

ABB Switzerland improves IT process documentation and publication in EPC notation

ABB Switzerland uses Visio Premium 2010 and Visio Services in a business process portal to create and publish their business processes in the EPC notation

Overview

Country or region: International
Industry: Power and Automation
Technology

Customer Profile

ABB, based in over 100 countries, is a global leader in power and automation technologies that enable utility and industry customers to improve their performance while lowering environmental impact.

Business Situation

ABB needed a solution for the easy documentation of business processes in EPC notation and their publication to end users. The current solution was over 10 years old and the process was very complex.

Solution

maguro DataAssist helped ABB create a solution with Visio 2010 and Visio Services that was streamlined for the end users. A new add-in that removed old VBA legacy code made the solution more secure.

Benefits

- Reduce publishing process time
- Reduce diagram creation time
- Increase diagram consistency

"The combination of Visio 2010 Premium, a custom add-in and Visio Services gives us an easy-to-use business process portal supporting the needs of our process managers and their customers – the end users."

Bernd Schachinger, Processes & Quality, ABB Switzerland

Overview

Since 1997, ABB Switzerland has been using Microsoft® Visio® for the documentation of their business and IT processes. However, when ABB instituted new process diagram requirements about a decade ago, it required Event Driven Process (EPC) notation, which Visio did not provide out of the box, so ABB developed a custom Visio solution. Because of the added modifications involving the extra required shapes, customized templates, and macro code, the publishing process was complex. The solution had become very out of date and ABB decided to rethink the whole solution. The organization decided to migrate all its process diagram files and shapes to Visio Premium 2010, and take advantage of the Diagram Validation feature to publish documents to SharePoint Server 2010 with Visio Services.

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Bernd Schachinger, Processes & Quality, ABB Switzerland

Situation

ABB Switzerland has been using Microsoft® Visio® since 1997 for the documentation of their business processes. At that time, the EPC-type notation was not supported by Visio (the shapes were not part of Visio) so ABB had those shapes developed externally by Maguro DataAssist GmbH (formerly DataAssist), a Microsoft partner. The creation of the shapes also included a template with VBA macros to support some ABB specific documentation needs like multi-page sized process diagrams, where one diagram could stretch to five or six pages in height, but still be one diagram for print out.

The files were created and maintained by a relatively small group at ABB, but they were binding for end users worldwide. The process of publication involved the export of the Visio files to HTML so the end users could not modify documentation by accident. The task was very complex for the process managers, since even the slightest change in the documentation involved a new export of the file. In addition, manual checks were necessary to ensure that the version published in HTML corresponded to the version in Visio.

According to Bernd Schachinger, responsible for the management and quality assurance of the documentation at ABB, this added a huge workload to the relatively small group of process managers. He states, “The publication process was a mess – we lost much time just by having this ‘two files with one

content’ issue. We lost even more time when users found functions on one file that they did not find in another.”

When the old VBA code needed to be changed or updated, VBA-based solutions had no standard method for such updates. Furthermore, it was almost impossible for the process managers to identify the state of the VBA code in a specific file which meant that some files had specific functions, while others did not.

With the increased amount of macro viruses, the security policies at ABB were tightened, making the solution more and more unsecure. When Microsoft started to secure its products against macro threats, ABB began searching for an alternative that would remove the danger and still give the desired functionalities, because the process documentation had proved very good and reliable for ABB.

Solution

When ABB decided to standardize on Microsoft SharePoint® 2010 as the internal collaboration platform, they also started thinking about leveraging it to create a modern and easy-to-use process documentation portal with Visio Premium 2010.

As ABB Switzerland had already worked with maguro DataAssist since 1997, the next step was to identify the areas where improvement was necessary and determine how it could be delivered with the new technologies.

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**Šenaj Lelic, Managing Director
maguro DataAssist GmbH**

In several discussions, the following areas of improvement were identified:

- The VBA code within the old Visio files should be removed automatically since there was no simple way for the end users to perform this task
- Visio Services should be established as the new publication technology for the wider audience to consume Visio diagrams
- The internal software trainers of ABB should be trained on Visio 2010 in order to train the ABB internal employees

Maguro DataAssist analyzed the existing Visio files and created a new Visio add-in, based on Microsoft.NET and Visual Studio Tools for Office, which brought the same functionality as the old VBA-code, but without the security issues. In addition, code updates could be done in the add-in so the Visio files could remain unchanged.

Šenaj Lelic, Managing Director of maguro DataAssist states, “Migrating such huge customer documentation to a new platform usually is a complex and risky task. With Visio 2010 and Visio Services this became very easy. The most ‘complex’ thing was the migration from VBA to a Visio add-in based on .NET to give ABB still the functions the BPM managers needed to successfully create the documentation.”

ABB Switzerland also evaluated the Diagram Validation feature of Visio Premium 2010 and found that the built-in basic rules for flowcharts brought a huge improvement. These

basic rules helped to ensure that process managers created documentation that contained all necessary components. The process files were much easier to check for errors and omissions so the overall quality of the documentation could be improved without huge training or checking efforts.

The publication process, formerly a three-step process (create or update the Visio file, export it to a read-only file format, and then publish to a central location) was simplified tremendously. Today, all files exist in one file format - the “Visio for Web” or VWD file format. They also reside at the same location - the SharePoint portal – but the way of access differs by the type of user:

- Process managers access the files with Visio Premium 2010 to create or change the process files
- End users simply access the files in a browser with Visio Services and get all necessary information in a read only format

This way, the whole mechanism of process storage and publication became a one step process of saving the file to the correct location inside SharePoint.

For the process managers an additional benefit is the new user interface. Visio 2010 is the first version of Visio that uses the Microsoft Office Fluent™ user interface (also known as the “Ribbon”) – a technology Microsoft introduced with Office 2007, but that was not available on Visio until now. According to the process users, the Ribbon makes the creation of process files “a game”. The structure

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Remo Kury, Quality, Sustainability & Security manager, ABB Switzerland

of the functions in the Ribbon, the new stencil handling, and especially the new “Quick Shapes” feature help users save time when they create new process documentation.

Finally, maguro DataAssist conducted one day-long onsite session to train ABB trainers on Visio Services and Visio 2010 BPM scenarios.

Benefits

ABB Switzerland’s Processes & Quality team realized a number of important benefits from the Visio Premium 2010 solution and Visio Services, including increased productivity, setting higher security and code stability standards, and improved publication environment.

Increased Productivity

One key benefit expected through

the Visio Premium 2010 solution is increased Processes & Quality staff productivity. “By using the Diagram Validation we effectively help our users to create correct diagrams that contain all necessary information right from the beginning” states Schachinger.

Remo Kury, Quality, Sustainability & Security Manager at ABB continues, “We chose Visio Premium 2010 Edition because the publication to Visio Services is a built-in feature and also because the Diagram Validation helps us to create and maintain correct documentation very easily. In addition, the new user interface and UI improvements reduce the time to create new documentation significantly. Visio Premium 2010 and Visio Services solved long-term issues within minutes.”

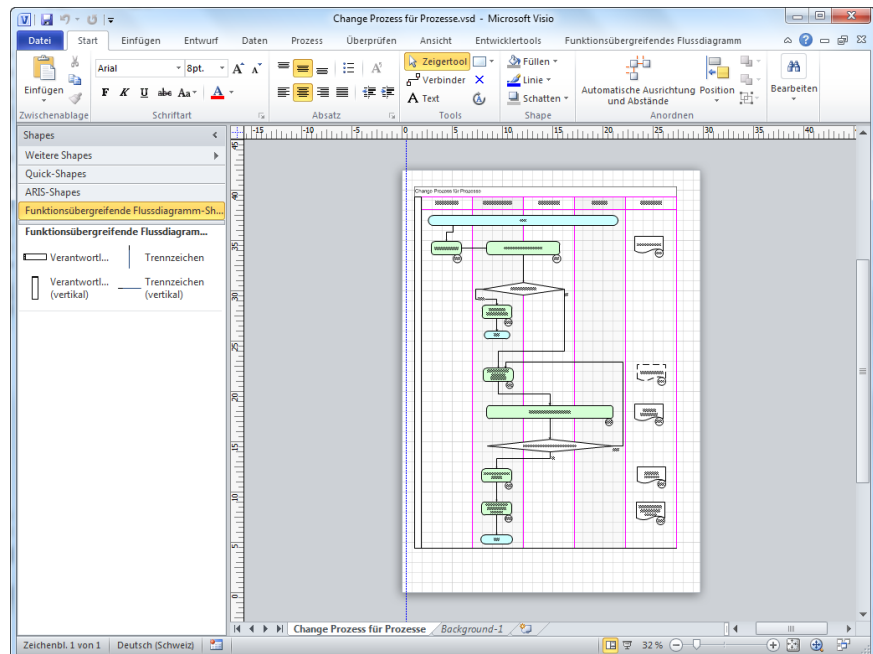


Figure 1 EPC process in Visio 2010

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For more information about ABB Switzerland products and services, visit the Web site at:

<http://www.abb.com/>

For more information about maguro DataAssist Corp. products and services, visit the Web site at:

<http://www.maguro-dataassist.com/>



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One of the key benefits of Visio Premium 2010 is its simplified ease of use. According to Schachinger, "One of the things about previous versions of Visio is that it wasn't as intuitive to use as other Microsoft Office products. The new Office Fluent User Interface in Visio Premium 2010 is great for finding features by graphical icon in the tab menu, which will help our Processes & Quality team to use the software more effectively."

Schachinger explains, "Our process owners, responsible for the documentation of their processes were forced to create and maintain every version of a document in two formats (read-only and read-write). This brought a huge complexity to this pretty simple task. Visio Services removes the second format effectively - still giving us the read-only capability and in addition the publication to a new process portal in SharePoint."

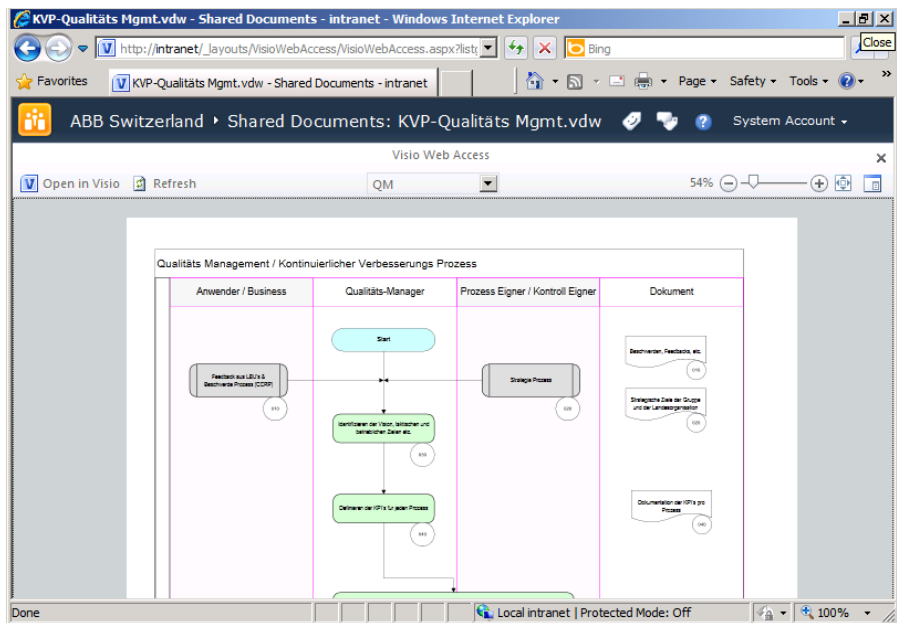


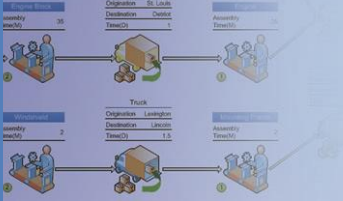
Figure 2: Quality Management Process published to Visio Services

Improved publication environment

In the past, users always had to take care of two files with the same content. One file was created for the process managers and the other one for end users. Having to manage two files in parallel, checking files for changes, and republishing took a lot of time.

Higher Security and code stability established

Removing VBA from the files was a long-term wish. Not only was VBA an issue for security, but also for code update reasons. Now code updates only have to happen within the add-in (which is centrally deployed) so all files immediately benefit from new functions that are made available in the add-in. "We



got frustrated by the constant “Macro Security” issues and the fact that some files had new functions, some didn’t, and we could not figure out easily which one had which function without opening them all and checking.” says Schachinger.

Microsoft Visio 2010

The advanced diagramming tools of Microsoft® Visio® 2010 help you simplify complexity with dynamic, data-driven visuals and new ways to share on the Web in real-time. Start by building your diagram with a diverse set of professional-looking templates and modern, pre-drawn shapes. Then, easily link your diagram to popular data sources (such as Microsoft® Office Excel®). You’ll see data automatically refresh right within your diagram, reflected in vibrant visuals such as icons, symbols, colors, and bar graphs. Finally, with just a few clicks, publish your data-linked diagram to Microsoft® SharePoint® Server 2010, and provide access to others on the Web, even if they don’t have Visio. Together, simplicity, data-driven shapes, and Web sharing make Visio one of the most powerful ways to see and understand important information.

For more information about Microsoft Visio 2010, go to:

www.visio.com

Software and Services

- Microsoft Visio Premium 2010
- Microsoft SharePoint Server 2010