blueprism

Software Robots - the Virtual Workforce

Blue Prism Learning

CONTROL ROOM AND QUEUE MANAGEMENT

VERSION: 1.0

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Contents

1. Introduction 3
2. Control Room 3
   2.1. Navigation 3
   2.2. Overview 4
   2.3. Available Processes 5
   2.4. Resources 6
   2.5. Environment 7
   2.6. Operations 8
   2.7. Queue Management 14

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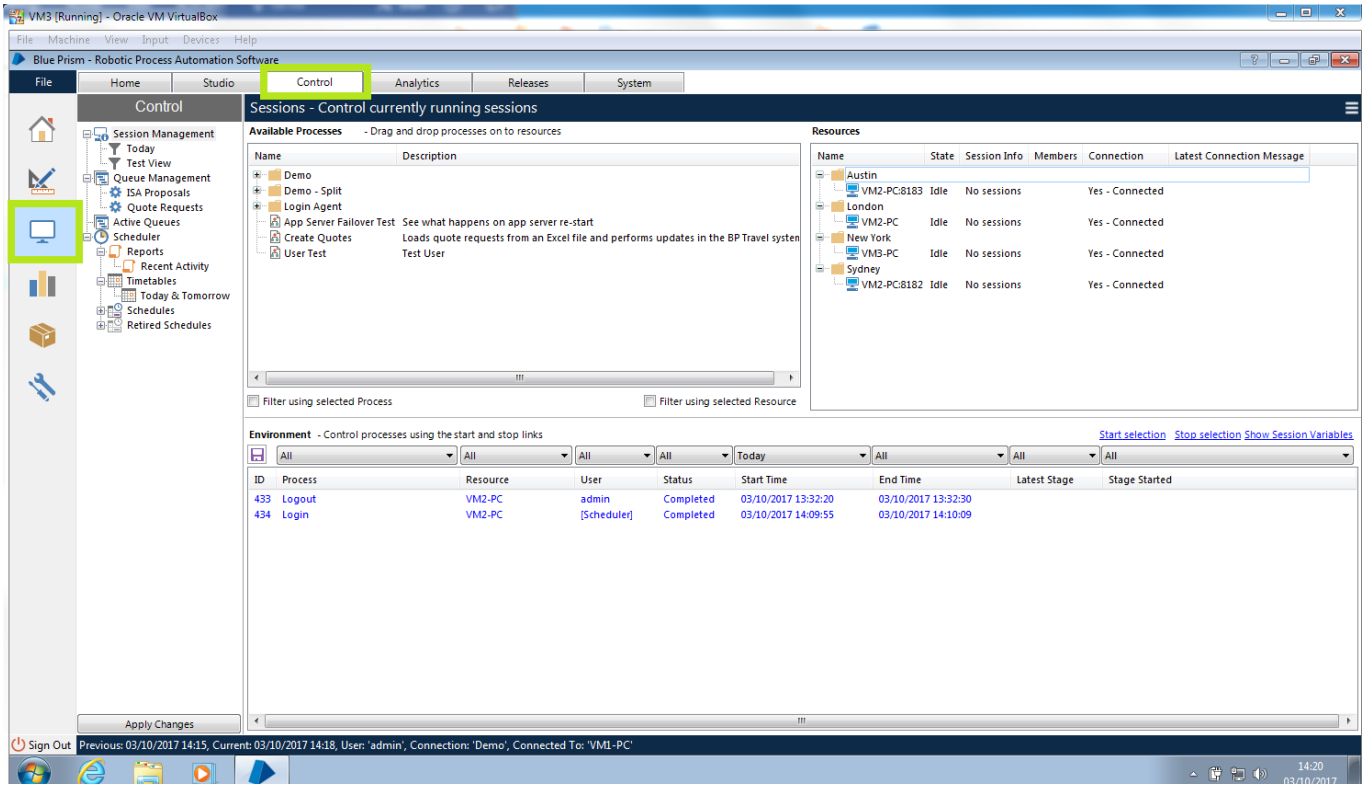
1. Introduction

This guide provides a high level overview of Control Room and Queue Management functionality.

2. Control Room

2.1. Navigation

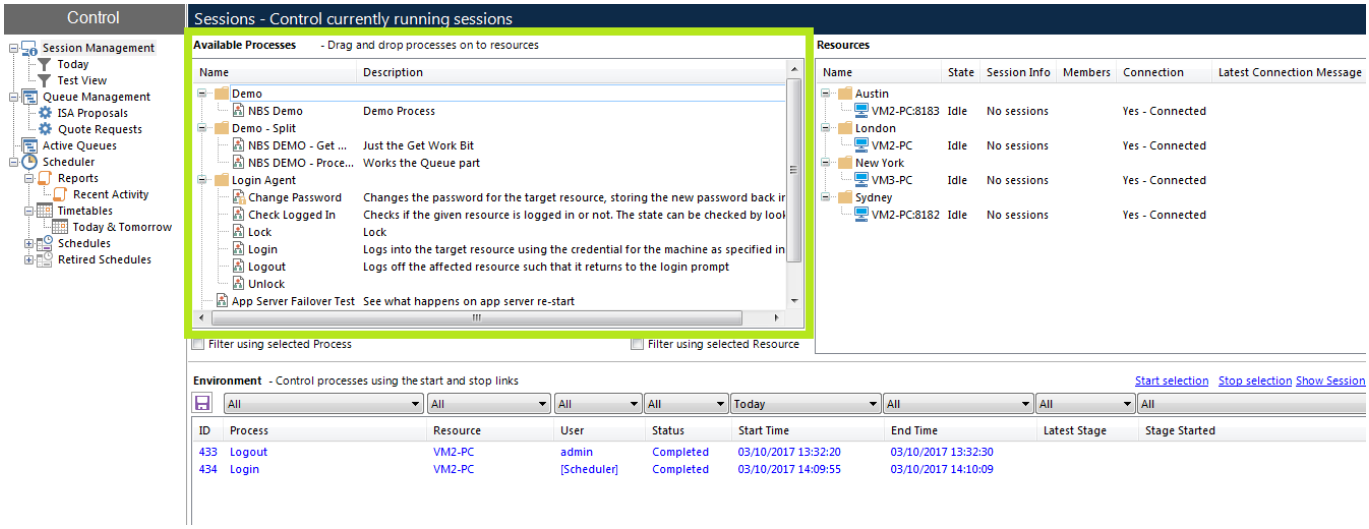
- The Control Room area of Blue Prism allows processes to be started and stopped and their current status assessed.
- There are two entry points to the control room, accessed via the side bar or top menu.



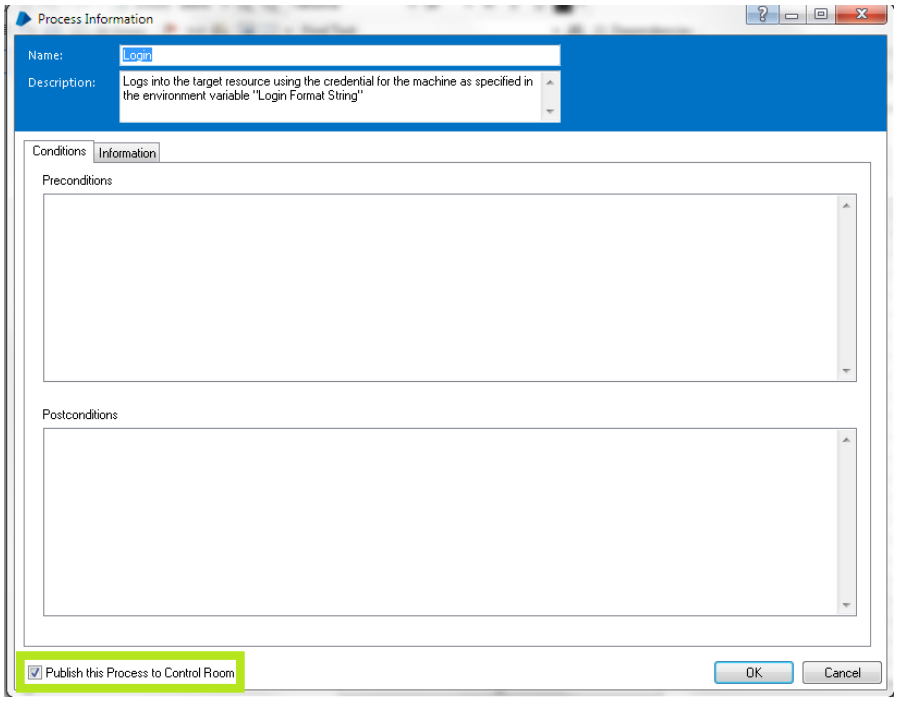
2.2. Overview

- Control Room is the area of Blue Prism in which processes that have been designed, tested and deployed can be controlled in a real world environment.
- The ‘environment’ within Control Room displays processes, resources and sessions.
- A ‘process’ is defined as a business process previously designed and tested from Process Studio.
- A ‘resource’ is a unit which performs all, or part of a process and can be either human, or more commonly, machine.
- A ‘session’ represents a process which is currently assigned to a resource. It maintains a state (eg. Pending, Running, Completed)

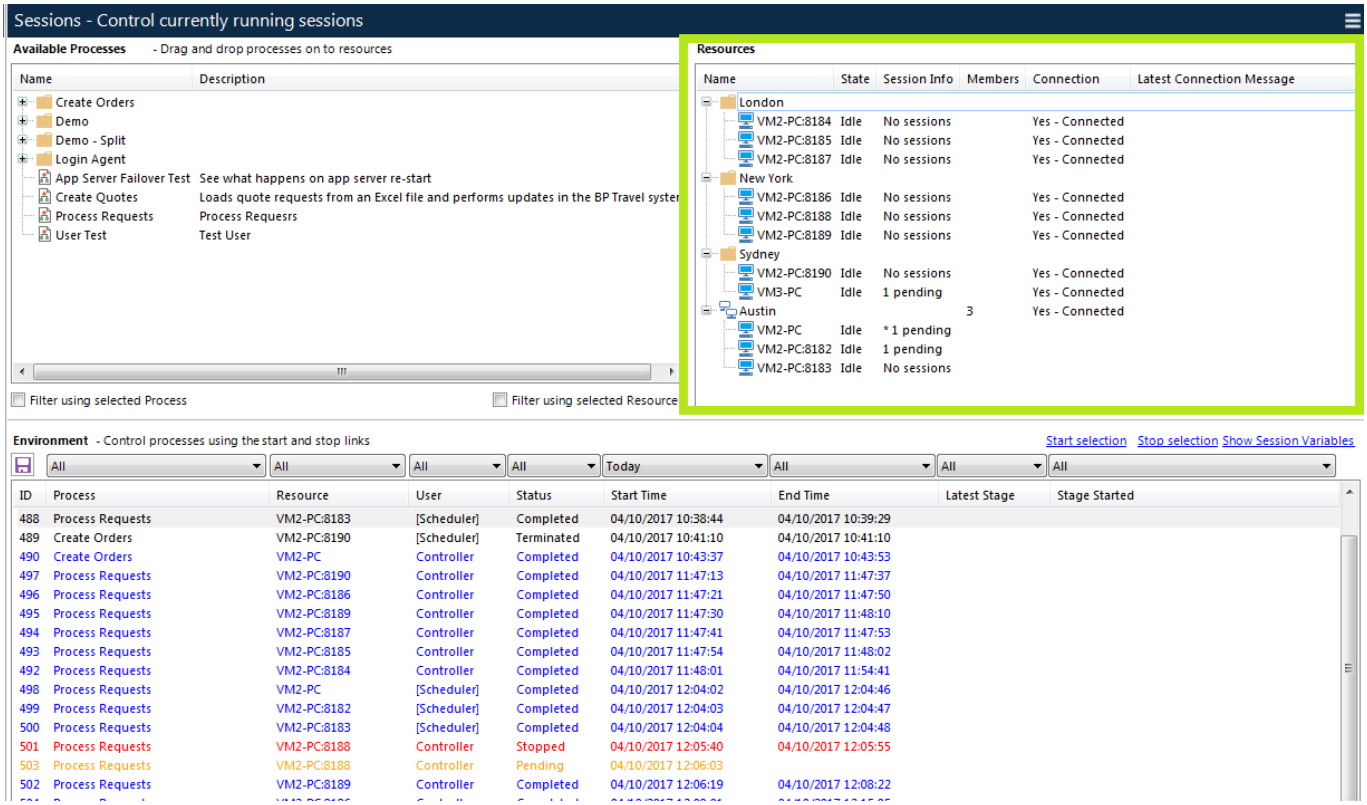
2.3. Available Processes



- Processes are not visible in the Control Room unless they have been ‘published’
- The published state of a process can be viewed or set using the ‘Publish this Process to Control Room’ checkbox located in the properties of the Process Information stage on the Main Page of the process.

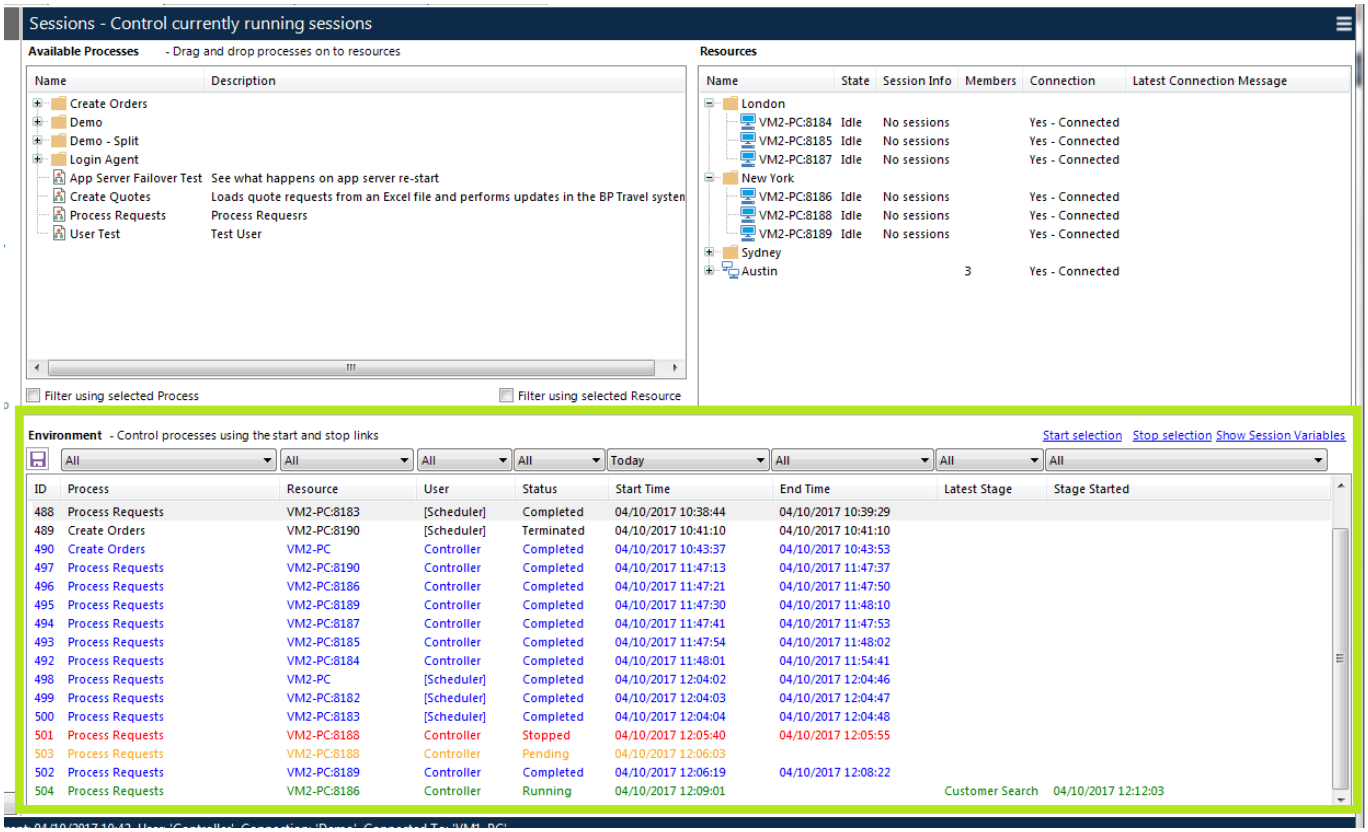


2.4. Resources



- The resources view shows a list of all resources, or PCs which are available as platforms on which to run business processes
- Hovering over a resource will display a tool tip of the resources current status.
- Right clicking on the resources view allows selection of viewing mode, with Large Icons, Small Icons, List and Details views available
- The right click menu also allows access to View Capabilities. This sub menu lists all of the business objects installed on the resource.
- Should you require a process to run on many resources, drag the mouse to create a rectangle over all the resources required as targets and then drag the highlighted resources over the process which is to be run
- On releasing the mouse button, an entry will be created in the environment view for each resource / process combination selected. Again, pending entries are checked in readiness for starting.

2.5. Environment



- The environment view shows all process / resource combinations in effect.
- The status column indicates whether the processes are running, stopped, or pending - ie selected but not started.
- To change the status of a process, or processes, select the combinations required and select the Start Processes or Stop Processes links.

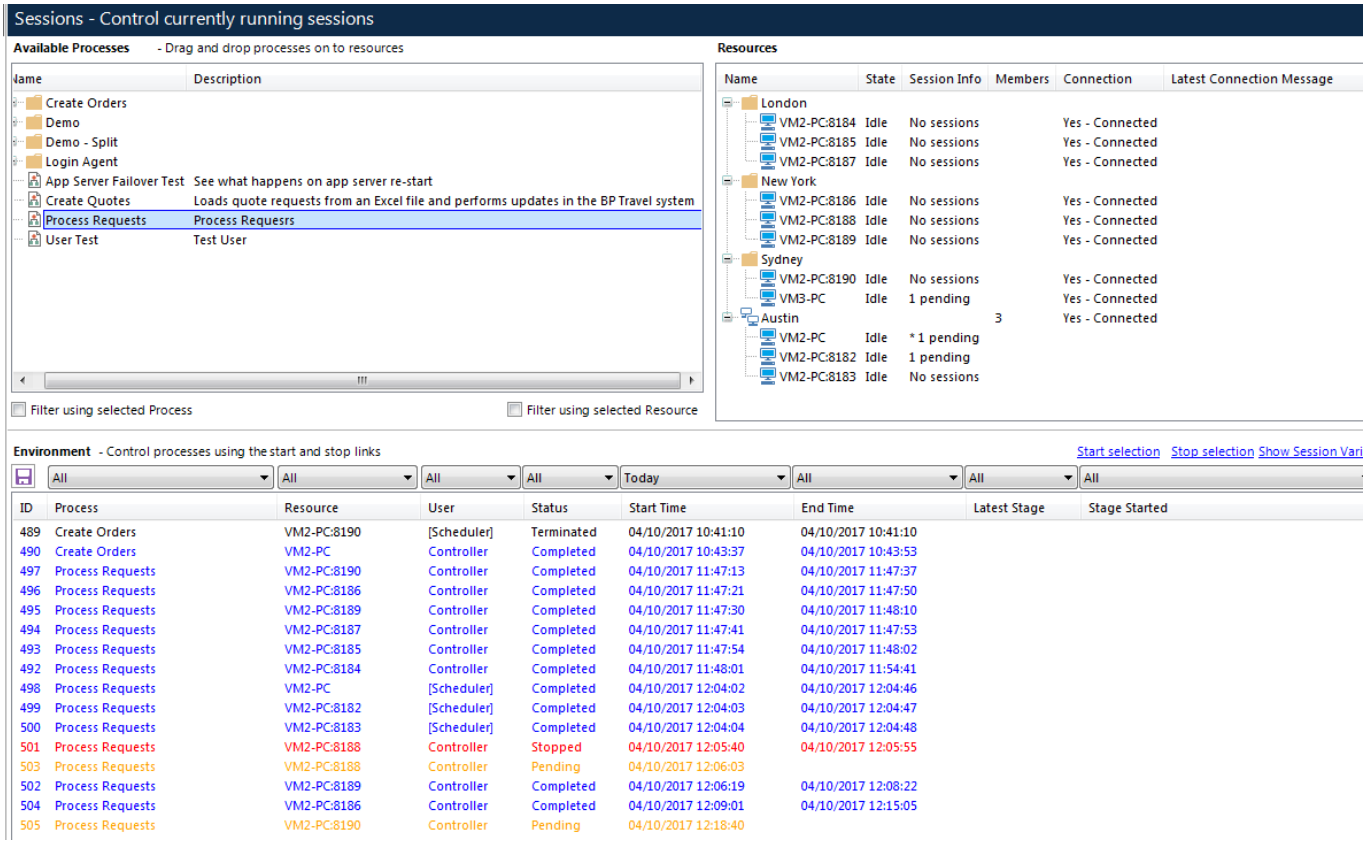
2.6. Operations

Creating a Session Manually

- In order to start a new session, drag a process onto the required resource, or drag a resource onto the required process. This will create a 'Pending' session

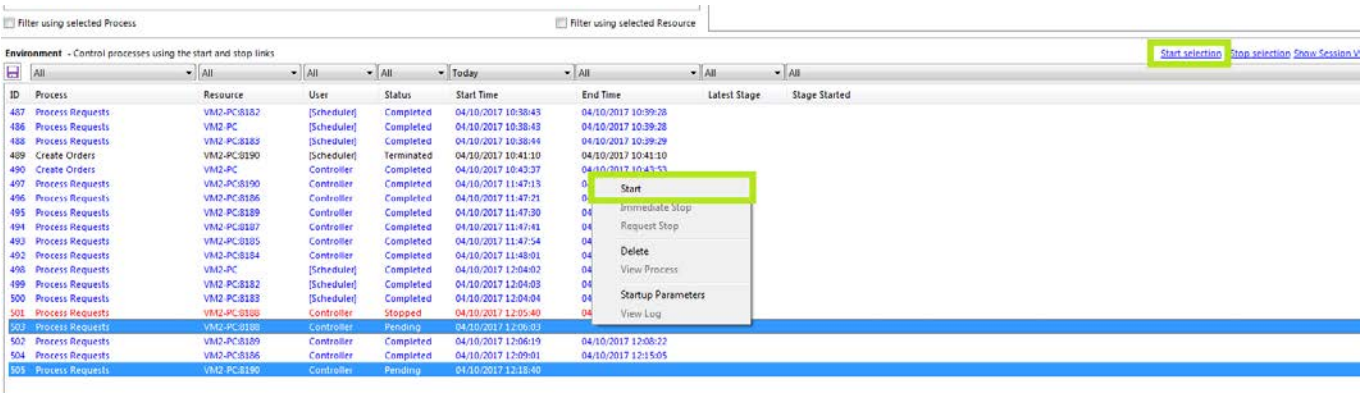
  TIP: To quickly run one process on several resources, select several resources by dragging the mouse and drag the entire selection over a single process.

- Pending sessions appear in the list view in the lower half of the window and are coloured orange.



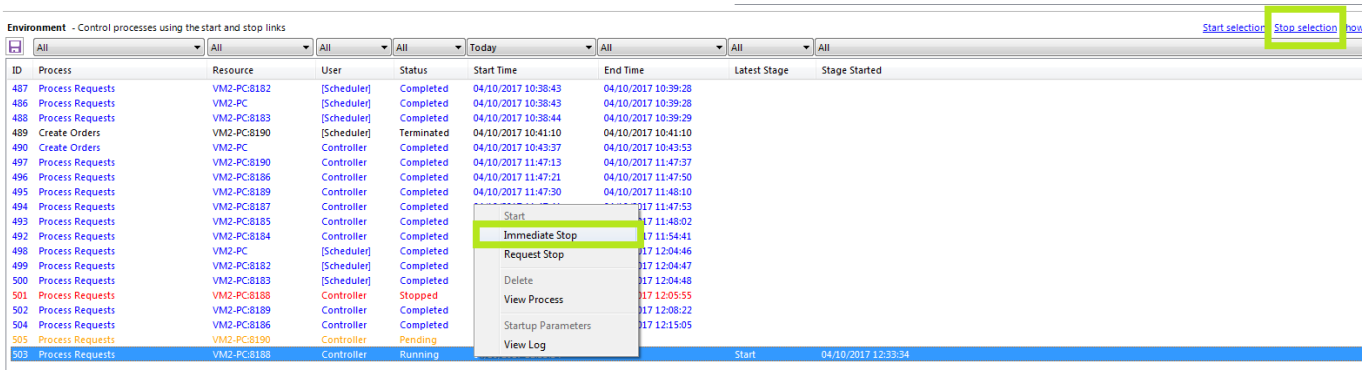
Starting a Session

- To start pending sessions, select all desired sessions (using the control key to select more than one session) and click the Start Selection link, or right-click the selection and choose Start.

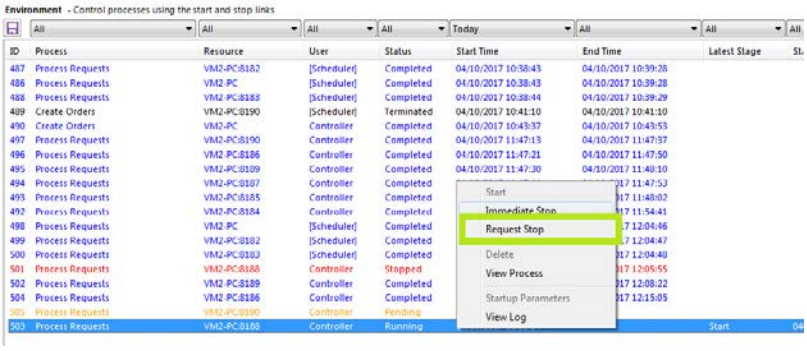


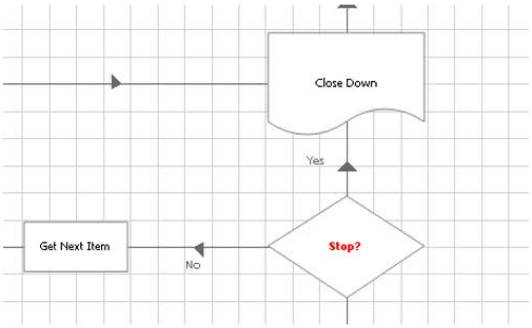
Stopping a Session

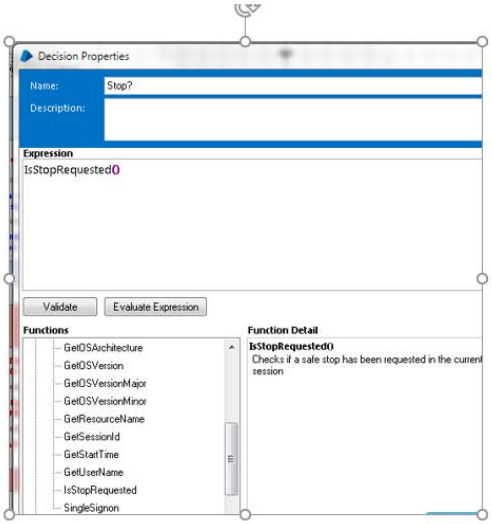
- To ''immediately'' stop a running session, or a set of sessions, select all desired sessions (using the control key to select more than one session) and click the Stop Selection link, or right-click the selection and choose Immediate Stop.



- To request a ''safe'' stop in a running session or set of sessions, select all desired sessions (using the control key to select more than one session), then right-click the selection and choose Request Stop.
- A flag is set on the session that the running process can check using the IsStopRequested() environment function, allowing it to exit cleanly from its current operations.




Close Down
Yes
Get Next Item
No
Stop?


Decision Properties
Name:
Stop?
Description:
Expression
IsStopRequested()
Validate
Evaluate Expression
Functions
GetOSArchitecture
GetOSVersion
GetOSVersionMajor
GetOSVersionMinor
GetResourceName
GetSessionId
GetStartTime
GetUserName
IsStopRequested
SingleSignon
Function Detail
IsStopRequested()
Checks if a safe stop has been requested in the current session

Session Variables

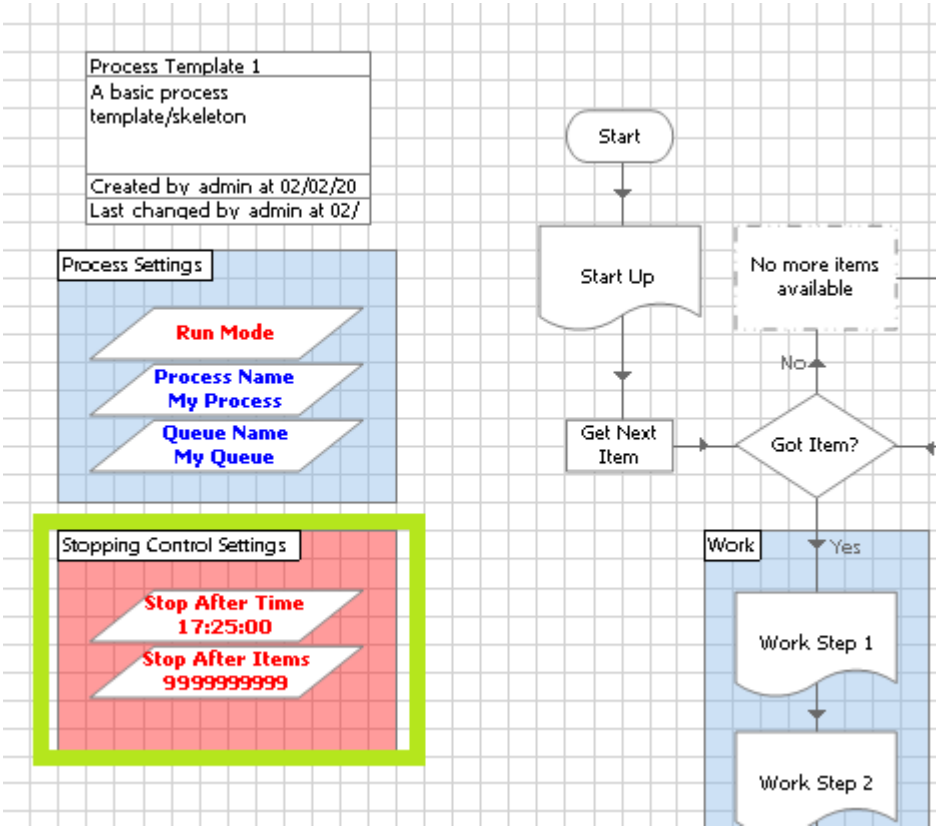
- Session Variables are exposed outside the diagram, and as the name suggests, are applicable to sessions, i.e. running Processes

Key Points

- Session Variables are specific to that instance of the Process
- If 2 instances of the same process are running at the same time, they will both have the same Session Variables but the Session Variables may have different values
- Session Variables need no set up in System Manager
- Data Items exposed as Session Variables are writable
- Session Variables can be viewed and modified from the Control Room

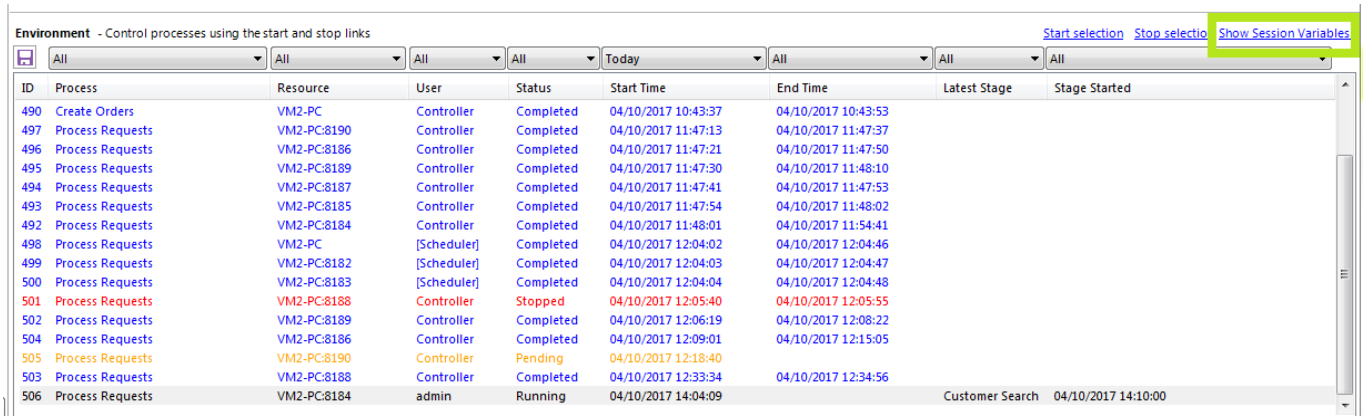
Creating Session Variables

- Session Variables are defined during the process build in Process Studio
- The example below is taken fom the Blue Prism Process Template to illustrate the 'Stop After Time' and 'Stop After Items' Session Variables
- All Session Varibales should be documented in a handover document to the Process Controllers (e.g. the Operational Handbook in the Blue Prism 'vanilla' methodology)

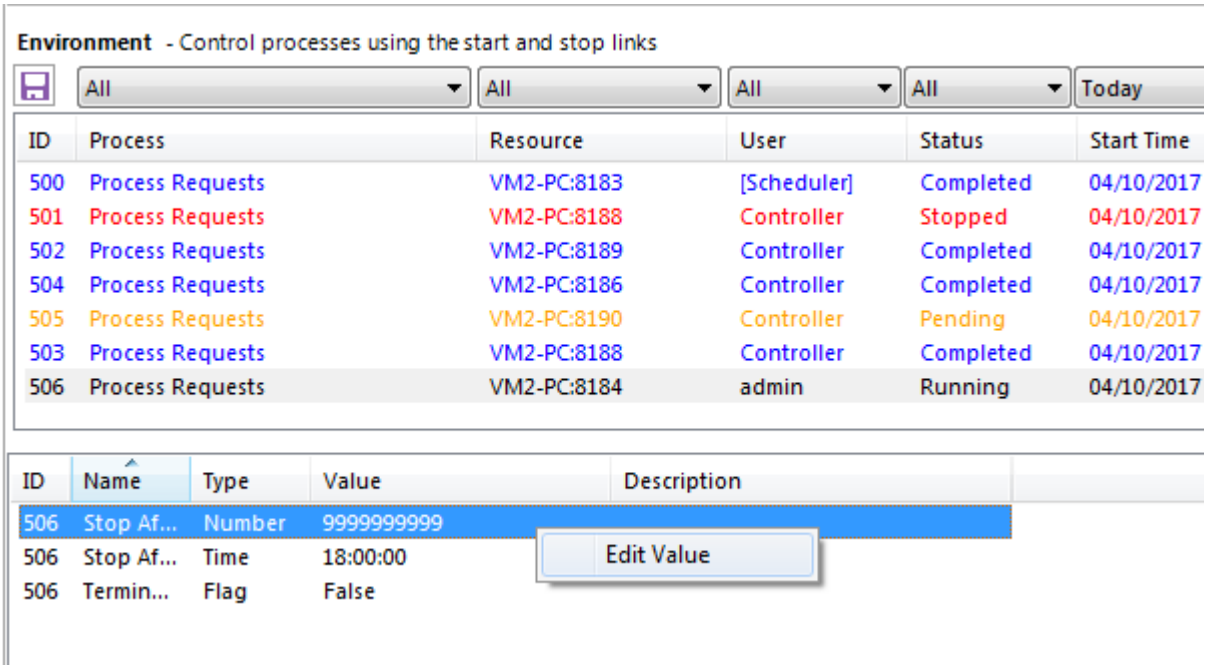


Controlling Session Variables

- When a process is running you can see the Session Variables and the Values set by highlighting the appropriate sessin and selecting Show Session Variables



- To change a value select it and right click > Edit Value



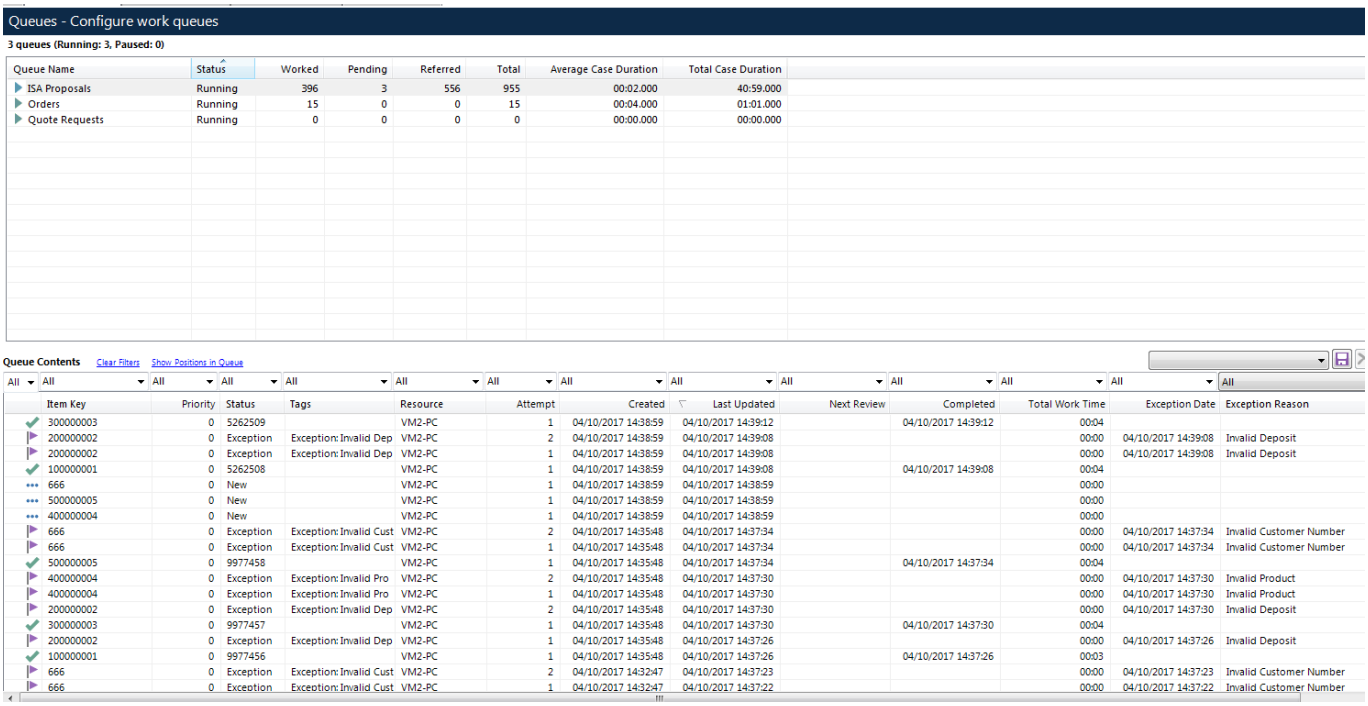
- Once modified the value of the Session Variable will change within the running session.

2.7. Queue Management

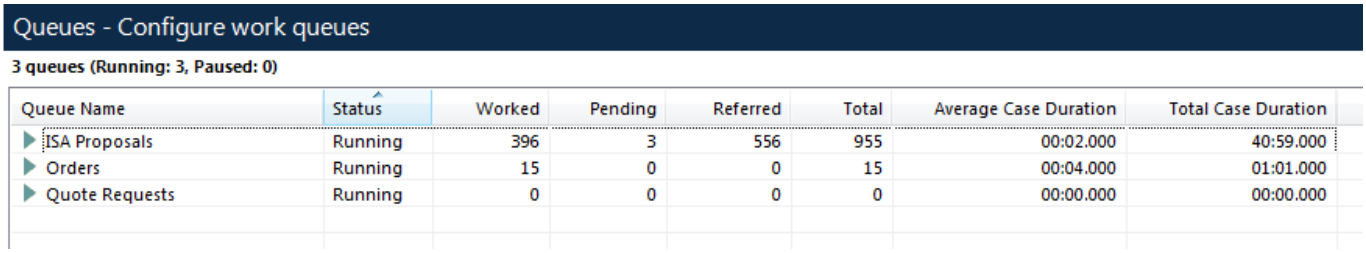
Overview

A Blue Prism process is intended to obey an instruction to do a repetitive task.

- That instruction could be some kind of list feeding the process with work, for example a spreadsheet.
- Alternatively a process might be designed to wait for work to appear on an ad hoc basis, for example an email inbox.
- Realistically we should expect there will be problems and accept that some cases will succeed and some will not
- Either way we will need to record results.
- The Work Queue feature provides this functionality to store, manage, share and report on process work.
- This is where we manage the running of processes, either manually or in schedules



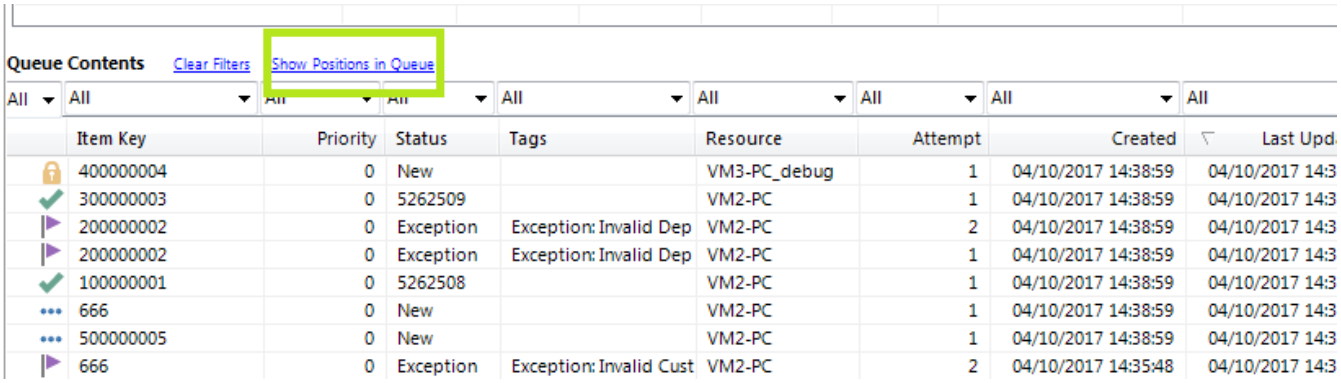
- The top half of the page lists the queues that have been configured within the environment.
- The name of the queue is listed along with its status and some statistics regarding the items within the queue.



- A queue's contents can be viewed by selecting the desired queue in the list - only one queue's contents is displayed at one time, even if multiple queues are selected.

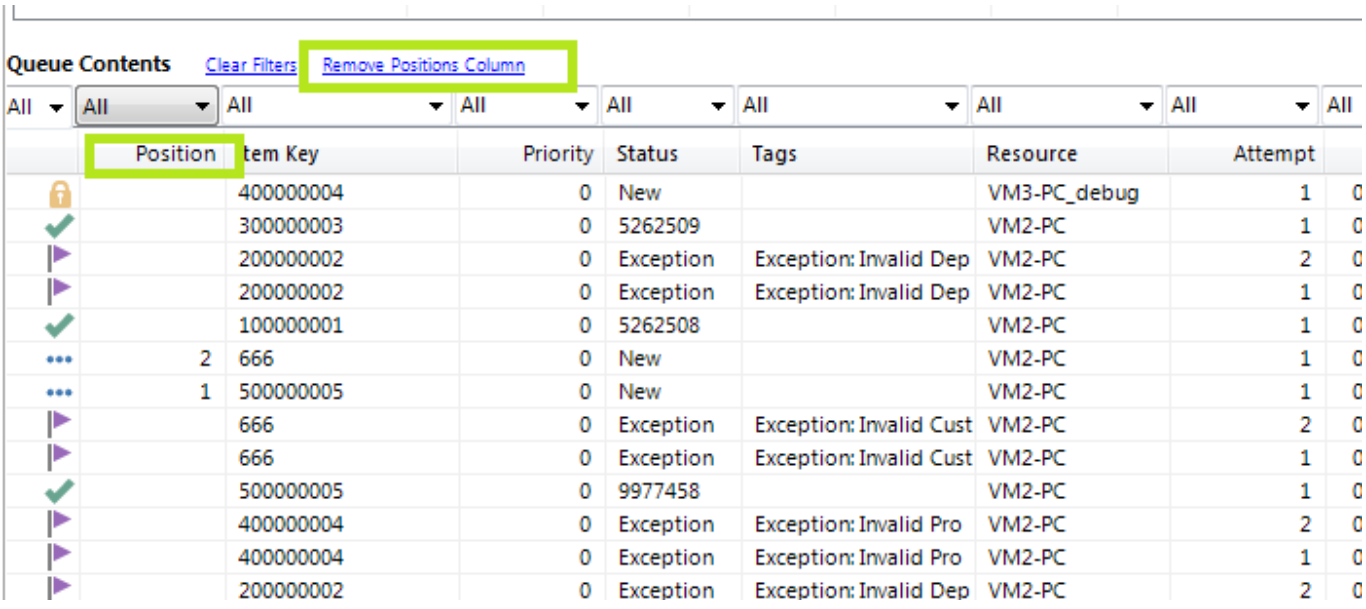
Queue Contents

- When you first look at a queue's contents, each item's position is not visible. The calculation can slow down the loading of the queue data, so it is only displayed on request.
- To show the position of each item within the queue, the ‘Show Positions in Queue’ link can be clicked



Item Key	Priority	Status	Tags	Resource	Attempt	Created	Last Upd
400000004	0	New		VM3-PC_debug	1	04/10/2017 14:38:59	04/10/2017 14:3
300000003	0	5262509		VM2-PC	1	04/10/2017 14:38:59	04/10/2017 14:3
200000002	0	Exception	Exception: Invalid Dep	VM2-PC	2	04/10/2017 14:38:59	04/10/2017 14:3
200000002	0	Exception	Exception: Invalid Dep	VM2-PC	1	04/10/2017 14:38:59	04/10/2017 14:3
100000001	0	5262508		VM2-PC	1	04/10/2017 14:38:59	04/10/2017 14:3
666	0	New		VM2-PC	1	04/10/2017 14:38:59	04/10/2017 14:3
500000005	0	New		VM2-PC	1	04/10/2017 14:38:59	04/10/2017 14:3
666	0	Exception	Exception: Invalid Cust	VM2-PC	2	04/10/2017 14:35:48	04/10/2017 14:3

- The position column can be rehidden by clicking on the ‘Remove Positions Column’ link which replaces the 'Show Positions' link when the position column is visible.



Position	tem Key	Priority	Status	Tags	Resource	Attempt	
	400000004	0	New		VM3-PC_debug	1	0
	300000003	0	5262509		VM2-PC	1	0
	200000002	0	Exception	Exception: Invalid Dep	VM2-PC	2	0
	200000002	0	Exception	Exception: Invalid Dep	VM2-PC	1	0
	100000001	0	5262508		VM2-PC	1	0
2	666	0	New		VM2-PC	1	0
1	500000005	0	New		VM2-PC	1	0
	666	0	Exception	Exception: Invalid Cust	VM2-PC	2	0
	666	0	Exception	Exception: Invalid Cust	VM2-PC	1	0
	500000005	0	9977458		VM2-PC	1	0
	400000004	0	Exception	Exception: Invalid Pro	VM2-PC	2	0
	400000004	0	Exception	Exception: Invalid Pro	VM2-PC	1	0
	200000002	0	Exception	Exception: Invalid Dep	VM2-PC	2	0

States

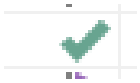
Pending / Deferred

- Items which are still to be worked have this state.
- The items are selected for working by the 'Get Next' action in the order specified by the position of the item.
- If an item is deferred, it will not be selected for working until the deferral date/time is reached.
- These items can be marked with an exception or a deferral date can be set on them.

Locked

- Items which have been selected for work and are still being worked are in this state.
- The locked state prevents them from being selected twice from the queue by more than one session
- Locked items can be unlocked within the list

Completed



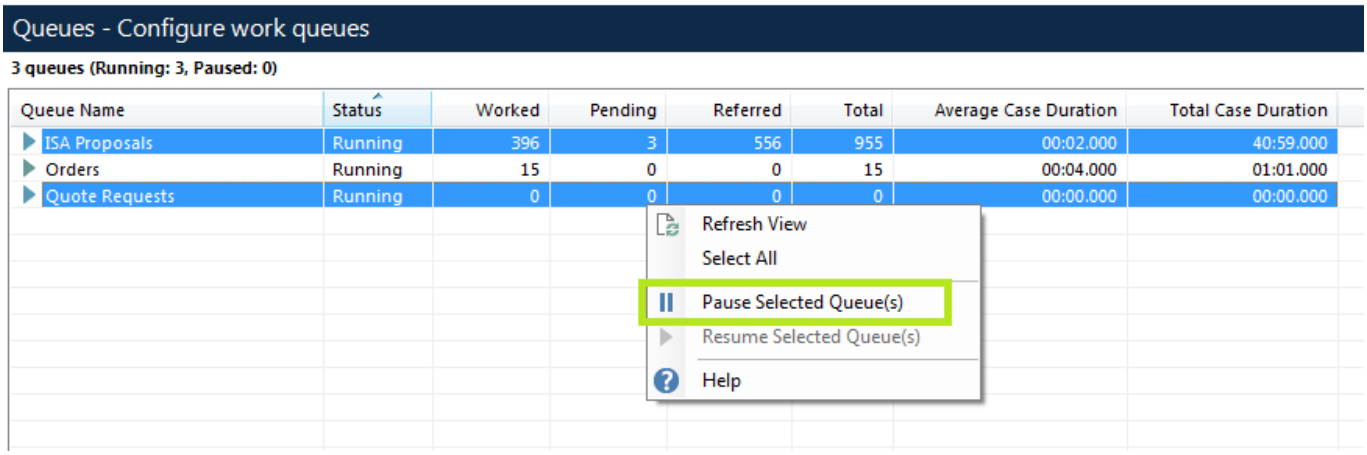
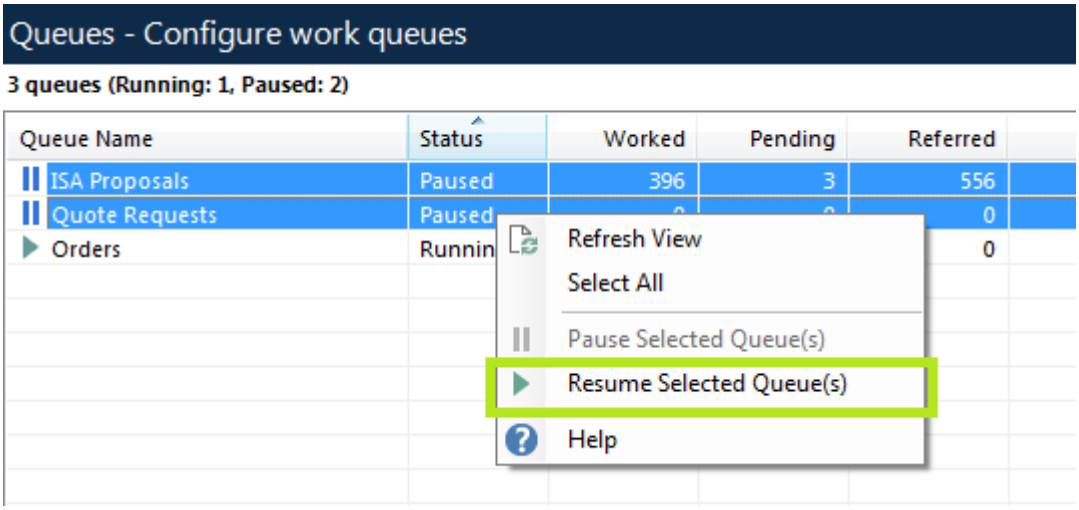
- Completed work items have been worked successfully to completion and they require no further attention.
- Completed items can be deleted from the queue as required.

Exceptioned

- Exceptioned items have been selected for working, but have not been worked to completion.
- This may be due to a case being unsuitable for work by the process that worked it, or due to an error encountered in the session while working the case.
- Exceptioned items can be deleted or, if there are no pending or completed attempts, a new retry of the item can be forced

Pausing / Resuming Work Queues

- A Work Queue can be temporarily paused so that it will not release items at all. The Resume function reactivates the paused queue
- A queue can be paused or resumed by right-clicking them in this list and selecting Pause Selected Queue(s) or Resume Selected Queue(s) respectively.
- Pausing the queue has the effect of making the Get Next action on the Internal – Work Queues Business Object return nothing, as if the queue was empty.
- To pause a work queue, right click on the work queue you wish to pause in the top half of the screen and select 'Pause Selected Queue(s)'. Multiple work queues can be paused by highlighting all the queues you wish to pause.



- To resume a queue. right click on the work queue you wish to resume in the top half of the screen and select 'Resume Selected Queue(s)'. Multiple work queues can be resumed by highlighting all the queues you wish to resume.