GBS Standardised Process Mapping with WebSphere Business Modeler

Technique Paper (TP)

Version 1.3 – 15 June 2006

Control page

Update history

Version	Date	By	Reason for update
1.0	22 December 2005	A/NZ Operations Strategy Team	Initial Release
1.1	25 January 2006	A/NZ Operations Strategy Team	Incorporated feedback from Pablo Irassar and Debbie Van Pelt
1.2	17 March 2006	A/NZ Operations Strategy Team	Inclusion of Customised Reporting Guidance Synchronisation of Version 1.0 of Modelling & Analysis Technique paper
1.3	15 June 2006	A/NZ Operations Strategy Team	Updated for Version 6.0.1 Inclusion of new Custom Report Templates

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Golden rules for mapping

About this guide

Who should read this guide

This guide is for IBM GBS practitioners engaged in process mapping activities, regardless of their industry sector or line of service, and independent of any engagement methodology. It is assumed that readers have a basic understanding of the principles and application of process mapping.

Other potential users of this guide include: system analysts and IT architects (who will transform business requirements into technical specification); and project managers who need to appreciate the rigours of process mapping.

Why this guide is important to you, your client and IBM

This guide will enable your work products to be shared and readily understood with other practitioners, and you in turn will be able to better integrate Intellectual Capital into your engagement. This will enable you to be better recognised for your contributions and to be more productive.

For your client it will mean a faster path to gaining access to IBM's breadth of generic and industry-specific intellectual capital. The client will also appreciate consistency between work products and approaches across engagements and teams. If your engagement identifies the need for deeper analysis and understanding of the client's operations, then your work products will be well aligned to provide a smooth transition to the process analysis engagement team. If the client has plans to use IBM's middleware software to build their applications, then the work products produced by following this guide will allow smoother transitions and translations between the business world and the technical world. However, it must be recognized that updates to the process maps may be required[1].

Finally, for IBM, this guide will instil practices and approaches that will give us a more flexible workforce, enable better sharing of Intellectual Capital, increase standardisation in approach and therefore reduction in risk, and most importantly, allows us to accumulate deeper understandings and insights into our clients' industry, their business operations, and their challenges and opportunities.

What you need to know to understand this guide

It is assumed that you have a basic understanding of the principles of mapping processes, and have an appreciation of the use of *WebSphere Business Modeler version 6* (including familiarity with process constructs).

What is not covered in this guide

This document is not intended to be a:

- "How to use…" manual for WBM
- guide to business process analysis — this is covered in GBS Standardised Process Modelling and Analysis with WebSphere Business Modeler
- workflow/application integration guide — this is covered in a separate user guide
- guide describing a methodology for use in process re-engineering engagements
- substitute for business process mapping training.

Obtaining assistance

It is recommended that Bid Managers engage a practitioner experienced in mapping processes using WBM to support bid approach and estimate development including work and effort planning and sizing.

Engagement Managers should ensure that their resourcing plan includes at least one practitioner experienced in WBM to mentor the team in execution of the project and provide quality assurance of deliverables.

In engagements where there is a need for detailed modelling or analysis of business processes, Engagement Managers should ensure that practitioners skilled in WBM are accessed to plan for, size, and execute process modelling tasks.

The Operations Strategy group of IBM GBS has a number of consultants with deep modelling experience to assist with modelling, planning, and mentoring. It is recommended that Engagement Managers contact the Operations Strategy group or L&K Methods where assistance is required.

Contacts:

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L&K Methods
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Troubleshooting

If you experience any technical difficulties or issues with WBM or have any questions when leveraging WBM on an engagement, contact the Practitioner Support Network and request technical assistance.

Practitioner Support Network

Intranet: http://w3-03.ibm.com/services/bcs/psn/

Email: psnnet@us.ibm.com

Feedback and suggestions

If you have any feedback or suggestions for inclusion in this document, please send them to Kylie Skeahan (skeahan@au1.ibm.com). It is intended that revisions of this guide will be regularly published in *KnowledgeView*.

Abbreviations

APQC	American Productivity Quality Council
CRM	Customer Relationship Management
ERP	Enterprise Resource Planning
ISV	Independent Solution Vendor
LOVEM	Line-Of-Visibility Engineering Modelling
MS	Microsoft ®
OSBC	Open Standards Benchmarking Collaborative
PCF	Process Classification Framework
POV	Point of View
WBM	WebSphere Business Modeler
WWW	World Wide Web

Conventions

Italics	Reference to a document or document section, software item, etc, eg See *Appendix C: Glossary*
Italics	Reference to a screen item, eg At *User Name*, type your name.
Bold	Emphasis or definition, eg A **binary decision** has 2 pre-defined choices.
Bold	Target of action on a screen, eg Click **Next**
	Reference to other documents or existing documentation:  APCQ Process Classification Framework

1. Process mapping approach

A unified approach to process management solutions as an offering is necessary for GBS. The first step towards this is the development of standards for creating process maps — a fundamental activity when dealing with processes.

This section of the document describes the role of standards in process mapping engagements. These standards must be adhered to on all GBS engagements and where GBS practitioners are engaged as part of a Cross-Line of Business team.

Delivering engagements which meet client requirements is GBS's prime concern. If client requirements require deviation from these standards, it is recommended that advice is sought from an experienced WBM practitioner on the implications of the proposed deviation. Any deviations required must be documented to set a new set of process mapping standards for the engagement.

These standards may also be of assistance to other IBM units (eg GTS) in performing their own process mapping activities.

1.1 Background

Process mapping is an essential activity in both internal and external engagements at IBM. However in most cases the exercise has been more about:

- documenting a 'To-Be' or a future process (often describing a view of the world after the implementation of software solution such as an ERP package)

and less about:

- creating a shared understanding of an existing process
- defining a common vision; and establishing traceability of processes, tasks and activities through to an organisation's strategic goals
- identifying and quantifying gaps and areas for improvement
- developing process performance measurement and monitoring capabilities
- educating the participants in a process.

As a result we continue to miss opportunities for delivering optimal value to the client and incremental revenue by delivering incremental improvements to 'As-Is' processes. Further still, since there are few standards or conventions, knowledge capture may be difficult and valuable intellectual property (IP) is rarely reused. At best, process maps end up as engagement deliverables in *KnowledgeView* (for GBS) or a team database.

Historically, IBM practitioners have documented processes using a variety of mapping notations and drawing tools (eg MS Visio, MS PowerPoint, MS Word, WBI Workbench, ID Scheer's ARIS, Sterling Software's CABE, Lotus Freelance). As a result, mapping conventions have been developed specific to the activities being documented or based on project directives, as well as being influenced by individual preferences. As an organization we need to consolidate the number of different process mapping techniques in use across IBM into one coherent organization-wide approach. This will allow process maps to be reused — and "straw man" processes and benchmarks to be developed to reduce start-up and delivery effort.

1.2 Vision

IBM's vision is to provide practitioners a standard, integrated asset base and associated tools which accelerate business process transformation for clients by defining what is best in class by service or industry.

To achieve this goal, IBM is developing:

- a standard process taxonomy based on the Process Classification framework (PCF) developed with the American Productivity Quality Council (APQC)
- a library of best-practice attributes and supporting case studies that can be linked to best-practice processes
- a preloaded set of optimal future state process flows built in WBM that link to key performance metrics and IBM's Benchmark Wizard
- a starting point of ISV configuration best practices linked to best-practice processes.

1.3 Industry standards — APQC

APQC is an internationally recognized benchmarking authority that has developed an open standard framework to facilitate process improvement and benchmarking work independent of industry, organization size and location.

IBM has partnered with APQC and 14 other corporations to form the Open Standards Benchmarking Collaborative (OSBC) which provides open standard benchmarking metrics and a common Process Classification Framework (PCF) within which business performance can be accurately and objectively evaluated.

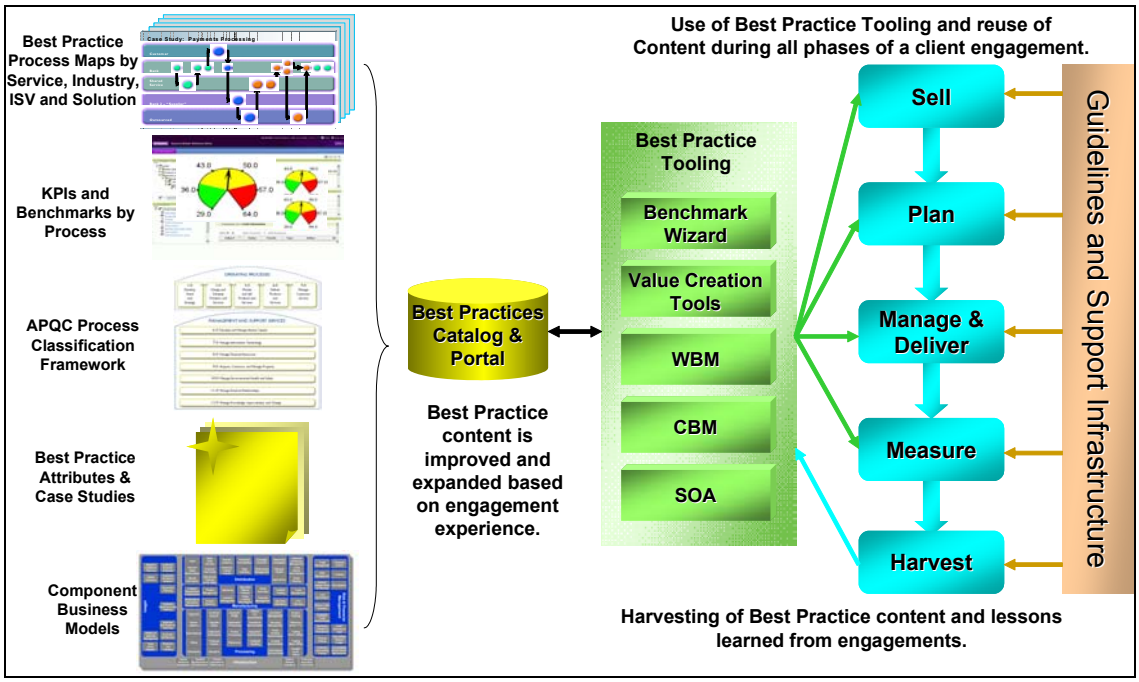
IBM is seeking to build its process assets and establish benchmarking data in line with the process descriptions defined by APQC.

1.4 Standard tools for asset-based delivery of services

WebSphere Business Modeler (WBM) is the IBM standard tool for mapping and modelling business processes. It is a key tool in IBM's strategy to move towards asset-based delivery of services by developing a repository of best-practice process assets in a consistent, reusable format:

- maps of leading enterprise processes;
- maps of leading industry processes;
- maps of ISV configuration processes;
- maps of solution processes;
- Key Performance Indicators for the processes;
- benchmark data for the processes;
- best-practice process attributes (ie CSFs);
- best-practice case examples.

Figure 1: Vision for IBM's asset-based delivery of services



1.5 Process mapping versus process modelling

Process mapping is frequently part of a larger business transformation initiative. Whilst this guide focuses specifically on process mapping, it is important to note the differences, given that process mapping can be a precursor to subsequent process modelling engagements — further underscoring the importance of adherence to standards.

Table 1: Characteristics of process mapping and process modelling

Process mapping	*Process modelling*
Business process mapping (or flowcharting) provides a graphical representation of the flow of a business process. It depicts a set of activities that represent the alternative routes that the flow of execution can take.	Business process modelling refers to the addition of operational data into the flow of activities. It includes data such as the resources required to perform a task and their timetables to work, the task duration and associated direct and indirect costs.
The primary purpose of process mapping is to document the process. This can be for current state in order to satisfy audit requirements or to help educate future operations after major changes have taken place such as after the implementation of software.	The primary purpose of process modelling is to conduct objective analysis in order to understand the costs, bottlenecks and resource constraints Of a process. The analysis conducted in turn is used to justify a *To-Be* future state of processes.
Process mapping can be done using tools such as WBM, MS Visio, or MS PowerPoint.	Modelling can only be performed in more advanced software such as WBM.

GBS consultants should be mindful that any process maps they develop may subsequently be used for process modelling. The standards described within this guide provide GBS practitioners with a method of developing process maps that can be converted to process models with minimal re-work. Following a strong modelling methodology while mapping business processes results in more concise and accurate process maps and increases the likelihood that process modelling efforts will be successful. This methodology is equally important whether mapping for documentation purposes or modelling for redesign or execution.

Given the analytical and computational demands that are placed on process models, drawing process maps to set standards and conventions is of paramount importance. Without this we risk their credibility in supporting critical recommendations.

Process mapping standards described in this document have been tried and tested in numerous process modelling engagements. GBS Practitioners must consider the implications of any deviations from these standards.

1.6 Benefits of standardised process approach and tools

A coherent set of process mapping standards will deliver the following benefits:

- Enhanced readability of process maps — maps can be intuitively understood
- Enhanced accuracy and disciplines in process mapping activities
- Development of individuals with formal process-mapping skills, who can apply their knowledge in both cross-service line and cross-industry engagements
- Reduced reliance on IBM and/or client subject matter expertise during an engagement

- Development of a knowledge-base of standardised/benchmarked industry processes, as well as across service lines (eg customer management in CRM), that will reduce work effort and improve quality of deliverables.

WBM is a sophisticated tool that allows users to migrate from process mapping activities through to analytics and integration. It provides an easy-to-use tool to assist GBS practitioners to produce high quality process maps which facilitate reuse both for subsequent project phases and to build IBM's asset base.

The key advantages of GBS using WBM as the process mapping tool are:

- Rapid process map development using a pre-define palette of process objects;
- Sophisticated tools to represent real-life business situations;
- Advanced map editing functionality to easily improve quality of process maps;
- Further enhanced readability and understanding, due to consistent look and feel of process maps;
- Ability to render process maps dynamically into multiple views including freeform and swimlanes based on different characteristics;
- Easier downstream integration with application development and workflow toolsets (where WBM is used in conjunction with Rational and WebSphere development tools);
- Easier transition to downstream process analytics and re-engineering engagements, where leveraging WBM maps will reduce the time and resources of subsequent engagement delivery; and
- Ability to generate reports and queries to assist in process and procedure documentation.

1.7 Reusability

Process maps often represent a significant investment for an organization or a department — they allow us to understand how businesses operate, and where we can add value. They are invaluable for two reasons:

- Process maps enable multiple downstream engagement activities, such as the definition of a future state for a process, performing process analytics, and can be used as input into various application development activities; and
- Process maps assist in the development of deep industry expertise within GBS and IBM overall. Additionally, a comprehensive repository of benchmarked process maps allow quick and accurate point-of-views (PoVs) to be developed, giving clients a clearer picture of the value they will derive from engaging IBM.

2. Process mapping principles

This section provides guidance for process mapping activities. These standards apply to any process map, whether you are using WBM or other unstructured drawing tools (eg. MS Visio). The value of a standard approach for mapping processes includes:

- consistency of representation;
- maximum readability;
- ease of harvesting and reuse; and
- ease of communication.

2.1 What is a process

A process consists of activities or tasks that transform information from one form to another in order to achieve a business outcome. As part of understanding the process, we need to document:

- What is the task?
- Who performs the task (usually in the form of a role or skill rather than an individual),
- Where they perform it (usually as a functional area and not as a location),
- When they perform it (in what sequence and under what conditions), and
- How they perform it (which tools and systems are used).

A process typically documents the handling of a single business transaction (eg “Apply for …”), but on occasions will deal with batches of business transaction (eg “calculate today’s business volumes”).

2.2 Process logic and flow

Process objects combine within a process map to depict a flow of work for a process. A process map illustrates all available paths within a process[2], facilitating identification of decision consequences, task inputs, activity groupings etc.

Process mapping is based on 4 important concepts:

- A process is chronological. Accurate maps and models must therefore be orientated on a timeline.
- Process mapping and modelling should display how objects and/or data are transferred and where they are going. The majority of business problems stem from interdependent relationships, which are best identified in a flow chart.
- A process can be modelled in a hierarchical fashion and can be viewed from many levels, ie each process can contain other processes.
- The choices made for each decision in a process determine which of all potential paths is taken. It is vital to capture all potential paths of a process.

2.3 Process elements

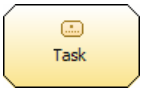
This section describes the standard elements found in a process map. It presents a detailed description of the common elements, including their definition, the conventions for usage and naming standards.

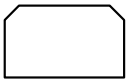
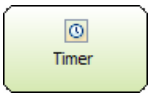
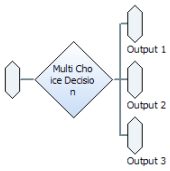
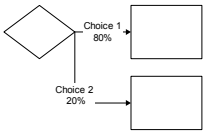
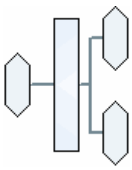
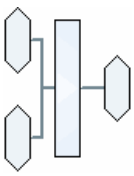
An element is a fundamental building block in a process diagram. Interactions between these elements depict the flow of execution within a business process. Similar process elements are found in all process maps. This document explains the commonly used process elements and their representation, use and naming conventions in both WBM and MS Visio.

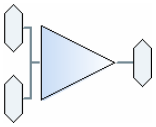
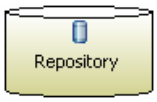
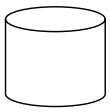
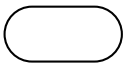
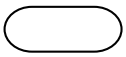
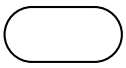
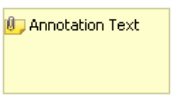
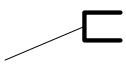
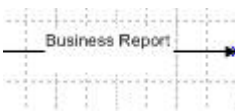
It is possible to import MS Visio maps into WBM. If you must use MS Visio, ensure that you utilise the correct symbols and comply with mapping conventions to facilitate the harvesting of your process maps for reuse.

The following table lists the common elements found in a process map.

Table 2: Process element descriptions, representations and naming standards

Process element			***Naming standard***
in WBM	***in MS Visio***	***Description***	***Example***
Task 		• represents the lowest level of work included in the process map • the work performed by one role at one time, using one system or tool • comprised of detailed work instructions called procedures	*verb* + *adjective/descriptor* + *noun* eg: Consolidate order Dispatch invoice
Process 		• a high-level set of tasks or other process objects or • a hierarchy of subprocesses	*verb* + *adjective/descriptor* + *noun* eg: Create user access Register new line Suffix *As-Is* processes with **AI** and *To-Be* processes with **TB**, to clearly identify each process and avoid inadvertent copying/movement of processes between catalogs.
Service 		• activities performed by an external entity • their internal operation should be seen as a black box	*Entity Name* + *Service Provided* eg: UPS Parcel Delivery

Process element in WBM	in MS Visio	Description	Naming standard Example
Loop 		• a repeating set of activities • particularly useful for mapping rework within a process 3 types of loops: A **While loop** checks first and then repeats while some condition is satisfied. It might never execute the tasks in the Loop. A **Do-While loop** repeats itself while some condition is satisfied and tests this at the end of the loop. A Do-While Loop executes at least once. A **For loop** repeats itself a specified number of times.	*verb* + *adjective/descriptor* + *noun* eg: While loop: Photocopy attached documents Do While loop: Rework loan application For loop: Pack 10 boxes
Timer 		• a task that executes based on a specific time • effective to trigger a process, task or batch process	*Verb* + *adjective/descriptor* + *noun* eg: Consolidate order Dispatch invoice
Decision  		• A decision element does not represent the activity of making a decision. • A decision element only controls the flow of the process based on the result of the actual decision activity.	Word a statement or phrase to ensure that each decision choice is clearly distinguishable. Do not label the decision choices “Yes” and “No”. eg: Loan Status? Loan approved Loan rejected
Fork 		• splits the process flow into 2 or more parallel paths, by making copies of its inputs and sending them along each of these paths, eg a photocopier	*Copy* + *Business Item Name* eg: Copy form
Join 		• synchronizes flows, by combining two or more parallel paths • waits until it receives all its inputs before the process continues Note: Use a join only to attach identical business items together.	*Join* + *Business Item Name* eg: Join form

Process element in WBM	in MS Visio	Description	Naming standard Example
Merge 		• recombines alternative process paths created by a decision into a single outgoing path • allows the process to continue as soon as the first input is received	*Merge* + *Business Item Name* eg: Merge form
Repository 		• storage area for data Note: Use repositories to represent databases or data stores.	Use the name of the business items it contains. eg: Customer order
Start node 		• identifies the start of a subprocess Note: Use a start node only within a loop[3].	N/A
Stop node 		• marks the end of a process • where control is returned to the higher level process that called this process Every process, subprocess, and loop must have at least one stop node. When a flow reaches a stop node while the process is running, the process immediately terminates, even if there are other currently executing parallel flows within the process.	
End node 		• identifies the end of a flow within a process without finishing the process itself • Represents a 'sink' of control or business item tokens • on the end of shorter parallel paths • should not be utilised if models are designed for analysis	N/A
Connection 		• the flow of execution between different process elements	N/A
Annotation 		• adds explanatory notes, issues and assumptions	N/A
Business item 		• inputs and outputs used in business operations	*(adjective/descriptor)* + *noun* eg: Request, Customer request

2.4 Names

As process maps are a key communication tool, it is important to ensure that process element names:

- use active verbs for activities (from the list in Appendix B: Recommended process/task verbs)
- do not contain the words *process*, *activity* or *task*
- do not name system or tools being used to complete an activity
- are generally accepted names (see Appendix B: Recommended process/task verbs)
- are descriptive and informative
- are short, up to 20 characters long
- begin with initial capitals only (eg. Develop proposal)

2.5 Roles

A role is a responsibility assigned to individuals, systems or external entities involved in process execution.

Assign only one role to a given task[4].

2.6 Process iteration and batching

A process must have a consistent iterator or unit of work. This can be either an individual instance of the process or a batch occurrence of the process. For example, a process could be mapped to demonstrate how a single bill is produced for a client, or it could show how all daily accounts are reconciled. Either approach is valid, provided it is maintained consistently throughout the process.

There are two options to aid in ensuring the iterator is maintained at a consistent level throughout the process :

- Clearly define the business item being transformed throughout the process as either a single or batch instance of the process eg. Order Form (single) or Current Orders (batch)
- If a single iterator is chosen, reduce all batch steps to a single item. This is particularly relevant if you are capturing process duration or resource times.
- If a batch iterator is chosen, all activity should now refer to the batch.

Complications arise, as most business processes use a combination of individual and batch processing. For example, suppose there is a process to individually fill all orders and then a batch process in which invoices are generated. In this situation, the different processing types should be contained within different subprocesses. This allows the iterator to remain the same throughout each subprocess.

2.7 Global and local elements

In process maps, it is often possible to identify multiple occurrences of similar elements. It is important to clearly define whether any two process elements are exactly the same.

In WBM, elements can be marked as either global or local:

- Global elements are designed to be shared and reused throughout a project.
- Local elements exist only within the process in which they are defined.

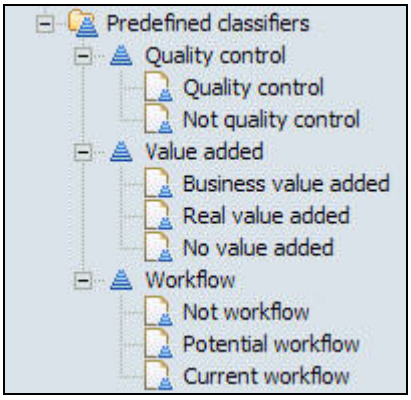
Global elements are identical in every respect. They have the same name, use the same resources, have the same timing characteristics, consume the same inputs, and produce the same outputs. For example, if a task *File Documents* is performed by 3 different roles in different processes, it should not be a global element.

The implications of defining objects as *Global* or *Local* are clearly defined in the Appendix E: Characteristics of global and local process elements.

2.8 Classifiers

Often the value of a process map can be improved by grouping or labelling process elements. WBM allows project elements to be grouped by use of classifiers. There are pre-defined classifiers for *Quality control*, *Value added* and *Workflow*.

Figure 2: Project tree view of predefined classifiers



Define your own classifiers and associated values for other groupings that are required for communication and understanding of the process in each engagement. You can define any number of classifiers, and each classifier can have multiple values. However any process element can only be assigned one value within a particular classifier.

Classifiers can be used for reporting, rendering swimlane views, determining rework, identifying external entities and transfer tasks, capturing business requirements as well as a key tool to group and label process elements.

2.9 Swimlane charts

The recommended approach of mapping a process is to use a *Swimlane Charts*.

A Swimlane chart is a powerful way of pictorially representing the tasks that each entity is responsible for performing. It also highlights the data and control handoffs between each of the entities.

WBM supports both viewing and editing of processes in a swimlane view. A powerful feature of WBM is that you are able to quickly and easily render your process maps between different swimlane views as well a free-form view[5]. It is recommended that processes are mapped in a swimlane view.

2.10 Process Classification Framework (PCF)

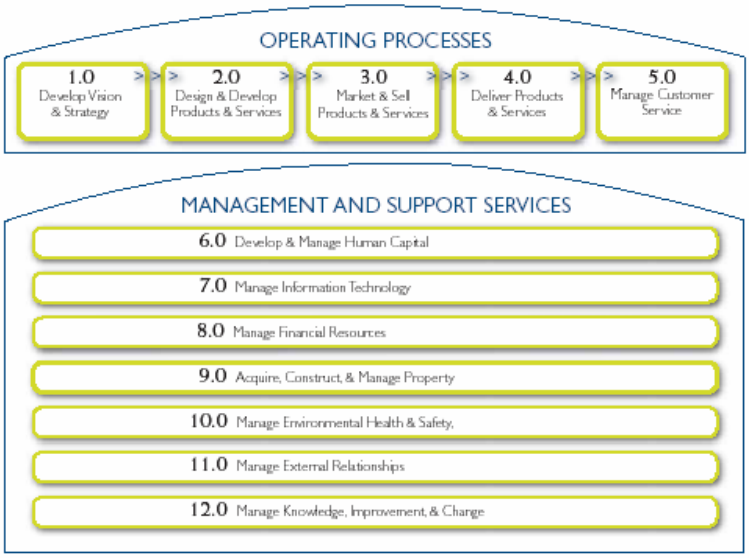
APCQ defines a *Process Classification Framework* (PCF) to serve as a high-level, generic enterprise model or taxonomy to encourage organizations to see their activities from a cross-industry process viewpoint, instead of from a narrow functional viewpoint.

The PCF supplies a generic view of business processes often found in multiple industries and sectors — manufacturing, services, healthcare, government, education etc. It organizes operating and management processes into 12 enterprise-level categories, including process groups and over 1500 processes and associated activities.

Use the PCF as a guide for scoping process mapping exercises. Where possible, scope the processes within the boundaries identified in this framework.

A key advantage of adhering to the PCF in scoping processes is the availability of benchmarking data.

Figure 3: APQC PCF



2.11 Process decomposition

As evident from the PCF above, one process may be made up of several other lower-level processes. The breakdown of a process, into its lower-level subprocesses and eventually to a series of tasks, is known as process decomposition.

Process decomposition has these advantages:

- It is an efficient way to inventory major processes and show their hierarchy;
- It documents linkages between different process levels;
- It is used to define and communicate project scope;
- It is used as the foundation for more detailed process documentation like mapping;
- It can show the project team responsible for documentation, analysis and/or design.

An individual process map illustrates the flow of work of a process at a single process decomposition level.

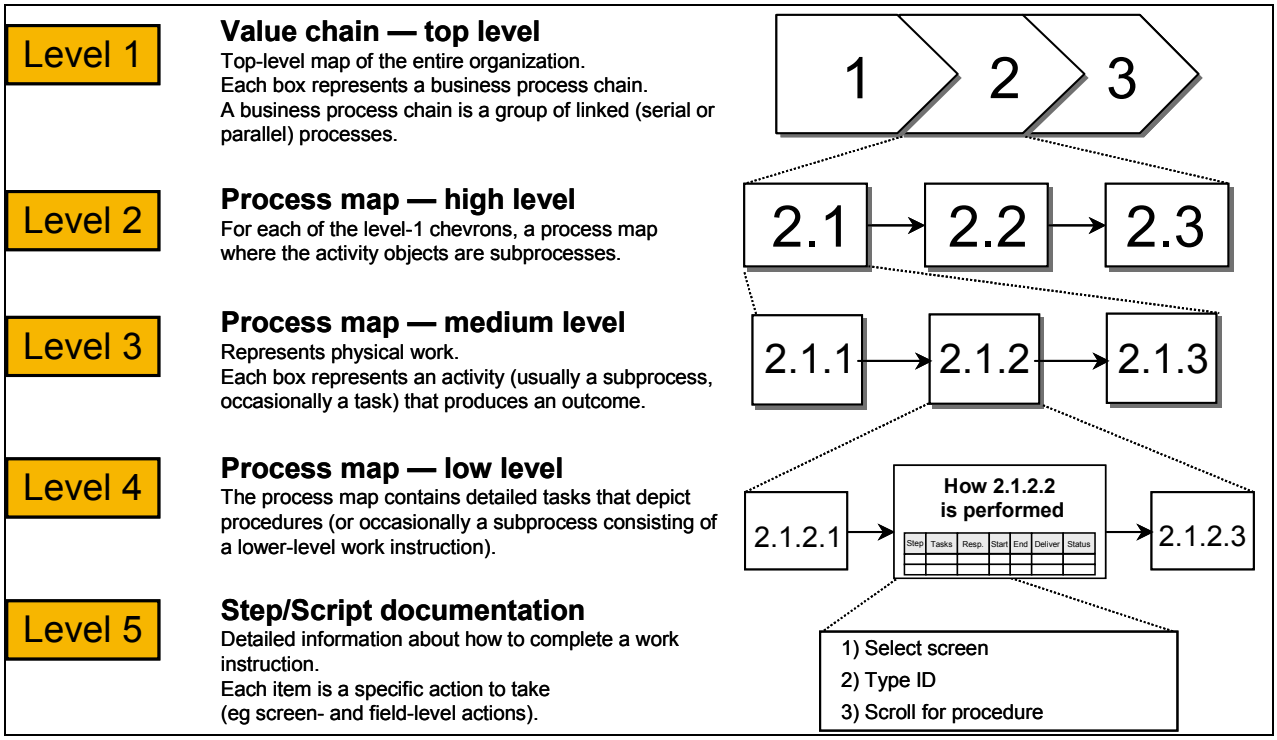
A decomposition level enables a business process to be depicted from a high-level or macro view, or a more granular micro view. It enables a process to depict an entire value chain of a business with high level components without too much detail, or a subsection of the value chain at lower level, more detailed views.

2.11(a) Process level hierarchy

The *process level hierarchy* is a system in which a process is broken down into 5 levels:

- Level 1 has the least amount of detail, providing a top-level view of the business value chain.
- Level 5 has the most detail, providing a granular (work-instruction level) description of the tasks undertaken.
- Processes are usually mapped at levels 2, 3, or 4 (also known as *High*, *Medium*, or *Low* respectively) and so this document concentrates on these levels.

Figure 4: Process decomposition — Process level hierarchy



2.11(b) Alignment with PCF

Table 3: Process level hierarchy - Process classification map

Process level hierarchy	*PCF*	*Guidance*
Level 1 - Value chain	PCF Category eg 1.0 Develop Vision and Strategy	Create a process catalog for each PCF Category[6]
Level 2 - Process Map - High Level	Process Groups eg 8.1	Create a high level process map if more than two PCF Processes are within scope
Level 3 - Process Map - Medium Level	Process eg 8.1.1	Create a process map for the Process if more than one Activity is within scope
Level 4 - Process Map - Low Level	Activities eg 8.3.1.1	Create a process map for each activity within scope. These process maps may contain a mixture of tasks and subprocesses required to accurately reflect the process.
Level 5 - Step / Script documentation	Tasks	Create a Description for each Task within the Process Map

3. Engagement approach

3.1 Getting started

3.1(a) Selecting a mapping tool

Use WBM as the process mapping tool of choice. Use MS Visio for process mapping only when required by a client. All MS Visio maps must conform to the standards and symbols in this document to enable them to be imported into WBM for harvesting.

3.1(b) Installing WBM

Before installing WBM, ensure that your system meets the following hardware minimum requirements:

- Intel Pentium (or equivalent) processor at 1 GHz or faster;
- minimum 2GB available disk space for installation;
- minimum 1GB available disk space for an engagement;
- minimum 1GB physical memory (RAM)

WebSphere Business Modeler Basic V6.0.1 is sufficient for mapping purposes, the Advanced version is required to perform simulation and analysis.

Obtain a copy of the application via:

- IBM Software Group's Xtreme Leverage URL: http://w3-103.ibm.com/software/xl/portal ; or
- an IBM product CD.

When installing from the ***.exe** file (options 2 and 3 above), use the standard defaults, as given in the installation wizards.

You may experience errors if you use *PKZip* to unzip the compressed *.exe file. Use WinZip™ compression product to avoid these errors.

Regularly check for and install available WBM Fix Packs to ensure :

http://www-306.ibm.com/software/integration/wbimodeler/advanced/support/

3.2 Establishing the WBM workspace

WBM is based on IBM's strategic development environment, which leverages the open source framework known as Eclipse.

WBM exists within this technical context so as to provide reuse of maps by the client's technical team — this requires the mapping team to use a disciplined approach with the tool. Most importantly, the tool creates a **workspace** (a technical environment) in which you can establish individual mapping projects — within each mapping project you define and document various client processes under 4 information catalogs:

- the processes themselves;
- the data the processes require and produce;
- the resources the processes require;
- the organisations that support and interact with the processes.

Do not try to manage the WBM workspace with Windows tools such as *Explorer*, as this may corrupt the modelling environment and result in lost work. Use WBM information management functions (version controls, exporting for backup purposes, etc).

3.2(a) Working within the WBM workspace

Create a new workspace for each engagement, and include all processes for this engagement within the one WBM project. Because global processes cannot be shared across multiple projects, the practice of creating multiple projects for storing different versions of the processes (eg *As-Is* versus *To-Be*) is not recommended. Instead, use process catalogs for this purpose.

Each project contains 5 main catalogs: data, resource, process, organisation and classifiers. Within each catalog, create sub-catalogs to appropriately group your elements (eg *To-Be*).

3.2(b) Setting up the process framework

Set up a process catalog for every level-1 process within the APQC PCF[7]. Establish all level-2 and level-3 processes required from the PCF within this process catalog.

3.2(c) Identifying primary process elements

It is essential to identify, document and publish the details of the primary process elements prior to any modelling activity occurring. These elements can be incorporated when the project is being established in WBM and are an effective technique in ensuring consistency across all process maps throughout the engagement. The following table describes the elements to be defined.

Table 4: Process elements to be defined at engagement start-up

Catalog	*Element*	*Example*
Process Catalog	All level 2 and 3 APQC PCF processes in the project scope	At level 2: *Sales Order Management* An associated level 3 example: *Manage Inbound Sales Orders*
	All external services used throughout the process	Credit Reference Agency
Data Catalog	All business items likely to be used throughout the project	Application Form Order

Catalog	Element	Example
Resource Catalog	People, teams and job classifications as Roles	Credit Manager
	Systems and applications as Bulk Resources	SAP System
Classifications	Swimlane classifications	Customer, Clerk, System, Client Service Officer
	Additional Time Measures	External Time Transfer Time Rework Time
Organisation	Location	Sydney Melbourne Singapore

3.3 Data capture templates

A series of standard GBS templates are available to assist you in capturing the data required to build process maps. These are contained in GBS Process Data Gathering Templates for WebSphere Business Modeler. The following table lists some of these templates:

Table 5: Data capture templates

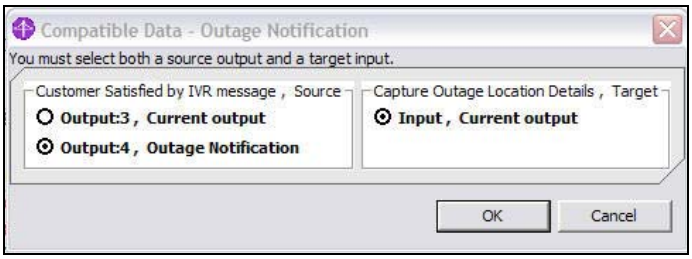
Template name	Data captured
Processes	High level data about processes
Business Items	Information required to create Business Items in the Project
Tasks & Services	Information required to create Tasks and Services within process maps
Classifiers	Information required to define Classifiers for inclusion in the Project
Roles	Information required to define Roles in the Project
Repositories	Information required to define repositories

3.4 Mapping a process

Create all your processes in the following order:

- Ensure WBM is in **Basic Mode** (Alt+Ctrl+B).
- Ensure WBM is in **Operational Technology mode**[8].
- Define **Business Items** in the Data Catalog.
- Define **Roles** in the Resource Catalog.
- Create a new process within the Process Catalog in the Project Tree pane.
- Within the Diagram pane select **Auto-Layout**, and delete the Start and End nodes.
- Map all tasks, decisions, and other elements working left to right (press shift to continue to drop instances of the same icon).

- Use connectors to join process elements.
- The left margin on the process editor window acts as the process start — use a connector to join it to the first task in the process.
- Working left to right, assign the correct Business Item to each connector by using drag and drop of the Business Item over the connector. If prompted (see below), always select the Business Item as the input to prevent unnecessary inputs and outputs being created.



- Render the map in appropriate swimlane view.
- Use the mouse rubber band selection technique to select a group of icons, then right click and select **Align** to align all task elements (where appropriate).
- Press **Ctrl** and select decision points and select **Align** to align all decision items (where appropriate).
- Minimise the white space in the process map by using the lowest drawing palette buttons to decrease horizontally and/or decrease vertically. (Repeat several times to fully reduce process map size, and ease printing of the processes.)

3.5 Shortcut keys

Use shortcut keys for tasks you perform frequently. The following table shows some useful shortcuts available in the Process editor.

Action	*Shortcut*
Move or resize an element	Select the element. Press the period (.) key.
Add an input to a selected element	Alt+I
Add an output to a selected element	Alt+O
Assigning a business item to a selected connection	Alt+B
Edit an element	F2
Copy an element	Ctrl-C
Paste an element	Ctrl-V
Create multiple identical elements	Select element in palette & hold Shift
Basic Mode	Ctrl-Alt-B
Intermediate Mode	Ctrl-Alt-I

3.6 Team operations

Where process mapping activities are being performed within a team environment, it is essential to consider version control and publishing issues.

3.6(a) Version control

In a team environment, project data can often exist across multiple team member workstations (PCs or laptops). Because different team members can modify the same, dependent or associated data, you need to implement a version control system to ensure that data is not lost if team members try to make updates to the same model element simultaneously.

Implementing version control also has the following benefits:

- **Work delegation:** Improves capacity to manage distributed work across a number of team members.
- **Centralised repository:** Provide a single repository of process maps, which can be backed up.
- **Audit trail:** Maintain a log of changes made to map elements.
- **Support rigour:** Ensure adherence to strong 'hygiene' standards when executing work.

3.6(b) Implementing version control

WBM provides in-built support for 2 version control systems:

- CVS (Concurrent Versions System) — a solution available under "The GNU General Public License, Version 2 or later"
- IBM Rational ClearCase and IBM Rational ClearCase LT — a proprietary licensed version.

Assess the business needs carefully when selecting the correct version control system as the effort and investment of the options is substantially different. CVS provides a basic version control system and is freely available to clients, while ClearCase provides a more comprehensive solution. Further information is available in Appendix D: Version control systems supported by WBM.

It is important to note that a prerequisite for implementing either of these systems is a networked environment, ie where practitioner PCs can be connected to a centralised repository (in a server or another PC).

3.6(c) Administering version control

Appoint an administrator or librarian of the process maps within the project team. The *Process Map Administrator* is responsible to resolve conflicts that arise as models evolve.

For example, in an existing model, if User A updates the name of a business item, and User B updates the same business item by adding an icon, the Process Map Administrator needs to determine which update to use or whether both updates are appropriate. The Process Map Administrator also needs to resolve any conflicts that arise from changing the name of an element used throughout a project.

3.6(d) Importing and exporting modelling elements

You can manually implement version control in a non-networked environment by using the *Export* and *Import* functionality available from the *Project Tree* menu within WBM. However this requires a high degree of care, because imports typically involve overwriting existing specifications, thus increasing the risk of loss of process data in the engagement.

If you are only using *Import* and *Export* to manage the version control of process maps, you will not be able to maintain an audit trail history of changes made to the process maps without incurring the cost of maintaining a separate register — thus increasing engagement costs and risks.

3.6(e) Publishing process maps

You can publish business process models and related business information (eg organization diagrams) over an intranet or secure website, for web or browser access by a wider audience (beyond process modellers and developers who have access to WBM). WBM provides a way for these artefacts to be published using *IBM WebSphere Business Modeler Publishing Server*.

Consider implementing Publishing Server where business process management has been identified as a key competency within the organisation, and where there are typically 10 or more process stakeholders who do not have access to WBM.

The benefits of using Publishing Server include:

- support for the development, documentation, and dissemination of business process models;
- communication of process maps; and
- enabling review and development by multiple subject matter experts simultaneously through a standard Internet browser.

4. WBM process mapping best practices

Your approach in your process mapping activities can significantly improve not only the quality and effectiveness of your process maps, but their suitability for harvesting and reuse for later phases of engagements and as part of GBS's industry best practice assets.

Your process maps must conform to the standards detailed in the following sub-sections:

- initially, simple diagramming rules; and
- then followed by examples of conventions for commonly observed patterns in business behaviour and processing.

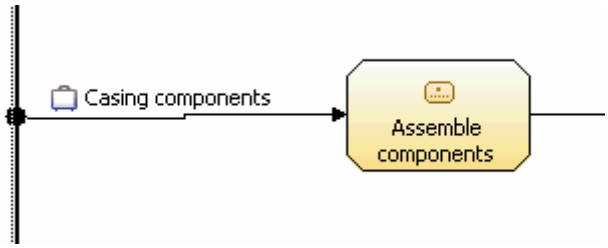
4.1 Process maps

Use the following best practices to improve both the quality of your process maps and to minimise any rework required for their reuse.

4.1(a) Process starting points

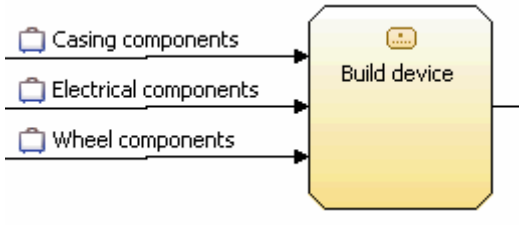
A process starts with a Business Item — not a Start Node[9].

Figure 5: Starting a process



A process can start with multiple business items.

Figure 6: Starting a process with multiple business items



Only draw process triggers from the left hand margin.

A business item should never come in part way through the process[10]. Use tasks or repositories to document retrieval of other process inputs throughout the process.

Figure 7: Example of how NOT to map multiple business items into a process

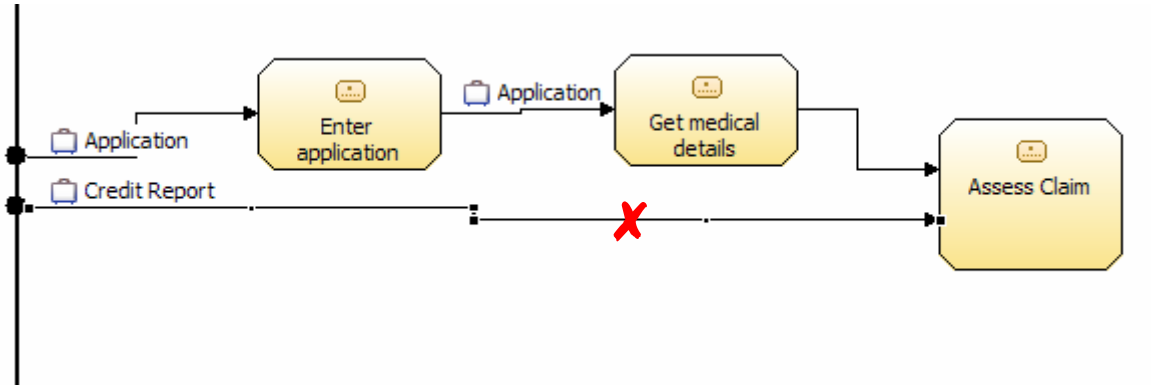
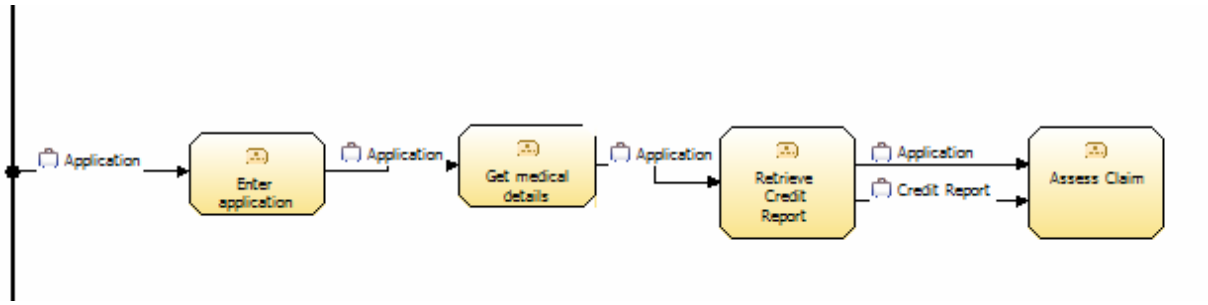
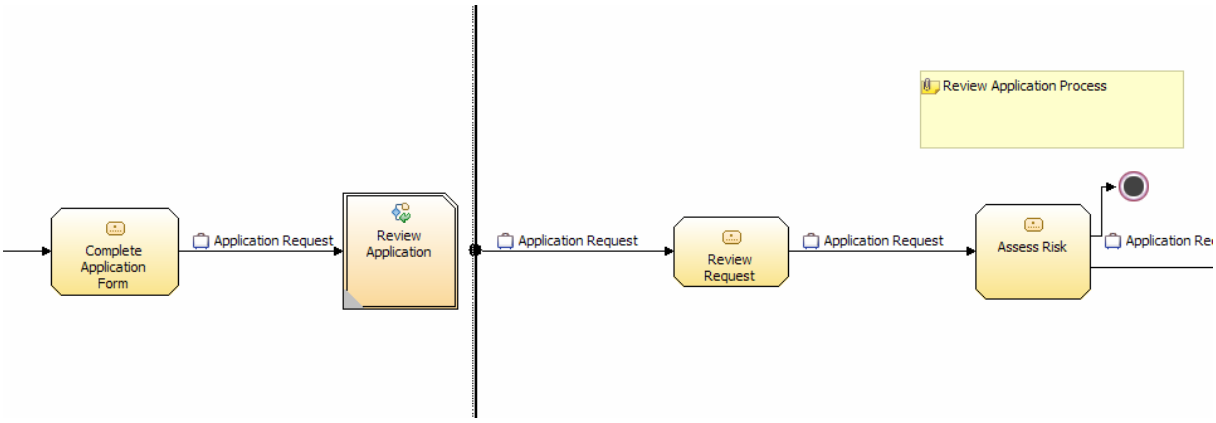


Figure 8: Example of how to map multiple business items into a process



The Business Item which is used to start a Subprocess must be identical to the input to the Subprocess on a higher level process map. The following is an example of how a task should be connected to the process in Figure 5.

Figure 9: Consistent inputs for a Subprocess



Do not confuse subprocesses with loops. Loops are a different object type to processes and must always start with a Start Node. Best practice principles dictate that processes should start with a business item rather than a start node.

4.1(b) Processes

Always define a process element as a global process[11]. This means you create it in the Process Catalog (don't just drag it from the Palette). Local Processes can be converted to Global Processes by right clicking the local process and selecting **Convert to ▶.**

Figure 10: Global process element

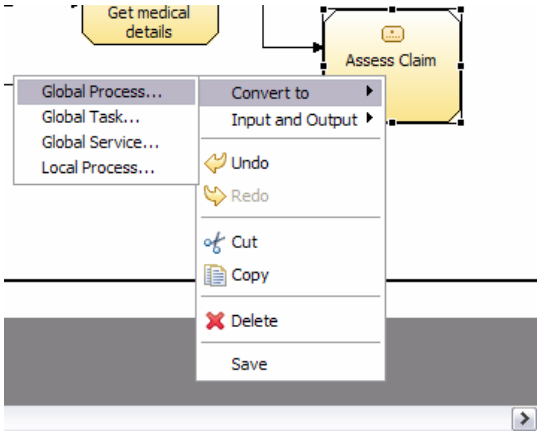
As-Is and To-Be processes should be created in separate process catalogs within a project[12].

4.1(c) Tasks

Initially, map a task element as a Local Task[13].

Convert a Local Task to a Global Task only if the same role performs the same task for the same time in one or more processes within the same project. If utilising Documentation Reporting, it is recommended that all Tasks be created as Local Tasks[14].

Figure 11: Converting a local element to a global element



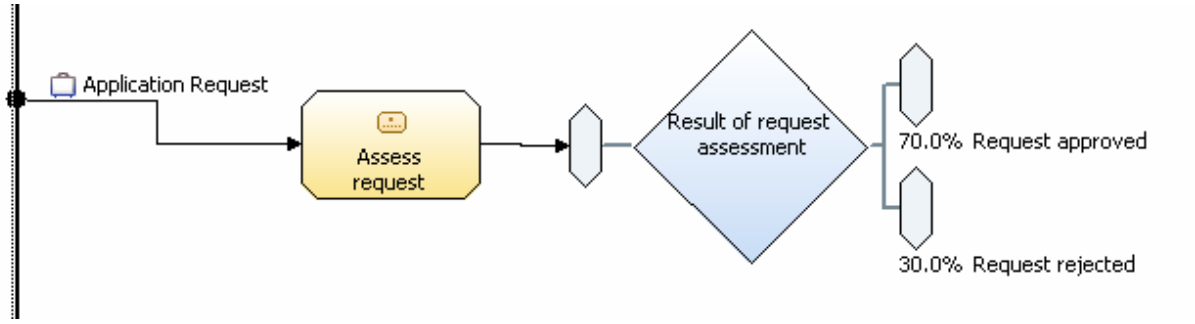
4.1(d) Decisions

A decision element does not represent the activity of making a decision. A decision element only controls the flow of the process based on the result of the actual decision activity.

A decision should be mapped with a task that captures the assessment or decision making activity including any transformation of the business item, followed by the decision element.

All decisions should be set-up as being mutually exclusive[15], ie only one path/choice can be followed.

Figure 12: Making a decision



Decision Choices

Label the Output paths of the decision clearly with descriptions that are meaningful in the context of the decision from which they originate[16]

For example:

- Do not label them with *Yes* or *No*[17]. A choice must clearly describe the characteristic being assessed, eg Rejected Application or Approved Application or Black Widget.
- Question and choice combinations must not contain double-negatives.

Decision choices must define the mutually exclusive options — only one choice can be true at any one time[18].

For example, if the decision options were Credit Score > 5 and Credit Score < 10, both choices would be true for Credit Scores 6,7,8 and 9. Correctly defined decision choices would be Credit Score <=8 and Credit Scope >8.

The probability percentages for all the choices in a decision must add up to 100%[19]. Therefore the choices must cover all possibilities.

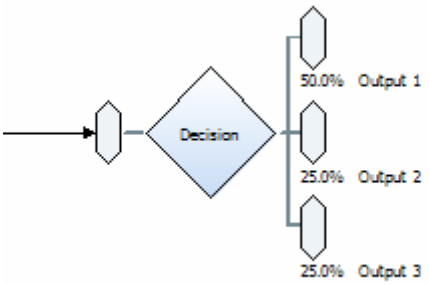
For example, if the decision options were Credit Score < 5 and Credit Score > 10, neither choice would be true for Credit Scores 6,7,8 and 9. Correctly defined decision choices would be Credit Score <=5 and Credit Scope >5.

Multiple-choice decisions

Only use multiple-choice decisions when mapping a business process[20], even if the decision is a simple decision with two options. Multiple choice decisions allow the output paths to be descriptively labelled which provides more clarity in a process diagram than “Yes / No”. This becomes more important as a model builds up in complexity and the results are being analysed.

The multiple choice decision also provides greater flexibility in maintaining the process map. Once a Simple Decision is created it cannot be converted to a Multiple Decision (for example, an extra path may be required at a later time). With a Multiple Decision additional branches can be added at any time.

Figure 13: Multiple-choice decision



4.1(e) Business Items

Assign a business item to a connector element:

- at the beginning of a process as a trigger for it to start;
- where the process flow passes between any 2 roles[21];
- where the business item represents significant or important output from a task/service; or
- where it is an output of the process.

A business item doesn't have to be a document or work product, it can be a phone call from a customer, an order from a manager, or a periodic request to perform a task.

4.1(f) Ending a process flow

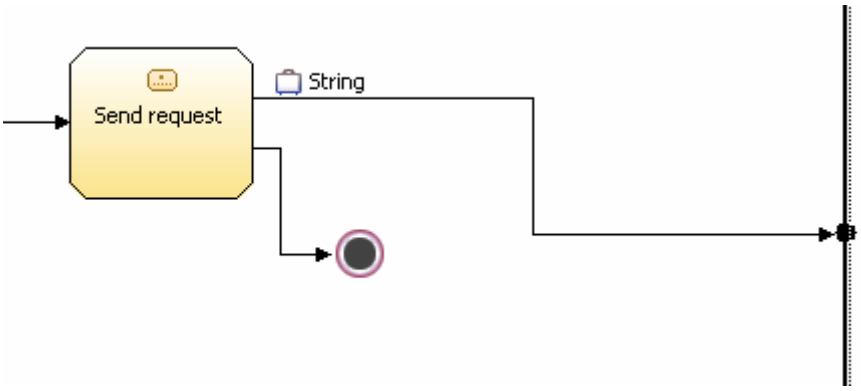
Always terminate a process with a stop node.

Use the Stop Node when the path and all current parallel paths in the process are to finish. Place the Stop Node on the longest duration (i.e. the critical path) of the parallel paths.

If there are alternative paths, you need a Stop Node at the end of every alternative path.

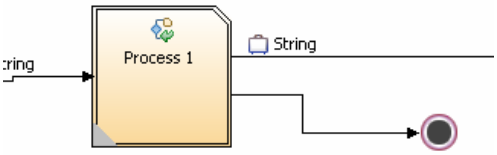
Stop nodes should also be used on the last task even if a Business Item is being passed as output to the process[22].

Figure 14: Terminating a process flow



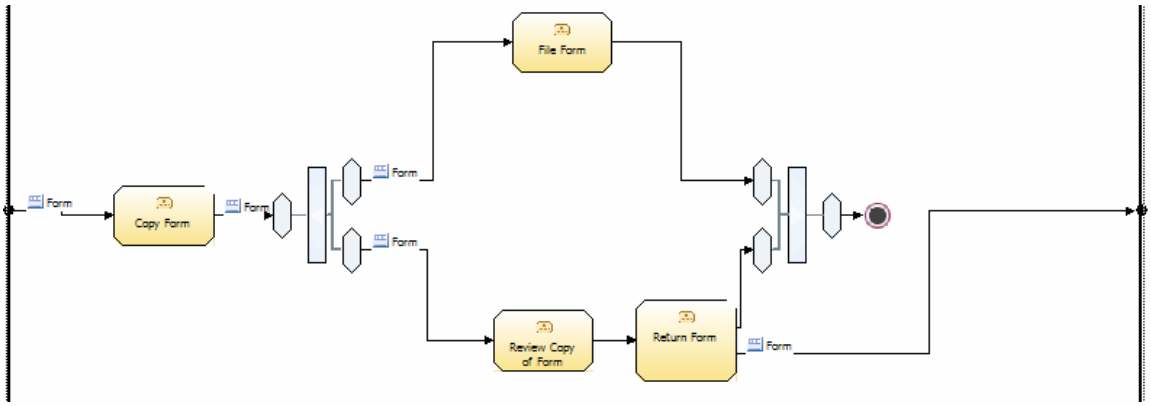
When a subprocess can either stop or continue, indicate this in the higher level process.

Figure 15: Process termination



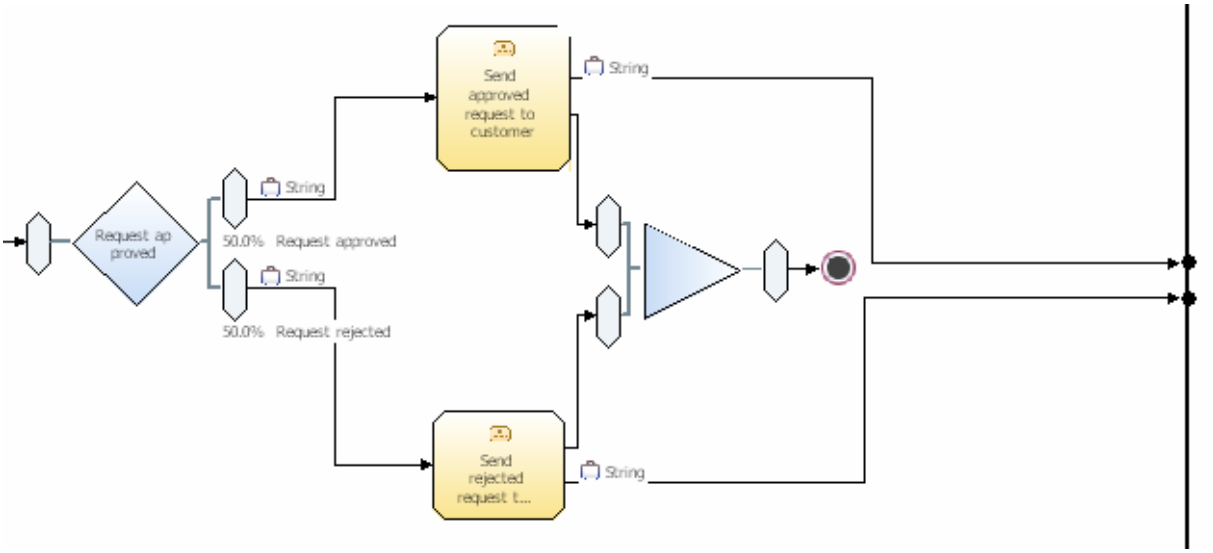
If there are multiple parallel paths, use a Join to synchronise the paths prior to the stop node. Outputs should not be drawn from a Join node but should be drawn separately from each parallel paths[23]

Figure 16: Ending parallel paths



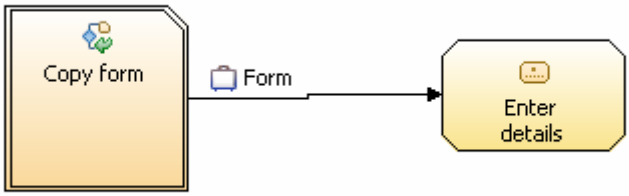
If there are multiple paths resulting from decision, a merge should be used so that there is only one stop node.

Figure 17: Ending multiple paths resulting from a decision



The Business Item which is the output of a Subprocess must be identical to the output of the Subprocess on a higher level process map. The following is an example of how the process in Figure 16 should be connected to a task.

Figure 18: Consistent outputs for a Subprocess



4.1(g) Roles

Use Roles only to define who or what performs a task[24]. Set up a Role for each external entity, people, system or tool that performs task activities.

Assign only one Role to each Task[25]. Where activities might be performed by a number of people at the same time, map them as parallel but separate tasks.

4.1(h) Applications and Systems

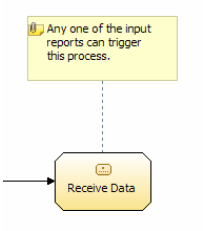
Use a Bulk Resource to define an application or system which is used by a role to complete a Task.

If it is a fully automated Task, assign a Role of “System” to the task[26].

4.1(i) Annotations

Map any assumptions, issues or points of clarification as annotations to the process map[27]. Connect each annotation to the task or other element to which it relates[28].

Figure 19: Using annotations



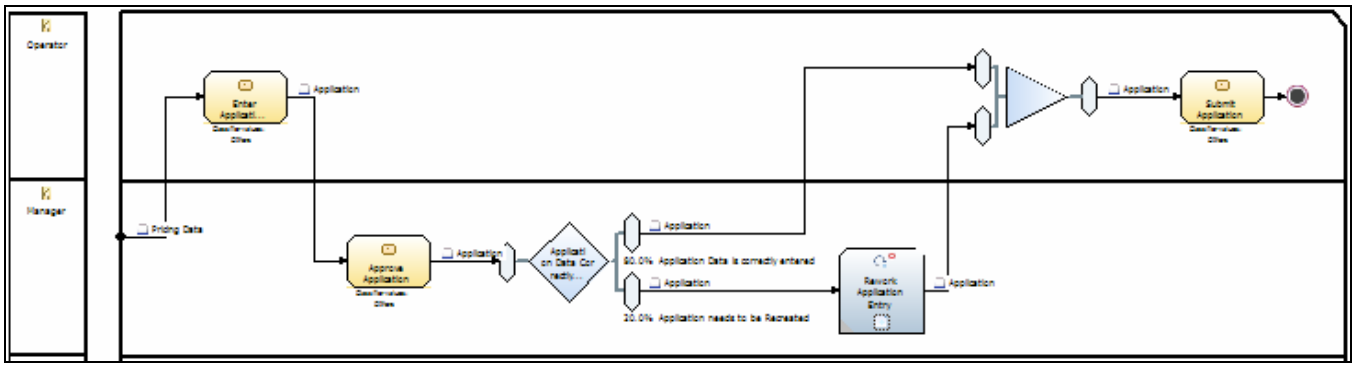
4.2 Mapping common business situations

4.2(a) Checking and rework

Many business processes contain tasks that check the completeness or correctness of a unit of work. The expectation is that if the work is not complete or correct, it is returned to the task(s) to be done again.

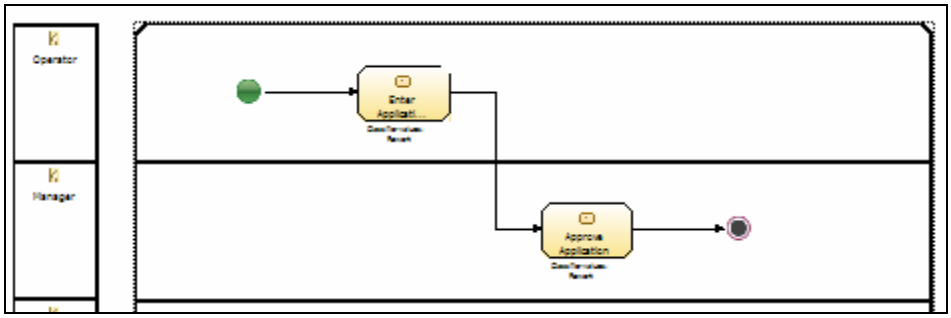
When mapping this situation, your process must contain activities to do the work and the first review task. Following this, a decision must test whether the work was correct or complete. If rework is required, use a Do-While loop.

Figure 20: Pattern construct for re-work (example)



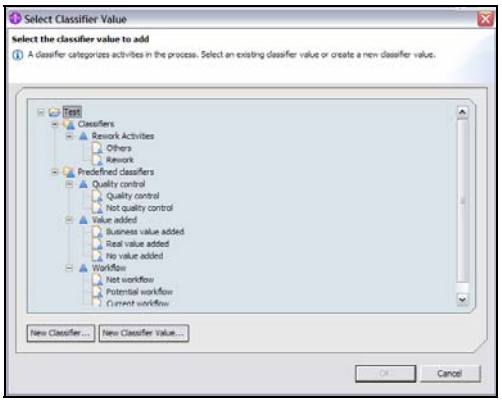
Expand the Do-While loop to include the tasks necessary to re-do and then re-check the work. A Do-While loop must start with a Start Node (unlike a process, which starts with the connector to the Business Item). The Do-While loop means that the rework and re-check cycle continues until the work is of a satisfactory quality.

Figure 21: Detail of the rework subprocess (example)



It is often desirable to identify or measure the rework activity. To do this, define a Rework Classifier with 2 options of *Rework* and *Other*. Classify all tasks in the high-level process as *Other* and all tasks within the Do-While loop as *Rework*. See the process maps above.

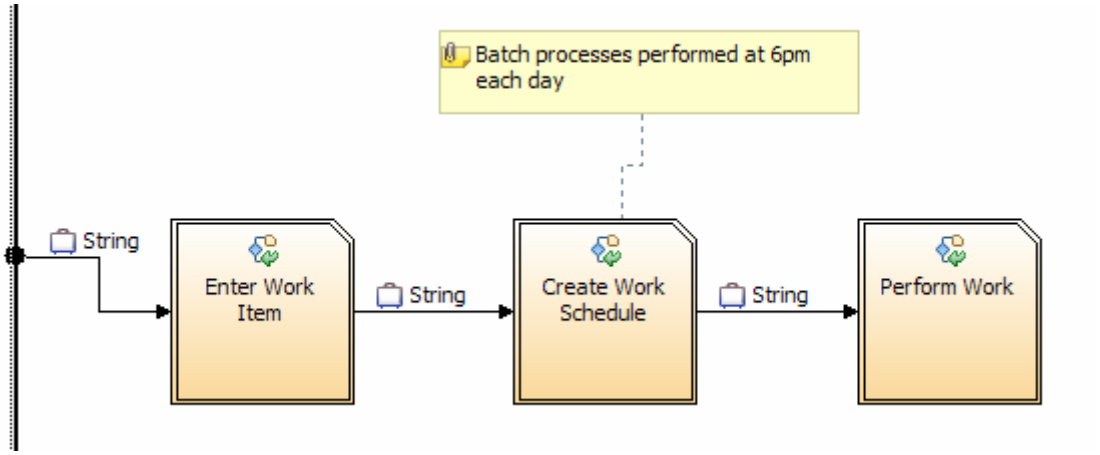
Figure 22: Setting up the Rework classifier



4.2(b) Batch processes

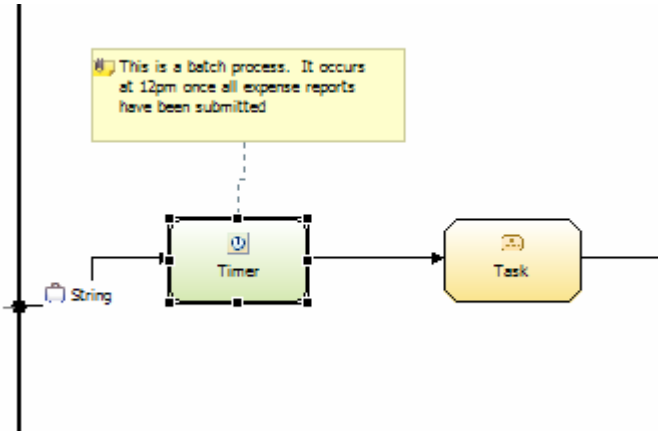
Many business processes contain elements of batching and un-batching both in system-driven and manual tasks. Don't mix tasks handling individual work items with tasks handling batches of work items, within the one process[29]. Create them as separate subprocesses within a higher-level process.

Figure 23: Pattern construct for handling individual and batches of work items (example)



Make the first process element in the batch process a timer. Annotations are also recommended to explain when the batch process begins and the number of tokens included in the batch.

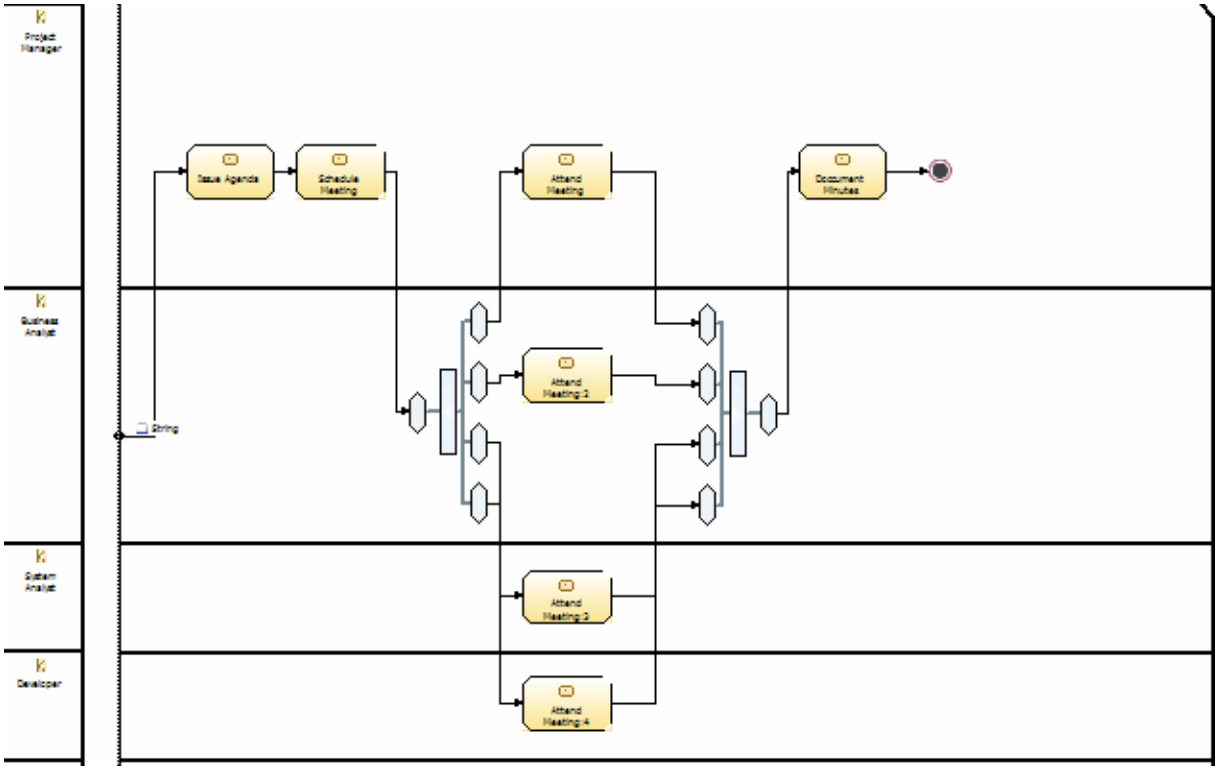
Figure 24: Starting a batch process



4.2(c) Attending meetings

Meetings (whether physical or logical) are activities which involve more than one role. Use a fork to distribute the meeting schedule or agenda into a series of parallel tasks. Use a join to synchronise the paths after the meeting. Generally only one role follows up after a meeting, eg take notes, define action plan etc.

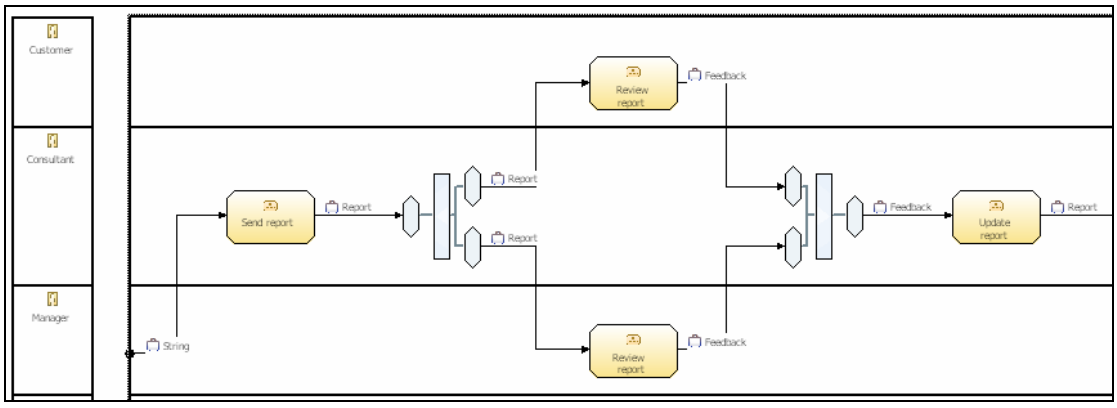
Figure 25: Pattern construct for meetings (example)



4.2(d) Reviewing documents

Often a number of parties review documents and provide feedback within a process. Use a fork to distribute the document to each of the parties to review the document. Then use a join to collate the feedback, and a subsequent task[30] to synthesise the feedback into the Report.

Figure 26: Pattern construct to distribute, review and synthesise information (example)

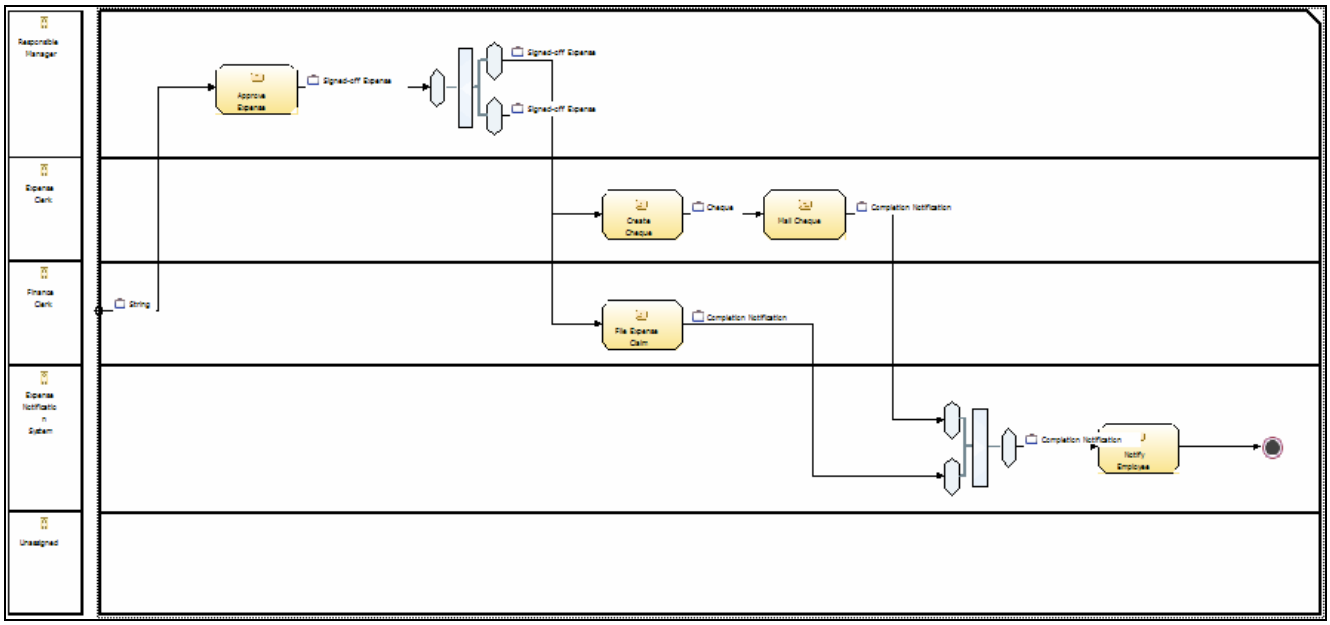


4.2(e) Working in parallel on the same business items

Often people need to work on the same business items at the same time, and these work activities all need to be completed before the next set of tasks begins. Use a fork where copies of the business item are made and distributed, and then a join to synchronise the activities.

For example, simple expense claims processing typically involves the transfer of funds (or a check/cheque payment) and filing of records after the claim has been approved. After these two tasks have been completed, the employee is notified that their expense claim has been paid.

Figure 27: Synchronising parallel work with the same business item (example)

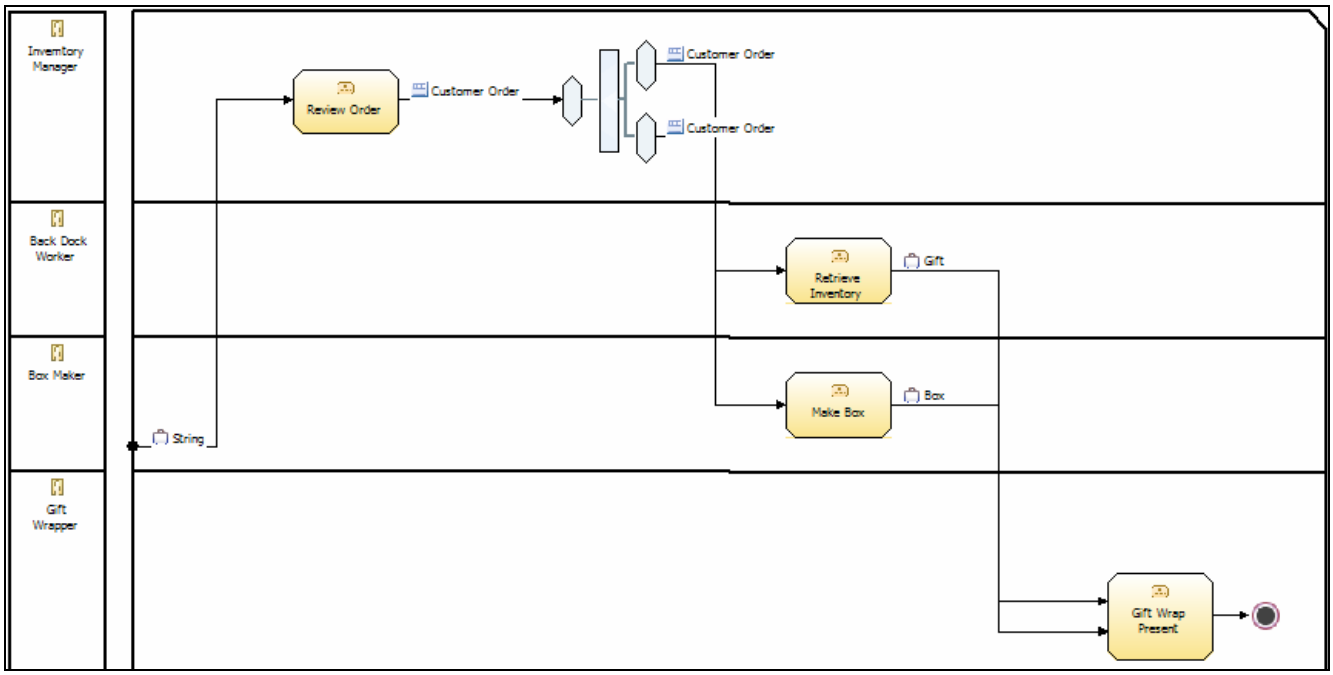


4.2(f) Working in parallel on different business items

If a process contains parallel work that uses different business items, don't use a join — instead make the inputs flow directly to the task. This denotes that the task waits until it receives all these business items before it executes.

For example, gift wrapping presents might involve retrieval of inventory and making of a box — 2 different business items that need to be completed before the present can be gift-wrapped.

Figure 28: Synchronising parallel work with the different business items (example)

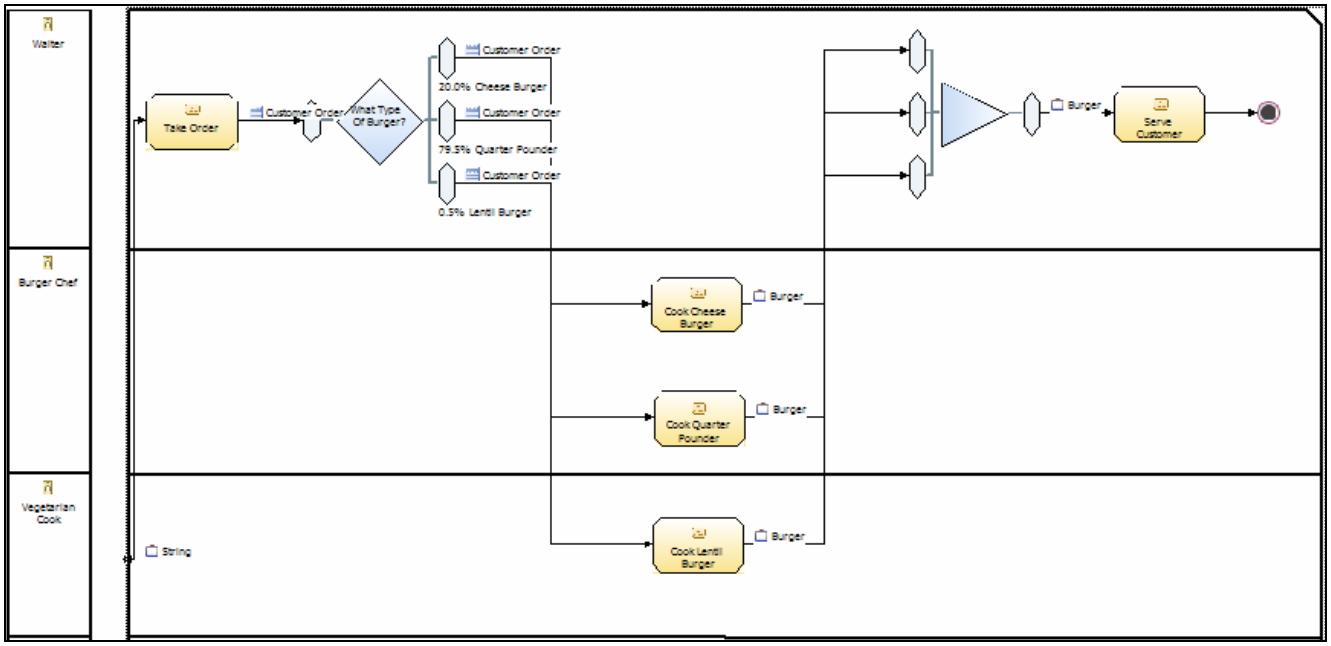


4.2(g) Mapping common elements within process flows

In process mapping, it is as important to identify commonality within a process as it is to identify differences. Often, business processes can deviate for several tasks based on a decision or business role. The process then returns to a common set of activities. Map the deviation with a decision and bring the different processes together with a merge.

For example, consider a restaurant where a waiter takes an order and passes it to the chef. While different food might be prepared, the service follows the same process.

Figure 29: Mapping common elements within a process flow (example)

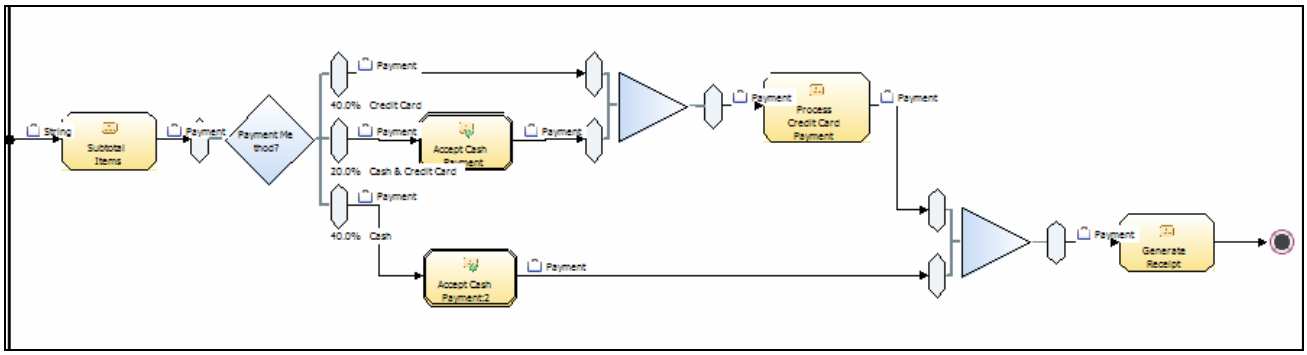


4.2(h) Multiple decision options

Although a process might follow more than one decision path in parallel, always use exclusive decisions[31]. Include the combination of possible decision outcomes explicitly on the process map.

For example, consider point of sale: a customer chooses to pay either by credit card or cash or a combination of both. Three combinations of decision outcomes can be processed — cash only, credit card only, and cash plus credit card payment.

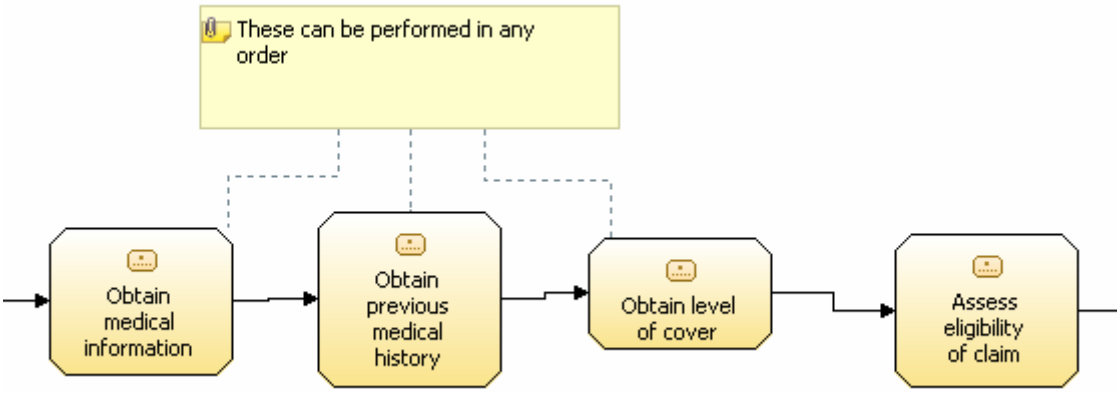
Figure 30: Combining decision paths to accommodate combinations of decision outcomes (example)



4.2(i) Non-dependent sequential activities

Activities to be performed may not be dependent upon each other and therefore could be performed in any order. Do not map these activities as parallel activities within the one role, if to be performed by one person. Identify a logical default order and map activities as a sequence. An annotation should also be used describing that these tasks can be performed in any order.

Figure 31: Sequential mapping on non-dependent activities (example)



4.3 Rendering maps using swimlanes

Draw process maps in the desired format for printing and publishing to minimise need to re-format maps when rendered into different layouts.

4.3(a) Selecting the swimlane definition

The easiest option is to render the Swimlane by Role or one of the other predefined layouts.

If this does not produce an adequate result:

- Define a classifier called swimlane.
- Define a value for each swimlane to include in your diagram.
- Assign each element within the process map the classifier value of the swimlane in which it is to appear.
- Render your swimlane view by swimlane Classifier and each of the elements will appear in their assigned lane.

Be careful to ensure that the characteristics of the element and their classifier are maintained in a consistent fashion.

4.3(b) Altering swimlane order

WBM automatically orders swimlanes when you select **Auto Layout**. You can change the order of swimlanes to improve aesthetics. Don't select Auto Layout after the order has been altered as WBM returns all swimlanes to their original order.

For the swimlane by role layout use the following order:

- Customer
- External Entities or Service Providers
- Customer Facing Staff Roles
- Internal Roles
- System/Automated Roles

4.3(c) Changing a characteristic of an element

If a characteristic of an element changes (eg a task is assigned to a different role), the swimlane layout does not automatically update. However the element will have an indicator identifying it is placed in the incorrect swimlane. Select **Auto Layout** to place the element in the correct lane, however this will lose any manual formatting applied to the process model. It is recommended that the changed element be manually moved to the correct swimlane to prevent recalculating the layout of other elements in the map.

4.3(d) Unassigned elements

If an element is not assigned a characteristic by which the Swimlane view is rendered, it is placed in the *Unassigned* swimlane. Move the element to another swimlane based on the following guidance.

Table 6: Swimlane guidance

Element name	*Correct swimlane*
Decision	Same swimlane as preceding task
Subprocesses	Same swimlane as preceding task[32]
Repository	Swimlane of the element to which it is attached
Loops	Same swimlane as preceding task[33]
Merge	Same swim lane as subsequent task
Join	Same swimlane as subsequent task
Fork	Same swimlane as preceding task

4.4 Displaying Labels

WBM allows the specification of two labels for any process element (top and bottom). These should be used to display additional information which is most appropriate for the situation.

Suggested labels to use are classifier values and bulk resources.

4.5 Classifying elements

Use Classifiers to label and group process elements. Suggested classifiers include:

- Rework: to identify tasks which are associated with rework
- Swimlane: to manually control the allocation of process elements within a swimlane view
- System : To classify the activities by the system or tool used to perform them
- External: to identify tasks which are performed by external entities
- Transfer Time: to identify tasks as being solely related to the transportation of business items within a process eg email, internal mail, etc.
- Business Requirements: to identify tasks or processes associated with particular business requirements or objectives

4.6 Copying Process Maps

Copy and paste can only be applied within a window. Multiple elements cannot be copied together and each element must be selected, copied and pasted in turn.

To re-use a process map as a template for another map :

- Make a copy of the process within the Process Tree (Right Click, Copy)
- Highlight Process Catalog
- Paste (Right Click, Paste)
- Rename the Process

- Delete any parts of the map you do not want

4.7 Diagram aesthetics

Try to produce easy to read and aesthetically pleasing process maps.

- Use the Split Connectors to eliminate crossing lines;
- Align elements to maximise straight connectors, ie minimise the number of bends and/or kinks in the connectors;
- Remove all white space from the diagram by using the *Decrease Vertically* and *Decrease Horizontally* options on the palette;
- Use colour and labels appropriately for the process map. Use light colours if possible as dark colours cause text to be printed in white which impact readability.;
- Do not create backward connectors;
- Limit the size of Business Item names to limit overlapping activity names;
- Maintain similar sized task elements where possible using the 'grid' in the process editor;
- Keep the process maps at a manageable size by using subprocesses;
- Minimise the size of the Unassigned swimlane using Autolayout and reducing the vertical size of the maps;
- Don't split words in object names between 2 lines; and
- Organise the order of swimlanes in an appropriate way.

4.8 Printing maps

4.8(a) Readability

When printing maps, to ensure readability:

- Print maps in swimlane layout;
- Don't split objects split between pages;
- Print maps in landscape; and
- Don't reduce below 50% of original size.

4.8(b) Page Layout

Use the page layout feature set and save appropriate printing settings for a process map. Select the paper size and set the appropriate zoom level to minimise the number of pages on which the process map is printed whilst maintaining readable text.

Use the Page Break overlay feature to visualise page breaks[34] on both the Outline and Process Editor.

4.8(c) Improving performance

Printing can place high demands on a PC's memory, adversely impacting system performance. To minimise performance impact:

- Only print in black and white; and
- Have only one process open at a time.

4.9 Exporting maps

To include maps in another document (eg MS Word, MS PowerPoint):

- Export the diagram to PDF format.
- Export the diagram to .jpg

Otherwise, if the maps are sufficiently compact:

- Use **Alt+PrtSc** to take a screenshot of the WBM window with the diagram in one-pane mode.
- Paste the screenshot into MS Paint.
- Select the diagram's elements, and copy and *Paste special* the 'enhanced picture' into the document.

In addition to the readability recommendations, if a map is to be included in other documents, maps should not go over multiple vertical pages, ie rows of swimlanes should not be broken across multiple pages.

4.10 Resolving Errors

WBM assists users by performing validation on model elements to ensure they are complete and correctly defined. Errors are visible in the Error View and are indicated on the Project Tree. Any associated element will also be highlighted within the process map.

Icon	Description
	Indicates an error
	Indicates a warning

Resolve errors and warnings as soon as they appear in the process. There should be no errors within a process before it is exported.

Use the error view as the key tool to resolve errors in process maps. The error view will provide a complete description and documentation of the error.

5. Reports and queries

A key advantage of WBM is the ability to automatically generate standard and custom reporting to provide consolidated documentation of your processes.

5.1 Reporting

Reports can be printed directly from WBM, or exported and saved into PDF format.

5.1(a) Standard reports

You can use a broad range of standard reports to meet your reporting requirements. It is possible to customise the look and feel of these reports by including client information and logos.

The following table describes the more useful pre-defined reports and potential uses.

Table 7: Useful pre-defined reports

Report name	*Description*	*Recommended use*
Process Summary Reports → Documentation → Process →	Information for one selected process only, including the: • process diagram • process specification • specifications of each object in the process. The specifications for each object include inputs, outputs, roles, resources, classifiers and costs.	The basic report that provides an overview of the process and could form the basis of a procedures document.
Process Annotation Reports → Documentation → Process →	All annotations for one selected process only.	Allows you to easily print issues, questions or assumptions relating to a process.
Process procedure report Reports → Documentation → Process →	The sequence of steps within a process, and the relationships of a process to other processes. Includes the process name, description, names of other processes using this process, inputs/outputs, and details on each step in the process.	Helpful to understand what tasks and roles are involved in a process and in what sequence they occur. This can also help prepare procedure documentation.
Activities by Classifier Reports → Static Analysis →	The classifiers and their associated values with a list of all the tasks assigned to this classifier value. Can only be run from within the process diagram.	Assists in classifying and grouping tasks, and reporting on issues which classifiers have been used to test across the process map.

5.1(b) GBS Template Reports

Customised template reports have been developed to support common requirements for GBS engagements. These reports can be imported into any WBM project and adapted for specific client requirements by editing static text fields.

Report name	*Description*	*Recommended use*
GBS Business Item Report	A description of all business items within a Data Catalog and associated attributes.	To provide a report on the data requirements throughout the process.
GBS Business Requirements Documents	A detailed description of a single process, its tasks, subprocesses, repositories and decisions which utilise a variety of available WBM text fields to capture detailed information about a process.	To provide a mechanism for documenting business requirements or detailed process descriptions through use of available WBM fields and functionality.
GBS Classifier Report	A summary report of all classifiers , classifier values with descriptions within a Classifier Catalog.	To provide a consolidated report of the classifiers used in a process map.
GBS Procedure Report	Documentation of the sequence of steps in a process and their associated description and relationship to subsequent activities.	To form the basis of a sequential procedural description of the process activity in support of a graphical process flow.
GBS Process Catalog Report	A detailed report for all processes within a process catalog which provides a description, inputs and outputs, tasks, subprocesses & decisions.	To provide a consolidated report of the descriptions of a process and its component activities. This will provide a written document to support a set of graphical process flows.

Refer to Appendix F: GBS Report Template Definitions for a detailed explanation of the WBM fields utilised be each of these reports.

5.1(c) Custom reports

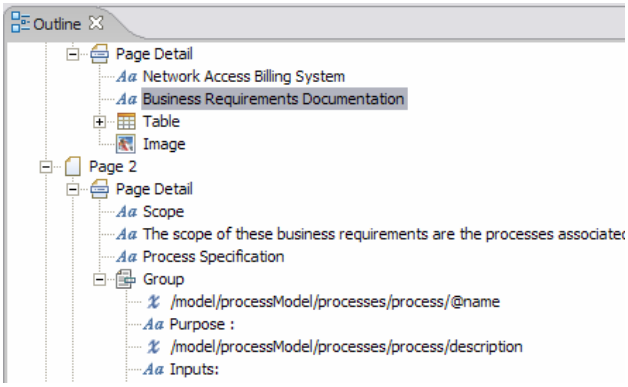
Custom reports can be created to report on the data within a single data source[35].

The easiest method to create Custom Reports is to copy the pre-defined report that best matches your needs, and then modify the included fields. Create a new Report Catalog and paste the copy of the Standard Report. Rename the Report.

Customising the Existing Fields

Use the Outline View to remove pages, fields and elements which are not required in the custom report. Right Click on each element and select Delete.

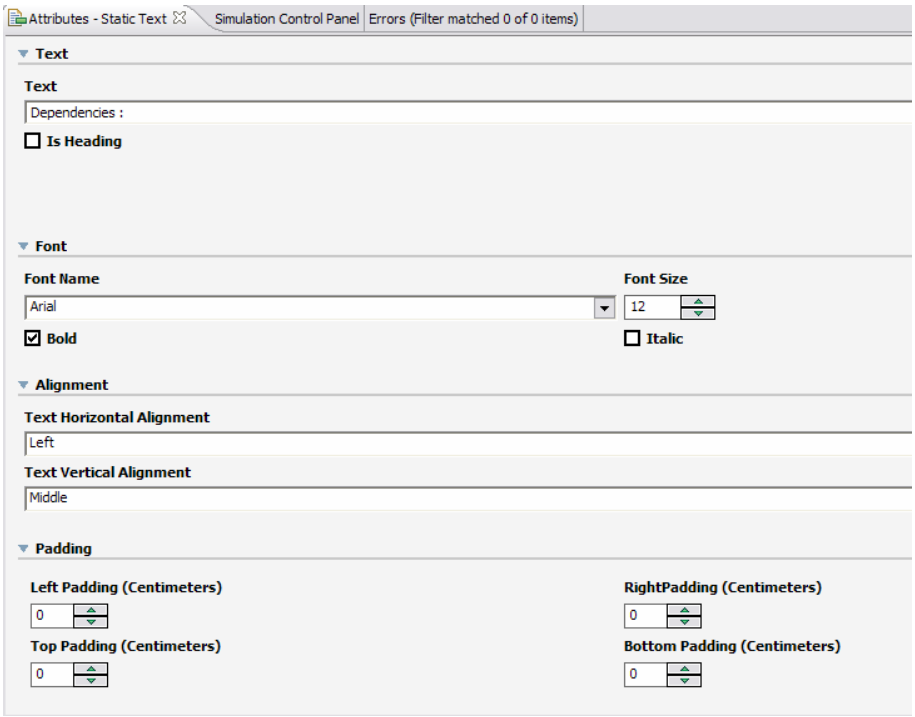
Figure 32: Report Outline View



For each page in the report, update the font, alignment and colours of both the headings and the fields using the Attribute field for that element. Each element must be updated individually.

Use the Attributes Tab to change the contents of any existing text fields to change the headings

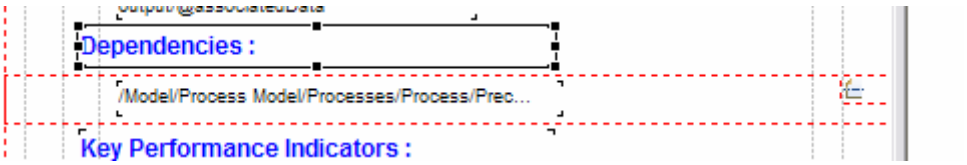
Figure 33: Formatting Report Elements



Changing fonts will alter alignment of text. After updating all attributes, realign fields on the page.

Ensure fields within groups remain within the group setting. Resize the group to encompass the area on the page in which the field is to be repositioned, move the field within the group and then resize the group.

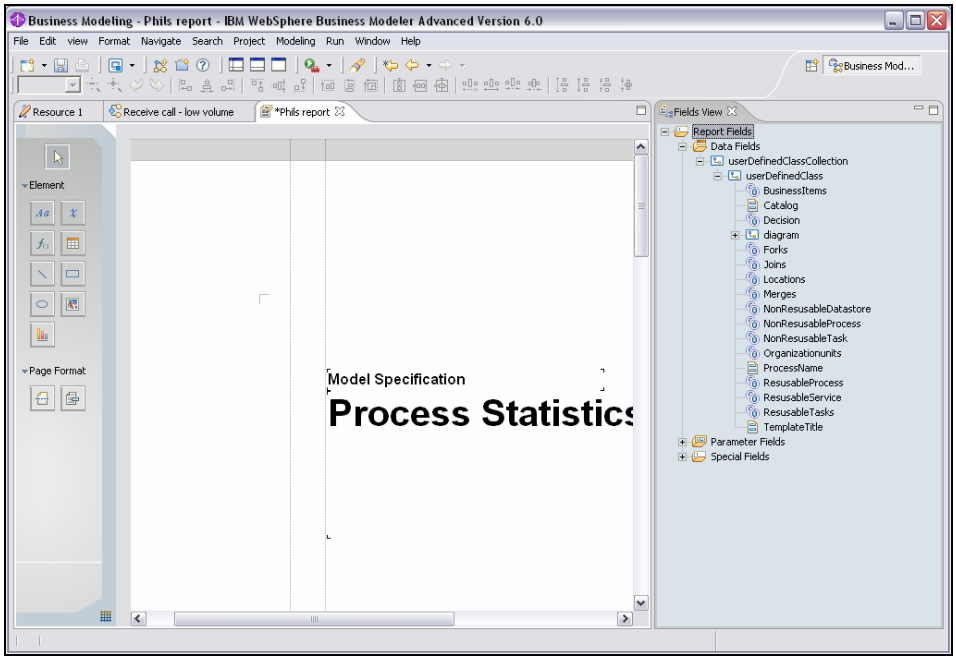
Figure 34: Grouped Elements



Adding New Fields

Right click on the Report area and select **Show → Fields View.**

Figure 35: Customising the fields in a report



Drag and drop the required field onto the Report. The Data Field Path is the parameter which defines the content of the field.

Use Group By fields where an element may have multiple values eg. tasks within a process, inputs to a process. Navigate to the level above where the data is located in the Fields View.

When adding fields within a Group By field, remove any tree navigation which in included in a Group By field or Table in which the field is placed. Replace this with a ".".

For example, if a Group By field is :

/Model/Process Model/Processes/Process/Flow Content/Annotation

To include the annotation field, use the Field view to add the field :

/Model/Process Model/Processes/Process/Flow Content/Annotation/Annotation Text

Remove the tree navigation contained in the Group By field :

./Annotation Text

This approach must also be applied when nesting Group By fields.

5.1(d) Importing and exporting custom reports

Custom reports can be imported and exported between projects following the standard import and export processes.

You should always create customised reports in WBM in a new report catalog to allow easy export and import of your report templates between projects.

5.2 Queries

Although you should primarily use reports to extract data from your process map, it is also possible to generate queries on the process elements within your process map.

The key advantage of queries is that you can easily copy the data into MS Excel.

5.2(a) Exporting query results to MS Excel

Once a query has been executed and the results are displayed on the screen, the results can be exported to excel as follows:

- Click on one of the rows in the query output window.
- Right-click and select **Copy**.
- Open an Excel spreadsheet.
- Right-click and select **Paste**.

5.2(b) Pre-defined queries

Under the *Intermediate* profile in the project tree are a number of pre-defined queries. Some of the more useful pre-defined queries and their potential uses follow.

Table 8: Useful pre-defined queries

Query name	*Description*	*Recommended use*
Process Details	Lists objects (global and local) contained in process including tasks, sub-processes, repositories, services, decisions, and business items.	Describing contents of each process.
Process statistics	Displays number of each element within the process.	Describing complexity of processes eg number of decisions, number of tasks.
Role specification	Lists names and descriptions of every role in process catalog.	Listing and describing roles in the process.
Timetable specification	List names and descriptions of timetables used in process catalog.	Listing the timetables that are used.
Task details	Lists task names, resources and roles for global tasks ONLY.	Listing tasks and resources required to perform each task.

5.2(c) Custom queries

You can create custom queries in WBM; however these cannot be based on the standard queries and must be completely defined within the Query Editor. Consequently, it is not recommended to rely on custom queries for your data and reporting requirements.

Appendix A: Useful references and links

Training

GBS818 – Introduction to WebSphere BI Modeler (self-paced learning): http://w3-3.ibm.com/education/CoursecodeSearchTypeServlet.wss?coursecode=BCS818&city=&state=&countrycode=

Team operations

ClearCase vs. CVS argument

http://w3-103.ibm.com/software/xl/portal/!ut/p/_s.7_0_A/7_0_IP?type=doc&srcID=R9&docID=B107276O42901X61

Appendix B: Recommended process/task verbs

Customise the following verb list for each engagement to provide a concise list of verbs to use in naming processes and tasks.

Verbs marked with * are part of the APCQ PCF and suggested language.

Verbs to use	Verbs to avoid	Example
Access	Admittance	Access Safe Custody Envelope
Accomplish*		Accomplish User Training
Achieve*		Achieve Financial Closure
Acquire	Procure, Outsource, Get, Purchase, Buy, Gain	Acquire New Photocopier
Action	Handle	Action Daily Report
Adjust*	Correct, Remedy, Rectify	Adjust Bank amount
Administer*	Control, Oversee	Administer Corporate Policy
Advertise	Market	Advertise Jobs
Align*		Align Channel to Segment
Amend*	Alter, Modify, Update, Repair	Amend Customer Details
Analyse*	Model, Examine, Explore,	Analyse Financial Statements
Approve*	Endorse, Grant	Approve Holiday Leave
Archive*		Archive Documentation
Arrange	Organise, Co-ordinate, Position,	Arrange Interview
Assess*		Assess contract performance
Assign*	Allocate	Allocate Work to Staff
Attach	Append, Affix, Join, Stick	Attach T&C to Loan Document
Attend	Go to	Attend Team Meeting
Audit*		Audit invoices
Authorise*	Countersign, Empower	Authorise Withdrawal from Investment Account
Balance	Total, Tally	Balance General Ledger Account
Build*	Assemble, Construct	Build Account History
Calculate*	Accrue (calculate accrual), Compute, Estimate	Calculate Closing Balance
Cancel	Delete, Erase, Stop, Abandon, Call off, Terminate	Cancel Periodic Payment
Capture*	Get, Attain, Obtain	Obtain Customer Signature
Cash		Cash Cheque
Certify*		Certify suppliers
Change*		Change requisition
Clear		Clear Funds
Close*	Terminate, Shut, Seal	Close Account
Collaborate*		Collaborate design and suppliers

Verbs to use	Verbs to avoid	Example
Collate	Bundle, Gather, Assemble	Collate Documents
Collect*	Gather, Accumulate, Assemble	Collect Mail
Communicate*	Discuss, Announce, Write, Talk to	Communicate Decision to Customer
Complete*	Finish, End	Complete Account Overview
Comply	Observe, Conform to	Comply with Policy
Conduct*	Effect	Conduct Interview
Confirm*	Validate, View, Authenticate, Examine, Check	Confirm Income Details
Consult	Ask, to, Look up	Consult Policy Manual
Contact		Contact Customer by Telephone
Convert	Exchange	Convert Foreign Currency Cheque
Coordinate*		Co-ordinate strategies with stakeholders
Counsel	Advise, Warn	Counsel Needs Improvement Staff
Count	Add, Total, Compute	Count Cash
Create	Produce, Originate	Create Customer Packet
Cross sell		Cross Sell Insurance Policy
Define*	Describe, Specify, Outline	Define New Procedure
Deliver	Supply	Deliver Credit Facility
Deposit	Lodge, Credit	Deposit Funds into Account
Derive*		
Design*	Develop	Develop New Product
Detect	Discover, Locate, Find	Detect Fraud
Determine*	Prove, Decide, Appraise, Score	Determine Customer Needs
Direct	Advise, Apply	Direct Customer to Alternative Channel
Dishonour	Bounce	Dishonour Cheque
Display	Exhibit, Show	Display Product Brochures
Dispose*	Destroy, Remove, Discard, Cull	Dispose of Obsolete Documents
Distribute	Dispatch	Distribute Work
Document*	Record, Catalogue, Write	Record Account Code
Draw Down		Draw down Funds to Account
Eliminate*		Eliminate quality problems
Empty	Evacuate	Empty ATM
Enable	Allow	Enable system
Engage*		Engage third party provider
Enquire	Ask, Question, Query	Enquire on Application Status
Ensure*		
Enter*	Type, Write, Fill in, Fill out, List, Log	Enter Details
Establish*		Establish credit policies
Evaluate*	Compare	Evaluate Competitor Interest Rates
Evaluate*		Evaluate pricing performance

Verbs to use	Verbs to avoid	Example
Execute*	Carry out, Effect	Execute Documentation
Explain	Justify, Interpret, Clarify	Explain Legal Rights
Fax		Fax Report to Branch
File*		File Documentation
Finalize*		Finalise design
Forecast*	Budget, Estimate, Project, Predict, Anticipate	Forecast Short Term Staff Requirements
Form*		Form design team
Formulate*	Draft	Formulate Report
Fulfil		Fulfil Order
Generate*	Produce, Cause	Generate Leads
Govern*		Govern enterprise architecture
Identify*	Make out	Identify Customer in System
Implement*		Implement New Policy
Initiate	Activate, Begin, Start, Commence, Trigger	Initiate Legal Action
Insert	Add	Insert Additional Clause in Documents
Install	Position, Connect	Install ATM
Instruct	Commence	Instruct Solicitor to Prepare Security Documentation
Integrate*		Integrate technology into service concepts
Introduce*		Introduce new product
Investigate	Explore	Investigate Fraud
Issue	Acknowledge, Layout, Circulate, Dispatch	Issue Debit Card
Label	Designate, Mark	Label Files
Lend	Advance	
Logoff		Logoff System
Logon		Logon System
Maintain*	Repair, Save, Preserve, Uphold, Keep up	Maintain Photocopier
Manage*	Organise, Supervise, Oversee, Guide	Manage Staff
Maximize*		Maximise performance
Measure*	Rank	Measure Customer Satisfaction
Monitor*	Watch, Regulate, Oversee, Control	Monitor Sales Performance
Motivate	Influence	
Move	Advance	
Negotiate*	Exchange	Negotiate Interest Rate
Notify*	Advise, Warn, Inform, Tell, Write	Notify Interest Rate Change
Offer	Present	Offer Increased Limit
Open		Open Cheque Account
Operate*	Work	
Optimize*		Optimise product and customer mix

Verbs to use	Verbs to avoid	Example
Pay		Pay Invoices
Perform*		Perform product costing
Photocopy		Photocopy Documentation
Place	Situate, Position, Lay	Place Documentation in Envelope
Plan*	Propose	Plan Holiday Leave
Prepare*	Write, Devise, Get ready, Anticipate	Prepare for Customer Interview
Print		Print Documentation
Promote*	Encourage, Advocate	Promote product
Provide*	Donate, Give away, Supply	Provide Product Information
Publish*		Publish employee communications
Re-activate	Renew, Roll over	Re-activate Inoperative Facility
Read	Interpret	Read Circulars
Receive*	Get	Receive Customer Request
Recommend*		Recommend candidate
Reconcile*		Reconcile Account (includes the balancing, fixing, investigating of an error)
Recover	Repossess, Redeem	Recover Money
Recruit*	Hire, Appoint	Recruit Staff
Re-engineer		Re-engineer Procedures
Refer		Refer Application to Central Area
Refine*		Refine metrics
Refund	Give back, Back, Compensate	Refund Stamp Duty
Register	Catalogue	Register Documentation at High Court
Reject	Decline, Refuse, Discard	Reject Request
Release	Discharge, Relinquish	Release Security
Report*	Recount, Inform	Report Variances
Request	Order, Command, Call in, Appeal	Request Cheque Book
Research*	Search	Research Unposted Items
Resolve*	Solve	Resolve Customer Enquiry
Respond*		Respond to account enquiry
Retire*		Retire solutions and services
Retrieve	Regain, Redeem	Retrieve Customer File from xxxx
Reverse	Recall	Reverse Entries from Account
Review*		Review compensation plan
Revise*		Revise plan
Scan	Examine, Survey	Scan Documentation into System
Schedule*	Diarise, Set	Schedule Meeting
Select*	Choose, Pick	Select Appropriate Product
Sell*	Redeem, Trade, Auction	Sell Insurance Policy
Send	Transmit, Dispatch, Relay, Forward, Resend	Send Documents to Customer for Signing

Verbs to use	Verbs to avoid	Example
Separate	Divide, Disconnect, Split	Separate Reports
Service		Service Credit Facility
Settle	Redeem	Settle Interbank Transactions
Sign	Endorse, Initial	Sign Letter
Solicit*		Solicit vendor quotes
Sort	Sequence, Order	Sort Vouchers Numerically
Store		Store goods
Support*	Champion	Support
Suspend	Block, Freeze, Defer, Withhold	Suspend Periodic Payment
Switch		Switch transaction
Take*	Allow, Accept	Take payment
Test*	Prove	
Trace	Search	Trace Missing Voucher
Track*		Track inventory accuracy
Transfer		Transfer Funds between Accounts
Travel		Travel to Interview
Update	Modify	Update Schedule
Verify*		Verify payment details
Waive	For go	Waive Application Fee
Weigh		Weigh Coin
Withdraw	Debit, Remove, Revoke	Withdraw Funds from Account

Appendix C: Glossary

Activities	A generic term that represents each work item that is performed in a business process. Processes and tasks are activities performed within the organization. External processes are activities performed outside the organization.
Alternative Paths	Paths within a process which are exclusive, either one or the other occurs. Alternative paths are created by a decision.
Binary decision	A decision that has 2 pre-defined choices: *Yes* and *No*. These choices are built-in to the connectors that exit the decision. The *Yes* choice connector exits from the right point of the decision object (diamond). The *No* choice connector exits from the bottom point of the decision object (diamond).
Business Item	An element used to represent either: a work product produced by a task or process, eg report; or a trigger for a process to begin eg customer enquiry
Business process	A potential set of activities that represent all the alternative methods of performing the work needed to achieve a business objective. It is represented in WBM as a process that contains tasks, other processes, flows, and decisions.
Classifier	Can be assigned to every mapping element for the purpose of grouping eg value add, quality checking
Connector	An element used to represent chronological connection between 2 map elements. By default, it represents the flow of control in a process map. However, a connector can have a business item assigned to it, representing the flow of data as well.
Critical activity	An activity that is in the critical path of a case. For a critical activity, the early start and late start are the same, and the early finish and late finish are the same.
Critical path	The series of activities that must occur as scheduled for the completion date of a case to be met. The critical path is the path among parallel paths (in the same case) with the longest duration.
Data field	A representation of data that flow through a process during performance of that process. The flow of data can be used for application development and workflow engines.
Decision	The question that is asked to determine the exact set of activities during the execution of a process. For example, a question might be what type of order? Or how will the order be shipped? There are 2 types of decision elements that can be used in a WBM map: binary and multiple.
Editing mode	In WBM you can choose editing modes to configure the options available to edit. When mapping processes, only basic mode should be used.
Element	An element is a fundamental building block in a process diagram. Interactions between these elements depict the flow of execution within a business process. Elements can be either local or global.
Fork	Element in a process map that is used when parallel processing occurs

Functional area	An organization data item that represents general functions that an organization performs (eg accounting). These functions can be assigned to tasks and, therefore, time and cost analysis can be performed based on the defined functions.
Global Element	Element which can be reused by other processes and any modifications to it affect all processes containing the element
Local Element	Element which only exists in the process it is defined. Other processes can not use this element
Loop object	A diagram object used to model a repeating set of activities.
LOVC	Acronym for Line of Visibility Charts – a way of grouping elements together on a map, illustrating the parties involved and the handoffs between them.
LOVEM	Acronym for Line of Visibility Engineering Modelling. It is a way of mapping processes to help understand interactions between customer and system. Uses LOVC to do this.
Merge	Element in a process map that is used to bring alternative paths together
Multiple decision	A decision that has 2 or more user-defined choices. The choices are represented by choice objects that are connected from the decision object. All connectors that connect to choice objects exit from the right point of the decision object (diamond).
Organization	An entity where people cooperate to accomplish specified objectives. An organization can be an enterprise, a company, or a factory, to name just a few examples.
Organization units	The subdivisions in an organization. Organization units can represent departments, divisions, or sections.
Parallel paths	Paths in a process that occur simultaneously which are usually triggered by a Fork.
Procedure	A series of activities or steps that is designed to accomplish a well-defined piece of work. For example, procedures would be defined for adding a new account to a system, for writing a check, and for accepting a credit card during a transaction. Organizations publish procedure manuals to aid in training new employees, and for obtaining ISO9000 certification. Most complex processes, such as processing an insurance application, contain many procedures that are called on during the performance of the process. WBM allows you to create a documentation record of procedures and associate them with the processes. The tasks in a process correspond to the steps of a procedure.
Process case	A particular path, based on outcomes of decisions, within a business process
Process map	Process map provides a graphical representation of the flow of a business process. It depicts a set of activities that represent the alternative routes that the flow of execution can take. The primary purpose of process mapping is to document the flow of execution.

Process model	Business process modelling refers to analysis of process capabilities, using organisational and process data, such as the resources required to perform a task, the task duration and associated direct and indirect costs. Process maps are an artefact used in conducting analysis.
Process element	A high-level activity that takes place in a process. A process element represents a grouping of activities such as tasks or even other process objects, creating a hierarchy.
Queries	WBM has a number of predefined queries that can be used to extract information about the process
Repository	Mapping element used to represent data storage either hard or soft
Resource	An identifiable entity or mechanism that is responsible for, performs, or has an impact on an activity. These are mapped as roles in WBM.
Role	A responsibility that is defined for staff members. Role is one of the criteria that can be used to dynamically assign activities to people.
Service	Services are activities performed by an external entity. Their internal operation should be seen as a black box.
Situation	A unique combination of conditions that represent a particular business situation. The processes that reflect situations are represented in WBM by cases — a unique combination of decisions and choices.
Subprocess	A process that is also a part of another process. It is considered an activity.
Swimlane	Maps drawn with horizontal lines demarcating attributes of process activities.
Task	An activity in a business process that does work and is the responsibility of a specified resource. Visually, tasks represent the lowest level of work you can portray in a process.
Timer	Mapping element used to model batch processes
WBM	Acronym for Websphere Business Modeller
Workspace	An area on your hard disk created by WBM to store process maps and other associated data.

Appendix D: Version control systems supported by WBM

Characteristics of CVS and ClearCase

CVS	*ClearCase & ClearCase LT (CC)*
CVS is a freeware application, available for download from several locations on the WWW. It can be implemented relatively quickly and easily when compared to ClearCase, and thus is ideal for short-term engagements. As CVS is an external application, IBM provides minimal support for the tool. It does not allow the user to lock model elements that he/she wishes to work on; ie it does NOT prevent other team member from making concurrent changes to these elements. Apart from the server/central PC (where the repository is to be stored) CVS does not require any additional installations to be made to on individual practitioner PCs.	CC is a licensed application, which might need to be purchased by the client. Useful for medium and large projects, with a 10 to 20 people team of modellers, developers etc. Use CC where clients have already made investments in the application for other purposes, eg source control for coding development. Entails a high degree of complexity — requiring specialised CC skills for administering the central repository. A major advantage of CC is that it allows model elements to be locked to prevent other team members from checking in changes made to the item that a user is working on. CC is a disk-space and memory-intensive application, and should be implemented on a server environment, rather than a practitioner's PC. Apart from installing the CC server application on the server machine, practitioners also need to a install a client version of CC onto their own PCs.

Appendix E: Characteristics of global and local process elements

Element	Local	Global
Task	A local task can only be used once within the process it is defined. Use local tasks with different names when different roles perform the same activities.	If you make a change to a global task, then the modification propagates down to every instance of the task used in a project. For instance, say you add or delete inputs to a task — this might mean that all processes using the task will be in error, until you make the necessary changes to correct them manually. Roles and times cannot be vary between the different instances of use of the global process.
Process	A local process can only be used within the process in which it exists, eg a Loop.	A global process enables activities to be reused in multiple processes and across functional areas. As with global tasks, changes to global processes might require modifications everywhere the process has been used, until errors are cleared manually.
Repository	Local repositories can be thought of as a temporary place-holder or variable.	Global repositories allow information to be shared across disparate processes. They can be used by multiple processes, and can be thought of as a data store or database.

Appendix F: GBS Report Template Definitions

GBS Business Item Report

Report Field	*WBM Field*
Business Item Name	Business Item Name
Description	Business Item Description
Required Data	Business Item Attributes

GBS Business Requirements Documentation

Report Field	*WBM Field*
Process Name	Process Name
Process Description	Process Description
Process Inputs	Process Inputs (Business Items)
Process Outputs	Process Outputs (Business Items)
Process Key Performance Indicators	Process Pre-Condition[36]
Assumptions & Issues	Process Post-Condition
Functionality	Classifier Values
Notes	Annotations
Task Name	Task Name
Task Description	Task Description
Inputs	Task Input (Business Item)
Outputs	Task Output (Business item)
Business Rules	Task Pre-Condition
Assumptions & Issues	Task Post-Condition
Roles	Roles
Systems	Bulk Resources
Functionality	Classifier Values
Subprocess Name	Process Name
Subprocess Description	Process Description
Input	Process Inputs (Business Items)
Output	Process Outputs (Business Items)
Key Performance Indicators	Process Pre-Condition[37]
Assumptions & Issues	Process Post-Condition
Notes	Annotations
Services Name	Services Name
Services Description	Services Description
Inputs	Service Inputs (Business Item)
Outputs	Service Outputs (Business Item)
Role	Role
Functionality	Classifier Values

Report Field	*WBM Field*
Repository Name	Local Repository Name
Repository Description	Local Repository Description
Decisions	Decision Name
Business Rules	Decision Description
Decision Choices	Decision Output Conditions

GBS Classifier Report

Report Field	*WBM Field*
Classifier Value	Classifier Value
Classifier Value Description	Classifier Value Description

GBS Procedure Report

Report Field	*WBM Field*
Process	
Description	Process Description
Inputs	Process Inputs
Outputs	Process Outputs
Referenced By	Processes which utilise this global process
Process Steps (Including Number, Activity, Role, Subsequent steps and description)	Activities within process flow working top left to top right and iteratively down the diagram.

GBS Process Catalog Report

Report Field	*WBM Field*
Process	Process Name
Description	Process Description
Inputs	Process Inputs
Outputs	Process Outputs
Tasks	Task Name & Task Description
Subprocesses	Subprocess Name
Decisions	Decision Name & Decision Description
Notes	Annotations

Version Changes

Updates incorporated in Version 1.2

- Inclusion of standard on a single business item input to process
- Inclusion of standard on matching input to Subprocess to higher level process
- Inclusion of standard on matching output of Subprocesses to higher level processes
- Inclusion of standard on mapping non-dependent activities as sequential and not parallel
- Inclusion of guidance on customising standard reports
- Inclusion of allowing multiple inputs into a process, but not part way through the process
- Removal of all references to LOVEM or LOVC

Updates incorporated in Version 1.3

- Update references BCS to GBS
- Provide for client requirements exceptions to standards compliance
- Inclusion of guidance on rendering maps in desired layout
- Inclusion of guidance on utilisation of new printing layout functionality
- Change to naming standards to initial capitals only
- Inclusion of GBS Report Templates

Rationale

[1] For example, mapping for documentation may require the use of several types of loops, while mapping with the intent for technical deployment should only utilize while-loops as these are the only loops which can be used with WebSphere Process Server.
[2] Paths which have a low probability of occurrence (eg. exception handling) may not be documented explicitly or may be explained with annotations only in order to simplify the overall process map.
[3] Using a start node limits the ability to analyse processes as you are limited to generating one token from a start node.
[4] Although it is feasible to assign more than one Role to a task, this usually indicates that multiple activities are occurring and should be broken down to a more granular level.
[5] Note : maps must be reformatted when rendered into each new view so it is recommended to commence modeling in the format in which printing & publication is required.
[6] You must have unique element names within a Process Catalog. Creating a new Process Catalog for each Category allows reuse between processes while limiting naming conflicts between elements. However, you should consider the potential size of each process catalog and maintain these at a reasonable level.
[7] Adhering to the APQC PCF means that your process maps will be in line with industry standards, ensuring they can be reused over multiple engagements
[8] This provides users with the most comprehensive level of detail and flexibility in process objects when mapping the process.
[9] Starting a process with a Start Node will limit the ability to accurate simulate the operation of the process.
[10] A business item should never come in half way through a process as this implies parallel activity. However the higher level process map would not indicate this parallel activity. Instead it would show that the process can not begin until all inputs have been created which is not correct
[11] Processes are likely to be re-used and are not role or duration specific
[12] This prevents mix ups and inadvertent editing but can still share the processes if required
[13] Local tasks are easier and quicker to create by dragging and dropping from the icons palette. Also you can convert Local tasks to Global tasks but not the other way round. Global tasks on the other hand may require rework where inputs are inconsistent or change across multiple processes.
[14] Documentation reports report Global and Local Tasks separately.
[15] Currently the effect of inclusive decisions on case analysis results is not well known.
[16] The more specific the choices are the easier it is to perform static analysis.
[17] Yes/No labels reduce the quality of data derived from process case analysis
[18] Multiple choice decisions do support inclusive decisions but these should only be used by advanced users familiar with the concept and the implications for simulation. With inclusive decisions, the probability of percentages can exceed 100%.
[19] Probabilities which do not add up to 100% may generate an error in a process map
[20] Binary decisions should not be used, as they reduce the quality of data derived for case analysis; they introduce rework for the process mappers should binary decisions need to be converted to multiple choice decisions later on; and finally they do not allow output branches to be formatted for aesthetics.
[21] A role must receive a trigger in order for it to know to begin work
[22] Simulation will not work correctly if a process does not end with a stop
[23] A join does not combine business items and it is not possible to map additional outputs from a Join. It improves map logic to expressly show each output separately as deriving from each parallel path.
[24] The number of people or systems performing each role can be adjusted easily during simulation. It is not as easy to adjust resource allocations. Furthermore resources are people specific whilst roles are generic.
[25] Assigning one role per task reduces contention as to where in the process map, i.e. swimlane, a task is placed. Also at the time of writing the effects of assigning multiple resources to a task is not well known.
[26] All automated tasks will then appear in the same swimlane when the map is rendered in Swimlane view by Role.
[27] If all assumptions are included as annotations it becomes easy to collate them together in the end in an annotations report.
[28] If an annotation is not connected to an object, auto layout will always move the annotation to the beginning of the map
[29] Currently the effect on simulation analysis is not proven
[30] If you are using this construct for modeling, ensure that this task has business item cardinality equal to the number of parallel paths incoming to the join.
[31] Currently the effect of inclusive decisions on case analysis results is not well known.
[32] The role of for the first task within the subprocess may not exist in the higher level process.
[33] This may create an error mark on the loop object but this will not adversely impact the process map
[34] Select View-> Page Break Overlay to toggle feature on and off.
[35] For example, a process model. It is not possible to combine data sources eg. classifier catalog and process model in one report.
[36] Pre-condition & Post-Conditions can only be added in Intermediate Mode and use of these will prevent future use of the process map for analytics.
[37] Pre-condition & Post-Conditions can only be added in Intermediate Mode and use of these will prevent future use of the process map for analytics.