



Mindfire Solutions: Adobe Expertise profile

Mindfire Solutions has extensive experience and expertise in Adobe technologies. Several of our people (including our CEO) are ex-Adobe engineers, and our relationships give us tremendous advantage in Adobe projects. Mindfire Solutions is a Certified Adobe Solutions Network member, and our experience is sketched below.

- Development using SDKs and APIs of:
 - o Adobe Acrobat
 - o Adobe PageMaker
 - o Adobe FrameMaker
 - o Adobe InDesign
 - o Adobe Photoshop
- Platforms supported: Windows, MacOS and Linux
- Tools: Recommended Adobe tools (Visual C++, CodeWarrior C++, GNU C++, Visual Basic, AppleScript)

Acrobat PDF to XML plug-in

The Material Safety Data Sheet (MSDS) of a chemical firm had fixed formats for the documents, ranging from 1-50 pages. These legacy documents are available as typed pages, and our client needed to capture MSDS data into a standard database format. The structure of the document is specified as an input along with the visual layout of the titles and headings. An OCR scan of the document then converts the paper based scanned image to a PDF document with text. Since the input styles are unchanging from document to document for one organization, an XML document with the correct structure is outputted because of the analysis. Data that is now in XML is entered into a database for further conversions to HTML or editable formats.

This effort reduced dramatically the level of manual data entry required. The implementation and ideas were both developed by Mindfire.

PageMaker database interface plug-in

A Classifieds Publishing System had to be PageMaker-enabled (it worked only with QuarkXPress). Mindfire developed the PageMaker plug-in to enable output in the client-specified XML format. Document statistics and meta-information (such as author, number of words, editing time etc) were updated in a database when the document was saved. The plug-in connected to the SQLServer database using ODBC connections.

FrameMaker file filter

This tool parses an InterLeaf ascii document to output the FrameMaker version. Interleaf documents which consist of a rich graphical format and a complex document layout was faithfully converted preserving all the formatting information and mapping the corresponding layout to Framemaker. The FrameMaker conversion was achieved by using the Frame



Development Kit which provides a set of APIs to render a Frame document. Corresponding entities from Interleaf were mapped to Frame and the filtering was achieved faithfully.

The requirements for file-format filter were driven by a Japanese client. Mindfire completed the entire development cycle.

Acrobat AutoLinker plug-in

Mindfire built the AutoLinker tool and generated the ideas for the same. AutoLinker is an Adobe Acrobat plug-in that scans PDF documents and automatically identifies candidates which need to be linked. Examples being page numbers in Table Of Contents, Index, see chapter/section/table/figure references, goto-page references etc. It has a flexible customizable interface by which users can apply regular expression searches as candidates and what heuristics to apply with levels of confidence to identify candidates to be linked. The heuristics themselves are provided in a separate library which answer questions about strings on pages (ex. is the string part of body-text?) or page level queries (does the page have a figure ?).

InDesign Observer plug-in

Mindfire was approached by a publishing software company in the US to build an Observer plug-in to interface with Adobe InDesign. The publishing system had to be “aware” of any changes to the InDesign document, as they were being made. The kind of changes included changes to text, changes in position of “frames” and addition/deletion of any structures within the document. These changes were passed on as messages to an external application, which made appropriate updates to the database.

A plug-in was built implementing the IObserver interface, based on InDesign’s Model-View-Control architecture.

Photoshop Effects plug-in

Our client in the US required a set of Photoshop plug-ins to act as a converter. The filter would convert color photographs to black-and-white based on proprietary methods. The plug-in was built using Photoshop APIs, and is available on both Windows and MacOS.

Acrobat Custom File System plug-in

Our client required to interface Acrobat, with digital signing facilities, with Documentum’s Document Management System. The PDF documents would open directly from database, without temporary storage in the file-system, and they would be saved back to the database as a BLOB (binary large object) without temporary files being created.

Mindfire responded to the challenge by creating a Replacement File System for Acrobat. The RFS traps all Open/Save notifications within Acrobat and over-rides with its own implementation.