



RESOURCE AND PATIENT MANAGEMENT SYSTEM

Electronic Clinical Quality Measures Export Tool

(BQRE)

Installation Guide and Release Notes

Version 3.0
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Preface

This manual describes the installation of the Electronic Clinical Quality Measures (eCQM) Export Tool (namespace BQRE).

BQRE is a browser-enabled graphical user interface for the Indian Health Service (IHS) deployed locally on an application server for extracting eCQM measures data from IHS-site Resource and Patient Management System (RPMS) databases. It provides functionality to extract Quality Reporting Document Architecture (QRDA) CAT-1 files that can be securely transmitted to the eCQM Engine (ECQM) to generate QRDA CAT-3 files to submit to reporting entities.

1.0 Release Notes

Prefix: BQRE

Current Version: 3.0

This is the second release of the locally deployed eCQM Export tool as defined by the following change requests:

Table 1-1: Change Requests

CR ID	Title
11466	eCQM: BQRE – Add Anonymize Data Checkbox for CPC+ Submission Functionality
11181	eCQM: Enhance BQRE: Failed Patient Export Handling
11180	eCQM: Enhance BQRE: Job Scheduling: Folders by Export Date
11179	eCQM: Enhance BQRE: Job Scheduling: Enhance Listing and Filtering of Jobs
11178	eCQM: Enhance BQRE: Improve Sorting and Listing
11177	eCQM: Enhance BQRE: Enhance Usability on Provider Inclusion
11176	eCQM: Enhance BQRE: Allow Measure Selection for BQRE Extraction
11175	eCQM: Enhance BQRE: Split Interface
11174	eCQM: Enhance BQRE: Site Profile to Job Scheduling

1.1 Contents of Distribution

Table 1-2: Distribution files and descriptions

File	Description
bqre0300.install.msi	BQRE Application Installer
bqre0300.xml	BQRE Data Description File
bqre030i.pdf	BQRE Version 3.0 Installation Guide and Release Notes
bqre030t.pdf	BQRE Version 3.0 Technical Manual
bqre030u.pdf	BQRE Version 3.0 User Manual

1.2 Required Resources

This section lists the computer resources required for each deployment strategy.

1.2.1 Local Application Server Resources

For the BQRE/ECQM local install option, do not install on the same server as BPRM. However, the ECQM Application (IIS) and Database (RavenDB) and BQRE could be installed on ONE machine. The minimum specification for that server is Window OS with Microsoft .NET Core Runtime version 3.1+ and above with 2.4 Ghz+ quadcore with 8-12 GB RAM and 60 GB free space.

For the BQRE local / ECQM central option, the BQRE could be installed on BPRM application server. The minimum specification for that server is Window OS with Microsoft .NET Core Runtime version 3.1+ and above with 2.4 Ghz+ quadcore with 8-12 GB RAM and 60 GB free space.

1.2.2 Browser Standard

The following browsers are recommended for any workstations accessing the BQRE Extract tool:

- Google Chrome® Version 68 or higher
- Internet Explorer Version 11.1504 or higher
- Microsoft Edge
- Mozilla Firefox

1.3 Before You Begin: Installation Issues

Internet connectivity on the application server is necessary to download the required installation items.

1.4 BQRE Prerequisites

- BCQM – Version 1.0 Patch 7
- BMC – Version 4 Patch 13
- BMW – Version 2020.3
- BJPC – Version 2.0 Patch 22
- BGO – Version 1.1 Patch 24
- DTS – Cycle 43
- HealthShare – 2017.2.x

2.0 Installation Overview

The BQRE v3.0 installation requires two files. The **bqre0300.xml** data description file and the **bqre0300.install.msi** application installation file are specific to the eCQM Export Tool. These two files are included in the BQRE distribution package.

1. Install **bqre0300.xml**. Follow instructions in Section 3.2.
2. Install **bqre0300.install.msi**. Follow instructions in Section 3.3.

Warning: Previous versions of BQRE must be un-installed from the Control Panel and the server/system should be restarted before proceeding.

The local RPMS database and Ensemble instance need to be accessible from the application server on which the BQRE installation is locally deployed.

3.0 BQRE Installation and Configuration

This section outlines the steps essential for setting up and configuring an IHS RPMS database server for the BQRE application to be executed against the RPMS database. It also provides steps to set up such an environment.

3.1 Assumptions

This section assumes the following:

- The Ensemble/Cache server is already set up.
- An RPMS database is already set up on the Ensemble/Cache server.
- The person performing the installation and configuration has the appropriate rights to mount databases, create a namespace, and edit namespace settings for the RPMS database.
- The BMW CACHE.DAT file as described in the *BMW CACHE.DAT Installation Guide* document is installed.

3.2 Import a New BQRE XML File

A separate XML file is included with the release; follow the steps in Sections 3.2.1 through 3.2.2 to import a new BQRE XML file.

3.2.1 Disable Read Only

To import the **bqre0300.xml** file, you must set the BMW database to allow write access. If the database is set to **Read Only**, do the following:

1. Browse to the **Local Databases** window of the Ensemble Management Portal following this path:

```
Home > System Administration > Configuration > System Configuration > Local Databases.
```

2. Click **Edit** in the row corresponding to the BMW database.
3. In the displayed window, set the **Read Only** field to **No**.

Once the patch is installed, you can re-enable **Read Only** mode by repeating these steps and setting the **Read Only** field to **Yes**.

3.2.2 Import the BQRE XML File

To import the **bqre0300.xml** file, do the following:

1. From the **Ensemble/Cache System Management Portal Home** window, click **System Explorer**, then **Classes**. The **Classes** dialog displays (Figure 3-1).

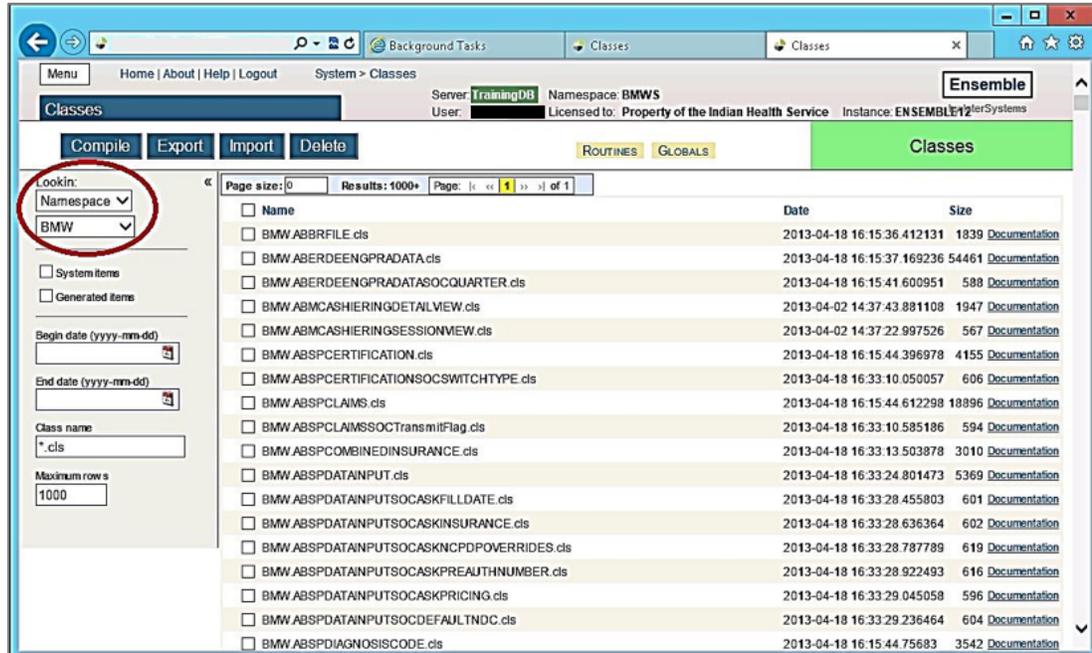


Figure 3-1: Classes dialog

2. Select the **BMW** namespace in the **LookIn** pane in the upper-left corner of the dialog.
3. Click **Import**. The **Import Classes** dialog displays (Figure 3-2).

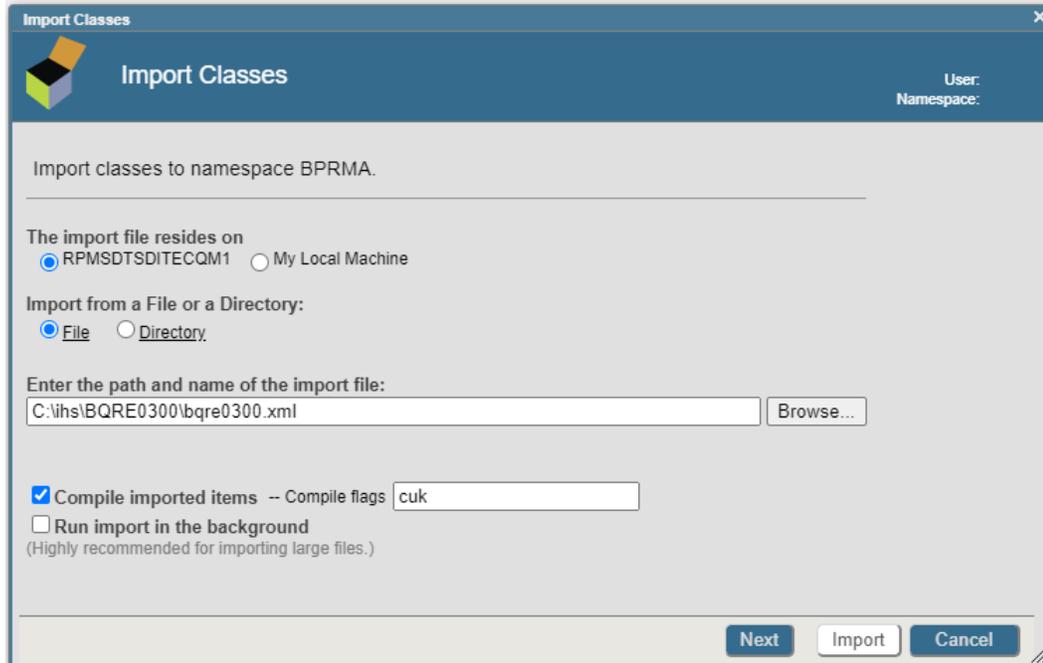


Figure 3-2: Import Classes dialog

4. Click **Browse** and navigate to the **bqre0300.xml** file in the folder where it was saved in Section 2.0.
5. Select the **bqre0300.xml** file and click **Next**.
6. A listing displays (Figure 3-3) showing the contents of the XML file.

Warning: If installing in a non-HealthShare environment, then uncheck the **BMW.NEWBORN9000106490000106411.cls** file before clicking **Import**.

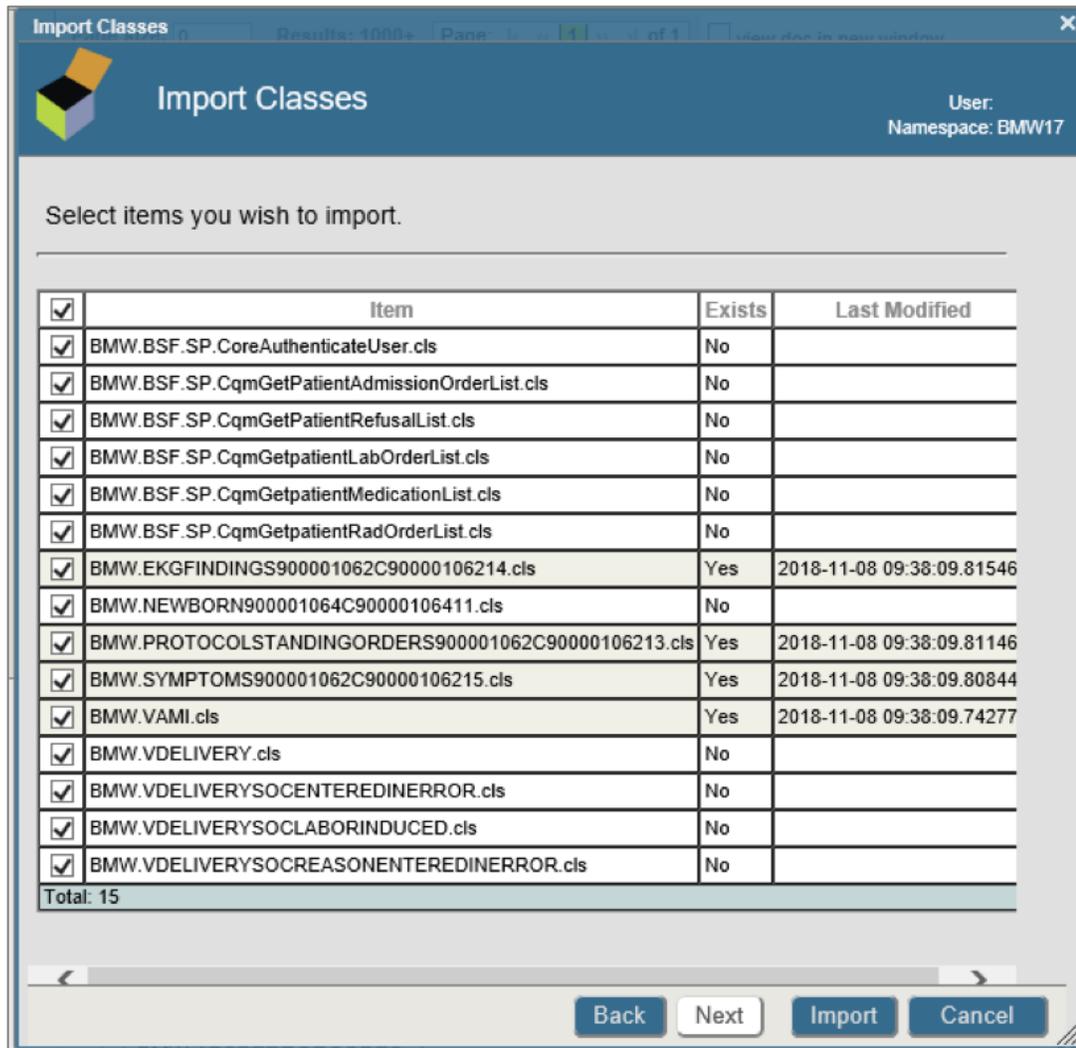


Figure 3-3: Import Classes window – Content listing

7. Click **Import**. After a few moments of processing, a listing of the imported classes displays (Figure 3-4).

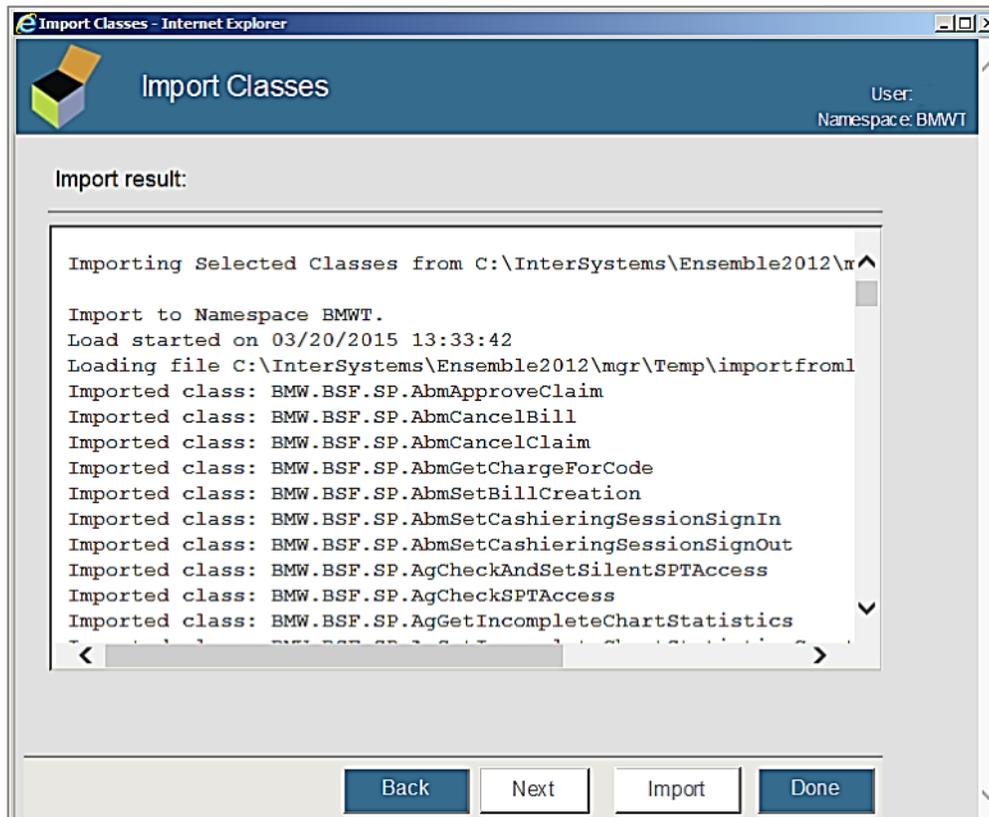


Figure 3-4: Import Classes window – Import result listing

8. Scroll to the bottom of the listing to confirm that the **Load finished successfully** message displays (Figure 3-5).

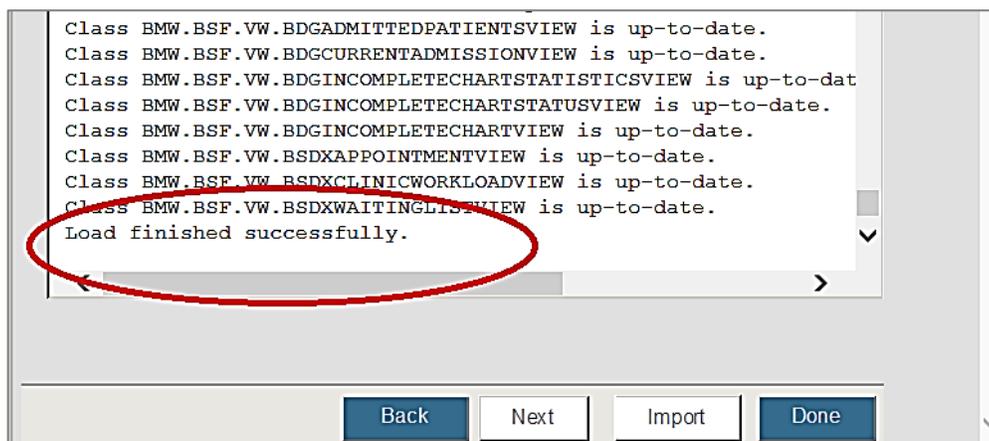


Figure 3-5: Import Classes window – Load finished successfully

At this point, the BMW database configuration is complete.

3.3 Install the MSI File

To install the BQRE Application:

1. Navigate to the location where the **BQRE Application Installer** file (**bqre0300.install.msi**) is stored.
2. Copy the MSI file to the application server (Windows operating system).
3. Double-click the MSI file.
4. In the **Setup Wizard** dialog (Figure 3-6), click **Next**.

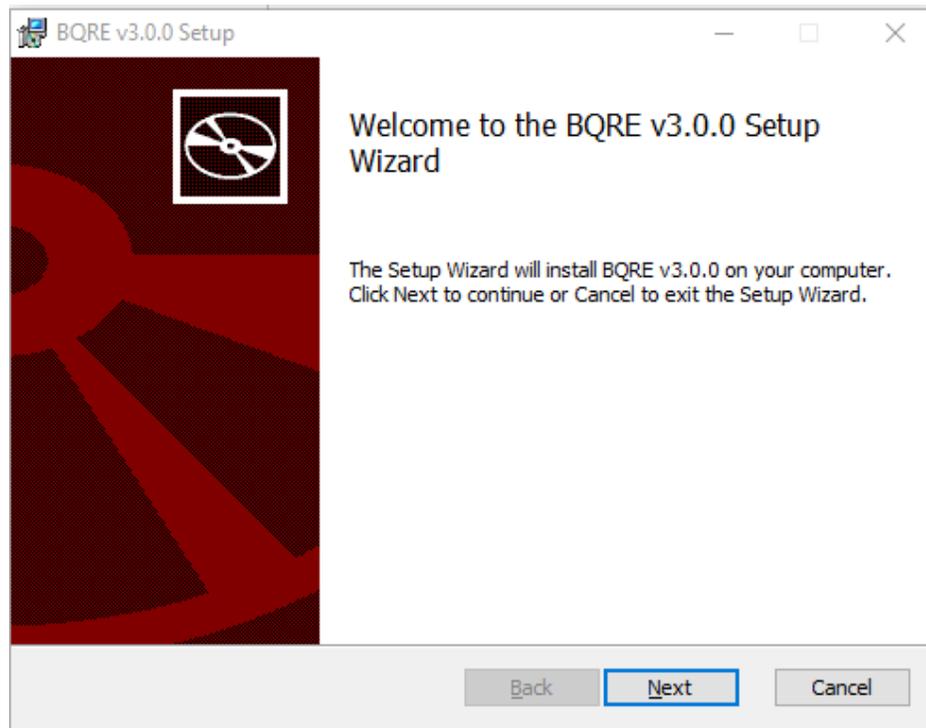


Figure 3-6: BQRE v3.0.0 Setup window

5. In the **BQRE v3.0.0 Setup** dialog (Figure 3-7), click **Finish**.

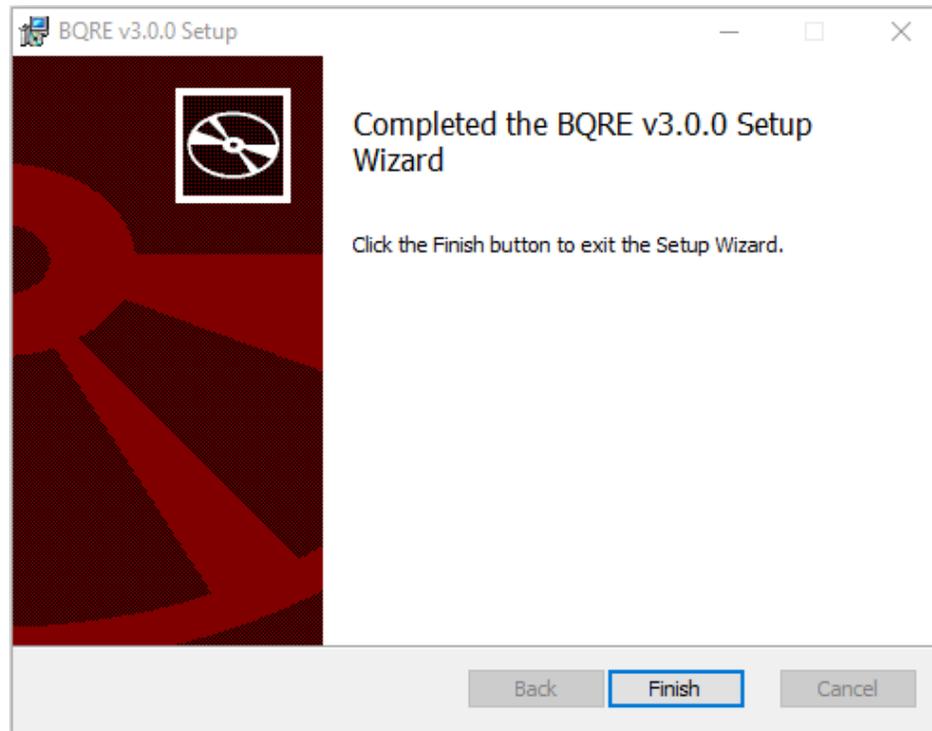


Figure 3-7: Completed the BQRE v3.0.0 Setup Wizard window

Note: If an error message displays indicating that you do not have sufficient privileges to run the installer, refer to Appendix A for instructions on running the installer from the Administrator Command Prompt.

3.4 Configuration

3.4.1 QRDA Storage Directory

On the site application server, a storage directory must be configured by site staff to store the exported QRDA CAT-I and CAT-III files. This directory can optionally be shared with eCQM Export Tool (BQRE) users. All applicable security protocols should be enforced to ensure that the patient data is restricted to those who will submit files to the eCQM Engine or other registries as required by the site.

Configuration of this directory is performed in two steps:

1. Create a folder on an appropriate drive on the application server (e.g., **D:\QrdaStorage**).
2. When configuring the site profile settings in the eCQM Export Tool (BQRE), provide the **QRDA storage path** and save the changes.

3.4.2 BQRE/ECQM Communication

This step is only applicable when the site wants to use the automatic push-and-pull communication feature between eCQM Export Tool (BQRE) and eCQM Engine (ECQM) software.

The eCQM Export Tool (BQRE) can be used as a standalone tool to export QRDA CAT-I files to a local storage folder (the export format must be set to XML in the site profile). In this scenario, automatic communication is not required.

To setup automatic communication between the eCQM Export Tool (BQRE) and a local or central eCQM Engine (ECQM) system, the base address of the eCQM Engine (ECQM) system must be configured. The eCQM Export Tool (BQRE) **appsettings.json** file is located at **C:\Program Files (x86)\BQRE**. This file can be modified in a notepad.

```
{
  "EcqmBaseUri": "https://127.0.0.1/",
  "CmsEhrEPCertificationId": "1234567890ABCDE",
  "CmsEhrEHCertificationId": "1234567890ABCDE"
}
```

Figure 3-8: EcqmBaseUri property

The value for the EcqmBaseUri property represents the address where the eCQM Engine (ECQM) is installed. The default is localhost HTTPS. Proper care is needed in modifying this file so JSON formatting is kept intact. Modify the **IP address** inside the double quotes.

Note: Any changes in the appsettings.json file require a restart (stop/start) of the BQRE_Extraction_Service in the system services list.

3.5 Confirm Application Launch via Logon

Open your internet browser and type in the **IP address** of the application server where eCQM Export Tool (BQRE) is installed. The default port for eCQM Export Tool (BQRE) is **37019** (e.g., **http://IPAddressofBQREApplicationServer:37019**).

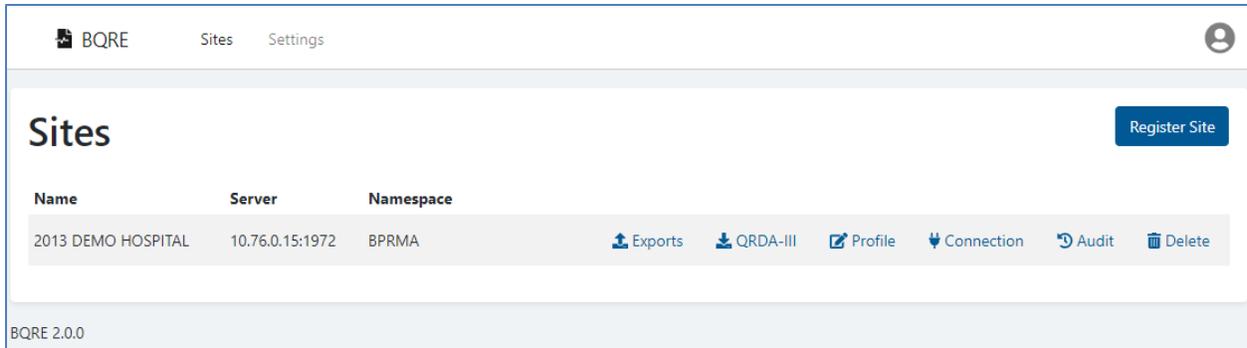


Figure 3-9: BQRE Sites list

Note: Figure 3-9 displays the **Sites** list with one site set up. When accessing this screen for the first time, the list will be empty.

Refer to the *eCQM Export Tool (BQRE) User Manual* for details on the process of registering the first site.

Appendix A Installing and Uninstalling MSI File from the Command Prompt (as Administrator)

Warning: Previous versions of BQRE must be un-installed from the Control Panel (or Command Prompt – Administrator Mode) and the server/system restarted before proceeding.

A.1 Run the Application Installer

1. Navigate to **C:\Windows\system32** on your application server.
2. Locate the **cmd.exe** file, right-click, and select **Run as Administrator**.
3. Navigate to the location where the **BQRE Application Installer** file (**bqre0300.install.msi**) is saved, as shown in the example below:

```
C:\Windows\system32>cd C:\Temp\BQRE
```

4. At the resulting prompt, type the **name** of the installation file (**bqre0300.install.msi** in this example) and press Enter.

```
C:\Temp\BQRE>bqre0300.install.msi
```

This will launch the **BQRE Setup Wizard**

5. In the **Setup Wizard** dialog (Figure A-2), click **Next**.

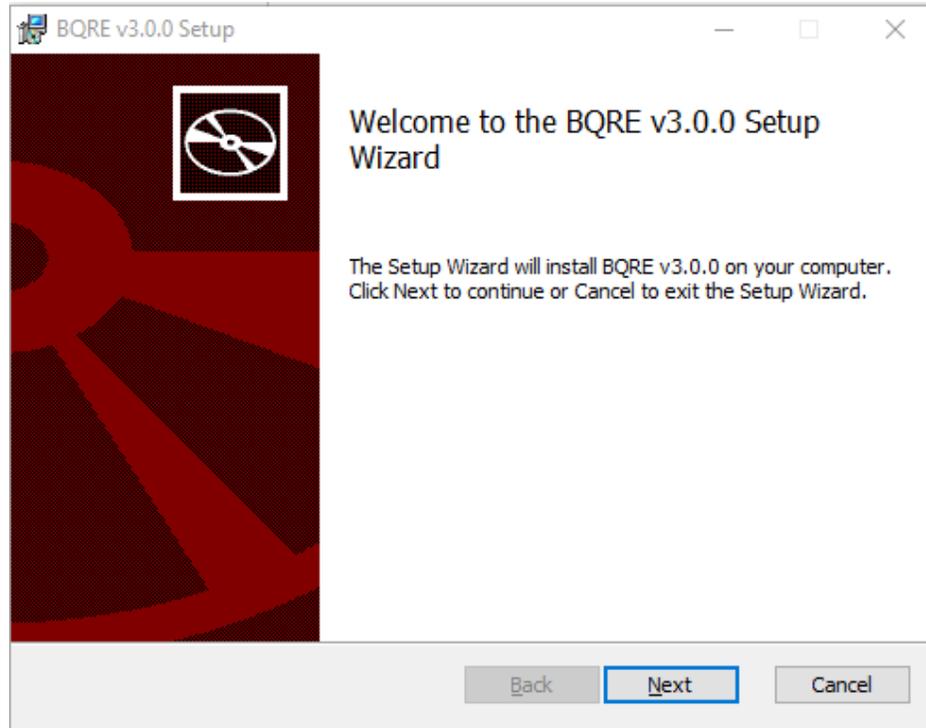


Figure A-1: BQRE v3.0.0 Setup window

6. In the **BQRE v3.0.0 Setup** dialog (Figure A-3), click **Finish**.

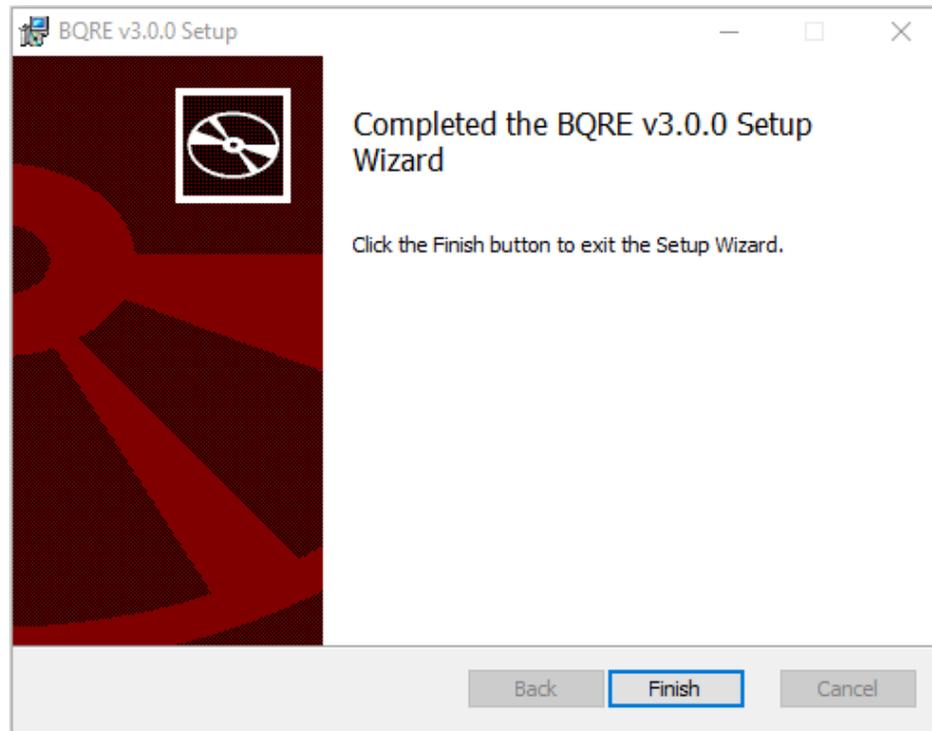


Figure A-2: Completed the BQRE v3.0.0 Setup Wizard

7. Open the **%ProgramFiles%** folder, usually found at **C:\Program Files (x86)**.
8. Confirm that the **%ProgramFiles%** folder contains the **BQRE** folder.
9. Open the **System Services** list (**Administrative Tools > Services**).
10. Confirm that **BQRE_Extraction_Service** is in the **Services** list.
11. Confirm that **BQRE_Extraction_Service** is running.

A.2 Uninstall the Existing BQRE Application

1. Download and Run the [Microsoft Install Uninstall Utility](https://support.microsoft.com/en-us/help/17588/windows-fix-problems-that-block-programs-being-installed-or-removed) (<https://support.microsoft.com/en-us/help/17588/windows-fix-problems-that-block-programs-being-installed-or-removed>) prior to running the command prompts.
2. Navigate to **C:\Windows\system32** on your application server.
3. Locate the **cmd.exe** file, right-click and select **Run as Administrator**.
4. To uninstall the existing **BQRE .msi** file, run the following command:

```
msiexec /x bqre0300.install.msi
```

5. To manually remove the existing **BQRE Service**, run the following command (name of the Service must match exactly as it appears under **Administrative Tools > Services**):

```
sc delete "BQRE_Extraction_Service"
```

6. If successful, the following message should display:

```
[SC] DeleteService SUCCESS
```

7. Navigate to **Control Panel > Programs and Features (or Add / Remove Programs)**.
8. Confirm that **BQRE Application** is no longer displayed.
9. Open the **%ProgramFiles%** folder, usually found at **C:\Program Files (x86)**.
10. Confirm that the **%ProgramFiles%** folder no longer contains the **BQRE** folder.
11. Open the **System Services** list (**Administrative Tools > Services**).
12. Confirm that **BQRE_Extraction_Service** is *not* listed in the **Services** list.

Acronym List

Acronym	Term Definition
CQM	Clinical Quality Measure
eCQM	Electronic Clinical Quality Measures
DTS	Distributed Terminology Services
IHS	Indian Health Service
MIPS	Merit-based Incentive Payment System
MSI	Microsoft Installer
OIT	Office of Information Technology
QPP	Quality Payment Program
QRDA	Quality Reporting Document Architecture
RPMS	Resource and Patient Management System
SQA	Software Quality Assurance
XML	Extensible Markup Language

Contact Information

If you have any questions or comments regarding this distribution, please contact the IHS IT Service Desk.

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