EMC SourceOne QA Tool

Install Validation Tool User Guide



Tony Tang

# **TABLE OF CONTENTS**

[EMC SourceOne QA Tool 1](#_Toc364690834)

[TABLE OF CONTENTS 2](#_Toc364690835)

[INTRODUCE 3](#_Toc364690836)

[GENERAL 3](#_Toc364690837)

[Supported Check List 3](#_Toc364690838)

[Pre-Request 3](#_Toc364690839)

[BASIC USAGE 4](#_Toc364690840)

[INSTALL & UNINSTALL 4](#_Toc364690841)

[Install 4](#_Toc364690842)

[Unintall 6](#_Toc364690843)

[SERVER COLLECTIONS 7](#_Toc364690844)

[Add Server Collection 7](#_Toc364690845)

[Edit Server Collection 7](#_Toc364690846)

[Delete Server Collection 8](#_Toc364690847)

[SERVERS 9](#_Toc364690848)

[Add Server 9](#_Toc364690849)

[Edit Server 9](#_Toc364690850)

[Delete Server 10](#_Toc364690851)

[VALIDATION SERVICE 12](#_Toc364690852)

[Install Validation Service 12](#_Toc364690853)

[Re-install Validation Service 13](#_Toc364690854)

[Uninstall Validation Service 15](#_Toc364690855)

[VERIFY TARGET SERVER 17](#_Toc364690856)

[Do Validation On Target Server 17](#_Toc364690857)

[Export Validation Results 19](#_Toc364690858)

[ADVANCE USAGE 20](#_Toc364690859)

[APP CONFIG 20](#_Toc364690860)

[CUSTOMIZED VALIDATION CONFIG 21](#_Toc364690861)

[Validation Group 21](#_Toc364690862)

[Validation Item - COM 22](#_Toc364690863)

[Validation Item – EventLog 23](#_Toc364690864)

[Validation Item – Registry 25](#_Toc364690865)

[Validation Item – File 26](#_Toc364690866)

[Validation Item – Version 27](#_Toc364690867)

[Validation Item – Uninstall 28](#_Toc364690868)

[Validation Item – Database 29](#_Toc364690869)

[Validation Item – WinService 30](#_Toc364690870)

[Validation Item – GACAssembly 31](#_Toc364690871)

[Wildcard in Config 32](#_Toc364690872)

[Validation Config Example 33](#_Toc364690873)

[CREATE VALIDATION TEMPLATE 41](#_Toc364690874)

# INTRODUCE

## GENERAL

This utiliy is help to verify the installation of software production on Windows Platform.

* Support many common validation points after you installed a build. (See check list below)
* Base on config files to do validation. so it is easy for you to generate a config for your own product without change the source code.
* Do remote validation. This means you do not need to log on the target machine. This would be a great help if your product need to deploy on a many servers or in a complex environment.
* Support to export validation result (format as .log .csv .xml).

## Supported Check List

* Control Panel -> Uninstall Items Version Check
* Binary version Check (Product Version, File Version)
* Register check
* File or Folder check
* Database Check
* COM Register Check
* Windows Service Check
* EventLog Check
* GAC Assembly Check

## Pre-Request

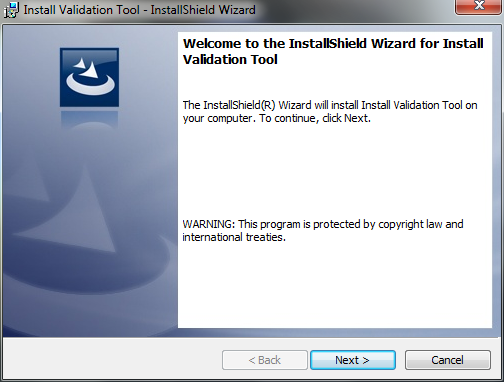
* .Net Framework 4.0 installed on the Client machine.
* .Net Framework 4.0 installed on the machine to do validation.

# BASIC USAGE

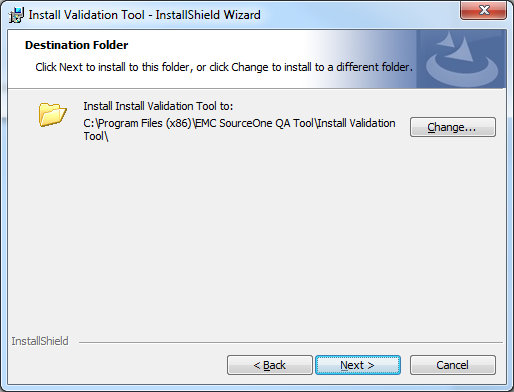
## INSTALL & UNINSTALL

### Install

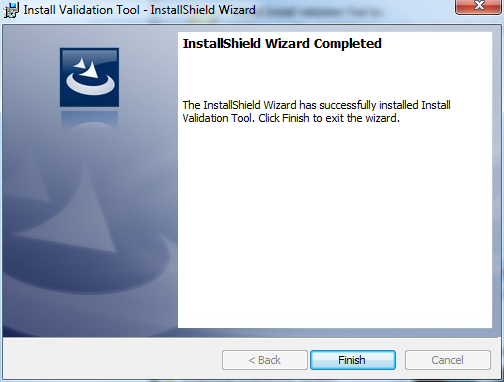
1. Get the latest version of the tool and double click to begin install



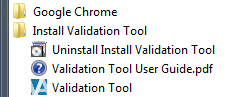
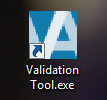
1. Choose the install path and finish the installation.



1. Wait for the installation finish.



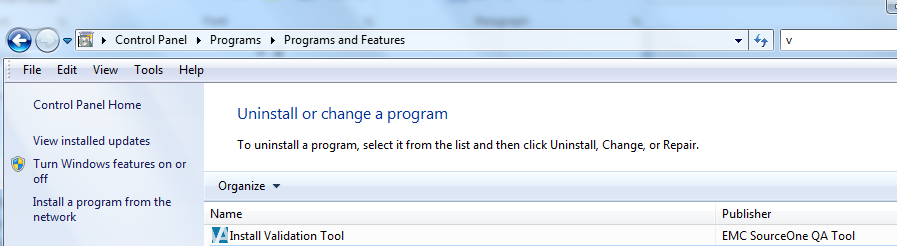
1. A shortcut of the tool will be created on Desktop and Start Menu

1. Wait for the installation finish

### Unintall

1. You can uninatll this tool from Start menu or from Control Panel.

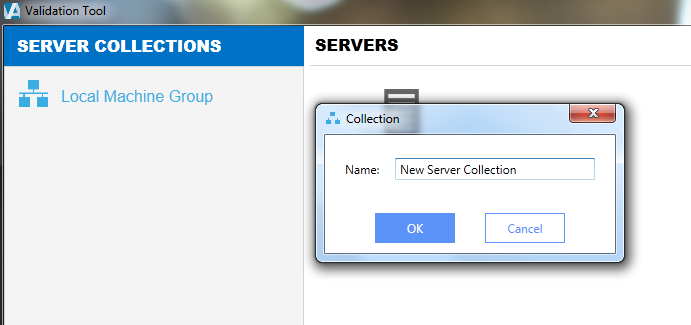


1. Wait for the uninstall finish

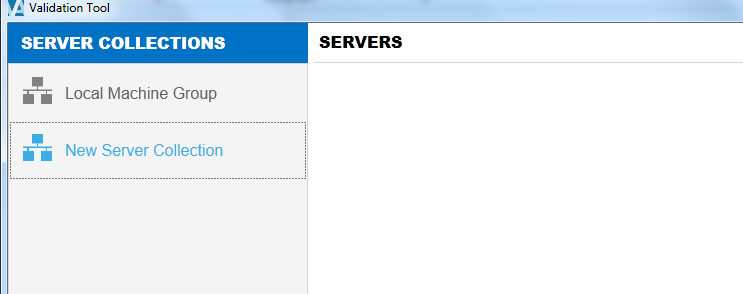
## SERVER COLLECTIONS

### Add Server Collection

1. Right Click the blank area of Server Collection, choose **Add Collection** in context menu

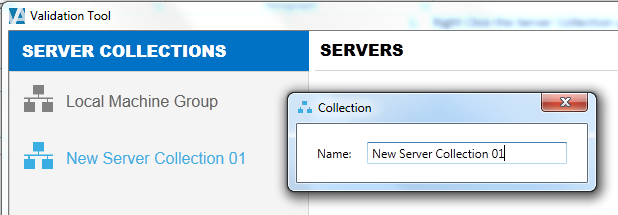


1. Input the collection name and click **OK**

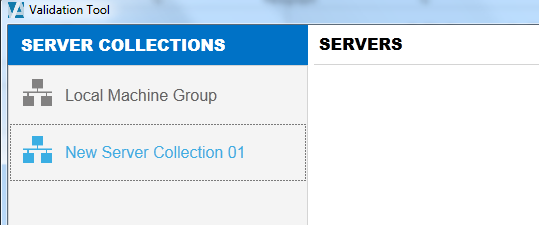


### Edit Server Collection

1. Right Click the Server Collection you want to edit, choose **Edit Collection** in context menu.

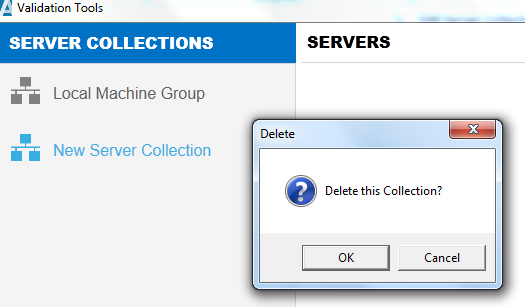


1. Change the collection name and close the dialog

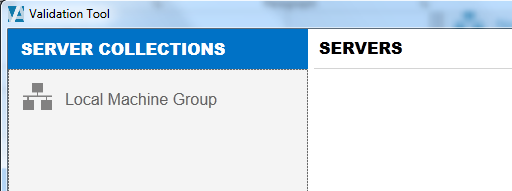


### Delete Server Collection

1. Right Click the Server Collection you want to edit, choose **Delete Collection** in context menu.



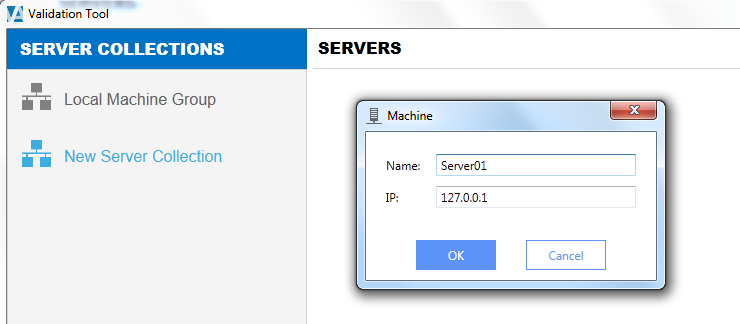
1. Click OK to confirm delete



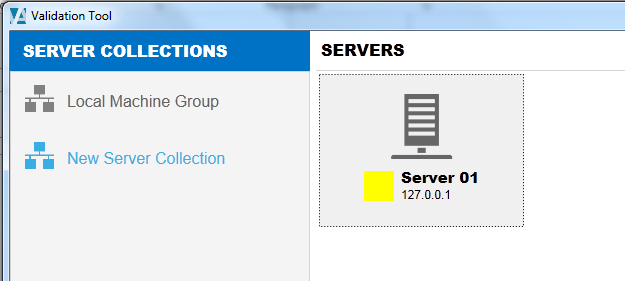
## SERVERS

### Add Server

1. Right Click the blank area of Servers, choose **Add Server** in context menu.

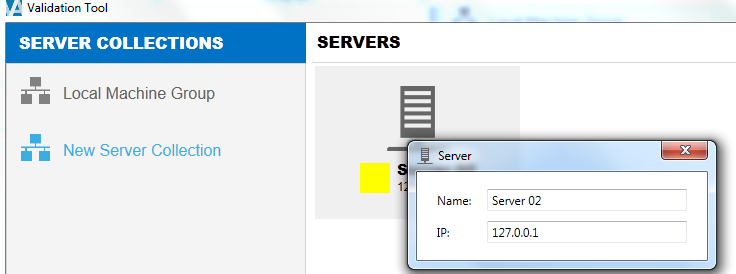


1. Fill the **Name**, **IP** of the server and click **OK** to add server

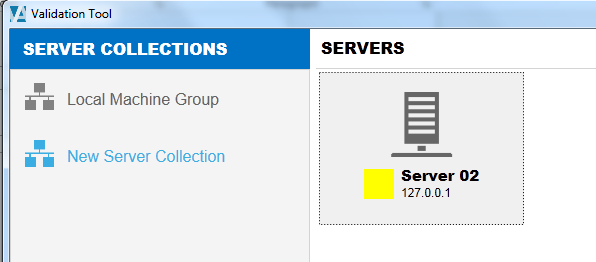


### Edit Server

1. Right Click the Server you want to edit, choose **Edit Server** in context menu.

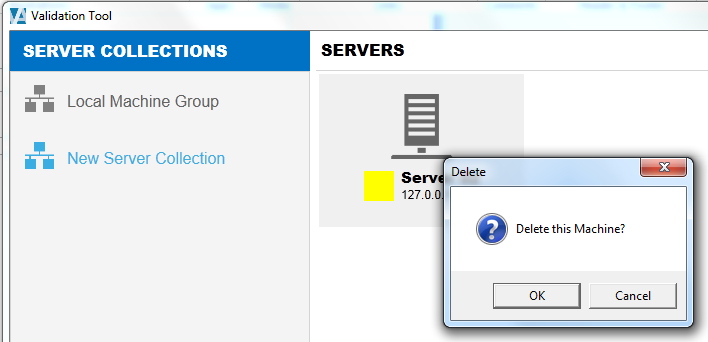


1. Change the **Name** or **IP** of the target server and close the dialog

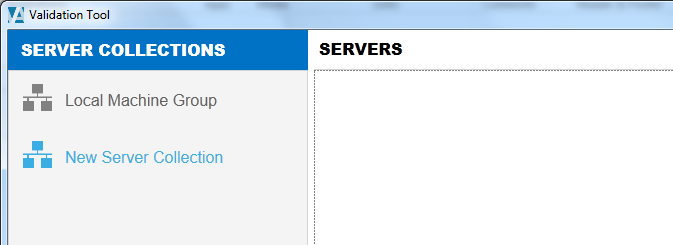


### Delete Server

1. Right Click the Server you want to edit, choose **Delete Server** in context menu.



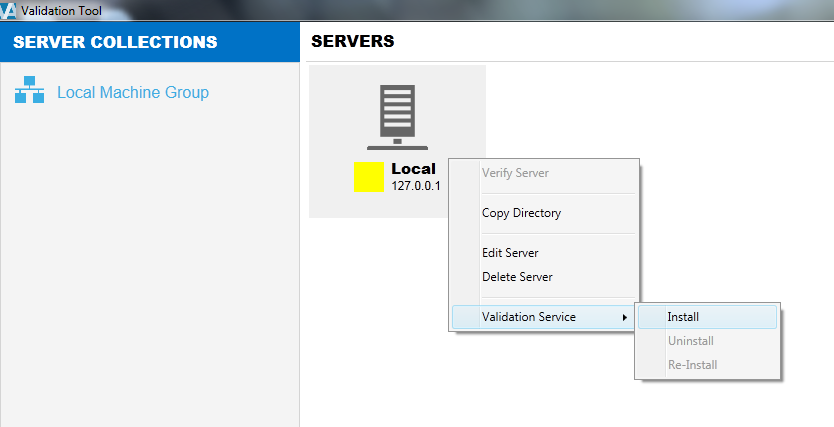
1. Click **OK** to confirm delete



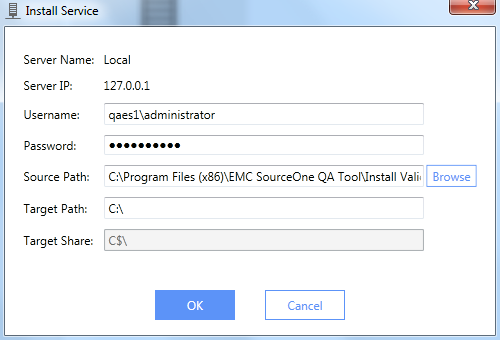
## VALIDATION SERVICE

### Install Validation Service

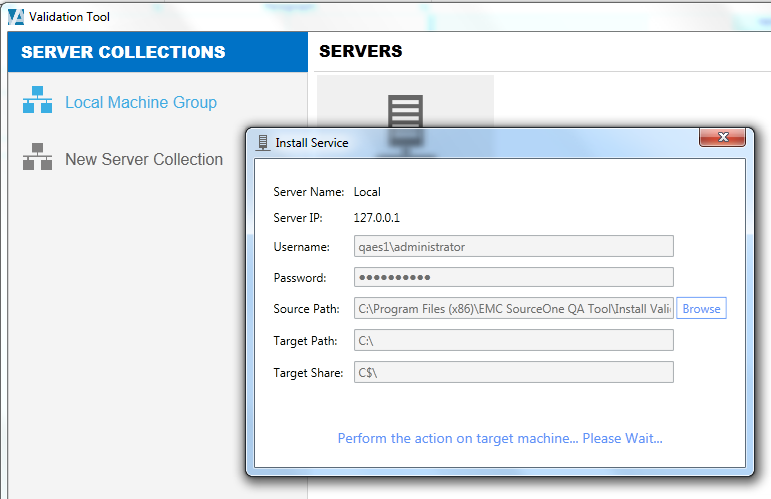
1. Right Click the Server you want to verify, choose **Validation Service->Install** in context menu



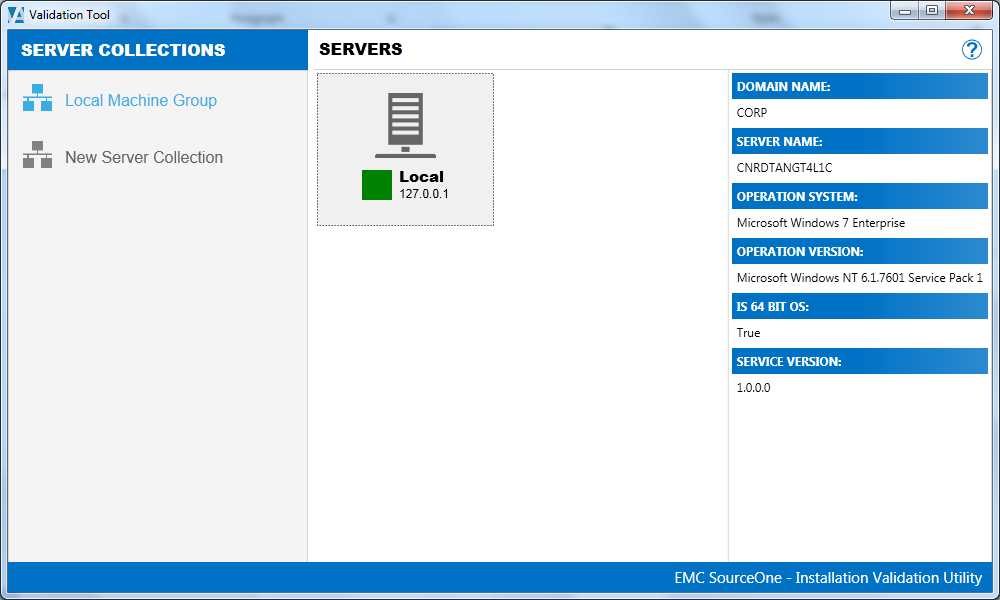
1. Fill the validation service install information
   * + Username: this user is a local admin of target server
     + Password: password of the user
     + Source Path: the validation service binaries path
     + Target Path: the path of validation service on target server



1. Click OK to install Validation Service on target server

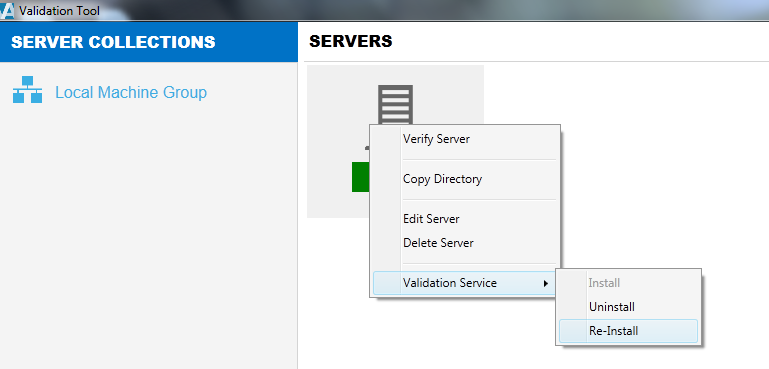


1. After validation service installed. Target server information will show on right panel.

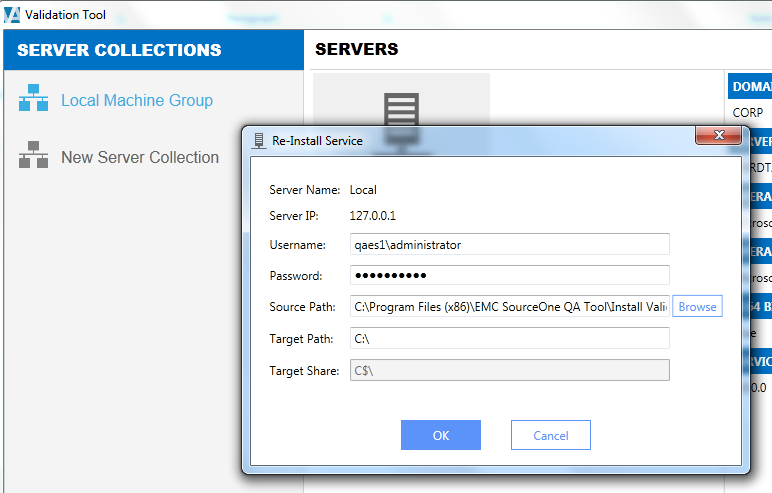


### Re-install Validation Service

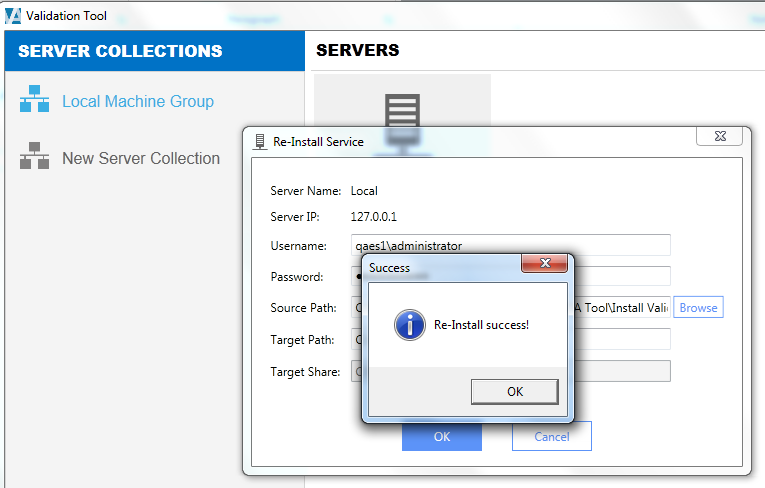
1. Right Click the Server you want to verify, choose **Validation Service->Install** in context menu



1. Fill the validation service install information
   * + Username: this user is a local admin of target server
     + Password: password of the user
     + Source Path: the validation service binaries path
     + Target Path: the path of validation service on target server

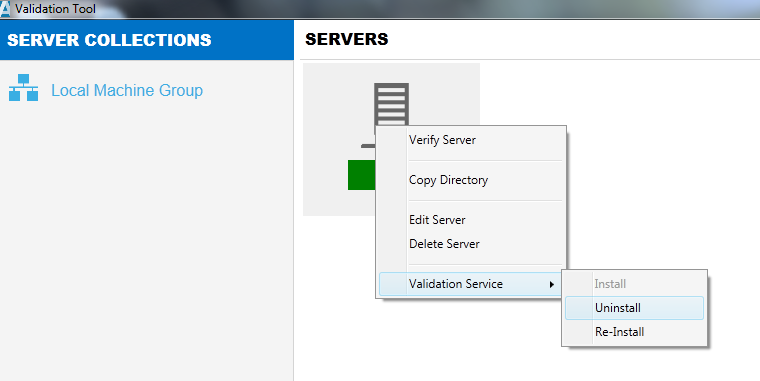


1. Click OK to install Validation Service on target server

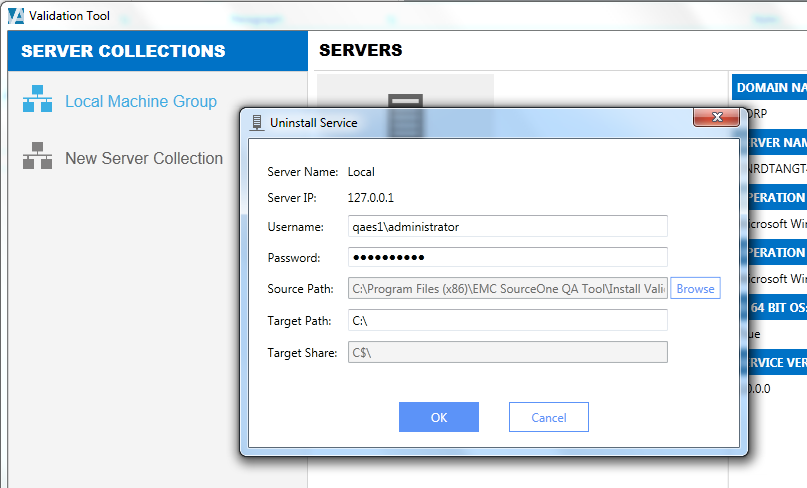


### Uninstall Validation Service

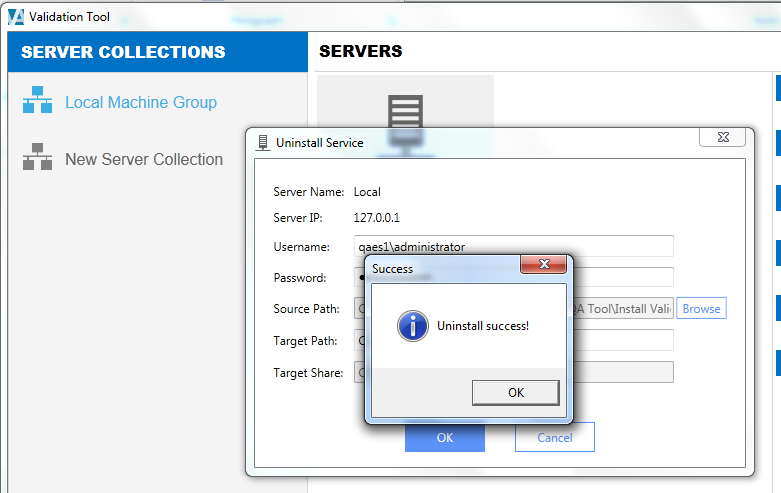
1. Right Click the Server you want to verify, choose **Validation Service->Uninstall** in context menu



1. Fill the validation service install information
   * Username: this user is a local admin of target server
   * Password: password of the user
   * Target Path: the path of validation service on target server



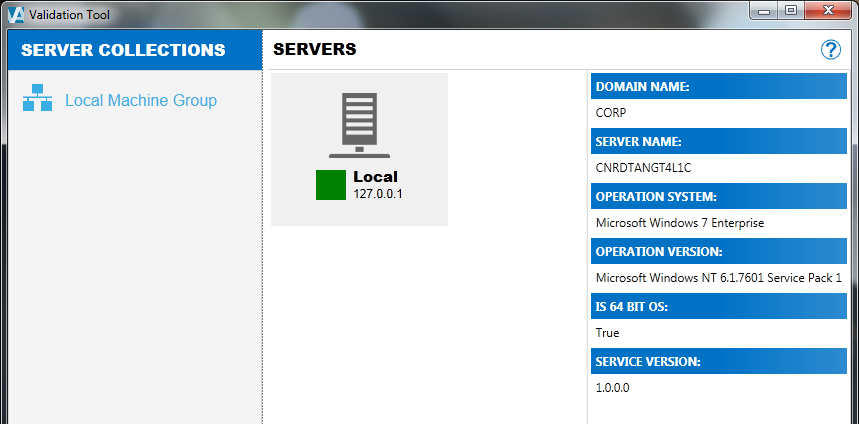
1. Click OK to install Validation Service on target server



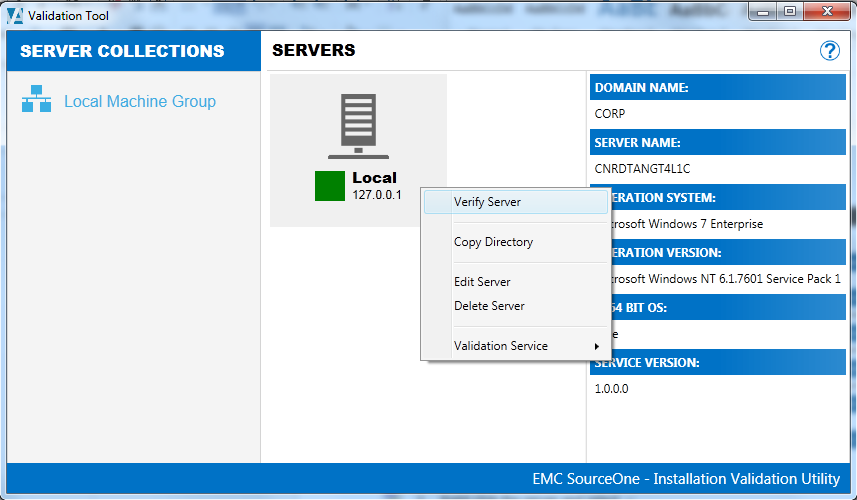
## VERIFY TARGET SERVER

### Do Validation On Target Server

1. Make sure [validation service is installed](#_Install_Validation_Service) on target server



1. Right click the server and select **Verify Server**



1. Fill the necessary information in validation settings

**Views of Validation Results**: three view is for show the validation result

1. All: All validation results
2. PassOnly: All passed validation results
3. FailOnly: All failed validation results

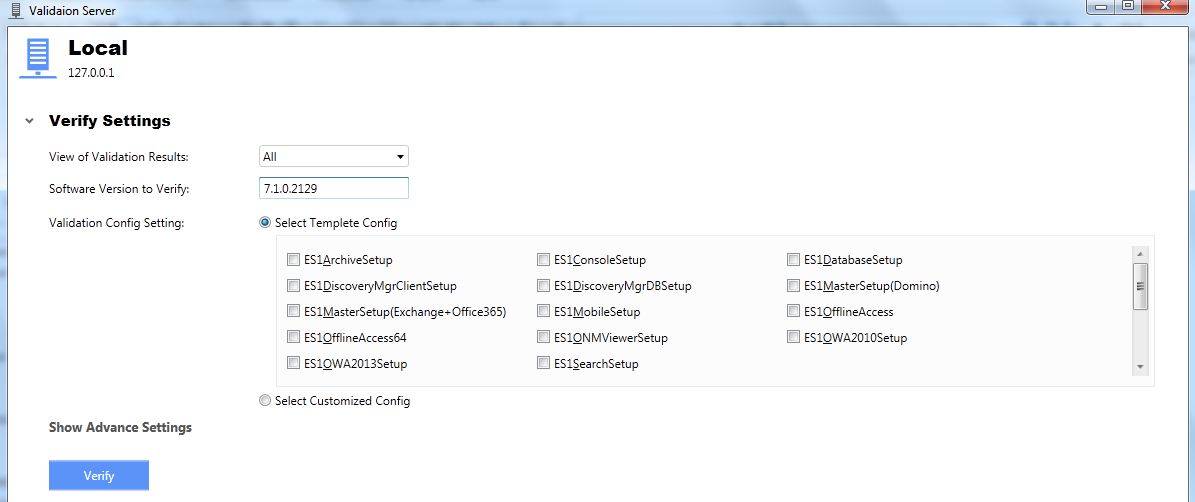
**Software Version to Verify**: the version of the build to verify

Format as [MajorVersion].[MinorVersion].[BuildVersion].[RevisionVersion]

**Validation Config Setting:**

a. Select template configs to do validation

b. Use custom config to do validation



1. Expand **Show Advance Settings** to continue settings.

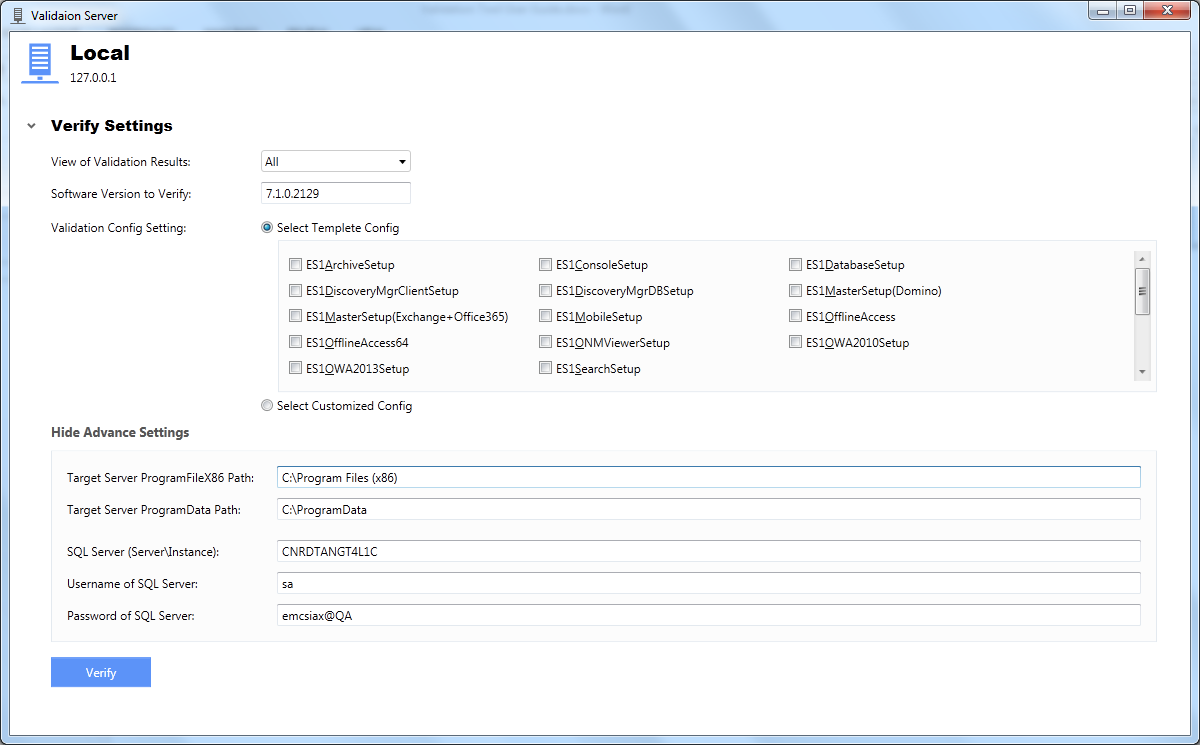
**Target Server ProgramFileX86 Path:** the ProgramFileX86 path in target server

**Target Server ProgramData Path:** the ProgramData path in target server

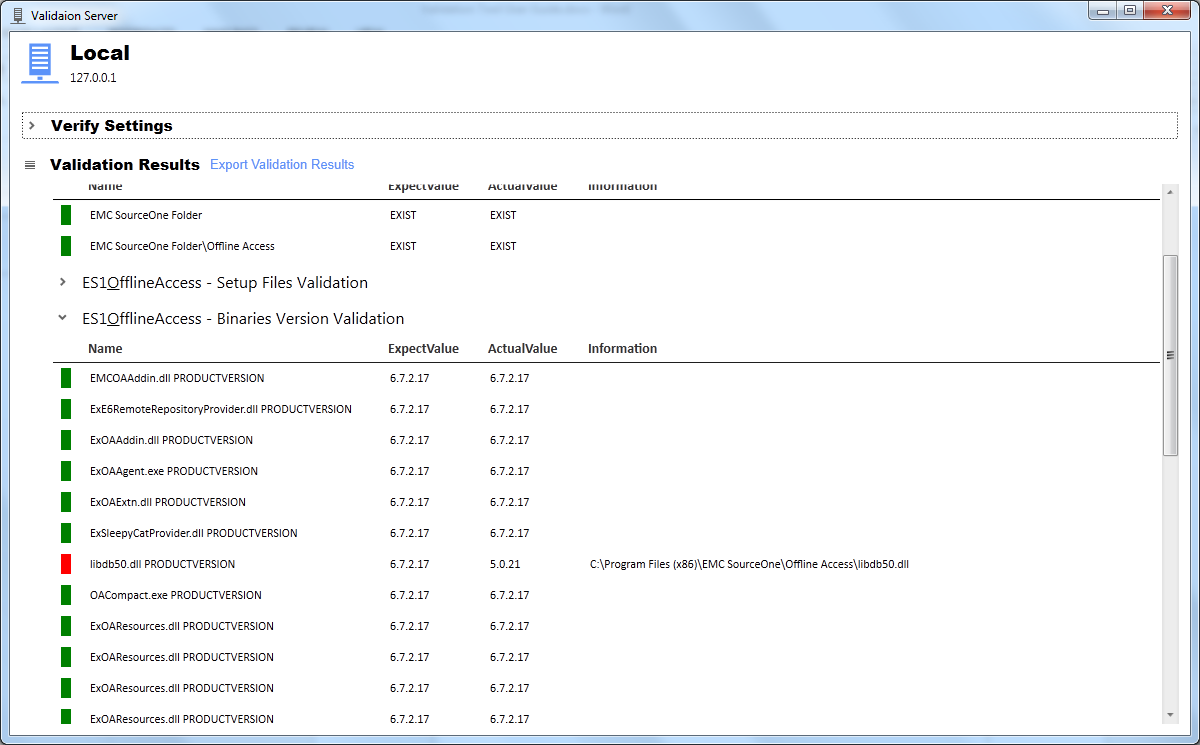
**SQL Server (Server\Instance):** the sql instance in target server

**Username of SQL Server:** the username of the sql server in target server

**Password of SQL Server:** the password of the sql server in target server



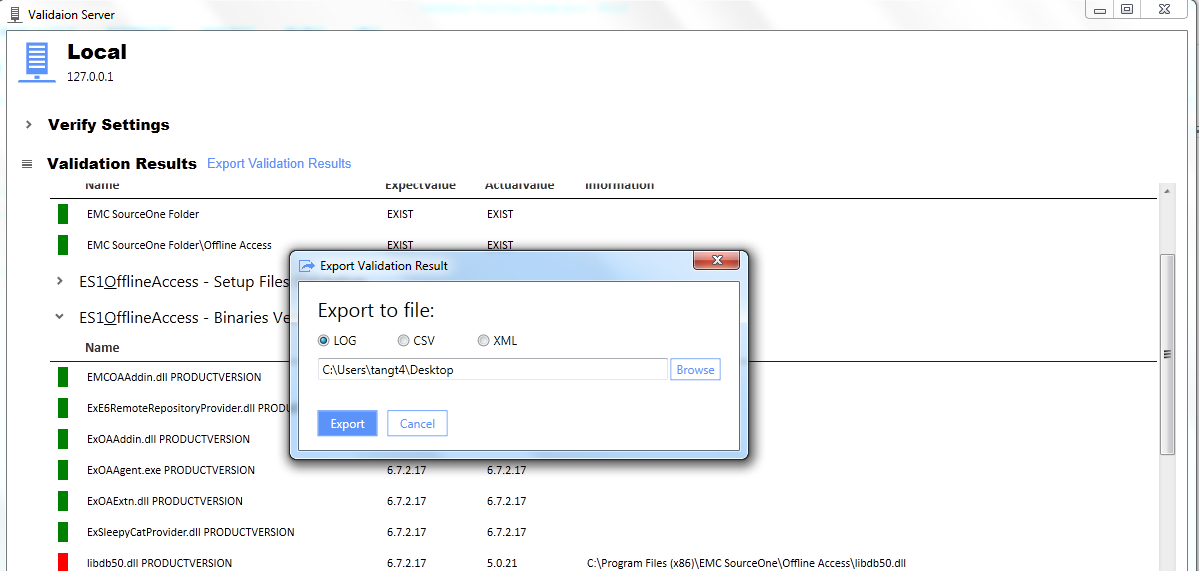
1. Click **Verify** to do validation



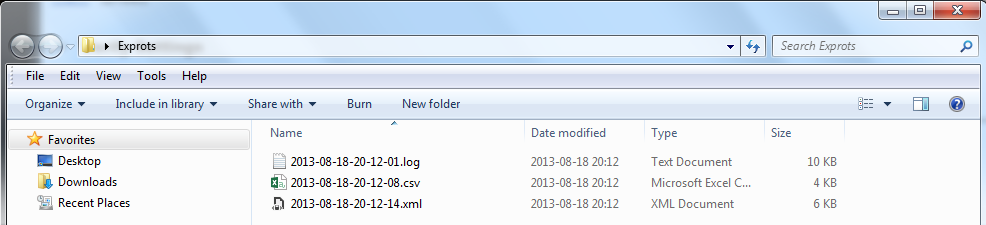
### Export Validation Results

After you [do validation on target server](#_Do_Validation_On), you can export the validation results

1. Click Export Validation Result



1. Select export format (LOG, CSV of XML) and choose the export path, then click **Export**.



# ADVANCE USAGE

## APP CONFIG

You can find App.config in below location:

[Install Path]\EMC SourceOne QA Tool\Install Validation Tool

Below table listed the config item of the App.config

|  |  |
| --- | --- |
| **Item Name** | **Comments** |
| client\_RequestServiceVersion | The validation service required version for the client to use |
| service\_sourceInstallPath | The default validation service binaries path |
| service\_targetDefaultUsername | The default username of target server when install, uninstall, reinstall validation service |
| service\_targetDefaultPassword | The default password of target server when install, uninstall, reinstall validation service |
| verify\_defaultVersion | The default build version to verify |
| verify\_defaultSqlServerUsername | The default sql server username in advance settings of validation |
| verify\_defaultSqlServerPassword | The default sql server password in advance settings of validation |
| copy\_sourceDefaultPath | The default path to copy from |
| copy\_targetDefaultUsername | The default username of copy destination |
| copy\_targetDefaultPassword | The default password of copy destination |
| copy\_targetDefaultPath | The default target path to copy to |

Once you changed above setting in App.config, please re-launch the application to take the new settings into effect.

## CUSTOMIZED VALIDATION CONFIG

You can generate customized validation config for specific product. The customized validation config is an xml file.

### Validation Group

Validation Group contains a bundle of validation items.

Below is the definition of a validation group

|  |  |  |
| --- | --- | --- |
| Attribute | Is Required | Value |
| type | Required | Supported below type:  **COM**  **EventLog**  **Registry**  **FILE**  **Version**  **Uninstall**  **Database**  **WinService**  **GACAssembly** |
| groupName | Required | Name of the validation group. You can specify this value to distinguish group from each other |

Below is an example of validation group

|  |
| --- |
| <Verify>  <Group type="COM" groupName="Group Name 1">  <!-- item definition in this group -->  </Group>  <Group type="Version" groupName="Group Name 2">  <!-- item definition in this group -->  </Group>  <Group type="Uninstall" groupName="Group Name 3">  <!-- item definition in this group -->  </Group>  </Verify> |

### Validation Item - COM

COM item is used to check whether a COM component is registered on target server.

Below is the definition of COM item

|  |  |  |
| --- | --- | --- |
| Attribute | Is Required | Value |
| name | Required | The name of a validation item |
| progID | Required | progID of a COM item |
| clsID | Required | clsID of a COM item |

Below is an example of COM item:

|  |
| --- |
| <Item name="AEExample" progID="AEExample.CoAEExample.1" clsID="BFCB7173-61D4-488C-B0B9-7957C84CD6F4" /> |

### Validation Item – EventLog

EventLog item is used to check whether an EventLog item is created in target server.

Below is the definition of EventLog item

|  |  |  |
| --- | --- | --- |
| Xml Elements | Is Required | Value |
| name | Required | The name of a validation item |
| logName | Required | The name of an EventLog item to verify |

Below is an example of EventLog item:

|  |
| --- |
| <Item name="EMC" logName="EMC" /> |

### Validation Item – Registry

Registry item is used to check whether a Registry item is created on target server and it has the right value.

Below is the definition of Registry item

|  |  |  |
| --- | --- | --- |
| Xml Elements | Is Required | Value |
| name | Required | The name of a validation item |
| subkey | Required | The subkey of a registry item |
| key | Required | The key name of a registry item to verify |
| value | Required | The value of the registry key to verify |

Below is an example of Registry item:

|  |
| --- |
| <Item name="Master+" subkey="SOFTWARE\EMC\SOURCEONE\VERSIONS" key ="Master+" >7.0.0.2301</Item> |

### Validation Item – File

File item is used to check whether a File or Folder exist in target server.

Below is the definition of File item

|  |  |  |
| --- | --- | --- |
| Xml Elements | Is Required | Value |
| name | Required | The name of a validation item |
| type | Required | Enumeration values:  File  Folder  Specific file or Folder to verify |
| value | Required | The path of the file of folder to verify |

Below is an example of File item:

|  |
| --- |
| <Item name="EMC SourceOne Folder" type="Folder" >[ProgramFilePathX86]\EMC SourceOne</Item> |

### Validation Item – Version

Version item is used to check whether a \*.exe or \*.dll file has the right product version or file version.

Below is the definition of Version item

|  |  |  |
| --- | --- | --- |
| Xml Elements | Is Required | Value |
| name | Required | The name of a validation item |
| path | Required | The path of a version item to verify |
| type | Required | Enumeration values:  File  Directory  If type is Directory, the directory will be expanded as file version items recursively |
| versionType | Required | Enumeration values  ProductVersion  FileVersion |
| Value | Required | The version to verify |

**White List Policy**: If a validation group contains a file version item and a directory version item which include that file version item. It will use file version item and **ignore** the file version item expanded in directory version item.

Below is an example of Version item:

|  |
| --- |
| <Item name="Common Files\EMC" path="[ProgramFilePathX86]\Common Files\EMC" type ="directory" versionType ="ProductVersion">7.0.0.2301</Item> |

### Validation Item – Uninstall

Uninstall item is used to check whether a uninstall item has the right version in target server.

Below is the definition of Uninstall item

|  |  |  |
| --- | --- | --- |
| Xml Elements | Is Required | Value |
| name | Required | The name of a validation item |
| productName | Required | The product name of an uninstall item to verify |
| value | Required | The version of an uninstall item to verify |

Below is an example of Uninstall item:

|  |
| --- |
| <Item name="EMC SourceOne Master Services" productName="EMC SourceOne Master Services">7.0.0.2301</Item> |

### Validation Item – Database

Database item is used to check whether a value exist in database on target server.

Below is the definition of Database item

|  |  |  |
| --- | --- | --- |
| Xml Elements | Is Required | Value |
| name | Required | The name of a validation item |
| server | Required | The instance of a sql server on target server |
| uid | Required | The username of a sql server on target server |
| pwd | Required | The password of a sql server on target server |
| dbName | Required | The name of database on target server |
| sqlQuery | Required | The sql string to run on target server |
| value | Required | The value to verify, this value is the result for the sqlQuery run from target server |

Below is an example of Database item:

|  |
| --- |
| <Item name="EMC.EmailXtender.JDF.VersionString" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Activity" sqlQuery="SELECT VersionString FROM VersionInfo WHERE Name = 'EMC.EmailXtender.JDF'">7.0.0.2301</Item> |

### Validation Item – WinService

WinService item is used to check whether a Windows Service is created in target server.

Below is the definition of WinService item

|  |  |  |
| --- | --- | --- |
| Xml Elements | Is Required | Value |
| name | Required | The name of a validation item |
| serviceName | Required | The name of a windows service to verify  Notice: serviceName is a windows server name not a windows service display name |

Below is an example of WinService item:

|  |
| --- |
| <Item name="EMC SourceOne Administrator" serviceName="ExAsAdmin"/> |

### Validation Item – GACAssembly

GACAssembly item is used to check whether an assembly is exist in GAC.

Below is the definition of GACAssembly item

|  |  |  |
| --- | --- | --- |
| Xml Elements | Is Required | Value |
| name | Required | The name of a validation item |
| assemblyName | Required | The name of a GAC assembly |
| assemblyVersion | Required | The version of a GAC assembly |

Below is an example of GACAssembly item:

|  |
| --- |
| <Item name="EMC.Interop.ExDoc.dll" assemblyName ="EMC.Interop.ExDoc" assemblyVersion="6.6.3.6" /> |

### Wildcard in Config

Below is the table of wildcard available in config

|  |  |
| --- | --- |
| Wildcard Name | Comments |
| [ProgramFilePathX86] | For example  In 64 bit OS, the path is:  C:\Program Files (x86)  In 32 bit OS, the path is:  C:\Program Files  Matched with ProgramFileX86 path on target server |
| [ProgramDataPath] | For example  In Windows 2008R2, the path is:  C:\ProgramData  In Windows 2003R2, the path is:  C:\Documents and Settings\All Users\Application Data  Matched with ProgramData path on target server |
| [MajorVersion] | For example: **7**.1.0.2143, Matched with Version in validation UI |
| [MinorVersion] | For example: 7.**1**.0.2143, Matched with Version in validation UI |
| [BuildVersion] | For example: 7.1.**0**.2143, Matched with Version in validation UI |
| [RevisionVersion] | For example: 7.1.0.**2143**, Matched with Version in validation UI |
| [SQLServerInstance] | Matched with SQL Server instance in validation UI |
| [SQLServerUsername] | Matched with SQL Server username in validation UI |
| [SQLServerPassword] | Matched with SQL Server password in validation UI |

### Validation Config Example

Below is an example of validation config:

|  |
| --- |
| <?xml version="1.0" encoding="utf-8" ?>  <Verify>  <!-- Registry Group: verify key value in HKLM -->  <!-- [name] Dispaly name of a verify item -->  <!-- [subkey] Subkey of an item to be verified -->  <!-- [key] Key name of an item to be verified -->  <Group type="Registry" groupName="SourceOne All In One - Regedit Version Validation">  <Item name="Console+" subkey="SOFTWARE\EMC\SOURCEONE\VERSIONS" key ="Console+" >[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="DiscoDB" subkey="SOFTWARE\EMC\SOURCEONE\VERSIONS" key ="DiscoDB" >[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="DiscoServer" subkey="SOFTWARE\EMC\SOURCEONE\VERSIONS" key ="DiscoServer" >[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="EXAS+" subkey="SOFTWARE\EMC\SOURCEONE\VERSIONS" key ="EXAS+" >[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="ExDB" subkey="SOFTWARE\EMC\SOURCEONE\VERSIONS" key ="ExDB" >[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="Master+" subkey="SOFTWARE\EMC\SOURCEONE\VERSIONS" key ="Master+" >[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="Worker+" subkey="SOFTWARE\WOW6432NODE\EMC\SOURCEONE\VERSIONS" key ="Worker+" >[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="Mobile" subkey="SOFTWARE\WOW6432NODE\EMC\SOURCEONE\VERSIONS" key ="Mobile" >[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="WebServices" subkey="SOFTWARE\WOW6432NODE\EMC\SOURCEONE\VERSIONS" key ="WebServices" >[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="WebSearchApp" subkey="SOFTWARE\WOW6432NODE\EMC\SOURCEONE\VERSIONS" key ="WebSearchApp" >[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  </Group>  <!-- EventLog Group: verify key value in HKLM -->  <!-- [name] Dispaly name of a verify item -->  <!-- [logName] Log item of the EventLog to be verified -->  <Group type="EventLog" groupName="SourceOne All In One - EventLog Validation">  <Item name="EMC" logName="EMC" />  </Group>  <!-- File Group: verify existence of a foler or a file -->  <!-- [name] Dispaly name of a verify item -->  <!-- [path] Path of a file or folder -->  <!-- [type] Specify "File" or "Folder" -->  <Group type="FILE" groupName="SourceOne All In One - Files and Folders Validation">  <Item name="EMC SourceOne Folder" type="Folder" >[ProgramFilePathX86]\EMC SourceOne</Item>  <Item name="EMC SourceOne Folder\Database" type="Folder" >[ProgramFilePathX86]\EMC SourceOne\Database</Item>  <Item name="EMC SourceOne Folder\Centera" type="Folder" >[ProgramFilePathX86]\EMC SourceOne\Centera</Item>  <Item name="EMC SourceOne Folder\Console" type="Folder" >[ProgramFilePathX86]\EMC SourceOne\Console</Item>  <Item name="EMC SourceOne Folder\DiscoveryManager" type="Folder" >[ProgramFilePathX86]\EMC SourceOne\DiscoveryManager</Item>  <Item name="EMC SourceOne Folder\ExDocMgmt" type="Folder" >[ProgramFilePathX86]\EMC SourceOne\ExDocMgmt</Item>  <Item name="EMC SourceOne Folder\ExOAService" type="Folder" >[ProgramFilePathX86]\EMC SourceOne\ExOAService</Item>  <Item name="EMC SourceOne Folder\EXPBA" type="Folder" >[ProgramFilePathX86]\EMC SourceOne\EXPBA</Item>  <Item name="EMC SourceOne Folder\ExShortcut" type="Folder" >[ProgramFilePathX86]\EMC SourceOne\ExShortcut</Item>  <Item name="EMC SourceOne Folder\Logs" type="Folder" >[ProgramFilePathX86]\EMC SourceOne\Logs</Item>  <Item name="EMC SourceOne Folder\Notes" type="Folder" >[ProgramFilePathX86]\EMC SourceOne\Notes</Item>  <Item name="EMC SourceOne Folder\Master" type="Folder" >[ProgramFilePathX86]\EMC SourceOne\Master</Item>  <Item name="EMC SourceOne Folder\Search" type="Folder" >[ProgramFilePathX86]\EMC SourceOne\Search</Item>  <Item name="EMC SourceOne Folder\SearchWS" type="Folder" >[ProgramFilePathX86]\EMC SourceOne\SearchWS</Item>  <Item name="EMC SourceOne Folder\Tools" type="Folder" >[ProgramFilePathX86]\EMC SourceOne\Tools</Item>  <Item name="EMC SourceOne Folder\Work" type="Folder" >[ProgramFilePathX86]\EMC SourceOne\Work</Item>  <Item name="EMC SourceOne Folder\Worker" type="Folder" >[ProgramFilePathX86]\EMC SourceOne\Worker</Item>  </Group>  <!-- Version Group: verify file version, product version of a dll -->  <!-- [name] Dispaly name of a verify item -->  <!-- [path] Path of a check item -->  <!-- [type] Specify "file" or "directory" -->  <!-- [versionType] Specify "ProductVersion" or "FileVersion" -->  <Group type="Version" groupName="SourceOne All In One - Setup Files Validation">  <Item name="EM Installation Files" path="C:\ES1\_EM\_[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]\Setup\Windows\" type ="directory" versionType ="FileVersion">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="EM Installation Files" path="C:\ES1\_EM\_[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]\Setup\Windows\" type ="directory" versionType ="ProductVersion">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="DM Installation Files" path="C:\ES1\_DM\_[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]\Setup\Windows\" type ="directory" versionType ="FileVersion">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="DM Installation Files" path="C:\ES1\_DM\_[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]\Setup\Windows\" type ="directory" versionType ="ProductVersion">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  </Group>  <Group type="Version" groupName="SourceOne All In One - Binaries Version Validation">  <Item name="[ProgramFilePathX86]\Common Files\EMC" path="[ProgramFilePathX86]\Common Files\EMC" type ="directory" versionType ="ProductVersion">[MajorVersion].[MinorVersion].[BuildVersion].[RevisionVersion]</Item>  <Item name="[ProgramFilePathX86]\Common Files\EMC" path="[ProgramFilePathX86]\Common Files\EMC" type ="directory" versionType ="FileVersion">[MajorVersion].[MinorVersion].[BuildVersion].[RevisionVersion]</Item>  <Item name="DiscoveryManager Client" path="[ProgramDataPath]\EMC SourceOne\DiscoveryManager" type ="directory" versionType ="ProductVersion">[MajorVersion].[MinorVersion].[BuildVersion].[RevisionVersion]</Item>  <Item name="DiscoveryManager Client" path="[ProgramDataPath]\EMC SourceOne\DiscoveryManager" type ="directory" versionType ="FileVersion">[MajorVersion].[MinorVersion].[BuildVersion].[RevisionVersion]</Item>  <Item name="[ProgramFilePathX86]\EMC SourceOne" path="[ProgramFilePathX86]\EMC SourceOne" type ="directory" versionType ="ProductVersion">[MajorVersion].[MinorVersion].[BuildVersion].[RevisionVersion]</Item>  <Item name="[ProgramFilePathX86]\EMC SourceOne" path="[ProgramFilePathX86]\EMC SourceOne" type ="directory" versionType ="FileVersion">[MajorVersion].[MinorVersion].[BuildVersion].[RevisionVersion]</Item>  </Group>  <!-- Uninstall Group: verify a software version info in ControlPanel->Uninstall -->  <!-- [name] Dispaly name of a verify item -->  <!-- [productName] Product name of an install item -->  <Group type="Uninstall" groupName="SourceOne All In One - ControlPanel Uninstall Version Validation">  <Item name="EMC SourceOne Database" productName="EMC SourceOne Database">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="EMC SourceOne Discovery Manager Database" productName="EMC SourceOne Discovery Manager Database">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="EMC SourceOne Discovery Manager Client" productName="EMC SourceOne Discovery Manager Client">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="EMC SourceOne Discovery Manager Server" productName="EMC SourceOne Discovery Manager Server">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="EMC SourceOne Console" productName="EMC SourceOne Console">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="EMC SourceOne Master Services" productName="EMC SourceOne Master Services">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="EMC SourceOne Mobile Services" productName="EMC SourceOne Mobile Services">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="EMC SourceOne Native Archive Services" productName="EMC SourceOne Native Archive Services">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="EMC SourceOne Search" productName="EMC SourceOne Search">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="EMC SourceOne Web Services" productName="EMC SourceOne Web Services">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="EMC SourceOne Worker Services" productName="EMC SourceOne Worker Services">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  </Group>  <!-- Database Group: verify value in database table -->  <!-- [name] Dispaly name of a verify item -->  <!-- [server] Server name of a verify item -->  <!-- [dbName] Database name of an verify item -->  <!-- [sqlQuery] A sql query to run -->  <Group type="Database" groupName="SourceOne All In One - Version Info in Database Validation">  <!-- ES1Activity -->  <Item name="EMC.EmailXtender.JDF.Version" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Activity" sqlQuery="SELECT Version FROM VersionInfo WHERE Name = 'EMC.EmailXtender.JDF'">[MajorVersion].[MinorVersion][BuildVersion]000</Item>  <Item name="EMC.EmailXtender.JDF.VersionMajor" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Activity" sqlQuery="SELECT VersionMajor FROM VersionInfo WHERE Name = 'EMC.EmailXtender.JDF'">[MajorVersion]</Item>  <Item name="EMC.EmailXtender.JDF.VersionMinor" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Activity" sqlQuery="SELECT VersionMinor FROM VersionInfo WHERE Name = 'EMC.EmailXtender.JDF'">[MinorVersion]</Item>  <Item name="EMC.EmailXtender.JDF.BuildNumber" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Activity" sqlQuery="SELECT BuildNumber FROM VersionInfo WHERE Name = 'EMC.EmailXtender.JDF'">[RevisionVersion]</Item>  <Item name="EMC.EmailXtender.JDF.VersionString" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Activity" sqlQuery="SELECT VersionString FROM VersionInfo WHERE Name = 'EMC.EmailXtender.JDF'">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="EMC.EmailXtender.JDF.StoredProcs.Version" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Activity" sqlQuery="SELECT Version FROM VersionInfo WHERE Name = 'EMC.EmailXtender.JDF.StoredProcs'">[MajorVersion].[MinorVersion][BuildVersion]000</Item>  <Item name="EMC.EmailXtender.JDF.StoredProcs.VersionMajor" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Activity" sqlQuery="SELECT VersionMajor FROM VersionInfo WHERE Name = 'EMC.EmailXtender.JDF.StoredProcs'">[MajorVersion]</Item>  <Item name="EMC.EmailXtender.JDF.StoredProcs.VersionMinor" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Activity" sqlQuery="SELECT VersionMinor FROM VersionInfo WHERE Name = 'EMC.EmailXtender.JDF.StoredProcs'">[MinorVersion]</Item>  <Item name="EMC.EmailXtender.JDF.StoredProcs.BuildNumber" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Activity" sqlQuery="SELECT BuildNumber FROM VersionInfo WHERE Name = 'EMC.EmailXtender.JDF.StoredProcs'">[RevisionVersion]</Item>  <Item name="EMC.EmailXtender.JDF.StoredProcs.VersionString" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Activity" sqlQuery="SELECT VersionString FROM VersionInfo WHERE Name = 'EMC.EmailXtender.JDF.StoredProcs'">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <!-- ES1Archive -->  <Item name="EMC.EmailXtender.PBA.Version" server="[SQLServerInstance]" dbName="ES1Archive" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" sqlQuery="SELECT Version FROM VersionInfo WHERE Name = 'EMC.EmailXtender.PBA'">[MajorVersion].[MinorVersion][BuildVersion]000</Item>  <Item name="EMC.EmailXtender.PBA.VersionMajor" server="[SQLServerInstance]" dbName="ES1Archive" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" sqlQuery="SELECT VersionMajor FROM VersionInfo WHERE Name = 'EMC.EmailXtender.PBA'">[MajorVersion]</Item>  <Item name="EMC.EmailXtender.PBA.VersionMinor" server="[SQLServerInstance]" dbName="ES1Archive" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" sqlQuery="SELECT VersionMinor FROM VersionInfo WHERE Name = 'EMC.EmailXtender.PBA'">[MinorVersion]</Item>  <Item name="EMC.EmailXtender.PBA.BuildNumber" server="[SQLServerInstance]" dbName="ES1Archive" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" sqlQuery="SELECT BuildNumber FROM VersionInfo WHERE Name = 'EMC.EmailXtender.PBA'">[RevisionVersion]</Item>  <Item name="EMC.EmailXtender.PBA.VersionString" server="[SQLServerInstance]" dbName="ES1Archive" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" sqlQuery="SELECT VersionString FROM VersionInfo WHERE Name = 'EMC.EmailXtender.PBA'">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="EMC.EmailXtender.PBA.StoredProcs.Version" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Archive" sqlQuery="SELECT Version FROM VersionInfo WHERE Name = 'EMC.EmailXtender.PBA.StoredProcs'">[MajorVersion].[MinorVersion][BuildVersion]000</Item>  <Item name="EMC.EmailXtender.PBA.StoredProcs.VersionMajor" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Archive" sqlQuery="SELECT VersionMajor FROM VersionInfo WHERE Name = 'EMC.EmailXtender.PBA.StoredProcs'">[MajorVersion]</Item>  <Item name="EMC.EmailXtender.PBA.StoredProcs.VersionMinor" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Archive" sqlQuery="SELECT VersionMinor FROM VersionInfo WHERE Name = 'EMC.EmailXtender.PBA.StoredProcs'">[MinorVersion]</Item>  <Item name="EMC.EmailXtender.PBA.StoredProcs.BuildNumber" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Archive" sqlQuery="SELECT BuildNumber FROM VersionInfo WHERE Name = 'EMC.EmailXtender.PBA.StoredProcs'">[RevisionVersion]</Item>  <Item name="EMC.EmailXtender.PBA.StoredProcs.VersionString" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Archive" sqlQuery="SELECT VersionString FROM VersionInfo WHERE Name = 'EMC.EmailXtender.PBA.StoredProcs'">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <!-- ES1Search -->  <Item name="EMC.EmailXtender.Search.Version" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Search" sqlQuery="SELECT Version FROM VersionInfo WHERE Name = 'EMC.EmailXtender.Search'">[MajorVersion].[MinorVersion][BuildVersion]000</Item>  <Item name="EMC.EmailXtender.Search.VersionMajor" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Search" sqlQuery="SELECT VersionMajor FROM VersionInfo WHERE Name = 'EMC.EmailXtender.Search'">[MajorVersion]</Item>  <Item name="EMC.EmailXtender.Search.VersionMinor" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Search" sqlQuery="SELECT VersionMinor FROM VersionInfo WHERE Name = 'EMC.EmailXtender.Search'">[MinorVersion]</Item>  <Item name="EMC.EmailXtender.Search.BuildNumber" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Search" sqlQuery="SELECT BuildNumber FROM VersionInfo WHERE Name = 'EMC.EmailXtender.Search'">[RevisionVersion]</Item>  <Item name="EMC.EmailXtender.Search.VersionString" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="ES1Search" sqlQuery="SELECT VersionString FROM VersionInfo WHERE Name = 'EMC.EmailXtender.Search'">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <!-- DiscoveryManager -->  <Item name="EMC.EmailXtender.DiscoveryCollector.Version" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="DiscoveryManager" sqlQuery="SELECT Version FROM VersionInfo WHERE Name = 'EMC.EmailXtender.DiscoveryCollector'">[MajorVersion].[MinorVersion][BuildVersion]000</Item>  <Item name="EMC.EmailXtender.DiscoveryCollector.VersionMajor" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="DiscoveryManager" sqlQuery="SELECT VersionMajor FROM VersionInfo WHERE Name = 'EMC.EmailXtender.DiscoveryCollector'">[MajorVersion]</Item>  <Item name="EMC.EmailXtender.DiscoveryCollector.VersionMinor" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="DiscoveryManager" sqlQuery="SELECT VersionMinor FROM VersionInfo WHERE Name = 'EMC.EmailXtender.DiscoveryCollector'">[MinorVersion]</Item>  <Item name="EMC.EmailXtender.DiscoveryCollector.BuildNumber" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="DiscoveryManager" sqlQuery="SELECT BuildNumber FROM VersionInfo WHERE Name = 'EMC.EmailXtender.DiscoveryCollector'">[RevisionVersion]</Item>  <Item name="EMC.EmailXtender.DiscoveryCollector.VersionString" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="DiscoveryManager" sqlQuery="SELECT VersionString FROM VersionInfo WHERE Name = 'EMC.EmailXtender.DiscoveryCollector'">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  <Item name="EMC.EmailXtender.DiscoveryCollector.StoredProcs.Version" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="DiscoveryManager" sqlQuery="SELECT Version FROM VersionInfo WHERE Name = 'EMC.EmailXtender.DiscoveryCollector.StoredProcs'">[MajorVersion].[MinorVersion][BuildVersion]000</Item>  <Item name="EMC.EmailXtender.DiscoveryCollector.StoredProcs.VersionMajor" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="DiscoveryManager" sqlQuery="SELECT VersionMajor FROM VersionInfo WHERE Name = 'EMC.EmailXtender.DiscoveryCollector.StoredProcs'">[MajorVersion]</Item>  <Item name="EMC.EmailXtender.DiscoveryCollector.StoredProcs.VersionMinor" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="DiscoveryManager" sqlQuery="SELECT VersionMinor FROM VersionInfo WHERE Name = 'EMC.EmailXtender.DiscoveryCollector.StoredProcs'">[MinorVersion]</Item>  <Item name="EMC.EmailXtender.DiscoveryCollector.StoredProcs.BuildNumber" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="DiscoveryManager" sqlQuery="SELECT BuildNumber FROM VersionInfo WHERE Name = 'EMC.EmailXtender.DiscoveryCollector.StoredProcs'">[RevisionVersion]</Item>  <Item name="EMC.EmailXtender.DiscoveryCollector.StoredProcs.VersionString" server="[SQLServerInstance]" uid="[SQLServerUsername]" pwd="[SQLServerPassword]" dbName="DiscoveryManager" sqlQuery="SELECT VersionString FROM VersionInfo WHERE Name = 'EMC.EmailXtender.DiscoveryCollector.StoredProcs'">[MajorVersion].[MinorVersion][BuildVersion].[RevisionVersion]</Item>  </Group>  <!-- Services Group: verify service has installed in the server-->  <!-- [name] Windows Service name of a verify item -->  <Group type="WinService" groupName="SourceOne All In One - Windows Service">  <Item name="EMC SourceOne Address Cache" serviceName="ExAddressCacheService"/>  <Item name="EMC SourceOne Address Resolution" serviceName="ES1AddressResolutionService"/>  <Item name="EMC SourceOne Administrator" serviceName="ExAsAdmin"/>  <Item name="EMC SourceOne Archive" serviceName="ExAsArchive"/>  <Item name="EMC SourceOne Discovery Manager Worker" serviceName="DCWorkerService"/>  <Item name="EMC SourceOne Document Management Service" serviceName="ExDocMgmtSvc"/>  <Item name="EMC SourceOne Indexer" serviceName="ExAsIndex"/>  <Item name="EMC SourceOne Job Dispatcher" serviceName="ExJobDispatcher"/>  <Item name="EMC SourceOne Job Schedualer" serviceName="ExJobScheduler"/>  <Item name="EMC SourceOne Mover Agent" serviceName="ES1MoverAgent"/>  <Item name="EMC SourceOne Offline Access Retrieval Service" serviceName="ExDocMgmtSvcOA"/>  <Item name="EMC SourceOne Query" serviceName="ExAsQuery"/>  <Item name="EMC SourceOne Search Service" serviceName="ExSearchService"/>  </Group>  </Verify> |

## CREATE VALIDATION TEMPLATE

Template is configs use frequently. You can create your own template configs with below steps:

1. [Create a validation config](#_CUSTOMIZED_VALIDATION_CONFIG).
2. put the config under below location:

[Install Path]\EMC SourceOne QA Tool\Install Validation Tool\TemplateConfigs

1. Tool will pick up all configs under TemplateConfigs folder as templates.

