



Waters
THE SCIENCE OF
WHAT'S POSSIBLE.™

Empower 3 Feature Release 5 Hotfix 2

Release Notes

715007957
Version 00

Copyright © Waters Corporation 2022
All rights reserved

General information

Copyright notice

© 2022 WATERS CORPORATION. PRINTED IN THE UNITED STATES OF AMERICA AND IN IRELAND. ALL RIGHTS RESERVED. THIS DOCUMENT OR PARTS THEREOF MAY NOT BE REPRODUCED IN ANY FORM WITHOUT THE WRITTEN PERMISSION OF THE PUBLISHER.

The information in this document is subject to change without notice and should not be construed as a commitment by Waters Corporation. Waters Corporation assumes no responsibility for any errors that may appear in this document. This document is believed to be complete and accurate at the time of publication. In no event shall Waters Corporation be liable for incidental or consequential damages in connection with, or arising from, its use. For the most recent revision of this document, consult the Waters website (www.waters.com).

Trademarks

Agilent® is a registered trademark of Agilent Technologies Inc.

Citrix® is a registered trademark of Citrix Systems, Inc. and/or one or more of its subsidiaries, and may be registered in the United States Patent and Trademark Office and in other countries.

Empower™ is a trademark of Waters Corporation.

Hitachi® is a registered trademark of Kabushiki Kaisha Hitachi Seisakusho Corporation.

LAC/E™ is a trademark of Waters Corporation.

Linux® is a registered trademark of Linus Torvalds.

NuGenesis™ is a trademark of Waters Corporation.

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

Red Hat® is a registered trademark of Red Hat, Inc.

Shimadzu® is a registered trademark of Shimadzu Corporation.

SmartBear® is a registered trademark of SmartBear Software.

TestExecute™ is trademark of SmartBear Software.

THE SCIENCE OF WHAT'S POSSIBLE™ is a trademark of Waters Corporation.

Waters™ is a trademark of Waters Corporation.

Windows® is a registered trademark of Microsoft Corporation in the US and/or other countries.

XenApp® is a trademark of Citrix Systems, Inc. and/or one or more of its subsidiaries, and may be registered in the United States Patent and Trademark Office and in other countries.

All other trademarks are property of their respective owners.

About these release notes

This document contains information about the features and functions introduced, changed, or removed with this version of the product. It contains a list of major feature changes as well as descriptions of known defects, fixed defects, and observed product behaviors (concessions) that Waters deems of importance to customers. This document does not include:

- An exhaustive list of all changes to this version of the product
- Descriptions of defects that were not known to Waters at the time of the product's release
- Descriptions of defects that cannot be reproduced by Waters
- Information about customer requests for enhancements to the product
- Specific details of changes to proprietary aspects of product components, features, computational algorithms, and software code

The changes listed in this document are relative to the previous version of the product. If you are updating an older version of the product, review the release notes for all the intervening versions to ensure that you understand the cumulative impact of the product changes.

Carefully review the information in this document before you install the product. If you have questions about how installing this product might affect your environment or if you need more information about this product, contact your Waters representative.

Contacting Waters

Contact Waters with enhancement requests or technical questions regarding the use, transportation, removal, or disposal of any Waters product. You can reach us through the Internet, telephone, fax, or conventional mail.

Contact method	Information
www.waters.com	The Waters website includes contact information for Waters locations worldwide.
iRequest	iRequest is a secure Web service form that allows you to request support and service for Waters instruments and software or to schedule a planned service activity. These types of support and services may be included as part of your maintenance plan or support plan. You may be charged for the requested

Contact method	Information
	<p>service if you do not have appropriate plan coverage for your product.</p> <p>Note: In areas managed by authorized distributors, iRequest may not be available. Contact your local distributor for more information.</p>
Telephone and fax	<p>From the USA or Canada, phone 800-252-4752 or fax 508-872-1990. For other locations worldwide, phone and fax numbers appear in the Waters Local Offices information.</p>
Conventional mail	<p>Waters Corporation Global Support Services 34 Maple Street Milford, MA 01757 USA</p>

Updated information

Refer to the Waters website (www.waters.com) and click **Support > Support Documents and Downloads** for updates to this document.

Obtaining Empower software and software updates

Waters ships only the latest full installation release of Empower. To digitally obtain the Empower software you purchased, use the Waters Digital Software Delivery and License Entitlement platform. For customers on a software maintenance plan, the platform provides email notifications of and immediate access to newly released software, including updates and hotfixes. This delivery platform allows you to securely search and share software entitlements, instrument drivers, release notes, and documentation.

To access the Digital Software Delivery and License Entitlement platform, contact the designated Software Manager at your organization. The Software Manager is typically a system administrator or someone responsible for implementing software and activating licenses, and they are the person responsible for the Waters digital entitlements (software and licenses) within your organization. From within the platform, the Software Manager can securely manage and grant access to software entitlements to others within your organization, providing organizational control of your software assets.

Access the software delivery and license entitlement platform through your Waters.com user profile at **Waters.com > My Account [Hello, *username*] > Profile > Download Software Entitlements**.

If you have not yet arranged for access to this platform, send your Software Manager's contact information to Waters at customer_communication@waters.com, or work with your Waters sales representative to begin the secure onboarding process.

Table of contents

General information.....	ii
Copyright notice.....	ii
Trademarks.....	ii
About these release notes.....	iii
Contacting Waters.....	iii
Updated information.....	iv
Obtaining Empower software and software updates.....	iv
Empower 3 Feature Release 5 Hotfix 2.....	8
GxP compliance requirements.....	8
Antivirus considerations.....	8
Empower installations.....	8
System and software requirements.....	8
Driver compatibility.....	10
NuGenesis SDMS and NuGenesis LMS compatibility.....	11
Waters Data Converter compatibility.....	12
Deployment notes.....	13
Before you install Empower 3 Feature Release 5 Hotfix 2.....	13
Installing Empower 3 Feature Release 5 Hotfix 2.....	13
Performing a silent installation.....	14
Performing a push installation.....	16
Push installation of Empower 3 Feature Release 5 Hotfix 2 on multiple Empower Citrix servers.....	17
Verify the Empower 3 Feature Release 5 Hotfix 2 installation.....	18
Issues resolved in this release.....	19
INFEMP-21285 (CRI-2094).....	19
INFEMP-21286 (CRI-1775).....	20
INFEMP-22763 (CRI-1878).....	20
Known issues in this release.....	20
Test configurations.....	20
Empower Server.....	20

Empower Client.....	21
Citrix Server.....	21
Standalone/Personal Workstation.....	22
LAC/E device.....	22

Empower 3 Feature Release 5 Hotfix 2

GxP compliance requirements

When you install Empower software for the first time, or when you update the software, perform software qualification and validate the computerized system for your intended use to meet GxP compliance requirements. Any time you install or update software in a GxP environment, Waters recommends that you follow your company's management-approved standard operating procedures for changing software.

To confirm that the application update did not affect any data, reprocess a data set before and after you install the software, and then verify that the results are equivalent.

Run the Verify Files utility or the IQ portion of the Empower SystemsQT, and review the resulting file for an entry that states `No installation changes were detected.`

Antivirus considerations

Some real-time virus scanners mistake normal data acquisition and instrument control for virus activity, and thus interfere with proper operations. Full-system scans and live updates can be network-intensive, disk-intensive, and CPU-intensive, and they can also interfere with normal data acquisition. Schedule scans and updates for idle times when data acquisition does not occur.

Certain antivirus program features such as "intrusion prevention", "tamper protection", and "heuristic analysis" can also interfere with normal operation. If you observe issues with the software, review and verify the antivirus logs. It may be necessary to white-list any affected components.

Empower installations

For Empower software installations, exclude the Empower installation folder (usually `C:\Empower`) and its sub-folders.

System and software requirements

Empower 3 Feature Release 5 Hotfix 2 software supports Windows 7 Service Pack 1 (SP1) on LAC/E devices only, Windows 10 Professional and Enterprise (Personal, Acquisition Client, and LAC/E devices), and Windows Server 2016 (Standard).

Note: Support includes the English, Japanese, Simplified Chinese, and Korean distributions of Empower 3 software.

Specifically, Empower 3 Feature Release 5 Hotfix 2 supports these platforms and operating systems:

Platform	Operating systems and components
Personal workstation	<ul style="list-style-type: none"> • Windows 10 Professional or Enterprise, 64-bit • Oracle 18c^a
Empower client	<ul style="list-style-type: none"> • Windows 10 Professional or Enterprise, 64-bit • Oracle 18c^a
Citrix environment	<ul style="list-style-type: none"> • Windows Server 2016 Standard (on the Virtual Delivery Agent (VDA) server) • Citrix Virtual Delivery Agent (VDA) 7.15 • Citrix XenApp 7.15 LTSR CU2 • Citrix Receiver 2204.1
Database server	<ul style="list-style-type: none"> • Windows Server 2016 Standard • Red Hat Enterprise Linux Server 7.6 • Oracle 18c^a
File server	<ul style="list-style-type: none"> • Windows Server 2016 Standard
LAC/E device	<ul style="list-style-type: none"> • Windows 7 Professional or Enterprise with SP1, 64-bit • Windows 10 Enterprise LTSB version 1607 or Windows 10 Professional or Enterprise, 64-bit <p>Notes:</p> <ul style="list-style-type: none"> • Configuration 15 is supported with Windows 7 Professional (64-bit, for Windows Embedded Enterprise) SP1 and Windows 10 Enterprise 2016 LTSB (Long Term Service Branch) 64-bit. • Configuration 16 is supported with Windows 7 Professional (64-bit, for Windows Embedded Enterprise) SP1 and Windows

Platform	Operating systems and components
	<p>10 Enterprise 2016 LTSB (Long Term Service Branch) 64-bit.</p> <ul style="list-style-type: none"> • Oracle 18c^a. <p>Important:</p> <ul style="list-style-type: none"> • Configuration 16 comprises both eLAC/E and cLAC/E. • Empower 3 Feature Release 5 Hotfix 2 supports Configuration 15 and Configuration 16 LAC/E devices.
Virtualization technology	Empower 3 Feature Release 5 Hotfix 2 was tested using VMware vSphere ESXi 6.7 EP 04.

a. Embedded Oracle versions are 18.4.0.0.0 for the Oracle database and 18.3.0.0.0 for the Oracle client. The Oracle version required for Red Hat is 18.4.0.0.0. The Oracle database is installed on server and Empower Personal installations. Oracle clients are installed on Empower Personal, Empower Client, and LAC/E installations.

Important: As of Empower 3 Feature Release 5, Windows Server 2008 and 2012 are no longer supported.

See also: The *Empower 3 Feature Release 5 Installation, Configuration, and Upgrade Guide* (715006184).

Driver compatibility

Empower 3 Feature Release 5 Hotfix 2 supports both Driver Pack 2018 Release 1 and Driver Pack 2019 Release 1 on Windows 7 and on Windows 10.

See also: For information on the Waters drivers, refer to the following documents:

- *Waters Driver Pack 2018 Release 1 Release Notes* (716005632)
- *Waters Driver Pack 2018 Release 1 Installation and Configuration Guide* (715005659)
- *Waters Driver Pack 2019 Release 1 Release Notes* (716006125)
- *Waters Driver Pack 2019 Release 1 Installation and Configuration Guide* (715006151)

Requirement: Waters Driver Pack 2018 Release 1 does not natively support the Single Quadrupole Detector 2 (SQD2) on Windows 10. In order to support the SQD2 on Windows 10, you must upgrade the SQD2 driver to the latest version of the software, which is available on the SQD2 Instrument Component Software (ICS) media (667005694). The SQD2 ICS media is available as part of the Empower ICS software kit included with the SQD2 system for supporting the SQD2 on Empower.

Recommendation: For Empower 3 Feature Release 5 Hotfix 2, Waters recommends using only instrument drivers that are compatible with Windows 10.

NuGenesis SDMS and NuGenesis LMS compatibility

Empower 3 Feature Release 5 Hotfix 2 is compatible with NuGenesis 8 LMS SR2 (NG 8 SR2) and NuGenesis 9.0 (NG 9.0) components as follows:

- The NuGenesis LMS base kit (SDMS) requires either the NuGenesis LMS 8 SR2 SDMS Win 10 client and Data Adapters Release 3 Hotfix 3, or NuGenesis LMS 9.0 SDMS Data Adapters Release 1, which applies to Windows 10 client machines.
- The NuGenesis LMS Option kit (ELN and Connectors) requires either NG LMS 9.0, NG LMS Empower Interface 2.0 or NG LMS Connectors 2.0, which are compatible with Windows 10.

See also: The *NuGenesis LMS (NuGenesis 8 Service Release 2) SDMS Win 10 Client Release Notes* (716004881), the *NuGenesis LMS (NuGenesis 8 SR 2) Hotfix 6 Release Notes* (716005620), and the *NuGenesis LMS 9.0 Release Notes* (715005980) for complete information.

Note: The NuGenesis SDMS Win 10 Client supports both Windows 10 and Windows 7. However, when using Empower 3 Feature Release 5 Hotfix 2, SDMS users require the NuGenesis SDMS Win 10 Client on Windows 10.

Restriction: Empower 3 Feature Release 5 Hotfix 2 is not compatible with:

- Data Adapters Release 3 Hotfix 2 and Data Adapters Release 1.
- NuGenesis LMS Option kit (ELN and Connectors) for the following component versions: NG LMS 8 SR2 HF6, NG LMS 8 Empower Interface 1.1. HF2, and NG LMS 8 Connectors 1.1 HF1. This is because Empower 3 Feature Release 5 Hotfix 2 does not support Windows 7.

Legend for the following tables:

Tested	Both software entries were tested and structurally validated as part of a software release. The test was performed by either the Empower or NuGenesis programs, depending on the software release.
Incompatible	The two software entries will not work together.
Supported under risk assessment	This is based on our knowledge of the software changes made at each release. If you encounter compatibility issues, Waters provides support in accordance with the terms of the Licenses, Warranties, and Support Services agreement. To resolve compatibility problems, you might need to upgrade to a supported platform or install a newer version of Empower software.

Table 1: NuGenesis SDMS and Empower compatibility matrix

NuGenesis SDMS Version	Empower 3 FR5
NG8 SDMS/DAR0	Incompatible
NG8 SMDS SR1/DAR1	Incompatible
NG SDMS FR1/DAR2	Incompatible

Table 1: NuGenesis SDMS and Empower compatibility matrix (continued)

NuGenesis SDMS Version	Empower 3 FR5
NG8 SDMS SR2/DAR2	Incompatible
NG8 SDMS SR2/DAR3	Incompatible
NG8 SDMS SR2 Win10/DAR3 HF1	Incompatible
NG 8 SDMS SR2 Win10	Tested
NG8 SDMS SR2 Win10/DAR3 HF2	Incompatible
NG8 SDMS SR2 Win10/DAR3 HF3	Tested with Service Note ^a
NG 9.0 SDMS	Tested
NG 9.0 DAR1	Tested with Service Note ^a

a. The remote data adapter included in NG 9.0 DAR1 requires a manual configuration step described in a service note.

Table 2: NuGenesis LMS and Empower compatibility matrix

NuGenesis LMS Version	Empower 3 FR5
NG LMS 8 SR2 and all hotfixes	Incompatible ^a
NG LMS 8 Empower Interface 1.1 HF2 and earlier releases	Incompatible ^a
NG LMS 8 Connectors 1.1 HF1 and earlier releases	Incompatible ^a
NG LMS 9	Tested
NuGenesis LMS Empower- Interface 2.0	Tested
NG LMS Connectors 2.0	Tested

a. The NuGenesis LMS 8 SR-2 Option kit does not support Windows 10; therefore, Empower versions deployed exclusively on Windows 10 clients are not compatible.

Waters Data Converter compatibility

Empower is compatible with Waters Data Converter 2.1 HF2 (WDC 2.1 HF2) as follows:

Table 3: Waters Data Converter and Empower compatibility matrix

WDC Version	Empower 3 FR5
WDC 2.1 HF2	Tested

Legend:

Tested	Both software entries were tested and structurally validated as part of a software release. The test was performed by either
--------	--

	the Empower or NuGenesis programs, depending on the software release.
Incompatible	The two software entries will not work together.
Supported under risk assessment	This is based on our knowledge of the software changes made at each release. If you encounter compatibility issues, Waters provides support in accordance with the terms of the Licenses, Warranties, and Support Services agreement. To resolve compatibility problems, you might need to upgrade to a supported platform or install a newer version of Empower software.

Requirement: When you install WDC 2.1 or WDC 2.1 HF2 on Windows 10, you must run both the installer and the installation qualification *Check.bat* file using an account with the System Administrator role.

Deployment notes

Before you install Empower 3 Feature Release 5 Hotfix 2

Before you install Empower 3 Feature Release 5 Hotfix 2, back up all Empower software projects, library information, and databases, and then restart the computer.

Installing Empower 3 Feature Release 5 Hotfix 2

You can install Empower 3 Feature Release 5 Hotfix 2 (E3 FR5 HF2) by downloading it from the Waters website or from the Waters Digital Software Delivery and License Entitlement platform.

Restriction: You cannot roll back or remove an Empower 3 Feature Release 5 Hotfix 2 installation. If you want to uninstall Empower 3 Feature Release 5 Hotfix 2 (E3 FR5 HF2), you must uninstall Empower 3 software.

Requirements:

- You can upgrade to Empower 3 Feature Release 5 Hotfix 2 only from Empower 3 Feature Release 5 Hotfix 1. If you are currently using a version of Empower prior to Empower 3 Feature Release 5 Hotfix 1, refer to the *Empower 3 Feature Release 5 Release Notes* (716006111) for the upgrade path from your version of Empower.
- You must have local administrator privileges to install Empower 3 Feature Release 5 Hotfix 2.

You can install Empower 3 FR5 HF2 in the following ways, depending on your system configuration:

Computer configuration	Installation process
Single computer running a supported Windows operating system	<ul style="list-style-type: none"> • Installation wizard • Silent installation (Command line interface)
Multiple computers: Clients, LAC/E devices, or Citrix servers	<ul style="list-style-type: none"> • Installation wizard • Silent installation (Command line interface) • Push installation (PsExec utility)

Notes:

- Empower 3 FR5 HF2 should install on an Empower node for personal workstations, and on all nodes in workgroup or enterprise environments for servers, LACEs, clients, and acquisition clients.
- If you install Empower 3 FR5 HF2 on an Empower node, the configuration is valid only for that node. If your network includes multiple Empower nodes, you must perform the following procedure on each node individually.

To install Empower 3 FR5 HF2 on an Empower node:

1. In Windows Explorer, browse to the folder containing the *Empower3FR5Hotfix2Setup.exe* file that you downloaded from www.waters.com or from the Waters Digital Software Delivery and License Entitlement platform and double-click the *Empower3FR5Hotfix2Setup.exe* file.

Requirement: Ensure that you are logged in to the computer as a local administrator. If necessary, right-click the *Empower3FR5Hotfix2Setup.exe* file and select **Run as Administrator**.

2. Follow all the prompts to complete the installation.

Note: If you encounter issues installing Empower 3 FR5 HF2 due to a Verify Files issue, contact your local Waters Support organization.

3. After the installation finishes, restart the computer.
4. Log on to the computer, and then log on to Empower.

Performing a silent installation

You can install Empower 3 FR5 HF2 by using command line options or by specifying commands in a response file.

To perform a silent installation from a command line:

1. In a Command Prompt window, if required, change to the directory that contains the file *Empower3FR5Hotfix2Setup.exe*.
2. At the command prompt, specify the following command, along with the required line options and any other options you want to use, as listed in the following tables:

Empower3FR5Hotfix2Setup.exe /s /v" /qn"

Full command line:

Empower3FR5Hotfix2Setup.exe /s /v"WAT_RESTART=NO
WAT_LOG_FILE_NETWORK_LOCATION="<SHARE>\e3_Logs" /qn"

Command line with language selection:

Empower3FR5Hotfix2Setup.exe /s /L1033 /v"WAT_RESTART=NO
WAT_LOG_FILE_NETWORK_LOCATION="<SHARE>\e3_Logs" /qn"

Table 4: Command line options

Option	Description	Required	Default value
/s	Silent mode	Yes	
/L	Installer language: <ul style="list-style-type: none">• L1033 is English• L1041 is Japanese• L1042 is Korean• L2052 is Chinese	Yes	
/v	Installer arguments. Passes one or more command line options to notification services.msi. When including multiple command line options, enclose them in quotation marks. Rule: Do not include a space between the /v and the command line option.	Yes	
/qn	Installs the software without displaying the user interface.	Yes	
WAT_LOG_FILE_NETWORK_LOCATION	Destination share for the installation log. This share must be writable by everyone.	No	None

Table 4: Command line options (continued)

Option	Description	Required	Default value
WAT_RESTART	Restart system.	No	Do not restart

The WAT_LOG_FILE_NETWORK_LOCATION option copies the installation log to the network share. If the installation is successful, the name of the log file is *ERR_computername_datetime_empower3.log*. For example: *AS-27_2019-8-31_12-55-17-235_Empower3.log*. If the share is not accessible, the installation log file is created in the local Windows directory. If you do not supply the WAT_LOG_FILE_NETWORK_LOCATION option, the log is created locally.

3. After the installation finishes, restart the computer.
4. Log on to the computer.
5. Log on to Empower.

Performing a push installation

When installing Empower 3 FR5 HF2 on multiple computers (push installation), use the PsExec utility. You can download the latest version from <http://technet.microsoft.com>.

Requirements:

- Install the PsExec utility on the system from which you execute the push installation. To install this utility, copy it to any file path.
- You must have administrator privileges for each client or LAC/E device.
- You must use the domain user who is part of the local administrator group.

To perform a push installation of Empower 3 FR5 HF2:

1. Create a text file and, within it, specify the name or IP address of each client computer or LAC/E device on a separate line, and then save the file.
2. Run the following commands from a Command prompt or create a batch file containing the Empower 3 FR5 HF2 upgrade push install options:

Using the administrator account:

```
PsExec @<PATH_A>\File.txt -u DOMAIN\USER -p PASSWORD  
-d <PATH_B>\Empower3FR5Hotfix2Setup.exe /s /v" WAT_RESTART=NO  
WAT_LOG_FILE_NETWORK_LOCATION="<PATH_C>" /qn
```

Selecting a language:

```
PsExec @<PATH_A>\File.txt -u DOMAIN\USER -p PASSWORD -d  
<PATH_B>\Empower3FR5Hotfix2Setup.exe /s /L1033 /v" WAT_RESTART=NO  
WAT_LOG_FILE_NETWORK_LOCATION="<PATH_C>" /qn
```


Table 5: Command line options

PsExec command line options	Definition	Required
PATH_A	Path to the text file that contains the names or IP addresses of the clients or LAC/E devices.	Yes
File	Name of the text file that contains the names or specified IP addresses.	Yes
PATH_B	Path to the Empower 3 Feature Release 5 Hotfix 2 software should be a network share.	Yes
PATH_C	Path to copy the installation log located on a network share.	Yes
-p	Password.	Yes
-u	User name.	Yes
-d	Do not wait for the process to terminate (non-interactive). This command launches installation on multiple machines simultaneously.	Yes

3. After the installation finishes, restart the computer.
4. Log on to the computer, and then log on to Empower.

Push installation of Empower 3 Feature Release 5 Hotfix 2 on multiple Empower Citrix servers

When installing Empower 3 FR5 HF2 on multiple Empower Citrix servers, use the PsExec utility and the Waters command line interface and options. You can type the commands in a command window or in a batch file.

Requirement: Confirm that the default admin\$ share is enabled on all Empower Citrix servers on which you plan to install Empower 3 FR5 HF2.

To perform a push installation of Empower 3 FR5 HF2 on multiple Empower Citrix servers:

1. From the following website, download the currently available version of the PsExec utility into any folder on a host machine: <http://technet.microsoft.com>

Requirement: To perform a push installation, you must have a domain user with administrator privileges on each Empower Citrix server.

- Using a text editor, create a text file (such as *filename.txt*), and within it, specify the name or IP address of each Empower Citrix server on a separate line, and then save the file.
- To set the mode to install, use a text editor to create a batch file (such as *PushCitrix.bat*). Within this file, specify the following commands:

```
change user /install
PsExec @<PATH_A>\File.txt -u DOMAIN\USER -p PASSWORD -s -d
<PATH_B>\Empower3FR5Hotfix2Setup.exe /s /v" WAT_RESTART=NO
WAT_LOG_FILE_NETWORK_LOCATION="<PATH_C>" /qn"
```

- For *path_to_Empower_media*, specify a valid path to the Empower 3 Feature Release 5 Hotfix 2 software. This path must be accessible by the Empower Citrix server.
- For *path_to_log_file*, specify a valid path to the location where the installation log files will be stored. This location must be on a share that is write-accessible to the domain users who will perform the push install and who have write access to the share.

Tip: The above is an example batch file. The Restart command and log file location are optional. If Restart is not included in the command line, users are prompted to restart the computer after installation. If the file location is not specified, the log file is created locally, wherever Empower is installed. A message appears to notify users that the file was created.

- On the host computer, run the batch file using the following command line syntax:

```
PsExec @<PATH_A>\File.txt -u DOMAIN\USER -p PASSWORD -s -d
<PATH_B>\Empower3FR5Hotfix2Setup.exe /s /L1033 /v" WAT_RESTART=NO
WAT_LOG_FILE_NETWORK_LOCATION="<PATH_C>" /qn"
```

- For *path_to_filename.txt*, specify a valid path to the text file on the host machine that contains the Empower Citrix server names.
- For *path_to_batch_file*, specify a valid path to the location of the share that contains the batch file.

- Log on to each Empower Citrix server.
- Log on to Empower.

Verify the Empower 3 Feature Release 5 Hotfix 2 installation

You can verify that Empower 3 FR5 HF2 was installed successfully by running the **Verify Files** utility. Running **Verify Files** creates the *checksum.txt* file, which maintains a record of all Empower options and service packs installed on an Empower computer. The *checksum.txt* file compares the current CRC and sizes with the values recorded during the installation of the base software and any installed option or service pack to verify the integrity of disk files.

Tip: The *checksum.txt* file is created during the installation of Empower 3 Feature Release 5 Hotfix 2. When you run the **Verify Files** utility after the installation of Empower 3 Feature Release 5 Hotfix 2, the *checksum.txt* file includes a time stamp in the file name.

Running Verify Files

Click **Start > All Programs or All Apps > Empower > Verify Files**.

Viewing the checksum.txt file

From Windows Explorer, navigate to the `\Empower\Script` directory, and then open the `checksum.txt` file. Locate the file with the time stamp that contains the Empower 3 FR5 HF2 installation time in the file name.

Reviewing the installation log

To confirm the Empower 3 FR5 HF2 installation on the computer:

Click **Start > All Programs > Empower > Empower Installation Log** and search for lines similar to these:

```
=== Logging Started: 9-17-2019 11:18:22 - Empower 3 Feature Release
5 Hotfix 2 ===
***** Product: Empower 3 Feature Release 5 Hotfix 2
***** Mode: Silent
***** CommandLine: WAT_RESTART=Yes
WAT_LOG_FILE_NETWORK_LOCATION=\\ASWin10Pro\PUSHLOGS
[11:18:22]: Empower 3 Feature Release 5 Hotfix 2 Installer Setup was
initialized.
[11:19:00]: The setup has successfully completed installing Empower
3 Feature Release 5 Hotfix 2 on this computer.
[11:19:00]: Empower 3 Feature Release 5 Hotfix 2 Installer has
completed.
[11:19:00]: User has requested to restart the system.
=== Logging Stopped: 9-17-2019 11:19:00 ===
```

Issues resolved in this release

This section lists the problems resolved in this release. The numbers identify issues that Waters personnel monitor within a system change request tracking tool.

INFEMP-21285 (CRI-2094)

Previously, in Citrix environments, when you saved a PDF copy of a report generated in Report Publisher to the destination folder, the PDF took longer to save than in previous versions of Empower.

Now, in Citrix environments, the UNIFI PDF driver has been replaced with the Microsoft Print to PDF driver, and the time to save a PDF report to the destination folder has been reduced, and the PDF takes less time to save.

INFEMP-21286 (CRI-1775)

Previously, in Citrix environments where the System Policy Save Report (as PDF) after Signoff was enabled, the creation of the PDF report could fail, resulting in an Unable to store the PDF file in the database for result sign off ID: xxxx error message. This issue occurred more frequently with large reports.

The Signoff Results button now works consistently in Citrix environments with larger PDF reports. The PDF is successfully created and stored in the Empower database.

INFEMP-22763 (CRI-1878)

Previously, when you ran the Verify Files utility on an Empower node, the Oracle Database Version displayed in the results log was Oracle Database 18c Enterprise Edition Release 18.0.0.0.0, which was the major version. The actual product version installed was 18.4.0.0.0.

Now, when you run the Verify Files utility, both the Oracle Database Version and the actual product version display in the results log.

Known issues in this release

At the time of this product's release, there were no related known issues requiring documentation.

Test configurations

This application update was tested on the following system configurations.

Empower Server

Windows database server

Windows Server 2016 Standard

Microsoft Windows versions and Hotfixes

Microsoft OS version	Microsoft Hotfixes
10.0.14393 N/A Build 14393	KB3186568,KB3192137,KB3199986,KB4035631,KB4049065,KB4093137,KB4132216,KB4465659,KB4498947,KB4509091,KB4535680,KB4540723,KB4565912,KB4576750,KB4589210,KB5001078,KB5005698,KB5011570, KB5011495

Empower Client

Microsoft Windows 10 Pro

Microsoft Windows versions and Hotfixes

Microsoft OS version	Microsoft Hotfixes
10.0.19043 N/A Build 19043	KB5004331, KB5000736, KB5005565, KB5005699

Citrix Server

Citrix Presentation Server

Windows Server 2016 Standard

Microsoft Windows versions and Hotfixes

Microsoft OS version	Microsoft Hotfixes
10.0.14393 N/A Build 14393	KB5008877,KB3186568,KB3192137,KB3199986,KB4035631,KB4049065,KB4093137,KB4132216,KB4486129,KB4520724,KB4535680,KB4550993,KB4550994,KB4576750,KB4577586,KB4589210,KB5001078,KB5001402,KB5005698,KB5011570,KB5011495

Citrix App Server

Windows Server 2016 Standard

Microsoft Windows versions and Hotfixes

Microsoft OS version	Microsoft Hotfixes
10.0.14393 N/A Build 14393	KB3186568,KB3192137,KB3199986,KB4035631,KB4049065,KB4093137,KB4132216,KB4535680,KB4550994,KB5001402,KB5005698,KB5011570,KB5011495

Citrix Client

Microsoft Windows 10 Pro

Microsoft Windows version and Hotfixes

Microsoft OS version	Microsoft Hotfixes
10.0.19043 N/A Build 19043	KB5008876,KB5000736,KB5011487,KB5007273,KB5011352,KB5005699

Standalone/Personal Workstation

Microsoft Windows 10 Pro

Microsoft Windows version and Hotfixes

Microsoft OS version	Microsoft Hotfixes
10.0.19043 N/A Build 19043	KB5004331,KB5000736,KB5005565,KB5005699

LAC/E device

Windows 10 Enterprise 2016 LTSC

Microsoft Windows versions and Hotfixes

Microsoft OS version	Microsoft Hotfixes
10.0.14393 N/A Build 14393	KB4033631,KB4049411,KB4346087,KB4535680,KB5001078,KB5011570,KB5011495

Windows 10 Pro

Microsoft Windows versions and Hotfixes

Microsoft OS version	Microsoft Hotfixes
10.0.18363 N/A Build 18363	KB4578974,KB4497165,KB4517245,KB4535680,KB4561600,KB4565554,KB4580325,KB4598479,KB4598229