

CASE STUDIES

Aspose Words for .NET Case Study

Public Procurement Model of Excellence (P.P.M.E.) tool

P.P.M.E. tool uses Aspose Words to generate printable reports for its annual assessment of public entities.

By John K Wilson, CTO, Infinite Blue Technologies – 28/08/2013

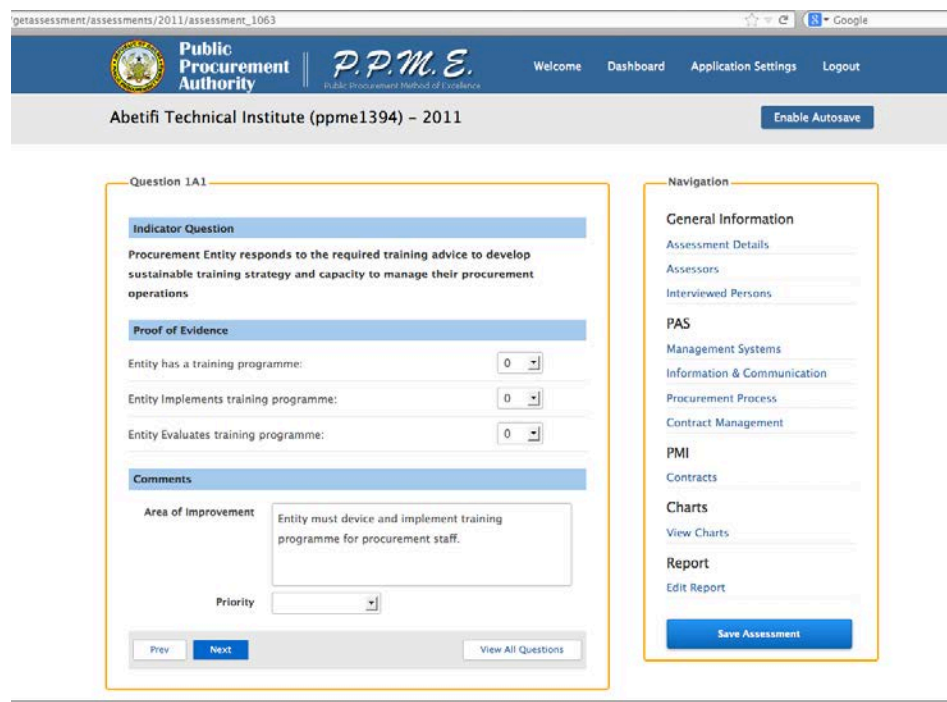
About Infinite Blue Technologies

Infinite Blue Technologies is a group of consultants which provides bespoke software solutions for both the public and private sector.

Problem

Infinite Blue Technologies has been working on the Public Procurement Model of Excellence (PPME) tool which is used to collect data and assess the level of compliance and performance of public entities. The annual exercise culminates with the production of online reports for the individual entities to peruse and implement whatever recommendations included within.

Although reports are available online, entities are also issued as official paper copies that are signed and stamped, for archiving purposes. The assessment agency already had a Microsoft Word document format, which was used when reports were manually produced and therefore wanted the tool to produce similarly formatted reports.



The screenshot displays the web application interface for the Public Procurement Model of Excellence (PPME). The header includes the Public Procurement Authority logo, the PPME acronym, and navigation links: Welcome, Dashboard, Application Settings, and Logout. The main content area shows a question titled "Question 1A1" with an indicator question about training strategy. Below this is a "Proof of Evidence" section with three dropdown menus for "Entity has a training programme:", "Entity Implements training programme:", and "Entity Evaluates training programme:". A "Comments" section includes an "Area of Improvement" text box and a "Priority" dropdown. A "Navigation" sidebar on the right lists various sections: General Information, Assessment Details, Assessors, Interviewed Persons, PAS, Management Systems, Information & Communication, Procurement Process, Contract Management, PMI, Contracts, Charts, View Charts, Report, and Edit Report. A "Save Assessment" button is at the bottom of the sidebar.

fig1. Assessment questionnaire

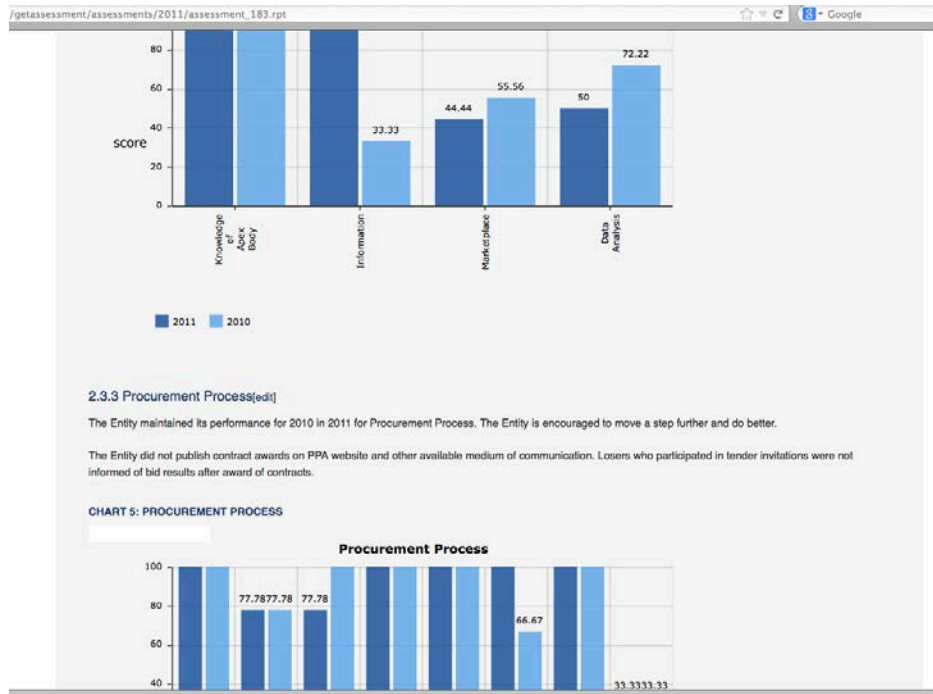


fig2. Assessment report

Solution

After evaluating existing reporting tools such as BIRT, Jasper Reports, iText and docx4java, we were of the view that a solution that enabled a finer control of document formatting as well as a shorter development time was needed. This led us to evaluate and then chose the solutions/products offered by Aspose.

We initially decided to create a pdf template of the existing Word document, the rational being that pdf readers are ubiquitous and documents are read-only. This would allow reports to be reviewed by other stakeholders before printout. We however realized that it would be much easier to use the existing Ms Word template and create merge fields to produce a final document using Aspose Words with mail merge.

Being able to create the template in Word was a gratifying experience for the development team because it allowed us to produce a document with which we were satisfied before sending it to Aspose Words to “fill-in the spaces”.

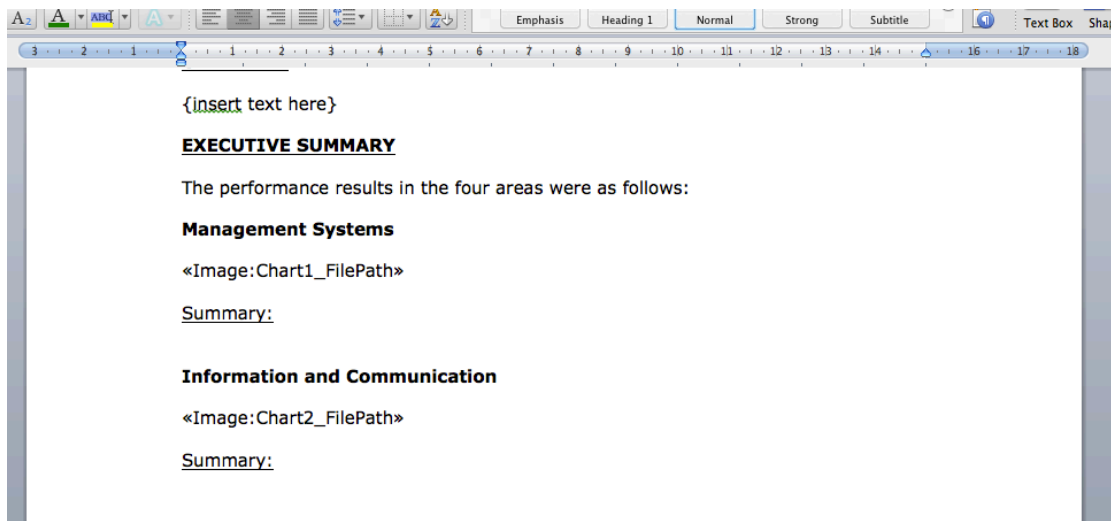


fig3. Word template with merge fields

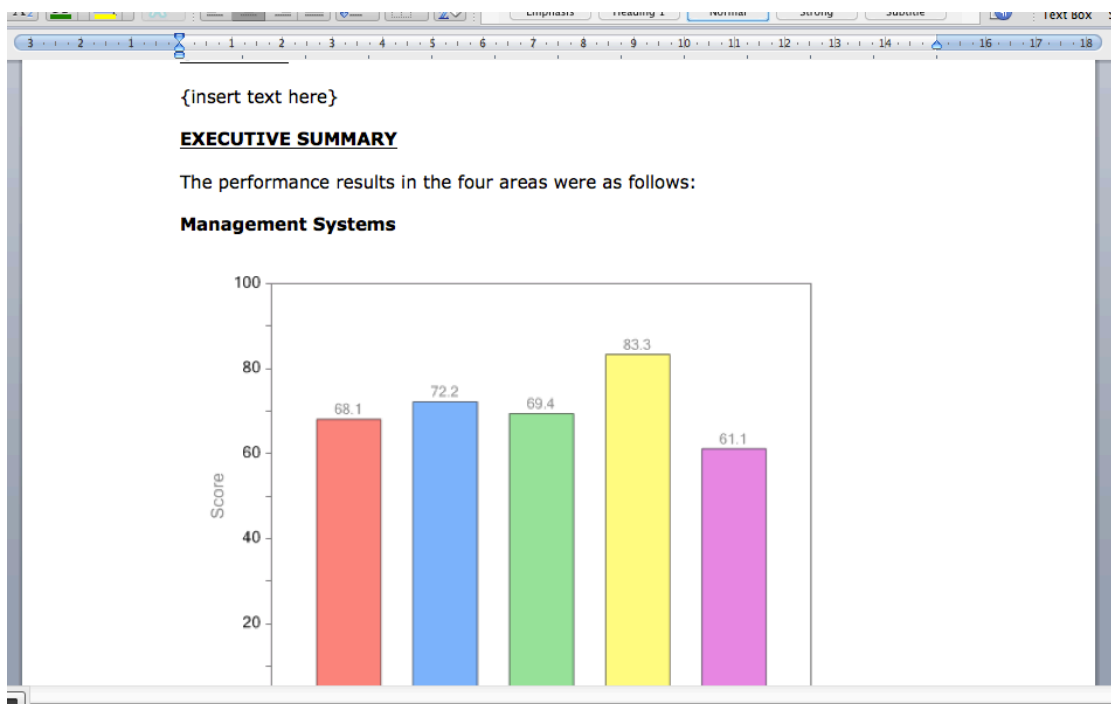


fig4. Sample output

Our application workflow ended up being as follows:

1. Retrieve XML data from repository
2. Compute and render charts
3. Format rest of data for Aspose Words
4. Render final document with Aspose Words

The fully functional trial version of the product was a godsend because it enabled us to write our test code and evaluate the output before committing to a purchase.

Experience

We had a fairly smooth application development period due to the good documentation and uncomplicated API.

We discovered that most of our code involved formatting the data from the repository before passing it to Aspose for “MailMerge”. The actual rendering code was just a minute fraction of the overall application code.

An initial challenge was including images of graphs in the word document but after reading the online documentation we managed to overcome that with a simple “event handler” and “<<Image: >>” fields.

We also had a few tables to generate but that was also done effortlessly and the results were very satisfactory.

```
144 private static void HandleMergeImageFieldFromBlob(object sender, MergeImageFieldEventArgs e)
145 {
146     switch (e.FieldName)
147     {
148         case "Chart1_FilePath":
149             e.ImageFileName = @"chart1.bmp";
150             break;
151         case "Chart2_FilePath":
152             e.ImageFileName = @"chart2.bmp";
153             break;
154         case "Chart3_FilePath":
155             e.ImageFileName = @"chart3.bmp";
156             break;
157         case "Chart4_FilePath":
158             e.ImageFileName = @"chart4.bmp";
159             break;
160         case "Chart5_FilePath":
161             e.ImageFileName = @"chart5.bmp";
162             break;
163         case "Chart6_FilePath":
164             e.ImageFileName = @"chart6.bmp";
165             break;
166         default:
167             break;
168     }
169 }
170
171 }
```

fig5. Sample image handling code

Next Steps

We look forward to using other products Aspose offers in our future projects and don't have any reservations recommending their solutions to other developers.

Summary

Aspose Words has been an excellent discovery for us and has enabled us to create a complete and well integrated product. The simplicity of the tool coupled with its good documentation, considerably reduced the effort and time to test and deliver a solution that met our clients requirements.