

# Data Flow Basics

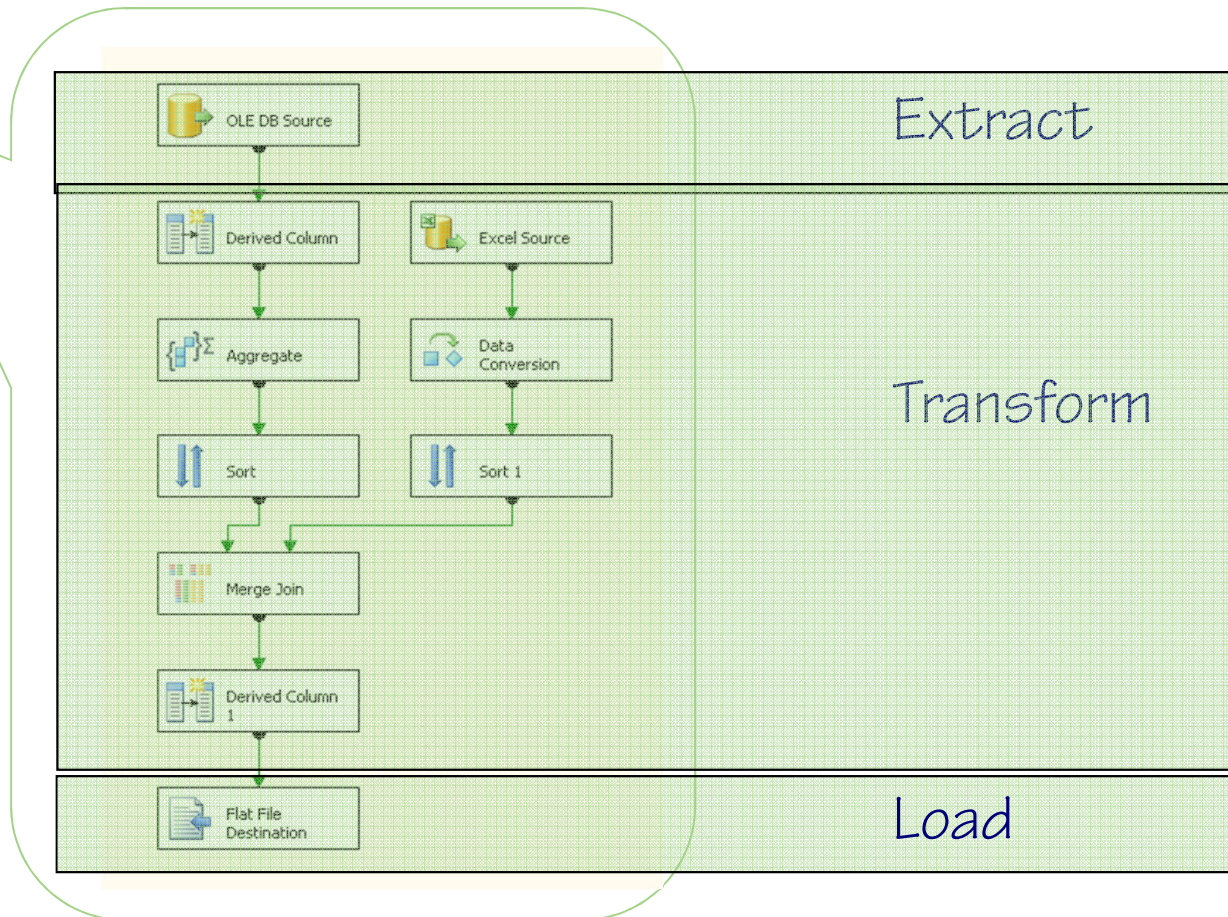
Moving data in Integration Services



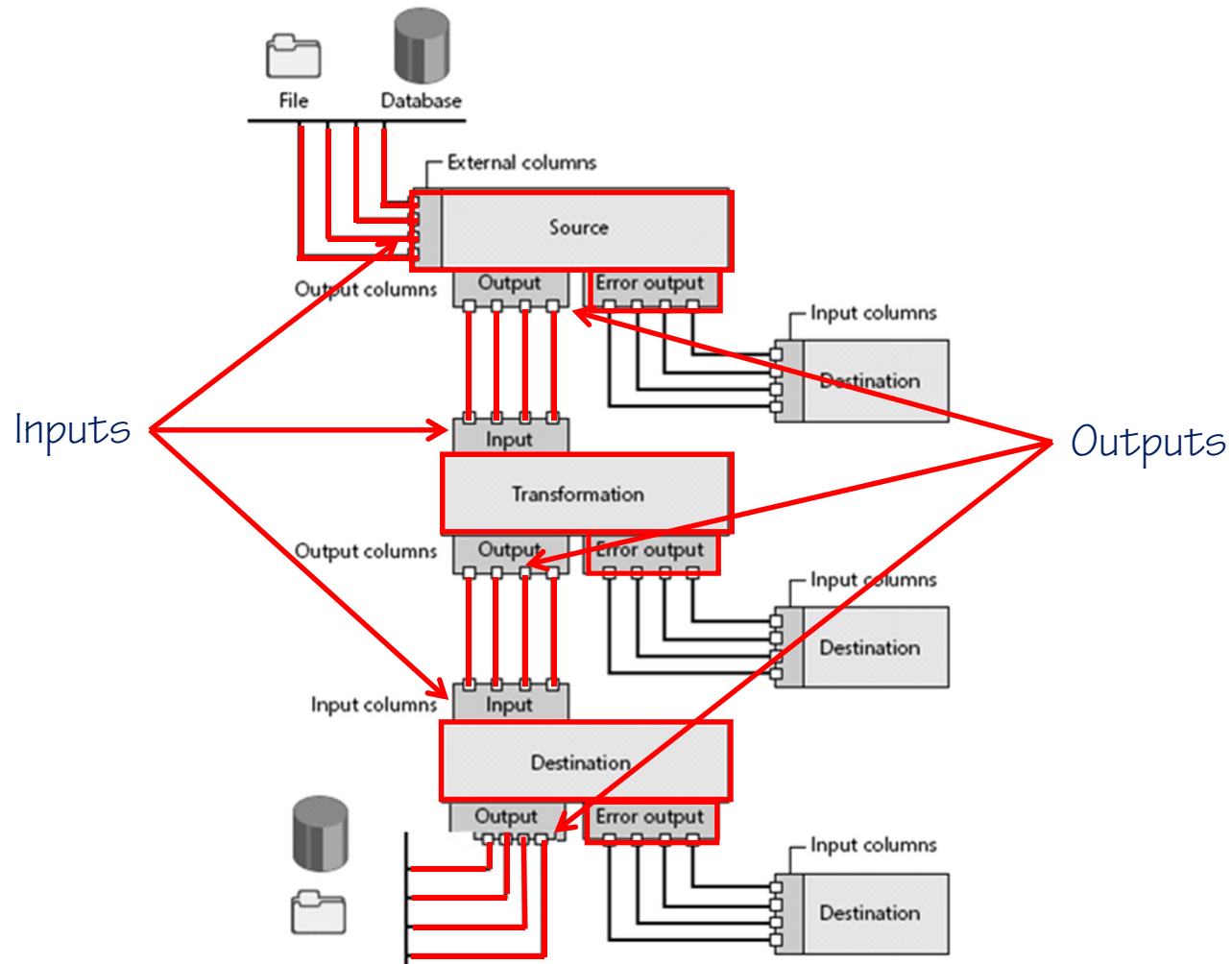
# Overview

- Data Flow Task
- Pipeline Architecture
- Data Sources
- Data Destinations







# Data Flow Task










# Pipeline Architecture





# Data Sources

Source	ETL Example
 ADO NET Source	Extract data from a source using a custom .NET provider
 Excel Source	Extract data from Excel workbook
 Flat File Source	Extract data from CSV or TXT file
 OLE DB Source	Extract data from relational or OLAP source
 Raw File Source	Extract data from an SSIS source created by a previous operation
 XML Source	Extract data from XML document

# Data Destinations




Destination	ETL Example
 ADO NET Destination	Store data in a source using a custom .NET provider
 DataReader Destination	Store data in a DataReader object for consumption by an application
 Excel Destination	Store data in an Excel workbook
 Flat File Destination	Store data in a CSV or TXT file
 OLE DB Destination	Store data in a relational source
 SQL Server Destination	 SQL Server Compact Destination

# Data Destinations

Destination	ETL Example
 Raw File Destination	Store data in an SSIS source for use by a subsequent operation
 Recordset Destination	Store data in a variable



# Analysis Services Destinations

Destination	ETL Example
 Dimension Processing	Send data to a dimension and process
 Partition Processing	Send data to a partition and process
 Data Mining Model Training	Use data with a data mining algorithm to train a model

*Available in Enterprise Edition only*



# Summary

- **Data Flow Task**
  - Data sources, transformations, data destinations
- **Pipeline Architecture**
  - Memory buffers, input columns, output columns, error outputs
- **Data Sources**
  - Connection to physical source, column mapping into memory
- **Data Destinations**
  - Connections to physical source, column mapping from memory

# References

- **Designing Package Data Flow**
  - <http://msdn.microsoft.com/en-us/library/ms137842.aspx>
- **Integration Services Sources**
  - <http://msdn.microsoft.com/en-us/library/ms141093.aspx>
- **Integration Services Destinations**
  - <http://msdn.microsoft.com/en-us/library/ms141089.aspx>
- **SQLIS.com**
  - <http://www.sqlis.com/sqlis/category/Component-Downloads.aspx>