Business Change Support Inc.

adding value through aligning strategy, policy, process, systems and data

Process–based
Business Requirements Gathering

Quick Reference

version 2.7

BCSI
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In this document...

i Document details

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ii Introduction

Purpose

This document provides helpful information about documenting Business Requirements using a Business Process–based approach.

It's primary purpose is to help someone get started who is tasked with gathering Business Requirements or mapping Business Processes.

It does not contain any proprietary information and therefore may be viewed freely.

Intent

This document is intended to be used as a Quick Reference only and should not be considered a complete tutorial.

As such, the examples included are not consistent or part of a single coherent project but are instead included only to demonstrate a particular point.

Introduction

Audience

Anyone with an interest in mapping Business Processes or gathering Business Requirements may find this document useful.

It is primarily intended for those with limited exposure to Business Process Mapping or Business Requirements Gathering.

Scope

This document is limited to the use of Microsoft Visio for creating BPMN (Business Process Modeling Notation) 2.0 compliant Business Process Maps.

Statement of Intellectual Property

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The Approach

Introduction

There are seven simple steps to supporting the Business by developing or updating a Business Software Application. These are:

1. Identify the Business Need

2. Develop a Business Case

3. Gather and Document Detailed Business Requirements

4. Develop (code) the Application

   - out of scope for this document

5. Test the Application

6. Deploy the Application

7. Support and Maintain the Application

   - out of scope for this document

Operational Risk

Operational Risk is defined as the consequence arising from poor or failed execution of a given process or task.

One of the most effective ways to address Operational Risk is by adding two columns to the Task Detail table in the BRD (Business Requirements Detail) document. These columns are:

◇ Operational Risk: a list of consequences if the task is not performed correctly

◇ Risk Mitigation: a list of possible actions that mitigate the Operational Risk

Introduction

The industry standard process to identify business needs is:

1. Identify the Stakeholders

2. Gather and record their requirements

3. Categorize the requirements

4. Analyze and prioritize the requirements

   ▪ as part of the analysis, system limitations and associated costs to mitigate such limitations should be considered

5. Validate the requirements

There are variations on this theme but generally these are the steps.

Other sources of information include:

◇ Voice of the Customer survey data

◇ Focus groups or workshops

◇ Observation

Identify the Business Need

V

Develop a Business Case

Introduction

The following is a sample Business Case.

Executive summary

Purpose

This project is required to mitigate an issue identified by the Business that results in poor customer satisfaction, which in turn results in lost revenue.

The proposed solution creates one additional data field on the customer registration screen, facilitating greater customer contact opportunities.

The proposed data field is to be used for recording a second contact phone number.

Develop a Business Case

Scope

This project is limited to:

◇ the addition of one data field on the customer registration field

◇ changes to the customer database structure required to support it

◇ changes to the appropriate online queries and printed reports

Financial summary

The total cost of the project is estimated to be: $xxx.xx.

Funding is provided by the Business from the Customer Care Improvement budget (123456789).

Implementation summary

Promotion to Production of updated code will be implemented as outlined in the IT department's Policies and Procedures manual.

Success factors/measurement

This project shall be considered successful and complete once User Acceptance Testing of a test case using predefined test data has been completed and signed–off by the Business.

Background

The results of the last three Quarterly Customer Satisfaction Surveys have consistently indicated Customer frustration at only being able to record one contact phone number.

As many as 42% of respondents have complained about this issue and threatened to withdraw their business. This dissatisfaction is further verified by a corresponding 38% loss of registered customers over the same period.

Therefore the Business has identified the need for an additional data field to be added to the existing Customer Registration screen, which is to be used to record a Customer's second phone number should they wish to provide one.

Project outcome

Upon successful completion of this project, Customers will be able to record one additional phone number on the Customer Registration screen and that number will appear in online queries and on printed reports.

Develop a Business Case

Project plan

Resources

The following resources are required:

◇ one User Interface Specialist

◇ one Developer

◇ one Database Architect

◇ one Tester

◇ one Trainer

Resource commitment

Resource	Commitment
User Interface Specialist	3 days
Database Architect	1 day
Developer	2 days
Tester	1 day
Trainer	1 day

Resource Allocation and Timeline

No.	Activity	Resource	Duration	Predecessor Activity No.
1	Design new screen layout for Customer Registration screen	User Interface Specialist	1 day	
2	Design new screen layout for Customer Contact Query screen	User Interface Specialist	1 day	1
3	Design new report layout for printed Customer Contact Report	User Interface Specialist	1 day	2
4	Design changes to the Customer database	Database Architect	1 day	3
5	Code changes	Developer	1 day	4
6	Test changes	Tester	1 day	5
7	Train Users on changes	Trainer	1 day	6
8	Deploy changes	Developer	1 day	7
Total days			7 days	

Develop a Business Case

Finance plan

The breakdown of costs is as follows:

Resource	Commitment	Rate	Overhead	Net Cost
User Interface Specialist	3 days	$400/day	2.0	$1400
Database Architect	1 day	$500/day	2.0	$1000
Developer	2 days	$500/day	2.0	$2000
Trainer	1 day	$400/day	2.0	$800
Tester	1 day	$300/day	2.0	$600
Total Cost				$5800

Overhead includes

◇ employee benefits

Overhead does not include

◇ fixed hardware costs such as telephone and laptop

◇ office rent and maintenance

Cost/benefit analysis

Lost business due to customer dissatisfaction is estimated by Marketing/ Sales to be two lost customers per month.

Each customer represents a net benefit of approximately $3,000 per month or $6,000 for two customers per month.

Therefore this project pays for itself in one month if two or more customers are retained as a direct result of this change.

Technical analysis

Successful completion of this project requires the following:

◇ addition of one field on the Customer Registration UI

◇ addition of one column to the Customer database

◇ addition of one field on the online customer contact query screen

◇ addition of one field on the printed customer contact report

◇ inclusion of new column in Customer data queries

No further technical challenges are expected.

Develop a Business Case

Acceptance and sign–off

As outlined in the IT department's Policies and Procedures manual, this project requires the acceptance and sign–off of the IT Department's Director or above.

Develop a Business Case

Business Requirements documents

The following documents are generated:

1. SIPOC (Supplier, Input, Process, Output, Customer) document
2. Pain points document
3. Current state (As Is) swim lane process map
4. Future state (To Be) swim lane process map
5. Business Requirements Detail (BRD) document

Understanding Business Processes

Business Processes are designed to support one or more Business Goals which in turn support the organization's Mission and Vision statements.

Any Business Process that doesn't support one or more Business Goals is referred to as an Orphaned Process. It may be that the Orphaned Process is redundant, consuming resources that can be used elsewhere. It may be that the Business Goal it supports is poorly understood and not documented or communicated, severely hampering process efficiency efforts.

DetailedBusinessRequirements
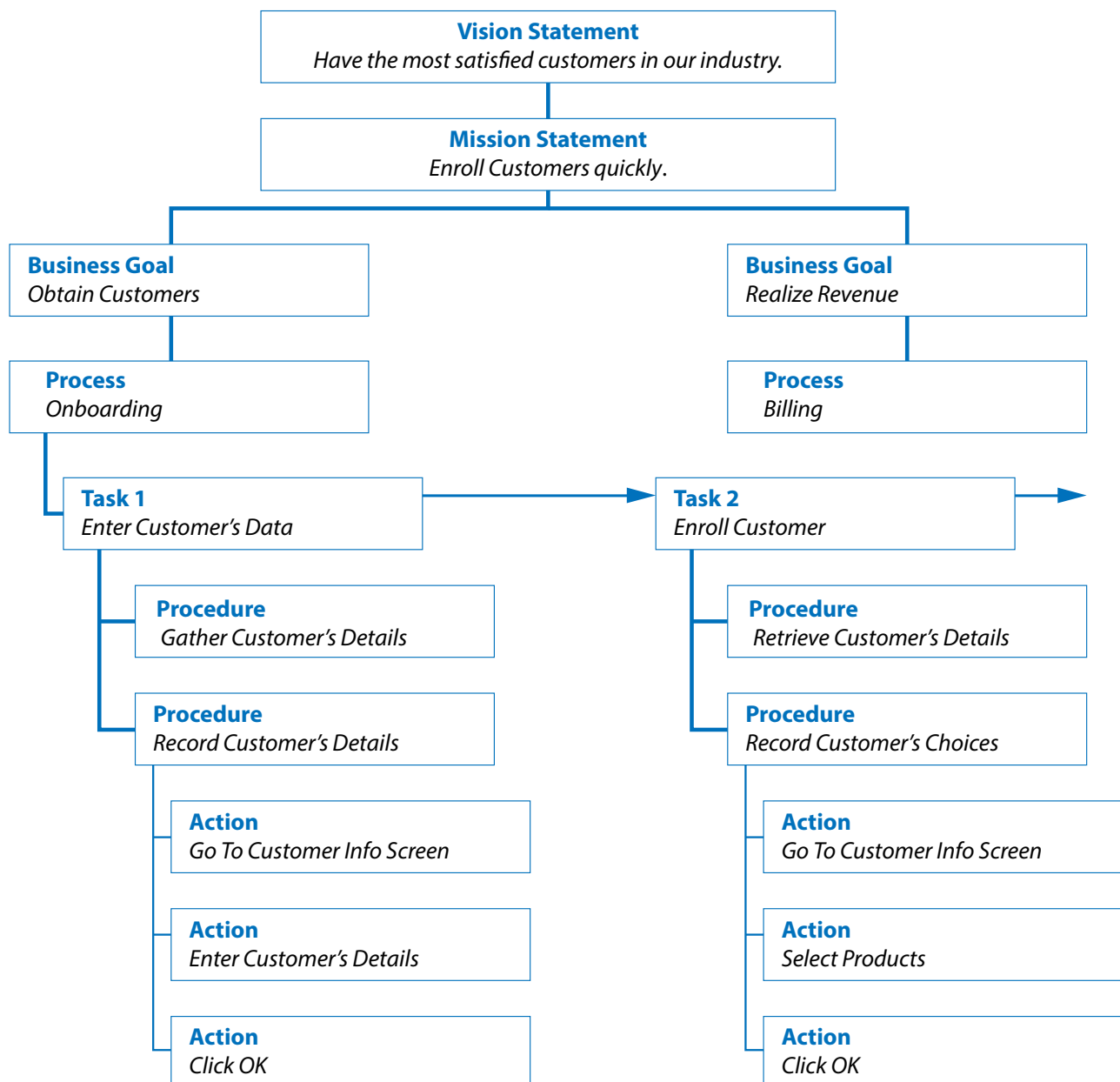
Business Process definition

A **Business Processes** is a series of Tasks designed to achieve a Business Goal.

A **Task** is a series of step by step Procedures required to complete a Process (mapped on swim lane diagrams).

A **Procedure** is a series of Actions taken to complete a Task.

An **Action** is a specific instruction.

Business Process Framework diagram

Vision Statement
Have the most satisfied customers in our industry.

Mission Statement
Enroll Customers quickly.

Business Goal
Obtain Customers

Business Goal
Realize Revenue

Process
Onboarding

Process
Billing

Task 1
Enter Customer's Data

Task 2
Enroll Customer

Procedure
Gather Customer's Details

Procedure
Retrieve Customer's Details

Procedure
Record Customer's Details

Procedure
Record Customer's Choices

Action
Go To Customer Info Screen

Action
Go To Customer Info Screen

Action
Enter Customer's Details

Action
Select Products

Action
Click OK

Action
Click OK

DetailedBusinessRequirements

Process Mapping Methodology

Lean/Six Sigma–based process mapping

Lean/Six Sigma–based process mapping follows a very simple process that generates the following documents:

1. SIPOC (Supplier, Input, Process, Output, Customer) document

2. Pain points document

3. Current state (As Is) swim lane process map

4. Future state swim (To Be) lane process map

DetailedBusinessRequirements

Broadcast Management example

SIPOC (Supplier, Input, Process, Output, Customer)

Step	S Supplier	I Input	P Process	O Output	C Customer
Step 1	Programming	show data	purchase & schedule show	available spots	Sales
Step 2	Sales	available spots	promote and sell spots	filled spots	Traffic
Step 3	Traffic	contracts	input contracts	contract file	Traffic
Step 4	Traffic	contract file	create Daily Broadcast Log	daily log file	Master Control
Step 5	Master Control	daily log file	run Daily Broadcast Log	schedule to air/as run log	customer
Step 6	IBMS	as run log	generate invoices	invoice file	Finance (G/L)

DetailedBusinessRequirements

Current state (As Is) swim lane process map

Broadcast Management – Sample – version 2
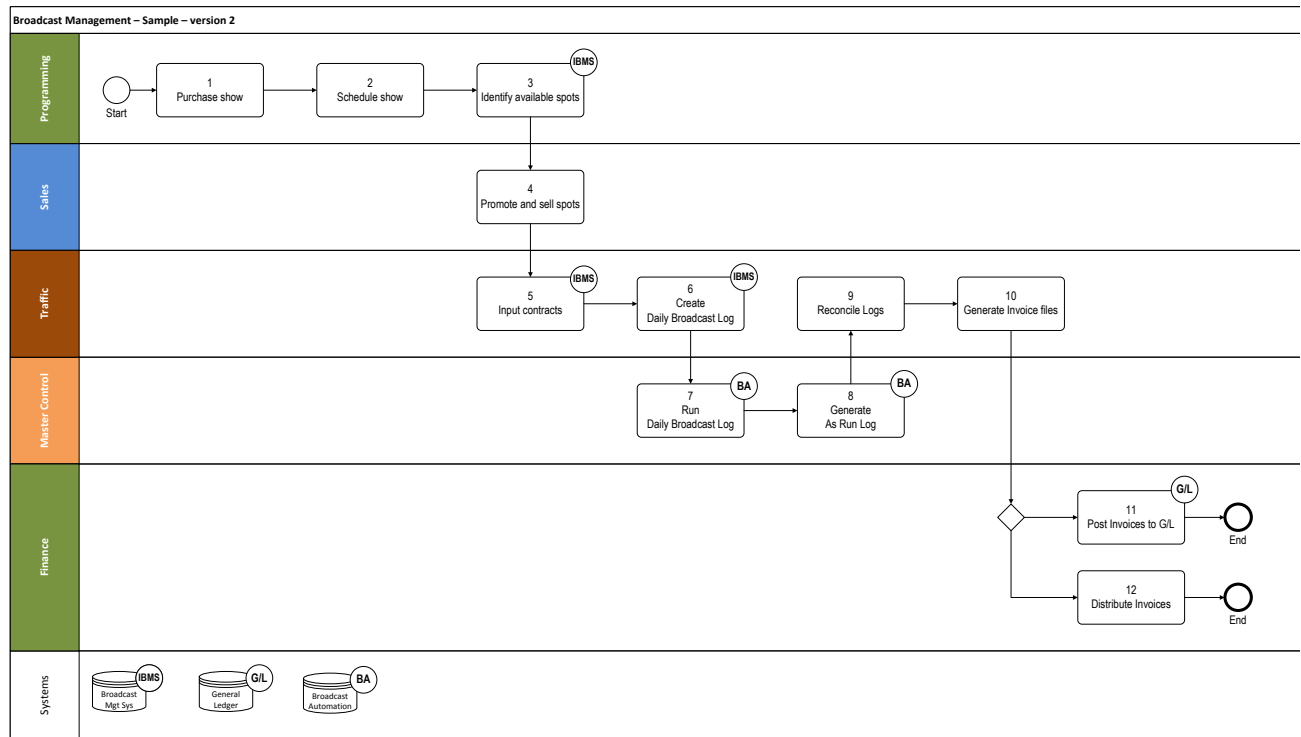
Note   The Suppliers and Customers listed in the SIPOC become the Actors for the swim lanes.

DetailedBusinessRequirements

Consolidate small tasks if appropriate

Before

Generate and Review Report 001

Actor 1

Start → ◇ → Enter Report Criteria → Submit Report Criteria

Review Report → ◇ — IGO → End

NIGO

System 1

Receive Report Criteria → Process Report Criteria → Display Report

After

Generate and Review Report 002

Actor 1

Start → ◇ → Request and Review Report (A) → ◇ — IGO → End

NIGO

System 1

(A) Stored Data

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DetailedBusinessRequirements
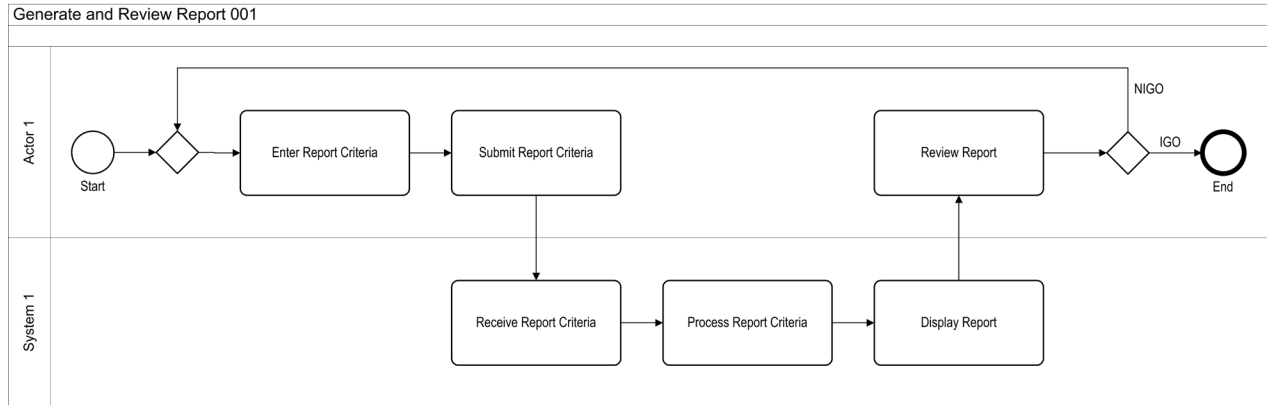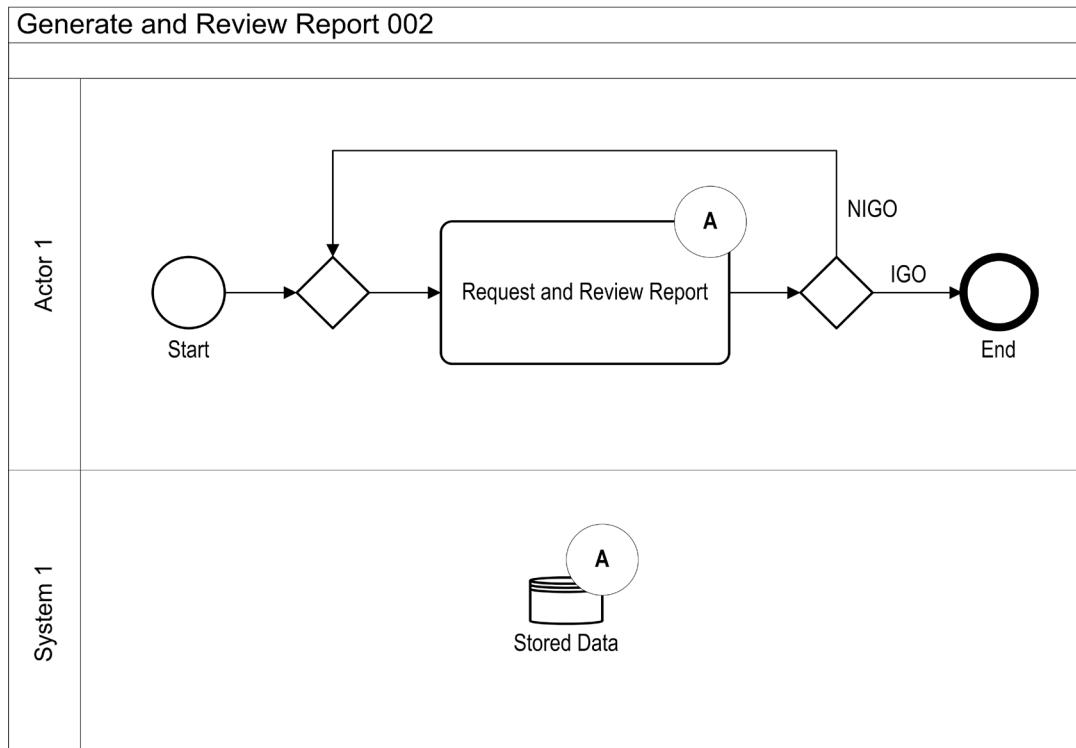
Using Microsoft Visio

Mapping Symbols

The following pages describe how you can use the following mapping symbols:

◇ Tasks

◇ Gateways

◇ Events

Right click on the symbol to open that symbol's option menu.
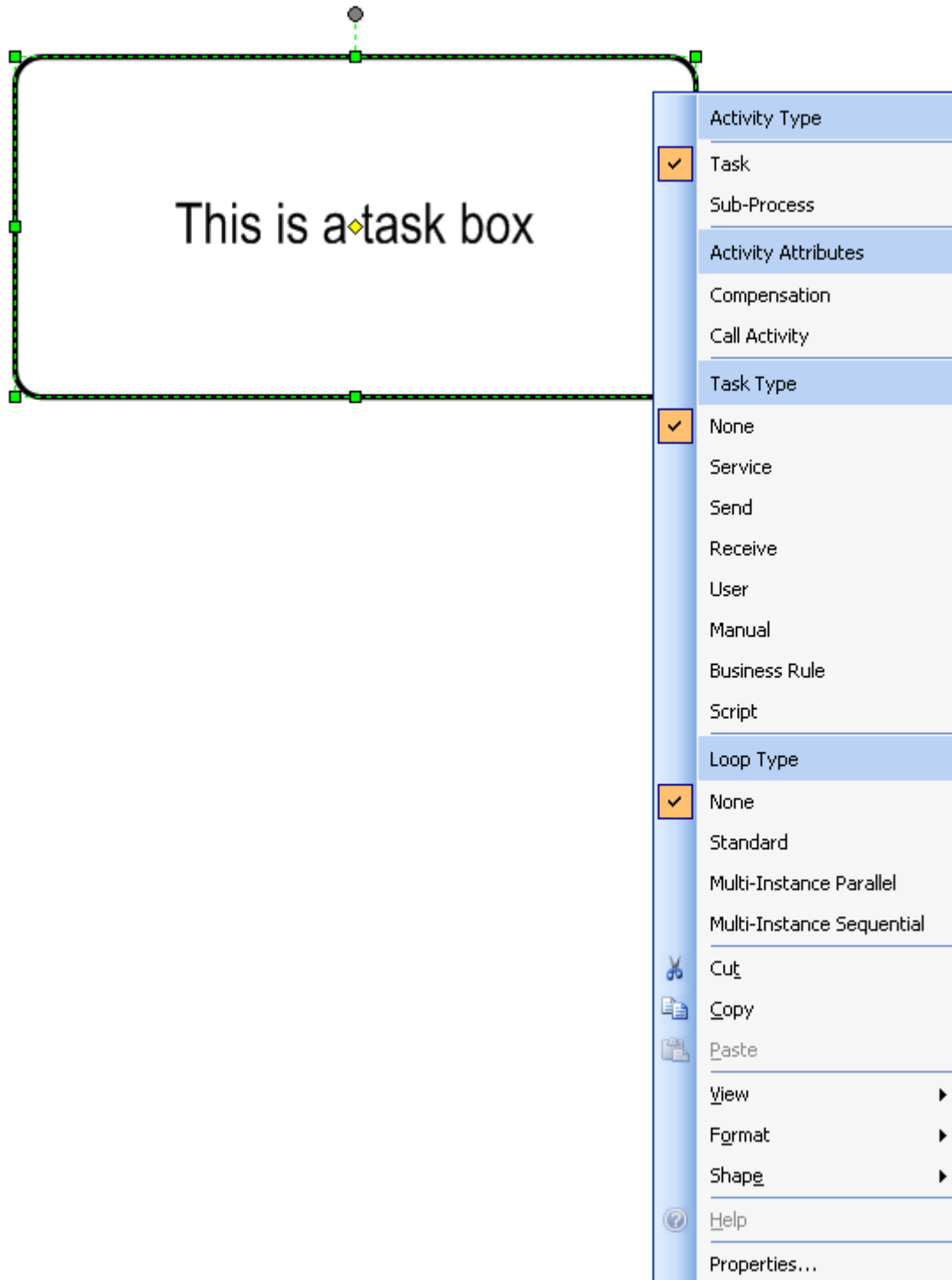
Note	The following symbols are a commonly used subset of BPMN 2.0 symbols that should be enough to get you started.

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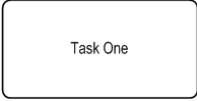
Tasks

This is a task box

	Activity Type
✓	Task
	Sub-Process
	Activity Attributes
	Compensation
	Call Activity
	Task Type
✓	None
	Service
	Send
	Receive
	User
	Manual
	Business Rule
	Script
	Loop Type
✓	None
	Standard
	Multi-Instance Parallel
	Multi-Instance Sequential
	Cut
	Copy
	Paste
	View ▶
	Format ▶
	Shape ▶
	Help
	Properties...

DetailedBusinessRequirements

Symbol description

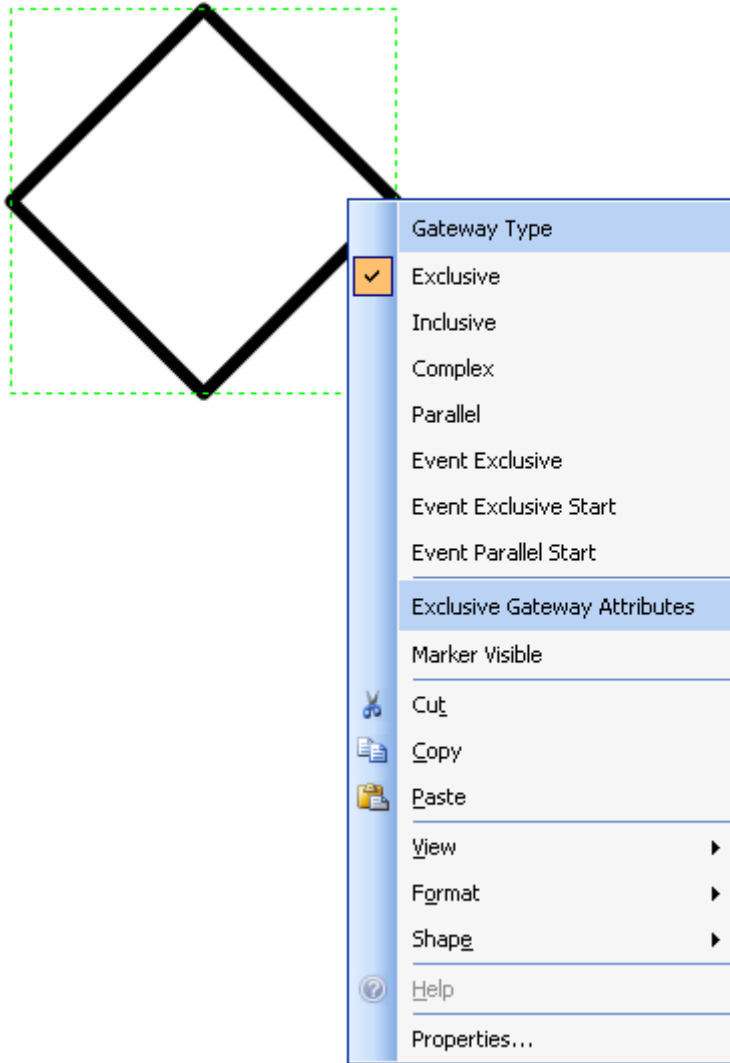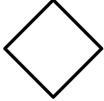| Symbol	Type	Description
Task One	Task	A unique unit of work that represents a grouping of step by step Procedures.
Task One ⊞	Sub-process	Indicates that this Task is a grouping of one or more Sub–Tasks. All of the Sub–Tasks represented are fully contained within this Task box and the process flow continues forward from this Task.
Task One ◀◀	Compensation	Provides a mechanism for rollback activities (compensation). This may be triggered by a failed transaction.
Task One ‖‖‖	Multi–Instance Parallel	All instances execute at the same time.
Task One ≡	Multi–Instance Sequential	All instances occur one after the other.

Example — Compensation Task
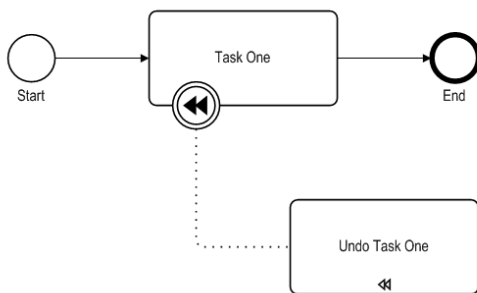
Gateways

	Gateway Type
✓	Exclusive
	Inclusive
	Complex
	Parallel
	Event Exclusive
	Event Exclusive Start
	Event Parallel Start
	Exclusive Gateway Attributes
	Marker Visible
	Cut
	Copy
	Paste
	View ▶
	Format ▶
	Shape ▶
	Help
	Properties...

DetailedBusinessRequirements

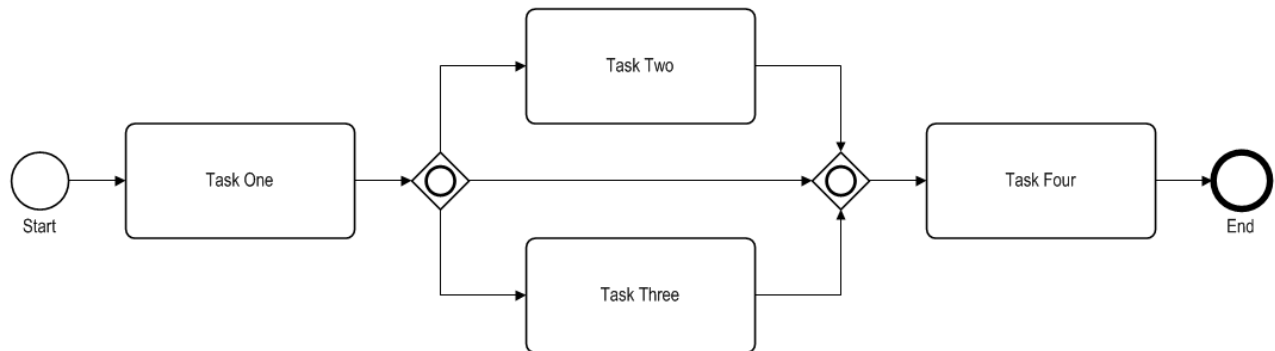## Symbol description

Symbol	Type	Description
◇	Exclusive	Only one path.
		Input — the process flow is gathered at this point.
		Output — the process flow proceeds only through one branch.
◎	Inclusive	One or more paths.
		Input — waits for process flow from one or more paths.
		Output — process flow follows one or more paths.
✚	Parallel	All paths.
		Input — waits for process flow from all incoming paths.
		Output — process flow follows all outgoing paths.

## Example — Inclusive Gateway

In this example, Task Four is reached when:

◇ the direct path is chosen and Task Two and Task Three are not performed

◇ only Task Two is chosen, performed and completed

◇ only Task Three is chosen, performed and completed

◇ both Task Two and Task Three are chosen, both are performed and both are completed

Note   If both Task 2 and Task 3 are performed, the process flow waits for both Tasks to be completed before proceeding to Task 4.

DetailedBusinessRequirements

Events
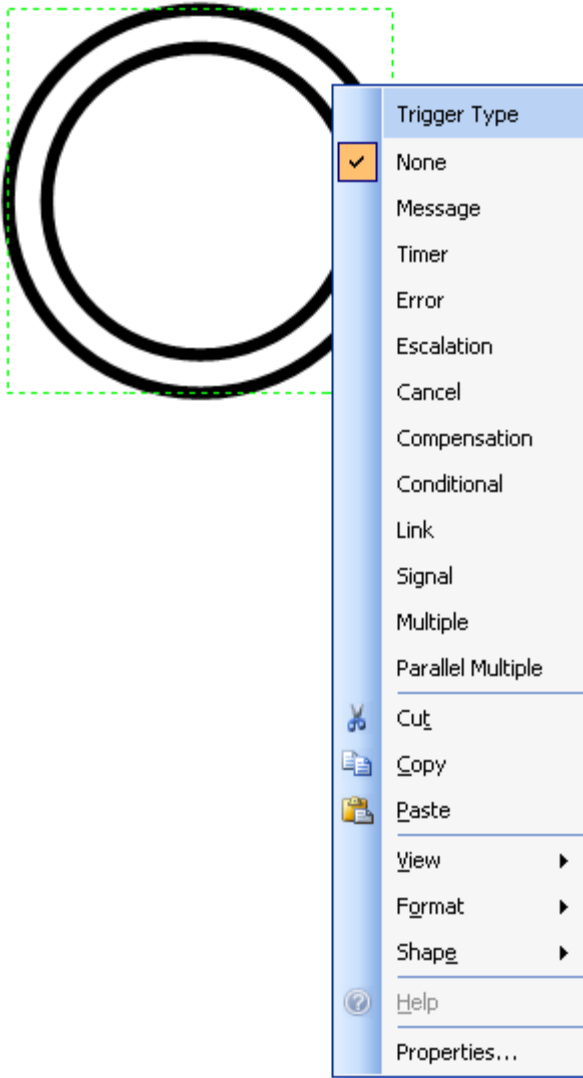
DetailedBusinessRequirements

Symbol description

Symbol	Type	Description
	Message	The Even is triggered when a message is received.
	Timer	The event is triggered at a specific time or the process flow is held until a specific time. This symbol may also be used to indicate the duration of a Task.
	Error	A Named Error is generated.
	Link Throwing	Off–page connector — sending.
	Link Catching	Corresponding off–page connector — receiving.
	Conditional	The process flow waits for a business condition to come true.
	Signal Throwing	Signal connector — sending.
	Signal Catching	Corresponding signal connector — receiving.

Example — Delay Timer Intermediate Event

This is an example of a
Delay Timer Intermediate Event

Start

Task One

2 Hours

Task Two

End
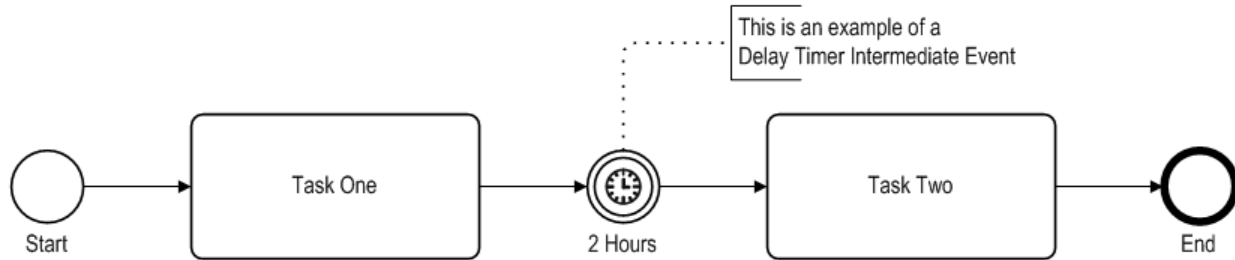
Example — Timer–triggered Start Event

This is an example of a
Timer–triggered Start Event

Start at 4:00 pm

Task One

End
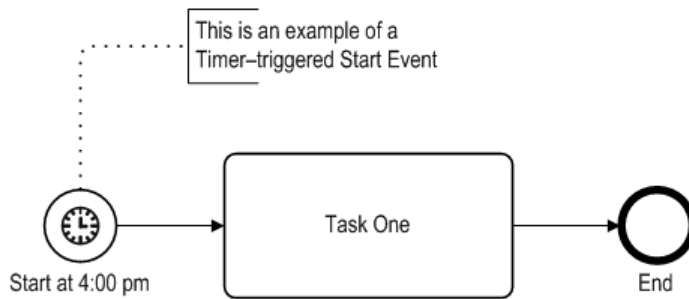
Example — Intermediate Timer Event Indicating the Duration of a Task

Start

Task One

End

2 Hours

Here the Intermediate Timer Event
indicates the duration of the task
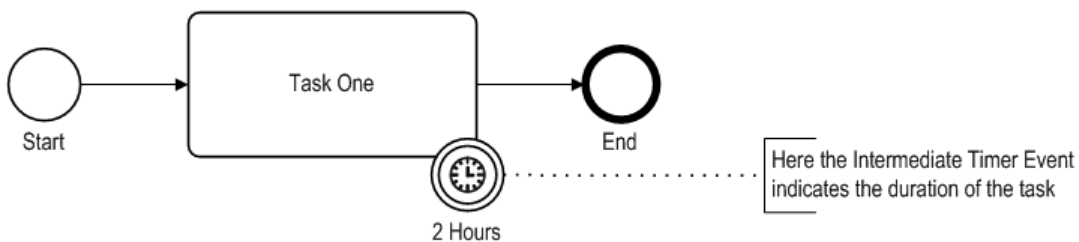
DetailedBusinessRequirements

Requirements Detail

Detailed requirements include the following information for each Task box shown on the Business Process Map.

This information is usually included in a Task Detail table in the Business Requirements Detail (BRD) document.

Detail	Description
Task Number	the number of the Task box as shown on the process map
Task Name	the name of the Task box as shown on the process map (acronyms used on the map to save space are spelled out in full)
Task Description	a description of the business task completed during the execution of the activity identified on the Task box
Actor(s)	the Responsible Actor listed on the swim lane the Task box is in ■ Responsible ■ Accountable / Approver ■ Consulted ■ Informed ■ Supporting
Service(s) Impacted	a detailed list of internally or externally provided services that may be impacted
Triggers	any action, the result of which triggers this task
Inputs	a detailed list of information required to complete the task
Outputs	a detailed list of information that is available on completion of the task
Steps	a numbered list of steps required to complete this task
System(s)	a complete list of Business Systems touched during the completion of this task (the level of detail, i.e., System vs sub System, will vary with the organization or project)
Business Rules	any business rule relevant to complete the task
Comments	any information worth noting that helps a reader understand the intent of task (may include definitions of terms or regulatory information)
Operational Risk	a list of consequences if this task is not performed correctly
Risk Mitigation	a list of possible actions that mitigate the Operational Risk

Test procedures

Detailed Test Procedures include the following information.

Detail	Description
Step number	the number of the step in the test procedure
Action	the action taken at a given test step
Pay attention to...	a detailed list of things to be aware of during the test action
Expected result	a list of the expected output or consequence resulting from the test action
Actual result	a record of the result of the test action
Sign–off	the official approval by the Business that the test action resulted in the expected output or consequence

Test the Application

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Deploy the Application

Introduction

The following list highlights the basic steps required to successfully complete Business Application deployment.

◊ Develop a Communication Plan

◊ Train Users and Support staff

◊ Move Application code to Production

◊ Notify Users the change is live

Deploy the Application

Develop a Communication Plan

The Communication Plan should achieve the following:

◇ communicate to the entire staff for early awareness

◇ communicate to external Stakeholders affected by the change

◇ provide details as the project progresses to keep Users and Stakeholders informed

Train Users and Support Staff

Business Users should be fully trained before the changes are promoted to Production.

It is important to remember that Technical Support staff need to be trained on supporting and maintaining the application changes.

Move Application Code to Production

Note   Moving code is a technical function controlled and executed by the IT department and as such is out of scope.

Notify Users the change is live

The Users and Stakeholders are notified that the change is live.

Note   This notification should be listed in the Communication Plan.

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Useful Templates

Introduction

The following useful templates are included in this document:

◇ Document Sign–off Template

◇ Change Request template

Document Sign–off Template

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Department
Date — Version 1.0

Document Sign—off

Document name	
Document number	
Document version	
Approval	☐ Approved
	☐ Approved with comments
	☐ Approved with changes as marked
	☐ Not approved (further revision required)
Name (please print)	
Title (please print)	
Department (please print)	
Signature	
Date (YYYY.MM.DD)	
Name (please print)	
Title (please print)	
Department (please print)	
Signature	
Date (YYYY.MM.DD)	
Comments	

Note: By signing this approval form you are confirming that the document is accurate and complete, except as noted, and that no changes to the application affecting this document will be implemented in production until this document is updated and approved.

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Useful Templates

Change Request Template

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Department
Date — Version 1.0

Change Request

Application name	
Application version	
Requested change	

Reason for change

Name (please print)	
Title (please print)	
Department (please print)	
Signature	
Date (YYYY.MM.DD)	
Comments	

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