

BIML-UP!!

How I use BIML to speed up SSIS development

by Martin Schoombee



About Me

“I help people make sense
of their data”

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GitHub Repo:

<https://github.com/mschoombee/Presentations/wiki/Presentations>



Agenda

- What is BIML
- Reasons to use BIML
- BIML basics
- How I use BIML

A black and white close-up photograph of a young boy's face. He has a questioning or curious expression, with his eyebrows slightly furrowed and his mouth slightly open, showing his teeth. The text "BIML Who?" is overlaid in the center of his face.

BIML Who?

Markup Language

```
<html>  
  <title>Hello World!</title>  
  <body>  
    <p>This is a paragraph...</p>  
  </body>  
</html>
```

Markup Language - Tags

```
<html>
```

```
  <title>Hello World!</title>
```

```
  <body>
```

```
    <p>This is a paragraph...</p>
```

```
  </body>
```

```
</html>
```

Markup Language – Human Readable

```
<html>  
  <title>Hello World!</title>  
  <body>  
    <p>This is a paragraph...</p>  
  </body>  
</html>
```

Markup Language - Properties

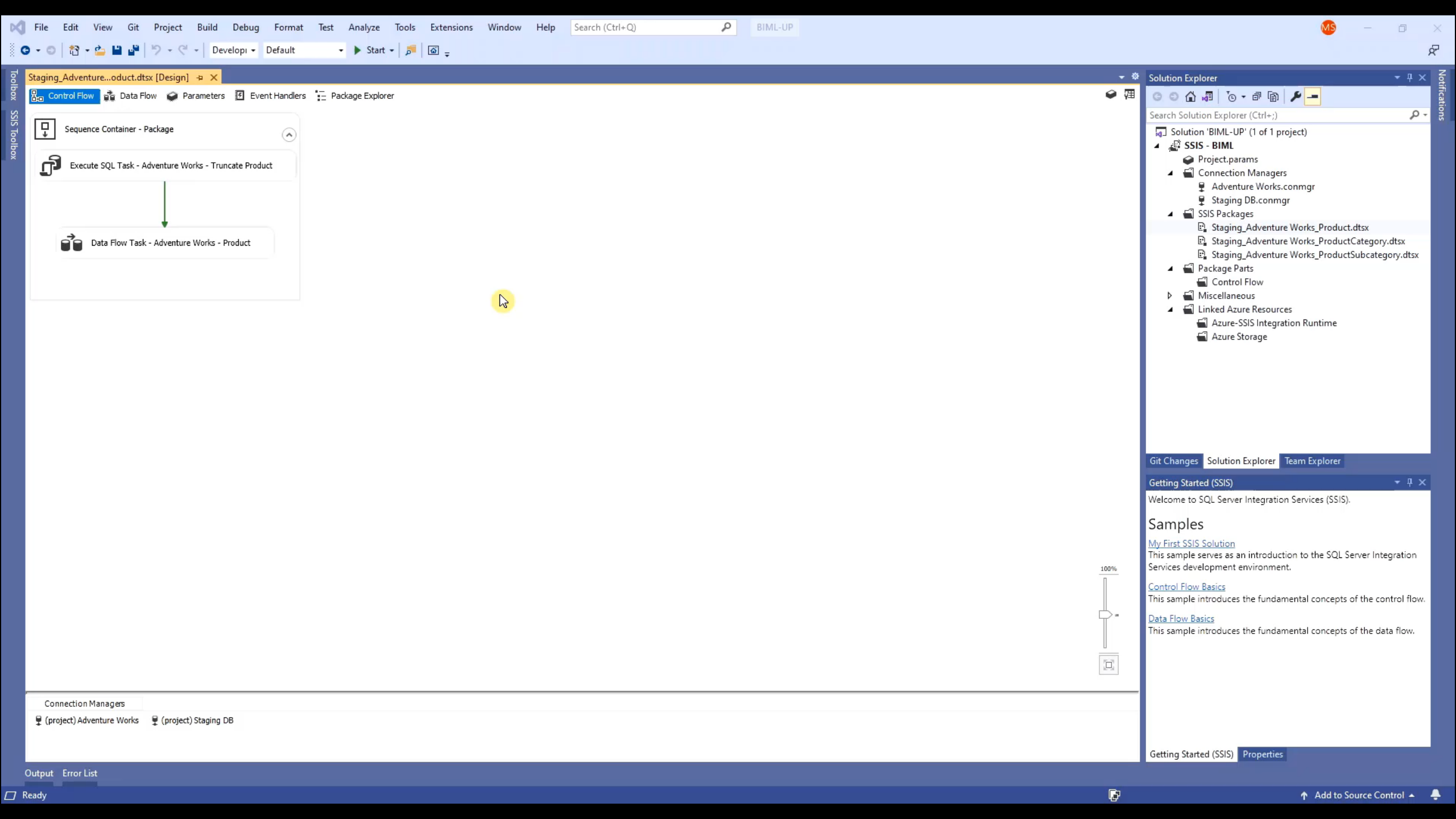
```
<html>  
  <title style="color:blue;">Hello World!</title>  
  <body>  
    <p>This is a paragraph...</p>  
  </body>  
</html>
```

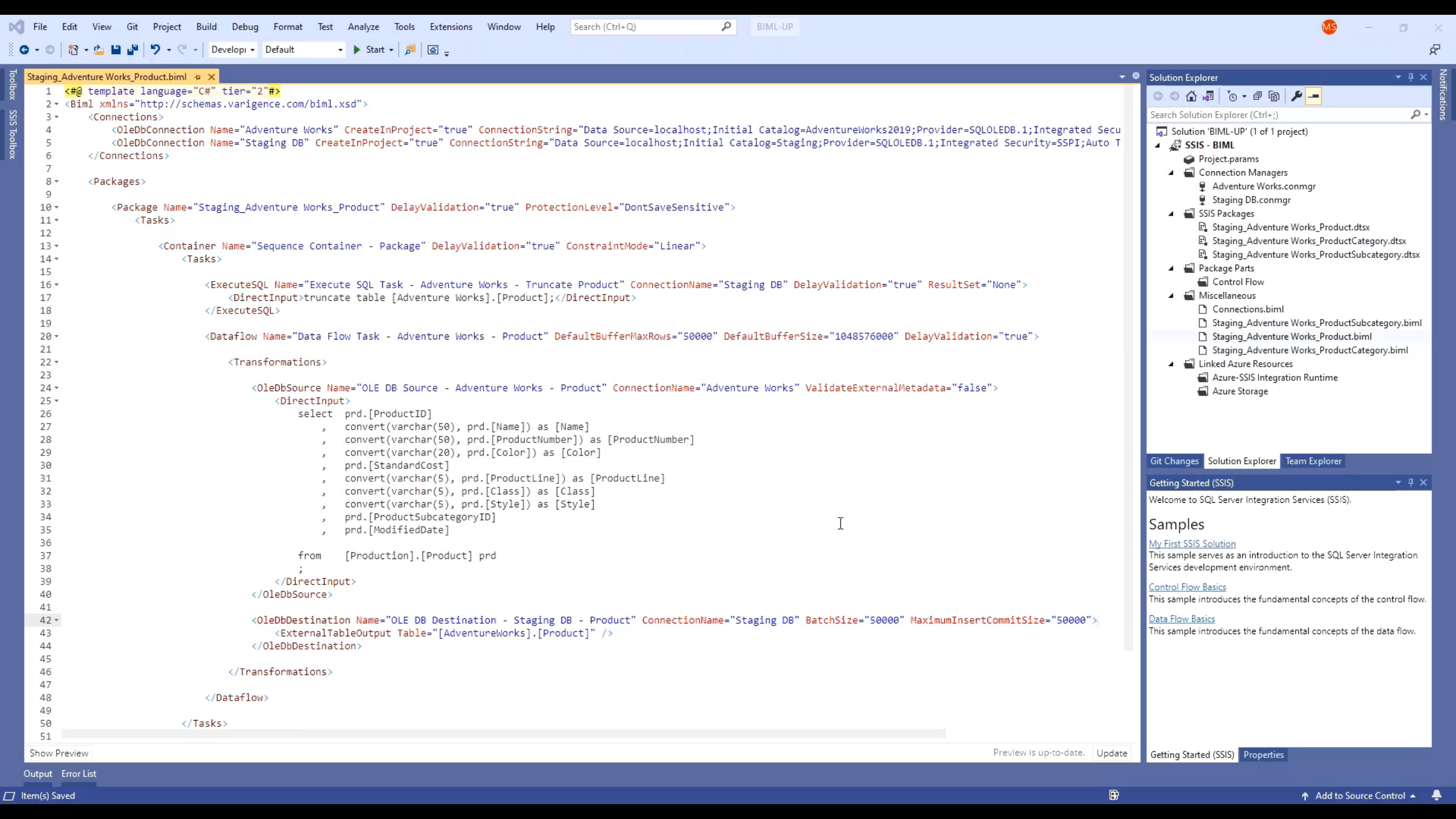

BIML

```
<Biml xmlns="http://schemas.varigence.com/biml.xsd">  
  <Packages>  
    <Package Name="Load Some Data">  
      ...  
    </Package>  
  </Packages>  
</Biml>
```

A photograph of a brown dog, possibly a pit bull mix, standing on its hind legs. The dog is looking upwards and to the left, with its right front paw raised high. It is wearing a dark collar with a red tag. The background is a plain white wall with some peeling paint at the bottom. The text "Why BIML?" is overlaid in the center in a large, white, sans-serif font.

Why BIML?





Reasons to BIML



Photo by [Clem Onojeghuo](#) on [Unsplash](#)

Reasons to BIML

1. Save your mouse...and your sanity!!

Reasons to BIML

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2. Enforce coding standards

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3. Source control

Reasons to BIML

1. Save your mouse...and your sanity!!
2. Enforce coding standards
3. Source control
4. Automation



BIML Basics

A hand holds a white, slightly weathered picture frame in the foreground. The frame is positioned to capture a view of a coastal landscape. The background features a grassy cliff on the left, a sandy beach, and the ocean under a cloudy sky. The text 'Build a Framework' is overlaid in the center in a large, white, sans-serif font.

Build a Framework

A typical ETL framework

1. Connect to data source



A typical ETL framework

1. Connect to data source
2. Extract metadata (tables, fields, etc.)



A typical ETL framework

1. Connect to data source
2. Extract metadata (tables, fields, etc.)
3. Use BIML to generate staging packages



A close-up photograph of a man with long, curly brown hair and a full beard. He is looking upwards and to the left with a wide-eyed, open-mouthed expression, as if in awe or shouting. He is holding a light-colored stick or branch in his right hand, which is raised above his head. The background is a soft-focus outdoor scene with green foliage and a bright sky. The overall tone is warm and natural.

I'm not “most people”...

Why am I different?

1. Don't want all source tables
2. Want a subset of attributes
3. May need to change data types





Ok, I'm not that different

My ETL development process

1. Identify source system(s)

My ETL development process

1. Identify source system(s)
2. Identify source attributes

My ETL development process

1. Identify source system(s)
2. Identify source attributes
3. **Create staging tables**

My ETL development process

1. Identify source system(s)
2. Identify source attributes
3. Create staging tables
4. **Develop staging SSIS packages**

My ETL development process

1. Identify source system(s)
2. Identify source attributes
3. Create staging tables
4. Develop staging SSIS packages
5. Oops, I forgot something!

My ETL development process

1. Identify source system(s)
2. Identify source attributes
3. Create staging tables
4. Develop staging SSIS packages
5. Oops, I forgot something!
6. Back to step 2 (x 10)...

My ETL development process

...

24. Develop fact table procedures

25. Oops, I forgot something!

My ETL development process

...

24. Develop fact table procedures

25. Oops, I forgot something!

26. Back to step 2 (x 20)...

My ETL development process

...

104. Show new report to end user

My ETL development process

...

104. Show new report to end user

105. User wants another measure

My ETL development process

...

104. Show new report to end user

105. User wants another measure

106. Oops, I need a new source attribute!

My ETL development process

...

104. Show new report to end user

105. User wants another measure

106. Oops, I need a new source attribute!

107. Back to step 2 (x 100)



In a perfect world...

- Script tables



In a perfect world...

- Script tables
- Generate staging packages



In a perfect world...

- Script tables
- Generate staging packages
- **Generate parent packages**



In a perfect world...

- Script tables
- Generate staging packages
- Generate parent packages
- **Reduce impact/risk**



In a perfect world...

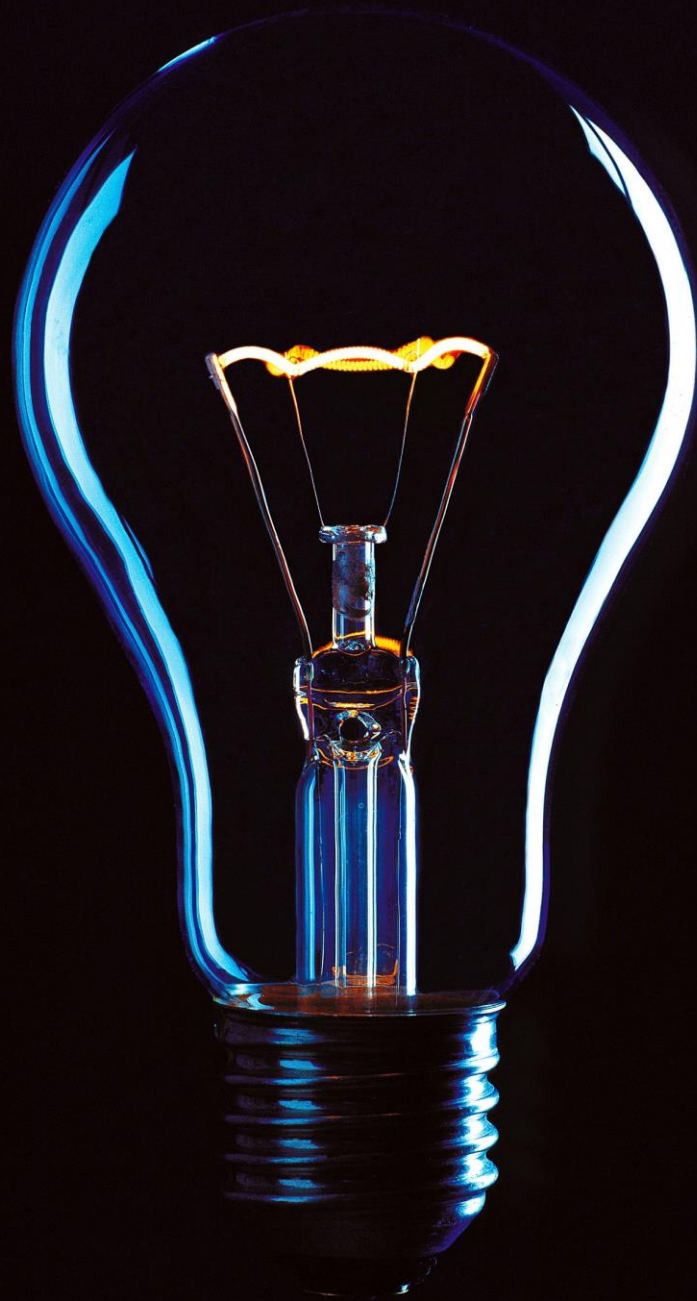
- Script tables
- Generate staging packages
- Generate parent packages
- Reduce impact/risk
- **Speed up development**



In a perfect world...

- Script tables
- Generate staging packages
- Generate parent packages
- Reduce impact/risk
- Speed up development
- **Assist with documentation**







Demo time...

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