



ENGAGE BUSINESS USERS IN PROCESS IMPROVEMENT WITH IBM BLUEWORKS LIVE

A critical success factor in any business process improvement project is engaging business users. They are, after all, the ones who know best how the current-state process works, as well as the various ways in which it doesn't work. And they are also the ones whose daily work life will be most directly impacted by any process changes. The trick is getting business users directly engaged in the project. They are used to that being "IT's job," although they often complain that IT doesn't listen to their requirements, or at least does not adequately understand them. But if you can somehow get those users to actively collaborate with your business analysts and consultants in documenting the current process, analyzing its shortcomings, and describing in detail a proposed new and better process, your chances of successful process improvement significantly increase. That requires new tools that not only eliminate the barriers that have always gotten in the way of business users but encourage active business user participation in the project.

IBM Blueworks Live was designed expressly to engage business users in process improvement. It runs in the IBM Cloud and users access it through a web browser on any computer, so there is nothing to install and nothing to set up – a huge barrier removed right there. Blueworks Live provides a shared team workspace right out of the box. You can share process diagrams and other project artifacts with all project stakeholders, see at a glance what's new or changed, and comment on anything you see. Any changes you make are captured as new "snapshot" versions, so there's no worry about making a mistake. You can always revert to a previous version.

This report provides an in-depth review of Blueworks Live's features and benefits for engaging business users in process improvement.

Meeting the Challenge

Most business users see process improvement as an IT responsibility. Business analysts and possibly outside consultants typically interview business users to understand how the current process works, its problems and improvement goals. So they hold lots of meetings and workshops with the stakeholders to collect information. Then they go off and generate the process documentation, analyze current process performance and effectiveness, and create recommendations for a new and (hopefully) improved process, ultimately published as a list of "business requirements."

That is not really business user engagement. To ensure success in process improvement, business users need to be more directly involved in the project. When they describe how the current process works, they need to see it in a flowchart, so they can discuss and debate it, and ultimately agree, "Yes, this is how it works today." Real engagement is when the business users actually collaborate in building the flowchart. They can see the process unfolding in front of their eyes.

They get excited as it happens. If you can get to that point, you are on your way to a successful process improvement project.

A Tool for Business Users

But common process diagramming tools like Microsoft Visio actually are a barrier to business user engagement in process improvement projects. They are most often used to create traditional flowcharts, but these have fallen out of favor for serious process improvement because the meaning of the shapes and symbols are not standardized. The diagrams might make sense to the modeler, but they don't communicate clearly to a wider audience. Instead, process improvement teams today are encouraged to use the Business Process Modeling Notation (BPMN), the process diagramming standard. BPMN adopts the outward look and feel of traditional swimlane flowcharts, so it is familiar to many business users, but it is more precise, and models are interchangeable between tools.

Unfortunately, BPMN is not supported by standard Visio. You need a special Pro version or a third-party add-on, and these are designed for business analysts, architects, and other business process management professionals, not business users. And while it can make nice-looking diagrams, it requires a lot of time and a bit of a learning curve to get the layout right. Business users rarely have the patience for it. Moreover, Visio is PC-only and requires admin rights to install, additional barriers for business users. But the most important barrier is this: ultimately, Visio is a single-user tool. In order to share diagrams across the team and ensure everyone is looking at the latest version, you need to publish them to Sharepoint or equivalent collaboration tool, meaning integrating modeling with a separate collaboration tool. People do it, but integrating the tools is one more IT project, an additional barrier.

IBM Blueworks Live avoids these problems. There is nothing to install, nothing to set up. It is hosted by IBM in the cloud, and you simply log in to your Blueworks Live account through a web browser. An account can have any number of users. Each pays a monthly subscription, based on their level of permissions: Editor, Contributor, or Viewer. Blueworks Live is optimized for business users, not analysts and architects. It values ease of use and intuitive operation over technical features. At the same time, it leverages the key standards used by IT for process improvement: BPMN and the new Decision Model and Notation (DMN).

Moreover, process improvement requires more than just diagramming the activity flow. Unlike Visio, Blueworks Live lets you capture the important *properties* of the process as a whole or any selected activity, including the roles involved, inputs and outputs, average durations, and costs. All of this is built in from the start. You can also model *business decisions* – sometimes referred to as business rules – as well as the *policies* that underlie them. Editors for all of these are designed for ease of use by business users.

In addition, sharing of process diagrams, properties, decisions, and policies, as well as comments and change history on any of these, does not require integration with some other tool. Like ease of use, team collaboration is built in from the start. Blueworks Live models and data can be shared with all users in the account, but often you want to restrict editing access to specific users or teams. Each Blueworks Live account is subdivided into sections called *spaces*, within which permissions for editing and viewing can be restricted to a particular subset of users. Typically, each project would have its own space dedicated to project team members. The key point is that sharing is controllable and easily configurable to fit the needs of your organization.

Getting Started

When you first log in to Blueworks Live, you'll go to the page you have designated as your *start page*. You can designate any page as your start page by clicking the + in the upper left corner of the page. (The + will change to a green check mark to show it's now your start page.) The example below uses the Community tab as the start page. The *Community* tab (Figure 1) gives you a birds-eye view of the latest happenings in all projects you are involved in. The main panel, the *private activity stream*, provides a real-time stream of all changes or comments to any processes or decisions modeled in your account. You can filter and sort them by Date, User, Process, or Space. You can elect to *Follow* certain processes, activities, or specific elements within them by clicking the star icon, and in your Private Activity Stream you can choose to view only Followed Items.

The screenshot shows the Blueworks Live interface. At the top, there's a navigation bar with 'Work', 'Community' (selected), and 'Library'. The user is identified as 'Bruce Silver' with options for 'Admin', 'Help', and 'Logout'. A search bar is present. The main content area is divided into two sections: 'PRIVATE ACTIVITY STREAM' and 'PUBLIC BPM STREAM'. The private stream shows a list of activities for 'My BPI Project', including changes to 'Hiring Process - As Is process' and 'Position denied playback'. The public stream shows a blog post by 'Len Bucuvalas' about a new client support portal. On the right sidebar, there are three prominent buttons: 'Blueprint a Process', 'Automate a Process', and 'Compose a Decision'. A 'QUICK LINKS' menu is visible on the left side of the private activity stream.

Figure 1. Blueworks Live start page

In the right sidebar, the *public BPM stream* is an IBM-curated feed about new features in Blueworks Live or generally related to process improvement. Above the public stream are three buttons to initiate one of the three main functions of Blueworks Live. In this report we focus on the first one, *Blueprint a Process*, IBM's terminology for modeling the process in BPMN and adding properties for documentation and analysis. The second button, *Automate a Process*, lets you create and launch simple automated workflows such as review and approvals, and monitor their progress. The third button, *Compose a Decision*, lets you model decision logic as a set of business rules. This is an interesting, relatively recent enhancement to Blueworks Live, and we will discuss it later in this report.

Blueprinting a Process

Discovery Map and Process Diagram

A major reason why Blueworks Live is able to engage business users is it introduces process modeling in a simple, intuitive way.

The *Discovery Map* view of a process model or "blueprint" is based on an outline, shown in the left pane of Figure 2. Top-level elements in the outline are called *milestones*, representing major phases of the process. Indented under each milestone are the *activities* it contains. You can add

sub-activities (and sub-sub, etc.) with additional levels of indenting. To the right of the outline, milestones and their contained activities are shown as columns of boxes. You can rearrange the order – either the boxes or the outline – and Blueworks Live keeps those two views in sync. This is an easy way for business users with absolutely no background in flowcharting to become engaged in the project.

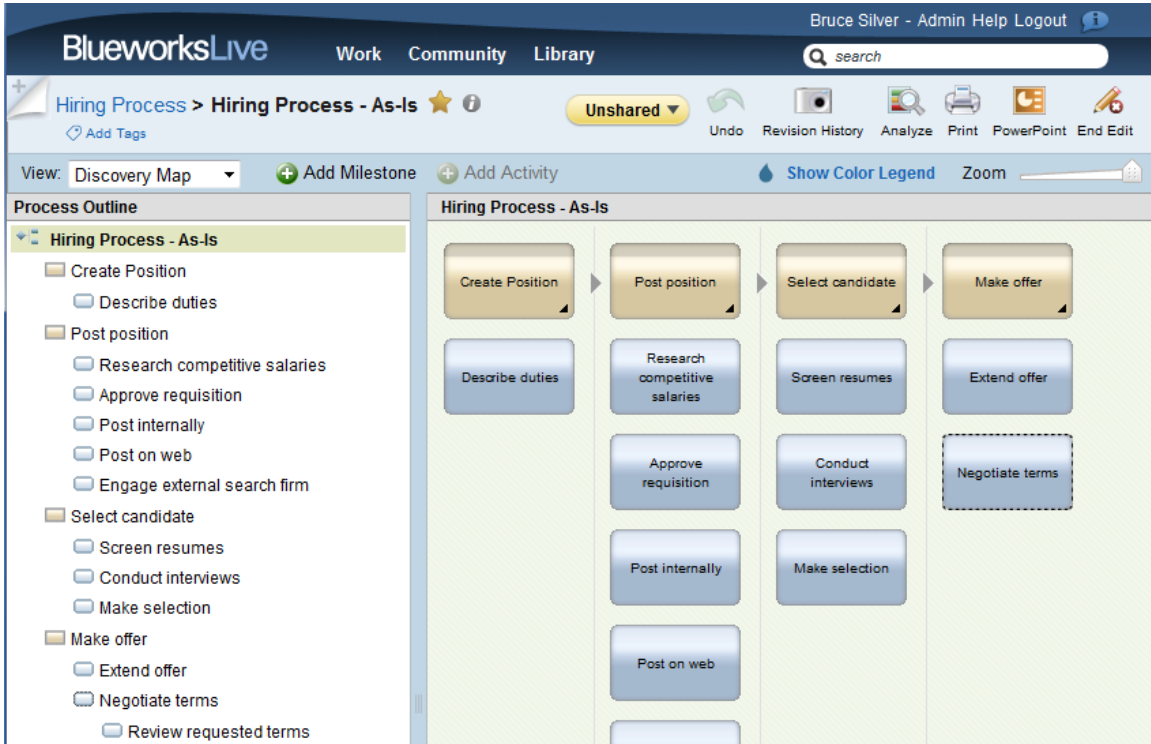


Figure 2. Discovery Map view

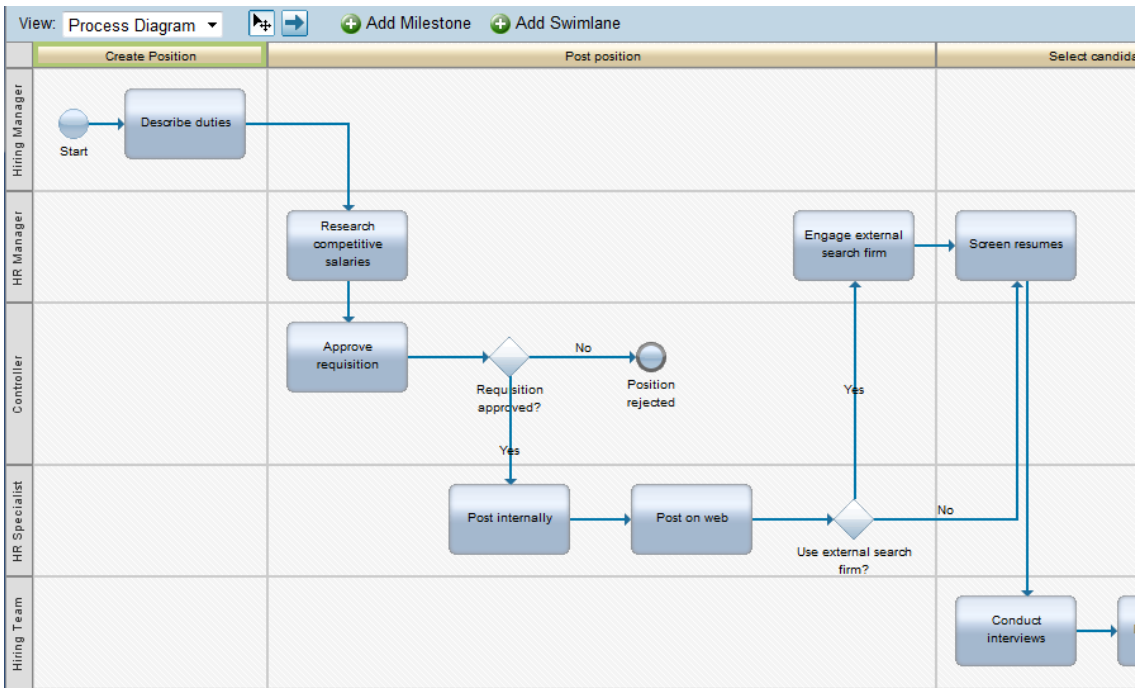


Figure 3. Process Diagram view

That is just the beginning, because switching from Discovery Map to the *Process Diagram* view transforms the boxes into BPMN automatically (Figure 3). In the Process Diagram, the milestones become horizontal sections of the diagram, labeled with the milestone name. The activity flow follows the BPMN standard. Note that the activities are arranged in *swimlanes* representing the role performing each one. You can assign an activity to a role (called *Participant* in Blueworks Live) in a variety of ways: through activity's Participant property in the Process Details panel, or by simply dragging the activity to the swimlane in the diagram. Note that the diagram also contains diamond-shaped *gateways*, representing branch points in the flow. When the diagram is first generated from the Discovery Map, those gateways aren't there. You need to add them directly in the Process Diagram editor.

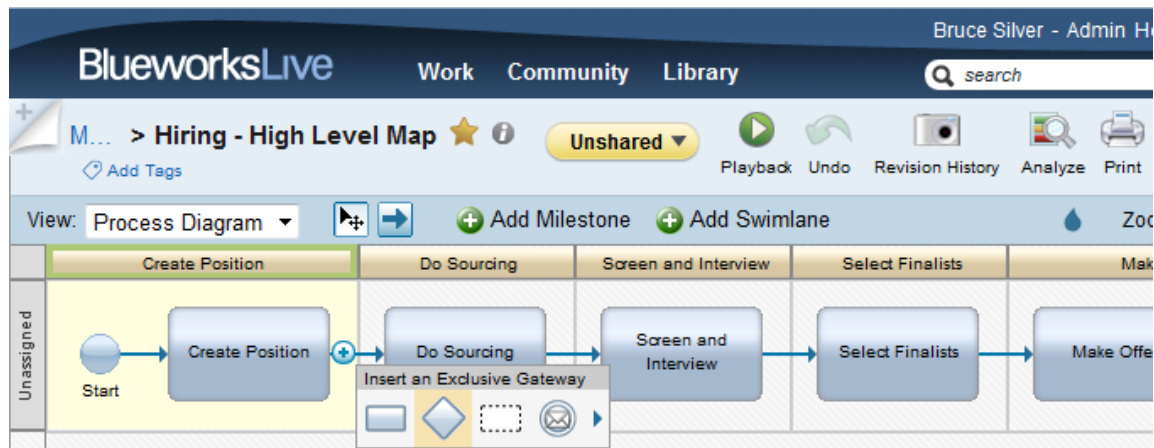


Figure 4. Editing BPMN in the Process Diagram view

Direct editing of the process diagram is also business-friendly. If you click on a solid arrow in the diagram, called a *sequence flow* in BPMN, Blueworks Live pops up a graphical Insert dialog (Figure 4) and marks the insertion point with a + enclosed by a circle. You can insert an activity, gateway, or event by selecting the shape from the dialog. A key difference between Blueworks Live and Visio-based BPMN is Blueworks Live generates the layout automatically. That saves a lot of modeling time and effort vs. Visio's drag-and-drop manual layout, especially when activities are arranged in swimlanes, as in Figure 3.

Another important difference for business users is that Blueworks Live, unlike Visio, can toggle instantly between “flat” and “hierarchical” representations of the process. Figure 3 is an example of a flat model: all the activities are in a single level. That lets you see the detailed activity flow in a single diagram, but that diagram usually is too big to fit on a normal-size page. Notice that we needed to cut off part of the diagram to make the text large enough to read in the figure. When BPM project teams are documenting and analyzing the current-state process in a live collaborative session, business users in particular like to see the detailed flow all together, even if they have to pan and zoom to focus on an item of interest.

Hierarchical models work differently. They use subprocesses to organize the whole process in a hierarchy of levels. A subprocess is a BPMN activity that contains a flow of other activities. When BPMN displays a subprocess in *collapsed* form, it shrinks to a single rounded rectangle in the diagram, but the model still remembers the activity flow inside it. Business analysts and architects favor hierarchical modeling because it lets you create both high-level and detailed views of a single process model, rather than having to create (and keep in sync) two separate models. Collapsed subprocesses allow the top process level to fit on a single page, revealing all the important high-level information at a glance: how the process starts and ends, its major steps, and its interactions with external entities such as the customer. Clicking on the subprocess then

lets you see the flow that it contains. For that reason, my book *BPMN Method and Style*¹ and *BPMessentials training*² favor this hierarchical modeling style.

But viewing the subprocess flow in a separate child-level diagram can be confusing to some business users. Blueworks Live offers a unique solution: it lets you instantly toggle back and forth between the hierarchical style favored by analysts and architects and the flat style favored by business users! Because it generates the layout automatically, Blueworks Live lets you expand selected subprocesses in place, and the tool adjusts the layout on the fly. Tools like Visio where you manually control the layout – essentially all BPMN tools except Blueworks Live – force you to choose in advance whether to create a flat or hierarchical model.

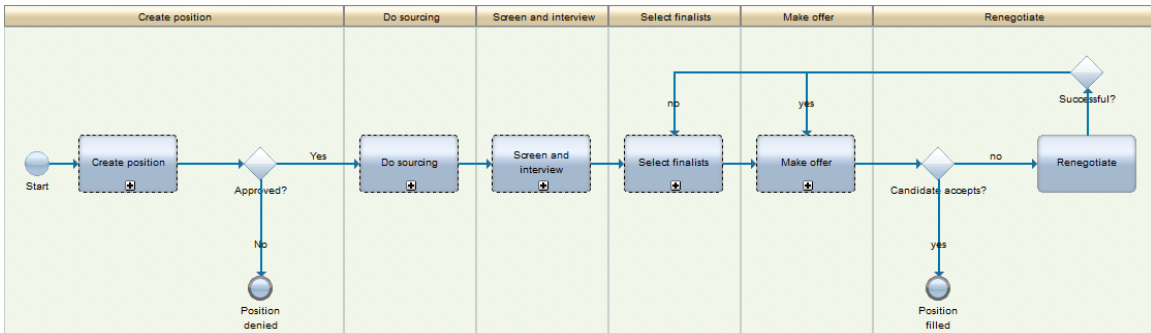


Figure 5. Top-level BPMN diagram

Here is an example. Figure 5 shows the top-level diagram of a hiring process. Each top-level activity is a subprocess, denoted by the [+] marker at bottom center. Unlike other BPMN tools, Blueworks Live lets you click any (or all) of the [+] markers and expand the subprocess in place (Figure 6), rather than hyperlinking to a separate diagram. This effectively combines the hierarchical and flat model styles in a single model. You can't do that with other BPMN tools.

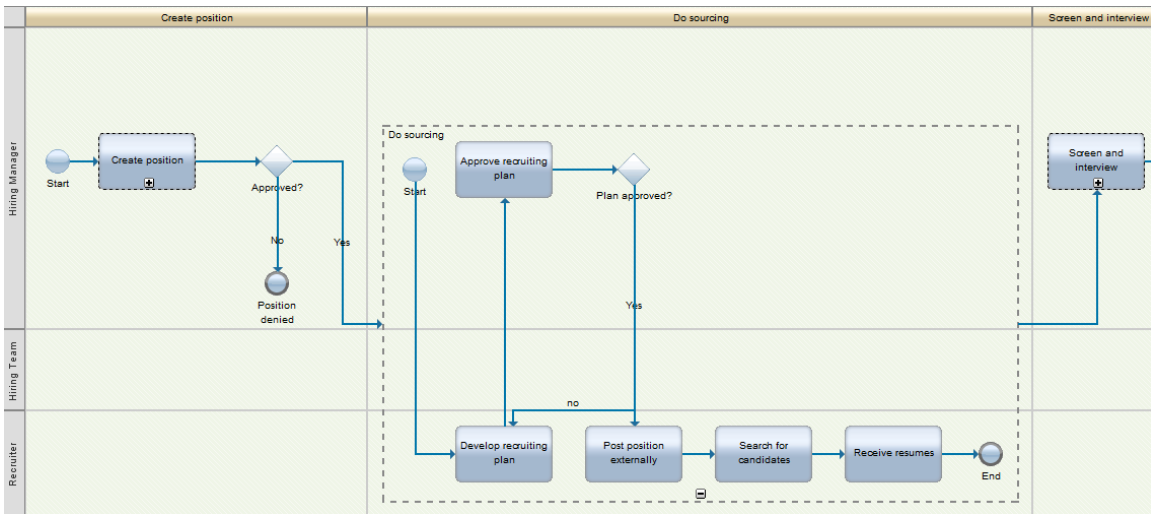


Figure 6. Expand subprocess in place (the dashed rectangle outlines the expanded subprocess)

Capturing Process Properties

Documenting and analyzing a business process requires more than simply diagramming the process flow in BPMN. You want to capture the important *properties* of the process as well: its

¹ www.bpmnstyle.com

² www.bpmessentials.com

problems and goals, improvement targets, the various roles involved at each step, inputs and outputs, times and costs, and more. Blueworks Live provides a large number of standard properties at the process, milestone, and activity level, and administrators can define an additional 10 custom properties.

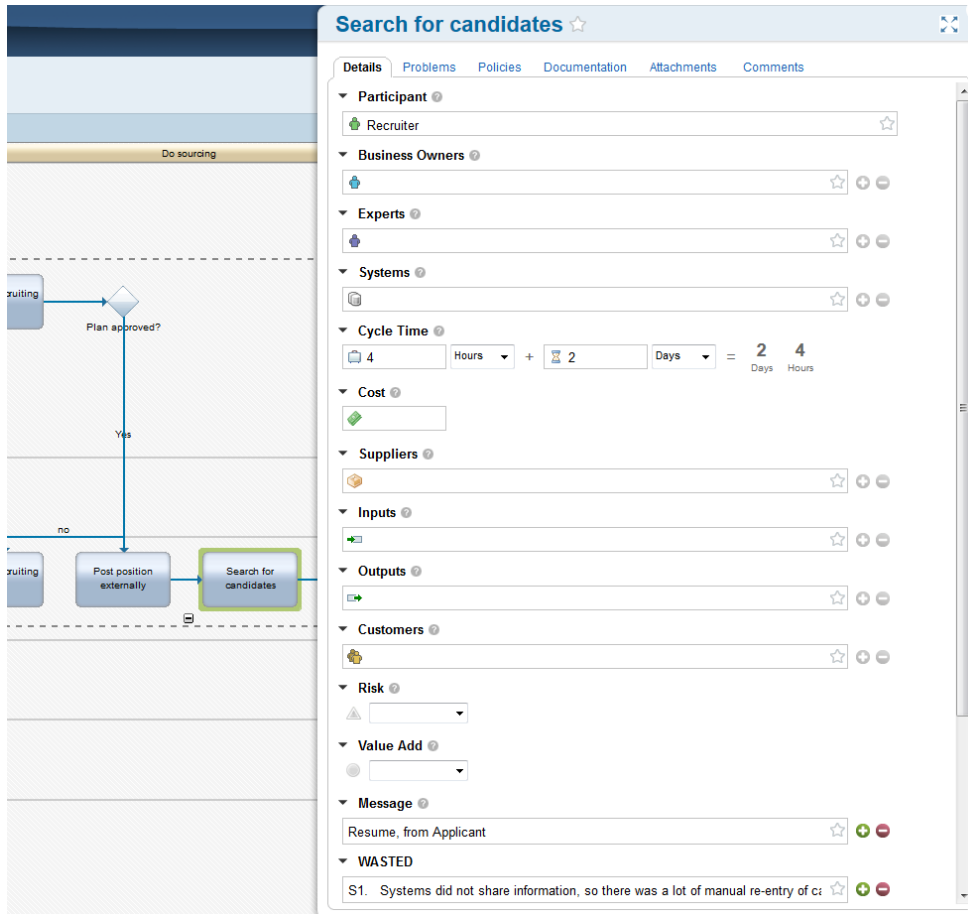


Figure 7. Standard and custom properties in the activity’s Details panel

Figure 7 shows the Details panel for the activity *Search for Candidates* in the Hiring process diagram. In addition to the role assigned to perform this activity (labeled *Participant*), you can define the activity’s *Business Owner* and *Experts*, as well as any *Systems* it involves, its *Cycle Time* and *Cost*, *Suppliers* and *Customers*, *Inputs* and *Outputs*. You can indicate a level of *Risk*, and whether the activity is *Value-Added*, important to some process improvement methodologies. The two properties listed at the bottom, *Message* and *WASTED*, are *custom properties* defined by the account administrator (*Message* defining interactions with external entities, and *WASTED* listing Wastes according to Lean principles).

While each Details panel is organized into tabs as shown in Figure 7 (Details, Problems, Policies, Documentation, Attachments, Comments), the Documentation view provides access to this same information in a single text-based list that scrolls to cover the high level process and every milestone and activity within it. As shown in Figure 8, the *Documentation view* provides another way to list *Problems* for the process as a whole or any activity in it, reference *Policies* associated with it, embed rich-text *Documentation* about it, reference document *Attachments*, and add *Comments* about it. Unlike a tool like Visio, Blueworks Live not only provides a way to enter this information but makes it visible to all members of your project team, as well as to other authorized stakeholders.

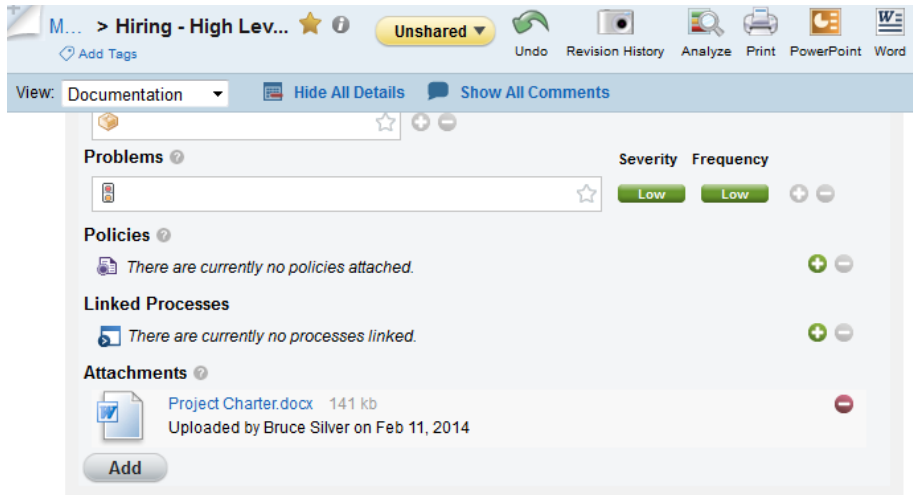


Figure 8. Documentation view

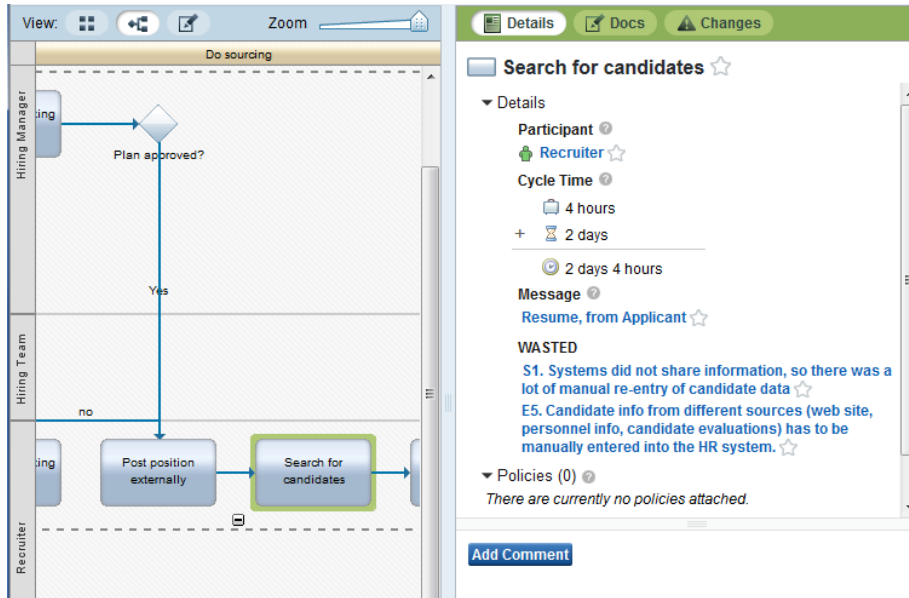


Figure 9. View mode

Figure 9 illustrates Blueworks Live in *View Mode*, which presents a read-only view of the properties (“Details”), attached documents, and changes alongside either the Discovery Map or Process Diagram. Account members with Contributor licenses cannot edit the information, and only have access to View Mode. Even though the information is not editable in this mode, you can still add comments. Even for users with Editor permission, it is often more convenient to exit Edit Mode and go into View Mode to review the information captured in Blueworks Live.

Analysis Mode and Playback

In addition to Edit Mode and View Mode, Blueworks Live’s *Analysis Mode* (Figure 10) is a great way to visualize process properties in the context of the Process Diagram or Discovery Map.

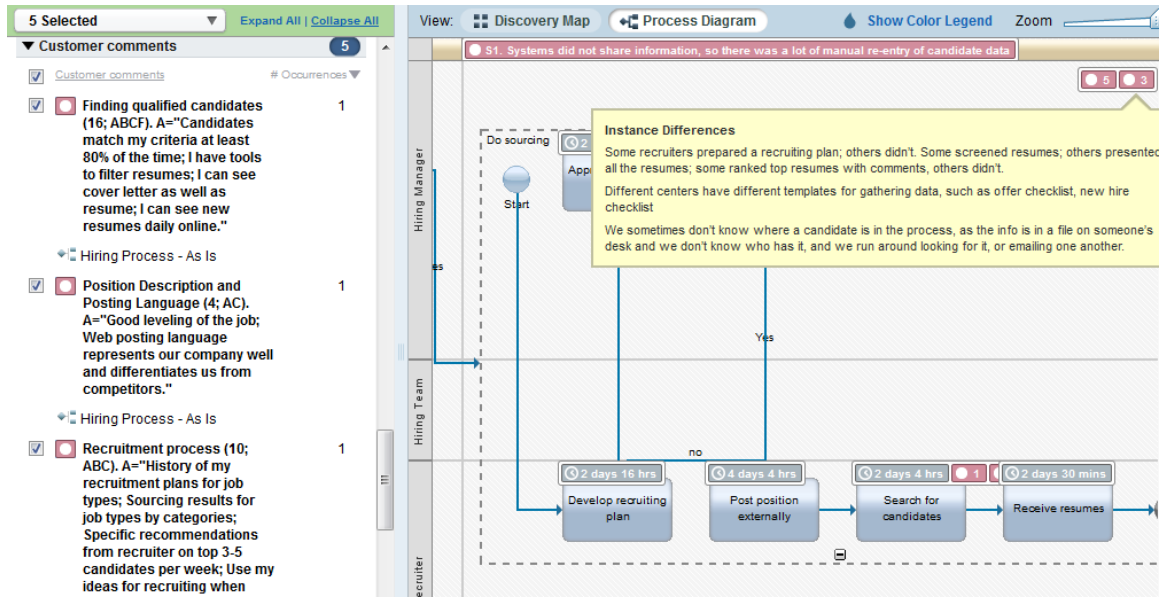


Figure 10. Analysis Mode

Properties you select are displayed in two ways. In the left sidebar are listed all instances of those properties anywhere in the process. Here we see three examples of the *Customer Comments* custom property. In the main panel, next to each activity in the diagram is a colored icon with the property value in the icon label. For custom properties, or if there are multiple instances of the property associated with the activity, the icon shows a number indicating the number of instances of that property attached to the activity. To see the full text of the property, simply click on or hover over the icon. In Figure 10, we see icons with the standard property *Cycle Time* for each activity, and some others, in red with white circles, indicating custom properties. At the process level – shown as an icon not attached to an activity – we see three values of the *Instance Differences* custom property revealed in the tooltip (the tooltip is the yellow box that appears when you hover your mouse over an object).

Analysis Mode provides a *visual analysis map* aligned with popular process improvement methodologies. Valuable data describing problems, metrics, and improvement ideas are visually linked to the step in the process where they apply, allowing business users to collaboratively discuss and refine the information based on a common shared diagram. I need to continually emphasize that this is all out-of-the-box in Blueworks Live: the process properties, the team collaboration, and the read-only modes for shared online viewing and commenting. There is nothing to set up, no separate products to integrate. You don't get that with other process modeling tools, like Visio.

Playback is another read-only mode of Blueworks Live. It allows the user to define up to six paths from start to end of a process model and step through the path one activity at a time. This helps business users visualize the progression from step to step and ensure the logic is correct. Blueworks Live can also total the cost or cycle time for the selected path (Figure 11).

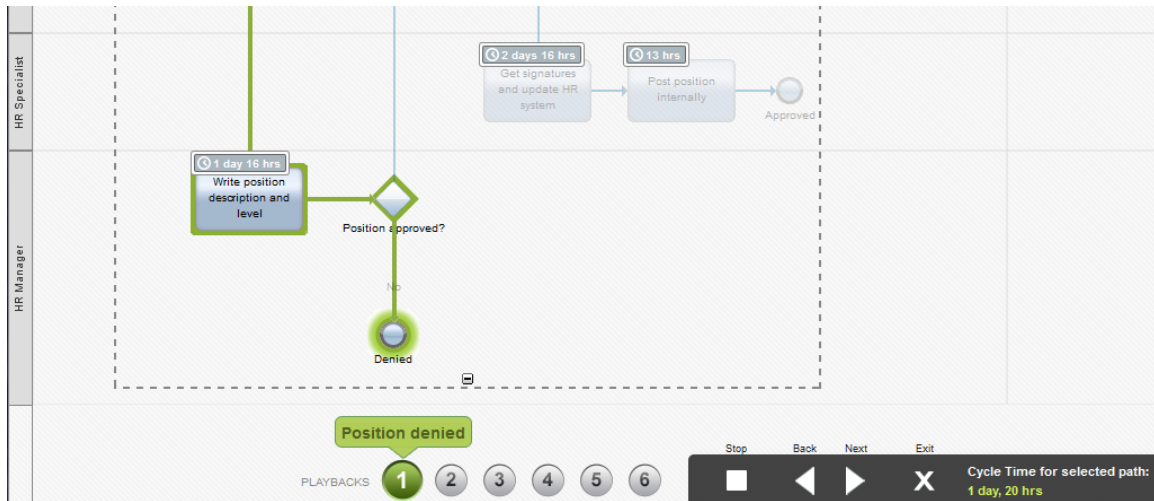


Figure 11. Playback

Organizing Your Account with Spaces

Ultimately your Blueworks Live account is going to serve multiple process improvement teams working on a wide variety of projects. Blueworks Live *spaces* make it all manageable. Spaces are logical partitions of the account with individually defined user permissions. Blueworks Live lets you organize your spaces however you like. Spaces can contain other spaces in hierarchical fashion. In most cases, the most sensible thing is to give each process improvement project its own space. The *Space Details page* (Figure 12) is a good place to describe the project’s overall purpose and goals.

Figure 12. Space Details page for *Order to Cash*

Each space can contain any number of sub-spaces, process models (blueprints), decision models, and policies. Each space has its own private activity stream detailing the latest changes and comments on items in the space. A user with space administrator rights determines which users can access the space and their editing permissions for blueprints, decisions, and policies. In addition, a user editing a process can click a button to make the model *Shared*. Process sharing provides a practical way to let project team members manage access control themselves with a minimum of administrative overhead.

Besides controlling access, spaces are the way users organize and find their work. Upon signing in to Blueworks Live, the *Library* tab links to all the blueprints, decisions, policies, and other artifacts in the account that the user is permitted to access. Suppose the user is looking for a particular process model. In the Library, selecting the *Processes* tab (Figure 13) shows there are 25 process models in the account, and you can find the one you want in a variety of ways. You can restrict the listing to “followed” processes or to processes that contain a followed activity. Following means the user has bookmarked the process or activity for future use. Alternatively, you can list all the process models organized by name, date, keyword tag, or space. You can even filter the list to items containing a specific bit of text. In Figure 13, we elected to organize processes by space; there are only three process models in our space of interest, *My BPI Project*. Note there are no SQL queries of metadata to find the item of interest. Blueworks Live instead follows the more familiar paradigm of common social media and mobile apps, including a search function that lets you find instances of specific words or phrases anywhere within a space, process model, decision model or policy.

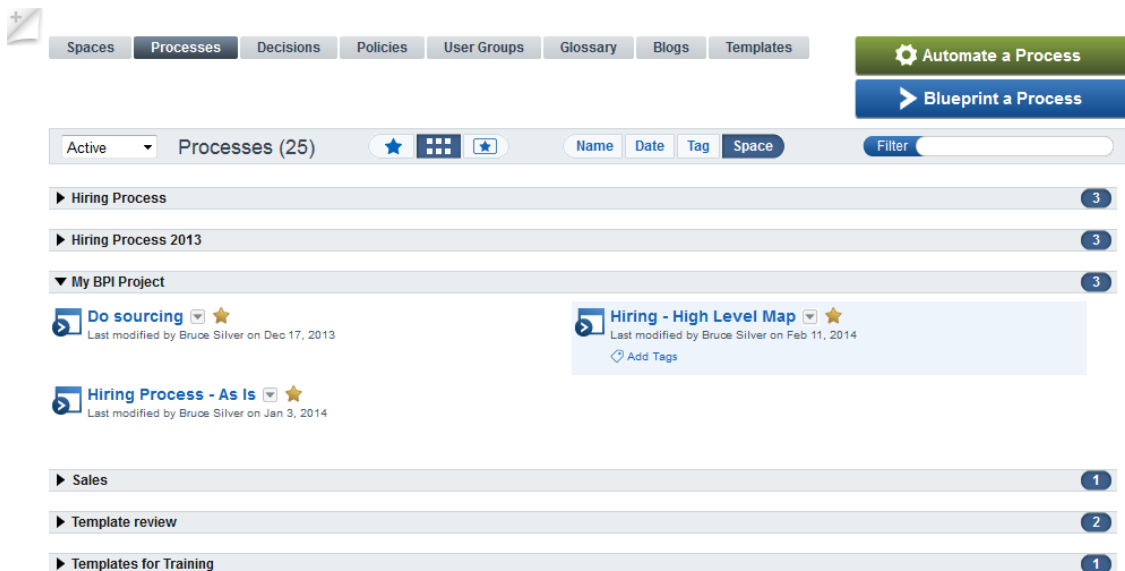


Figure 13. Browsing processes by space

Discovering Decision Logic

An often overlooked aspect of process improvement is the *decision logic* involved. You may have a gateway that directs the flow one way for high-value customers and another way for regular customers, or one way if the credit is approved and another way if not. But the rules that determine whether or not the customer is high-value, or whether credit is approved, are not part of the gateway. They are part of a *Decision task* preceding the gateway (Figure 14). Blueworks Live lets you model the logic of the *decision* itself in a simple, business-friendly way.

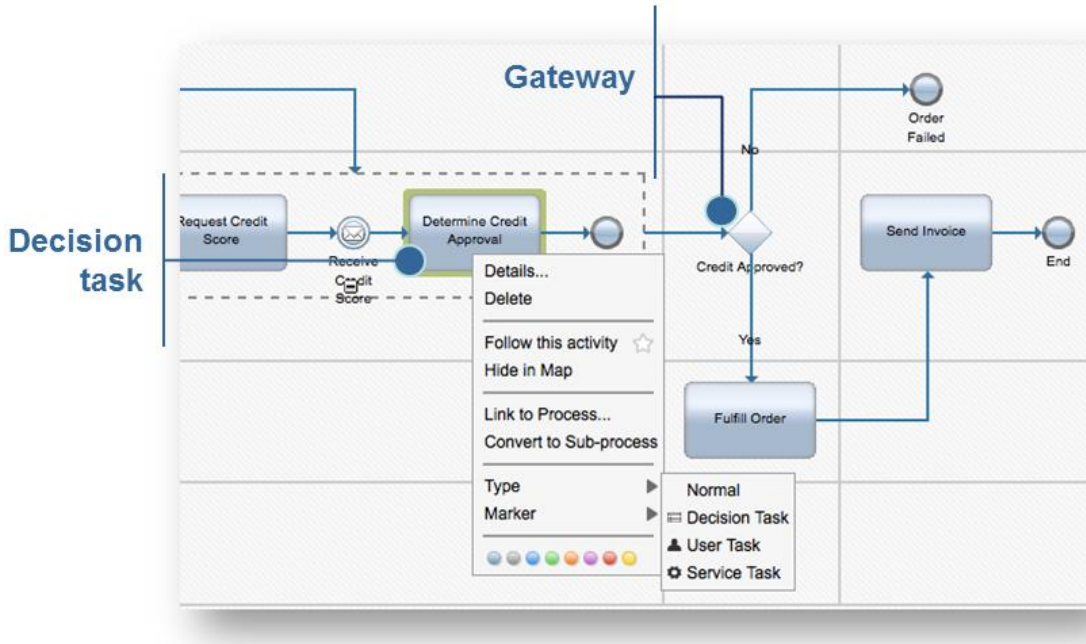


Figure 14. Decision task in a process links to a decision model

A *decision model* describes the logic of the decision, meaning the rules. In Blueworks Live, the model takes the form of a *decision table*. Figure 15 illustrates the decision table for credit approval, as modeled in Blueworks Live. Each row in the table is a *business rule*, which determines the value of a *conclusion* – in this case *Credit Approval*, with possible values *Yes* and *No* – based on a combination of *considerations*, here the customer’s *Credit Score* and *Debt to Income Ratio*. As always, ease of use is paramount. In the Decision editor, you simply insert an input for each consideration and an output for each conclusion. These become the columns of the table. Each combination of considerations is a new row in the table.

Decision table

▼ Decision Table Determine Credit Approval

Considerations		Conclusions
Credit Score	Debt to Income Ratio	Credit Approval
At Least 720	Less Than 16%	Yes
Between 650 and 720	Less Than 16%	Yes
At Least 720	Between 16% and 19%	Yes
	At Least 20%	No

Business rule

Figure 15. Decision table composed of business rules

In many business processes, complex decision logic may involve a hierarchy of sub-decisions, in which the conclusion value of a sub-decision is used as a consideration value in the parent-level

decision. Blueworks Live supports this as well (Figure 16), consistent with the new Decision Model and Notation (DMN) standard from OMG, the same organization behind BPMN.

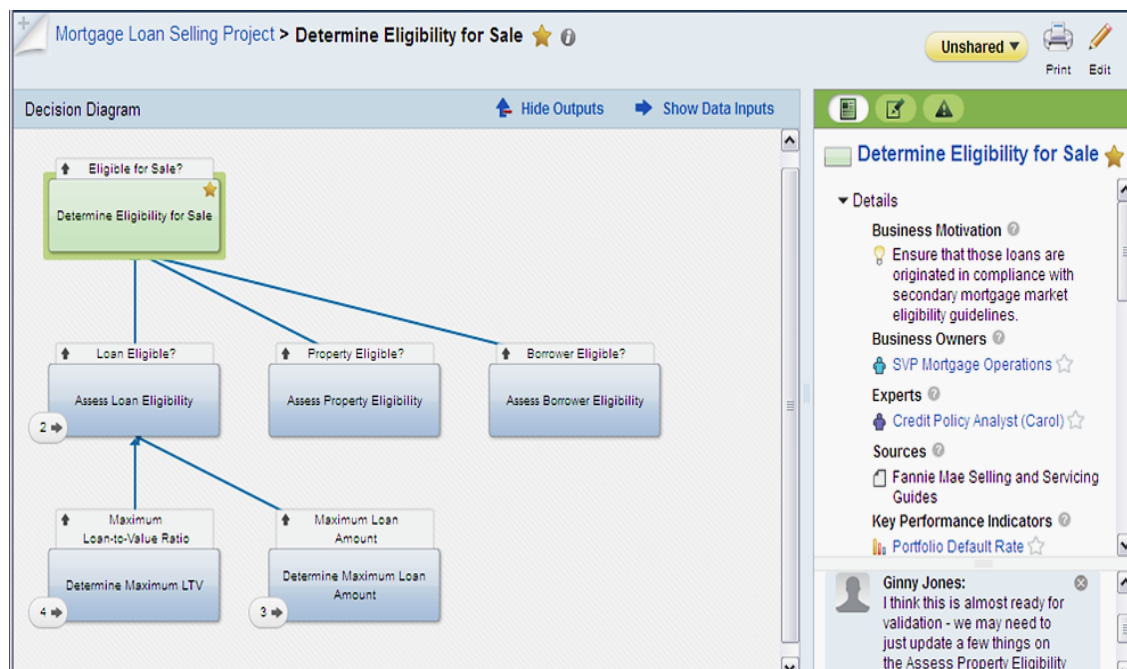


Figure 16. Decision as a hierarchy of sub-decisions, following the DMN standard

Because decisions are defined independently of processes, they represent reusable logic. In fact, reuse of decision logic is one of the most important reasons for using decisions in your process model. Another is business agility, because the decision logic can be revised without needing to revise the process model.

Working with business users to discover the logic in key decisions is an important part of business process improvement. If you are using Visio for process modeling, decision discovery requires a separate tool, typically one aimed at business analysts and developers. Blueworks Live integrates process modeling and decision discovery within a single business-oriented tool and integrated team workspace, preserving the link between the decision and the processes that use it.

Collaboration and Sharing

Whether you are modeling the activity flow, capturing process properties, or discovering decision logic, Blueworks Live offers an easy-to-use tool designed to engage business users. But we should never lose sight of the fact that process improvement is a team effort. That means all members of the team need shared access to all the artifacts. Blueworks Live provides that as well, without any additional integration. In fact, it goes even further, by allowing multiple users to edit the same process model simultaneously and see each other's changes.

If you are editing a process or decision, you can see who else is logged in to your Blueworks Live account, and collaborate in real time via chat or simultaneous editing. As mentioned earlier, Blueworks Live's activity stream provides a central hub for non-real-time collaboration. At either the account or space level, the activity stream provides a continuous news feed of all changes, posts, and comments related to anything in the account or space (Figure 17). Users can sort the stream by date, user, process, or space, and can restrict it to followed items only. You can add comments to further the collaboration. Thus, with Blueworks Live, your process improvement team can be distributed in different time zones around the globe.



Figure 17. Activity stream keeps all team members up to date with all changes in the project

The Bottom Line

IBM Blueworks Live is the only software tool that addresses the challenge of directly engaging business users in process improvement. Let's review its advantages:

- **Nothing to install, just log in and go.** Because Blueworks Live is hosted in the IBM Cloud, users don't need to download the software, get IT to install it, and repeat with each new version. That's a huge barrier eliminated.
- **Team collaboration built in.** With Blueworks Live, everyone on the team can view the latest version of any process or decision model, see a stream of all changes, view document attachments, and engage in threaded discussions. The modeling tools and team collaboration workspace are part of the same tool, so there is no integration required.
- **Lowers the BPMN learning curve.** The Discovery Map is just an outline. It generates the process diagram automatically – a great way to introduce business users to today's diagramming standard.
- **Toggle between hierarchical and flat BPMN.** For live documentation and analysis sessions, business users prefer a flat model. But analysts, architects, and developers – as

well as my book BPMN Method and Style – prefer hierarchical modeling. Visio makes you choose one or the other, but Blueworks Live lets you expand subprocesses in place, effectively toggling between flat and hierarchical views.

- **Built-in process metadata.** Critical process information includes more than a BPMN diagram. You want to capture the problems and goals, time and cost metrics, inputs and outputs, and a host of other things. Blueworks Live provides those process details as standard properties out-of-the-box, and lets you define up to 10 additional custom properties.
- **Integrated decision discovery.** Business decisions are as important to process improvement as the activity flow. Unlike other tools, Blueworks Live supports it in the same tool, consistent with the new DMN standard.
- **Works on any computer.** If your PC or Mac has a web browser, you are ready to go. You can also view content on iOS devices. Visio just runs on a PC with Windows.

Here is the bottom line: To have a successful process improvement project, you need to engage the people who know the process best and who are most directly impacted by any changes – the business users. Tools designed for business process management professionals are a barrier to user engagement; business users just tune out. But Blueworks Live gets business users excited about process improvement by engaging them directly in the information capture, analysis, and proposed improvement. If engaging business users is a challenge for your process improvement efforts, give Blueworks Live a try.

Bruce Silver
February 2014

More Information

A Methodology for Process Improvement

Successfully engaging business users in process improvement requires more than the right tools. You also need the right methodology that incorporates the tools in the proper way. Together with Shelley Sweet of I4 Process, I have created a series of videos called *Getting Started in BPM with IBM Blueworks Live*, available for free on the Blueworks Live website, that explains how to organize the project, interact with business users to gather the important As-Is process information, and capture it all in Blueworks Live. Just go to <http://tinyurl.com/bwltraining>, register, and go.

In addition, Shelley has a brand new book on the topic called *The BPI Blueprint: A Step-By-Step Guide to Make Your Business Process Improvement Projects Simple, Structured, and Successful*. It goes into more detail than the videos, and continues beyond process documentation to cover proven techniques of process analysis and redesign. The book has a whole chapter on how to put all the techniques together in IBM Blueworks Live. Check out <http://www.amazon.com/BPI-Blueprint-Step---Step-Improvement/dp/0982368135>.