

Integrating the Typefi Publishing System to a Content Management System

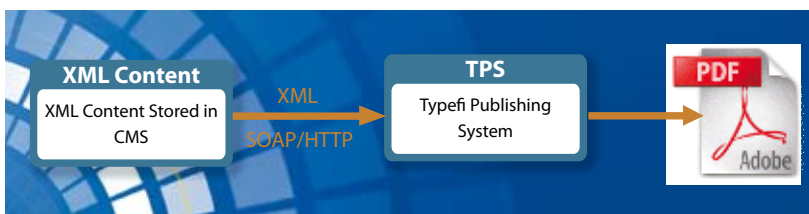
Typefi Systems was founded with the vision of providing a collaborative, scalable publishing system that allows individual workers, or enterprise workgroups, to easily produce richly formatted documents. Now the Typefi Publishing System can be Integrated to a Content Management System to deliver on that vision.

Typefi Publishing System (TPS) is a scalable cross-platform publishing solution capable of producing thousands of sophisticated pages per hour while integrating content from multiple sources.

TPS is normally deployed in two configurations: Typefi Print and Typefi Publish. The first provides simplified document creation for corporate clients. The latter includes a complete web-based collaborative production system and repository for publishing workgroups. In both these configurations TPS acts as an automated composition and design engine, managed via its web-based console or a Microsoft Word plug-in.

Typefi's state-of-the-art patent-pending technology can also be deployed to improve the quality of content output from Enterprise Content Management Systems (CMS). In most implementations a CMS will store and output either XML or Microsoft Word content. Custom scripts can be written to convert this output to a PDF. In some enterprises this content is sent to a graphic designer for desktop publishing. Typefi automates the entire desktop publishing process by taking the output of the CMS and creating compelling, visually striking and professionally designed documents.

This white paper will introduce strategies and approaches that are recommended when integrating the Typefi Publishing



System to a CMS to generate professionally designed documents.

Benefits

- A graphic designer will be designing the look and the feel of the output document.
- No programming or scripting is required to implement the graphic design specification.
- A designer will be able to change the look and feel of the document including fonts, colors, paragraph styles, layout (single or double column, page orientation and more) without any scripting or programming.
- Utilizes industry standard tools such as Microsoft Word, Adobe InDesign and a web browser to interact with the user. The user does not need to learn a new set of tools to create well-designed documents.

Integration approach and strategies

TPS uses several techniques and software components to automate the design and composition process of content from a CMS:

1. The content of the document is stored as XML using a specific

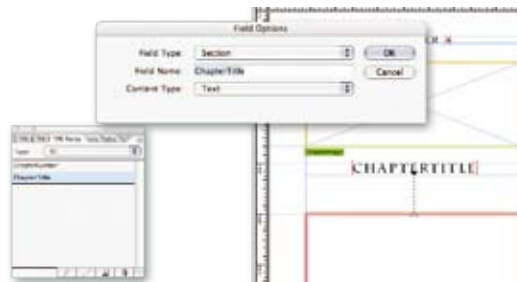
Typéfi schema called CXML (Content XML). Content stored in other schemas can be converted to and from CXML through an XSLT that is automatically triggered from the TPS Server.

2. A designer will create the Typéfi Design Template in Adobe InDesign. The template is automated with the assistance of Typéfi Designer, a product that plugs into Adobe InDesign and allows automation and structural properties to be added to any InDesign document.
3. The TPS Composition Engine is the sophisticated force behind Typéfi's page layout system. The engine runs in conjunction with Adobe InDesign, intelligently applying the design rules and elements as specified in the Typéfi Design Template to the CXML content. All communication with the TPS Composition Engine is handled via the TPS server.

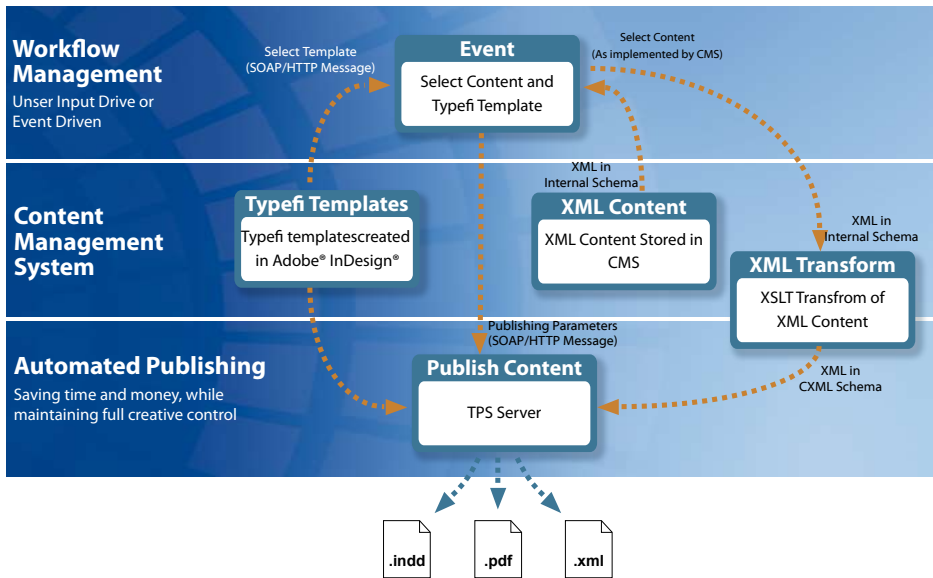
Typéfi Publishing System is designed around open standards, using SOAP and XML as its major integration and communication technologies. TPS offers many HTTP calls, a SOAP API, event-triggered scripts, and an open XML schema to facilitate integration with third party systems.

Integrating to a Content Management System via XML

This is a strategy for publishing XML content stored in other content management systems via TPS. While TPS ships with its own content management system, the Typéfi Design Templates (Adobe InDesign files) and content can be stored inside or outside this CMS.



The Typéfi Design Templates created in Adobe InDesign and have dynamic properties such as in variable data fields.



The steps below outline a typical algorithm for integration:

1. The user or an automated process selects the content for publication from within the 3rd party CMS.
2. The user or an automated process selects an output template (the ultimate document design) created previously by a graphic designer. If the Typefi Design Templates are stored within TPS an HTTP request can be made to retrieve the list of authorized templates for a given set of credentials.
3. The content is retrieved from the CMS in XML using the organizational or internal schema.
4. The XML is transformed to CXML using a XSLT script. The CXML is a publicly available schema.
5. An HTTP call is made to TPS which includes the XML content, the name of the Typefi Design Template and any required variables (such as the PDF output settings).
6. TPS will process the XML. Formatting it to fit the complete require-

- ments of the design template, and return the resulting PDF, a log file and, optionally, an InDesign document representing the final file.
7. The returned files can be stored in the CMS and/or displayed to the user.

It is important to note that in some cases the XSLT used to transform the content to CXML is template specific.

When two templates share the same content structure, but have different formatting, design and display characteristics, the same XSLT can be used to convert the XML to CXML. An example of this is where the same content structure is rendered in to a US letter and an A4 template. The differences between the templates can be greater as long as the content structure remains the same. Therefore the differences between the templates can be as diverse as fonts, colors, number of columns, page orientation and a myriad of other formatting settings.

When two templates have differing content structures, such as when one document is composed of chapters, headings and topic-oriented content,

and the other a series of database tables, separate XSLT scripts may be needed for the conversion of XML to CXML.

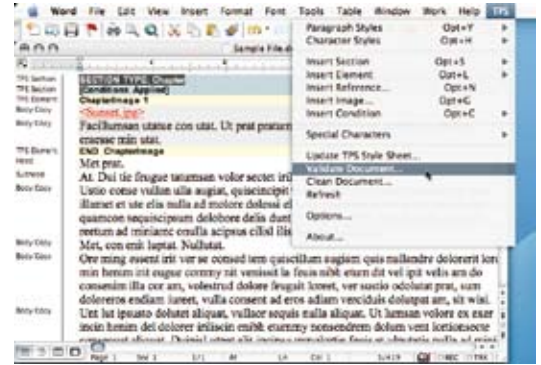
In a well designed implementation a single set of XSLT scripts can be used for all conversions as long as names of the sections and design elements are unique within the set of templates.

In most cases, changes to the returned InDesign document can be roundtripped back to CXML by the use of another HTTP call to TPS. Transforming CXML to the original XML structure will depend on a number of factors including the granularity of the conversion and the need to preserve metadata.

Integrating to a Content Management System via Microsoft Word

Some enterprises do not store XML in their CMS. Instead they store Microsoft Word (or similar) documents. TPS can be used in such an environment to produced professionally designed and formatted documents. This integration is significantly simpler than integrating to an XML-based CMS.

The Microsoft Word documents in the CMS will be either based on Typefi templates or non-Typefi templates. If



TPS Writer is fully cross-platform, supporting both Microsoft Windows-based and Mac OS X-based workflows.

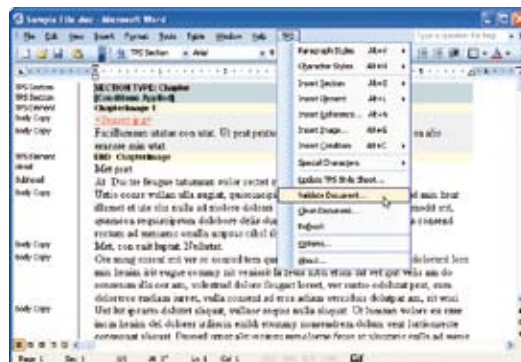
the documents are based on Typefi templates, the document as-is can be submitted to TPS via an HTTP call. Depending on the implementation some other variables might also be required by TPS in the same call.

A user can also check-out the Microsoft Word document from the CMS and use the Typefi Writer plugin for Microsoft Word to submit the job from within Microsoft Word.

If the content stored in the CMS is Microsoft Word, but does not use the TPS structural tagging, or the content is not Microsoft Word or XML, then it will need to be converted to either XML or Microsoft Word (based on a Typefi template) before it can be processed via TPS.

For more information on the unique automated scriptless composition that is the cornerstone of Typefi's class-leading automated page layout technology, or to schedule a live Web demonstration, please email info@typefi.com or call +1 866 279 5173 x221.

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TPS Writer seamlessly integrates with Microsoft Word to provide structured content tagging without any specific knowledge of XML or writing a single line of code.