AUTOMATION ANYWHERE
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AUTOMATION ANYWHERE ENTERPRISE 10 SP2

INSTALLATION GUIDE

Document Version	2.2
Date of Publication	13-06-2018
Update(s) to Document Edition	Included section 2.2.5: Load Balancer Configuration for High Availability

Table of Contents

1 Document Purpose

This document for Automation Anywhere Enterprise (AAE) 10 SP2 (Service Pack) with product version 10.5.0 mentions the prerequisites and provides a step by step guide to installing the Enterprise Control Room and Client.

Note: If you are upgrading an existing version of Automation Anywhere Enterprise and if already have a hands-ON experience in installing AAE Client and Control Room, please follow the upgrade steps mentioned in Upgrade Sequence.

2 AAE Control Room- Prerequisites

This section helps you determine whether your system has the proper hardware and software to install the Control Room. Before installing the Enterprise Control Room, verify that your environment* supports the requirements mentioned in the sections that follow.

** Applicable to physical as well as virtual deployment environment.*

2.1 Product Requirements – Express and Custom Standalone Installation

Applicable for Express and Custom-Standalone mode of installation.

2.1.1 Software Requirements

Operating Systems	Microsoft Windows 7 SP1 (Minimum) Microsoft Windows Server 2012 R2 (Recommended)
Web Server/IIS	Internet Information Services 7.5 onward
.NET Framework	**For Windows 8.1 and Window Server 2012 R2:** Microsoft .NET 4.6.1 (Minimum) **For other** Supported Operating Systems**:** Microsoft .NET 4.6 (Minimum) *(Note: The .NET Framework 4.7 update is also supported)*
Data Management System	**For Express:** Microsoft SQL Server 2014 Express Service Pack 1 (SP1)
	For Custom Standalone: Microsoft SQL Server 2012 Express/Standard/Enterprise or higher

2.1.2 Hardware Requirements

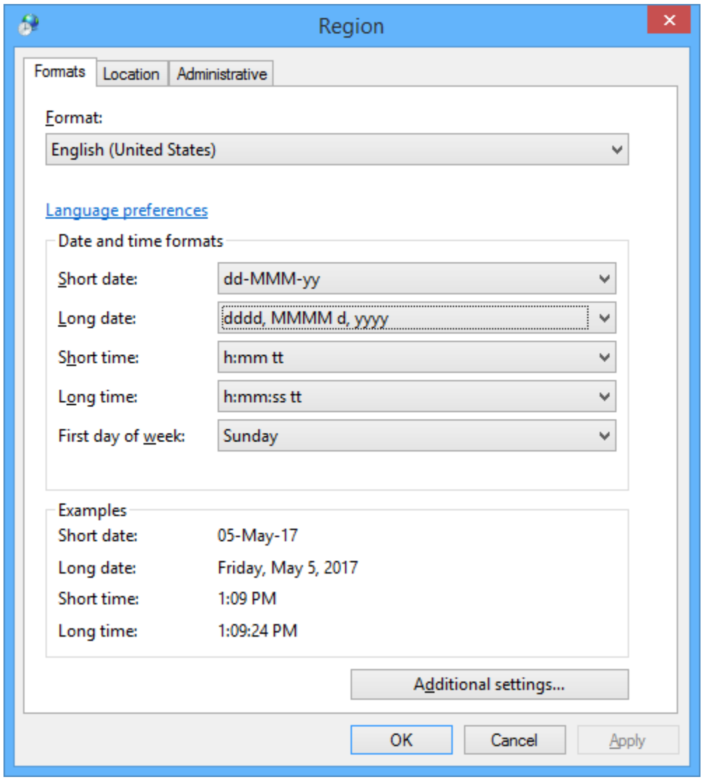
Processor	x64 Server Based CPU with 8 Cores *Hyper-threading recommended (if applicable)*
RAM	8 GB (Recommended)
Disk Space	100 GB (Depends upon Repository size)

2.1.3 Region Format and Settings (Language Locale)

You can verify and update the Region Format and Settings **i.e.** the Language Locale from Control Panel → Region.

- To update your Region Format, select the Format tab.

  a. It is recommended that you select English (United States) as your Region Format



Region

Formats | Location | Administrative

Format: English (United States)

Language preferences

Date and time formats

Short date: dd-MMM-yy

Long date: dddd, MMMM d, yyyy

Short time: h:mm tt

Long time: h:mm:ss tt

First day of week: Sunday

Examples

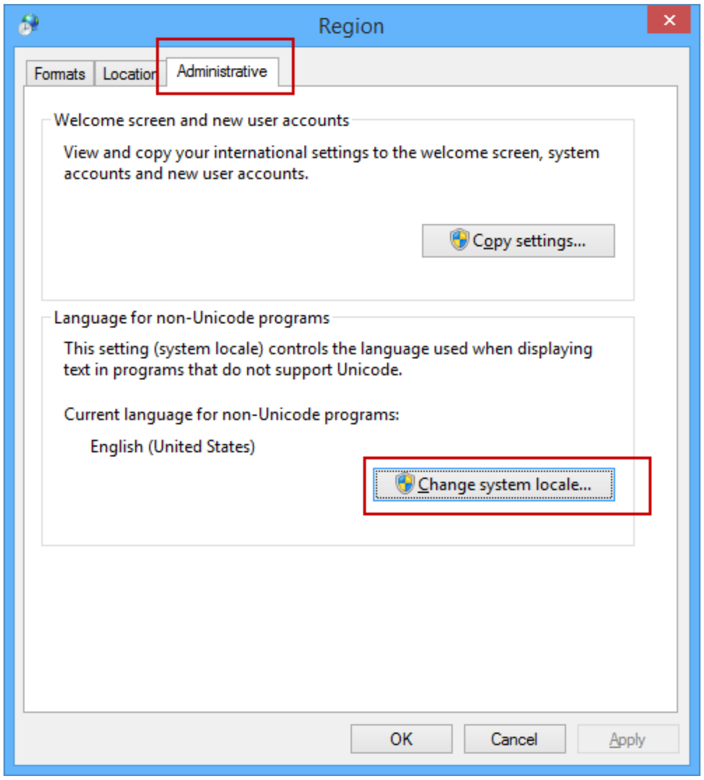
Short date: 05-May-17

Long date: Friday, May 5, 2017

Short time: 1:09 PM

Long time: 1:09:24 PM

- To update your Language Locale, select Administrative → Change system locale…



Region

Formats | Location | Administrative

Welcome screen and new user accounts

View and copy your international settings to the welcome screen, system accounts and new user accounts.

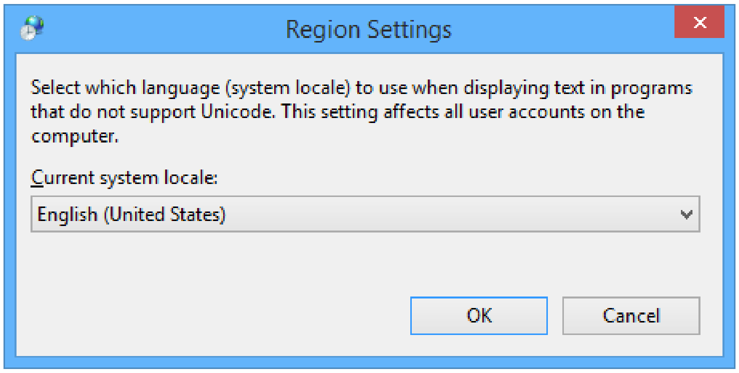
Language for non-Unicode programs

This setting (system locale) controls the language used when displaying text in programs that do not support Unicode.

Current language for non-Unicode programs:

English (United States)

a. It is recommended that you select English (United States) as your Region Settings



Select which language (system locale) to use when displaying text in programs that do not support Unicode. This setting affects all user accounts on the computer.

Current system locale:

English (United States)

2.2 Product Requirements – Distributed Installation

Applicable for Custom-Distributed mode of installation

2.2.1 Application Server - Software Requirements

Operating System	Microsoft Windows 7 SP1 (Minimum) Microsoft Windows Server 2012 R2 (Recommended)
Web Server/IIS	Internet Information Services 7.5 onward
.NET Framework	**For Windows 8.1 and Window Server 2012 R2:** Microsoft .NET 4.6.1 (Minimum) **For other Supported Operating Systems:** Microsoft .NET 4.6 (Minimum) *(Note: The .NET Framework 4.7 update is also supported)*
Data Management System	Microsoft SQL Server 2012 Express/Standard/Enterprise or higher
Java Framework	JRE 1.6 onward

2.2.2 Application Server - Hardware Requirements

Processor	x64 Server Based CPU with Minimum 4 Cores *Hyper-threading recommended (if applicable)*
RAM	8 GB
Disk Space	20 GB (Depends upon repository size)

2.2.3 Shared Data Server - Software Requirements

Operating System	Microsoft Windows Server 2012 R2

2.2.4 Shared Data Server - Hardware Requirements

Processor	x64 Server Based CPU with Minimum 8 Cores *Hyper-threading recommended (if applicable)*
RAM	8 GB
Disk Space	100 GB (Depends upon repository size)
Shared Drive	-

2.2.5 Load Balancer Configuration for High Availability

You can select a Load Balancer as per your requirements. You can configure your Load Balancer either as a software or as a hardware. Ensure these configurations are enabled in the Load Balancer.

Configuration	Description
Cookie-based sticky session	Enable cookie-based sticky session in the configuration of Load Balancer.
Expiration time of the cookie	Set the expiration time of the cookie same as the user session expiration time.

2.3 Supported Operating Systems

Operating System	Edition
Microsoft Windows 10	Pro, Enterprise
Microsoft Windows Server 2012 R2	Standard, Datacenter
Microsoft Windows Server 2012	Standard, Datacenter
Microsoft Windows 8.1	Pro, Enterprise
Microsoft Windows 8	Pro, Enterprise
Microsoft Windows Server 2008 R2	Standard
Microsoft Windows 7 SP1	Professional, Enterprise

2.4 Internet Information Services

Internet Information Services (IIS)	Windows Version

IIS 10.0	Windows 10
IIS 8.5	Windows 8.1 & Windows Server 2012 R2
IIS 8.0	Windows 8 & Windows Server 2012
IIS 7.5	Windows 7 SP1 & Windows Server 2008 R2
Application Initialization Module for IIS 7.5	Windows 7 SP1

2.5 Version Control Integration (If enabled)

Subversion*:

** Subversion is provided by the Apache Subversion software project.*

Subversion	SVN Server
Subversion 1.8.13 and 1.8.14	Visual SVN Server 3.3.x
Subversion 1.7.2	Visual SVN Server 2.5.2

NOTE: You can configure your own instance of Subversion; although we recommend Visual SVN Server as the SVN Server for Subversion.

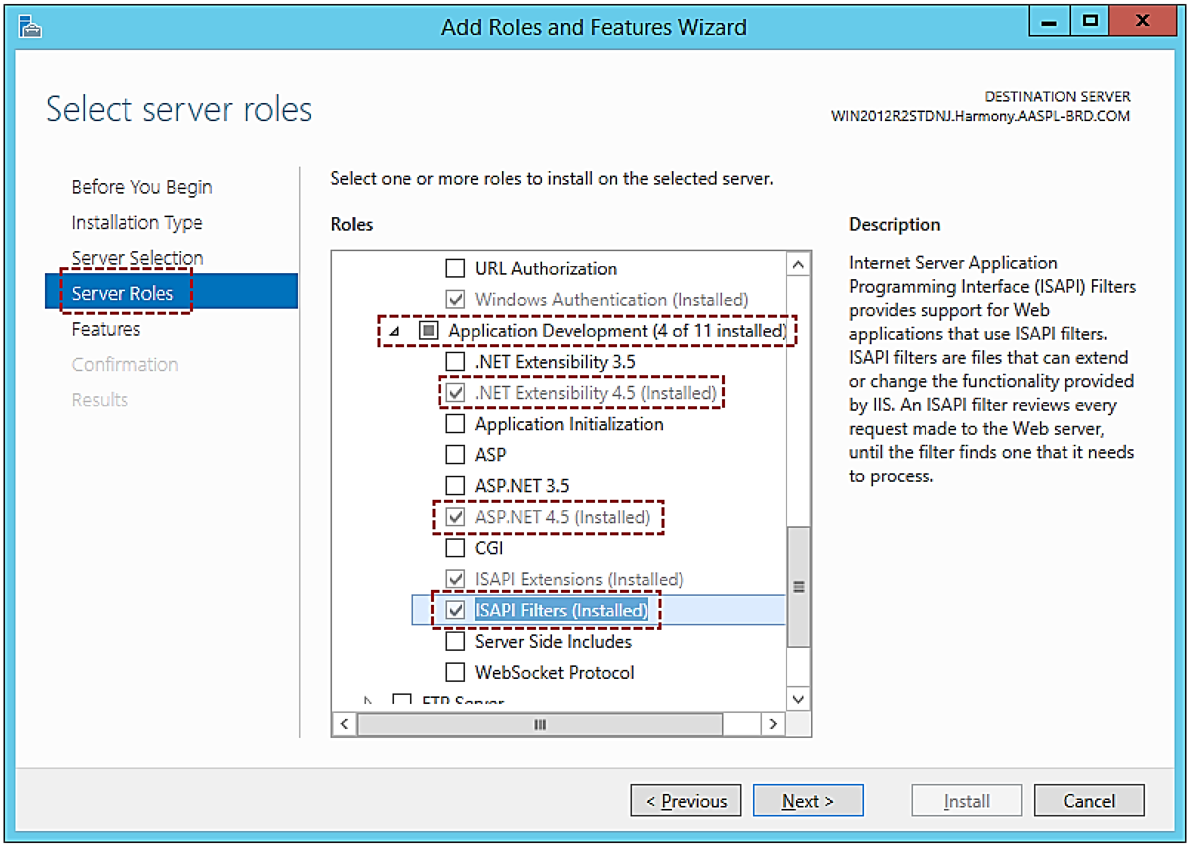
SVN repository with an Admin account

2.6 Enabling IIS Features*

** These can be enabled from Turn Windows feature on or off option*

This section describes the steps required to enable the following features in **Windows Server 2012 R2**:

1. ASP .NET 4.5 or higher
2. .NET Extensibility 4.5
3. ISAPI Filter



Select server roles

DESTINATION SERVER
WIN2012R2STDNJ.Harmony.AASPL-BRD.COM

Select one or more roles to install on the selected server.

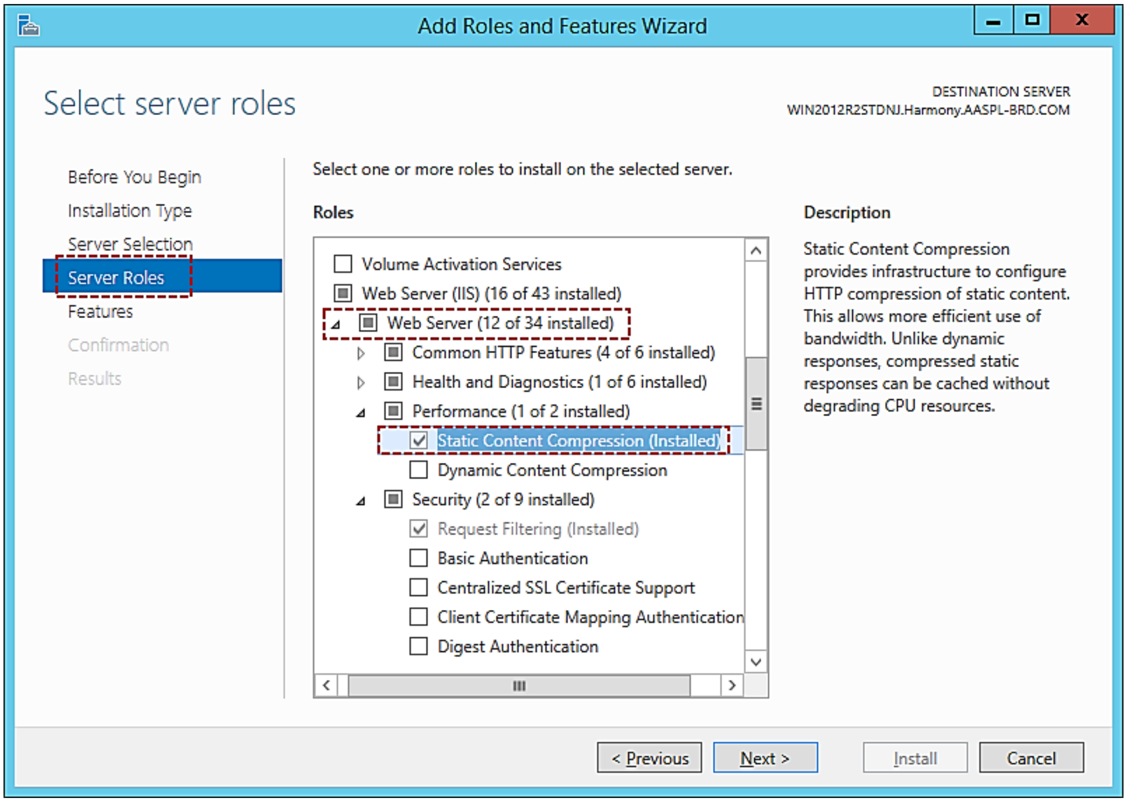
Roles

- ☐ URL Authorization
- ☑ Windows Authentication (Installed)
- ■ Application Development (4 of 11 installed)
  - ☐ .NET Extensibility 3.5
  - ☑ .NET Extensibility 4.5 (Installed)
  - ☐ Application Initialization
  - ☐ ASP
  - ☐ ASP.NET 3.5
  - ☑ ASP.NET 4.5 (Installed)
  - ☐ CGI
  - ☑ ISAPI Extensions (Installed)
  - ☑ ISAPI Filters (Installed)
  - ☐ Server Side Includes
  - ☐ WebSocket Protocol
- ☐ FTP Server

Description

Internet Server Application Programming Interface (ISAPI) Filters provides support for Web applications that use ISAPI filters. ISAPI filters are files that can extend or change the functionality provided by IIS. An ISAPI filter reviews every request made to the Web server, until the filter finds one that it needs to process.

4. Static Content



Add Roles and Features Wizard

Select server roles

DESTINATION SERVER
WIN2012R2STDNJ.Harmony.AASPL-BRD.COM

- Before You Begin
- Installation Type
- Server Selection
- **Server Roles**
- Features
- Confirmation
- Results

Select one or more roles to install on the selected server.

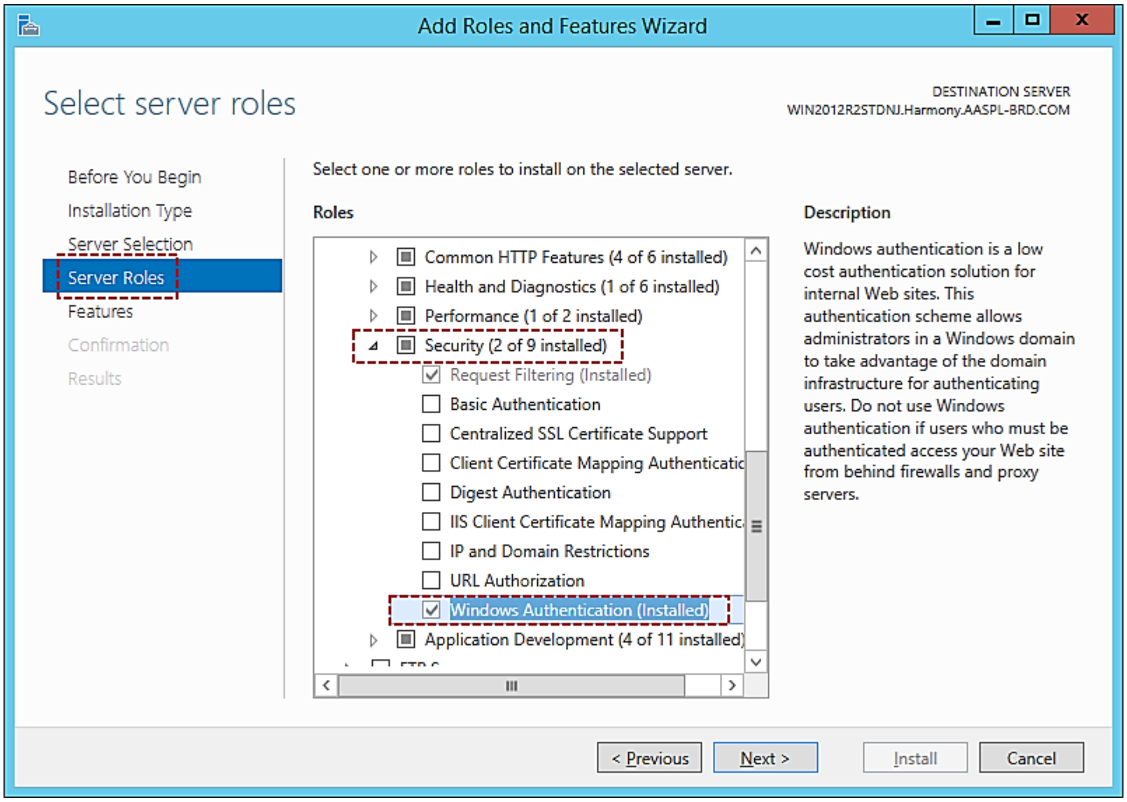
Roles

- ☐ Volume Activation Services
- ■ Web Server (IIS) (16 of 43 installed)
  - ■ Web Server (12 of 34 installed)
    - ■ Common HTTP Features (4 of 6 installed)
    - ■ Health and Diagnostics (1 of 6 installed)
    - ■ Performance (1 of 2 installed)
      - ☑ Static Content Compression (Installed)
      - ☐ Dynamic Content Compression
    - ■ Security (2 of 9 installed)
      - ☑ Request Filtering (Installed)
      - ☐ Basic Authentication
      - ☐ Centralized SSL Certificate Support
      - ☐ Client Certificate Mapping Authentication
      - ☐ Digest Authentication

Description

Static Content Compression provides infrastructure to configure HTTP compression of static content. This allows more efficient use of bandwidth. Unlike dynamic responses, compressed static responses can be cached without degrading CPU resources.

5. Windows Authentication (for **Active Directory Users**)



Add Roles and Features Wizard

Select server roles

DESTINATION SERVER
WIN2012R2STDNJ.Harmony.AASPL-BRD.COM

- Before You Begin
- Installation Type
- Server Selection
- **Server Roles**
- Features
- Confirmation
- Results

Select one or more roles to install on the selected server.

Roles

- ■ Common HTTP Features (4 of 6 installed)
- ■ Health and Diagnostics (1 of 6 installed)
- ■ Performance (1 of 2 installed)
- ■ Security (2 of 9 installed)
  - ☑ Request Filtering (Installed)
  - ☐ Basic Authentication
  - ☐ Centralized SSL Certificate Support
  - ☐ Client Certificate Mapping Authenticatic
  - ☐ Digest Authentication
  - ☐ IIS Client Certificate Mapping Authentic
  - ☐ IP and Domain Restrictions
  - ☐ URL Authorization
  - ☑ Windows Authentication (Installed)
- ■ Application Development (4 of 11 installed)

Description

Windows authentication is a low cost authentication solution for internal Web sites. This authentication scheme allows administrators in a Windows domain to take advantage of the domain infrastructure for authenticating users. Do not use Windows authentication if users who must be authenticated access your Web site from behind firewalls and proxy servers.

6. IIS Management Service (applicable only for **Windows 7 SP1**)

NOTE: Ensure that 'WebDAV Publishing' is not installed.

2.7 Browser Support

Browser	Version
Internet Explorer	10 and 11
Chrome	49 and above
Firefox	45, 46, and 47

2.8 SQL Server Configurations

Ensure that the Microsoft SQL Server configurations are in place before setting up the database for Control Room.

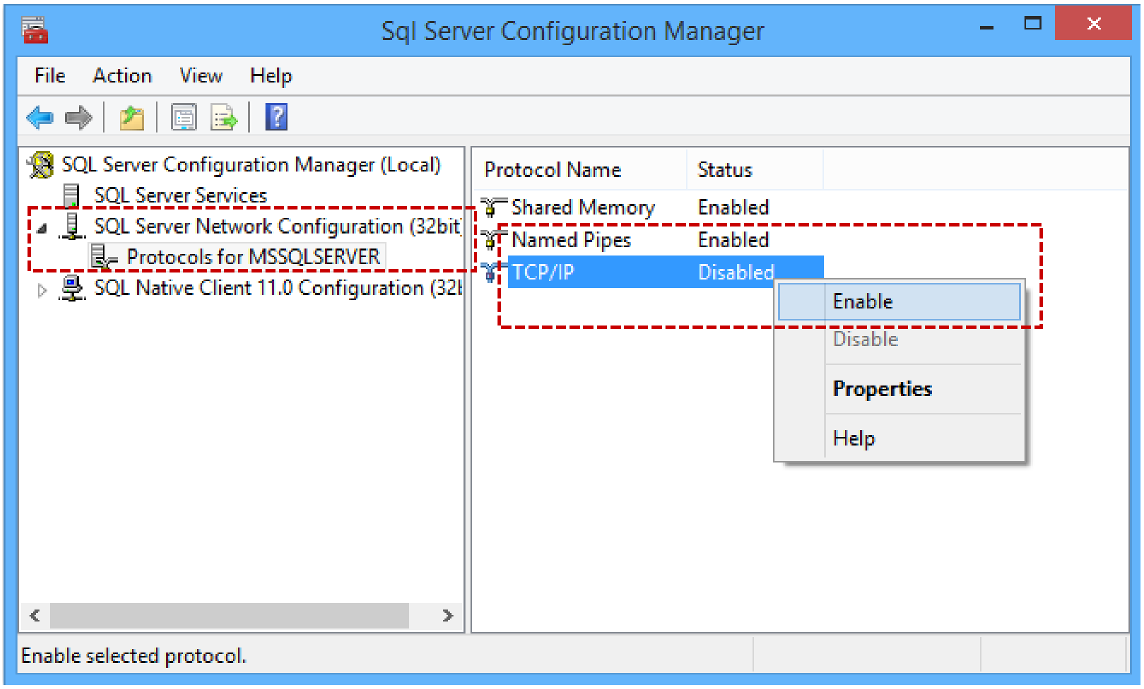
2.8.1 Prerequisites for installing SQL Server

1. SQL Server Management Studio must be installed. Refer the Software Requirements section to know supported versions.
2. You should have access to "AAE_10.3.0_MSSQL_Express_2014SP1.exe"
3. You should have administrator rights to run the setup.

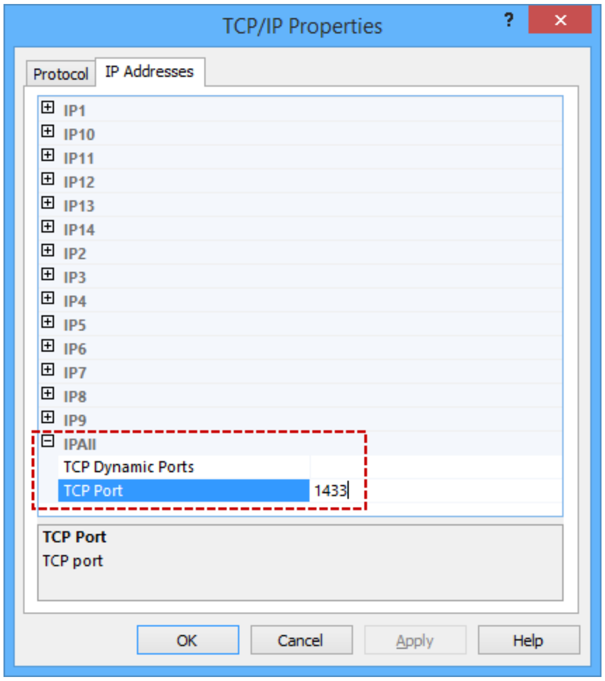
2.8.2 Configuring SQL Server Settings

SQL Server settings can be configured in the SQL Server Configuration Manager.

1. Enable protocol for **Named Pipes** and **TCP/IP** in SQL Server Network Configuration → Protocols for MSSQLSERVER as shown:


Sql Server Configuration Manager
File
Action
View
Help
SQL Server Configuration Manager (Local)
SQL Server Services
SQL Server Network Configuration (32bit)
Protocols for MSSQLSERVER
SQL Native Client 11.0 Configuration (32
Protocol Name
Status
Shared Memory
Enabled
Named Pipes
Enabled
TCP/IP
Disabled
Enable
Disable
Properties
Help
Enable selected protocol.

2. If you have opted for custom installation, the next step involves setting the TCP/IP port. Context click (right-click) or double-click TCP/IP protocol, input the port number for ***IPAll*** in the IP Addresses tab of IP Properties as shown:



TCP Dynamic Ports

TCP Port 1433

TCP Port

TCP port

TIP: Restart the MSSQLSERVICE for the updates to take effect.

2.9 Pre-Upgrade Checklist (For both Standalone and Distributed deployment - High-Availability Control Room)

- Take backup of Control Room database
- Take backup of Control Room repository
- To compare & validate data like, Registered clients, Active users, No. of folders and files in Control Room repository etc… post-installation, take screenshot of Control Room Dashboard
- As this is a full setup upgrade, complete downtime for Control Room and Client is recommended.
- Make sure you have a Non-admin user of Control Room with license management permission and a Control Room Admin user
- Ensure the user who runs the setup has required access privileges to the folder that is chosen as repository path.

Please note during upgrade,

- All the AAE Clients are disconnected. Also, none of the local schedules on the AAE Clients or Control Room are executed until upgrade process is completed.
- User must re-login to all the AAE Clients after upgrade process is completed.

2.10 Upgrading Control Room Server(s)

Upgrading Control Room with full setup is equivalent to installing a new Control Room server

Follow the steps mentioned below to upgrade the Control Room Server in **Standalone mode**

1. Uninstall current Control Room using steps as per section 3.8.
2. Check if all the files and folders are removed from previous installation of Control Room server in Installation directory.
3. Check and ensure that there is no Control Room entry for previous version in Control Panel (Control Panel\All Control Panel Items\Programs and Features).

4. Check if the Database still exists in the Database server and Repository files/ folders existing in same repository location.
5. Install the Control Room 10 SP2 (10.5.0) on the same Control Room server using existing Database and Repository. This installs both data & service layer and application server at once as both exist on the same machine, refer section 3.5
6. After clicking on Finish screen, go to installation path (Example: C:\Program Files (x86)\Automation Anywhere Enterprise 10.5\Control Room) and verify if version in "ProductReleaseInfo.xml" file – It should be 10.5.0.0 – XXXXXXX.
7. Go to Windows services and verify if "Automation Anywhere Web socket service" is running
8. Login to Control Room using Non-admin user with license management permission with Control Room server URL and install license provided by AA sales and support team, if asked.
9. Go to installation path (eg: C:\Program Files (x86)\Automation Anywhere Enterprise 10.5\Control Room\ Web\webcrsvc\bin) and verify date and time stamp for "AAECR.license" file; it should be latest.
10. Login using same Non-admin user having license management rights and go to license management tab to verify available license count.
11. If the license count is verified and as expected then login using Control Room Admin user, go to Help → About page and verify if the latest Control Room version is- 10.5.0 (Build XXXXXXX).
12. Login with Control Room Admin user, go to Control Room settings page and verify all the settings like, Repository path, Outgoing mail server, VCS, Credential vault etc.
13. Go to IIS manager and follow steps as per section 3.6.4 - Setting up Https Site Binding if you want to change binding details.

2.10.1 Upgrade Control Room Server in Distributed Mode (High-Availability Control Room)

When you upgrade your Control Room from previous v10.x to new v10.5.0 (SP2), you need to first uninstall existing setup from all servers and then need to upgrade the shared data & services as well as the Application Server(s) one at a time.

Follow the steps mentioned below to upgrade the Control Room Server:

1. Uninstall current Control Room using steps as per section 3.8, from the shared data & services as well as the Application Server(s) machines.
2. Ensure on all the servers if all the files and folders have been removed for previous installation of Control Room server from Installation directory.
3. Ensure on all the servers that there is no Control Room entry for previous version in Control Panel (Location: Control Panel\All Control Panel Items\Programs and Features).
4. Check if the Database still exists in the Database server and Repository files/ folders existing in same repository location.
5. Install the Control Room 10.5.0 (SP2) to upgrade your shared data and services layer (Web socket). Refer section 3.6.1.

   NOTE: Upgrade passive web socket node and active node both one by one.
6. After clicking on Finish screen, go to Windows services and verify if "Automation Anywhere Web socket service" is running on Active node.
7. Login to application server machine
8. Install Control Room 10.5.0 (SP2) to upgrade first Application Server. Refer section 3.6.3.
9. After clicking on Finish screen, go to installation path (eg: C:\Program Files (x86)\Automation Anywhere Enterprise 10.5\Control Room) & verify version in "ProductReleaseInfo.xml" file – It should be 10.5.0.0 – XXXXXXX
10. Go to control panel (Control Panel\All Control Panel Items\Programs and Features) and verify Automation Anywhere Enterprise Control Room 10.5 version – It should be 10.5.0.
11. Go to Windows services and verify "Automation Anywhere cache manager service" is running.

12. Login to Control Room using Non-admin user having license management rights, with application server URL and install license provided by AA Sales and Support team.
13. Verify the same license file “AAECR.license” and its date and time stamp in Repository folder, it should also be latest
14. Go to installation path (Example: C:\Program Files (x86)\Automation Anywhere Enterprise 10.5\Control Room\ Web\webcrsvc\bin) and Verify date and time stamp for “AAECR.license” file, it should be latest.
15. Login with application server URL using same Non-admin user having license management rights and go to license management tab to verify available license count.
16. . If the license count is verified and as expected then login with application server URL using CR Admin user, go to Help → About page and verify Control Room version it should be - 10.5.0 (Build XXXXXXX).
17. Go to IIS manager and follow steps as per section 3.6.4 - Setting up Https Site Binding if you want to change binding details.
18. With Control Room Admin user login, go to Control Room setting page and verify all the settings like, Repository path, Web socket host and port, Control Room URL, Outgoing mail server, VCS, Credential vault etc.
19. Repeat steps from 7 to 11 along with steps 14 to 17 for all Application Servers.
20. Once all the Application Servers are upgraded with latest Control Room version i.e. 10.5.0 (SP2), follow the steps as per section 3.6.3 on all Application Servers to have Application cache manager service sync up between all Application Servers.
21. Login using Load Balancer (LB) URL with Control Room Admin user and verify the following:
    a. Go to license management and verify license count.
    b. Go to Control Room settings page and verify settings as per step# 17 in section 2.10.1

3 AAE Control Room- Installation

3.1 Installing the Control Room

You can install the AAE Control Room using the AAE Control Room Setup wizard. The setup will allow you to select two different methods of setting up and configuring the Control Room – Express and Custom. The setup wizard installs any prerequisite that might be missing.

Via the setup, you will also be able to configure Web Socket & Database with respective Ports, Application components, Shared Data components, Services components, Website, Repository, User type, Application path, and Application shortcuts.

Before running the Control Room setup, ensure all prerequisites to configure the application are met. Refer the Prerequisites section for details.

Also, it is recommended that you run the setup in Admin mode as while installing the application some system updates are made in services and registry.

Control Room can be installed and configured using any of the two methods:

- Express - Use the Express option to quickly install the Control Room with default settings
  NOTE: We do not recommend using Express mode of Installation in the production environment.

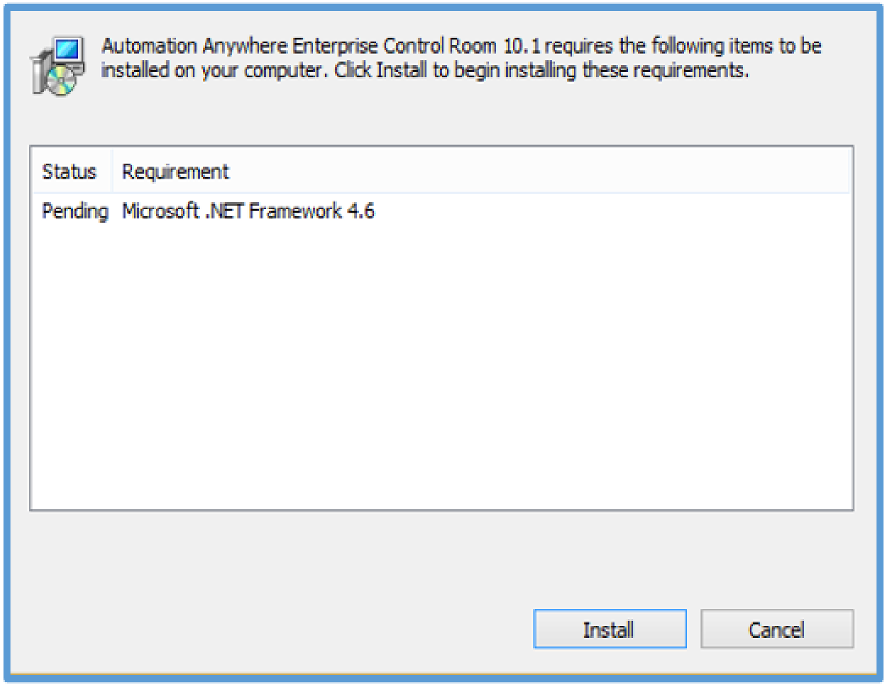
- Custom - Use the Custom option if you want to install the Control Room with manual settings. This installation type is recommended for production use

3.2 Installing the .NET Framework

The Control Room setup wizard automatically installs the required prerequisites if found missing.

NOTE: If you already have installed a previous version of Control Room, ensure you perform a complete uninstall. This can be done from the *Control Panel → Programs and Features*.

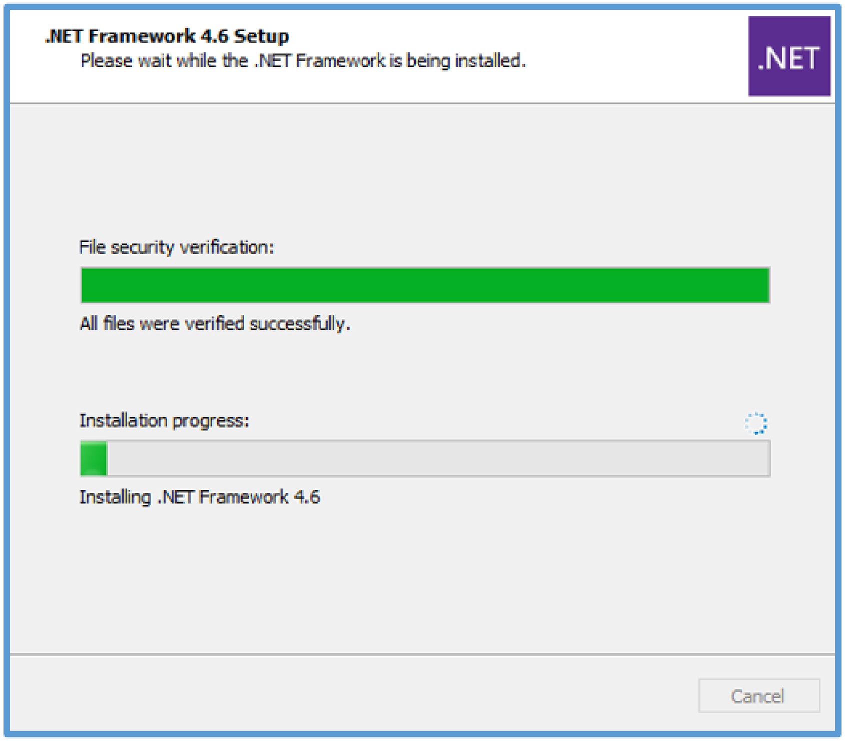
1. If .Net 4.6 component is missing, a pending component screen to install Microsoft .NET Framework 4.6 appears as it forms part of the Control Room prerequisites. Click *Install*



Automation Anywhere Enterprise Control Room 10.1 requires the following items to be installed on your computer. Click Install to begin installing these requirements.

Status	Requirement
Pending	Microsoft .NET Framework 4.6

2. You will be able to see Microsoft .NET Framework 4.6 installation process.



.NET Framework 4.6 Setup

Please wait while the .NET Framework is being installed.

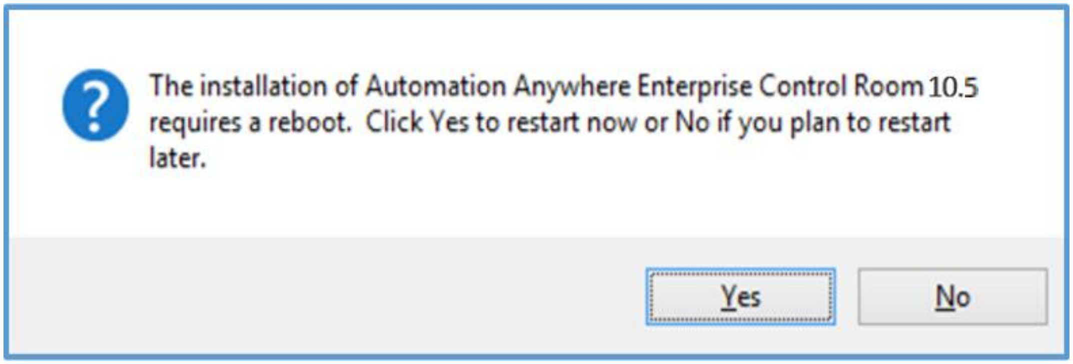
File security verification:

All files were verified successfully.

Installation progress:

Installing .NET Framework 4.6

3. You need to restart your system to complete the Installation process. The installation process will automatically resume, after you restart your system.



The installation of Automation Anywhere Enterprise Control Room 10.5 requires a reboot. Click Yes to restart now or No if you plan to restart later.

3.3 Express Installation

Express mode of installation allows you to set up the Control Room quickly with minimal steps. By using default values, it automatically configures the required parameters for different components.

This method of installation is recommended for a non-production environment only.

⚠ Important: Save your work and close all the open applications before you begin the installation.

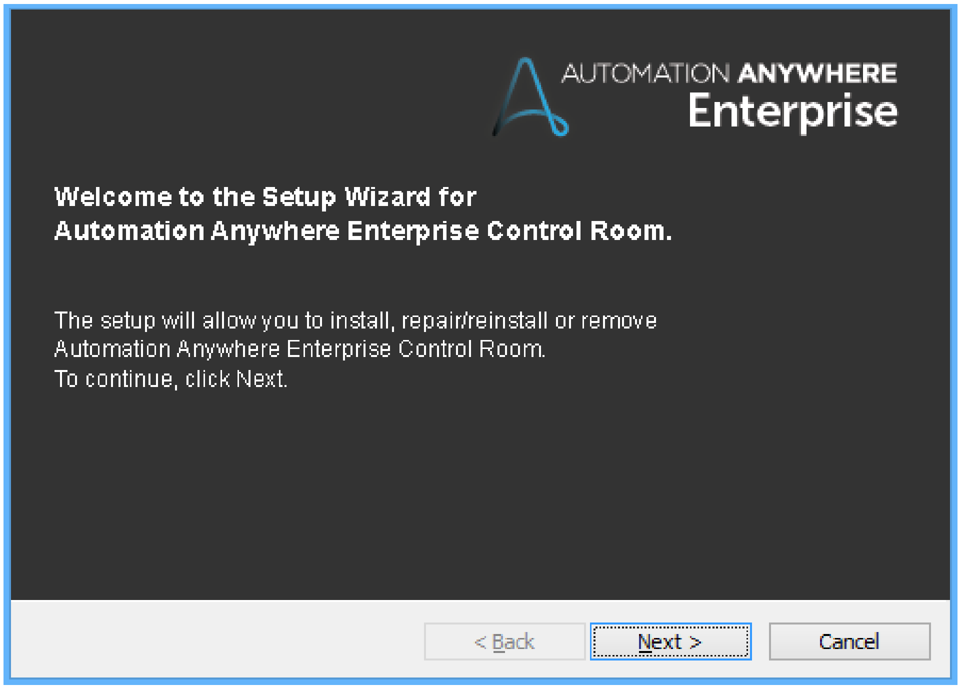
- If not installed, run the installer for AAE_10.3.0_MSSQL_Express_2014SP1.exe in Admin mode. This will install the Database Management System – Microsoft SQL Server Express 2014 (SP1)
  NOTE: The self-extracting exe allows to install only the SQL Engine for SQL Server Express 2014 SP1. It does not install the SQL Server Management Studio.

- It will configure an instance ***AACRSQLEXPRESS***, which will be used for the Control Room database.
  NOTE: This instance will be used to create the default Control Room database "CRDB", which will be configured only after you select the Express Mode of Control Room installation.

- Now launch the Setup for Control Room in Admin mode.

The following steps describe the installation of Control Room in Express mode:

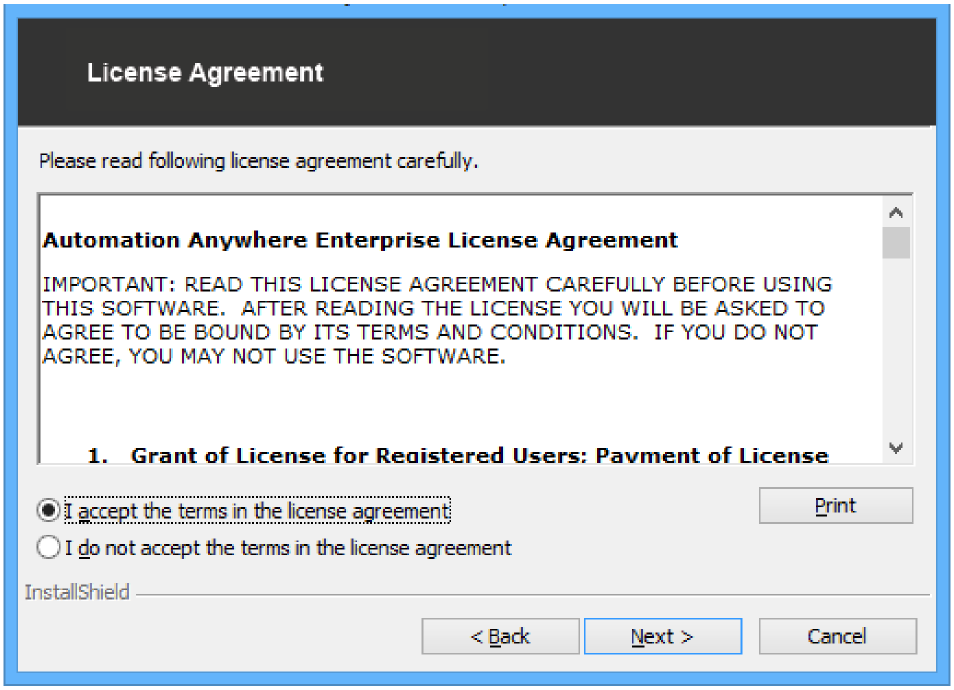
1. You can see the *Welcome to Setup Wizard* screen. Click **Next**.



Welcome to the Setup Wizard for Automation Anywhere Enterprise Control Room.

The setup will allow you to install, repair/reinstall or remove Automation Anywhere Enterprise Control Room.
To continue, click Next.

2. Accept the terms of licence agreement and then Click **Next**.



License Agreement

Please read following license agreement carefully.

Automation Anywhere Enterprise License Agreement

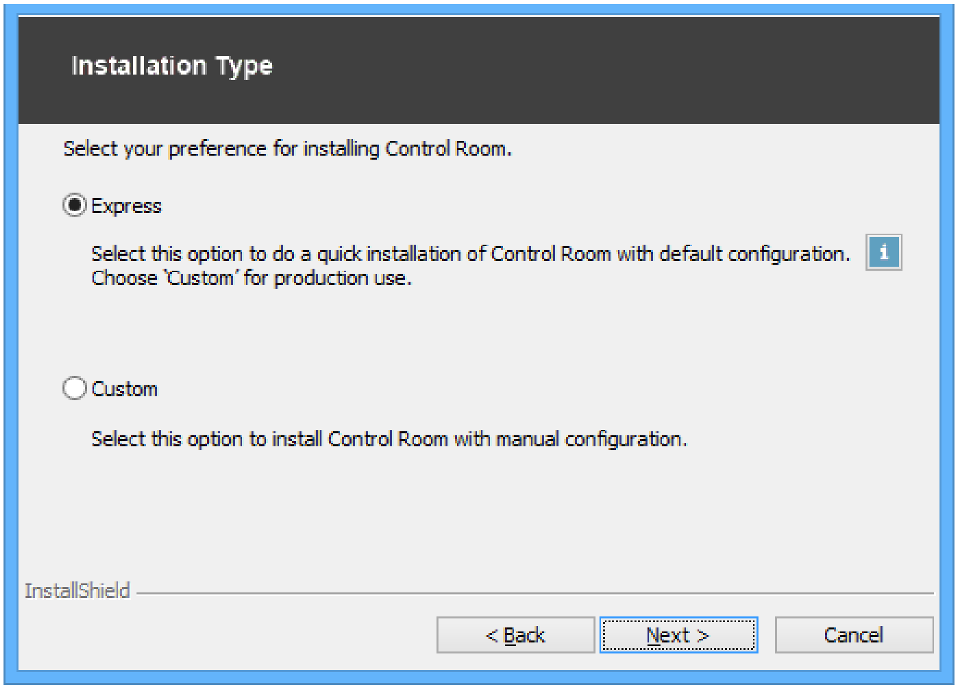
IMPORTANT: READ THIS LICENSE AGREEMENT CAREFULLY BEFORE USING THIS SOFTWARE. AFTER READING THE LICENSE YOU WILL BE ASKED TO AGREE TO BE BOUND BY ITS TERMS AND CONDITIONS. IF YOU DO NOT AGREE, YOU MAY NOT USE THE SOFTWARE.

1. Grant of License for Registered Users: Payment of License

● I accept the terms in the license agreement

○ I do not accept the terms in the license agreement

3. The *Installation Type* screen appears, where you can select **Express**. Click **Next**.



Installation Type

Select your preference for installing Control Room.

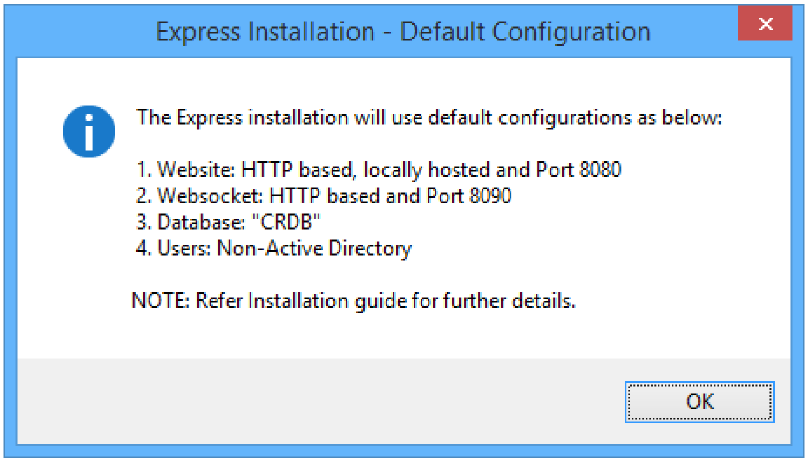
● Express

Select this option to do a quick installation of Control Room with default configuration. Choose 'Custom' for production use.

○ Custom

Select this option to install Control Room with manual configuration.

- Click the information button ℹ for more information on default settings



Express Installation - Default Configuration

The Express installation will use default configurations as below:

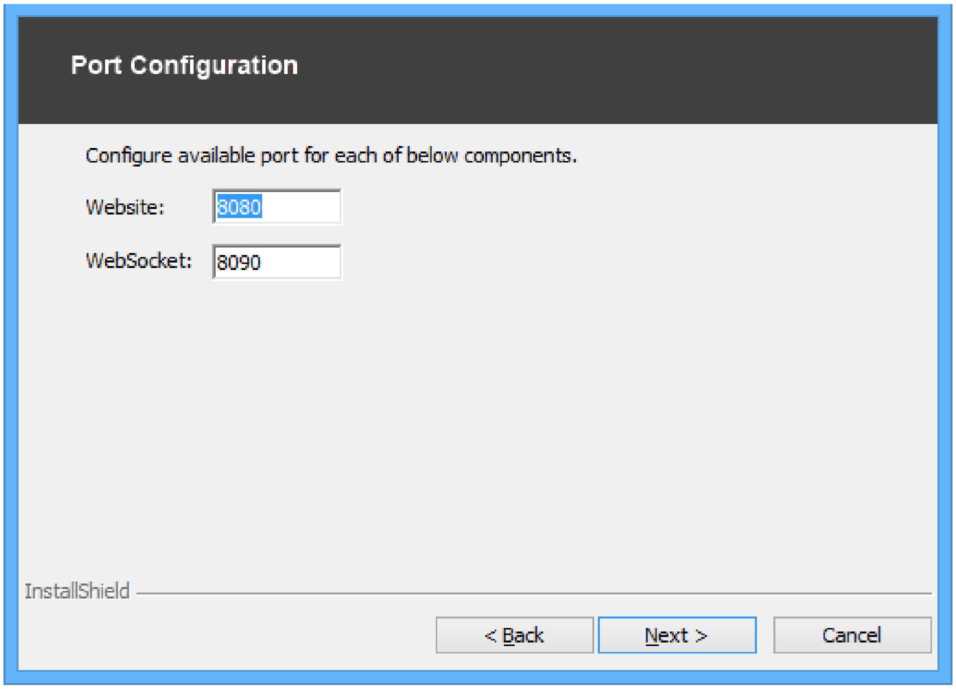
1. Website: HTTP based, locally hosted and Port 8080
2. Websocket: HTTP based and Port 8090
3. Database: "CRDB"
4. Users: Non-Active Directory

NOTE: Refer Installation guide for further details.

- In Express installation, the default configuration allows to create a HTTP-based Control Room website hosted locally. It uses the default Microsoft SQL Server database instance ***AACRSQLEXPRESS*** with default Admin credentials:

  Username: aaadmin
  Password: aabots@123
  ⚠ **Important:** For SQL data security, the 'sa' account shall be disabled.

This instance enables the Control Room Admin to create Non-Active Directory Users. All ports required to run the website and services are set to default. Specify an unassigned Port and to continue click *Next*.



Port Configuration

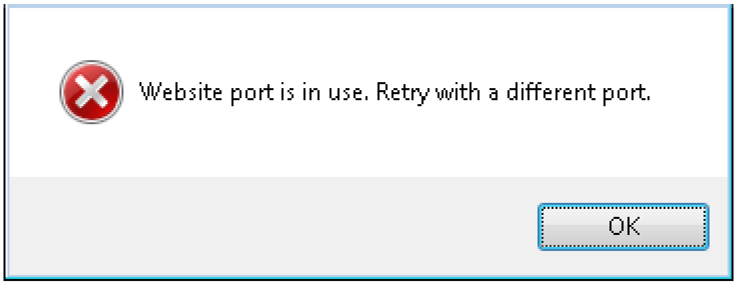
Configure available port for each of below components.

Website: 8080

WebSocket: 8090

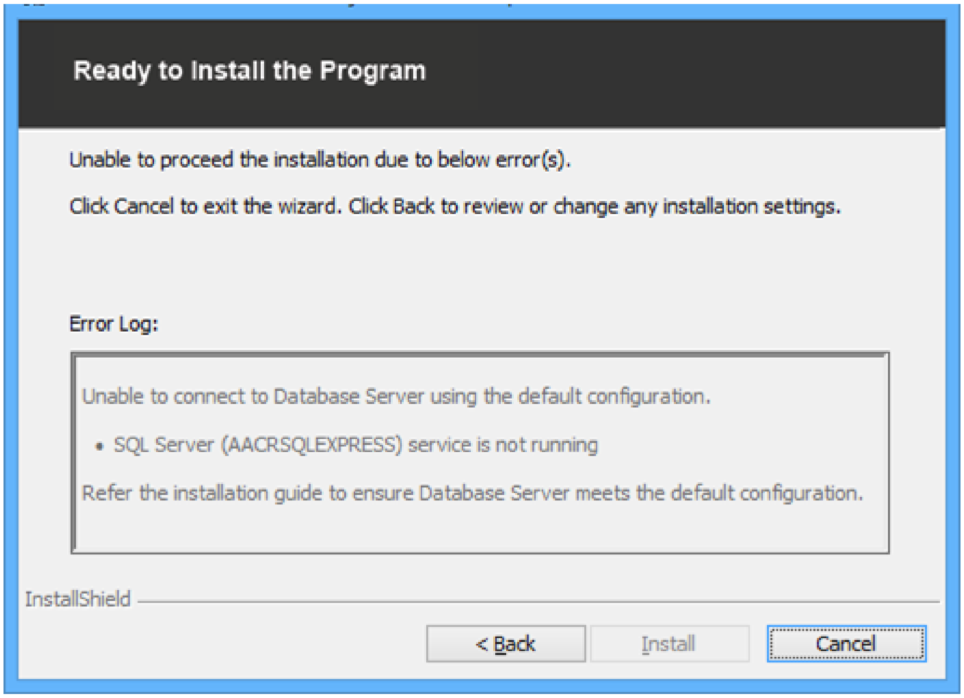
TIP: For a new port, you may have to create rules in Firewall to open the port.

- If a port is already used, a message appears. For example, when a website port is in use, the following message appears:



Website port is in use. Retry with a different port.

- Conflicting versions of SQL, incorrect configuration, inability to connect to the database server, and/or failure to create the default SQL instance will give the following error:



Ready to Install the Program

Unable to proceed the installation due to below error(s).

Click Cancel to exit the wizard. Click Back to review or change any installation settings.

Error Log:

Unable to connect to Database Server using the default configuration.

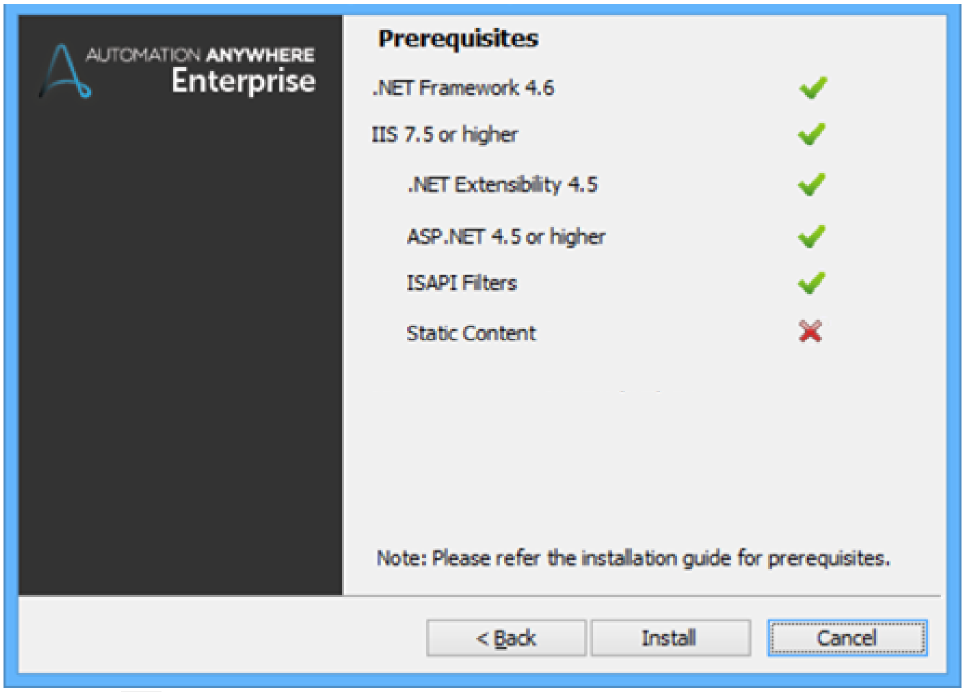
- SQL Server (AACRSQLEXPRESS) service is not running

Refer the installation guide to ensure Database Server meets the default configuration.

1. Click Cancel and run the **AAE_10.3.0_MSSQL_Express_2014SP1.exe**.
   TIP: Verify whether it is installed. Also, verify the database instance is correct from the SQL Server Management Studio.
   Warning: Ensure the Database Name, Database Username, and Server Instance remain unchanged as any change to these will also show the above error.

2. Rerun the AAE Installation setup once the issue is resolved.

- If any of the IIS components are not configured/enabled, the Prerequisites window appears. Click **Install**.



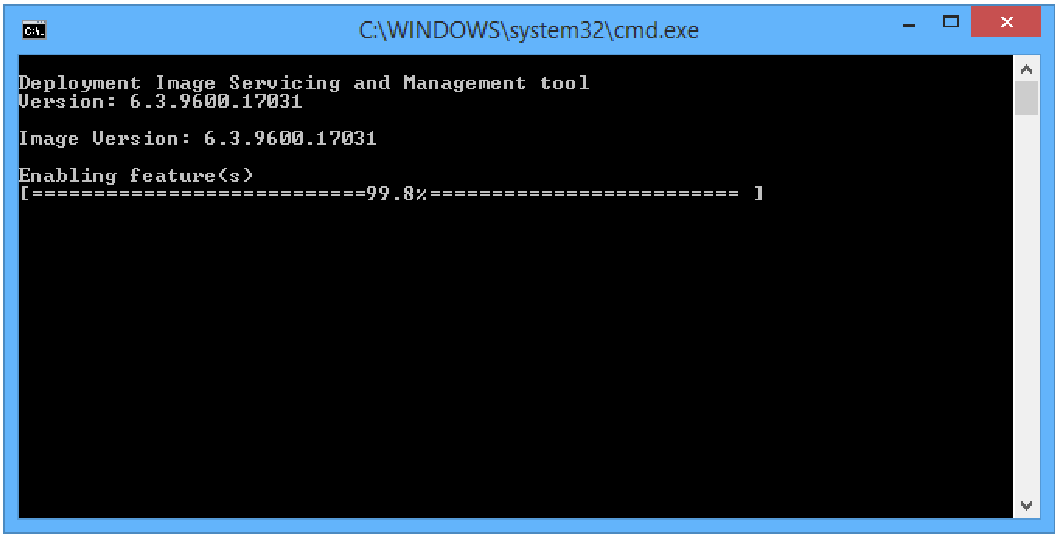
Prerequisites

.NET Framework 4.6	✓
IIS 7.5 or higher	✓
.NET Extensibility 4.5	✓
ASP.NET 4.5 or higher	✓
ISAPI Filters	✓
Static Content	✗

Note: Please refer the installation guide for prerequisites.

NOTE: An ✗ indicates that the component is not installed. If the prerequisite for Application module is not installed, then the setup provides a download link for the module. After downloading and installing this module you must Cancel this setup and then restart the setup once again. For more details, Installing Application Module for Win 7 SP1

- The IIS component is installed automatically. A Windows Command prompt appears; **do not close this window**.



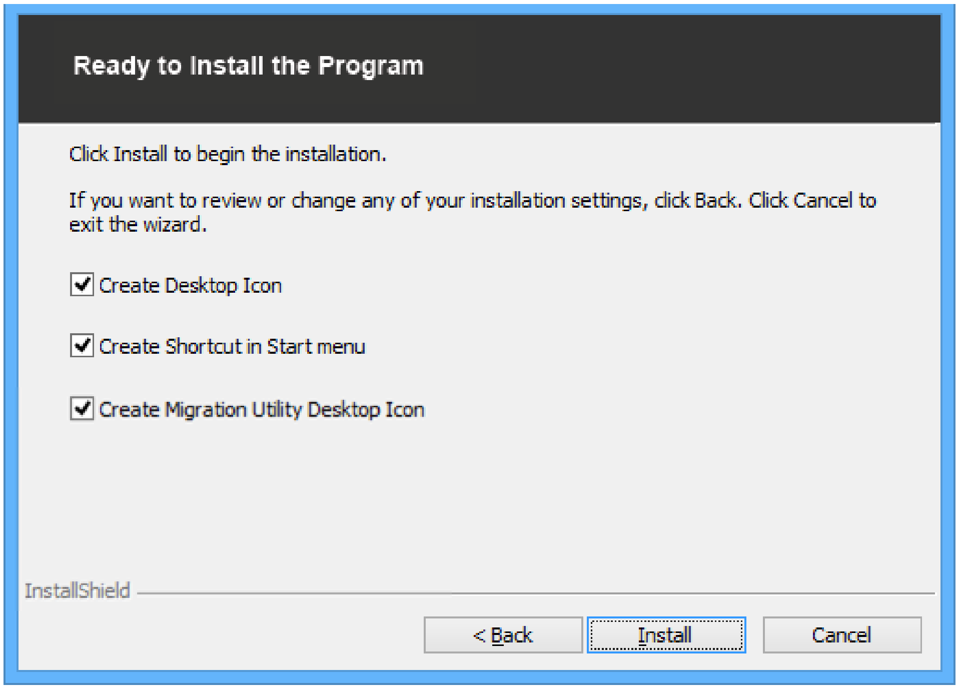
```
Deployment Image Servicing and Management tool
Version: 6.3.9600.17031

Image Version: 6.3.9600.17031

Enabling feature(s)
[==========================99.8%========================= ]
```

NOTE: If you are a user with **Windows 7 SP1 or Windows Server 2008 R2,** perform the steps mentioned in the Installing Application Module for Win 7 SP1 section.

4. You can opt to create the shortcuts (in the image) by *selecting and clearing* relevant checkboxes. You can also opt to Create a shortcut for Migration Utility. Click *Install.*



Ready to Install the Program

Click Install to begin the installation.

If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.

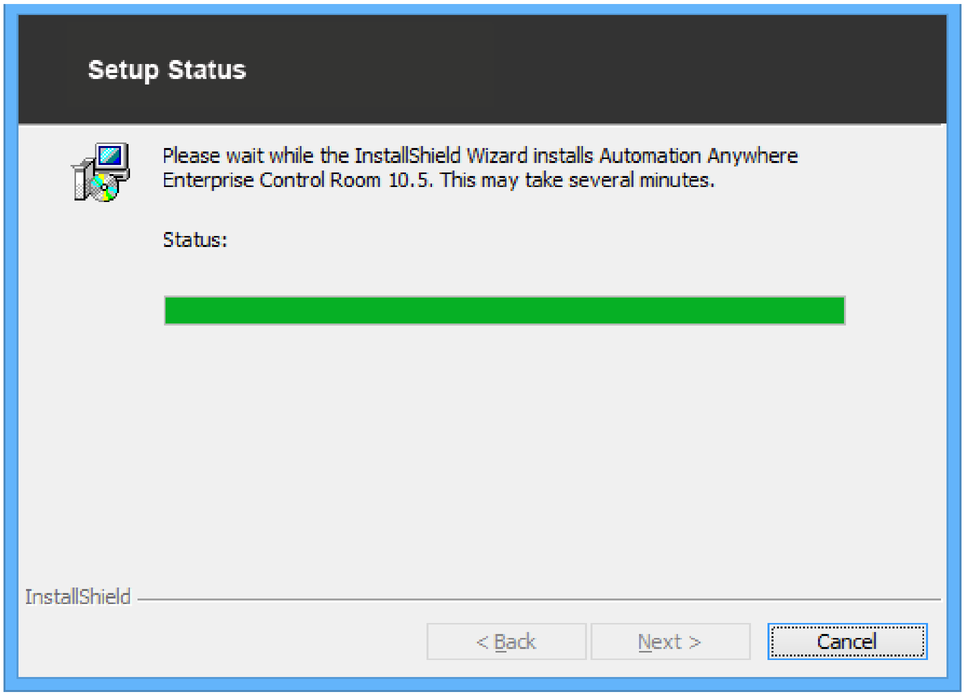
☑ Create Desktop Icon

☑ Create Shortcut in Start menu

☑ Create Migration Utility Desktop Icon

NOTE: All the options are enabled by default.

5. Setup Status screen appears with a bar that indicates amount of progress in installing Control Room. Once the setup status is complete, click **Next**.



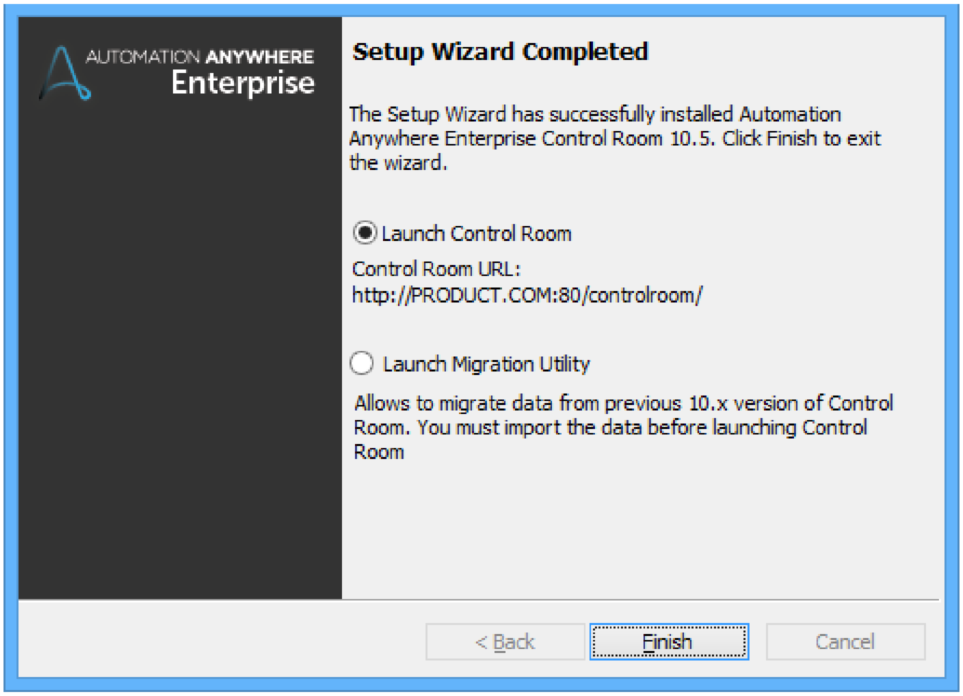
Setup Status

Please wait while the InstallShield Wizard installs Automation Anywhere Enterprise Control Room 10.5. This may take several minutes.

Status:

6. Click *Finish* to complete installing the setup.

   a. **To Launch Control Room**: You can opt for launch the Control Room option if **no data needs to be migrated** from an earlier version (10.x.x) of Control Room.



Setup Wizard Completed

The Setup Wizard has successfully installed Automation Anywhere Enterprise Control Room 10.5. Click Finish to exit the wizard.

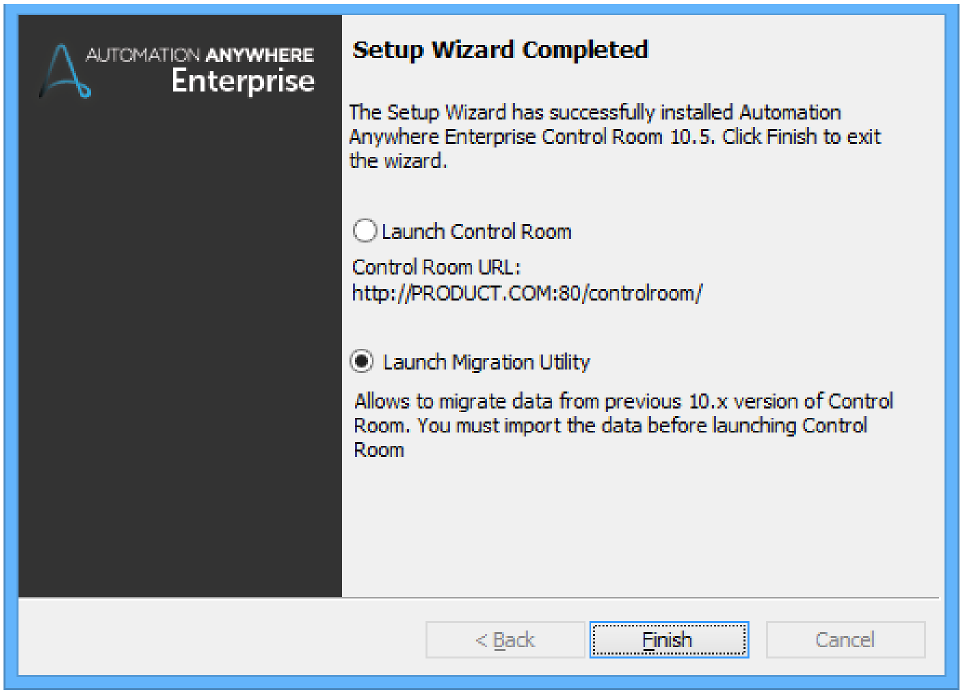
● Launch Control Room

Control Room URL:
http://PRODUCT.COM:80/controlroom/

○ Launch Migration Utility

Allows to migrate data from previous 10.x version of Control Room. You must import the data before launching Control Room

b. **To migrate data**: You can opt to launch the Data Migration Utility to migrate data from an earlier version (10.x.x) of Control Room database.



Setup Wizard Completed

The Setup Wizard has successfully installed Automation Anywhere Enterprise Control Room 10.5. Click Finish to exit the wizard.

○ Launch Control Room

Control Room URL:
http://PRODUCT.COM:80/controlroom/

● Launch Migration Utility

Allows to migrate data from previous 10.x version of Control Room. You must import the data before launching Control Room

NOTE: The Control Room application will launch in the default browser if you opt to 'Launch Control Room'.

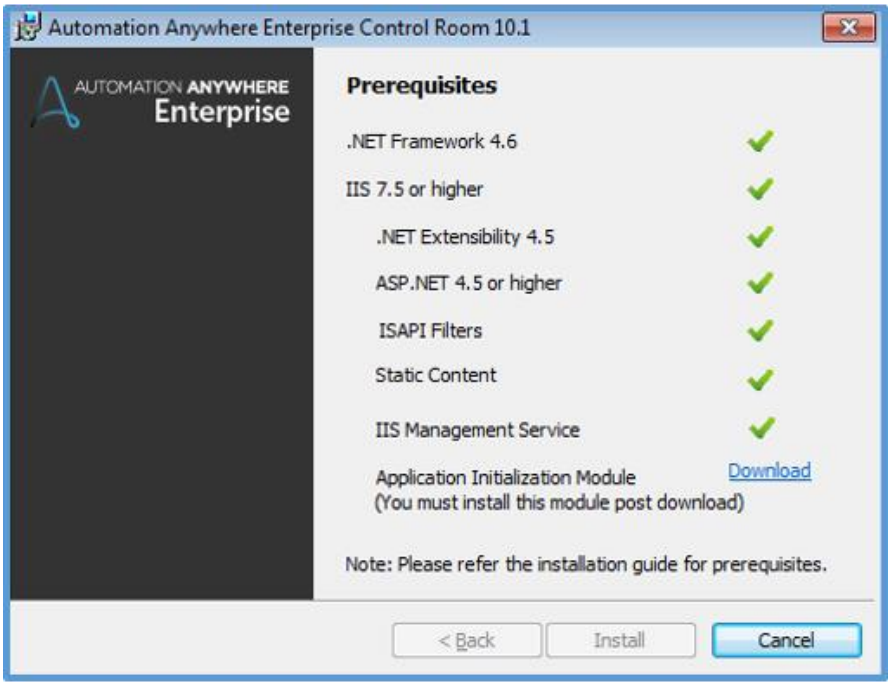
⚠ **Remember!** Note down the Control Room URL as you will require the same post migration to finish the process of configuring Control Room settings.

You can begin using the Control Room by creating a Control Room Admin. For more information, refer Launching Control Room for initial use.

3.3.1 Installing Application Module for Win 7 SP1

In Express Mode of Installation, users with **Windows 7 SP1 or Windows Server 2008 R2** need to manually download and install the Application Initialization Module for IIS 7.5

1. In the Prerequisites screen, click **Download** to download the Application Initialization Module.



Automation Anywhere Enterprise Control Room 10.1

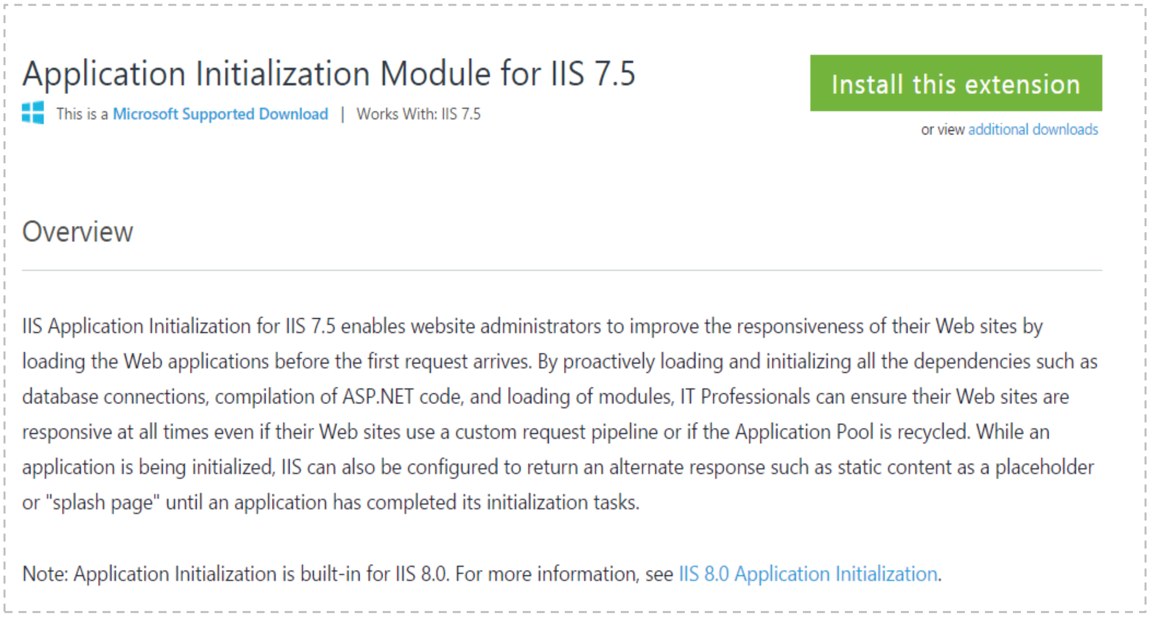
AUTOMATION ANYWHERE Enterprise

Prerequisites

.NET Framework 4.6	✓
IIS 7.5 or higher	✓
.NET Extensibility 4.5	✓
ASP.NET 4.5 or higher	✓
ISAPI Filters	✓
Static Content	✓
IIS Management Service	✓
Application Initialization Module (You must install this module post download)	Download

Note: Please refer the installation guide for prerequisites.

2. In the Application Initialization web-page that is launched in your default browser, click on *Install this extension*.



Application Initialization Module for IIS 7.5

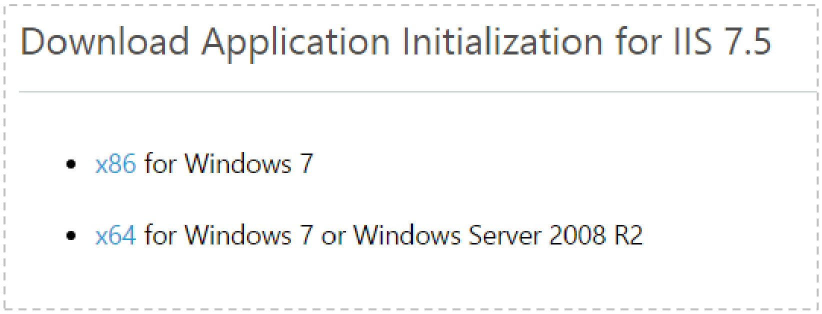
This is a Microsoft Supported Download | Works With: IIS 7.5

Overview

IIS Application Initialization for IIS 7.5 enables website administrators to improve the responsiveness of their Web sites by loading the Web applications before the first request arrives. By proactively loading and initializing all the dependencies such as database connections, compilation of ASP.NET code, and loading of modules, IT Professionals can ensure their Web sites are responsive at all times even if their Web sites use a custom request pipeline or if the Application Pool is recycled. While an application is being initialized, IIS can also be configured to return an alternate response such as static content as a placeholder or "splash page" until an application has completed its initialization tasks.

Note: Application Initialization is built-in for IIS 8.0. For more information, see IIS 8.0 Application Initialization.

NOTE: For Windows 7 SP1 - 32 / 64 bit and Windows 2008 R2 64 bit, you can directly download the extension. Simply scroll down on the above web-page and select the download type:



Download Application Initialization for IIS 7.5

- x86 for Windows 7
- x64 for Windows 7 or Windows Server 2008 R2

- IIS Application Initialization for IIS 7.5 enables website Admin to improve the responsiveness of their Web sites by proactively loading and initializing all the dependencies, such as database connections, compilation of ASP.NET code, and loading of modules.

3.4 Custom Installation

The *Custom* mode of installation enables you to install the Control Room using your choice of settings. It allows for two methods of installation – Standalone and Distributed.

This method of installation is recommended for production environment as it gives you the flexibility to select components for installation – Application or Shared Data & Services or both.

When you configure Application and Shared & Services components together, it is Standalone mode of installation. When you configure these components separately, it is Distributed mode of installation.

The Shared Data & Services component forms the 'Data Tier' of Control Room. On selecting this component, you can install the Control Room files repository and WebSocket Service.

The Application component forms the 'Application Tier' of Control Room. On selecting this component, you can install the Control Room website, Control Room APIs, and the Scheduler service that triggers/monitors task scheduling activities.

It is recommended that you use the Distributed mode of installation as with this mode, 'High Availability' and 'Disaster Recovery' of Control Room can be achieved. However, it requires proper planning and multiple iterations of installation.

- **High Availability (HA)** refers to a system or component that is continuously operational for a desirably long period.

- **Disaster Recovery (DR)** involves a set of policies and procedures to enable the recovery or continuation of vital technology infrastructure and systems following a natural or human-induced disaster.

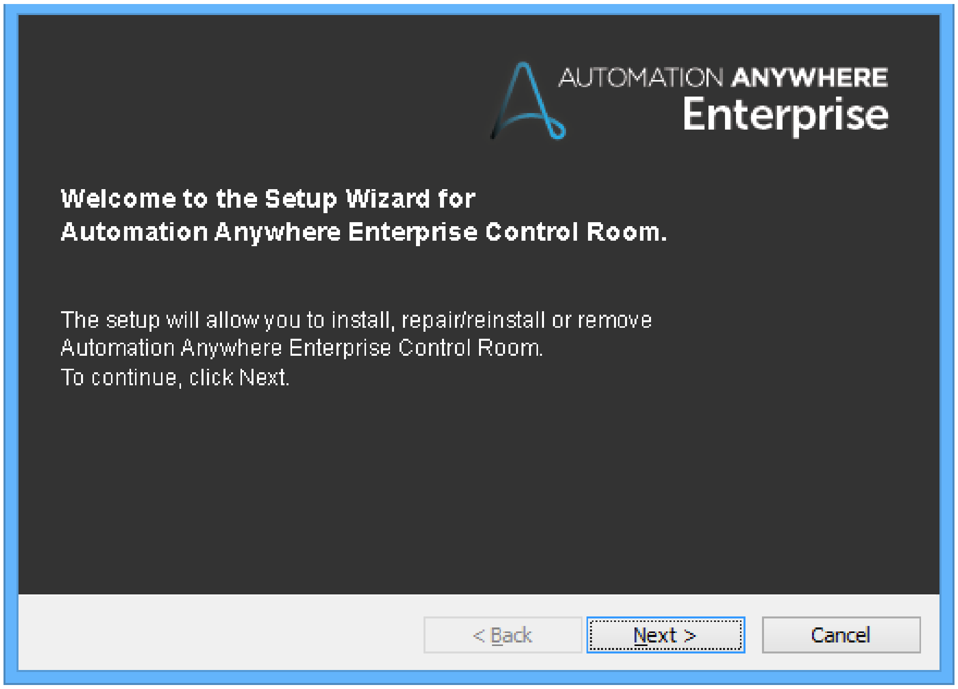
Hence, using the Custom method, you will be able to:

- Choose which component to install – Application or Shared Data & Services or both
- Configure the Website - http or https
- Configure WebSocket – define port and select certificate if https is enabled
- Define Control Room Database and User Credentials
- Select the path of shared Repository
- Define user types – Active Directory or Non-Active Directory
- Choose an installation path

3.5 Custom - Standalone Mode of Installation

To install the Control Room in Custom – Standalone mode, perform the following steps:

1. Run the Setup for Control Room in Admin mode.
2. The Welcome to Setup Wizard page appears. Click **Next**.

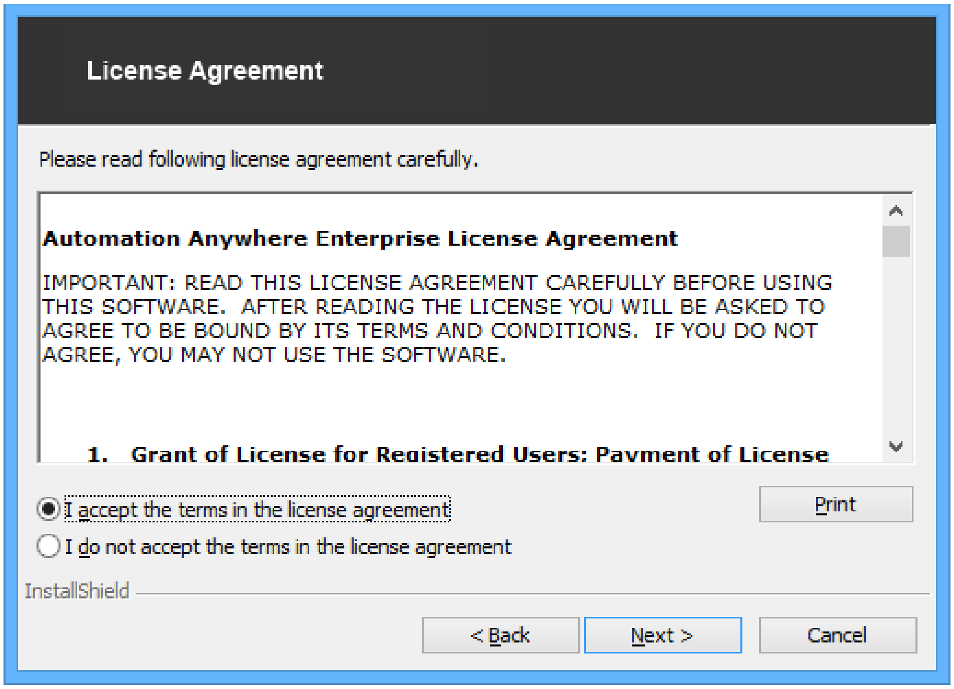


AUTOMATION ANYWHERE Enterprise

Welcome to the Setup Wizard for Automation Anywhere Enterprise Control Room.

The setup will allow you to install, repair/reinstall or remove Automation Anywhere Enterprise Control Room.
To continue, click Next.

3. Accept the terms of licence agreement. Click *Next.*



License Agreement

Please read following license agreement carefully.

Automation Anywhere Enterprise License Agreement

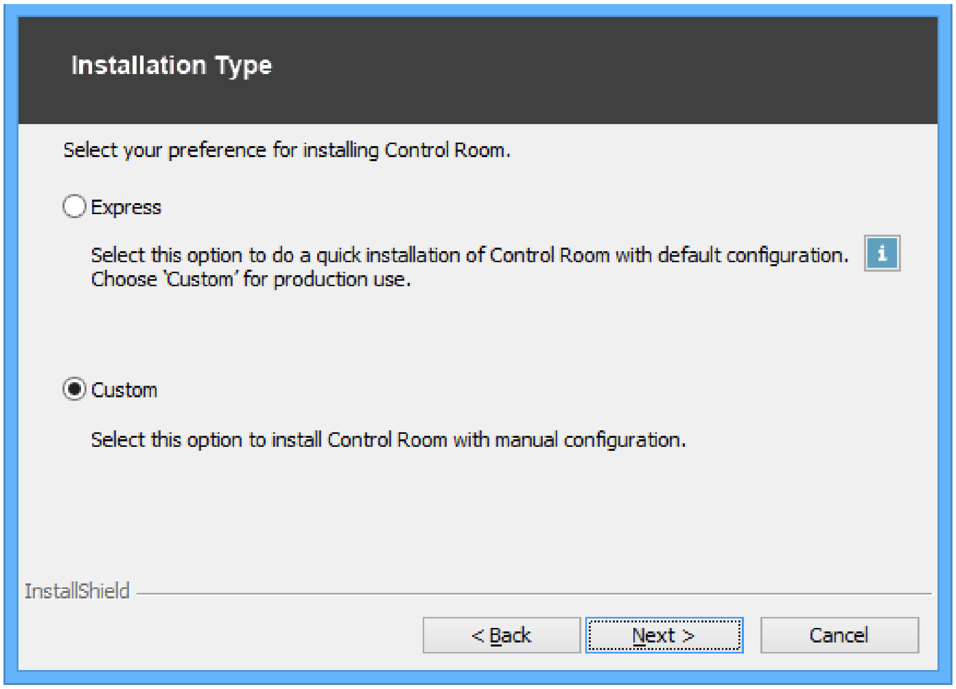
IMPORTANT: READ THIS LICENSE AGREEMENT CAREFULLY BEFORE USING THIS SOFTWARE. AFTER READING THE LICENSE YOU WILL BE ASKED TO AGREE TO BE BOUND BY ITS TERMS AND CONDITIONS. IF YOU DO NOT AGREE, YOU MAY NOT USE THE SOFTWARE.

1. Grant of License for Registered Users: Payment of License

● I accept the terms in the license agreement

○ I do not accept the terms in the license agreement

4. The **Installation Type** page appears. Select **Custom** as your preferred installation type. Click **Next**.



Installation Type

Select your preference for installing Control Room.

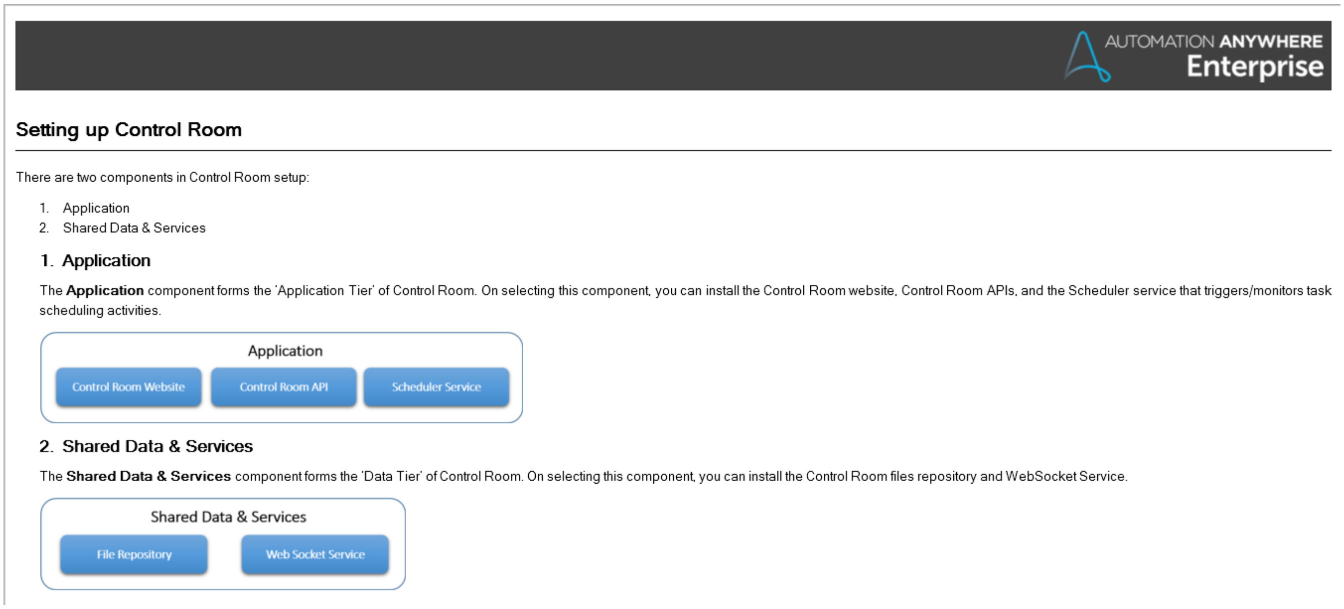
○ Express

Select this option to do a quick installation of Control Room with default configuration. Choose 'Custom' for production use.

● Custom

Select this option to install Control Room with manual configuration.

NOTE: For detailed description on each component and how to setup the Control Room for High Availability and Disaster Recover, click on the info ℹ, the following page is opened.



Setting up Control Room

There are two components in Control Room setup:

1. Application
2. Shared Data & Services

1. Application

The **Application** component forms the 'Application Tier' of Control Room. On selecting this component, you can install the Control Room website, Control Room APIs, and the Scheduler service that triggers/monitors task scheduling activities.

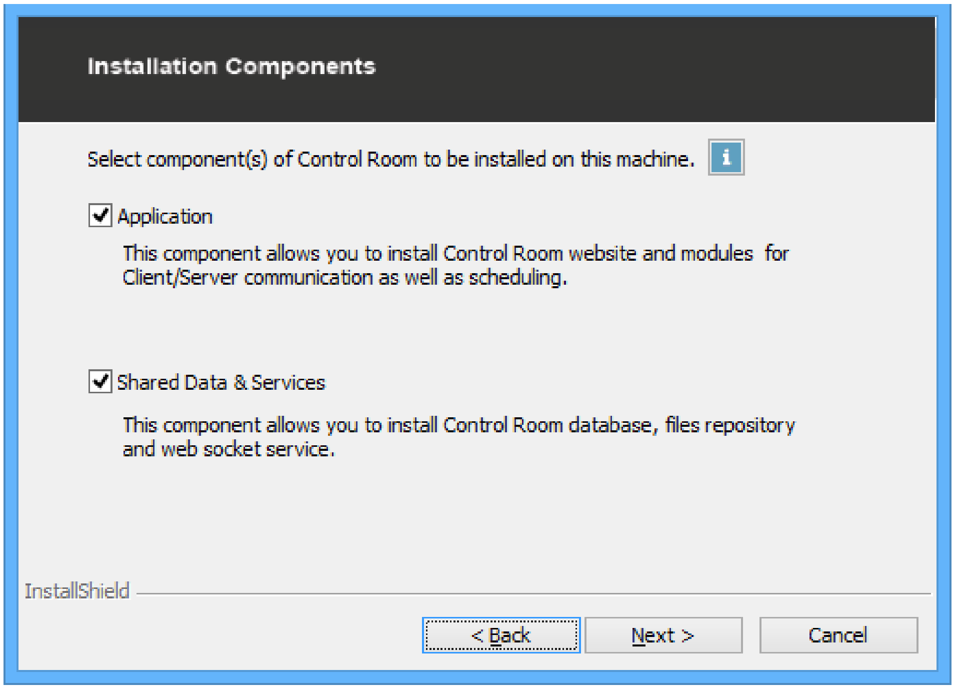
2. Shared Data & Services

The **Shared Data & Services** component forms the 'Data Tier' of Control Room. On selecting this component, you can install the Control Room files repository and WebSocket Service.

5. Close the browser and go back to the components selection page in the setup.

   - Based on component(s) selected for installation, two modes of installation – **Standalone** and **Distributed** – are available. This section describes the **Standalone mode** of installation.

6. Select both the components – Application as well as **Shared Data & Services**.



Installation Components

Select component(s) of Control Room to be installed on this machine.

☑ Application

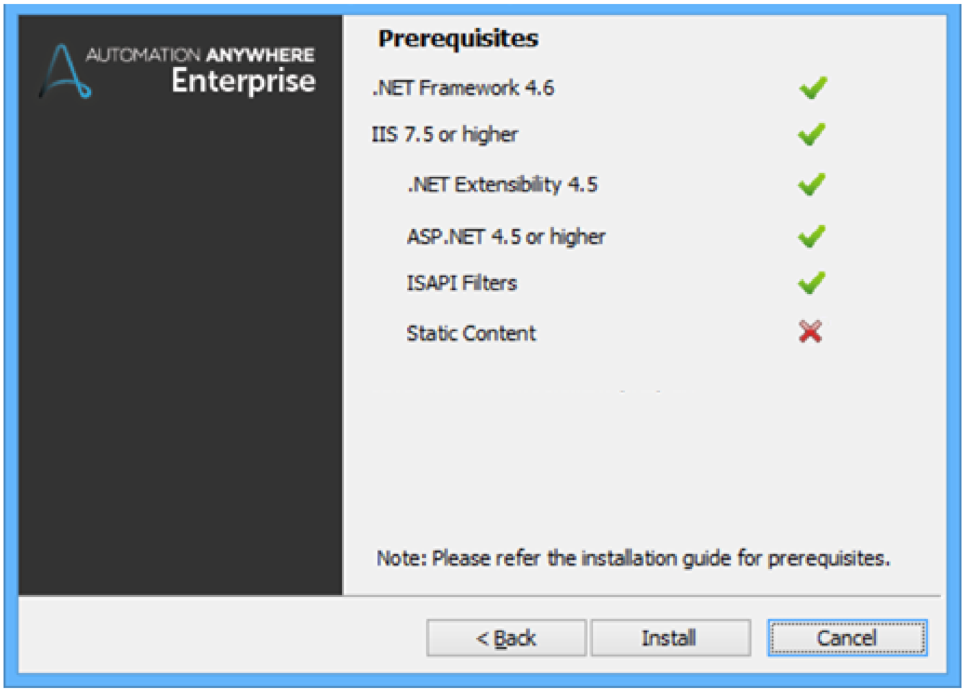
This component allows you to install Control Room website and modules for Client/Server communication as well as scheduling.

☑ Shared Data & Services

This component allows you to install Control Room database, files repository and web socket service.

7. Click **Next**.

   a. If any of the pre-requisite for IIS component is not met, the Prerequisites window appears.



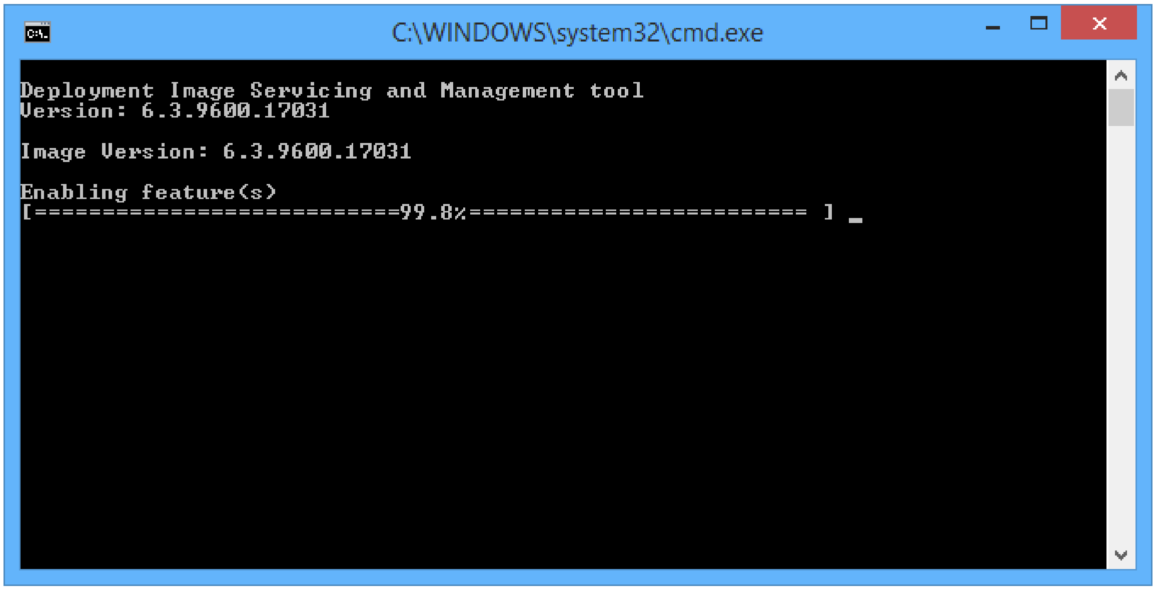
Prerequisites

.NET Framework 4.6	✓
IIS 7.5 or higher	✓
.NET Extensibility 4.5	✓
ASP.NET 4.5 or higher	✓
ISAPI Filters	✓
Static Content	✗

Note: Please refer the installation guide for prerequisites.

NOTE: An ✗ mark indicates that the component is not installed.

   b. Click *Install*. This will install all missing prerequisites.

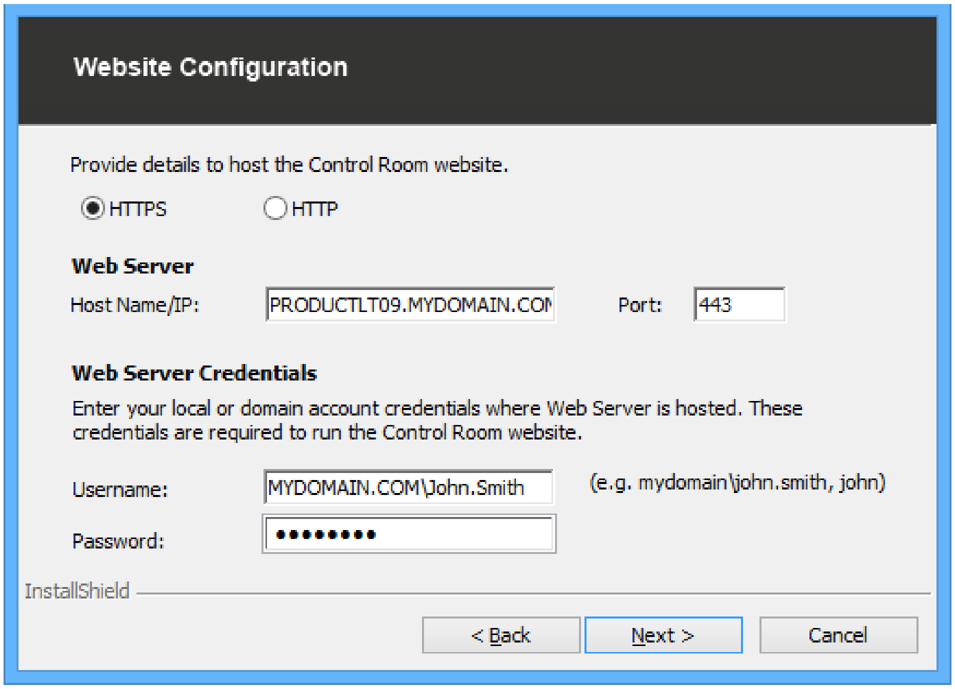


```
Deployment Image Servicing and Management tool
Version: 6.3.9600.17031

Image Version: 6.3.9600.17031

Enabling feature(s)
[==========================99.8%========================= ] _
```

8. Once all prerequisites are detected/installed, the *Website Configuration* page appears where you can provide details to host the Control Room website.


Website Configuration

Provide details to host the Control Room website.

● HTTPS ○ HTTP

Web Server

Host Name/IP: PRODUCTLT09.MYDOMAIN.COM Port: 443

Web Server Credentials

Enter your local or domain account credentials where Web Server is hosted. These credentials are required to run the Control Room website.

Username: MYDOMAIN.COM\John.Smith (e.g. mydomain\john.smith, john)

Password: ••••••••

1. Select *HTTP* or *HTTPS*.
   If you wish to configure a secured site, select *HTTPS*. Refer section on Site Bindings to learn more.
   TIP: Ensure to append the domain name when configuring the Control Room in a multi-domain environment.

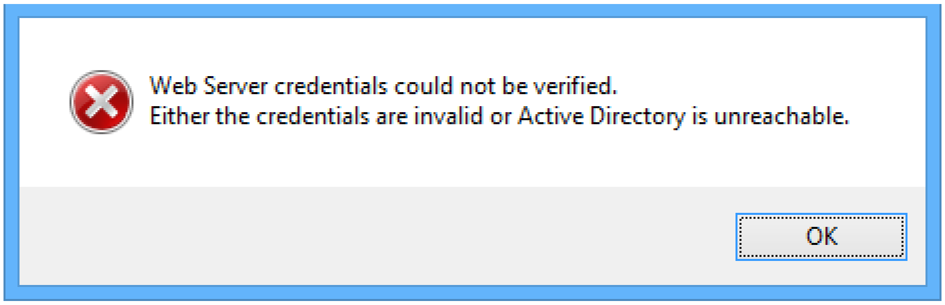
2. Type the *Web Server Hostname*; an IP or Server name.
   NOTE: By default, it displays fully qualified name of the local machine.

3. Insert the *Web Server Port* number. By default, the port is set to 80 (for HTTP) or 443 (for HTTPS).
   NOTE: It should be between 1 and 65535. Change the port if it is already in use.

4. Type your *Web Server Credentials*. These credentials are the ones used for your server's Application Pool Identities. It can be either your local account or domain account where the Web Server shall be hosted. However, if you are hosting the Control Room with Active Directory Authentication (Step 12), we recommend that you use your domain account credentials for the server's Application Pool.

NOTE: These credentials are required for an Account with Admin privileges. These will be your Windows credentials.

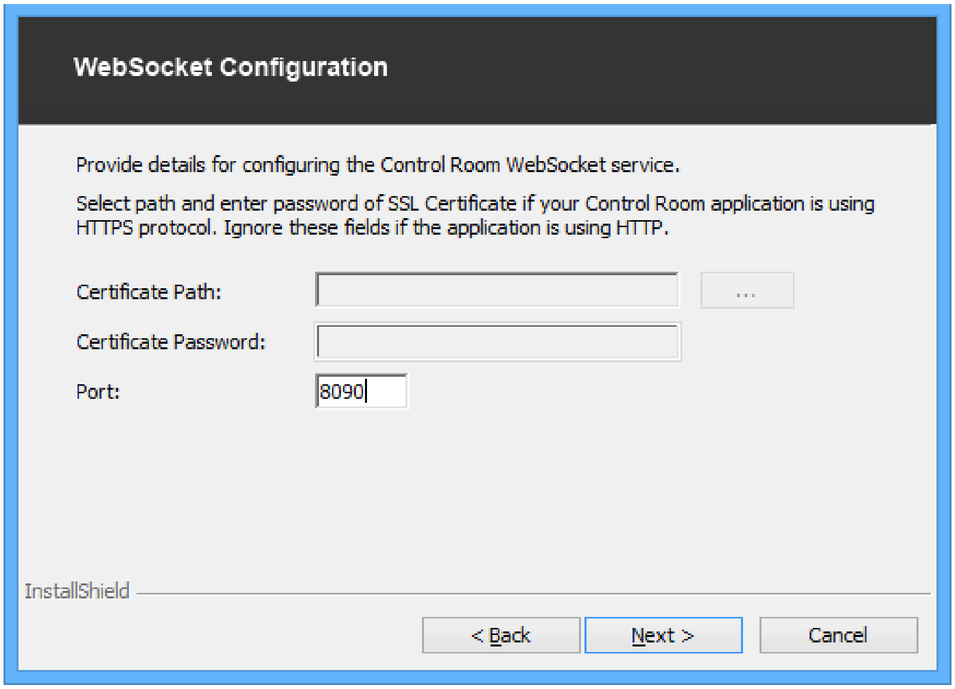
When you type incorrect credentials or if the Active Directory is unreachable, an error appears:



Web Server credentials could not be verified.
Either the credentials are invalid or Active Directory is unreachable.

5. Click Ok and take appropriate action – type correct credentials or reach out to your IT administrator to check Active Directory connections.

9. Click Next in the Website Configuration page.
10. A *WebSocket Configuration* page appears wherein you must provide details for configuring the Websocket service:



WebSocket Configuration

Provide details for configuring the Control Room WebSocket service.

Select path and enter password of SSL Certificate if your Control Room application is using HTTPS protocol. Ignore these fields if the application is using HTTP.

Certificate Path:

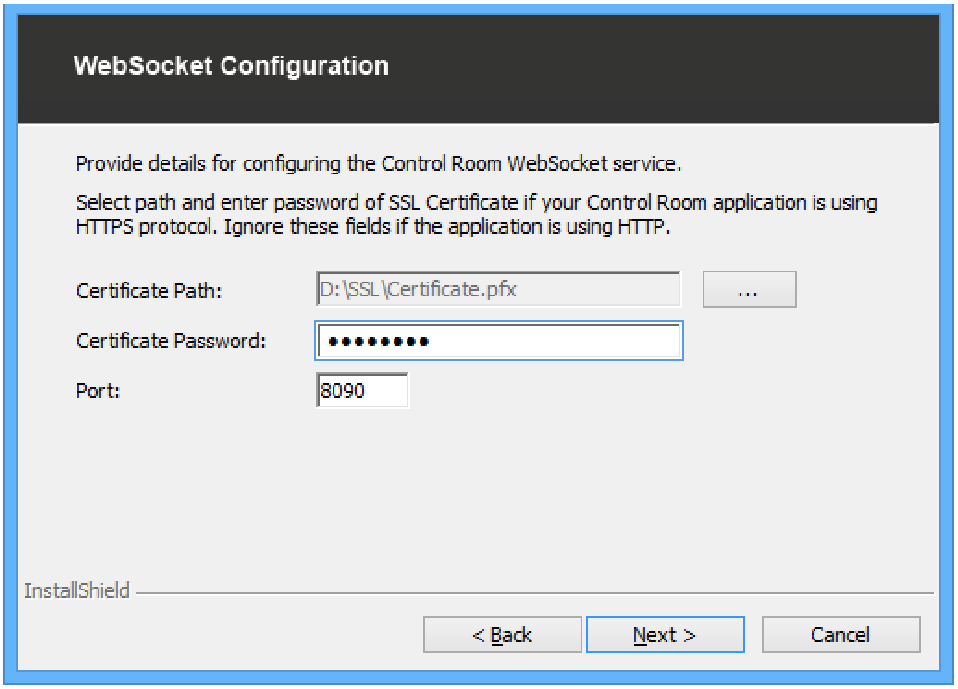
Certificate Password:

Port: 8090

a. If you have chosen *HTTP* in Website Configurations, only the *Port* needs to be configured:
   NOTE: By default, it is set to '8090' and is used to host WebSocket Service. Change the port if it is already in use.

b. For *HTTPS*, you need to specify the Certificate Path and Password.
   NOTE: It is recommended to use the Personal Information Exchange (PFX) format certificate type. If you do not

have a PFX certificate, refer the section on Converting Certificates to PFX Format.



Provide details for configuring the Control Room WebSocket service.

Select path and enter password of SSL Certificate if your Control Room application is using HTTPS protocol. Ignore these fields if the application is using HTTP.

Certificate Path: D:\SSL\Certificate.pfx

Certificate Password: ••••••••

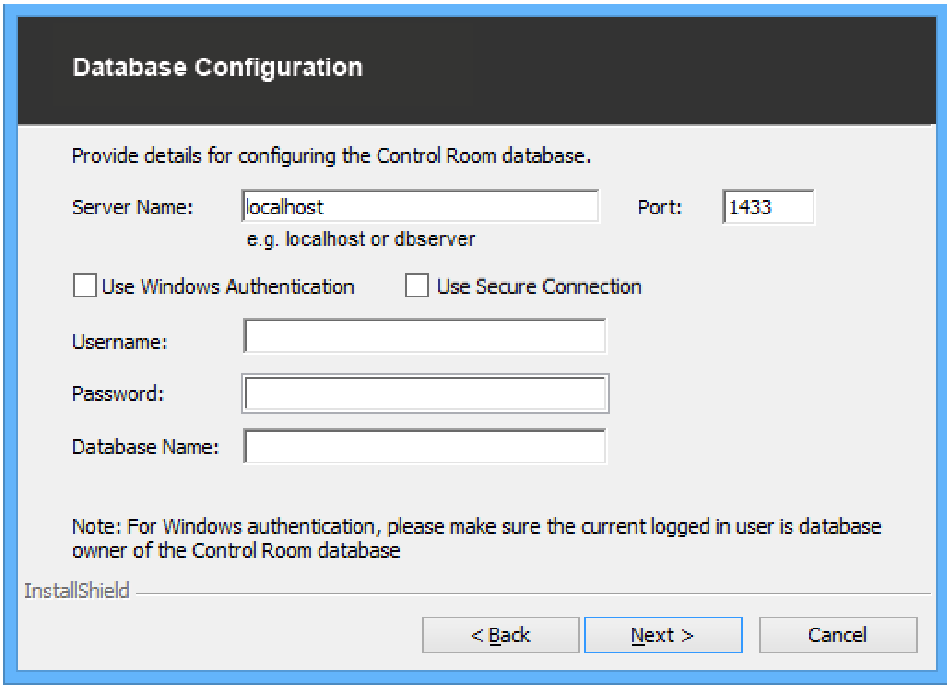
Port: 8090

I. Browse to the folder and select the certificate file.
NOTE: The IIS that will host the Control Room website must have the SSL/TLS certificate installed. SSL/TLS certificate enables an encrypted connection between the web server and a browser. It also authenticates the identity of the website (Control Room in this case). Refer section on Site Bindings to learn more.

II. Enter the password for the certificate and the port.

11. Click *Next*.

12. A Database Configuration page appears. Input required data for configuring the Control Room database.
NOTE: If you are creating a dedicated SQL user or using an existing SQL user, provide the user database ownership privileges to Control Room database. Also, a fully qualified name should be specified as the **Server Name**.
E.g. SQLSERVER.MY-DOMAIN.COM\AACRSQLEXPRESS



Database Configuration

Provide details for configuring the Control Room database.

Server Name: localhost Port: 1433

e.g. localhost or dbserver

□ Use Windows Authentication □ Use Secure Connection

Username:

Password:

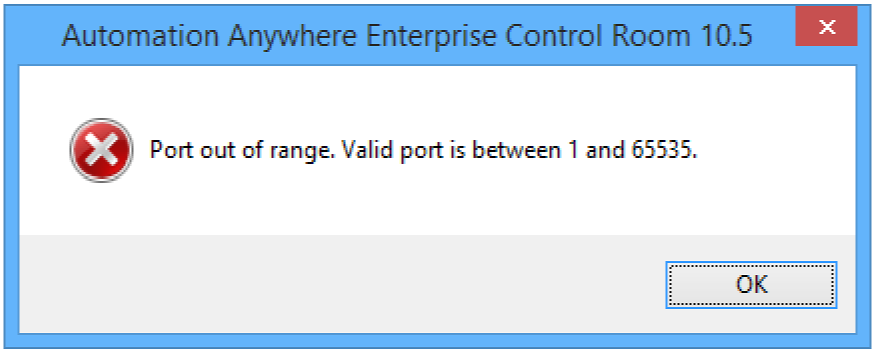
Database Name:

Note: For Windows authentication, please make sure the current logged in user is database owner of the Control Room database

NOTE: The default server provided is 'localhost'. You can update it to 'dbserver'.

a. Enter the port number. By default, it is set to 1433 for Microsoft SQL Server.

NOTE: It should be between 1 and 65535. If you input an invalid port, the following message appears:



Automation Anywhere Enterprise Control Room 10.5

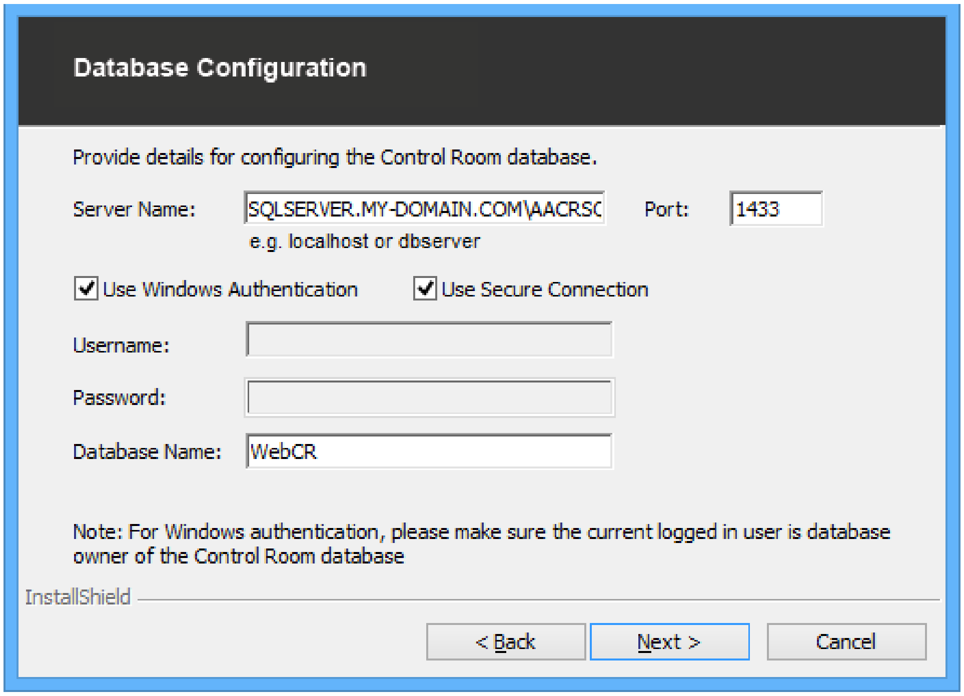
Port out of range. Valid port is between 1 and 65535.

The port can be changed from SQL Server Configuration Manager. Refer the section on Enabling SQL Server Configuration for details.

b. Select the *Database Admin* type to create an account to access the Control Room database. This must be created prior to configuring the Control Room.

i. Select the option **Use Windows Authentication** if you have configured Windows users to an existing instance of the SQL Server. Here, the Username and Password fields are pre-filled and disabled. You simply input a Database Name.
NOTE: Ensure the database user defined for authentication has ownership privileges to the Control Room database.

ii. Select the option **Use Secure Connection** to connect SQL in a secure mode if the SQL Server is configured with an SSL certificate. This ensures that there is no compromise of data or any security risk between Control Room and SQL Server communication.



Database Configuration

Provide details for configuring the Control Room database.

Server Name: SQLSERVER.MY-DOMAIN.COM\AACRSC Port: 1433

e.g. localhost or dbserver

☑ Use Windows Authentication ☑ Use Secure Connection

Username:

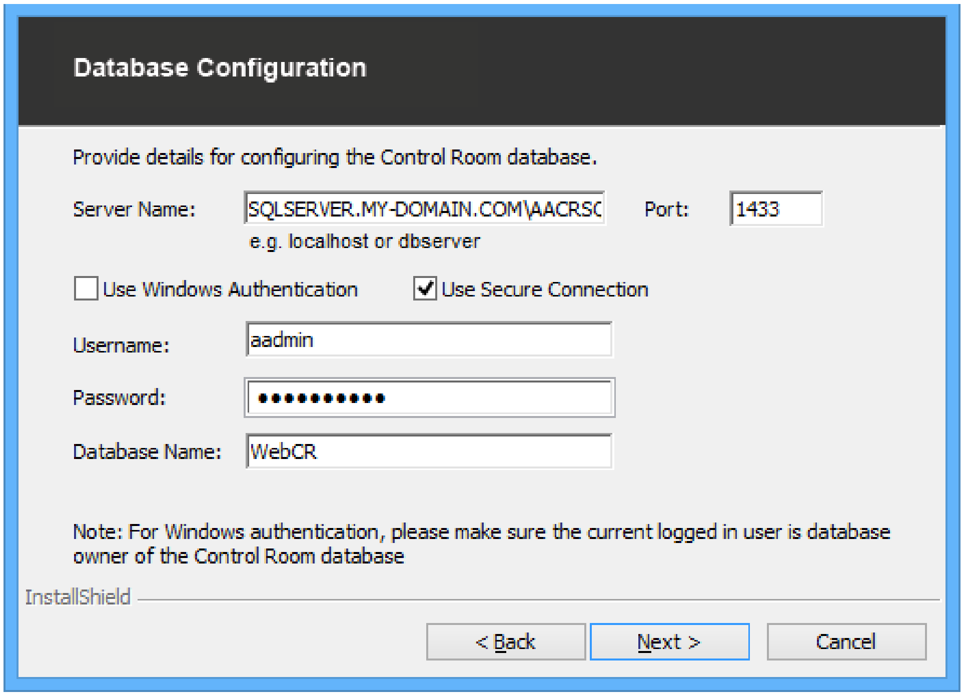
Password:

Database Name: WebCR

Note: For Windows authentication, please make sure the current logged in user is database owner of the Control Room database

NOTE: The **Use Secure Connection** option remains unchecked/clear by default.

iii. Enter the *Username, Password, and Database Name* to connect to the SQL Server using the default database Admin credentials.



Database Configuration

Provide details for configuring the Control Room database.

Server Name: SQLSERVER.MY-DOMAIN.COM\AACRSC Port: 1433

e.g. localhost or dbserver

□ Use Windows Authentication ☑ Use Secure Connection

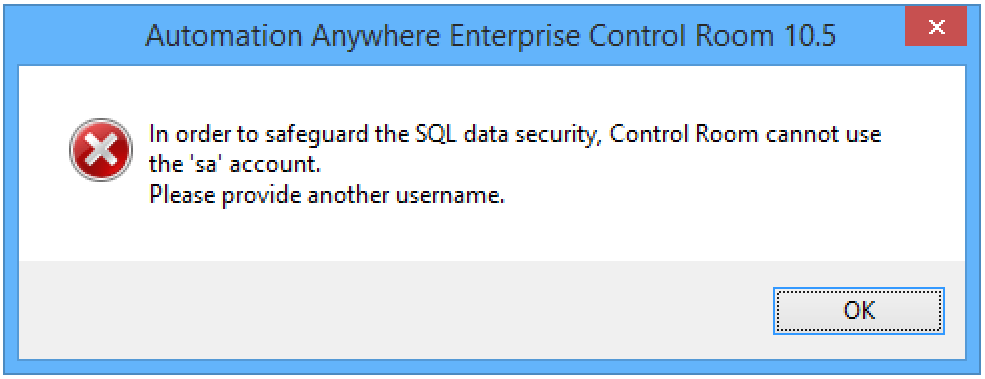
Username: aadmin

Password: ●●●●●●●●●●●

Database Name: WebCR

Note: For Windows authentication, please make sure the current logged in user is database owner of the Control Room database

- If you use 'sa' as the default database administrator, the following message appears:

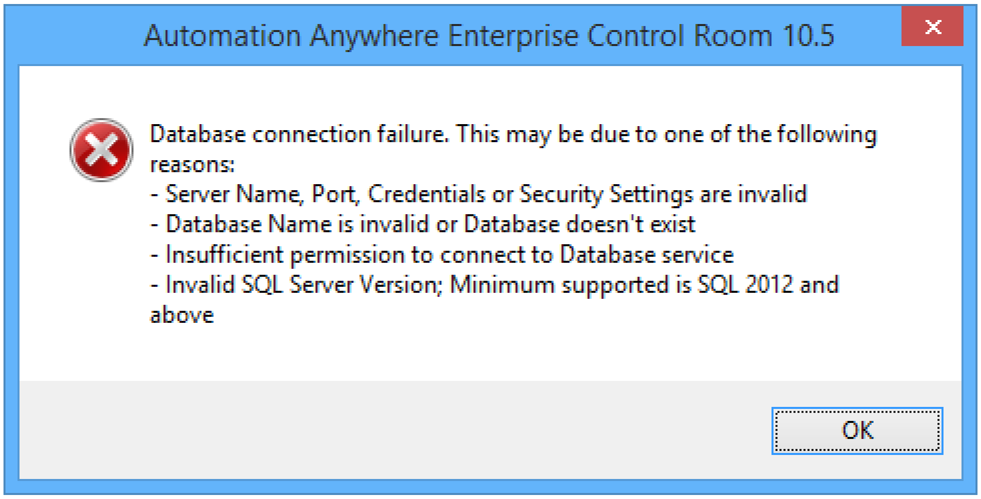


Automation Anywhere Enterprise Control Room 10.5

In order to safeguard the SQL data security, Control Room cannot use the 'sa' account.
Please provide another username.

To ensure SQL data security, it is important that you create and configure another database account with same privileges as the default **'sa'** account.

- If there is a connection error to database or if you use incorrect credentials, an error message appears:

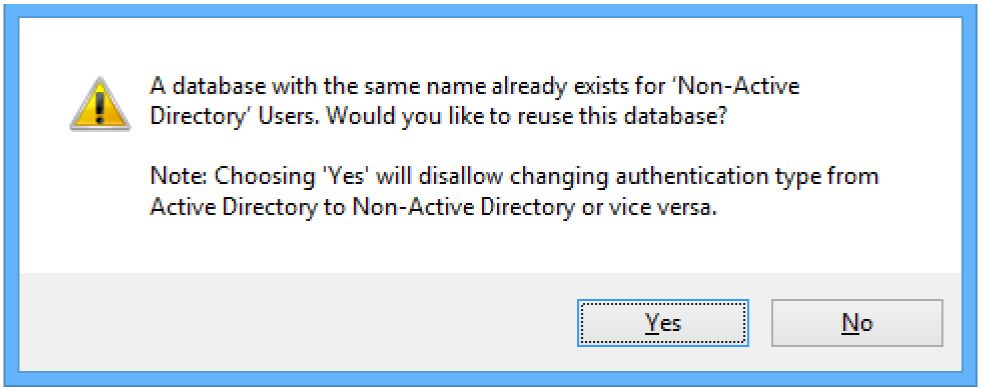


Automation Anywhere Enterprise Control Room 10.5

Database connection failure. This may be due to one of the following reasons:
- Server Name, Port, Credentials or Security Settings are invalid
- Database Name is invalid or Database doesn't exist
- Insufficient permission to connect to Database service
- Invalid SQL Server Version; Minimum supported is SQL 2012 and above

Click *OK* to go back to Database Configuration.

- If the database name already exists, a warning message appears:



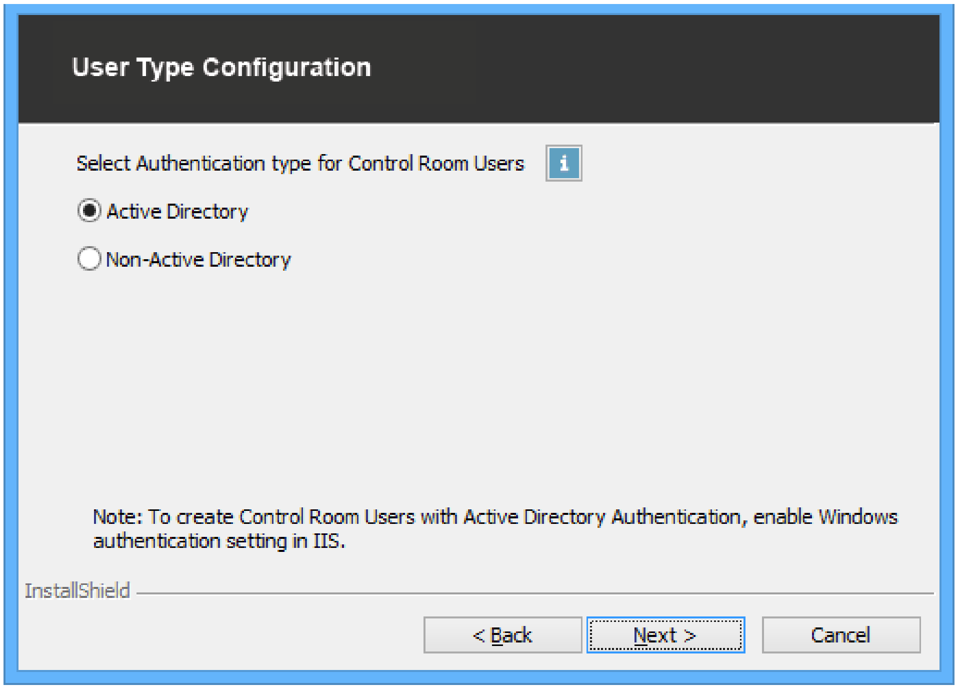
A database with the same name already exists for 'Non-Active Directory' Users. Would you like to reuse this database?

Note: Choosing 'Yes' will disallow changing authentication type from Active Directory to Non-Active Directory or vice versa.

a. Click on *No* to select a new database. The Database Configuration page re-appears. Input a new Database name and Click *Next*. You must now configure a *User Type*.
NOTE: This step is also applicable to Control Room that is installed for the first time.

b. The Control Room database can be configured to allow creating either *Active Directory (AD)* users or *Non-Active Directory (non-AD)* users.

13. Select User Type to configure in Control Room.



User Type Configuration

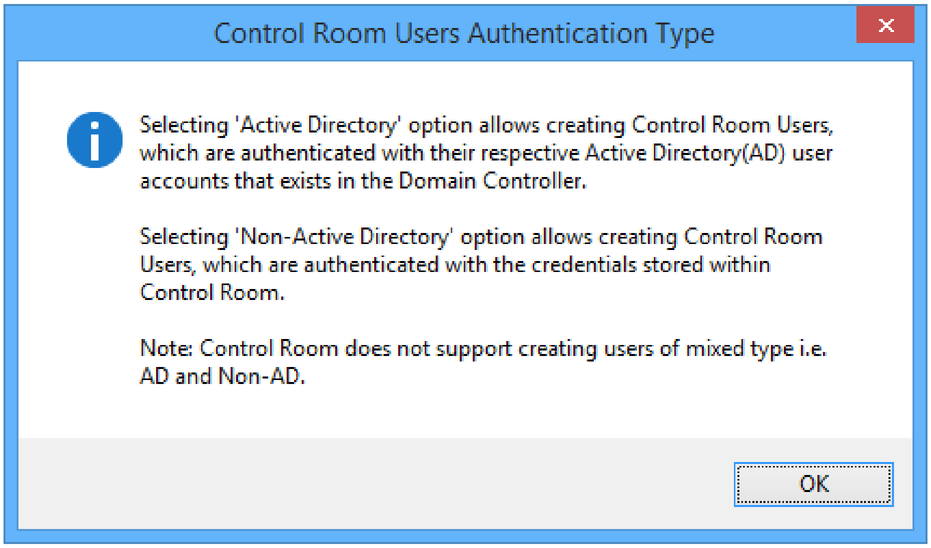
Select Authentication type for Control Room Users

● Active Directory

○ Non-Active Directory

Note: To create Control Room Users with Active Directory Authentication, enable Windows authentication setting in IIS.

TIP: Click on the information icon for more information on selecting the type of authentication for your environment.



Control Room Users Authentication Type

Selecting 'Active Directory' option allows creating Control Room Users, which are authenticated with their respective Active Directory(AD) user accounts that exists in the Domain Controller.

Selecting 'Non-Active Directory' option allows creating Control Room Users, which are authenticated with the credentials stored within Control Room.

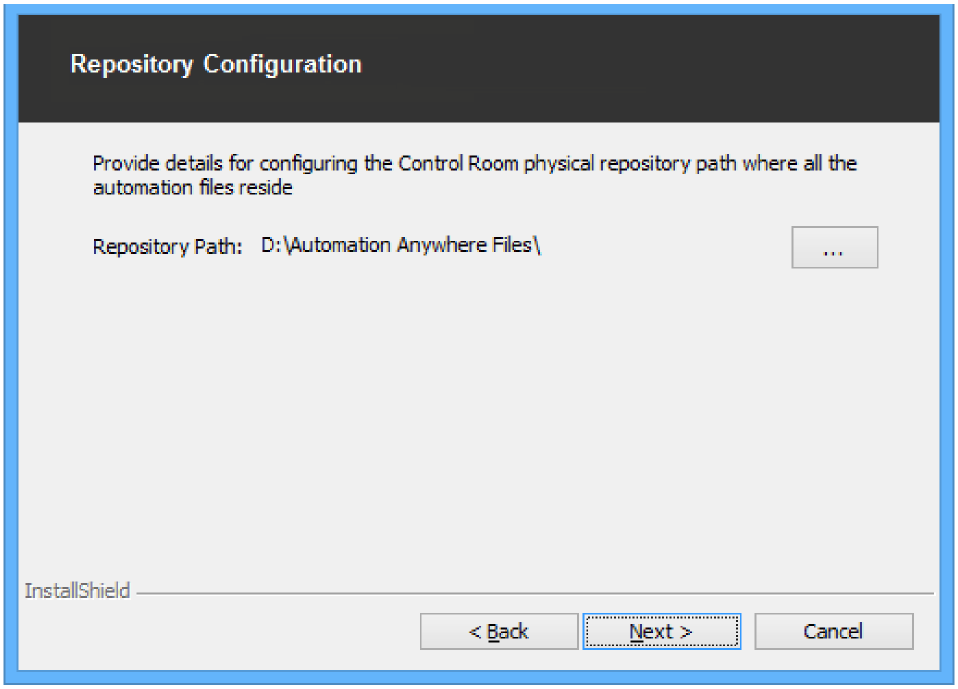
Note: Control Room does not support creating users of mixed type i.e. AD and Non-AD.

- Active Directory Users – Use this option when you would want the Client users of a specific domain to be authenticated with their Active Directory credentials.
- Non-Active Directory Users – Use this option when you would want the Client users to be authenticated using the Control Room database.

a. Click OK to return to the *User Type Configuration* page and select the User type.

b. Click *Next*.

14. The *Repository Configuration* page appears wherein you can set the Control Room Repository path. This is where your Automation Anywhere files are stored. You can opt to change the path in the installer by clicking the browse button.



Repository Configuration

Provide details for configuring the Control Room physical repository path where all the automation files reside

Repository Path: D:\Automation Anywhere Files\

This configuration is available to users who are installing the Control Room with a new database.

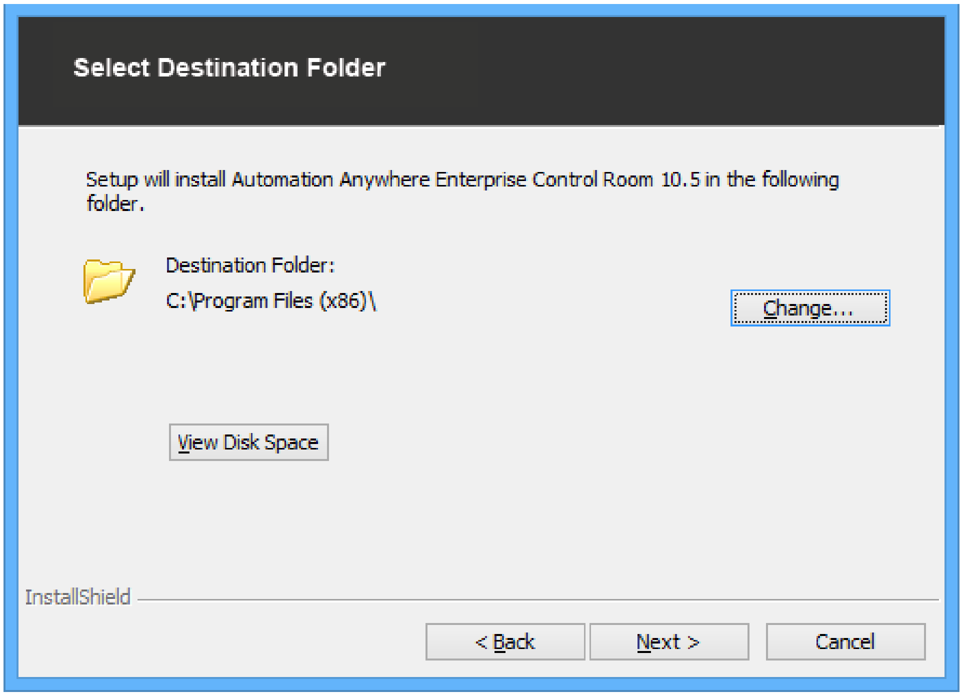
You must have required access privileges to a folder that you choose as Repository. The default path is set to: "C:\Users\Public\Documents\Automation Anywhere Server Files".

TIP: You can also opt to edit the path from the Control Room settings, post installation.

- Click *Yes* to continue using the same database with default user types and click *Next*.

15. The *Select Destination Folder* page appears. Here, you can select the destination folder to install the Control Room application files.

NOTE: By default, Control Room will be installed in C:\Program Files (X86)\

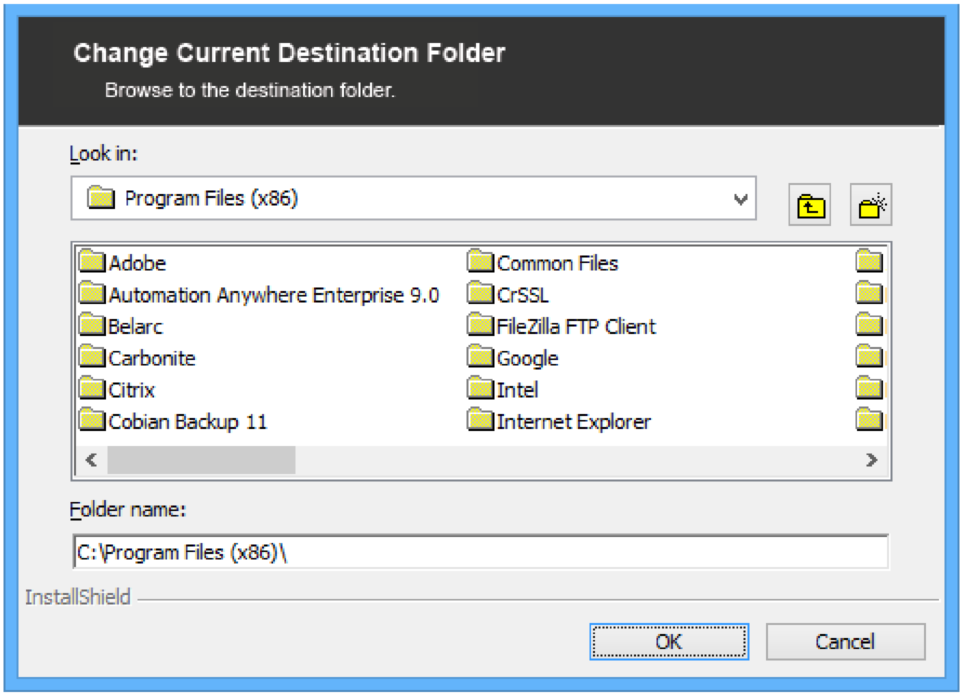


Select Destination Folder

Setup will install Automation Anywhere Enterprise Control Room 10.5 in the following folder.

Destination Folder:
C:\Program Files (x86)\

a. Click *Change* if you want to change the destination folder.

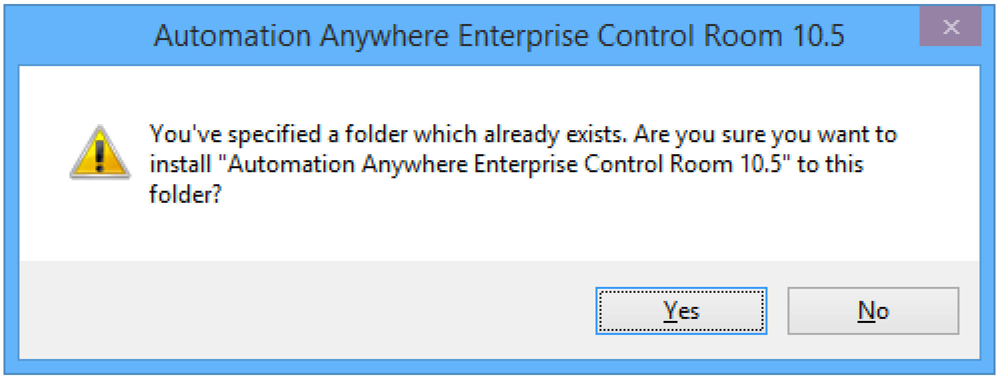


Change Current Destination Folder

Browse to the destination folder.

C:\Program Files (x86)\

- If an earlier instance of Control Room was installed, you can select an existing folder. However, a warning message appears:

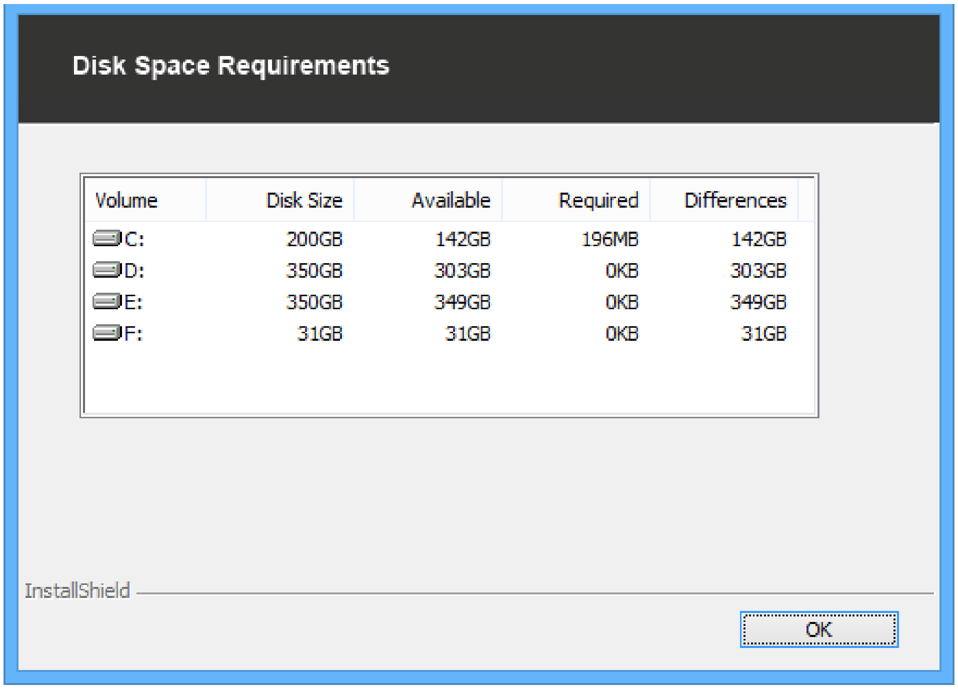


Automation Anywhere Enterprise Control Room 10.5

You've specified a folder which already exists. Are you sure you want to install "Automation Anywhere Enterprise Control Room 10.5" to this folder?

Select *No* to create another folder or *Yes* to use the existing folder.

b. Click *View Disk Space* in the Select Destination Folder page to view the disk space availability.



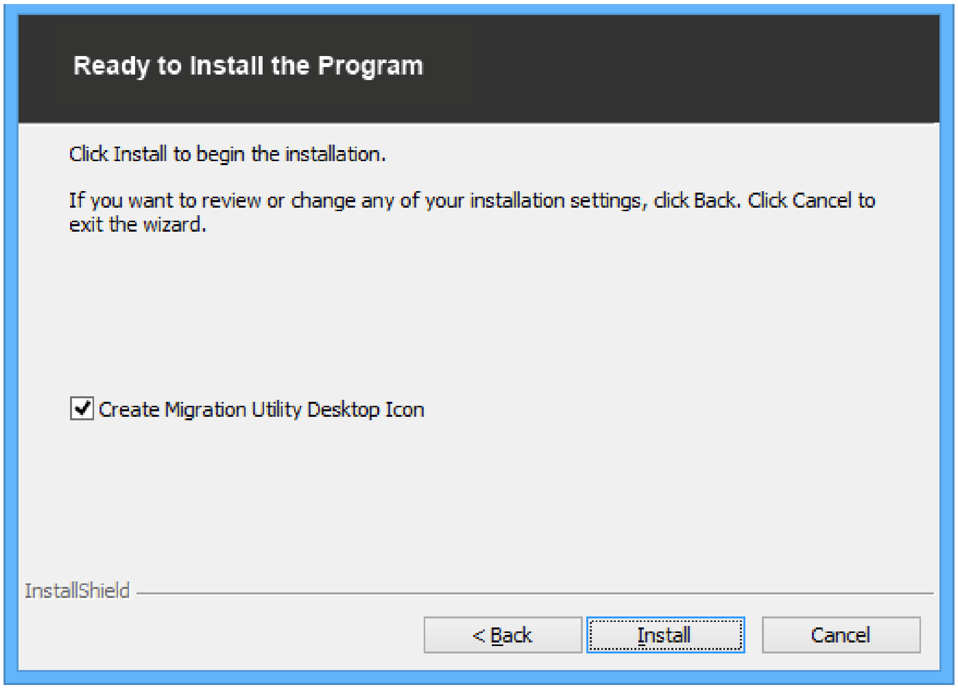
Disk Space Requirements

Volume	Disk Size	Available	Required	Differences
C:	200GB	142GB	196MB	142GB
D:	350GB	303GB	0KB	303GB
E:	350GB	349GB	0KB	349GB
F:	31GB	31GB	0KB	31GB

c. Click *OK* to return to the *Select Destination* page.

16. Click *Next*.

17. A Ready to install the Program page appears.



Ready to Install the Program

Click Install to begin the installation.

If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.

☑ Create Migration Utility Desktop Icon

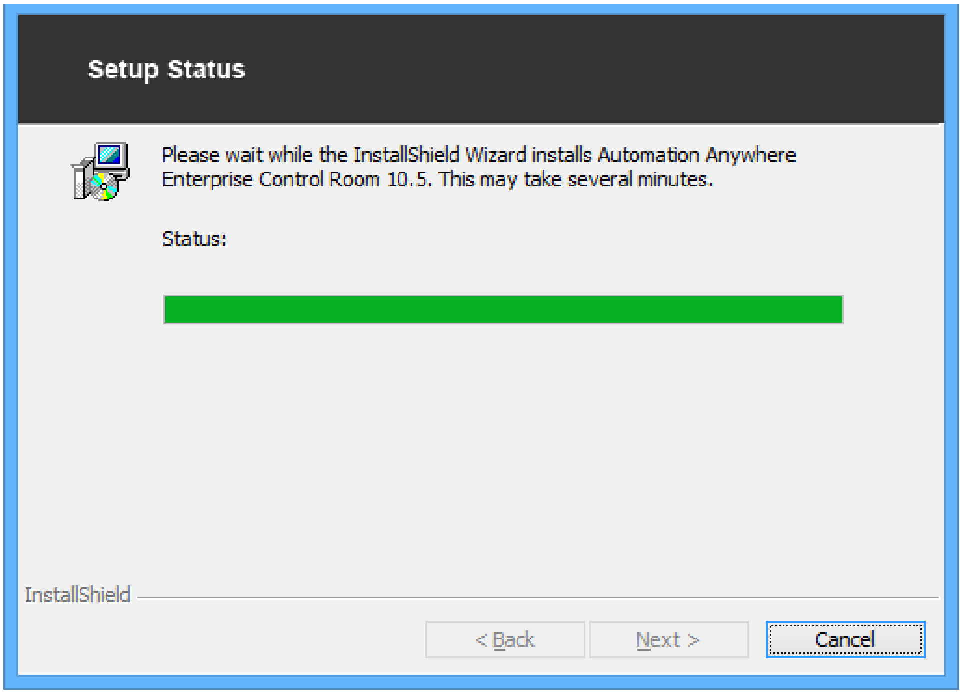
By default, the Create Migration Utility option is enabled. This allows you to create a shortcut on desktop to access the Data Migration Utility that is used to migrate data from an earlier version of the Control Room database.

For details, refer the AAE Migration Utility Guide shipped with the product.

TIP: Disable the option if you do not have a database to migrate.

18. Click **Install**

19. The next page allows you to track setup status.



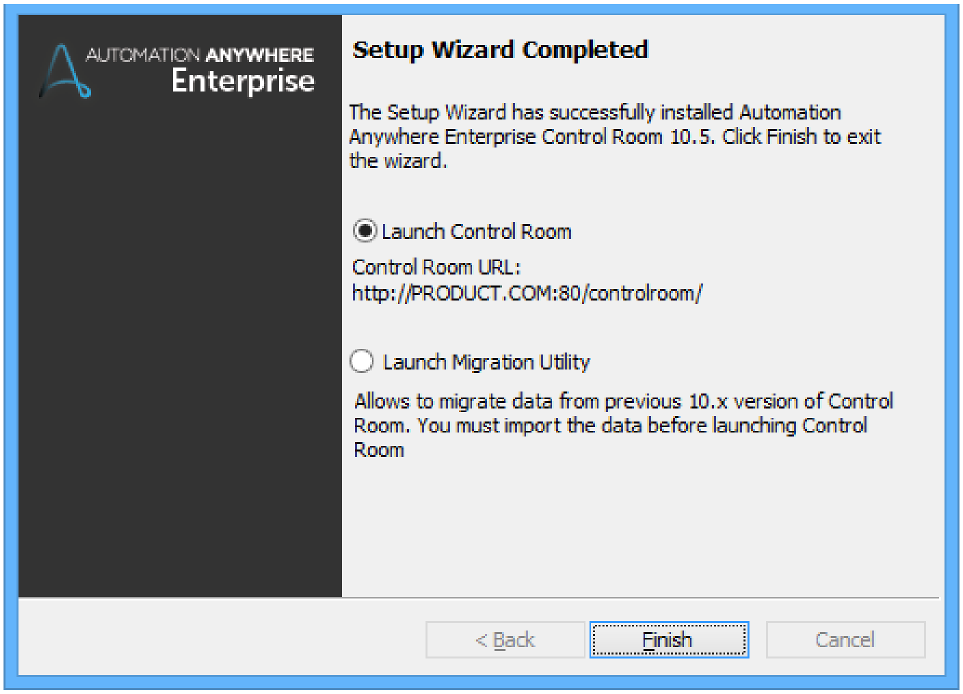
Setup Status

Please wait while the InstallShield Wizard installs Automation Anywhere Enterprise Control Room 10.5. This may take several minutes.

Status:

20. Now you can select to *launch* either the data *Migration Utility* or the *Control Room*.

    a. Select **Launch Control Room** if no data needs to be migrated from an earlier version (10.x.x) of Control Room.



Setup Wizard Completed

The Setup Wizard has successfully installed Automation Anywhere Enterprise Control Room 10.5. Click Finish to exit the wizard.

● Launch Control Room

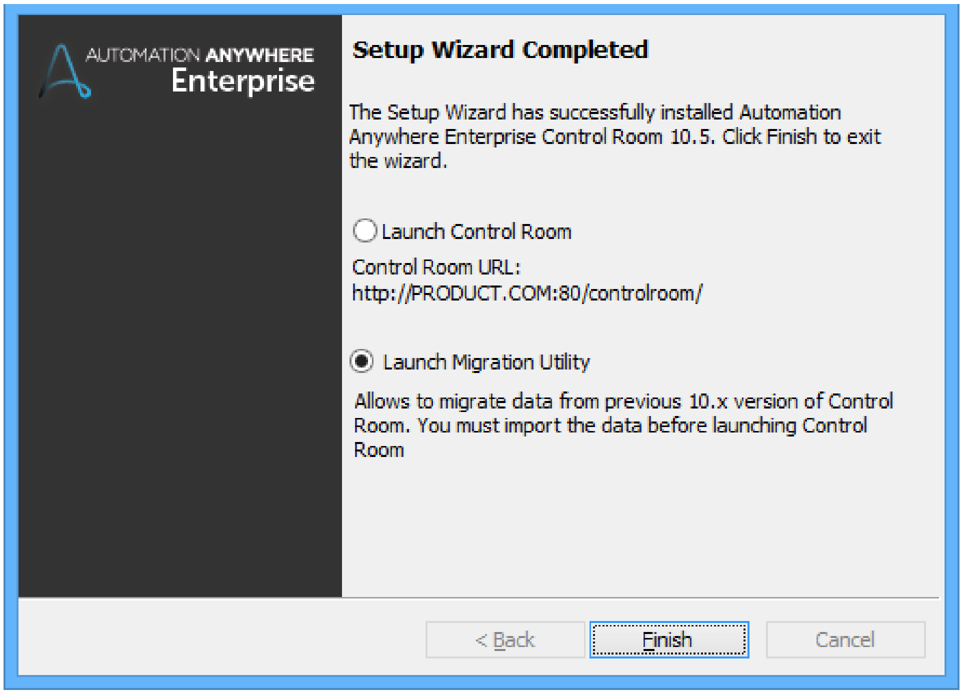
Control Room URL:
http://PRODUCT.COM:80/controlroom/

○ Launch Migration Utility

Allows to migrate data from previous 10.x version of Control Room. You must import the data before launching Control Room

NOTE: The Control Room application will launch in the default browser.

b. Select **Launch Migration Utility** to migrate data from an earlier version (10.x.x) of Control Room database.



Setup Wizard Completed

The Setup Wizard has successfully installed Automation Anywhere Enterprise Control Room 10.5. Click Finish to exit the wizard.

○ Launch Control Room

Control Room URL:
http://PRODUCT.COM:80/controlroom/

● Launch Migration Utility

Allows to migrate data from previous 10.x version of Control Room. You must import the data before launching Control Room

⚠ **Remember!** Note down the Control Room URL as you will require the same post migration to finish the process of configuring Control Room settings.

21. Click *Finish* to complete the installation process.

This concludes your installation in Custom – Standalone mode. You can now create a Control Room Admin. Refer the section on Setting up Control Room Post Installation.

3.6 Custom - Distributed Mode of Installation

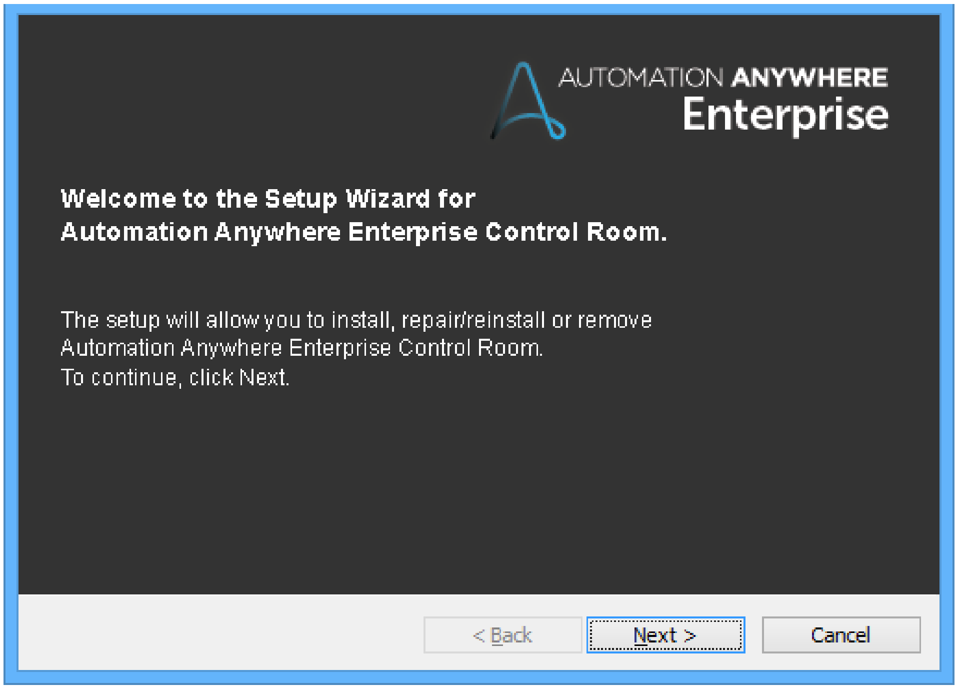
Prerequisite: Before running the setup in this mode ensure that the folder, which will be used to store Control Room files repository is shared across the network and the network drive is mapped.

In a Multi-Domain User environment ensure all components - Application and the Data layer of Control Room are installed in the same domain. However, both components should be installed on separate machines.

Tip: To ensure seamless connectivity between AAE Clients and Control Room, please follow the steps mentioned in Section 3.6.3 after installing the Application Layers.

The following describes steps to install the Control Room in Custom mode:

1. Run the Setup for Control Room in Admin mode.
2. The Welcome to Setup Wizard page appears. Click *Next*.

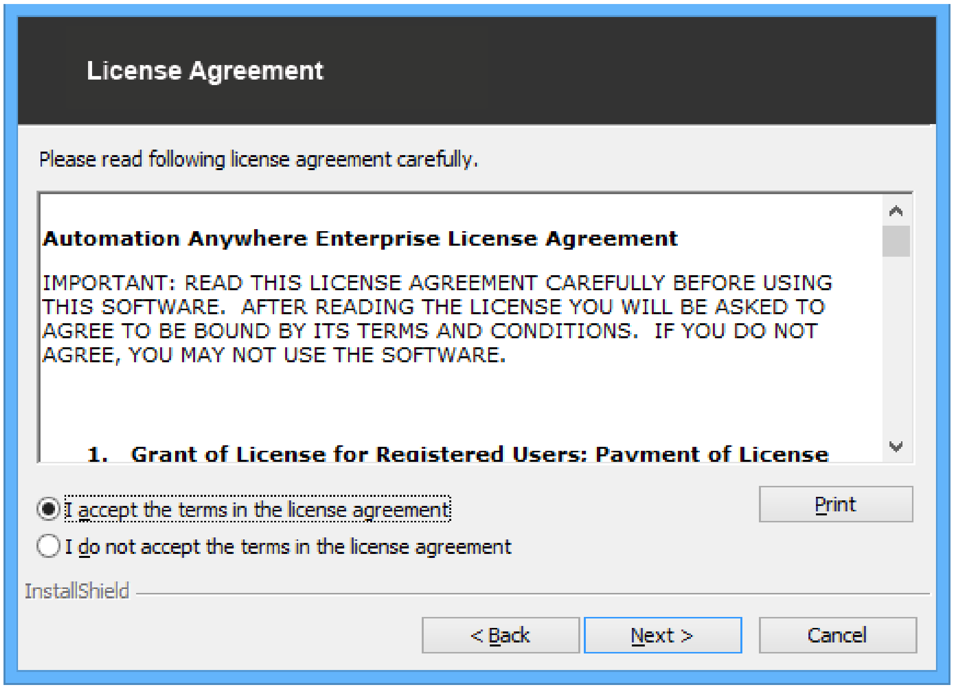


AUTOMATION ANYWHERE Enterprise

Welcome to the Setup Wizard for Automation Anywhere Enterprise Control Room.

The setup will allow you to install, repair/reinstall or remove Automation Anywhere Enterprise Control Room.
To continue, click Next.

3. Accept the terms of licence agreement. Click *Next.*



License Agreement

Please read following license agreement carefully.

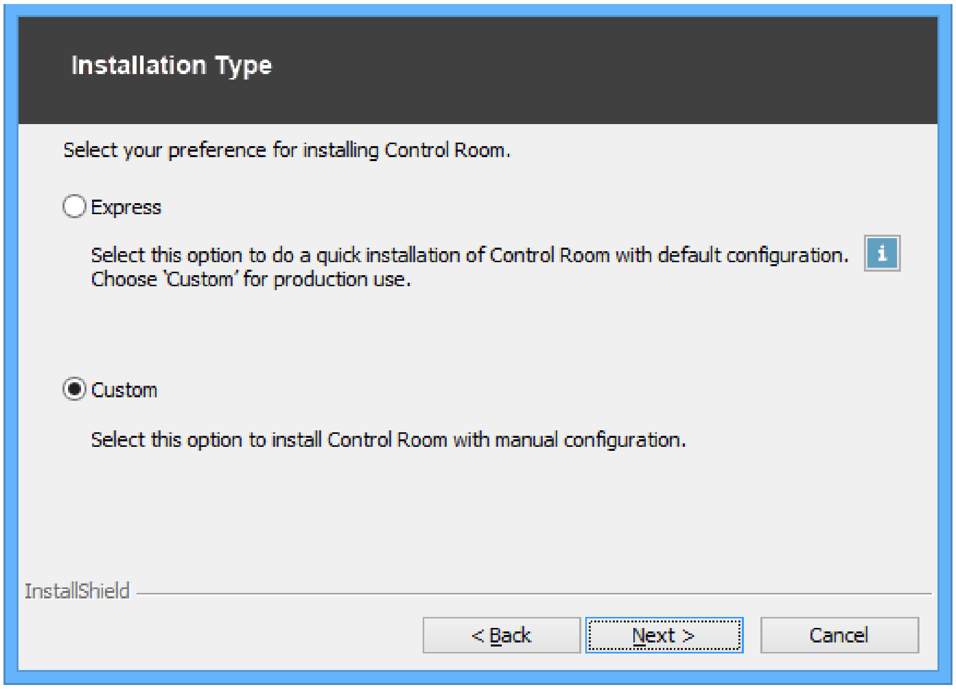
Automation Anywhere Enterprise License Agreement

IMPORTANT: READ THIS LICENSE AGREEMENT CAREFULLY BEFORE USING THIS SOFTWARE. AFTER READING THE LICENSE YOU WILL BE ASKED TO AGREE TO BE BOUND BY ITS TERMS AND CONDITIONS. IF YOU DO NOT AGREE, YOU MAY NOT USE THE SOFTWARE.

1. Grant of License for Registered Users: Payment of License

● I accept the terms in the license agreement
○ I do not accept the terms in the license agreement

4. The *Installation Type* page appears. Select *Custom* as your preferred installation type. Click *Next*.



Installation Type

Select your preference for installing Control Room.

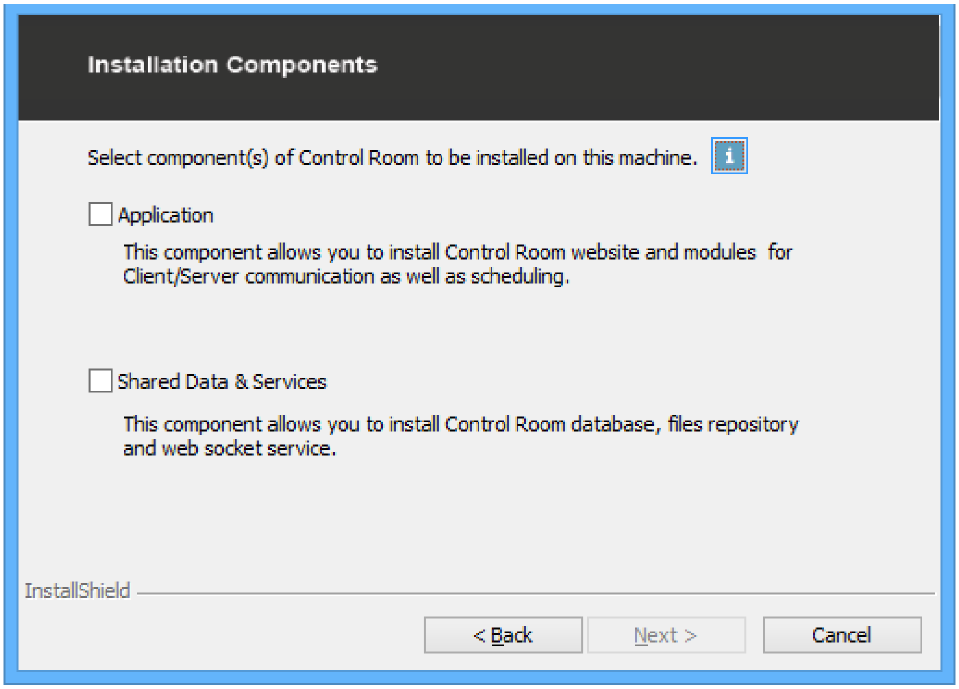
○ Express

Select this option to do a quick installation of Control Room with default configuration. Choose 'Custom' for production use.

● Custom

Select this option to install Control Room with manual configuration.

5. The Installation Components page appears.



Installation Components

Select component(s) of Control Room to be installed on this machine.

□ Application

This component allows you to install Control Room website and modules for Client/Server communication as well as scheduling.

□ Shared Data & Services

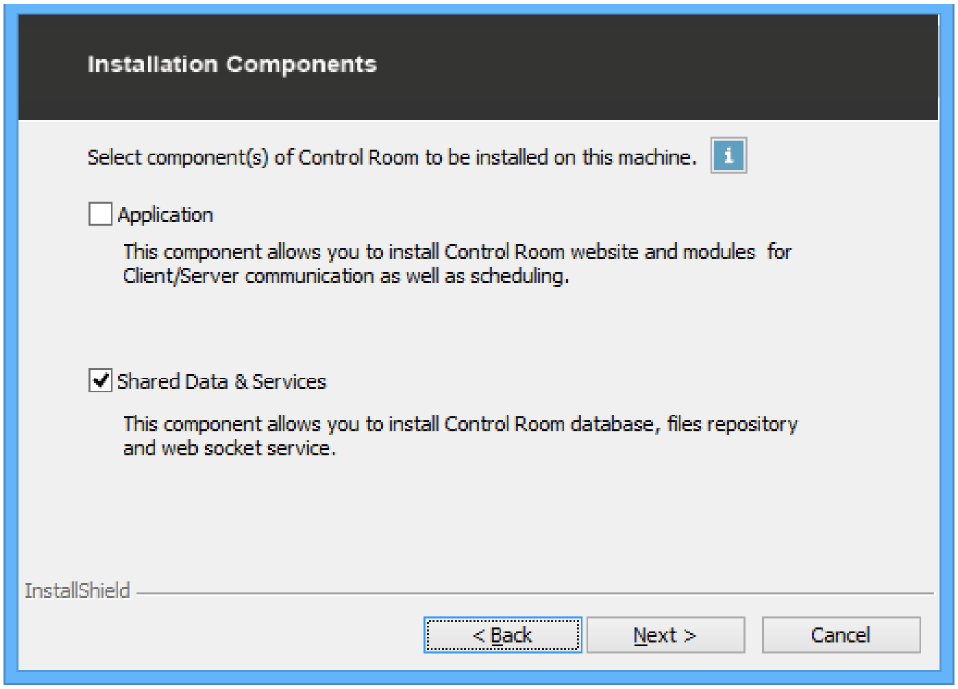
This component allows you to install Control Room database, files repository and web socket service.

Based on component(s) selected for installation, two modes of installation – *Standalone* and *Distributed* are available. This section **describes** the **Distributed mode** of installation.

3.6.1 Installing Shared Data & Services component

1. To install Control Room in Distributed mode, first select the *Shared Data & Services* component for installation.

NOTE: You must install the Shared Data and Services component first as it requires database credential input. These are then provided for installing the Application component.



Installation Components

Select component(s) of Control Room to be installed on this machine.

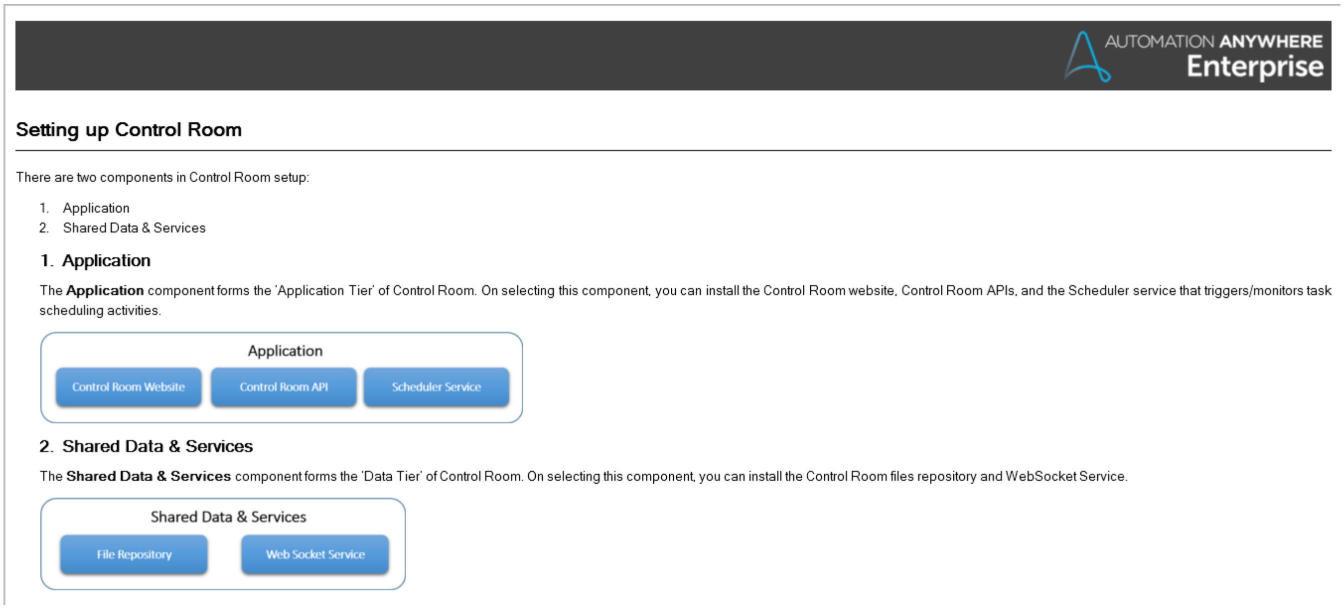
☐ Application

This component allows you to install Control Room website and modules for Client/Server communication as well as scheduling.

☑ Shared Data & Services

This component allows you to install Control Room database, files repository and web socket service.

NOTE: For detailed description on each component and how to setup the Control Room for High Availability and Disaster Recover, click on the info icon. Following page is launched:



Setting up Control Room

There are two components in Control Room setup:

1. Application
2. Shared Data & Services

1. Application

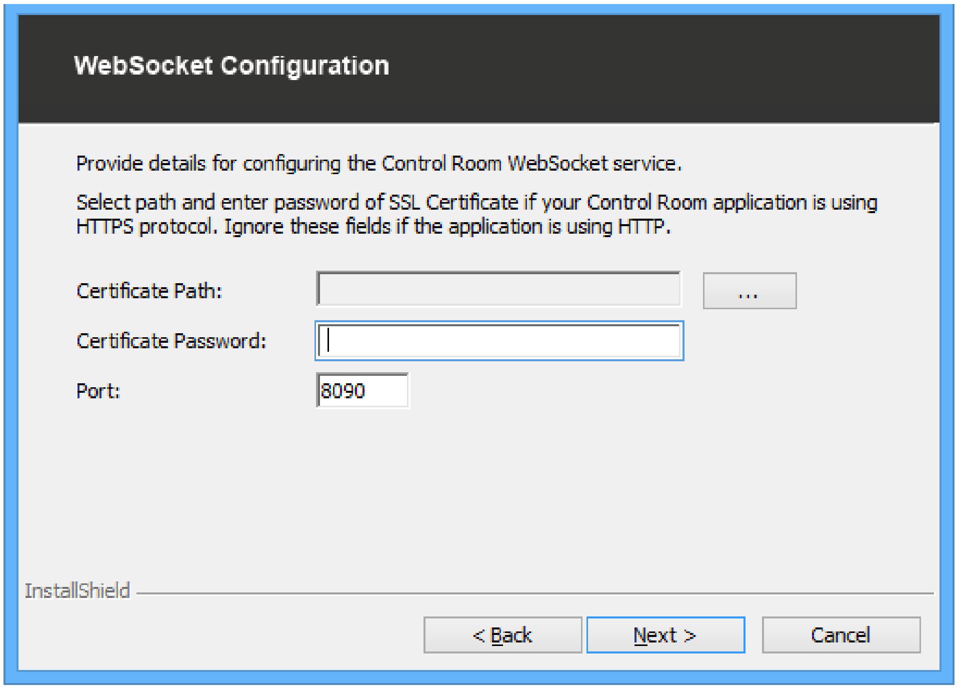
The **Application** component forms the 'Application Tier' of Control Room. On selecting this component, you can install the Control Room website, Control Room APIs, and the Scheduler service that triggers/monitors task scheduling activities.

2. Shared Data & Services

The **Shared Data & Services** component forms the 'Data Tier' of Control Room. On selecting this component, you can install the Control Room files repository and WebSocket Service.

2. Close the browser and go back to the components page in the setup.
3. Click *Next* in the *Components* page.

4. The *WebSocket Configuration* page will appear.



WebSocket Configuration

Provide details for configuring the Control Room WebSocket service.

Select path and enter password of SSL Certificate if your Control Room application is using HTTPS protocol. Ignore these fields if the application is using HTTP.

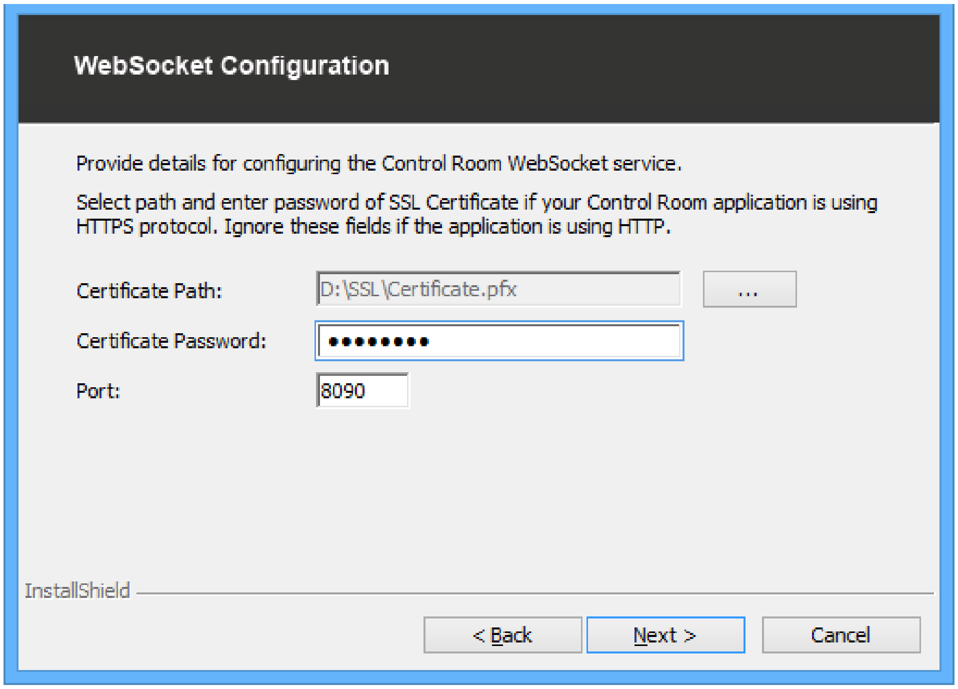
Certificate Path:

Certificate Password:

Port: 8090

a. If you have chosen *HTTP* in Website Configurations, only the *Port* needs to be configured:
NOTE: By default, it is set to '8090' and is used to host WebSocket Service. Change the port if it is already in use.

b. For *HTTPS*, you need to specify the Certificate Path and Password.
NOTE: It is recommended to use the Personal Information Exchange (PFX) format certificate type. If you do not have a PFX certificate, refer the section on Converting Certificates to PFX Format.



WebSocket Configuration

Provide details for configuring the Control Room WebSocket service.

Select path and enter password of SSL Certificate if your Control Room application is using HTTPS protocol. Ignore these fields if the application is using HTTP.

Certificate Path: D:\SSL\Certificate.pfx

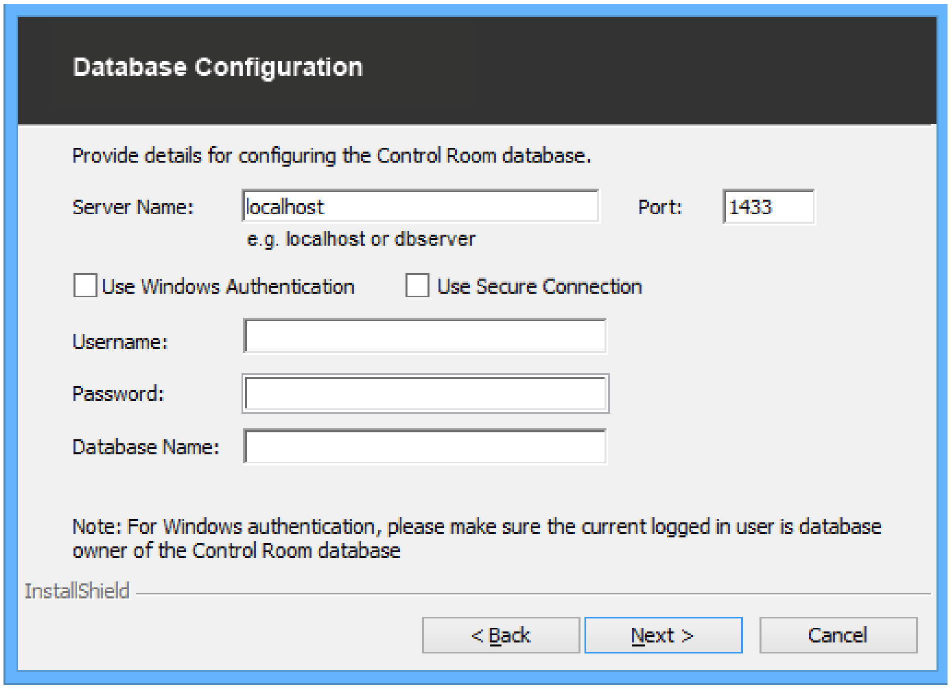
Certificate Password: ••••••••

Port: 8090

- Browse to the folder and select the certificate file.
  NOTE: The IIS that will host the Control Room website must have the SSL/TLS certificate installed. SSL/TLS certificate enables an encrypted connection between the web server and a browser. It also authenticates the identity of the website (Control Room in this case). Refer section on Site Bindings to learn more.

- Enter the password for the certificate and the port.

5. Click *Next*.
6. A *Database Configuration* page appears. Input required data for configuring the Control Room database.
   NOTE: If you are creating a dedicated SQL user or using an existing SQL user, provide the user database ownership privileges to Control Room database. Also, a fully qualified name should be specified as the **Server Name**.
   For Example, SQLSERVER.MY-DOMAIN.COM\AACRSQLEXPRESS



Database Configuration

Provide details for configuring the Control Room database.

Server Name: localhost Port: 1433

e.g. localhost or dbserver

☐ Use Windows Authentication ☐ Use Secure Connection

Username:

Password:

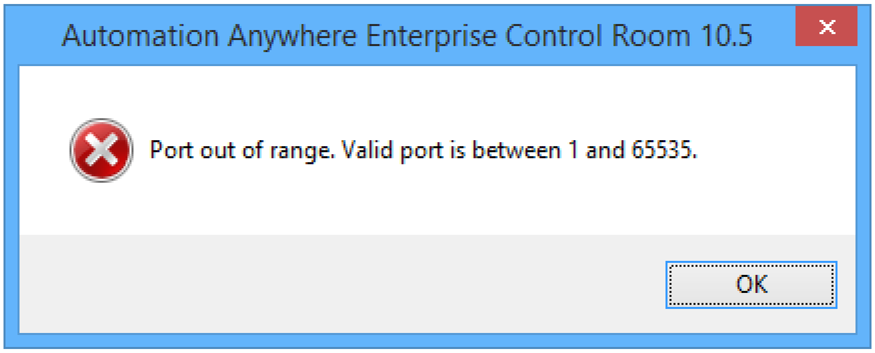
Database Name:

Note: For Windows authentication, please make sure the current logged in user is database owner of the Control Room database

NOTE: The default server provided is 'localhost'. You can update it to 'dbserver'.

a. Enter the port number. By default, it is set to 1433 for Microsoft SQL Server.

   NOTE: It should be between 1 and 65535. If you input an invalid port, the following message appears:



Automation Anywhere Enterprise Control Room 10.5

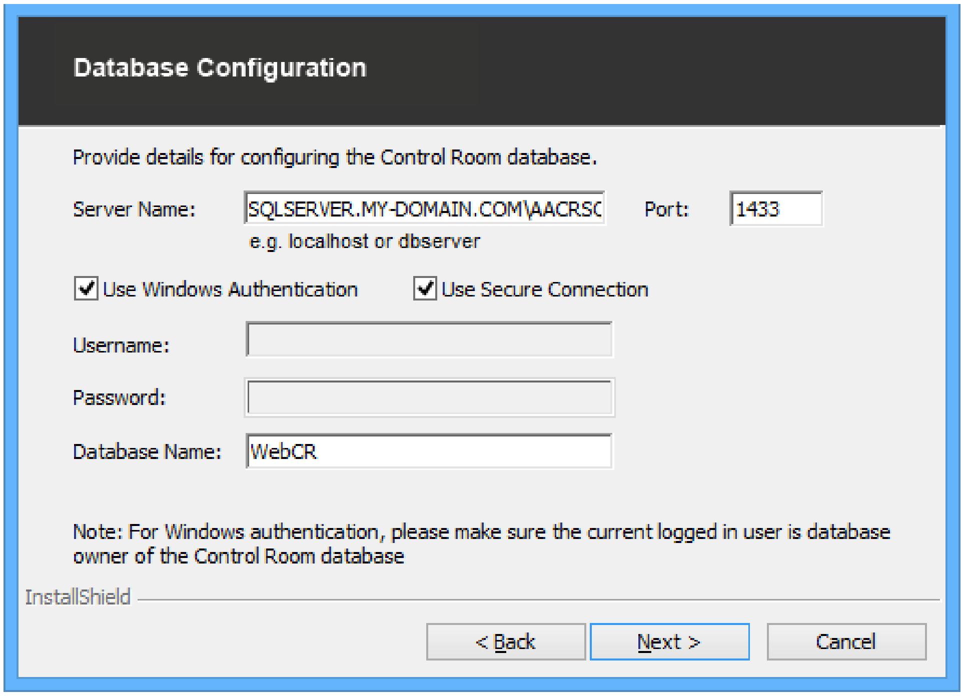
Port out of range. Valid port is between 1 and 65535.

The port can be changed from SQL Server Configuration Manager. Refer the section on Enabling SQL Server Configuration for details.

b. Select the *Database Admin* type to create an account to access the Control Room database. This must be created prior to configuring the Control Room.

   I. Select the option **Use Windows Authentication** if you have configured Windows users to an existing instance of the SQL Server. Here, the Username and Password fields are pre-filled and disabled. You simply input a Database Name.
   NOTE: Ensure the database user defined for authentication has ownership privileges to the Control Room database.

II. Select the option **Use Secure Connection** to connect SQL in a secure mode if the SQL Server is configured with an SSL certificate. This ensures that there is no compromise of data or any security risk between Control Room and SQL Server communication.



Database Configuration

Provide details for configuring the Control Room database.

Server Name: SQLSERVER.MY-DOMAIN.COM\AACRSC Port: 1433

e.g. localhost or dbserver

☑ Use Windows Authentication ☑ Use Secure Connection

Username:

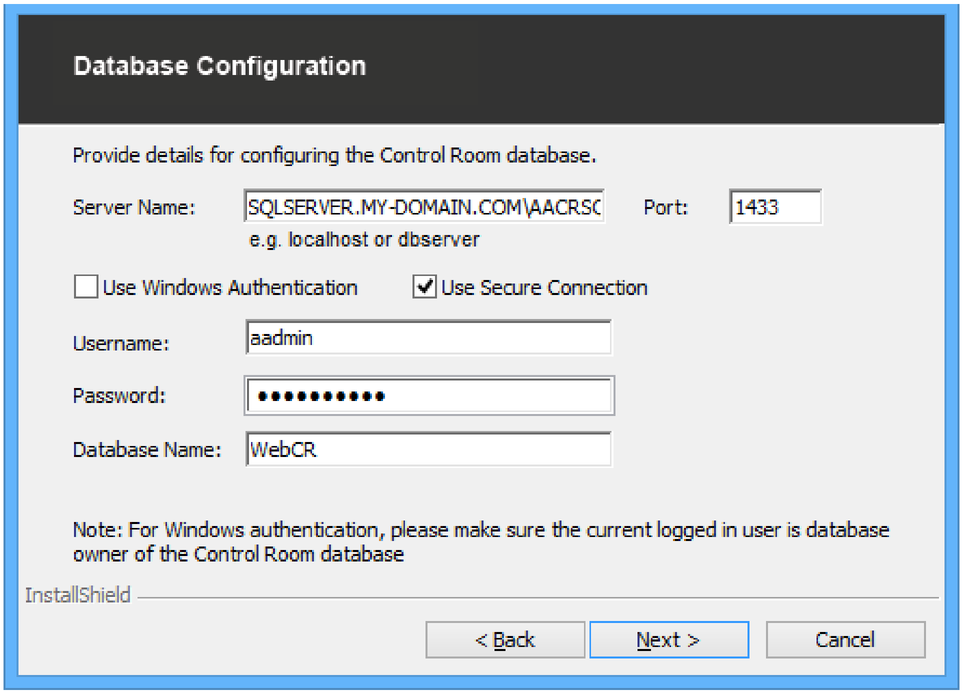
Password:

Database Name: WebCR

Note: For Windows authentication, please make sure the current logged in user is database owner of the Control Room database

NOTE: The **Use Secure Connection** option remains unchecked/clear by default.

III. Enter the *Username, Password, and Database Name* to connect to the SQL Server using the default database Admin credentials.



Database Configuration

Provide details for configuring the Control Room database.

Server Name: SQLSERVER.MY-DOMAIN.COM\AACRSC Port: 1433

e.g. localhost or dbserver

☐ Use Windows Authentication ☑ Use Secure Connection

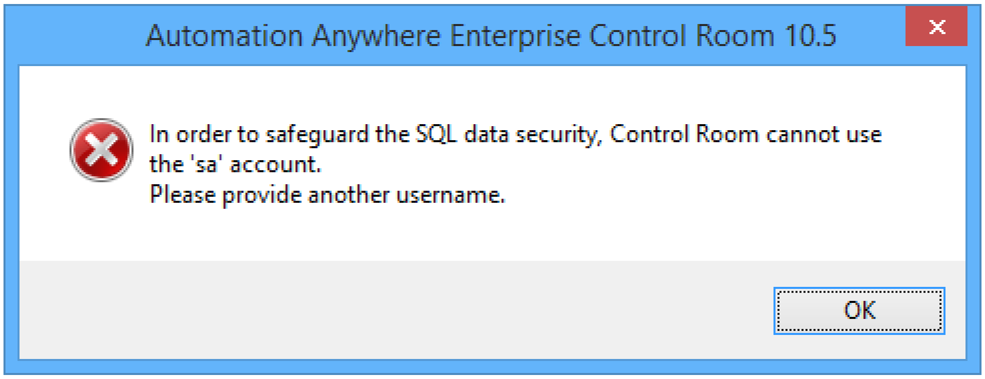
Username: aadmin

Password: ●●●●●●●●●●

Database Name: WebCR

Note: For Windows authentication, please make sure the current logged in user is database owner of the Control Room database

- If you use 'sa' as the default database administrator, the following message appears:

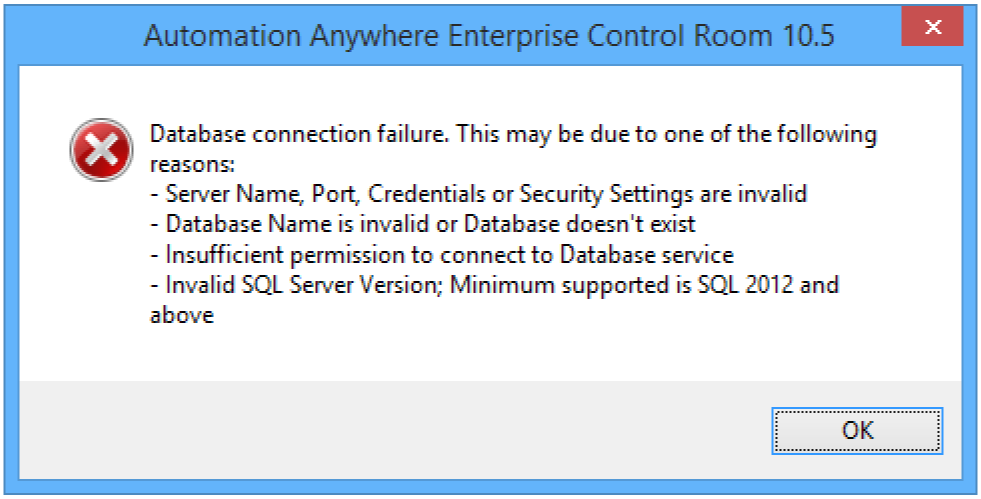


Automation Anywhere Enterprise Control Room 10.5

In order to safeguard the SQL data security, Control Room cannot use the 'sa' account.
Please provide another username.

To ensure SQL data security, it is important that you create and configure another database account with same privileges as the default **'sa'** account.

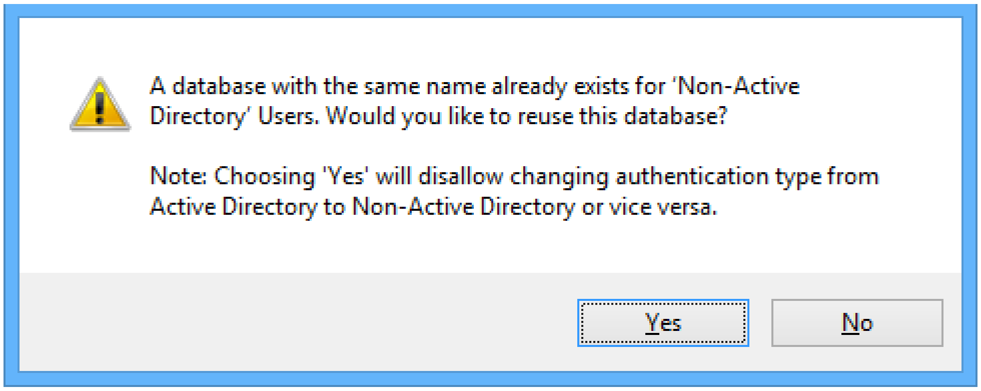
- If there is a connection error to database, an error message appears:



Automation Anywhere Enterprise Control Room 10.5

Database connection failure. This may be due to one of the following reasons:
- Server Name, Port, Credentials or Security Settings are invalid
- Database Name is invalid or Database doesn't exist
- Insufficient permission to connect to Database service
- Invalid SQL Server Version; Minimum supported is SQL 2012 and above

- If the database name already exists, a warning message appears:



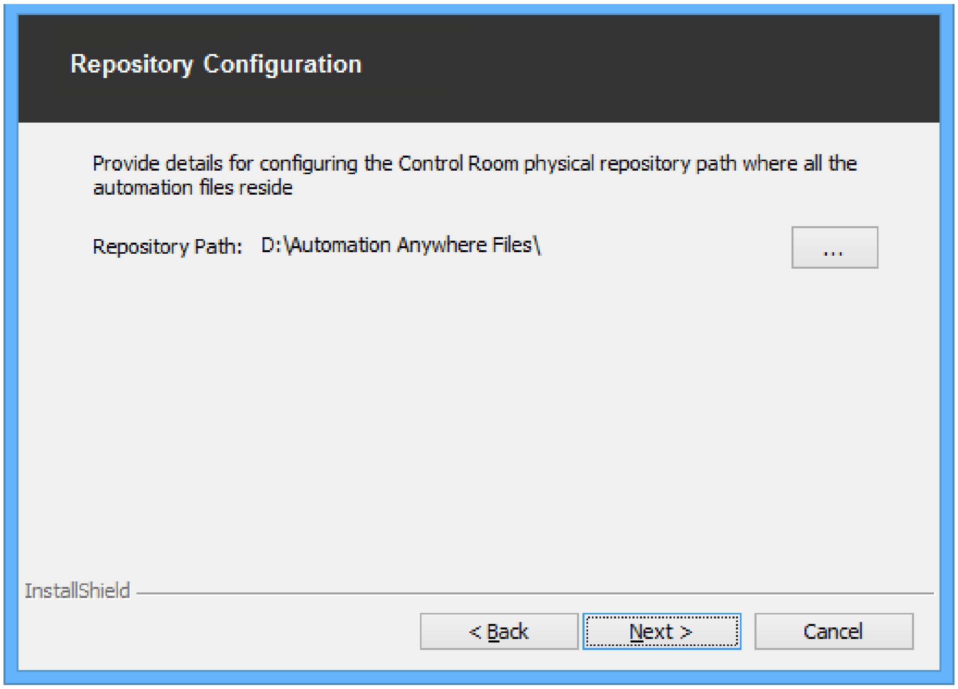
A database with the same name already exists for 'Non-Active Directory' Users. Would you like to reuse this database?

Note: Choosing 'Yes' will disallow changing authentication type from Active Directory to Non-Active Directory or vice versa.

i. Click on *No* to select a new database. The Database Configuration page re-appears. Input a new Database name and Click *Next.*

7. The *Repository Configuration* page appears wherein you can set the Control Room Repository path. This is where your Automation Anywhere files are stored. You can opt to change the path in the installer by clicking the browse

button.



Repository Configuration

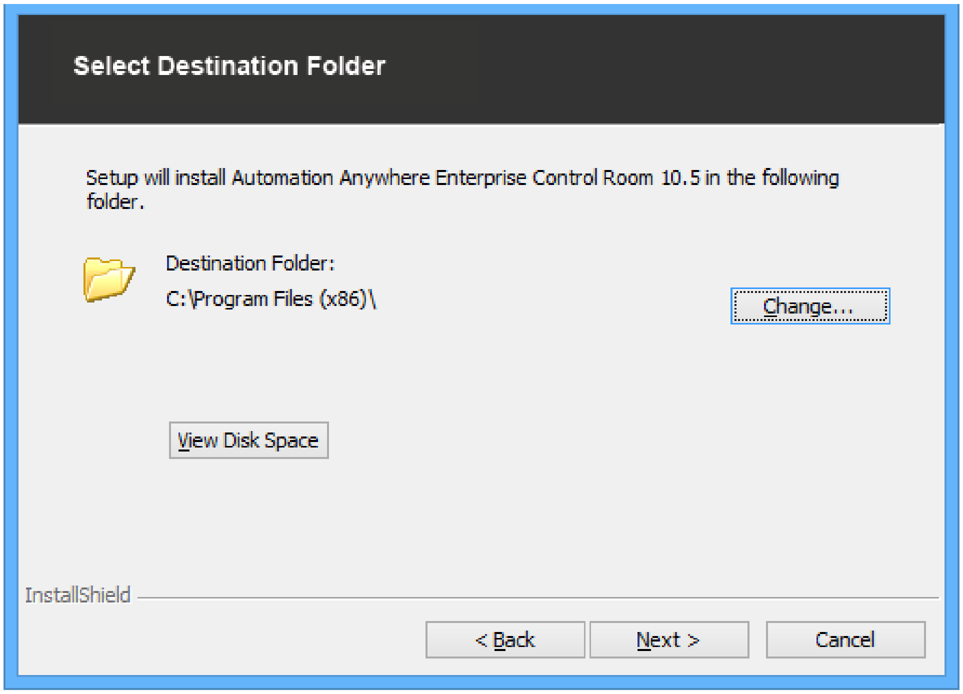
Provide details for configuring the Control Room physical repository path where all the automation files reside

Repository Path: D:\Automation Anywhere Files\

a. This configuration is available to users who are installing the Control Room with a new database.

b. You must have required access privileges to a folder that you choose as Repository. The default path is set to: “C:\Users\Public\Documents\Automation Anywhere Server Files”.
TIP: You can also opt to edit the path from the Control Room settings, post installation.

8. The **Select Destination Folder** page appears. Here, you can select the destination folder to install the Control Room application files.
NOTE: By default, Control Room will be installed in C:\Program Files (X86)\

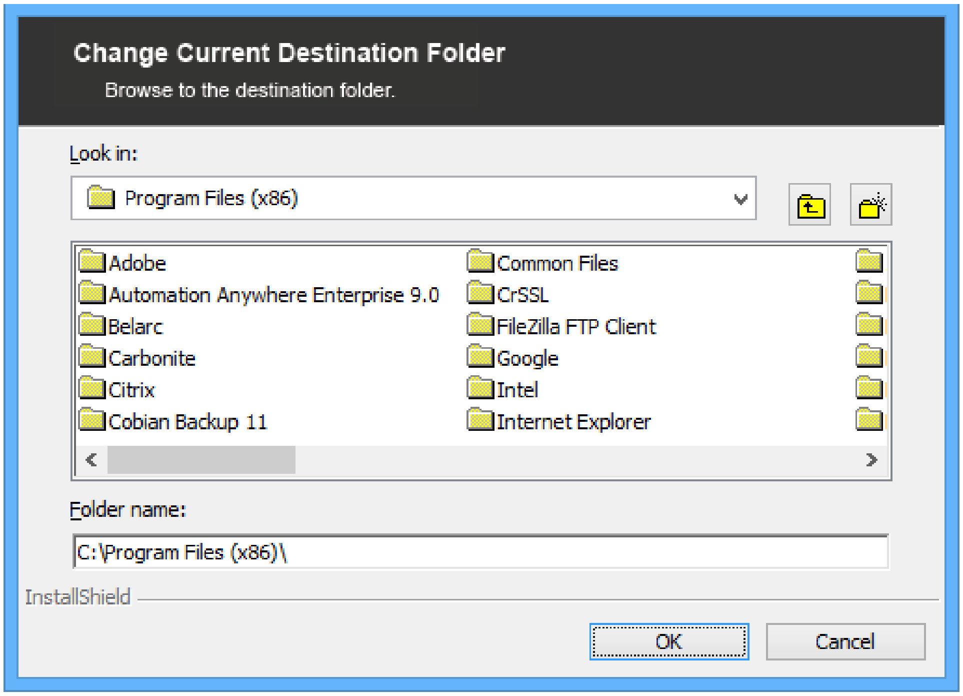


Select Destination Folder

Setup will install Automation Anywhere Enterprise Control Room 10.5 in the following folder.

Destination Folder:
C:\Program Files (x86)\

a. Click on **Change** if you want to change the destination folder.



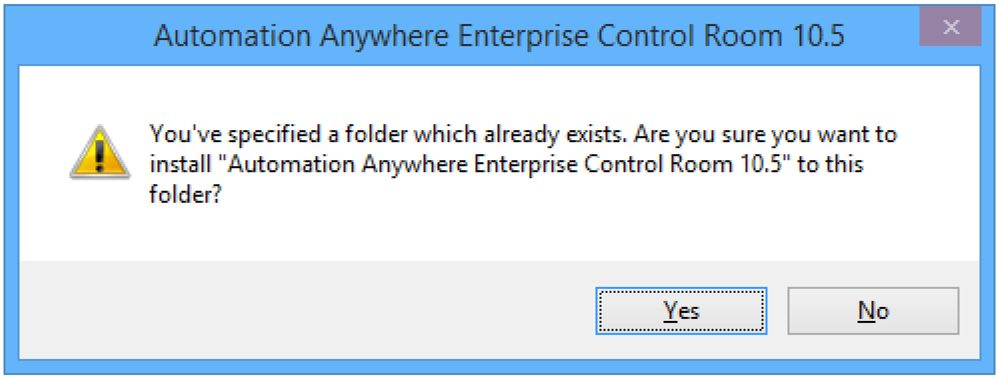
Change Current Destination Folder

Browse to the destination folder.

Look in: Program Files (x86)

Folder name: C:\Program Files (x86)\

- If an earlier instance of Control Room was installed, you can select an existing folder. However, a warning message appears:

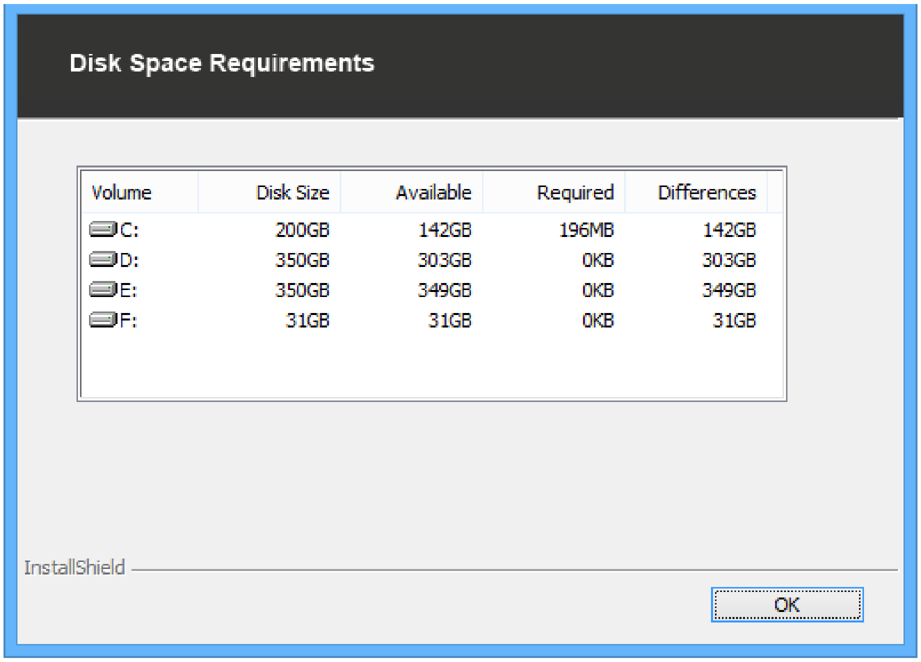


Automation Anywhere Enterprise Control Room 10.5

You've specified a folder which already exists. Are you sure you want to install "Automation Anywhere Enterprise Control Room 10.5" to this folder?

Select **No** to create another folder or **Yes** to use the existing folder.

b. Click **View Disk Space** in the Select Destination Folder page to view the disk space availability.

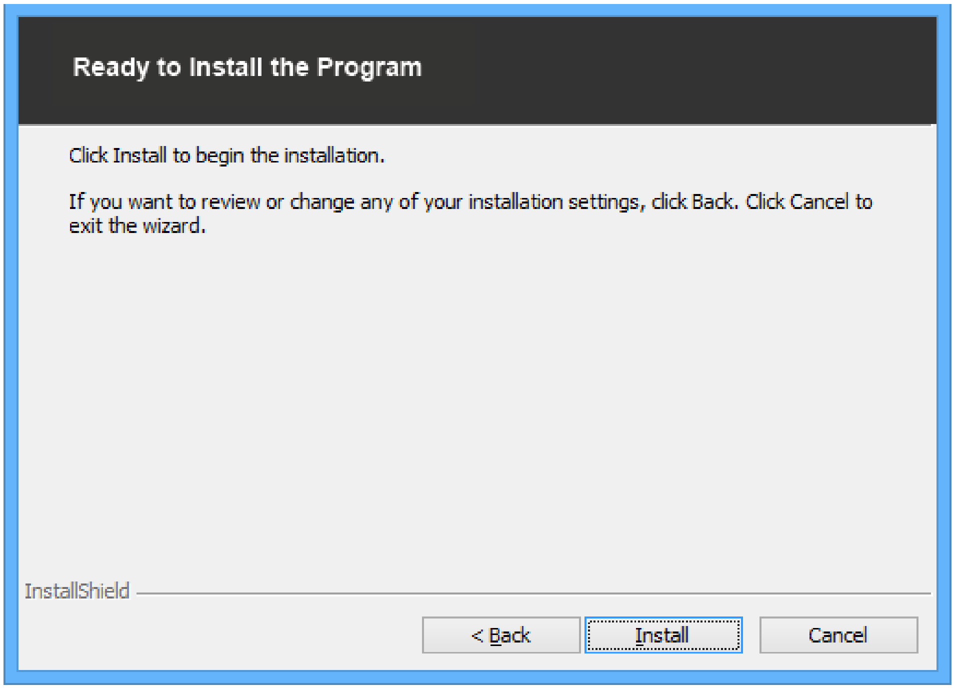


Disk Space Requirements

Volume	Disk Size	Available	Required	Differences
C:	200GB	142GB	196MB	142GB
D:	350GB	303GB	0KB	303GB
E:	350GB	349GB	0KB	349GB
F:	31GB	31GB	0KB	31GB

c. Click **OK** to return to the **Select Destination** page.

9. Click **Next**.
10. A Ready to install the Program page appears. Click **Install**.

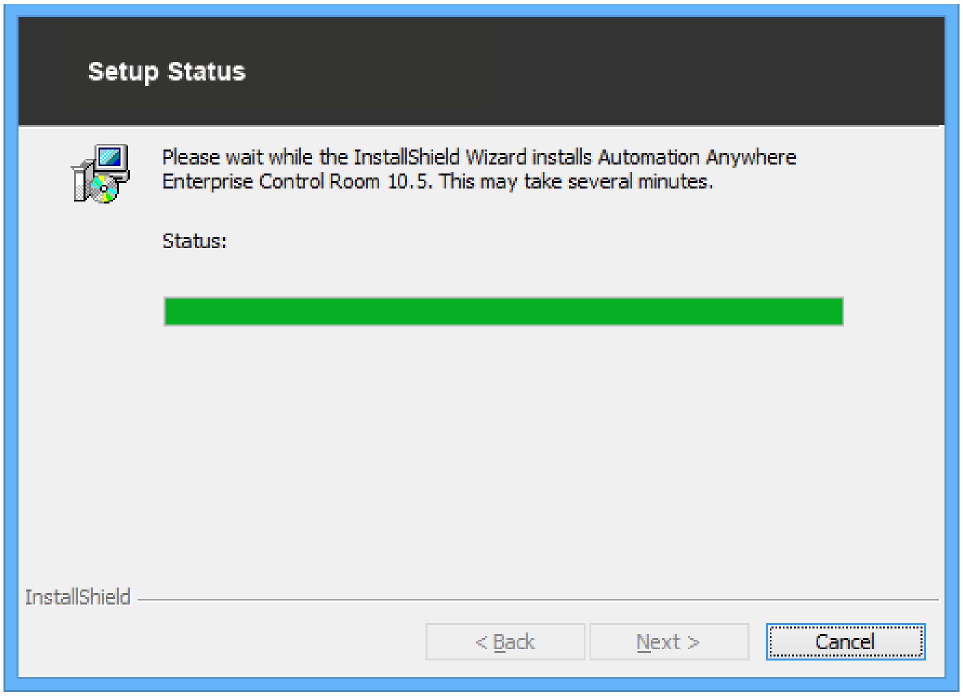


Ready to Install the Program

Click Install to begin the installation.

If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.

11. The next page allows you to track setup status.

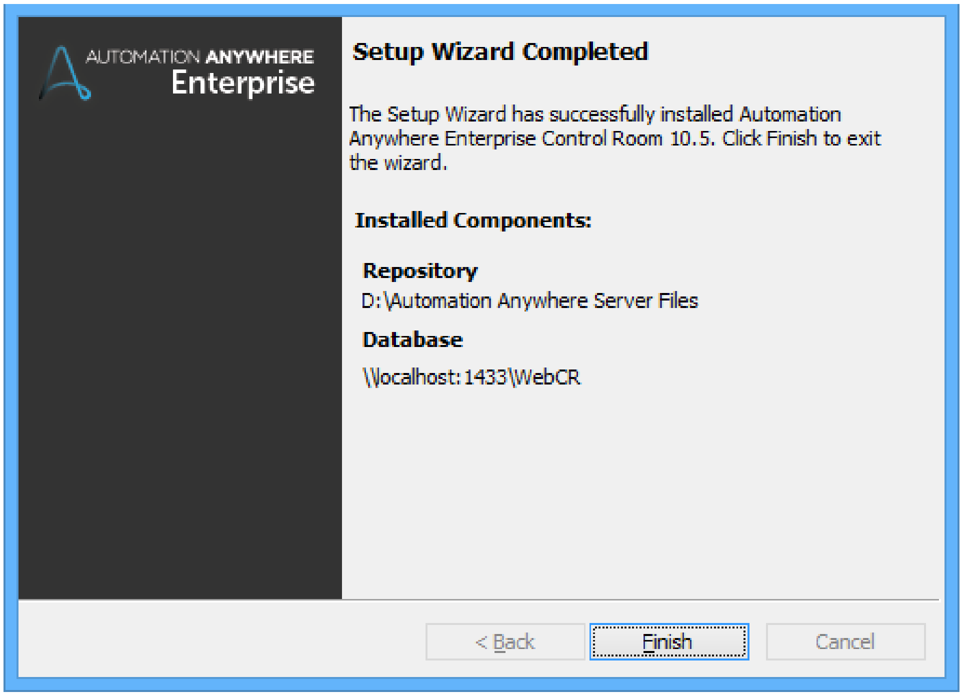


Setup Status

Please wait while the InstallShield Wizard installs Automation Anywhere Enterprise Control Room 10.5. This may take several minutes.

Status:

12. Once the installation is complete, the **Finish** page will appear.



Setup Wizard Completed

The Setup Wizard has successfully installed Automation Anywhere Enterprise Control Room 10.5. Click Finish to exit the wizard.

Installed Components:

Repository
D:\Automation Anywhere Server Files

Database
\\localhost:1433\WebCR

13. Click **Finish** to exit the setup.

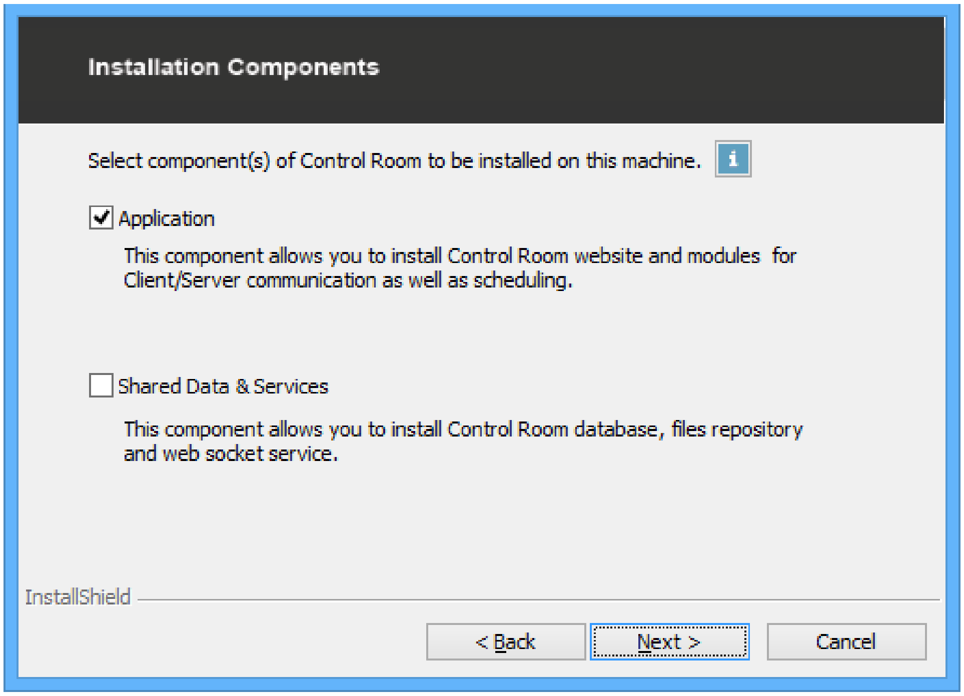
This concludes your installation of Shared Data & Services components for Custom – Standalone mode. You can now install the Application components of the Control Room setup.

3.6.2 Installing Application component

⚠ **Important:** It is recommended that all IIS should have same version of JRE installed i.e. either JRE with 64 bit or with 32 bit.

⚠ Also, to ensure seamless connectivity between AAE Clients and Control Room, please follow the steps mentioned in Section 3.6.3

1. Once the *Shared Data & Services* component is installed, run the setup on a machine where Application component needs to be installed.
2. Select *Application* component in *Installation Components* page.



Installation Components

Select component(s) of Control Room to be installed on this machine.

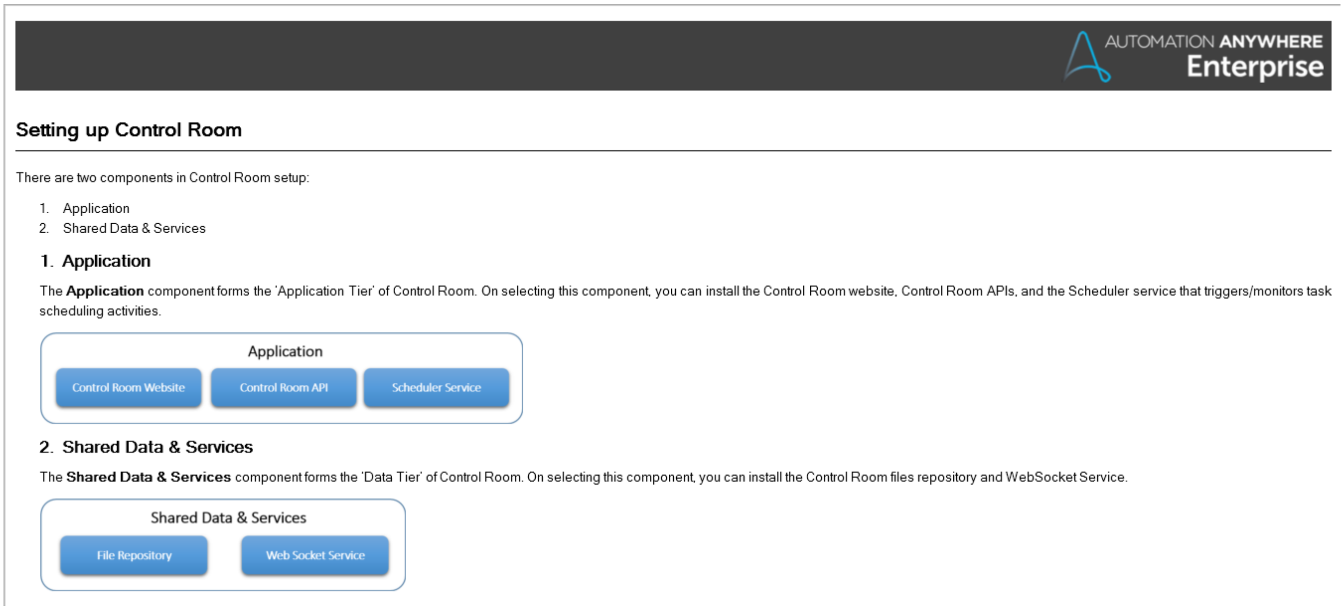
☑ Application

This component allows you to install Control Room website and modules for Client/Server communication as well as scheduling.

☐ Shared Data & Services

This component allows you to install Control Room database, files repository and web socket service.

NOTE: For detailed description on each component and how to setup the Control Room for High Availability and Disaster Recover, click on the info icon. Following page is launched:



Setting up Control Room

There are two components in Control Room setup:

1. Application
2. Shared Data & Services

1. Application

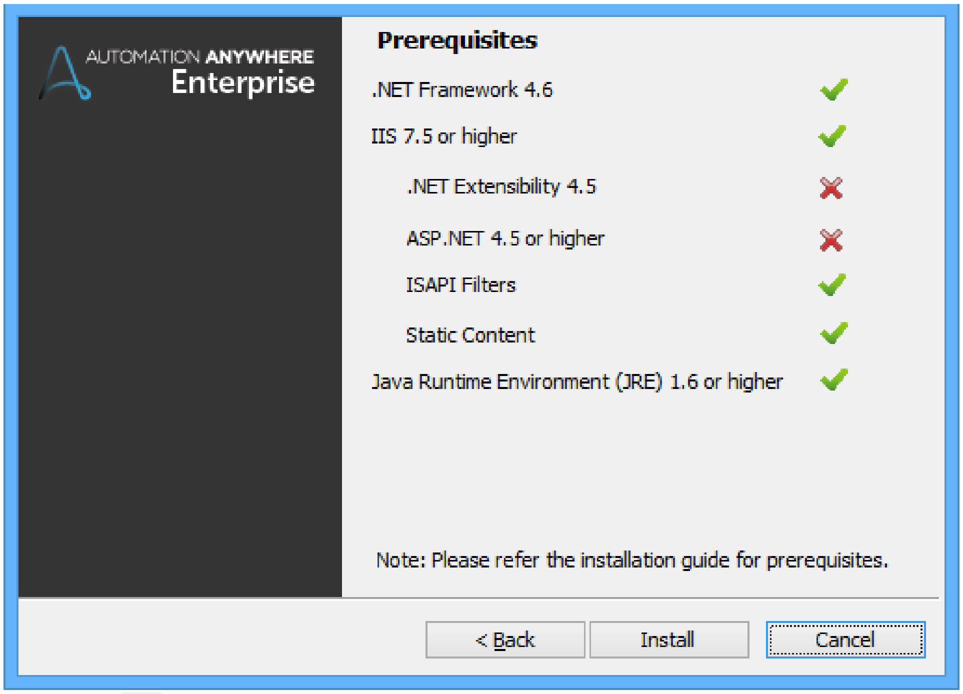
The **Application** component forms the 'Application Tier' of Control Room. On selecting this component, you can install the Control Room website, Control Room APIs, and the Scheduler service that triggers/monitors task scheduling activities.

2. Shared Data & Services

The **Shared Data & Services** component forms the 'Data Tier' of Control Room. On selecting this component, you can install the Control Room files repository and WebSocket Service.

3. Close the browser and go back to the components page in the setup.
4. Click *Next* in the *Components* page.

5. If any of the pre-requisite for IIS component is not met, the Prerequisites window appears.



AUTOMATION ANYWHERE Enterprise

Prerequisites

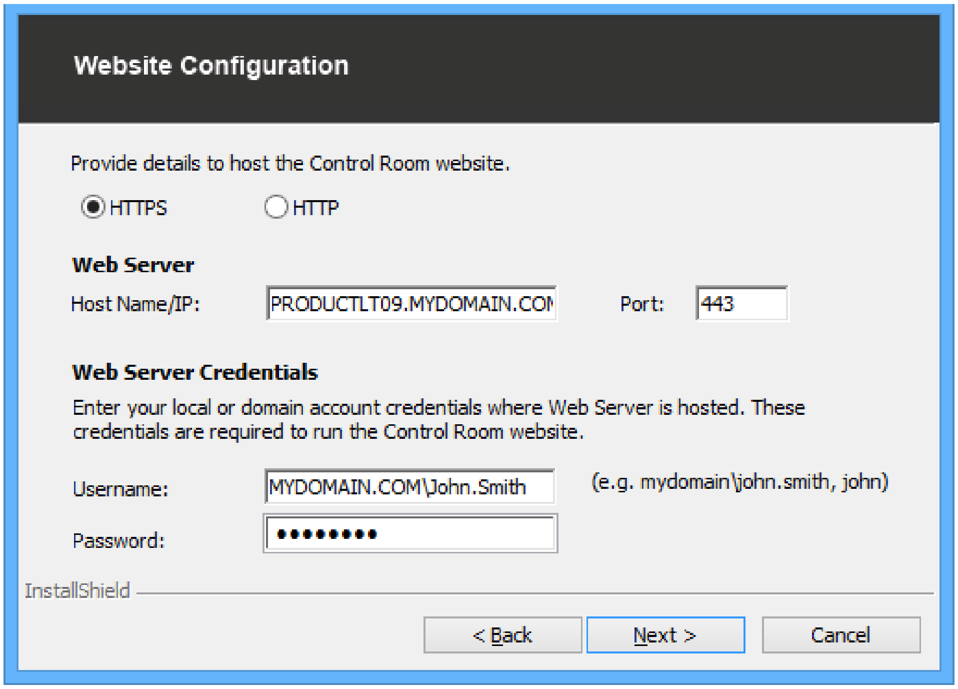
.NET Framework 4.6	✓
IIS 7.5 or higher	✓
.NET Extensibility 4.5	✗
ASP.NET 4.5 or higher	✗
ISAPI Filters	✓
Static Content	✓
Java Runtime Environment (JRE) 1.6 or higher	✓

Note: Please refer the installation guide for prerequisites.

NOTE: An ✗ mark indicates that the component is not installed.

- Click *Install*. This will install all missing prerequisites.

6. Once all prerequisites are detected/installed, the Website Configuration page appears wherein you can provide details to host the Control Room website.



Website Configuration

Provide details to host the Control Room website.

● HTTPS ○ HTTP

Web Server

Host Name/IP: PRODUCTLT09.MYDOMAIN.COM Port: 443

Web Server Credentials

Enter your local or domain account credentials where Web Server is hosted. These credentials are required to run the Control Room website.

Username: MYDOMAIN.COM\John.Smith (e.g. mydomain\john.smith, john)

Password: ••••••••

a. Select *HTTP* or *HTTPS*.
If you wish to configure a secured site, select *HTTPS*. Refer section on Site Bindings to learn more.
TIP: Ensure to append the domain name when configuring the Control Room in a multi-domain environment.

I. Enter your Web Server Hostname; an IP or Server name.
NOTE: By default, it displays fully qualified name of the local machine.

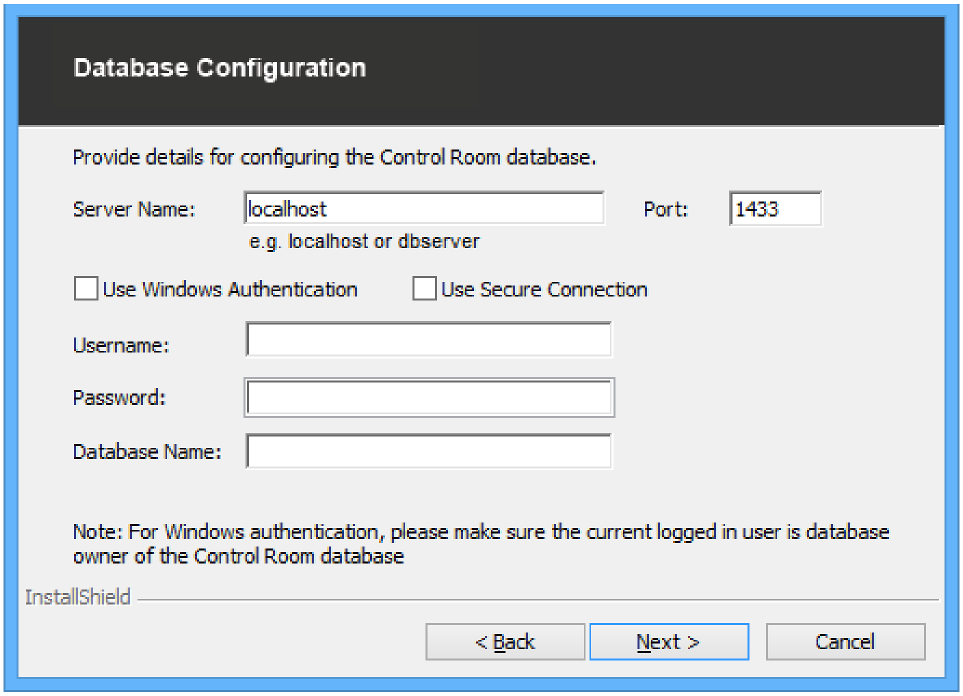
II. Key in Web Server Port. By default, the port is set to 80 (for HTTP) or 443 (for HTTPS).
NOTE: It should be between 1 and 65535. Change the port if it is already in use.

III. Input your Web Server Credentials. These credentials are the ones used for your server's Application Pool Identities. They can be either your local account or domain account where the Web Server shall be hosted. However, if you are hosting the Control Room with Active Directory Authentication (Step 9), we recommend that you use your domain account credentials for the server's Application Pool.
NOTE: These credentials are required for an Account with Admin privileges. These will be your Windows credentials.

7. Click *Next*.

8. A *Database Configuration* page appears. Input required data for configuring the Control Room database.

NOTE: If you are creating a dedicated SQL user or using an existing SQL user, provide the user database ownership privileges to Control Room database. Also, a fully qualified name should be specified as the **Server Name**.
E.g. SQLSERVER.MY-DOMAIN.COM\AACRSQLEXPRESS



Database Configuration

Provide details for configuring the Control Room database.

Server Name: localhost Port: 1433
e.g. localhost or dbserver

□ Use Windows Authentication □ Use Secure Connection

Username:

Password:

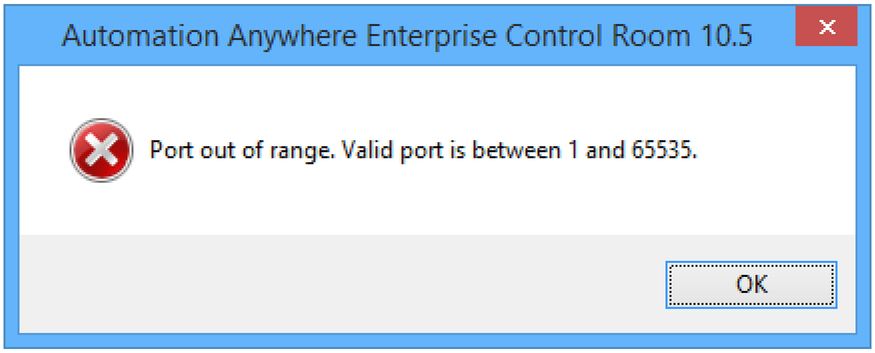
Database Name:

Note: For Windows authentication, please make sure the current logged in user is database owner of the Control Room database

NOTE: The default server provided is 'localhost'. You can update it to 'dbserver'.

a. Enter the port number. By default, it is set to 1433 for Microsoft SQL Server.

NOTE: It should be between 1 and 65535. If you input an invalid port, the following message appears:



Automation Anywhere Enterprise Control Room 10.5

Port out of range. Valid port is between 1 and 65535.

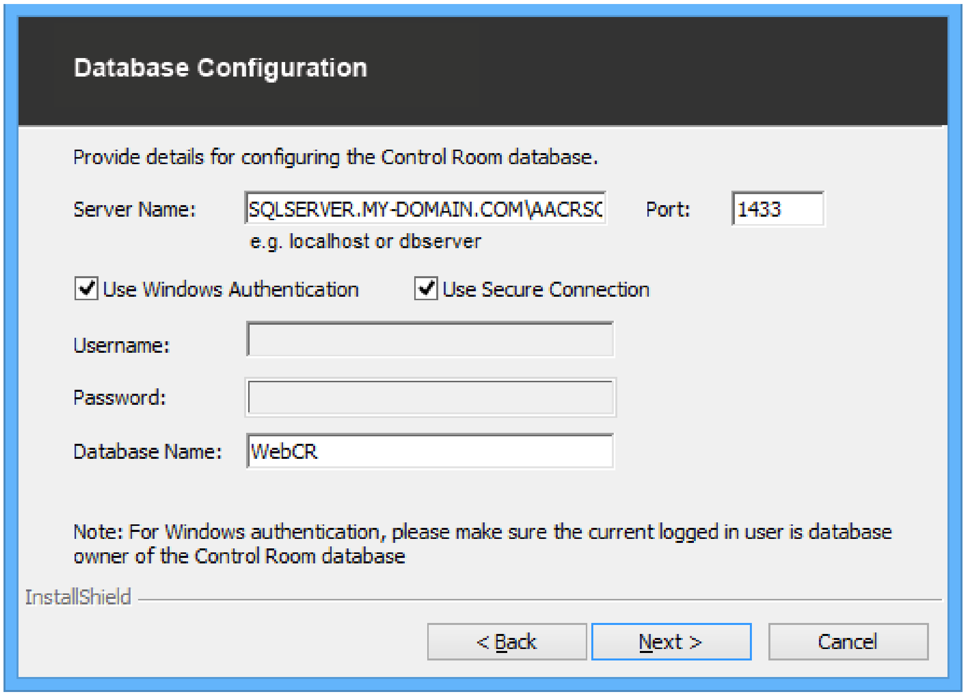
The port can be changed from SQL Server Configuration Manager. Refer the section on Enabling SQL Server Configuration for details.

b. Select the *Database Admin* type to create an account to access the Control Room database. This must be created prior to configuring the Control Room.

   I. Select the option **Use Windows Authentication** if you have configured Windows users to an existing instance of the SQL Server. Here, the Username and Password fields are pre-filled and disabled. You simply have to input a Database Name.
   NOTE: Ensure the database user defined for authentication has ownership privileges to the Control Room database.

   II. Select the option **Use Secure Connection** to connect SQL in a secure mode if the SQL Server is configured with an SSL certificate. This ensures that there is no compromise of data or any security risk between Control Room and SQL Server communication.

   The SQL certificate has to be imported as trusted certificates on all the machines in which Control Room Application layer is to be hosted.



Database Configuration

Provide details for configuring the Control Room database.

Server Name: SQLSERVER.MY-DOMAIN.COM\AACRSC Port: 1433

e.g. localhost or dbserver

☑ Use Windows Authentication ☑ Use Secure Connection

Username:

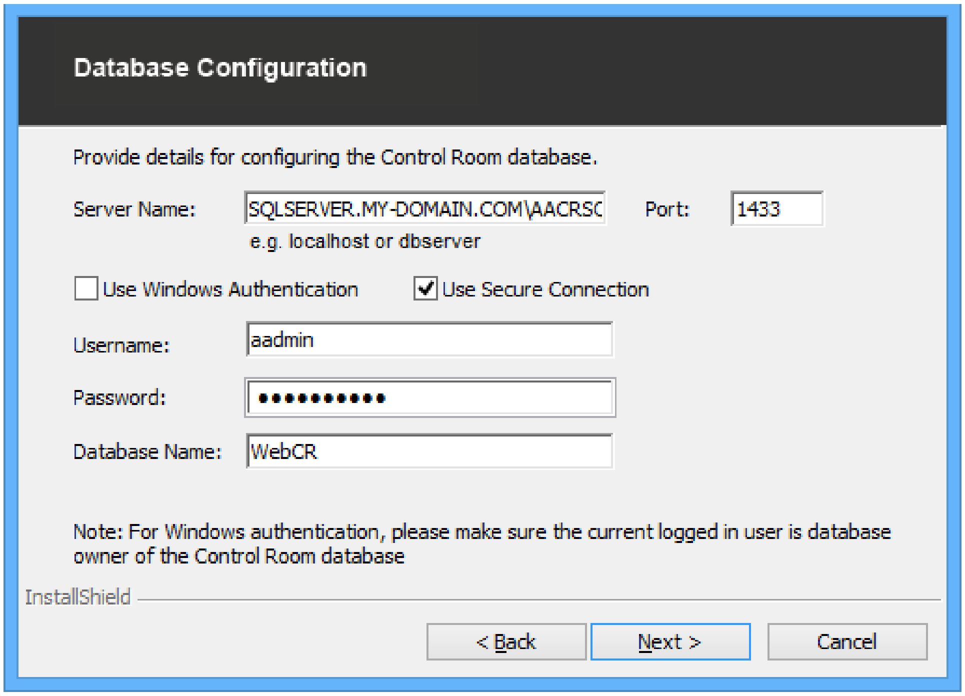
Password:

Database Name: WebCR

Note: For Windows authentication, please make sure the current logged in user is database owner of the Control Room database

NOTE: The **Use Secure Connection** option remains unchecked/clear by default.

III. Enter the *Username, Password, and Database Name* to connect to the SQL Server using the default database Admin credentials.



Database Configuration

Provide details for configuring the Control Room database.

Server Name: SQLSERVER.MY-DOMAIN.COM\AACRSC Port: 1433

e.g. localhost or dbserver

□ Use Windows Authentication ☑ Use Secure Connection

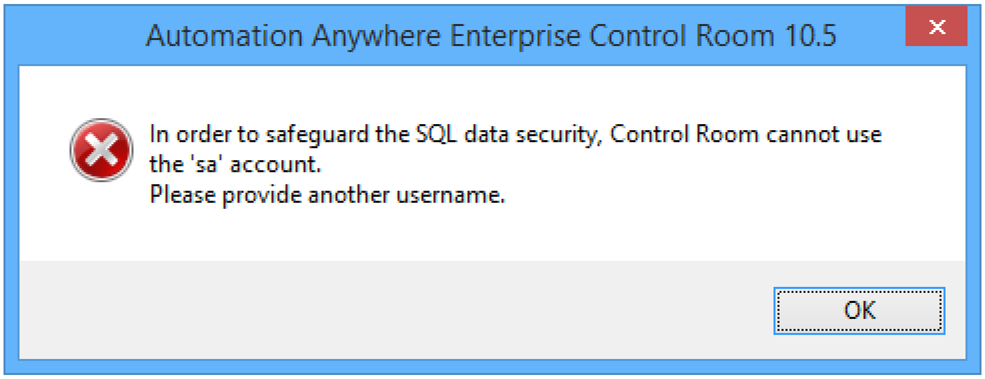
Username: aadmin

Password: ●●●●●●●●●●●

Database Name: WebCR

Note: For Windows authentication, please make sure the current logged in user is database owner of the Control Room database

- If you use 'sa' as the default database administrator, the following message appears:

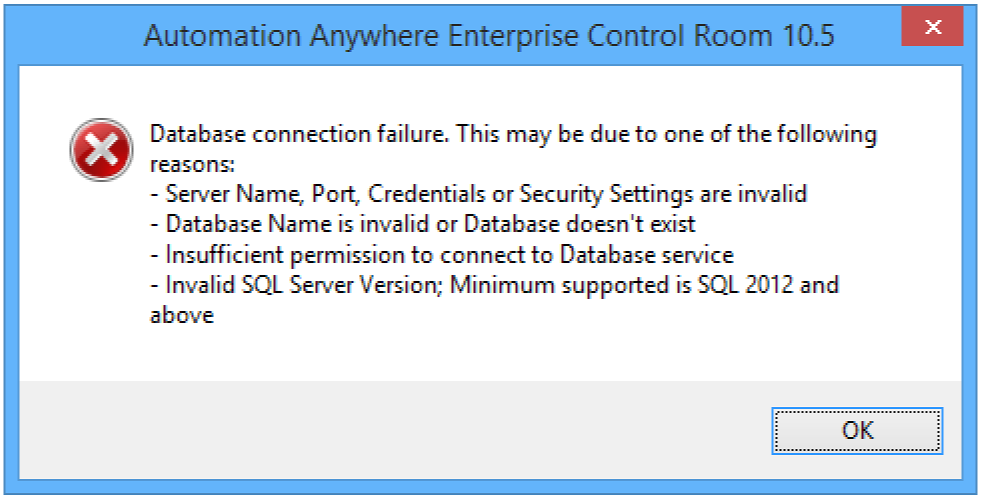


Automation Anywhere Enterprise Control Room 10.5

In order to safeguard the SQL data security, Control Room cannot use the 'sa' account.
Please provide another username.

To ensure SQL data security, it is important that you create and configure another database account with same privileges as the default '**sa**' account.

- If there is a connection error to database, an error message appears:

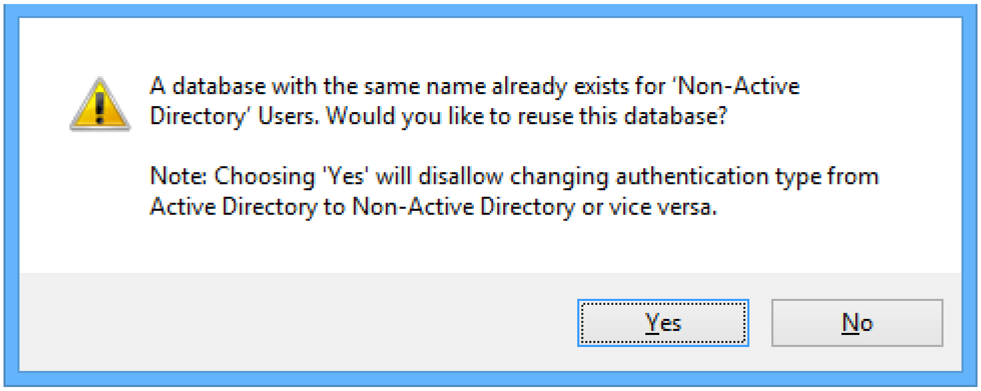


Automation Anywhere Enterprise Control Room 10.5

Database connection failure. This may be due to one of the following reasons:
- Server Name, Port, Credentials or Security Settings are invalid
- Database Name is invalid or Database doesn't exist
- Insufficient permission to connect to Database service
- Invalid SQL Server Version; Minimum supported is SQL 2012 and above

Click *OK* to go back to *Database Configuration*.

- If the database name already exists, a warning message appears:



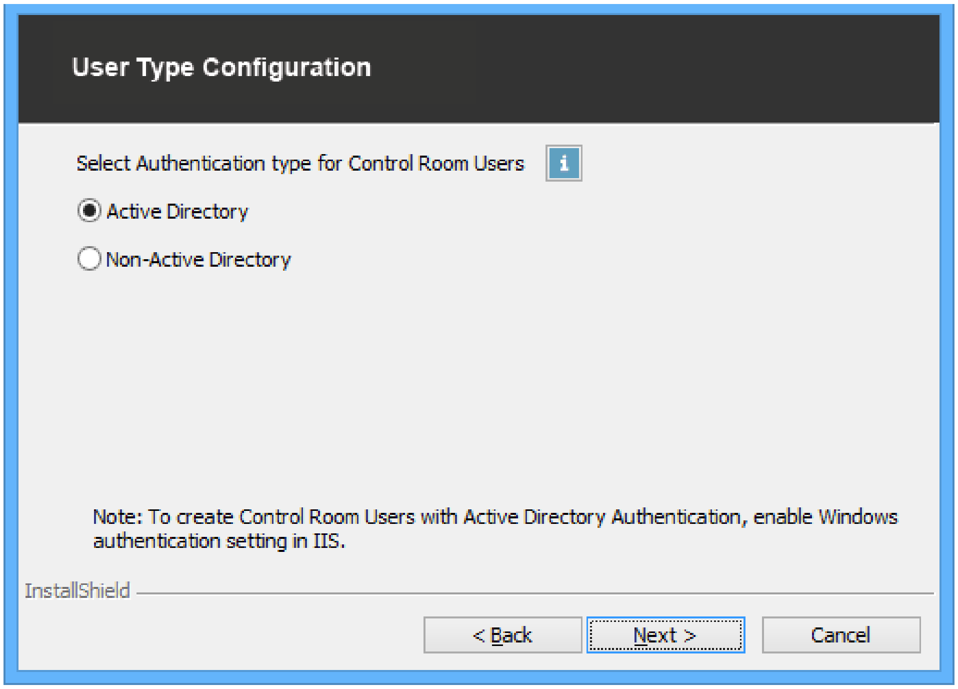
A database with the same name already exists for 'Non-Active Directory' Users. Would you like to reuse this database?

Note: Choosing 'Yes' will disallow changing authentication type from Active Directory to Non-Active Directory or vice versa.

i. Click on *No* to select a new database. The Database Configuration page re-appears. Input a new Database name and Click *Next.*

9. You must now configure a *User Type*.
NOTE: This step is also applicable to Control Room that is installed for the first time.
The Control Room database can be configured to allow creating either *Active Directory (AD)* users or *Non-Active Directory (non-AD)* users.

a. Select User Type to configure in Control Room.



User Type Configuration

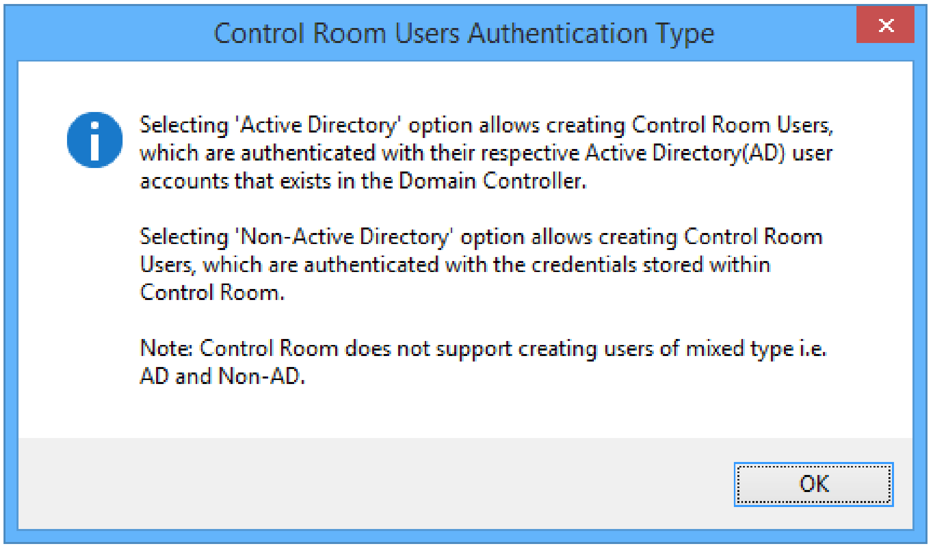
Select Authentication type for Control Room Users

● Active Directory

○ Non-Active Directory

Note: To create Control Room Users with Active Directory Authentication, enable Windows authentication setting in IIS.

TIP: Click the information button for more information on Control Room Users Authentication Type:



Control Room Users Authentication Type

Selecting 'Active Directory' option allows creating Control Room Users, which are authenticated with their respective Active Directory(AD) user accounts that exists in the Domain Controller.

Selecting 'Non-Active Directory' option allows creating Control Room Users, which are authenticated with the credentials stored within Control Room.

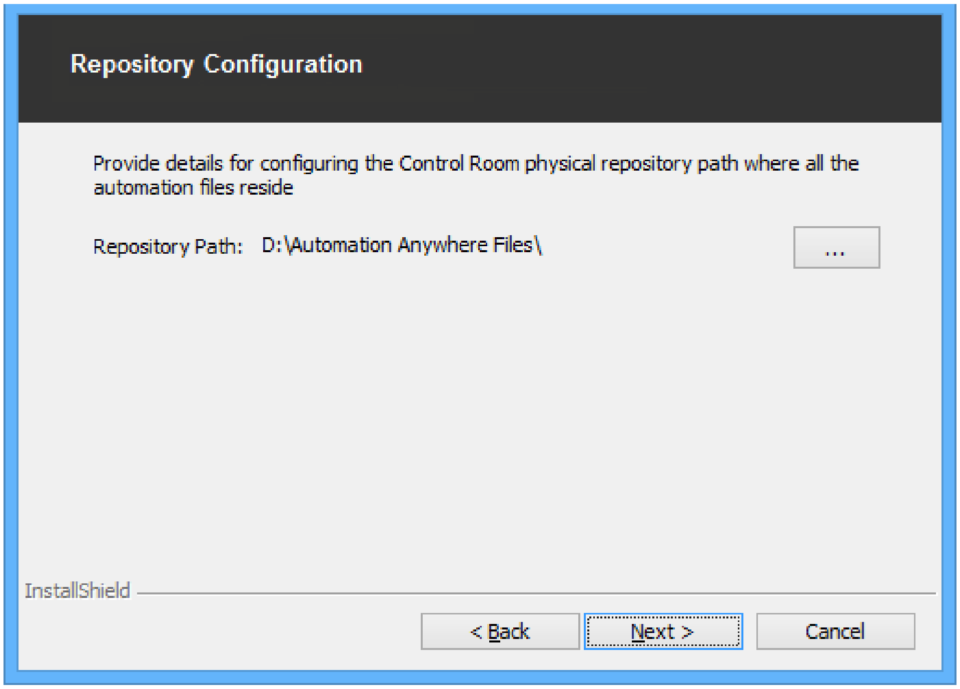
Note: Control Room does not support creating users of mixed type i.e. AD and Non-AD.

- **Active Directory Users –** Use this option when you would want the Client users of a specific domain to be authenticated with their Active Directory credentials.
- **Non-Active Directory Users –** Use this option when you would want the Client users to be authenticated using the Control Room database.

b. Click OK to return to the User Type Configuration page and select the User type.

c. Click Next.

10. The *Repository Configuration* page appears wherein you can set the Control Room Repository path. This is where your Automation Anywhere files are stored. You can opt to change the path in the installer by clicking the browse button.



Repository Configuration

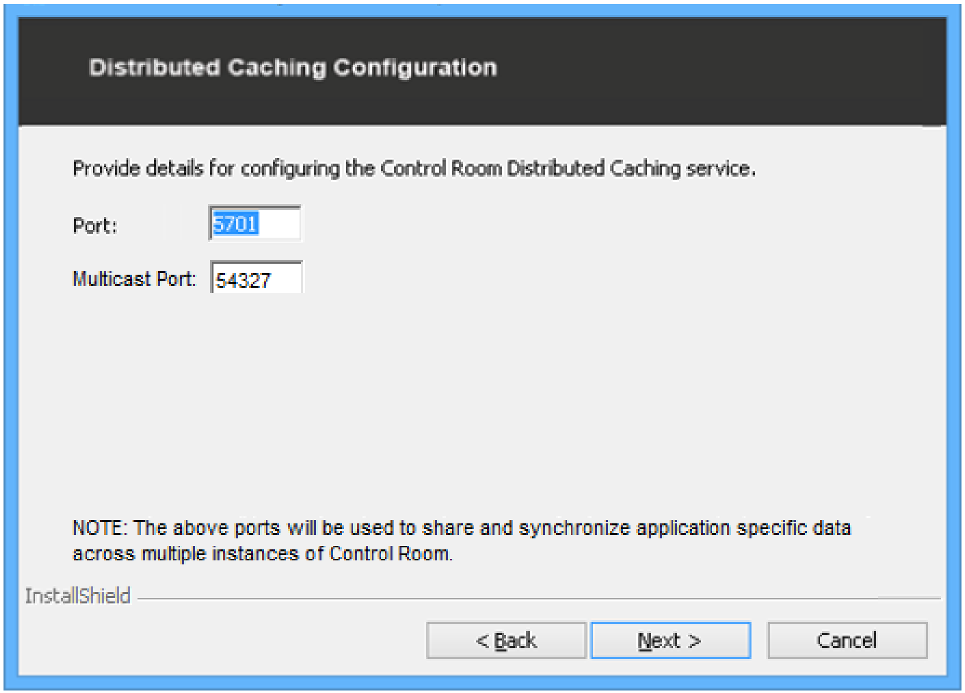
Provide details for configuring the Control Room physical repository path where all the automation files reside

Repository Path: D:\Automation Anywhere Files\

This configuration is available to users who are installing the Control Room with a new database.
You must have required access privileges to a folder that you choose as Repository. The default path is set to: "C:\Users\Public\Documents\Automation Anywhere Server Files".
TIP: You can also opt to edit the path from the Control Room settings, post installation.

11. Click *Yes* to continue using the same database with default user types and click *Next.*

12. The next step involves setting up a default port that will be used to share and synchronize application specific data across multiple instances of the Control Room in the *Distributed Caching Configuration* window.
    NOTE: The default port for sharing application specific data is set to **5701** and for synchronization, the Multicast port is set to **54327**.
    TIP: Ensure to unblock the Multicast port by writing inbound/outbound rules in your firewall for distributed caching services.



Distributed Caching Configuration

Provide details for configuring the Control Room Distributed Caching service.

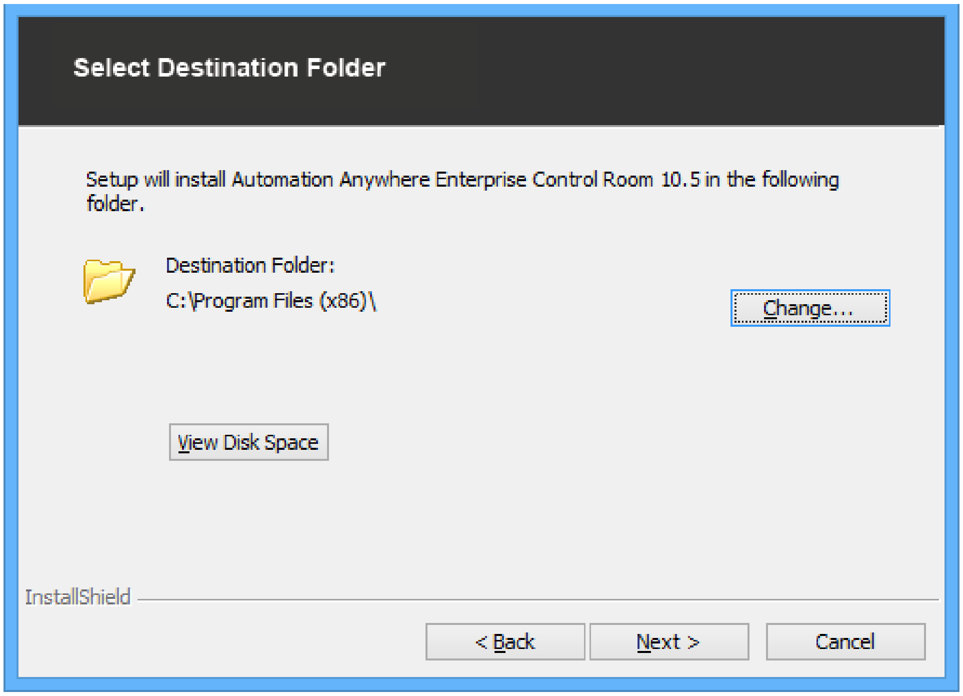
Port: 5701

Multicast Port: 54327

NOTE: The above ports will be used to share and synchronize application specific data across multiple instances of Control Room.

⚠ **Important:** Ensure all Control Room instances are being installed within the same Subnet mask. However, if TCP IP is configured, you can use different Subnet mask.

13. Click **Next**.
14. A **Select Destination Folder** appears. Here you can select the destination folder to install the Control Room application files.
    NOTE: By default, Control Room will be installed in C:\Program Files (X86)\

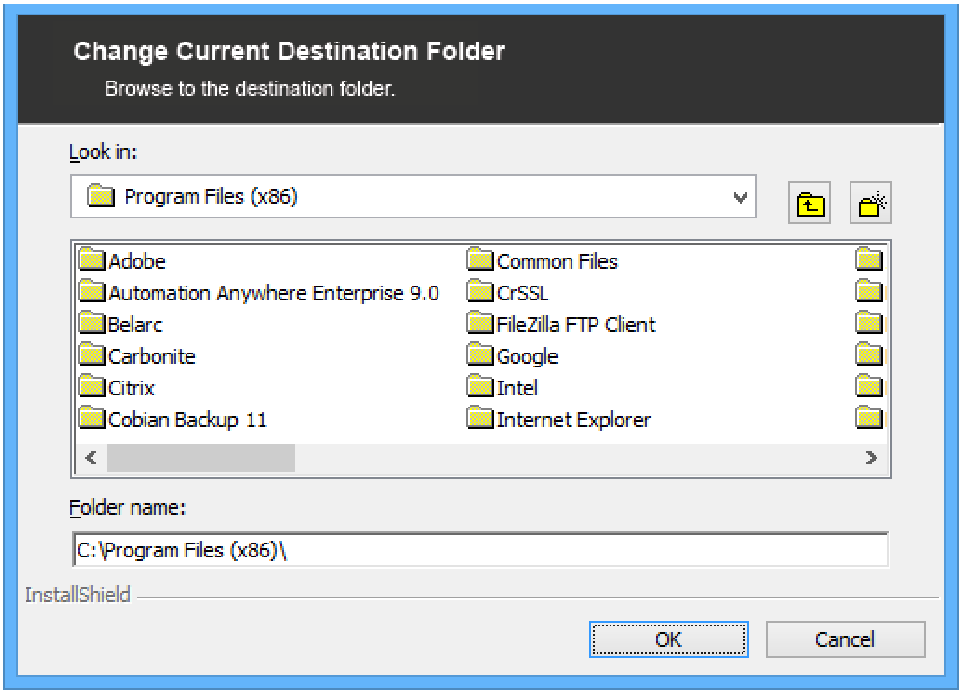


Select Destination Folder

Setup will install Automation Anywhere Enterprise Control Room 10.5 in the following folder.

Destination Folder:
C:\Program Files (x86)\

a. Click *Change* if you want to change the destination folder.



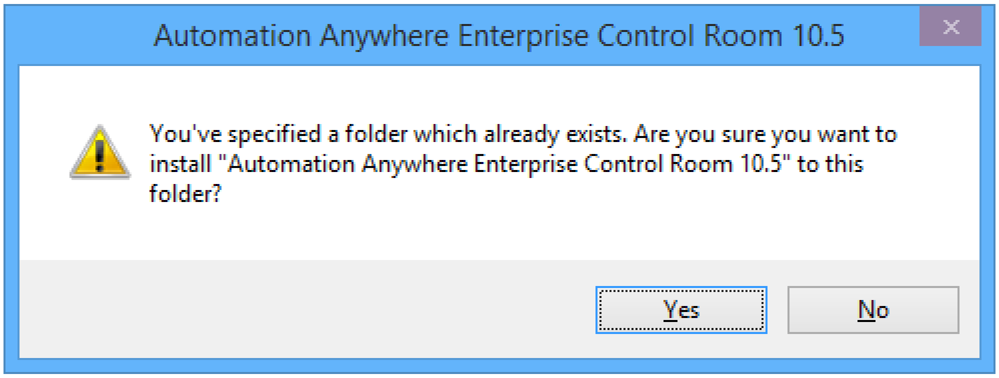
Change Current Destination Folder

Browse to the destination folder.

Look in: Program Files (x86)

Folder name: C:\Program Files (x86)\

- If an earlier instance of Control Room was installed, you can select an existing folder. However, a warning message appears:

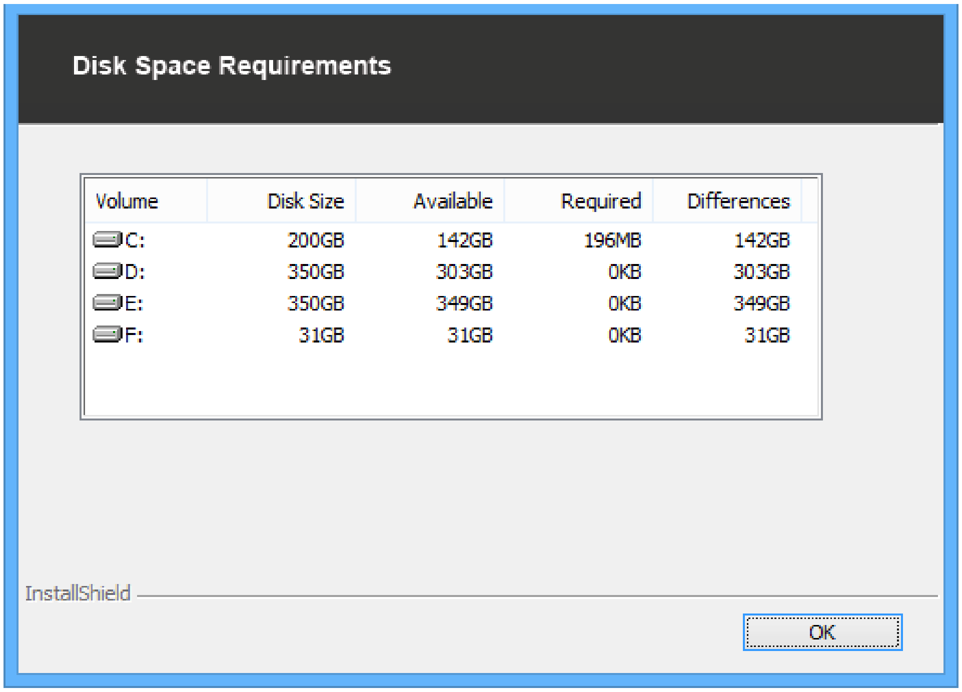


Automation Anywhere Enterprise Control Room 10.5

You've specified a folder which already exists. Are you sure you want to install "Automation Anywhere Enterprise Control Room 10.5" to this folder?

15. Select **No** to create another folder or **Yes** to use the existing folder.

b. Click *View Disk Space* in the Select Destination Folder page to view the disk space availability.

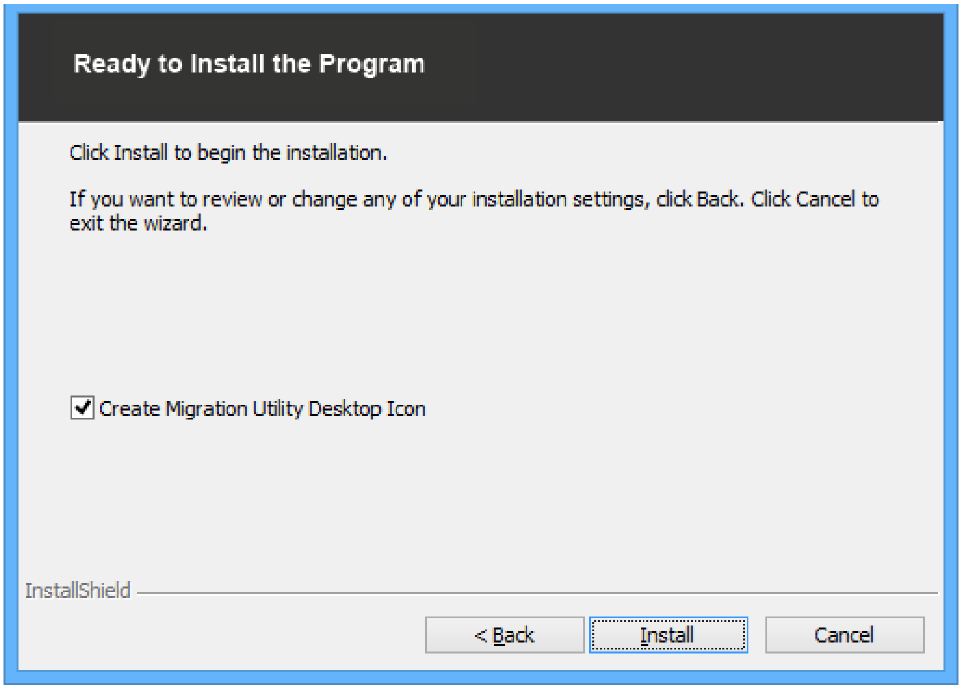


Disk Space Requirements

Volume	Disk Size	Available	Required	Differences
C:	200GB	142GB	196MB	142GB
D:	350GB	303GB	0KB	303GB
E:	350GB	349GB	0KB	349GB
F:	31GB	31GB	0KB	31GB

c. Click OK to return to the *Select Destination* page.

16. Click *Next*. A Ready to install the Program page appears.



Ready to Install the Program

Click Install to begin the installation.

If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.

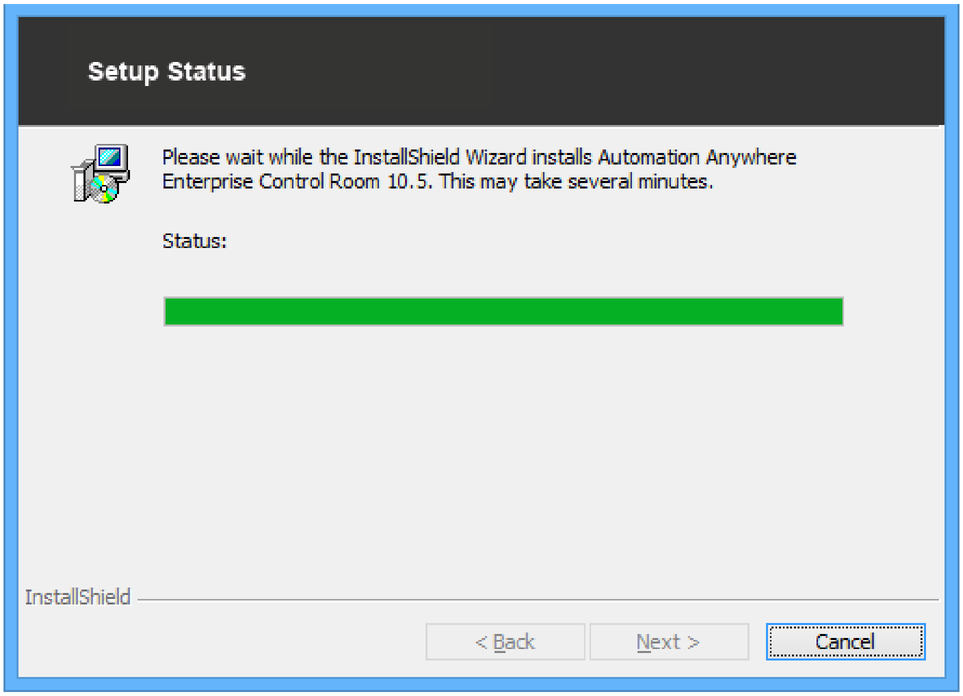
☑ Create Migration Utility Desktop Icon

By default, the Create Migration Utility option is enabled. This allows you to create a shortcut on desktop to access the Data Migration Utility that is used to migrate data from an earlier version of the Control Room database.

For details, refer the AAE Migration Utility Guide shipped with the product.
TIP: Disable the option if you do not have a database to migrate.

17. Click **Install**

18. The next page allows you to track setup status.



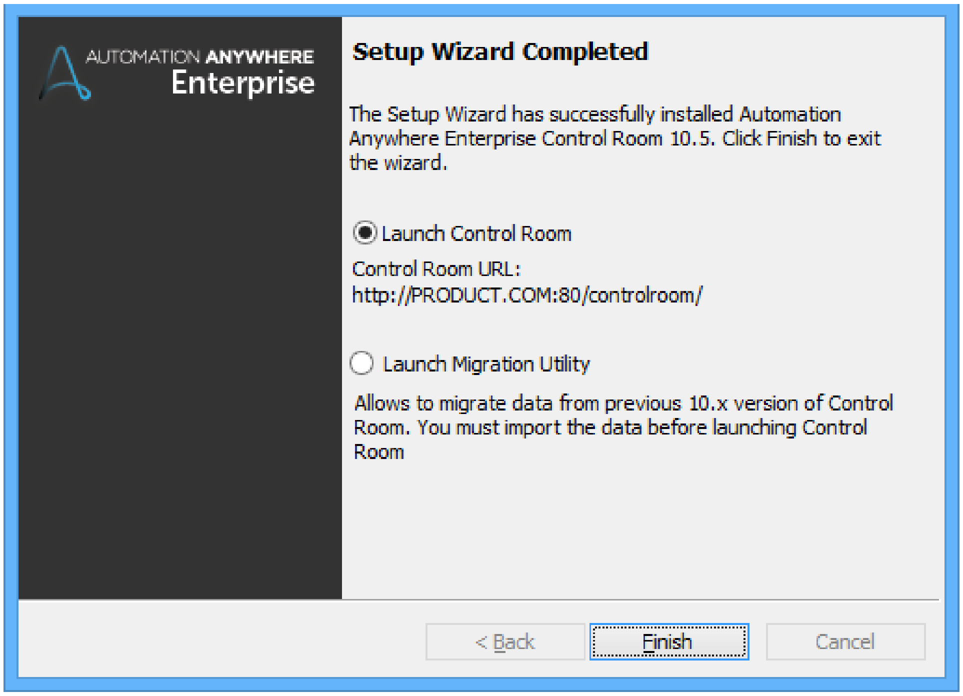
Setup Status

Please wait while the InstallShield Wizard installs Automation Anywhere Enterprise Control Room 10.5. This may take several minutes.

Status:

19. Now you can select to *launch* either the data *Migration Utility* or the *Control Room*.

    a. Opt to launch the *Control Room* if no data needs to be migrated from an earlier version (10.x.x) of Control Room.



Setup Wizard Completed

The Setup Wizard has successfully installed Automation Anywhere Enterprise Control Room 10.5. Click Finish to exit the wizard.

● Launch Control Room

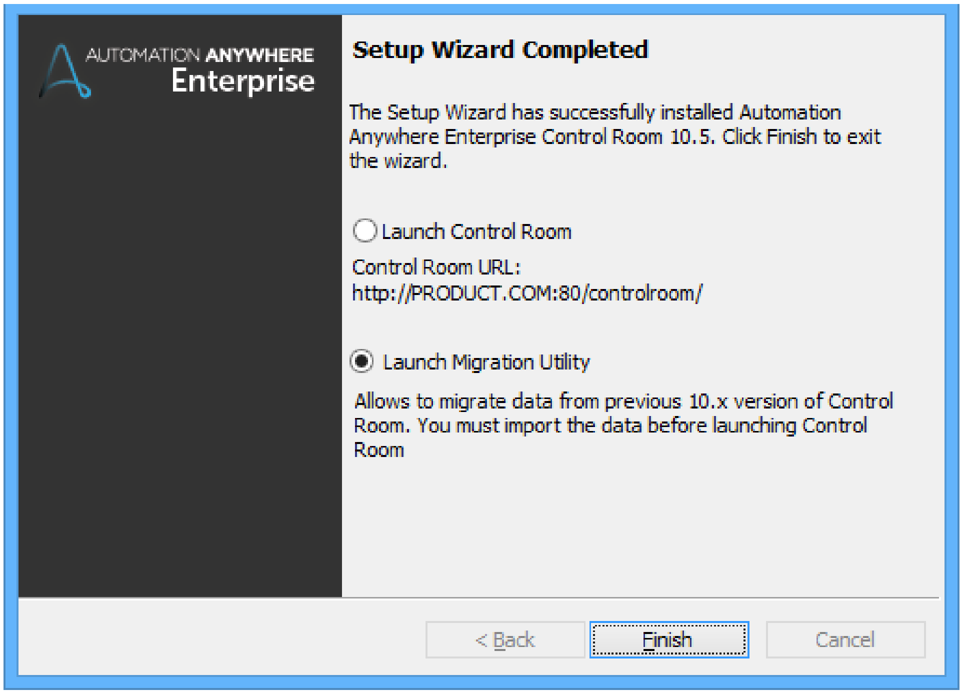
Control Room URL:
http://PRODUCT.COM:80/controlroom/

○ Launch Migration Utility

Allows to migrate data from previous 10.x version of Control Room. You must import the data before launching Control Room

NOTE: The Control Room application will launch in the default browser.

b. Opt to launch the *Data Migration Utility* to migrate data from an earlier version (10.x.x) of Control Room database.



Setup Wizard Completed

The Setup Wizard has successfully installed Automation Anywhere Enterprise Control Room 10.5. Click Finish to exit the wizard.

○ Launch Control Room

Control Room URL:
http://PRODUCT.COM:80/controlroom/

● Launch Migration Utility

Allows to migrate data from previous 10.x version of Control Room. You must import the data before launching Control Room

⚠ **Remember!** Note down the Control Room URL as you will require the same post migration to finish the process of configuring Control Room settings.

20. Click **Finish** to complete the installation process.

3.6.3 Important Note:

In order ensure seamless connectivity between the AAE Clients and the Control Room, the Control Room makes use of Hazelcast caching service; which works either in Multicast (UDP) or TCP port. By default, the Control Room uses Multicast port.

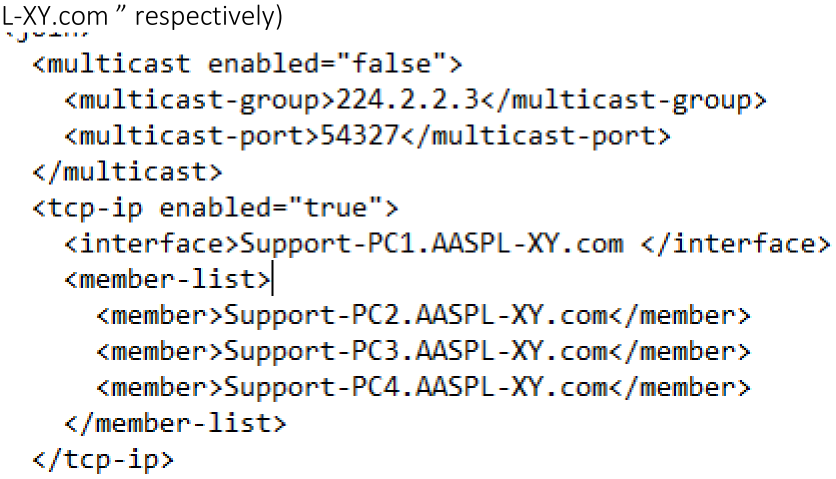
For multiple distributed set-ups (multiple Control Room deployments each having multiple application layers all within the same network), please follow the following steps.

Section-A: To continue using Multicast Port (UDP)

1. Go to the Application server and navigate to the Hazelcast path (e.g. "C:\Program Files (x86)\Automation Anywhere Enterprise 10.5\Control Room\Services\hazelcast-3.6.3\bin")
2. Stop Automation Anywhere Cache service from the "services.msc".
3. Take the back up of existing "hazelcast.xml" file which will be at the folder mentioned in step-1.
4. Edit the "hazelcast.xml" file
5. Change the *<multicast-group>* 's default value *224.2.2.3* to other value, which can be between 224.0.0.0 and 239.255.255.255.
   a. i.e. *<multicast-group>224.2.2.5</multicast-group>*
6. Start Automation Anywhere Cache service from the "services.msc".
7. Repeat steps 1 to 6 for all the Application Layer servers for same environment.

Section-B: To continue using TCP Port

1. Go to the Application server and navigate to the Hazelcast path (e.g. "C:\Program Files (x86)\Automation Anywhere Enterprise 10.5\Control Room\Services\hazelcast-3.6.3\bin")
2. Stop the Automation Anywhere Cache service from the "services.msc".
3. Take the back up of existing "hazelcast.xml" file which will be at the folder mentioned in step-1.

4. Edit the “hazelcast.xml” file
5. Set the “multicast enabled” tag value to false.
6. Enabled the “TCP/IP enabled” tag value to true.
7. In the “interface tag” replace the IP address “**12Window.0.1**”with **Host name of the current Application server**.
8. In the “member-list” tag remove the member tag contenting “**127.0.0.1**”.
9. Add the host name of all the other Application Layers (Production APP Layer and DR APP Layer) as member in the member-list tag.
10. Example of the Hazelcast file is shown below: (In this example we are having four Application Layer with the host name “Support-PC1.AASPL-XY.com , Support-PC2.AASPL-XY.com, Support-PC3.AASPL-XY.com, Support-PC4.AASPL-XY.com ” respectively)
    a. 

```
<multicast enabled="false">
  <multicast-group>224.2.2.3</multicast-group>
  <multicast-port>54327</multicast-port>
</multicast>
<tcp-ip enabled="true">
  <interface>Support-PC1.AASPL-XY.com </interface>
  <member-list>
    <member>Support-PC2.AASPL-XY.com</member>
    <member>Support-PC3.AASPL-XY.com</member>
    <member>Support-PC4.AASPL-XY.com</member>
  </member-list>
</tcp-ip>
```

11. Restarted the Automation Anywhere Cache service of current server.
12. Recycle the Automation Anywhere Application Pool service of current server.
13. Repeat the steps from **1 to 12 for** all the Application Layer server.

This concludes your installation in Custom – Distributed mode. You can repeat the above steps to install multiple CR application instances.

After finishing the setup, you must create a Control Room Admin. Refer the section on Setting up Control Room Post Installation.

3.6.4 Setting up Https Site Binding

Follow below steps to bind Control Room website with secured (SSL) server certificate. This is pre-requisite for configuring Control Room in HTTPS mode.

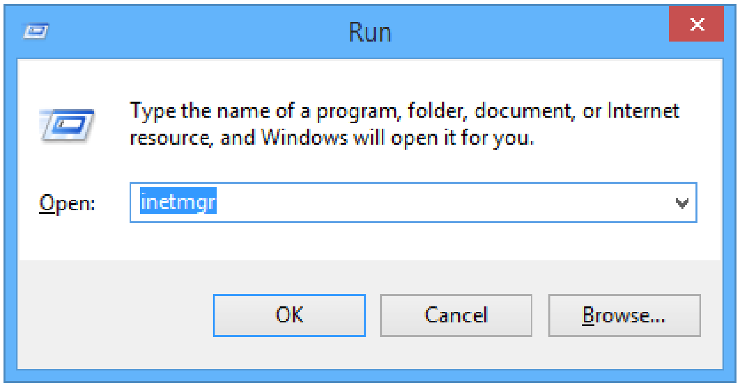
NOTE: For Control Room that is setup with multiple application layer (IIS), these steps should be repeated for each application layer.

⚠ **Important:** Ensure the server certificate is available to enable HTTPS site binding.

3.6.4.1 Importing a Server Certificate

To import a Server Certificate using the Internet Information (IIS) Manager, you can do the following:

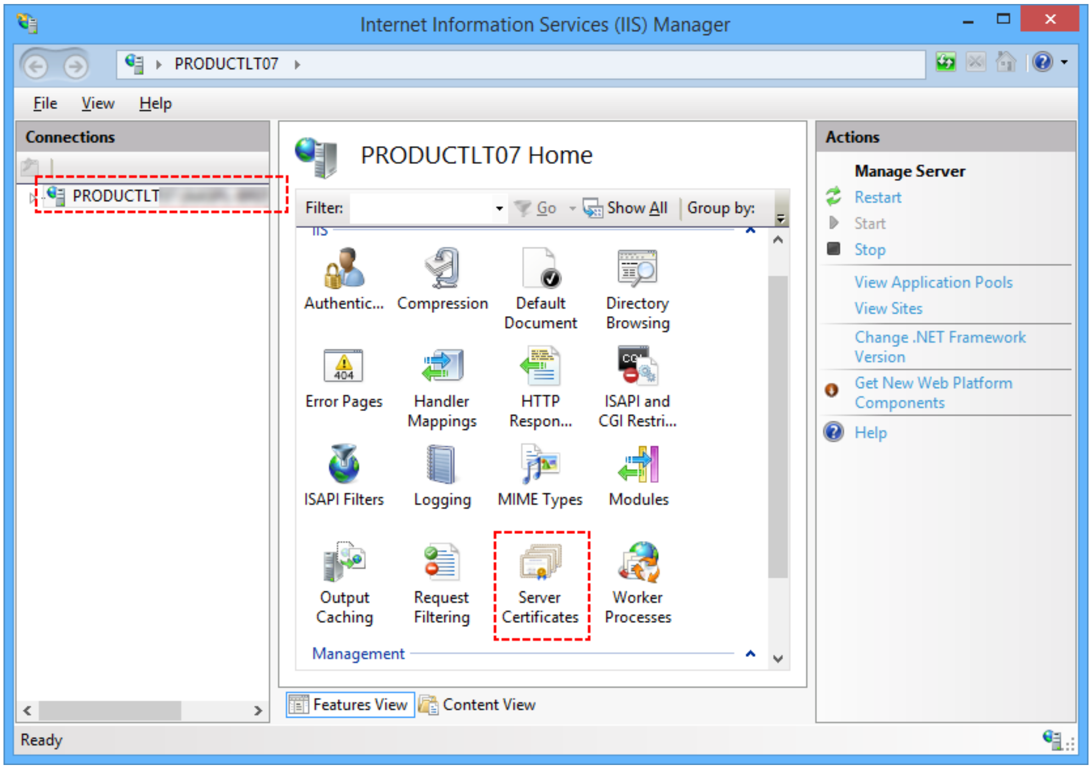
1. Invoke the IIS Manager using the short cut *Windows key + Run*→*"inetmgr"*



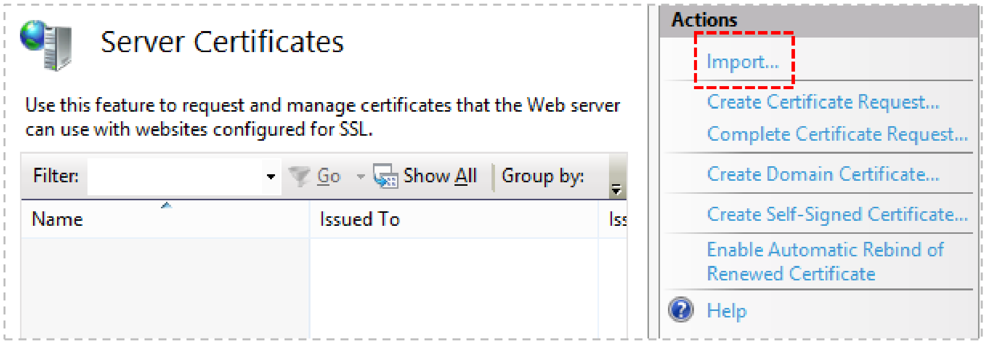
Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.

Open: inetmgr

2. Go to the root directory and select *Server Certificates* in IIS panel in *Features View* as shown:

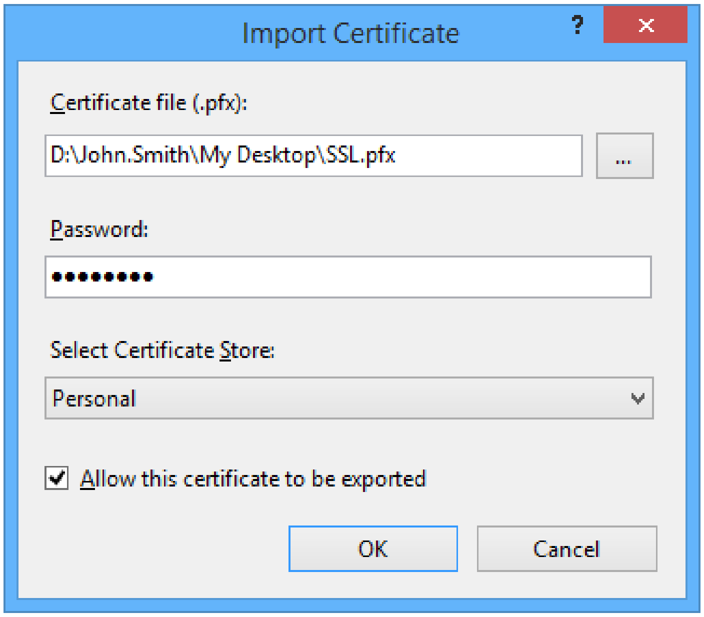


3. In the *Server Certificates* window, click on *Import* link to import an SSL Certificate.


Server Certificates
Filter:
Go
Show All
Group by:
Name
Issued To
Iss
Actions
Import...
Create Certificate Request...
Complete Certificate Request...
Create Domain Certificate...
Create Self-Signed Certificate...
Enable Automatic Rebind of Renewed Certificate
Help

Use this feature to request and manage certificates that the Web server can use with websites configured for SSL.

4. Select the certificate and fill in the required details as shown:



Certificate file (.pfx): D:\John.Smith\My Desktop\SSL.pfx

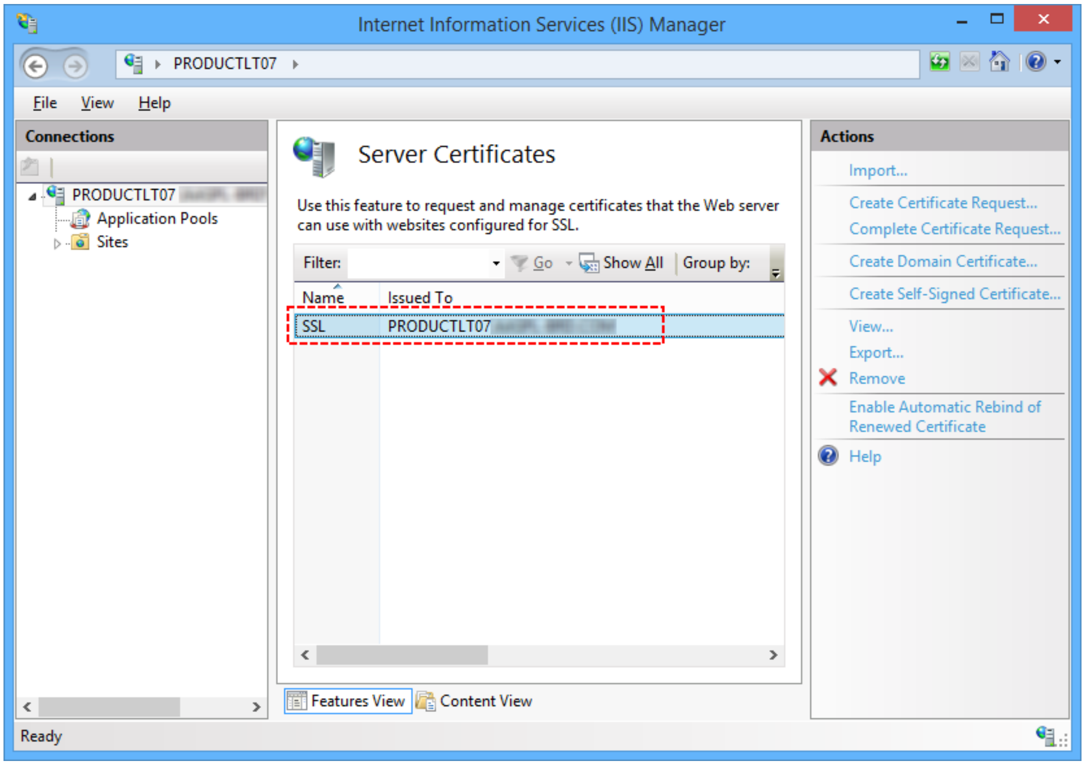
Password: ●●●●●●●●●

Select Certificate Store: Personal

☑ Allow this certificate to be exported

5. Click *OK*.

- The server certificate is imported successfully:

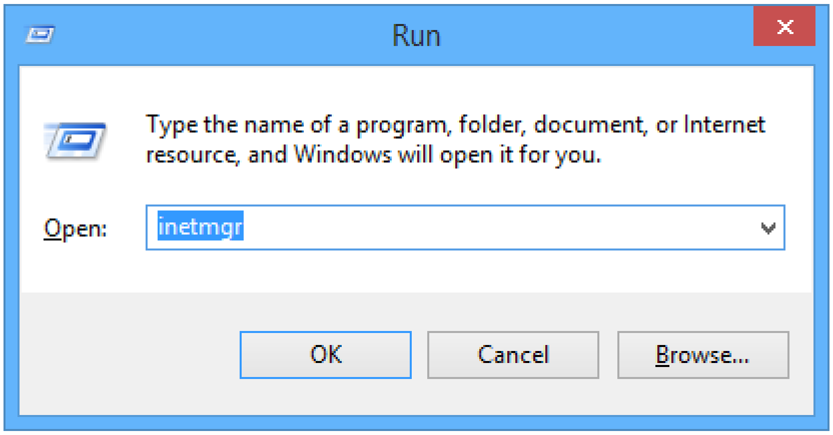

Internet Information Services (IIS) Manager
PRODUCTLT07
File
View
Help
Connections
PRODUCTLT07 [redacted]
Application Pools
Sites
Server Certificates
Filter:
Go
Show All
Group by:
Features View
Content View
Actions
Import...
Create Certificate Request...
Complete Certificate Request...
Create Domain Certificate...
Create Self-Signed Certificate...
View...
Export...
Remove
Enable Automatic Rebind of Renewed Certificate
Help
Ready

Use this feature to request and manage certificates that the Web server can use with websites configured for SSL.

Name	Issued To
SSL	PRODUCTLT07[redacted]

3.6.4.2 Site Binding

Site Bindings can be setup using the Internet Information Services (IIS) Manager, which can be invoked using the short cut *Windows key + Run → "inetmgr"*

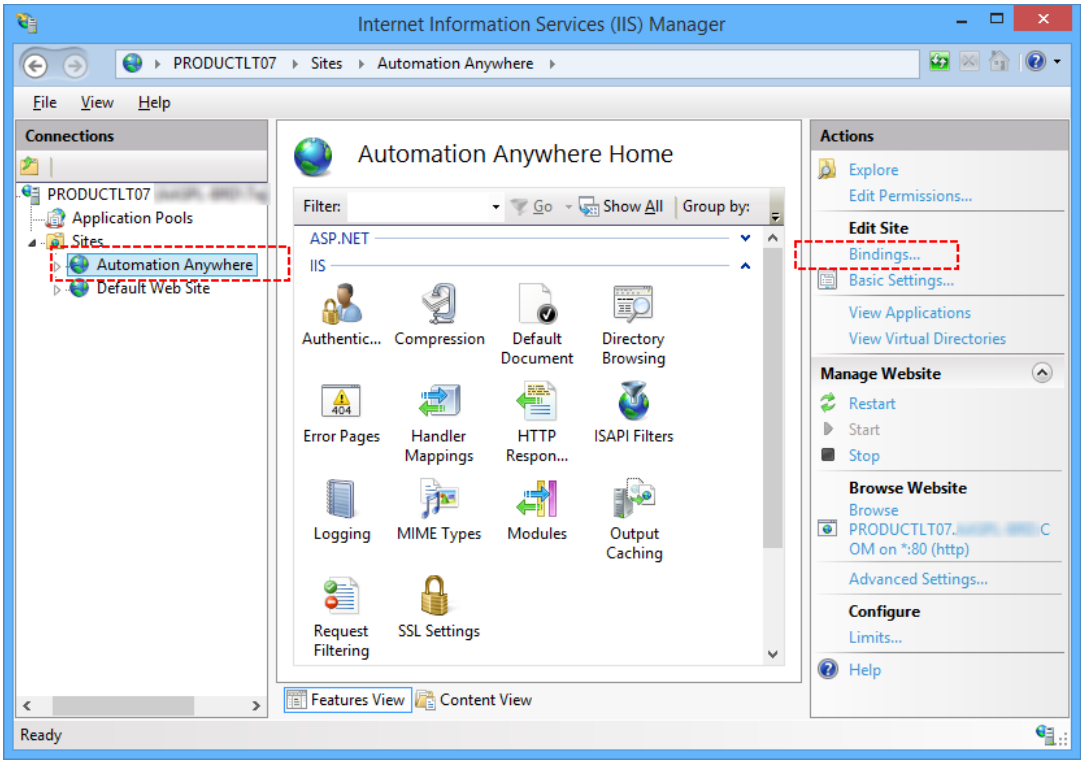


Run

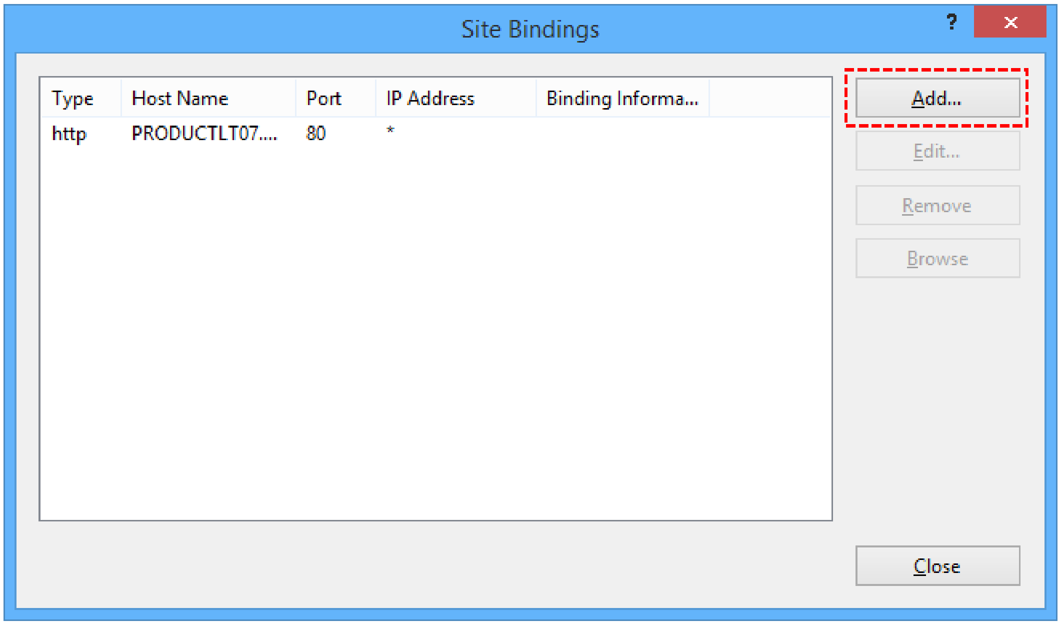
Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.

Open: inetmgr

1. In the Internet Information Services (IIS) Manager, select *Automation Anywhere* under *Sites* and click on *Bindings…* link in the right panel. (marked in image below):



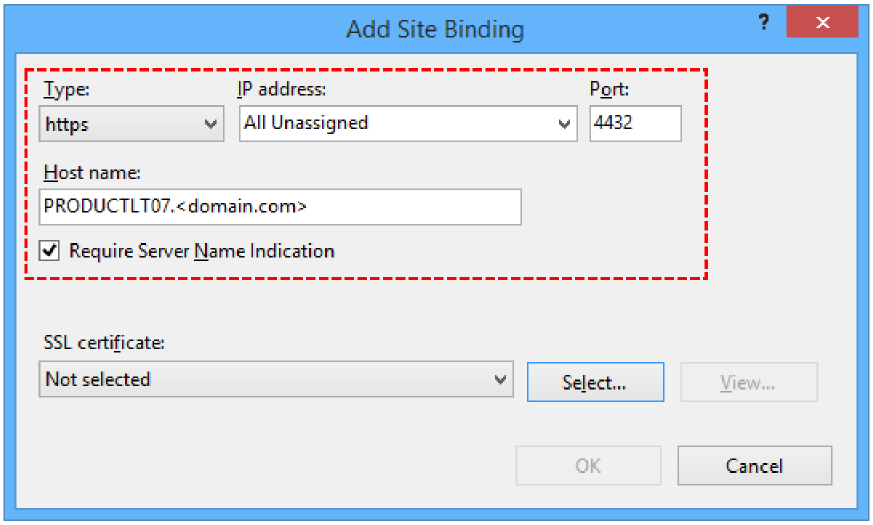
2. Click on Add button



Type	Host Name	Port	IP Address	Binding Informa...
http	PRODUCTLT07....	80	*	

3. In the Add Site Binding window, select Type *https*, Host name. Provide the port number assigned in application layer.
4. Provide the Hostname. Ensure that this is the same as mentioned in Server Certificate.

NOTE: If the Host name includes Server Name, enable the Require Server Name Indication option.



Type: https

IP address: All Unassigned

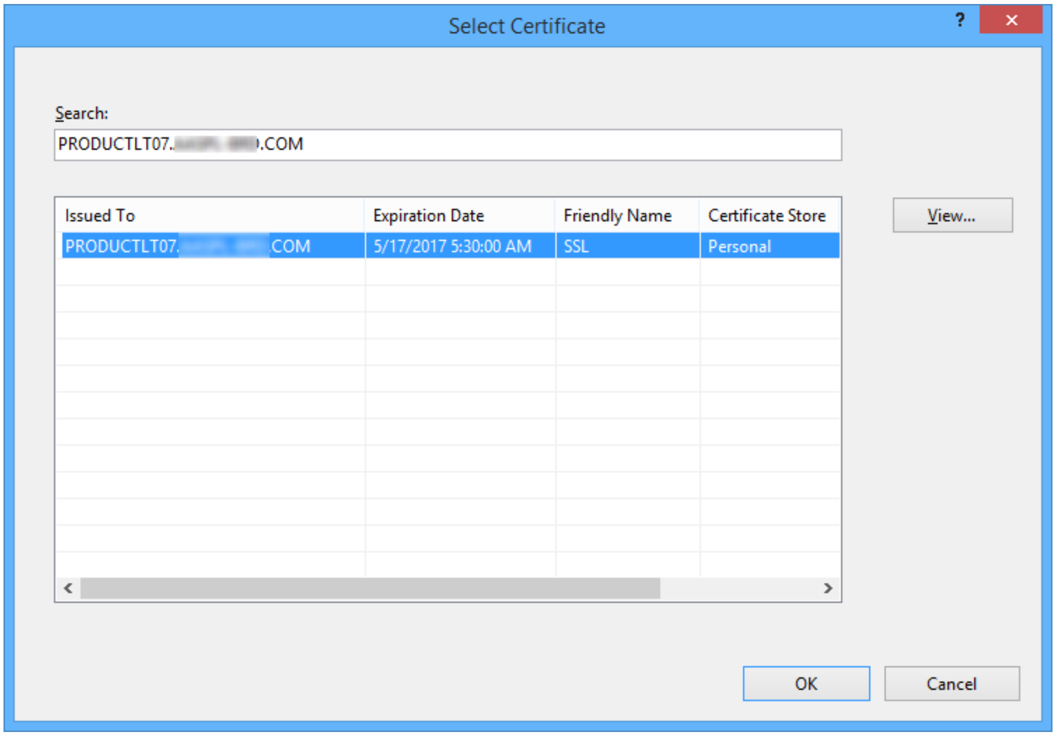
Port: 4432

Host name: PRODUCTLT07.<domain.com>

☑ Require Server Name Indication

SSL certificate: Not selected

5. *Select* the SSL certificate.



Search: PRODUCTLT07.[redacted].COM

Issued To	Expiration Date	Friendly Name	Certificate Store
PRODUCTLT07.[redacted].COM	5/17/2017 5:30:00 AM	SSL	Personal

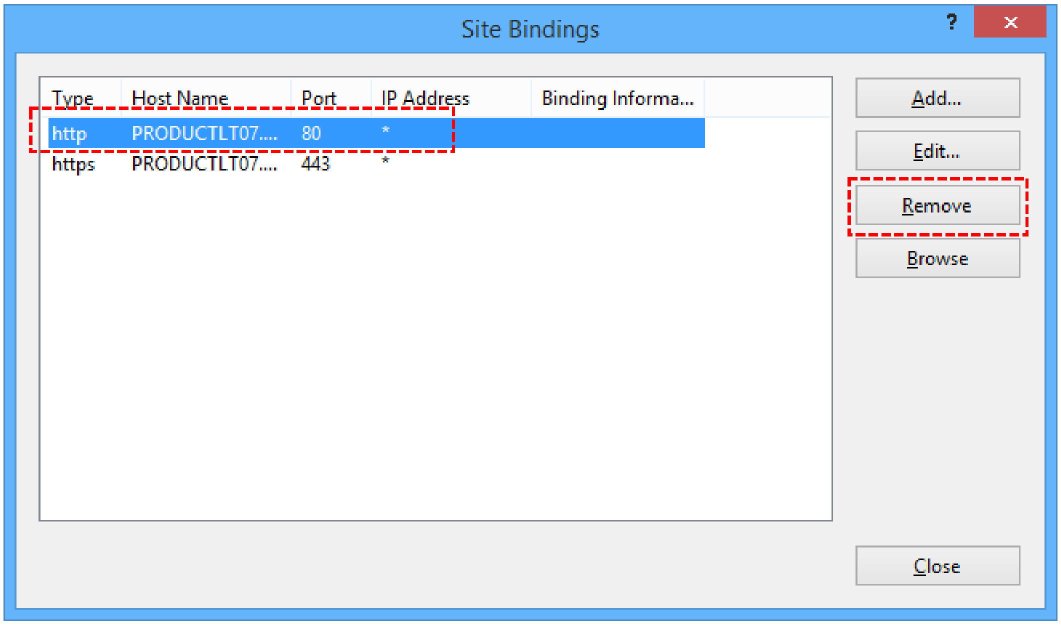
NOTE: The certificate will be visible only if it has been imported in *IS*→ *Server Certificates*. Refer the steps to know how to import certificates.

6. Click *OK* once done.

3.6.5 Editing Https Binding

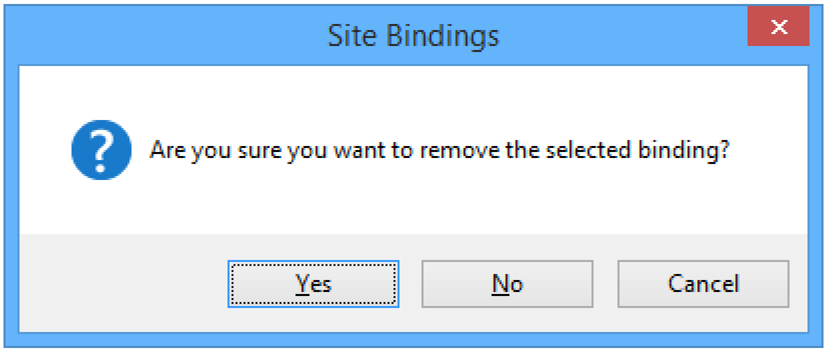
If you have an existing http binding, you will now have to delete it to keep a single binding.

1. To delete existing http binding, go to IIS Manager and select *Bindings* for *Automation Anywhere* website.
2. Select the *http* site binding and click *Remove*.



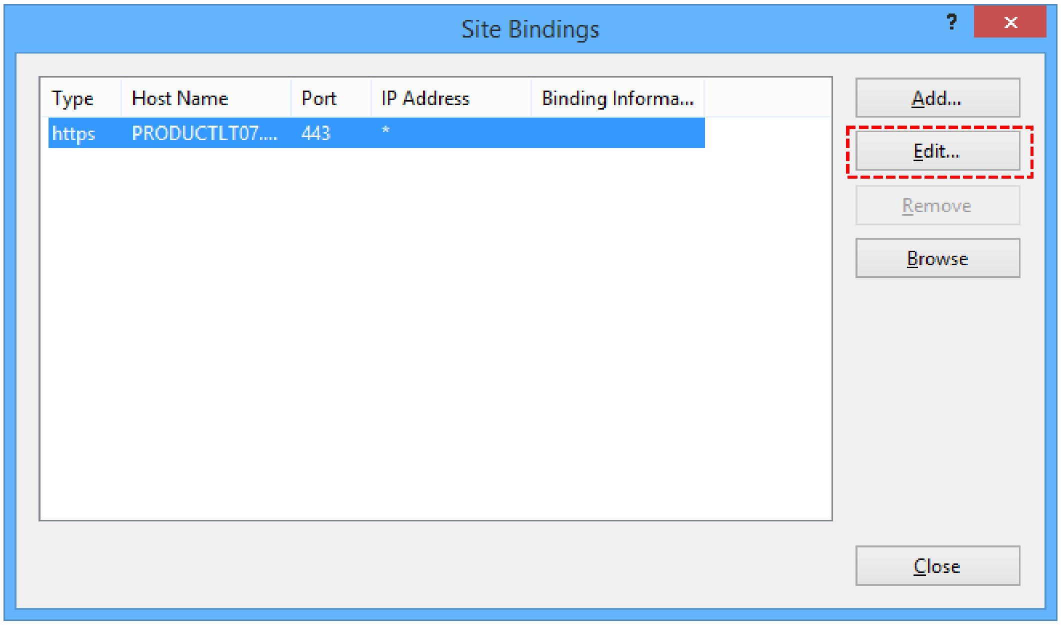
Type	Host Name	Port	IP Address	Binding Informa...
http	PRODUCTLT07....	80	*	
https	PRODUCTLT07....	443	*	

3. Confirm:



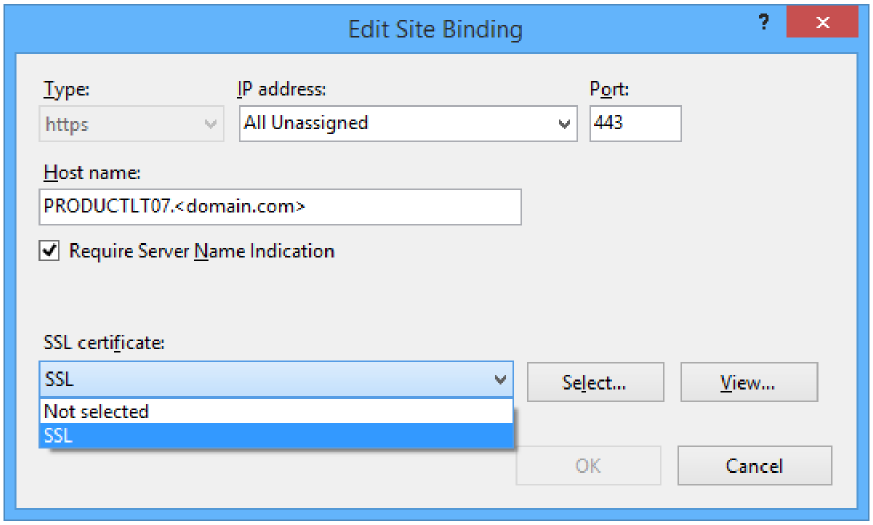
Are you sure you want to remove the selected binding?

4. Now, select the *https* site binding and click Edit.



Type	Host Name	Port	IP Address	Binding Informa...
https	PRODUCTLT07....	443	*	

5. Select the website configured for https and edit the port; specify 443 in the Edit Site Bindings window.



Type: https

IP address: All Unassigned

Port: 443

Host name: PRODUCTLT07.<domain.com>

☑ Require Server Name Indication

SSL certificate: SSL

Not selected
SSL

6. Save Bindings & restart Application from IIS Manager.

3.6.6 Converting Certificates to PFX Format

If you do not have a valid PFX file, you can convert your existing certificates such as p7b/ p7c to PFX certificates using the below method:

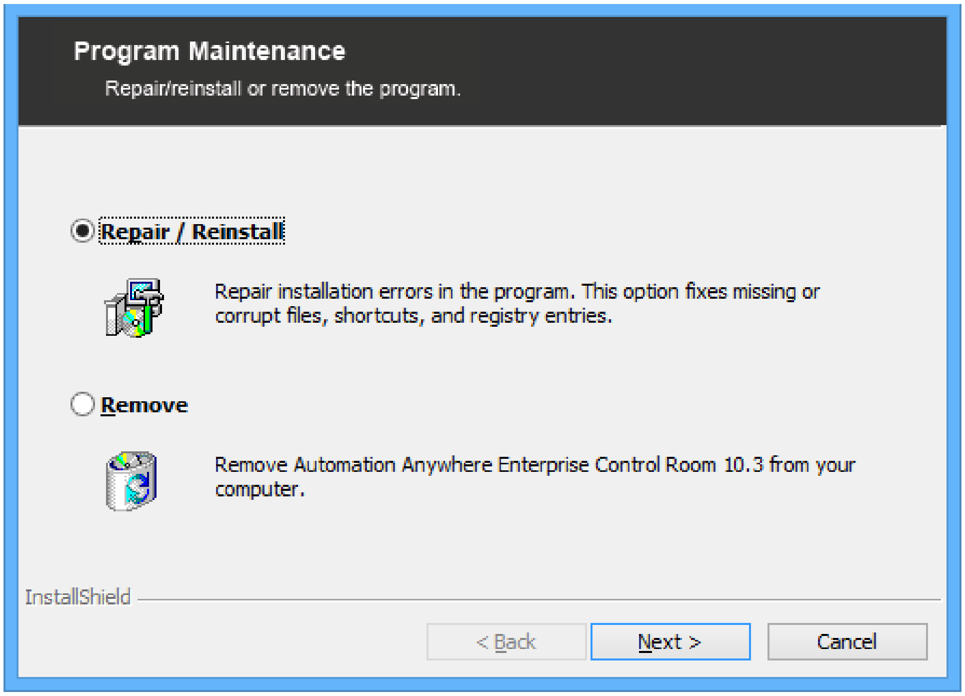
1. Generate valid PFX file with all the DNS Names along with Private key.
    - Create dedicated DNS entry to map the hostname with IP in the "hosts" file found in "C:\Windows\System32\drivers\etc\" for each Application and Shared servers.

      TIP: Application Server is where the Application layer in installed and Shared Server is where the Database and WebSocket configuration is running.
    - Attach the DNS entry into the existing p7b/p7c certificate.
    - Add the DNS entry into hosts file of Load Balancer server
    - Combine p7b/p7c with Private key using IIS
2. You now have the PFX certificate to make WebSocket and the Application Servers secure under Load Balancer. For details refer: https://www.ssl.com/how-to/combine-a-private-key-with-p7b-certificate-how-to-create-a-pfx-file/
3. Uninstall and install the Control Room
    - Uninstall Control Room from the Application Server
    - Install Control Room on the app server with the dedicated DNS name
    - Attach the certificate (PFX)
    - Perform steps a through c for all the other Application Servers (where the Application layer is installed)
    - Uninstall Control Room from the Shared Server (from where WebSocket and Database is running)
    - Install Control Room on the Shared Server with the dedicated DNS name
    - Attach the PFX certificate
4. Configure Application Server with Load Balancer
5. Browse to the Control Room from the Application Server
6. Configure Load Balancer and Web Socket Server Configuration

3.7 Repair/Reinstall

If for any reason, you need to repair/reinstall the Control Room that you had setup earlier, run the installation setup in Admin mode.

1. Select *Repair/Reinstall* option.



Program Maintenance

Repair/reinstall or remove the program.

● **Repair / Reinstall**

Repair installation errors in the program. This option fixes missing or corrupt files, shortcuts, and registry entries.

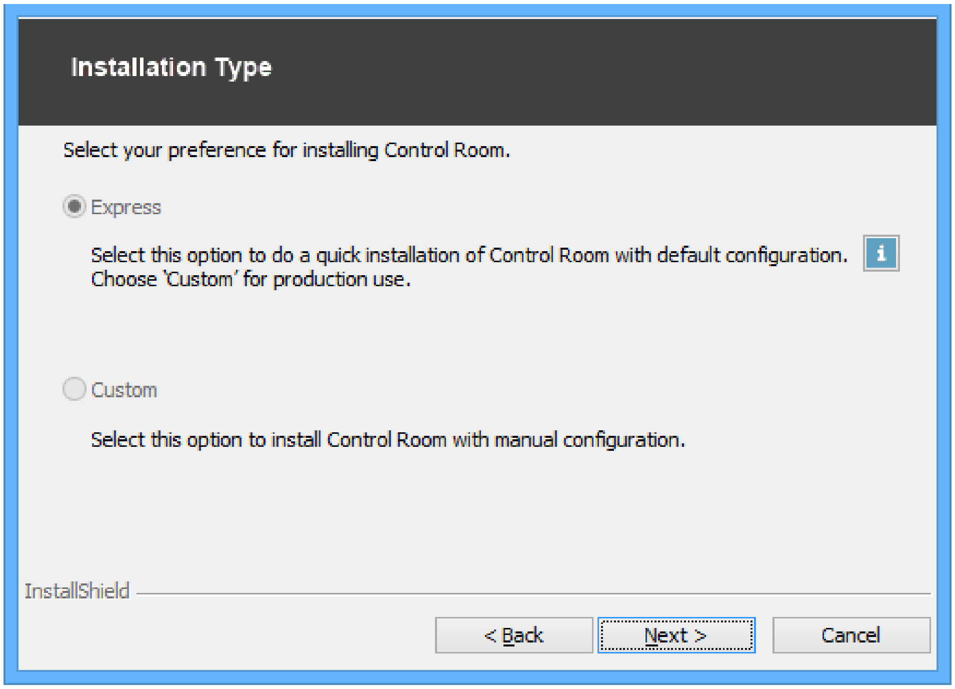
○ **Remove**

Remove Automation Anywhere Enterprise Control Room 10.3 from your computer.

NOTE: Use Repair/Reinstall if you want to fix missing or corrupt files, registry entries or update any of the existing configuration settings.

The process of **repair or reinstall is similar to installation** with a few differences:

2. The *Installation Type* will default to the previous mode of installation. There is no option to switch from *Express* to *Custom* and vice versa.



Installation Type

Select your preference for installing Control Room.

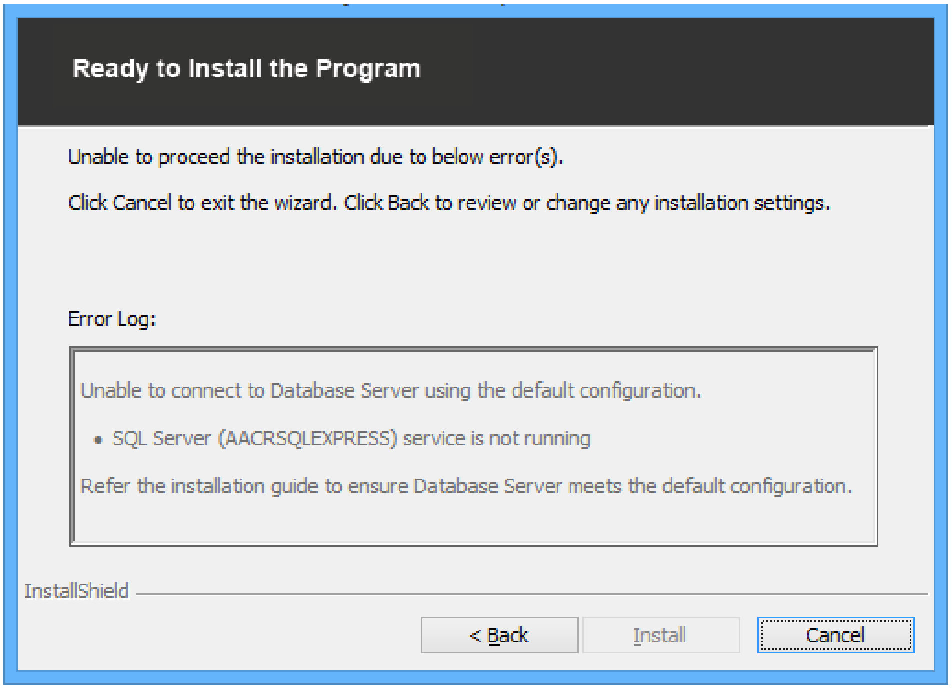
● Express

Select this option to do a quick installation of Control Room with default configuration. Choose 'Custom' for production use.

○ Custom

Select this option to install Control Room with manual configuration.

- In **Express mode**, the default configuration set previously will be reused. If the default configuration has changed before repair/reinstall, an error log will appear in the Ready to Install screen.



Ready to Install the Program

Unable to proceed the installation due to below error(s).

Click Cancel to exit the wizard. Click Back to review or change any installation settings.

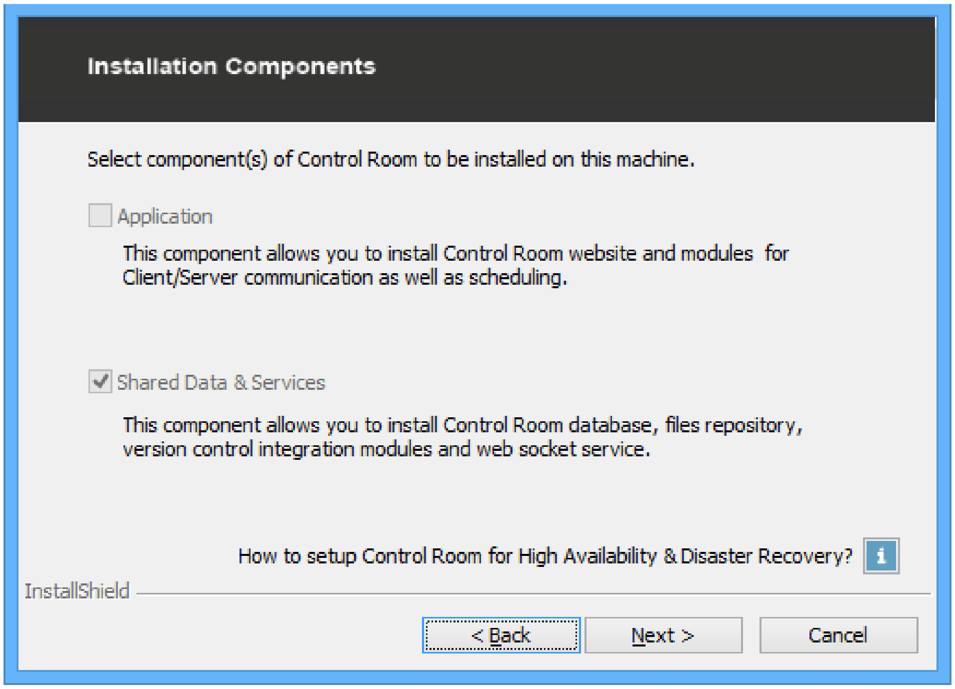
Error Log:

Unable to connect to Database Server using the default configuration.

- SQL Server (AACRSQLEXPRESS) service is not running

Refer the installation guide to ensure Database Server meets the default configuration.

- In **Custom mode**, there is no option to switch from *Application* to *Shared Data & Services* component and vice versa.



Installation Components

Select component(s) of Control Room to be installed on this machine.

□ Application

This component allows you to install Control Room website and modules for Client/Server communication as well as scheduling.

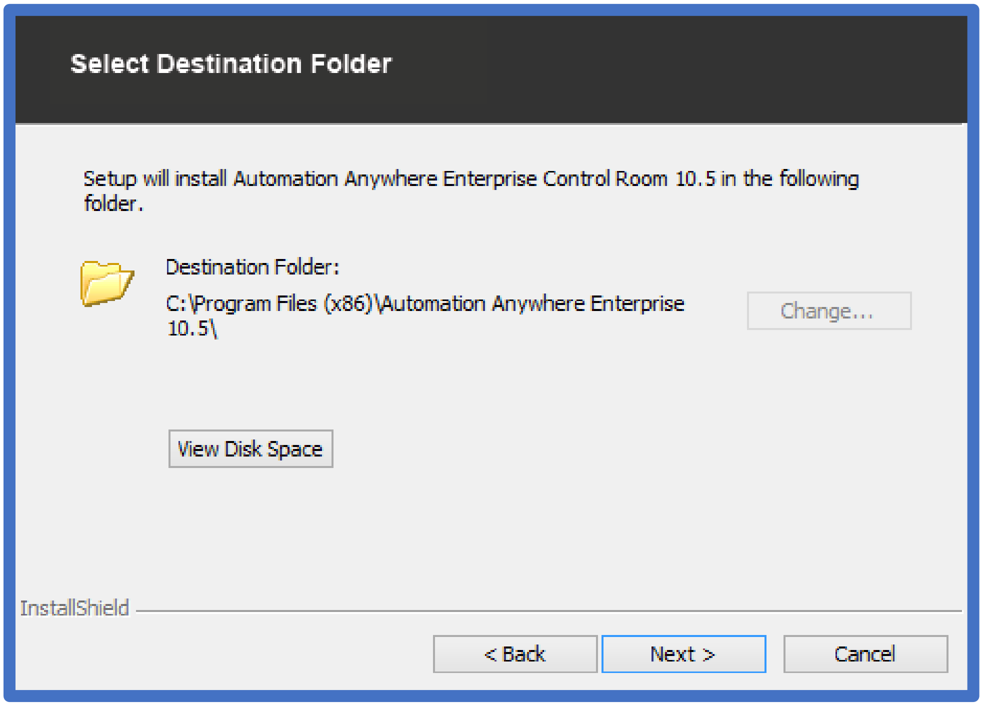
☑ Shared Data & Services

This component allows you to install Control Room database, files repository, version control integration modules and web socket service.

How to setup Control Room for High Availability & Disaster Recovery?

NOTE: Fields that require input are pre-filled with the last saved inputs. Refer [Custom- Standalone Mode of Installation](#) to proceed.

- In case of **Select Destination folder** screen, the Change button remains disabled. This ensures that AAE 10.5 files are on the same path where setup was installed earlier.



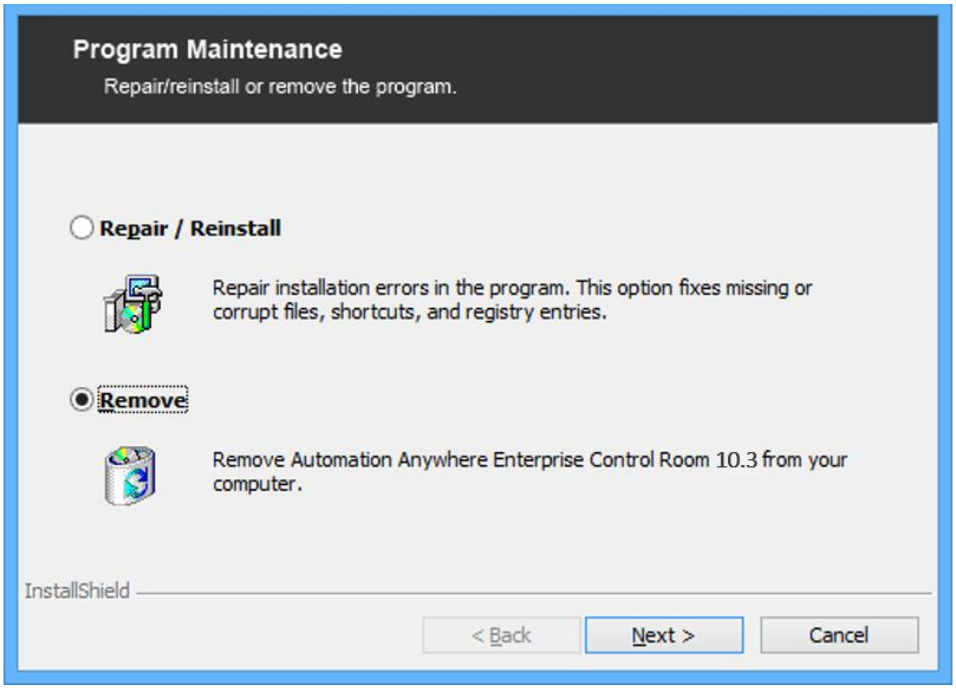
Select Destination Folder

Setup will install Automation Anywhere Enterprise Control Room 10.5 in the following folder.

Destination Folder:
C:\Program Files (x86)\Automation Anywhere Enterprise 10.5\

3.8 Remove (Uninstall)

1. Run the installation setup in Admin mode.
2. Select *Remove* to uninstall the Control Room from your machine.



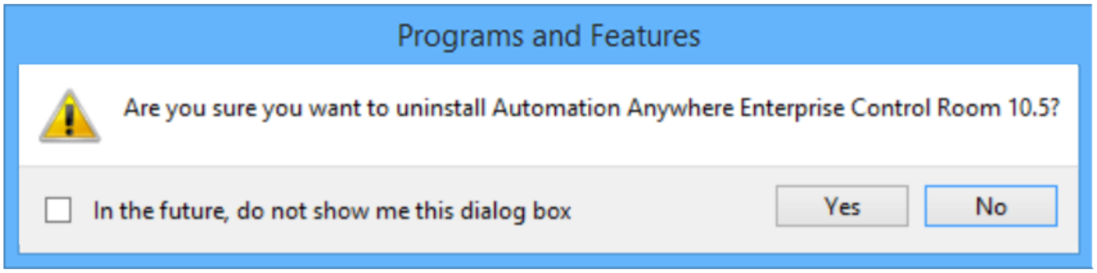
Program Maintenance
Repair/reinstall or remove the program.

○ Repair / Reinstall
Repair installation errors in the program. This option fixes missing or corrupt files, shortcuts, and registry entries.

● Remove
Remove Automation Anywhere Enterprise Control Room 10.3 from your computer.

3. Alternatively, open *Control Panel*→ *Programs and Features*, select Control Room 10.x.x and click *Uninstall*.

4. Then click *Yes* to uninstall.

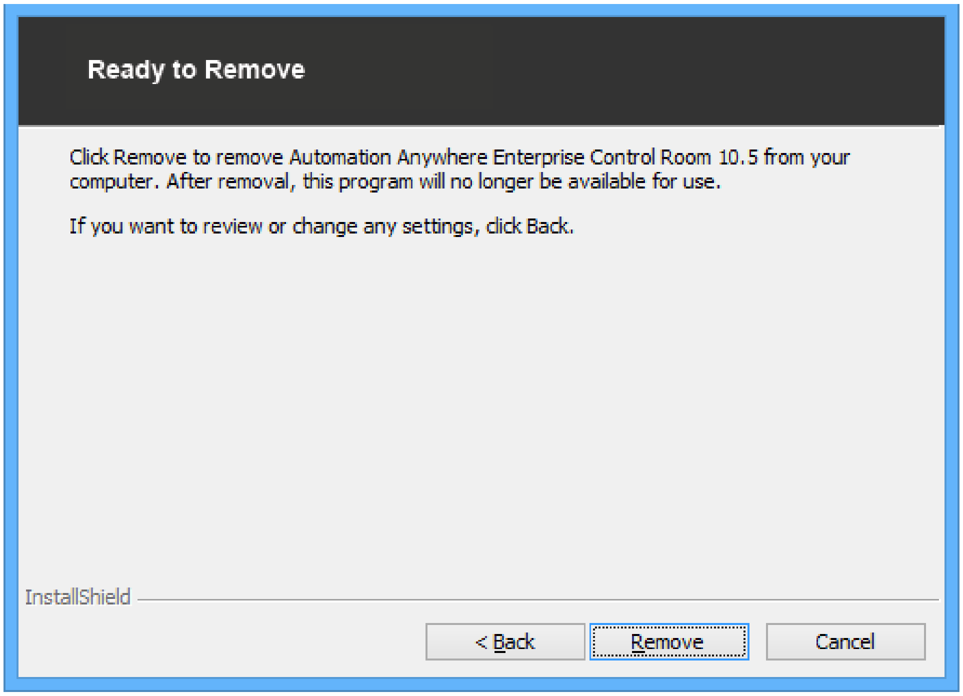


Programs and Features

Are you sure you want to uninstall Automation Anywhere Enterprise Control Room 10.5?

☐ In the future, do not show me this dialog box

5. Click *Remove* to uninstall Control Room.

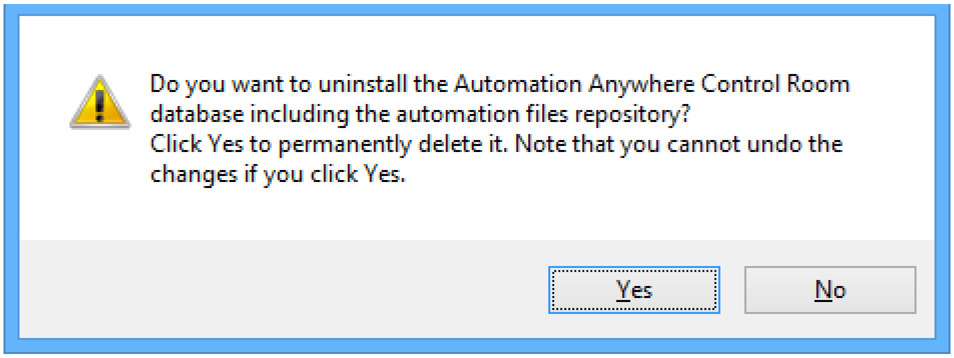


Ready to Remove

Click Remove to remove Automation Anywhere Enterprise Control Room 10.5 from your computer. After removal, this program will no longer be available for use.

If you want to review or change any settings, click Back.

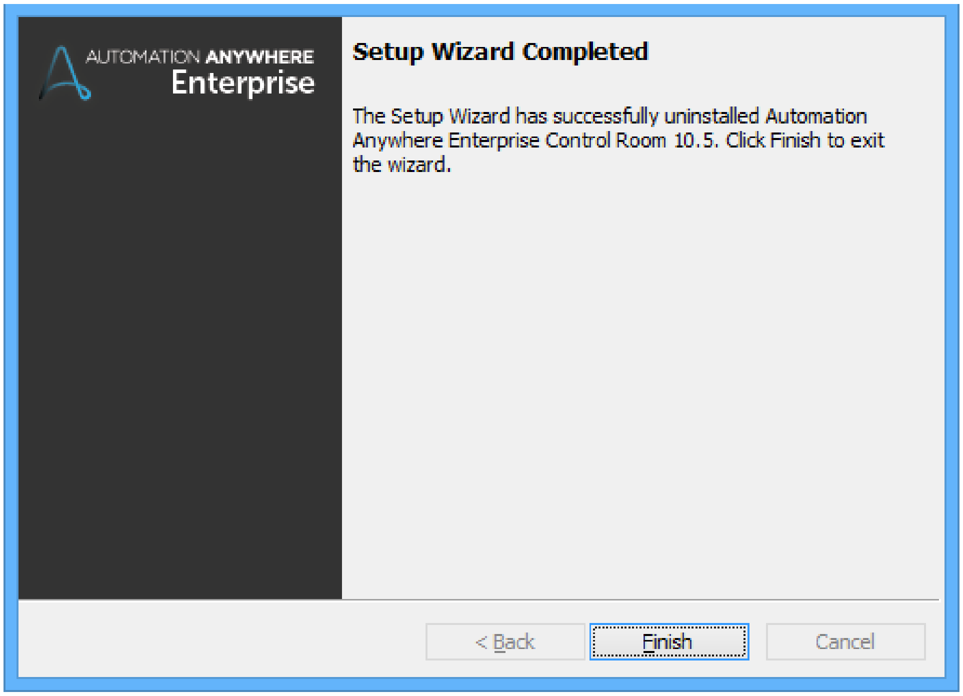
NOTE: If Express mode was selected during installation then the below mentioned confirmation message will appear:



Do you want to uninstall the Automation Anywhere Control Room database including the automation files repository?
Click Yes to permanently delete it. Note that you cannot undo the changes if you click Yes.

- To delete it permanently click *Yes*; to ignore deletion click *No*.
- If Custom mode was selected during installation, then the Remove option will remove the installed component – Application or Shared Data & Services or both.
  NOTE: You can opt to remove the Control Room database from the Database Management System manually as it shall not be uninstalled.

6. Click **Finish** to complete uninstallation of AAE.



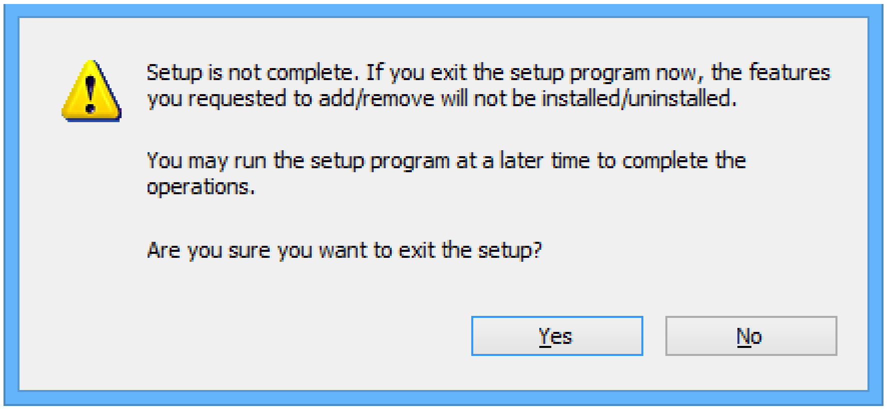
Setup Wizard Completed

The Setup Wizard has successfully uninstalled Automation Anywhere Enterprise Control Room 10.5. Click Finish to exit the wizard.

Note: Rollback to previous version of Control Room Server(s) (Standalone & Distributed – High-Availability Control Room deployment)**.** As 10.5 (SP2) is full setup install there is no rollback possible, you must completely uninstall the current version 10.5 (SP2) (refer section 3.8) and install the previous version of AAE Control Room as applicable with complete down time.

3.9 Cancel Installation

1. Click *Cancel* at any point in time during installation.
2. Click *Yes* to exit the current installation.

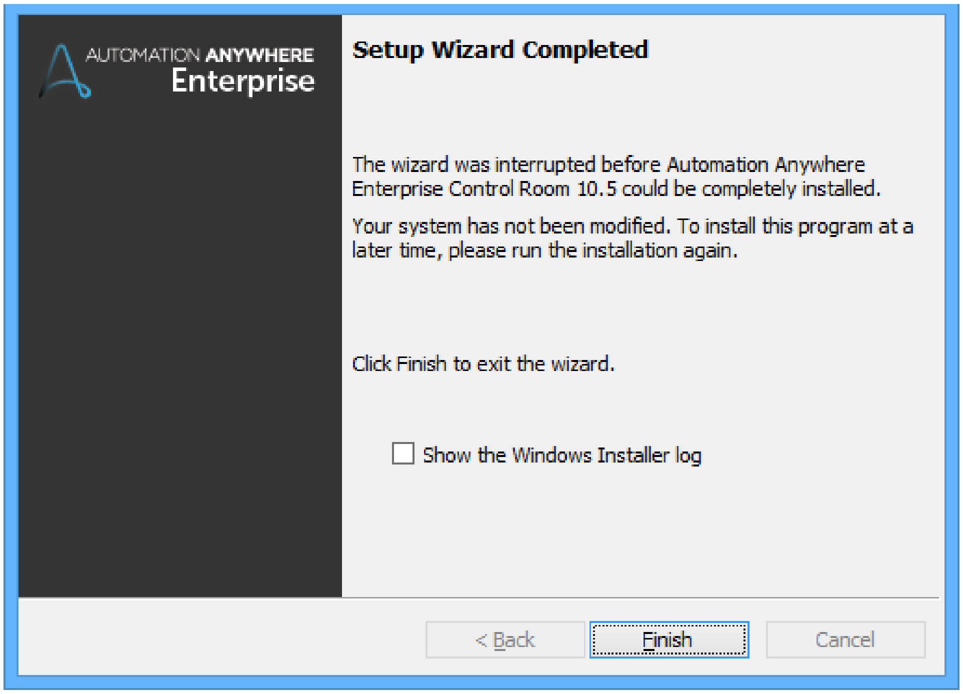


Setup is not complete. If you exit the setup program now, the features you requested to add/remove will not be installed/uninstalled.

You may run the setup program at a later time to complete the operations.

Are you sure you want to exit the setup?

3. Click *Finish* to complete the cancellation process.



Setup Wizard Completed

The wizard was interrupted before Automation Anywhere Enterprise Control Room 10.5 could be completely installed.

Your system has not been modified. To install this program at a later time, please run the installation again.

Click Finish to exit the wizard.

□ Show the Windows Installer log

NOTE: To view the Windows installer logs, select the Show the Windows Installer log option.

.

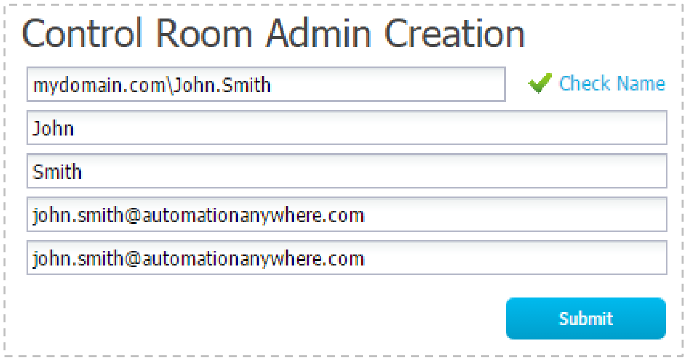
4 AAE Control Room- Post Installation Setup

The Control Room launches in default browser. You must create a Control Room Admin before you can begin using the Control Room. Depending upon the user type selected during installation i.e. Active Directory user or Non-AD user, Control Room Admin creation differs.

4.1 Creating the Control Room Admin

For Active Directory Users, the Control Room Admin creation entails:

1. Verifying the Username within the Domain.
2. Providing Windows credentials, which shall be used by the Control Room Admin to login to the Control Room.
3. Email for sending a link for user verification



Control Room Admin Creation

mydomain.com\John.Smith

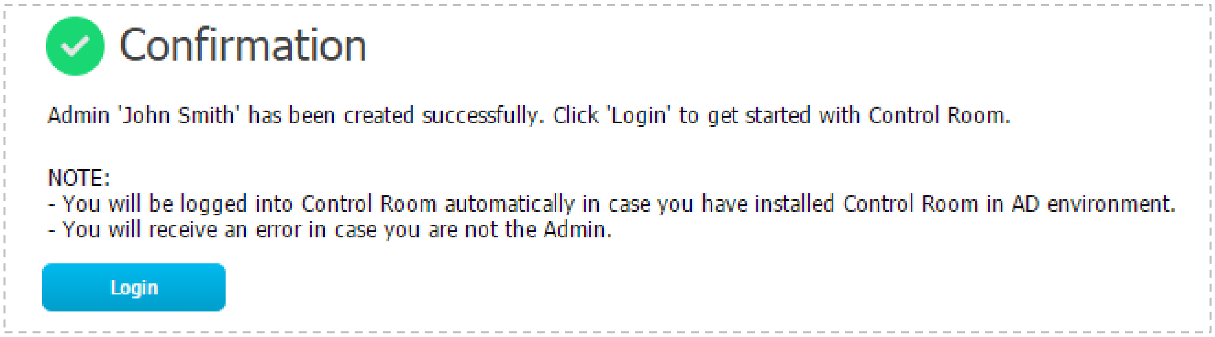
John

Smith

john.smith@automationanywhere.com

john.smith@automationanywhere.com

4. On submitting the information, a confirmation is denoted with a Login screen.
5. Click on *Login* to configure the Credential Vault.



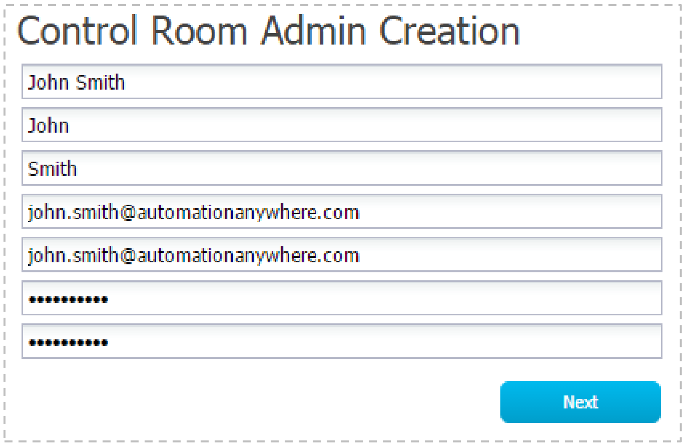
Confirmation

Admin 'John Smith' has been created successfully. Click 'Login' to get started with Control Room.

NOTE:
- You will be logged into Control Room automatically in case you have installed Control Room in AD environment.
- You will receive an error in case you are not the Admin.

For Non-Active Directory Users, the Control Room Admin creation entails:

1. Inputting credentials – Username, First Name (optional), Last Name (optional), email, and password for the Control Room login.



Control Room Admin Creation

John Smith

John

Smith

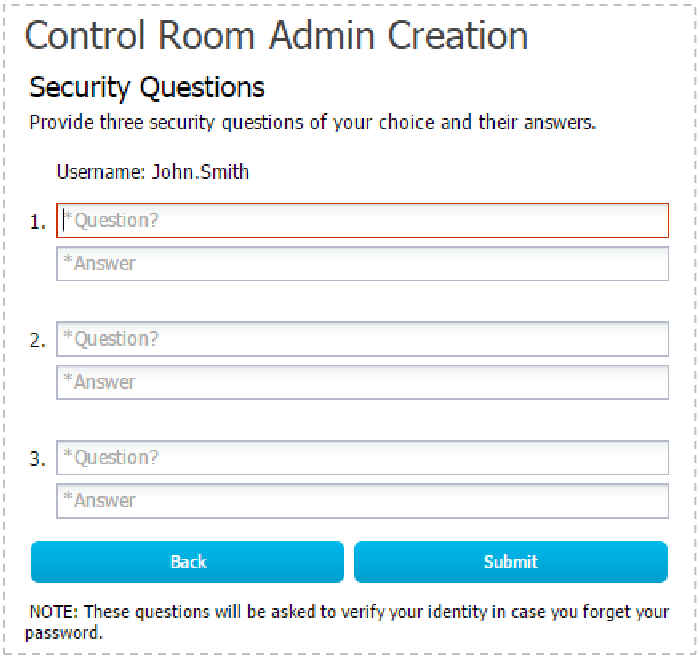
john.smith@automationanywhere.com

john.smith@automationanywhere.com

••••••••••

••••••••••

2. Providing Q&A for enhanced security - Input your choice of security questions and their answers that will be used to verify the *Admin* identity if the password is forgotten:



Control Room Admin Creation

Security Questions

Provide three security questions of your choice and their answers.

Username: John.Smith

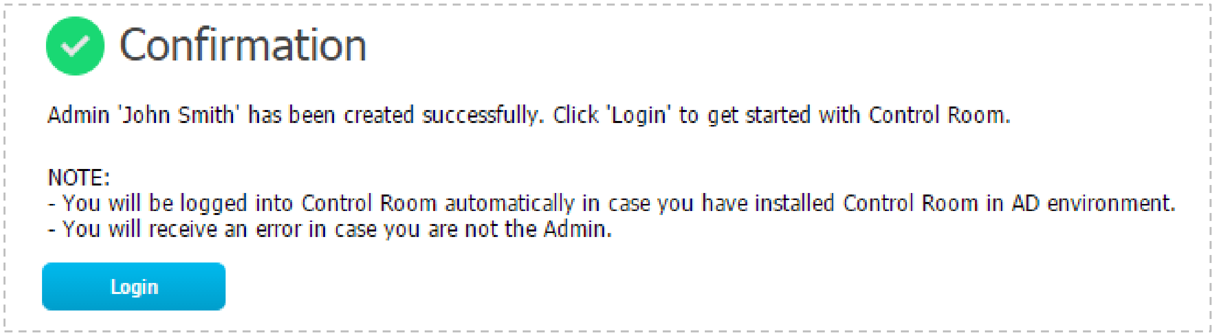
1. *Question?
   *Answer

2. *Question?
   *Answer

3. *Question?
   *Answer

NOTE: These questions will be asked to verify your identity in case you forget your password.

3. A confirmation is denoted with a Login screen.



Confirmation

Admin 'John Smith' has been created successfully. Click 'Login' to get started with Control Room.

NOTE:
- You will be logged into Control Room automatically in case you have installed Control Room in AD environment.
- You will receive an error in case you are not the Admin.

4. Click on *Login* and enter the Control Room Admin credentials.
   NOTE: You may have to assign a Control Room license after this step, if you are doing a reinstall and your existing license has expired. Refer Installing Control Room License section for details.
5. Now you can proceed to configure the Credential Vault.

4.2 Credential Vault- An Overview

The Automation Anywhere Credential Vault is a centralized location wherein sensitive data such as credentials are securely stored. It can be configured by the Control Room Admin, immediately post Control Room setup by generating a *Master Key*. Refer section on Configuring the Credential Vault for setting up a Credential Vault.

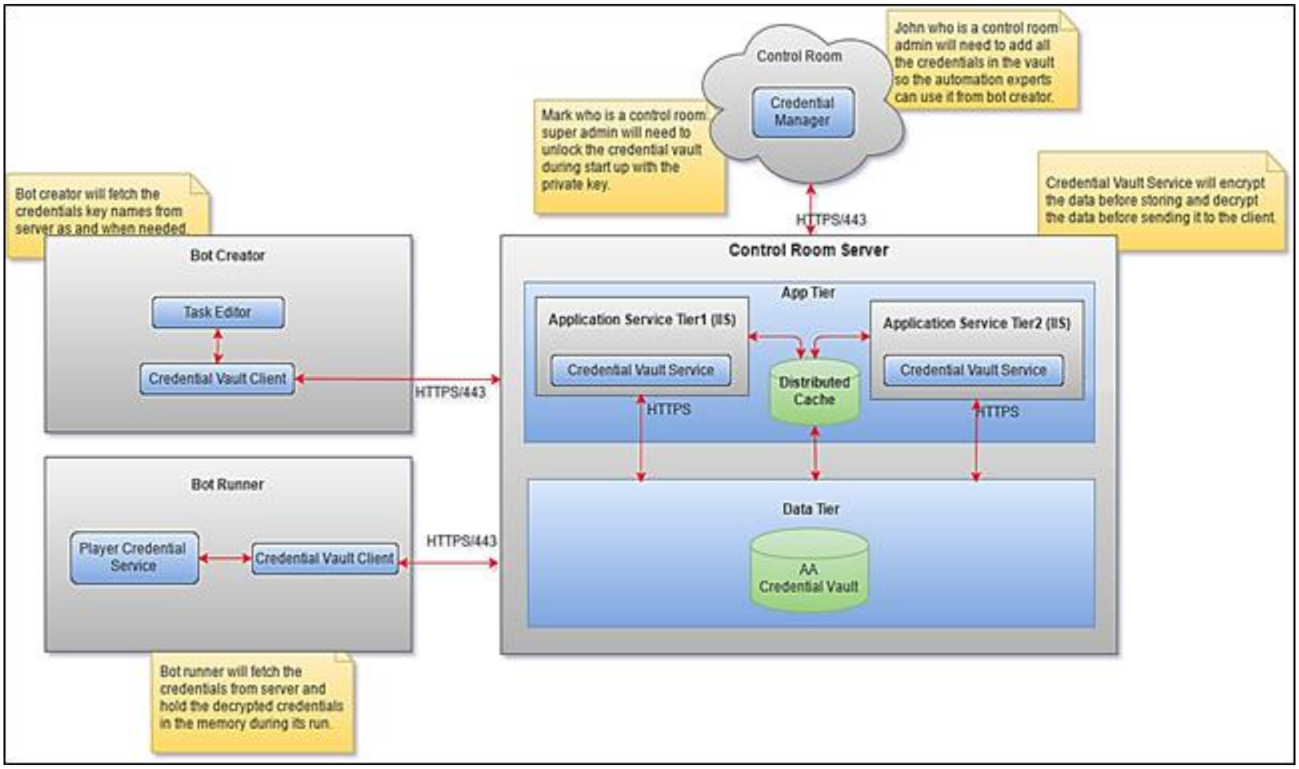
An Admin, an IT Admin or any person who has Credential Management privileges can create Credentials in the form of Credential Keys, once the vault is opened by using the Master Key.

⚠ ***Important:*** *These credentials are encrypted using industry standard FIPS 140-2 approved cryptographic module with* ***AES-256-bit encryption*** *and can be accessed by authorized and authenticated users only.*

Apart from providing secure and centralized location for storing credentials, Credential Vault also:

- Minimizes the possibility of credential fraud
- Provides an environment to enable improved security
- Helps adhere to processes and credential management compliance
- Offers increased automation opportunities with secure data/applications.

4.2.1 Technical Architecture Diagram



John who is a control room admin will need to add all the credentials in the vault so the automation experts can use it from bot creator.

Mark who is a control room super admin will need to unlock the credential vault during start up with the private key.

Credential Vault Service will encrypt the data before storing and decrypt the data before sending it to the client.

Bot creator will fetch the credentials key names from server as and when needed.

Bot runner will fetch the credentials from server and hold the decrypted credentials in the memory during its run.

4.2.2 Configuring Credential Vault

On login to the Control Room **for the first time**, the Control Room Admin must configure the Credential Vault to create and store credentials that are required in automation TaskBot(s).

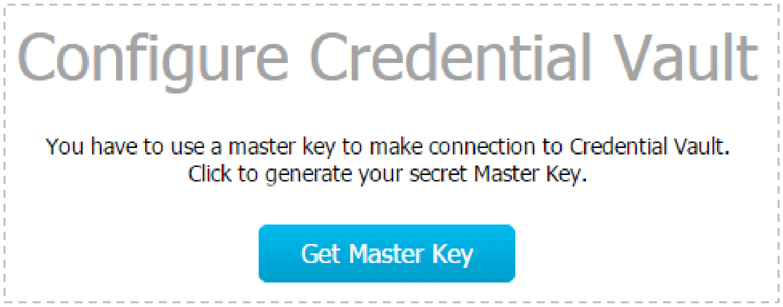
To connect to this Credential Vault, a *Master Key* is used.

⚠ **Important:** An Admin must generate the master key and keep it in a safe place for future reference.

⚠ **Caution:** Ensure you **do not lose the key**. If you do, you will not be able to create another instance of Credential Vault or even delete one. In fact, you will not be able to access the Vault or the Control Room.

To configure your Control Room's Credential Vault, follow the steps mentioned below:

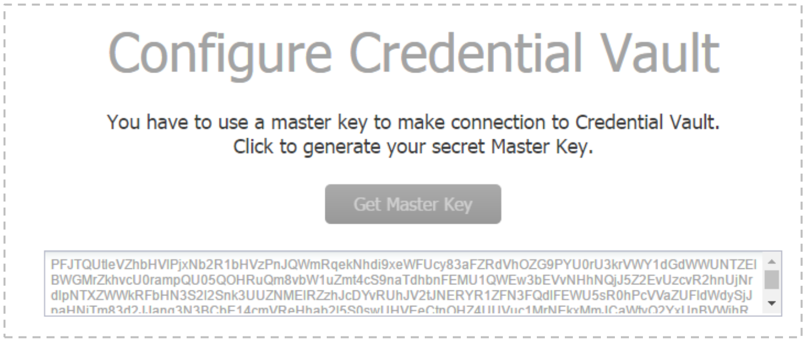
1. Login to Control Room as Admin. A *Configure Credential Vault* page appears.
2. Click on *Get Master Key* button to generate the master key, which allows you to connect to the Credential Vault.



Configure Credential Vault

You have to use a master key to make connection to Credential Vault.
Click to generate your secret Master Key.

3. You can see the *master key*

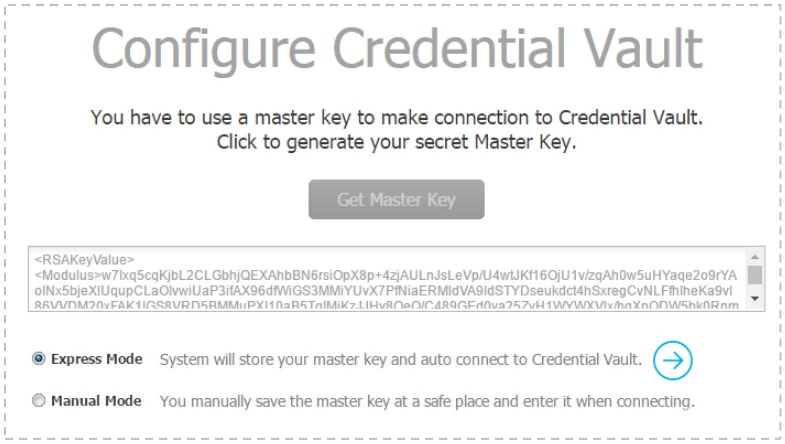


Configure Credential Vault

You have to use a master key to make connection to Credential Vault.
Click to generate your secret Master Key.

PFJTQUtleVZhbHVlPjxNb2R1bHVzPnJQWmRqekNhdi9xeWFUcy83aFZRdVhOZG9PYU0rU3krVWY1dGdWWUNTZEl
BWGMrZkhvcU0rampQU05QOHRuQm8vbW1uZmt4cS9naTdhbnFEMU1QWEw3bEVvNHhNQjJ5Z2EvUzcvR2hnUjNr
dlpNTXZWWkRFbHN3S2l2Snk3UUZNMElRZzhJcDYvRUhJV2tJNERYR1ZFN3FQdlFEWU5sR0hPcVVaZUFldWdySjJ

4. Select either **Express** or **Manual** mode of connecting to the Vault.
   - Use the **Express** mode if you want the Control Room to store the master key and automatically connect to the Vault.



Configure Credential Vault

You have to use a master key to make connection to Credential Vault.
Click to generate your secret Master Key.

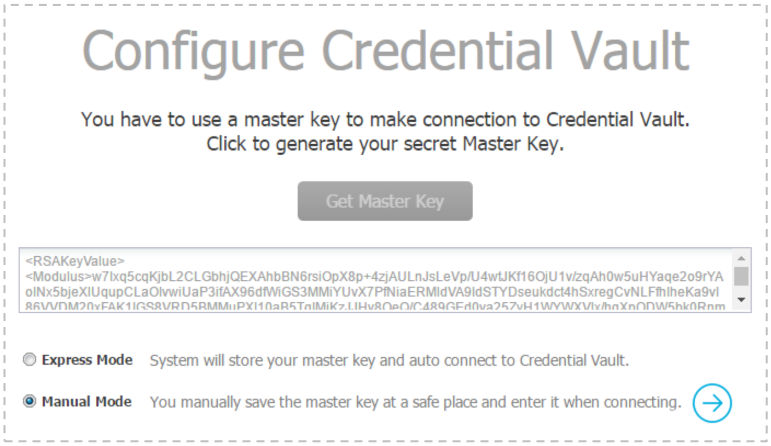
<RSAKeyValue>
<Modulus>w7lxq5cqKjbL2CLGbhjQEXAhbBN6rsiOpX8p+4zjAULnJsLeVp/U4wtJKf16OjU1v/zqAh0w5uHYaqe2o9rYA
oINx5bjeXlUqupCLaOlvwiUaP3ifAX96dfWiGS3MMiYUvX7PfNiaERMldVA9ldSTYDseukdct4hSxregCvNLFfhlheKa9vl

● **Express Mode** System will store your master key and auto connect to Credential Vault.

○ **Manual Mode** You manually save the master key at a safe place and enter it when connecting.

NOTE: This mode is less secure and not recommended for Production environment.

- Use the **Manual** mode if you want to secure the master key by yourself and use it to connect to the Vault manually.



Configure Credential Vault

You have to use a master key to make connection to Credential Vault.
Click to generate your secret Master Key.

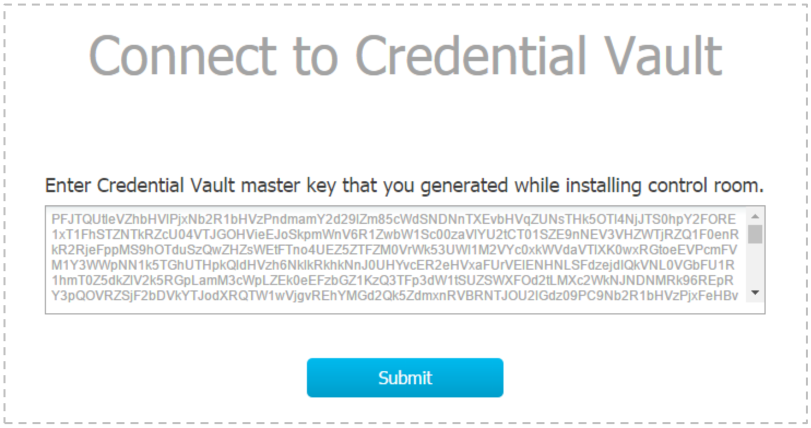
```
<RSAKeyValue>
<Modulus>w7lxq5cqKjbL2CLGbhjQEXAhbBN6rsiOpX8p+4zjAULnJsLeVp/U4wtJKf16OjU1v/zqAh0w5uHYaqe2o9rYA
oINx5bjeXlUqupCLaOlvwiUaP3ifAX96dfWiGS3MMiYUvX7PfNiaERMldVA9ldSTYDseukdct4hSxregCvNLFfhlheKa9vl
86VVDM20xFAK1IGS8VRD5BMMuPXl10aB5TqlMiKzJHv8OeO/C489GEd0va257vH1WYWXVlx/hqXnODW5hk0Rnm
```

○ **Express Mode** System will store your master key and auto connect to Credential Vault.

● **Manual Mode** You manually save the master key at a safe place and enter it when connecting.

NOTE: This mode is more secure and recommended for Production environment.

- Whether using **Express** or **Manual** mode of connecting to the vault, you must ensure to copy and paste the master key that you had secured earlier and Click *Submit*.

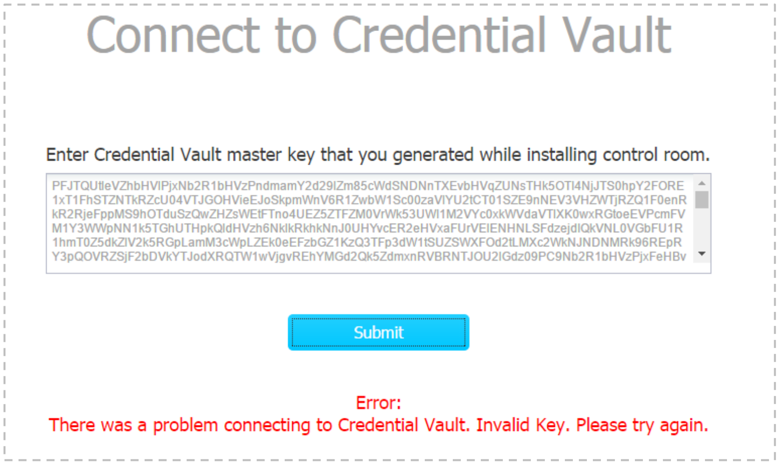


Connect to Credential Vault

Enter Credential Vault master key that you generated while installing control room.

```
PFJTQUtleVZhbHVlPjxNb2R1bHVzPndmamY2d29lZm85cWdSNDNnTXEvbHVqZUNsTHk5OTl4NjJTS0hpY2FORE
1xT1FhSTZNTkRZcU04VTJGOHVieEJoSkpmWnV6R1ZwbW1Sc00zaVlYU2tCT01SZE9nNEV3VHZWTjRZQ1F0enR
kR2RjeFppMS9hOTduSzQwZHZsWEtFTno4UEZ5ZTFZM0VrWk53UWl1M2VYc0xkWVdaVTlXK0wxRGtoeEVPcmFV
M1Y3WWpNN1k5TGhUTHpkQldHVzh6NklkRkhkNnJ0UHYvcER2eHVxaFUrVElENHNLSFdzejdlQkVNL0VGbFU1R
1hmT0Z5dkZlV2k5RGpLamM3cWpLZEk0eEFzbGZ1KzQ3TFp3dW1tSUZSWXFOd2tLMXc2WkNJNDNMRk96REpR
Y3pQQOVRZSjF2bDVkYTJodXRQTW1wVjgvREhYMGd2Qk5ZdmxnRVBRNTJOU2lGdz09PC9Nb2R1bHVzPjxFeHBv
```

⚠ **Important:** Do not modify the master key in any manner as you cannot connect to the Control Room with a key that is modified and considered invalid (see message):



Connect to Credential Vault

Enter Credential Vault master key that you generated while installing control room.

```
PFJTQUtleVZhbHVlPjxNb2R1bHVzPndmamY2d29lZm85cWdSNDNnTXEvbHVqZUNsTHk5OTl4NjJTS0hpY2FORE
1xT1FhSTZNTkRZcU04VTJGOHVieEJoSkpmWnV6R1ZwbW1Sc00zaVlYU2tCT01SZE9nNEV3VHZWTjRZQ1F0enR
kR2RjeFppMS9hOTduSzQwZHZsWEtFTno4UEZ5ZTFZM0VrWk53UWl1M2VYc0xkWVdaVTlXK0wxRGtoeEVPcmFV
M1Y3WWpNN1k5TGhUTHpkQldHVzh6NklkRkhkNnJ0UHYvcER2eHVxaFUrVElENHNLSFdzejdlQkVNL0VGbFU1R
1hmT0Z5dkZlV2k5RGpLamM3cWpLZEk0eEFzbGZ1KzQ3TFp3dW1tSUZSWXFOd2tLMXc2WkNJNDNMRk96REpR
Y3pQQOVRZSjF2bDVkYTJodXRQTW1wVjgvREhYMGd2Qk5ZdmxnRVBRNTJOU2lGdz09PC9Nb2R1bHVzPjxFeHBv
```

Error:
There was a problem connecting to Credential Vault. Invalid Key. Please try again.

5. Click → to navigate to the Getting Started page.

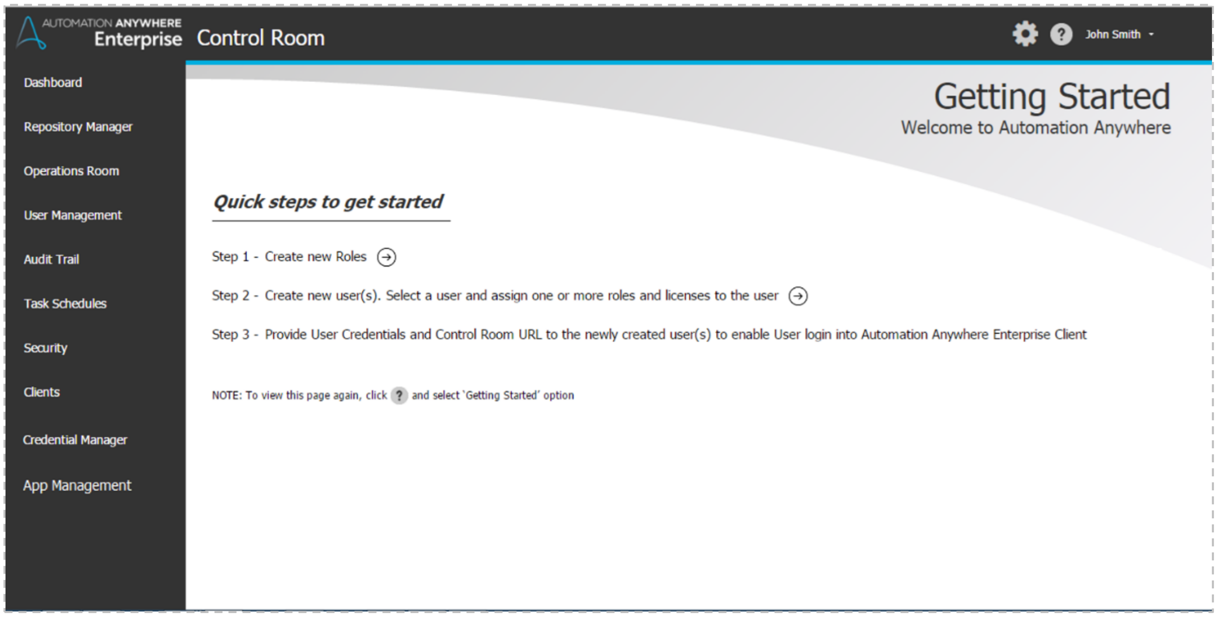
TIP: You can choose to switch between modes from the Control Room Settings page, if required at a later stage. Refer the section on Control Room Settings on how to switch modes.

5 AAE Control Room- Getting Started

If Control Room is installed in **Express mode or Custom – Standalone mode**, then the *Getting Started* page will be displayed upon first login of Admin account.

However, if Control Room is installed in **Custom – Distributed mode**, then the *Getting Started* page will be displayed post configuring the Control Room Settings for Load Balancing.

The *Getting Started* page that is visible to the Admin, displays quick steps on how to use the Control Room.



Getting Started
Welcome to Automation Anywhere

Quick steps to get started

Step 1 - Create new Roles

Step 2 - Create new user(s). Select a user and assign one or more roles and licenses to the user

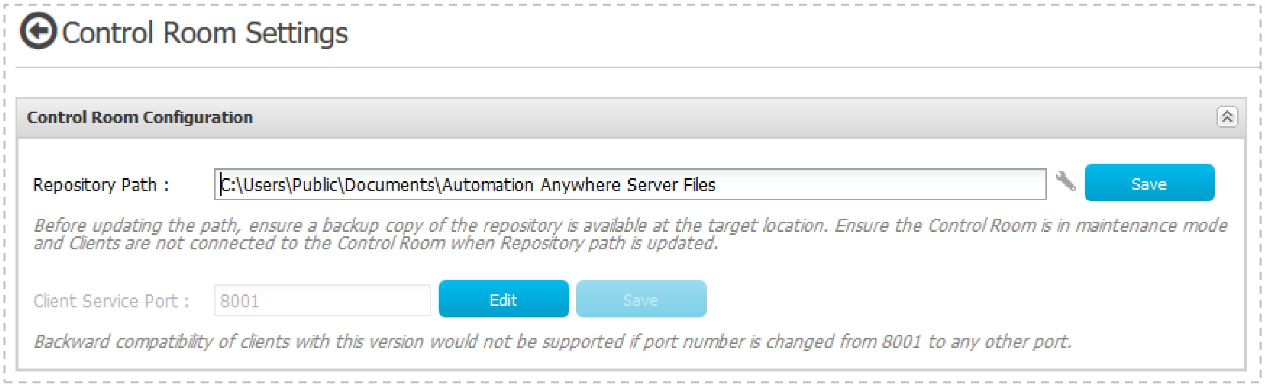
Step 3 - Provide User Credentials and Control Room URL to the newly created user(s) to enable User login into Automation Anywhere Enterprise Client

NOTE: To view this page again, click ? and select 'Getting Started' option

5.1 Configuring Control Room Settings

5.1.1 Settings for Standalone Installation

When the Control Room is configured using the Standalone mode of installation, you can opt to update the Repository Path.



Repository Path : C:\Users\Public\Documents\Automation Anywhere Server Files

Before updating the path, ensure a backup copy of the repository is available at the target location. Ensure the Control Room is in maintenance mode and Clients are not connected to the Control Room when Repository path is updated.

Client Service Port : 8001

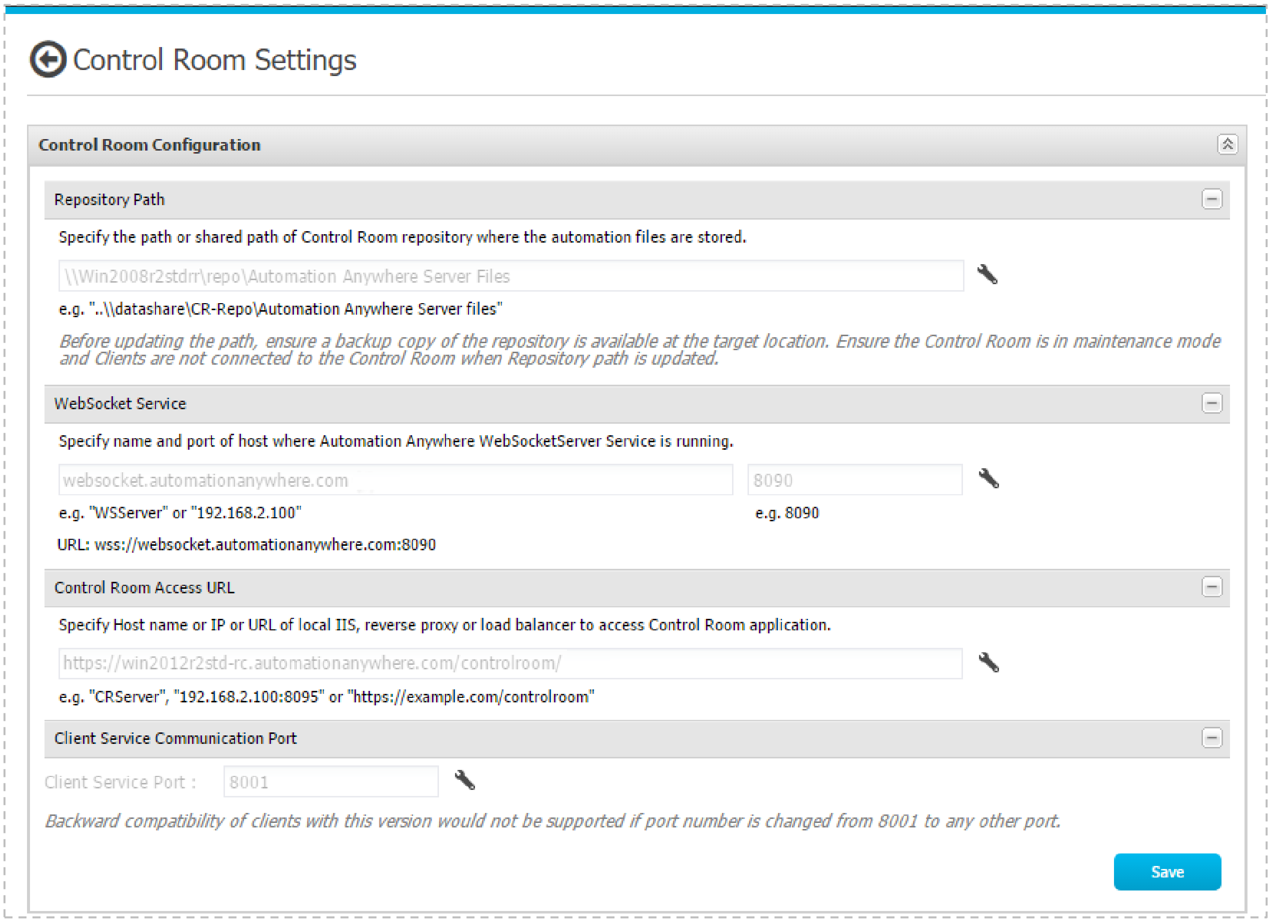
Backward compatibility of clients with this version would not be supported if port number is changed from 8001 to any other port.

While updating the repository path, you must ensure that the files in the earlier repository path are manually copied to the newer one. Also, you can map the path to a folder for which you have access privileges.

5.1.2 Settings for Load Balancing (Distributed Installation)

If Control Room is installed in Express mode or Custom – Standalone mode, then the Control Room Settings does not require configuration at the first login of Admin account.

However, if Control Room is installed in Custom – Distributed mode then post the first login of Admin account you will be prompted the Control Room Settings page, which you must configure else you will be restricted from navigating the Control Room application.



Control Room Settings

Control Room Configuration

Repository Path

Specify the path or shared path of Control Room repository where the automation files are stored.

\\Win2008r2stdrr\repo\Automation Anywhere Server Files

e.g. "..\\datashare\CR-Repo\Automation Anywhere Server files"

Before updating the path, ensure a backup copy of the repository is available at the target location. Ensure the Control Room is in maintenance mode and Clients are not connected to the Control Room when Repository path is updated.

WebSocket Service

Specify name and port of host where Automation Anywhere WebSocketServer Service is running.

websocket.automationanywhere.com   8090

e.g. "WSServer" or "192.168.2.100"   e.g. 8090

URL: wss://websocket.automationanywhere.com:8090

Control Room Access URL

Specify Host name or IP or URL of local IIS, reverse proxy or load balancer to access Control Room application.

https://win2012r2std-rc.automationanywhere.com/controlroom/

e.g. "CRServer", "192.168.2.100:8095" or "https://example.com/controlroom"

Client Service Communication Port

Client Service Port : 8001

Backward compatibility of clients with this version would not be supported if port number is changed from 8001 to any other port.

1. **Repository Path:** Provide the path of Control Room physical files repository. This must be a shared path so as to allow the Application to access the repository.
   - **WebSocket Service:** Provide the hostname and port of the machine where WebSocket service is running.
   - **Control Room Access URL:** Provide the hostname and port or URL of the machine hosting Control Room application or the Load Balancer through which the Client requests are routed to the application.
   - **Client Service Communication Port:** Control Room Admin can configure the port number. Although, the default port is displayed as 8001; the Control Room Admin has the flexibility to edit the default port number and save it.
2. Click *Save* to save the configuration settings.
3. Upon successful configuration you will be displayed the *Getting Started* page. Refer section on Getting Started for details.

5.2 Installing Control Room License

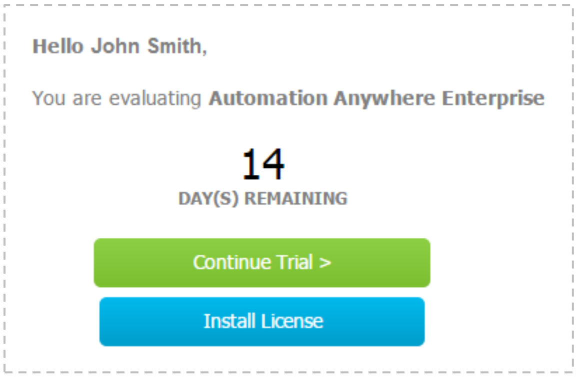
You can install a license during evaluation, post-evaluation or if you have purchased more licenses to support growing number of Client users.

5.2.1 Installing a purchase license during evaluation term

NOTE: You can evaluate Control Room for 30 days.

1. As a Control Room Admin you will be able to install licenses using any of the following methods:

   - By clicking the *Install License* button in the *Evaluation* window.



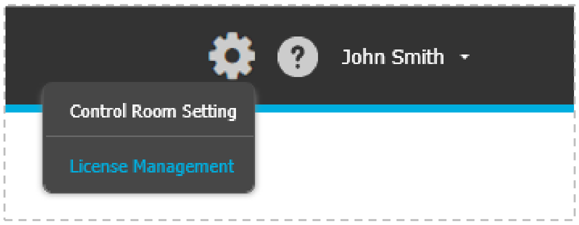
Hello John Smith,

You are evaluating **Automation Anywhere Enterprise**

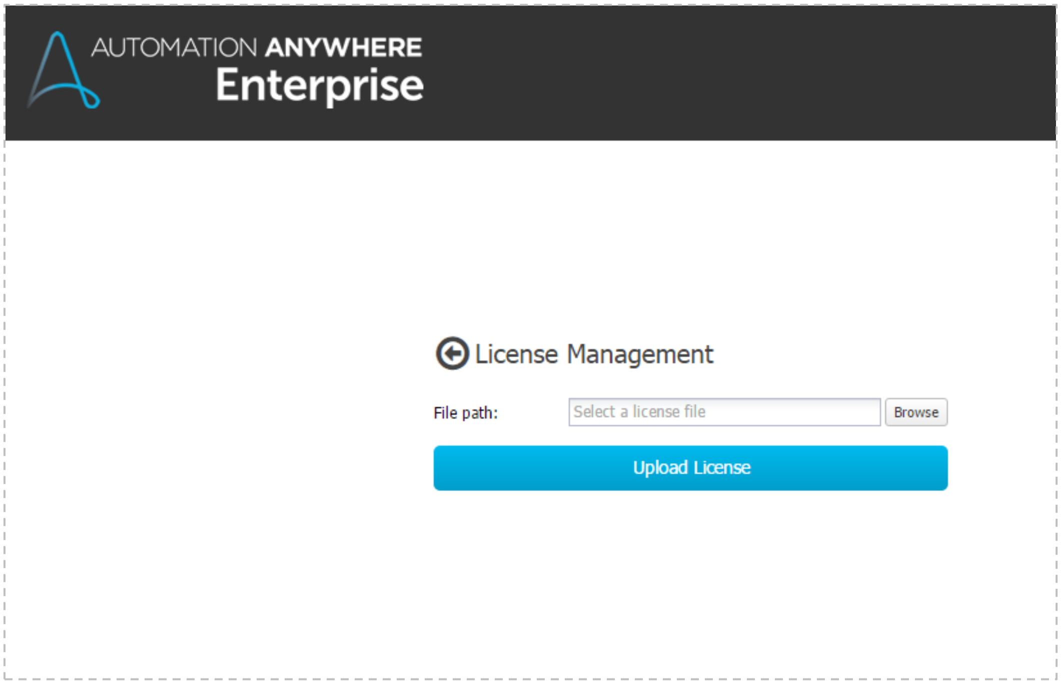
14
DAY(S) REMAINING

Or

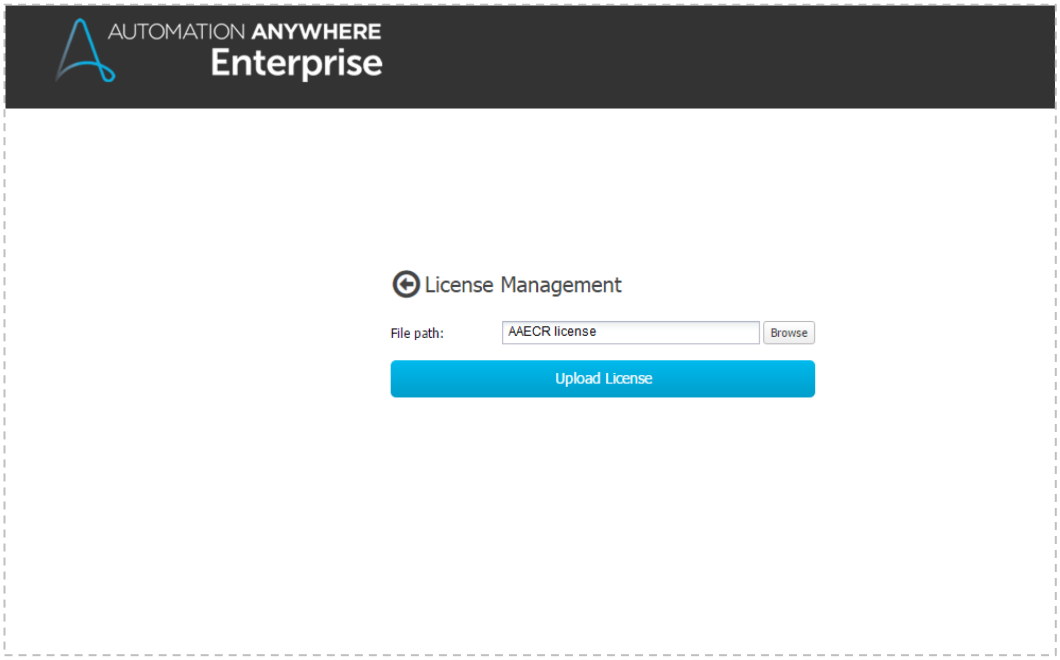
   - By selecting Install New License link in Settings→ License Management.



2. Next, choose the purchase license file from a folder:

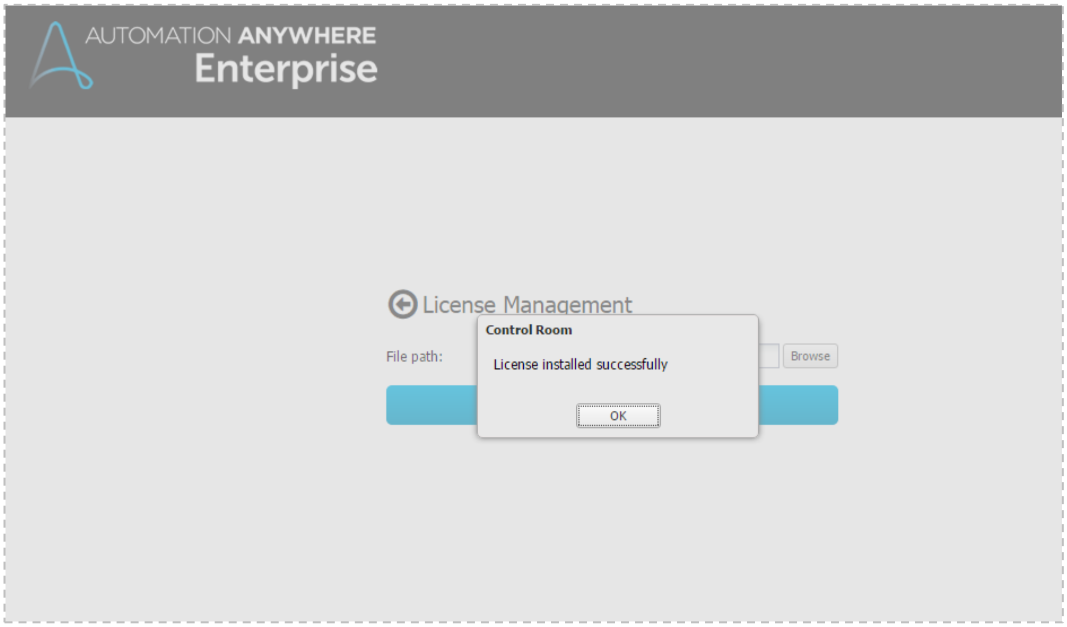


3. Select the appropriate file.



File path: AAECR license

4. Click Upload License.
5. You are informed about successful installation of license through a message. Click *OK* to confirm.



Control Room

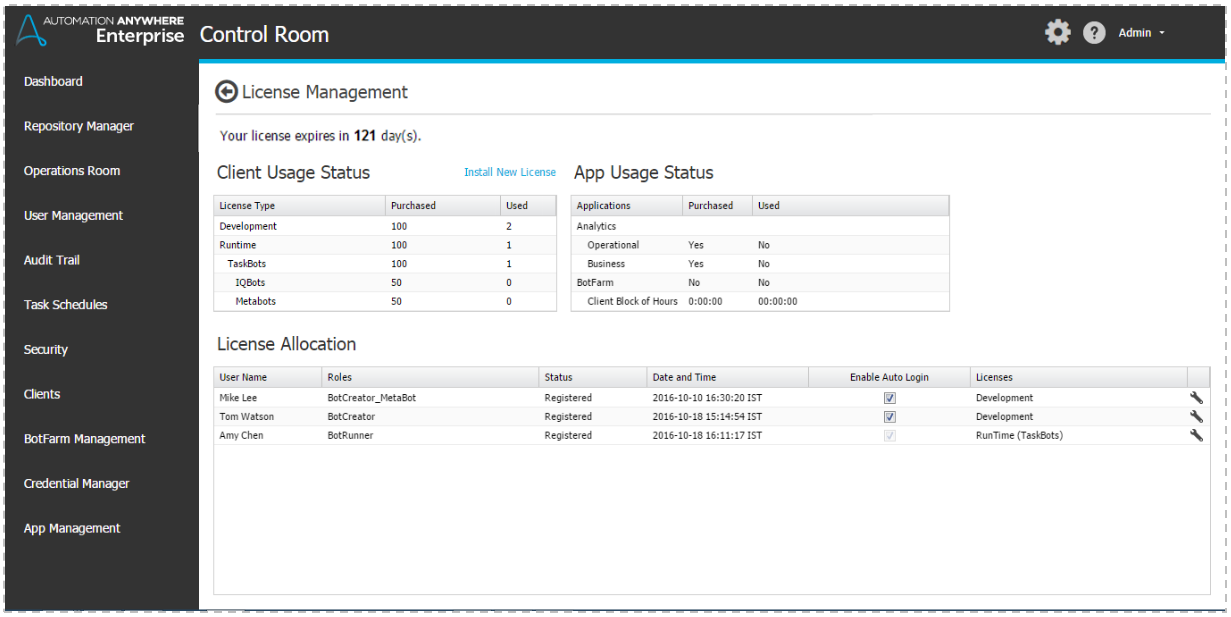
License installed successfully

NOTE: You need to re-login to Control Room after the license is uploaded successfully.

5.2.2 Installing a license on completion of evaluation term

In License Management, the Control Room Admin can also view how many days are remaining for the license to expire.

If more than 30 days are left for license expiry, the License Management screen will be seen as follows:



Your license expires in **121** day(s).

Client Usage Status

License Type	Purchased	Used
Development	100	2
Runtime	100	1
TaskBots	100	1
IQBots	50	0
Metabots	50	0

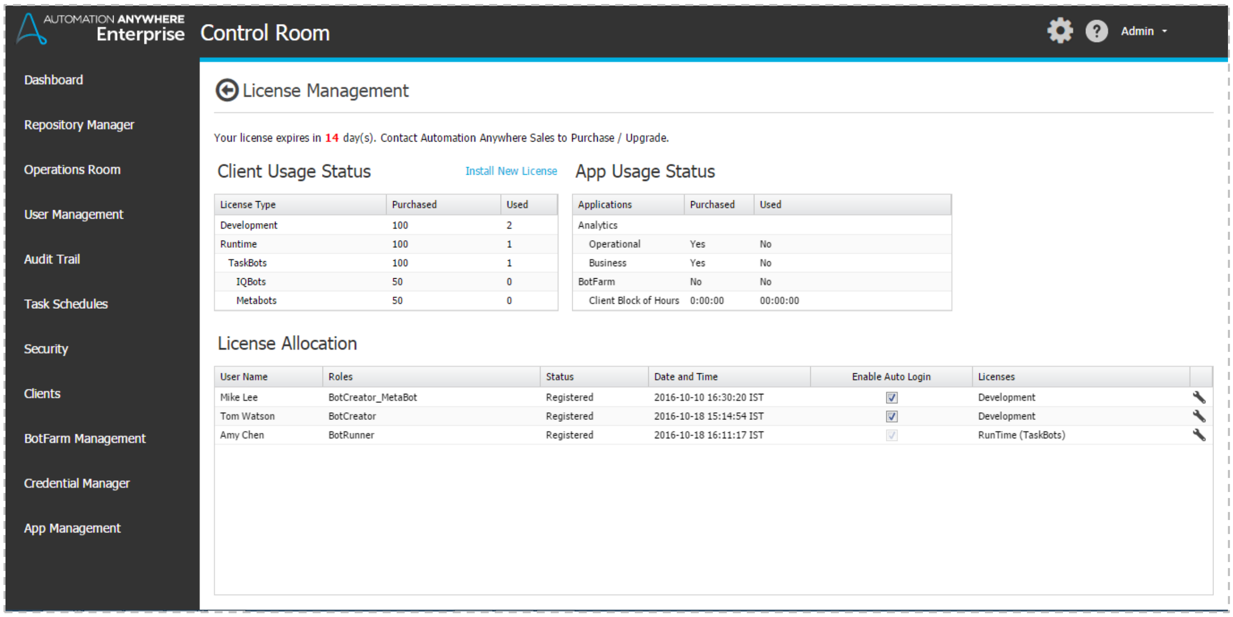
App Usage Status

Applications	Purchased	Used
Analytics		
Operational	Yes	No
Business	Yes	No
BotFarm	No	No
Client Block of Hours	0:00:00	00:00:00

License Allocation

User Name	Roles	Status	Date and Time	Enable Auto Login	Licenses
Mike Lee	BotCreator_MetaBot	Registered	2016-10-10 16:30:20 IST	☑	Development
Tom Watson	BotCreator	Registered	2016-10-18 15:14:54 IST	☑	Development
Amy Chen	BotRunner	Registered	2016-10-18 16:11:17 IST	☑	RunTime (TaskBots)

If less than 30 days are left for license expiry, the License Management screen will be seen as follows:



Your license expires in 14 day(s). Contact Automation Anywhere Sales to Purchase / Upgrade.

Client Usage Status

License Type	Purchased	Used
Development	100	2
Runtime	100	1
TaskBots	100	1
IQBots	50	0
Metabots	50	0

App Usage Status

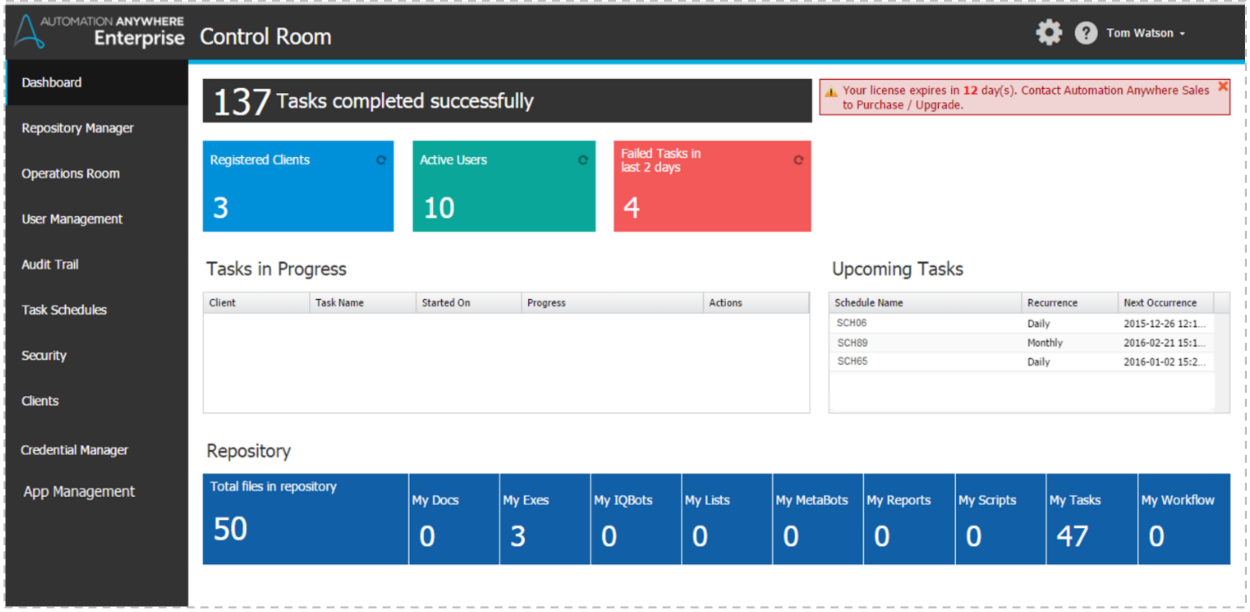
Applications	Purchased	Used
Analytics		
Operational	Yes	No
Business	Yes	No
BotFarm	No	No
Client Block of Hours	0:00:00	00:00:00

License Allocation

User Name	Roles	Status	Date and Time	Enable Auto Login	Licenses
Mike Lee	BotCreator_MetaBot	Registered	2016-10-10 16:30:20 IST	☑	Development
Tom Watson	BotCreator	Registered	2016-10-18 15:14:54 IST	☑	Development
Amy Chen	BotRunner	Registered	2016-10-18 16:11:17 IST	☑	RunTime (TaskBots)

On completion of the evaluation term, Control Room Admin can continue using the purchased version only after the Control Room Admin installs appropriate license.

When less than 30 days are left for license expiry, you will be notified on the Dashboard.



137 Tasks completed successfully

Your license expires in 12 day(s). Contact Automation Anywhere Sales to Purchase / Upgrade.

Registered Clients	Active Users	Failed Tasks in last 2 days
3	10	4

Upcoming Tasks

Schedule Name	Recurrence	Next Occurrence
SCH06	Daily	2015-12-26 12:1...
SCH89	Monthly	2016-02-21 15:1...
SCH65	Daily	2016-01-02 15:2...

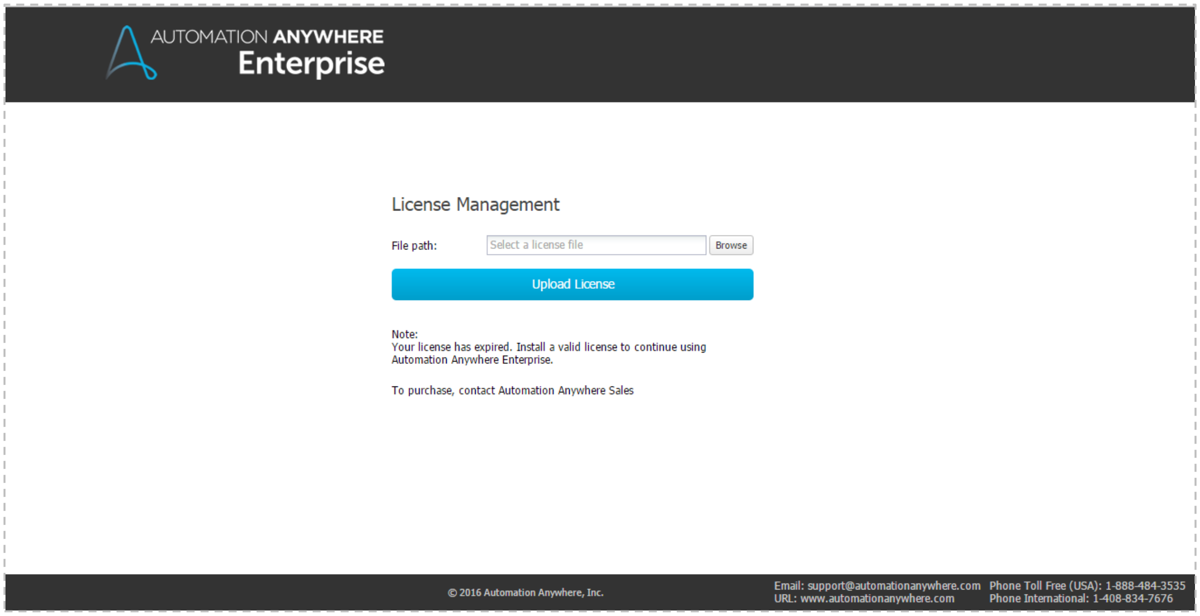
Repository

Total files in repository	My Docs	My Exes	My IQBots	My Lists	My MetaBots	My Reports	My Scripts	My Tasks	My Workflow
50	0	3	0	0	0	0	0	47	0

NOTE: The license expiry information will be seen on your Dashboard only if you have Admin privileges.

Admin can install a new license from License Management console. Learn More.

However, if your Control Room License has expired before you were able to install a new license, then you will be shown the below screen during Control Room login:



License Management

File path: Select a license file

Note:
Your license has expired. Install a valid license to continue using Automation Anywhere Enterprise.

To purchase, contact Automation Anywhere Sales

© 2016 Automation Anywhere, Inc.

Email: support@automationanywhere.com URL: www.automationanywhere.com Phone Toll Free (USA): 1-888-484-3535 Phone International: 1-408-834-7676

To purchase a license, the Control Room Admin will have to contact Automation Anywhere Sales on sales@automationanywhere.com.

After the completion of your order, you will receive an email from Automation Anywhere containing a registration license file. Download and save the file to a desired location on your computer.

Once you have uploaded the valid license file, you will be able to login to the Control Room and continue monitoring activities.

5.3 User Roles and Privileges

Launch the Control Room in your default browser.

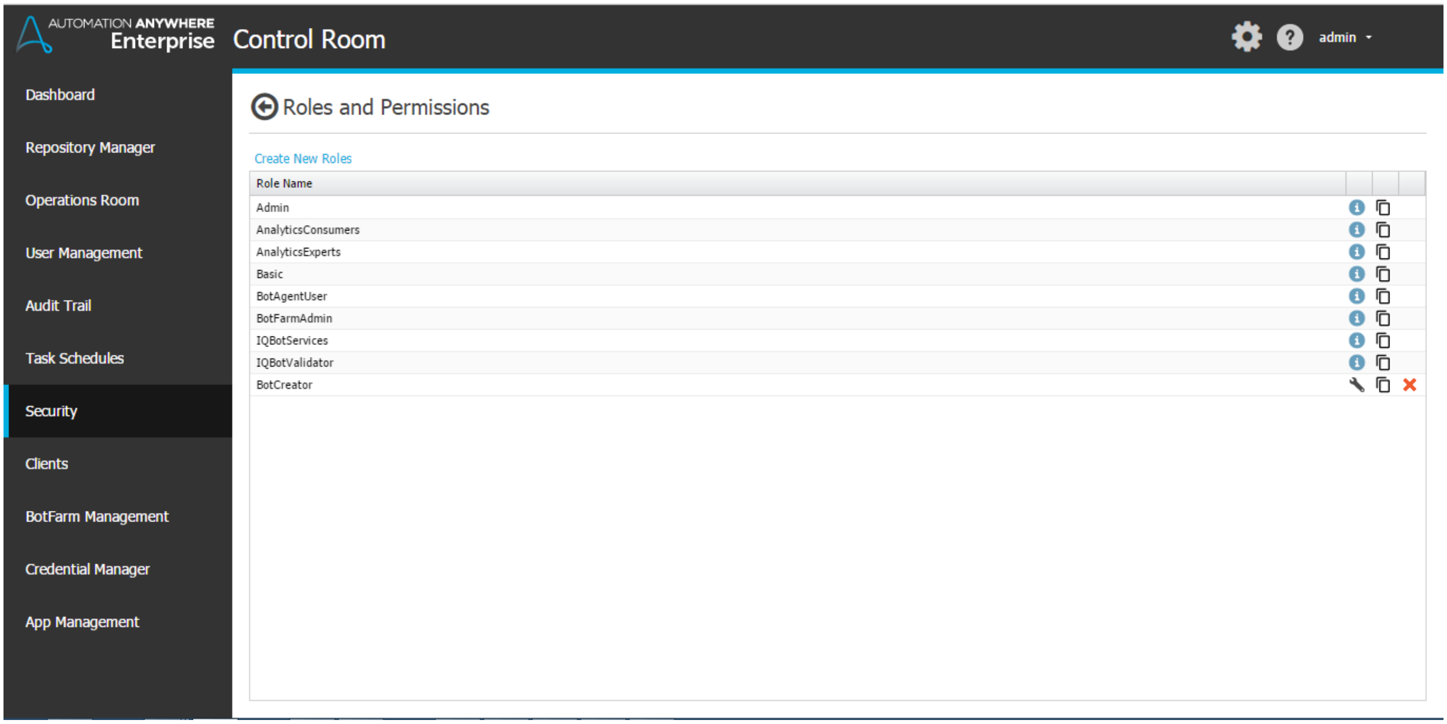
TIP: Use the link that's displayed on install setup completion.

You are now ready to create roles and assign necessary permissions to the users.

NOTE: Examples given in this document are for reference only. You can create and define roles according to your organizational structure and requirements.

Activities and access to Control Room for Users (Admin, Clients and non-Clients) are governed by the role defined for each. The role based accessibility model ensures each User has controlled-access, to view information or data that is relevant to the role assigned by the Control Room Admin.

User Roles and relevant privileges are assigned from the Security page.



Role Name
Admin
AnalyticsConsumers
AnalyticsExperts
Basic
BotAgentUser
BotFarmAdmin
IQBotServices
IQBotValidator
BotCreator

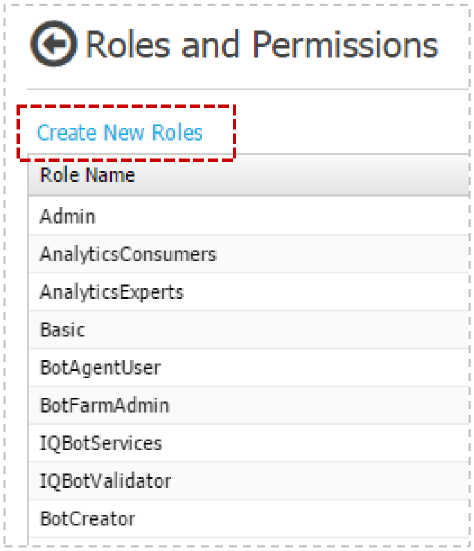
You will find pre-defined roles in the Control Room. Those are the system roles.

- The Admin permissions in Control Room are granted to the Control Room Admin by default.
- Basic permission is essentially for Users that have been imported from earlier versions (8.x.x and 9.x.x) of Control Room to the browser based Control Room, using the migration utility. Such users have access rights to the *My Tasks* folder only.

NOTE: From AAE Control Room 10 SP2 (product version 10.5.0), two **new system roles** have been introduced – **IQBotServices** and **IQBotValidator**. Hence, if you have upgraded from Control Room 10.x version and roles with same names have been defined, it is recommended that you delete custom defined roles. You can create new roles with same permissions instead.

5.4 Creating New Roles and Assigning Permissions

To define a new user *Role*, click *Create New Roles*.

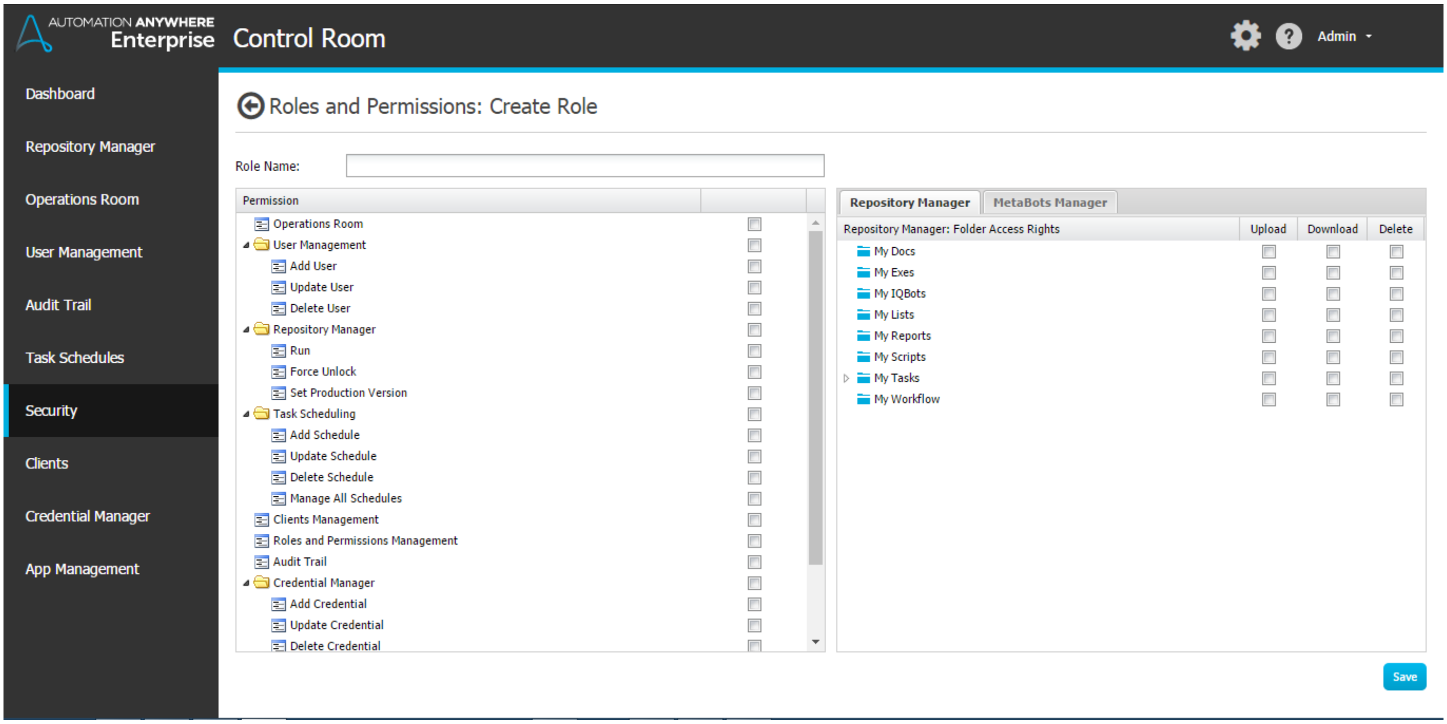


Roles and Permissions

Create New Roles

Role Name
Admin
AnalyticsConsumers
AnalyticsExperts
Basic
BotAgentUser
BotFarmAdmin
IQBotServices
IQBotValidator
BotCreator

In the *Create Role* page input the required information:



Roles and Permissions: Create Role

Role Name:

Permission	
Operations Room	□
User Management	□
Add User	□
Update User	□
Delete User	□
Repository Manager	□
Run	□
Force Unlock	□
Set Production Version	□
Task Scheduling	□
Add Schedule	□
Update Schedule	□
Delete Schedule	□
Manage All Schedules	□
Clients Management	□
Roles and Permissions Management	□
Audit Trail	□
Credential Manager	□
Add Credential	□
Update Credential	□
Delete Credential	□

Repository Manager | MetaBots Manager

Repository Manager: Folder Access Rights	Upload	Download	Delete
My Docs	□	□	□
My Exes	□	□	□
My IQBots	□	□	□
My Lists	□	□	□
My Reports	□	□	□
My Scripts	□	□	□
My Tasks	□	□	□
My Workflow	□	□	□

1. You can choose to assign permissions based on user roles in your organization.

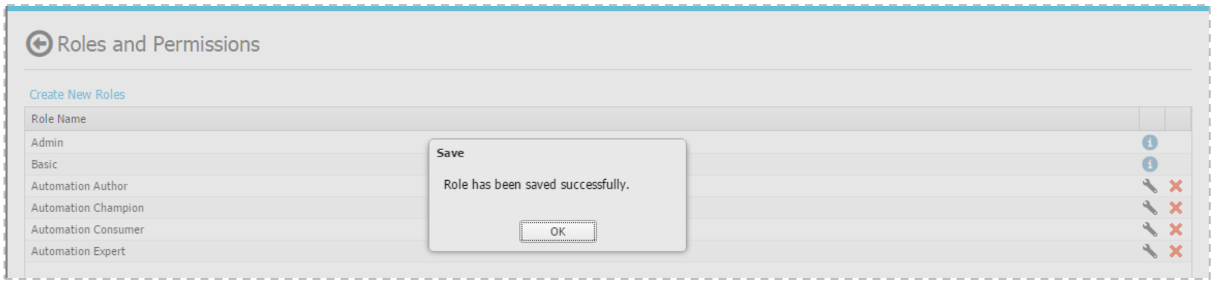
   For instance, you can permit the new User to manage a repository only; in which case, you can select the Repository Manager folder.

2. You can then assign the User access rights that could include any or all - Upload, Download, and Delete permissions for different folders.

   For instance, you can assign a User *Upload* and *Download* permission to the *My Tasks* folder only.

   TIP: Some users such as Bot Runner(s) - Users who use Enterprise Client to simply run TaskBot(s), can be given 'Folder Access Rights' only.

3. *Save* the new role.



Roles and Permissions

Create New Roles

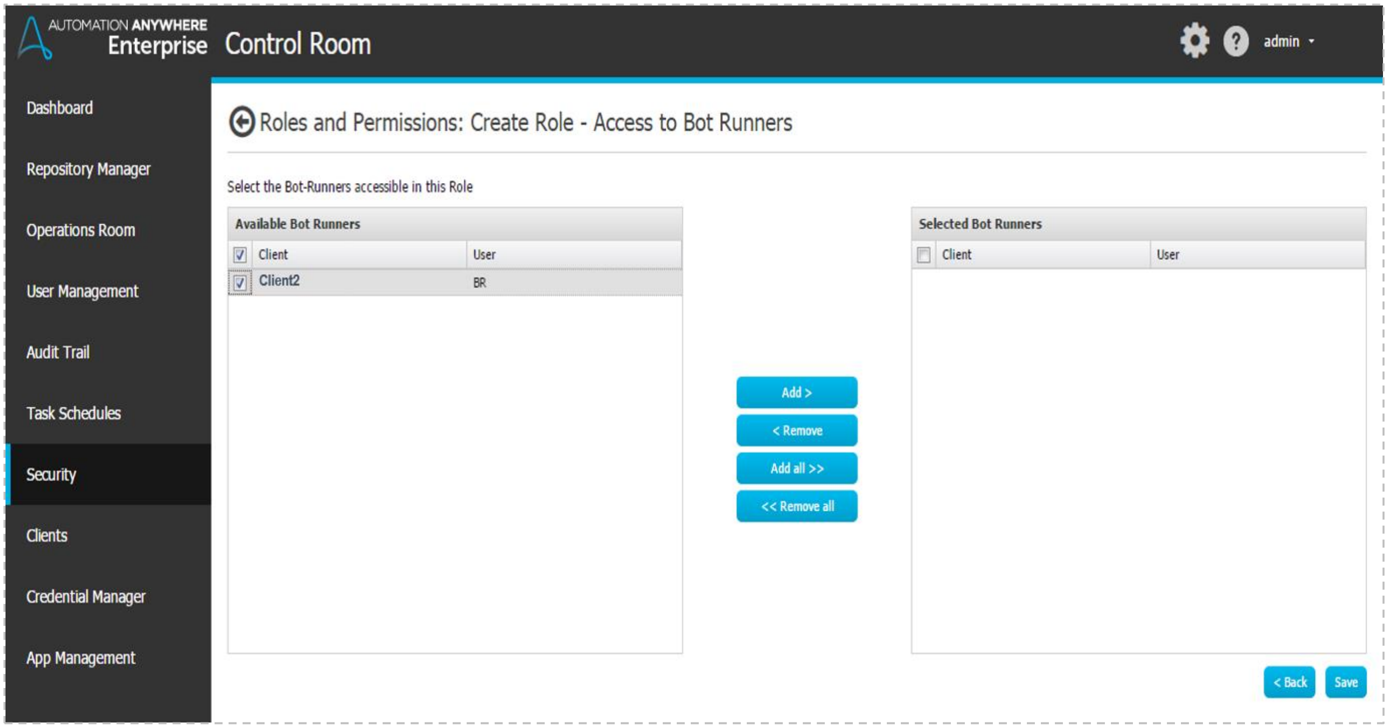
Role Name
Admin
Basic
Automation Author
Automation Champion
Automation Consumer
Automation Expert

Save

Role has been saved successfully.

4. Verify whether the User Role has been created in the *Roles and Permissions* list. The User Roles are listed in the chronology that they are added and updated.

   NOTE: Control Room users with task run and scheduling permissions can run and/or schedule TaskBot(s) only on those Bot Runner(s) that are assigned to their role. Refer the article on Assigning Bot Runner(s) to Run/Scheduling Role.



Roles and Permissions: Create Role - Access to Bot Runners

Select the Bot-Runners accessible in this Role

Available Bot Runners

☑ Client	User
☑ Client2	BR

Selected Bot Runners

☐ Client	User

5.5 Managing User Permissions

You can reassign or revoke permissions to the user.

- To view permissions and access rights available to an Admin user, click the information icon ℹ. Similarly, you can also view permission and access rights for the Basic role.
  NOTE: Though in edit mode, you will not be able to update the permissions and access rights of Admin and Basic.
- To edit the User roles and permissions, click on 🔧 and ✖ to delete.
- To return to the Dashboard, click on ⊖.

Refer the article on User Roles and Permissions in the online knowledge base for details.

5.6 Roles and Permissions Matrix

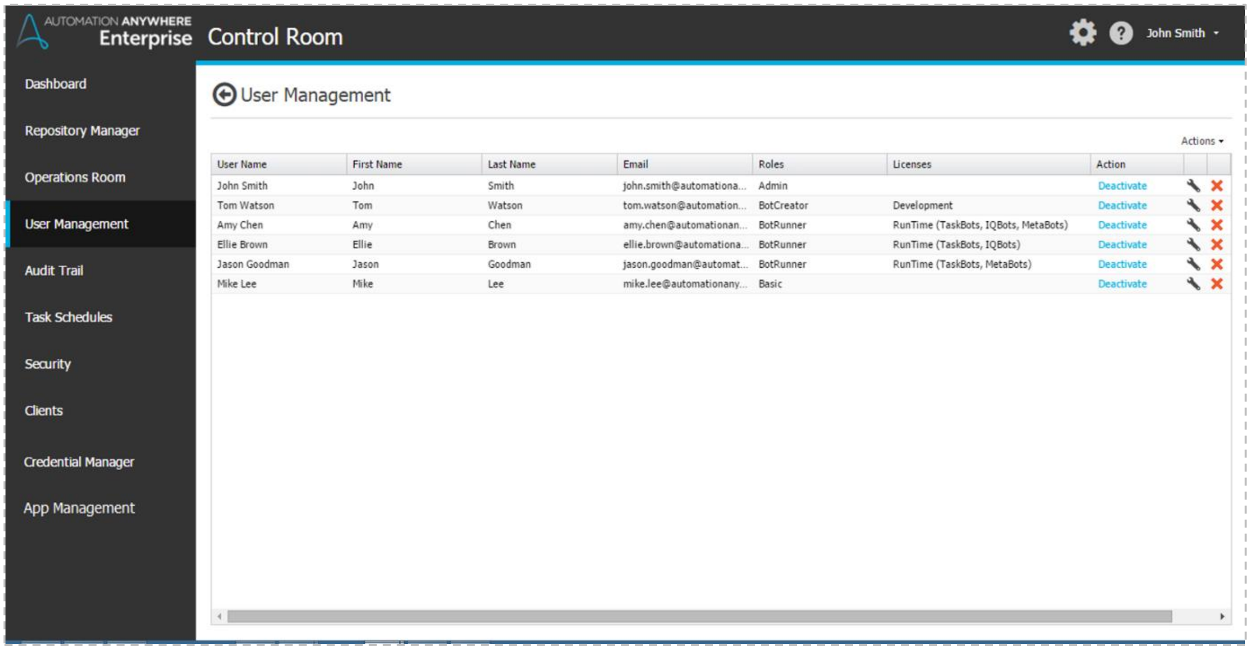
The roles and permissions matrix published here will enable you to create a combination of roles and permissions that suit your organizational requirements.

Role	Description
User Management	User can add, update and/or delete Control Room users.
Repository Manager	User can run, force unlock and/or set production versions of TaskBot(s) available in the Control Room repository.
Task Scheduling	User can add, update, delete and manage all TaskBot(s) for scheduling to Bot Runner machines.
Client Management	User can view the Clients that are registered to the Control Room and export Client details to a CSV file, if required.
Roles and Permissions Management	User is granted privileges to manage roles and permissions to other Control Room users.
Audit Trail	User can review all Control Room relevant activities.
Credential Manager	User can create, edit, and delete credentials in the Control Room
License Management	User can allocate/deallocate licenses to Client users.

5.7 Creating Users in the Control Room

Client User management involves creating users after defining specific roles as soon as the Control Room is hosted. These users can be either Non-Active Directory Users or Active Directory Users, as configured during installation.

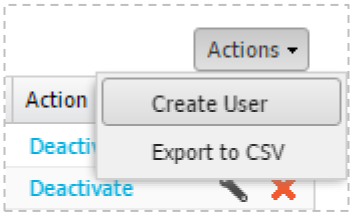
Ideally, a Control Room Admin or Users assigned Admin rights can create Users/Clients. These are then assigned roles depending upon access privileges.



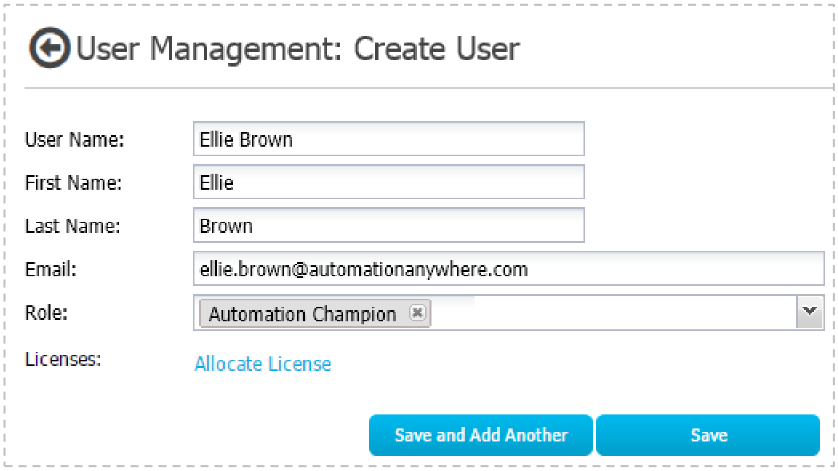
User Management

User Name	First Name	Last Name	Email	Roles	Licenses	Action
John Smith	John	Smith	john.smith@automationa...	Admin		Deactivate
Tom Watson	Tom	Watson	tom.watson@automation...	BotCreator	Development	Deactivate
Amy Chen	Amy	Chen	amy.chen@automationan...	BotRunner	RunTime (TaskBots, IQBots, MetaBots)	Deactivate
Ellie Brown	Ellie	Brown	ellie.brown@automationa...	BotRunner	RunTime (TaskBots, IQBots)	Deactivate
Jason Goodman	Jason	Goodman	jason.goodman@automat...	BotRunner	RunTime (TaskBots, MetaBots)	Deactivate
Mike Lee	Mike	Lee	mike.lee@automationany...	Basic		Deactivate

1. To start creating a user, click on *Create User* under *Actions*



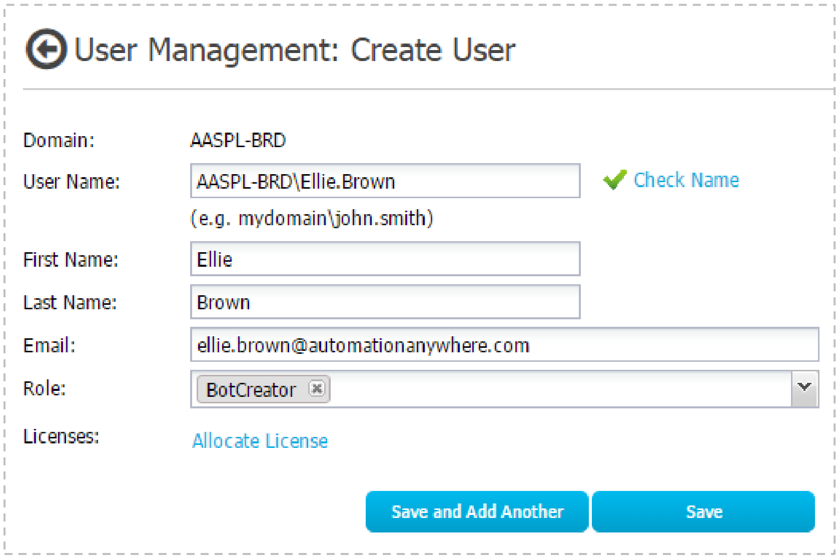
2. Input the required information.
   TIP: Firstname and Lastname are optional. If you do opt to have Firstname and Lastname, you are allowed to include Numbers, Spaces ( ), Period (.), Hyphen (-), and Underscore (_).
3. For a Non-Active Directory User, provide information in each field:



User Management: Create User

User Name:	Ellie Brown
First Name:	Ellie
Last Name:	Brown
Email:	ellie.brown@automationanywhere.com
Role:	Automation Champion
Licenses:	Allocate License

4. The information for an Active Directory User gets auto-populated when you input the User Name and click *Check Name*:



User Management: Create User

Domain:	AASPL-BRD
User Name:	AASPL-BRD\Ellie.Brown ✓ Check Name (e.g. mydomain\john.smith)
First Name:	Ellie
Last Name:	Brown
Email:	ellie.brown@automationanywhere.com
Role:	BotCreator ☒
Licenses:	Allocate License

NOTE: If the Control Room is configured for a multi-domain environment, the Domain is auto-populated with the domain name that you append for the user.

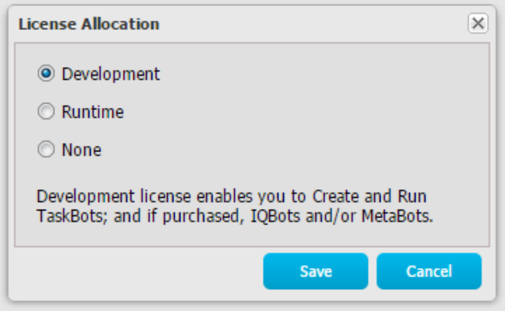
5. Select either one or multiple Roles from the list as required. To delete the selection, use the cross-mark.

6. An email is sent wherein the user will use the link to:

   - Verify the email id and set the Control Room access password, if the Control Room is configured for **Non-Active Directory** users.
     OR
   - Verify the email id, if the Control Room is configured for **Active Directory** users.

7. Now allocate licenses based on the role by clicking *Allocate License* link;

   - For instance, a **Bot Creator** role can be allotted a **Development license**:

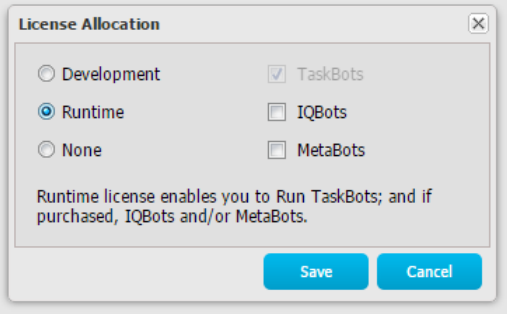


License Allocation

● Development
○ Runtime
○ None

Development license enables you to Create and Run TaskBots; and if purchased, IQBots and/or MetaBots.

   - While a **Bot Runner** role can be allotted a **Runtime license**:

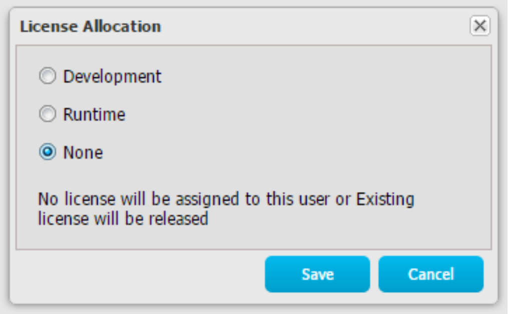


License Allocation

○ Development ☑ TaskBots
● Runtime □ IQBots
○ None □ MetaBots

Runtime license enables you to Run TaskBots; and if purchased, IQBots and/or MetaBots.

- Or only a Control Room user would not require any Client license:

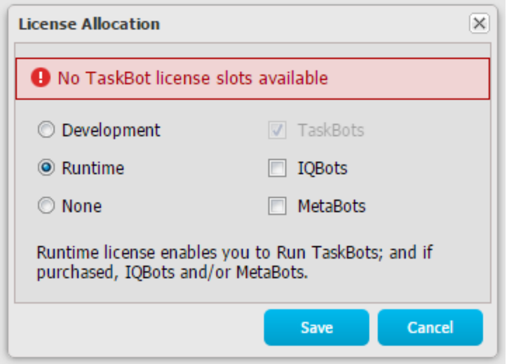


License Allocation

○ Development
○ Runtime
● None

No license will be assigned to this user or Existing license will be released

NOTE: If no slots are available for license usage, you are displayed:



License Allocation

No TaskBot license slots available

○ Development	☑ TaskBots
● Runtime	□ IQBots
○ None	□ MetaBots

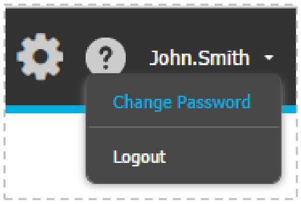
Runtime license enables you to Run TaskBots; and if purchased, IQBots and/or MetaBots.

8. Click *Save*.

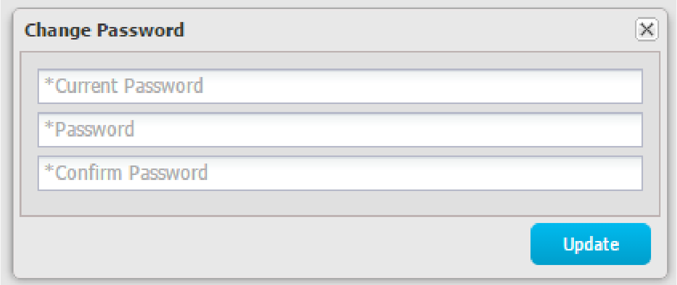
TIP: You can choose to switch a user type i.e. from Development (Bot-Creator) to Runtime (Bot-Runner) or vice versa as per organization's automation requirements by updating the license type from License Management.

5.8 Setting User Password

Control Room Users can change the password from within the Control Room by clicking on *Change Password*:



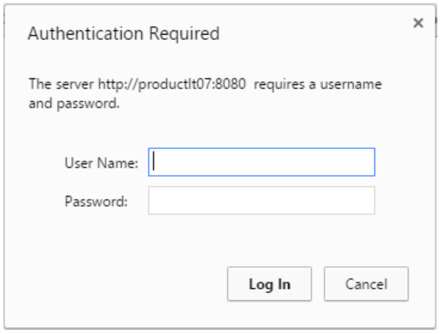
Set the new password:



Change Password

*Current Password
*Password
*Confirm Password

The **Active Directory** user will be able to login directly to the Control Room. However, user may have to input the Windows Credentials in case the browser settings are set to prompt.



Authentication Required

The server http://productlt07:8080 requires a username and password.

User Name:

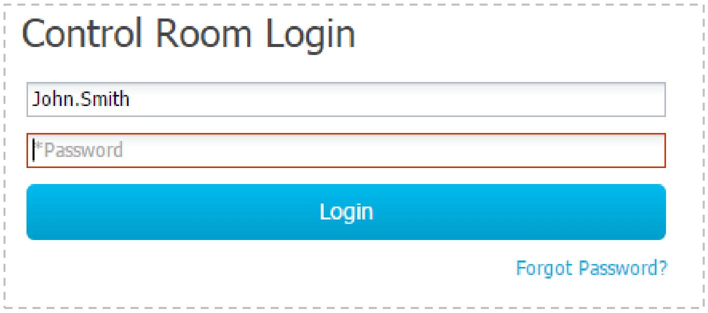
Password:

5.9 Forgot Password?

NOTE: Applicable to Non-Active Directory Users only

The Control Room Admin can reset the password for login using the **Forgot Password?** link:

1. Click on the *Forgot Password?* link provided beneath the *Login* button.

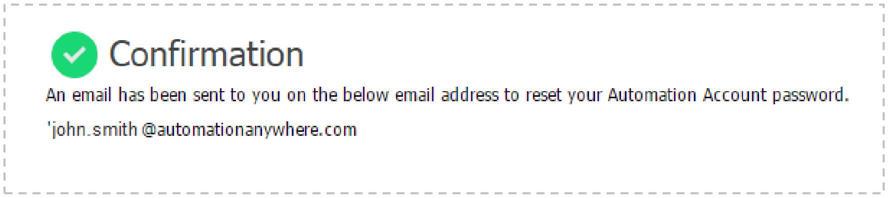


Control Room Login

John.Smith

*Password

2. You are displayed a confirmation message for resetting your password.

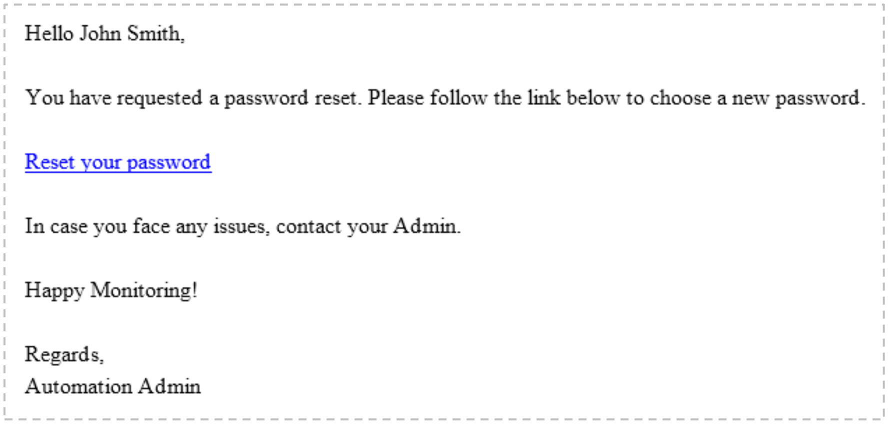


Confirmation

An email has been sent to you on the below email address to reset your Automation Account password.

'john.smith @automationanywhere.com

3. Click the *Reset your password* link in the email that you have received.



Hello John Smith,

You have requested a password reset. Please follow the link below to choose a new password.

Reset your password

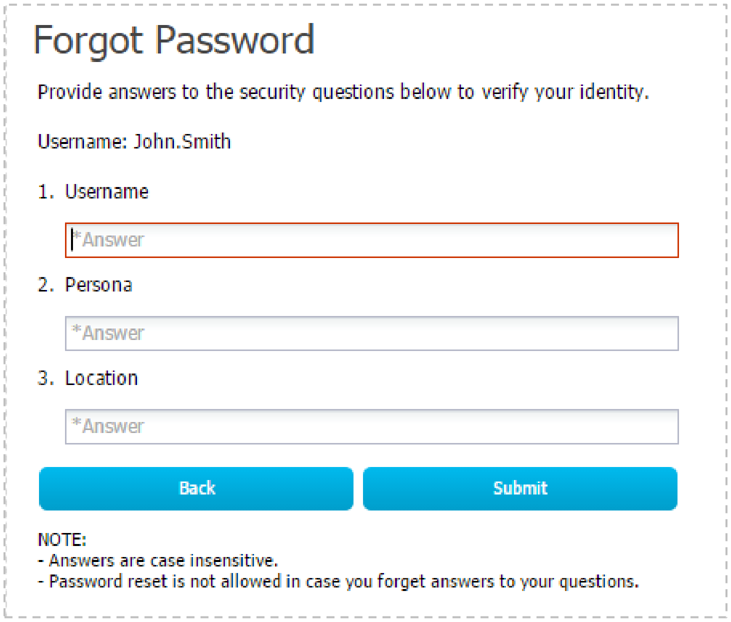
In case you face any issues, contact your Admin.

Happy Monitoring!

Regards,
Automation Admin

NOTE: If you have not configured outgoing mail server, you will not receive an email notification. Instead, you will be displayed the set of 'Security Q&A' on clicking 'Forgot Password'.

4. In the Security Q&A section, input the required information.



Forgot Password

Provide answers to the security questions below to verify your identity.

Username: John.Smith

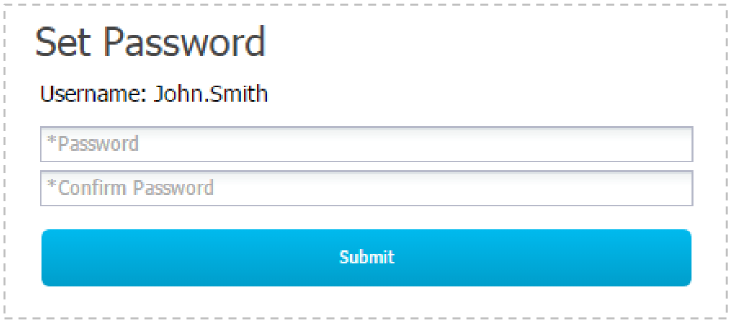
1. Username

2. Persona

3. Location

NOTE:
- Answers are case insensitive.
- Password reset is not allowed in case you forget answers to your questions.

5. Click Submit and you will be redirected to the Login page wherein you can set your password:



Set Password

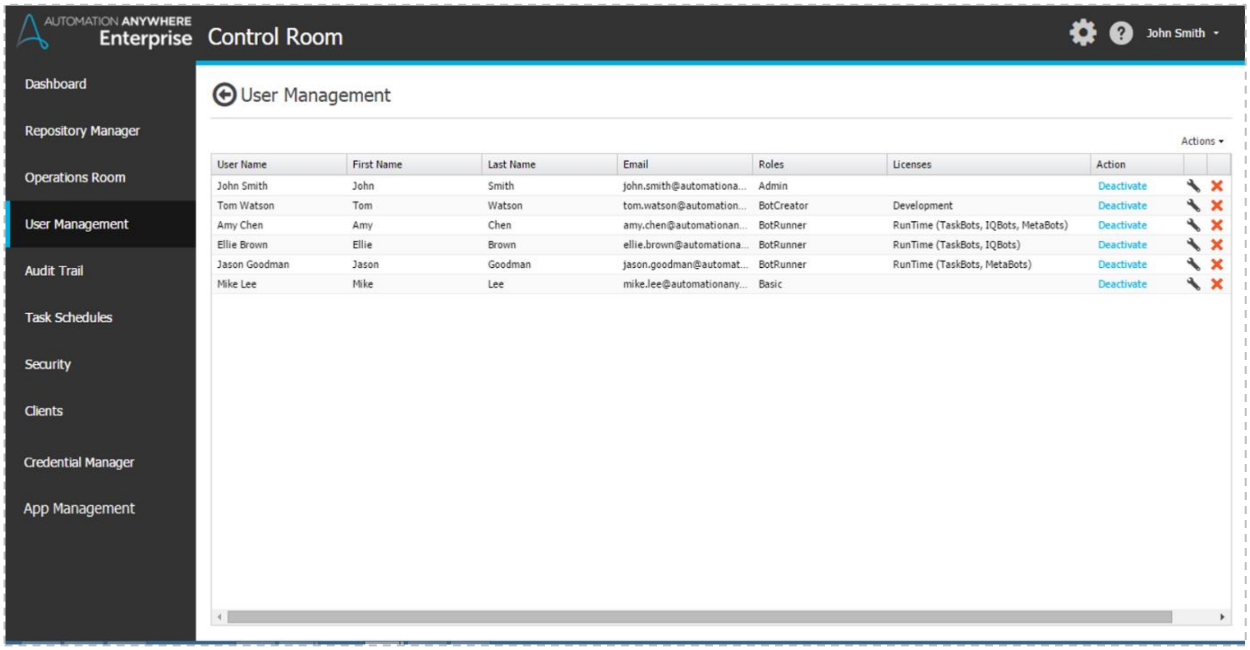
Username: John.Smith

6. On clicking *Submit* you will be able to login to the Control Room using the new password.

5.10 Updating User Details

The Control Room Admin can update user details. User details such as alias names, email and roles can be modified; users can be activated, deactivated or even deleted if necessary.

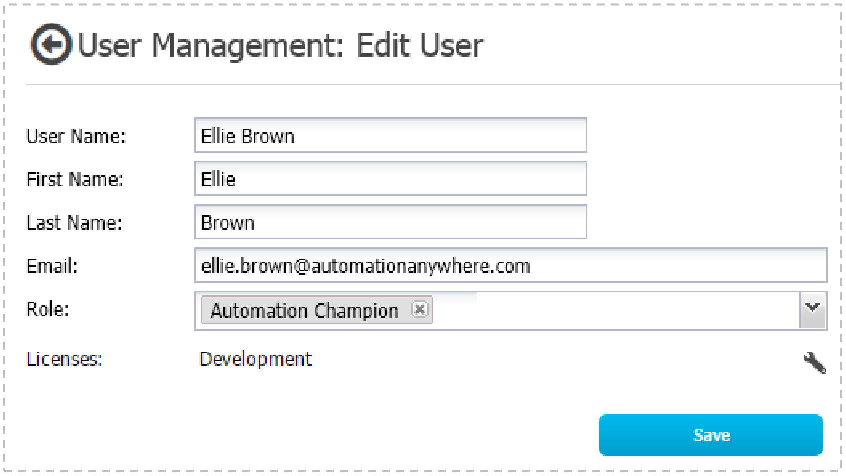
To update user details, go to *User Management*, select the user and click 🔧.



User Management

User Name	First Name	Last Name	Email	Roles	Licenses	Action		
John Smith	John	Smith	john.smith@automationa...	Admin		Deactivate	🔧	✕
Tom Watson	Tom	Watson	tom.watson@automation...	BotCreator	Development	Deactivate	🔧	✕
Amy Chen	Amy	Chen	amy.chen@automationan...	BotRunner	RunTime (TaskBots, IQBots, MetaBots)	Deactivate	🔧	✕
Ellie Brown	Ellie	Brown	ellie.brown@automationa...	BotRunner	RunTime (TaskBots, IQBots)	Deactivate	🔧	✕
Jason Goodman	Jason	Goodman	jason.goodman@automat...	BotRunner	RunTime (TaskBots, MetaBots)	Deactivate	🔧	✕
Mike Lee	Mike	Lee	mike.lee@automationany...	Basic		Deactivate	🔧	✕

Update required information and click *Save*.

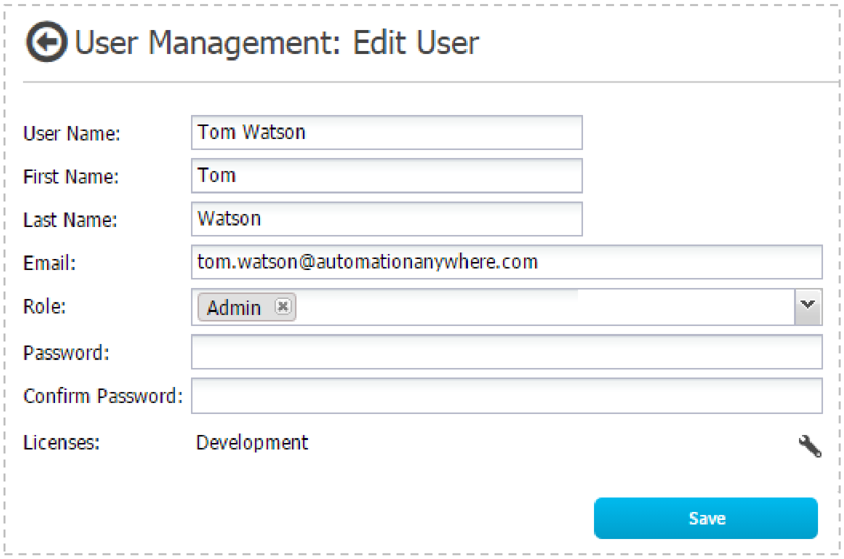


User Management: Edit User

User Name:	Ellie Brown
First Name:	Ellie
Last Name:	Brown
Email:	ellie.brown@automationanywhere.com
Role:	Automation Champion ☒
Licenses:	Development 🔧

NOTE:

- If you have not configured Outgoing Mail Server, you will be allowed to set the password for a User who has forgotten the same. The User can then reset it during Control Room login.



User Management: Edit User

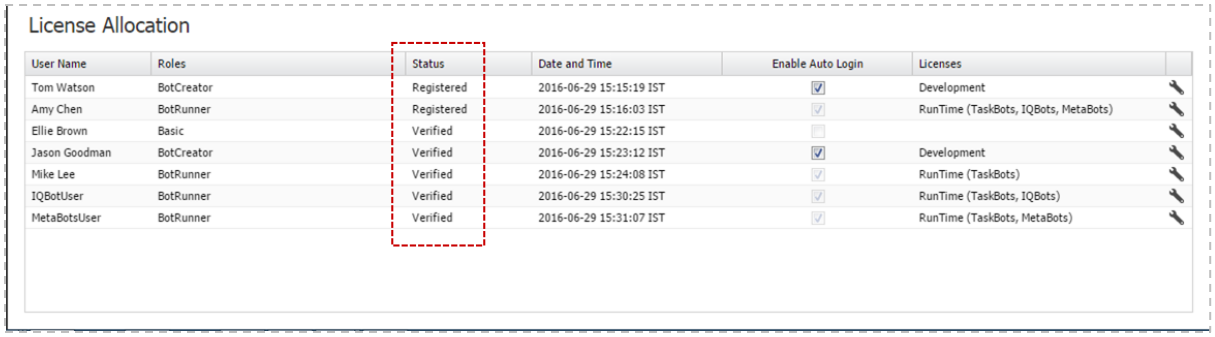
User Name:	Tom Watson
First Name:	Tom
Last Name:	Watson
Email:	tom.watson@automationanywhere.com
Role:	Admin ☒
Password:	
Confirm Password:	
Licenses:	Development 🔧

- You can also choose to reallocate license to switch user from Bot-Creator (Development) to Bot-Runner (Runtime) or vice versa by clicking on 🔧. Refer section on License Allocation for more information.

To activate a user, click **Activate** ; to deactivate click **Deactivate** in the Actions column.

NOTE: To enable a Client User to register to the Control Room, it is important to 'Activate' the user. Use the 'Deactivate' option only if the Client user needs to be made inactive temporarily.

You can verify whether a user is Verified and Registered in License Management as shown:



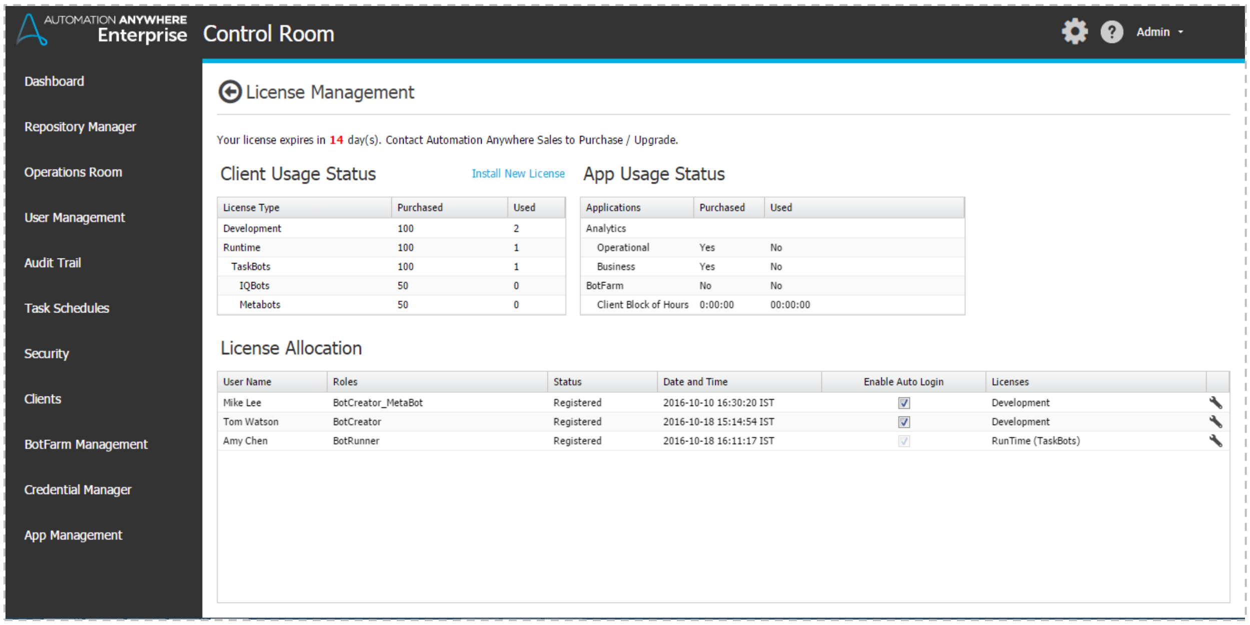
License Allocation

User Name	Roles	Status	Date and Time	Enable Auto Login	Licenses	
Tom Watson	BotCreator	Registered	2016-06-29 15:15:19 IST	☑	Development	🔧
Amy Chen	BotRunner	Registered	2016-06-29 15:16:03 IST	☑	RunTime (TaskBots, IQBots, MetaBots)	🔧
Ellie Brown	Basic	Verified	2016-06-29 15:22:15 IST	☐		🔧
Jason Goodman	BotCreator	Verified	2016-06-29 15:23:12 IST	☑	Development	🔧
Mike Lee	BotRunner	Verified	2016-06-29 15:24:08 IST	☑	RunTime (TaskBots)	🔧
IQBotUser	BotRunner	Verified	2016-06-29 15:30:25 IST	☑	RunTime (TaskBots, IQBots)	🔧
MetaBotsUser	BotRunner	Verified	2016-06-29 15:31:07 IST	☑	RunTime (TaskBots, MetaBots)	🔧

5.11 Installing and Allocating Licenses in Control Room

The Control Room Admin manages the installation, distribution, and allocation of licenses to Clients. Two aspects of Licensing can be managed from the License Management console:

- New License Installation
- License Allocation



License Management

Your license expires in 14 day(s). Contact Automation Anywhere Sales to Purchase / Upgrade.

Client Usage Status — Install New License

License Type	Purchased	Used
Development	100	2
Runtime	100	1
TaskBots	100	1
IQBots	50	0
Metabots	50	0

App Usage Status

Applications	Purchased	Used
Analytics		
Operational	Yes	No
Business	Yes	No
BotFarm	No	No
Client Block of Hours	0:00:00	00:00:00

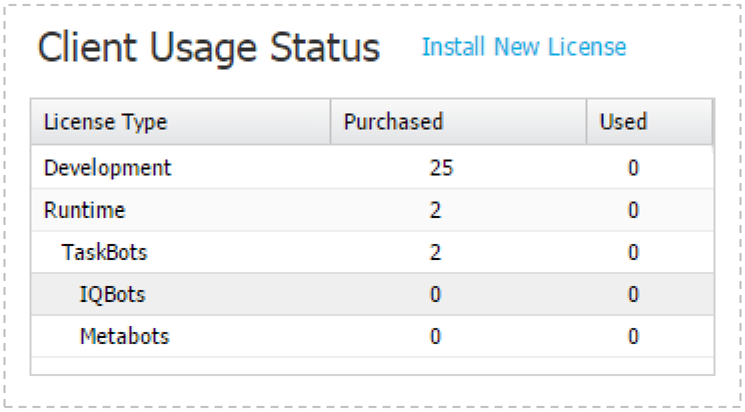
License Allocation

User Name	Roles	Status	Date and Time	Enable Auto Login	Licenses
Mike Lee	BotCreator_MetaBot	Registered	2016-10-10 16:30:20 IST	☑	Development
Tom Watson	BotCreator	Registered	2016-10-18 15:14:54 IST	☑	Development
Amy Chen	BotRunner	Registered	2016-10-18 16:11:17 IST	☑	RunTime (TaskBots)

NOTE: Purchase and subsequent license allocation is subject to the type of Enterprise Clients that need to be defined – Bot Creator (Development) or Bot Runner (Runtime).

5.11.1 Viewing License Usage

Once the license is installed, you can verify the Client usage status:



Client Usage Status — Install New License

License Type	Purchased	Used
Development	25	0
Runtime	2	0
TaskBots	2	0
IQBots	0	0
Metabots	0	0

Here you can view:

- **License Type** - Basically you can allocate licenses to two Client User types – Bot Creator (Development) and Bot Runner (Runtime).

Bot Creator Clients are the ones who are given the privilege of creating TaskBot(s) in Enterprise Client. They can be allotted **Development license** type.

Bot Runner Clients are run-time users who have permission to run TaskBot(s) only. They can be allotted **Runtime license** types.

- **Purchased -** Displays the number of licenses that have been purchased for Development Clients and Runtime Clients.

Bot Creator Client Users can be allowed to create TaskBot(s) that could include IQBot and/or MetaBot if the required plug-ins have been installed.

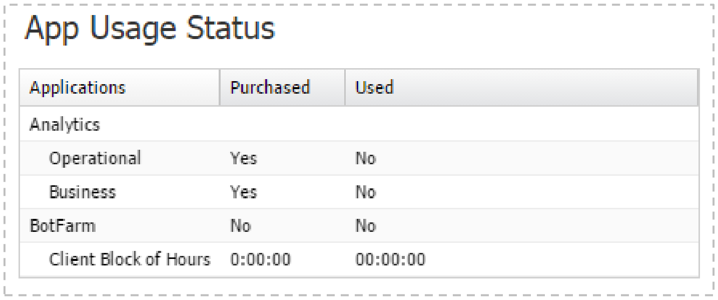
The Bot Runner Client Users can be allocated licenses to enable the Scheduling Manger - User with scheduling privileges, to run TaskBot(s) on Runtime Client User machines.

You can allocate licenses to Bot Runner(s) depending upon your requirements. For instance, you could either allocate all Runtime licenses to TaskBot Clients or divide the licenses between IQBot and/or MetaBot if the plug-ins have been installed.

- **Used -** Displays the number of licenses that have been consumed by Development and Runtime Clients including IQBot(s) and MetaBot(s).

5.11.2 App Usage Status

You can monitor your App - Analytics and BotFarm Usage status in License Management.



App Usage Status

Applications	Purchased	Used
Analytics		
Operational	Yes	No
Business	Yes	No
BotFarm	No	No
Client Block of Hours	0:00:00	00:00:00

TIP: You need to register your applications App Management to be able to monitor your app usage.

Here, you can view:

- **Application License Type -** The status of licenses for Analytics and BotFarm are displayed in the Applications column.
  When you purchase a license for Operational and/or Business Analytics, the status under Purchased column is displayed as Yes.
  The BotFarm license needs to be purchased separately. It also displays Yes status if purchased.

- **Usage Status -** The status for Operational and Business Analytics is based upon license allocation to AnalyticsExpert and AnalyticsConsumer.

NOTE: The Operational Analytics licenses is assigned to the Analytics Expert, while the Business Analytics license is assigned to the AnalyticsConsumer. Refer the article on Managing Roles and Permissions for details.

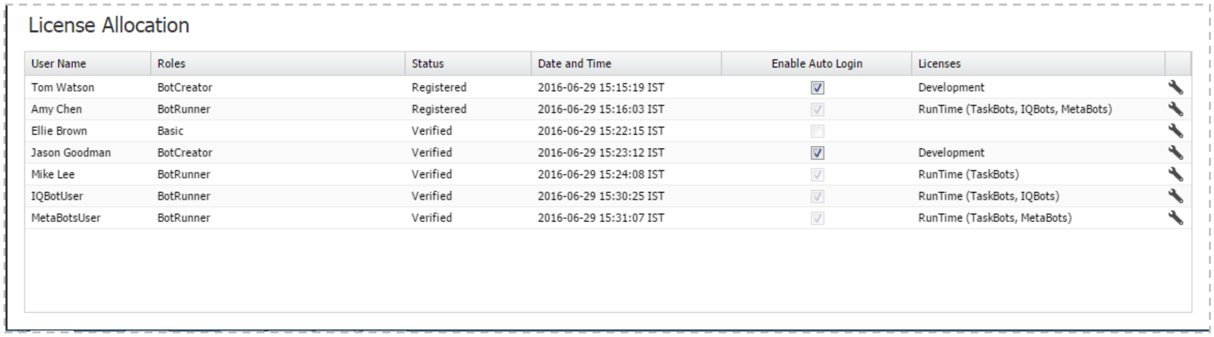
Similarly, the Used column shows Yes as and when a license is assigned to a BotFarm Agent.

- **Client Block of Hours -** This indicates the hours purchased and utilized by BotFarm Agents.

5.11.3 License Allocation and Re-allocation

You can allocate and reallocate licenses to your Clients from the License Management view. Here, you can allocate or reallocate licenses to users that are already created.

The User list depicts all the Clients that are registered to the Control Room.



License Allocation

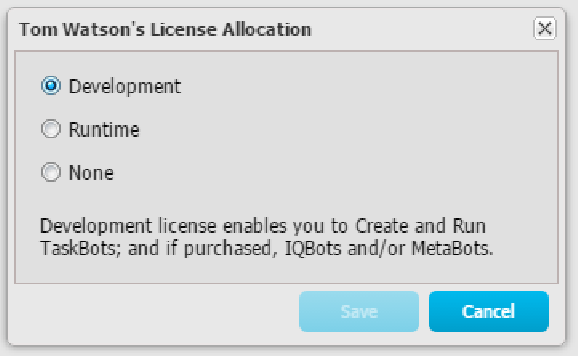
User Name	Roles	Status	Date and Time	Enable Auto Login	Licenses	
Tom Watson	BotCreator	Registered	2016-06-29 15:15:19 IST	☑	Development	🔧
Amy Chen	BotRunner	Registered	2016-06-29 15:16:03 IST	☑	RunTime (TaskBots, IQBots, MetaBots)	🔧
Ellie Brown	Basic	Verified	2016-06-29 15:22:15 IST	□		🔧
Jason Goodman	BotCreator	Verified	2016-06-29 15:23:12 IST	☑	Development	🔧
Mike Lee	BotRunner	Verified	2016-06-29 15:24:08 IST	☑	RunTime (TaskBots)	🔧
IQBotUser	BotRunner	Verified	2016-06-29 15:30:25 IST	☑	RunTime (TaskBots, IQBots)	🔧
MetaBotsUser	BotRunner	Verified	2016-06-29 15:31:07 IST	☑	RunTime (TaskBots, MetaBots)	🔧

NOTE:

- A Client cannot connect to the Control Room until the user has been allocated a license. Once the Client logs in, that user is registered to the Control Room and the license is indicated as consumed.
- You can choose to switch Client user types i.e. Development to Runtime or vice versa. Simply click on 🔧 to change the user type.

1. To allocate a license to a Client, click on 🔧 to launch the Client *License Allocation* window and select the Client type:

   - You can select Development type for Bot-Creators:

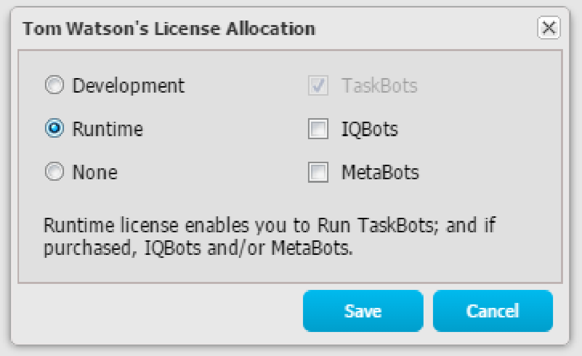
   

   Tom Watson's License Allocation

   ● Development
   ○ Runtime
   ○ None

   Development license enables you to Create and Run TaskBots; and if purchased, IQBots and/or MetaBots.

   - You can select Runtime for Bot-Runners:

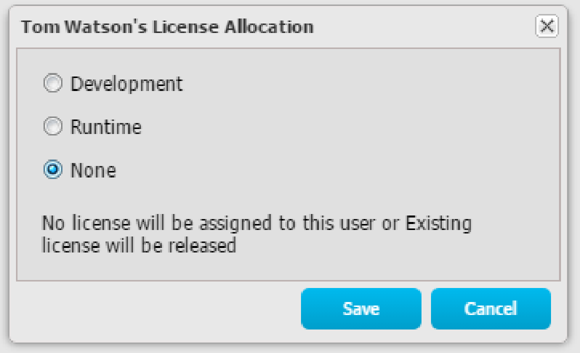
   

   Tom Watson's License Allocation

   ○ Development ☑ TaskBots
   ● Runtime □ IQBots
   ○ None □ MetaBots

   Runtime license enables you to Run TaskBots; and if purchased, IQBots and/or MetaBots.

- None, when you want to either not allocate a license to the user i.e. create a Control Room user only or to release an existing license in order to convert a Bot-Creator to Bot-Runner (works the other way round also):

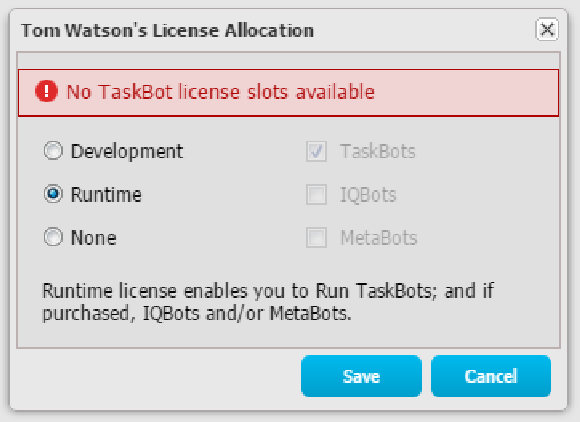


Tom Watson's License Allocation

○ Development
○ Runtime
● None

No license will be assigned to this user or Existing license will be released

2. Click to Save.
   NOTE: If licenses are unavailable for consumption, you will be notified on license allocation:



Tom Watson's License Allocation

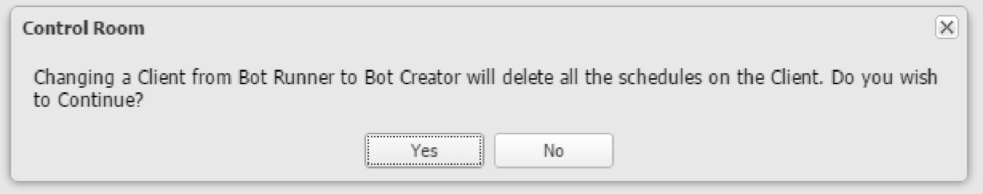
No TaskBot license slots available

○ Development ☑ TaskBots
● Runtime □ IQBots
○ None □ MetaBots

Runtime license enables you to Run TaskBots; and if purchased, IQBots and/or MetaBots.

3. You can also modify the type of licenses allocated by clicking 🔧.

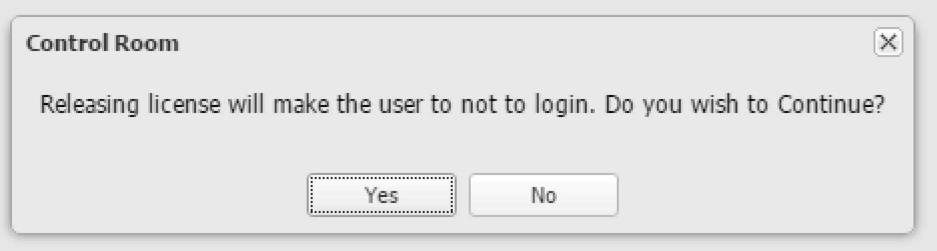
- If you modify a Bot-Runner Client to Bot-Creator, the existing schedules for that Client will be deleted.



Control Room

Changing a Client from Bot Runner to Bot Creator will delete all the schedules on the Client. Do you wish to Continue?

- If you select the *None* option for an existing Client user who has been allocated Development or Runtime license, the license will be released:

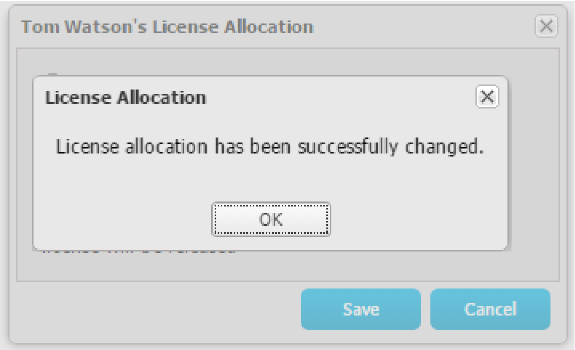


Control Room

Releasing license will make the user to not to login. Do you wish to Continue?

The user will, however, not be able to login to the Client.

4. A success message indicates the updates are saved:



Tom Watson's License Allocation

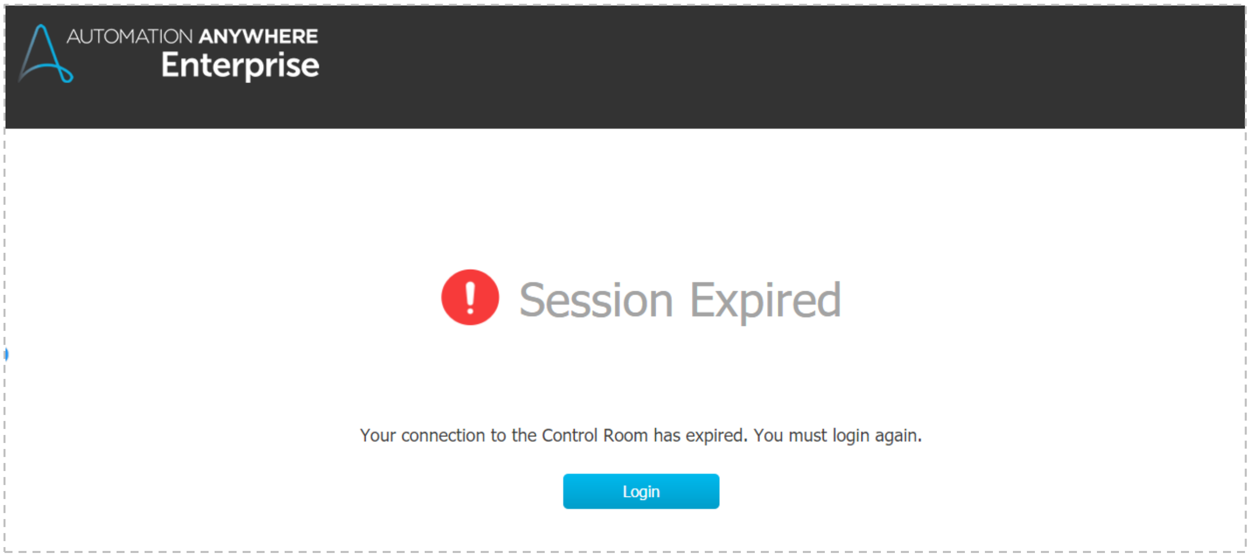
License Allocation

License allocation has been successfully changed.

TIP: If you run out of licenses, contact *support@automationanywhere.com*

5.12 Session Expiry

To preserve web server's resources, the Control Room's session expires after certain time of inactivity. By default, Control Room session will expire after 20 minutes of inactivity.



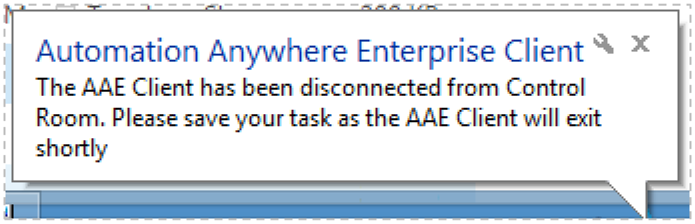
Session Expired

Your connection to the Control Room has expired. You must login again.

To continue monitoring the Control Room, Non-Active Directory users must re-login after session expiry.

NOTE: After session expiry, the Active Directory users will be auto-logged in to the Control Room and the login entry can be seen in Audit Trail.

Users connected to the Control Room through Client will be disconnected after some time:



Automation Anywhere Enterprise Client

The AAE Client has been disconnected from Control Room. Please save your task as the AAE Client will exit shortly

You may also get *Session Expired* screen if there is Multiple concurrent logins to Control Room using a user's credentials on the different machine / browser.

For Instance, User1 successfully login Control Room in Browser1/Machine1, and just a minute later if User2 successfully login in browser2/Machine2 using User1 login credentials, then User1 will be shown *Session Expired* page on click of his next action in Control Room.

5.13 Configuring Version Control

To manage controlled edits of files that could include TaskBots, VisionBots, Reports, and Workflows, you can configure Version Control in Control Room Settings page.

The Control Room is tightly integrated with SubVersion version control system so that the versioning, checkin/checkout and other functionality can be leveraged with ease for all files.

5.13.1 Version Control Pre-requisites

For Version Control to be enabled and integrated from Control Room, it is necessary that SVN (SubVersion) should be installed and configured.

NOTE: Automation Anywhere supports Subversion v1.8.13 and v1.8.14 with Visual SVN Server 3.3.x.

An SVN Admin user should be created with required permissions.

An SVN repository should be created, which can be used to store all version control files.

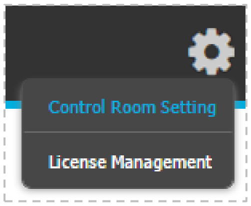
Control Room will be the basis of communication with SVN. Clients will not communicate with SVN directly.

NOTE: Once the Control Room integration with SVN is up and running, all communication for version control operations from Enterprise Client to SVN will take place via Control Room only.

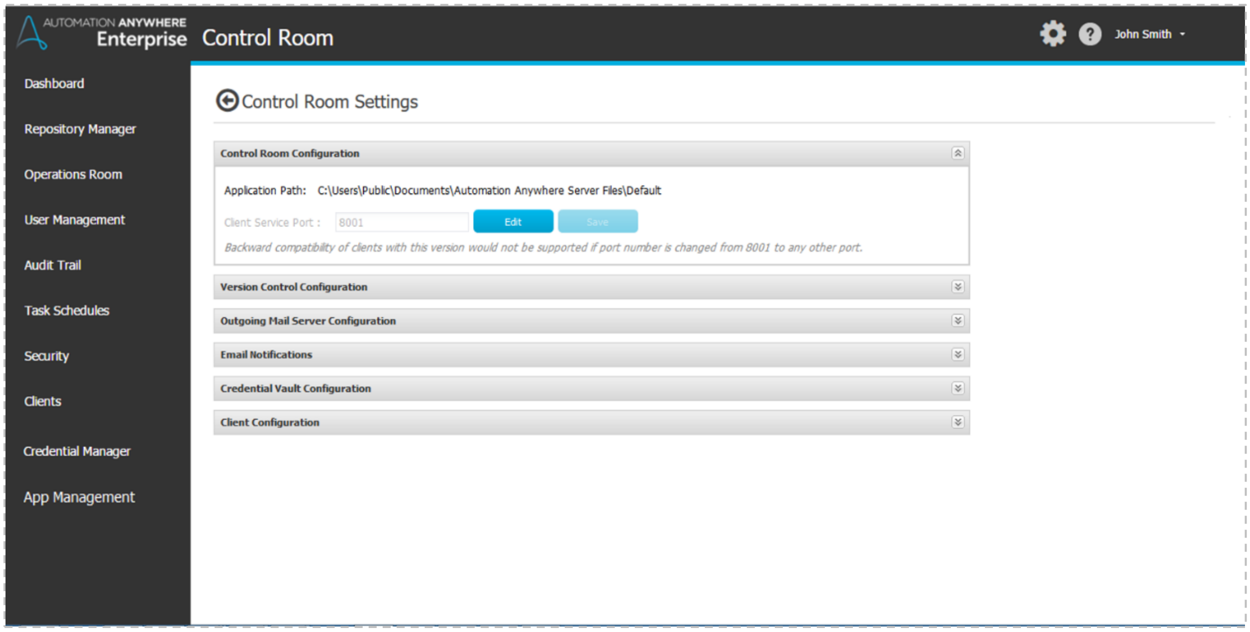
5.13.2 Enabling Version Control

To be able to use Version Control you need to *Enable* the feature from the Control Room. Follow the below mentioned steps to enable Version Control:

1. Click on ⚙ button on the top right on the Control Room panel and select Control Room Settings.



Following image shows the default view of the Control Room Settings.



Control Room Settings

Control Room Configuration

Application Path: C:\Users\Public\Documents\Automation Anywhere Server Files\Default

Client Service Port : 8001

Backward compatibilty of clients with this version would not be supported if port number is changed from 8001 to any other port.

Version Control Configuration

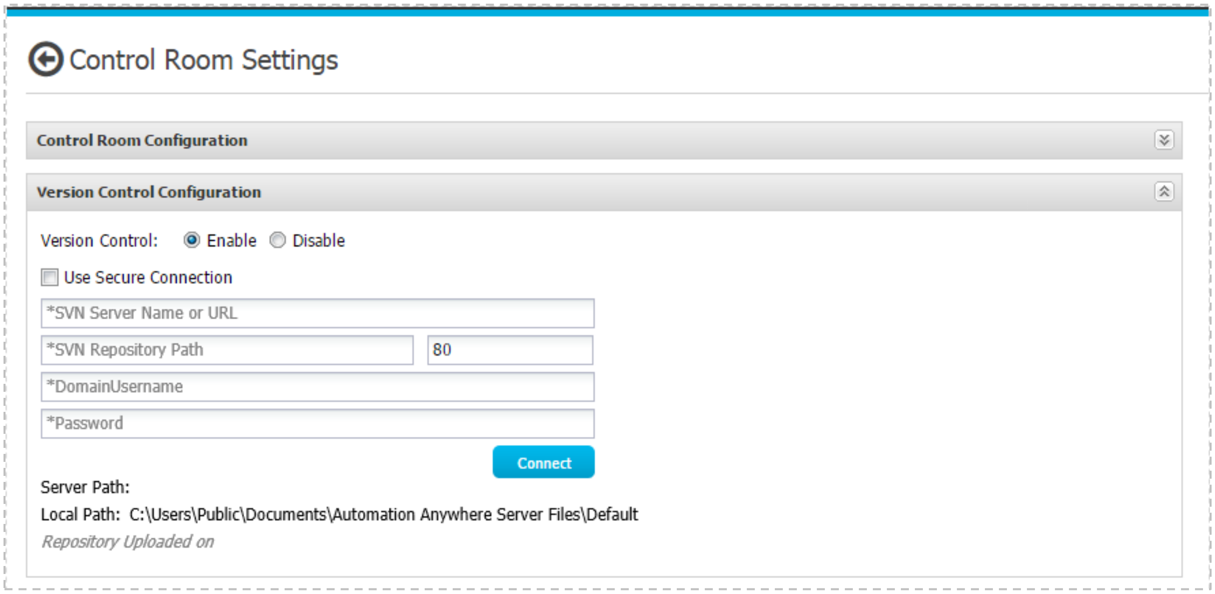
Outgoing Mail Server Configuration

Email Notifications

Credential Vault Configuration

Client Configuration

2. Click on Version Control Settings tab.



Control Room Settings

Control Room Configuration

Version Control Configuration

Version Control: ● Enable ○ Disable

□ Use Secure Connection

*SVN Server Name or URL

*SVN Repository Path | 80

*DomainUsername

*Password

Server Path:

Local Path: C:\Users\Public\Documents\Automation Anywhere Server Files\Default

Repository Uploaded on

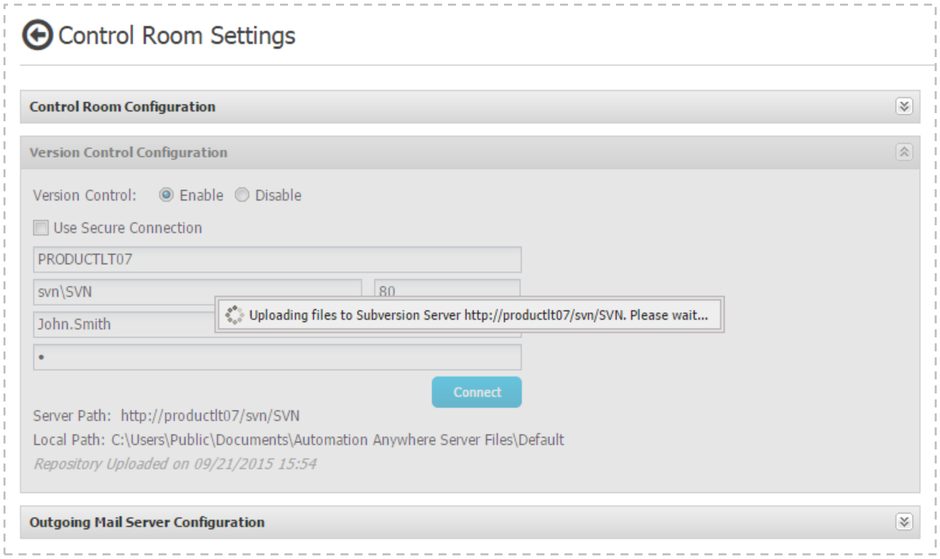
3. Input the required details and click *Connect*.
4. Once the connection is established successfully, the Server path will be auto-populated.

5.13.3 Uploading the Base Version

Before enabling Version Control, it is essential to upload a base version of all the files in the repository. Base version essentially serves as a basis for defining change and all the Version Control operations will be done on the defined base version only.

Though creating base version is optional, for existing users it is highly recommended as the first step towards versioning.

When a Client performs the first version control operation on a file, it will automatically be reflected in the Version Control Repository.



Control Room Settings

Control Room Configuration

Version Control Configuration

Version Control: ● Enable ○ Disable

□ Use Secure Connection

PRODUCTLT07

svn\SVN | 80

John.Smith

•

Uploading files to Subversion Server http://productlt07/svn/SVN. Please wait...

Server Path: http://productlt07/svn/SVN

Local Path: C:\Users\Public\Documents\Automation Anywhere Server Files\Default

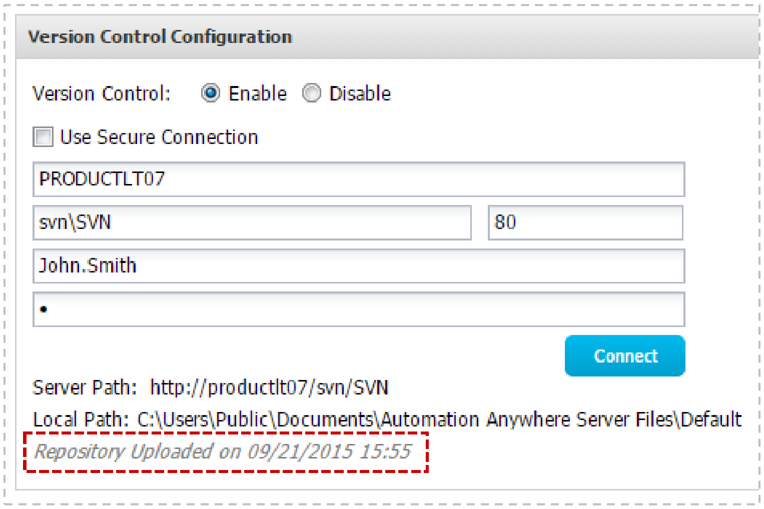
Repository Uploaded on 09/21/2015 15:54

Outgoing Mail Server Configuration

NOTE: The upload Date and Time are displayed after the files are uploaded to SVN.

The total files on SVN will be same as the Repository Manager.

NOTE: Uploading base version may take time since it depends on the size of local repository being uploaded. Once the uploading is completed, the timestamp is set beside the Upload files link for the last upload process.



Version Control Configuration

Version Control: ● Enable ○ Disable

□ Use Secure Connection

PRODUCTLT07

svn\SVN 80

John.Smith

•

Server Path: http://productlt07/svn/SVN

Local Path: C:\Users\Public\Documents\Automation Anywhere Server Files\Default

Repository Uploaded on 09/21/2015 15:55

5.13.4 Un-map and Remap Server Path to Local Path

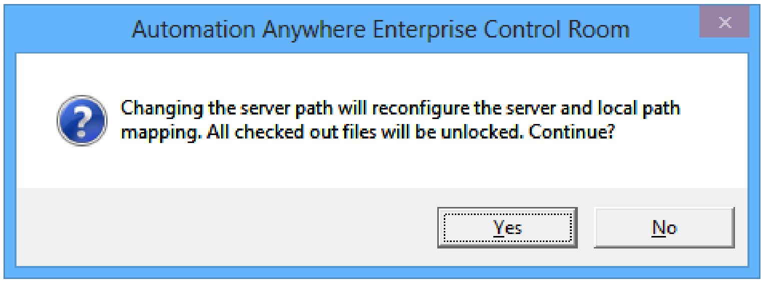
In case, your SVN Repository has moved to a new address/path, you will need to change the mapping of your server path to local path (application path).

NOTE:

- When changing only the URL Parameters, the current mapping will remain intact; however, a connection to the new URL will be re-established.
- When changing the path for SVN repository, the current mapping will be un-mapped and the new mapping will be established.

Remember, while re-mapping the SVN Repository should not comprise any file(s).

To change the server path, simply change the Path field to another SVN repository and click OK. In the ensuing message, select *Yes* to continue.



Automation Anywhere Enterprise Control Room

Changing the server path will reconfigure the server and local path mapping. All checked out files will be unlocked. Continue?

On confirmation, the existing mapping will be removed, all checked out files will be forcefully unlocked by the Control Room Admin and the new mapping will be created.

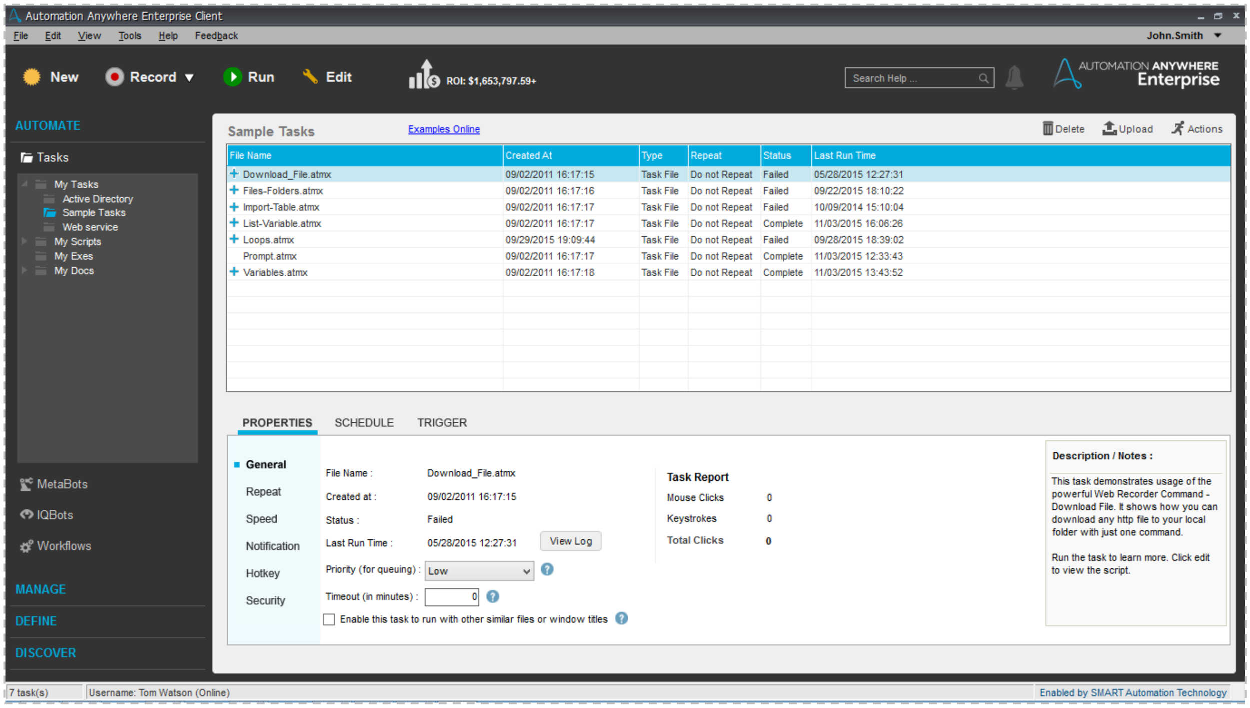
If the change in server path mapping fails, then an error *"Unable to map the new Server path with Local path. Verify your path settings"* will be displayed and the old mapping will be restored.

5.13.5 Verifying Version Control is enabled in Client

To confirm that Version Control has been integrated properly, simply launch the Enterprise Client. Learn how to launch the Client.

If Version Control is enabled, then you can see + sign in front of all the new TaskBot(s), which were not available on the Control Room when base version was uploaded.

NOTE: + *indicates a new Task.*



File Name	Created At	Type	Repeat	Status	Last Run Time
+ Download_File.atmx	09/02/2011 16:17:15	Task File	Do not Repeat	Failed	05/28/2015 12:27:31
+ Files-Folders.atmx	09/02/2011 16:17:16	Task File	Do not Repeat	Failed	09/22/2015 18:10:22
+ Import-Table.atmx	09/02/2011 16:17:17	Task File	Do not Repeat	Failed	10/09/2014 15:10:04
+ List-Variable.atmx	09/02/2011 16:17:17	Task File	Do not Repeat	Complete	11/03/2015 16:06:26
+ Loops.atmx	09/29/2015 19:09:44	Task File	Do not Repeat	Failed	09/28/2015 18:39:02
Prompt.atmx	09/02/2011 16:17:17	Task File	Do not Repeat	Complete	11/03/2015 12:33:43
+ Variables.atmx	09/02/2011 16:17:18	Task File	Do not Repeat	Complete	11/03/2015 13:43:52

File Name : Download_File.atmx
Created at : 09/02/2011 16:17:15
Status : Failed
Last Run Time : 05/28/2015 12:27:31
Priority (for queuing) : Low
Timeout (in minutes) : 0
□ Enable this task to run with other similar files or window titles

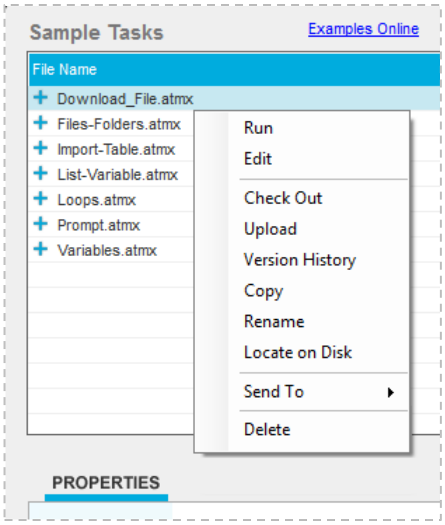
Task Report
Mouse Clicks 0
Keystrokes 0
Total Clicks 0

Description / Notes :
This task demonstrates usage of the powerful Web Recorder Command - Download File. It shows how you can download any http file to your local folder with just one command.

Run the task to learn more. Click edit to view the script.

5.13.6 Using Version Control in Enterprise Client

With Version Control enabled you can perform controlled edits to your files - TaskBots (including IQBots), Docs, Reports, and Workflows.



+ Download_File.atmx
+ Files-Folders.atmx
+ Import-Table.atmx
+ List-Variable.atmx
+ Loops.atmx
+ Prompt.atmx
+ Variables.atmx

Use Version Control to perform following operations:

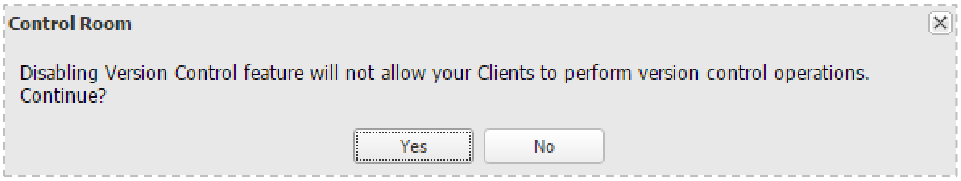
1. **Create:** You can create a new file in the local repository. A plus sign (+) indicates the file is new.
2. **Edit:** You can edit a file only if it has been *Uploaded* and *Checked Out*.

3. **Check Out:** A file that already exists in the server repository can be checked out for editing. A check mark (✓) indicates the file is checked out
4. **Upload:** Post editing, you can upload a file to the server repository with comments. No prefixed icon/sign denotes a successful upload. You can also upload files from a specific folder from the TaskBot(s) List/Repository.
5. **Version History:** You can view revisions to a file and if required, roll back any updates.
6. **Copy and Rename:** You can make a copy of a selected file in the local repository provided it has not been checked out.
7. **Delete:** You can delete a file from the local repository provided it has not been checked out.

5.13.7 Disabling Version Control

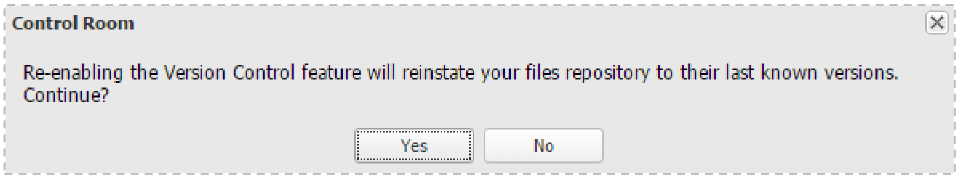
The Control Room Admin has the privilege of disabling and re-enabling the Version Control feature.

Clicking *Disable* will not allow Clients configured to the Control Room to perform versioning operations such as Check Out, Upload Files, and Upload Comments & view Version History.


Control Room

Disabling Version Control feature will not allow your Clients to perform version control operations. Continue?

NOTE: It is possible to re-enable Version Control at a later stage if required. Simply click 'Enable' to continue using versioning operations from where you left off!


Control Room

Re-enabling the Version Control feature will reinstate your files repository to their last known versions. Continue?

NOTE: Disabling Version Control will also disable the Configure and Upload files link.

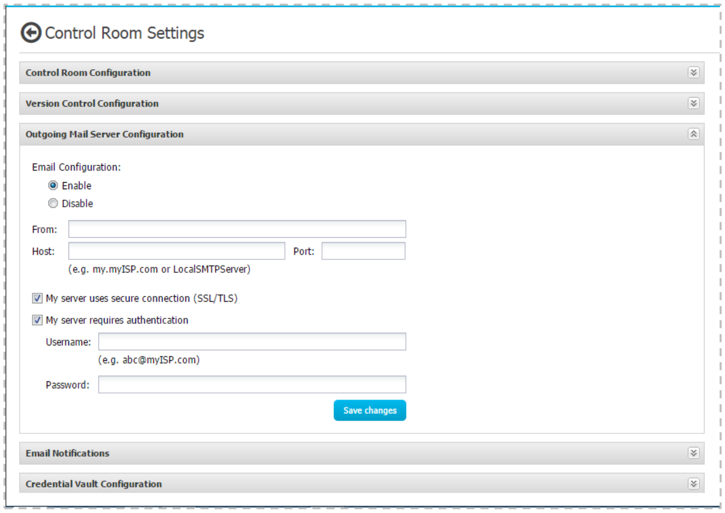
5.14 SMTP Mail Server Configuration

This configuration is required for email notification from Control Room to Control Room Users.

NOTE: This setting is optional. However, we recommend configuring SMTP Mail Server as the Control Room Admin will not be able to convey important information regarding account creation, credentials, resetting password and account deactivation, separately.

For SMTP mail server configuration, you will need the following information:

1. Host Name
2. Port Number
3. Email Id
4. Username
5. Password



Control Room Settings
Control Room Configuration
Version Control Configuration
Outgoing Mail Server Configuration
Save changes
Email Notifications
Credential Vault Configuration

Email Configuration:
● Enable
○ Disable

From:
Host: Port:
(e.g. my.myISP.com or LocalSMTPServer)

☑ My server uses secure connection (SSL/TLS)
☑ My server requires authentication

Username:
(e.g. abc@myISP.com)
Password:

Select the *My Server uses a secure connection* option to establish a secure connection to the SMTP server.

Alternately, in case the SMTP server does not require authentication, disable the *My server requires authentication* option to allow the Control Room to bypass authentication to the SMTP Server for sending email notifications.

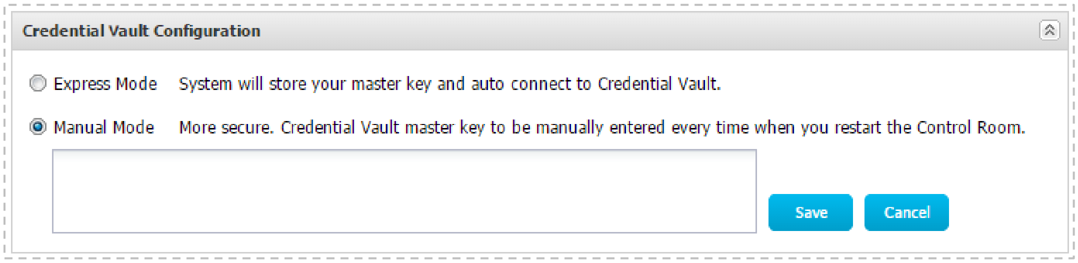
NOTE: Both options are enabled by default.

On saving the configuration, the Control Room verifies the authentication details and provides the required response.

5.15 Configuring the Credential Vault

As mentioned earlier, to configure settings for Credential Vault, an Admin needs to choose between Express or Manual mode during setup and can opt to switch modes in the Control Room Settings, later.

⚠ **Important:** If the Control Room is setup using Distributed Mode, you can switch modes only after configuring the Control Room for Load Balancing.



○ Express Mode System will store your master key and auto connect to Credential Vault.

● Manual Mode More secure. Credential Vault master key to be manually entered every time when you restart the Control Room.

⚠ **Important:** Store the master key at a secured location. Any modification or loss may result in your losing complete access to the Control Room.

1. **Express Mode -** Use this to auto connect to the Credential Vault with the master key that is stored in the system during Control Room configuration.
2. **Manual Mode -** Use this to manually connect to the Credential Vault using the master key that was available during Control Room configuration.

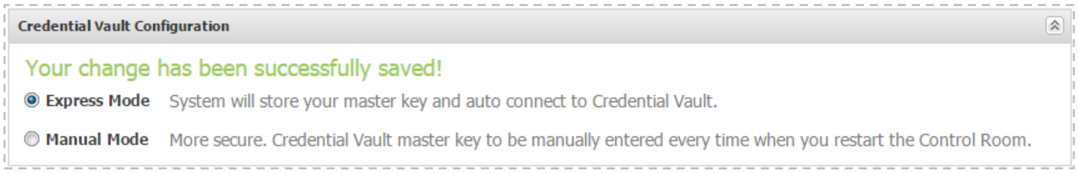
NOTE: You will have to provide this key every time you start/re-start the Control Room.

While switching modes, you must provide the Master Key in the field and click Save for the changes to take effect.

⚠ *Important:* For some reason, if you must retrieve the master key, it is stored in the 'CredentialVault.dat' file of the repository path provided you have configured directly in Express mode **or** have upgraded from AAE 10.2.0 to the current version.

E.g. C:\Users\Public\Documents\Automation Anywhere Server Files\CredentialVault.dat

A successful switch is denoted with:



Credential Vault Configuration

Your change has been successfully saved!

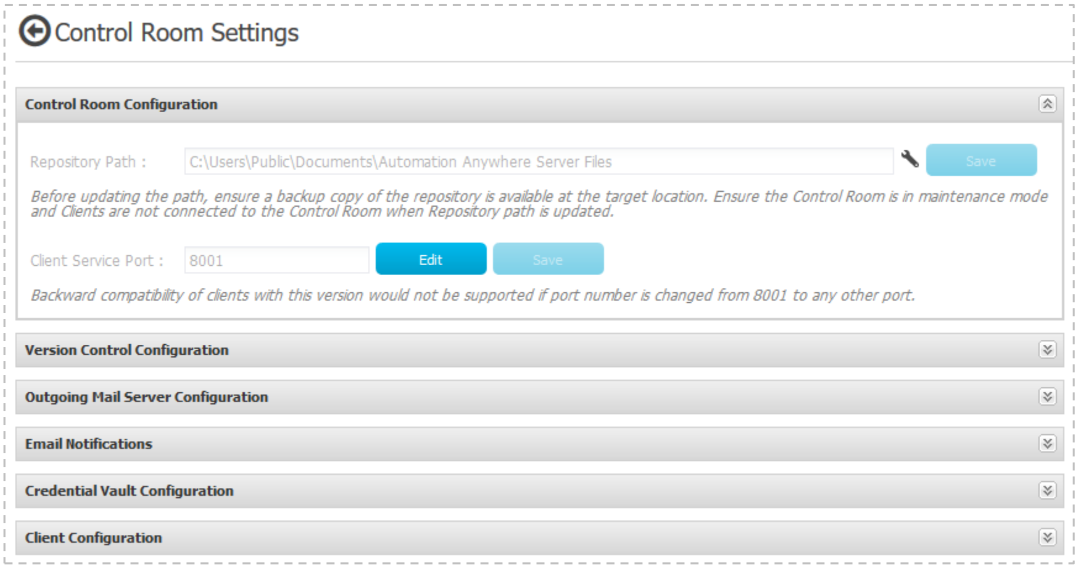
● **Express Mode** System will store your master key and auto connect to Credential Vault.

○ **Manual Mode** More secure. Credential Vault master key to be manually entered every time when you restart the Control Room.

5.16 Setting the Client Services Communication Port

The port number is configurable by the Control Room Admin. An Admin has the flexibility to edit the default port number and save it.

NOTE: The default port will be displayed as 8001.



Control Room Settings

Control Room Configuration

Repository Path : C:\Users\Public\Documents\Automation Anywhere Server Files

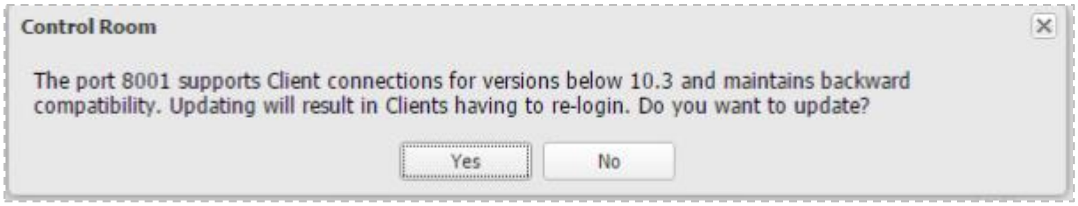
Before updating the path, ensure a backup copy of the repository is available at the target location. Ensure the Control Room is in maintenance mode and Clients are not connected to the Control Room when Repository path is updated.

Client Service Port : 8001

Backward compatibility of clients with this version would not be supported if port number is changed from 8001 to any other port.

Save
Edit
Save
Version Control Configuration
Outgoing Mail Server Configuration
Email Notifications
Credential Vault Configuration
Client Configuration

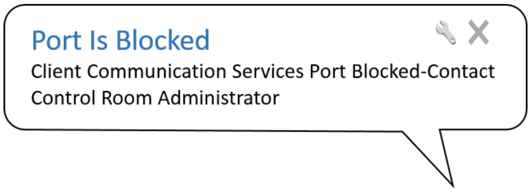
Also, Control Room admin will receive a prompt for confirmation before saving any changes to the port



Control Room

The port 8001 supports Client connections for versions below 10.3 and maintains backward compatibility. Updating will result in Clients having to re-login. Do you want to update?

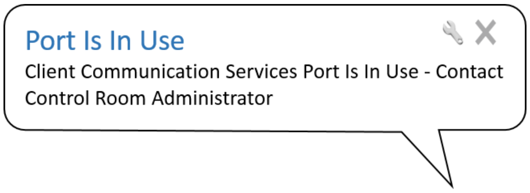
If the newly defined port is blocked on the Client side, then a notification is prompted to the Client user informing that the port is blocked. Also, a pop-up message appears as "Port Is Blocked - Client Communication Services Port Blocked - Contact Control Room Admin."



Port Is Blocked

Client Communication Services Port Blocked-Contact Control Room Administrator

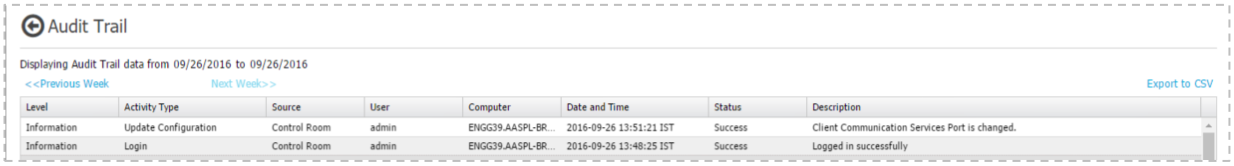
If a port is in use by some other services then a pop-up appears, "Port Is in Use – Client Communication Services Port Is in Use - Contact Control Room Admin."



Port Is In Use

Client Communication Services Port Is In Use - Contact Control Room Administrator

When you make changes in the port number an audit entry appears in the Control Room as "Client Communication Services Port is changed."



Audit Trail

Displaying Audit Trail data from 09/26/2016 to 09/26/2016

Level	Activity Type	Source	User	Computer	Date and Time	Status	Description
Information	Update Configuration	Control Room	admin	ENGG39.AASPL-BR...	2016-09-26 13:51:21 IST	Success	Client Communication Services Port is changed.
Information	Login	Control Room	admin	ENGG39.AASPL-BR...	2016-09-26 13:48:25 IST	Success	Logged in successfully

6 AAE Client- Prerequisites

This section helps you determine whether your system has the proper hardware and software to install Automation Anywhere. Before installing this version of Automation Anywhere, verify that your environment supports the following requirements.

6.1 Operating Systems

(32-bit and 64-bit OS versions are supported.)

Operating System	Edition
Microsoft Windows Server 2012 R2	Standard Edition
Microsoft Windows Server 2012	-
Microsoft Windows Server 2008 R2	Standard Edition
Microsoft Windows 8.1/ 8	Pro / Enterprise Edition
Microsoft Windows 7 SP1	Standard / Professional Edition

Processor speed: Recommended – 2.6 GHZ+ with 4 Cores and above

RAM: Recommended:

- For AAE Client - 4 GB or higher
- For AAE Client with MetaBot Designer License - 8 GB or higher

Hard Disk capacity: 300 MB of free hard disk space for installation.

NOTE:

- On an average, an Automation Anywhere script is approximately 100-150 KB. Additional free disk space is required to develop automation projects, as Automation Anywhere creates temporary files like screenshots, server logs, audit files etc. during the execution of the automation scripts.
- The actual free space required increases with the project size and hence it is recommended to have at least 40-50 GB of free disk space to implement long term projects.
- You might have to upgrade to a higher configuration post installation depending upon product usage. For instance, in MetaBot Designer - generation of log files, Logic creation, and so on might require more disk space later.

6.2 Browser Support

Browser	Version
Internet Explorer	10 and 11
Chrome*	49 and above
Firefox	45, 46, and 47

** Automation through Chrome is not supported in MetaBot Designer.*

6.3 Plugins

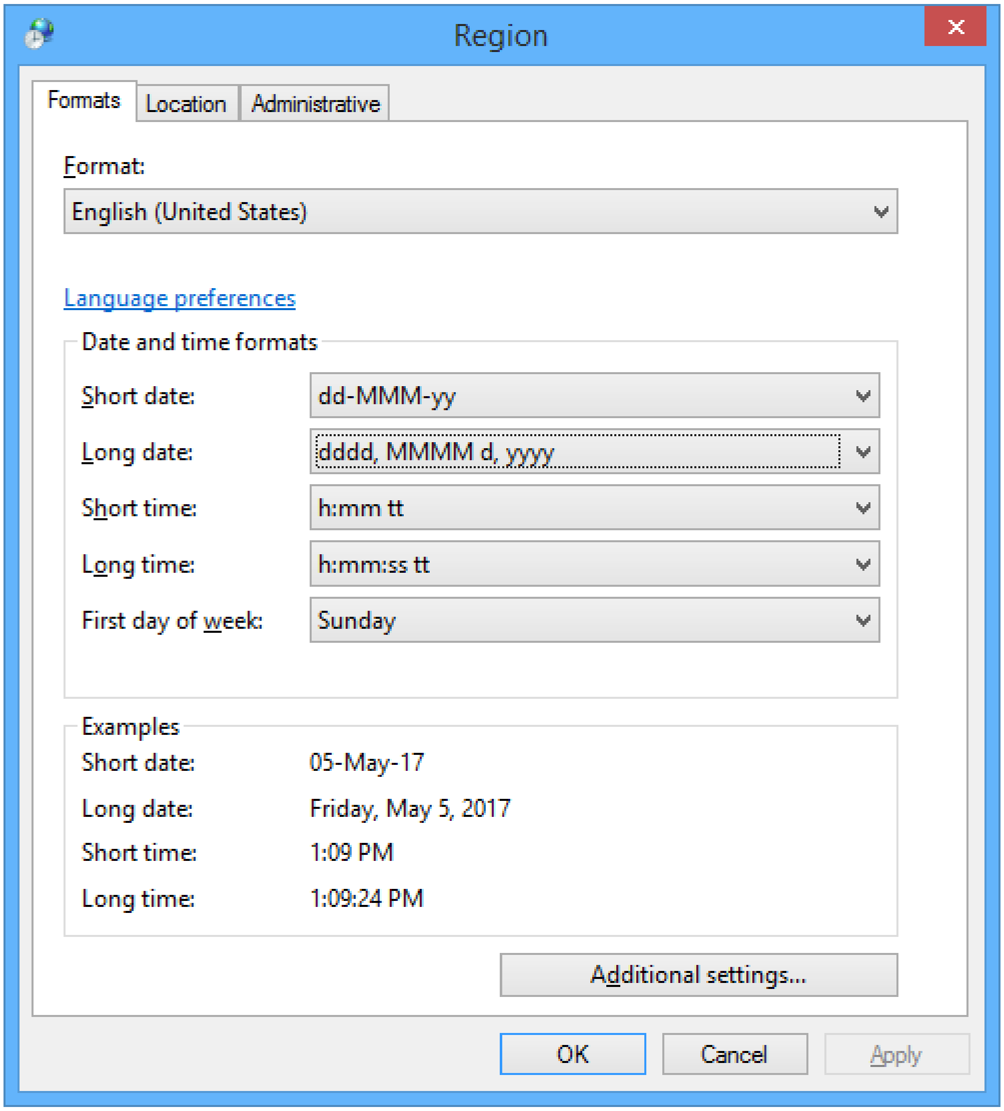
Plugin	Version
Silverlight	5.1.x
Adobe Flex	24
Internet Explorer 11	11.0
Chrome	49 and above
MODI	12.0
TOCR	5.0

6.3.1 Region Format and Settings (Language Locale)

You can verify and update the Region Format and Settings **i.e.** the Language Locale from Control Panel → Region.

- To update your Region Format, select the Format tab.

a. It is recommended that you select English (United States) as your Region Format



Format: English (United States)

Date and time formats

Short date: dd-MMM-yy

Long date: dddd, MMMM d, yyyy

Short time: h:mm tt

Long time: h:mm:ss tt

First day of week: Sunday

Examples

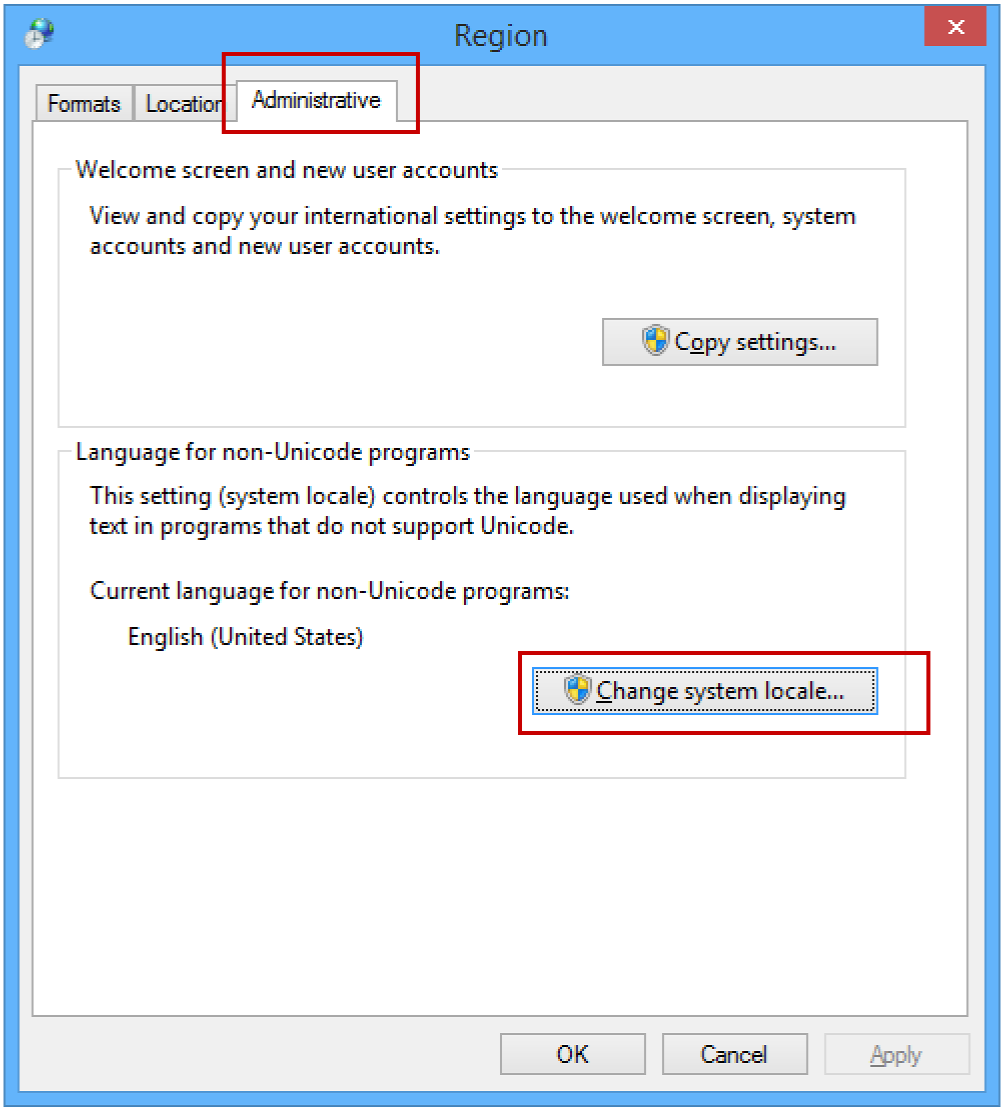
Short date: 05-May-17

Long date: Friday, May 5, 2017

Short time: 1:09 PM

Long time: 1:09:24 PM

- To update your Language Locale, select Administrative → Change system locale…



Region

Welcome screen and new user accounts

View and copy your international settings to the welcome screen, system accounts and new user accounts.

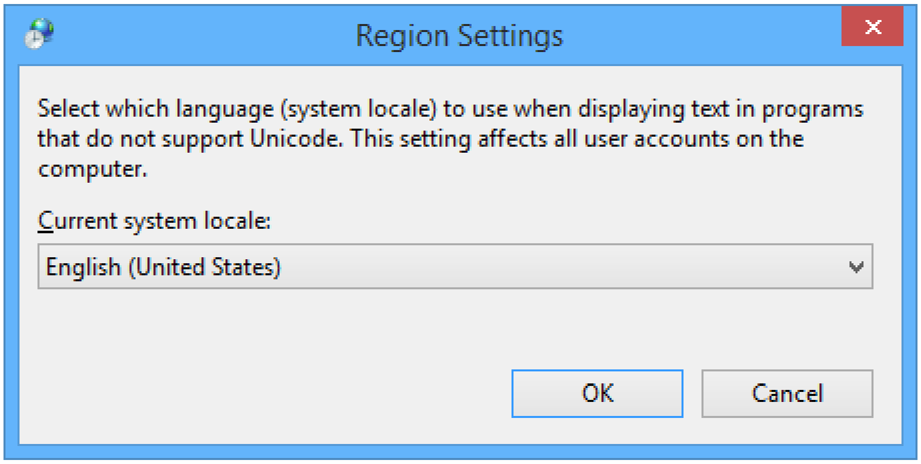
Language for non-Unicode programs

This setting (system locale) controls the language used when displaying text in programs that do not support Unicode.

Current language for non-Unicode programs:

English (United States)

a. It is recommended that you select English (United States) as your Region Settings



Region Settings

Select which language (system locale) to use when displaying text in programs that do not support Unicode. This setting affects all user accounts on the computer.

Current system locale: English (United States)

6.4 Other Requirements

4. .NET Framework 4.6 and 4.6.1 (for Windows 8.1 and Window Server 2012 R2)

   Note: The .NET Framework 4.7 update is also supported

1024 x 768 or higher resolution monitor

Mouse or another pointing device

Technology Support:

- Windows
- OCR
- HTML
- .NET
- WPF
- Flex
- Silverlight
- Java 1.6 onward (Desktop and Web)

6.5 Synchronization Time between Client and Control Room

To synchronize the time between the Client and Control Room, enable the Network Time Protocol (NTP) settings on your network.

NOTE: For more information regarding modification of the NTP settings for your network, contact your system admin.

7 AAE Client- Installation

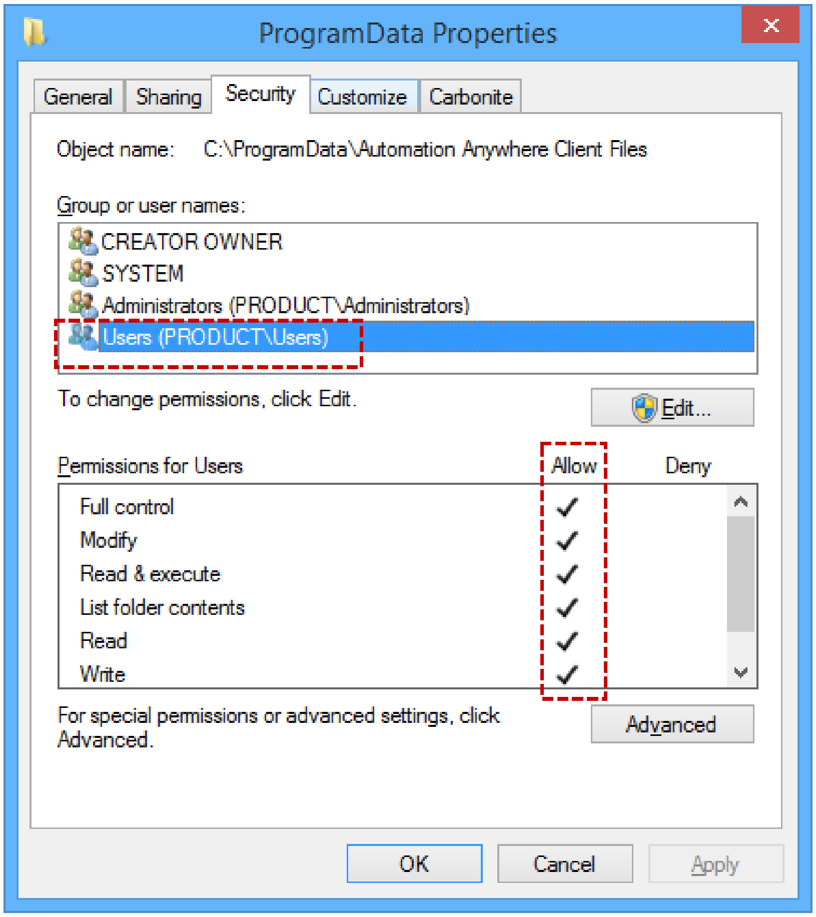
Using the Client setup, you will be able to install or upgrade the following components:

1. Client
2. MetaBot Designer
3. Internet Explorer 11 plugin (optional)
4. Chrome plugin (optional)
5. Java Plugin (optional)

NOTE: If a previous version of AAE Client is installed on your computer, you can upgrade to this version with the help of the installer. Refer Upgrade section for details.

Important: It is recommended that you -

1. Run the setup in Admin mode as while installing the application some system updates are made in the services and registry.
2. Ensure **Full Control** permissions are granted to users, if during installation you choose to store the Automation Anywhere files namely Automation Anywhere Client Files, Automation Autologin, and Automation Schedules in **Program Data**.
   - You can provide permissions in C:\ProgramData → Properties → Security → Advanced → Permissions. This is to ensure the end user can edit the application files that are used during runtime, which are stored in the Program Data folder.



ProgramData Properties
General
Sharing
Security
Customize
Carbonite
To change permissions, click Edit.
Edit...
For special permissions or advanced settings, click Advanced.
Advanced
OK
Cancel
Apply

Object name: C:\ProgramData\Automation Anywhere Client Files

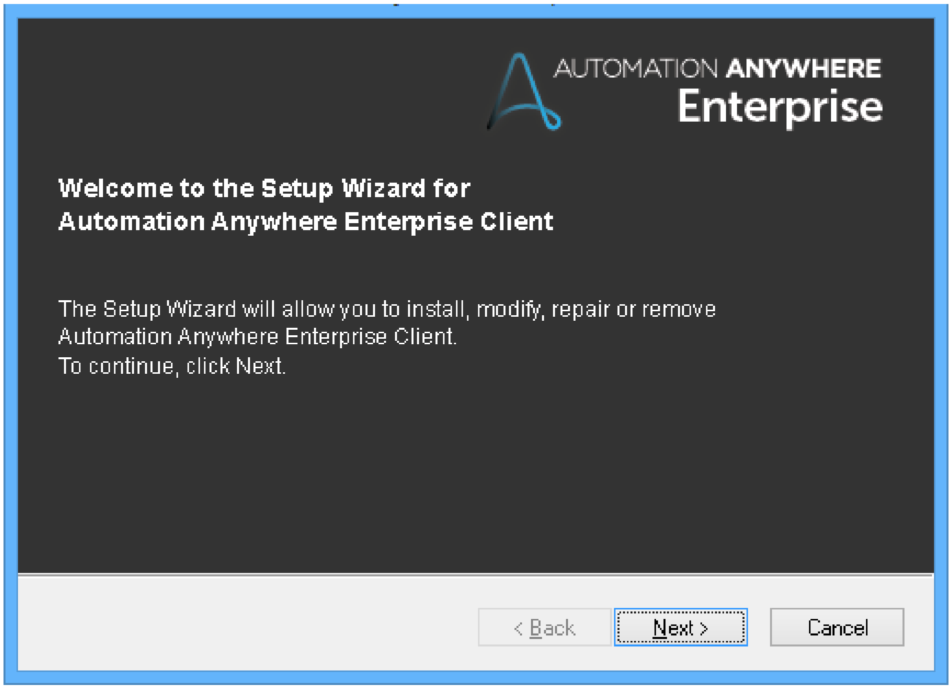
Group or user names:
- CREATOR OWNER
- SYSTEM
- Administrators (PRODUCT\Administrators)
- Users (PRODUCT\Users)

Permissions for Users	Allow	Deny
Full control	✓	
Modify	✓	
Read & execute	✓	
List folder contents	✓	
Read	✓	
Write	✓	

   - Note that you do not need to provide separate permissions to users if the application runtime files are to be stored in **Public Documents** folder. Full Control permission to users are required **only** if you store application run time files in **Program Data**.
     Refer details in steps on **Additional Configuration**.

To begin installation of Client, follow the steps given here:

1. Run the Setup for Client in Admin mode.
   NOTE: If you have installed a previous version of the Client, ensure you perform a complete uninstall. This can be done from the *Control Panel* → *Programs and Features*.

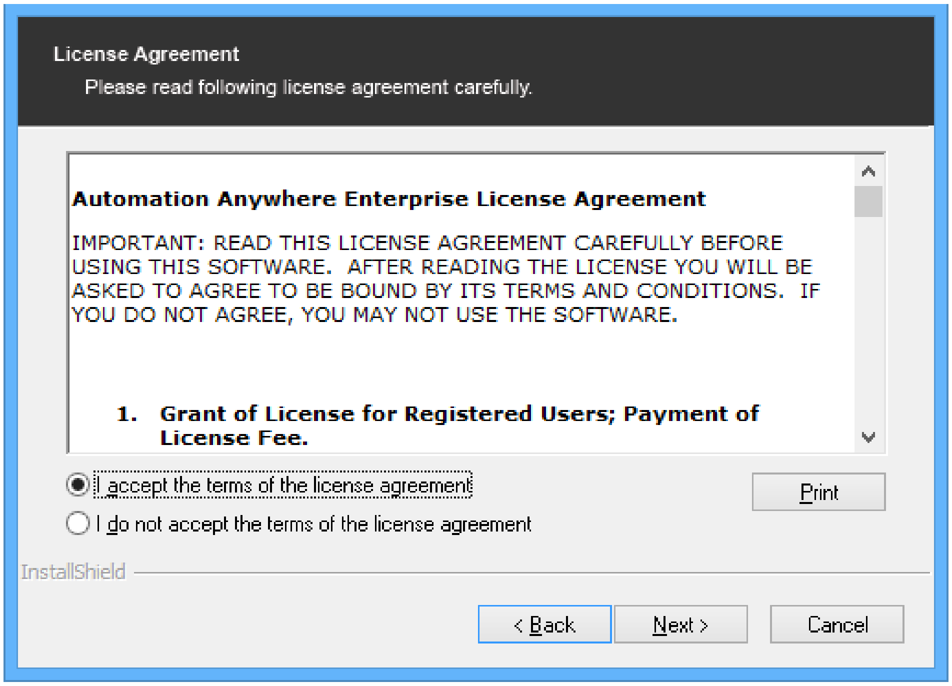


AUTOMATION ANYWHERE Enterprise

Welcome to the Setup Wizard for Automation Anywhere Enterprise Client

The Setup Wizard will allow you to install, modify, repair or remove Automation Anywhere Enterprise Client.
To continue, click Next.

2. Click Next.
3. Accept the terms of license agreement.



License Agreement
Please read following license agreement carefully.

Automation Anywhere Enterprise License Agreement

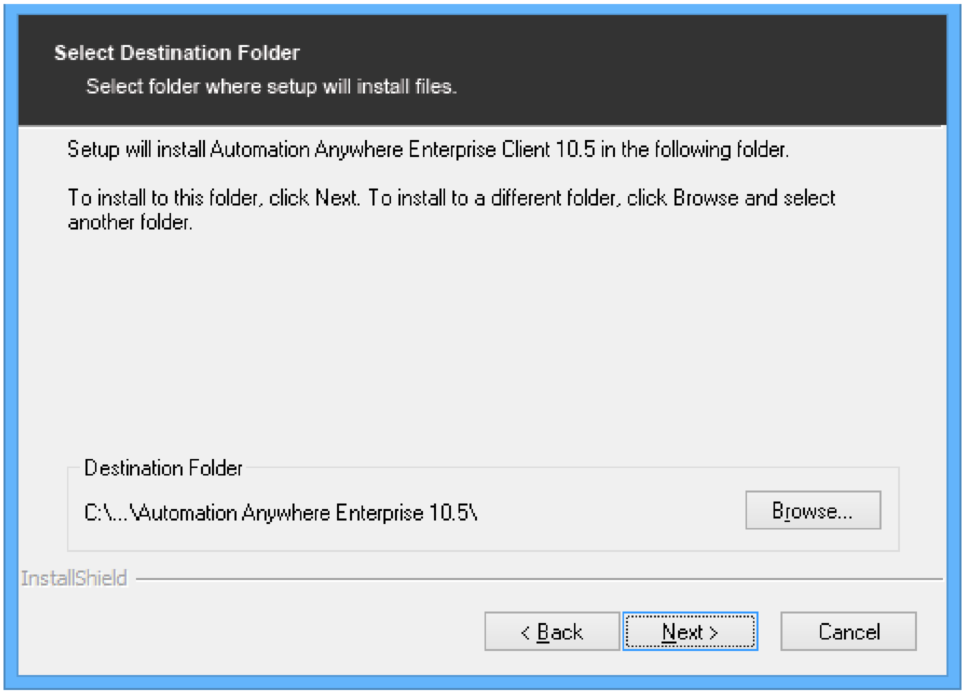
IMPORTANT: READ THIS LICENSE AGREEMENT CAREFULLY BEFORE USING THIS SOFTWARE. AFTER READING THE LICENSE YOU WILL BE ASKED TO AGREE TO BE BOUND BY ITS TERMS AND CONDITIONS. IF YOU DO NOT AGREE, YOU MAY NOT USE THE SOFTWARE.

1. Grant of License for Registered Users; Payment of License Fee.

● I accept the terms of the license agreement
○ I do not accept the terms of the license agreement

4. Click *Next.*

5. Select the Destination Folder where you want the setup to install files.
   NOTE: The default location for the Setup Installation is C: Drive.



Select Destination Folder

Select folder where setup will install files.

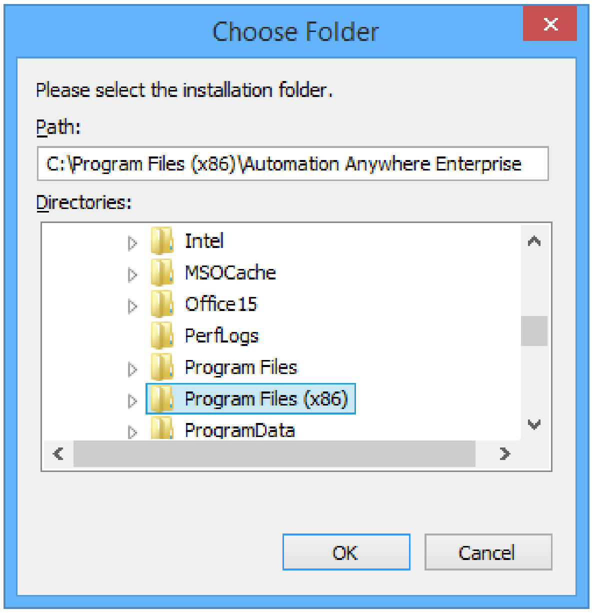
Setup will install Automation Anywhere Enterprise Client 10.5 in the following folder.

To install to this folder, click Next. To install to a different folder, click Browse and select another folder.

Destination Folder

C:\...\Automation Anywhere Enterprise 10.5\

6. Click *Next* to install the Setup in the default folder, click *Next*.
   However, if you wish to install the Setup in different folder, click *Browse*.
   NOTE: If Automation Anywhere Enterprise already exists and you are upgrading to the newer version, then you can choose to install the Setup files in the existing folder.



Choose Folder

Please select the installation folder.

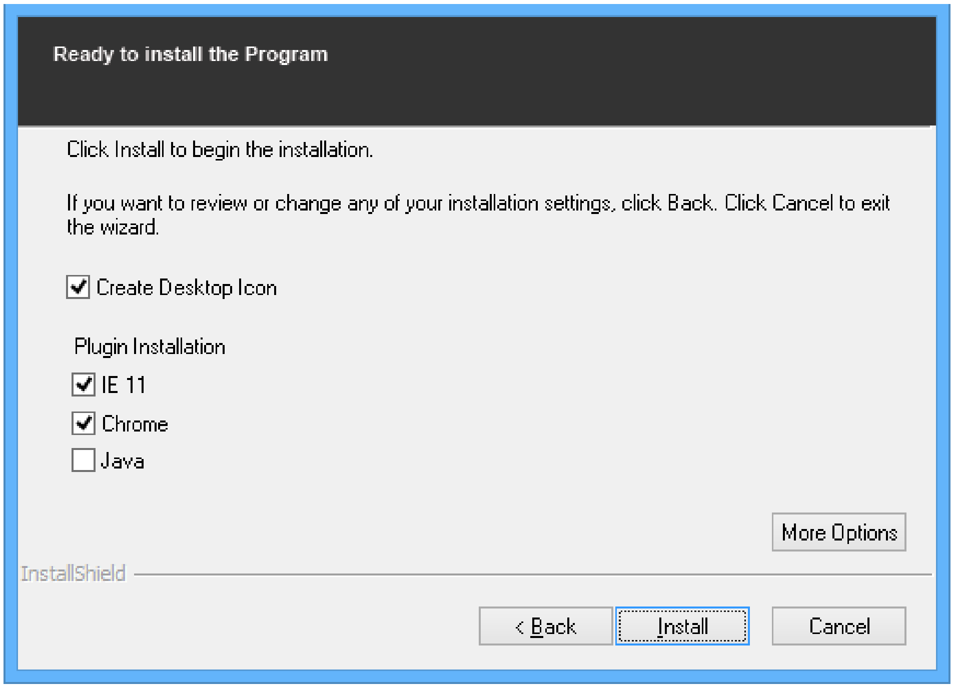
Path:

C:\Program Files (x86)\Automation Anywhere Enterprise

Directories:

7. Click *OK.*

8. The Ready to Install the Program screen appears in which you can install plugins that are required for automation.



Ready to install the Program

Click Install to begin the installation.

If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.

☑ Create Desktop Icon

Plugin Installation

☑ IE 11

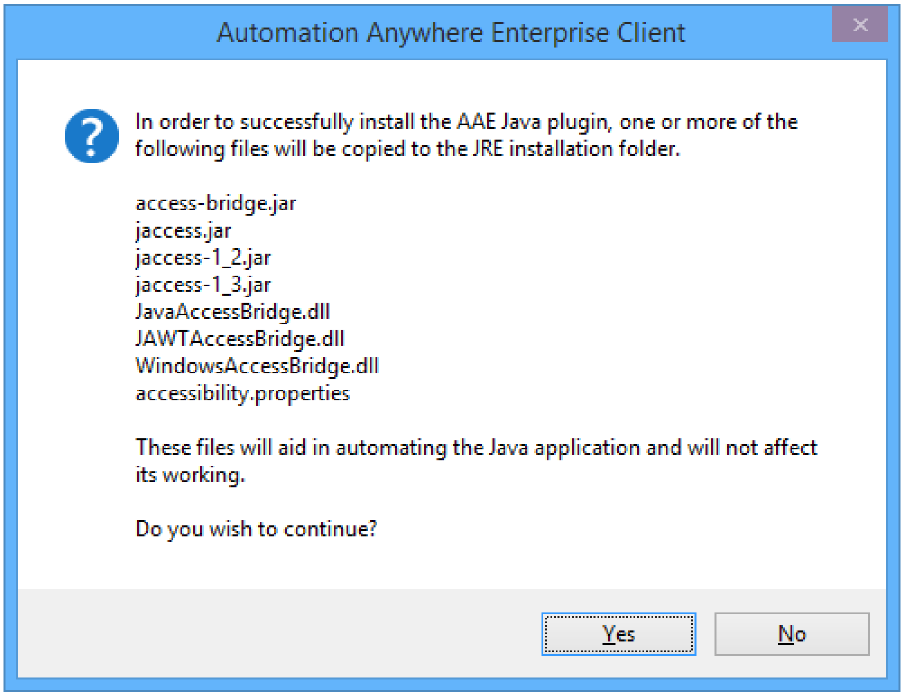
☑ Chrome

☐ Java

- This screen enables you to create the AAE Client desktop icon and install IE-11, Chrome and Java plugins to automate those technologies and browsers. By default, Create Desktop Icon, IE 11, and Chrome are selected.

  TIP: Clear/uncheck the options that you do not want to include. **E.g.** clear 'Create Desktop Icon' if you do not want a shortcut created for the application on your desktop.

  To install the Java Plugin, select the option. It is installed only on confirmation:



Automation Anywhere Enterprise Client

In order to successfully install the AAE Java plugin, one or more of the following files will be copied to the JRE installation folder.

access-bridge.jar
jaccess.jar
jaccess-1_2.jar
jaccess-1_3.jar
JavaAccessBridge.dll
JAWTAccessBridge.dll
WindowsAccessBridge.dll
accessibility.properties

These files will aid in automating the Java application and will not affect its working.

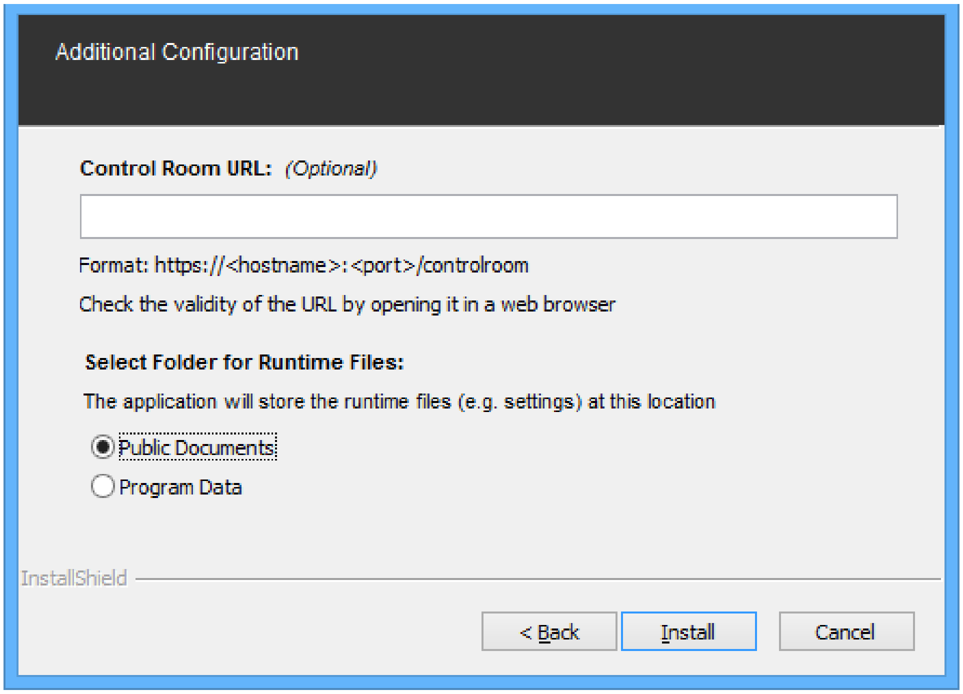
Do you wish to continue?

  You can also install/reinstall Java Plugin from the *Tools* → *Options* → *Plugin Settings* in Client or silently install it from the command line. For details refer Using Plugin Settings.

NOTE: If you are using JRE versions 6 and later, Java applications can be automated without installing the AAE Java Plugin as AAE provides support to automate dynamic Java Applications (Java Applications that run from a packaged JRE).

NOTE: AAE Plugins for Adobe Flex and Microsoft Silverlight will automatically be installed if Adobe Flex debugger and Microsoft Silverlight is installed on the machine.

- Click on More Options button, this opens an **Additional Configuration** page where you can configure the Control Room URL and select a folder for runtime files:
    i. **Control Room URL (optional):** This option ensures that when you launch AAE Client for the first time, the login window automatically populates the Control Room URL. When you upgrade, this will show the existing URL.



Additional Configuration

Control Room URL: *(Optional)*

Format: https://<hostname>:<port>/controlroom

Check the validity of the URL by opening it in a web browser

Select Folder for Runtime Files:

The application will store the runtime files (e.g. settings) at this location

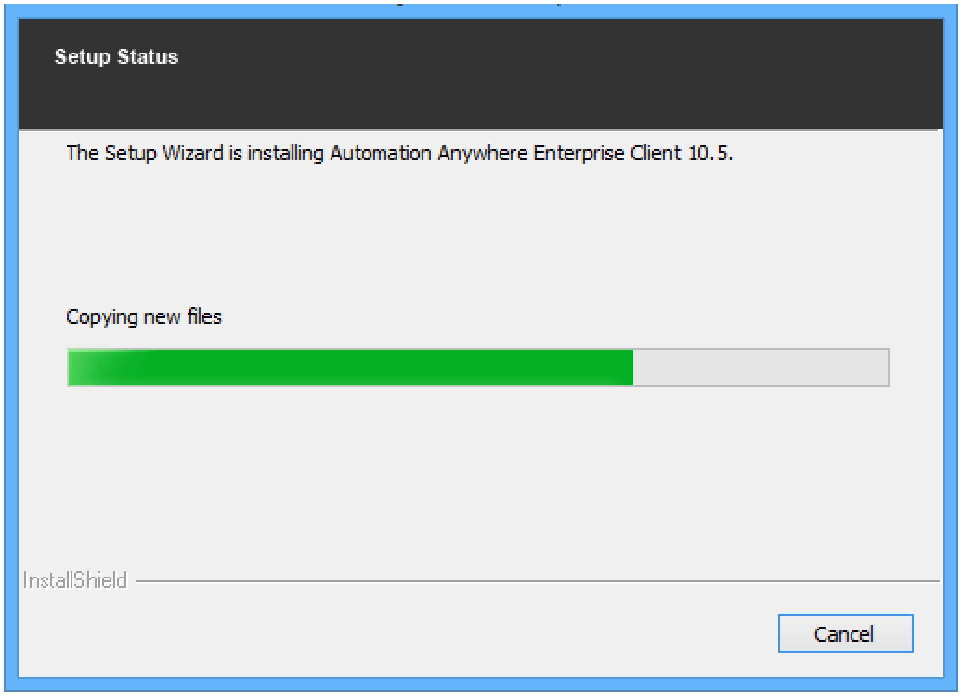
● Public Documents
○ Program Data

NOTE: You need to ensure that it is clean installation of Client for the above given approach to work.

    ii. **Folder for Runtime Files:** This option allows you to choose the default folder to store folders and files that are used when the application is running.

    - **Public Documents –** This option is selected by default. You do not need separate permission to store run time files in this folder.
    - **Program Data –** You can choose this option if you are granted full control permission to this folder.
        a. When you are installing the Client for the first time and choose to store runtime folders and files in **Program Data**, those are created in Program Data folder.
        b. However, if you are upgrading the Client, the existing folders and files are **copied** to the **Program Data** folder from Public Documents.
        ⚠ **Important:** If you switch back to Public Documents after choosing Program Data, the folders - Automation Autologin, Automation Schedules, and Automation Anywhere Client Files need to be copied to the Public Documents manually.
        c. If Program Data was chosen while installation, during a reinstall, ensure that select Program Data again as by default Public Documents is selected.

9. Click Install.

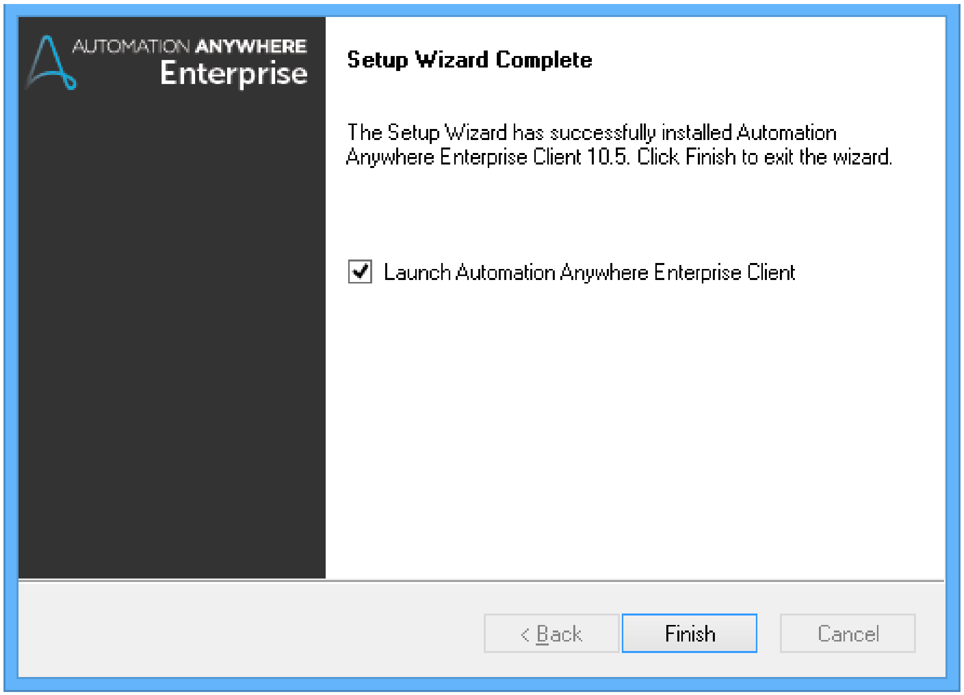


Setup Status

The Setup Wizard is installing Automation Anywhere Enterprise Client 10.5.

Copying new files

10. By default, the application can be launched. Clear the check box for the launch option if you do not want to launch the Client. Click **Finish**.



Setup Wizard Complete

The Setup Wizard has successfully installed Automation Anywhere Enterprise Client 10.5. Click Finish to exit the wizard.

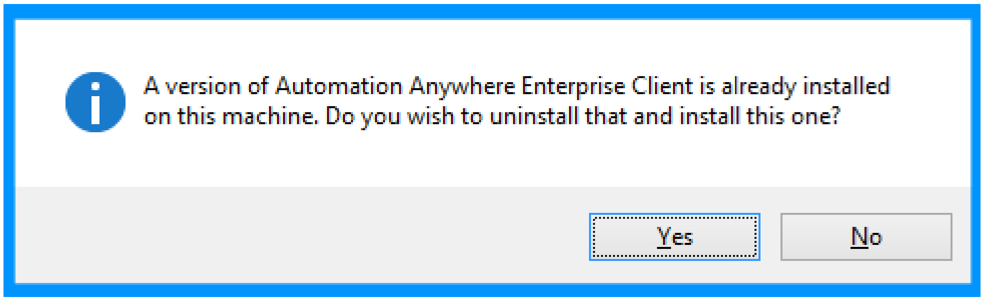
☑ Launch Automation Anywhere Enterprise Client

⚠ **Important:** If any of the dependency services such as AAAutoLoginService, AAClientService, and AAESchedulerService are not running, you will have to manually start those from the Services tab in the Task Manager.

7.1 Upgrade

If a previous version of AAE Client is installed in your computer, you can use the AAE 10.5.0 setup to upgrade the Client. You no longer should carry out the 2-step process; uninstalling the previous version of AAE Client and then installing the 10 SP2 AAE Client. Instead, run the AAE 10.5.0 setup in Admin mode to upgrade:

If you already have a previous version of Client installed (e.g. 10 LTS, 10.x), a message will be displayed as shown below. Click Yes to upgrade.



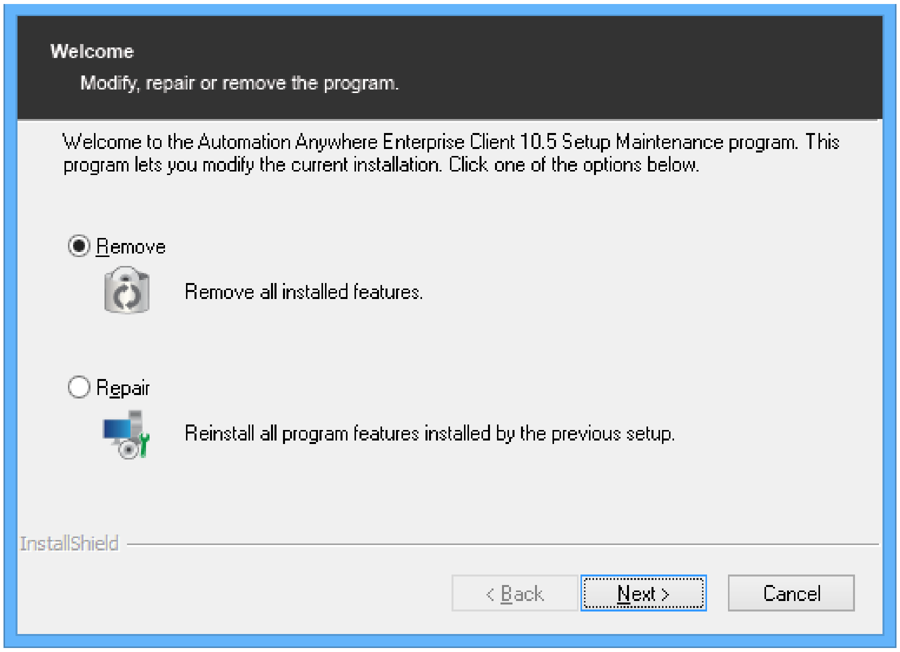
A version of Automation Anywhere Enterprise Client is already installed on this machine. Do you wish to uninstall that and install this one?

Refer Installation and Upgrade Notes of Release Notes document for details on upgrading from various versions to AAE 10.5.0.

7.2 Remove (Uninstall)

If for any reason you wish to uninstall AAE, go to *Control Panel → Programs and Features*. Select Automation Anywhere Enterprise Client and click **Uninstall**.

Alternatively, you can choose to remove the Automation Anywhere Enterprise by launching the Setup Wizard and selecting *Remove*.



Welcome

Modify, repair or remove the program.

Welcome to the Automation Anywhere Enterprise Client 10.5 Setup Maintenance program. This program lets you modify the current installation. Click one of the options below.

● Remove

Remove all installed features.

○ Repair

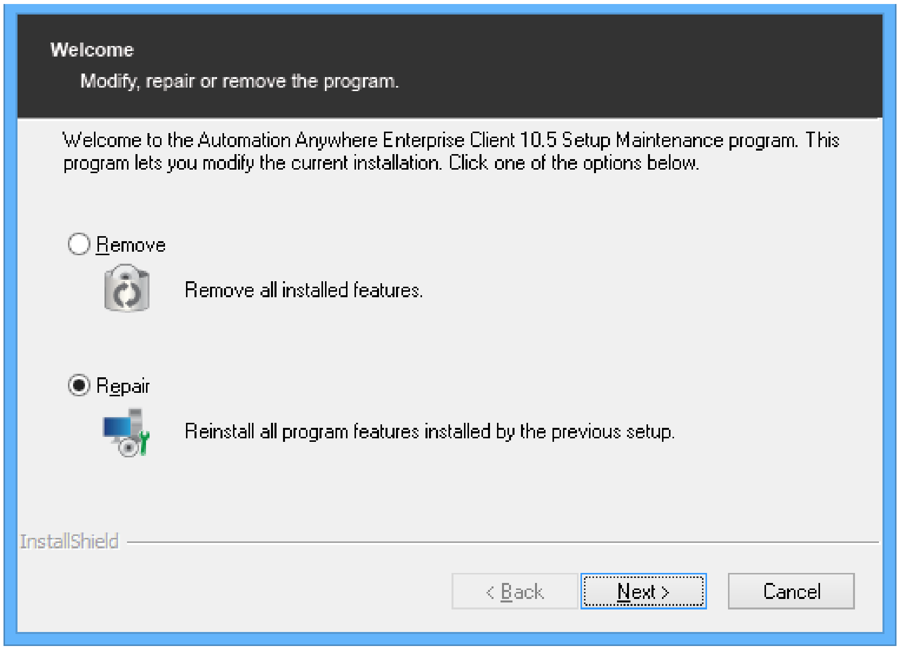
Reinstall all program features installed by the previous setup.

7.3 Repair

Use the **Repair** option to re-install all the program features that were installed during the initial setup run.

To Repair, follow the steps mentioned below:

1. Launch the AAE Setup Wizard and select the *Repair* option.
2. Click *Next*.



Welcome

Modify, repair or remove the program.

Welcome to the Automation Anywhere Enterprise Client 10.5 Setup Maintenance program. This program lets you modify the current installation. Click one of the options below.

○ Remove

Remove all installed features.

● Repair

Reinstall all program features installed by the previous setup.

7.4 Silent Install

Silent Install, also known as unattended installation, runs the entire installation process in the background, without requiring user interaction or displaying messages.

To do this, create a file of installation response file and send the file to machine where you wish to install the Client.

The installation response file is created with the name of Setup.iss. This file contains the Install/Uninstall steps that have been recorded during the process.

Refer Creating Response File for details.

7.4.1 Creating a Response File

To create the response file, perform the following steps:

3. Identify the directory containing the AAE Setup. For instance:

```
"D:\Setup_Files\Automation_Anywhere_Enterprise_Client_10.5.exe"
```

You must create a response file for Client. In Windows command prompt key in:

```
"D:\Setup_Files\Automation_Anywhere_Enterprise_Client_10.5.exe" /r
```

This will record the installation steps in the response file 'Setup.iss' as you perform them.

> **TIP:** Once the installation is complete, send the response file to the machine where you wish to install the Client, together with the setup files.

NOTE: Setup.iss file is by default written to the %SystemRoot%\windir directory for Windows operating system.

7.4.2 Performing Silent Installation

To perform silent installation with a response file, use the command-line mode or a batch script to invoke AAE Installer and enable the response file that you created.

On each system where you want to install AAE, invoke the installer using the following command syntax at the command-line prompt:

```
"D:\Setup_Files\Automation_Anywhere_Enterprise_Client_10.5.exe" /s "D:\Setup_Files\Setup.iss"
```

NOTE: It is important to leave a space before specific commands as shown in the above example.

To uninstall a Client, key-in the following at the command line prompt:

```
"D:\Setup_Files\Automation_Anywhere_Enterprise_Client_10.5.exe" /s
```

7.4.3 Special Notes

- It is recommended that the setup.iss and the AAE Client setup exe should be in the same folder. Also, the setup.iss file should not be renamed.
- Be sure to create separate response files for 32-bit and 64-bit operating system versions.
- Silent installation can be used only for installing or uninstalling the product. It cannot be used for modifying or repairing the installation.
- Use the /z option to pass data to the InstallScript system variable CMDLINE
- Use opening and closing quotes (“”) in your source file path if it comprises a space.

7.4.4 Viewing Log Files and Error Messages

Two log files are generated during silent installation:

1. setup.log
2. productname.txt.

7.4.5 Working with the Setup.log File

The Setup.log file is created in the same directory as the response file.

The /f2 option enables you to specify an alternative log file location and file name. For example: "C:\Setup.exe" /s /f2 "C:\Setup.log"

Result codes with descriptions are listed in the table below:

Result Codes	Description
0	Success
-1	General Error
-2	Invalid Mode
-3	Required data not found in the setup.iss file
-4	Not enough memory available
-5	File doesn't exist
-6	Cannot write to response file
-7	Unable to write to the log file
-8	Invalid path to the Install shield Silent response (.iss) file
-9	Not a valid list type (string or number)
-10	Data type is invalid
-11	Unknown error during setup
-12	Dialog boxes are out of order
-51	Cannot create the specified folder
-52	Cannot access the specified file or folder
-53	Invalid option selected

7.4.6 Working with the Productname.txt file

The Productname.txt file is created on the desktop when any of the following errors occur:

1. Required Microsoft.NET Framework is not present to install Microsoft .NET Framework

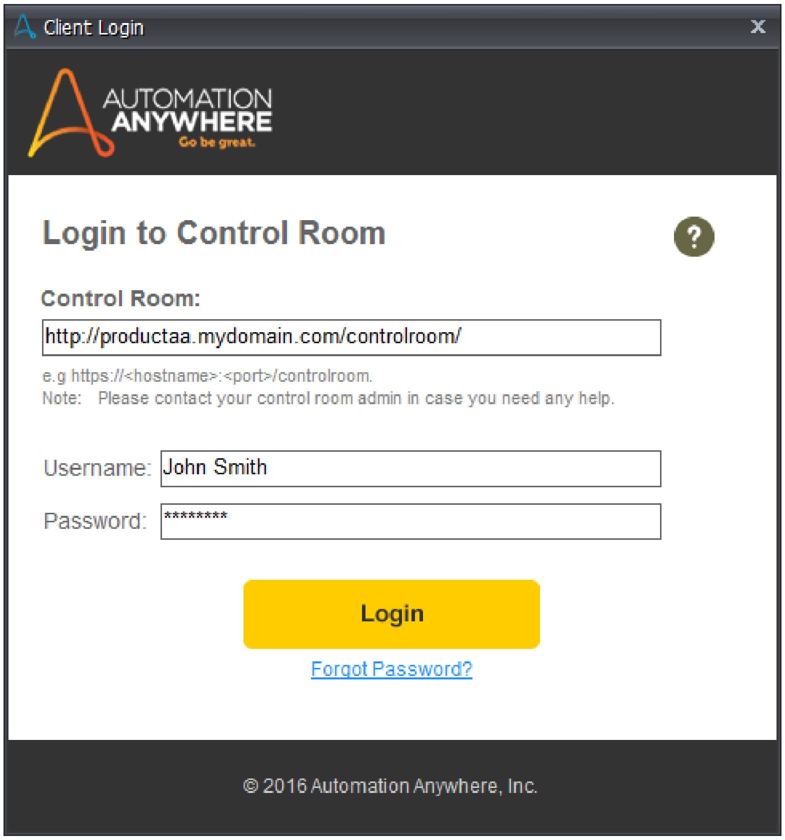
2. Services are not able to start.

For further details on installation and uninstallation of the Control Room and Client, contact support@automationanywhere.com

8 AAE Client- Login to Control Room

Automation Anywhere allows you to monitor and administer a large multi-site complex automation infrastructure using the web based Control Room.

NOTE: 'Login' to Control Room is mandatory from Enterprise Edition 10.0 onward.



Client Login
AUTOMATION ANYWHERE Go be great.

Login to Control Room

Control Room: http://productaa.mydomain.com/controlroom/

e.g https://<hostname>:<port>/controlroom.
Note: Please contact your control room admin in case you need any help.

Username: John Smith

Password: ********

Login
Forgot Password?
© 2016 Automation Anywhere, Inc.

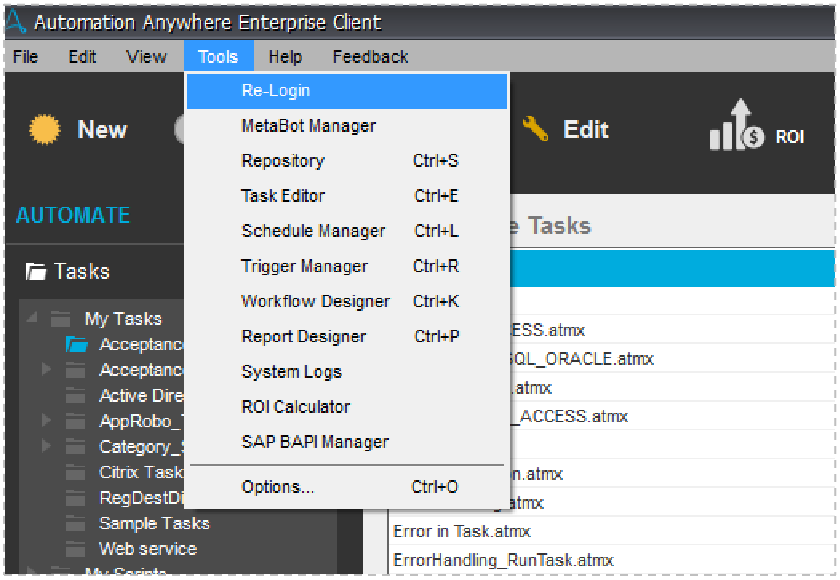
8.1 Login to the Control Room

1. As a Client user, launch Enterprise Client.
2. Input Control Room URL in the *Control Room* field of the Login screen.
   Example: If your Control Room URL is http://productlt07:8080/controlroom, the Control Room URL for login will be http://productlt07:8080/controlroom
3. Enter your Control Room user credentials.
   NOTE: The Control Room Admin can create a user in web-based Control Room. Refer User Management for details.
4. If launching for first time, input the appropriate Control Room URL. On logging in the second time, your last login URL is displayed. If you wish to login using another URL, simply input the appropriate URL. Refer Connecting to Automation Anywhere Control Room for details.

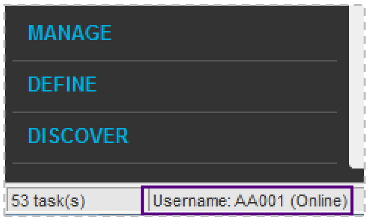
8.2 Re-Login to Control Room

1. To re-login Control Room using a different user credentials, click *Tools* → *Re-login*.

2. Input user credentials in the Login dialog that prompts.



NOTE: The logged in username and status is displayed in the status bar.

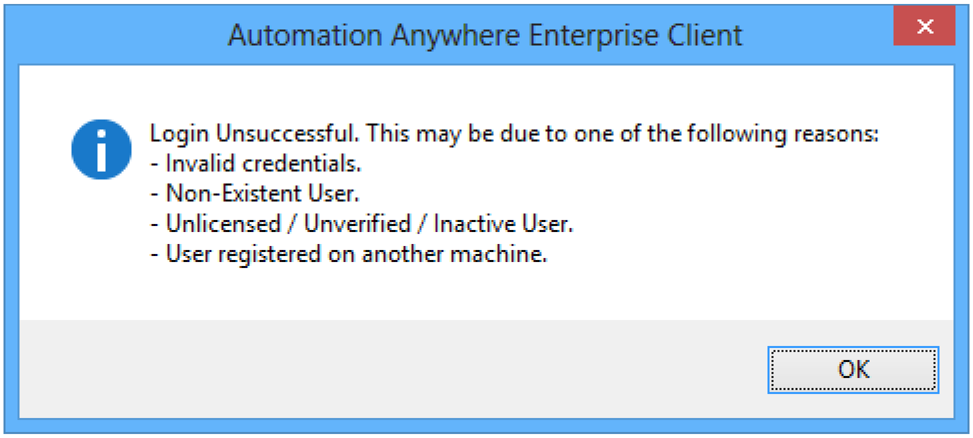


53 task(s)

Username: AA001 (Online)

8.3 Unable to Login?

If you cannot login to the Control Room, you can trouble-shoot based on the messages that you encounter. Possible reasons could be:

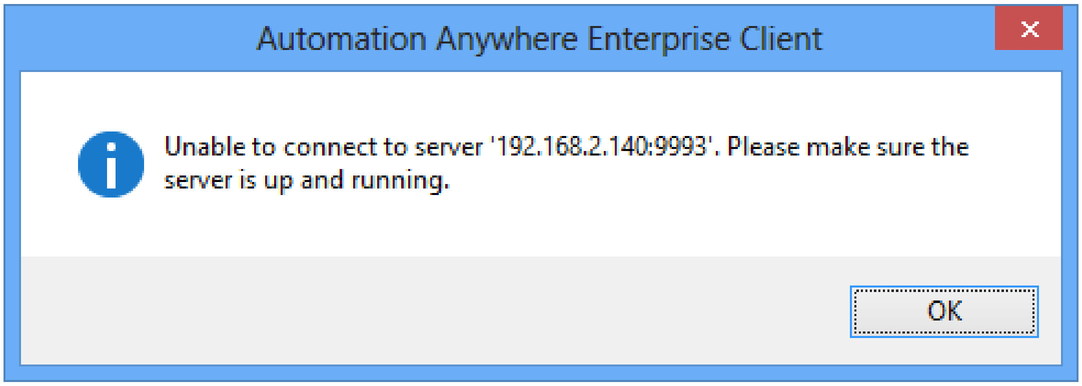


Login Unsuccessful. This may be due to one of the following reasons:
- Invalid credentials.
- Non-Existent User.
- Unlicensed / Unverified / Inactive User.
- User registered on another machine.

- Invalid credentials - you might have input an incorrect username and/or password.
- Non-Existent User - Client is not created in the Control Room to which you are trying to connect.
- Unlicensed User - You have not been allocated the required license.

- Unverified - Email verification is pending.
- Inactive User - The Control Room Admin has *Deactivated* your Client.
- User is registered on another machine - When you try to login from a different machine (than the one from which you have registered).

Also if, during login, the Client displays the following message, you will have to verify whether the Client and Control Room are configured to the same version:



Automation Anywhere Enterprise Client

Unable to connect to server '192.168.2.140:9993'. Please make sure the server is up and running.

TIP: If the there is a major version mismatch i.e. if any of the component is of higher version than another, then you must upgrade to the appropriate version.

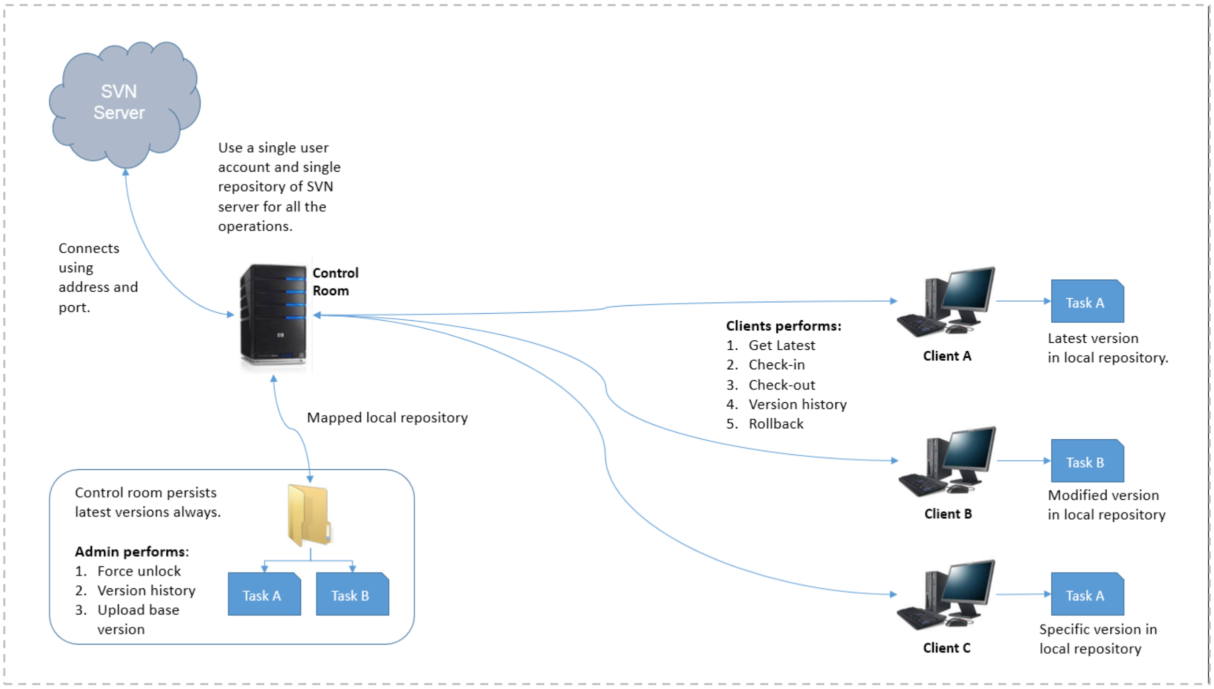
To upgrade to the latest version, contact support@automationanywhere.com.

9 Additional Information

9.1 Version Control System

AAE supports Apache Subversion (SVN) as version control system. It is integrated to achieve some basic functionalities like Get Latest, Check-in, Check-out, Version history and Rollback, among others.

SVN server might be hosted on cloud or within the network. Control Room connects via address and a port. Repository would be mapped to local drive of Control Room. Mapped directory will have latest copy of all the files always.


SVN Server
Use a single user account and single repository of SVN server for all the operations.
Connects using address and port.
Control Room
Mapped local repository
Control room persists latest versions always.
Admin performs:
1. Force unlock
2. Version history
3. Upload base version
Task A
Task B
Clients performs:
1. Get Latest
2. Check-in
3. Check-out
4. Version history
5. Rollback
Client A
Task A
Latest version in local repository.
Client B
Task B
Modified version in local repository
Client C
Task A
Specific version in local repository

As illustrated in above diagram, multiple Clients would request Control Room for different operations on files. All the operations would be performed by a single SVN user account through Control Room.

Control Room Admin can perform higher level functions like force unlock, base version upload and version history.

To achieve all above, Control Room Admin has to configure SVN server address, port, and user account details prior to enabling the version control system.

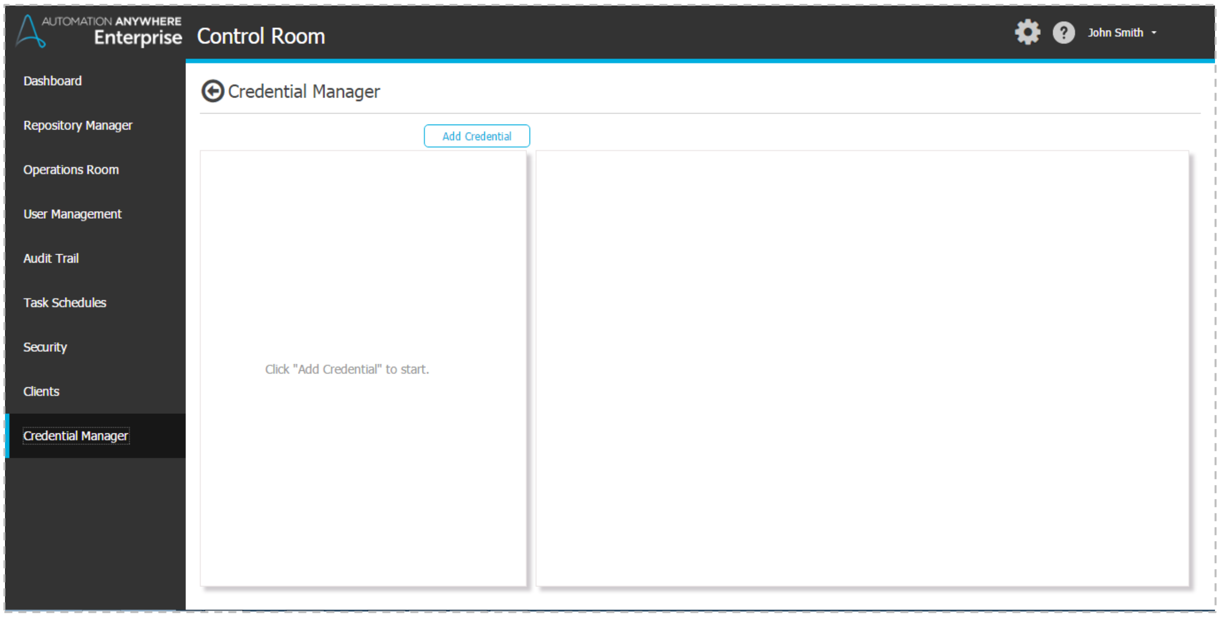
9.2 Credential Vault

9.2.1 Defining Credential Keys

An Admin or IT Admin or any user having credential management permission can define Credential Keys that are required in the automation TaskBot(s) for task creation and task play.

Credential Keys are defined and managed using the Credential Manager of the Control Room, which is basically a centralized location for creating and storing sensitive information that is included in automation TaskBot(s) in the form of Credential Variables.

Refer the article on Assigning Credential Variables to understand more about Credential Variables.



Defining Credentials involves building a repository of *Credential Keys* that includes Key Name, Description (optional), and its Attributes.

Attributes that includes Attribute Name, Description and Value, hold key information regarding the credentials such as hostname, servername, username and password.

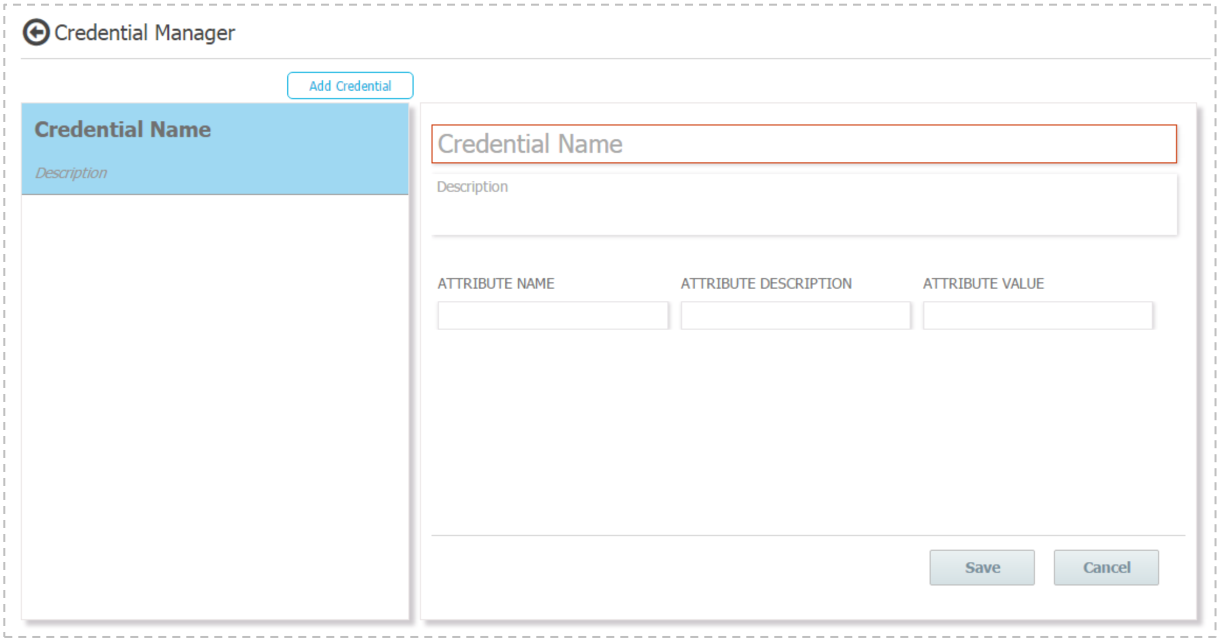
9.2.2 Adding Credential and its Attributes

You can add a Credential as mentioned:

1. Click on the *Add Credential'* button given at the top of the Credentials list.

2. Provide a unique key name in the *Credential Name* field that reflects the purpose of the Credential key and its description in the *Description* field.
TIP: You can include Characters: A-Z, a-z, 0-9; Space (-), Hyphen (-) and Underscore (_).

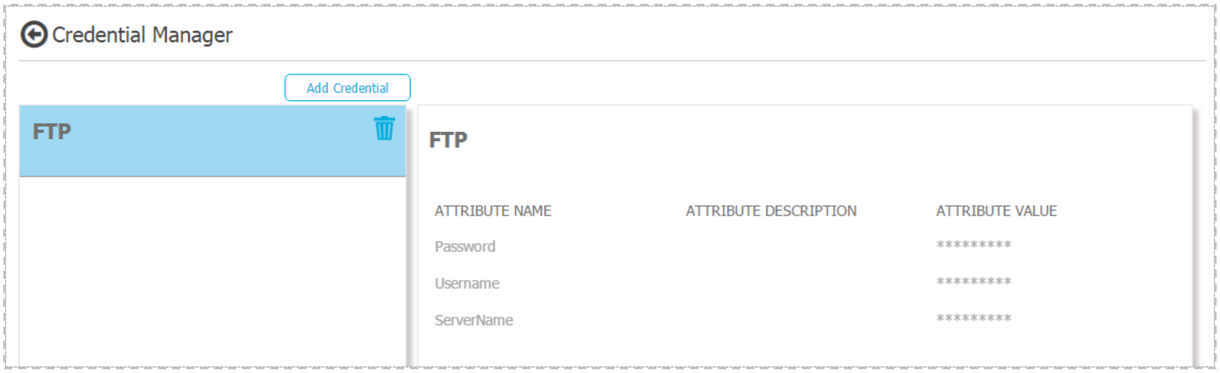
3. Define the Key's Attributes - Name, Description, and Value.



NOTE: Description is optional.

TIP: Repeat the above process to add more attributes to the key.

4. Click *Save*.



ATTRIBUTE NAME	ATTRIBUTE DESCRIPTION	ATTRIBUTE VALUE
Password		*********
Username		*********
ServerName		*********

NOTE: The Credential Vault stores the Credential Key in encrypted form.

9.2.3 Editing Credential and its Attributes

You can also edit a Credential Name and its Description as well as the Attribute Name, its Description and Values:

NOTE: When you edit an Attribute name, the Control Room performs two operations; it first deletes the first instance of attribute and then creates a new attribute.

1. To edit a Credential, select the Credential Key from the list and Click on Edit
2. Change the name, description, or value of the credential key. You can add or delete any of the attributes to/from the credential key.
3. Save once it's modified.

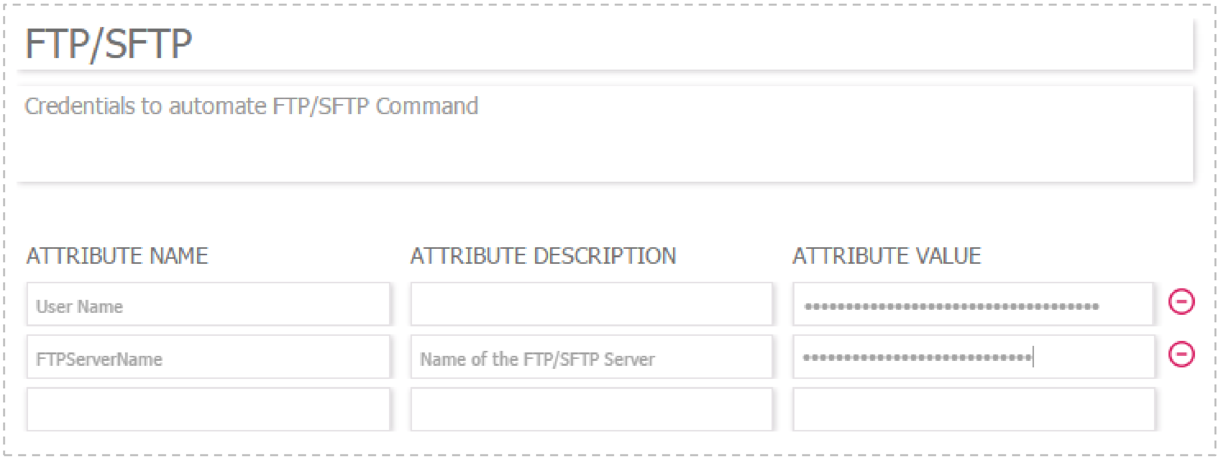
9.2.4 Deleting Credential and its Attributes

You can delete a Credential Name and its Description as well as the Attribute Name, its Description and Values.

You can also opt to remove only Attributes or the Key itself.

9.2.4.1 Deleting an Attribute

1. To remove a Credential Attribute, click on Edit
2. Click ⊖ (available at the end of each Attribute label).

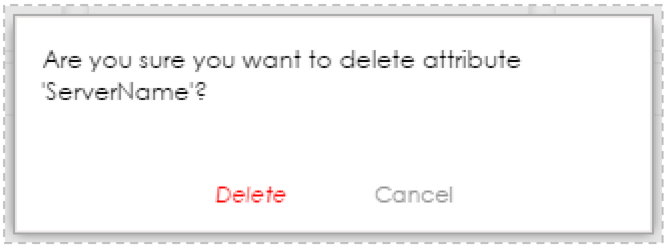


FTP/SFTP

Credentials to automate FTP/SFTP Command

ATTRIBUTE NAME	ATTRIBUTE DESCRIPTION	ATTRIBUTE VALUE	
User Name		••••••••••••••••••••••••••••••••••••••	⊖
FTPServerName	Name of the FTP/SFTP Server	•••••••••••••••••••••••••••••	⊖

3. Confirm the attribute deletion



Are you sure you want to delete attribute 'ServerName'?

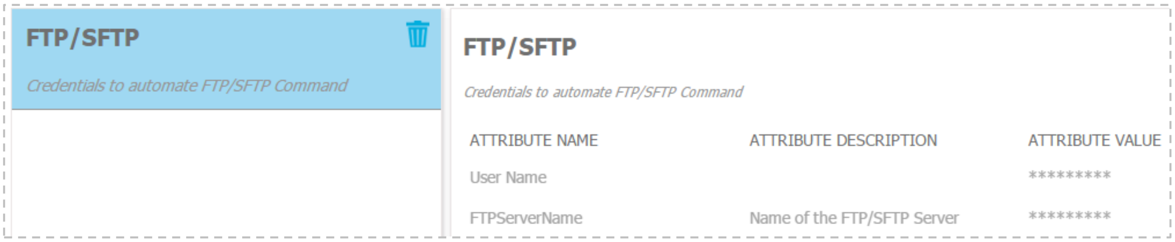
4. Click Save.

9.2.4.2 Deleting a Credential

To delete a Credential, select the Credential Key from the list.

⚠ **Important:** Remember, if you remove the Key, all Attributes are deleted.

1. Click on 🗑 at the top.



FTP/SFTP

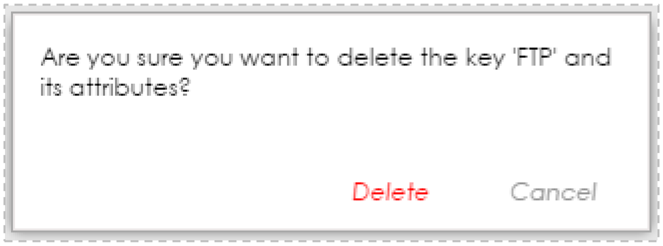
Credentials to automate FTP/SFTP Command

FTP/SFTP

Credentials to automate FTP/SFTP Command

ATTRIBUTE NAME	ATTRIBUTE DESCRIPTION	ATTRIBUTE VALUE
User Name		*********
FTPServerName	Name of the FTP/SFTP Server	*********

2. Confirm the key deletion.



Are you sure you want to delete the key 'FTP' and its attributes?

`

⚠ **Important:** It is recommended, before deletion, confirm the key being deleted is not part of an automation task and proceed. Deleting a key that is used in automation TaskBot(s) will result in task play failure.

9.2.5 Accessing Credentials in Client

A Bot-Creator can access the Credentials stored in the Control Room while creating automation TaskBot(s).

A Bot-Creator, while creating TaskBot(s), can assign the Credential variables in command fields that require credential input and support these. Refer the list of commands.

NOTE: To access Credential variables during task creation and play, the Bot-Creator should be online i.e. connected to the Control Room.

9.2.5.1 Using the Credential Variables

The method to input Credential variables in commands that require them is similar to assigning variables. You simply press the function key 'F2'. The credential values are retrieved in the command during play time.

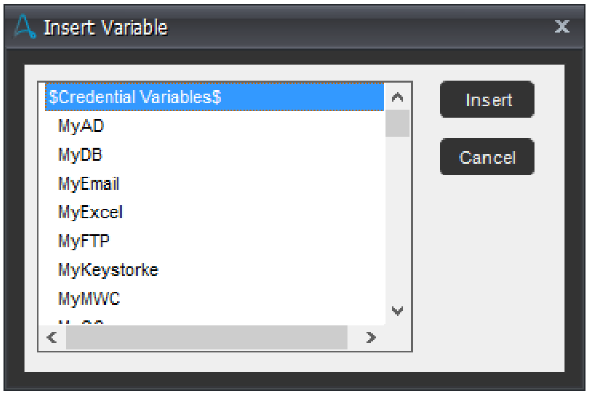
Before you start assigning variables, remember:

- A Bot-Creator can only insert the Credential variables in commands; no add or update rights are available to the Bot-Creator.
- Credential Variables can be seen and accessed only from the Insert Variables window.
- Only the name of a Credential Key is visible in the command field and list of Credential variables; Attribute values is not displayed. Not even while editing or debugging the task.
- Bulk Edit is allowed only on commands that comprise same Credential variables.
- A Credential variable is read only; hence you are not allowed to edit its values. Nor can you append another variable (Local or System variable) to it. To insert such variables, you must delete the Credential variable first.
- To delete a Credential variable, double click or hit 'Backspace' and then 'Delete'.
- Copying and pasting of the variable converts it to string. Manually inputting the variable name also converts it to string.

9.2.5.2 *Steps to Assign Credential Variables*

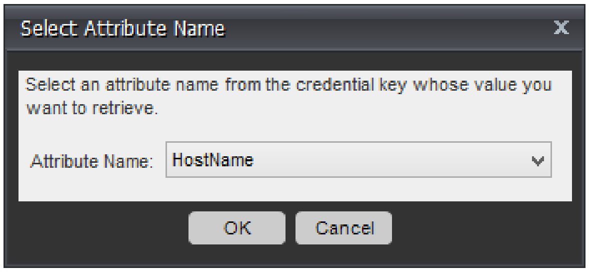
To assign variables in command fields that support Credential variables, follow the steps given below:

1. To add a Credential Variable, press F2 and select the required Credential 'Key' in the Insert Variable window:



$Credential Variables$
MyAD
MyDB
MyEmail
MyExcel
MyFTP
MyKeystorke
MyMWC

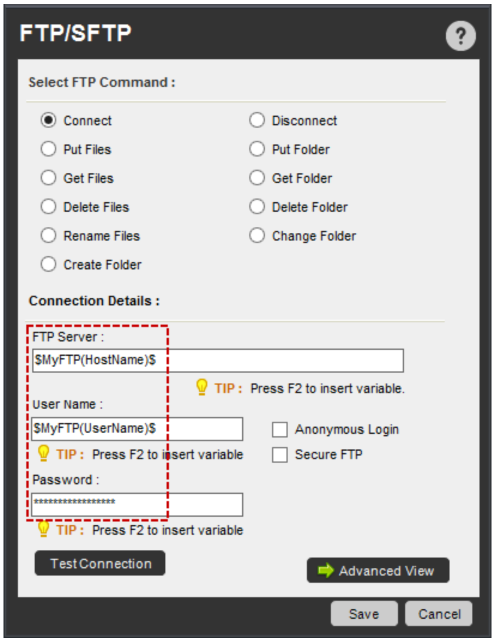
2. Select the required Attribute



Select an attribute name from the credential key whose value you want to retrieve.

Attribute Name: HostName

3. The command is assigned the credentials as shown:



Select FTP Command :

● Connect ○ Disconnect
○ Put Files ○ Put Folder
○ Get Files ○ Get Folder
○ Delete Files ○ Delete Folder
○ Rename Files ○ Change Folder
○ Create Folder

Connection Details :

FTP Server : $MyFTP(HostName)$

TIP : Press F2 to insert variable.

User Name : $MyFTP(UserName)$

□ Anonymous Login
□ Secure FTP

TIP : Press F2 to insert variable

Password : ****************

TIP : Press F2 to insert variable

4. Here, 'MyFTP' is the Credential Key, while 'HostName' and 'UserName' are its Attributes.

NOTE: Password fields are displayed encrypted.

9.2.5.3 *Commands that support Credential Variables*

The following commands support use of Credential variables:

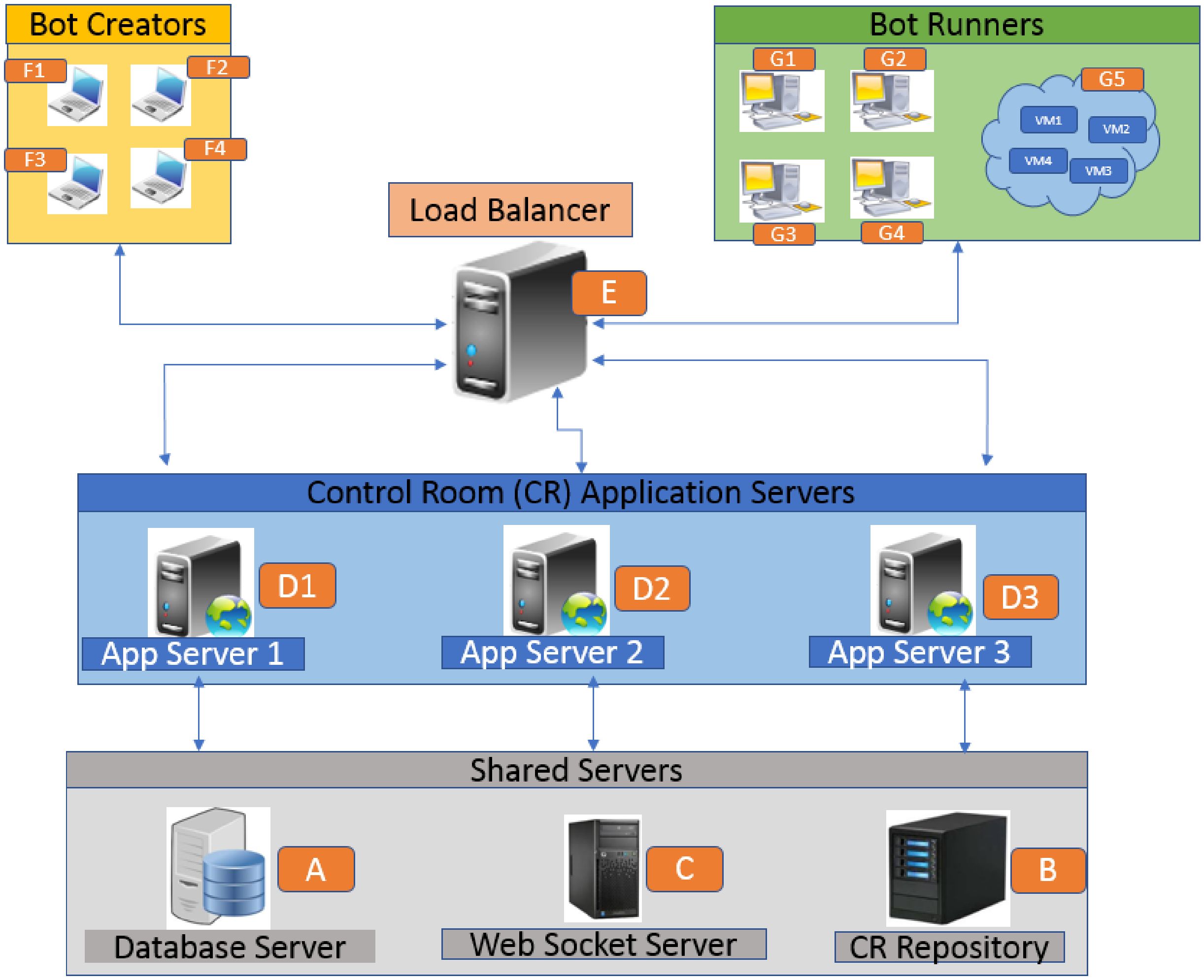
1. Active Directory
2. Citrix Automation
3. Database
4. Email Automation
5. Excel
6. FTP/SFTP
7. Insert Keystrokes
8. Manage Windows Controls
9. Object Cloning
10. PDF Integration
11. PGP
12. REST Web Services
13. SAP Integration
14. SOAP Web Services
15. Terminal Emulator
16. Web Recorder

10 Upgrade Sequence

Upgrade Steps for Automation Anywhere Enterprise.

If you already have hands-ON experience in installing the AAE Client and Control Room, and the RPA Environment at your end already has an AAE Control Room and Clients, this section will guide you on the upgrade sequence.

Consider an Automation Anywhere Enterprise deployment as mentioned in the image below.

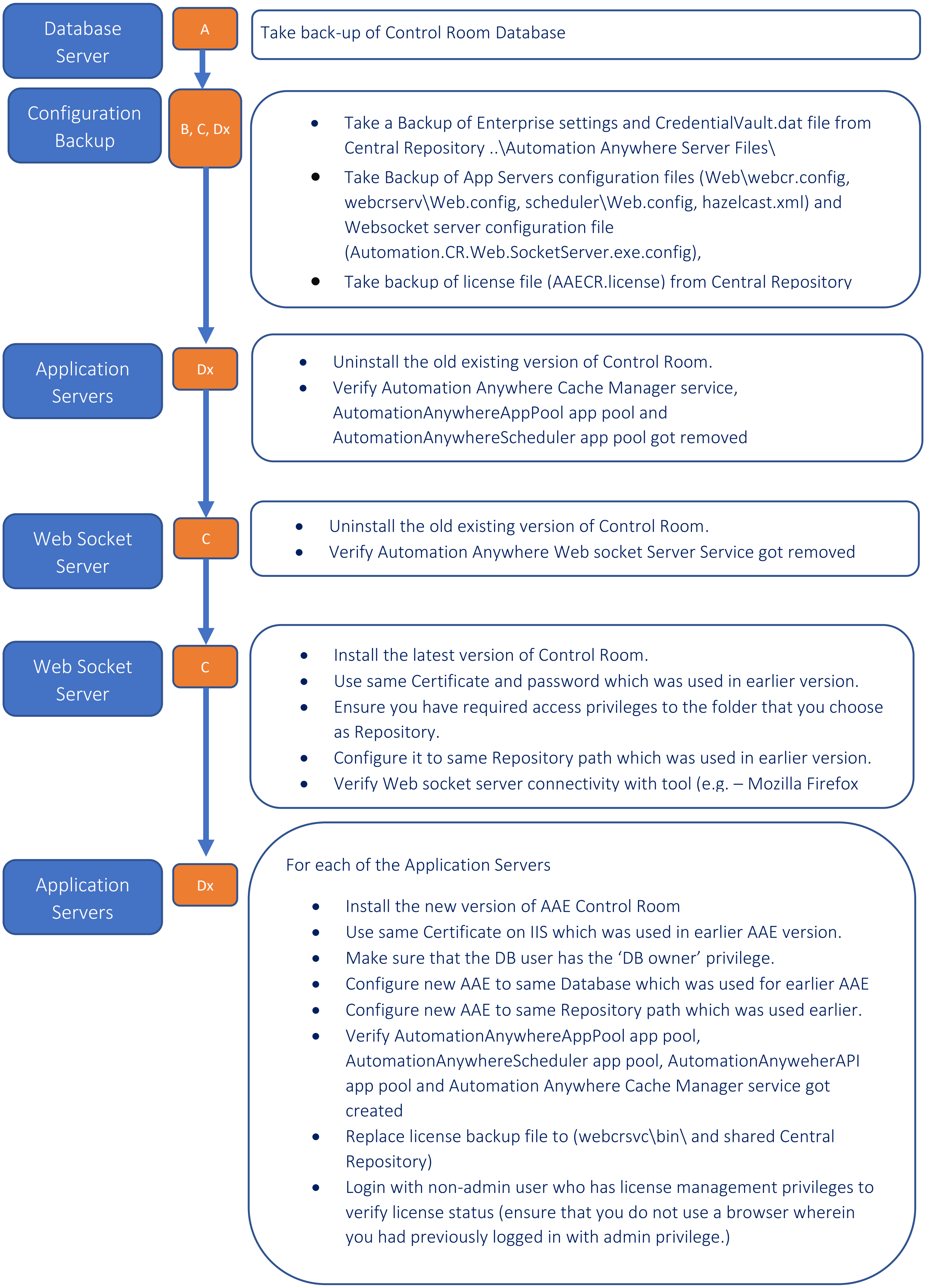


The deployment is a Load Balanced Environment having

1. Bot Creators
2. Bot Runners
3. A Load Balancer
4. Control Room Application Servers
5. Database Server
6. Control Room Web Socket Server
7. Control Room Repository Server

To upgrade the above environment to the latest version of Automation Anywhere Enterprise Control Room and Client, please follow these Steps.

Step-1: Upgrade Steps for AAE Control Room



Database Server

A

Take back-up of Control Room Database

Configuration Backup

B, C, Dx

- Take a Backup of Enterprise settings and CredentialVault.dat file from Central Repository ..\Automation Anywhere Server Files\
- Take Backup of App Servers configuration files (Web\webcr.config, webcrserv\Web.config, scheduler\Web.config, hazelcast.xml) and Websocket server configuration file (Automation.CR.Web.SocketServer.exe.config),
- Take backup of license file (AAECR.license) from Central Repository

Application Servers

Dx

- Uninstall the old existing version of Control Room.
- Verify Automation Anywhere Cache Manager service, AutomationAnywhereAppPool app pool and AutomationAnywhereScheduler app pool got removed

Web Socket Server

C

- Uninstall the old existing version of Control Room.
- Verify Automation Anywhere Web socket Server Service got removed

Web Socket Server

C

- Install the latest version of Control Room.
- Use same Certificate and password which was used in earlier version.
- Ensure you have required access privileges to the folder that you choose as Repository.
- Configure it to same Repository path which was used in earlier version.
- Verify Web socket server connectivity with tool (e.g. – Mozilla Firefox

Application Servers

Dx

For each of the Application Servers

- Install the new version of AAE Control Room
- Use same Certificate on IIS which was used in earlier AAE version.
- Make sure that the DB user has the ‘DB owner’ privilege.
- Configure new AAE to same Database which was used for earlier AAE
- Configure new AAE to same Repository path which was used earlier.
- Verify AutomationAnywhereAppPool app pool, AutomationAnywhereScheduler app pool, AutomationAnyweherAPI app pool and Automation Anywhere Cache Manager service got created
- Replace license backup file to (webcrsvc\bin\ and shared Central Repository)
- Login with non-admin user who has license management privileges to verify license status (ensure that you do not use a browser wherein you had previously logged in with admin privilege.)

10.1 Post Installation Check-list for Control Room

10.1.1 Standalone Mode

1. Login to Control Room using Admin. This will open the Credential Vault.
2. To confirm whether the Credential Vault is open, go to Audit Trail wherein an audit entry for credential vault is logged - Credential Vault connected successfully.
3. Login to all required AAE Clients one by one and login to Control Room & verify the same. The Clients that are online are shown in Green colour in the Clients tab.
4. Compare & validate Control Room Dashboard against, screenshot taken during pre-upgrade checklist like, Registered clients, Active users, No. of folders and files in Control Room repository, etc… both should be identical after upgrade.
5. Press 'F12 – developer tools" and Click on Operations room, in console to verify whether the connection is opened & Auth request has succeed for 'Web socket connection'. If connection fails then verify web socket service is up and running and Web socket host name and port is correct in Web.config file at location (e.g: C:\Program Files (x86)\Automation Anywhere Enterprise 10.5\Control Room\Web\webcrsvc)
6. Verify after 10-15 mins that none of the AAE Clients are disconnected or display session expired message.

Verify following scenarios:

- **Upload a sample TaskBot and its dependency**

Steps:

1. Login to AAE Client that has been assigned a Bot creator (Development) license.
2. From AAE client select sample Taskbot with dependency in different folder.
3. Upload the same from AAE Client to Control Room.

Expected:

1. Should get upload successful message in AAE Client.
2. Login to Control Room and verify in Repository manager that uploaded task bot along with its dependencies are present in respective folders.
3. Verify the in Audit trail for "Task '<taskname.atmx>' uploaded successfully" message.

- **Download a sample TaskBot and its dependency**

Steps:

1. Login to AAE Client that has been assigned a Bot creator (Development) license.
2. In AAE Client go to Repository.
3. Select sample TaskBot with dependency in different folder from Server.
4. Download the same from Server to AAE Client.

Expected:

1. Should get Download successful message in AAE Client.
2. Verify in AAE Client Repository that downloaded TaskBot along with its dependencies are present in respective folders.
3. Login to AAE Control Room and verify the in Audit trail for "Task <taskname.atmx> downloaded successfully" message

- Verify local schedule with auto-login on AAE Client in Lock mode

Steps:
1. Login to AAE client having Bot runner (Runtime) license
2. Set the auto login credentials in Tools->Options on AAE Client & select "Autologin your computer…" checkbox
3. Create a local schedule on AAE client using sample task
4. Lock the AAE client machine
5. Wait till the schedule gets fire

Expected:
1. Schedule should fire on local client
2. Auto login should work successfully, and player should invoke to run the task
3. There won't be any audit log for this in Control Room

Note: "Local schedule with auto-login on AAE Client in Lock mode" scenario can be tested using different type of schedules on bot runner.

- Deploy and run from Control Room to AAE Client

Steps:
1. Login to AAE client having Bot runner (Runtime) license
2. Set the auto login credentials in Tools->Options on AAE Client & select "Autologin your computer…" checkbox
3. Lock the AAE client machine
4. Login to Control Room with admin user, select sample task and choose 'Run' option
5. Select above bot runner to run the task and click on Run button

Expected:
1. Should see "Task '<taskname.atmx>' deployed successfully on selected client(s)." message in Control Room
2. The same message should be logged & available in Control Room Audit log
3. Bot runner machine should be unlocked using auto login credential, player should be invoked, and task should run
4. Should see task in progress in Control Room Operation room -> Task in progress tab
5. After task completed successfully, player should be closed on AAE Client machine and machine should go again in locked mode
6. Now there should not be task in progress entry in Control Room Operation room -> Task in progress tab
7. The history of task available in Control Room Operation room -> Task history tab
8. Should see Task run completion entry in Control Room audit log as "Task '<taskname.atmx>' completed. Run duration xx:xx:xx"

- Schedule and run from Control Room with auto-login on AAE Client

Steps:
1. Login to AAE client having Bot runner (Runtime) license.
2. Set the auto login credentials in Tools->Options on AAE Client & select "Autologin your computer…" checkbox.
3. Lock the AAE Client machine.
4. Login to Control Room with admin user, select sample task and choose 'Schedule' option.
5. Select the desired options for,
   Schedule name: TestSchedule
   Recurrence: None/Daily/Weekly/Monthly
   Start date: Today's date
   Schedule Time: 10 mins from current time.

6. Select above bot runner to schedule the task and click on Save button.
7. Let the schedule fire on bot runner from Control Room.

Expected:

1. Should see "Schedule '<Schedule name>' created successfully" description in Control Room audit log.
2. Same schedule should be available in "Task schedule" tab of Control Room with correct Start date/time and Next occurrence date/time.
3. Once the schedule get fired on bot runner, should see "Task '<taskname.atmx>' of schedule '<Schedule name>' deployed successfully on: <Host name>" description in Control Room audit log.
4. Bot runner machine should be unlocked using auto login credential, player should be invoked, and task should run.
5. Should see task in progress in Control Room Operation room -> Task in progress tab.
6. After task completed successfully, player should be closed on AAE Client machine and machine should go again in locked mode.
7. Now there should not be task in progress entry in Control Room Operation room -> Task in progress tab.
8. h. The history of task available in Control Room Operation room -> Task history tab.
9. Should see Task run completion entry in Control Room audit log as "Task '<taskname.atmx>' completed. Run duration xx:xx:xx".
10. If schedule has next occurrence available, then it will be still visible in Control Room -> Task schedule tab or else entry will not be visible in Task schedule tab.

Note: "Schedule and run from Control Room with auto-login on AAE Client" scenario can be tested using different type of schedules from Control Room.

10.1.2 Distributed Mode (High-Availability Control Room)

Verify below steps using individual Control Room Server URL and finally using Load balancer URL:

1. Login to Control Room using Control Room Admin user so that Credential vault will be opened, only for first time CR Admin login.

2. Go to Audit Trail and confirm Credential vault is open, there should be audit entry saying, "Credential Vault connected successfully." only after first time CR Admin login.

3. Login to Control Room using Control Room Admin user to Compare & validate Control Room Dashboard against, screenshot taken during pre-upgrade checklist like, Registered clients, Active users, No. of folders and files in Control Room repository etc… both should be identical after upgrade.

4. Login to all required AAE clients one by one and login to Control Room & verify the same are online (Green colour) in Clients tab.

5. Press 'F12 – developer tools" and Click on Operation room, in console verify Connection opened & Auth request succeed. For 'Web socket connection' – If connection failed then verify web socket service is up and running in Data and service layer and in Control Room settings Web socket host and port are correct.

6. Verify after 10-15 mins none of the AAE Clients should not get disconnected or get Session expired message.

Verify following scenarios:

- **Upload a sample TaskBot and its dependency**

Steps:

1. Login to AAE client having Bot creator (Development) license.
2. From AAE client select sample TaskBot with dependency in different folder.

3. Upload the same from AAE Client to Control Room.

Expected:

1. Should get upload successful message in AAE Client.
2. Login to Control Room and verify in Repository manager that uploaded task bot along with its dependencies are present in respective folders.
3. Verify the in Audit trail for “Task ‘<taskname.atmx>’ uploaded successfully” message.

- Download a sample TaskBot and its dependency

Steps:

1. Login to AAE Client having Bot creator (Development) license.
2. In AAE client go to Repository.
3. Select sample TaskBot with dependency in different folder from Server.
4. Download the same from Server to AAE Client.

Expected:

1. Should get Download successful message in AAE Client.
2. Verify in AAE client Repository that downloaded task bot along with its dependencies are present in respective folders.
3. Login to AAE Control Room and verify the in Audit trail for “Task <taskname.atmx> downloaded successfully” message.

- Verify local schedule with auto-login on AAE Client in Lock mode

Steps:

1. Login to AAE client having Bot runner (Runtime) license.
2. Set the auto login credentials in Tools → Options on AAE Client & select “Autologin your computer…” checkbox.
3. Create a local schedule on AAE client using sample task.
4. Lock the AAE client machine.
5. Wait until the schedule is fired.

Expected:

1. Schedule should fire on local Client.
2. Auto login should work successfully, and player should invoke to run the task.
3. There won’t be any audit log for this in Control Room.

Note: “Local schedule with auto-login on AAE Client in Lock mode” scenario can be tested using different type of schedules on Bot Runner.

- Deploy and run from Control Room to AAE Client

Steps:

1. Login to AAE client having Bot runner (Runtime) license.
2. Set the auto login credentials in Tools->Options on AAE Client & select “Autologin your computer…” checkbox
3. Lock the AAE client machine.
4. Login to Control Room with admin user, select sample task and choose ‘Run’ option.
5. Select above bot runner to run the task and click on Run button.

Expected:

1. Should see “Task <taskname.atmx> deployed successfully on selected Client(s).” message in Control Room.
2. The same message should be logged & available in Control Room Audit log.

3. Bot runner machine should be unlocked using auto login credential, player should be invoked, and task should run.
4. Should see task in progress in Control Room Operation room → Task in progress tab
5. After task completed successfully, player should be closed on AAE Client machine and machine should go again in locked mode.
6. Now there should not be task in progress entry in Control Room Operation room → Task in progress tab.
7. The task history is available in Control Room Operation room → Task history tab.
8. Should see Task run completion entry in Control Room audit log as "Task '<taskname.atmx>' completed. Run duration xx:xx:xx".

- Schedule and run from Control Room with auto-login on AAE Client

Steps:

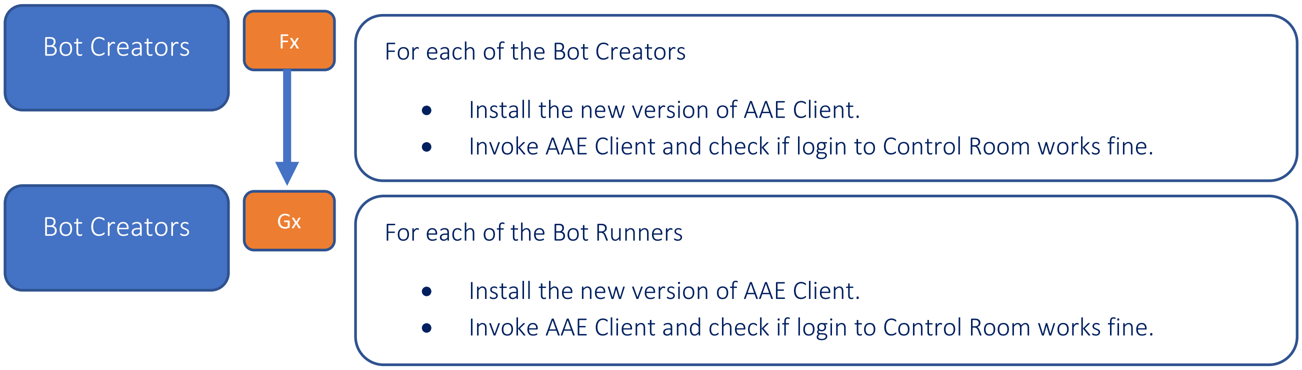
1. Login to AAE client having Bot runner (Runtime) license.
2. Set the auto login credentials in Tools->Options on AAE Client & select "Autologin your computer…" checkbox.
3. Lock the AAE Client machine.
4. Login to Control Room with admin user, select sample task and choose 'Schedule' option.
5. Select the desired options for:
   Schedule name: TestSchedule
   Recurrence: None/Daily/Weekly/Monthly
   Start date: Today's date
   Schedule Time: 10 mins from current time
6. Select above bot runner to schedule the task and click on Save button.
7. Let the schedule fire on bot runner from Control Room.

Expected:

1. Should see "Schedule <Schedule name> created successfully" description in Control Room audit log
2. Same schedule should be available in "Task schedule" tab of Control Room with correct Start date/time and Next occurrence date/time
3. Once the schedule get fired on bot runner, should see "Task '<taskname.atmx>' of schedule '<Schedule name>' deployed successfully on: <Host name>" description in Control Room audit log
4. Bot runner machine should be unlocked using auto login credential, player should be invoked, and task should run
5. Should see task in progress in Control Room Operation room -> Task in progress tab
6. After task completed successfully, player should be closed on AAE Client machine and machine should go again in locked mode
7. Now there should not be task in progress entry in Control Room Operation room -> Task in progress tab
8. The history of task available in Control Room Operation room -> Task history tab
9. Should see Task run completion entry in Control Room audit log as "Task '<taskname.atmx>' completed. Run duration xx:xx:xx"
10. If schedule has next occurrence available, then it will be still visible in Control Room -> Task schedule tab or else entry will not be visible in Task schedule tab.

Note: "Schedule and run from Control Room with auto-login on AAE Client" scenario can be tested using different type of schedules from Control Room.

Step-2: Upgrade Steps for Bot Creators and Bot Runners



For each of the Bot Creators

- Install the new version of AAE Client.
- Invoke AAE Client and check if login to Control Room works fine.

For each of the Bot Runners

- Install the new version of AAE Client.
- Invoke AAE Client and check if login to Control Room works fine.

10.2 Post Installation Check-list for AAE Client

1) Ensure that all Bot Creators and Runners can indeed login to the Control Room and can upload, download bots
2) Verify that you can indeed Run the bot on a connected Bot Runner.
3) Make a test schedule and ensure that it gets triggered as expected on the Bot Runner(s)
4) Ensure that the existing schedules are triggered as expected.