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.

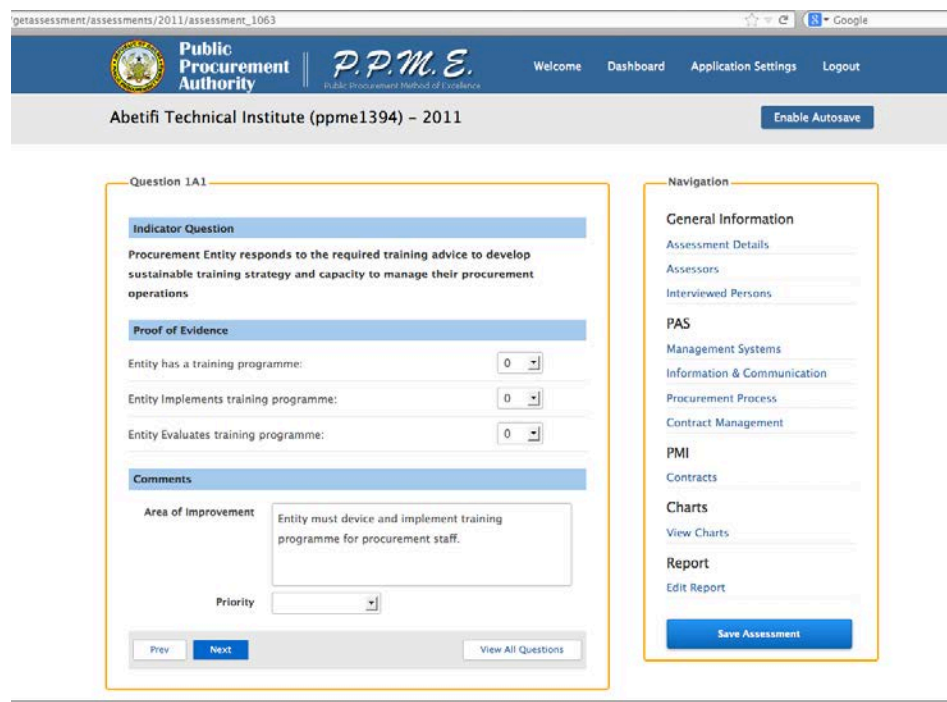By John K Wilson, CTO, Infinite Blue Technologies – 28/08/2013

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.
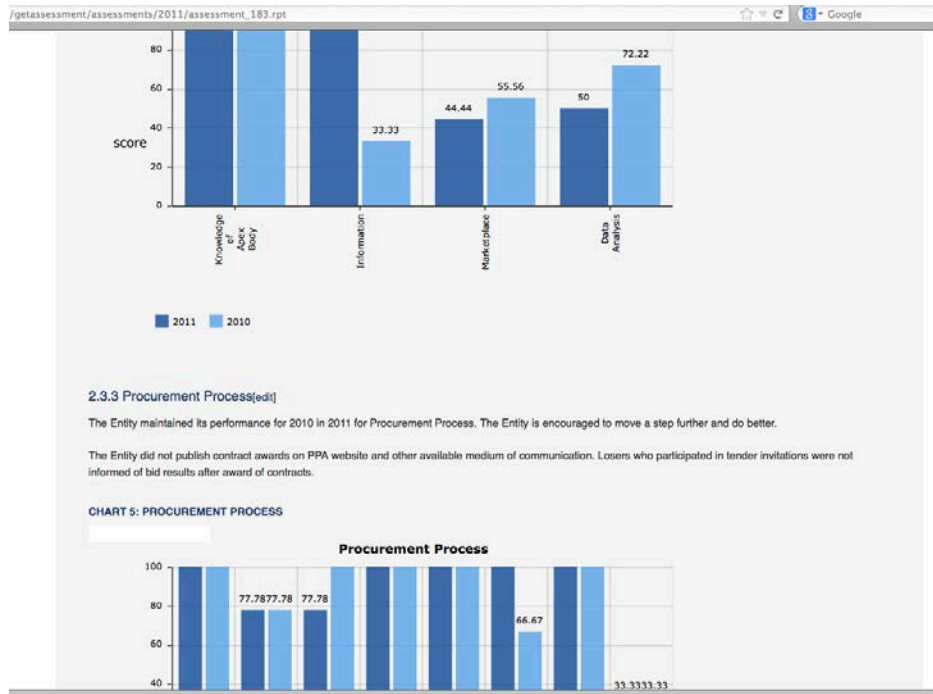
fig1. Assessment questionnaire

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.

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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".
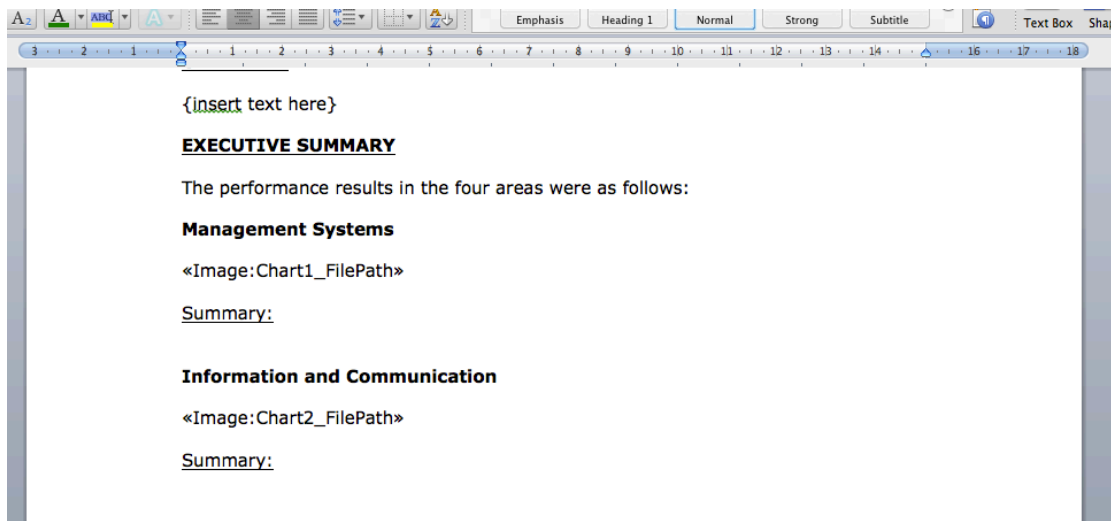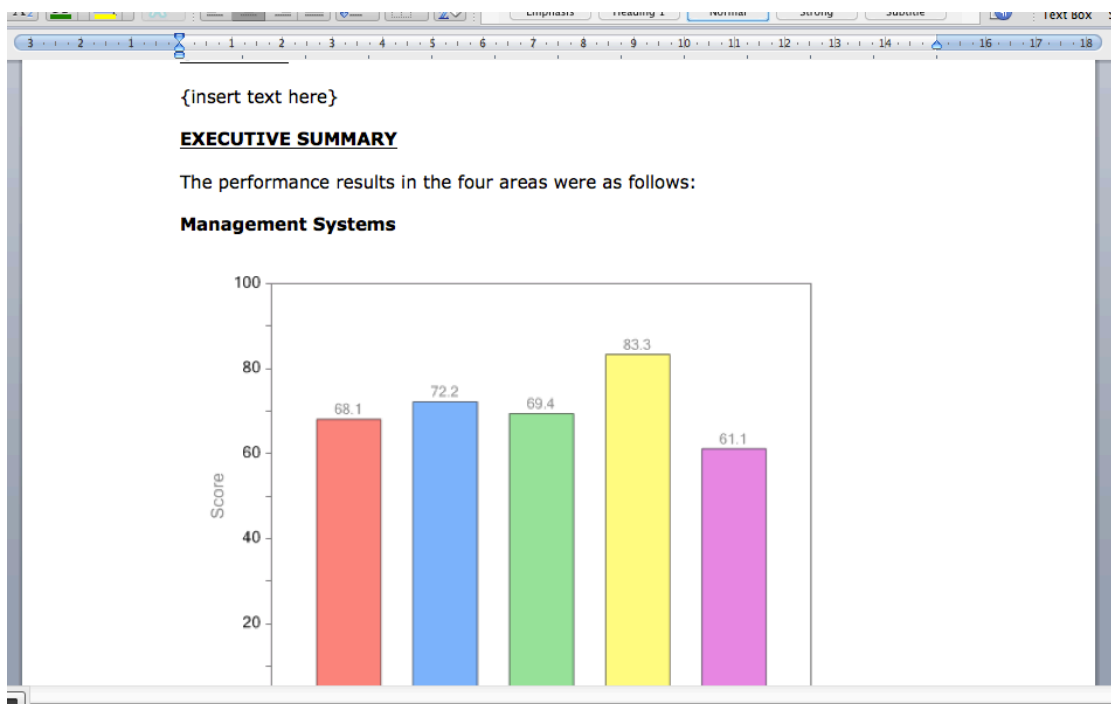

fig3. Word template with merge fields

fig4. Sample output

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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.

```csharp
private static void HandleMergeImageFieldFromBlob(object sender, MergeImageFieldEventArgs e)
{
    switch (e.FieldName)
    {
        case "Chart1_FilePath":
            e.ImageFileName = @"chart1.bmp";
            break;
        case "Chart2_FilePath":
            e.ImageFileName = @"chart2.bmp";
            break;
        case "Chart3_FilePath":
            e.ImageFileName = @"chart3.bmp";
            break;
        case "Chart4_FilePath":
            e.ImageFileName = @"chart4.bmp";
            break;
        case "Chart5_FilePath":
            e.ImageFileName = @"chart5.bmp";
            break;
        case "Chart6_FilePath":
            e.ImageFileName = @"chart6.bmp";
            break;
        default:
            break;
    }

}
```

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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.