and how to build extensions into ProClarity to provide deeper analysis.

Microsoft Office Business Scorecard Manager 2005: Builder Fundamentals

In this lab, we will design and deploy scorecards using the BSM Builder. Through the use of a case study example, we will use all four BSM elements to build a scorecard from scratch. We will create a datasource and indicator, then link a set of KPIS to the scorecard to visualize the building process.

Building Analytics in ProClarity

In this lab, you will learn how to perform analysis using ProClarity's best in class analytics software as well as designing and distributing analysis using the ProClarity Analytics Server, ProClarity Dashboard Server and Office SharePoint Server 2007.

Creating Workflows for Windows SharePoint Services

In this lab, you will use Microsoft Office SharePoint Designer 2007 to design a custom workflow that is triggered on file creation or change. Within the workflow designer, you will use out-of-the-box actions such as assigning a task or sending an e-mail message based on promoted values in your form data. In addition, you will learn how to build a custom workflow using the Windows Workflow Foundation plug-in to Microsoft Visual Studio 2005 and deploy that workflow to Windows SharePoint Services (version 3). Both exercises demonstrate how workflow functionality can be seamlessly integrated with the 2007 Microsoft® Office release.

Using List Events in Windows SharePoint Services

The objective of this lab is to create an Event Handler that is associated with an Announcements list - something that was not possible with the previous version.

Customizing the 2007 Microsoft Office System User Interface for Your Solution

The objective of this lab is to become familiar with the programming model behind the new user interface features of the 2007 release. This includes both the ribbon as well as the custom task pane.

Understanding the Structure and Solution Capabilities of the Microsoft Office Open XML Formats

The objective of this hands-on lab is to help you become familiar with the new default Microsoft Office system file formats. During this lab, you will examine sample documents for each of the 2007 release programs that implement the Microsoft Office Open XML Format.

You will also learn how you can edit 2007 release documents by directly manipulating files without the use of the Microsoft Office system programs. The following exercises will help you explore the new default Microsoft Office system file formats and allow you to gain insights on the new solution possibilities they enable for creating solutions.

Programmatic Manipulation of the Microsoft Office Open XML Formats

The goal of this lab is to show you how you can manipulate Microsoft Office system documents using the Microsoft Office Open XML Formats without the 2007 release. The exercises will lead you through scenarios involving programmatically manipulating documents using the Microsoft Office Open XML Formats.

Developing Solutions Using Microsoft Office Word 2007 Content Controls

This hands-on lab will help you become familiar with the use of content controls in Office Word 2007. You will build upon a sample document that uses content controls to define the structure of a document, manage content, and introduce restrictions that will be enforced natively by Office Word 2007. The final solution will enable users to work more efficiently with the document while greatly reducing any likelihood for errors or invalid data being produced. The lab consists of two main exercises; the first exercise focuses solely on client-side elements that would be performed by a template author/developer. The second exercise looks at programmatic behaviors available behind content controls, allowing developers to extend solutions that use content controls.

Exploring the New, Flexible XML Programmability in Microsoft Office Word 2007

The objective of this hands-on lab is to introduce you to the concepts of the XML data store and XML binding features of Office Word 2007. You will program against a sample document while learning how to work with structured information in Office Word 2007 that is stored independently of the presentation surface. In the end, the goal is to explore the capabilities of the new data store and XML binding and allow you to gain insight on how these features enable the creation of document-based Office Word 2007 solutions.

New Microsoft Office Outlook 2007 Programmability

The objective of this lab is to introduce you to some of the new programmability features that Microsoft Office Outlook 2007 provides. The following exercises will demonstrate programmatically extending Office Outlook 2007 to provide custom functionality.

Management, Operations and Deployment

Introduction to Configuration Manager 2007 (SMSv4)

The next major release of SMS - System Center Configuration Manager 2007 (SMSv4) - is now available in beta release. In this lab, you'll learn the basic operations of Configuration Manager 2007 - using the new, cool, SMS Administrator Console to enable inventory, perform software distribution, run reports, and provide remote support to Configuration Manager 2007 clients.

Managing and Configuring MOM 2005

Walk through the steps required to both configure and manage a MOM 2005 environment. In this lab you will walk through common agent and server configuration tasks and understand how to manage all aspects of your MOM environment. This lab will cover managing key components of MOM including the Agent, Agentless servers, The MOM Server, Database, Reporting Server, Reporting Datawarehouse and MOM Connector Framework. Also you will walk through how you can leverage the different versions of the MOM management pack to monitor MOM.

Monitoring SQL Server with MOM 2005

Learn how to use MOM 2005 to effectively manage and monitor your SQL Server environment to ensure optimum service and server availability.

Building and Extending MOM 2005 Using MCF and the SDK

Learn how to extend MOM 2005 using the Software Development Kit for MOM 2005. You will also learn how to extend and connect MOM to other environments using the Microsoft Connector Framework (MCF).

Managing Web Sites and Services with MOM 2005

In this lab, you will learn how to monitor Web pages, Web applications, and Web Services using Microsoft® Operations Manager 2005 and the Web Sites and Services Management Pack. After completing this lab you will be able to monitor a Web page, check link validity, monitor a Web application, configure a Request Sequence and view web site performance data.

Managing Your Line of Business Applications with MOM 2005

In this lab we'll explore the experience around using the MOM Administrative Console and the MOM Management Pack Wizard to build rules and a management pack to monitor an application. You will learn how to create an event rule and use the Management Pack Wizard to create a new management pack for a third party or in house developed application.

Installing Operations Manager 2007

Learn how we've improved the experience of discovering and installing agents in Operations Manager 2007. You'll also run through the process of Management Pack conversion so you can leverage all your existing custom MP's in Operations Manager 2007.

Introduction to Operations Manager 2007

Learn how Operations Manager 2007 allows you to monitor individual components such as web sites and how you can combine these individual components in the Operations Manager 2007 Service Designer to monitor your Line of Business Service. You'll be introduced to some of the new Operations Manager concepts and how they provide a smarter management system to manage your Line of Business Applications.

Sizing Exchange Server 2003 with SCCP 2006

This lab will demonstrate how to use the SCCP 2006 tool through planning a deployment of Exchange 2003. The scenarios covered include pre-deployment sizing, capacity planning, running simulations, reviewing results and carrying out "what-if" analyses (e.g. adding more users or changing the hardware).

Pre-deployment sizing is the process of estimating the amount of additional hardware necessary to support deployment of a new application. Capacity planning is the process of advanced prediction and pro-active "what-if" exploration of application performance, including the prediction of which hardware component will become a bottleneck.

Sizing MOM 2005 with SCCP 2006

This lab will demonstrate how to use the SCCP 2006 tool through planning a deployment of MOM 2005. The scenarios covered include pre-deployment sizing, capacity planning, running simulations, reviewing results and carrying out "what-if" analyses (e.g. adding more users or changing the hardware).

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Introduction to Data Protection Manager

Data Protection Manager (DPM) is the newest member of the Windows System Center family of management products, alongside MOM, SMS and others. DPM delivers centralized backup of branch offices and backup enhancement within the data center, by continuously protecting changed files to alternative disk which can then be backed up to tape. In addition, DPM enables fast, reliable restore from disk and end-user initiated recovery without IT intervention.

This DPM lab steps thru the fundamentals of deploying and configuring the best disk-to-disk backup solution for Windows file data. Participants will learn how to configure data protection, schedule hourly synchronizations and multiple daily snapshots, along with how easy data recovery is from an end-user perspective. In addition, one will walk through the steps required by an average IT Admin to create a comprehensive data protection strategy for their organization, such that you will have a key understanding of Data Protection Manager and how it can fit within the infrastructures that you are responsible for.

MOM 2005 SLA Scorecard for Exchange

This lab will introduce the MOM 2005 SLA Scorecard for Exchange was released to web in November and has generated a lot of excitement. In this lab you will be exposed to the MOM 2005 SLA Scorecard for Exchange, install it in an Exchange + MOM environment, set SLA's, administer outages and analyze performance and trend reports across the messaging service.

Performing Vulnerability Assessment Scans with SMS 2003 R2

SMS does a great job of identifying vulnerabilities in missing security updates. But what about other vulnerabilities that don't involve security updates? In this lab, we'll explore how you can use SMS 2003 R2 to identify vulnerabilities in areas such as weak passwords, open shares, SQL Server, IIS and other areas.

Deploying Configuration Manager 2007 (SMSv4)

Configuration Manager 2007 is now available in a beta release. Not installed it yet? In this lab, you will perform a deployment of a Configuration Manager 2007 site from start to completion. You'll prepare Active Directory for SMS integration, install Configuration Manager 2007, configure a management point, and deploy an Advanced Client discovered using Active Directory System Discovery.

Managing Custom Application Updates with SMS 2003 R2

SMS does a great job of identifying vulnerabilities in missing security updates for Microsoft operating systems and applications. But what about other vulnerabilities that don't involve Microsoft security updates? In this lab, we'll explore how you can use SMS 2003 R2 to manage updates for custom or 3rd party applications, including creating your own catalog for in-house developed applications.

Deploying Software Updates Using Windows Server Update Services

Patch and update management is a top pain for IT organizations worldwide. Windows Update Services, formerly known as Software Update Services (SUS) 2.0, will deliver greatly enhanced update management functionality over SUS 1.0, to address this pain and enable effective update management within the organization. New capabilities will include the ability to update additional Microsoft software beyond the Windows operating system; improved functionality for targeting, distributing, and installing updates; status reporting; enhanced network resiliency and bandwidth usage optimization; and improved implementation and administration flexibility. Windows Update Services is currently in development, but this self-paced hands-on lab will give you a sneak, hands-on preview of the product.

Introduction to Windows PowerShell

This lab provides an introduction to Windows PowerShell - a new command line interactive shell and scripting language. Windows PowerShell is the next generation command line shell for Windows administrators and is integral functionality in the next release of Exchange and System Center Operations Manager. This lab provides an introduction to the powerful capabilities of the shell, the built-in commandlets and the scripting language. At the end of the lab you will be able to use PowerShell commands and write scripts to automate your system administration tasks.

Operations Manager 2007: Advanced Topics

In this lab you will explore several of the new key features in System Center Operations Manager 2007. This lab will give you the opportunity to review and configure each of the following features: Deploying Agents; Importing Management Packs; Publishing Management Group Information in Active Directory; Configuring Management Server to use Active

Directory Integration; Manually Installing Agents; Installing and Configuring Agentless Exception Monitoring (AEM); Creating Advanced Operator User Roles.

Messaging

Implementing, Configuring, and Using Microsoft Exchange Hosted Services for Message Filtering, Archiving, Continuity, and Encryption

Learn how to configure a messaging system to flow inbound and outbound mail through the Exchange Hosted Services global network of data centers; set up and configure filtering options; write and deploy policy rules; use Exchange Hosted Archive as a knowledge management, discovery, and compliance tool; perform message recovery and continuity activities with Exchange Hosted Continuity; and send and receive encrypted messages using Exchange Hosted Encryption.

Installing a New Exchange Server 2007 Exchange Server

This lab will walk you through the basics of an Exchange Server 2007 installation, and will demonstrate how a standard installation will work, as well as how to add a server role to an existing installation, via a scripted install in PowerShell.

Using the Exchange Server 2007 Management Console and Shell

This lab will walk you through the basics of administration in Exchange Server 2007, by walking you through both the Exchange Management Console and its command-line counterpart, the Exchange Management Shell. Finally, this lab will show you how to build and use more powerful administrative scripts.

Administering Exchange Server 2007 Roles and Mailboxes

This lab will show you how to move mailboxes between stores using the Exchange Management Shell, and will then walk you through a client configuration, using the new AutoDiscover feature. Finally, this lab will walk through the analyzer tools, designed to help you keep your messaging environment running at optimally, that come with Exchange Server 2007.

Exchange Server 2007 Compliance and Retention

This lab will walk you through the basics of enforcing compliance and retention policies in Exchange Server 2007, using Managed Email Folders, Transport Rules and Journaling, as well as message classifications.

Remote Client Access with Exchange Server 2007

This lab demonstrates the administrator's and client experience in accessing an Exchange Server from nearly any location. You will walk through many of the new features in Outlook Web Access 2007, including calendaring, search and SharePoint access, as well as gain an understanding of how to administer these features. Finally, you'll see how mobile devices interact with Exchange Server 2007.

Using Exchange Server 2007 Local Continuous Replication

This lab walks you through the Local Continuous Replication features of Exchange Server 2007. After completing this lab, you will be able to enable Local Continuous Replication on an Exchange Storage Group and create an initial seed database for Local Continuous Replication by using BackRest.exe. Finally, see how to recover from a disk failure by using the copy taken by Local Continuous Replication.

Using Exchange Server 2007 Cluster Continuous Replication

This lab walks you through the Cluster Continuous Replication features of Exchange Server 2007. You'll begin by configuring Windows Server 2003 Cluster Services, and then go on to install the Active and Passive cluster nodes. Finally, you'll see how to move resources between cluster nodes.

Configuring an Exchange Server 2007 Edge Server

This lab will walk you through the features of the new Exchange Server 2007 Edge Server role. You'll see how to implement an Edge server and use it to protect your organization from viruses and spam. You'll also see how an Outlook Safe Senders List can propagate out to the Edge Server.

Enabling Mobile Messaging with Windows Mobile 5.0 MSFP and Exchange Server 2003 SP2

This lab, focused on the server side of mobile messaging, will show how Windows Mobile 5 Messaging and Security Feature Pack (MSFP), works with Microsoft Exchange Server 2003 SP 2 to provide a real-time mobile messaging solution that is secure, easy to configure and manage. Topics covered include configuring Direct Push, doing a remote wipe of a Windows Mobile device, and Exchange ActiveSync troubleshooting.

Controlling Junk Email with IMF and SenderID with Exchange Server 2003 SP2

This lab will walk you through the basics of the anti-spam framework built into Exchange Server 2003 SP2. After completing this lab, you'll have had experience in configuring the Exchange Intelligent Message Filter and in using the Performance Monitor to identify and act upon the Spam Confidence Level ratings of incoming mail. You'll also gain experience working in the client, by configuring the settings of the Junk E-mail folder in Outlook 2003.

Disaster Recovery in Exchange Server 2003

This lab will show you how to do basic disaster recovery in Exchange Server 2003, such as how to undelete a deleted Microsoft Active Directory user and mailbox. You will also see how Exchange Server 2003 allows you to restore a complete Mailbox store to a production Exchange Server 2003 server and extract information from the recovered store.

Troubleshooting Exchange Server 2003 Mailflow

This lab helps you troubleshoot your mail flow problems by showing you how to configure Exchange 2003 message tracking, and by helping you find problems in sending and receiving Internet email, and in Outlook Web Access (OWA).

Lotus Notes Mail and Directory Coexistence and Migration Tool Setup and Configuration

This lab covers the Lotus Notes Directory and Mail Coexistence and Migration tools, including Exchange Connector, Calendar Connector and the Exchange Migration Wizard for Lotus Notes. Install, configure and verify proper installation of each of these tools in this lab.

Mobile & Embedded Devices

Building a .NET Compact Framework Application for a Windows Mobile Based Device Using Visual Studio 2005

In this self-paced, hands-on lab, you will learn how to reuse your existing Microsoft Visual Studio and Microsoft .NET Framework skills to develop a line-of-business (LOB) application for a Windows Mobile-based device. You will begin with the basics of building, deploying, and debugging a Windows Mobile application by using Visual Studio 2005. By using the .NET Compact Framework and Windows Mobile SDK, you will then be led through the steps of developing the application to effectively address LOB business needs on a mobile device. You will complete the application by using SQL Mobile to provide persistent storage and query capabilities. Upon completion of this lab, you will be more familiar with the tools and technologies used in developing Windows Mobile applications.

Introduction to the New Managed APIs in Window Mobile 5.0

In this self-paced, hands-on lab, you will be introduced to the new managed APIs in Windows Mobile. You will improve on an existing application by making use of these new interfaces. Upon completion of this lab, you will be ready to use these APIs to simplify your existing code or extend your applications to make use of the new capabilities of Windows Mobile 5.0.

Developing Applications with the p&p Mobile Client Software Factory

Learn how to develop applications for Windows Mobile 5.0 powered devices using the latest best practices and application blocks from Microsoft patterns & practices (p&p), collectively called the Mobile Client Software Factory. During the lab you will learn how to use the features provided by the Composite UI Application Block for Mobile Devices, including Workspaces, WorkItems, SmartParts, Event Broker, Commands, UI Elements, etc., as well as design-time and run-time improvements for authoring controls that support a wide range of screen form factor (a.k.a. resolutions) and orientation, when requirements go beyond simple docking and anchoring (such as arbitrarily reworked layout of controls, automatically selecting images according to resolution, hide controls, etc.).

Introduction to Composite UI Application Block

In this self-paced, hands-on lab, you'll get an introduction to the Microsoft patterns & practices Composite UI Application Block (CAB) and its core concepts. You'll build a simple Microsoft Windows Mobile C# application that leverages CAB features by creating a simple Module and a Shell to host it.

Mobile Messaging with Windows Mobile 5.0 MSFP and Exchange Server 2003 SP2

This hands on lab, focused on the server side, is designed to show IT Professionals how Windows Mobile 5 Messaging and Security Feature Pack (MSFP), works with Microsoft Exchange Server 2003 SP 2 to provide a real-time mobile messaging solution that is secure, easy to configure and manage. Topics covered will include configuring Direct Push, doing a remote wipe of a Windows Mobile device, and Exchange ActiveSync troubleshooting.

Device Configuration and End-user Guidance for Mobile Messaging with Windows Mobile 5.0 MSFP and Exchange Server 2003 SP2

This hands on lab, focused on the device side, is designed to help IT Professionals educate their user population about Windows Mobile 5 Messaging and Security Feature Pack (MSFP) real-time mobile messaging with Exchange Server 2003 SP 2. Topics covered will include configuring device side ActiveSync settings for multiple user scenarios, showing a local wipe of a Windows Mobile device based on a organization's security password policies, and ActiveSync troubleshooting from the user perspective.

Building and Using WorkItems with the Mobile Composite UI Application Block

In this self-paced, hands-on lab, you'll learn one of the main concepts in the Microsoft patterns & practices Composite UI Application Block (CAB): WorkItems. You will create a Microsoft Windows Mobile C# application that uses simple and nested work items that collaborate to fulfill a use case.

Developing the User Experience with the Mobile Composite UI Application Block

In this self-paced, hands-on lab, you'll learn how to leverage Workspaces in the Microsoft patterns & practices Composite UI Application Block (CAB), which allows program logic to remain independent of the actual display in visual containers. You will modify an existing Microsoft Windows Mobile C# application to use a completely different layout, without modifying any of the logic behind the views. You will also apply special custom attributes to standard .NET events and event handlers to decouple them by using the CAB EventBroker functionality.

Incorporating COM Objects into Your .NET Compact Framework 2.0 Application

In this self-paced, hands-on lab, you will learn how the Microsoft .NET Compact Framework 2.0 enables you to more easily incorporate your existing native COM objects into your managed applications. Through a series of examples, you will learn how to prepare your COM objects, incorporate them into your .NET Compact Framework projects, and call them from managed code. Upon completion of this lab, you will know how to avoid re-writing all your legacy COM objects by just using them directly in your .NET Compact Framework applications.

Developing a SQL Server Mobile Application with Visual Studio 2005 and SQL Server 2005

In this self-paced, hands-on lab, you will learn how to use SQL Server Mobile to synchronize data between a mobile device and a SQL Server 2005 back-end database. You will setup and configure SQL Server 2005, IIS, and a .NET Compact Framework application.

Migrating an eMbedded Visual C++ Application to Visual Studio 2005

In this self-paced, hands-on lab, you will say goodbye to Microsoft eMbedded Visual C++ and will build a native Windows Mobile-based application by using Visual Studio 2005. You will migrate an eMbedded Visual C++ project to Visual Studio 2005, make it orientation-aware, debug the application by using the device emulator, and build a CAB file for deployment. Upon completion of this lab, you will be ready to start using Visual Studio 2005 as your new IDE for native Windows Mobile-based application development.

New Native Windows Mobile Development Features in Visual Studio 2005

In this self-paced, hands-on lab, you'll get a guided tour through the Microsoft Visual Studio 2005 native device development experience. You'll build a Microsoft Windows Mobile C++ application by using application and class wizards, design the UI, digitally sign the application, and debug it, all from within Visual Studio. Upon completion of this lab, you will be ready to start using Visual Studio 2005 as your new IDE for native Windows Mobile application development.

Tips, Tricks, and Techniques for Debugging .NET Compact Framework Applications

In this self-paced, hands-on lab you will use Visual Studio 2005 to debug .NET Compact Framework version 2 applications running on Windows Mobile 5.0 Pocket PC and Smartphone emulators. Topics include multi-threaded debugging, debugging a platform invoke (p/invoke) call and using the .NET Compact Framework diagnostic logs. You will also be introduced to the Remote Registry Editor, a utility for examining and modifying a mobile device's registry.

Introduction to the New Windows Mobile 5.0 Native APIs

In this self-paced, hands-on lab, you will be introduced to the new native APIs in Microsoft Windows Mobile. You will improve on an existing application by making use of these new interfaces. Upon completion of this lab, you will be ready to use these APIs to simplify your existing code or extend your applications to make use of the many new capabilities in Windows Mobile 5.0.

Writing Device Independent Windows Mobile Applications with Native Code

The Windows Mobile family includes many diverse devices each with their own features and benefits. Successful Windows Mobile applications provide a consistent experience across these many devices while embracing the specific capabilities of each. In this hands-on lab you will work through some of the challenges facing Windows Mobile native developers such as differences in screen size, input support, and device capabilities. You will then apply the techniques available to native developers that allow you to build your application to detect device differences and automatically adjust the application user interface and available features to provide your application user with the best experience for their individual device.

Writing Device Independent Windows Mobile Applications with the .NET Compact Framework

The Windows Mobile family includes many diverse devices each with their own features and benefits. Successful Windows Mobile applications provide a consistent experience across these many devices while embracing the specific capabilities of each. In this hands-on lab you will work through some of the challenges facing Windows Mobile .NET Compact Framework developers such as differences in screen size, input support, and device capabilities. You will then apply the techniques available to .NET Compact Framework developers that allow you to build your application to detect device differences and automatically adjust the application user interface and available features to provide your application user with the best experience for their individual device.

Deployment and Security for Windows Mobile Applications

This lab explains concepts of the Windows Mobile security model using a hands on approach. We will walk through using the new Device Security Manager powertoy for testing various security configurations and policies. Attendees will be able to brush up on their knowledge of the security and code signing features in Visual Studio 2005, and also learn more about the Mobile2Market program.

Monitoring resource leaks using the Application Verifier Tool for Windows Mobile 5.0

This lab will guide you through setting up and using the Application Verifier Tool to examine possible resource leaks in your Windows Mobile application. The Application Verifier tool identifies scenarios where resources are allocated but not freed after they are used. The tool can monitor leaks of allocated memory, handles and GDI objects as well as memory corruption. In this lab, you will use the Windows CE 5.0 Test Kit to connect to a Pocket PC Emulator, launch the Application Verifier Tool, run a test application and examine the logs generated.

Using Microsoft Device Emulator In-Depth in Your Application Development Experience

This lab is intended for: (a) all levels of developers writing device application using Visual Studio 2005, (b) non-developers, i.e., marketing personnel, managers, support professionals and engineers who work with the Device Emulator as an application deployment platform on which to run, test, demo, and troubleshoot applications. The lab is divided into two parts and is ideally designed to be as in-depth as you like. Part I contains simple exercises involving the use of the Device Emulator within the Visual Studio development environment such as connecting to an Emulator, cradling the emulator over ActiveSync, using the emulator's networking options, etc. In Part II, the lab goes on to cover more in-depth scenarios including changing emulator configuration options, working with the emulator's DMA bootstrap and transport interface, and understanding the FAKERIL radio interface layer.. When you have completed this lab, you will see how powerful the Device Emulator is as compared to programming with real devices.

Managing Pocket PC Devices with SMS 2003

The SMS product group recently released a new feature pack for SMS 2003 SP1 that allows you to manage Pocket PC devices with your SMS environment. In this lab, you will experience an end-to-end solution for device management through installation of the feature pack, installation of the client agent, and management of the device, including inventory and software distribution.

Developing Multithreaded Applications with the .NET Compact Framework 2.0

In this self-paced, hands-on lab, you will learn how to use the great support of Microsoft .NET Compact Framework 2.0 for managed multithreaded applications, while avoiding much of the complexity that comes with multithreading. You will learn how to properly create and terminate threads, how to deal with the challenges of updating user interface controls from inside worker threads, and which synchronization objects to use at different times. Upon completion of this lab, you will know how to use the multithreading capabilities of the .NET Compact Framework 2.0 to create well responsive applications targeting Windows CE 5.0 and Windows Mobile-based devices.

Porting ADOCE/CEDB to EDB/SQL Mobile

This self-paced hands-on lab will walk users through migrating CEDB databases to the new EDB format. You will use Visual Studio 2005 to port an an existing Pocket PC 2003 application that uses CEDB APIs to a Windows Mobile 5 application that uses EDB APIs.

Security

Protecting Email with Microsoft Antigen

In this session, use lab exercises to learn about Microsoft's new Antigen email security products and how their multi-scan engine approach helps protect against undesirable and

malicious message traffic. Antigen email security products use SMTP mail scanning and Exchange store scanning to protect against email viruses and inappropriate content. The session also explains how spam scanning integrates with the Exchange 2003 Spam Confidence Level (SCL) rating to move suspected spam messages to the user's Junk Email folder.

Protecting SharePoint and LCS with Antigen

In this session, use hands-on-lab exercises to learn how Antigen for SharePoint and Antigen for Instant Messaging's multi-scan engine approach helps protect against undesirable and malicious IM traffic and document sharing. Antigen uses IM file and conversation scanning and SharePoint document library scanning to protect against viruses and inappropriate content.

Developing Role-Based Applications with Windows Authorization

In this lab we show how to integrate Authorization Manager into a Web expense application to use Role-Based Access Control (RBAC) to control access to the ability to submit, list, or approve expense reports. The lab shows how application administrators can use BizRules to limit the amount of an expense that may be submitted and how to implement access checks in code to verify permissions for users. Additionally the lab shows how an administrator can use the MMC UI to assign the appropriate users to the Submitter and Approver roles and how to use LDAP queries to assign membership to roles based on a user's tile attribute (or other user attributes) on their Active Directory account object.

Secure Remote Access and Branch Office Deployments with ISA Server 2006

In this session, you will explore the new Branch Office functionality in ISA Server 2006. Learn how to configure ISA Server 2006 to compress HTTP content when responding to requests from client computers, and to request compressed HTTP content when connecting to other servers. Find out how to make ISA Server 2006 cache Background Intelligent Transfer Service (BITS) content for software updates, and request ranges from cached files. Then configure ISA Server 2006 to use Differentiated Services (DiffServ) tagging of HTTP and HTTPS network packets to enable network traffic prioritization.

Secure Application Publishing and Web Access Protection with ISA Server 2006

In this lab, explore the new Exchange and SharePoint publishing functionality of ISA Server 2006. This includes more flexible authentication mechanisms, support for multi-factor authentication, and improved certificate management for publishing Exchange Web Access. Use the new SharePoint publishing wizard to publish a SharePoint site with the new cross-site link translation features. Also, find out how you can use ISA Server 2006 to perform cookie and IP-based load balancing to publish a Web farm.

Solutions

Test Drive the Assessment and Deployment Solution for Midsize Businesses

Microsoft recently launched the Assessment and Deployment Solution for Midsize Businesses (ADS) that provides tools to inventory and analyze a customer's current IT environment, generate a detailed project proposal, and automate server planning and deployment of Microsoft network infrastructure. Come experience a test drive of how ADS will help your partners increase opportunities and close more sales.

BDD Zero Touch Installation for Windows Vista

Business Desktop Deployment (BDD) will be ready for the release of Windows Vista. BDD Zero Touch Installation (ZTI) leverages the SMS 2003 OS Deployment Feature Pack Update for Windows Vista. This instructor led lab will walk you through a zero touch desktop deployment scenario.

BDD Lite Touch Installation for Windows Vista

Business Desktop Deployment (BDD) will be ready for the release of Windows Vista. BDD Lite Touch Installation has been completely updated for use with Windows Vista deployments. This instructor led lab will walk you through a lite touch desktop deployment scenario.

SMS 2003 Desired Configuration Monitoring

SMS 2003 Desired Configuration Monitoring (DCM) Solution Accelerator provides guidance and automation to alert users of non-compliance between their present configuration and desired state configuration. This session will expose you to the tools for monitoring configuration across multiple sources in WMI, Registry, Active Directory, IIS Metabase and File System settings. This lab will walk the user through SMS 2003 Desired Configuration Monitoring, instruct how configuration manifests are generated, show how the configuration check using SMS 2003 is defined and processed and guide you through the resulting reports for configuration compliance.

Windows Client

The Application Compatibility Toolkit Version 5.0 Beta

This HOL will cover ACT 5.0 including a lifecycle management tool that assists customers in identifying and managing their application portfolio, reducing the time and cost involved in resolving application compatibility issues, and achieving a faster deployment of Windows Vista.

Migrating user state from Windows XP to Windows Vista

This lab is intended for IT professionals responsible for performing migrations from Windows XP to Windows Vista. In this lab you will learn to use the User State Migration Tool 3.0 to create migration scripts that preserve use state and migrate files from Windows XP. You will first learn to edit the XML files used by USMT 3.0. You will then learn to perform a savestate, and finally a loadstate. At the end of this lab you will be prepared to incorporate USMT 3.0 into your migration plans.

Configuring and Managing Windows Deployment Services

This lab is intended for IT professionals who will be using Windows Deployment Services to deploy Windows Vista client computers. In this lab you will configure both boot and install images on a WDS server. You will also learn to configure server properties, and create a solution for approving client computer for installation of install images. You will also learn to use the WDSUTIL command line tool. At the end of this lab you will be able to configure WDS to perform Windows Vista deployments.

Exploring New Functionality in Internet Explorer 7

This lab is intended for IT professionals and developers who will deploy Internet Explorer 7 on both Windows Vista and Windows XP professional. In this lab you will learn how new features in Internet Explorer 7 make your browsing experience safer and more efficient. You will learn how to use new UI elements, as well as how to configure and work with protected mode. You will also learn how to configure the anti-phishing filters. At the end of this lab, you will be able to decide if Internet Explorer 7 should be utilized in your environment.

Getting Started with the Tablet PC Platform - C#

This lab introduces you to the features and benefits of Tablet PC and describes the benefits of developing applications for Tablet PC form factor. The lab introduces basic components of the Tablet PC API Platform. You create a Windows Forms application that is a doctor's prescription pad and then enable writing, drawing, and handwriting recognition. You learn to capture, edit, and save ink as a data format.

Using XImage to manage Windows Image Files.

This lab is intended for IT professionals responsible for performing management and distribution of Windows Vista installation images. In this lab you will learn to use the Windows Advanced Installation Kit and the XImage command line tool to capture WIM images. You will

then learn techniques for manipulating WIM images for modification and distribution. Finally you will learn ways to optimize the storage of WIM files. At the end of this lab you will be ready to incorporate XImage into standard and BDD based deployments.

Using New Group Policy Settings in Windows Vista

This lab is intended for IT professionals who are responsible for using Group Policy to manage Windows Vista. In this lab you use Group Policy settings such as Windows shell, user account control, printers, Internet Explorer, and power consumption to customize Windows Vista. At the end of this lab you will be able to utilize new Windows Vista Group Policy settings to manage Windows Vista.

Managing Windows Vista Using New Management Technologies

This lab is intended for IT professionals who are responsible for managing Windows Vista client computers in large enterprises. In this lab you will learn to use the new Event Viewer and Task Scheduler to perform preventative maintenance and react to system events. You will schedule tasks that occur based on event triggers, and configure actions such as email messages. Finally you will explore WinRM for remote system management using WMI. By the end of this lab you will be able to configure enterprise management of Windows Vista.

Managing User Account Control on Windows Vista

This lab is intended for IT professionals and security professionals responsible for managing security on Windows Vista client computers. In this lab you will learn how to configure User Account Control for standard and administrative users. You will also learn the effects of User Account Control on the day to day operation of a Windows Vista Client computer. At the end of this lab you will be able to make decisions regarding the implementation of User Account Control and configure User Account Control settings in Windows Vista.

Managing Windows Vista and Windows Server "Longhorn" Network Bandwidth with Policy-based Quality of Service

Policy-based Quality of Service (QoS) in Windows Vista and Windows Server "Longhorn" enables administrators, via Group Policy, to create flexible rules which can prioritize or throttle outbound network traffic without changes to existing applications and in conjunction with your existing network routing infrastructure. QoS policies can be applied based on any or all of the following conditions: sending application, source or destination IP address, protocol, and source or destination port. Additionally, QoS policies can be uniquely defined for sets of users or computer accounts through policy deployment. You will get hands-on experience in creating and managing QoS policies.

Configuring Windows Firewall with Advanced Security in Windows Vista

This lab is intended for IT professionals responsible for managing client and network security in networks which contain Windows Vista client computers. In this lab you will learn how to configure Windows Firewall with Advanced Security to allow and deny traffic based on IP address, port, or application information. You will also learn how to manage Windows Firewall with Advanced Security settings on multiple computers using Group Policy. At the end of this lab you will be prepared to implement network security policies that involve restricting network traffic on Windows Vista.

Exploring Windows Vista Group Policy Management Features

This lab is intended for IT professionals who are responsible for using Group Policy to manage Windows Vista. In this lab you will learn how to use GPEDIT and GPMC to manage Group Policy objects in a domain. You will also learn to manage multiple local Group Policy objects. Finally you will learn how to use ADMX and ADML files. By the end of this lab, you will have learned how to use the new Group Policy tools to manage Windows Vista.

Using System Image Manager to automate Windows Vista installations

This lab is intended for IT professionals who are responsible for performing automated Windows Vista deployments. In this lab you will learn how to use the new System Image Manager tool to create an unattend.xml file to perform simple and advanced installations of Windows Vista. You will also learn how to customize installation actions to automatically

configure a Windows Vista installation after the operating system installs. At the end of this lab you will be able to use unattend.xml files to automate a Windows Vista installation.

Customizing Windows PE

This lab is intended for IT Professionals who use, or are planning to use Windows PE for deployment or troubleshooting. In this lab you will learn to customize the copies of Windows PE that are included in the Windows Advanced Installation Kit. You will use tools such as XImage and PEIMG to configure custom build of Windows PE and boot from that build using a WIM file, an ISO, and a WDS server. At the end of this lab, you will be prepared to use Windows PE as a deployment or troubleshooting tool.

Windows Server

Creating Highly Available Services with Failover Clustering

Have you been curious about how clusters work and if they might be able to help you achieve high availability for your business needs, but don't have the hardware to try it and find out? This lab is for you! Play with a Failover Cluster for yourself and see how it works. Learn how to set up a cluster and perform some fundamental tasks, such as setting up a highly available file server. This lab is also a great opportunity to grow your skills and learn about how Failover Clusters work.

Active Directory Rights Management Services (AD RMS) Hands On Lab

In this lab, learn to help secure business confidential and proprietary information using Windows Rights Management Services (RMS). Learn how to configure RMS on Windows Server 2003 and get best practices for administering the RMS servers and clients. Also, see how RMS is supported in Microsoft Office applications.

Windows Deployment Services in Windows Server "Longhorn"

Windows Deployment Services (WDS) is the updated and redesigned Windows Server "Longhorn" version of Remote Installation Services (RIS). WDS assists with the rapid adoption and deployment of Windows operating systems. You can use WDS to set up new computers through a network-based installation without having to be physically present at each computer and without having to install directly from CD/DVD media. This lab manual is an introduction to WDS for the Beta 2 version of Windows Server™ "Longhorn". It includes an overview of features and scenarios you can use to test WDS and details about the technology.

Windows Storage Server 2003 R2

Microsoft Windows Storage Server 2003 R2 is a network attached storage (NAS) operating system that enables original equipment manufacturers (OEMs) to build appliances that provide dedicated file serving capabilities and storage on the network. Many of these OEMs ship Windows Storage Server 2003 R2 as a headless device with no keyboard or monitor, which is why the management UI has been redesigned from a Web-based user interface to an MMC-based interface. Administrators use the MMC to connect and administer the device from their own workstation or any other machine with the MMC installed. Alternatively a Remote Desktop connection could be established to the storage server providing interactive access to the server. Most OEMs take our base UI, shown here, and add features and customize it with their own logo, etc. This lab demonstrates the standard MMC UI that we ship from Microsoft with Windows Storage Server 2003 R2.

Terminal Services Gateway and Remote Programs in Windows Server "Longhorn"

Terminal Services Gateway (TS Gateway) and Remote Programs are new server roles included in the Beta 2 version of Microsoft® Windows Server® ""Longhorn"". TS Gateway enables authorized remote users to connect to terminal servers and remote desktops on the corporate network, from any Internet-connected device. TS Gateway uses Remote Desktop Protocol (RDP) over HTTPS to form a secure, encrypted connection between remote users on the Internet and the remote computers on which their productivity applications run.

Remote Programs are programs that are accessed remotely through Terminal Services and behave as if they were running on the end user's local computer. Users can run Remote Programs side-by-side with their local programs. If a user is running more than one remote program on the same terminal server, Remote Programs will share the same Terminal Services session.

Active Directory Federation Services in Windows Server 2003 R2

Active Directory Federation Services (ADFS) provides extranet authentication/authorization, single sign-on (SSO) and federated identity services for Windows Server environments. With ADFS, you will be able to extend the value of an Active Directory investment to B2C extranet, intra-company (multi-forest) federation and B2B internet federation scenarios using browser applications. ADFS provides a flexible, secure, easy-to-deploy solution for extranet user management tightly integrated with the Windows platform, while simultaneously built on standards-based concepts to ensure interoperability with existing access management solutions. Ultimately, ADFS promotes increased IT efficiency, while providing for easier secure collaboration among business partners. ADFS will ship as a feature of Windows Server 2003 R2.

Server Core in Windows Server "Longhorn"

Server Core is a new minimal Operating System installation option included in the Beta 2 version of Microsoft® Windows Server® "Longhorn". A server core installation provides a minimal environment for running specific server roles (AD, DNS, DHCP, and File), reducing the servicing and management requirements and the attack surface for those server roles. This lab manual provides the instructions necessary to perform the initial configuration of the server core installation, start server roles, and manage a server core server.

Server Manager in Windows Server "Longhorn"

Server Manager is a new feature that is included in the Beta 2 version of Microsoft® Windows Server® "Longhorn". Server Manager is a "one-stop-shop" designed to guide Information Technology administrators through the process of installing, configuring, and managing server roles and features that are part of Windows Server "Longhorn". Server Manager is a new Microsoft Management Console (MMC) snap-in that provides a consolidated view of the server, including information about server configuration, status of installed roles, and links for adding and removing roles and features. This lab manual is an introduction to Server Manager and includes an overview of features and scenarios you can use to test Server Manager and details about the technology.

Step-by-Step Guide for Setting Up IPv6 in a Test Lab

This guide describes how to configure Internet Protocol version 6 (IPv6) in a test lab using five computers. Of the five computers, one is a Domain Name System (DNS) server, two are clients, and two are routers. This guide also includes an exercise that disables IPv6 connectivity and then uses Intra-Site Automatic Tunnel Addressing Protocol (ISATAP) to restore it.