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# JT Monitor

1.5

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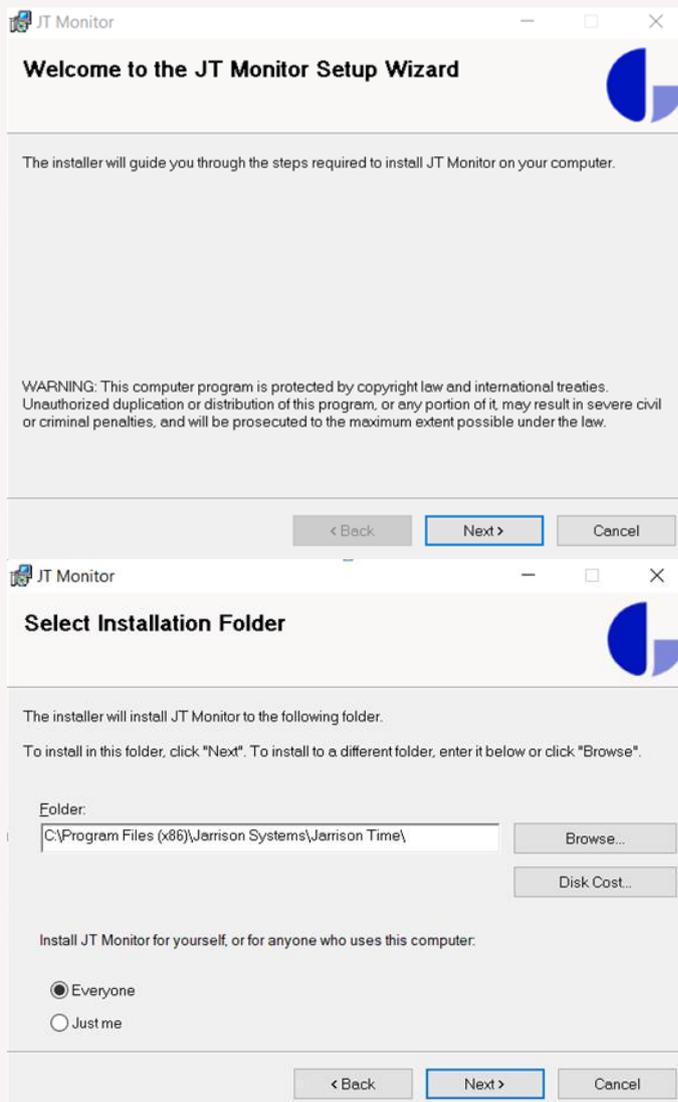
## Purpose

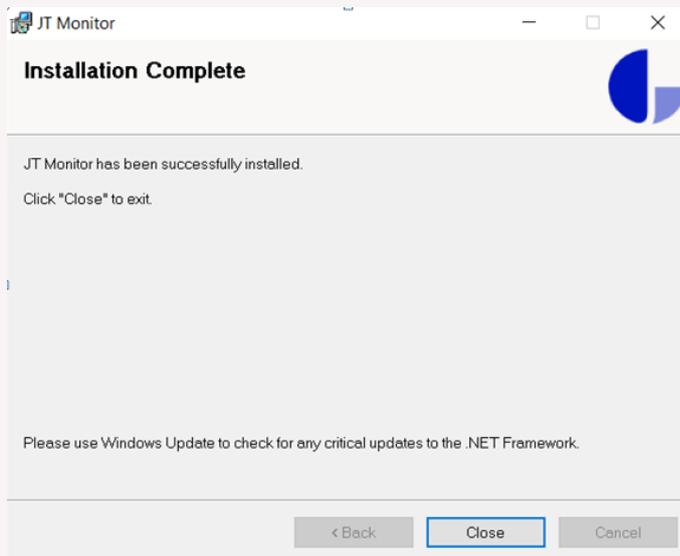
JT Monitor is a service that monitors the status of the engine (application or service) as well as JT Live and restarts these respective processes if they should stop unexpectedly. Monitor can also be used to provide notifications on certain system conditions

## Installation Process

JT Monitor must be installed on the same server that the Engine runs on

Run the installation file or use JT Manager to install JT Monitor. Below is the sequence of installation screens for JT Monitor. Click '**Next**' and then again on each successive screen.





## Starting JT Monitor



When installation has completed, launch Jarrison Time by double-clicking the application icon on the desktop, or locate the shortcut icon from the Start menu.

After launching, JT Monitor looks for the '**C:\JT-Data\ConfigMonitor.ini**' file, if not found one containing default values will be created. Thereafter settings need to be configured.

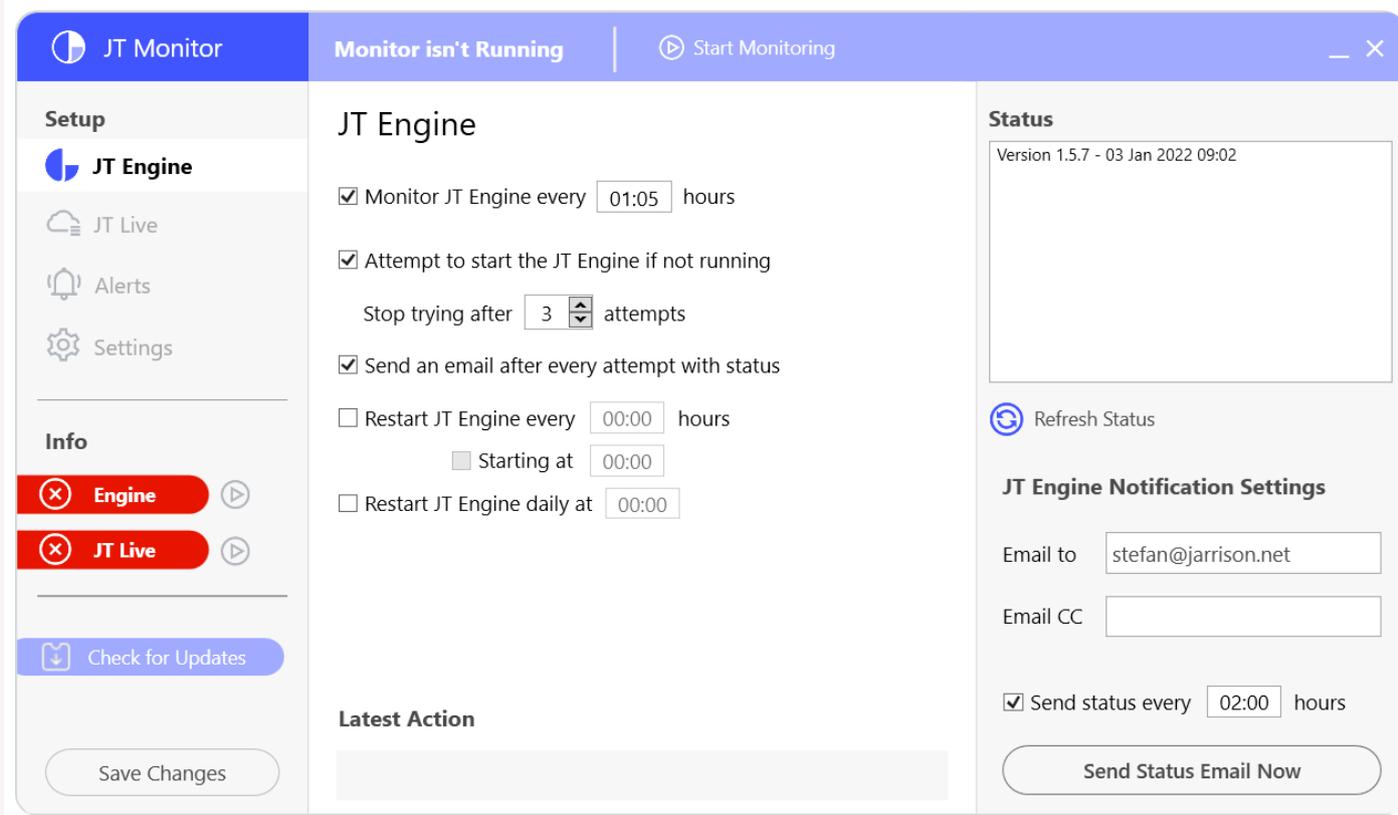
## Ini Entry

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A .ini file entry may be added as needed.

**AdditionalLogs=Yes** – will add extra detail (Device name and IP address) to the JT\_Monitor log file in C:\JT-Data\JT-Monitor\Logs

The **Alerts** tab **Offline Devices Exceed** option should be enabled if using this entry.



## Information and Actions

### Starting and Stopping JT Monitor Service

This can be done by using the JT Monitor application.



Click '**Start Monitoring**' and the message should update per below. Once the service is running it can be stopped manually.



Alternatively JT Monitor can be started/stopped using Windows **Services**, accessed via **Control Panel\All Control Panel Items\Administrative Tools\Services** or via keyboard shortcut <Windows key> and <r> and entering "services.msc".

All activities regarding JT Monitor will be logged and these files can be accessed via

Log files located at 'C:\JT-Data\JT-Monitor\Logs\JT\_Monitor'

The state of the Device Engine is indicated on the left by these icons:



Engine is not running. The engine can be started by clicking the Play button.



Engine is running but all devices are offline. The engine can be stopped by clicking the Stop button or restarted by clicking the Restart button.



Engine is running with at least one device offline. The engine can be stopped by clicking the Stop button or restarted by clicking the Restart button.



Engine is running with all devices online. The engine can be stopped by clicking the Stop button or restarted by clicking the Restart button.

If JT Live is licensed there will be indicators and controls for it as well:



JT Live is not running. The engine can be started by clicking the Play button.



JT Live is running. It be stopped by clicking the Stop button or restarted by clicking the Restart button.

## STATUS

The Status information is displayed in the upper right at all times. Status will only contain the JT Monitor version until a **Refresh** is performed.

### Status

Last clockings import: No clockings imported for this database  
Device Queue: 2 entries (2 are waiting for offline devices)  
Execution Interruptions for today: Notice = 0, Warning = 0, Execution Interruptions = 0  
Offline Device/s: 1 of 1 Devices are offline, oldest offline since 14 June 2021 at 09:40:17  
Template Transfer Errors: 0  
Engine: Running as a service  
Engine Memory Usage: 11.34 MB  
Last Backup: 2 Minutes ago on 14 June 2021 at 09:42:36  
Backup Path: C:\JT-Backup  
Users Logged In: 0  
SQL Version: Server 2019  
Instance Name: JT2019  
Operating System: Microsoft Windows 10 Home

## REFRESH STATUS



Will run a status check immediately.

Information available:

- Time of last transaction import
- Queue listing
- Execution Interruptions
- Offline devices
- Template Transfer Errors
- Engine memory usage

- Last backup time/date and the backup path
- Number of users currently logged into Jarrison Time
- SQL version and instance name
- Operating system and memory usage
- JTime and Log database sizes

All SQL and computer details used in the Status Reports will be saved, these files can be accessed at C:\JT-Data\JT-Monitor\Status

Latest Action - Displays information regarding the time the services were started or stopped .

## System Tray

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If JT Monitor is running, closing the application 'X' will hide Monitor in the system tray. The icon will update according the engine per below:



Engine is running with all devices on-line



Engine is running with at least one device offline

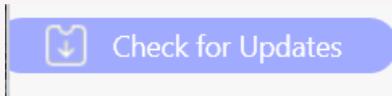


Engine is running with all devices offline

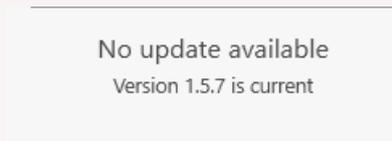


Engine is not running

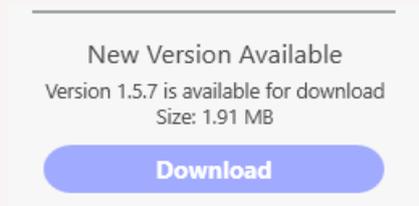
## Updates



The 'Check for Updates' button can be used to update Monitor. If no update is available, Monitor will display below message for a few seconds and return to the 'Check for Updates' button



If an update is available, you will have an option to download and install the new version.



## Setup

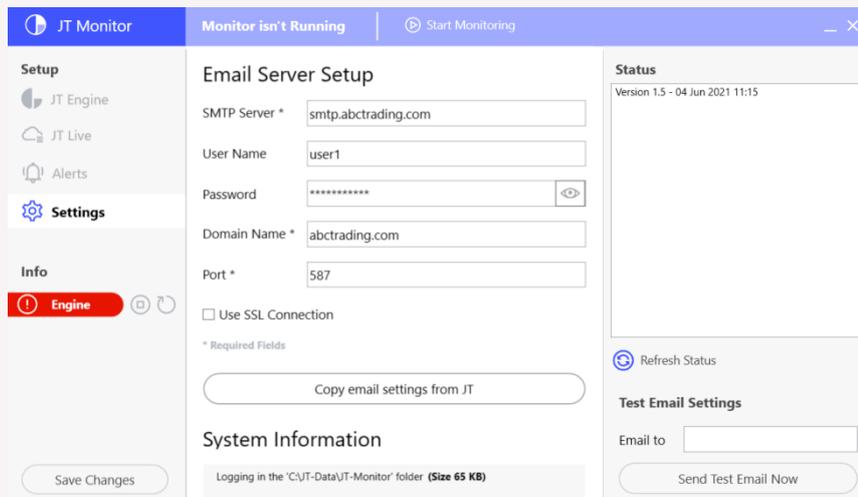
Various settings can be configured via the left menu options, according to what's required by the system setup.

## Settings

During the first run the email settings should be added in JT Monitor by going to 'Settings' on the left.

These settings need to be entered correctly in order for JT Monitor to email reports. You may need to ask the IT administrator for assistance with credentials.

**SMTP Server** - the Simple Mail Transfer Protocol server that will be used.



The screenshot shows the JT Monitor application interface. The top bar indicates 'JT Monitor' and 'Monitor isn't Running' with a 'Start Monitoring' button. The left sidebar contains menu items: 'Setup' (with sub-items 'JT Engine', 'JT Live', 'Alerts', and 'Settings'), and 'Info' (with a sub-item 'Engine'). The main content area is titled 'Email Server Setup' and includes the following fields:

- SMTP Server \*: smtp.abctrading.com
- User Name: user1
- Password: [masked]
- Domain Name \*: abctrading.com
- Port \*: 587
- Use SSL Connection

Below these fields is a 'Copy email settings from JT' button. A note indicates '\* Required Fields'. At the bottom of the main area, there is a 'System Information' section showing 'Logging in the 'C:\JT-Data\JT-Monitor' folder (Size 65 KB)'. On the right side, there is a 'Status' panel showing 'Version 1.5 - 04 Jun 2021 11:15' and a 'Refresh Status' button. Below that is the 'Test Email Settings' section with an 'Email to' field and a 'Send Test Email Now' button. A 'Save Changes' button is located at the bottom left of the main content area.

**Username** - the email username for the email account, not necessary in most cases.

**Password** - the email password for the email account but not necessary in most cases.

**Domain Name** - will be used in the email for the recipient.

**Port** - 25 or 587 (double-click in the field to switch between the two)

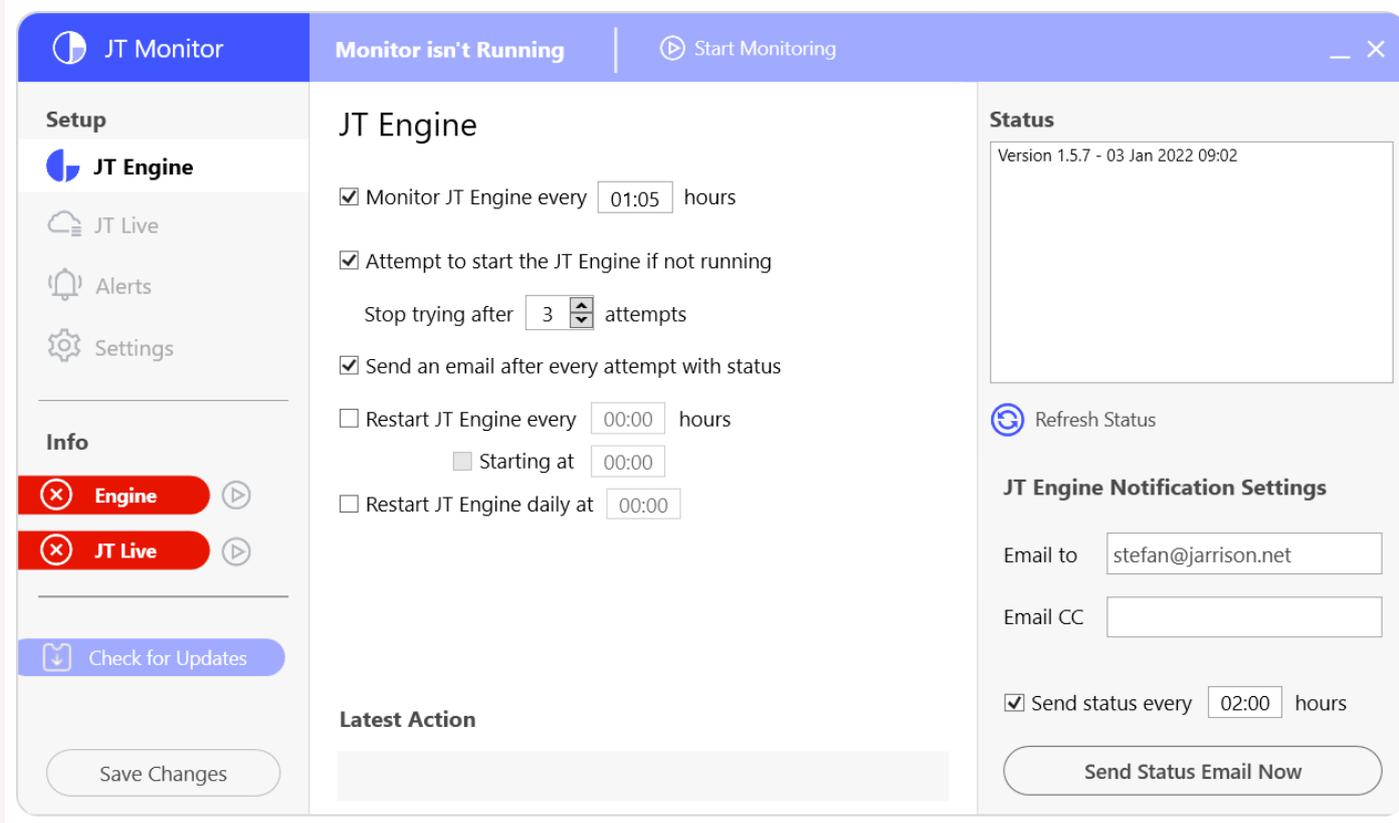
**Use SSL Connection** - Tick this box if your email settings use Secure Socket Level.

Alternatively click on '**Copy SMTP settings from Jarrison Time**' button, this will use the settings in Jarrison Time.

After the SMTP settings are entered a test email can be sent to see if the settings are working correctly by entering an email address and clicking on the '**Send Test Email Now**' button.

## JT Engine

This tab configures options pertaining to the Engine service.



**Monitor JT engine every** - Time interval to check the status of the engine (Running or Stopped)

**Attempt to start engine if not running** - if not selected, Monitor will only log the status of the engine.

**Stop trying after** - Monitor will attempt to start the engine the amount of times indicated by the selection (maximum of 20 attempts). If unsuccessful after the indicated number of attempts, Monitor will go into Idle mode for 12 hours and not attempt to start the engine again.

**Send an email after every attempt with status** - After each successful attempt an update will be sent,

**Restart JT Engine every** - force restarts of the Engine after the specified number of hours.

**Starting at** – the first restart of the JT Engine Service will occur at this set time and then restart the engine according to the setting above.

**Restart JT Engine daily at** - force a restart of the Engine at the specified time.

**Email To** - address to email Engine updates to

**Email CC** - copy address to email Engine updates to

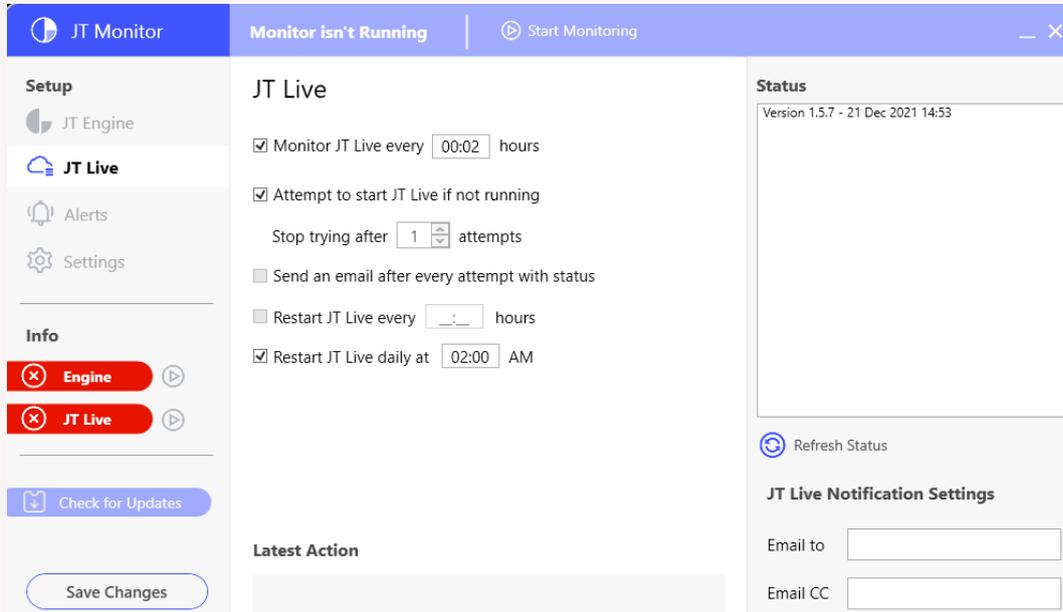
**Send status every** - the Status can be emailed regularly according to the time set here.

Monitor will send an email to the above email address recipients giving the time that the engine was started with a 'Status Report' containing information about:

- Time of last transaction import
- Queue
- Execution Interruptions
- Offline fevices
- Template Transfer Errors
- Engine memory usage
- Last backup time/date and the backup path
- Number of users currently logged into Jarrison Time
- SQL version and instance name
- Operating system and memory usage
- JTime and Log database sizes

## JT Live

This tab will only be available for selection if the Jarrison Time database is using JT Live.



**Setup**

- JT Engine
- JT Live**
- Alerts
- Settings

**Info**

- Engine
- JT Live**

Check for Updates

Save Changes

**JT Live**

- Monitor JT Live every  hours
- Attempt to start JT Live if not running
  - Stop trying after  attempts
  - Send an email after every attempt with status
  - Restart JT Live every  hours
  - Restart JT Live daily at  AM

**Latest Action**

**Status**

Version 1.5.7 - 21 Dec 2021 14:53

Refresh Status

**JT Live Notification Settings**

Email to

Email CC

**Monitor JT Live every** - Time interval (hh:mm) to check the status of JT Live (Running or Stopped)

**Attempt to start JT Live if not running** - if not selected, Monitor will only log the status of JT Live.

**Stop trying after...** - Monitor will attempt to start JT Live the amount of times indicated by the selection (maximum of 20 attempts). If unsuccessful after the indicated number of attempts, Monitor will go into Idle mode for 12 hours and not attempt to start JT Live again (unless manually restarted).

**Send an email after every attempt with Status** – after each successful attempt, Monitor will send an email giving the time that JT Live was started with a ‘Status Report’ containing information about (same as above)

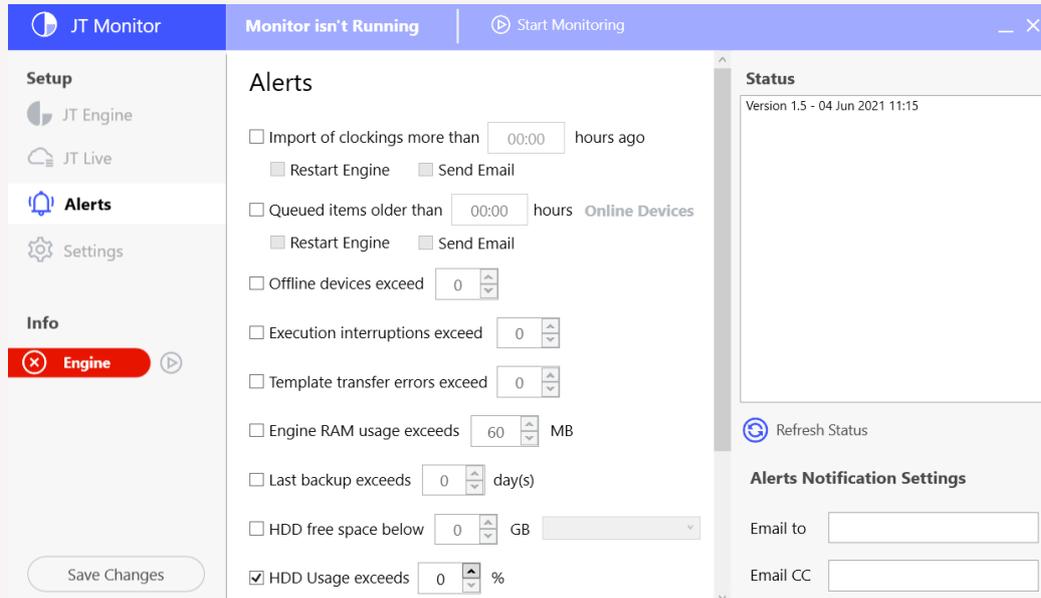
**Restart JT Live every** - Monitor will restart the JT Live Service at the time specified.

**Restart JT Live daily at** – Monitor will restart the JT Live Service daily at the time specified.

**Email To** - address to email JT Live updates to

**Email CC** - copy address to email JT Live updates to

## Alerts



**Alerts**

- Import of clockings more than  hours ago
  - Restart Engine
  - Send Email
- Queued items older than  hours **Online Devices**
  - Restart Engine
  - Send Email
- Offline devices exceed
- Execution interruptions exceed
- Template transfer errors exceed
- Engine RAM usage exceeds  MB
- Last backup exceeds  day(s)
- HDD free space below  GB
- HDD Usage exceeds  %

**Status**  
Version 1.5 - 04 Jun 2021 11:15

**Alerts Notification Settings**

Email to:

Email CC:

JT Monitor will run all specified alerts created every stated number of hours/minutes and if any of the alerts are flagged, an email will be sent listing the flagged alerts.

**Import of clockings more than [00:00] hours ago** - will monitor the imported transactions and if no clockings / transactions were imported in the last XX hours/minutes, this alert will be flagged

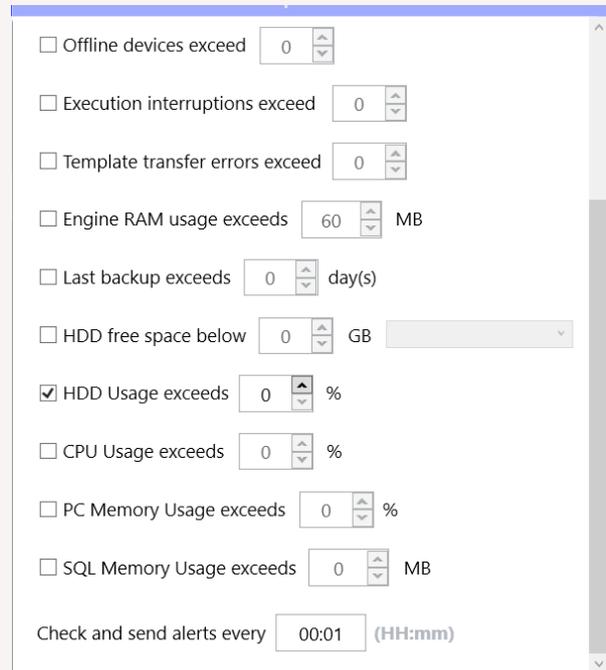
**Restart Engine** - Attempt to restart the engine at the same time the alert is sent.

**Queued items older than [00:00] hours (Online Devices)** - will monitor the queued entries for Online Devices only and if entries are in the queue for longer than XX hours/minutes specified, this alert will be flagged

**Restart Engine** - Attempt to restart the engine at the same time the alert is sent.

**Offline devices exceed** - if any 'Enabled' devices are offline when the Timer interval elapse, this alerts will be flagged

**Execution interruptions exceeds** - if X or more execution interruptions are present in the Engine Audit, this alert will be flagged



- Offline devices exceed
- Execution interruptions exceed
- Template transfer errors exceed
- Engine RAM usage exceeds  MB
- Last backup exceeds  day(s)
- HDD free space below  GB
- HDD Usage exceeds  %
- CPU Usage exceeds  %
- PC Memory Usage exceeds  %
- SQL Memory Usage exceeds  MB

Check and send alerts every  (HH:mm)

**Template transfer errors exceed** - if X or more templates transfer errors are present, this alert will be flagged

**Engine RAM usage exceeds X MB** - will monitor the amount of physical memory that is used by Device Engine / JT Engine and if the usage exceeds the specified Megabytes, this alerts will be flagged

**Last backup exceeds X days** - will monitor both automatic and manual backup options and if the date and time of the last backup are before 'X days' specified, this alert will be flagged

**HDD free space below X GB** - if free space for disk specified in dropdown list is below the specified GB, this alert will be flagged

**HDD usage exceeds X %** - if disk usage is more than X %, this alert will be flagged

**CPU Usage exceeds X %** - if CPU usage is more than X %, this alert will be flagged

**PC Memory Usage exceeds X %** - if memory usage is more than X %, this alert will be flagged

**SQL Memory Usage exceeds X MB** - if total memory used by SQL is more than X %, this alert will be flagged

**Check and send alerts every [00:00] hours** - Timer interval of hours/minutes between each alert check and send.