Process Template 2 - Instructions

Introduction

Process Template 2 Overview

> **All Blue Prism Process Templates follow a similar basic structure, the 'Process Template 1 – Instructions' document should therefore be read and understood before advancing to use Process Template 2.**

This document is distributed alongside Process Template 2 to aid in its understanding and use.

Process Template 2 is a multi-purpose template designed to be modified into the foundation of numerous different styles of process.

Process Template 2 offers the following in additional to Process Template 1:

- Variations to how the Main Page of the process works
- Additional Sub-Pages that can be used in your processes

Templates Overview

Templates are intended as a base for starting a new processes, the idea being that 'save as' is used to make a copy of a diagram to work on.

Using a template as the basis of building a new process has the following benefits:

- Decrease Process development time
- Provide consistency across all Processes, allowing easier understanding and support
- Assist developers in keeping to best practice and to work within the Development Methodology of an organisation

The Blue Prism process templates are provided as a generic starting point. It is expected that these templates may need modification to create a template that fits the requirements and methodologies of your organisation.

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How to use Process Template 2

This section describes how to use Process Template 2 to create a new process.

Process Template 2 contains many different example Main Pages, each called EXAMPLE Main Page, and with a description of the page in brackets. These example main pages are aimed to fit many different scenarios for processes that you may want to create.

To use the template to create a new process the modification procedure is as follows.

➤ Select most appropriate 'example' page.

➤ Copy the contents of the selected 'example' page on to the Main page.

➤ Delete all 'example' pages.

➤ Save as.
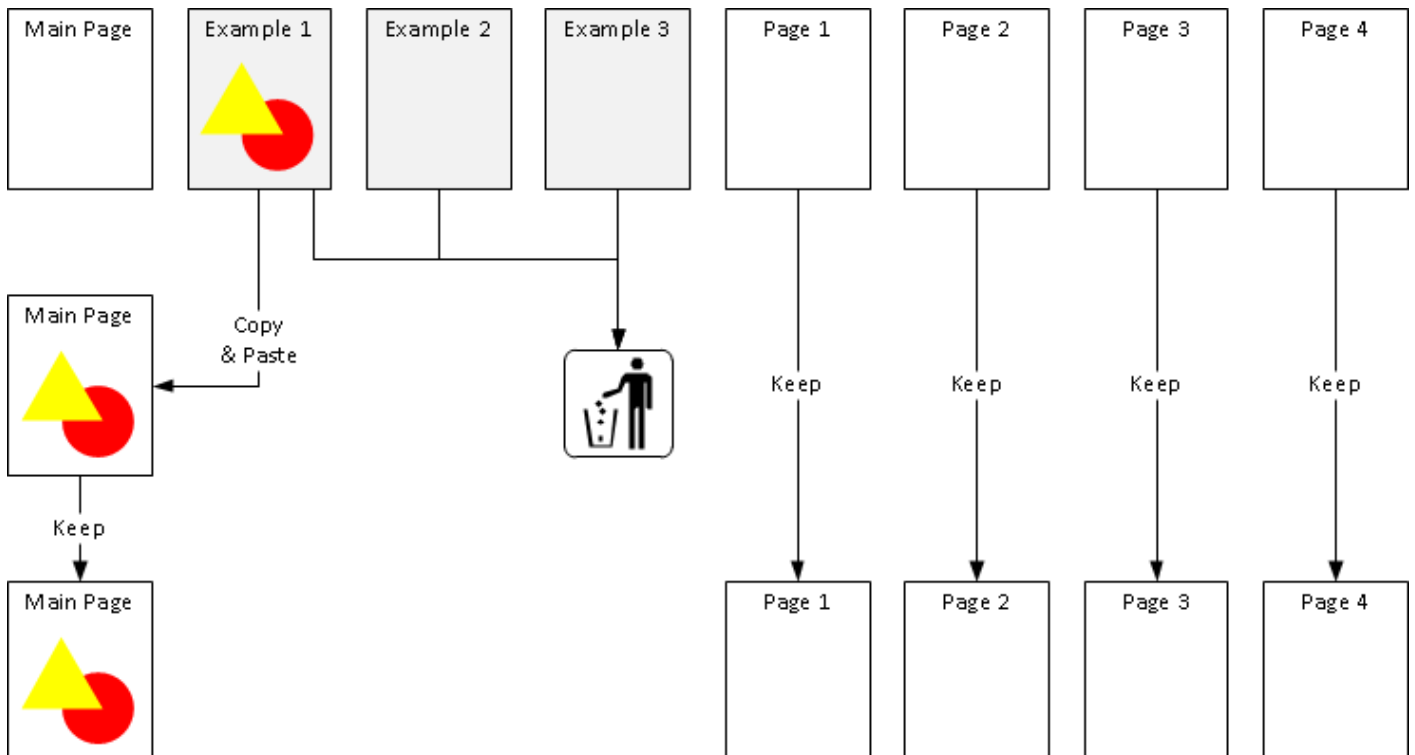
Note: The process you are creating may require logic from more than one of the Example Main Pages. If this is the case, you will need to create your own unique main page by copying parts of different example pages into your Main Page.

Generic Main Page features

This section describes features that are generic across all the example Main Pages provided in Process Template 2.

Features that are also common to Process Template 1 have not been described again here, please refer to 'Process Template 1 – Instructions' for instructions on configuration that is common across all Blue Prism templates.
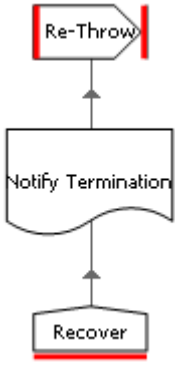
Exception Control Settings Data Items

Data Item Name	Data Item Type	Description
Stop After Failure To Control Applications	Global	The Main Page in Process Template 2 calls a page called Control Applications, which has the aim of maintaining the target applications. The initial value of this flag informs the Control Applications sub-page should throw an exception if one of the target applications cannot be controlled. If set to False, the sub-page will instead keep trying to control the applications.
Stop After Consecutive Exceptions	Global	This data item is used by the Mark Item As Exception sub-page to indicate if the process should terminate after the Consecutive Exception Limit has been reached, or if only an alert email should be sent.
Consecutive Exception Limit	Global	This data item resided on the Mark Item As Exception page in Process Template 1, but has been moved to the Main Page in Process Template 2. The initial value of this data item should be set to the maximum number of times you want the process to try and work subsequent work queue items that have the same System Exception. The default initial value is set to 3.

Differences to Process Template 1.

This table outlines differences between the main pages in Process Template 2 to the Main Page in Process Template 1.

Stage Name	Description
Sub Page - Load Queue	This sub-page contains the logic to load new cases into a work queue. In Process Template 1 this page was named 'Populate Queue' and it was called from the Start Up sub-page.
Sub Page - Get Next Item	This sub-page contains the logic to get the next case from the work queue.

	In Process Template 1 there was not a separate page for this logic.
Sub Page – Control Applications	This sub-page contains which has the aim of maintaining the target applications.
Notification Email	This logic catches an exception that is about to cause the process to terminate. The Notify Termination sub-page is called to send an alert (i.e. an email) to the Blue Prism controllers. *Notes:* *This template logic may be improved to remove the risk of an infinite loop if there is an exception thrown by the Notify Termination page.* *For processes that will be ruin on a high number of resource pcs this logic maybe improved to prevent the same alert being sent from lots of different sessions.*
Sub Page – Unpack Item	This sub-page exists for you to place logic to cast the item data into data items for use within your process.
Sub Page – Validate Item	This sub-page exists for you to place logic that validates the Work Queue item data. You should ensure that all the information required by your process has been provided and is in the correct format.

Process Template 2 Example Main Pages

This section describes each EXAMPLE Main Page provided in Process Template 2.

EXAMPLE Main Page (stop when no queue items available)

This is the most basic example Main Page, similar to the basic template provided in Process Template 1, but with the few differences that were outlined in the previous section.

The Work Queue is only populated once by calling the 'Load Queue' sub-page on once, near the start of the process flow.

EXAMPLE Main Page (stop after consecutive exceptions)

This Main Page is identical to the previous 'stop when no queue items available' example main page, but with the addition of a note stage explaining that the 'Stop After Consecutive Exceptions' data item is set to True.

EXAMPLE Main Page (perform additional steps after exception)

This sub-page contains additional process flow stages after an exception has been recovered by the main 'Work Item' exception block.
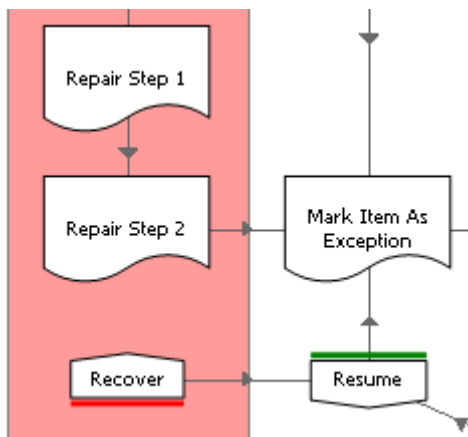

The sub-pages should be amended to include any process logic that is required before the Mark Item As Exception page is called.

Examples may be:

- A note needs to be added to an application only when an exception occurs
- Some MI information needs to be added to a database only when an exception occurs.

EXAMPLE Main Page (poll for work when queue is empty)

This Main Page contains logic to continuously work and load Work Queue items up until the process stops, rather than simply loading work once at the start of the process and completing once work runs out.
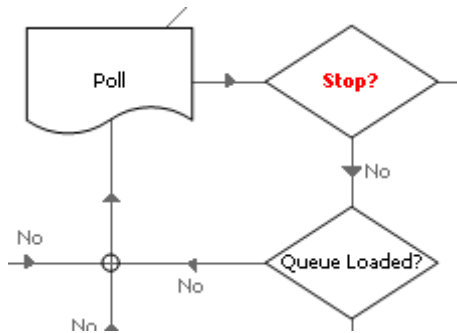
If there are no more Work Queue items a sub-page called 'Poll' is called.

The Poll sub-page will contain logic to:

- Call the Load Queue sub-page to attempt to get work

- Wait for a short period of time if there is no work found to load

- Perform any actions that need to be performed in applications if there are no work, such as call the Control Applications sub-page to keep the systems in a usable state

EXAMPLE Main Page (sleep during downtime)

This Main Page contains logic to stop working Work Queue items for a pre-configured period of time, and then resuming until the configured stop time.

An example of when this logic might be used is if a system owner does not wish for the process to do any updates during a peak usage time period.

Additional data items

Data Item Name	Data Item Type	Description
Downtime Start	Local	This time data item should be set to the time that the downtime period should start.
Downtime End	Local	This time data item should be set to the time that the downtime period should end.
Sleep Interval	Local	This number data item should be set to the number of seconds that the process should periodically sleep before checking if the Downtime End time has passed.
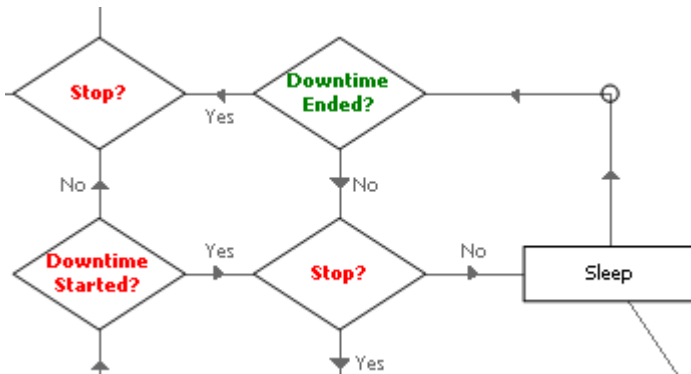
Once the Downtime Start time has passed the process enters a loop that simply sleeps for short periods of time and checks if the Downtime End time has passed.

Once the Downtime End time has passed, the process will continue to process cases.

Note: If the downtime period is long, this process logic might be improved by calling the Close Down and Start Up pages before and after the downtime period.

EXAMPLE Main Page (work items from multiple start points)

This main page has a number of decision stages next to each Work Step sub-page. If the decision is true the Work Step page is called, if the decision is false, the process will skip the page.

Reasons for wanting to skip Work Step pages may include:

- Different Work Queue items need working in different ways depending upon the work scenario that they fit.

- You want to enable the Work Queue item to be retried and worked again from the start of the process, skipping any updates that have already been performed. This might occur if the Controller selects 'Force Retry' for a work queue item.
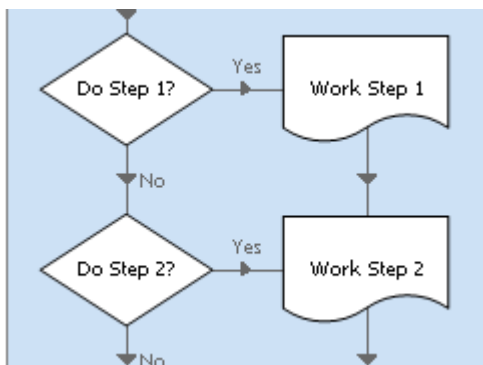
The expression within each of the 'Do Step' decision stages will need updating to be the condition you require to go to the Work Step page.

The decisions could be based upon:

- The work queue status, which is used to store what work steps have already been completed

- Work Queue tags, that identify the work type of the item

- Logic unique to your process

- Add or remove as many 'Do Step' decisions as you need for your process.

EXAMPLE Main Page (complete items early)

This main page has decision stages in its flow to decide if the item has completed without needing to perform all the remaining work steps.

Potential reasons for not performing all the Work Steps for an item might include:

- After reading information from the systems, the process finds that the item no longer needs to be processed because the required system updates have already been done and are therefore not required again. The process skips all the update steps and simply marks the item as complete rather than performing.

- Some final steps are only required for some scenarios. For example, it be that an alert needs to be sent if specific case scenario if found.
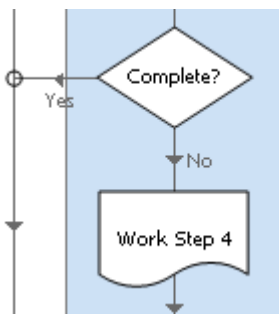
The expression within each of the 'Complete?' decision stages will need updating to be the condition you require.

Add or remove as many 'Complete?' decisions as you need for your process.

EXAMPLE Main Page (start only if work available)

For this Example Main Page the Load Queue has been moved to be the very first sub-page called by the process.

If there are no cases to work the process ends, without starting the any systems.