Process Discovery
Best Practices
Using IBM Blueworks Live

Use IBM Blueworks Live to better understand how your business runs

Uncover hidden potential in your business process

Use analysis features to eliminate process waste

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Process Discovery Best Practices: Using IBM Blueworks Live

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Note: Before using this information and the product it supports, read the information in “Notices” on page vii.
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Preface

Business processes and decisions are the backbone of every company, from the small to the Fortune 50; it is how the business runs. It is these processes and decisions that can create competitive advantage, help a company react more quickly to changing trends, or drag them down because the processes do not serve the business and allow agility. The first step in building business agility is to understand how the business works today; What are my processes? What are the decisions we are making and how do we make them? Understanding these processes and decisions can allow a company to improve, streamline, and increase efficiency.

Capturing business processes can be a daunting task. Adding to that burden is learning the tool of choice for capturing those processes. This book helps the audience ramp up more quickly to a fully functional process analyst by explaining all of the features of IBM Blueworks Live™ and how best to use them.

This IBM® Redpaper™ was written with a non-technical audience in mind. It is intended to help business users, subject matter experts, business analysts, and business managers get started with discovering, documenting, and analyzing the processes and decisions that are key to their company’s business operations.

Business Process Model and Notation overview

Business Process Model and Notation (BPMN) is the standard graphical notation that is used in defining business processes. It is a standard set of shapes and interactions that define how a process should be documented for clarity and consistency. IBM Blueworks Live partially conforms to the most recent BPMN 2.0 specification to provide the most functionality without overwhelming new users with options. As users become more familiar with the implementation of BPMN in IBM Blueworks Live, they can use more of the tool's functionality.

For more information about BPMN, see this website:

http://www.BPMN.org

Process levels

IBM Blueworks Live is a flexible, graphical design and visualization tool that enables users to capture business process outlines and create BPMN diagrams. However, IBM Blueworks Live does not enforce any process classification framework. How you intend to use the tool for modeling mainly depends on the purpose of your process models.

How you define your activities, the process models you capture, and how you communicate must follow a standard. Organizations typically take one of two approaches: they have their own defined standard that is implemented or they align with and adopt a global standard. At IBM, one of our best practices is to use IBM Blueworks Live to capture processes and we use the American Productivity and Quality Center (APQC) Process Classification Framework (PCF) as to what and how to capture processes, as shown in Figure 1 on page x.
History

The cross-industry Process Classification Framework was originally envisioned as a taxonomy of business processes and a common language through which APQC member organizations can benchmark their processes. The initial design involved APQC and more than 80 organizations with a strong interest in advancing the use of benchmarking in the United States and worldwide. Since its inception in 1992, the most of the PCF content was updated. These updates keep the framework current with the ways that organizations do business around the world. In 2008, APQC and IBM worked together to enhance the cross-industry PCF and to develop a number of industry-specific process classification frameworks (APQC Process Classification Framework [PCF] - Cross Industry - PDF Version 6.0.0).

For more information about APQC's PCF, see this website:

Authors

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David Teran is a Senior IBM BPM Analyst who analyzed, designed, and optimized business processes for clients around the globe by using IBM Blueworks Live since 2008. In 2010, David joined IBM through the acquisition of Lombardi Software. In addition to his analysis competencies, he is an IBM Certified Instructor in areas of Process Analysis by using IBM Blueworks Live. In 2013, he became a core member of the Worldwide Smarter Process Center of Competency (CoC). He supports business development, presales, selling, solutioning, and agile project and program delivery. He holds an MBA from Tulane University and a degree in Industrial Engineering from Louisiana State University (LSU). David also holds several certificates in the area of Six Sigma, Lean, and Project Management and is considered an expert in the use of IBM Blueworks Live for IBM BPM projects and business process architecture.

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Getting started with IBM Blueworks Live

IBM Blueworks Live is a collaborative platform for process and decision discovery in the cloud. It provides a rich set of tools for discovering and documenting important process knowledge. Exceptionally easy to use and highly collaborative, it enables subject matter experts and business analysts to work together to capture and refine their process discovery maps and process models. Teams can easily use knowledge and expertise from across the organization to analyze and improve their business processes after they are captured in IBM Blueworks Live.

IBM Blueworks Live provides an easy-to-use environment for the rapid discovery, definition, and documentation of business processes and their associated decisions and policies. Its graphical design and visualization tools are designed to make it easy for business owners, business users, and subject matter experts to engage directly in the analysis and improvement of their business processes. Business processes can be outlined or brainstormed with the ease of creating a bulleted list and Business Process Modeling Notation (BPMN) diagrams are automatically generated from these lists. Processes can be viewed on a shared whiteboard. Also, two or more users can work on the same process at the same time; all changes are shown instantly to all users.

IBM Blueworks Live provides the single, shared repository where all stakeholders can find the single version of truth about any process. In this way, IBM Blueworks Live helps facilitate successful process improvement projects by enabling all users on the process improvement team to become aligned on process goals, problems, and areas for improvement.

When the IBM Business Processing manager (IBM BPM) team is ready to inventory, discover, and analyze the details of their processes, IBM Blueworks Live can be used as the System of Record for storing and sharing the detailed information for all of the business processes. As processes and improvement opportunities change over time, the details can be documented in IBM Blueworks Live so that there is a single source from where all users can access the latest information. IBM Blueworks Live directly integrates with IBM Business Process Manager so that business processes that are documented in IBM Blueworks Live can be implemented, run, and optimized.
1.1 Logging in

When you first log in to IBM Blueworks Live, you are automatically taken to the Library window. In this window, you can find all of the artifacts that are associated with the IBM Blueworks Live account, such as Spaces, Processes, Decisions, Policies, User Groups, Glossary, Templates, and, depending on your account settings, the IBM Blueworks Live Blog.

The Work window is where you can find any active tasks that are assigned to you. Account administrators also can view the work statistics in this window.

The Community window provides the centralized view of all collaboration activities across the processes and spaces, including private activity streams, followed items, posts, and public IBM BPM streams.

1.2 Creating a Space

After your account is set up and you are logged in to IBM Blueworks Live, you can begin by creating a space for your artifacts. A **Space** in IBM Blueworks Live is synonymous to a folder in your local file system. To create a space, browse to the Library section and click Create New Space in the upper right, as shown in Figure 1-1.

![Figure 1-1 IBM Blueworks Live Header](image)

Enter the space name and location of the space (top of library or within an existing space). Spaces can be nested in other spaces. As a best practice, it is important to keep the space hierarchy well-organized because your artifacts can grow quickly within your organization. The hierarchy is defined by your organization, as shown in Figure 1-2 on page 3.
Chapter 1. Getting started with IBM Blueworks Live

1.2.1 Space Details

The first thing to do and best practice is to complete the Space Details and Description fields. Provide enough details so that new contributors can easily understand the context after they open this space.

1.2.2 Space Level Goals

If you have any defined Business Goals that you want to achieve in this space, you can enumerate as many as you need here. As with any initiative, you always want to make sure that the goals are well-defined and understood. The best practice on how to document the goals can be best described by the SMART acronym. SMART stands for specific, measurable, assignable, realistic, and time-related. That is, the goal must be specific to a target, the goal must be measurable by indicators, the goal must be assigned to someone or a team, the goal must be a realistic result that can be achieved, and time bounded, meaning by stating when the results should be achieved. Figure 1-3 shows an example and how you see the different components that make up the goal statement.
By using IBM Blueworks Live Space Details, you can capture the goals for every space you create. After you capture the goal, IBM Blueworks Live gives you the option to weigh the goals. Goals can be weighted high, medium, and low. Weighting is not defined in Blueworks Live by default; therefore, the weight criteria is something you and your team must establish. Best practice is to define or describe the weight in the space details immediately above the goals. It is best to capture goals for at least the highest space if you have a space structure that is defined and communicated to the rest of team for their finding and viewing (see Figure 1-4).

1.2.3 Activity stream

Below the Space Details is the activity stream, which lists all the activities within the space for the last 30 days. You can order the information by Date or User and filter by Followed Items and Posts. New informational posts can be added by clicking New Post. If you make many changes, the system attempts to make this stream useful by collapsing it into a generic line; for example, You made 37 changes to HR Onboarding Call Center Rep As-Is process, that can be expanded to show the detailed changes that were made, as shown in Figure 1-5.
1.2.4 Adding Tags

Tagging is a great way to classify and identify your spaces and artifacts within your space. Click Edit Tags under the space heading to add tags to your space. To add multiple tags, add a comma between each tag, as shown in Figure 1-6.

![Tag Section](Image)

Figure 1-6 Tag Section

If you click the star to the right of the process name, the space is added to your favorites. The Favorite Spaces view is the default place to which IBM Blueworks Live opens. If you select Processes in the Library, it also defaults to the Favorites view.

1.2.5 Space stats

The space stats are intended to give space managers an idea of how their space is being used. It includes data about the number of processes, decisions, policies, and the activity on those artifacts. Space managers can access it by clicking Stats from the Space view, as shown in Figure 1-7.

![Space stats](Image)

Figure 1-7 Space stats

In the Space Activity section, you can view all artifacts (as shown) or a single artifact type at a time. You can also select the date range that you want to know about. The dates can range from the past week to the past 12 months.

On the right side of the window, you can see the Space Artifacts stacked bar graph. This section tells the space admin about the publishing that is occurring in this space. In this example, most of the artifacts are unpublished. For more information about publishing, see 1.2.6, “Publishing and permissions” on page 6.
1.2.6 Publishing and permissions

The publishing feature for processes and decisions is a part of the permissions model in IBM Blueworks Live. In addition to having permissions as part of the licensing model, you can manage permissions at the space level. There are three user groups that are included in your account by default: All Editors, All Contributors, and All Community. These groups are populated based on license type, as shown in Figure 1-8. Also, users and user groups can be individually added to or removed from a space.

![Figure 1-8](image)

To access the permissions section of any space, select the Users tab when you are viewing the space overview. Here you can see a list of the participants in the space and what permissions they have in that space, as shown in Figure 1-8. You can see that the All Editors group was granted permissions to Blueprint Processes, Automate Processes, Compose Decisions, Author Policies, and to manage and edit the space.

There is an option to inherit the permissions of the parent space (if there is one). This option is available to make it easier to ensure that the people that need to have access can have that access.

All of the permissions described concern write access. What if you want someone to have read access? What if you know that there are people in your account that you want to share your process with, but do not necessarily want them to edit it? These issues are what the publish feature in each Process and Decision is all about. In the case of the permissions that were listed in this section, the All Contributors group is a participant in the space, but they do not have any write access to the space. If you want someone with a contributor license to see your process, you must publish it and grant that group read access. The same applies to the All Editors group. If you were to remove the Blueprint Processes permission from that group, they do not see any processes in this space without it being published first.

For a slightly more complicated example, we configured the space with some more people and updated their permissions, as shown in Figure 1-9 on page 7.
In Figure 1-9, you can see that David Teran, Joshua King, Nachi, and Peter Lee are explicitly named as participants in the space and have all of the available write permissions. Although Jonas is a participant in the space, he does not have write access. Also, Jonas is licensed as an Editor in this scenario, but he cannot see anything in the space that is not explicitly published.

Because Jonas is specifically called out as a participant, whatever is selected on his row overrides whatever group permissions he might have. If we wanted Jonas to see a process, we must use the Publish feature to grant him access, as shown in Figure 1-10 on page 8. You can publish your artifacts from the Snapshots menu, select the version that you want to publish, and then click **Actions → Publish**.
All groups, All Editors, All Contributors, and All Community can be removed from the participants list if you do not want them to see anything in the space, as shown in Figure 1-11.

Based on Figure 1-11, processes in this space can be viewed by David, Nachi, Joshua, and Peter, but Jonas cannot view the process until the process is published. When published, only David, Nachi, Joshua, Peter, and Jonas can see the process.
The last column in this view is somewhat different in nature than the others. It is asking whether the person or group that is listed can Manage and Edit the space. This setting determines who can edit the participants list, archive the space, move artifacts in and out of the space, or add subspaces. In addition, the Space Stats page is specifically limited to those users that have manage space permissions.

1.3 Summary

In this chapter, we described some of the basic concepts that are used throughout this paper.
HR onboarding case study

This chapter describes the business scenario that we use within this paper to demonstrate how to discover and document the current state, analyze the process, and define a future state solution in IBM Blueworks Live. We introduce the scenario, describe the company and people that are involved in this scenario, and explain the business processes. The business scenario in this paper covers the hiring and onboarding of new call center representatives.
2.1 The company

Call Center Company C is a fictitious company that provides call center services to its customers. The company is based in the United States and operates various call centers in the US, India, and China. Because of an interesting business model, Call Center Company C observes a large interest in its services and an increasing number of requests from existing and new customers.

Call Center Company C offers the outsourcing of call centers and expects large clients to sign a contract with them soon. If one or more of these significant deals is made, the company must onboard approximately 500 call center representatives in a short time frame. With its current staff, Call Center Company C cannot serve the huge number of requests and must hire a significant number of call center representatives. The process for hiring and onboarding new call center employees is manual and not documented.

For Call Center Company C, it is important to make the hiring of new call center representatives as efficient as possible and to get the new employees productive in a short time. Because hiring and onboarding new people is a core part of a Call Center Company C, the improvement of this core process results in a direct improvement of the overall value chain.

2.2 Employee roles

Call Center Company C employs a number of people with different roles. The spectrum of roles ranges from administrative and technical roles to business-focused roles, including call center representatives. The following people are part of the scenario and are involved directly in the onboarding process. The onboarding process of call center representatives involves employees of Call Center Company C also external people:

▸ Recruiter

Call Center Company C must hire many new call center representatives. For this purpose, they use professional recruiters to identify potential job candidates and to manage the communication with the job candidates.

▸ Job candidate

People who apply for a job at Call Center Company C and all people who are identified by the recruiters take the role of a job candidate. Job candidates participate in a job interview, must perform a test, and might be offered a call center job thereafter. If a job candidate accepts the job offer, the role changes from job candidate to new hire.

▸ New hire

New hires are people who successfully passed the hiring process in Call Center Company C and who are working as a call center representative. New hires must attend call center training before they start working as a call center representative. The training helps them to become efficient in a short time.

▸ Hiring manager

The hiring manager plays an important role in the overall scenario. The hiring manager performs the interviews with the job candidates, decides whether to hire a job candidate, negotiates the contract, and manages the communication with the recruiters. If the probationary work period of a new employee was unsuccessful, the hiring manager creates a performance plan for that employee.
2.3 The process

The process for hiring and onboarding new call center employees was manual and differed slightly depending on the person who handled the case. The CEO of the Call Center Company C commissioned a team of Business Analysts to redefine the hiring and onboarding process by using IBM Blueworks Live. The CEO decided to use IBM Business Process Manager for the implementation of this important business process to increase the process efficiency and to handle the upcoming business.

In this section, we describe the high-level process that the IBM Business Process Manager team of Call Center Company C implements.

The activities that must be performed to hire and onboard a new call center employee begin with the selection of job candidates. The selection of a candidate involves several steps, including a screening test that must be taken by the job candidate, a job interview, the hiring decision, and, in case of success, the making of a job offer. The hire candidate activity is modeled as a subprocess (which is indicated by the dotted lines around the activity) and represents the only activity that is included in the first milestone (candidate selection).

Assuming that a candidate was selected based on the interview and test results and was made an offer, then a background check for the person is started. Only candidates that pass the background check are hired. In addition to the background check, the second milestone (training) contains more activities that include orientation activities in the first days of employment, a call center training, and the activation of a new hire in the systems.

2.4 Activate new hire

After all of these activities are complete, the call center employee is ready to start working. To help them during the first days, a mentor is assigned to the employee and a probationary review after 7 - 10 days of work is performed to ensure that there are no open questions and that the new employee can perform their work efficiently. If there are problems with the work efficiency of the new hire, a performance plan is created to resolve this situation. These activities are included in the third milestone (probationary work).

The business process starts with the hire candidate subprocess, in which different activities are included. The hire candidate activity can return with one of the following outcomes:

- Rejection of a candidate
- Decline of a job offer
- Acceptance of a job offer
In the first two cases, the process ends. Only in the successful cases are other activities performed. These activities include a background check and the facilitating the new hire orientation activity. The background check involves a criminal background check, a credit check, and a social media background check. The results of the three checks influence the pass or fail decision on the background check. If a candidate does not pass the background check, a termination process is started (terminate employee) and the recruiter is informed (notify recruiter).

After completing the new hire orientation phase, the new employee attends several call center courses to become familiar with the procedures, the equipment, and the call floor etiquette (attend call center training). The new hire is now ready to start working and answering calls. To do so, the call center manager must activate the new hire in the system (activate new hire). After 7 - 10 days of work, the new hire, the mentor of the new hire, and the call center manager meet in a probationary review to describe the new hire’s performance. If there are problems, a performance plan for the new employee is created.

After investigating the call center representative onboarding business process at a high level, we now describe the following subprocesses that are part of this process:
- Hire candidate subprocess
- Facilitate new hire orientation subprocess
-Activate new hire subprocess

### 2.4.1 Hire candidate subprocess

This process includes activities that are related to the selection of candidates and to the candidate interview. The following people are involved in these activities:
- Recruiter
- Job candidate
- Hiring manager

The recruiter first identifies a job candidate whose profile matches the requirements of a call center representative at Call Center Company C and schedules the interview with the hiring manager and the job candidate. The candidate first must complete a screening test, in which their language skills and typing skills are evaluated. After the test, the hiring manager performs a 30-minute job interview with the candidate. After the interview, the hiring manager decides whether to hire the candidate based on the interview, the test score, and the candidate’s minimum asking salary. Depending on the hiring decision, a job offer is made to the candidate.

The hire candidate subprocess ends after making an offer to the job candidate or deciding not to hire the candidate.

### 2.4.2 Facilitate new hire orientation subprocess

This process includes various activities that are performed by the HR administrator. The HR administrator welcomes the new employees in the company and accompanies them during the first few days at the company.

First, the HR administrator identifies and assigns a mentor to the new call center representative. The mentor must work in the same call center and should sit a short distance from the new employee.
The HR administrator then ensures that the new hires attend the new hire orientation and complete HR forms, such as the I-9 form, tax forms, and benefits forms. The HR forms completion is a multi-step activity.

After completing and submitting the forms, the HR administrator provides a security badge, a network ID, and work equipment (for example, a headset) to the new employee.

Finally, the employee information is entered into the employee database and the IT equipment is requested.

2.4.3 Activate new hire subprocess

This process includes two activities that are performed by the call center manager.

The first activity in the activate new hire subprocess is to establish a work schedule/shift activity. The call center manager discusses the work schedule with the new employee and inserts the new employee into the work schedule of the call center by using a scheduling system. In doing so, the call center manager might shift existing schedules. The call center representative can start working only after the call center manager activates the profile for the employee in the call center system. The new employee then can accept calls.

2.5 Summary

In this chapter, we described our HR onboarding case study, which we use throughout the remainder of this paper.
Current State (As-Is) Process Discovery

IBM Blueworks Live’s flexibility allows the user the freedom to establish guidelines and best practices that align with their projects goals. At IBM, the IBM Business Process Management (IBM BPM) practice uses IBM Blueworks Live as the tool to capture process models. The best practice is to first capture the current state process through discovery, then analyze the process information, and, finally, design a future process for IBM BPM implementation.
3.1 Starting the blueprinting process

To demonstrate the discovery of the current state process, we use the HR Onboarding case study that was described in Chapter 2, “HR onboarding case study” on page 11 and describe the steps of documenting your current state process.

Assuming you established a space for your processes and other artifacts, you are now ready to start blueprinting your process. Browse to the space that is relevant to the process and click **Create New** on the right.

Select **Process Blueprint** and give your process a concise name that indicates to others what this process covers as shown in Figure 3-1.

![Create New Process Blueprint Selection](image)

**Figure 3-1  Create New Process Blueprint Selection**

For our HR Onboarding case study, we create a process blueprint and name it **Call Center Rep Onboarding**, as shown in Figure 3-2.

![Blueprint a Process Dialog](image)

**Figure 3-2  Blueprint a Process Dialog**
By default, IBM Blueworks Live generates a default process with two milestones and one activity in the Discovery Map view. By using the Discovery Map view, you can list the Milestones and Activities in a tabular format without the complication of events, flows, and gateways. The abstraction away from these elements allows users to focus their attention on what is the work instead of the how’s and when. We describe these facets after we switch to the Process Diagram view (as described in 3.4, “Creating a Process Diagram” on page 26), as shown in Figure 3-3.

3.2 Creating a Discovery Map

In 3.1, “Starting the blueprinting process” on page 18, we described what is generated by default when you are creating a blueprint in the Discovery Map view. We now describe the best practices to begin the use of the Discovery Map before we move to the process model in the Process Diagram view.

The Discovery Map is best used for having discovery sessions with the process owner and subject matter experts (SMEs) identified. The facilitator is usually a Business Analyst, IBM BPM Analyst, or a Business Stakeholder knowledgeable in IBM Blueworks Live.

Identify the start and end points of the process. This helps create a boundary for the process so that the facilitation and process discovery effort can be more focused. The Discovery Map is a first draft of the process and does not necessarily have to be right. During this time, the facilitator listens to the stakeholders and adds milestones and the activities in the Discovery Map view.

As a facilitator, try to focus on the Happy Path before getting into exceptions or error conditions. A Happy Path is a scenario that features no exceptional or error conditions, and comprises the sequence of activities that are run if everything goes as expected.

The order (or sequence) of activities does not have to be right while the Discovery Map is used. The purpose of the Discovery Map is to devise a first draft of the process milestones and activities.

3.2.1 Identifying milestones

There are points within a process where it is important to know whether a specific event occurred or a condition was met. These events or conditions are referred to as milestones. Milestones are also a group of activities that represent a phase to deliver an output.
A milestone is defined as a logical grouping of activities. Your process might have distinct milestones that are easily defined, or it might be more amorphous. Generally, identifying the milestones is a good starting point. Process analysis is not expected to be perfect from the beginning; in fact, it is assumed that several revisions of your process definition are necessary during your process analysis. IBM Blueworks Live is a business-friendly and flexible tool that allows for quick changes and revisions.

Naming conventions are important. It is considered a best practice for activity names to start with a verb followed by a noun. Milestone names are typically past tense or a noun.

In our HR Onboarding case study, on the first pass we can separate the requirements into the following logical groups of activities, as shown in Figure 3-4:

- Selection of candidates
- Conduct interviews
- Offer negotiation
- Orientation
- Training
- Probationary work review
- Performance plan initiation

![Figure 3-4 Defining initial milestones](image)

After another round of discussions and interviews with the stakeholders, we can drag the milestones and convert them to activities, and vice versa. The results of the refinement are shown in Figure 3-5.

![Figure 3-5 Refining milestones](image)
**Rule of seven:** A good design approach to follow is the *rule of seven*, which states that after you start reaching seven milestones or seven activities, you might want to consider collapsing them together or converting them into subprocesses.

If milestones cannot be defined this early in the process discovery, create a first draft of the milestones and then start documenting the tasks, as shown in Figure 3-6. The milestones can be changed later after you have a better understanding of the process.

![Figure 3-6   First pass of the Call Center Rep Onboarding process map](image)

**Keyboard shortcuts:** Use keyboard shortcuts to map the milestones and activities by using the left hierarchy panel. The Enter key adds new activities or milestones and the Tab key moves the activity as a nested step. For more information, see 13.9, “Keyboard shortcuts” on page 140.

This process was mapped out quickly with the participation of all of the key business stakeholders that are involved in the Call Center Rep Onboarding Process. IBM Bluworks Live is designed with business users in mind. Often times, it takes only a few minutes for a new user to start documenting the process.

Notice that there are no decision gateways or splits that are included in the discovery map. This omission is intentional and you can first focus on the most common or happy path that the process can take. You also can add all of the gateways and exception paths to the Process Diagram later, as described in 3.4, “Creating a Process Diagram” on page 26.
There are instances in which you might not be able to define the milestones up front and you can add, remove, and modify milestones at any stage of process discovery. If milestones cannot be clearly defined up front, start documenting the activities in the process. Remember, these activities must fall within the start and end points identified earlier and also belong to the happy path (as much as possible).

Now that we have a good set of milestones that are defined, we start identifying the activities.

### 3.2.2 Defining activities

After the milestones are defined, you can document the activities under each milestone. An activity is a generic type of work and can be atomic (task) or compound (process, subprocess, and so on).

An activity is defined as an atomic unit of work that can be assigned to a single user or a team of users and is represented by a rectangular box. An activity can be as granular, such as Send email, or as macro as Create Project Documentation if it represents a unit of work that must be performed by a user who is defined in the process. If the current process is not well-defined, it might be simpler to go through the process mapping exercise at a more macro level for the first pass. Getting too detailed from the beginning without a good understanding of the current process can derail your analysis and get you mired in the details that are not yet relevant.

### 3.3 Details tab

Now that you have a sense of the flow of the process, it is time to start adding details to each of the processes and activities. It is important to do this before you move into the Process Diagram view because the logic that generates the Process Diagram view takes into account the information that is found in the details as it is programmatically traversing your Discovery Map.

However, before we describe where the information should be captured, we review how some of the fields came to be in IBM Blueworks Live.

IBM Blueworks Live is a discovering and documenting tool for process knowledge. As with any process discovery, you first want to know the following information:

- Who owns the process.
- Who knows the process best or performs the process frequently.
- What are the roles in the process.
- Who wants to know about the process but does not participate in the process.

For this information, IBM Blueworks Live follows the responsible, accountable, consulted, and informed (RACI) approach.

Next, you want to know the following information:

- Who supplies the inputs
- What are the inputs
- What are the processes or activities
- What are the outputs
- Who are the outputs for
For this information, IBM Blueworks Live follows the supplies, input, processes, outputs, and customers (SIPOC) approach. The tool is often used in Six Sigma and Lean manufacturing and summarizes the attributes for analysis.

You can see the RACI and SIPOC attributes transposed as fields in the Details window. You can open the Details window by double-clicking the process name in the outline, the activity, or milestone, highlighting an activity and pressing Ctrl+D, or by right-clicking the activity and using the menu.

Next, we describe how each RACI attribute is represented in the IBM Blueworks Live Details window.

**Participant**
The participant is the actor that is responsible for the activity or task. This information is the most important piece of information to populate before you move to the Process Diagram. This value determines which swimlane the activity is placed in; therefore, the more complete you can make this information now, the easier it is when you move forward.

As you enter information into the Participant field, Blueworks Live suggests options from other processes that were documented in the IBM Blueworks Live account in which you are working. You can continue with the value you are entering or use existing values. After the value is entered, if you hover over the field, you see an Add Description pop-up window. If you click this pop-up window, you can add more information about the entry, which can help populate your Glossary and make it easier for other users to determine whether the suggested term fits their need.

Based on our Call Center Onboarding case study, we know that the selection of the candidate is performed by the Hiring Manager. Double-click the **Select Candidates** activity and enter the Participant information, as shown in Figure 3-7.

![Figure 3-7 Select candidates activity details: Participant](image-url)
The participant can be a specific user or a team of users, but not both. You must designate a single participant for an activity.

**Business Owners**
The business owners are people who are accountable for this activity. These people are decision makers who have the final say when it comes to differing viewpoints of the task requirements. It is important to identify the business owners early on in the process definition stage because they help drive conclusions quickly and effectively.

**Experts**
The experts are individuals who are often consulted about this activity. These people are considered highly skilled and experienced in completing this task and are the go-to person for training and advice. These people are those who are working on the activity the most and know the desktop-level instructions about how to complete the task.

**Systems**
In this section, you can list the external systems or applications that are required to complete the activity. The context should be limited to within the selected activity. (Considering the various kinds of system interactions or integrations help identify the systems required to complete this activity.) Some systems provide read-only information, such as a source to populate define sets of data, while some systems are considered as system of records where data is transcribed as permanent or long-term storage. Capturing more system integration information in the Documentation tab can be helpful for future references.

Also, systems that are identified as being used for tracking what is done in the process for metric reporting and at the same time is used for completing the activity transactions are called *swivel chair* activities. A swivel chair activity is when a person who is completing an activity in the process is using more than one system at the same time.

**Cycle time**
The cycle time is the time that is spent on the activity, milestone, or process. The cycle time is the work time and wait time. The units are in minutes, hours, days, weeks, and months.

Work time is the time that it takes to complete the activity. Theoretically, work time starts when the activity is started by the participant and stopped when the activity is completed.

Wait time is the time that the activity is waiting to be taken and completed by the participant or the activity is on hold.

It is a best practice to define these times even if it is an estimated value because this helps determine the overall process and activity cycle times and helps in the identification of bottlenecks during process analysis.

**Cost**
The cost is the monetary value that is associated with performing the activity. This information can help to analyze and prioritize the work activities by cost. For example, if a high cost is associated with performing an activity, it might be a good area to see whether process improvements can be made specifically to lower the cost. Cost reductions can be in the form of reduced cycle times, automation, resource management, and others.

It is a best practice to define these costs (even if it is an estimated value) because it can help determine the overall process and activity cycle cost. It also helps in the identification of process improvements.
IBM Blueworks Live embedded the SIPOC attributes in the Details pop-up window. In IBM Blueworks Live, you are capturing all the same attributes; therefore, a SIPOC analysis is feasible for an activity or a process. These fields exist except for the process.

The process attribute of the SIPOC analysis is captured in the Documentation tab. This is where the process activities can be described. Depending on the type of process definition exercise that is performed, the level of details in the documentation can vary. During a process discovery workshop, a few sentences might be all that is needed to capture the business value in an activity. Whereas, in a more detailed analysis, a much more thorough level of details are captured, possibly going down to the granularity of the data model and the intricacies of rules and variances that can be applied in different scenarios. Again, the context is defined by the type of process definition that is performed.

Next, we describe how each SIPOC attribute is represented in IBM Blueworks Live Details pop-up window.

**Suppliers**
The suppliers field is the first element of a SIPOC analysis and is the entity where the information is provided in this activity. Typically, this field identifies an individual, group, company, or even a system.

**Inputs**
The inputs field specifies the business forms and data that is required to begin the activity. This field is not at the individual attribute level but more at a higher business object or entity level. A Customer Profile, Account Details, or a Risk Profile Document are good examples.

**Outputs**
The outputs field specifies the business forms and data that is generated by the activity. Similar to the inputs, this value is not specifically at the individual attribute level but more at a higher business object or entity level.

**Customers**
The customers field is the last element of the SIPOC analysis and is the entity where the outputs are used that are generated by this activity. Similar to the suppliers field, this value is typically identified as an individual, group, company, or even a system.

**Risk**
The risk field is used to identify areas of concerns or issues that might occur within an activity and is classified as controlled, low, medium, or high. Controlled risk is a risk that was identified but a mitigation plan is in place that significantly reduces the effect or eliminates such threats. The actual descriptions of the risk can be detailed in the Documentation tab.

**Value add**
The value add section is a good way to identify whether the activity is a unit of work that adds value to the overall process. Manual tasks, such as drafting emails and assigning work, are typical indicators of no value added work. This kind of task is a candidate for process improvement. Therefore, the identification of this value can result in a quick win in process efficiencies in the future.

Required value are units of work that do not add value to the process but are required for regulatory or mandatory purposes. Typically, these are tasks that must be performed to show due diligence for compliance reasons.
By using the Details pop-up window, you can add multiple items of each field that might be involved for the entire process and for each activity. Entering this information as completely as possible can pay dividends later when you want to understand your processes more thoroughly, when you use the Analyze Mode, and when you use the Playback Mode.

3.4 Creating a Process Diagram

While populating the discovery map, we do not have to be concerned with the sequence of the activities, the decision points in the process, the happy path versus alternative paths, and so on. The Discovery Map is more of a first draft of the knowledge transfer from the subject matter experts (SME). After we have an initial draft of the Discovery Map, it is time to move on to the Process Diagram view.

IBM Bluworks Live generates an initial version of the Process Diagram automatically for you, as shown in Figure 3-8.

![Figure 3-8 Creating the Process Diagram](image)

**Different views:** All three views in Bluworks Live (Discovery Map view, Process Diagram view, and the Documentation view) provide the same information. An edit that is made in one view is reflected in the other two views. However, after a Process Diagram is generated, it is a best practice to make edits to the process in this diagram view.

3.4.1 BPM Notation 2.0

IBM Bluworks Live supports BPM Notation (BPMN) 2.0 and to an extent, the Process Diagram that was created automatically from the Discovery Map is built by using BPMN 2.0 standards. However, there are several key BPMN details that a user needs must know to model the process correctly.
Activity
An activity is a logical, discrete unit of work that is performed by a human or a system, as shown in Figure 3-9.

Sequence flow lines
Sequence or flow lines manage the sequence of activities within a process, as shown in Figure 3-10.

Pool
Pools that include milestones and swimlanes represent the organization of the entire process set of milestones and swimlanes, as shown in Figure 3-11.

Milestones
Milestones are the vertical lanes in the process diagram view. They extend the entire height of the process and represent the major milestones or phases of the process.

Swimlanes
Swimlanes (see Figure 3-12) are containers for the activities and events that are assigned to a participant.
Gateways

Table 3-1 shows the available gateways.

Table 3-1  Available gateways

<table>
<thead>
<tr>
<th>Gateway icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Image]</td>
<td>The Exclusive Gateway (XOR) represents a normal gateway. Only one path is taken out of the gateway (for example, yes or no).</td>
</tr>
<tr>
<td>[Image]</td>
<td>The Parallel Gateway (AND) represents a split, which indicates the beginning of a parallel flow of activities. All paths out of the gateway are taken simultaneously.</td>
</tr>
<tr>
<td>[Image]</td>
<td>The Inclusive Gateway (OR) represents a split, which indicates the beginning of a parallel flow of activities. As opposed to a Parallel Gateway, it is not required that all paths out of the gateway must be taken; there might be logic that chooses a subset of paths to take out of the gateway based on business data.</td>
</tr>
</tbody>
</table>

Events

Events represent a unique situation in the process, as shown in Table 3-2. They can occur at the process, milestone, or activity level.

Table 3-2  Events

<table>
<thead>
<tr>
<th>Events icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Image]</td>
<td>The Start event symbol is used to mark the beginning of a process. A process (blueprint) can have one start event only.</td>
</tr>
<tr>
<td>[Image]</td>
<td>The End event marks the ending point of a process. A process (blueprint) can have multiple end events.</td>
</tr>
<tr>
<td>[Image]</td>
<td>The Message event indicates that a process should send a message or wait for a message from an external participant after the flow reaches this point. After the message is sent or received from the external participant, the process resumes.</td>
</tr>
<tr>
<td>[Image]</td>
<td>The Timer event indicates that a process should wait for a specific time or cycle to proceed. For example, a timer event might be set to fire every weekday at 5 p.m. As a result, the flow of the process queues up at the timer event until 5 p.m. each weekday, at which point the flow resumes.</td>
</tr>
<tr>
<td>[Image]</td>
<td>The Error event causes an exception to happen at that point in the process. The process continues its flow after this point, but often this indicates that an event occurred that an external participant or system must handle.</td>
</tr>
</tbody>
</table>
Next, we describe how you can add, move, delete, and label these elements.

### 3.4.2 Adding titles and labeling

In IBM Blueworks Live, limited text is available for the elements. This limitation is intentional because it encourages concise descriptions. For example, each milestone or activity should include a noun and a verb to make it easy to understand what is happening. Although you want to make your idea clear, you do not want to use complete sentences here because your diagram can become cluttered and difficult to understand if you include too many words. If you must capture more information, you should use the appropriate tab in the details pop-up window. With this process of only a few words per activity, you can quickly map out the broad strokes of a process that can be refined later.

By using IBM Blueworks Live, you also can rename all of the elements you use in the process (blueprint). You can rename everything from the space title, process title, milestones, activities, events, gateways, color legend, labels, and so on. You click the title of the element that you want to rename and enter the title or label. For example, we rename the Participant 1 to Submitter 1 and are about to rename the Activity A in Figure 3-13.

![Figure 3-13 Rename Activity and Swimlane](image)

You can add only one label per sequence flow line, as shown in Figure 3-14 on page 30. Complete the following steps to add a label to a sequence flow line:

1. Right-click the sequence flow line.
2. Select **Add Label** from the options.
3. Enter your new label on the sequence flow line.

<table>
<thead>
<tr>
<th>Events icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Escalation event icon" /></td>
<td>The Escalation event indicates that a condition was met and the process must move onto another process or to another participant in the process. For example, the condition might be a certain dollar amount that requires higher approval, the expiration of a timer for a predefined number of times, or the number of times you are relooped in the process.</td>
</tr>
</tbody>
</table>
3.4.3 Adding and moving elements

In addition to adding BPMN artifacts in the Discovery Map view, you can add all elements to the process while you are in the Process Diagram view. You can add anything from the milestones, swimlanes, activities, events, gateways, different color scheme to activities, and sequence flow lines. We describe this process next.

**Adding and moving milestones and swimlanes**
At the top of the pool next to the view menu you find two icons, Add Milestone and Add Swimlane, as shown in Figure 3-15 on page 31.
In the addition to the use of the two icons, you can add milestones and swimlanes by hovering over the line that separates each milestone and swimlane. You see a circle with a plus sign icon (+), as shown in Figure 3-16 on page 32.

Complete the following steps:
1. Move your cursor over the line on the milestone or swimlane where you want to add the element.
2. When you see a circle with a plus sign icon, click the icon.

IBM Blueworks Live inserts the milestone or swimlane.
If you added a milestone or swimlane in the wrong place, you can move them into place by using a Select and Move action. Complete the following steps:

1. Click the **Select and Move** icon that is next to the view menu (the icon resembles the top part of an arrow with a cursor).

2. Select the wanted milestone or swimlane by holding down the left mouse button and then release it after you find the correct place.

IBM Blueworks Live adjusts all the sequence flow lines for you after you decide on your final milestone or swimlane display, as shown in Figure 3-17 on page 33.
Adding and moving an activity
Adding an activity to the diagram requires similar steps that are used to add a milestone or a swimlane, as shown in Figure 3-18. Complete the following steps:

1. Move your cursor over the flow line where you want to insert an activity.
2. When you see a circle with a plus sign icon, click the icon to insert an object.
3. Select the activity icon (the rectangle with rounded corners).
4. IBM Blueworks Live inserts your activity into the flow line.
As with the milestone and swimlane, you can move the activity to a different place by using the Select and Move action. Complete the following steps:

1. Click the **Select and Move** icon that is next to the View menu.

2. Select the wanted activity by holding down the left mouse button and then releasing it on top of the sequence flow line after you find the correct place.

   You notice the sequence flow highlights in yellow, which means you can move the activity there. IBM Blueworks Live adjusts all the sequence flow lines for you after you decide on a final activity display, as shown in Figure 3-19.

![Figure 3-19 Select and move an activity](Image)

**Adding and moving gateways**

Similar to adding an activity, we can add gateways, as shown in Figure 3-20 on page 35. Complete the following steps:

1. Move your cursor over the flow line where you intend to place the gateway.
2. Click the plus sign icon.
3. Select the decision diamond from the icon menu.
In you want to add a parallel or inclusive gateway, complete the following steps:

1. Add the exclusive gateway.
2. Change the type of gateway to the wanted gateway by selecting the type from the menu when you right-click the gateway, as shown in Figure 3-21 on page 36.
After the gateway is inserted, IBM Blueworks Live places the gateway in the flow line and adds another path. The paths are based on the decision or conditions that are met at this point in the process. The default path when you add a decision gateway is the Yes path that continues the flow you originally designated. A No path is created that ends the process. Often, the No path is not intended to end the process but take a different route to bypass activities. The following tasks must be complete to change the sequence flow line from this default path to a new path:

- Drawing a new flow line.
- Deleting the former flow line.

**Sequence flow lines**

In IBM Blueworks Live, you must draw a new sequence flow line before you can delete a sequence flow line in a decision gateway, as shown in Figure 3-22 on page 37. To draw a new sequence flow line, complete the following steps:

1. Change your cursor type from selection to flow line by selecting the arrow icon that is next to the icon with the top of the arrow and the cursor.
2. Left-click the gateway and hold the left mouse button.
3. Drag your cursor from the gateway to the activity to which you want to connect.
   
   A new sequence flow line is created.
4. Release the mouse button after you select your wanted endpoint (in this case, the activity).
At times, you might want to reorganize some activities and sequence flow lines. IBM Blueworks Live provides an option to align parallel flows, which automatically organizes the layout of the activities to the gateways, as shown in Figure 3-23 on page 37.

Complete the following steps:
1. Right-click the gateway.
2. Select **Align parallel flows**.
3.4.4 Subprocess or linked process

A subprocess or linked process is something that you should always consider when you are defining your overall process. However, before you consider these, you must have milestones, activities, and gateways that are defined in your process.

After you have a process modeled, you might have defined activities that show only a high level of granularity and that might be decomposed into more granular detail. There are two different techniques that can be used to capture those details: subprocesses and linked processes.

If you have an activity that should be further broken down into more granular details, and that activity can be used in more than this process, a linked process is useful. By using this approach, you can reuse your work across multiple processes without having to recreate an activity and only link to it. For example, a Review and Approve activity can be mapped out to be generic and used across many different processes.

However, if your activity is specific to this process, you can use the subprocess type to capture the other details about how that activity is run; for example, the Hire Candidate activity from the case study example. For this example, right-click the Hire Candidate activity and select the Convert to Sub-process option, as shown in Figure 3-24.

![Figure 3-24 Convert to subprocess option for the Hire Candidate activity](image)

The activity border is changed to a dotted line. In the outline view, you can see an indented activity description. After the details are added to the sub process, you see that the diagram still shows the dotted line, but the outline contains the details that you entered. You can capture the detail and still leave the Process Map in a readable state, as shown in Figure 3-25 on page 39.
You can also add multiple linked processes to a subprocess to further include more detail, if needed. For example, the Complete HR Forms activity can be a linked process that is referenced from a separate process in the HR Space, which enables reusability across multiple processes, as needed.

Right-click the **Complete HR Forms** activity and select **Link to Process**, as shown in Figure 3-26.

![Hire Candidate subprocess outline view](image)

**Figure 3-25**  Hire Candidate subprocess outline view

![Link to process menu option](image)

**Figure 3-26**  Link to process menu option
The Link to Processes window opens, as shown in Figure 3-27. Here, you can search for and select a process that you created.

After you linked the appropriate process, that activity contains a link icon on the lower left, as shown in Figure 3-28. Different options are now available in the menu.

Many times during the initial discovery, you might not be able to identify the need for a subprocess, which is acceptable. The purpose of the current state discovery process wherein you collaborate with the SMEs is to model the processes as they explain them. It is a best practice to review the modeled processes at the end of the day because it is then that the subprocess patterns become more evident.

In our case study, we start modeling the Background Check process.

The background check involves a criminal background check, credit check, and social media background check. The HR Admin conducts the background tests and sends the result to the HR Manager for review. The HR Manager reviews the results of the three checks and makes a final decision on the overall background check. If a candidate does not pass the background check, the HR Manager informs the HR Admin, who then informs the Hiring Manager, who in turn informs the recruiter, who ultimately informs the candidate. This process is shown in Figure 3-29 on page 41.
This process is an ideal candidate to use subprocesses for the following reasons:

- The background check is one high-level activity in the entire onboarding process.
- There are multiple activities that are performed by different participant groups to complete the background check.
- The individual activities that are performed by the different participant groups are near each other and allow for easy grouping.

### 3.5 Problems tab

Problems can occur at any time and you should capture them as they happen. You can capture them at the process level, milestone level, or activity level. Ask the group of SMEs how severe the problem is (low, medium, or high) and how frequently it can happen (low, medium, or high). You do not need specific standard definitions for the low, medium, and high terms, but it can be beneficial to agree to specific criteria, such as severity as a process cost or processing time, and frequency as a certain percentage of occurrences by project for each level. The definitions can be captured and shared in the space details or process details. You must ensure that it is visible to anyone who must be aware of them.

In our case study, recall that Call Center Company C is experiencing some unique problems that their organization has never seen before. Call Center Company C just won a large amount of new business and must hire a significant number of call center representatives.
The process for hiring and onboarding new call center employees is manual and is not documented. This problem, sometimes also called a *pain point*, is a problem that we want to document at the process level in the Problems tab because this is a problem that is seen throughout the entire process. If this problem was specific to a milestone or activity for a particular role, you want to capture the problem at these levels only.

Problems are not always evident to the people who are performing the process because to them, it appears as business as usual.

At times, you can discover problems by analyzing the information that you are capturing, as shown in the following examples:

- You might discover information about an activity for a specific role and find out that role must use five different systems to perform the task. This is a problem of *system fragmentation*.
- You might find that one group is larger than another group, which might create bottlenecks in the process. This is a problem on *unbalanced teams*.
- You might discover that people upstream in the process are providing incorrect information to people downstream in the process, which exponentially increases the number of times that the different groups of people must communicate to fix the data or human errors. This is a problem of *rework*.

Finally, remember the problems you capture can have different levels of impact. For example, a problem you discover might occur only once every six months and cost the company little; however, you might discover a problem that occurs 10 times a day and might be costly to the company.

There are many types of problems and different levels of impact. The key is to document them and highlight them because these can be the key points that you want to target when you are designing and creating the future state process.
3.6 Policies tab

Policies are a good way to capture information that is relevant to a decision or process in a single shared area. You can create a policy the same way you create a blueprint, as shown in Figure 3-30.

![Creating a policy](image)

For each policy that you create, there is a section to define the policy and provide more information about what the policy is used for, upload a policy document, or link to a policy by using a URL, as shown in Figure 3-31.

![Policy creation](image)
In addition, each policy includes the Where Used information by default, so that you can see where the policy is being referenced. You can reference the policy from the details pop-up window on any entity or from the root process or decision by clicking the Policies tab in the Details window, as shown in Figure 3-32.

![HR Onboarding Call Center Rep As-Is](image)

**Figure 3-32  Policies window**

### 3.7 Documentation tab

The Documentation tab is the free-form text area in which you can describe the process, milestone, or activity.

When you are capturing the current state process at the process level, it is a best practice to begin capturing information about the process. For example, capture a description of what the process is about, how the process starts and ends, and any other information that describes the context of the process and its scope.

When you are capturing the current state process at the milestone level, it is a best practice to capture information about the phase, period, or status.

When you are capturing the current state process at the activity level, it is a best practice to capture information about the activity in the form of user stories and a further description about how the activity is completed.

### 3.8 Attachments tab

The Attachments tab is best used to capture content that can help explain the process, milestone, or activity. The Attachments tab also can be used to capture information for the current or future state process. You can capture this information at the process, milestone, or activity levels. The attachments often consist of image files, documents, presentations, spreadsheets, and so on. A text file attachment is shown in Figure 3-33 on page 45.
In our case study, Call Center Company C is hiring and onboarding new call center employees. Because this process is manual and has little to no automation, it is a perfect candidate for many explanatory attachments to further explain the individual activities. The types of content can range from snapshots of screens of the current systems that are used, to the desktop instructions people are using to perform the activities, to presentations that might contain rules, and even how the process currently flows.

Although Blueworks Live includes an Attachments tab with which you can attach almost any type of content, it is not intended nor recommended to be a repository for documents. You should work with your team to devise a plan to capture and store content and reference the content in Blueworks Live via hyperlinks in the Documentation tab.

### 3.9 Comments tab

The Comments tab is best used to capture comments about the process. The Comments tab can be used to capture information for the current or future state process. You can capture them at the process, milestone, or activity levels. A user who has access to a process might have feedback or a question regarding something that they saw in the process and want to alert you. Blueworks Live does not allow the user to categorize or flag the comment if it is feedback, a question, or something to which you must reply.

When someone enters a comment, the user who is entering the comment does not see any change in the process. However, everyone else viewing the process notices a balloon type icon that appears at the top of the element where the comment was entered. After the comment is viewed, the balloon type icon disappears. As the person viewing the comment, you can reply to or delete the comment, as shown in Figure 3-34 on page 46.
### 3.10 Summary

In this chapter, we described how to work through an As-Is process discovery exercise. We showed you how to create a Discovery Map and a Process Diagram, and how to collect and document necessary and helpful details in the different tabs and locations for each process artifact.

This As-Is model is used in your follow-on steps to create an optimized To-Be process.
Documentation view

Although the Discovery Map and the Process Diagram view are among the two most widely used views because they are visual representations of the process, IBM Blueworks Live also includes a third view, the Documentation view.

In this chapter, we describe the Documentation view and how you can customize what information is displayed in the view.
4.1 Introduction

Just as the Process Diagram view transposes the Discovery Map view into a more meaningful and logical representation of the flow of milestones and activities, the Documentation view transposes the same information into a readable document, as shown in Figure 4-1.

![Figure 4-1 Documentation view](image)

The Documentation view displays all of the information that is captured in the Documentation tab of the process, milestones, activities, gateways, and so on. While you are in the Documentation view, you can add or edit the information as though you were directly in the Documentation tab of the Discovery Map or Process Diagram view by clicking the pencil icon, as shown in Figure 4-2.

![Figure 4-2 Pencil icon](image)

You can select to show or hide the details pop-up window format by clicking the icon with the table, as shown in Figure 4-3.

![Figure 4-3 Table icon](image)

You can select to show or add comments by clicking the chat bubble icon, as shown in Figure 4-4.

![Figure 4-4 Chat bubble icon](image)
You can select to receive a link to the item that you are referencing by clicking the chain icon, as shown in Figure 4-5.

![Link icon](Image)

*Figure 4-5  Link icon*

The Documentation view displays the information in a work breakdown structure (WBS) format, as shown in Figure 4-6.

![Documentation view work breakdown structure](Image)

*Figure 4-6  Documentation view work breakdown structure (WBS)*

As in the Discovery Map and Process Diagram view, you can export this view. The export that best reflects this view is the Microsoft Word format. Along with the export, you can also decide to include a snapshot of the process model, as shown in Figure 4-7 on page 50.
4.2 Details and comments

While you are in the Documentation view, you can show all of the details and comments through the entire document view, as shown in Figure 4-8.

The following options are available:

- Show All Details

  When the Show All Details feature is enabled, the Documentation view displays all of the information that was captured in the Details, Problems, Decision (if defined as Decision), Policies, and Attachments tabs. As you can add and edit the documentation, you can also do the same here. This view can be beneficial if you must edit and review information without having to click through the various tabs if you were in the Discovery Map or Process Diagram view, as shown in Figure 4-9 on page 51.
Show All Comments

When the Show All Comments feature is enabled, the Documentation view displays all the comments that are captured. This view can be beneficial if you must review, add, or reply to comments without having to click through the various tabs if you were in the Discovery Map view or Process Diagram view, as shown in Figure 4-10.
4.3 Summary

In this chapter, we described the Documentation view, which is the third view of IBM Blueworks Live. Just as the Discovery Map view and Process Diagram view have their advantages, so does the Documentation view present advantages over the visual views.

Although the Documentation view is formatted differently, you can still show, hide, add, or edit information that is captured without opening and closing several windows.
Chapter 5. Analyze Mode

The Analyze Mode in IBM Blueworks Live is a tool to use when you are reviewing the process from a holistic point of view. It is intended to give you a view of the process in the Discovery Map view or the Process Diagram view that highlights the information that you selected and all of the activities that use it.

In this chapter, we describe this mode and how to use it in the context of our use case.
5.1 Before the Analyze Mode is used

The following concepts are important to understand before the Analyze Mode is used:
- Analyze Mode option
- Analyze Mode inputs

5.1.1 Analyze Mode option

The Analyze Mode option is always at the upper right of your window. When the Analyze Mode is enabled, the Analyze Mode button displays a small red bar on the icon and a banner across the top of the page, as shown in Figure 5-1.

Figure 5-1  Analyze Mode button enabled

When the Analyze Mode is disabled, it shows the Analyze Mode button without the small, red bar, as shown in Figure 5-2.

Figure 5-2  Analyze Mode button disabled

5.1.2 Analyze Mode inputs

The Analyze Mode always works regardless of whether there is captured information. The Analyze Mode is used effectively only when there is information that is populated in the fields of the Details tab of the processes, milestones, or activities. When no information is populated, the Analyze Mode returns a zero result and prevents you from selecting the Wait Time property, as shown in Figure 5-3 on page 55.
The same case applies when you are in the Process Diagram view.

5.2 Using the Analyze Mode

As shown in Figure 5-4 on page 56, many details are provided for the Call Center Rep Onboarding As Is (Playback Zero) process. However, if you want to know what other activities in the process have HR Manager as a Business Owner, this view does not provide that information. This instance is where the Analysis Mode feature can help you.
In Figure 5-5, Analysis Mode is enabled and only Participants is selected from the pull-down menu at the upper left side of the page. You can see that each activity that is using the selected participant is highlighted in the Discovery Map. Looking at this information in the Discovery Map view, you can see the different participant roles that are captured in the activities. These details appear only if you captured this information in the Details tab.
When the Analyze Mode is enabled, you can use the drop-down menu in the upper left of the window to review any of the details that are added to the activities and how they are spread across the activities. You can see the options that you can select, as shown in Figure 5-6.

You can select multiple properties to show on the Discovery Map together, which is useful when you want to analyze or answer a specific question. For example, if you are looking for a participant with a specific cost across the process, you select **Participants and Cost**. You can also select specific entries in the Participants; you do not have to show them all, as shown in Figure 5-7.
Analyze Mode works the same for the Process Diagram view, in which you can enable and disable the feature and then select and clear properties to display. The only difference when the Analyze Mode is used in the Process Diagram view is that you see the process flow rather than milestones and activities, which are presented in the Discovery Map view.

Be careful when you use the Analyze Mode because it is possible to make the Discovery Map view and the Process Diagram view all but unreadable if you captured much information in the Details tab and you choose to show all of the properties. Figure 5-8 shows an example of how it looks if you select all of the available properties in the Discovery Map view.

![Discovery Map view with the Analyze Mode enabled with all Properties selected](image)

Figure 5-8  Discovery Map view with the Analyze Mode enabled with all Properties selected

5.3 Using the Analyze Mode for process analysis

In this section, we describe how you can use Analyze Mode to perform process analysis. The Analyze Mode can help you answer questions regarding a process or even recommend how to improve a specific area of the business in the current state process that might lead to the justification for a future state design.

We expand our HR Onboarding case and include activity details for the purposes of demonstrating how to use the Analyze Mode. The case study was expanded to demonstrate how to use the Analyze Mode to perform process analysis. The details that are described here are fictitious data points.

5.3.1 Use case example

As stated in our case study, the CEO of the Call Center Company C commissioned a team of Business Analysts to perform process improvements across the company. The Business Analysts decided to use IBM Blueworks Live for this purpose. As one of the Business Analysts, you are assigned the Human Resource (HR) functional organization. The main process the Director of HR decided to improve is the HR Onboarding process. The first step is to investigate who are the Business Owners and subject matter experts (SMEs).

Because you know how to use the Analyze Mode, you can quickly answer this question. You access the process in the Space that it is in. Click the Analyze button and select Business Owners and SMEs from the properties, as shown in Figure 5-9 on page 59.
Per the Analyze Mode, the process has the following Business Owners and Experts:

- **Business Owners**:
  - HR Manager
  - Call Center Manager

- **Experts**:
  - Steve
  - John
  - Sam
  - Adam

Now that you know who the Business Owners and Experts are, you can proceed to take a closer look at the process. You use the Analyze Mode again to look for recommendations for improving the current state process. You begin with exploring the roles in the process. You clear the Business Owners and Experts selections and now you select **Participants**, as shown in Figure 5-10 on page 60.
Per the Analyze Mode, the process has the Participants that participate in the number of activities that are as shown in Table 5-1.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Number of Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiring Manager</td>
<td>9 Activities</td>
</tr>
<tr>
<td>Candidate</td>
<td>8 Activities</td>
</tr>
<tr>
<td>Call Center Manager</td>
<td>4 Activities</td>
</tr>
<tr>
<td>Recruiter</td>
<td>4 Activities</td>
</tr>
<tr>
<td>HR Admin</td>
<td>3 Activities</td>
</tr>
<tr>
<td>HR Manager</td>
<td>3 Activities</td>
</tr>
</tbody>
</table>

You now determine that the process has some level of complexity because of the number of participants and the number of activities the participants perform in the process. You decide to have a meeting with the Business Owner in which you introduce yourself as the party of the process improvement team that is responsible of improving the HR Onboarding process.

The Business Owner shares with you that they are looking for options to reduce cost and time that it takes to onboard new employees because next year they want to onboard many employees.

You return to the process model and use the Analyze Mode again. This time, you select **Cost** and **Participants** because you are now interested to see the cost that is associated with each activity and want to learn which activities cost the most to perform and by whom, as shown in Figure 5-11 on page 61.
Per the Analyze Mode, you observe the process has the Cost, Participants, and Activities that are shown in Table 5-2.

Table 5-2  Onboarding process cost, participants, and activities

<table>
<thead>
<tr>
<th>Cost (USD)</th>
<th>Participants</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Call Center Manager</td>
<td>Assign Mentor</td>
</tr>
<tr>
<td>50</td>
<td>Call Center Manager</td>
<td>Activate Call Center Profile</td>
</tr>
<tr>
<td>100</td>
<td>Call Center Manager</td>
<td>Establish Work Schedule/Shift</td>
</tr>
<tr>
<td>100</td>
<td>Call Center Manager</td>
<td>Probationary Review</td>
</tr>
<tr>
<td>25</td>
<td>Candidate</td>
<td>Complete I-9 Form</td>
</tr>
<tr>
<td>25</td>
<td>Candidate</td>
<td>Complete Tax Forms</td>
</tr>
<tr>
<td>25</td>
<td>Candidate</td>
<td>Complete Benefit Forms</td>
</tr>
<tr>
<td>25</td>
<td>Candidate</td>
<td>Submit Forms to HR</td>
</tr>
<tr>
<td>100</td>
<td>Candidate</td>
<td>Attend New Hire Orientation</td>
</tr>
<tr>
<td>3000</td>
<td>Candidate</td>
<td>Attend Call Center Training</td>
</tr>
<tr>
<td>50</td>
<td>Candidate</td>
<td>Obtain Badge, Network ID, and Equipment</td>
</tr>
<tr>
<td>50</td>
<td>Candidate</td>
<td>Take Screening Test</td>
</tr>
<tr>
<td>25</td>
<td>Hiring Manager</td>
<td>Inform failed background check to Recruiter</td>
</tr>
<tr>
<td>25</td>
<td>Hiring Manager</td>
<td>Inform Recruiter of Offer Rejection</td>
</tr>
<tr>
<td>25</td>
<td>Hiring Manager</td>
<td>Inform Recruiter of Rejection</td>
</tr>
<tr>
<td>25</td>
<td>Hiring Manager</td>
<td>Initiate Performance Plan</td>
</tr>
<tr>
<td>25</td>
<td>Hiring Manager</td>
<td>Request Background check</td>
</tr>
<tr>
<td>25</td>
<td>Hiring Manager</td>
<td>Request Equipment from IT</td>
</tr>
</tbody>
</table>
You aggregate the data that is provided and observe the details, as shown in Table 5-3 and Table 5-4.

**Table 5-3  Number of activities by participant**

<table>
<thead>
<tr>
<th>Participants</th>
<th>Total Number of Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiring Manager</td>
<td>9</td>
</tr>
<tr>
<td>Call Center Manager</td>
<td>4</td>
</tr>
<tr>
<td>HR Manager</td>
<td>4</td>
</tr>
<tr>
<td>Recruiter</td>
<td>4</td>
</tr>
<tr>
<td>Candidate</td>
<td>5</td>
</tr>
<tr>
<td>HR Admin</td>
<td>2</td>
</tr>
</tbody>
</table>

**Table 5-4  Total cost of activities by participant**

<table>
<thead>
<tr>
<th>Participants</th>
<th>Total Cost (USD) of Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call Center Manager</td>
<td>275</td>
</tr>
<tr>
<td>Hiring Manager</td>
<td>400</td>
</tr>
<tr>
<td>HR Admin</td>
<td>360</td>
</tr>
<tr>
<td>Recruiter</td>
<td>175</td>
</tr>
<tr>
<td>HR Manager</td>
<td>100</td>
</tr>
<tr>
<td>Candidate</td>
<td>3300</td>
</tr>
</tbody>
</table>
You observe that the Hiring Manager is responsible for a high number of activities compared to the other participants. You also observe that the total cost of all the activities that are performed by the Candidate are higher compared to the rest of the participants even though the Hiring Manager has more activities.

You report your findings back to the Business Owner and provide recommendations for next steps. You recommend taking a closer look at the activities that are performed by the Hiring Manager and the cost that is associated with the activities that are performed by the Candidate.

You return to the process model and use the Analyze Mode again. However, this time you clear the Cost option and select Work Time, Wait Time, and Participants. You are interested in finding any bottlenecks in the process, as shown in Figure 5-12.

![Figure 5-12  Process Diagram view with Analyze Mode enabled](image-url)
You first look at the Hiring Manager and observe the work and wait times, as shown in Table 5-5.

Table 5-5  Hiring Manager activities work and wait time

<table>
<thead>
<tr>
<th>Activities</th>
<th>Work Time</th>
<th>Wait Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct Interview</td>
<td>1 day</td>
<td>13 days</td>
</tr>
<tr>
<td>Inform failed background check to Recruiter</td>
<td>15 minutes</td>
<td>0</td>
</tr>
<tr>
<td>Inform Recruiter of Offer Rejection</td>
<td>15 minutes</td>
<td>0</td>
</tr>
<tr>
<td>Inform Recruiter of Rejection</td>
<td>15 minutes</td>
<td>0</td>
</tr>
<tr>
<td>Initiate New Hiring Request</td>
<td>1 day</td>
<td>0</td>
</tr>
<tr>
<td>Initiate Performance Plan</td>
<td>2 hours</td>
<td>0</td>
</tr>
<tr>
<td>Make Offer</td>
<td>1 day</td>
<td>2 days</td>
</tr>
<tr>
<td>Request Background check</td>
<td>15 minutes</td>
<td>0</td>
</tr>
<tr>
<td>Request Equipment from IT</td>
<td>1 day</td>
<td>1 day</td>
</tr>
</tbody>
</table>

You observed that the Hiring Manager has a Wait Time of 13 days before they perform the Conduct Interview activity. Your recommendation to the Business Owner is to shorten the time to perform the Conduct Interview activity. You also might recommended improving the Make Offer and Request Equipment from IT activities. These steps meet the objective to reduce time for the Hiring Manager.

You return to the process model and use the Analyze Mode again. However, this time you want to focus on the activities that are performed by the Candidate. You clear the Work Time and Wait Time selections and select Cost and Participants. You are interested in finding potential areas for savings, as shown in Figure 5-13.

Figure 5-13  Process Diagram view with Analyze Mode enabled with Cost and Participants properties selected
You now review the Candidate and observe the information that is shown in Table 5-6.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Cost (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete I-9 Form</td>
<td>25</td>
</tr>
<tr>
<td>Complete Tax Forms</td>
<td>25</td>
</tr>
<tr>
<td>Complete Benefit Forms</td>
<td>25</td>
</tr>
<tr>
<td>Submit Forms to HR</td>
<td>25</td>
</tr>
<tr>
<td>Attend New Hire Orientation</td>
<td>100</td>
</tr>
<tr>
<td>Attend Call Center Training</td>
<td>3000</td>
</tr>
<tr>
<td>Obtain Badge, Network ID, and Equipment</td>
<td>50</td>
</tr>
<tr>
<td>Take Screening Test</td>
<td>50</td>
</tr>
</tbody>
</table>

You observe that the Candidate has a Cost of USD $3000 for attending the call center training. Your recommendation to the Business Owner is to improve the cost to perform the Attend Call Center Training activity. This recommendation meets the objective of reducing cost for the Candidate.

### 5.4 Summary

By using the Analyze Mode, you analyzed the process and details and made recommendations about where the Business Owner can improve to reduce cost and time.

You learned that the Analyze Mode in IBM Blueworks Live is an effective way to view process details in the Discovery Map and Process Diagram view. You also learned about the inputs that are required to use the feature effectively.

Finally, you learned that the Analyze Mode can help you answer questions about the process or help with performing process analysis. However, remember the Analyze Mode and its use is only as good as the process model and the information that you capture in it.
Process automation

Process automation in IBM Bluemix Live is a lightweight capability with which you can perform different types of automation, including checklist and workflow. By using the checklist automation, you can perform activities in no particular order. By using workflow, you can specify an order to the tasks that must be completed.

In this chapter, we describe the steps to create a workflow and a checklist.
6.1 Workflow

To create a workflow type automated process, browse to the Work tab and select **Automate a Process**, as shown in Figure 6-1.

![Figure 6-1 Work tab home](image)

In the next window that opens (as shown in Figure 6-2 on page 69), you name the process and select the type of process. In this case, you create a **Simple Workflow** process. This type of process is best suited for review and approval processes.

You can include a number of approvals for multiple levels, but not every step is required to include an approval. In addition, this process type facilitates the use of parallel and sequential activities that are built in so that you can have multiple reviews occur at the same time.

Here, you also need to select the Space Name in which you want to store the process. To finish this step, click **Create**.
Next, you provide instructions to the user who starts the process. Keep these instructions concise because there are limited characters available for this field. These instructions are displayed when the process is started. The Work Subject and Details fields are completed at start, so you do not have to complete them now.

The Workflow Tasks section represents the bulk of this process and the order here is important. In this automation type, the tasks are sent out one at a time for sequential tasks. For example, if you have three tasks that are defined, the second user in the workflow does not know that the process was started until the first activity is complete.

As you create the workflow tasks, action label, and start instructions, you want to ensure that you keep these items as generic as possible so that the process can be reused in as many instances as possible.

After you are satisfied with the information you entered, select **Publish** to make the process available for participants in the space to start. A finished workflow process is shown in Figure 6-3 on page 70.
In this example, Participant 1 is notified, and if that participant approves, Participant 2 is notified. If that participant approves, Participants 3, 5, and 6 are notified of their tasks. However, only Participant 5 is required to approve. Therefore, when that participant approves, Participant 4 receives an email about their task to complete.

6.2 Checklist

The checklist process application is similar to the workflow, with one important difference. The checklist sends all tasks out at the same time and can be completed in any order.

Checklists can be used in a scenario in which you must get approvals from many people, but the order in which the approvals are received is unimportant.

In another scenario, you want to notify a group of participants about a review and receive an acknowledgment when they completed their task. A sample checklist is shown in Figure 6-4 on page 71.
6.3 Summary

Workflows and checklists provide two powerful means to automate your processes. By using these automations, you can use linear or parallel flows that might require approvals or acknowledgements.
Governance

IBM Blueworks Live includes a Governance feature that is aimed at gathering reviews or approvals before publishing an artifact for non-editors to view. By using this feature, you can document your process or decision, submit the workflow, and then publish that particular version.

The Governance process includes the following overall steps:

- Defining
- Launching
- Participating
- Publishing

In this chapter, we describe these overall steps.
7.1 Defining

Defining a governance process app is the same as defining an automated process. For Governance, Blueworks Live has parallel and sequential activities within a single process app. Some example activities are shown in Figure 7-1.

![Workflow Tasks](image)

*Figure 7-1  Process review*
7.2 Launching

To launch a Governance process while inside the Process Diagram, go to the Snapshots menu and select the version of the process you for which you want to launch the Governance process. Next, click Actions → Launch a Process App, as shown in Figure 7-2.

![Figure 7-2 Launch a Process App](image-url)
As shown in Figure 7-3, a pop-up window opens in which you are prompted to select the Process App you want to launch. Make your selection (in our example, we chose **Review Process in Redbook**), then clicked **Launch Process App**.

![Launch a Process App](Image)

*Figure 7-3  Choose governance process*
As shown in Figure 7-4, you must populate the subject and details sections as necessary to inform the participants, then ensure that the tasks are correct, they are assigned to the proper person, and the due date is accurate before you click **Launch**. If you must modify any tasks, assignees, or due dates, you must do so before you click **Launch** (you can always reassign tasks at run time).

As the person who configures the governance process, you can be notified when the process is completed by selecting **Email me when this process is completed or cancelled**.

The arrows at the left side of the workflow tasks indicate the flow of the process (there are parallel and sequential tasks in this process). You can see that in this process that we have two parallel reviews for the SMEs, then user Brian receives a review and approval activity, and user Josh receives the final review and approval if Brian approves.

### 7.3 Participating

If you are a participant in a governance process, you receive an email that indicates that a governance process was launched. This email provides you with a link to your activity and you see the Work in Progress icon if you open the process, as shown in Figure 7-5.
When you start IBM Blueworks Live from the provided link, you are on the instance page where you can follow a link to the artifact on which you must work. When you open the artifact, it brings you to a read-only view of the artifact for which the review was requested, unless you are an editor and have the correct permissions in the space.

If you are a participant that is involved in a review step, you see a Complete button on the right side in the yellow bar, as shown in Figure 7-6.

![Figure 7-6 Governance review task](image)

If you are a participant that is involved in an approval step, you see a yellow bar at the top of the window with two buttons: Approve and Reject, as shown in Figure 7-7.

![Figure 7-7 Governance approval task](image)

Both roles can create comments before submitting their response; the link in the email does not expire.

### 7.4 Publishing

The publishing part of governance is the same as described in 1.2.6, “Publishing and permissions” on page 6. An editor can opt to publish without a governance process or at the end of one.

After an artifact is reviewed, the person who originated the governance process can publish the artifact from the Snapshot menu by selecting the reviewed version, going through the Actions menu and selecting Publish. You do not have to wait until the governance process is approved to publish it. You can see in Figure 7-8 on page 79 that the process is published even though it is not yet approved.
7.5 Example

For our HR Onboarding process example, you documented the process As-Is. Before you launch the To-Be, you want to ensure that what you have is accurate. For this purpose, the business analyst created a Process App that is named As-Is Approval that must be used to have the As-Is version of processes approved before moving on to the To-Be state. The workflow tasks for the As-Is approval app are shown in Figure 7-9.

First, you want the SME (in our example, Nachi) that helped you create the process to approve it before it goes anywhere else. After Nachi approves it, you want the first line manager of the SME (in our example, David) to approve it. Next, you want the Director (in our example, Jonas) to approve it at the same time that the executive sponsor (in our example, Philipp) is notified of the review and given the ability to see the process.

We have three levels of approval that happen sequentially, but two that are happening in parallel. You do not have to define the persons that the tasks are assigned to at this point, but if you know who it is, it saves you time later. Select Publish and the approval app is available for you to launch from your process for governance.

Go to the HR Onboarding As-Is process, open the Snapshots menu, select the version that is ready for review, and then, in the Actions menu, select Launch a Process App. In the pop-up window that opens, you select the As-Is Approval App that you created. If you selected the Current Version in the snapshots menu, you can keep future edits separate from the review version. This creates a new snapshot to perform the review on while you continue updating the latest version.
When you click **OK**, you are presented with the As-Is Approval App in runtime mode. Here, you can provide a title and description so that your reviewers know what they are about to look at, set the task due dates or adjust the participants, and then launch the governance process.

As the person that submitted the review, you now have a new menu on the process diagram, called Work in Progress. This menu shows you who was informed of their task, who completed their task, who did not complete their task, and who is still waiting for their task to be sent to them. When the process is complete, if you opted to receive an email before launch time, you do receive an email. At that point, you can open your process and publish the approved version.

### 7.6 Summary

By using the Governance feature, you can capture the review, commentary, or approvals on a process or decision. Launching a process on a specific version of the artifact enables you to continue modifying and improving your artifact while still reflecting that a particular version was officially reviewed or approved.
Playbacks

The Playback mode in IBM Blueworks Live is accessible only when you are in read-only mode on the Process Diagram. By using this configuration, users can create scenarios in which the process flows for demonstration purposes.

In this chapter, we describe the Playback mode and how it can be used to perform some analysis on a particular flow of a process.
8.1 Overview

It is often easy to review a process and think it looks correct, but after you are taken through it in a specific series of steps, you can see errors or shortcomings. By using the Playback mode, you can take people through the process and attempt to find the problems.

In addition, you can select an analysis property to be shown throughout the playback. If you select cost, for example, you can track the cost of each activity in the process. You can use this to show the least expensive possible route through a process if you wanted to perform some analysis on the process paths.

Another great feature is that you can change the Analysis property during Playback Definition and Playback Execution. Because of this ability, you can select the path with a certain role that is attached and then run it with costs or work time enabled. Unlike the Analysis Mode, you can select only a single property at a time.

When you enter the Playback mode, the appearance of IBM Blueworks Live is slightly altered to minimize headers to make it easier to present and use more of the window for the diagram. The headers of these modes are shown in Figure 8-1 and Figure 8-2 for comparison.

8.2 Playback definition

When you first enter Playback mode, you are in Playback Definition mode. This is where you define the flow of the playback. You can create a happy path, an exception path, or whatever it is that you must demonstrate.

We use the HR Onboarding Call Center Rep As-Is process to show the playback happy path. This can be helpful in showing other people in the organization how each process can work in the ideal state. We begin by naming the playback Happy Path, as shown in Figure 8-3 on page 83.
Next, we define the path of the process. The tool is open for you to select any starting point; however, after you select a starting point, you can select only legitimate next steps, you cannot jump from the Inform background check OK option to the HR Admin to the Inform failed background check to Hiring Manager Admin option because they are not connected, as shown in Figure 8-4.
We begin at the Start event and take the process through the path to the split after Activate Call Center Profile, as shown in Figure 8-5.

You can see that the process splits and can go one of two ways. We can take the happy path to the Assign Mentor activity, or the Probationary Review activity. Although this split is simple and the process often can take both paths at the same time, the playback feature cannot split the flow. You are always required to select a single pathway through the process. Because we are still on the happy path, we take it through the Assign Mentor activity.

**No loops in Playback mode:** The Playback mode does not allow you to run a loop in the process to demonstrate rework or approval type activities. In this case, you might want to use two or three different playbacks to get to show the process flows that you want.

Now that we are ready to show everyone how the process works when everything goes as planned, we describe how we can show our team what happens when things go wrong.

Select the 2 under the playback naming window and name it Rejected Candidate, so that you can demonstrate to the people of the HR department how the process flows when the candidate is rejected in the interview process.

Again, begin with the Start event and move through the process. But this time, instead of selecting the Hire Candidate subprocess, expand it and step through that subprocess to include the rejection steps, as shown in Figure 8-6 on page 85.
Now that we defined the two processes, we are ready to run through the playback to demonstrate how the process flows and get their agreement.

8.3 Run the playback

Start with the happy path to ensure that what you captured so far is what the process resembles in reality, as shown in Figure 8-7 on page 86.
When you click the Play button, the buttons and the mode of the playback switch to run, and the menus and buttons at the bottom of the window change, as shown in Figure 8-8.

The system is calculating the cost of this path for you. If you change to another property that can be accumulated (for example, Wait Time), the system adds that up and provides you with a total.

As you can see in Figure 8-9 on page 87, the costs are accumulating as we step through the process.
For many business people, this exercise is enlightening and demonstrates that it cost the company $4,385 for each candidate that makes it through the process, as shown in Figure 8-10.

If we take the other defined playback route, Rejected Candidate, through to the end, we see that it costs the company $375 for each applicant that makes it to an interview, but does not move on, as shown in Figure 8-11.
8.4 Summary

The Playback mode can be a useful tool for stepping others through the process map, or performing some analysis on a particular flow of the process.
Future state (To-Be) Process Model

There are always plenty of things that work well in the As-Is process. There also are things that do not work that well, which are documented as problems in the As-Is process flow. Precisely for this reason, we do not want to lose track of what happens in the As-Is process, and we should be using the As-Is process as a baseline to create the To-Be process.

In this chapter, we describe the future state (To-Be) process model and how it can be useful.
9.1 Overview

To create the To-Be process, copy the As-Is process (as shown in Figure 9-1) and rename it appropriately (as shown in Figure 9-2). It is also recommended that you keep the As-Is and the To-Be processes in separate spaces to avoid any confusion.

Figure 9-1  Copy a process

Figure 9-2  Rename a Process

Watch your comments: All of the details that are documented during the As-Is discovery (such as problems, SIPOC, RACI, and value add) are copied over except the comments section. Start reviewing these details one activity at a time.
9.2 Using the value add analysis

You want to check whether a certain activity adds value by referring to the value add section in the details. This level of analysis should be completed already.

9.2.1 Value add

If an activity adds value, it means the activity as it exists in the As-Is state is good enough and contributes to the overall goal of the process. But, it certainly can be improved. Consider the following points:

► Can this activity be automated through a system?
► Can this activity be done by a different group (or a swimlane) that can promote workload balancing, free up resources, or might cut labor costs by having this activity done by a less expensive resource.

For example, regarding our case study (as shown in Figure 9-3), the HR Admin enters the information into the employee database. After this information is entered, the Hiring Manager requests equipment from IT group.

![Figure 9-3 Value add activity in the As-Is process](image)

Although it is clear that someone must inform the IT department that equipment must be ordered for the employee (which is why this activity is categorized as value add), why should this be done by the Hiring Manager? Can the system take the information from the employee database and directly communicate the request to the IT group?

We assume that there is a potential to automate this task. Therefore, move the activity from the Hiring Manager swimlane to the System swimlane, as shown in Figure 9-4 on page 92.
9.2.2 Non-value add

If an activity does not add value, it means the activity in the As-Is state does not contribute to the overall goal of the process and must be eliminated. In reality, not every non-value add activity can be eliminated, but we can at least reduce the effect of such activities on process cost and efficiency. Consider whether this activity can be eliminated completely.

If the activity can be eliminated, ensure that it does not have any effect on the upstream and downstream activities and delete the activity from the process flow. When you are deleting an activity in Blueworks Live, ensure that the flow lines that are connecting the preceding and succeeding activities do not change.

If the activity cannot be eliminated, can this activity be automated through a system? If we can go this route and automate a non-value add activity, the cost of automating must be less than the current cost of performing this activity over a period. That is, our return on investment (ROI) must be high to justify automation. It is best to challenge why a non-value add activity cannot be eliminated rather than going this route.

Regarding our case study (see Figure 9-5 on page 93), when the candidate fails the background check, it is the company's responsibility to inform the candidate.
To do so, the HR Manager informs the HR Admin, who informs the Hiring Manager who then informs the Recruiter. The Recruiter informs the Candidate. There is no value that the HR Manager, HR Admin, or the Hiring Manager add to this process.

We eliminate the activities that do not add value by deleting them. Before we delete the activities, ensure that it does not have any affect on the upstream and downstream activities.

For example, we deleted the activity where the HR Admin informs the Hiring Manager that the Candidate failed the background check. Although this sounds acceptable in the context of the Recruiter informing the Candidate, does the Hiring Manager perform any actions downstream in the process as a result of the failed background check? If so, we must ensure that the Hiring Manager is informed somehow (an email notification from the system) so that we do not negatively affect the process by deleting such activities.

The To-Be process now looks much more efficient after the non-value added activities are deleted, as shown in Figure 9-6 on page 94.
9.2.3 Required value add

An activity adds value when it meets compliance requirements, regulatory requirements, or supports a value add activity. If it does not add value, it is a non-value added activity. This activity is required in the process and cannot be eliminated. Consider the following points:

- Validate if this activity is required. For example, there can be a compliance requirement from a few years ago that warranted the requirement of this activity. However, this compliance requirement might no longer be required.
- If this activity is required, can this activity be automated through a system?

Regarding our case study (see Figure 9-7 on page 95), there are three forms that the candidate completes. Although this activity does not add any direct value, this activity supports requirements that are imposed on the company from the regulators, such as state or federal governments, or these activities support a value add activity downstream in the process.
9.3 Using the problem analysis

As a result of the use of the value add analysis, the process flow is modified by deleting activities, moving activities from one swimlane to another, or by adding activities that are critical to the process. It is time to move on to see what is working and what is not working inside each activity. To perform this analysis, we use the problems that we documented during the As-Is discovery.

Use the Analyze view to display a heat map of where the problems lie. Start with activities with the highest distribution of high severity and high frequency problems because that is where the maximum opportunity for improvement lies. If the problems are somewhat distributed evenly or if the process does not have many activities, it is also acceptable to start with the first activity’s pain point and walk your way through the other activities in a linear fashion.

For every problem, discuss how this problem can be eliminated from a process standpoint. If the pain point cannot be eliminated, discuss how you can at least reduce the effect of this problem on the process. This is the first time where discussing solutions is acceptable. Restrict this discussion on solutions to the process flow level. Remember, you are still in the To-Be process flow definition and not in the functional requirement (or user story) definition phase.

Consider the following points:
- Should you add activities in the process to eliminate (or reduce) the problem?
- Should the system perform more steps upstream or downstream in the process to eliminate (or reduce) the problem?
- Should you modify certain activities upstream in the process to eliminate (or reduce) the pain point it is causing later in the process?

The following points are not discussed here:
- IT solution design on how systems must be integrated with each other to eliminate (or reduce) the pain points.
- Changes to the data model that can eliminate (or reduce) the pain points.
- Changes to the UI design that can eliminate (or reduce) the pain points.

These three points are valid requirements for a future state design and are discussed later. No matter how the categories change, the process flow is the same and our goal now is to define the To-Be process flow.
9.4 Identifying reusable processes (linked process)

After the first draft of the To-Be process flow is ready, review the flow and identify reusable processes. If there are patterns within the process that look similar, ask the team if the activities can be modified slightly to make the pattern the same. Challenge the team why they are different in the current state. This process promotes consistency and standardization and the development effort is reduced if you decide to implement this process by using IBM Business Process Management software. After a reusable pattern is identified, create a linked process.

The To-Be process flow does not have to be developer-ready (for more information, see Chapter 10, “IBM Business Process Manager implementation-ready model” on page 99). The main purpose of this process flow design is that it should be easily understandable by business people and is used to build consensus among the business stakeholders on the flow of activities and the swimlanes.

9.5 SIPOC and RACI

After the To-Be process is reviewed and agreed upon, define the suppliers, inputs, process, outputs, and customers (SIPOC) and the responsible, accountable, consulted, and informed (RACI) for every step.

The SIPOC in the To-Be process becomes more important than the SIPOC that is defined in the As-Is process. This step must be done to gain a thorough understanding of the To-Be process.

For every activity in the process, starting from the first activity, complete the following overall steps:

1. Document the output (or outputs) of the activity.
2. Name the customer (or customers) who are expecting the output.
3. Document the input (or inputs) that are needed to generate the defined output.
4. Name the supplier (or suppliers) who are supplying the input.

The customer and the supplier might not always be human participants; they can be systems. For example, an output must be stored in a document management system for compliance requirements. There might not be any human participant who is expecting that output. In that case, the customer for the output is the document management system. Similarly, an input can be passed from another system through integration. In that case, the supplier is the system that provides the input that is needed for that activity.

Input sources: An input to a process step must be an output from a previous step or must come from another system (through integration).

When the SIPOC is documented for every activity, document RACI and any other information in the Details tab in Blueworks Live.

Changing details after copy: If the As-Is process was copied over and renamed as a To-Be process, the RACI, SIPOC, and any details that were documented in Blueworks Live previously is also copied over. Remember to replace the RACI and SIPOC with the new details as pertinent to the To-Be.
It is a best practice to playback the To-Be process flow with the SIPOC information to the business stakeholders to gain consensus.

9.6 Summary

In this chapter, you learned how to move your process flow from the As-Is to the To-Be process. From here on, out we can think about real implementation details.
IBM Business Process Manager implementation-ready model

An IBM Business Process Manager (IBM BPM) implementation-ready model is a process model that was discovered and modeled by using best practices in IBM Blueworks Live and is considered ready for implementation. Ready for implementation implies the process model is ready to be exported to a development tool for execution. The best practice and most common development tool to use is IBM Business Process Manager (IBM BPM).

Both products operate on IBM BPM for process definitions, which means that they use the same patterns and best practices. Because IBM BPM is an actual execution engine, a software application is built that is based on the process model that is imported from IBM Blueworks Live.

Ideally, IBM BPM imports the IBM Blueworks Live process model and can be run instantly. In actuality, most imports require some adjustments. The more accurately a process model is defined in IBM Blueworks Live according to best practices, the lower the adjustment effort is.

In our HR Onboarding case study, the IBM BPM implementation ready model is identified when the IBM BPM Analyst for the Call Center Company C completed modeling the To-Be process while using best practices. The IBM BPM Analyst engages with the IBM BPM Developer and the IBM BPM Solution Architect to review the process and have them import the process model to IBM BPM. The IBM BPM Developer then adjusts the IBM Blueworks Live model into an executable Business Process Definition (BPD) in IBM BPM.

In this chapter, we describe the correct way of moving your IBM Blueworks Live process into the deployment phase by using IBM Business Process Manager.
10.1 User stories

Envisioning the implementation of a process application that is based on the IBM Blueworks Live model, the IBM BPM Analyst captures business requirements for the process.

How requirements are captured depends on the standard that is defined by the organization. The two most common approaches are the Plan-Driven (waterfall) and the Change-Driven (agile) approach. Waterfall approaches often use something like a Business Requirements Document (BRD) to document functionality. The Blueworks Live best practice and methodology follows the Change-Driven (agile) approach. If a BRD is used, it can eventually be broken down into User Stories while the agile methodology uses User Stories from the beginning.

User Stories have the following structure:
As [a person or role] I need to [perform some function] so that I can [some benefit is achieved].

This helps the developer to implement a requirement properly because the who, what, and, most importantly, why are clearly defined. The “why” is important because the developer now can begin to understand fully how the user expects to use this feature. This helps ensure that the solution developed is what is needed.

For example, the Submit Candidate activity in the Call Center Representative onboarding process can be expressed as the following User Story:

As a recruiter I need to find/screen/identify a candidate so that I can submit a hirable candidate to the open requisition.

The IBM BPM Developer now knows that this task must be routed to the Recruiter and that they need to provide a functionality to search and find a candidate. The recruiter specified the “what” of the function, but it is up to the IBM BPM Developer to figure out the “how”. Only they know which controls and patterns are suited the best.

Eventually, all business requirements are consolidated and prioritized based on the business value they provide and the implementation complexity they have. As a result, the iteration and release backlog can be created.

In an IBM Blueworks Live model, every activity should have at least one User Story that is associated to it.

As you can see in Figure 10-1 on page 101, most of the time, the IBM BPM Analyst documents the user stories in the Documentation tab of the IBM Blueworks Live activity.
This configuration becomes useful for a IBM BPM Developer because this documentation is imported into IBM BPM. Figure 10-2 on page 102 shows how the documentation looks after the import.
However, as we know, discovery, improvement, and implementation of business processes is supposed to be an agile process. That means, requirement details can change frequently. To avoid having outdated requirements information in the documentation of your business process, it makes sense to include a link to an agile requirements management tool, such as IBM Rational® Team Concert™.

A User Story can be tagged to a particular activity, milestone, or even a Coach. Based on that, the Documentation tab of an IBM Blueworks Live activity can also contain a link to that collection. With that, the IBM BPM Developer does not have out-of-date information, but stays on top of their requirements.
10.2 Patterns and anti-patterns

In this section, we describe patterns and anti-patterns of IBM Blueworks Live process design regarding the ability to implement the process in IBM BPM.

10.2.1 Process complexity: Rule of Seven

It is important to remember that a process model is the documentation of the business process for the line of business that owns it. This applies for the IBM Blueworks Live and the process model in IBM BPM, which means that it must be understandable by every business user who participates in it.

A common misconception is that a process model is only implementation detail, or intended to be used by IT, that is, as a development requirement. However, every business user is provided with the functionality to see the business process definition in which they are participating. They are shown the diagram with a highlight of the particular step they are performing at the moment.

In the process portal (the “one-stop shop” to interact with processes and human tasks), every user who is entitled to perform a task can see the process diagram as you can.

In the Inbox/Tasklist, click the drop-down icon on the task and select View Process Diagram, as shown in Figure 10-3.

![Figure 10-3 Portal - View Process Diagram](image)

In Figure 10-4 on page 104, you see how the process diagram opens in the same window, with the current active task highlighted by a yellow frame.
Figure 10-4  Portal: Process Diagram

Also, managers are provided with information about process performance and how many tasks are in each status (on time, due, overdue, and so on). All of these functions and more are built around the BPD; it is the core of every process application.

Now that we know about the importance of a well-defined process model, the question is: what is a well-defined process model? It must be powerful enough to possess all of the necessary functionality, minimize cost, provide the most possible business value, and still be easy to understand for every participant.

To implement this kind of well-defined process model, we apply the Rule of Seven, which states that every dimension of a process model must not have more than seven elements. Although this rule is not a hard rule, experience shows that if there are more than seven elements in any dimension, the likelihood of a process model being too complex to be understood or implemented increases.

For more information about the Rule of Seven, see the following websites:
- http://wiki.bpmwiki.com/display/commwiki/Rule+of+Seven
- https://www.blueworkslive.com/index.html#posts:20000863d816e01

If the process is complex and requires more elements, use linked processes or subprocesses to reduce complexity. There is no harm in nesting processes. In most cases, breaking down a complex process into multiple simple processes can be beneficial because it aids in the reuse of common process patterns.

In Figure 10-5 on page 105, the process model is too complex and shows how a process model must not be defined. (The figure is not easily readable intentionally.)
IBM BPM Developers often operate under the following paradigm:

- If you cannot model it without crossing lines, it is too complex.
- If it does not fit in your window without scrolling, it is too complex.

In contrast to Figure 10-5, Figure 10-6 shows a process of adequate complexity and a reasonable modularization on substructures.

At any time, business users must understand the process and their participation within it.
10.2.2 Subprocesses and linked processes

To create the necessary structure that was described in 10.2.1, “Process complexity: Rule of Seven” on page 103, the usage of subprocess and linked processes is recommended. For more information, see In Chapter 3, “Current State (As-Is) Process Discovery” on page 17. However, there are several implications from an implementation point of view.

After the model is downloaded into the IBM BPM Process Designer, the difference becomes easily visible, as shown in Figure 10-7.

Under Business Process Definitions, you can see that separate BPDs are created for linked processes, while subprocesses remain tied to the actual super process. The same applies for IBM Blueworks Live. Although you can use linked processes in any other process definition, a subprocess exists only once.

Therefore, it feels natural to use only linked processes. However, as you can see from Figure 10-8, subprocesses can be expanded with the main diagram and provide an easy way to see what is happening inside.

Linked processes are independent and stand-alone. They cannot be expanded in the diagram to where they are linked. To see them, you must open the respective blueprint. A little less convenience for much more reusability and structure.

Figure 10-8 also shows the difference between these two in IBM Blueworks Live. Under the Hire milestone, you can see an expanded subprocess. Under the Onboarding milestone, you see a linked process.
10.2.3 Timers

In 3.4, “Creating a Process Diagram” on page 26, the “when” and “how” of timer use is described. The same applies for the implementation with IBM BPM.

However, timers are often used incorrectly. Figure 10-9 shows how a timer must not be used.

Figure 10-9 Timer event in flow

A timer means that something must not happen before the expiration of a certain amount of time.

In this case, the design says that the probationary review will not happen until 7 - 10 days after the new hire was activated. It does not mean that the probationary review must happen within 7 - 10 days from the activation of the new hire.

A timer implies that the process waits until a certain time is expired, as shown in the following examples:

- The task before the timer was completed.
- The task after the timer does not start until the timer expired.

Timers often are used in a way that was not intended by IBM Blueworks Live or IBM BPM. Inexperienced process modelers create wait for feedback or SLA types of timers. However, the correct way to model these timers is with the properties in the task.

Next, we examine the wait for feedback example.

In our example, the following functionality is intended:

The candidate is given three days to accept a job offer. If after the expiration of that time, no response has been provided, the process terminates, otherwise the Recruiter will process the acceptance.

An incorrect design for this functionality is shown in Figure 10-10.
This example is poorly designed because the process waits three days after the recruiter sent out the offer. Only then, it allows the candidate to accept the offer.

The correct design is to have an expiration within the task, as shown in Figure 10-11.

![Figure 10-11 Timer good example](image)

In this implementation, the candidate receives the offer immediately after the recruiter sends it. The candidate then is given three days to accept or deny the offer. In the cases where the candidate denies or three days expire without an action, the process goes to the Terminate end event.

### 10.2.4 Intermediate Message Events

In 3.4, “Creating a Process Diagram” on page 26, we described what Intermediate Message Events (IMEs) are for and how they are to be used.

In this section, we describe further the “do’s and don’ts” when you are using IMEs with an eye on implementations.

IMEs are artifacts that often require rework to bring an IBM Blueworks Live model into a state where it can be imported into IBM BPM. Mostly because many people do not know what IMEs are exactly.

First, IMEs do not mark email notifications, send postal letters, or represent any sort of interactions between humans.

IMEs are purely of a technical nature. They are points of interaction within processes or even across processes. Although standard flows are 1:1 connections, an IME marks a 1:n connection, where the number of receivers is unknown. There are IMEs that mark the sending of a message, and others that mark the receiving of a message.

The sender does not know the number of recipients. It is often referred to as a fire-and-forget or publish-subscribe pattern. Both concepts apply. One sender publishes a message and many receivers can subscribe to it. Events are of asynchronous nature, which means, a sender does not wait for the receiver to do anything. As its name implies, it fires the message and then forgets about it.
For the receiver, the message usually triggers or continues a waiting process flow. This process can be the start of a BPD or a certain path within a process. Attached to an activity, it can also interrupt the existing task and progress towards an alternative path, as shown in Figure 10-12.

![Figure 10-12   Incorrect IME is an example of a message IME that is used incorrectly](image)

Good practices are the use of IMEs, as you can see in Figure 10-13.

![Figure 10-13   Correct IME use](image)

The IME marks the start event of the process, meaning that the process does not get started by a user in the process portal. Instead, it is another system (process or application) that triggers the start of this process.

In another common pattern, the Candidate can call back via phone or the performance of the task. The Candidate should not do both.

Figure 10-14 shows an attached IME, which means that if the IME is triggered, the task closes and the flow continues. However, if the task is performed first, the IME does not wait any longer, but the flow continues.

![Figure 10-14   Attached IME](image)
In this scenario, if the Candidate calls the Recruiter, the Candidate performs a task that triggers the IME in our process.

10.2.5 Teams and participants

By using a process, you can select by which team a task is performed. When a process is imported into IBM BPM, each team is created as a definition for a swimlane, as shown in Figure 10-15.

![Figure 10-15 Process Designer artifacts](image)

In our use case example of the Call Center Company C, the company has six team definitions that were imported: from the Call Center Manager to the System lane.

Teams are groups of one or many people who participate in a process. In a process model, each team is a swimlane. IBM Blueworks Live creates these swimlanes automatically, based on the participant property of an activity. To avoid the duplication of teams, make sure to reuse defined teams by using the type ahead feature, as shown in Figure 10-16 on page 111.
Common mistakes include the use of Admin HR and HR Admin. Although they mean the same, they are two different names; therefore, the IBM BPM Developer must consolidate them if it made it into IBM BPM. This issue can be rectified in IBM Blueworks Live by merging the terms in the Glossary.

### 10.2.6 Sequential activities

Although IBM Blueworks Live can support many different levels of process modeling, a best practice is to import IBM Blueworks Live APQC’s level 3 or 4 models into IBM BPM.

Another best practice is to import models at the Human Activity Level (this might be APQC’s level 3 or 4) and stay away from models that contain business logic or depicted screenflows (beyond APQC’s Level 4).

However, there might be cases in which it makes sense to model at this degree of detail, even if it is to create only a common understanding between Business and IT, as shown in the example in Figure 10-17.

It is important to remember that we are modeling a screenflow at this point.
The general rule is to never have two activities in a sequence in the same swimlane. Even if we model it as shown in Figure 10-17 on page 111, the IBM BPM Developer consolidates all of these activities into one human task that provides the functionality of all four modeled tasks.

Sequential activities indicate that the same person does two things in a row. And, the process behavior results in a scenario where a user (for example, the Recruiter) completes a task and immediately has another task for the same case in the inbox. A better user experience is to open the second task right away and not have the user return to the inbox to open a task.

### 10.2.7 IBM Blueworks Live task properties

Standard properties are imported into Process Designer from IBM Blueworks Live. They appear on the documentation property of the respective artifact, as shown in Figure 10-18.

![Process Designer documentation](image)

The properties that are included in the details view of an activity in IBM Blueworks Live and everything that is in the Documentation tab is imported as text and is visible for the developer.

**No updates:** There is no mechanism to update this documentation from IBM BPM to IBM Blueworks Live; the integration is one way, from IBM Blueworks Live to IBM BPM.

At this point, the documentation in terms of Business Owner, Inputs, or Outputs should be finalized. More detailed requirements can be referenced with a link, as described in 10.1, “User stories” on page 100.
10.2.8 Subscription to IBM Blueworks Live processes

As described in 10.2.7, “IBM Blueworks Live task properties” on page 112, the easiest way to start the implementation of a IBM Blueworks Live model is to subscribe to the process model.

By clicking the (+) next to Blueworks Live Processes in the Process Designer navigation, you can subscribe to any process that was shared with you. You can browse to the wanted process through a selection of accounts and spaces to which you have access. As shown in Figure 10-19, a window opens in which you select the wanted process, click Finish, and the download begins.

![Figure 10-19 Process Designer Blueworks Live subscription](image)

Figure 10-19 Process Designer Blueworks Live subscription
Figure 10-20 shows how all information was imported and is now visible in the project structure of the process application.

**Figure 10-20  Process Designer Blueworks Live artifacts**

### 10.3 Summary

In this chapter, we explained the correct way of moving your IBM Blueworks Live process into the deployment phase by using IBM Business Process Manager.
Rules discovery

Rules discovery in IBM Blueworks Live is described in the recently released IBM Redpaper *Discovering the Decisions within Your Business Processes using IBM Blueworks Live*, REDP-4993, which is available at this website:


To aid in your decision to use IBM Blueworks Live, we outlined the features of the decision discovery process in this chapter, which includes the following topics:

- Decision services
- Decision Management Notation
11.1 Decision services

Each of the activities in the Process Diagram or Discovery Map views can have a specified type that is associated with them: Normal (default), User, Decision, or Service.

In general, there should be a decision type in front of any gateway that is indicating a process flow split. The decision is not being made in that gateway, but upstream in the activity with the decision type that is specified. The gateway indicates the logical split in the process at the correct point.

11.2 Decision Management Notation

Decision Management Notation (DMN) is the decision equivalent of Business Process Modeling Notation (BPMN) for processes. It was developed in an attempt to standardize the way that decisions were documented across multiple products.
Environment setup

After you activate your IBM Blueworks Live account and you are the Administrator for the account, you should consider devising guidelines and customizing the account to easily manage the account.

For example, you should consider devising a naming convention guideline for your processes, decisions, and policies to easily find the artifacts. These guidelines might exist for other artifacts in your organization.

Another item to consider is the space structure. Do you want to organize by project? Do you want to organize to match the organization chart? These are questions that each account must answer, but should be considered before you put too many artifacts in your account. If you decide later to change the structure, you can always use the Copy Space feature to move spaces. Individual artifacts can be moved from one space to another.

These are just some examples on items to consider for you account. IBM Blueworks Live does not enforce or recommend certain guidelines over other because every organization works and operates differently and each account should organization to fit your needs.
12.1 License types

Another issue to consider is the licensing for each of the users you plan to invite. How do you intend to use the product and share information? Do you want someone that can see the process but not modify it? Will you have users that you do not want modifying artifacts?

The following main licenses are in use for paid IBM Blueworks Live accounts:

- Viewer
- Contributor
- Editor

Community members are no-charge accounts that can be created, but these users are limited to the Activity Stream, Spaces, and Blogs.

12.1.1 Viewer

The Viewer license type is self-explanatory in that the people that have these rights can see a process and print it out, but they cannot modify the process or comment on it. There is a custom home page for Viewers that shows them the processes that they recently viewed, or the ones that they marked as a favorite.

On a Viewer's first visit, the page has no processes. Instead, the page features a video tutorial about how to find and open the processes they want. For a Viewer to view a process, they must be granted explicit access to that process or space under the Users tab. The Viewer license type is useful when IBM Blueworks Live is expanded to the entire company because the licenses are inexpensive and it provides you with a mechanism to allow a review from people outside of the process mapping group.

12.1.2 Contributor

Users with the Contributor license type can open processes and spaces that are marked as shared and participate in automated processes. The Contributor can view and comment on processes that are shared, but they cannot modify the process map or diagram.

If you use the process automation features in IBM Blueworks Live, they also can be participants in that process. Contributors have the same look and feel to the product as do Editors. Contributors are useful for collaboration and offline commenting on processes while they are still being discovered.

12.1.3 Editor

Editors are the main workers in IBM Blueworks Live. They can create spaces, processes, automated processes, edit the data, share the processes, create snapshots, and export data. These licenses are the most expensive licenses, but they also are the licenses that are going to get the most out of IBM Blueworks Live.

This book is intended to help people that are set up as an Editor to their IBM Blueworks Live account.
12.1.4 Community

Community users do not have access to any of the artifacts within an account, but it is possible for them to be account administrators. If they are a participant in a space, they have the ability to see the Activity Stream of changes, but they cannot open any of those artifacts.

If you need someone that can maintain user access, file attachments, and the security for the account and customize the look and feel but do not want them to be documenting processes, the Community user is what you want to use.
In this chapter, we describe some of the functions in Blueworks Live that are useful to know, but not necessarily required to use the product. There are some administrative features and some useful features, such as the color legend and activity numbering that are described in this chapter.
13.1 Administrative features

If you are an administrator for an account, you have a link next to your name to access the admin pages. After you are logged in, you can access the following tabs, as shown in Figure 13-1:

- User Management
- File Management
- Properties
- Account Information
- Billing Details
- Customization
- Security

The tabs are described next.

13.1.1 User Management tab

User Management is the tab with which the Admin can view all active or archived users and export it to a CSV file. You can give a user Admin privileges, view and edit what license type a user has, see whether someone is locked out for password infractions, the date of their last login, or archive the user, as shown in Figure 13-2.

In Figure 13-2, Connor has a Contributor license and is not an Admin, but Brian is an editor and has Admin privileges. To edit, click the name of the user and a pop-up window opens in which the Admin can change the user's license type, name, email address (and login information), and send a password reset email and expire the current password so that a user is required to update the password at the next login attempt, as shown in Figure 13-3 on page 123.
13.1.2 File Management tab

By using the File Management tab (see Figure 13-4), the Admin can manage the storage space of the account. Each account is granted 50 MB of space for file attachments upon signup. The Admin can see the file name, size, type, location, upload date, and who uploaded it. To manage the space in the account, Admins can remove file attachments from the account.
13.1.3 Properties tab

By using the Properties tab, the Admin can manage the visibility of the default properties for Processes and Decisions, as shown in Figure 13-5.

![Properties Admin View tab](image1)

In this section, you can turn on or off the default properties that are listed in the details tab of an activity, or you can specify up to five text and five numeric properties. Each of these custom properties appears on the details page as an enumerated list of items, as shown in Figure 13-6.

![Custom Properties tab](image2)
You can add the property name and information that is displayed as a tooltip if a user hovers over it in the details pane, as shown in Figure 13-7.

![Details Pane custom property](image)

**Figure 13-7  Details Pane custom property**

### 13.1.4 Account Information tab

By using the Account Information tab, the Admin can view the number of licenses that were purchased, the features that are available on the account, add licenses, or use the application programming interfaces (APIs), as shown in Figure 13-8 on page 126.
13.1.5 Billing Details tab

In this tab, you view the next payment cycle or update the credit card information that is on file, as shown in Figure 13-9.
13.1.6 Customization tab

In the Customization tab, the Admin can specify a custom branding for their account, including a color and logo, email notifications, and a logo for the Microsoft Word export, as shown in Figure 13-10, Figure 13-11, and Figure 13-12.

Figure 13-10  Logo and color

Figure 13-11  Custom email

Figure 13-12  Custom logo on Microsoft Word export
In addition to granting the Admin the ability to customize the look and feel of the account, Admins can specify a range of account level preferences, such as, who can invite new users, if chat should be enabled, if the work page should be shown, whether users can see the Public IBM BPM Stream, and who can post to the activity stream, as shown in Figure 13-13.

![Preferences](image1)

**Figure 13-13  Account preferences customization**

There is a section in which the Library can be customized. In this section, Admins can specify account-wide Library permissions, as shown in Figure 13-14.

![Library](image2)

**Figure 13-14  Library customization**

In addition, the Admin can specify custom help content that is shown to all users of the account when they select the Help link in the upper right corner. The Admin can specify the account administrators that users can contact for help, in addition to adding text and attaching documents that can be helpful for their users, as shown in Figure 13-15 on page 129.
13.1.7 Security tab

In the Security tab, the Admin can specify the password policy for the users to follow and add security restrictions. The extra security restrictions can limit where users can access IBM Blueworks Live from by a set range of IP addresses. The Admin can also restrict the account so that only users with an email account in the wanted domain can be invited, as shown in Figure 13-16 on page 130.
13.1.8 Unlock and Allow Changes

The Customization and Security tabs include a feature with which an account Admin can specify a password that is required to modify these settings. If an Admin user wants to update some of the information on those tabs, they are presented with a pop-up window in which they enter the password that was set, as shown in Figure 13-17 on page 131.
After the password is entered and the user is validated, all of the features on the page can be edited. To lock those pages again, the Admin must select the **Lock Changes** icon at the upper right.

The exception to the settings lock on those pages is the section in which the look and feel for the product can be customized. Even when the account is locked, those settings can be modified, as shown in Figure 13-18.

The Help options are grayed out and are not modifiable, but all of the branding options are still available.
13.2 Color Legend

When you are working with the Process Diagram or Discovery Map view, it is often helpful to add context to the diagram by adding some color to certain activities. If you are adding color to an activity, it is important that you inform anyone who is viewing the process as to what that color means. Otherwise, people see the colors but do not understand what message you are trying to convey. To that end, the Color Legend was created.

In the example of the HR Onboarding Call Center As-Is process, there is a good use of color. To the left of the zoom feature is the option to toggle the Color Legend on or off (see Figure 13-19). If a color is yet to be defined, click no label and enter the text.

![Color Legend example](image)

You can see that the colors are used to show that those activities are out of scope or are a place for a potential integration. This designation makes it easy to see the effect of (in this case, integrations) on the process that is designed.

There are eight colors that are defined that can be added to the activities by using the action menu, as shown in Figure 13-20 on page 133.
The Color Legend is also included in the header of all of the exports if you defined the colors.

### 13.3 Activity numbering

The Work Breakdown Structure (WBS) that is visible in the Documentation tab makes it easy to reference a section of the document. But how do you tie the numbering back to an activity on the Process Diagram?

You right-click anywhere in the background of the Process Diagram to open the menu, and select **Show Activity Numbering**, as shown in Figure 13-21.
An example with Activity Numbering enabled is shown in Figure 13-22.

As you can see, each milestone, activity, and gateway is given a number that corresponds to the information that is provided in the documentation view, as shown in Figure 13-23.
13.4 Where Used function

Where Used is a handy way to understand how processes, policies, and decisions are used as shared resources across your account. It shows you how many spaces, processes, and activities are linked to that particular entity. You can access the Where Used function from the library by clicking the chevron to the right of the name or from the policy page, as shown in Figure 13-24.

![Figure 13-24 Where Used]
13.5 Work Stats view

The Work Stats view is an admin-only view of the process app usage and stats within the account. You can access this view by clicking Work Stats from the Work section, as shown in Figure 13-25.

This view shows the top processes that were started within the selected date period, user participation by process, and on-time completion by process app. The more process apps that you have and run, the more complete this picture becomes.
13.6 Glossary

The Glossary is a section of the library in which all of the terms that are used in process details are stored. It is split out by section according to the activity properties, as shown in Figure 13-26.

![Figure 13-26  Glossary Collapsed](image)

You can use this part of the product to specify preferred terms, add a description, or merge terms. If necessary, you can export your glossary to Microsoft Excel. In addition, for each term in the Glossary that is used in some process, policy, or decision, you can click the Where Used icon to find each place that it occurs in the account, as shown in Figure 13-27.

![Figure 13-27  Glossary Where Used](image)
When you open the Where Used section, a pop-up window opens that shows you the number of times it appears in a space, process, decision, and the number of total occurrences, as shown in Figure 13-28.

![Figure 13-28 Where Used occurrences](image)

### 13.7 Templates

The templates in IBM Blueworks Live were created to jump-start your usage and application of IBM Bluworks Live to model your business processes. These templates intentionally violate the Rule of Seven to get the whole process on one blueprint. They include various kinds of information and examples of how to create a process flow that accurately depicts your business process, as shown in Figure 13-29 on page 139.
The Template Library can be browsed as a whole, or you can filter the library processes by using the drop-down menu on the right. You can to filter by industry to get a process as close as possible to what someone in your industry might consider a good process. Some examples are shown in Figure 13-30.
13.8 API

IBM Blueworks Live includes several APIs for use by anything that can submit https requests. For more information, see the Help section of the IBM Blueworks Live site, which is available at this website:

https://www.blueworkslive.com/scr/help/api/

The page also included a sample Java program that you can use as a base to begin parsing the data that is returned, as shown in Figure 13-31.

![Figure 13-31 API]

13.9 Keyboard shortcuts

The following keyboard shortcuts are most often used:

- **Decisions:**
  - Ctrl+i: Add Data Input
  - Ctrl+s: Add Subdecision
  - Ctrl+d: Delete Selected Subdecision/Data Input
  - Ctrl+c: Copy decision table row (or rows)
  - Ctrl+x: Cut decision table row (or rows)
  - Ctrl+v: Paste decision table row (or rows)

- **Process:**
  - Tab: Indent process outline item
  - Shift+Tab: Unindent process outline item
  - Ctrl+d: View selected item details pop-up

- **General:**
  - Ctrl+z: Undo
  - Ctrl+Up: Move list item up
  - Ctrl+Down: Move list item down
  - Shift+Delete: Delete list item
Rich Text Editor

When you are in the Rich text editor in the Documentation tab, you can use the following shortcuts:

- Ctrl+i: Italics
- Ctrl+b: Bold
- Ctrl+u: Underline
Related publications

The publications that are listed in this section are considered particularly suitable for a more detailed discussion of the topics that are covered in this paper.

IBM Redbooks

The following IBM Redbooks publications provide more information about the topic in this document. Note that some publications that are referenced in this list might be available in softcopy only:

- *Discovering the Decisions within Your Business Processes using IBM Blueworks Live*, REDP-4993
- *Leveraging the IBM BPM Coach Framework in Your Organization*, SG24-8210

You can search for, view, download, or order these documents and other Redbooks, Redpapers, Web Docs, draft, and other materials at the following website:

http://www.ibm.com/redbooks

Online resources

For more information about BPMN, see this website:

http://www.BPMN.org

Help from IBM

IBM Support and downloads:

http://www.ibm.com/support

IBM Global Services

http://www.ibm.com/services
Process Discovery
Best Practices
Using IBM Blueworks Live

Use IBM Blueworks Live to better understand how your business runs.

Uncover hidden potential in your business process.

Use analysis features to eliminate process waste.

Business processes and decisions are the backbone of every company, from the small to the Fortune 50; it is how the business runs. It is these processes and decisions that can create competitive advantage, help a company react more quickly to changing trends, or drag them down because the processes do not serve the business and allow agility. The first step in building business agility is to understand how the business works today: What are my processes? What are the decisions we are making and how do we make them? Understanding these processes and decisions can allow a company to improve, streamline, and increase efficiency.

Capturing business processes can be a daunting task. Adding to that burden is learning the tool of choice for capturing those processes. This book helps the audience ramp up more quickly to a fully functional process analyst by explaining all of the features of IBM Blueworks Live and how best to use them.

This IBM Redpaper was written with a non-technical audience in mind. It is intended to help business users, subject matter experts, business analysts, and business managers get started with discovering, documenting, and analyzing the processes and decisions that are key to their company’s business operations.

For more information: ibm.com/redbooks