

# Modules Installation and Updating - QCLE

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# 1 Preface

This document describes steps necessary to install or update **QCL Engine** (hereinafter QCLE) module.

## 2 Prerequisites

In order to install and update QCLE module, the following requirements must be met:

- QEF and QEF Admin Console are installed and accessible;
- QIS module is installed;

## 3 Module Description

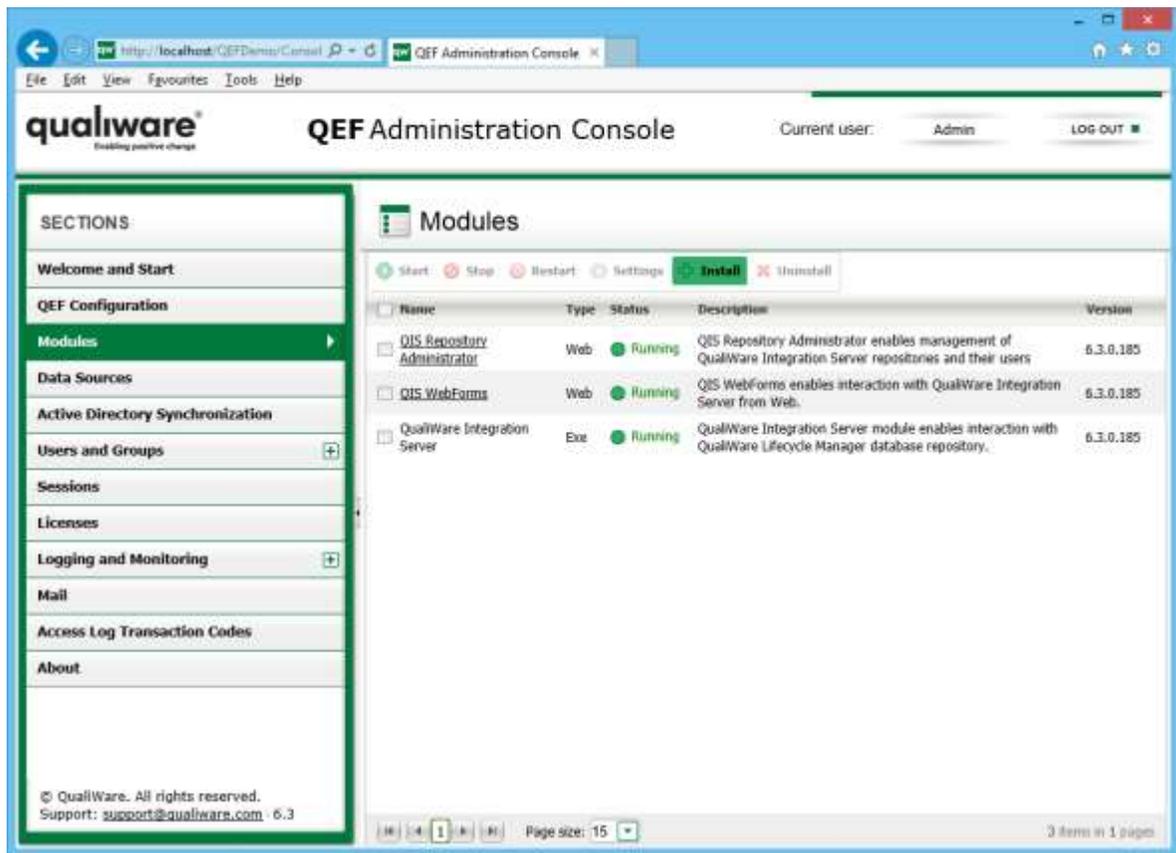
QCLE module is used to run and maintain QCLE instances. It performs the following tasks:

- Provisioning different QCLE instances;
- Starting/stopping QCLE instance processes;
- Maintaining QCLE instance states after unexpected crashes;
- Monitoring and reporting of QCLE instance configuration changes;
- Serving QCLE instance requests.

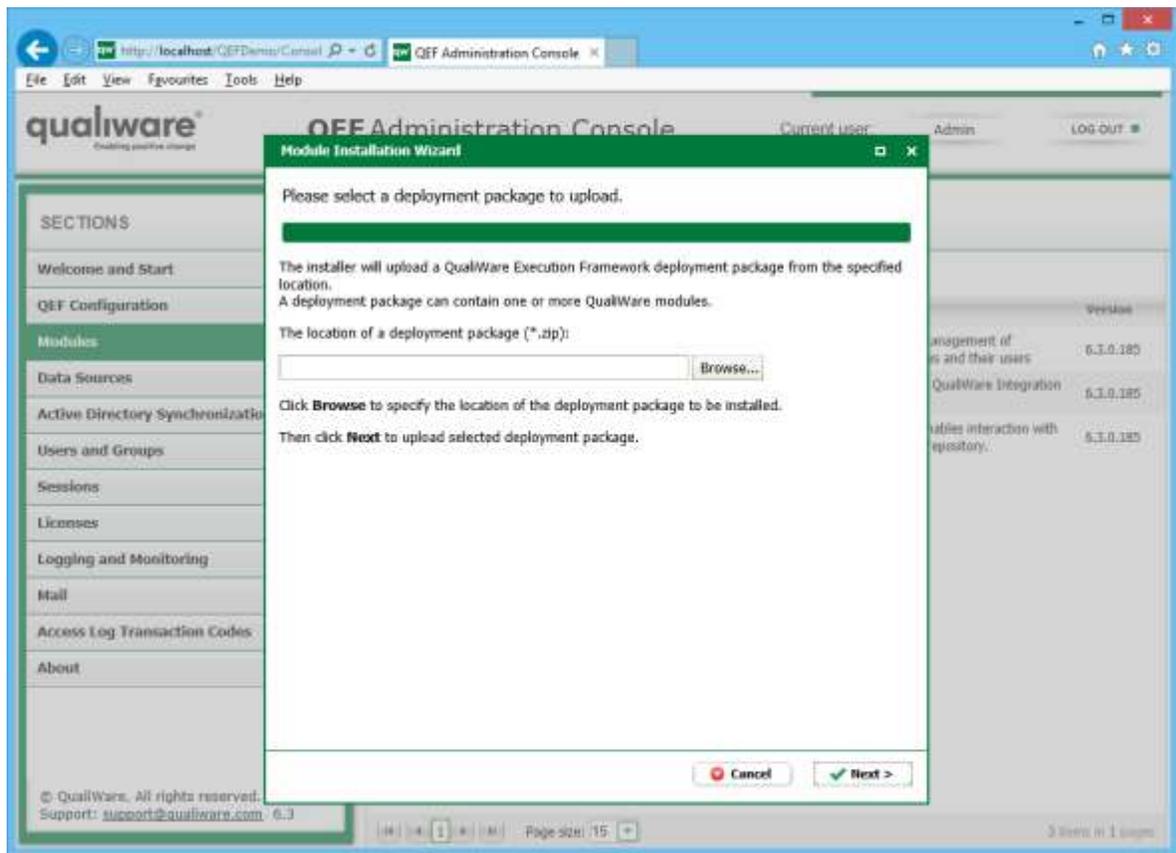
## 4 Installing and Updating QCLE Module

QCLE module installation/update procedure is typical. The following are the steps necessary:

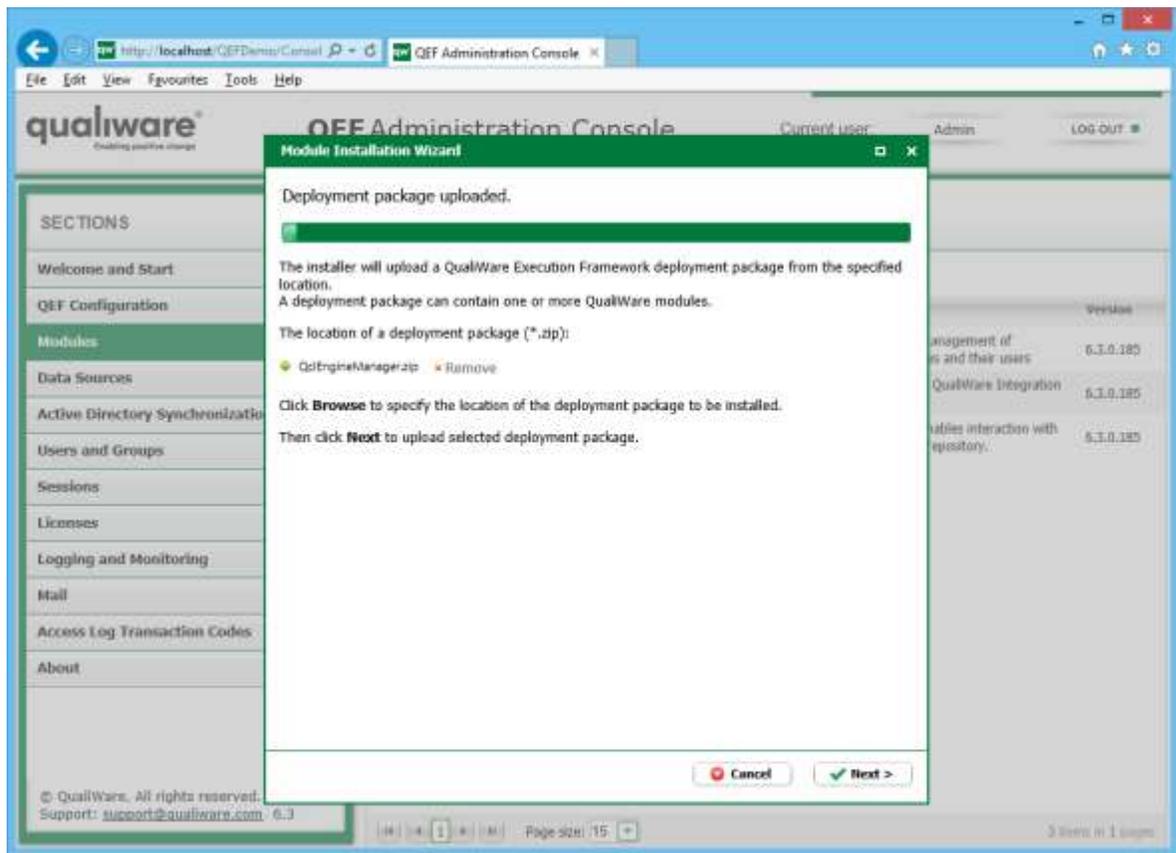
1. Open Admin **Console** -> **Modules**.
2. Click **Install**.



1. Click **Browse** and select modules deployment package (zip archive).



3. When deployment package is uploaded, click **Next**.

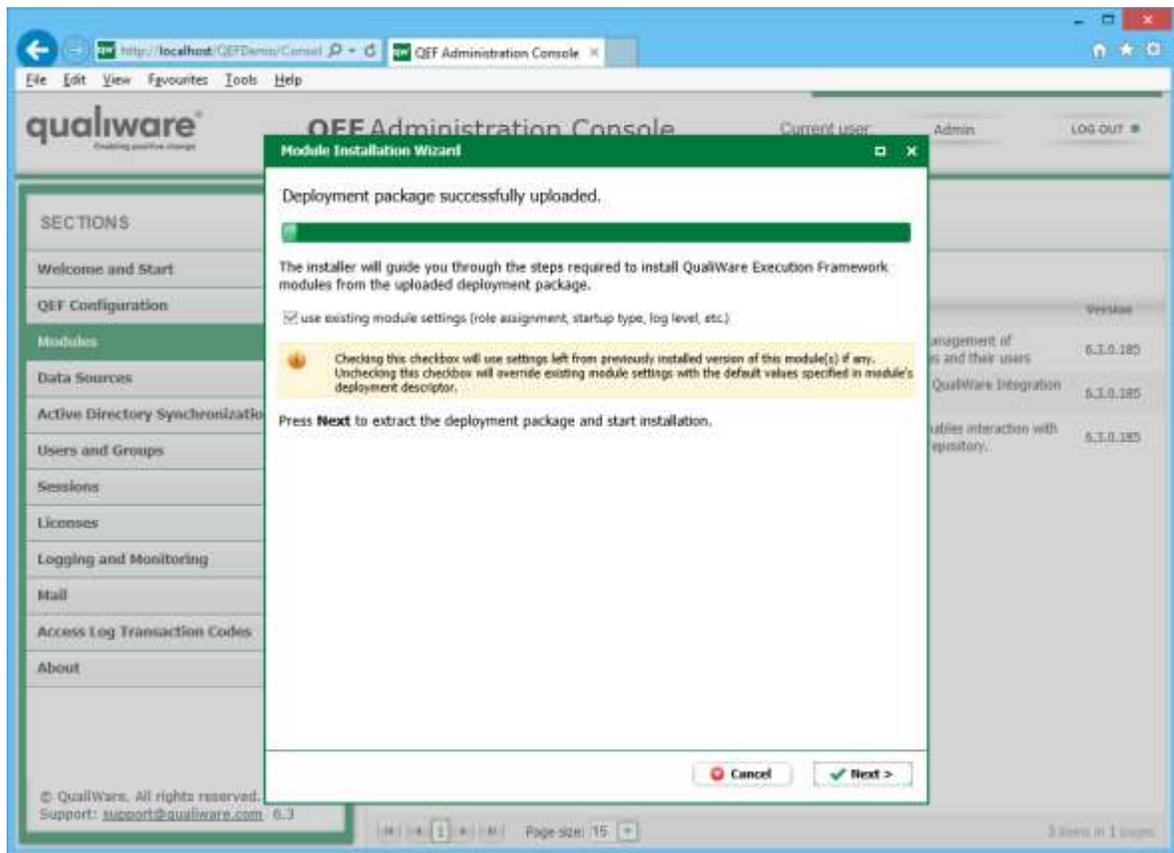


4. After reading the license agreement click **Next**.

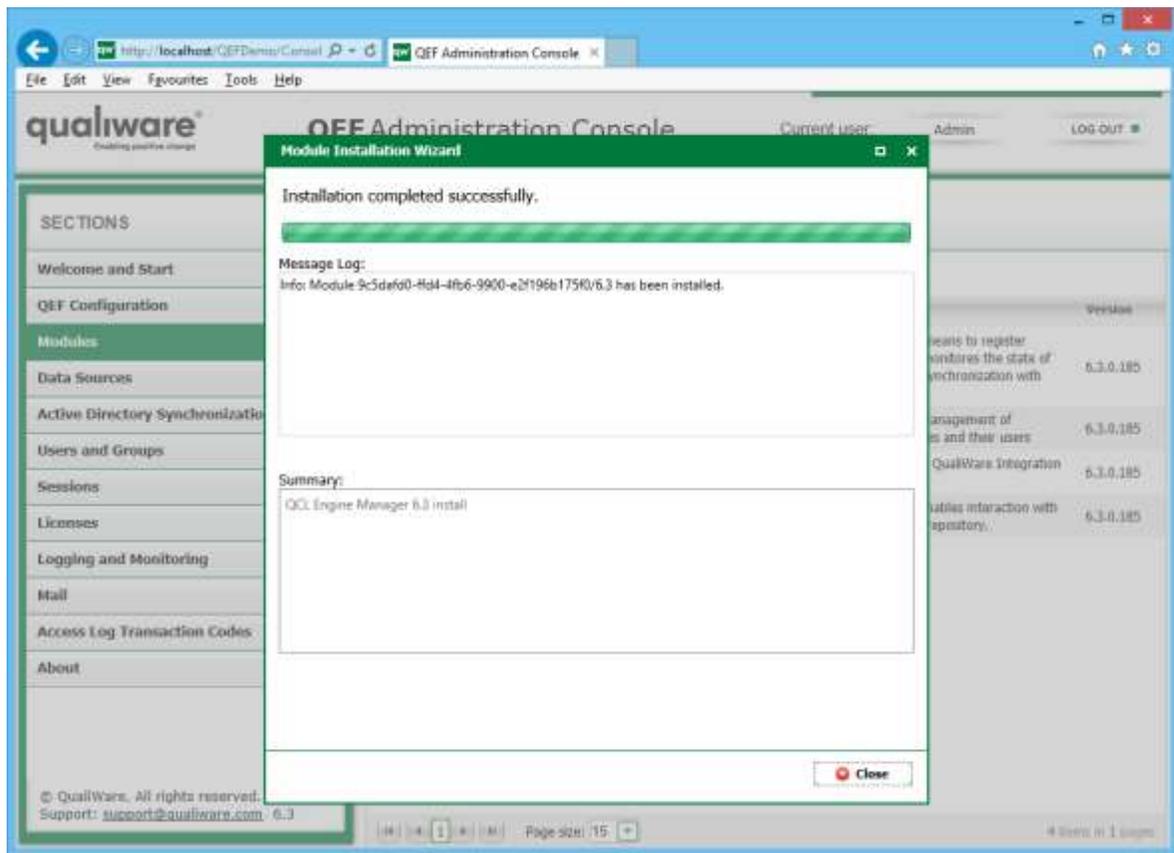


5. Enable or disable **use existing module settings**. Enabling it allows use of module settings from the previous installation. Click **Next**.

*NOTE: In case the module update is performed, it is advised to use existing module settings in order to persist registered QCL Engine instances data and other module settings; otherwise, the data will be destroyed.*



6. Review installation log and click **Close**. If installation fails, see QEF log for error details.



## 5 Advanced Setup

QCLE module maintains a connection with all QCLE instances in order to issue commands or serve requests. In order to perform this task, local named pipe channel is setup every time instance is started by means of QCLE module. Named pipe channel is created with the use of Microsoft WCF technology and is configured the same way any other channel is.

By default, channel will have unique auto-generated name. In case there is a compelling need to change this behavior, please perform the following:

1. Open **Explorer**.
2. Go to **QEF Installation Folder**.
3. Go to **Modules**.
4. Go to **QCL Engine Manager**. Open the version you're configuring.
5. Edit **Qem.Module.exe.config** file, **serviceModel** section, **endpoint** configurations.

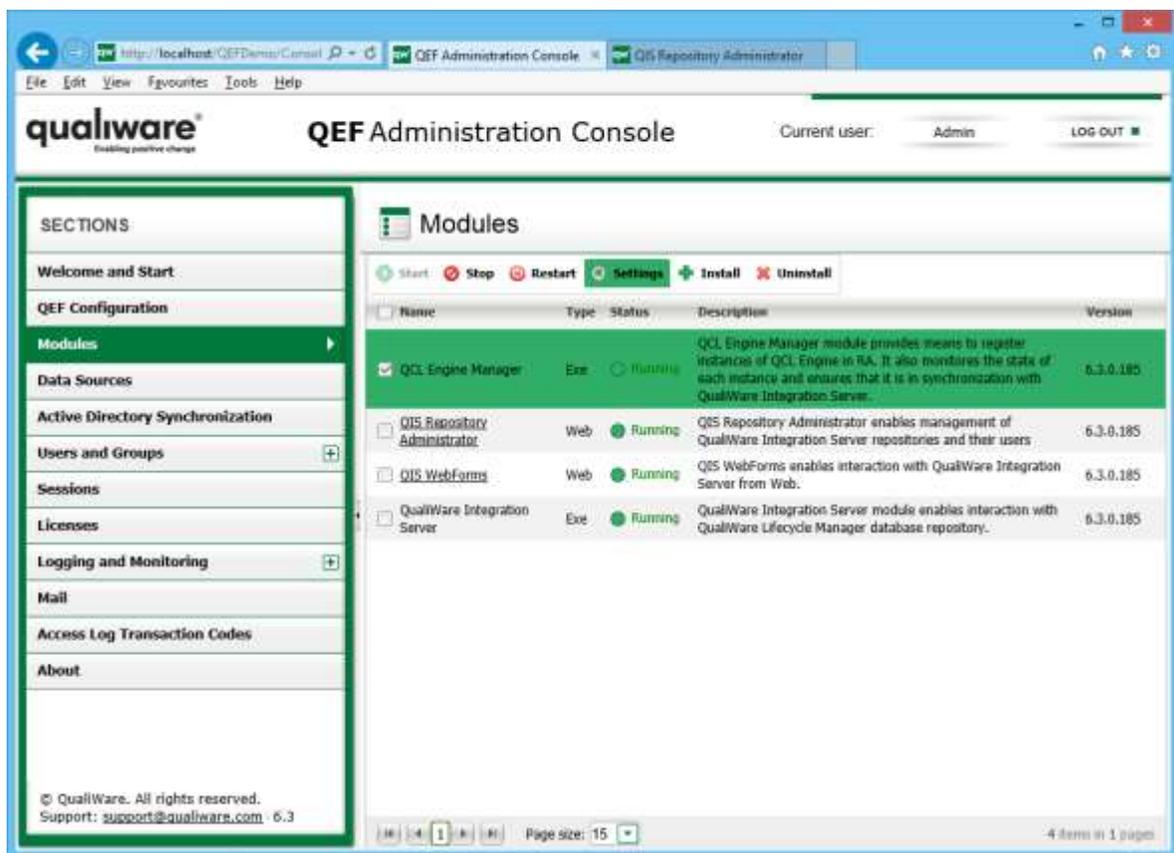
*NOTE: In case of erroneous channel specification QCLE instances will be stopped and restarted invariably.*

## 6 Data Migration

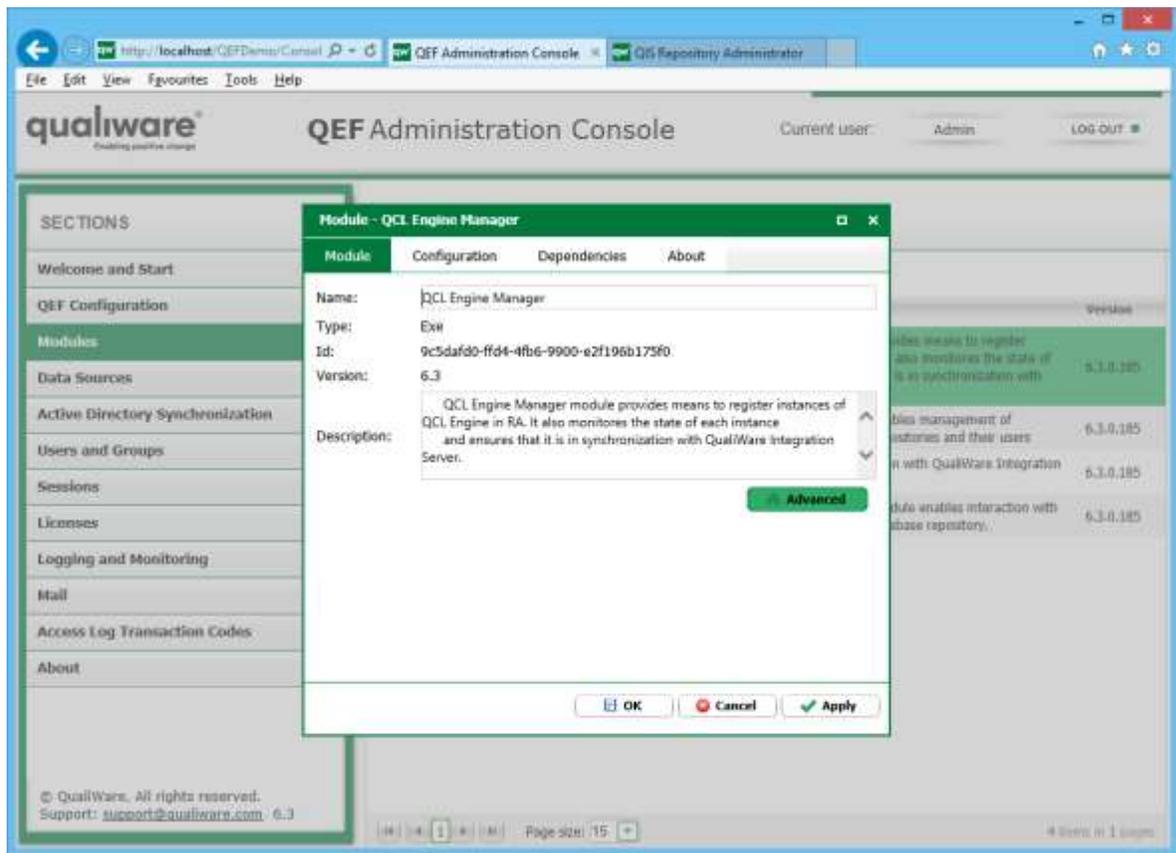
*NOTE: It is highly recommended to avoid tampering with internal QCLE data since it is prone to change; for migration purposes, simple **upgrade** procedure would suffice in most scenarios.*

QCLE module doesn't create its own data storage, instead it utilizes settings to store data. To access internal QCLE data, following steps are to be performed:

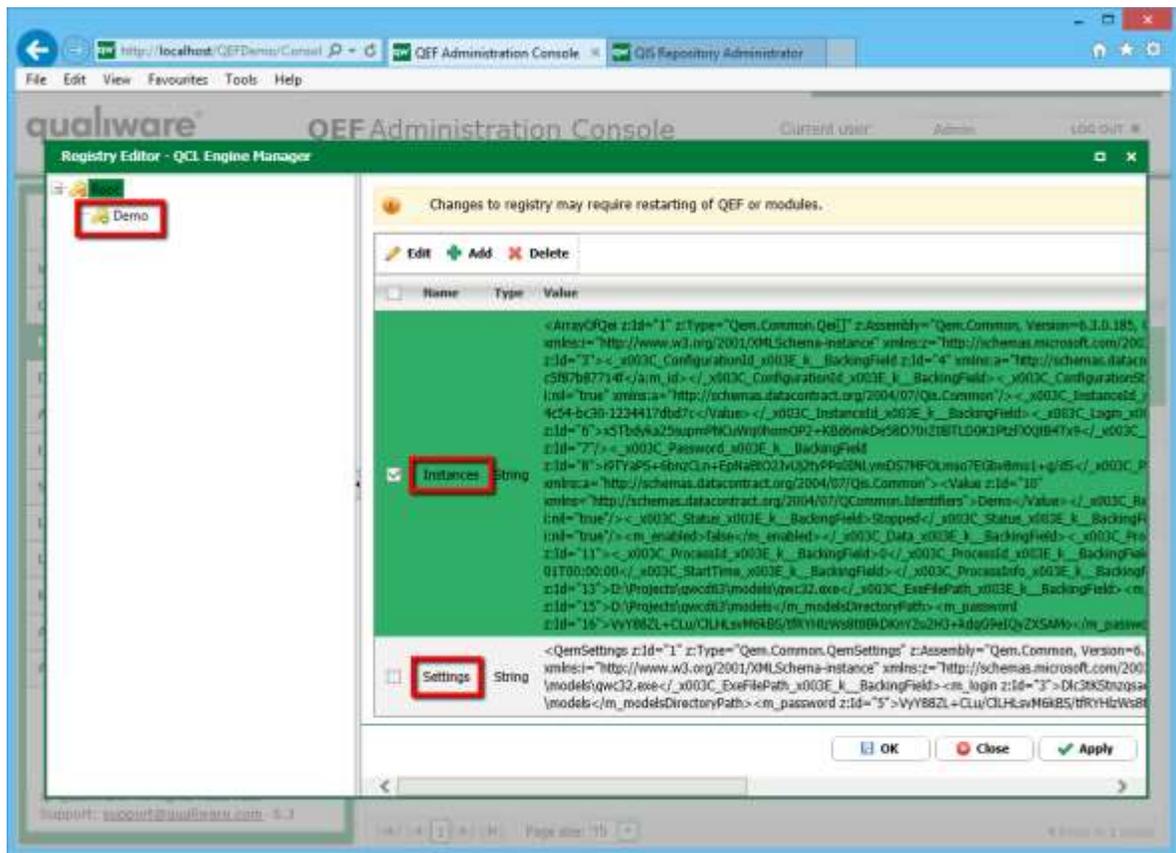
1. Open Admin Console -> Modules.
2. Select QCLE Manager.
3. Click Settings.



4. Click Advanced.



For each repository, a separate key in the registry is created. Registry key is named after repository identifier.



Each registry key contains 2 settings – **Instances** and **Settings**. **Instances** contain data for all QCLE instances (configuration identifier, username, password, working directory); **Settings** contain instance-agnostic data – path to QEI executable.

*NOTE: Any changes to settings may cause QCLE module to crash and is not currently supported. Use at your own discretion.*

To execute a migration, full structural contents copy should be executed manually.