Control Flow Basics

Performing tasks in Integration Services

Overview

- **Connection Managers**
- **Tasks**
- **Precedence Constraints**
- **Containers**

Connection Managers
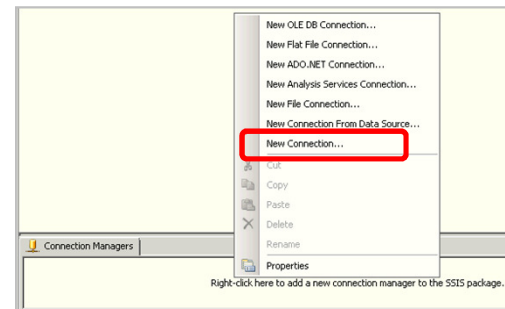
- **Usage**
  - Control flow task or container
  - Data flow source, destination, transformation
  - Log provider

- **Creation**
  - Connection property

  - Connection Manager Tray

Connection Managers

Built-In

- ADO
- ADO.NET
- CACHE
- EXCEL
- FILE
- FLATFILE
- FTP
- HTTP
- MSMQ
- MSOLAP100
- MULTIFILE
- MULTIFLATFILE
- OLEDB
- ODBC
- SMOServer
- SMTP
- SQLMOBILE
- WMI

Download from Microsoft

- ORACLE
- TERADATA

  http://tinyurl.com/3yy59br

- SAP Netweaver BI
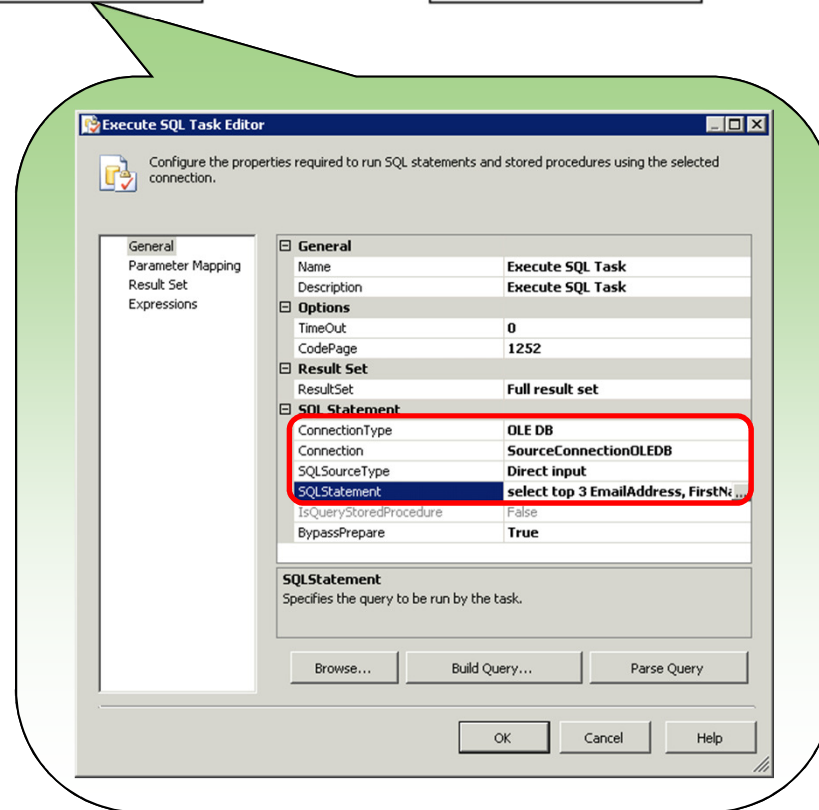
  http://tinyurl.com/66ylj2t
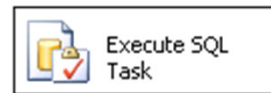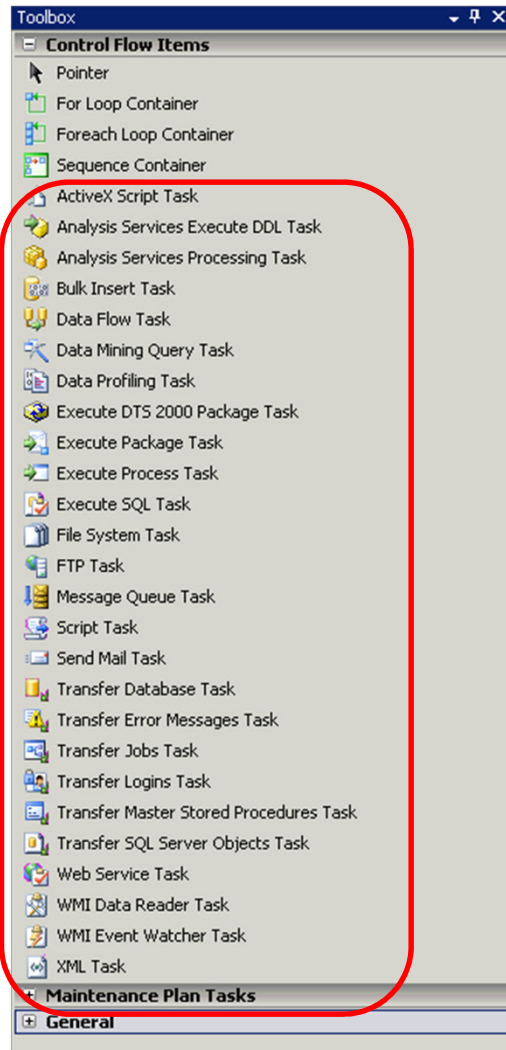
Need something else?
Develop a custom connection manager!
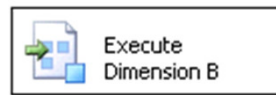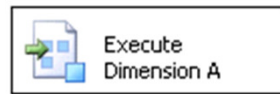
32-Bit versus 64-Bit Providers

- **Install BIDS or Management Tools-Complete for both 32-bit and 64-bit**
- **Connect to Access or Excel using 32-bit mode OLE DB Provider for Jet**
  - Or download 64-bit provider from http://tinyurl.com/6azx5mf
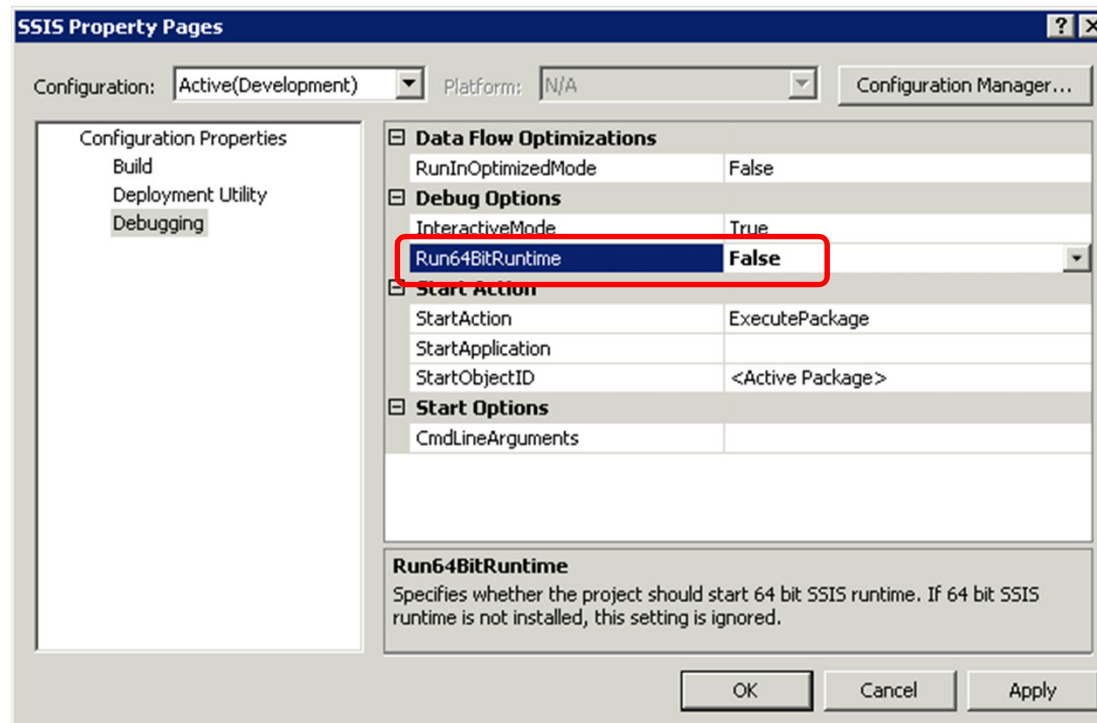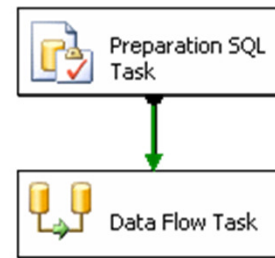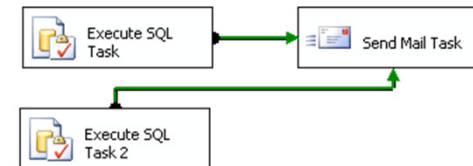
Tasks

Precedence Constraints

Parallel execution

Sequential execution

Success

Failure

Completion

@Count>5

AND

OR

Containers

Sequence Container ⌄	For Loop Container ⌄	Foreach Loop Container ⌄
Execute Dimension A		
Execute Dimension B		

Init
@Counter=0

Eval
@Counter<3

Assign
@Counter=
@Counter+1

- File
- Item
- ADO
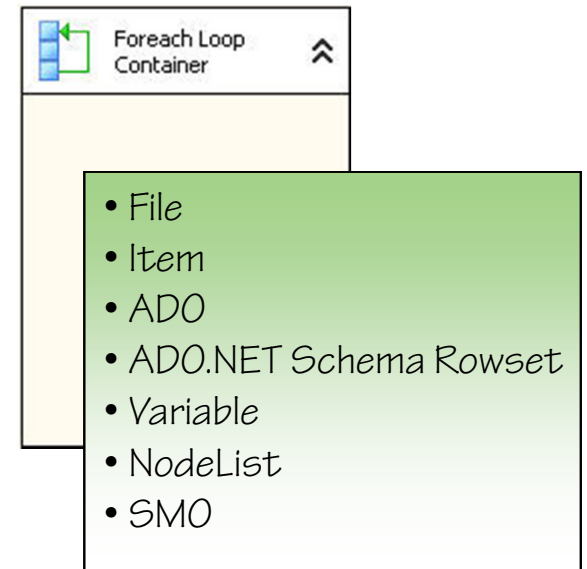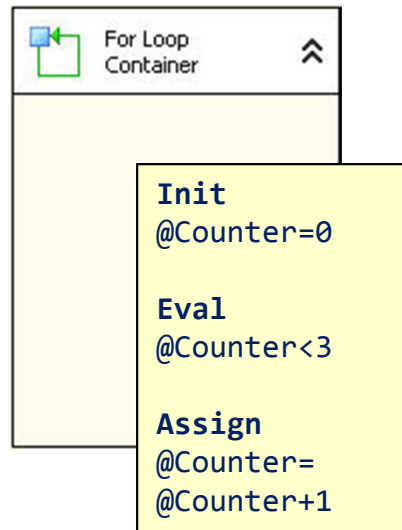- ADO.NET Schema Rowset
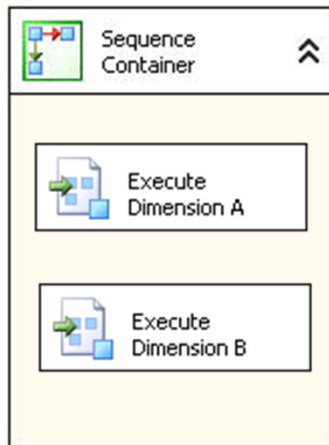- Variable
- NodeList
- SMO
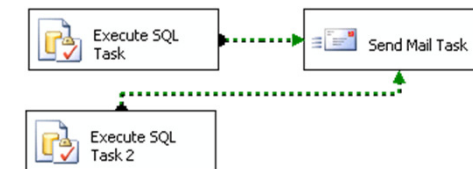
- **Set properties once for multiple tasks**

- **Control subsequent flow**

- **Define scope for variables**

- **Combine tasks into a transaction**

- **Create event handler**

pluralsight
see what you can learn

Summary

- **Connection Managers**
  - Control flow task or container
  - Data flow source, destination, transformation
  - Log provider
- **Tasks**
  - Discrete units of work
- **Precedence Constraints**
  - Sequence tasks based on success, failure, completion, or expression
- **Containers**
  - Sequence, For Loop, For Each Loop

References

- **Integration Services Connections**
  - http://msdn.microsoft.com/en-us/library/ms140203.aspx
- **64 bit Considerations for Integration Services**
  - http://msdn.microsoft.com/en-us/library/ms141766.aspx
- **Control Flow Elements**
  - http://msdn.microsoft.com/en-us/library/ms137681.aspx