The IsakoStudio® conversion system

For use by Publishers and Service Providers to convert books to E-books (EPUB, PDF, AZW) and to Editorial-XML:

- **Digitize books for multi-format Electronic Publishing.**
- **Produce a rich and accurate Editorial-XML version of your books.**

A high-end solution

Developed by **ISAKO©, IsakoStudio®** application is a standards-compliant high-end solution to a continual publishing industry challenge: converting books (and periodicals, journals etc...) from a single format to a rich and accurate Editorial-XML and to popular E-book formats such as ePub[1], .AZW, XHTML, PDF and more.

What is unique about IsakoStudio®

It is not used merely to transform books with simple layout into the simplified E-book format of the moment; rather, it is used to transform virtually any book from any print PDF to a rich and accurate Editorial-XML format and *at the same time* to popular E-book formats like ePub.

Furthermore, **IsakoStudio®** is not limited to print-PDF input. For paper books, the ProofTool® system allows converting scanned pages into High-Quality text PDF, thus replacing the traditional and costly double keying preparation task. *[For more information, see the ProofTool® data-sheet.]*

IsakoStudio® answers the challenge of complex contents

In addition to the automatic processing (based on **IsakoStudio®** numerous advanced conversion functions) which is perfectly sufficient for fiction with simple layout, **IsakoStudio®** contains a complete suite of optimized Control Helpers (called "views") allowing Quality Control Operators (CQO) to control all relevant aspects of the conversion, for example, title pages tagging; sections and sub-sections; headers and footers; footnotes/endnotes and their call-numbers; lists, tables and citations; external and internal links, table of contents, etc. In this manner, **IsakoStudio®** users enjoy both worlds: highly automatic processing for simple layouts and humanly controlled processing for complex contents.

How does it work?

- The book is loaded into the workflow; some essential metadata information is keyed in as well as a visual detection of chapters. If needed, special pages are marked-up (title, publishers' info, index etc.)
- **IsakoStudio®** performs a PDF profound extraction. If needed, the CQO can control the resulting encoding, spacing and conditional-hyphens using a color-coded Wysiwyg productivity optimized interface. No programming skills are needed.
- **IsakoStudio®** analyzes the book's structure and building blocks: columns, chapters' titles, sections and sub-sections, footnotes, lists, citations, tables, figures, formulas and illustrations, etc. If needed, the CQO can control this segmentation and the reading order using a color-coded Wysiwyg productivity optimized interface. No programming skills are needed.
- **IsakoStudio®** analyzes and processes the contents. If needed, the CQO can control all relevant aspects of most complex layouts: paragraphs and line-feeds; alignment/justification; footnotes/endnotes and their call-numbers; lists, tables and citations; nested objects (like nested lists); table of contents etc. Again, the various CQ-views have visual color-coded Wysiwyg productivity optimized interface. No programming skills are needed.
- If needed, the **IsakoStudio®** allows for handling special tagging needs like in dictionaries and index pages.
- **IsakoStudio®** exports the content according to the required output formats: Editorial-XML[2], EPUB, PDF-to-sell, etc.

[1] EPUB format is a global standard maintained by the International Digital Publishing Forum (IDPF) at http://www.idpf.org.
[2] Client's Custom-XML can be handled as additional post-export conversion.

Benefits to Service providers

- Solutions to service providers' industrial constraints:
  - **Production management.**
    IsakoStudio® comes with a complete production management system and an integrated workflow infrastructure allowing for cost-effective high-volume production.
  - **Performance and scalability.**
    IsakoStudio® processing steps are divided into server-side tasks and to CQ tasks. Server-side tasks are performed by a multi-processor/multi-core/multi-threaded execution engine on one or more processing servers. CQ workstations and therefore human productivity are largely independent of server-side tasks. The administrator may add or remove as many processing servers and as many CQ workstations as desired.
  - **Match tasks to skills.**
    IsakoStudio® allows for assigning specific books and / or specific tasks to specific operators according to their skills.
  - **Statistics and billing information.**
    IsakoStudio® comes with an intensive recording of production statistics. This is typically used for managing the production and for cost control purposes.
- Being able to process all contents, including complex contents with a single production environment and tools -- and therefore at reduced training costs:
  - Highly automatic conversion of simple layouts and contents.
  - Human-assisted, high-productivity conversion of very complex contents and layouts.
- Workflow driven - no deadlocks or bottlenecks and no operators who wait for a process to end.
- Administration & Production Management Console allowing the administrators and the operators to manage the production workload and priorities.
- Break a complex process to separate distinctive tasks that can be mapped for distinctive skills. Allowing - but not requiring - several persons to participate in the conversion process. Most steps are very simple and none requires programming knowledge.

Benefits to publishers and right-owners

- **IsakoStudio**® can be integrated into existing workflow and infrastructure, especially when handling the frontlist, while backlist can be done by service provider using **IsakoStudio**®**.**
- **Advantages of a rich and accurate Editorial-XML**
  - One-time high-fidelity conversion allows for multi-format publishing capacities: The Editorial-XML can be later transformed over and over again to new or updated E-book formats at a minimal or reduced conversion cost.
  - Innovative publishing schemes become possible. For example, "on-demand, one-by-one" publishing of cooking recipes to smart phones.

Versions

		Type of publications	Contents, subject matter	Functions	Output formats
v1.4	**S2-2010**	Books, Collective Books and periodicals References books	Fiction, Essays, Poetry, Theatre. Scientific content. Dictionaries.	Special pages' mark-up. E-book layout Builder.	Editorial-XML, EPUB, PDF-Web
v2.0	**S1-2011**	Magazines	Guides, How to do books		One or more additional exports among XHTML, ALTO - METS, Structured RTF, ²DocBook, TEI, AZW

System Requirements

- A standard DBMS (SQLServer 2005 / 2008 and up) for the information backbone.
- Windows based processing servers and QC workstations.

IsakoStudio® Features

- **Complete and accurate extraction from PDF**
  - Practically any print PDF can be processed, including PDF without embedded fonts and other varieties of intricate and ill-behaved PDF.
  - The advanced extraction algorithms coupled with a color-coded Wysiwyg productivity optimized interface help solve common problems such as ligatures, missing or partial character encoding, custom-made "wild" fonts, spacing errors, ligatures, separate diacritic characters, conditional hyphens, etc.
  - The fact that most pre-print formats can be saved as a print-PDF means that **IsakoStudio®** can handle practically any input format.
- **Input paper books**
  - After scanning, the ProofTool® system allows importing paper books into **IsakoStudio®**, thus avoiding the traditional and costly double keying preparation task. *[For more information, see the ProofTool® data-sheet.]*
- **Just-What-You-Need Quality Control**
  - The QC level is fully adaptable to the specific job's needs, contents and budget. From none or little QC when processing simple layout fiction books to in depth QC for scientific publications.
- **Advanced state-of-the-art detection and structuring functions[3]**
  - Automatic detection of columns, chapters' titles, sections and sub-sections, footnotes, lists, citations, tables, figures, formulas and illustrations, etc.
- **Accurate and rich Editorial-XML**
  - Highest fidelity to original contents. Optional attributes keep trace of original layout information (like alignment and vertical spacing) and semantics indications (for example, marking-up persons, stage instructions and dialogs in scripts for movies or plays.)
  - The various content elements are perfectly tagged, including across pages and chapters. For example, a list that spans over several pages.
  - Page numbers markers are embedded so that the original index is always useable.
  - Accurate structuring of complex objects. For example, nested lists; tables with merged cells or missing cell-borders; equation in a list which itself is in a box, etc.
- **ePub output**
  - Optimized splitting to multiple HTML files.
  - Original page number markers provide readers a stable "measurement" when reading, and making the index (if one exists) usable.
  - Automatic validation check to guarantee full compatibility with ePub standard.
  - Resolution and size of graphic elements (figures, illustrations, etc) are adapted to popular ePub reader devices.
  - **Visual Layout Builder** allows for the managing and mapping of the original book elements to the outcoming E-book layout styles using color-coded Wysiwyg productivity optimized interfaces.
  - Automatic creation of external links.
  - Optimized visual interface allowing for the creation of internal links.
- **Additional output formats**
  - **IsakoStudio®** can be used to convert ill-behaved print PDF to well-behaved PDF or PDF/A.
  - **ProofTool®** can be used to convert scanned paper books to perfectly accurate searchable PDF. Export to structured MS-WORD/RTF is planned for v2.0. This can be the starting point for a High-Quality Text-Mode Reprinting (as opposed to Image-Mode Reprinting.)
- **Production Management and Workflow**
  - Built-in industrial strength workflow infrastructure.
  - Administration application.
  - Priorities based production management system.
  - Intensive production statistics used for production management and cost control.

[3] Layout and typography statistical analysis; Advanced Image Heuristic Analysis;

(suite) IsakoStudio® Features

- **Optimization of human resources and reuse of accumulated knowledge**
  - All data and files are automatically managed by **IsakoStudio®:** The operators never look for files or data with a "File Open" dialog.
  - Previously validated fonts, encodings and diacritic processing are automatically proposed for reuse. Hyphenation dictionaries are automatically reused.
- **Performance**
  - All processing steps are clearly divided into server-side tasks and to CQ tasks.
  - Server side processing engines are multithreading/multi-core/multi-processor.
  - Scalability is limited by available infrastructure only.

About ISAKO

ISAKO, based in Paris, France, is a technology and solutions provider for content digitization and conversion and for electronic publishing.

ISAKO offers a set of proven tools and industrial-strength conversion workflows as well as high quality services for the digitization, conversion, consulting and electronic publishing of all types of content.

In its qualitative approach, ISAKO combines industrial expertise and efficiency to provide to all its customers an optimal solution using techniques at the cutting-edge of innovation.

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