

Loading Data



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DATA WAREHOUSE ARCHITECT

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Agenda



Implementing control flow

Loops and containers

Execute T-SQL or stored procedures

Precedence Constraints



Implementing Control Flow



Control Flow

Packages contain one control flow. Tasks or containers in a control the flow helps with processing of data.



Control Flow

Organize package through
top level tasks

Containers are driving force
for sequence

Pre and post task for data
flow information

Not a data flow task



Common tasks

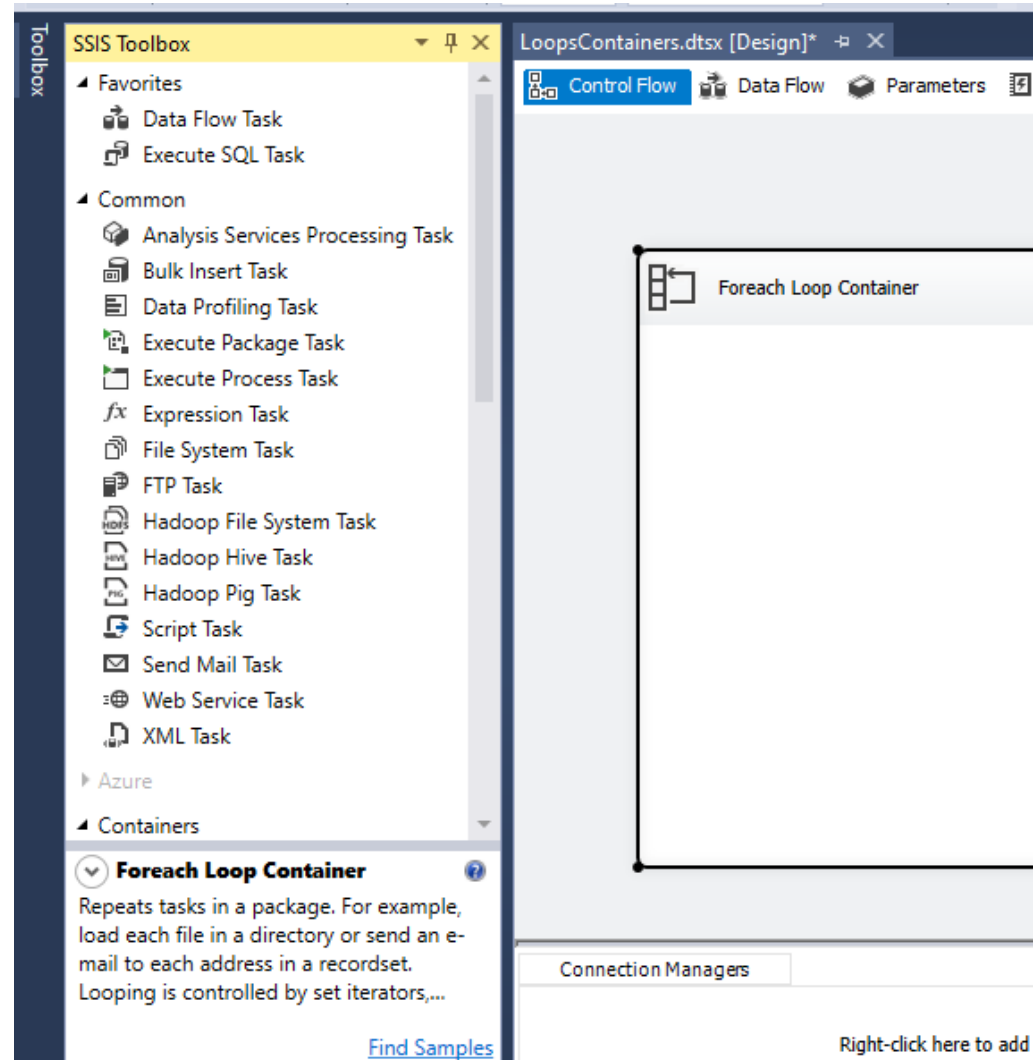
Process tasks

Precedence constraints

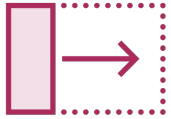
Pre-data flow

Post-data flow

Additional tasks



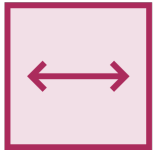
Data Warehouse Example



Truncate stage table – Execute SQL Task



Populate dw tables – Data Flow Task



Batch update – Execute SQL Task



Send email



Demo



Control flow



Loops and Containers



Containers

Can control order of events and loop through values to send to contained tasks.

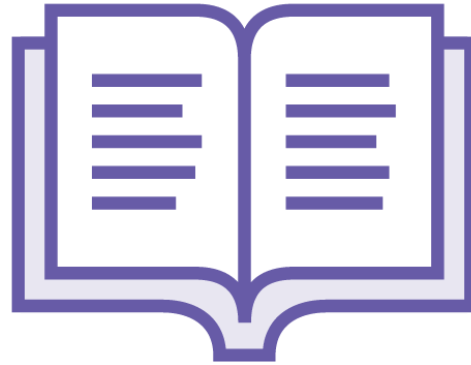


Loops and Containers



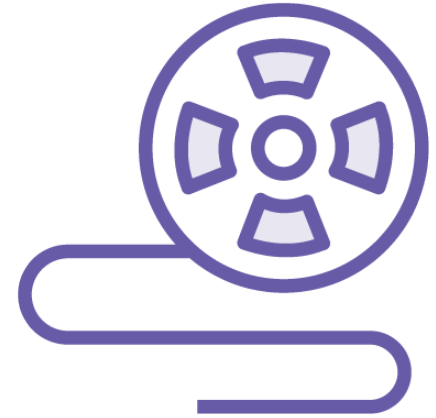
For Loop

Code written to loop
like a Do While... loop



Foreach Loop

Object or list loop
until finished



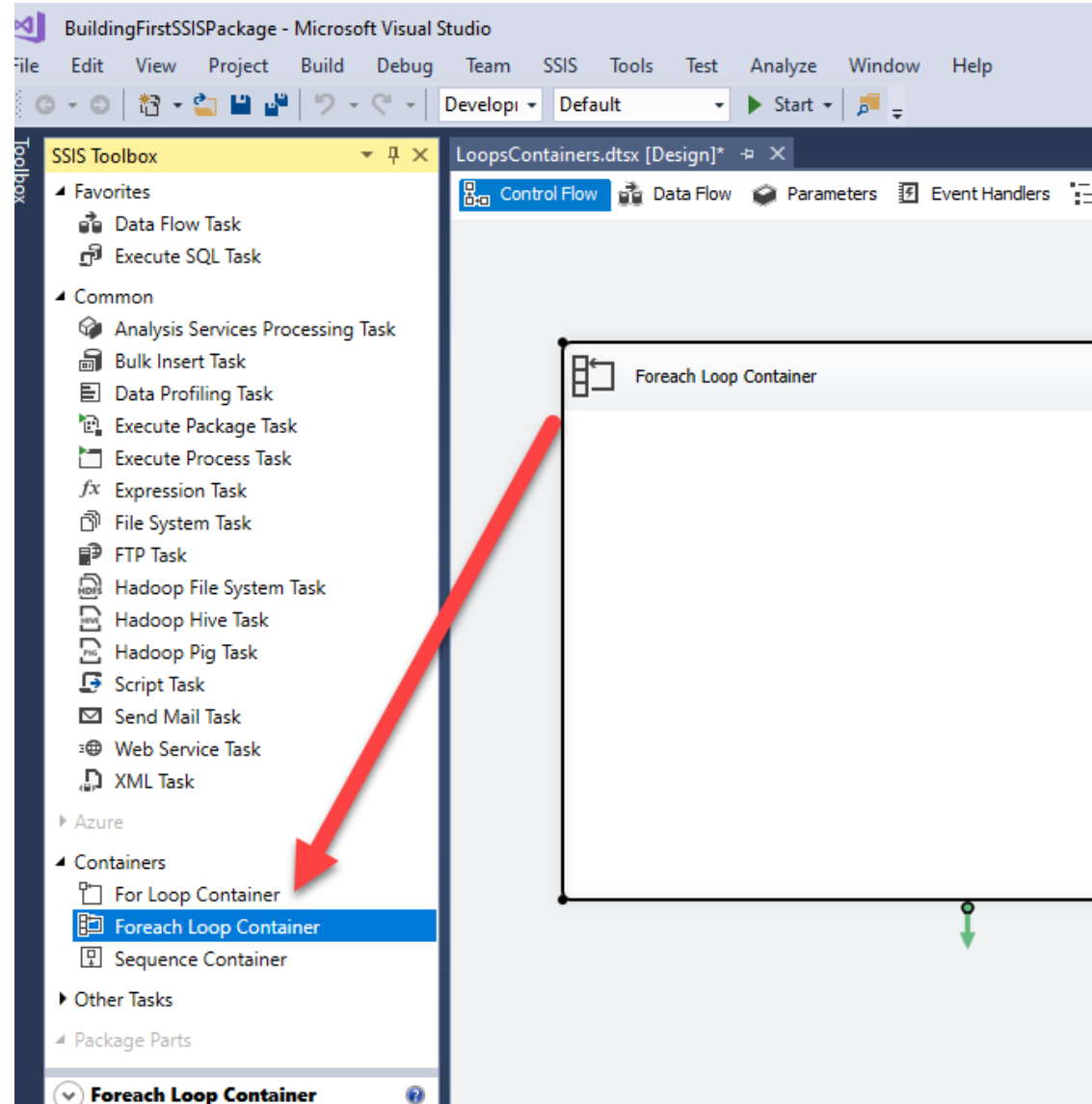
Sequence Container

Organize tasks in an
ordered list



Containers

- Encapsulate tasks
- Execute in order
- Loop through...
- Send value in loop
- Same conditions as upper level



Demo



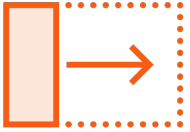
Loop through files



Execute T-SQL or Stored Procedures



Execute T-SQL



Connection to a database

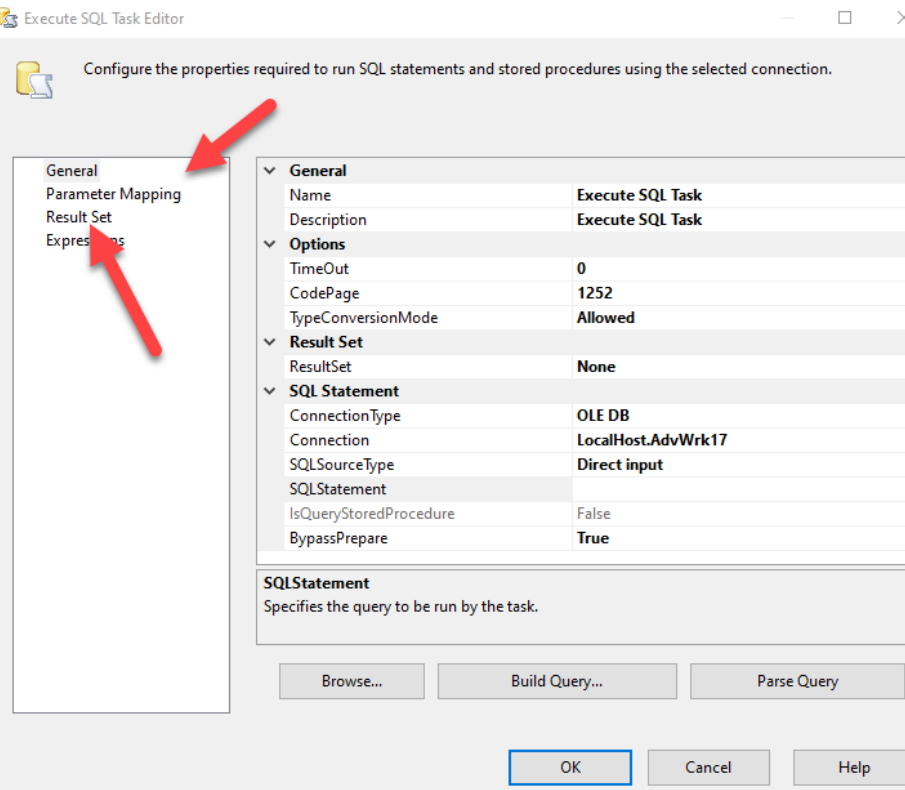


Input and/or output variables



Valid SQL statement





Parameter Mapping

Result set

General

- connection
- SQL
- ResultSet returned
 - None
 - Single row
 - Full result set
 - XML




```
Declare @File varchar(4000)
```

```
Declare @Results boolean
```

```
exec ImportProducts @File @Results
```

Execute T-SQL or Stored Procedure

Use parameters to pass in

Use parameters for output



Demo



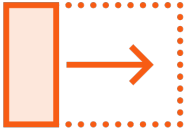
Execute T-SQL



Precedence Constraints



Control Flow Precedence



Success – run next task



Failure – run an alternate task

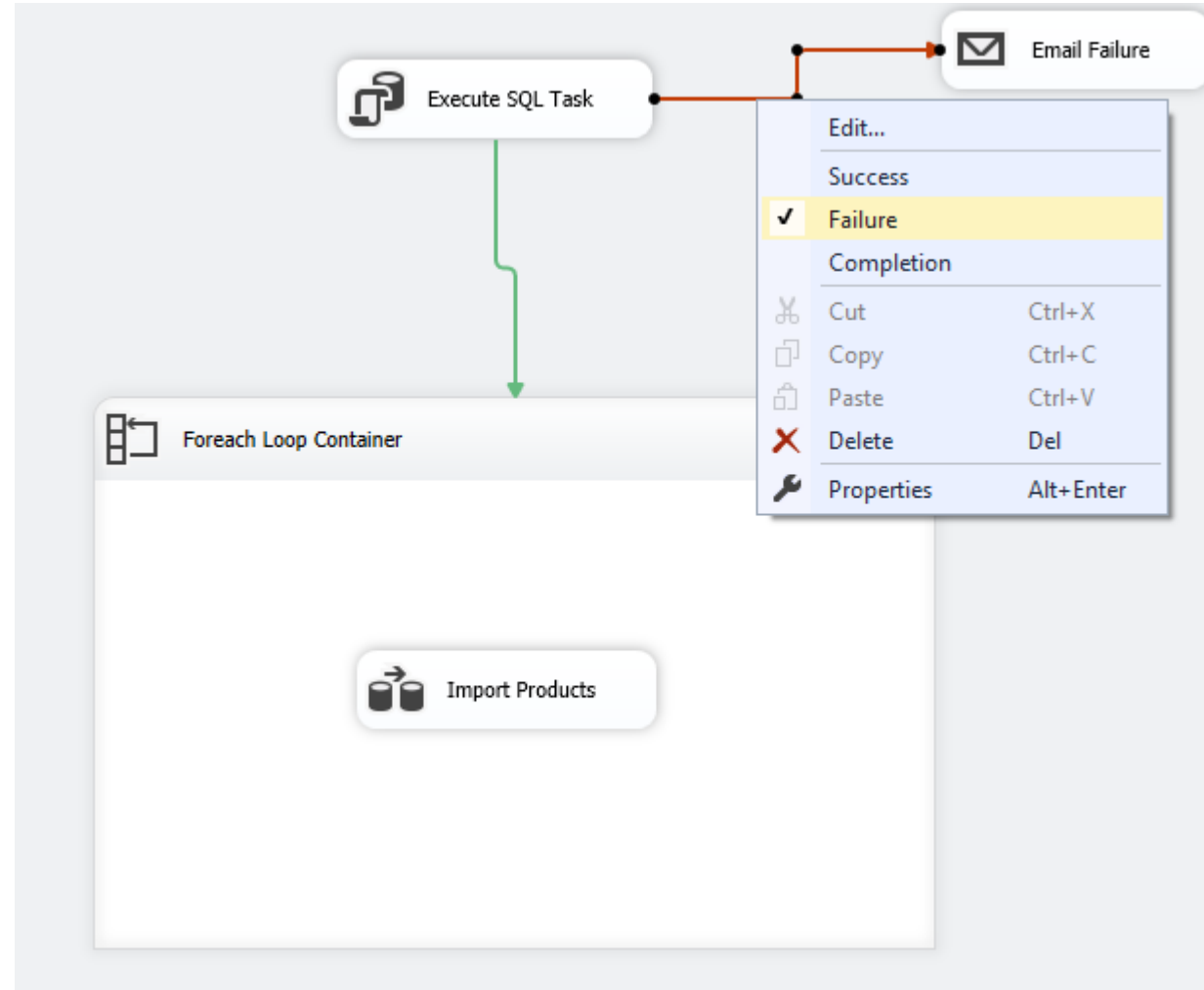


Completion – run if succeed or failed



Multiple paths
Success or Failure
Edit...

Use logic from variables
Constraint or expression
Can use And/Or with
constraint or expression



Demo



Precedence constraints



Summary



Accomplishing the loading of data

Control flows loops

Using the relational engine

Completing a package

