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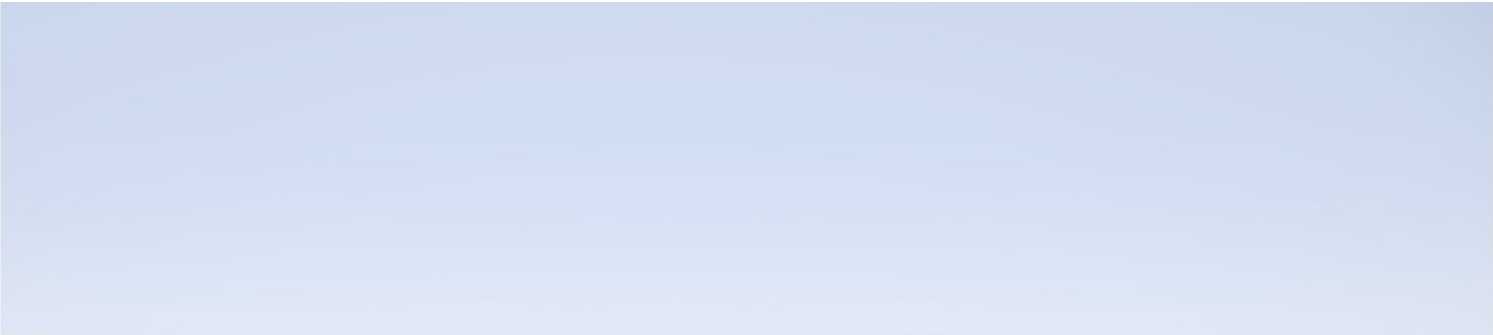
Business Process Monitor

Version 9.40, Released August 2017

Release Notes

Published September 2017

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Contents

Business Process Monitor Release Notes

This file provides information about Business Process Monitor (BPM) 9.40.

What's New in This Release

BPM 9.40 has the following new features:

- Application Health Admin
  - Webtrace configurations (new tab)
  - BPM global settings
  - Enhancements (part of End User Management):
    - Delete app , Stop / Start BTF
    - Download scripts, Edit single URL
    - Bulk operations for Business Transaction Flow (BTF) and Data Collector tabs

- Application Health Reports – Webtrace overtime report
- AppPulse Integrations
  - AppPulse Active Integration
  - Diagnostics integration from Application Health Layer Isolation report

- Security
  - Upgrade to Apache Tomcat 8.5.4
  - IPv6 - Pure IPv6 network, Dual Stackf support

- BPM Enhancements
  - Integration with Mobile Center 2.2 new features certification: support for AWS and Emulators
  - Support Load Runner 12.55
  - Support UFT version 14.01
  - Support Mobile Center 2.5 and 2.51
  - Supported Browsers
    - Internet Explorer 11.0
    - Mozilla Firefox 52.x ESR 32 bit

Business Process Monitor 9.40 Files

Business Process Monitor 9.40 includes the following files:

Windows

BPM_<Patch ID>.zip - this zip file includes the following:

- BPM_9.40_setup.exe
- BusinessProcess Monitor_ReleaseNotes.pdf
- BusinessProcessMonitorAdmin.pdf
- ScriptRepositoryFilters.zip
- Packages folder (contains installation files for LG and BPM packages)

Linux

BPM_<Patch ID>.zip - this zip file includes the following:

- BPM_9.40_setup.bin
- BPM_setup.sh
- BusinessProcess Monitor_ReleaseNotes.pdf
- BusinessProcessMonitorAdmin.pdf
- ScriptRepositoryFilters.zip.
- Packages folder (contains installation files for LG and BPM packages)

Installation Requirements

You can find requirements and steps to install Business Process Monitor in the Business Process Monitor Deployment Guide on the product installation media or in the download package.

After installation, the Business Process Monitor Administration Guide is available at this location:

- Online version - In the BPM Web Console's help menu.
- PDF version - On the BPM machine, in the **HPE Business Process Monitor > Documentation** directory.

Prerequisites

Before installing Business Process Monitor 9.40, you must remove any previous installations of Business Process Monitor or Virtual User Generator (VuGen).

Business Process Monitor Installation

For Business Process Monitor installation instructions, refer to the Business Process Monitor Deployment guide (BusinessProcessMonitorDeployment.pdf).

BSM/BAC Manual Update Procedure

Update the HPE Business Availability Center 8.x or HPE Business Service Management 9.x systems with which Business Process Monitor 9.40 communicates, as follows:

- Extract the **ScriptRepositoryFilters.zip** file into a temporary folder (use the Extract Here command).
- Copy the content of the temporary folder to the **HPBAC\dat\protocols** folder on the BAC 8.x machine, or to the **<HPE APM root directory>\dat\protocols** folder on the BSM 9.1 or 9.2 Gateway Server. Do not copy the **ScriptRepositoryFilters** directory itself.
- If prompted, overwrite any existing files.
- You do not need to restart the BAC/BSM system.

Advanced Encryption

Business Process Monitor 9.40 includes advanced encryption binary files. For instructions on working with advanced encryption, refer to the "Password Encryption" chapter in the Business Process Monitor Administration guide.

TruClient Web

TruClient Internet Explorer and *TruClient Firefox* have been replaced with *TruClient Web*, which also supports Chromium. If you have Internet Explorer or Firefox scripts created with earlier versions of TruClient, we recommend that you convert them to TruClient Web scripts to be able to use the latest technology. In TruClient Web you can choose which browser to use for each script. LoadRunner has a "TC Batch Conversion" tool (integrated in VuGen) which can convert old scripts to TruClient Web. For details, see the LoadRunner documentation.

Notes and Limitations

Problems and limitations are identified with a Change Request number (QCCR*xxxxxxxx*). Use this number when looking for more information about the problem on the HPE Software Support website, or when communicating with your HPE Support representative.

Non-English Language Limitations

Virtual User Generator (VuGen) has the following known limitations when working with non-English character sets such as Cyrillic or Japanese:

- **Script Names with Non-English Characters** - In VuGen 12.x you cannot include non-English characters in script names or re-save scripts that were created with earlier versions of VuGen that include non-English characters in the name. BPM can still run scripts with non-English characters in the script name that were created with VuGen 11.51.

    For a solution to this problem, see "Script Names with Non-English Characters" below.

- **Script Parameters** - BPM cannot run scripts that have non-English parameters.

    For a solution to this problem, see "Script Parameters" below.

- **Transaction Name** - BPM cannot run scripts that have a transaction name that includes Japanese characters. BPM can run scripts with Russian or German characters in the transaction name.

- **Files** - Scripts cannot contain files with non-English characters.

For a complete list of limitations, see the VuGen Help file in the section **VuGen Help > Advanced Topics > Non-English Language Support > Foreign Languages - Troubleshooting and Limitations**.

BPM installation fails if the temporary folder name includes non-English characters. (QCCR1I66537)

Script Names with Non-English Characters

If there are script names with non-English characters, if you have VuGen 11.51 or earlier installed, open the script in VuGen and save the script with a new name using only English Characters.

If you do not have an earlier version of VuGen, you can create a new script name with English characters and transfer the old transactions to the new script.

1. In BSM, select **Admin > End User Management > Monitoring** and select a business transaction flow in the Tree that appears in the left pane.
2. In the Scripts area, add a new script that contains the same transaction names as the old script.
3. Delete the old script that had non-English characters in the name.


Script Parameters

If you have script parameters that include non-English names, use the following procedures to create new parameters:

1. In BSM, create a backup file of relevant parameters (if required):

    a. Select **Admin > End User Management > Monitoring > Search and Replace**.

    b. Select **Entity type - Script Monitor Parameter**.

    c. Click **Search**.

    d. Select the relevant parameters.

    e. Click **Export to Excel** to create a backup file in Excel format.

2. In VuGen 12.0, rename the script parameters using English characters.

    a. Open the script in Vugen 12.0

    b. Open the Parameter List wizard.

    c. Delete the old parameters, and create new parameters with English names.

    d. Replace the parameters in the script with the new parameters.

3. If there are script names with non-English characters, update the script names:

    a. Update the script names. For details, see "Script Names with Non-English Characters" on the previous page.

    b. Continue with step 5 below.

4. If script names have English characters, upload the revised script:

    a. Select **Admin > End User Management > Script Repository**.

    b. Select the old script and check it out.

    c. Upload the new script that you created in step 2 above.

5. Update parameters (if required):

    a. Select **Admin > End User Management > Monitoring > Search and Replace**.

    b. And update the new parameters values.

Citrix Script Failing

- If Citrix scripts consistently fail, the version of Citrix on the client may not be compatible with the version of Citrix on the server (including required patches).

   To test if this is the problem, manually run the script using the Command Prompt. If you have incompatible versions of Citrix, you will receive an error message similar to the following:
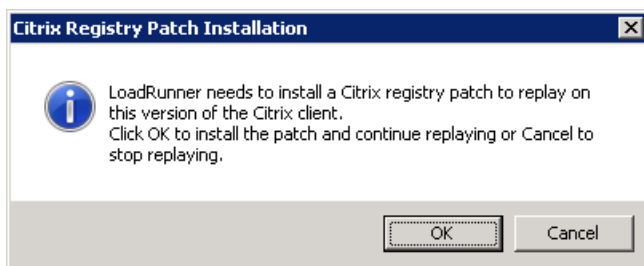
- Due to limitations in Citrix, a Citrix script may not run successfully in service mode, but will run successfully in process mode.

TruClient

TruClient Convert to Code option: Converting TruClient actions to code for further editing is not supported by BPM.

When exporting a TruClient Web script to a zip file, select the **only runtime files** option.

If you encounter a problem replaying a TruClient - Internet Explorer script in BPM, but the script replays successfully in VuGen, replay the script while running BPM as a process.

To run BPM as a process, open a command prompt and run the following commands:

```
> CD <BPM installation directory>/BPM/ServletContainer/bin
```

```
> catalina.bat run
```

TruClient scripts that monitor applications which are sensitive to screen resolution may fail due to *Object Not Found* errors. To resolve this issue, use TruClient Web.

Diagnostics coloring for the TruClient - Internet Explorer protocol are not supported.

The snapshot on error resolution is based on the screen resolution of the machine running TruClient. This means that there will be different results if the script is run with different screen resolutions.

UFT

BPM cannot run multiple QuickTest Professional (QTP) or Unified Functional Testing (UFT) scripts simultaneously. We recommend that you add all UFT/QTP scripts to the same application running in classic mode.

UFT does not support multiple Remote Desktop connections to the same session.

UFT versions 14.x and 12.53 do not support parameters entered in APM_Script Parameters section. These parameters are not recognized when BPM runs Mobile scripts.

Other Notes and Limitations

The directory name into which you save, and from which you run, the BPM setup program cannot contain special characters.

The client machine must have Java Runtime Environment 7u80 or 8u51 in order to open the BPM Admin interface.

If you have VuGen standalone and BPM installed together on a single machine, and you remove BPM, you must run a Repair installation on VuGen.

For a Single Transaction Script, we recommend using the TLS protocol instead of SSL. (QCCR1I103177)

To use the TLS protocol you need to modify the template as follows:

1. Open the file **<BSM root directory>\data\templates\BaseScript\action1.c**

2. Add the highlighted text to the Action section of the file as shown in the following example:

```
Action1(){
        web_set_sockets_option("SSL_VERSION", "TLS");
        web_cache_cleanup();
        web_cleanup_cookies();
        web_add_auto_header("Accept-Encoding", "gzip, deflate");
        lr_start_transaction("##ALIAS_NAME##");
        if(##IS_USE_AUTH##){
        web_set_user(lr_decrypt("##AUTH_USER##"), lr_decrypt("##AUTH_PWD##"), "##AUTH_
URI##");
        }
```

3. Save the file.

When you create new Single Transaction Scripts, BPM will use the updated template with the TLS protocol.

To updated existing Single Transaction Scripts to work with the new template, open the Single Transaction Script configuration and click **Save** (without making any modifications).

If the following error message appears, you can ignore the message, BPM will install correctly.

```
/bin/bash: module: line 1: syntax error: unexpected end of the file
/bin/bash: error importing function definition for 'module'
```

If you receive an error **The installer does not have write permission to the C drive**, make sure that **EnableLUA** is set to **0**. For further information about EnableLUA, see https://technet.microsoft.com/en-us/library/ff715520.aspx (QCCR1I117677)

Fixed Issues

For a complete list of the problems and limitations fixed in this release that have been made visible to customers for tracking, and for enhancement requests that were addressed in this release:

1. Navigate to the Self-Solve Knowledge Search page, on the HPE Software Support site (https://softwaresupport.hpe.com/).

2. Select the relevant product, version, and operating system, (for example, a**pplication performance management (bac)**, 9.40 and Windows), and click **Search**.

3. Click the name of the patch for which you want to see fixed issues (or that you want to download). A page containing information about the patch and a link to download the patch displays.

   - You can review a summary of the fixed issues in the **Summary** section of the page.

   - You can click any specific service request in the **SR (service requests)** section of the page to view detailed information about that SR. Alternatively, you can search for a specific CR using the search box at the top of the page.

Accessing the BPM Admin console from a client machine with Java version 7u45 may result in a "java.lang.reflect.InvocationTargetException" error. (QCCR1I92538)

Symptom:

A "java.lang.reflect.InvocationTargetException" error occurs.

Resolution:

Use one of the following options:

- In the Advanced tab of the Java control panel, deselect the "Enable the next-generation Java plug-in" check box. Note, this solves the issue for Internet Explorer only.
- Use a different update version of Java 7.

The '&' character is not displayed for the Script name on the EUM Monitoring tab (QCCR1I115828)

Symptom:

The '&' character is not displayed for the Script name on the EUM Monitoring tab.

Resolution:

Added a new mechanism to handle special characters on the EUM Monitoring tab.

In BPM, need to select from several digest authentication methods (QCCR1I104229)

Symptom:

In BPM, need to select from several digest authentication methods.

Resolution:

Support for the function int **web_set_user** (const char *username*, const char *password*, const char *[realm\\]* *host:port*); was added to LoadRunner 12.50 which is a part of BPM version 9.30.

When a TruClient for Firefox transaction timed out, the system did not change the transaction status to "failed" (QCCR1I111341)

Symptom:

Customer created a VuGen script using "TruClient for Firefox".
They set a Timeout value for Data Collector on BSM.
The status of transactions is "No Data" when the script timed out while running script.The CI status color remained blue and "No Data" was displayed on TopView.

Resolution:

If a script is an asynchronous protocol type (WebAjax, Web2UI, Web2UIMob, WebIE, or TC4Mobile), and the script is aborted by BPM timeout, BPM will report to BSM all transactions with status **1** (the transaction finished to run with errors) and error message "**Transaction is not finished to run. Task stopped running because it timed-out**".

TruClient for Chrome - every script run is generating big "user_profile*" folders that are never deleted (QCCR1I116541)

Symptom:

When running "Ajax TruCleint for Chrome" scripts, customer has observed that for every iteration, BPM 9.26 is saving a big folder with runtime data.
The folder name is "user_profile*" and is created under the following path:
<workspace>\agent1\Site1\<BA>\<script>\<ID>\profiles\load
Example of folders:
user_profile
user_profile0
user_profile1
user_profile6
user_profile7
…
This is causing trouble with the management of the disk space as these folders are 400-500 MB big.

Resolution:

Introduced a new mechanism to clean up the profiles folder before each TruClient script run.

TruClient script execution leaves behind orphaned processes (QCCR1I113184)

Symptom:

Customer is using BPM 9.25 which runs TruClient IE scripts.

Customer deployed 2 Firefox client scripts. Initially everything works fine, but over a period of time Firefox TruClient scripts starts failing. The machine reaches an inconsistent state and need a system reboot to recover.

Resolution:

A Firefox process was crashing and leaving a crash report process which was accumulating, requiring a system reboot to recover. This issue has now been resolved.

BPM 9.13 Scripts taking longer than 1 hour to run are aborting abruptly (QCCR1I79857)

Symptom:

Script fails to run when the duration of the script is longer than 1 hour.

Resolution:

The documentation now explains that the timeout value must be between 120 and a configurable maximum value (default 900). It also describes how to change this maximum allowed value.

Average Size (KB) column in Transaction Performance report shows "total size of all break down components" (QCCR1I113346)

Symptom:

Average Size (KB) column in Transaction Performance report shows "total size of all break down components".

Resolution:

The issue appeared in both BPM and BSM.
In BPM, the logic which calculates the sum of size of all the components and calculates the total size in KB has been corrected.
In BSM, the column name that was previously "Average Size (KB)" was changed to Total Size (KB).

Data format issue with EUM Reports (QCCR1I116953)

Symptom:

There is a data format issue in the EUM Reports if the consecutive date cells have the same format.

Resolution:

Problem has been fixed. There is no longer a data format issue in the EUM Reports.

Incorrect rounding of decimal places in the Performance Over Time Report graphs (QCCR1I83579)

Symptom:

In the Performance Over Time Report graphs, decimal places are not rounded correctly.

Resolution:

Rounding procedure now returns three decimal places after the comma.

UI buttons (OK, Cancel) are not displayed correctly in Metrics Over Time or Active Filters window (QCCR1I81637)

Symptom:

UI buttons (OK, Cancel) are not displayed correctly in Metrics Over Time or Active Filters window.

Resolution:

SubReport window size is now recalculated according to client screen resolution and UI buttons display correctly.

Warning messages appear in EUM Error logs (QCCR1I83574)

Symptom:

Warning messages appear in the EUM Error logs.

Resolution:

Removed warnings messages by default.

BPM View Snapshot displays an error in BSM (QCCR1I112503)

Symptom:

TruClient Firefox displays and error when processing a snapshot.

Resolution:

Problem is fixed and snapshot is now processed correctly.

UFT requires a Remote Desktop (RDP) connection to the session that is always active and is not locked. UFT cannot reconnect to a session that is locked and cannot reopen a closed session. (QCCR1I103204)

Enhancement Requests

The reference number for each defect is the Change Request (QCCR) number. For more information about pending enhancement requests, visit HPE Software Support Online, or contact your HPE Support representative directly.

Strong Password Encryption for VuGen Scripts

In Business Process Monitor 9.40, an AES (256-Bit) encryption algorithm enables you to use passwords with strong encryption.

This approach uses key pairs. You can generate a list of key pairs that can be used in BPM and VuGen. Both keys are needed for encryption and decryption and they have to be installed on each BPM and VuGen machine.

These passwords can be used to create secure VuGen scripts. Each BPM/Vugen combination have a separate key pair.

For further information, see "Strong Password Encryption for VuGen Scripts" in the Business Process Monitor Administration Guide.

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We appreciate your feedback!