

Working with SQL Server Integration Services

IN BRIEF

Delivery: Instructor-led course

Duration: Two days

Inclusions: Microsoft expert instructor, comprehensive course manual, individual computer access, and fully catered lunch, morning and afternoon tea breaks.

Prerequisites:

The target audience for this session is database warehouse, decision support, and business intelligence solution architects, IT professionals, and business intelligence developers who want to learn the details of how to use the new capabilities provided by SSIS to build ETL or other data integration type solution. While this course is targeted at database professionals with some experience with data warehouse solutions, this workshop requires no prior experience with SQL Server 2000 DTS or SQL Server 2005 SSIS.

Products Covered: Microsoft SQL Server 2008

Course Description

During this 2-day course, you will learn to effectively use SSIS and how to apply its enterprise functionality to data warehouse ETL systems and general data integration requirements. At the completion this course, you will understand how to design, develop, deploy, and operate SSIS solutions from source systems extractions, to data integration and transformation, and to business intelligence system loading.

This course will demonstrate a fully working ETL solution, including extensive demos, sample projects that will not only teach how to use the new technology, but also illustrate business intelligence ETL and data warehouse best practices.

Audience

This course is intended for IT Professionals that are responsible for designing, developing, deploying, and operating business intelligence solutions.

While this course is based on SQL Server 2008, it is equally applicable to those working with SQL Server 2005. Differences in the versions will be highlighted.

Objectives:

- **Learning SSIS Features and Functionality:** The initial modules will dive deep into the core feature set of SSIS to lay the foundation for leveraging the tool for data processing requirements.
- **Understanding and Applying ETL Concepts in SSIS:** Building on the SSIS knowledge, the focus will turn to understanding relational data warehousing principles- applying efficient SSIS processing techniques for dimensions and fact table ETL.
- **Deploying and Administering SSIS in Production:** The course covers getting ETL solutions over the goal line via deployment and ongoing administration.
- **If the optional 3rd day is taken,** the course will consider more advanced topics.

Topics Covered

Overview of SQL Server Integration Services

- *Introduction to BI and dimensional modelling*
- *SQL Server 2008 BI tools*

Working with SSIS Control Flow

- *Introducing and designing Control Flow*
- *Control flow features and concepts*
- *Containers*
- *Tasks and precedence constraints*

Working with SSIS Data Flow

- *Introducing and designing Data Flow*
- *Working with data sources and destinations*
- *Transforming data*
- *Data viewers*
- *Data paths*

Optimizing the Data Flow

- *Source adapter properties and best practices*
- *Optimizing data loads*
- *Handling errors*

Advanced Data Transformations

- *Profiling Data*
- *Derived columns*
- *Lookup transformations*
- *Fuzzy transformations*
- *Script Components*

Loading Dimension Tables

- *Introduction to Dimensional Modelling*
- *Slowly changing dimensions*
- *SCD Wizard*
- *Alternate SCD processing strategies*

Loading Fact Tables

- *Fact table concepts and grain*
- *Measures*
- *Dimension key lookups*
- *Implementing inferred members*

SSIS Configuration, Logging, Deployment and Execution

- *Package configurations*
- *Logging options*
- *Deployment manifests*
- *Deployment utility*
- *Scheduling SSIS package execution*