



Business Process Management System with a HTML5 Annotation Module

Executive Summary:

Gartner defines Business process management (BPM) as the discipline of managing processes (rather than tasks) as the means for improving business performance outcomes and operational agility. Thus using a robust Business Process Management system makes the organization's workflow more effective, more efficient and more capable of adapting to an ever-changing environment.

Few years back Mindfire Solutions was approached by a leading provider of business process workflow solutions globally for a custom software development task that required Mindfire Solutions to customize the client's existing Business Process Management system to suit its clients' needs. It has been a long time since and the business process management system is now in its third version and has come a long way from being a Lasso module to an all Java module with an HTML5 annotation for its Artwork Review module. With Java deployment the Business Process Management System is highly automated and can be tweaked according to suit the needs of the clients.



Due to the expert software development services provided and the zeal to take up challenges and grow along with the client, Mindfire Solutions has the privilege of being the primary software services provider to the client. That our team size grew 1 developer to 8, leaves little to the imagination of the excellent work done and the popularity of the product among business circles.

About the Client:

Client: Business Process Management system provider

Location: United Kingdom

Industry: Management Consulting

Technologies Used:

Java, Spring, HTML5, JavaScript, ExtJs, Draw2D, CSS, MySQL, Lasso, Illustrator, Flex, Flash



Business Situation:

As the landscape becomes increasingly competitive for businesses they must find a way to use and reap the benefits that Business Process Management offers. At the same time the market is flooded with a variety of solutions, which have been built with little or no consideration for the end user. This idea propelled our client to develop a business process management system that was based on client feedback, was user focused and offered great end user satisfaction and entirely dedicated to maximize the efficiencies of their clients' business processes.

The fact that they are presently in their third version of the system speaks highly of their attention towards detail and user satisfaction. Mindfire collaborated as a custom software development services provider and graduated to be the only software services provider starting from version 3. While the first two versions were predominantly Lasso based, the third version was changed to Java and hence made configuration of the business process management easy at an individual business level.

The Mindfire Solution:

Mindfire Solutions developed a web based business process management application that helped the workflow specialist or the business analyst to design the workflow for a particular business process.

The application consisted of the following different modules/features:

Form builder helps the workflow specialist or business analyst to create a form , It has drag and drop functionality that allows to build the form quickly, in which he can drag and drop the form elements to the canvas and set their properties. These forms will later be available as the task attached and assigned to a particular user.

Artwork Review is an important part of the application, which helps to review documents online using Java Annotation module or HTML5 Annotation module with ability to annotate, draw, zoom in/out, compare versions, ruler, densitometer, print, download etc.

Workflow builder is capable of building the workflow which can be configured to meet the varied requirements of business process and has the facility of drag and drop. It contains the set of mutually exclusive workflow objects (for instance, form object, review object, email object, decision object etc.) which when connected to in a given sequence can drive a task driven business process management tool for any scenario. Each object could be dragged on to the workflow canvas, connected to other objects and have attributes assigned.

Business process will accomplish a specific process, every business process will have a workflow attached to it, and when all the steps of that workflow completes then only a business process will said to be complete.

Task dashboard part of the application lists the pending task for every user. Every user that has a task in the task dash board is required to complete the task after which, according to workflow, the task of next user will be generated. When every user finishes off their task then only the workflow is said to be complete (depending upon the conditions and output of the users).



User/Role module, admin can create user and role. This module also provides functionality to set user/role privileges. An application module has access subject to user/role privileges. User can't access module if doesn't have privileges for it. Roles privileges can be overridden at user level.

Dictionary module is where all the application labels and messages being kept. Admin can change these labels any time and they will reflect on UI instantly. Dictionary also keeps various language translations. It makes application multiple language compatible.

Value list module is module where all the drop down/Multi select items managed.

Asset management is the module where application allowing user to manage the assets. User can keep asset like (DOC/XLS/PDF/Image etc.) in various user defined categories. This module allows user to upload/delete/View his assets. Module also has special feature for managing versions, when user uploading name asset in particular category instead of overwriting the existing asset application creates new version. User can view all the versions of particular asset.

Reporting module is a powerful module of this application to build custom reports, with build-in code editors by taking inputs of data-source (stored procedure), business logic (java) and presentation layer (JavaScript/ExtJS). The reporting engine then compiles inputs and generates reports.

Task Delegation is the screen user can delegate his or others task according subject to the user/role privileges.

There are other modules as well like Preferences, Attributes, History etc.

Mindfire took up the challenge to create a Java based prototype for version 3 of the BPM in three months' time and completed the work well within the time frame. When the prototype was successful, we assured to finish the entire version 3 in an estimated time frame of one year. Mindfire integrated the Java based Artwork Review module with a review object that serves as the link between the artwork review module and business process management module. Mindfire also customized the Java annotation module (JAM) to easily integrate either with version 2 or version 3 of the Business Process module. By the year 2014, the HTML5 annotation module (HAM) was complete and the versions 2 and 3 were both compatible with JAM and HAM.

How the System works?

The business process management system helps brands manage the creation, review and approval of artwork. This is primarily used in Retail especially in artwork approval phase of a product lifecycle for food / non-food consumer packaged goods. The task management and artwork approval application manages notifications and access to digital artwork to a controlled set of stakeholders.

While the present BPM is coded by software developers who code every solution deployed or make a modification to an existing workflow or view, the next version promises to be a vanilla application that can be easily configured by a workflow specialist or a business analyst.



Future Relationship:

What started out as a regular custom software development service, has now translated to a relationship where Mindfire Solutions has become the primary software services provider. More than 8 software developers from Mindfire Solutions are engaged in this project. We now look after the entire software development area right from new product creation to maintenance, handling change requests enhancements to existing products etc. We also provide software development services in other areas viz. Filemaker, Adobe Illustrator etc.



(Our developers (Clockwise from top left): Chetan, Dias, Ginny, Jaspreet, Sumit, Gourav, Premchand & Debabrata)



Founded in 1999, Mindfire Solutions is an award-winning provider of software development and testing services to the global market with 650+ talented software engineers at 3 centers in India. For its people and its work, Mindfire has won coveted international awards such as Deloitte Technology Fast50 India Award 2013 and 2014, Dun & Bradstreet Fastest Growing SME 2013 Award, Red Herring Top 100 Asia Award and Zinnov GSPR 2014. Mindfire has been recognized with ISO 9001:2008 and ISO 27001:2005 certification, is a continuous member of NASSCOM, and has established a strong track record of 2000+ projects successfully delivered for 500+ technology clients.

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Need help to develop a Business Process Management System?

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