Markup UK 2020 Webinar

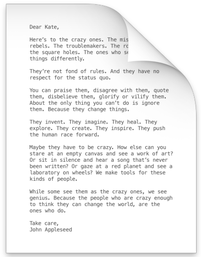
XProc 3.0 series

Text documents in XProc

What is a text document?

+ Every document with content-type "text/*"
  - Except "text/xml" → XML document
  - Except "text/html" → HTML document
+ application/relax-ng-compact-syntax
+ application/xquery
+ application/javascript
+ Implementation defined content-types.

What is a text document?

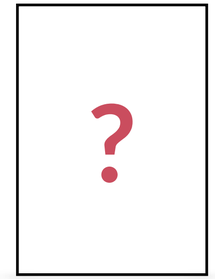


plain text

XQuery

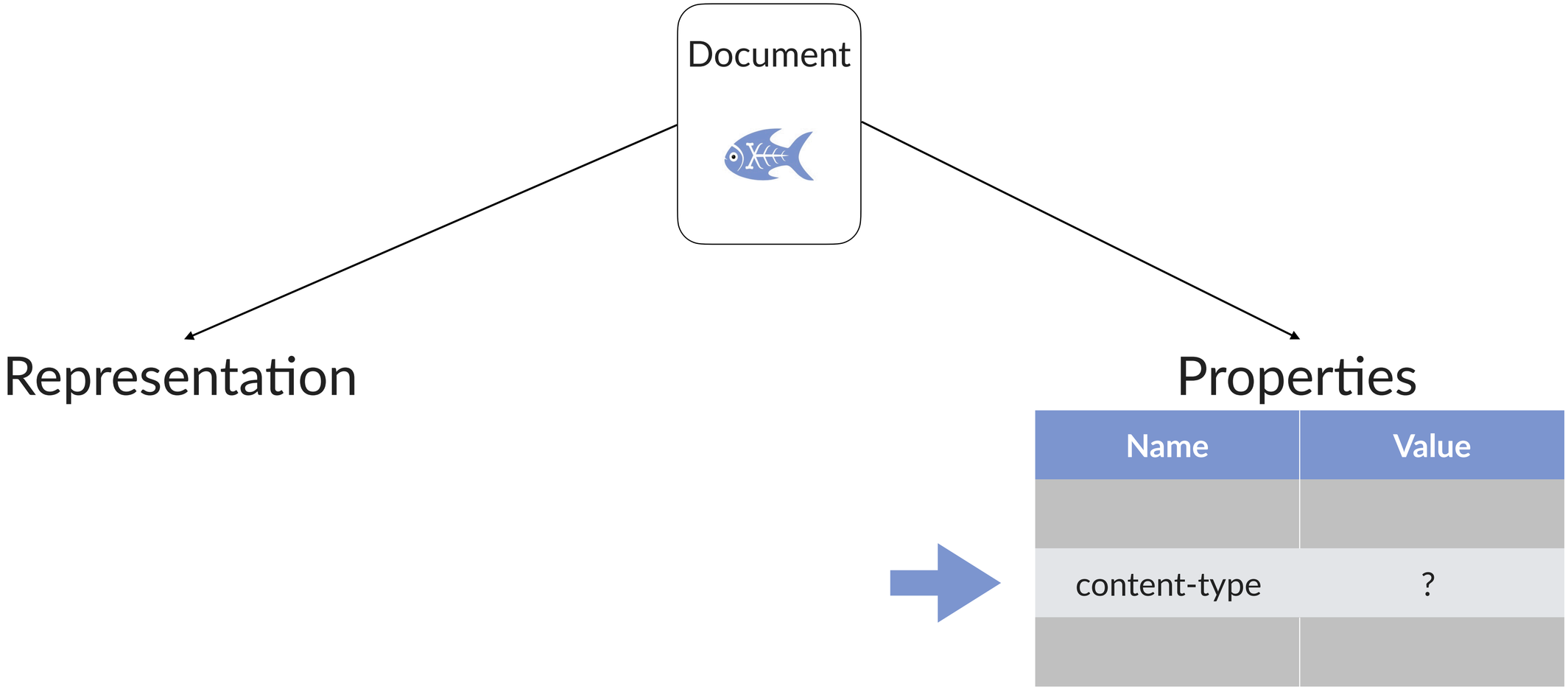
markdown

CSV

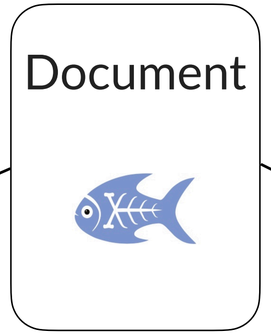


...

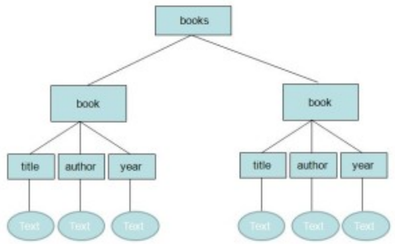
A document in XProc



A document in XProc



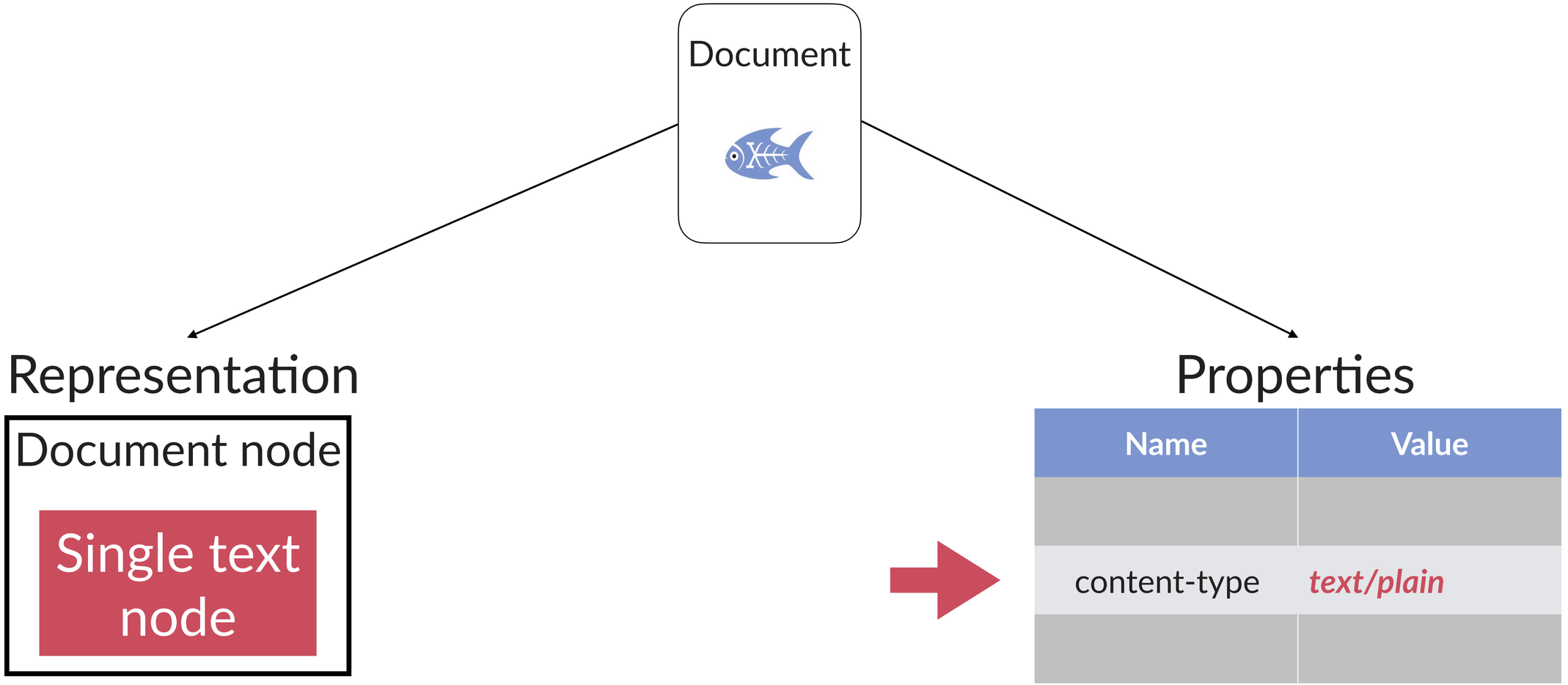
Representation



Properties

Name	Value
content-type	*application/xml*

A document in XProc



Basic use patterns for text

Basic use patterns for text

Creating a text document:

```
<p:identity>
 <p:with-input>
  <p:inline content-type="text/plain">This is a simple text
 containing multiple lines. Since it is inside an XML document
 it is UTF-8.</p:inline>
  </p:with-input>
</p:identity>
```

Hint: Everything inside p:inline is the text, so be careful with indents!

Basic use patterns for text

Creating a text document:

```
<p:identity>
 <p:with-input>
  <p:inline content-type="text/plain">This is a simple text
 containing multiple lines. Since it is inside an XML document
 it is UTF-8.</p:inline>
  </p:with-input>
</p:identity>
```

Curly brackets in text document start/end text value templates.

When you need them as text, double them. Or use @expand-text=„false()"

Basic use patterns for text

Creating a text document containing text value templates:

```
<p:identity>
 <p:with-input>
  <p:inline content-type="text/plain">Today is: {current-date()}.
  The time is {current-time()}.</p:inline>
  </p:with-input>
</p:identity>
```

Of course you can use XProc's variables, options and functions.

Basic use patterns for text

Creating a text document: **Not!**

```
<p:identity>
 <p:with-input>
  <p:inline content-type="text/plain">XML works with "<" and ">".</
  p:inline>
  </p:with-input>
</p:identity>
```

Basic use patterns for text

Creating a text document: **Not!**

```
<p:identity>
 <p:with-input>
  <p:inline content-type="text/plain">XML works with "<" and ">".</
  p:inline>
  </p:with-input>
</p:identity>
```

Remember it's XML: You have to escape angle brackets.

Basic use patterns for text

Creating a text document:

```
<p:identity>
 <p:with-input>
  <p:inline content-type="text/plain">XML works with "&lt;" and
  "&gt;".</p:inline>
  </p:with-input>
</p:identity>
```

Remember it's XML: You have to escape angle brackets.

Basic use patterns for text

Creating a text document: **(NOT!)**

```
<p:identity>
 <p:with-input>
  <p:inline>This is not a text document.</p:inline>
  </p:with-input>
</p:identity>
```

The content-type attribute is **not optional** here: A p:inline without content-type is an XML document by default. (= application/xml)

Basic use patterns for text

Loading a text document:

```
<p:load href="note.txt" />

<!-- or, if you want to be sure -->
<p:load href="note.txt" content-type="text/plain" />

<!-- directly binding a port -->
<p:identity>
 <p:with-input>
  <p:document href="note.txt" content-type="text/plain" />
 </p:with-input>
</p:identity>
```

Basic use patterns for text

Loading a text document:

```
<!-- from the web -->
<p:http-request href="http://somewhere/text-resource"
    parameters="map{'override-content-type' : 'text/plain;
    charset=iso-8859-1'}">
 <p:with-input><p:empty/></p:with-input>
</p:http-request>
```

Basic use patterns for text

Loading a text document:

```
<!-- Using XPath function -->
<p:identity>
 <p:with-input>
    <p:inline content-type="text/plain">{unparsed-text('text.txt')
}</p:inline>
</p:identity>
```

Basic use patterns for text

Loading a text document: **(NOT!)**

```
<!-- Using XPath function -->
<p:identity>
 <p:with-input select="unparsed-text('text.txt')" />
    <p:empty />
</p:identity>
```

This will NOT create a text document, but a JSON document:

The selection result is an atomic value and the specs says those become JSON docs.

Basic use patterns for text

Check whether a document is a text document:

```
<p:if test="p:document-properties(., 'content-type')
   = 'text/plain'">
   <p:wrap-sequence wrapper="text" />
</p:if>


<!-- Pure XPath to be used in step context -->
<p:if test="count(//node())=1 and ./node() instance of text()">
  <p:wrap-sequence wrapper="text">
</p:if>
<!-- But remember: The test is also true for some XML documents. -->
```

Build in steps for text documents

- p:text-count
- p:text-head
- p:text-tail
- p:text-join
- p:text-replace
- p:text-sort

- p:markdown-to-html (Text step library)

Want more text related step? Tell us!

Let’s go for live coding now…

Time to answer your questions!

Contact: achim.berndzen@xml-project.com

Slides and examples: https://github.com/xml-project/markup-uk-2020