HS7-416: Technical Writing

Word Processing

Lecture 6

Organisation of topics

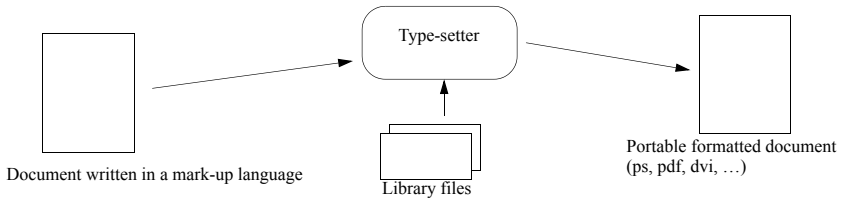
- Word processors classification
  - Interactive/batch
  - Separate/coupled formatting and logical structure
- Examples
  - TeX/LaTeX
  - Microsoft Word
  - SGML/XML-based systems

What should a word processor offer?

- Typing
- Formatting
- Generating page numbers, table of contents, index, …
- Spelling/grammar checking, word counting
- Document portables

Current Systems: Interactivity vs. batch processing

- Interactive (WYSIWYG) word processor
- Batch (compiler-based) word processor (type-setting system)



Advantages/disadvantages

- Portables: usually i/p is written in ASCII
- Full control: can use other tools for preprocessing
- Too much for short documents!
- Steep learning curve

Current Systems: Formatting and logical structure

- Traditional way
  1- The author writes a script that doesn't contain *any* formatting instructions
  2- The type-setter produces a high-quality document
- WYSIWYG way
  - Both formatting and structuring happen at one step

An example (from JIKES user guide)

```
\documentclass{article}

...

\makeindex

\begin{document}

\maketitle
\date{}

...

\T \newpage
\section{Introduction}
\input{intro}
...
\end{document
```


Intro.tex

```
\subsection {Welcome to RVM}

The Jikes\JikesTMFootnote RVM is a Research Virtual Machine
developed at the \xlink{IBM}{\IBMURL} \xlink{T.J.\ Watson
Research Center}{\WatsonURL}.  Key features of RVM include

\begin{itemize}
\item the entire virtual machine (VM) is implemented in the
  Java\JavaTMFootnote  programming language,
\item the VM utilizes two compilers and no interpreter,
\item a family of parallel, type-exact garbage collectors,
\item a lightweight thread package with compiler-supported
preemption,
\item an aggressive optimizing compiler, and
\item a flexible online adaptive compilation infrastructure.
\end{itemize}
```

1 Introduction

1.1 Welcome to RVM

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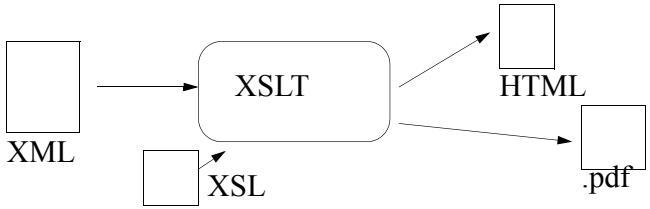
SGML/XML approach

- Standard Generalized Markup Language
  - XML: Extensible Markup Language (subset of SGML)
  - XSL: Extensible Style Sheet Language
  - XSLT: XSL transformation



XML Document

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE article SYSTEM "file:///C:/xml/xdocbook/app/doc-
bookx.dtd" [

<!-- Begin Document Specific Declarations -->


<!-- End Document Specific Declarations -->

]>

<article>
  <articleinfo>
    <title>The document title</title>
  </articleinfo>

<para>This is the first paragraph. The following is a list.</
 para>
```



```
<itemizedlist>
  <listitem><para>This is item number one </para></listitem>
  <listitem><para>This is item number two </para></listitem>
</itemizedlist>

</article>
```

Summary and links

- Single source authoring systems
- TeX/LaTeX
  - www.tug.org
- Docbook
  - www.docbook.org