

XML Spy Tutorial Lab 3


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What is XSLT?

XSLT (**Extensible Style sheet Language Transformations**) is an XML-based language used for the transformation of XML documents to other human-readable format, such as HTML / PDF. The original document will not be changed; a new document (HTML / PDF) is created based on the content of an existing file (XML).

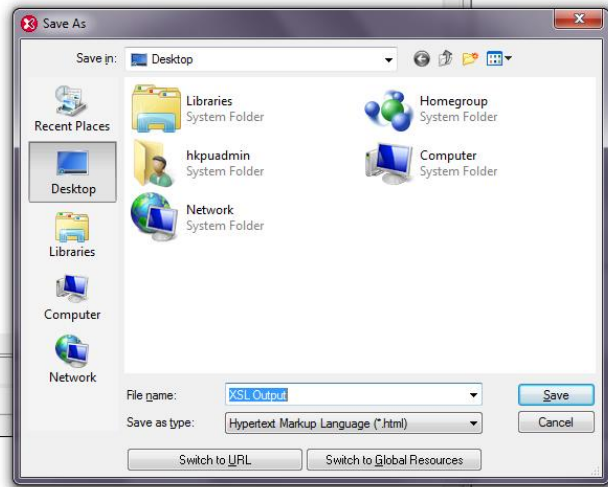
XSL Transformation in XMLSPY

1. Download AddressLast.xsd, comapnyLast.xml and Company.xsl
2. Open the XMLspy
3. Open the companyLast.xml
4. Select the menu option XSL/XQuery | XSL Transformation (F10) or click 
5. Select Company.xsl
6. This starts the transformation using the XSL style sheet referenced in the XML document.
7. Since the Company.xsl file is an XSLT 1.0 document, the built-in Altova XSLT 1.0 Engine is automatically selected for the transformation.
8. The output document is displayed in Browser View; it has the name XSL Output.html.
9. Save the output as HTML

Your Company

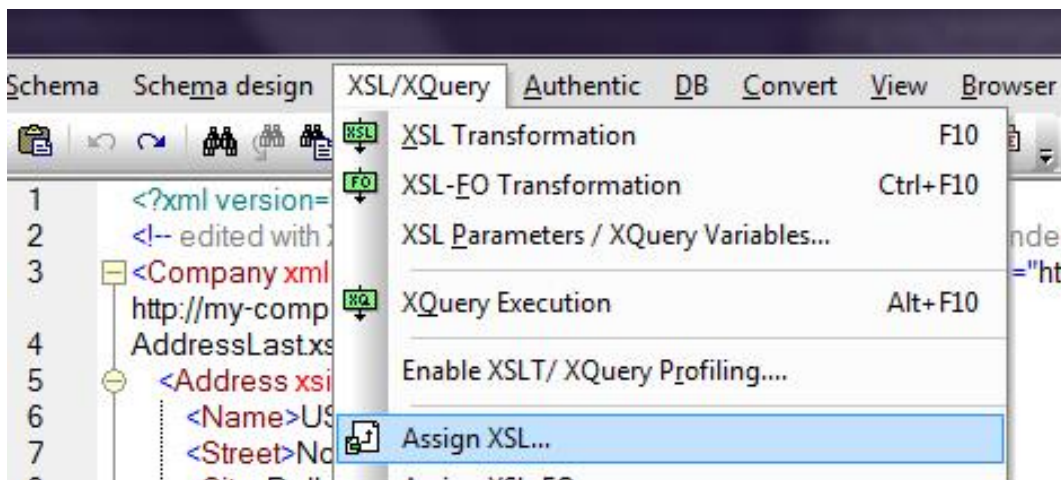
Name: US dependency
Street: Noble Ave.
City: Dallas
State: Texas
Zip: 04812

First	Last	Ext.	E-Mail	Manager	Degree	Programmer
Alfred	Aldrich	33	Aldrich@work	false	MA	true
Colin	Coletti	444	Coletti@work.com	true	Ph.D	false
Fred	Smith	22	Smith@work.com	true	BA	false



Assign an XSLT to XML file

1. Click the CompanyLast.xml
2. Select the menu command [XSL/XQuery] > [Assign XSL]
3. Select the Company.xml file



4. Click OK to assign the XSL file to the XML document
5. Switch to Text View to see the assignment

```

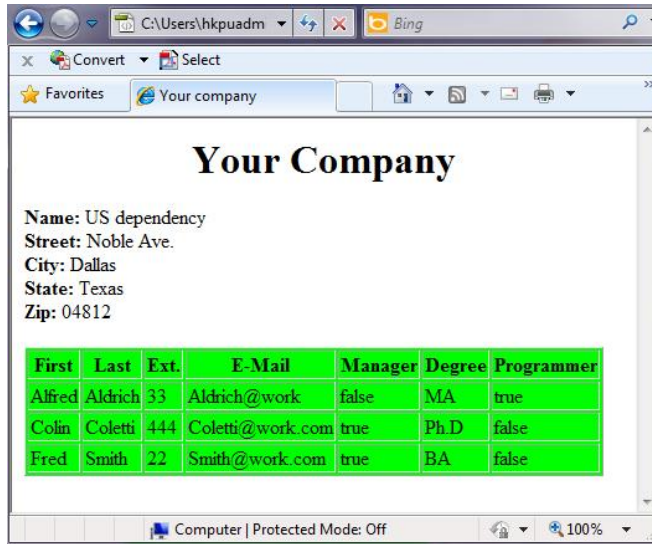
1  <?xml version="1.0" encoding="UTF-8"?>
2  <!-- edited with XML Spy v4.0.1 U (http://www.xmlspy.com) by Alexander Pilz (private) -->
3  <?xml-stylesheet type="text/xsl" href="file:///C:/Users/hkpuadmin/Desktop/Company.xml"?>
4  <Company xmlns="http://my-company.com/namespace" xmlns:xsi="http://www.w3.org/2001/

```

6. Switch to Grid View to see the assignment



7. Browse the compLast.xml in Internet Explorer



Study the XSLT code

The diagram illustrates the structure and execution of an XSLT stylesheet. It shows the transformation of an XML document into HTML output, with annotations explaining key components and XPath expressions used throughout the code.

Annotations:

- XPath (root):** Points to the root element `<?xml version="1.0" encoding="UTF-8"?>` at line 1.
- HTML Format:** Points to the `<html>` element at line 8, which is the output of the `<xsl:template match="/">` block.
- Apply XSLT Template:** Points to the `<xsl:apply-templates select="//my.Address"/>` element at line 11, which applies the `my.Address` template to all `my.Address` elements in the source document.
- XSLT Template:** Points to the `<xsl:template match="my.Address">` element at line 28, which defines the output for `my.Address` elements.
- XQuerv (Each Element):** Points to the `<xsl:for-each select="*">` element at line 39, which iterates over each element in the current context.
- XQuerv (Each Attribute):** Points to the `<xsl:for-each select="@*">` element at line 43, which iterates over each attribute in the current context.

XSLT Code:

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
3   xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance"
4   xmlns:my="http://my-company.com/namespace">
5
6   <xsl:template match="/">
7     <html>
8       <head> <title>Your company</title></head>
9       <body>
10        <h1><center>Your Company</center></h1>
11        <xsl:apply-templates select="//my.Address"/>
12        <table border="1" bgcolor="lime">
13          <thead align="center">
14            <td><strong>First</strong></td>
15            <td><strong>Last</strong></td>
16            <td><strong>Ext </strong></td>
17            <td><strong>E-Mail</strong></td>
18            <td><strong>Manager</strong></td>
19            <td><strong>Degree</strong></td>
20            <td><strong>Programmer</strong></td>
21          </thead>
22          <xsl:apply-templates select="//my.Person"/>
23        </table>
24      </body>
25    </html>
26  </xsl:template>
27
28  <xsl:template match="my.Address">
29    <strong>Name: </strong><xsl:value-of select="my.Name"/><br/>
30    <strong>Street: </strong><xsl:value-of select="my.Street"/><br/>
31    <strong>City: </strong><xsl:value-of select="my.City"/><br/>
32    <strong>State: </strong><xsl:value-of select="my.State"/><br/>
33    <strong>Zip: </strong><xsl:value-of select="my.Zip"/><br/>
34    <br/><br/>
35  </xsl:template>
36
37  <xsl:template match="my.Person">
38    <tr>
39      <xsl:for-each select="*">
40        <td><xsl:value-of select="."/></td>
41      </xsl:for-each>
42
43      <xsl:for-each select="@*">
44        <td><xsl:value-of select="."/></td>
45      </xsl:for-each>
46    </tr>
47  </xsl:template>
48</xsl:stylesheet>
```