

## Monitoring Blue Prism

This data sheet outlines the methods and techniques that can be used to monitor a Blue Prism implementation. It covers both alerting and reporting of process exceptions as well as the monitoring of the components of the Blue Prism infrastructure such as Interactive Clients, Application Server(s), Runtime Resources and SQL Databases.

### Monitoring the Blue Prism Infrastructure

A Blue Prism infrastructure will comprise a number of different components each of which can be monitored and polled to verify that it is available and responsive. When monitoring the Blue Prism components, standard third-party tools and techniques can be used to evaluate the following:

- Health of allocated hardware (e.g. disk space, CPU utilisation, network connectivity).
- Availability of specific windows services (e.g. service started, responding on the appropriate port).
- Windows Event Viewer entries.

### SQL Server

SQL Server is of paramount importance in the Blue Prism architecture and any performance or availability issues with this component are likely to be the source of a number of other issues that may be experienced across the other Blue Prism components.

As well as the heALTH of the allocated hardware, it is recommended that the SQL Server Instance(s) that host Blue Prism databases should be monitored for functionality and responsiveness.

<b>Hardware health</b>	Standard health-checks (e.g. available disk space, CPU utilization, network connectivity).  SQL specific health-checks (e.g. that applied SQL limits are not being reached (database size, log file size)). This should be applied to all Blue Prism databases as well as the default databases for the instance(s) such as tempdb.
<b>Availability of specific windows services</b>	There are a number of standard SQL services that should be verified as being started including those responsible for providing backup and maintenance functionality.
<b>Windows event viewer</b>	The event viewer of the SQL Server should be reviewed for any errors or warnings which may affect the availability or performance of the SQL Server.

**Applicable Blue Prism Editions:** Enterprise, NHS

## Blue Prism Application Server

Where a Blue Prism Application Server is implemented, the heALTH of the allocated hardware should be monitored as should the Blue Prism specific windows services.

Hardware heALTH	Standard health-checks (e.g. disk space, CPU utilization, network connectivity)
Availability of specific windows services	Verify that <b>Blue Prism Server</b> windows service is started. A worthwhile test is to ensure that the Application Server is able to receive TCP connections on the configured port (by default the port is 8199).
Windows event viewer	Events are written to a custom windows event log called <b>Blue Prism</b> . The event source can be compared to the name that the Blue Prism Server service is given when it is installed (by default it is "Server Service – Default"). Typically any event item that is of type Error is worth further investigation.

**Applicable Blue Prism Editions:** Enterprise

## Blue Prism Runtime Resources

The runtime resources are responsible for executing the Blue Prism processes and therefore both the heALTH of the allocated hardware as well as their ability to receive and return communications should be monitored.

Hardware heALTH	Standard health-checks (e.g. disk space, CPU utilization, network connectivity)
Availability of specific windows services	There are no Blue Prism specific services to monitor in relation to this component, however a worthwhile test is to ensure that the Runtime Resources are able to receive TCP connections on the configured port (by default the port is 8181).
Windows event viewer	For Blue Prism versions v4.1 and later, events are written to a custom windows event log called Blue Prism. Typically any event item that is of type Error is worth further investigation.

**Applicable Blue Prism Editions:** Enterprise, NHS

## Process Alerts and Monitoring

In addition to the functionality provided within Control Room for controlling and monitoring the runtime resources, additional notifications about Processes and Schedules can be provided through use of Alerts.

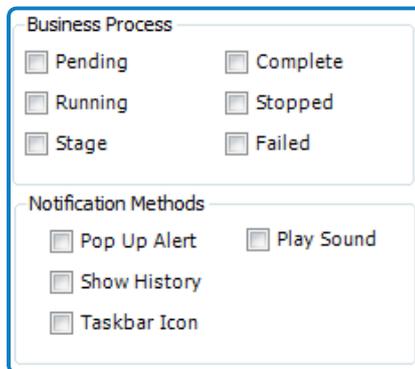
### Process Alerts

Process alerts can be used to notify specified users when certain actions occur for selected processes within the Blue Prism environment and are configured on a per user basis.

This can help to provide process-level monitoring which may be useful for identifying wider problems which affects the smooth running of Blue Prism.

Users can select which processes they would like to monitor, what actions they are interested in being told about, and also the method by which they would like to be notified.

Additionally, if there is a desire to monitor additional actions, manual alert notifications can be designed into any Blue Prism process.

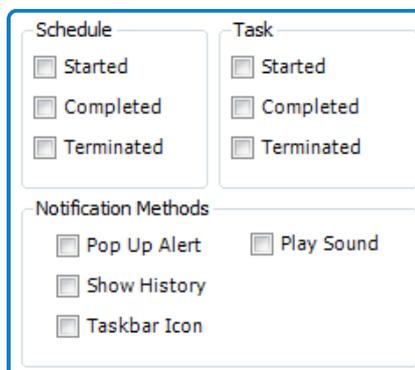


The screenshot shows a configuration window for Business Process alerts. It is divided into two main sections: 'Business Process' and 'Notification Methods'. The 'Business Process' section contains six checkboxes: Pending, Complete, Running, Stopped, Stage, and Failed. The 'Notification Methods' section contains four checkboxes: Pop Up Alert, Play Sound, Show History, and Taskbar Icon.

### Schedule Alerts

As with Process Alerts, Schedule Alerts are used to notify specified users when certain actions occur for selected schedules within the Blue Prism environment, and are configured on a per user basis.

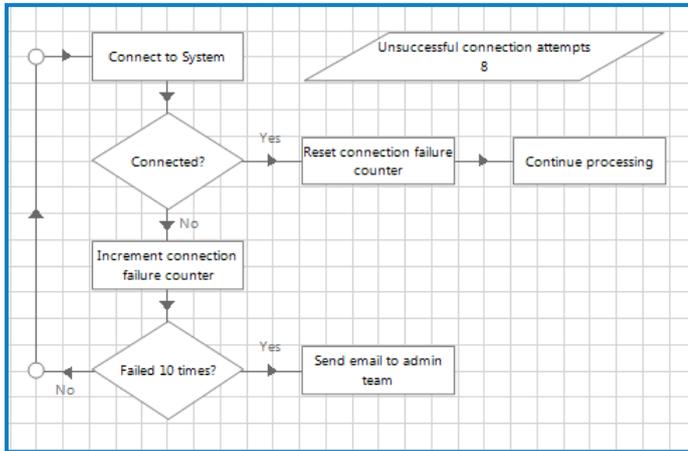
Users can select which schedules they would like to monitor and they can select the method by which they would like to be notified. Additionally they can choose whether notifications are required at the schedule, or more detailed schedule-task, level.



The screenshot shows a configuration window for Schedule and Task alerts. It is divided into three sections: 'Schedule', 'Task', and 'Notification Methods'. The 'Schedule' section has three checkboxes: Started, Completed, and Terminated. The 'Task' section also has three checkboxes: Started, Completed, and Terminated. The 'Notification Methods' section has four checkboxes: Pop Up Alert, Play Sound, Show History, and Taskbar Icon.

## Custom Alerts

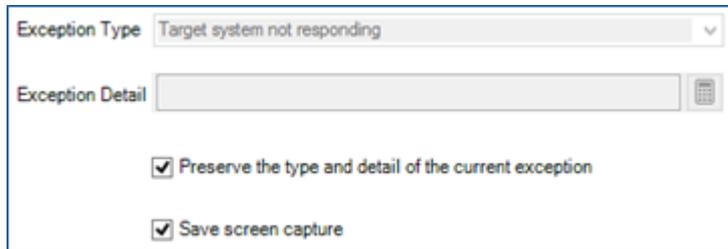
Where additional or specific alerts are required, it is possible to design custom alert notifications into any process. Such custom alert notifications can be very sophisticated (e.g. waiting for the same error to occur a number of times) and can take a wide number of actions (e.g. sending an email, raising an SNMP trap). These custom alerts can provide a great deal of flexibility and elegance to process level monitoring.



**Applicable Blue Prism Editions:** Enterprise

## Robot Screen Capture

Exception stages can now be set to save a screen capture. When utilized in a production environment, this feature can help troubleshoot and resolve Resource processing issues in a timely yet secure manner.



The screenshot shows a configuration window for an exception. At the top, there is a dropdown menu labeled 'Exception Type' with the selected value 'Target system not responding'. Below this is a text input field labeled 'Exception Detail' which is currently empty. At the bottom of the window, there are two checkboxes, both of which are checked: 'Preserve the type and detail of the current exception' and 'Save screen capture'.

When taken, the screen capture is saved with the date and time of the exception, the name of the Resource and the name of the process or object in which the exception occurred. When using this feature, the following points should also be considered:

- The functionality is enabled/disabled via a system-wide setting.
- Screen captures can only be viewed by users with the appropriate permission.
- The screen capture functionality requires that a default encryption scheme has been configured and is valid.
- Only the latest screen capture per Runtime Resource will be stored.

## Analytics

A new Analytics capability extends the Dashboard functionality. It enables improved metrics and the ability to configure Dashboards and session information to be directed to external analytics and monitoring systems, for monitoring or aggregation of metrics across multiple environments. This is achieved with the use of Published Dashboards, a type of dashboard that enables the corresponding metrics to be captured within the Application Server Event Log, for collection by an external monitoring or analytics tool.

 Additional configuration at the Blue Prism Server is required to enable this feature. Consideration should be given to the level of logging being performed. High levels of logging may impact process performance.