



The Authoring Environment for
high-quality PDF documents,
ebooks and office formats

Produce & Publish
Single-Source Multi-Channel
Publishing with Plone

by Andreas Jung

Andreas Jung

- Python, Zope & Plone developer since 1993
- Co-founder and chairman
Python Software Verband (former DZUG)
- Director of the Zope Foundation
- ZOPYX Limited:
 - Software development w/ Python, Zope & Plone
 - Electronic Publishing



Agenda

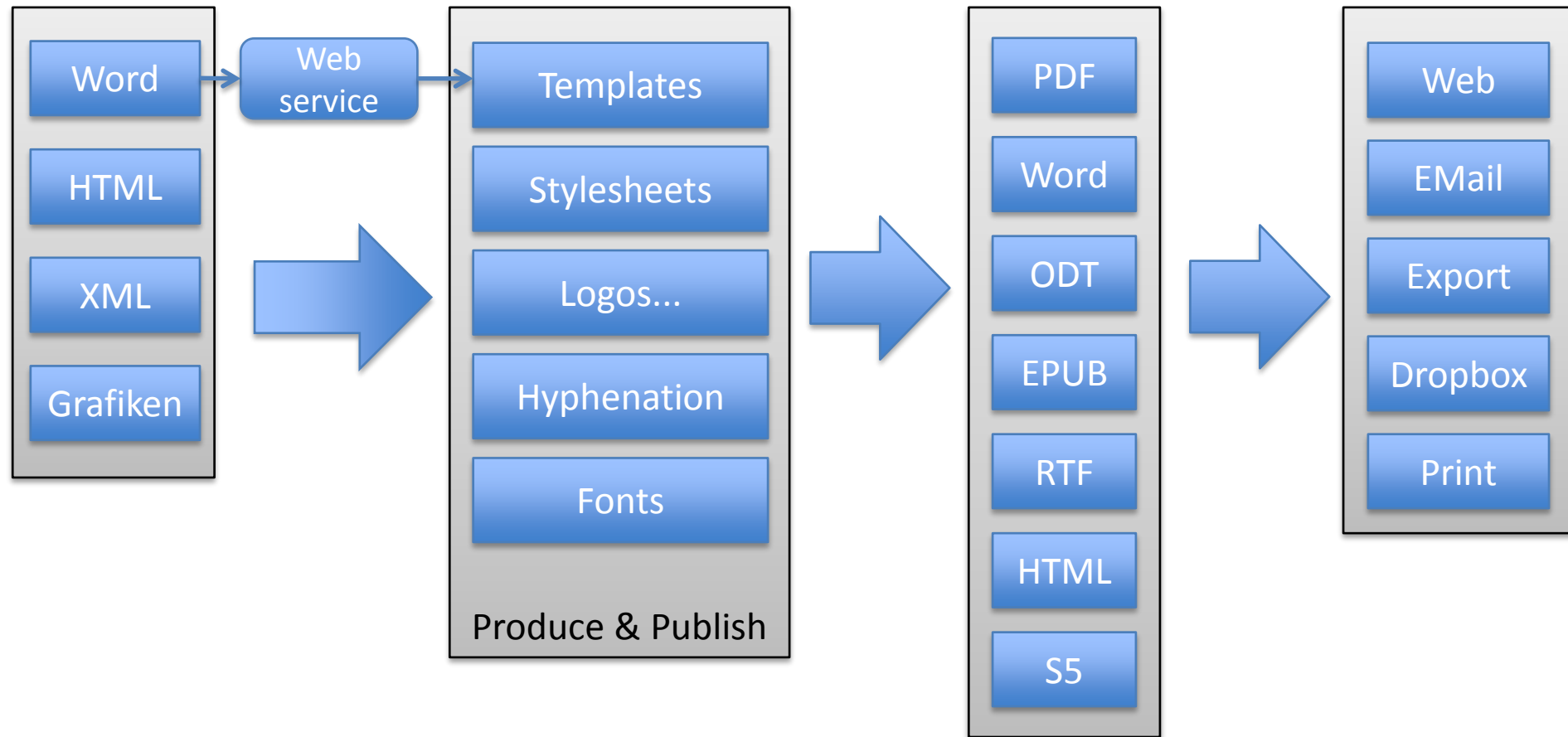
- What is *Single-Source Multi-Channel-Publishing*?
- What is Produce & Publish?
- Produce & Publish Demo
- Looking under the hood
- Plone extensions in P&P

Single-Source Multi-Channel Publishing (1/2)

- *Single Sourcing (or Multi-Channel Publishing) allows the same content to be used across different documents or formats. The labour-intensive and expensive work required to create and deliver content need only be carried out once, on one source.*
- *Transformations to a specific document output and/or output format are then carried out automatically. It is even possible to add new output formats as needs develop.*
- *Each output could also offer differing levels of detail for each audience profile and automatically adjust layout to suit the channel of delivery e.g. content and layout repurposed for display on a small screen.*

(Source: <http://www.mekon.com/>)

Single-Source Multi-Channel Publishing (2/2)



What is Produce & Publish?

- Platform for web-to-print and automatic typesetting
- Output formats: high-quality, EPUB, Word, Open-Office, RTF
- Input formats: HTML or XML
- Styling: CSS
- open architecture
- language and platform-neutral

Features and usecases

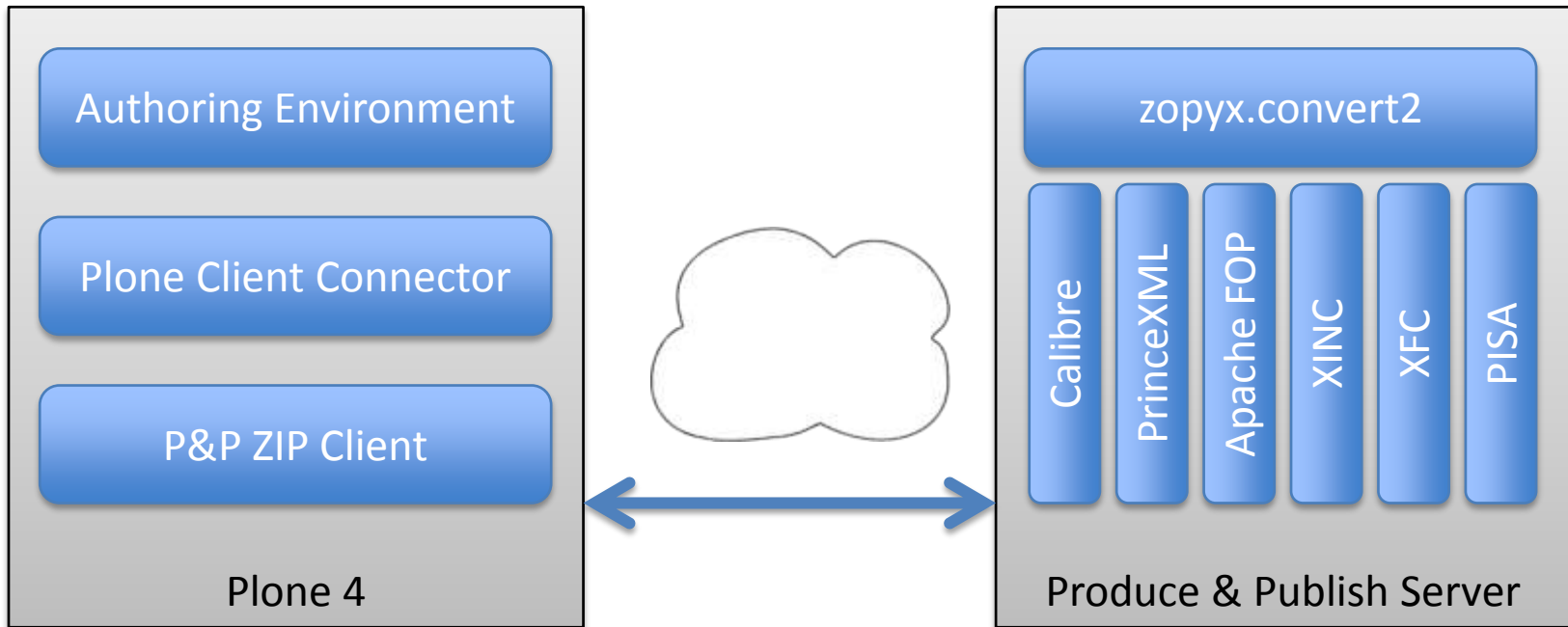
Web-to-Print	Automatic type-setting
• Layout oriented documents • Aggregation of data and templates • Alternative to expensive web-to-print solutions for simple to medium complex layouts	• Quality comparable to TeX/LaTeX • Footnotes, marginals • Multi-lingual, Unicode • Support for text columns • Multi-lingual hyphenation • LTR/RTL support • Tables (spreading pages) • Images, image captions • Table listing, image listing • Table of contents generation • Cover pages • PDF bookmarks • High quality PDF documents

Produce & Publish

A quick walkthrough

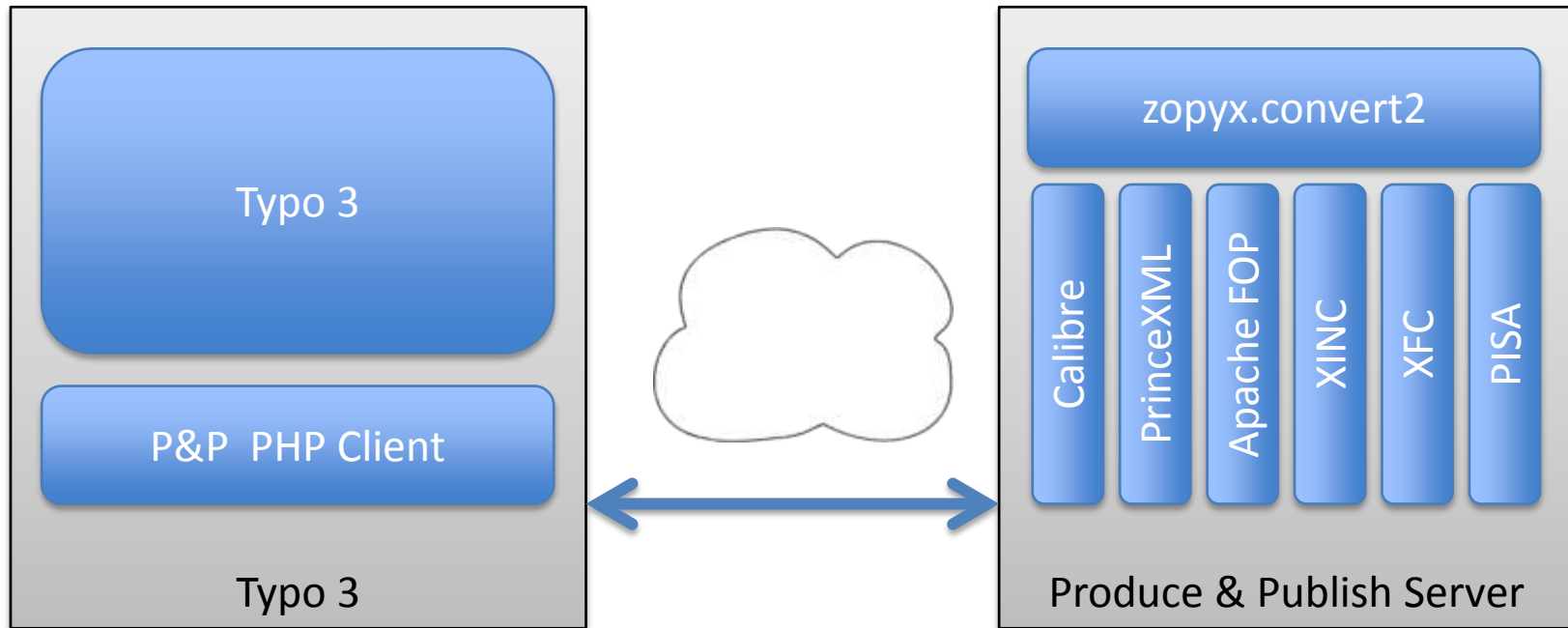
Produce & Publish Architecture (1/2)

- Full Python/Plone Stack -



Produce & Publish Architecture (1/2)

- Non-Python Integration -



Import and Content Management

Import and content management (1/3)

- Plone as content management system
 - user friendly
 - fine-grained rights and security concept
 - workflows
- HTML as primary input format (XML possible)
- Content repository within Plone
- Editing of all content within Plone
- Management of all assets within Plone

Import and content management (2/3)

- Handling of author drafts
 - Copy & paste from Word into Plone
 - Export from Word to HTML into Plone
 - Manual editorial work within Plone
- Problems
 - Word „HTML“
 - Plone's HTML filtering too unspecific
 - High costs for manual work (error-prone, bad user experience and usability)

Die Autorenumgebung für hochwertige
PDF-Dokumente, e-Books und Office-
Formate

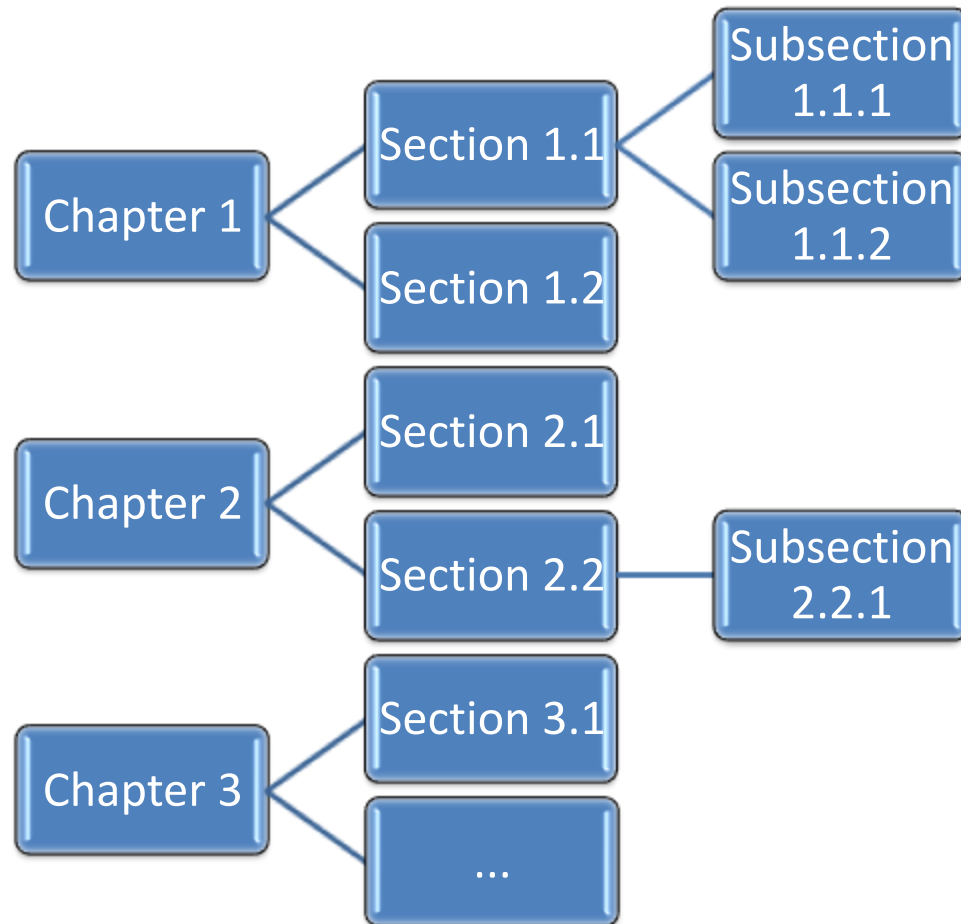
Produce & Publish

Single-Source Multi-Channel
Publishing mit Plone

von Andreas Jung

Aggregation

Aggregation (1/3)



Aggregation (2/3)

- Integration with Plone
 - **Folder** determine document structure (chapter, section..)
 - **Page** for the contents
 - support for custom content-types
- Usage of the **Zope Component Architecture**
 - content-types provide @@asHTML view
 - @@asHTML() returns an HTML snippet
- One aggregated and consolidated HTML document as basis for all further conversion steps (single-source)

Aggregation (3/3)

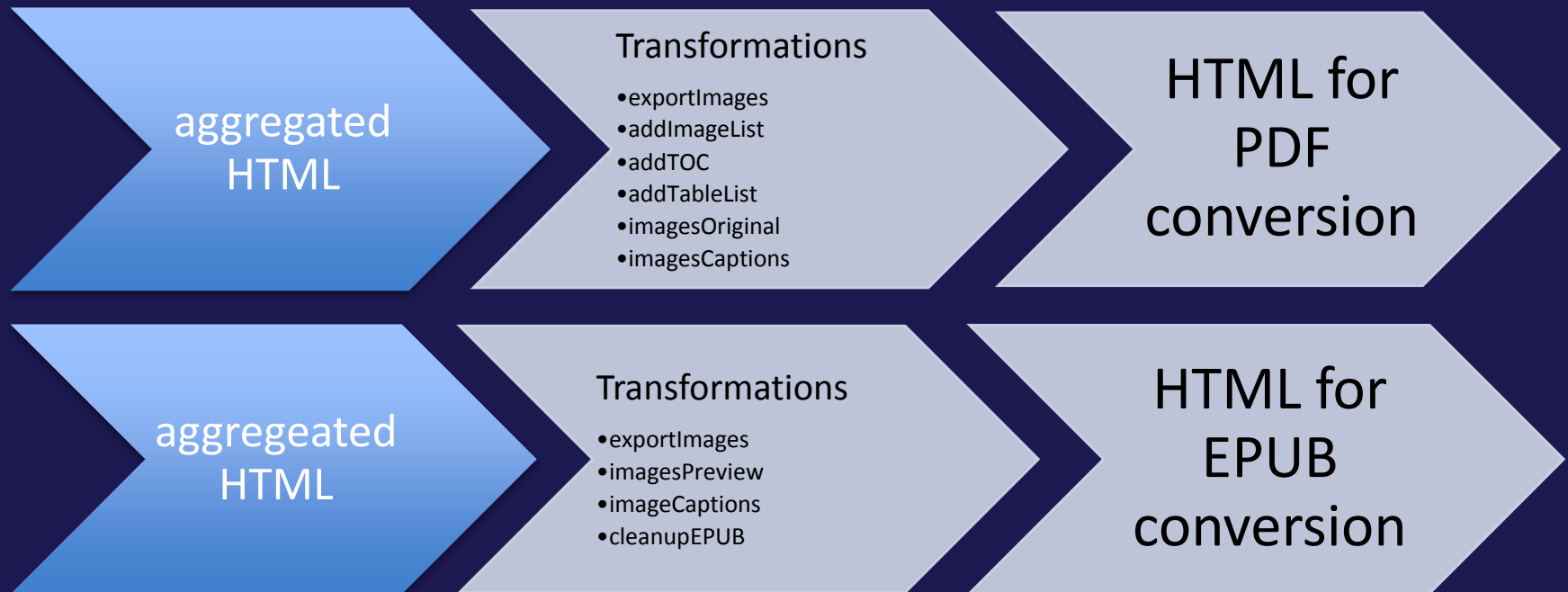
```
<div class=„boundary-level-0">
  <div class=„portal-type-document">
    <h1>...</h1>
    <div class=„description>..</div>
    <div class=„body">...</div>
  </div>
  <div class=„boundary-level-1">
    <div class=„portal-type-document">
      <h1>...</h1>
      <div class=„description>..</div>
      <div class=„body">...</div>
    </div>
  </div>
  <div class=„portal-type-myevent">
    <h1>Mein Termin</h1>
    <div class=„startdate">12.09.2011</div>
    <div class=„enddate">13.09.2011</div>
  </div>
</div>
```

Transformations

Transformations (1/2)

- Identical HTML input for all conversions
- every output format requires some more specific information for the conversion process
 - table of contents, image listing for PDF
 - aggregated HTML or chapterwise HTML for publication on the web
 - images in print resolution for PDF
 - images with 72dpi resolution for EPUB

Transformations (2/2)



lxml-based transformation pipeline

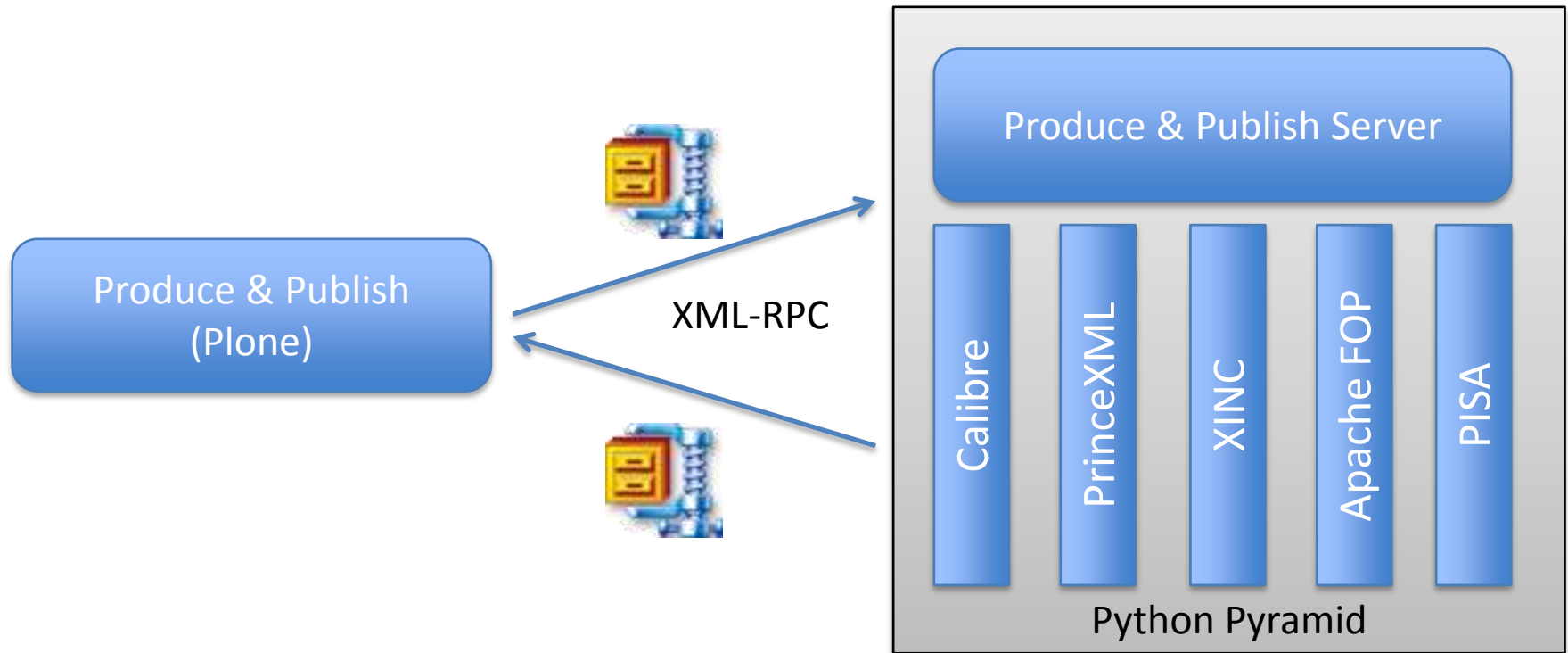
Conversion

Conversion (1/2)

- Output format specific HTML as basis for conversions
- Conversion service implement as client-server architecture

Converter	Format	Licence	Quality	Features	Support in P&P
PrinceXML	PDF	commercial	very high	very high	Yes
PISA	PDF	free	limited	limited	(Yes)
FOP	PDF	free	limited	limited	No
Calibre	EPUB	free	good	very high	Yes
XINC	PDF	commercial	good	high	Yes
XFC	RTF, ODT, DOC(X)	commercial	good	high	Yes

Conversion (2/2)



Publishing

Publishing

- Publishing of generated output for download
- HTML (aggregated/chapterwise) + individual formats
- Export as ZIP archive
- Publish-to-Dropbox

Publishing



Plone Extensions

PDF generation Print vs. Web

- PDF format required both for print media and electronic media
 - Print: high image resolution: 300dpi
 - Ebooks/tablets: med image resolution: 150 dpi
 - Desktop PC/notebook: low image resolution: 72dpi
- Solution:
 - Export the original/highest scale stored within Plone
 - Generate PDF with the high-res images
 - Downsampling of the images using Ghostscript during post-processing

Plone extensions (1/3)

- Major problem of Produce & Publish:
 - Usability of WYSIWYG editors
 - editors are used to work with Word
 - Editing of longer texts through-the-web is a pain
 - all web-based editors are crap
 - TinyMCE is partly usable
 - Products.TinyMCE is pretty much outdated

Plone extensions(2/3)

- TinyMCE improvements
 - display document structure



Plone extensions (3/3)

- TinyMCE improvements
 - LinkTool for managing cross-references to
 - headings
 - tables
 - images
 - list (-items)

Produce & Publish Authoring Environment - LinkTool

Structure

Images

Tables

Lists

Structure

Einführung (intro)

Lektion 1: Fange

H2: Was brauc

H2: Muss ich d

H2: Was komm

Lektion 2: Was is

H2: Wer oder w

H2: Wofür kann

H2: Gut, aber w

Lesson 3: Eleme

H2: Tag?

H2: Kann ich bi

Lektion 4: Ihre er

H2: Wie?

H2: Was soll ich

H2: Soweit, so

Lesson 5: Was Si

H2: Was bedeu

H2: Was komm

Lektion 6: Einige

H2: Und jetzt?

H2: Kann ich m

H2: Mehr Eleme

H2: Phew! Ist d

Lesson 7: 216 We

Images

Einführung (intro)



Produce & Publish Authoring Environment - LinkTool

Structure

Images

Tables

Lists

Produce & Publish Authoring Environment - LinkTool

Structure

Images

Tables

Lists

Lists

Einführung (introduction.html)

Lektion 1: Fange wir an! (lesson1.html)

Lektion 2: Was ist HTML? (lesson2.html)

- Hyper ist das Gegenteil von linear. In den Anfangszeiten des Computers – als eine Maus noch etwas war, dem die Katze nachjagte – liefen die Computerprogramme linear ab: wenn ein Programm eine Anweisung ausgeführt hatte, ging es zur nächsten Codezeile. Nach dieser zur nächsten usw. Aber HTML ist anders – Sie können wann immer Sie wollen, welche Seite auch immer besuchen. Z.B. ist es nicht nötig, vor dem Besuch von HTML.net das Internetangebot der deutschen Bundesregierung zu besuchen.
- Text, nun ja – erklärt sich von selbst.
- Mark-up ist das, was man mit dem Text macht. Man formatiert den Text – etwa in der gleichen Weise wie in einem Textverarbeitungsprogramm. Man verwendet Überschriften, Aufzählungen, fett geschriebenen Text usw.
- Language bedeutet "Sprache". HTML ist auch fast eine solche, man benutzt viele englische Wörter – aber HTML ist KEINE Programmiersprache.

Lesson 3: Elemente and Tags? (lesson3.html)

Lektion 4: Ihre erste Webseite (lesson4.html)

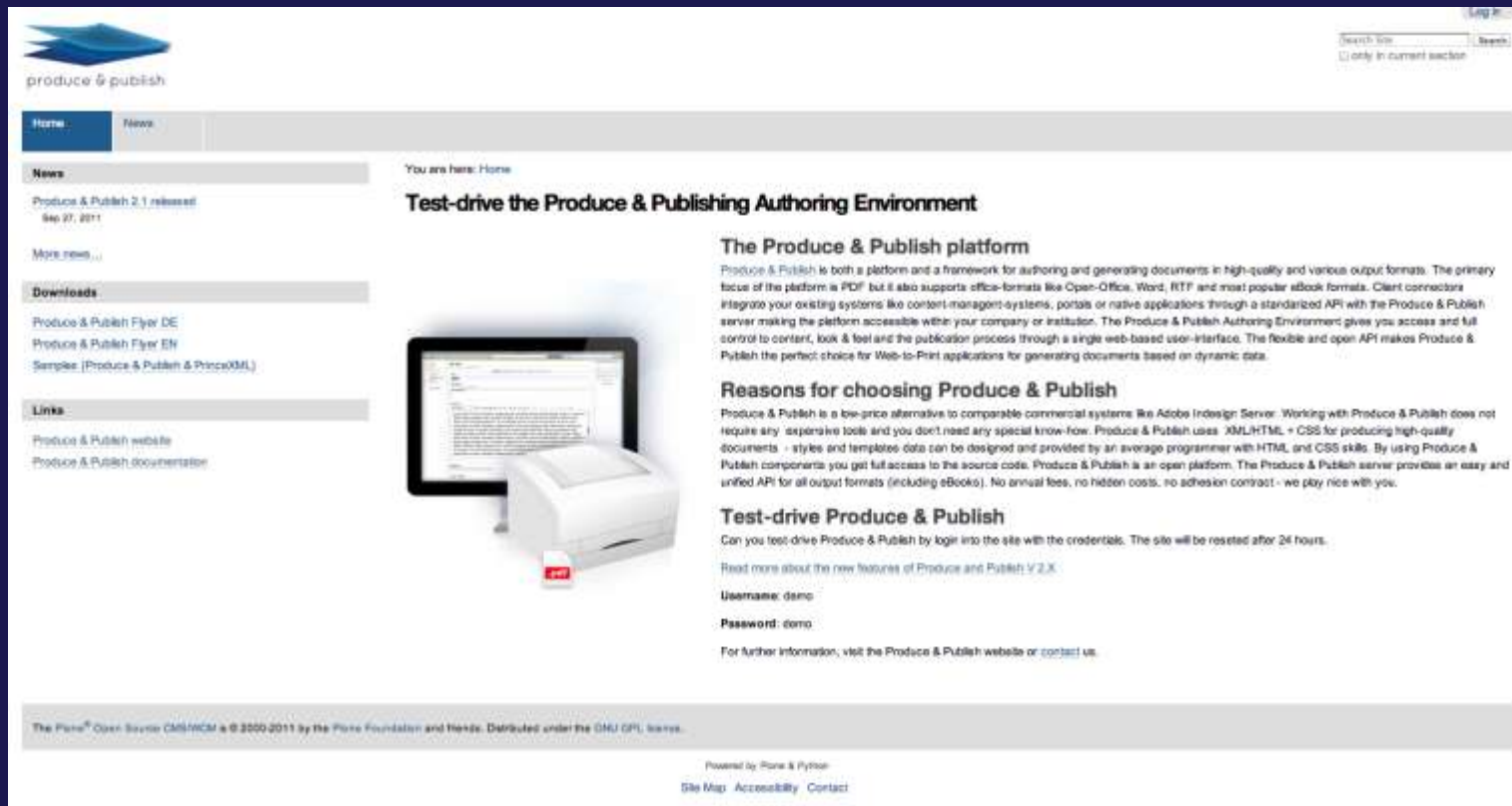
- Zum Speichern wählen Sie im Notepad im Menü "Datei" den Punkt "Speichern unter".
- Wählen Sie "Alle Dateien" im Auswahlfeld "Dateityp". Dies ist sehr wichtig. Denn sonst speichern Sie Ihre Datei als normale Textdatei und nicht als HTML-Dokument.
- Jetzt speichern Sie Ihr Dokument unter dem Namen "page1.htm" (Die Endung ".htm" zeigt an, dass es sich um ein HTML-Dokument handelt. ".html" bewirkt genau das gleiche. Ich persönlich benutze ".htm", Sie können sich natürlich auch für die andere Variante entscheiden. Dies ist ganz Ihnen überlassen.) Es spielt keine Rolle, wo auf Ihrer Festplatte Sie die Datei ablegen, solange Sie sich erinnern, wo es war und Ihre Seite später wiederfinden.
- Wählen Sie im Menü "Datei" den Punkt "Öffnen" (CTRL+O).
- Klicken Sie auf "Durchsuchen" in dem Fenster, das sich öffnet.
- Suchen Sie jetzt nach Ihrem HTML-Dokument, markieren dieses und klicken anschließend auf "Öffnen".



Produce & Publish options

- In-House installation
- SaaS options:
 - P&P Authoring Environment
 - P&P Server: Conversion to PDF and EPUB

demo.produce-and-publish.com



The screenshot shows the homepage of the Produce & Publish platform. At the top left is the logo, a blue 3D cube with the text "produce & publish" below it. To the right of the logo is a search bar with a "Search" button and a checkbox for "only in current section". Below the logo is a navigation bar with "Home" and "News" links. The "Home" link is highlighted. Below the navigation bar is a "News" section with a title "Produce & Publish 2.1 released" and a date "Sep 27, 2011". Below the news section is a "Downloads" section with links to "Produce & Publish Flyer DE", "Produce & Publish Flyer EN", and "Samples (Produce & Publish & PrinceXML)". Below the downloads section is a "Links" section with links to "Produce & Publish website" and "Produce & Publish documentation". The main content area has a heading "Test-drive the Produce & Publishing Authoring Environment" and a subheading "The Produce & Publish platform". Below the subheading is a paragraph describing the platform. To the left of the paragraph is an image of a computer monitor and a printer. Below the paragraph is a section titled "Reasons for choosing Produce & Publish" with a paragraph of text. Below that is a section titled "Test-drive Produce & Publish" with a paragraph of text. Below the text is a form with fields for "Username" (containing "demo") and "Password" (containing "demo"). Below the form is a link to "For further information, visit the Produce & Publish website or contact us." At the bottom of the page is a footer with text about the Plone Foundation and the GNU GPL license. Below the footer is a line of text "Powered by Plone & Python" and a link to "Site Map Accessibility Contact".

produce & publish

Home News

News

Produce & Publish 2.1 released
Sep 27, 2011

More news...

Downloads

Produce & Publish Flyer DE
Produce & Publish Flyer EN
Samples (Produce & Publish & PrinceXML)

Links

Produce & Publish website
Produce & Publish documentation

You are here: Home

Test-drive the Produce & Publishing Authoring Environment

The Produce & Publish platform

Produce & Publish is both a platform and a framework for authoring and generating documents in high-quality and various output formats. The primary focus of the platform is PDF, but it also supports office-formats like Open-Office, Word, RTF and most popular eBook formats. Client connectors integrate your existing systems like content-management-systems, portals or native applications through a standardized API with the Produce & Publish server making the platform accessible within your company or institution. The Produce & Publish Authoring Environment gives you access and full control to content, look & feel and the publication process through a single web-based user-interface. The flexible and open API makes Produce & Publish the perfect choice for Web-to-Print applications for generating documents based on dynamic data.

Reasons for choosing Produce & Publish

Produce & Publish is a low-price alternative to comparable commercial systems like Adobe InDesign Server. Working with Produce & Publish does not require any expensive tools and you don't need any special know-how. Produce & Publish uses XHTML + CSS for producing high-quality documents - styles and templates data can be designed and provided by an average programmer with HTML and CSS skills. By using Produce & Publish components you get full access to the source code. Produce & Publish is an open platform. The Produce & Publish server provides an easy and unified API for all output formats (including eBooks). No annual fees, no hidden costs, no adhesion contract - we play nice with you.

Test-drive Produce & Publish

Can you test-drive Produce & Publish by login into the site with the credentials. The site will be reseted after 24 hours.

Read more about the new features of Produce and Publish V2.X

Username: demo

Password: demo

For further information, visit the Produce & Publish website or contact us.

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Powered by Plone & Python
Site Map Accessibility Contact



Questions



Thank you for
your interest

Further information

www.produce-and-publish.com

Demo

demo.produce-and-publish.com

www.zopyx.com