Introduction

- XSLT – eXtensible Style sheet Language for Transformations
- Purpose is to transform XML documents from one format into another
- XSLT is an XML language
How do we use it?

- Use XSLT to convert XML documents at server and send to client.
Two ways of using XSLT

- Server side processing
  - Server does XSLT transformations on server and sends HTML to client

- Client-side processing
  - Server sends XML and the XSLT style sheet to the client which does the transformation
  - Browser support: IE 6.0
Using XSLT

- Multiple ways
  - From the command prompt
  - Using a GUI
    - From [http://www.marchal.com](http://www.marchal.com)
XSLT basics

- An XSLT processor merges an XML document into an XSLT style sheet
  - This merging is a template-driven process
- An XSLT style sheet can specify page layout, page orientation, writing direction, margins, page numbering, etc
- To connect an XSLT style sheet to an XML document (client-side processing)
  ```xml
  <?xml-stylesheet type = "text/xsl" href = "XSLT style sheet"?>
  ```
- An XSLT style sheet can specify page layout, page orientation, writing direction, margins, page numbering, etc
Examples

- greeting.xml, greeting.xsl and greeting.html
Template matching

- An XSLT style sheet is an XML document with a single element, stylesheet, which defines namespaces
  
  ```xml
  <xsl:stylesheet xmlns:xsl = "http://www.w3.org/1999/XSL/Format">
  ```

- If a style sheet matches the root element of the XML document, it is matched with the template:

  ```xml
  <xsl:template match = "/">
  ```
XSLT basics

- A template can match any element, just by naming it (in place of /)
- XSLT elements include two different kinds of elements, those with content and those for which the content will be merged from the XML doc
- Elements with content often represent HTML elements

\[\text{<span style = "font-size: 14">}\]

\begin{align*}
\text{Happy Easter!}
\end{align*}

\[\text{</span>}\]
XSLT basics

- XSLT elements that represent HTML elements are simply copied to the merged document
- The XSLT value-of element
  - Has no content
  - Uses a select attribute to specify part of the XML data to be merged into the XSLT document
- `<xsl:value-of select = "CAR/ENGINE"/>
- The value of select can be any branch of the document tree