Hewlett Packard Enterprise

HPE Business Process Monitor

Software Version: 9.30

Release Notes

Document Release Date: July 2016
Software Release Date: July 2016

Legal Notices

Warranty

The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HPE shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

Restricted Rights Legend

Confidential computer software. Valid license from HPE required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Copyright Notice

© Copyright 2005 - 2016 Hewlett Packard Enterprise Development LP

Trademark Notices

Adobe® and Acrobat® are trademarks of Adobe Systems Incorporated.

iPod is a trademark of Apple Computer, Inc.

Java is a registered trademark of Oracle and/or its affiliates.

Microsoft®, and Windows® are U.S. registered trademarks of Microsoft Corporation.

Oracle is a registered trademark of Oracle Corporation and/or its affiliates.

UNIX® is a registered trademark of The Open Group.

Acknowledgements

This product includes code licensed under the GNU General Public License, the GNU Lesser General Public License, and/or certain other open source licenses. You may obtain a copy of this source code free of charge on the product DVD.

Support

Visit the HPE Software Support website at: **https://softwaresupport.hpe.com**

This website provides contact information and details about the products, services, and support that HPE Software offers.

HPE Software Support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support website to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts
- Look up HPE support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HPE Passport user and sign in. Many also require a support contract. To register for an HPE Passport ID, go to **https://softwaresupport.hpe.com** and click **Register**.

To find more information about access levels, go to:
https://softwaresupport.hpe.com/web/softwaresupport/access-levels

HPE Software Integrations, Solutions and Best Practices

Access the Hewlett Packard Enterprise Software Support site (**https://softwaresupport.hpe.com/manuals**) to search for a wide variety of best practice documents and materials.

Contents

Business Process Monitor Release Notes

This file provides information about Business Process Monitor (BPM) 9.30.

What's New in This Release

BPM 9.30 has the following new features:

Application Health

This feature replaces App Owner Zone.

There is a new set of reports tailored specifically for application owners who are looking for high level status and isolation on their applications. For further information, see "Application Health" in the APM User Guide.

Retry on Failure

The Retry on Failure setting enables you to control how BPM responds when a script fails.

If a script fails, this may be caused by a temporary problem not related to the script, for example a temporary network or Internet error.

When this option is enabled, if a script fails the first attempt, but is successful on a second or third attempt, only the successful attempt is displayed in BPM reports. Initial failed attempts are only listed in log files.

For further information about this feature, see "Retry on Failure" in the Business Process Monitor Administration Guide.

Modify Installation Directory During Silent Installation

By default, the installation directory used for a silent installation is C:\HP\BPM. You can now configure the silent installation to use a different directory. For details, see "How to Configure the Installation Directory" in the Business Process Monitor Deployment Guide.

Working with a Locked UFT Console

In UFT 12.53 there is the option for BPM to work with a designated UFT user even when the UFT console is locked. For further information, see "Working with a Locked UFT Console" in the Business Process Monitor Deployment Guide.

Integration with HPE Mobile Center 2.0

BPM 9.30 is fully integrated with HP Mobile Center 2.0

This integration includes the following benefits:

- Mobile Center Server can now be installed Windows
- Device reservation
- Support for Android and iOS
- Support for selecting a device by device properties
- Out of App support:

    - BPM can now monitor system events that are not part of the application being tested, this allows your script to control system messages

    - BPM will be able to monitor system apps (like exchange)

    - BPM will be able to send and receive SMS/MMS messages

- Running monitored application without instrumentation
- Support for native browsers (Chrome and Safari)

For further information, see "BPM Real Device Monitoring", available from the HPE Software Product Manuals site (https://softwaresupport.hpe.com/group/softwaresupport/).

Support for LoadRunner 12.53 and UFT 12.53

BPM 9.30 supports the latest version of LoadRunner and UFT (version 12.53). Some of the benefits of this release are as follows:

- TruClient now supports Chromium 46 and Firefox 40.0.3
- TruClient has improved step end events, including: New end event – Object Exists.
- Support for SAPGUI 7.40.
- Citrix now supports Optical Character Recognition (OCR) text trapping. For details, see the Function Reference.
- C VUser: Switched C Interpreter to the latest Microsoft C Runtime.
- Support for Java 8 protocols
- Enhanced SAPUI5 recording in TruClient
- HTTP Video Streaming (HTML5, HLS) support
- REST step-builder editor in VuGen
- JSON manipulation APIs
- 64-bit replay support in various Java protocols and C Vuser protocol
- VuGen now supports Git version control system.

New Supported Environments

This release has added support for the following environments:

- Microsoft Windows 10
- Red Hat Enterprise Linux (RHEL) Version 7.2 and 6.6 (64 bit)
- VMware ESXi6.0
- Firefox ESR 45 and below
- Java Runtime Environment Version 7 update 79 and Version 8 update 92 on client side
- Upgrade from Tomcat 7.0.42 to Tomcat 8.0.29

End of Support

The following are no longer supported:

- All 32 bit operating systems (Windows and Linux)
- Internet Explorer 9

Business Process Monitor 9.30 Files

Business Process Monitor 9.30 includes the following files:

Windows

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

- BPM_9.30_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_9.30_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 **HP Business Process Monitor > Documentation** directory.

Prerequisites

Before installing Business Process Monitor 9.30, 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 HP Business Availability Center 8.x or HP Business Service Management 9.x systems with which Business Process Monitor 9.30 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 **<HPBSM 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 9.30 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 HP Software Support website, or when communicating with your HP 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)

Workarounds

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:
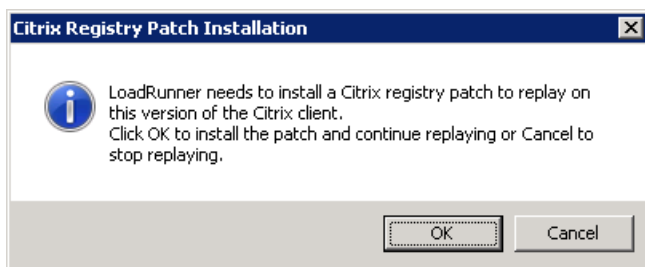
Other Notes and Limitations

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

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

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

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.

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.

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

Workaround: 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.

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.

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)

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

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).

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.

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'
```

We do not recommend using UFT 12.50 on Windows 7 32 bit due to possible performance issues. We recommend using a different version of Windows such as Windows 7 64 bit.

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)**, 9.30 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.

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.

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 HP Support representative directly.

Strong Password Encryption for VuGen Scripts

In Business Process Monitor 9.30, 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.

Send Documentation Feedback

If you have comments about this document, you can contact the documentation team by email. If an email client is configured on this system, click the link above and an email window opens with the following information in the subject line:

Feedback on Release Notes (Business Process Monitor 9.30)

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to SW-doc@hpe.com.

We appreciate your feedback!