

Scripts

Customizing the control flow or data flow



Overview

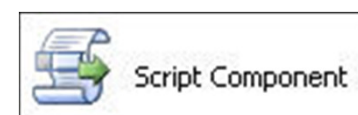
- Scripting in Integration Services
- Script Task Configuration
- DTS Object
- Script Component

Scripting in Integration Services

Control Flow



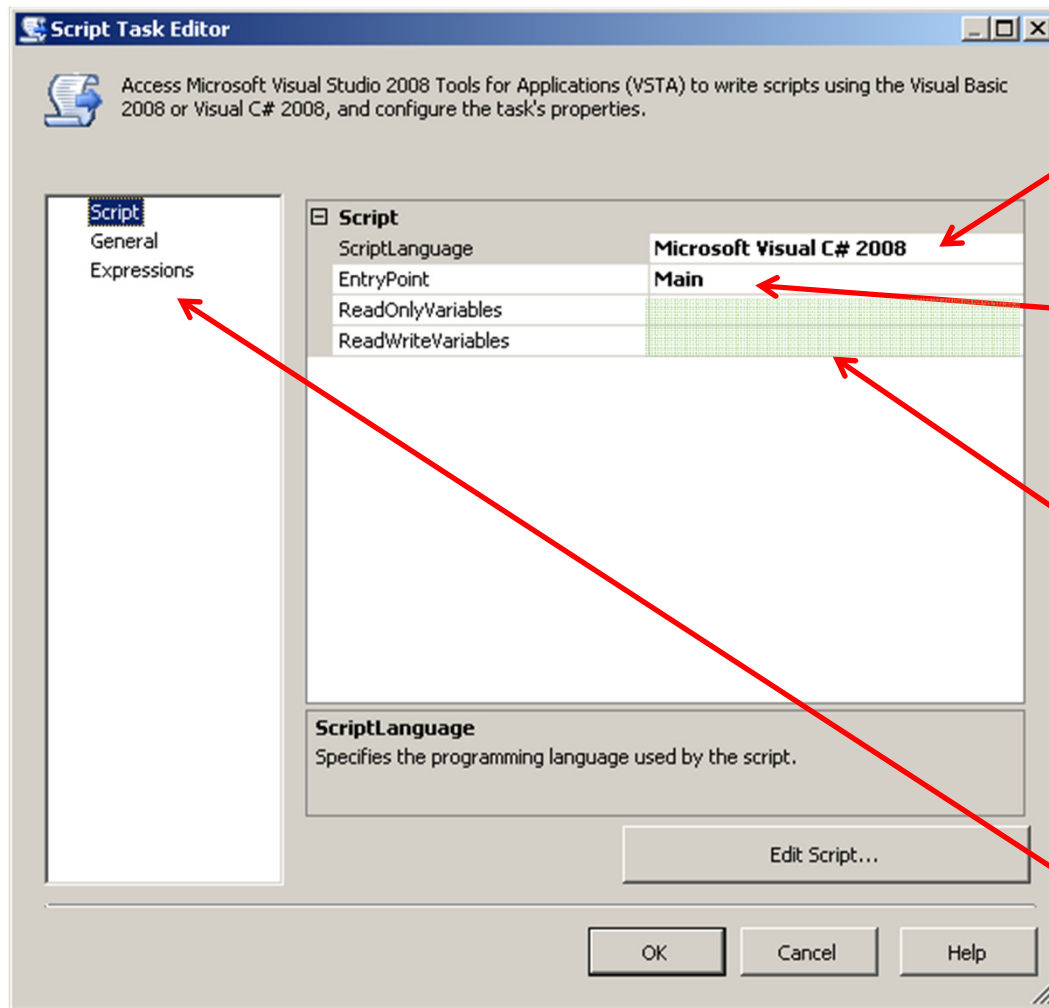
Data Flow



- **Develop using a .NET language**
 - VB.NET
 - C#
- **Use Visual Studio Tools for Applications (VSTA)**
 - Get help with IntelliSense
 - Add references to .NET libraries, managed assemblies, and COM objects
 - Use debugging features

Use custom components instead to reuse functionality between packages

Script Task Configuration



Select script language

Name of class to launch at runtime

Comma-delimited lists for read-only or read-write variables

Set Script Task property values at runtime

DTS Object

To do this	Use this
Access connection managers	Connections
Raise errors, warnings, and informational messages	Events
Returns a value to runtime engine for workflow	ExecutionValue TaskResult
Record information in log providers	Log
Access the current transaction	Transaction
Access ReadOnlyVariables and ReadWriteVariables	Variables

Variables

Use this	To do this
Value	To read from or write to variable
Contains	To test for variable existence before using it
<code>Dts.VariableDispenser</code>	To work with a variable created programmatically

Code must handle locking and data type casting when using `Dts.VariableDispenser`!

Events

Use this method	To do this
<code>FireCustomEvent</code>	Raise a user-defined event in the task
<code>FireError</code>	Identify an error condition in the package
<code>FireInformation</code>	Record information
<code>FireProgress</code>	Record the task progress in the package
<code>FireQueryCancel</code>	Indicate whether the package must terminate early
<code>FireWarning</code>	Identifies a condition for user notification without terminating the package

```
EventMethod(  
    informationCode, subComponent, description,  
    helpFile, helpContext, ref fireAgain)
```


Task Results

- Report outcome for control flow

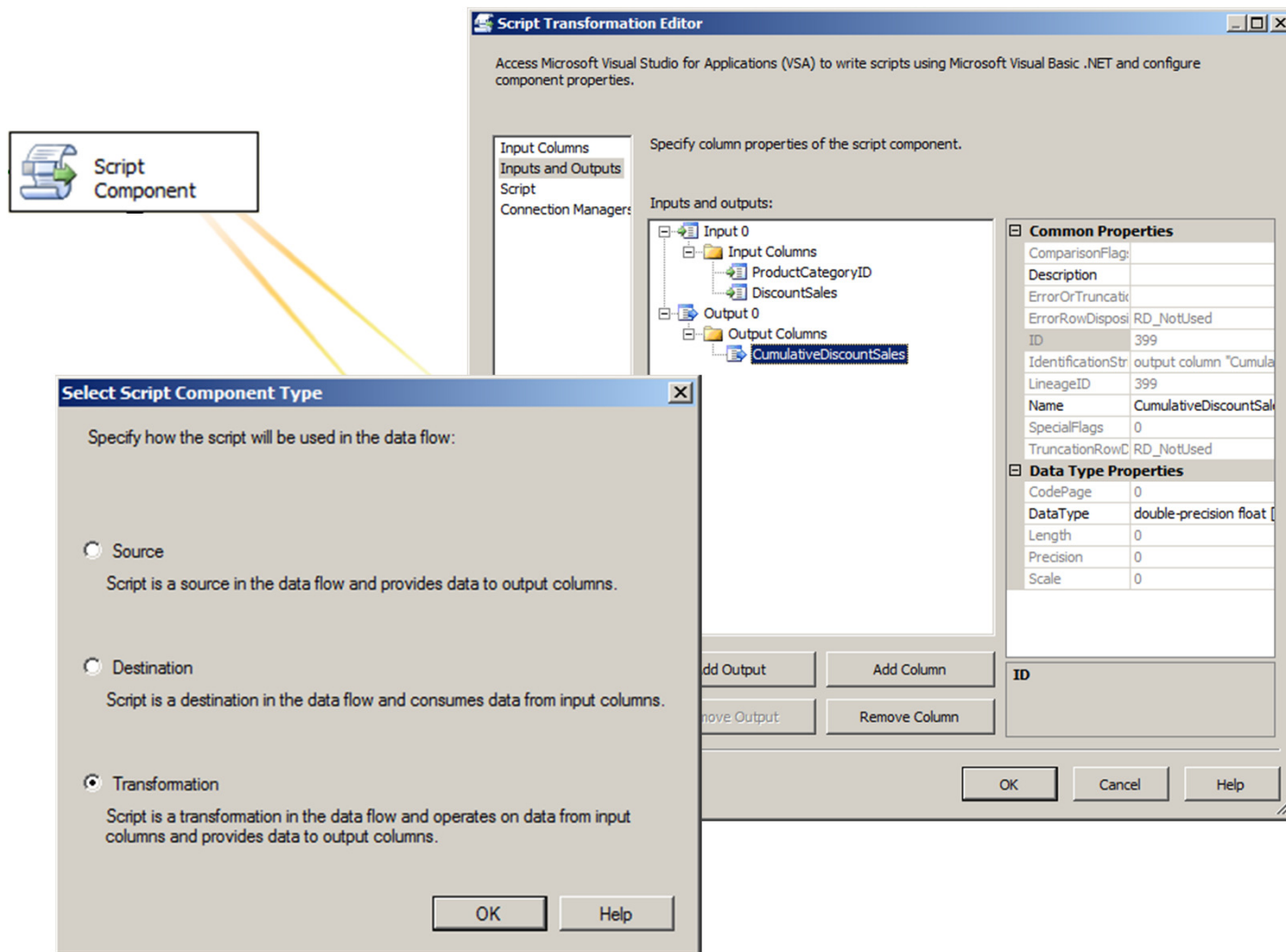
```
Dts.TaskResult = Dts.Results.Success
```

```
Dts.TaskResult = Dts.Results.Failure
```

- Provide quantitative information for control flow

```
Dts.ExecutionValue = <local variable>
```


Script Component



Script Component Types

- **Source**
 - Retrieves data from non-standard data source
 - Supports multiple outputs
- **Transformation**
 - Supports single input and multiple outputs
- **Destination**
 - Stores data in non-standard data destination

For this Object	Use this Reference
Variable	Me.Variables.[Name]
Column	Row.[Name]

Summary

- **Scripting in Integration Services**
 - Script Task, Script Component, .NET-VB or C#,
- **Script Task Configuration**
 - Language, Entry Point, Variables, Expressions
- **DTS Object**
 - Connections, Events, TaskResult, ExecutionValue, Log, Transaction, Variables
- **Script Component**
 - Source, Transformation, Destination

References

- **Extending Packages with Scripting**
 - [http://msdn.microsoft.com/en-us/library/ms345171\(v=SQL.105\).aspx](http://msdn.microsoft.com/en-us/library/ms345171(v=SQL.105).aspx)
- **Using Variables in the Script Task**
 - <http://msdn.microsoft.com/en-us/library/ms135941.aspx>
- **Creating a Custom Task**
 - [http://msdn.microsoft.com/en-us/library/ms345156\(v=SQL.105\).aspx](http://msdn.microsoft.com/en-us/library/ms345156(v=SQL.105).aspx)
- **Developing a Custom Data Flow Component**
 - [http://msdn.microsoft.com/en-us/library/ms136078\(v=SQL.90\).aspx](http://msdn.microsoft.com/en-us/library/ms136078(v=SQL.90).aspx)