

# Getting Started with Biml

Making more SSIS with fewer clicks

# Who am I?

- Bill Fellows
- Database developer
- 10 years SSIS
- Lazy
- BI Consultant



# Who are you?

- Developer
- Built some SSIS packages
- Frustrated with monotony
- Worn out your mouse

# Why are you here?

- Want to build packages faster
- Consistent approach
- Cost effective

Free - everybody loves free

# What is Biml?

- Business Intelligence Markup Language
- Domain Specific Language for describing business intelligence objects

# Why Biml

- Shorten development time
- Metadata driven solutions
- Alternatives: .NET, EzAPI, BlxPress



# Pre-requisites

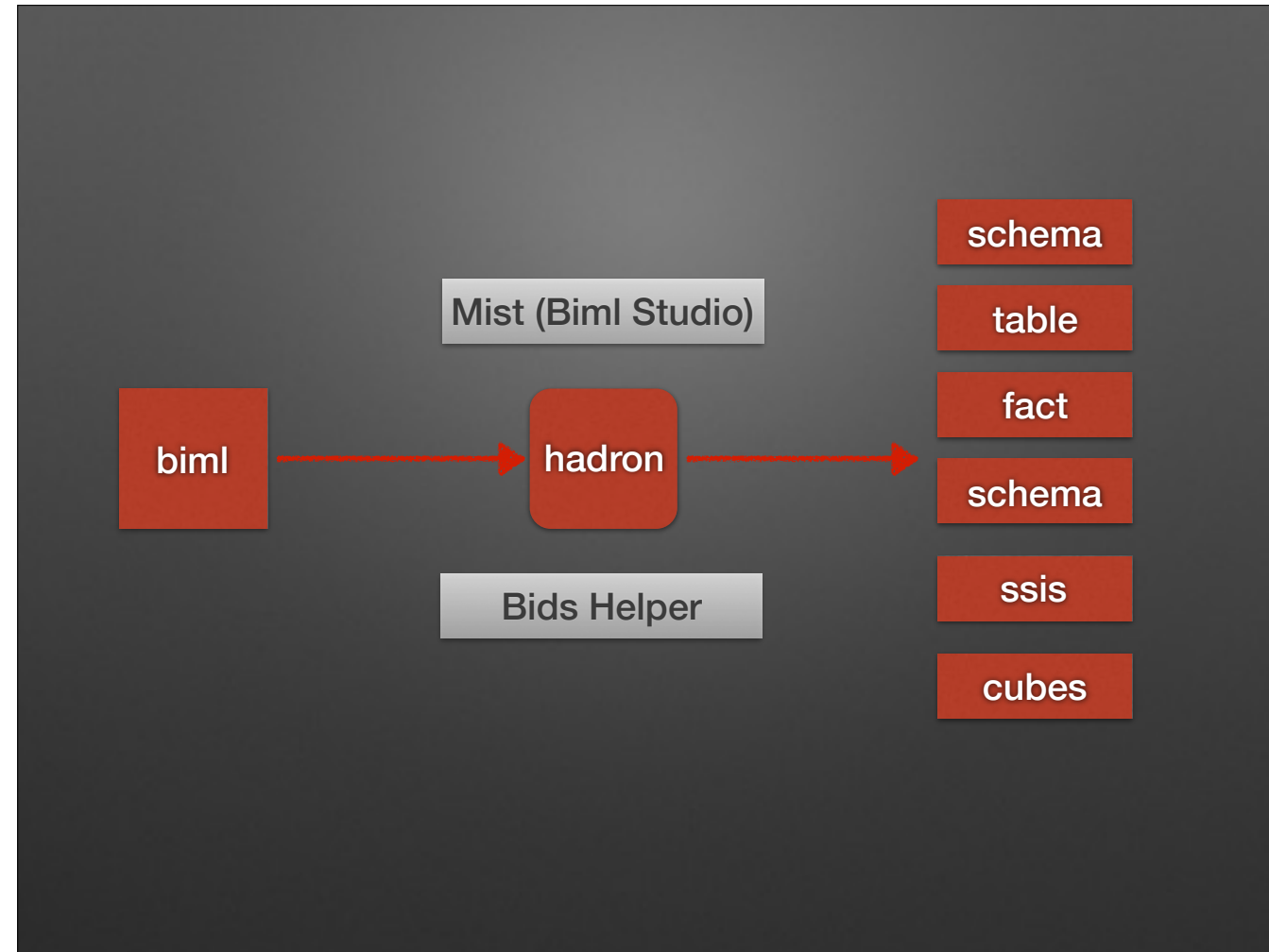
- Basic SSIS knowledge
  - Visual Studio/BIDS/SSDT  
2005/2008/2010/2012/2014
  - BIDS Helper
- or
  - Mist

# Hello World

```
<Biml xmlns="http://schemas.varigence.com/biml.xsd">
  <Packages>
    <Package Name="SimpleBimlPackage"
      ConstraintMode="Linear"
    />
  </Packages>
</Biml>
```



**Demo Hello world**

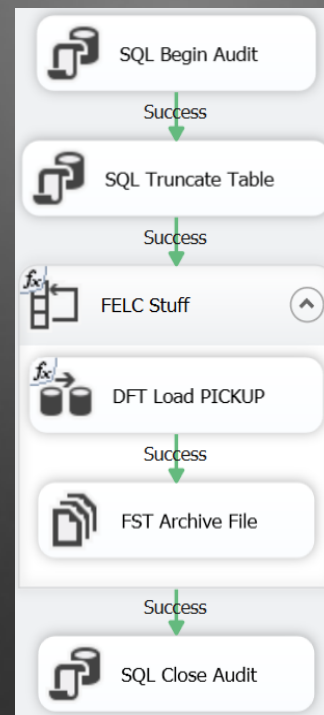


# Basic Data Flow

```
<Package Name="BasicDataFlow" ConstraintMode="Linear">
  <Variables>
    <Variable Name="RowCountNew" DataType="Int32" Namespace="User">0</Variable>
  </Variables>
  <Tasks>
    <Dataflow Name="DFT Basic Dataflow">
      <Transformations>
        <OleDbSource Name="OLE_SRC Demo"
          ConnectionName="AdventureWorks" >
          <DirectInput>
            SELECT SC.CurrencyCode, SC.Name
            FROM Sales.Currency AS SC;
          </DirectInput>
        </OleDbSource>
        <RowCount Name="CNT New"
          VariableName="User.RowCountNew"/>
        <OleDbDestination
          Name="OLE_DST RAW_SalesCurrency"
          ConnectionName="TypeMoreClickLessLocal"
          KeepIdentity="false"
          TableLock="true"
          UseFastLoadIfAvailable="true"
          KeepNulls="true">
          <ExternalTableOutput Table="[RAW].[SalesCurrency]"/>
          <Columns>
            <Column SourceColumn="CurrencyCode" TargetColumn="CurrencyCode" />
            <Column SourceColumn="Name" TargetColumn="CurrencyName" />
          </Columns>
        </OleDbDestination>
      </Transformations>
    </Dataflow>
  </Tasks>
</Package>
```

# Demo Data Flow

# Real World Biml



- Lookups
- Conditional splits

# BimlScript

- Biml + .NET Scripting
- Classic ASP for Biml
- Painful in Visual Studio

# Beware Copy & Paste (before)

```
<Biml xmlns="http://schemas.varigence.com/biml.xsd">
  <Packages>
    <# for(int i = 1; i <= 5; i++) { #>
    <Package Name="MyPackage<#=i#>"
      ConstraintMode="Linear">
      <Tasks>
        <Dataflow Name="My Dataflow">
        </Dataflow>
      </Tasks>
    </Package>
    <# } #>
  </Packages>
</Biml>
```



# Beware Copy & Paste (after)

```
<Biml xmlns="http://schemas.varigence.com/biml.xsd">
  <Packages>
    <# for(int i = 1; i <= 5; i++) { #>
      <Package Name="MyPackage"
        <#=i#>" ConstraintMode="Linear">
        <Tasks>
          <Dataflow Name="My Dataflow">
            </Dataflow>
          </Tasks>
        </Package>
      <# } #>
    </Packages>
  </Biml>
```

# Includes

- `<#@ include file="inc_Connections.biml" #>`

# Useful bimsript

- `GetTableSql`
- `ExternalDataAccess.GetDataTable`
- `CallBimlScript`

Quick Reference: Biml Extensions <http://bimlscript.com/Develop/Resources>

# Mist only

- Transformers
- Reverse engineering
- Cubes
- CI

# Resources

- BimlScript Resources <http://bimlscript.com/Develop/Resources>
- Biml Forum <http://www.varigence.com/Forums?forumName=Biml>
- StackExchange <http://stackoverflow.com/questions/tagged/biml?sort=newest&pageSize=50>

# More bimi resources

- Stairway to Bimi <http://www.sqlservercentral.com/articles/BIML/100552/>
- <http://www.sqlservercentral.com/articles/Stairway+Series/100585/>
- Stairway to Bimi <http://www.sqlservercentral.com/stairway/100550/>
- What is Bimi? - Level 1 <http://www.sqlservercentral.com/articles/BIML/100552/>
- Bimi Basics - Level 2 <http://www.sqlservercentral.com/articles/Stairway+Series/100585/>

<https://datasavvy.wordpress.com/2015/07/22/bimi-for-a-type-1-slowly-changing-dimension/>

Scott Currie	<a href="http://varigence.com/">http://varigence.com/</a>	@scottcurrie
Andy Leonard	<a href="http://andyleonard.net/">http://andyleonard.net/</a>	@andyleonard
Tim Mitchell	<a href="http://www.timmitchell.net/">http://www.timmitchell.net/</a>	@tim_mitchell
David Stein	<a href="http://www.made2mentor.com/">http://www.made2mentor.com/</a>	@made2mentor
Marco Schreuder	<a href="http://blog.in2bi.com/">http://blog.in2bi.com/</a>	@in2bi
Cathrine Wilhelmsen	<a href="http://www.cathrinewilhelmsen.net/">http://www.cathrinewilhelmsen.net/</a>	@cathrinew
Reeves Smith		@SQLReeves
Peter Avenant	<a href="http://bimlscript.com/">http://bimlscript.com/</a>	@BimlDownunder
Meagan Longoria	<a href="http://datasavvy.wordpress.com/">http://datasavvy.wordpress.com/</a>	@mmarie

**Thank you!**

**Stick around for S.M.A.R.T Biml  
Standardize, Model, Automate, Reuse  
and Transform**

Bill Fellows  
[bill.fellows@gmail.com](mailto:bill.fellows@gmail.com)

@billinkc  
<http://blog.billfellows.net/>