CASE STUDIES

BoardPro Case Study

BoardPro Limited

Using Aspose.PDF to build the Board Pack

Zeeshan Bhatti, BoardPro CTO

11 December 2017

About BoardPro

BoardPro is an innovative cloud based startup developing board management software specifically designed to meet the requirements and governance workflows of the board of directors of small to medium business and non-profits.

It is an easy-to-use software for board meetings, responsibilities, and documents, and it is designed specifically to meet the challenges of limited resources and limited experience.

Professional corporate boards can afford extensive governance and administration resources, freeing directors to focus on making a powerful contribution. However, many SME's and non-profit organisations lack these dedicated resources, meaning they often run less effectively, despite the quality of their directors.

BoardPro has taken best practices from corporate boards and simplified and automated them for SME and non-profit boards.

Today, still in its early days, BoardPro is use by over 200 boards and in the first 10 months has hosted over 1000 meetings and converted more than 31,000 documents.

Problem

One of the core features of BoardPro is production of the meeting "Board Pack" – all the reports and papers for each meeting compiled from a variety of user uploaded files into a single PDF.

The executives of the organisation are able to go into BoardPro, find the scheduled meeting, and can attach their monthly reports, special papers to the specific agenda items they relate to.

The reports could be uploaded in a wide variety of formats - .pdf, .doc, .docx, .ppt, .pptx, .rft, .txt, .jpg, etc.

Each file is converted to PDF and then merged into a single PDF in the correct order, with an internally linked Index and Agenda file.

The Board Pack is then distributed to the board members, who can prepare for the board meeting from this single file. No longer are board members receiving multiple documents attached to an email, where they are left wondering which documents relates to which agenda item, etc.

Solution

Document Conversion

We use GroupDocs.Conversion for converting documents of the various types into PDF. We have found GroupDocs.Conversion to be much superior than the alternative we had been using. Please refer to our Case Study on GroupDocs.Conversion for further details where we highlight the benefits in scalability and reliability achieved when switched over to GroupDocs.Conversion from a competitor product.

Our Initial Implementation

To create the Board Pack solution, BoardPro needed a .NET solution for merging the converted PDF files into a single PDF file and to provide additional navigation aids. These navigation aids allow readers to easily navigate between agenda items and review the supporting attached documents i.e., the following.

1. A cover page to indicate the meeting title, date, time and location.
2. An index page (table of contents) that utilized PDF page navigation to jump to the right page.
3. Navigation annotation overlay on the agenda PDF that linked the corresponding agenda item with its attached support documents.
4. Header and footer stamps for organisation branding and meeting title.
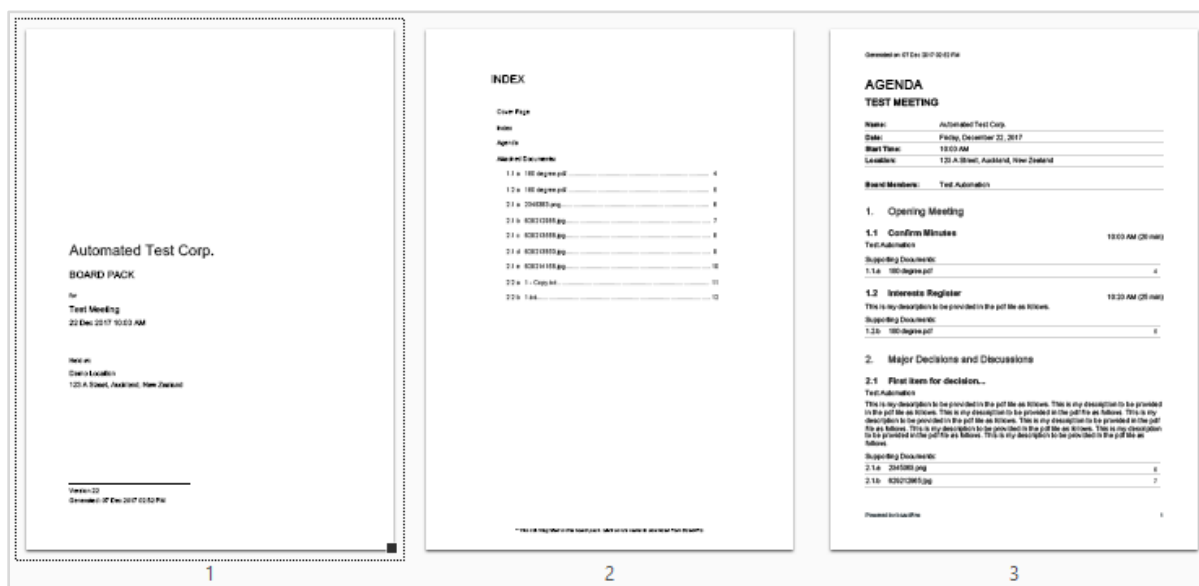5. Bookmarks for quick navigation to agenda documents

Fig 1. An example Board Pack cover page, index and agenda (thumbnail view)

Reliability Issues with the Competitor Product

The earlier implementation of merging documents and generating Board Pack navigation aids utilized SyncFusion, a set of libraries for editing and merging PDF files. During the feature implementation phase, we had to constantly work around issues image and text transparency and and inconsistency of behaviour. Even more issues were discovered when the implementation was release to our users. Some of the issues we struggled with are described as follows.

- On some PDF files that were uploaded by customers, failed to open by SyncFusion and therefore had to be skipped from the Board Pack. This caused dissatisfaction to our customers.
- In one instance, a PDF document that was digitally signed, could not be processed in the phase where we applied custom headers and footers. We obviously didn't expect the digital signature to be retained, but skipping the document from the merge process altogether was unacceptable.
- Over the months, our SyncFusion based implementation failed at either of the following steps (1) Document conversion phase, (2) PDF merging phase, (3) application of headers and footers, or (4) creation of the index page.

In all of the above errors, there wasn't a clear explanation on what went wrong and our support team had to resort to workarounds that were less than ideal e.g., converting PDF documents to PNG images and then converting back to PDF. With so many points of failures and no clear understanding how to ensure reliability of our Board Pack feature, we decide to find an alternative.

Experience

Benefits gained by switching to Aspose.PDF

Previously BoardPro had been using SyncFusion for generating Board Pack PDFs, which involved converting the user uploaded documents into PDFs and combining them together. This process, as discussed above, was riddled with bugs and reliability issues. After spending countless hours in customer support, we decided to start looking for alternatives.

Our search lead us to discover Aspose.PDF. We evaluated Aspose.PDF for both scalability and reliability before making the final decision to switch from SyncFusion. In both our evaluation and later implementation to replace SyncFusion, we have found Aspose.PDF to be a winner.

Having switched to Aspose.PDF, we are yet to discover a single instance where the document conversion fails. In the past, we had kept anonymized versions of the customer PDF documents that failed to open or merge using SyncFusion, and were pleased to find that all of those documents were processed flawlessly with Aspose.PDF.

Fig 2. An example of merging PDF files of varying rotation and page layout along-with custom headers and footers (thumbnail view)

Next Steps

BoardPro is continually offering new services to boards of SME's and Non-profit organisations. We have plans to digital signatures, custom document templates and offering a wider range of supported documents to be attached. We are convinced that all of this will be possible using the range of products offered by GroupDocs and Aspose.

Summary

BoardPro no longer uses its original solution for merging and editing PDF files for building the Board Pack - this has been completely replaced using Aspose.PDF for .NET.

PDF merging feature was very easy to implement using Aspose.PDF, the coordinate system for custom placement of text and annotations take a little getting used to. Overall, Aspose.PDF was an elegant solution for our requirements at BoardPro. It has allowed us to offer higher reliability to our customers. We found Aspose.PDF to be more stable than our previous solution.

The documentation and support forums were very helpful in supporting our implementation. Overall BoardPro has been very impressed with the product and support offered.

Contact

For more information on this case study and to request details on the customer's previous supplier please contact us at www.boardprohub.com