SSIS 2012, Part 01 of 11: Concepts and Data Tools

Meet the expert: Don Kiely is a featured instructor on many of our SQL Server and Visual Studio courses. He is a nationally recognized author, instructor, and consultant specializing in Microsoft technologies. Don has many years of teaching experience, is the author or co-author of several programming books, and has spoken at many industry conferences and user groups. In addition, Don is a consultant for a variety of companies that develop distributed applications for public and private organizations.

Prerequisites: This course assumes that you have a basic familiarity with the concept of relational databases and a basic understanding of what SQL Server is and the high-level tools in it, as well as how to create and manage objects using Management Studio. You should also have a basic understanding of how SQL Server implements security, including its authentication and authorization schemes, and how to assign permissions on securable objects to principals. You should know the fundamentals of Transact-SQL to write queries to retrieve data and join data from multiple tables, and how to execute scripts using the query editor in Management Studio. You must also know how to connect to an instance of SQL Server 2012 using the various connection dialog boxes in Management Studio and development tools. It will be very helpful, but not absolutely necessary, to have experience with .NET development using Visual Studio 2012 or later for the portions of the course that deal with SQL Server Data Tools (which is a lot of it). At the very least, we'll assume that you are well familiar with the Visual Studio user interface.
This course assumes no prior knowledge of SQL Server Integration Services.

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Course description: SQL Server Integration Services is part of the Microsoft suite of SQL Server Business Intelligence tools or BI Tools, which also includes Analysis Services and Reporting Services. Integration Services is Microsoft's Enterprise grade tool for the extraction, transformation and loading or ETL of data. It's designed to handle the migration and manipulation of data through the life cycle of a BI application and is a critical part of moving data in to data warehouses that is used in BI. But has usefulness far beyond BI applications. Any time you need to move data from one storage source to another, particularly if you need to change the data along the way, consider using Integration Services. In this course you'll learn about what Integration Services is good for and explore its architecture and components, you'll learn the basics of control and data flows. As well as how to make a connection to varies data sources and destinations. Then you'll learn about two of the main ways to create packages, import and export wizard, as well as how to build them from scratch using SQL Server Data Tools, which is Microsoft's replacement of the old Business Intelligence Studio or BIDS. You'll also see a couple of ways to execute packages, both within data tools as well as using the execute package utility.

Course outline:

Understanding SSIS
- Introduction
- Integration Services and ETL
- Architecture and Components 1
- Architecture and Components 2
- Control Flows
- Tasks
- Precedence Constraints
- Containers - builds
- Containers - purpose
- Summary

IS Packages with IE Wizard
- Introduction
- Tools for Building IS Packages
- Import and Export Wizard
- Demo: Simple IS Package
- Demo: Data Transfer
- Demo: Save and Run Package
- Demo: Successful I/E
- Other Ways to Launch
- Summary

Building Integrated Packages
- Introduction
- Demo: Integration Services
- Demo: SSIS Toolbox
- Demo: Control Flow
- Demo: Transformations
- Demo: Connection Managers
- Demo: Event Handler
- Demo: Package Explorer
- Summary

Building Services Packages
- Introduction
- Demo: IS Project
- Demo: Data Flow Task
- Demo: Source Editor
- Demo: Flat File Destination
- Summary

Executing Packages
- Introduction
- Executing a Package
- Demo: Export Package
- Executing a Package w/o SSDT
- Demo: Execute Package Utility
- Demo: Connection Manager
- Summary