

Microsoft SQL Server Integration Services (SSIS) Course Outlines

Course Duration: 3 Days

Course Price: £975 Per Person | One to One £1075

Onsite Price from: £1755 for 2 Delegates | Additional Delegates £100 Per Person

Introduction to SQL Server Integration Services (SSIS)

- ... SQL Server SSIS Historical Overview
- ... SSIS Architecture
- ... Editions of SQL Server

The SSIS Tools

- ... Import & Export Wizard
- ... SQL Server Data Tools (SSDT) /Business Intelligence Development Studio (BIDS - 2008)
- ... The Visual Studio Development Environment
- ... The SSIS Package Designer
- ... Management Studio

SSIS Tasks

- ... SSIS Task Objects: Task Editor & Expressions
- ... Looping & Sequence Tasks
- ... Script Task (.NET)
- ... Analysis Services Tasks
- ... Data Flow Tasks
- ... Data Preparation Tasks: Data Profiler, File System, Archiving, FTP, Web Service, XML
- ... RDBMS Server Tasks: Bulk Insert , Execute SQL
- ... Workflow Tasks: Execute Package, Execute Process, Send Mail, WMI
- ... SMO Administration Tasks: Database Object Transfer

The Data Flow

- ... Understanding the Data Flow
- ... Data Viewers
- ... Data Sources: OLE DB, Excel, Flat File, Raw, XML, ADO.NET
- ... Data Destinations: Excel, Flat File, OLE DB, Raw, Recordset, Data Mining Model Training, DataReader, Dimension & Partition Processing
- ... Common Transformations: Including Aggregate, Conditional Split, Data Conversion, Derived Column, Lookup, Script Component, Sort, Union All
- ... Other Transformations: Including Audit, Copy Column, DQS Cleansing, Export & Import Column, Merge, Merge Join, Multicast
- ... Data Flow Example

Using Variables, Parameters & Expressions

- ... Dynamic Package Objects: Variables, parameters and Expressions
- ... Understanding Data Types
- ... Using Variables & Parameters
- ... Working With Expressions & Expression Builder
- ... Operators & Functions

Containers

- ... Task Host Containers
- ... Sequence Containers
- ... Groups
- ... For Loop Container
- ... For Each Loop Container

Joining Data

- ... The Lookup Transformation
- ... The Merge Join Transformation
- ... Contrasting SSIS & Relational Join
- ... Using the Lookup Transformation
- ... Cache Connection manager & Cache Transform

Creating A Data Cleansing Package

- ... Creating Connections
- ... Creating Control Flow
- ... Creating Data Flow
- ... Handling Dirty Data
- ... Finalizing Data
- ... Making the Package Dynamic

Scripting In SSIS

- ... Using Visual Studio Tools for Applications (VSTA) Scripting IDE
- ... Using the Script Task
- ... Using the Script Component
- ... Accessing Variables
- ... Connecting to Data Sources
- ... Raising Events
- ... Logging

Advanced Data Cleansing

- ... Advanced Derived Column
- ... Advanced Fuzzy Lookup & Fuzzy Grouping
- ... DQS Cleansing
- ... Master Data Management

Reliability & Scalability

- ... Restarting Packages: Control flow, containers, checkpoints
- ... Package Transactions: single transaction, multiple transactions, multiple packages
- ... Error Outputs:
- ... Scaling Out: Memory, Staging Data, Parallel Loading

Error & Event Handling

- ... Precedence Constraints
- ... Event Handling
- ... Breakpoints
- ... Error Rows
- ... Logging

Overview of Programming & Extending SSIS

- ... Creating Data Flow Components: Source, Transformation, Destination
- ... Creating New Tools for Toolboxes

Administering SSIS

- ... Using the SSIS Catalog
- ... Deployment Models
- ... Using TSQL with SSIS: Using parameters, environments and data taps
- ... Creating a Central SSIS Server
- ... Clustering SSIS
- ... Package Configuration
- ... Command-Line Utilities: DTEXEC, DTEXECUI, DTUTIL
- ... Security
- ... Scheduling Packages: SQL Server Agent & Proxy Accounts
- ... 64 bit Issues
- ... Monitoring Package Execution
- ... Performance Counters