Blueprint 6.2

Manual Upgrade Guide

6/25/2015

blueprint

Contents

Blueprint Manual Upgrade Guide

Overview

This *Blueprint Manual Upgrade Guide* is applicable if you have already installed Blueprint and you want to manually upgrade to a newer version. If you want to install Blueprint for the first time, please refer to the *Blueprint Installation Guide*. If you want to automatically upgrade Blueprint instead (recommended), see the *Blueprint Upgrade Guide*.

Important Notices

Upgrade duration

The upgrade can take up to 60 minutes for large databases.

Backing up your data

It is strongly recommended that you back up your Blueprint data prior to starting the upgrade.

Installing services

Job services can be manually installed if functionality for job execution and/or HP ALM legacy support is needed. For more information on installing job services, see Installing services.

> **Tip:** Job services are already installed and configured if **Job Services** is listed as an option in the *Instance Administration Console* within Blueprint. HP ALM is already installed if the 32-bit Blueprint service is listed in the *Services* window on your system (*Administrative Tools*).

System Requirements

Please refer to the *Blueprint Installation Guide* for detailed information about Blueprint System Requirements.

Upgrade Steps

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Step 1: Back up your data

Warning: It is strongly recommended that you back up your database and web site before starting the upgrade.

To back up your data before performing an upgrade:

1. Stop the Blueprint application pool and Blueprint web site.

   Note: Your Blueprint application pool and Blueprint web site may have different names, depending on what you chose during installation.

2. Stop any installed components, including:

   - Job services
   - The HP ALM application pool and web site (formerly known as HP QC)

   Note: This step only applies if any job services or the HP ALM web site have been installed.

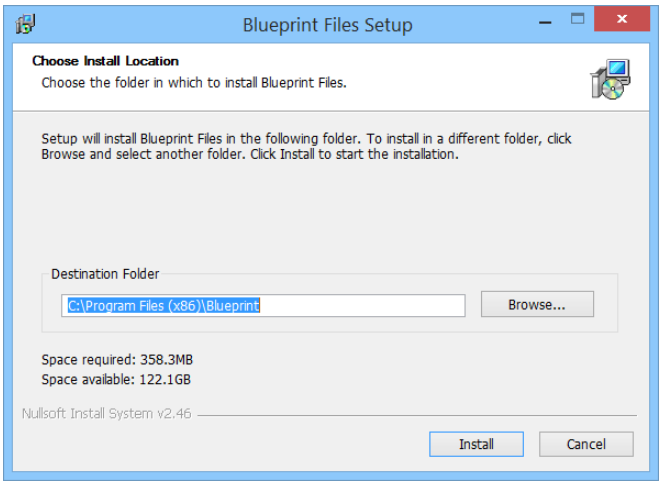
3. Backup the following data:

   - Blueprint database
   - Blueprint website, including:
     - the **`web.config`** file
     - any custom dictionary files (**`dictionary.dct`**)
     - logging configurations (**`Logging.config`** file)
   - **JobExecutorService** folder. This includes the **`BluePrintSys.RC.JobExecutor.exe.config`** for each job service that has been installed.

Step 2: Deploy the setup files to the web application server

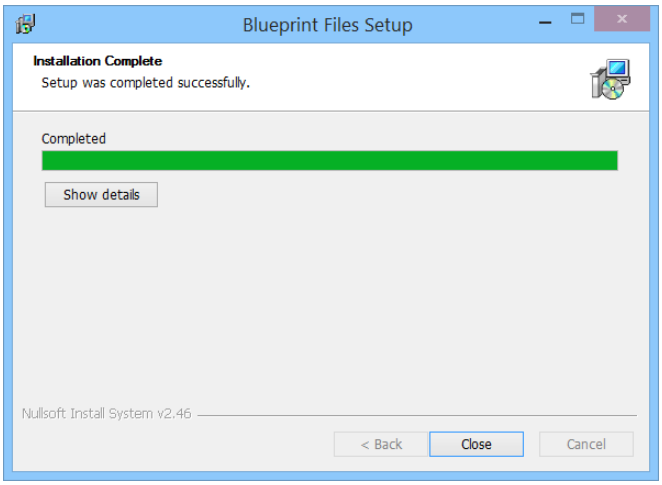
Run **`BlueprintFiles.exe`** as administrator in the same folder where Blueprint is installed.

`BlueprintFiles.exe` extracts all of the application files and configuration utilities that are required for the Blueprint installation. After you open **`BlueprintFiles.exe`**, the following Files Setup Wizard appears:



Click **Install** to continue.

When the installation has completed, the following dialog appears:



Click **Close**.

You have successfully deployed the setup files to the web application server.

Step 3: Upgrade the Blueprint database and web site

1. Run the following command:

   Important: The command must be run with Administrator privileges.

   ```
   blueprintdbcmd.exe /object DB /command UPGRADE /catalog [Blueprint]
   /datasource [DATABASESERVER\INSTANCE01] /integratedsec FALSE /userid
   [dbadmin] /password [pAssw0rd]
   ```

2. Integrate any custom edits from the **`web.config`** backup into the new **`web.config`** file by merging the two files.

   Some parameters may include the connection string, ALM configuration path(s) and/or timeouts.

For more information on editing **web.config** parameters, see the *IT Administration Guide.*

3. Integrate any custom edits from the **Logging.config** backup into the new **Logging.config** file by merging the two files.
4. Integrate any custom edits from the **BluePrintSys.RC.JobExecutor.exe.config** backup into the new **BluePrintSys.RC.JobExecutor.exe.config** file for any installed job service.
5. Copy and paste any custom **dictionary.dct** files into new `dictionary` folder.
6. Stop and then restart all installed job services.
7. Restart the HP Quality Center application pool and web site.
8. Restart the Blueprint application pool and Blueprint web site.

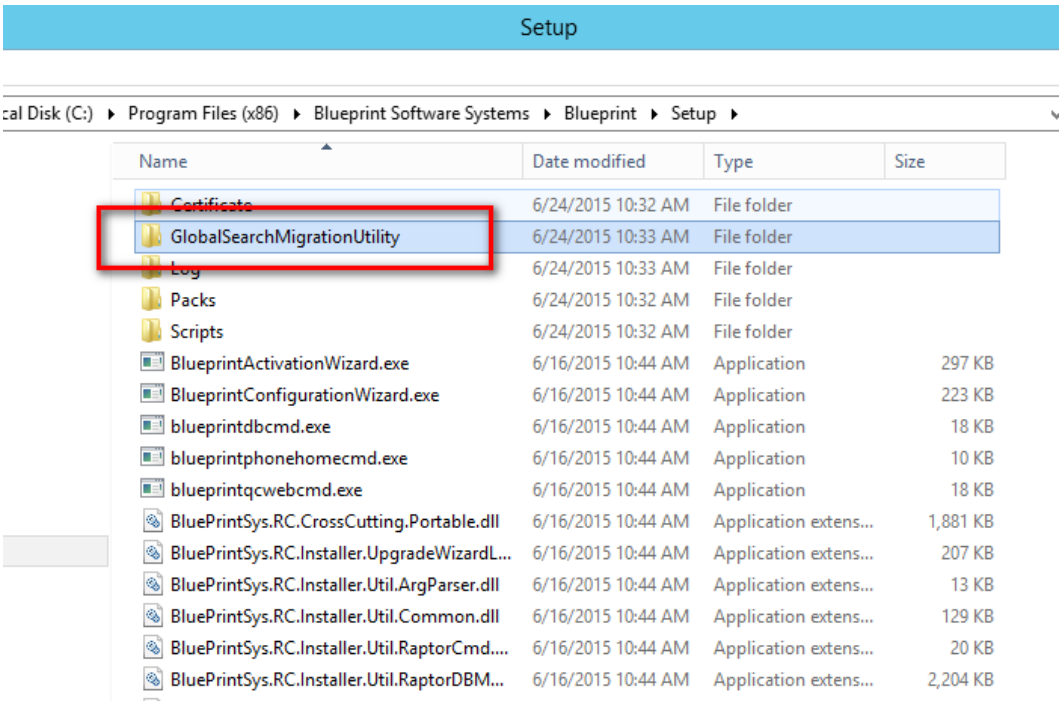
> **Note**: Your Blueprint application pool and Blueprint web site may have different names, depending on what you chose during installation.

Step 4: Run the Global Search Indexing Utility

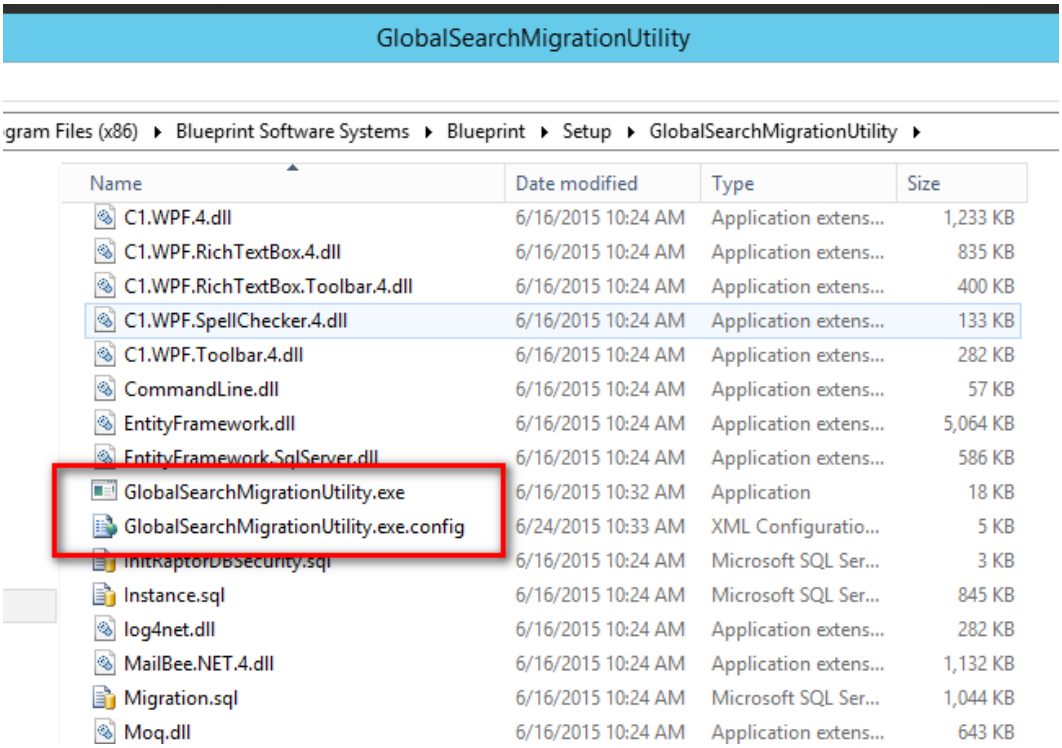
Run the Global Search Indexing Utility on the database

Once the Blueprint Database has successfully been upgraded, it must be indexed for Global Search.

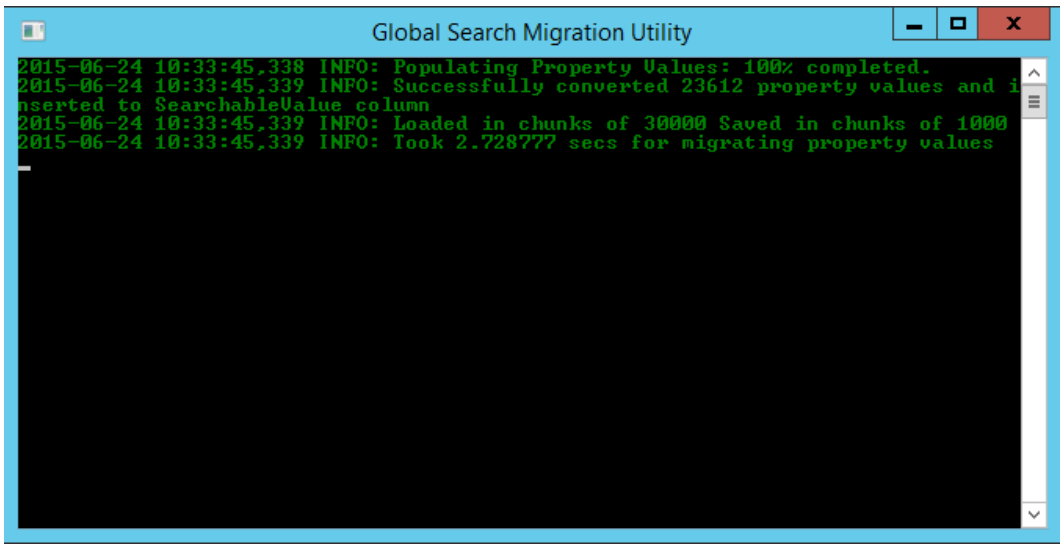
1. Navigate to the folder where Blueprint was installed.



2. Update **GlobalSearchMigrationUtility.exe.config** with the connection string from web.config.



3. Run **`GlobalSearchMigrationUtility.exe`**



Note: The utility may run for several hours depending on the size of the database.

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Step 5: Configure the Blueprint client

Configuring elevated trust in-browser

Blueprint must be configured to run with elevated trust in-browser before you can use some advanced features, such as:

- screen capture capabilities
- pasting images into diagrams
- Visio integration, such as importing and exporting diagrams
- rich text table integration with other applications

Elevated trust in-browser can be configured manually on each client machine, or the configurations can be pushed to Windows computers in a centralized manner.

Using group policy to push the elevated trust in-browser configurations to Windows computers in a centralized manner

The recommended way to configure Blueprint to run with elevated trust in-browser is to use Group Policy. Group Policy allows IT Administrators to push configurations to Windows computers in a centralized manner.

For overview information about Group Policy, refer to Microsoft's Group Policy documentation at: http://technet.microsoft.com/en-us/windowsserver/bb310732.aspx.

To configure Blueprint to use elevated trust in-browser, your Group Policy configuration must do the following:

1. Set one of the following registry values:
   - On 32-bit computers:
     Set the **`HKEY_LOCAL_MACHINE\Software\Microsoft\Silverlight\AllowElevatedTrustAppsInBrowser`** registry value to **`0x00000001`**.
   - On 64-bit computers:
     Set the **`HKEY_LOCAL_MACHINE\Software\Wow6432Node\Microsoft\Silverlight\AllowElevatedTrustAppsInBrowser`** registry value to **`0x00000001`**.

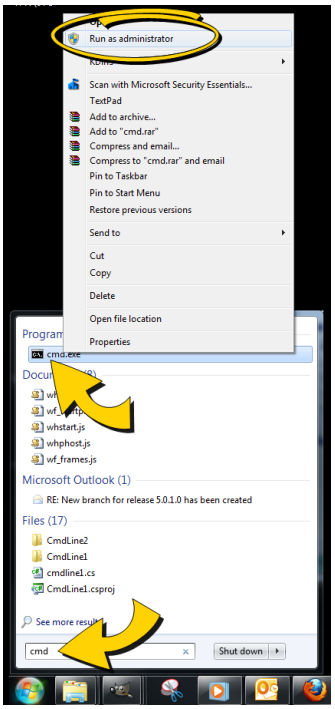
   To learn more about setting a registry value through Group Policy, please refer to the Microsoft documentation that explains how to configure a registry item at: http://technet.microsoft.com/en-us/library/cc753092.aspx.
2. Download the elevated trust in-browser package from the Blueprint Customer Portal.
3. Add the **`publicBlueprintCertificate2017.cer`** certificate to the Trusted Publishers Store.

   To learn more about adding a certificate through Group Policy, please refer to the Microsoft documentation that explains how to deploy certificates by using group policy (http://technet.microsoft.com/en-us/library/cc770315(v=ws.10).aspx).

Manually configuring a computer to run with elevated trust in-browser

To configure Blueprint to run with elevated trust in-browser, perform the following steps on each client:

1. Download the elevated trust in-browser configuration files.
2. Unzip the package and note the directory where the files are located.
3. Run **cmd.exe** as Administrator.
    1. Click the Windows **Start** menu and type **cmd.exe** into the search bar.
    2. Right-click the **cmd.exe** program that appears under the Programs heading and then select **Run as administrator**:



    3. When the confirmation dialog appears, click **Yes**.

       The **cmd.exe** application launches with Administrator privileges:

4. Use the **cd** command to navigate to the folder where you unzipped the files.

   For example:

```
cd c:\temp\elevated_trust
```

5. Enter the following commands to allow elevated trust to run on your local machine:
    - For 64-bit operating systems:

```
regedit.exe /s AllowElevatedTrustAppsInBrowser64.reg
```

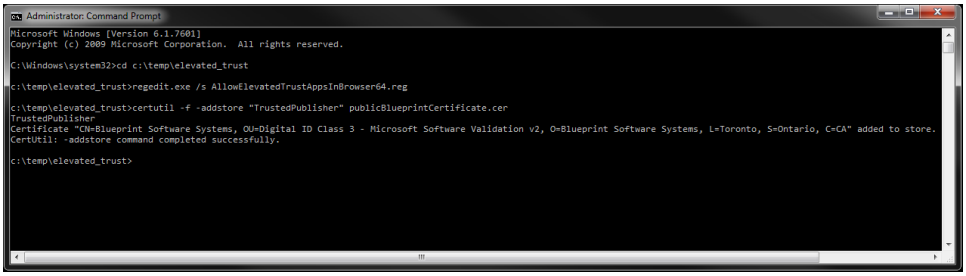
- For 32-bit operating systems:

```
regedit.exe /s AllowElevatedTrustAppsInBrowser.reg
```

6. Run the following `certutil` command to apply the Blueprint public certificate:

```
certutil.exe -f -addstore "TrustedPublisher"
publicBlueprintCertificate2017.cer
```

Here is an example of the commands run on a 64-bit operating system:



7. Restart your web browser for the changes to take effect.

Appendix

Installing services

Note: Only Blueprint database users can manually install services. For more information about how to add a database user, see Adding a database user (command line).

The following services are available to install if needed:

- **Job services (recommended)**

  This functionality is necessary to perform the following jobs in Blueprint: document generation, exporting artifacts to ALM systems and test generation.

- **Legacy support for HP ALM versions 12 and earlier (optional)**

  If you require support for HP ALM version 12 or earlier, setup of this component is necessary.

  Note: HP ALM support is only available for COM library. It is not available for the REST API.

To install services:

- Continue to the single-server section to host job services and the Blueprint database on the same server.
- Continue to the distributed-server section to host job services and the Blueprint database on separate servers.

Adding a database user (command line)

You can add any of the following database user types using the `/nuseridentity` parameter:

- Local Service: **LocalService**
- Local System: **LocalSystem**
- Network Service: **NetworkService**
- A Windows services account. Example: **blueprint\jsmith**.

Add a database user:

```
blueprintdbcmd.exe /object USER /command ADD /datasource
[DBSERVER\INSTANCE01] /catalog [BlueprintDB] /integratedsec FALSE /userid
[dbadmin] /password [pAssw0rd] /nuseridentity LocalService
```

Setting up services (single-server setup)

You can set up one or both of the following:

- 64-bit job services
- HP ALM legacy support

Setting up 64-bit job services (single-server)

Installing 64-bit job services involves completing the following steps:

- Step One: Configuring 64-bit job services
- Step Two: Finalizing the 64-bit job services setup

Step One: Configuring 64-bit job services

1. Open the following configuration file in a text editor: **BluePrintSys.RC.JobExecutor.exe.config**
2. Make sure that the value in the `<add key="Service.Jobs">` tag is as follows:

```
<add key="Service.Jobs" value="
DocGen,TfsExport,HpAlmRestExport,TfsChangeSummary,HpAlmRestChangeSumma
ry,TfsExportTests,HpAlmRestExportTests" />
```

3. Make sure the `<add key="Service.Name">` tag specifies the 64-bit job service as follows:

```
<add key="Service.Name" value="Blueprint Job Service (64 bit)" />
```

> **Note:** If you are setting up the second 64-bit job service in this step, specify the `Service.Name` value as `Blueprint Job Service 2 (64 bit)` instead of the value listed above.

4. Replace the following `connectionString` value with the Blueprint database connection string:

```
<connectionStrings>
<add name="InstanceContainer" connectionString="
metadata=res://*/Models.Instance.csdl|res://*/Models.Instance.ssdl|res
://*/Models.Instance.msl;provider=System.Data.SqlClient;provider
connection string=&quot;Data Source=.\MSSQLSERVER;Initial
Catalog=Blueprint;Integrated
Security=True;Pooling=True;MultipleActiveResultSets=True&quot;"
providerName="System.Data.EntityClient" />
</connectionStrings>
```

> **Note:** `Data Source` must specify the SQL instance name and the Blueprint instance name. If your SQL instance has a name that is different from **`MSSQLSERVER`** and/or your Blueprint instance is not named **`Blueprint`**, you need to change the value(s).

Step Two: Finalizing the 64-bit job services setup

1. Install both 64-bit job services by running the following command with your user name and password:

```
BluePrintSys.RC.JobExecutor.exe -c Install -a User -u [USERNAME] -p
[PASSWORD]
```

> **Note:** To install the service using the default Windows account, run the following command instead:
>
> `BluePrintSys.RC.JobExecutor.exe -c Install -a LocalService`

2. Start the 64-bit job services with the following command:

```
BluePrintSys.RC.JobExecutor.exe -c Start
```

You have successfully deployed the 64-bit job services.

> **Important:** Repeat steps one and two to configure the second 64-bit job service.

Setting up HP ALM legacy support (single-server)

Installing HP ALM legacy support involves completing the following steps:

- Step One: Setting up the HP ALM legacy support connector
- Step Two: Configuring 32-bit job services for HP ALM legacy support
- Step Three: Finalizing the HP ALM legacy support setup

Step One: Setting up the HP ALM legacy support connector

1. Set up the HP ALM application pool by running the following command:

```
blueprintqcwebcmd.exe  /object AppPool /command ADD /apppoolname
HPQCLegacyConnector
```

2. Set up the HP ALM web site by running the following command (where the number after `/port` is `QcLiteWeb`'s port number):

```
blueprintqcwebcmd.exe  /object Site /command ADD /wsname
HPQCLegacyConnector /dir "C:\Program Files (x86)\Blueprint Software
Systems\Blueprint\QcLiteWeb" /port [8081] /apppoolname
HPQCLegacyConnector
```

3. Start the HP ALM application pool by running the following command:

```
blueprintqcwebcmd.exe  /object AppPool /command START /apppoolname
HPQCLegacyConnector
```

4. Start the HP ALM web site by running the following command:

```
blueprintqcwebcmd.exe  /object SITE /command START /wsname
HPQCLegacyConnector
```

5. Set the HP ALM key for Blueprint with the following command (where the number after `/port` is `QcLiteWeb`'s port number):

```
blueprintqcwebcmd.exe /object Config /command SET /dir "C:\Program
Files (x86)\Blueprint Software Systems\Blueprint\Web" /port [8081]
```

You have successfully set up the HP ALM legacy support connector.

Step Two: Configuring 32-bit job services for HP ALM legacy support

1. Open the following configuration file in a text editor: **BluePrintSys.RC.JobExecutor32.exe.config**
2. Make sure that the value within `<add key="Service.Jobs">` is as follows:

```
<add key="Service.Jobs" value="QcExport,QcChangeSummary,QcExportTests"
/>
```

3. Make sure the `<add key="Service.Name">` tag includes the Blueprint HP ALM legacy job service as follows:

```
<add key="Service.Name" value="Blueprint HP QC Legacy Job Service (32
bit)" />
```

4. Replace the following `connectionString` value with the Blueprint database connection string:

```
<connectionStrings>
<add name="InstanceContainer" connectionString="
metadata=res://*/Models.Instance.csdl|res://*/Models.Instance.ssdl|res
://*/Models.Instance.msl;provider=System.Data.SqlClient;provider
connection string=&quot;Data Source=.\MSSQLSERVER;Initial
Catalog=Blueprint;Integrated
Security=True;Pooling=True;MultipleActiveResultSets=True&quot;"
providerName="System.Data.EntityClient" />
</connectionStrings>
```

> **Note:** `Data Source` must specify the SQL instance name and the Blueprint instance name. If your SQL instance has a name that is different from **`MSSQLSERVER`** and/or your Blueprint instance is not named **`Blueprint`**, you need to change the value(s).

Step Three: Finalizing the HP ALM legacy support setup

1. Install the 32-bit service by running the following command with your user name and password:

```
BluePrintSys.RC.JobExecutor32.exe -c Install -a User -u [USERNAME] -p
[PASSWORD]
```

> **Note:** To install the service using the default Windows account, run the following command instead:
>
> `BluePrintSys.RC.JobExecutor32.exe -c Install -a LocalService`

2. Next, start the 32-bit job executor Windows service with the following command:

```
BluePrintSys.RC.JobExecutor32.exe -c Start
```

You have successfully set up legacy support for HP ALM.

Setting up services (distributed-server setup)

Setting up services on a separate machine (distributed-server) involves these steps:

- Step One: Configuring services
- Step Two: Testing the connection to the database
- Step Three: Finalizing the job services setup

Step One: Configuring services

You have the option of setting up the following services:

- 64-bit job services
- HP Quality Center legacy support

Configuring the 64-bit services

Note: In certain cases, the job services folder and files mentioned in the instructions below are located in the **C:\Program Files** directory instead of the **C:\Program Files (x86)** directory.

1. Open the following configuration file in a text editor: **BluePrintSys.RC.JobExecutor.exe.config**
2. Make sure that the value in the `<add key="Service.Jobs">` tag is as follows:

```
<add key="Service.Jobs" value="
DocGen,TfsExport,HpAlmRestExport,TfsChangeSummary,HpAlmRestChangeSumma
ry,TfsExportTests,HpAlmRestExportTests" />
```

3. Make sure the `<add key="Service.Name">` tag specifies the 64-bit job service as follows:

```
<add key="Service.Name" value="Blueprint Job Service (64 bit)" />
```

Note: If you are setting up the second 64-bit job service in this step, specify the `Service.Name` value as `Blueprint Job Service 2 (64 bit)` instead of the value listed above.

4. Replace the following `connectionString` value with the Blueprint database connection string:

```
<connectionStrings>
<add name="InstanceContainer" connectionString="
metadata=res://*/Models.Instance.csdl|res://*/Models.Instance.ssdl|res
://*/Models.Instance.msl;provider=System.Data.SqlClient;provider
connection string=&quot;Data Source=.\MSSQLSERVER;Initial
```

```
Catalog=Blueprint;Integrated
Security=True;Pooling=True;MultipleActiveResultSets=True&amp;quot;"
providerName="System.Data.EntityClient" />
</connectionStrings>
```

Note: `Data Source` must specify the SQL instance name and the Blueprint instance name. If your SQL instance has a name that is different from **`MSSQLSERVER`** and/or your Blueprint instance is not named **`Blueprint`**, you need to change the value(s).

Important: Repeat all of the steps above to configure the second 64-bit job service.

Setting up HP ALM legacy support

Setting up legacy support for HP ALM involves the following steps:

- Step One: Setting up the HP ALM legacy support connector
- Step Two: Configuring the 32-bit job services

Step One: Setting up the HP ALM legacy support connector

1. Set up the HP ALM application pool by running the following command:

```
blueprintqcwebcmd.exe  /object AppPool /command ADD /apppoolname
HPQCLegacyConnector
```

2. Set up the HP ALM web site by running the following command (where the number after `/port` is `QcLiteWeb`'s port number):

```
blueprintqcwebcmd.exe  /object Site /command ADD /wsname
HPQCLegacyConnector /dir "C:\Program Files (x86)\Blueprint Software
Systems\Blueprint\QcLiteWeb" /port [8081] /apppoolname
HPQCLegacyConnector
```

3. Start the HP ALM application pool by running the following command:

```
blueprintqcwebcmd.exe  /object AppPool /command START /apppoolname
HPQCLegacyConnector
```

4. Start the HP ALM web site by running the following command:

```
blueprintqcwebcmd.exe  /object SITE /command START /wsname
HPQCLegacyConnector
```

5. Set the HP ALM key for Blueprint with the following command (where the number after `/port` is `QcLiteWeb`'s port number):

```
blueprintqcwebcmd.exe /object Config /command SET /dir "C:\Program
Files (x86)\Blueprint Software Systems\Blueprint\Web" /port [8081]
```

You have successfully set up the HP ALM legacy support connector.

STEP TWO: CONFIGURING THE 32-BIT JOB SERVICES

> **Note:** In certain cases, the job services folder and files mentioned in the instructions below are located in the **C:\Program Files** directory instead of the **C:\Program Files (x86)** directory.

Complete the following instructions, pasting the copied files onto your target machine:

1. Open the following configuration file in a text editor: **BluePrintSys.RC.JobExecutor32.exe.config**
2. Make sure that the value within `<add key="Service.Jobs">` is as follows:

```
<add key="Service.Jobs" value="QcExport,QcChangeSummary,QcExportTests"
/>
```

3. Make sure the `<add key="Service.Name">` tag includes the Blueprint HP ALM legacy job service as follows:

```
<add key="Service.Name" value="Blueprint HP QC Legacy Job Service (32
bit)" />
```

4. Replace the following `connectionString` value with the Blueprint database connection string:

```
<connectionStrings>
<add name="InstanceContainer" connectionString="
metadata=res://*/Models.Instance.csdl|res://*/Models.Instance.ssdl|res
://*/Models.Instance.msl;provider=System.Data.SqlClient;provider
connection string=&quot;Data Source=.\MSSQLSERVER;Initial
Catalog=Blueprint;Integrated
Security=True;Pooling=True;MultipleActiveResultSets=True&quot;"
providerName="System.Data.EntityClient" />
</connectionStrings>
```

> **Note:** `Data Source` must specify the SQL instance name and the Blueprint instance name. If your SQL instance has a name that is different from **MSSQLSERVER** and/or your Blueprint instance is not named **Blueprint**, you need to change the value(s).

Step Two: Testing the connection to the database

> **Note:** This step must be performed for each job service you intend to set up.

This testing procedure must validate the configuration of the following values:

- The `Service.Name` value is unique and no other job service has this name on the current machine
- The `connectionString` value is valid and the job service can connect to Blueprint database.

If the test is not successful, you must specify the correct value(s) in the job service configuration file and re-attempt the test.

To test the job services connection to the Blueprint database:

- Run the following command (where `[JobServiceExecutableFile]` is the name of the job service executable file):

```
[JobServiceExecutableFile] -c test
```

Note: The 32-bit job services file name is typically **BluePrintSys.RC.JobExecutor32.exe** and the 64-bit job services file name is typically **BluePrintSys.RC.JobExecutor.exe**.

Step Three: Finalizing the job services setup

Note: This step must be performed for each job service you intend to set up.

This is the final step in setting up job services on a separate machine from the Blueprint database.

To finalize the setup:

1. Install the job service by running the following command (where `[JobServiceExecutableFile]` is the name of the job service executable file):

```
[JobServiceExecutableFile] -c install
```

2. Start the job service by running the following command (where `[JobServiceExecutableFile]` is the name of the job service executable file):

```
[JobServiceExecutableFile] -c start
```

You have deployed job services.

To verify whether job services have been successfully installed and configured:

1. Log on to Blueprint.
2. Open the *Instance Administration Console* from the **Menu** 

.

   The *Instance Administration Console* appears.
3. Click **Job Services**.

   The *Job Services* screen appears.

Any job services that have been successfully installed and configured appear in the *Job Services* list. Information about the configured service name and supported jobs also is available in the list.