**A step-by-step guide to creating  
business process models.**

**Business Process Modeling Tool**

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# Overview

The California Business Process Reengineering Framework (CA-BPR) is a guidance document that covers steps of a business process reengineering (BPR) effort over the Project Management Lifecycle (PMLC). A key, reoccurring activity within the CA-BPR is the creation of business process models, which are graphical diagrams that are used to document, analyze, or design a business process. The Business Process Modeling Tool is a companion to the CA-BPR and provides instruction on creating business process models.

Business process modeling is commonly used to document an organization’s current processes to create a baseline for BPR and future processes that illustrate improvements. However, business process modeling is useful for other business process management practices outside of BPR. Accordingly, although the tool is designed to be used in conjunction with the CA-BPR, it can also be used as a stand-alone guide.

## How to Use this Tool

This Business Process Modeling Tool is designed to guide the BPR Practitioner in the step-by-step creation of current and future state business processes models as part of the overall BPR effort. In addition to step-by-step guidance, the tool provides two templates:

* **Business Process Modeling Template (Section 7)** – this contains both the graphical and narrative template elements necessary to model any process level. The main focus of this guidance document is explaining the underlying structure, methods, and practices associated with this template. Specific instructions are also contained in the template itself.
* **Business Process Scope Model Template (Section 8)** – this contains a graphical template element necessary to document and illustrate the scope of a BPR effort. This template is specific to the Concept Process Phase Chapter of the CA-BPR, which should be read prior to using the template. Specific instructions are contained in the template.

The BPR Practitioner should keep the following in mind when using this tool:

* The tool is flexible and adaptable to different processes and process levels, from high-level processes to detailed tasks.
* Not all business processes need to be modeled. When deciding which processes should be modeled, the BPR Practitioner should consider the organization’s business needs and goals in the context of the overall BPR effort.
* Both current and future state business processes can be modeled using the same Business Process Modeling Template (Section 7) provided in this tool.
* Different levels or perspectives of business processes are expressed by models showing different scopes and levels of detail for varying audiences and purposes.

## Business Process Modeling Defined

* **Business Process Modeling:** The set of activities involved in creating representations of an existing or proposed business process. Business process modeling applies a critical set of skills and techniques that enable a person to understand, communicate, measure, and manage the primary components of business processes.
* **Business Process Model:** A graphical representation for how a set of activities should operate in a flow and sequence in order to regularly achieve desired outcomes. A process model depicts the events that trigger action and the sequences of steps and the business rules used in and between those steps to support decision-making and execution flow. Business process models can be used to represent current and future processes. Business process models can have varying levels of detail, ranging from highly abstract to highly detailed.
* **Business Process Narrative**: A narrative that can accompany the business process model and helps people to understand the model. The narrative includes information such as inputs, outputs, triggers, assumptions, constraints, and other information that is required to understand the model. The narrative complements the model to provide a comprehensive representation of the business process that can be understood and communicated.

## The Purpose of Business Process Modeling

Business process modeling enables organizations to document and communicate its processes, analyze process performance, define changes, and design new processes. For the BPR Practitioner, modeling an organization’s current processes helps document current operations and establish an organizational baseline. Once accurate and sufficient current business processes have been captured through business process modeling, a BPR Practitioner can perform process redesign or reengineering which results in the future state model.

Business processing modeling can be used to help agencies:

* Increase clarity and understanding of a process
* Assess performance
* Analyze improvement opportunities
* Design a new process or a new approach to existing processes
* Facilitate communication and discussion
* Determine requirements

# Business Process Levels

## Overview

Before the BPR Practitioner starts to model a business process, he/she needs to understand and decide which process level(s) to use. Business processes can be modeled at different levels, from overarching and general to highly detailed. Process levels provide a structured way to decompose processes into various levels of detail, from high-level end-to-end process “chains” to more detailed business processes, sub-processes, activities, and tasks. There are 5 levels of increasing detail. Not every business process needs to be modeled at these 5 levels.

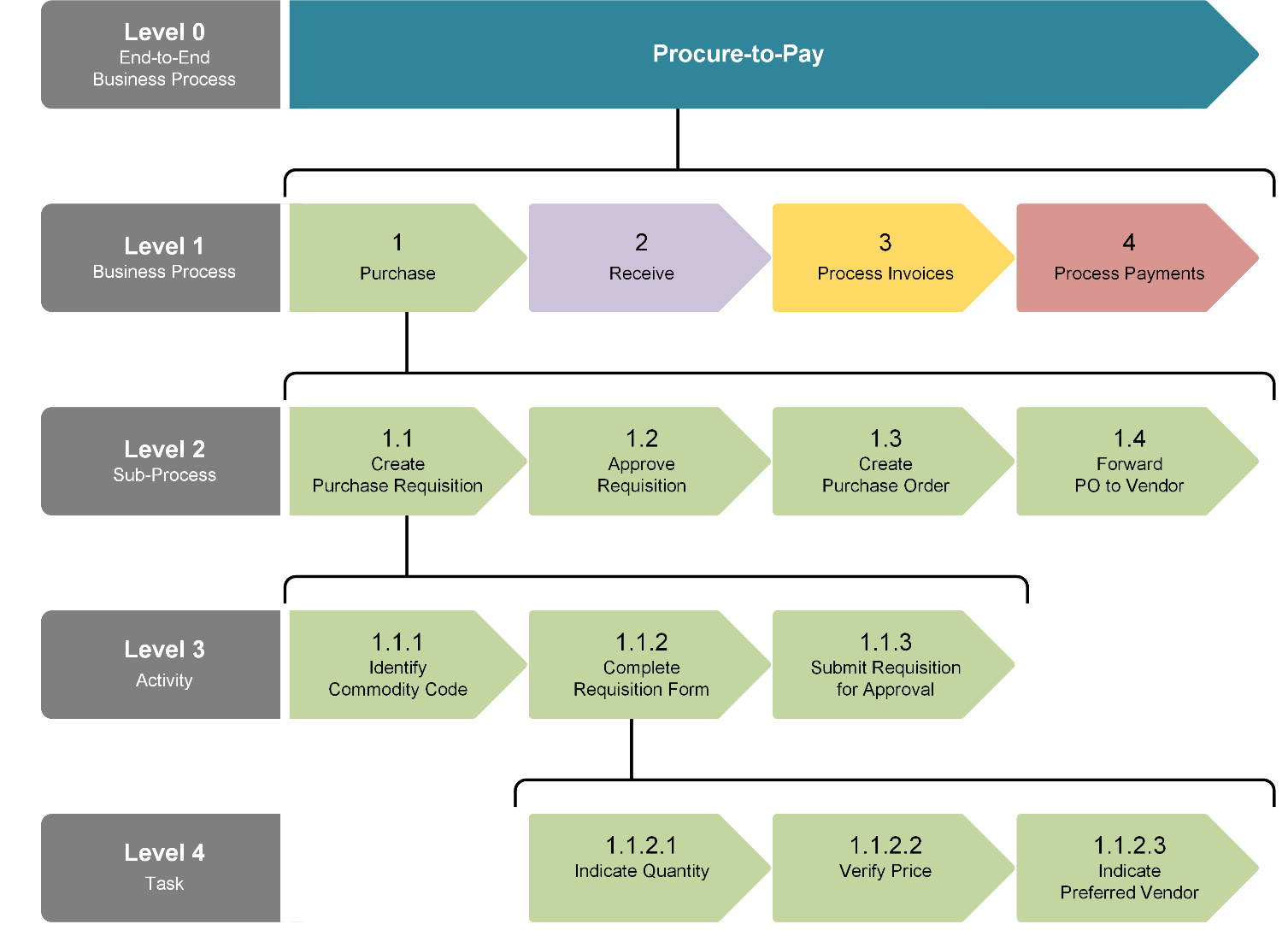
The guiding principle for determining which level of detail is needed is tied to the future use of the model – the BPR Practitioner needs to document the level of detail that is necessary for understanding and action required by the subsequent activity performed. For instance, current state processes under consideration for BPR are not usually modeled in Level 3 and 4. This is because detailed steps of a legacy process are often replaced in whole by new processes and are not considered during redesign efforts. Rather than identifying soon-to-be-obsolete steps, the current state should focus on higher level business processes and sub-processes level that are helpful in surfacing more substantial improvement opportunities.

## Business Process Level Definitions

* Level 0: End-to-End Business Process
  + An End-to-End Business Process describes an organization’s business process at the highest level. This level, which is made up of a single phrase, can be seen as an umbrella business process under which all other business processes (Level 1), sub-processes (Level 2), activities (Level 3), and tasks (Level 4) are encapsulated. In Figure 2-1, Purchasing Goods and Services is an End-to-End Business Process.
* Level 1: Business Process
  + The next highest level of process decomposition is the business process, which is a series of related actions performed by one or more stakeholders in order to complete a business transaction or accomplish an organizational goal. While multiple business processes working together make up an end-to-end business process, multiple sub-processes working together make up a business process. In Figure 2-1, Purchasing, Receiving, Invoice Processing, and Payment Processing are all examples of business processes.
* Level 2: Sub-Process
  + The next level of process decomposition is the sub-process, which is a series of steps necessary to the completion of a business process, but insufficient on its own to achieve an organizational goal. For example, “completing a purchase requisition” is a sub-process of purchasing that is a necessary step to procuring goods for a department, but by itself will not accomplish the goal of procuring those goods. While multiple sub-processes working together make up a business process, multiple activities working together make up a sub-processes. Examples of sub-processes in Figure 2-1 include: Create Requisition, Approve Requisition, Create Purchase Order, and Send Purchase Order to Vendor.
* Level 3: Activity
  + The next level of process decomposition is the activity, which is a series of tasks required to execute a sub-process. Activities are further decomposed into tasks. For example, the sub-process of completing a purchase requisition may require the activities of a “budget check” to verify funds availability and “obtain supervisor approval” if the dollar amount exceeds a certain threshold. Other examples of activities in Figure 2-1 include: Identify Commodity Code, Complete Requisition Form, and Obtain Approval.
* Level 4: Task
  + A task is a single action step performed by a single stakeholder and is the smallest part of the business processes. Multiple tasks performed together make up a single activity. To complete the requisition form, the employee indicates the quantity desired and verifies the price. He or she then selects the preferred vendor and provides shipping information. Examples of tasks in Figure 2-1 include: Indicate Quantity, Verify Price, Select Preferred Vendor, and Provide Shipping Information.

Figure 2-1., below, provides a high-level overview of business process Levels 0-4 and depicts how they relate to each other.

**High-Level Overview of Business Process Levels 0-4**

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**Figure 2-1**

# Graphical and Narrative Elements of the Model

This section discusses the two components of a business process model: the graphical model and the textual narrative. The graphical model is the actual visual diagram of the business process and the narrative provides any written information that is required to understand it. Narratives are not always necessary to understand the model.

Figure 3-1, below, depicts a simple graphical model that represents the Level 2 process of posting a job notification.

**Example Level 2 Business Process Model**



**Figure 3-1**

## Graphical Elements

A successful graphical business process model captures the key events, inputs, resources, and outputs associated the process. A business process model should define, at a minimum, the following elements:

* The goal of the process
* Specific inputs and outputs
* Resources consumed
* Activities and the order in which they are performed
* Significant events that drive or affect the process
* Relationships between events and activities

These elements are represented graphically using standard symbols, including arrows, shapes, connectors, and other icons. This graphical representation is also referred to as notation. Figure 3-2, below, provides the symbol, name, and definition of standard icons used in business process modeling.

**Figure 3-2: Legend of Business Process Modeling Symbols, Names, and Definitions**

| **Symbol** | **Name** | **Definition** |
| --- | --- | --- |
| a right facing arrow with a dotted line | Association | An association is used to indicate associations between data objects, text, and other artifacts with flow objects. Associations can be unidirectional or bidirectional and are used to show the inputs and outputs of activities. |
| A symbol of a square within a rectangle | Batch Process | A batch process represents the execution of a series of programs (“jobs”) on a computer without manual intervention. |
| a diamond shape | Decision (Gateway) | A decision (also referred to as a gateway) shows a decision point, such as yes/no. Each path emerging from the gateway is labeled with one of the possible answers. |
| Circle drawn with a thin line | Event (Start) | An event that indicates where a particular process starts. The start event starts the flow of the process and does not have any incoming sequence flow, but can have a trigger. |
| A circle drawn with a thick line | Event (End) | An event that indicates where a path in the process will end. In terms of sequence flows, the end event ends the flow of the process, and thus will not have any outgoing sequence flows. |
| A Circle within a circle drawn with thin lines | Event (Intermediate) | An event that occurs somewhere in the middle of a process, in between the start and end events. |
| a rectangle with rounded edges that is drawn with a dash and dot line | Group | Groups are used to highlight certain sections of a diagram without adding additional constraints for performance, as a sub-process would. |
| parallelogram | Input Documents | A paper document (or email) used for entering data in the process. For electronic data, use the interface symbol. |
| A rectangle drawn with wavy top and bottom lines | Interface | The interface icon represents data communication going from one electronic system to another. |
|  | Manual Task | A manual task is work that is performed manually. A task is a type of activity. |
| a right pointing arrow with a dashed line and a circle at the start of the line | Message Flow | This connecting object shows the flow of messages between two participants. A message flow is represented by a dashed lined and can be attached to pools, activities, or message events. |
| rectangle with the bottom side in the shape of a wave | Output Documents | An electronic document that is created by the process and can be printed (e.g., reports). |
| four-sided shape with two sharp angles at the top and bottom or at the two sides | Off page connector | This object indicates flow to another process outside the scope of the current process. |
| an solid line arrow | Sequence Flow | This connecting object shows the order in which activities are performed in a process. Sequence flows are represented with a solid graphical line. Each flow has only one source and only one target. |
| a rectangle with a plus sign in the bottom center | Sub-Process | A sub-process describes a detailed sequence in the process. A sub-process describes a detailed sequence in the process. A plus sign in the bottom center of the rectangle indicates that there are sub-processes taking place within an activity, but they are not represented in detail. |
|  | System Task | A system task is work that is performed by a system or application. A task is a type of activity. |
| a long rectangle with a vertical line inside on the left side of the rectangle | Swimlane Pool | A swimlane pool represents a participant, which can be an entity, actor, or system. Graphically, a pool is a container for partitioning a process from other pools/participants. A pool is not required to contain a process. |
| a long rectangle with a vertical line inside on the left side of the rectangle and a horizontal line drawn in the middle of the rectangle | Swimlane Lane | A swimlane partition that is used to organize and categorize activities within a pool. A lane extends the entire length of the pool either vertically or horizontally. Lanes are often used for such things as internal roles (e.g., manager), systems (e.g., an enterprise application), or an internal department (e.g., shipping). |

## Process Model Narrative

The graphical process model is often accompanied by written text—a process model narrative—that provides information necessary to understand the model. Common elements in the process model narrative include step descriptions, inputs and outputs, triggers, assumptions, and constraints. Narrative elements should not be too long and should only provide information that will help individuals understand the model.

However, for future state process models, narrative elements—especially process step descriptions—are usually longer and more robust than those describing current state processes. Because the future processes do not exist yet, more information is needed in order to paint a comprehensive picture of the process. Figure 3-3, below, provides an example of process steps written for a future state process. These process steps align with the business process model for posting a job notification depicted in Figure 3-1 earlier in the tool.

**Figure 3-3: Example Process Steps for Posting a Job Notification**

| **Number** | **Name** | **Description** |
| --- | --- | --- |
| **Business Department (A)** | | |
| A1 | Report Job Opening | The Business Department reports the job opening to human resources by completing a hiring approval form. The form must be approved via signature by the Department supervisor. The complete form is sent to Human Resources. |
| A2 | Review Job Posting | The Business Department will review the draft job posting for completeness and accuracy. |
| A3 | Approved? | The Department supervisor either approves the job posting or sends it back to Human Resources for revision and updating. |
| **Human Resources (B)** | | |
| B1 | Write Job Posting | Human Resources will receive the form, review it, and create a requisition number. HR will contact the department to gather information on the job opening. This information includes job functions, required skills, knowledge, and abilities. Human Resources will draft the job posting using this information and send it to the Business Department. |
| B2 | Revise Job Posting | Using the feedback from the Department, HR will revise the job posting. HR will send the revised job posting back to the Department for approval or further revisions, if necessary. |
| B3 | Post Job Posting | Once the Department supervisor approves the final job posting, HR posts the job listing on the agency’s website. |

The table below defines the typical elements of a process narrative.

**Process Narrative Definitions**

| **Term** | **Definition** |
| --- | --- |
| Process Step Description | Provide further explanation for each of the process steps in the model. Process steps are grouped by swimlane. Make sure that the process steps in the graphical model are numbered, and that the descriptions match the number of the process step in the model. |
| Pre-Conditions | Describe any pre-conditions required for the process to start or function, such as other processes that need to finish successfully before this one can start. |
| Process Triggers | Describe the business events that initiate this process, and if known, supporting information such as frequency, initiating system or process, etc. |
| Key Inputs/Outputs | Identify the key input documents, events, processes, data, or other artifacts that this process uses or generates. |
| Assumptions | By definition, an assumption is something that is accepted as true or is certain to happen, without proof. Identify realistic and accurate assumptions regarding the process. |
| Constraints | Constraints place limits or conditions on the process Provide constraints that are reasonable and accurate including internal or external policies or regulations. |
| Supporting Systems | Identify software or tools that are used to execute one or more of the steps in this process. |
| Notes | Provide any further documentation/documentation related to this process, including impact analysis, historical information, references to other related processes, etc. |

Not all business processes have all of these narrative elements. A process narrative can include multiple elements and can be long or short depending on the complexity of the process. Remember that only the relevant elements should be included.

# Creating a Business Process Model

This section contains a step-by-step guide to graphically modeling the business process, in addition to helpful tips to keep in mind when creating the model.

## Understand and Organize the Process

Before beginning to model, the BPR Practitioner should understand the overall process and the key events that occur within it. As he or she prepares, the BPR Practitioner should ask the following questions to understand and organize the process:

* Where does the process start?
* Where does the process end?
* What major activities occur in the process?
* Who are the main entities/actors/participants in the process?
* Where do decisions need to be made or approvals occur before the next step?

The goal of answering these questions is for the BPR Practitioner to develop an overall understanding of the process and its major activities, sequence, participants, and decision gateways.

Organizing this information visually can help the BPR Practitioner structure his or her thoughts and map out a rough process model before they begin the actual model. Using paper, flip charts, whiteboards, or Post-Its, follow the steps below to sketch out and organize the process, focusing on sequencing and responsibility:

1. List each process step and work down vertically, establishing a basic flow
2. Arrange the activity in the order in which they occur
3. Place each activity under the role that is responsible for accomplishing it
4. Rearrange activities and roles as needed until they accurately depict how the process flows

## Document the Process in a Model

Once the BPR Practitioner has a solid grasp of the process and its structure, he/she is ready to begin documenting it in a process model. The most commonly used software tool for process modeling is Microsoft Visio, however, using this software is not required.

The following steps provide a high-level overview of how to document a business process in a model:

1. Create a process map
   * The map shows the big picture of the process. The process include business processes, or key components.
2. Break down the big picture into sub-processes
   * Sub-processes are the key modules within a business process. Some sub-processes might interact with each other but others may be separate.
3. Capture each activity or task
   * Activities or tasks are the fundamental blocks of sub-processes. Each activity may involve a series of tasks.
4. Document decisions that affect the sequence flow
   * Decisions usually create multiple sequence flows depending on the result of the decision (i.e., if the answer is yes, one thing happens; if the answer is no, another thing happens)

When documenting the process, keep the following important tips in mind:

1. Prioritize the processes to be documented
   * Focus first on the ones that are most important to the organization
   * Focus on the processes that are broken vs. those that are working.
   * Other processes may have to be analyzed, but prioritizing processes ensure that value is obtained from the work performed
2. Start with a simple process vs. a complex process
   * Use the simple process to refine your skills at analyzing and documenting the processes and move to the more complex processes as time goes on
3. Identify the key players
   * Make sure that those key players are represented
4. Check your work
   * Show every step that adds value, moves the work along, or introduces delay
   * Model with as little detail as possible and stop when process behavior is understood
   * Check viability at each new level
   * Identify critical results and/or milestones and avoid focusing on organizational structure, functions or jobs

## Create a Business Process Model: A Step-by-Step Guide

The following is a step-by-step guide for creating a business process model:

1. Begin the process model with the first event and finish it with the final event.
2. Add activities for each activity that is performed in the process.
3. Name each activity with an active verb (e.g., “Post Job”). All activities should be named.
4. Connect activities with arrow flows (connecting objects that show the order in which they take place). Avoid crossing arrow flows over each other, which can make the flow more difficult to read.
5. Create swimlanes with the names of the entity, actor, or participant that performs the activity.
6. Move activities into the swimlanes to assign responsibility for performing the activity.
7. Keep the main/primary flow clear. The main/primary flow, referred to also as the “Happy Path” should be easily identified when reading the diagram. Diagram the happy path first and then the alternative flows.
8. Add decision gateways if the order of steps depends upon a condition such as an approval. Decisions can be named with a question (e.g., “Approve Notice?”). The conditions can be defined as possible answers (e.g., “Yes” or “No”) on the outgoing arrow flows.
   1. There is normally one flow going into the decision and more than one flow coming out (e.g., one flow for “Yes” and one for “No”)

Example 1:

image of the workflow for a purchase order process showing a decision gateway with a yes and no decision

Example 2:

image of the workflow for a purchase order process showing a decision gateway with two different paths depending on the amount 

* 1. It should not be possible to take more than one flow at any one time.
  2. Following a decision gateway, continue numbering the “Happy Path” flow activities first before numbering the alternative flows.

1. Think of all possible exceptions to the process flow and consider if they are worth capturing
2. When labeling gateways, activities, and swimlanes, use clear, unambiguous words
3. Keep the look and feel of the diagram clean and consistent. Using different fonts, colors or box sizes might make it hard to read.
4. If the BPR Practitioner finds himself/herself running out of room, stop and re-think the process flow. Is the model too detailed? Is there actually more than one process happening? Should the process be broken into sub-processes or two different processes?
5. It may be important to show where a process connects to another process. In these cases, use an off-page connector, as shown below:

snippet of a workflow showing an off page connector that directs the user to another process

1. Fill out the process narrative portion of the template (Section 7). Only include information the reader needs to understand the model. Make sure the narrative is consistent with the process model.
2. Review the entire process model and narrative, asking the following questions:
   1. Does the model accurately depict what really happens?
   2. Are there any gaps or missing steps?
   3. Are the symbols used correctly?
   4. Are business process steps clearly identified?
   5. Does every path lead to or come from another step?
   6. Is the model labeled properly and does it provide a legend?
3. Review the entire process model and narrative, piece by piece, with the stakeholders and subject matter experts, asking the same questions above.
4. Check the model for clarity, consistency, completeness, and ease of understanding
5. Perform final review and obtain sign-off

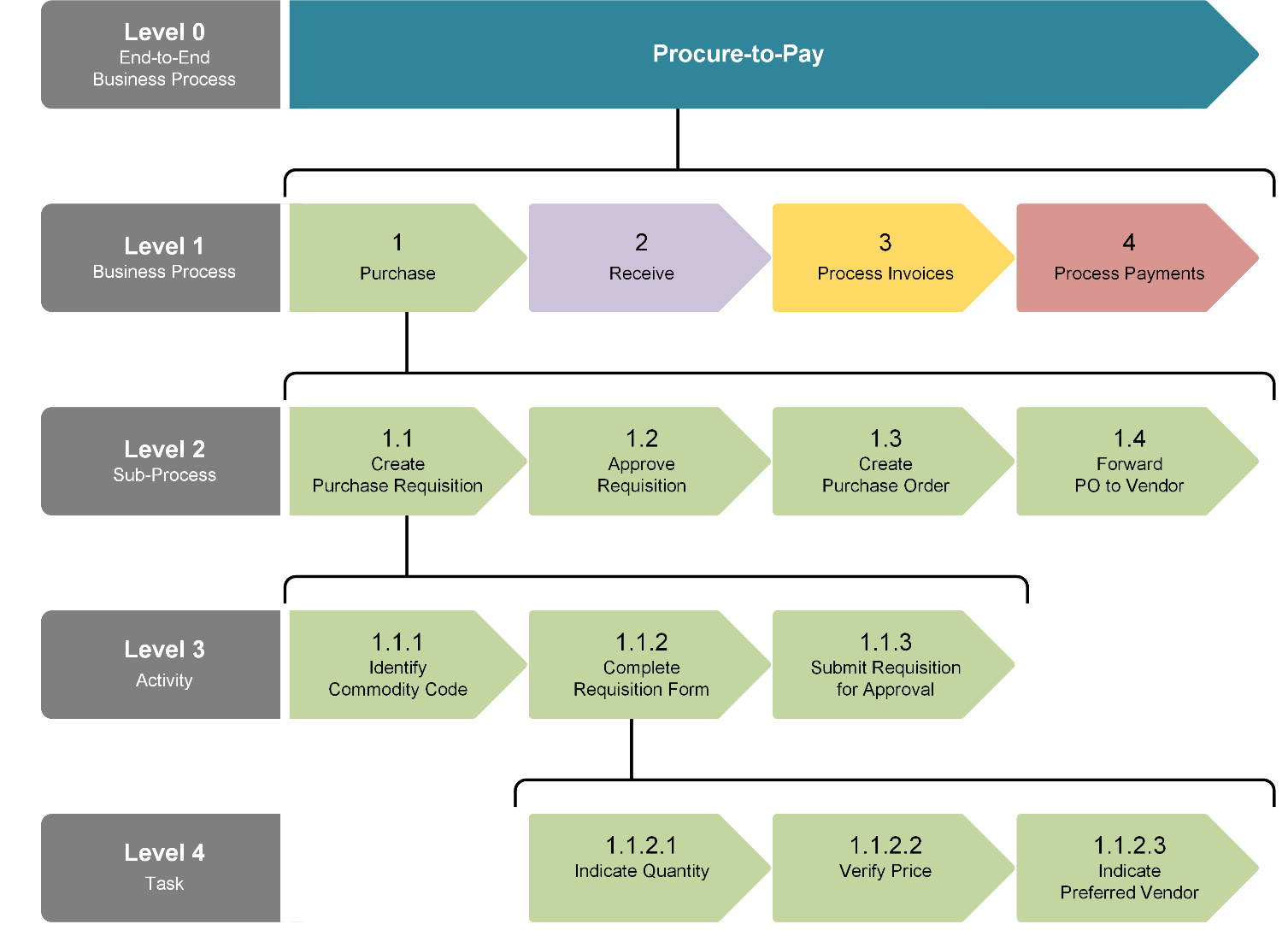
## Things to Keep in Mind

* Order of operations and sequencing is critical
* The primary flow (“Happy Path”) of the process should be clear
* Model the process as it is, not how it should be or could be
* Capture each activity and decision that is integral to the process
* Capture all the activities that transform inputs and outputs
* Assign the correct flowchart symbols to each activity
* Show the flow of activities with arrows
* Most readers expect a general left-to-right ordering (even though it is possible to loop back)
* Focus on functions, not on individual roles and jobs
* Stop when the process behavior is understood; avoid unnecessary detail
* If the model gets too complicated for people to understand, simplify it.
* Think of possible exceptions to the process flow and ask if it is worth adding more processes to handle the possible exception. Sometimes possible exceptions are not worth modeling.

# Example Models of Five Different Process Levels: Purchase Goods and Services

Nearly every agency or organization will have to purchase goods and services at some point. Figure 5-1 illustrates the relationship between each of the five business process levels defined earlier in this tool.

**High-Level Overview of Business Process Levels 0-4**

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**Figure 5-1**

Below there are five example business process models that depict this common business process at 5 different process levels (Level 0-Level 4), from the broad end-to-end process level to the detailed task level. The BPR Practitioner can refer to these examples when deciding what process levels to model, how to model them graphically, and what narrative elements to include.

Levels 0-4 are represented below in graphical models. Additionally, Level 3 includes a process narrative that accompanies the process model.

## Level 0 – End-to-End Business Process

### Model

image depicting the business process workflow at a level zero

## Level 1 – Business Process

### Model

image depicting the business process workflow at a level one with swimlanes for purchasing, receiving and accounting departments

## Level 2

### Model

image depicting the business sub process workflow at a level two with swimlanes for business unit and purchasing department

## Level 3 – Activity

### Model

image depicting the activity workflow to complete and approve a requisition request with swimlanes for business unit and purchasing department

### Process Narrative

The process narrative below accompanies the Level 3 process model represented in Section 5.4.1. Note that not all elements in the template are included below (e.g., preconditions). It is best practice to only include those elements that are relevant.

| **Process Steps** | | |
| --- | --- | --- |
| Number | Name | Description |
| **Business Unit (A)** | | |
| A1 | Identify Commodity Code | The business unit identifies the appropriate commodity code. |
| A2 | Perform Budget Check | The business unit performs a budget check to determine if the good/service is within budget. |
| A3 | Under Budget? | If the good/service is over budget, the business unit must obtain supervisor approval. If it is within budget, the unit completes and submits the requisition form to the Purchasing department. |
| A4 | Obtain Supervisor Approval | The supervisor must approval the requisition request if it is over budget. |
| A5 | Complete and Submit Requisition Form | The business unit submits the requisition request to the Purchasing department. |
| A6 | Update Requisition Form | The business unit must update and re-submit the requisition request if it is rejected by the Purchasing department. |
| **Purchasing Department (B)** | | |
| B1 | Review Requisition Request | The Purchasing department reviews the requisition request for characteristics such as accuracy and completeness. |
| B2 | Approve? | The Purchasing department approves or rejects the requisition request. If rejected, the request is sent back to the business unit to update. |

| **Process Triggers** | | |
| --- | --- | --- |
| Number | Name | Description |
| 1 | Business Need | A business need for goods or services triggers the requisition request. |

| **Assumptions** | | |
| --- | --- | --- |
| Number | Name | Description |
| 1 | Staff Working Hours | Staff working hours occur on an 8:00am-5:00pm schedule. |
| 2 | Supervisor Availability | A supervisor is available to perform the approval. |

| **Constraints** | | |
| --- | --- | --- |
| Number | Name | Description |
| 1 | Compliance with Purchasing Approval Policy | The agency’s internal purchasing policies and procedures mandates that all purchase requests must be approved by Purchasing. Purchase requests must be reasonable, allowable, accurate, and complete. |
| 2 | Compliance with State of CA Purchasing Mandates | The agency must comply with State of California mandates regarding the purchase of goods and services. |

| **Supporting Systems** | | |
| --- | --- | --- |
| Number | Name | Description |
| 1 | Purchasing System | The agency uses System One, a web-based purchasing system, in order to submit, approve, and track purchase requests and orders. |

## Level 4 – Task

### Model

image depicting the task workflow to complete a requisition request with a single swimlane for the employee performing the task

# Recommended Practices

The following recommended practices will help the BPR Practitioner develop accurate and useful business process models.

**Ensure modelers are qualified**

Business process modeling requires specific skills. The BPR Practitioner who is doing modeling should be familiar with the concepts and technique of business process modeling.

**Ensure subject matter experts (SMEs) are qualified**

Subject Matter Experts (SMEs) must have the necessary process knowledge required for accurate and sufficient business process modeling. Usually no single person has all of the required knowledge and a team must be assembled in order to cover all process areas.

**Use Standard Notation**

While there are several BPM notation options, one should avoid non-standard BPM notation in order to produce models that are easily understood by staff. The business process models should document processes, sub-processes, activities and tasks to clearly understand linkages, decomposition, and areas that will be enabled by the technology solution.

Similarly, swim lane methodology is very useful in business process modeling, when used appropriately. The following is a list of suggestions to avoid common swim lane problems:

* Organize swim lane diagrams by process, not function
* Identify job positions roles that are part of the workflow
* Depict diagrams in sequence of work, not the flow of data

**Prepare for SME disagreement**

Even the best team of SMEs can differ in their understanding of business processes being modeled. Establish an escalation path for resolution of these differences.

**Define the acceptance process**

Ensure the manner of how processes are defined, evaluated and modeled is intuitive, understood and well-accepted by your users.

**Link business modeling to business need**

The BPR Practitioner should ensure that the model has a demonstrable connection to one or more critical business issues. If this connection is not maintained, resources may expend effort on documenting unneeded processes.

**Keep the models concise**

Avoid capturing too much detail in the business process model. The more detailed the model, the longer it takes to design, review, and understand it.

**Uncover hidden processes**

Some processes may be “hidden” by organizational structure, jobs, and systems. Sometimes a process may not seem to be important and is not discussed, but it could in fact be critical for other dependent processes. Look for hidden processes and make sure that all processes are documented.

**Cross-organizational communication**

Processes usually involve multiple:

* Organizations (companies, divisions, departments, etc.)
* Job functions
* Information systems

Where a process crosses organizational boundaries there is potential for details to be undocumented or “slip through the cracks.”

# Business Process Model Template

[This business process model template help you capture the procedures that govern how an organization’s business works for Level 0 through 4. This template helps you document the essential details of your processes and can be used to capture both current state business processes as well as future state business processes. Below is an example of a Level 2 Business Process Model with narrative. The template is located below this example.

| image depicting the workflow for the accounting office to enter and maintain vendors  ***Process Steps*** | | |
| --- | --- | --- |
| *Number* | *Name* | *Description* |
| ***Accounting Office*** | | |
| *A1* | *Receive Vendor Form* | *Accounting receives the vendor form from the business unit.* |
| *A2* | *Verify Vendor in System* | *Employee logs into the system and verifies if the vendor is in the system.* |
| *A3* | *New Vendor?* | *Employee checks if the vendor is new or existing.* |
| *A4* | *Maintain Existing Vendor Information* | *If the vendor exists, the employee maintains/updates the vendor information as necessary.* |
| *A5* | *Create and Populate New Vendor Entry* | *If the vendor is new, the employee creates a new vendor entry and populates the entry.* |
| *A6* | *Notify Business Unit of Entry/Update* | *The employee notifies the business unit that the vendor entry has been created/updated.* |
| *A7* | *Analyze Vendor Form* | *The employee analyzes the vendor form for any requirements or additional information.* |
| *A8* | *Reporting Required?* | *The employee confirms if reporting is required.* |
| *A9* | *Check “Report” Box in System* | *If reporting is required, the employee indicates this in the system by checking the appropriate box.* |
| *A10* | *Close Vendor File* | *If reporting is not required, the employee closes the vendor file and logs out of the system.* |

| ***Preconditions*** | | |
| --- | --- | --- |
| *Number* | *Name* | *Description* |
| *N/A* | *N/A* | *N/A* |

| ***Process Triggers*** | | |
| --- | --- | --- |
| *Number* | *Name* | *Description* |
| *1.0* | *Business Unit Request* | *The process is triggered when the business unit requests vendor entry or maintenance by sending the vendor form to the Accounting Office.* |

| ***Key Inputs/Outputs*** | | |
| --- | --- | --- |
| *Number* | *Name* | *Description* |
| *1.0* | *Vendor Form* | *The Vendor Form is a key input for this process. The form contains all applicable information related to the vendor.* |

| ***Policies and Regulations*** | | |
| --- | --- | --- |
| *Number* | *Name* | *Description* |
| *1.0* | *Vendor Policy and Procedures* | *The agency maintains an internal Vendor Policy and Procedures document that governs all business processes relating to vendors.* |
| *2.0* | *California State Code* | *California State code requires reporting regarding vendors if specific criteria are fulfilled.* |

| ***Supporting Systems*** | | |
| --- | --- | --- |
| *Number* | *Name* | *Description* |
| *1.0* | *Vendor Management System* | *All vendors must be entered and maintained in the agency’s vendor management system, which includes vendor contacts, contracts, and other information.* |

| ***Notes*** | |
| --- | --- |
| *Number* | *Description* |
| *N/A* | *N/A* |

To use the template below, select the template, right-click and select “Open in Visio”. Once the process has been modeled, the file can be saved off as a new file. If MS Visio is not available, you can recreate the structure of the template manually in any equivalent program. The narrative template is located below the process model template.]

an image of a legend that depicts various process symbols and their descriptions

[Use the narrative portion below to capture and document the relevant narrative elements that correspond with the business process model. The BPR Practitioner should keep in mind that not all of these elements are required for every process. For instance, there may be processes that do not have any applicable policies or regulations; some processes may not have or need supporting systems. Include only those elements that are necessary to understand the model.]

**Business Process Model Title/Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Business Process Model Owner:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­\_\_\_\_\_\_\_\_**

| **Process Steps**  [Process steps are grouped by swimlane participant. For each swimlane participant, list all steps. Then move on to the next swimlane participant.] | | |
| --- | --- | --- |
| Number | Name | Description |
| **[Swimlane Participant A]** | | |
| *A1* | [Insert a short name for the process (2-4 words)] | [Provide a short description of each of the process steps in the model.] |
| *A2* | [Same as above.] | [Same as above.] |
| **[Swimlane Participant B]** | | |
| *B1* | [Same as above.] | [Same as above.] |
| *B2* | [Same as above.] | [Same as above.] |

| **Preconditions** | | |
| --- | --- | --- |
| Number | Name | Description |
|  | [Insert a short name for the precondition (2-4 words)] | [Describe any pre-conditions required for the process to start or function.] |

| **Process Triggers** | | |
| --- | --- | --- |
| Number | Name | Description |
|  | [Insert a short name for the trigger (2-4 words)] | [Describe the business events that initiate this process.] |

| **Key Inputs/Outputs** | | |
| --- | --- | --- |
| Number | Name | Description |
|  | [Insert a short name for the input/output (2-4 words)] | [Identify the key input and output documents, events, processes, or artifacts that this process uses or generates.] |

| **Assumptions** | | |
| --- | --- | --- |
| Number | Name | Description |
|  | [Insert a short name for the assumption (2-4 words)] | [Describe reasonable, relevant conditions that are assumed to be true regarding the process.] |

| **Constraints** | | |
| --- | --- | --- |
| Number | Name | Description |
|  | [Insert a short name for the constraint (2-4 words)] | [Describe reasonable, relevant conditions that place limits or conditions on the process.] |

| **Supporting Systems** | | |
| --- | --- | --- |
| Number | Name | Description |
|  | [Insert a short name for the system (2-4 words)] | [Identify any supporting systems used to execute steps in this process.] |

| **Notes** | |
| --- | --- |
| Number | Description |
|  | [Provide any further information related to this process.] |

# Business Process Scope Model Template

[The Business Process Scope Model is high-level depiction of the business processes affected by the proposed project. Developed during the Concept Process Phase of the CA-BPR, it serves to:

* Establish a common understanding of the scope of the BPR effort
* Establish the end-to-end business processes that will be impacted
* Aligns the inputs, impacted end-to-end business processes, and outputs with the project’s vision and organization’s mission
* Helps to identify the business processes that need to be further analyzed and decomposed.

The Business Process Scope Model identifies a high-level scope of the BPR effort by presenting the Level 0 End-to-End Business Processes, related inputs and outputs, and the organization’s mission statement/vision statement.

To use the template, select the template, right-click and select “Open in Visio”. Once the process has been modeled, the file can be saved off as a new file. If MS Visio is not available, you can recreate the structure of the template manually in any similar program.

Two templates are provided. The first can be used in a situation where only one end-to-end business process is affected by the proposed project. The second can be used for situations where more than one is affected. In this case, inputs and outputs should align to the end-to-end business process, as show.]



