



ANYONE
ANY TIME

ANYONE

any place, any device

ANY

ANY

anyone anytime anyplace

an

ANYONE ANY TIME



Inspiration becomes reality.

Open Publish
Sydney, AU
July 30, 2001

XML and PDF in
Publishing

Charles Myers, ePaper Solutions Business Development
crm@adobe.com



Agenda

- XML/Publishing Overview
- XML/PDF integration in Acrobat 5.0
- Resource Pointers

XML Publishing Overview

HTML

- HTML is a “markup language”
 - “Hypertext Markup Language”

Plain Text (Lincoln's E-Mail)

To: Edward Everett

From: Abraham Lincoln

Subject: FYI--President's Official Dedication to be Delivered After Your Oration

Date: November 18, 1863

Four score and seven years ago our fathers brought forth on this continent, a new nation, conceived in Liberty, and dedicated to the proposition that all men are created equal.

Now we are engaged in a great civil war, testing whether that nation, or any nation so conceived and so dedicated, can long endure. We are met on a great battle-field of that war. We have come to dedicate a portion of that field, as a final resting place for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this.

Plain Text (Lincoln's E-Mail)

But, in a larger sense, we can not dedicate—we can not consecrate — we can not hallow — this ground. The brave men, living and dead, who struggled here, have consecrated it, far above our poor power to add or detract. The world will little note, nor long remember what we say here, but it can never forget what they did here. It is for us the living, rather, to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us—that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion—that we here highly resolve that these dead shall not have died in vain—that this nation, under God, shall have a new birth of freedom—and that government of the people, by the people, for the people, shall not perish from the earth.

November 19, 1863. Abraham Lincoln.

To: Edward Everett
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Marked-Up Text (Lincoln's E-Mail)

```
<html>
<body bgcolor="#FFFFFF">
  
  <font style="font-family:'AdobeCorpID-MyriadRg'; font-size:'2';">
  <table>
    <tr><td height="80" width="15%" valign="bottom">
      <font style="font-style:italic; color:#0055ff">To:</font></td>
      <td valign="bottom"><font style="color:#808080">Edward
                          Everett</font></td>
    </tr><tr><td>
      <font style="font-style:italic; color:#0055ff">From:</font></td>
      <td><font style="color:#808080">Abraham Lincoln</font></td>
    </tr><tr><td valign="top">
      <font style="font-style:italic;color:#0055ff">Subject:</font></td>
      <td><font style="color:#808080">FYI--President's Official
          Dedication to be Delivered After Your Oration</font></td>
    </tr>
```

Marked-Up Text (Lincoln's E-Mail)

```
<tr><td>
```

```
<font style="font-style:italic; color:#0055ff">Date:</font></td>
```

```
<td><font style="color:#808080">November 18, 1863</font></td>
```

```
</tr>
```

```
</table>
```

```
</font>
```

```
<hr/>
```

```
<p>
```

```
<font style="font-family:'AdobeCorpID-MinionRg';">
```

```
<font size="5" color="red">F</font>our score and seven years ago  
our fathers brought forth on this continent, a new nation, conceived in  
Liberty, and dedicated to the proposition that all men are created  
equal.
```

```
</font></p>
```

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</p><p>

November 19, 1863. Abraham Lincoln.

</p>

</body>

</html>

What are markup languages and XML?

- **HTML is a Markup Language**
 - “HyperText Markup Language”
- **XML is NOT a Markup Language (in spite of what the name says)**
 - eXtensible Markup language
- **XML is a standardized way to create Markup Languages**
 - Many, many Markup Languages...

XML **for** Business Cards

- Markup Language for Business Cards
(my own invention)

```
<businesscard>
  <name sex="M" suffix="Jr." >Joe Smith</name>
  <title>Principal Scientist</title>
  <company>
    <name>Adobe Systems Incorporated</name>
    <address>345 Park Avenue</address>
    <address>San Jose, Ca 95110-2704</address>
    <phone> (408) 536-6000</phone>
    <fax> (408) 537-4042</fax>
  </company>
  <email>jsmith@adobe.com</email>
</businesscard>
```

XML for Parts (in catalog)

- Markup Language for Parts
(also my own invention)

```
<part>
  <itemname style="claw">Hammer</itemname>
  <supplier>
    <name>Hammers R Us</name>
    <partnumber>000-123-987</partnumber>
  </supplier>
  <ournumber>99227-044</ournumber>
  <inventory>
    <onhand>47</onhand>
    <cost>11.00</cost>
  </inventory>
  <price>22.50</price>
</part>
```

XML **for**...

- Letters
- Business Cards
- Technical Manuals
- Graphics
- Financial Information
- Protocols
- Metadata

XML Markup Languages

- SVG – XML for Scalable Vector Graphics
- OEB – XML for Electronic Books
- SMIL – XML for Synchronized Multimedia Integration Language
- JDF – XML for Job Definition Format (Print Job Tickets)
- XBRL – XML for Business Reporting (SEC disclosure)
- NewsML – XML for News Stories
- ebXML – XML for Electronic Commerce Transactions (from EDI)
- DocBook – XML for Software Documentation (from SGML)
- XHTML – XML for web browsers

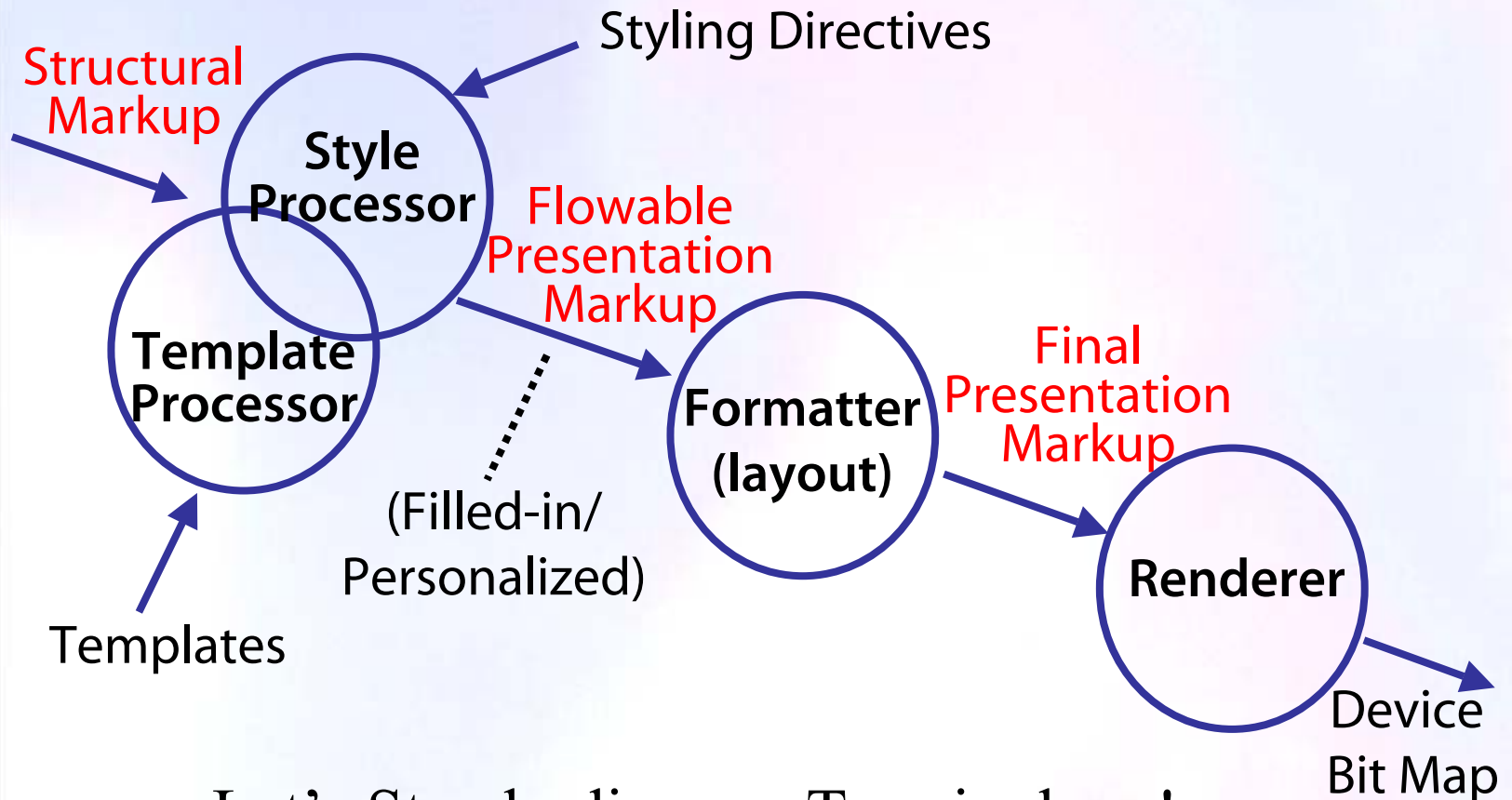
Or, check the “XML Catalog” at
[http:// www.xml.org](http://www.xml.org)

So...

Let's Look at Publishing Abstractly

Processing Markup (for Presentation)

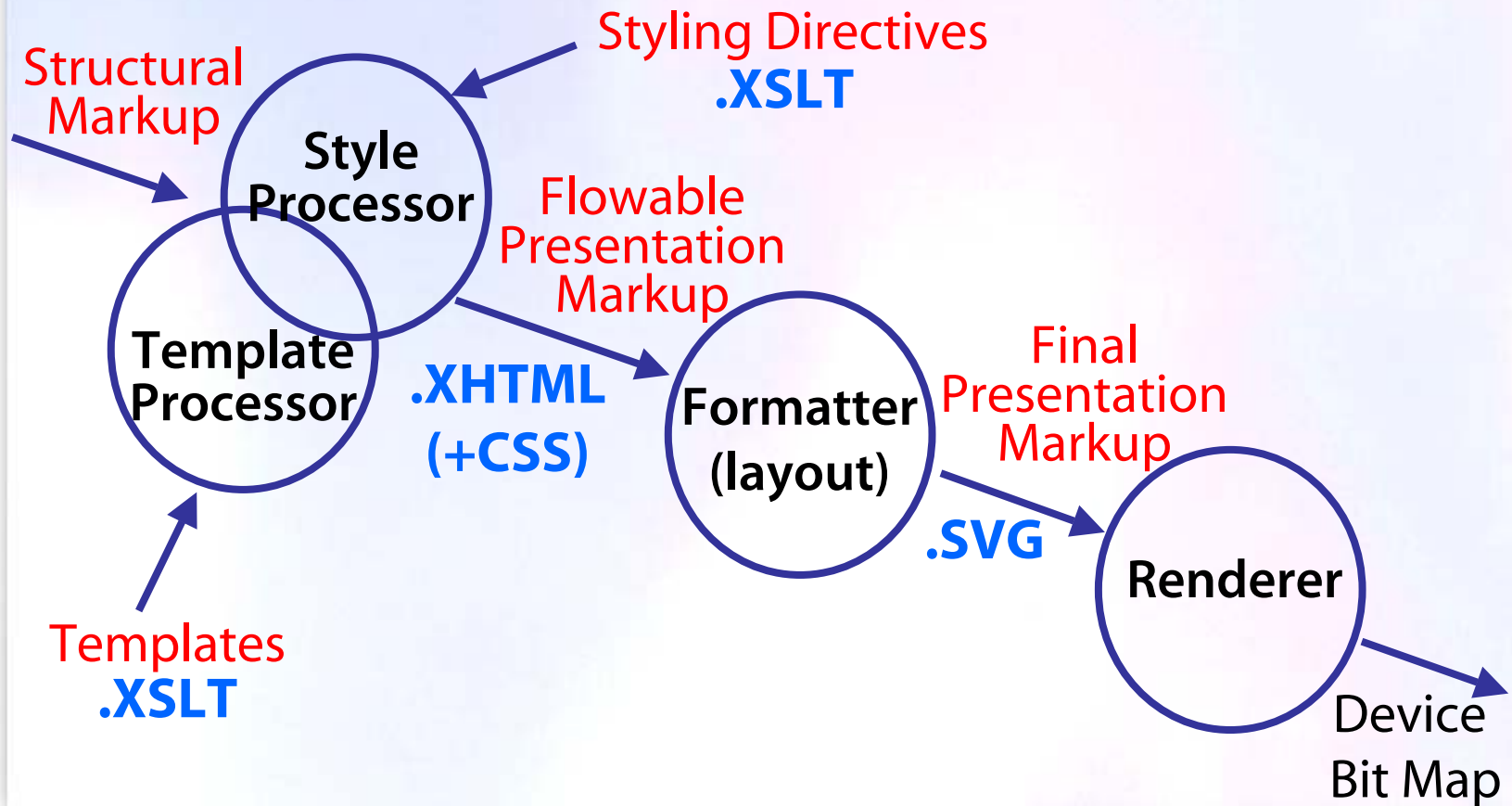
- From Markup to Bit Maps



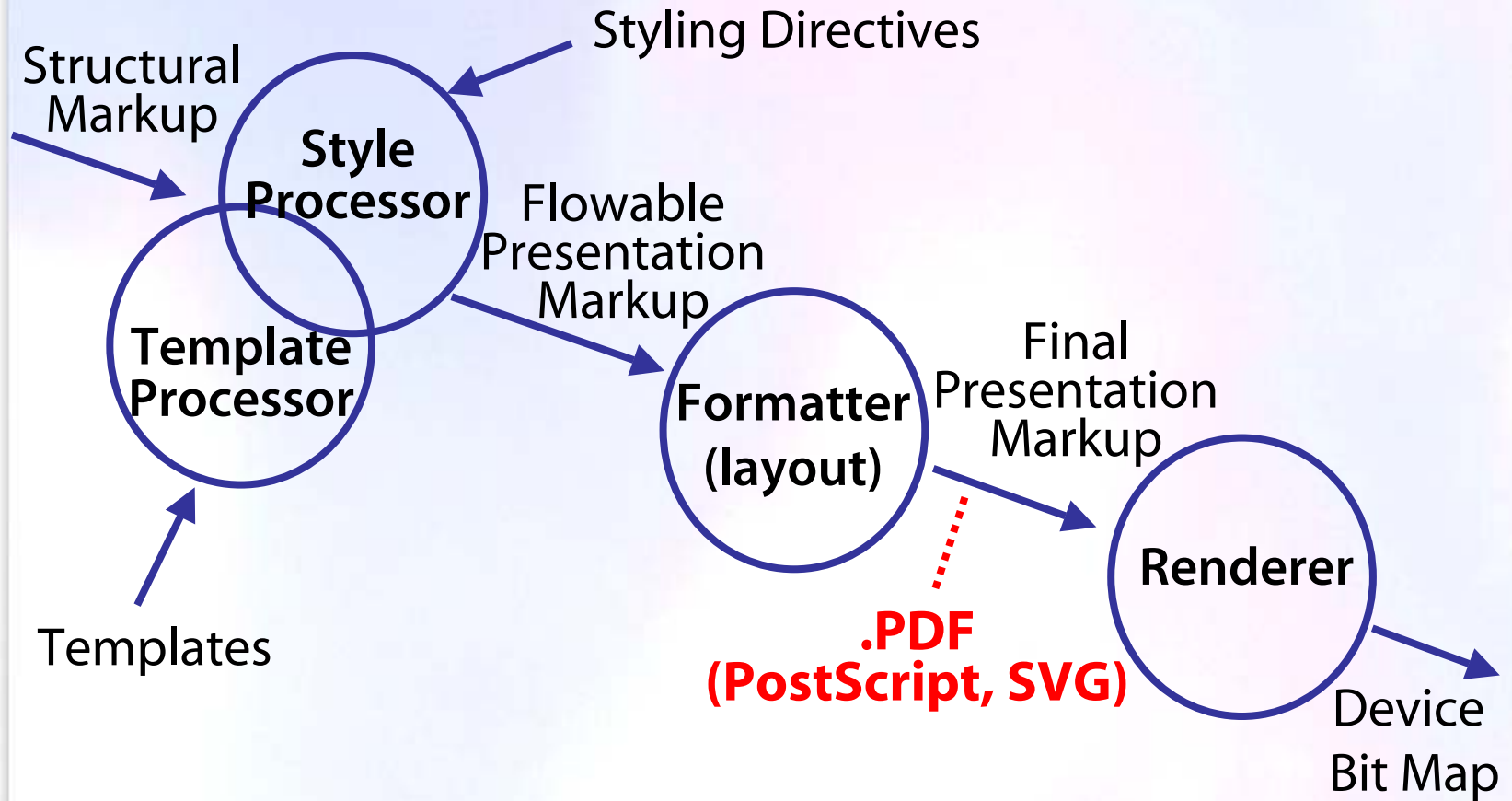
Let's Standardize our Terminology!

XML Markup Languages

- Examples exist for all **red** items



PDF



And the most common question is:

“Should I do XML **or PDF when publishing?”**

The Answer is **Both**

- But let's look at some analogies first
- **Music: Sheet Music**
 - WAV/AU, CD, MP3
- **Movie: Screenplay**
 - Performance (Live or Video)
- **Published Content: Tagged Source, Databases**
 - Layed-out text (books, magazines, bills, reports)

Publishers need both XML and PDF

- XML is for Structured Information
 - Describes what elements are and do
 - Main virtue: Flexibility (=adaptability)
- PDF is for Electronic Page Packages
 - Describes appearance of typeset page
 - Main virtue: Inflexibility (=stability)

The bad news: there's no magic button

- XML takes work—defining what you want and tagging what you've got
- PDF takes work—defining the design and formatting the pages
- The good news: there's real consensus
 - XML frees data from proprietary codes
 - PDF frees pages from display problems, retains your desired style

XML at Adobe

- It is being implemented with nearly everything...
 - InDesign, FrameMaker+SGML, PageMaker
 - GoLive – Dynamic Link
 - SVG – Illustrator
 - Photoshop, Illustrator
 - JDF
 - Metadata
 - Asset Management/ Workflow (InScope)
 - Standards usage: ICE, Soap, Webdav

Adobe's XML Taxonomy

- XML **for** data
- XML **for** metadata
- XML **for** presentation: display and delivery
- XML **for** arbitrary content storage

Focus on XML within Acrobat 5.0

- XML **for** forms data (XFDF)
- XML **for** embedded data
- XML **for** metadata (XAP, RDF)
- XML **for** content structure in PDF (Tagged PDF)
 - Structure for reflowable display on desktop PCs, PDAs and other handheld devices, such as eBooks
 - Structure for accessibility
 - Structure for Saveas RTF (XML, HTML in beta form)

Demonstration

- XML forms data
- Tagged PDF Creation
- Tagged PDF Usage
- SaveAs
- XAP Metadata

Tagged PDF Visual Example

XML View (illustrative)

```
<Body>
```

```
<Thought>First Para</Thought>
```

```
<Idea>Second <?page-break>Para</Idea>
```

```
<P>Third Para</P>
```

```
</Body>
```

Tagged PDF Visual Example

Page View



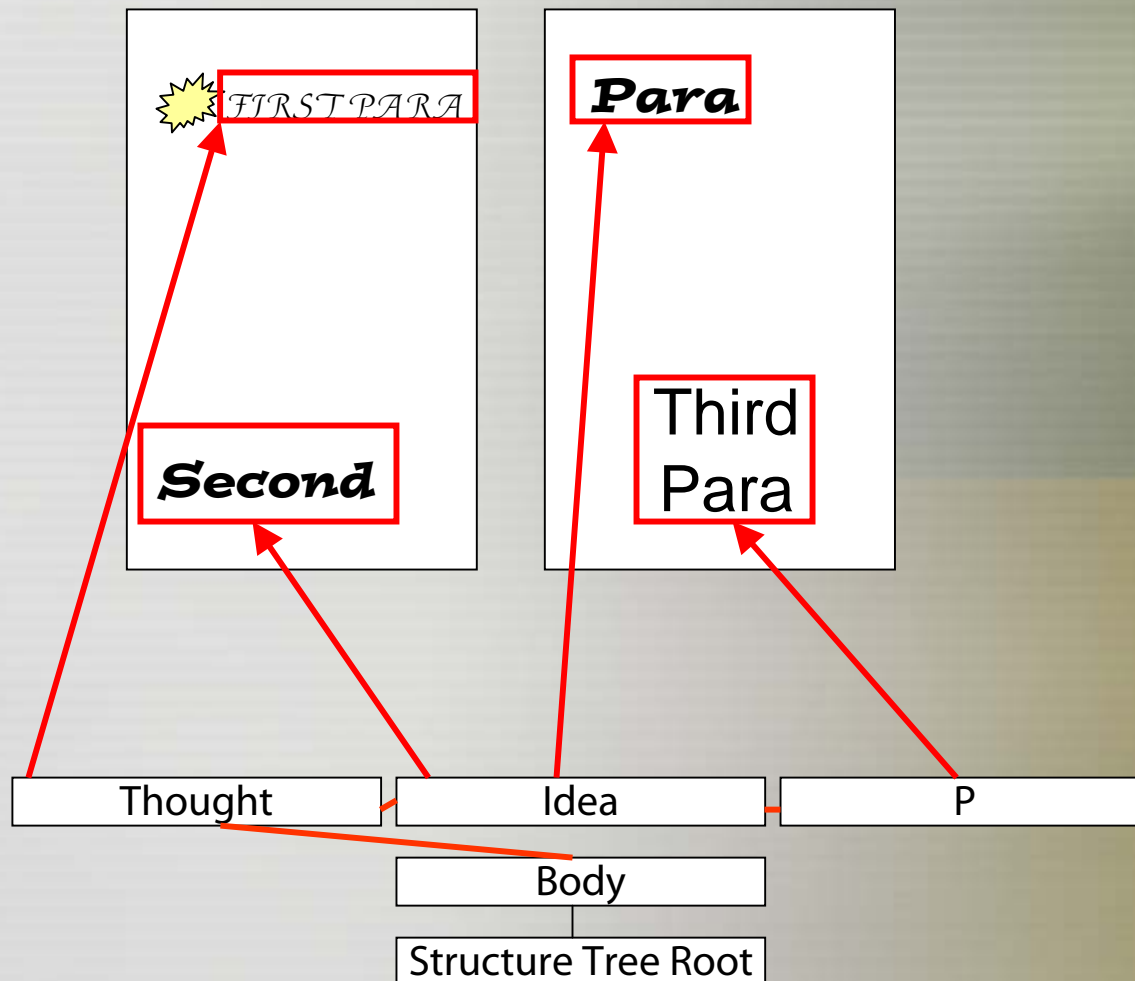
FIRST PARA

Second

Para

Third
Para

Tagged PDF Visual Example Page/Structure View



Methods to Create Tagged PDF files

- **Adobe products –**
 - Tags panel/ touchup for manual insertion (rudimentary operations)
 - Acrobat 5/ Office 2000, WebCapture, MakeAccessible plugin
 - Authoring tools - PageMaker
 - Future – InDesign, FrameMaker
- **PostScript generators - Distiller/ pdfmark**
- **Acrobat API (& PDF Libraries)**
- **Direct PDF generation**

XML and PDF Integration Summary

- XML is neutral source format, for driving web, print, wireless
- XML needs formatting and presentation, which Adobe tools provide
- PDF is the best multi-platform, device independent container for formatted representation of XML
- PDF preserves information value and metadata from XML and other sources
- XML and RDF (XAP) give clear integration points between Processes/Repositories and PDF
- XML **and** PDF, not XML or PDF

The Elevator Edition...

- XML **for**...
- XML **and** PDF, not XML or PDF

Adobe Resources

- **Acrobat 5 SDK**
 - PDF Reference Manual
 - PDF Changes From Version 1.3 to 1.4 (Tagged PDF Section)
 - pdfmark Reference Manual
 - Acrobat Core API Reference
 - Section 9 - PDSEdit - Creating and Editing Logical Structure
- **Adobe Solutions Network (ASN)**
 - <http://partners.adobe.com/asn/developer/acrosdk/acrobat.html>
 - <http://partners.adobe.com/asn/webseminars>

Web Resources

- **Make Accessible plugin (and doc)**
 - <http://www.adobe.com/support/downloads/88de.htm>
 - <http://access.adobe.com/whitepaper.html>
- **Saveas Beta plugin on Adobe**
 - <http://www.adobe.com/support/downloads/main.html>
- **Acrobat Reader for PalmOS**
 - <http://www.adobe.com/products/acrobat/readerforpalm.html>
- **www.adobe.com for Acrobat**
 - <http://www.adobe.com/epaper/main.html>
- **XML and PDF: Why We Need Both**
 - http://www.impressions.com/resources_pgs/SGML_pgs/XML_PDF.pdf

For more Technical Details

- Come to the Thursday 9:45 session
XML and PDF – The Inside Story



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