

Workshop	
Name	Synergetics-Standard-SQL Server 2012-Integration Services
Duration	4 Days
Objective	Product Appreciation and its application in Enterprise solution space with hands-On exposure. This program provides implementation and solution-level information on SQL Server 2008 BI Platform from a Developers Perspective.
Participants' Entry Profile	Participants attending this course must have: <ul style="list-style-type: none"> • Concepts of Relational Database Design & Implementation • Understanding of OLTP Applications • Working experience of Visual Studio as an IDE
Training Methodology	The workshop will follow Synergetics methodology of Concept Visualization Active Experimentation Application Development. The workshop will be 100% Hands-On with each participant having access to system during the session

Setup Requirements	
Hardware and Software Requirements	Hardware Requirement Inte1 Pentium 4, 4 GB Ram, Software Requirement Windows Server 2008 R2 (SP1) Microsoft IIS 6.x or above Microsoft SQL Server 2012 SP1 with complete BI Stack Microsoft SQL Server tabular model Instance Microsoft SQL Server MOLAP Instance Microsoft Visual Studio.NET 2010 Master Data Services add in for Excel Data Quality services AdventureWorks2012 and AdventureWorksDW2012 Sample Databases Sql Server Data Tools
Training Lab Requirements	Whiteboard Recommended size - 6 feet by 4 feet Whiteboard markers – Red, Blue, Green, Black Video Projector (1024 X 768 resolutions)

Course Contents**Day 1****➤ Understanding Business Intelligence and Data Warehousing**

- Data Warehousing Concepts
- The Purpose of a Data Warehouse
- The Structure of a Dimensional Database

➤ Introduction to SQL Server Integration Services

- Why Integration Services?
- Integration Services Architecture
- The Business Intelligence Studio
- Using Wizards for a Integration Services Project

➤ Designing SQL Server Integration Services Packages

- Creating a Package Control Flow
- Adding Tasks and Containers
- Setting Precedence Constraints
- Grouping Tasks and Containers
- Adding Enumeration to a Control Flow
- Adding Iteration to a Control Flow
- Creating Package Data Flow
- Accessing Data Sources
- Transforming Data
- Connecting Components
- Handling Errors in Data
- Using Package Event Handlers

➤ Improving Integration with SSIS

- Integrating any data, using ADO.NET

Day 2

- Using VSTA for script components
- Improved Lookup transformation

➤ Getting optimal performance with Integration Services Lookups

- Helpful information and examples on how to use SQL Server Integration Services.
- Upgrading Lookup Transformations
- Integration Services Development Enhancements
- Improved performance for lookup transformations
- More efficient use of memory resources

➤ Programming SSIS(Concepts)

- Control Flow Programming using Managed Libraries
- Data Flow Programming using the DTS Pipeline component

➤ **Extending SSIS Package Functionality**

- Implementing Logging in Packages
- Incorporating Transactions in Packages
- Using Variables and Expressions in Packages
- Debugging Packages

➤ **Deploying SSIS Packages**

- Creating Package Configurations
- Creating a Deployment Utility
- Project Deployment in SSIS

➤ **Administering SSIS**

- SSIS configuration
- Scheduling Package Execution in SQL Server Agent
- Logging Package Execution

Day 3

➤ **SSIS Enhancements**

- SSIS Designer Enhancements
- Data Flow Enhancements
 - Column mappings
 - Flexible order of authoring
 - Groupings
 - Data Tap
 - Load files with multiple row formats
 - New Sources and Destinations
- Introduction to Parameters
 - What is Parameters
 - Advantages of using Parameters
 - Type of parameters
 - Parameterize the Task
- Introduction to Environments
 - CDC Source
 - CDC Splitter
 - What is Environments
 - Advantages of Environments
- New Deployment options
 - Introduction to Deployment Life Cycle
 - Deploy from SSDT
 - Introduction to Integration Services Project Deployment File
- Management Enhancements
 - The new SSIS Server
 - SSISDB
 - SSIS Stored Procedures
 - OOTB Reporting Dashboard

Day 4

➤ **Master Data Services**

- Concept of Master Data Services
- Configuration of Master Data Services
- Creating Models using MDS
- Managing Entities and Attributes
- Managing hierarchies in MDS
- Exploring Data
- Creating Subscription Views
- Creating business rules
- Transactions and Notifications
- Maintaining versions in MDS
- Deploying Models
- Security in MDS – Overview
- Excel Add-In for MDS
- **Data Quality Services – Introduction**
 - Configuring Data Quality Services
 - Knowledge Base management
 - Data Quality Project
- **Data Quality Services Cleansing transformation**