

Content Manager

Software Version 9.4

Installation and Upgrade Guide



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The title page of this document contains the following identifying information:

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- Document Release Date, which changes each time the document is updated.
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- Contact customer support
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Many areas of the portal require you to sign in with a Software Passport. If you need a Passport, you can create one when prompted to sign in. To learn about the different access levels the portal uses, see the [Access Levels descriptions](#).

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Getting Started

Content Manager is a highly scalable governance-based enterprise content management (ECM) system designed to meet the global needs of government, regulated industry, and enterprises. It allows you to store, search, secure, dispose, and analyse large volumes of data quickly and in near real time.

Each element of the Content Manager technology stack is designed to be used together. They are delivered in a single release package to simplify your installation and upgrade experience. The core technology stack includes:

- Content Manager Client
- Content Manager Web Client
- Content Manager Workgroup Server
- Content Manager Service API

Built around this core are several peripheral apps and integrations that enhance the functionality of Content Manager. These are also included in the release package and is covered in more detail later.

This guide provides information about installing and upgrading the core components of your Content Manager environment. It covers the recommended installation order and the steps you need to follow to upgrade each component of the stack.

We recommend you to read the release notes before starting work on your installation or upgrade task. These are included in the release package and provide detailed information on new features and breaking changes.

Basic Concepts

There are many concepts that are essential to understand the Content Manager technology stack. Getting an early grasp of these concepts helps you successfully implement and manage your environment.

Dataset

A Dataset represents a content management system that holds your data and provides all the necessary functionality to store and retrieve records and their content.

When there's more than one Dataset in your environment, each one is independent of the others. There is no communication or connection between datasets.

A dataset has three main elements:

- A database on a Relational Database Management System (RDBMS)
- A document store
- A document content index.

The Database

The database stores the metadata associated with your records and the network path to where the electronic documents are stored.

Content Manager works with SQL Server, PostgreSQL, and Oracle. Make sure you check the Content Manager Specifications and Limitations documentation to find out which versions are supported.

The Document Store

When you create a record in Content Manager you may also have an electronic file associated with it. These files are stored in a document store. This store can be located on any storage platform in your environment that can be accessed by the Content Manager.

The Document Content Index

When an electronic file is stored, Content Manager attempts to extract and store its content in a searchable index. You can then search for document content from the Client or Web Client.

You can choose from the following types of indexing platforms to create content indexes:

- Micro Focus IDOL
- Elasticsearch

You'll find documents covering both of these offerings in your Content Manager release package. We suggest you consult these when deciding which one to use.

Workgroup Server

The Content Manager architecture includes a server component that runs as a Windows service. This is referred to as the Workgroup Server.

The Workgroup Server is a key component in the Content Manager stack. Workgroup Servers allow clients to connect to the:

- database
- document store, and
- content index.

The Workgroup Server performs the following functions:

- Manages connections to the database
- Local caching of some of the database tables
- Caching of documents, email, and other objects from the document store
- Event processing

Workgroup Servers do the bulk of the work. You should, therefore, position them in your network to effectively distribute the load.

A typical deployment model is to put Workgroup Servers in every remote location and Workgroup Servers, database, and document store in a central location. When using this model, network traffic is minimised.

The main tool to administer your Content Manager Workgroup Server and the other Content Manager server and dataset components is Content Manager Enterprise Studio. This is installed when you install a Workgroup Server.

Client and Web Client

There are two Content Manager clients. These are referred to as the Client and the Web Client.

The Content Manager Client contains all the functionality to interact with the dataset. This includes the graphical user interface for end users, records managers, and system administrators. It is designed to run on Windows Operating Systems.

The Content Manager Web Client provides a zero-footprint browser-based access to a Content Manager Dataset. It runs on Microsoft's Internet Information Services (IIS) Web Server.

The Web Client has no administrative functionality. When both clients are used, it's not unusual to see Records Managers and System Administrators using the Client and end users using the Web Client.

Service API

The Content Manager Service API provides REST-based access to Content Manager supporting the development of a range of client and server applications. It runs on Microsoft's Internet Information

Services (IIS) Web Server.

The Content Manager Web Client, Thin Office integration, and WebDrawer are all built on top of the Service API.

Installing Content Manager

When installing Content Manager, you must use the same version across the stack. For example, if you are using Content Manager 9.4, you install Workgroup Server 9.4, Client 9.4, Web Client 9.4, and Service API 9.4.

If you're upgrading an existing installation, see [Upgrading the Content Manager Stack](#) for information on how to ensure compatibility with Content Manager 9.4.

Release Package

Content Manager is provided in a .zip package. We call this the release package.

You'll find it contains various .msi installer packages, setup executables, a demonstration database, and related documentation.

\32BitInstalls	32-bit installation files, includes .msi packages and required prerequisite .msi packages
\64BitInstalls	64-bit installation files, includes Setup_CM_x64.exe files, .msi packages, and required prerequisite .msi packages
\Demonstration Database	Demonstration database. You can use this to setup a Dataset for testing, training, and demonstrations
\Documentation	Documentation

Supported Platforms and Prerequisites

If you want your Content Manager installation to run smoothly, it's essential you understand what needs to be in place before you start.

The matrix of officially supported operating systems, databases, integrations, and installation prerequisites can be found in the Specifications and Limitations document, which is included in the Content Manager 9.4 release package.

Installation Order

The installation order is not important if you're choosing to install everything on a single machine. This is usually the case for small implementations or demonstration environments.

For larger environments, where performance needs to be considered, we recommend installing each component of the stack on separate machines so they can be tailored to meet your organisations' requirements. In this case, you should install the Content Manager components in the following order:

1. Workgroup Server (See [Install a Workgroup Server](#))
2. Client (See [Install the Client](#))
3. Web Client (See [Install the Web Client](#))
4. Service API (See [Install the Service API](#))
5. [Peripheral Apps and Integrations](#)

Following this order will ensure the necessary components are in place before the next one is installed.

Installation Methods

You can choose to install the Content Manager Client, Web Client, Workgroup Server, or Service API in the following ways:

- By using an interactive, graphical user interface. This can be run from:
 - the Setup Wizard or
 - an .msi package
- By using the command line or a command line script to run a .msi package

The interactive, graphical user interface (GUI), installation method is best suited to smaller or demonstration environments where you have a limited number of machines.

The command line method is suited to situations where you have to roll out Content Manager to a large organisation and you're using a deployment tool like Active Directory.

Install a Workgroup Server

NOTE: Workgroup Server, Web Client, and Service API installations are only supported on 64-bit Windows operating systems.

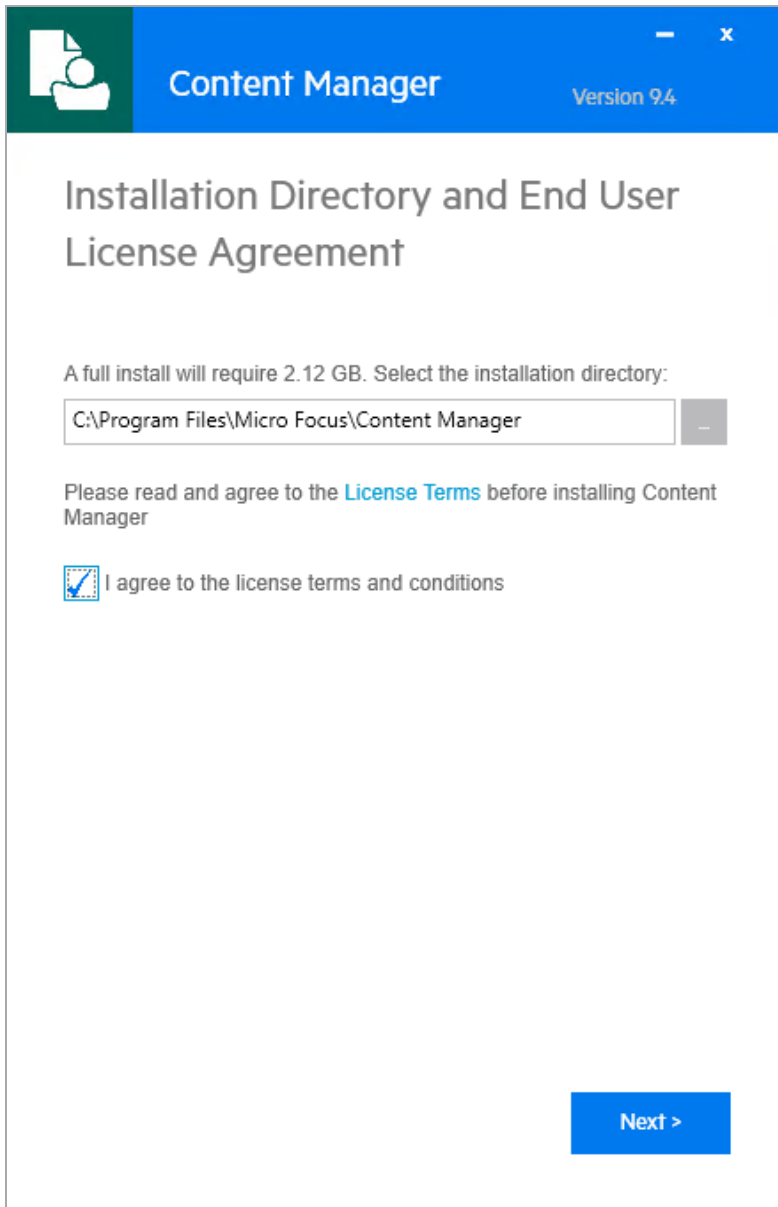
Make sure you run the Setup Wizard with an account that has administrative privileges and using the menu option "Run as administrator".

If you're going to run setup from a network location, you'll have to copy the entire contents of \32BitInstalls or \64BitInstalls to the same location.

Using the Setup Wizard GUI

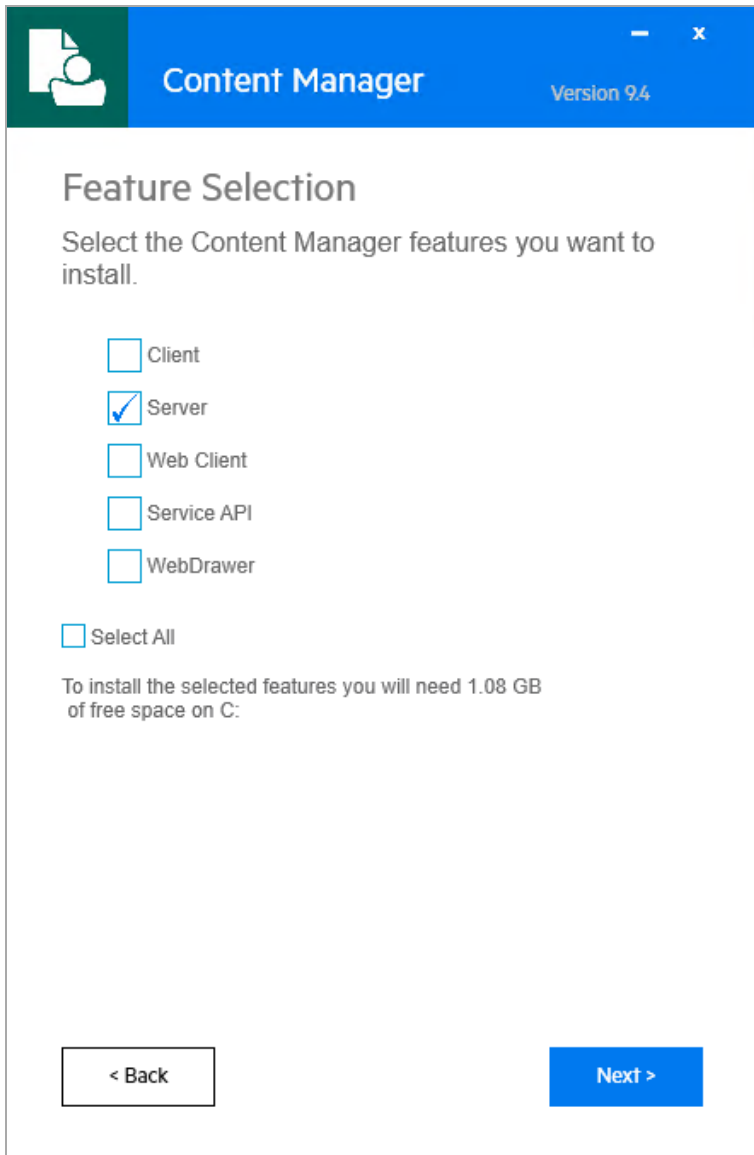
Run the 64-bit Setup package to launch a GUI wizard that guides you through the installation process.

Within the first screen, select the directory for the installation and agree to the license terms and conditions.



Then select **Server** from the feature list.

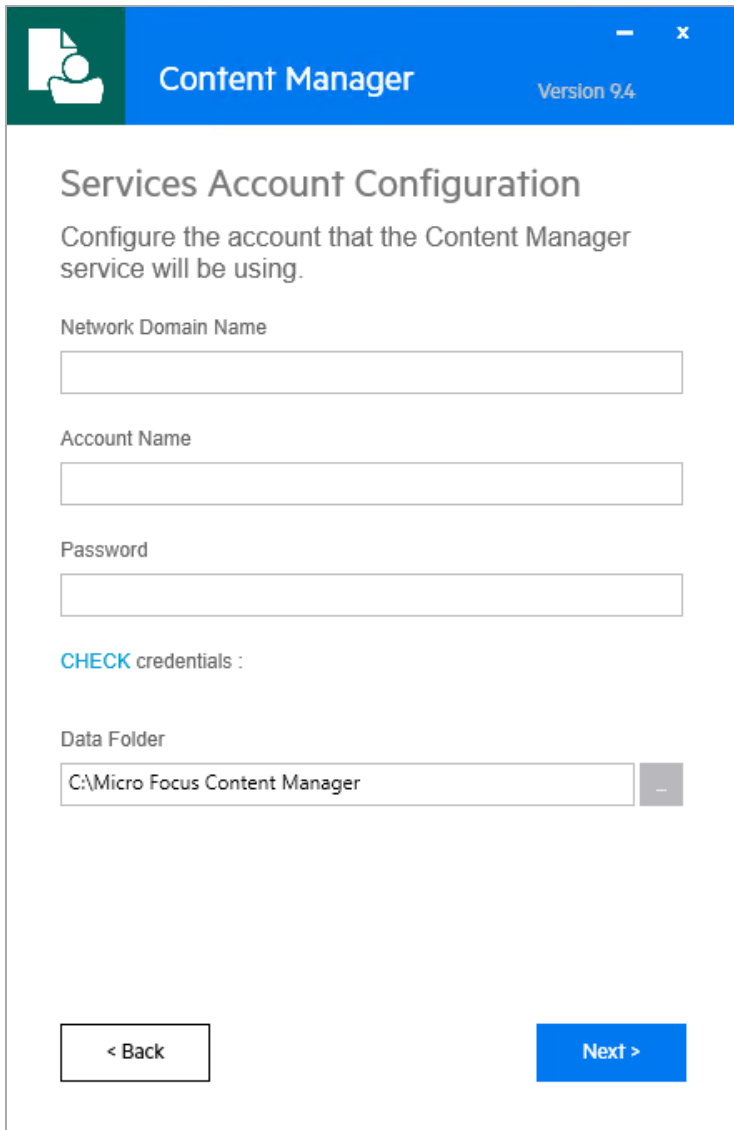
NOTE: If the feature you've selected is highlighted in red text the Setup Wizard has determined you don't have the required prerequisites in place. For example, Web Client, Service API, and WebDrawer all require IIS to be installed.



Enter the **Domain Name** and **User Account**. These credentials will be used to run the Workgroup Server service.

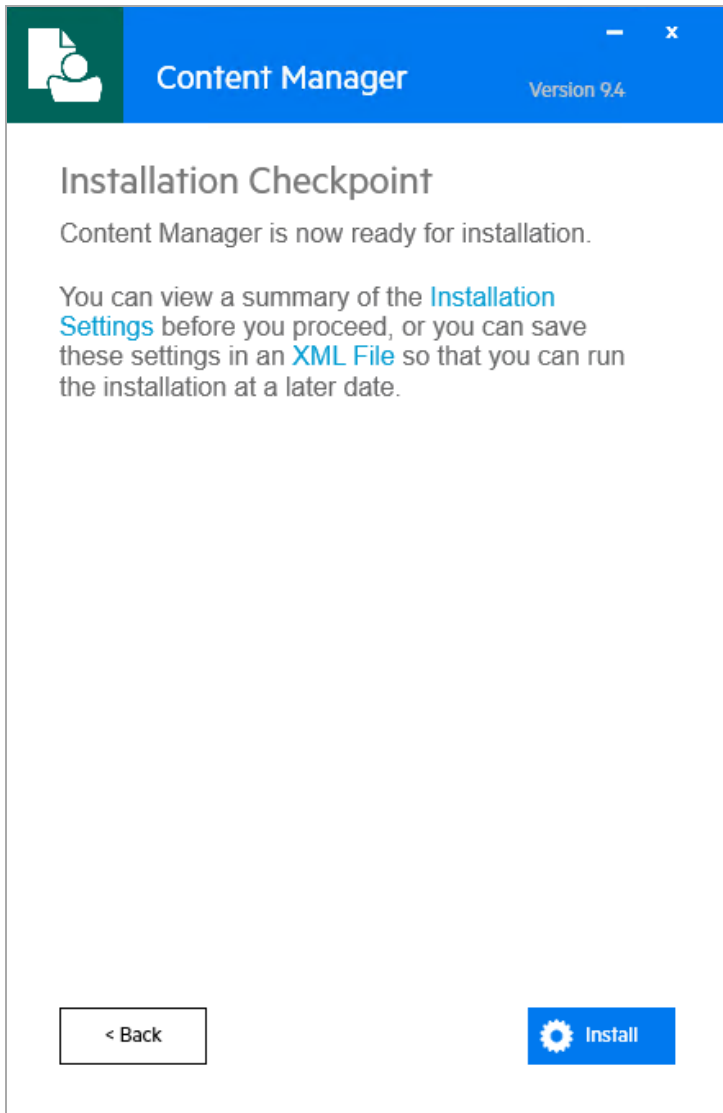
NOTE: The user account you choose to run the Workgroup Server service must have the **Log on as a service** user right assigned to it.

You can check the credentials to ensure you've entered the correct username and password. At this point, you can also specify an alternative location for the data folder.

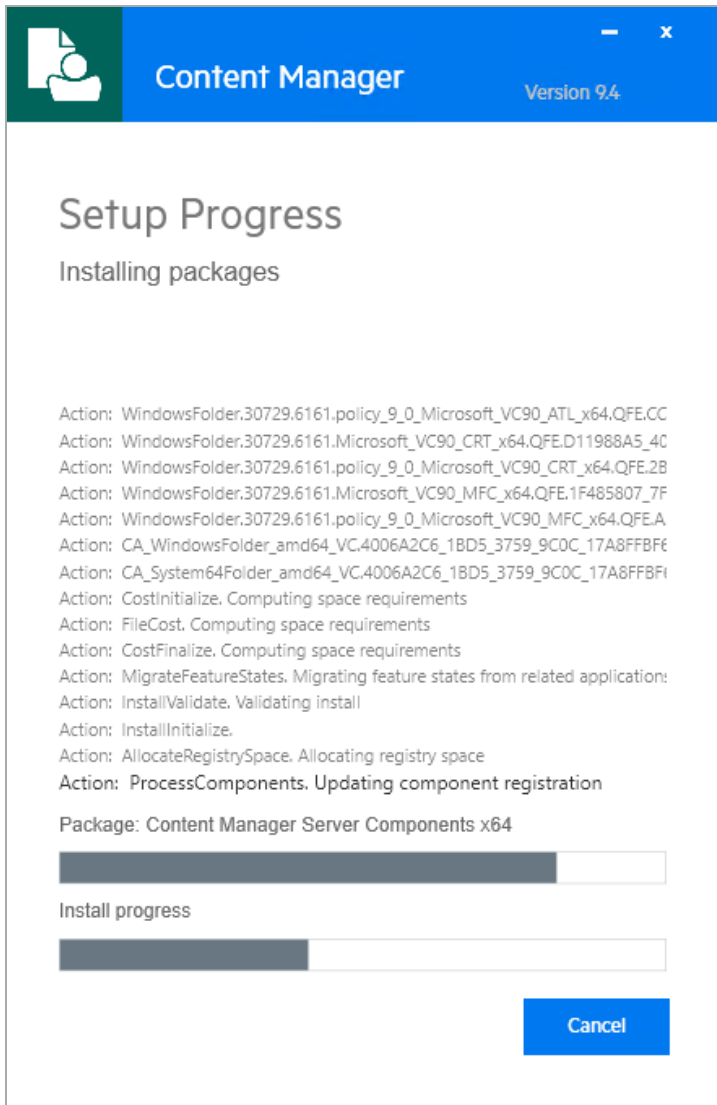


The screenshot shows a window titled "Content Manager" with "Version 9.4" in the top right corner. The window contains a "Services Account Configuration" section with the instruction: "Configure the account that the Content Manager service will be using." Below this are three input fields: "Network Domain Name", "Account Name", and "Password". A blue link labeled "CHECK credentials :" is positioned below the password field. The "Data Folder" field contains the text "C:\Micro Focus Content Manager" and has a small grey button to its right. At the bottom of the window are two buttons: "< Back" on the left and "Next >" on the right.

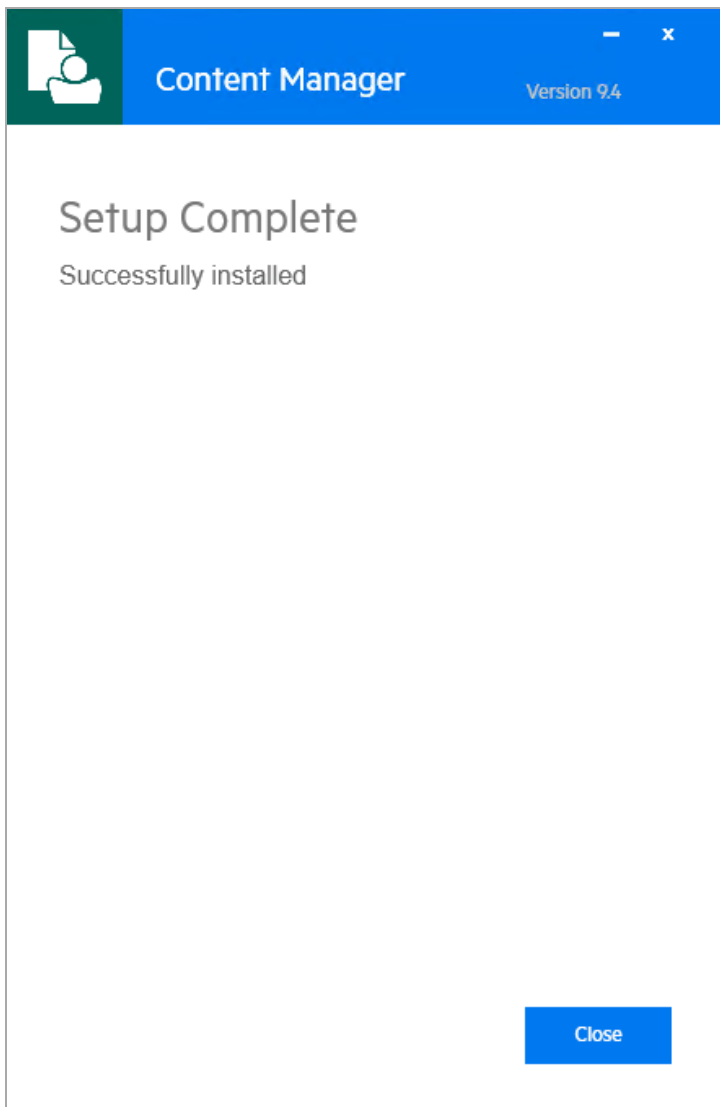
Click **Install** to begin the installation. Alternatively, you can review the Installation Settings and if needed, go back and make changes.



Progress activity is displayed as the Setup Wizard works its way through the installation.



A message indicating setup status is displayed. Click **Close** to exit the setup wizard.



Using the command line

NOTE: The installation of the Workgroup Server is performed per-machine. Make sure you run the **Workgroup Server .msi** with administrative privileges.

The **Workgroup Server .msi** can also install Content Manager using the command line. The simplest installation using the same defaults as the GUI is achieved by first navigating to the directory in which the .msi sits, then running:

```
msiexec.exe /i CM_Server_x64.msi /qn
```

By default, **msiexec.exe** does not wait for the installation process to complete. To wait on the process to finish and ensure that **%ERRORLEVEL%** is set accordingly, we recommend using `start /wait` to create a process and wait for it to exit:

```
start /wait msiexec.exe /i CM_Server_x64.msi /qn
```


If you don't specify a location, a log file for the installation process can be found within the **%TEMP%** directory, with a randomly generated name that looks like **MSI<random>.LOG**.

You can specify a path to a log file by using the /l command line argument:

```
start /wait msixec.exe /i CM_Server_x64.msi /qn /l install.log
```

Supported Windows Installer command line arguments can be viewed using:

```
msiexec.exe /help
```

Alternatively, see [Windows Installer SDK Command-Line Options](#).

Command line options

Settings are also available as command line arguments (referred to as properties) that can be passed to **msiexec.exe**.

To pass a value, append the property name and value using the format **<PROPERTYNAME>=<VALUE>** to the installation command. For example, to use a different installation directory to the default one:

```
msiexec.exe /i CM_Server_x64.msi /qn /l install.log INSTALLDIR="C:\Custom Install Directory"
```

The available command line arguments for the Server installation are:

INSTALLDIR	Sets the location where CM should be installed. For example, "C:\Program Files\Micro Focus\Content Manager"
SERVERDATADIR	Sets the location where CM server data is saved. For example, "C:\Micro Focus Content Manager"

After you install a Workgroup Server using the command line

When you use the command line to install a Workgroup Server, you'll find it has installed a Windows Service named Content Manager Workgroup Service. This service uses the Local System Account. We recommend you change this to an account that's unique to your environment and has access to the Dataset's database.

If you intend to use the Content Manager Document Rendering feature, you'll also have to run the **64BitInstalls\OnstreamPrinterFiles_x64.msi** to install the required printer drivers on your Workgroup Server.

```
start /wait msiexec.exe /i OnstreamPrinterFiles_x64.msi /qn /l onstreaminstall.log
```

When these drivers are installed the **TRIMRender_PDF**, and **TRIMRender_TIFF** printers can be found in the Print Management tool in your Windows Server Operating System.

IMPORTANT: The account you've selected to run the Content Manager Workgroup Service should be given the "Print" permission on each of the installed printers. The Rendering feature will not operate if this permission is missing.

Workgroup Server Directory Layout

The setup and .msi Workgroup Server installation places the config files, logs, and caches in the following locations.

Description	Default Location
Content Manager binaries	C:\Program Files\Micro Focus\Content Manager
Documentation directory	C:\Program Files\Micro Focus\Content Manager\Documentation
Workgroup Server log paths	C:\Program Files\Micro Focus\Content Manager\ServerLocalData\Log C:\Micro Focus Content Manager\ServerLocalData\TRIM\Log
Workgroup Server configuration files	C:\Micro Focus Content Manager\ServerData\TRIM
Workgroup Server document cache	C:\Micro Focus Content Manager\ServerLocalData\TRIM\EstoreCache

Install the Client

Using the Setup Wizard GUI

NOTE: Make sure you run the Setup Wizard with an account that has administrative privileges and using the menu option **Run as administrator**.

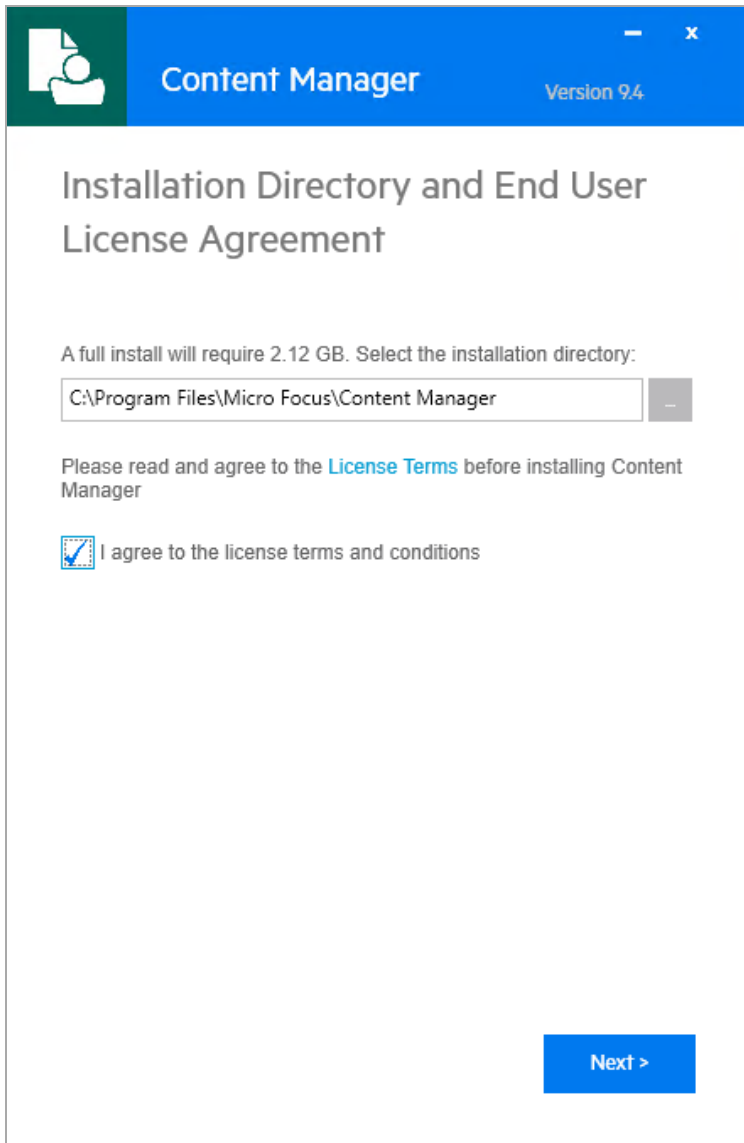
If you want to use the Microsoft Office integration, you should run the version of setup that matches the version of Office you're using (32- or 64-bit).

If you're going to run setup from a network location, you'll have to copy the entire contents of \64BitInstalls to the same location.

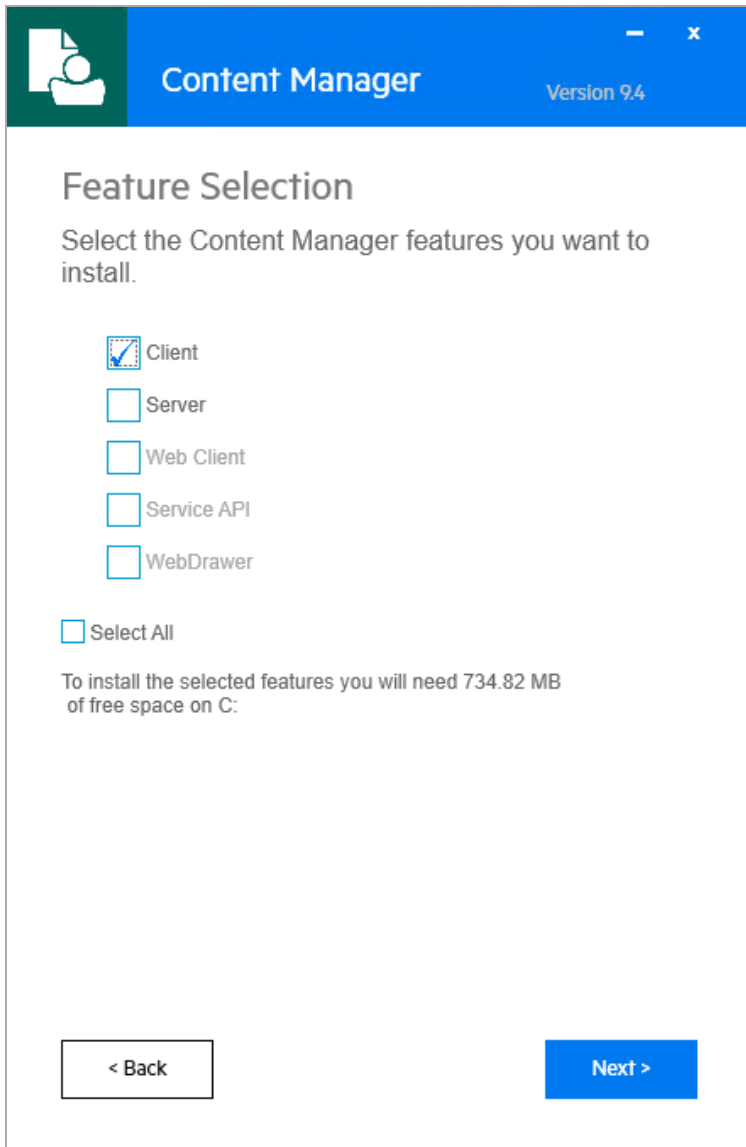
There is no 32-bit Setup package. The 32-bit Client can be installed using the .msi ([Using the .msi package GUI, on page 24](#)).

Run the 64-bit Setup package to launch a GUI wizard that guides you through the installation process.

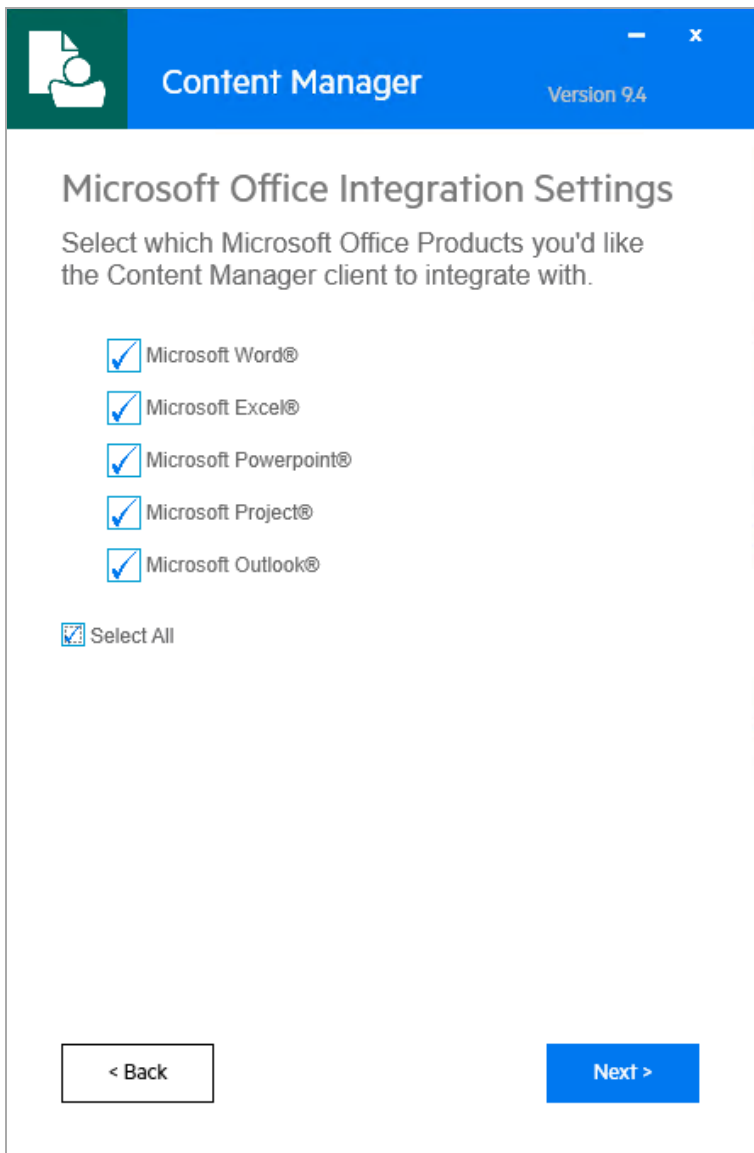
Within the first screen, select the directory for the installation and agree to the license terms and conditions.



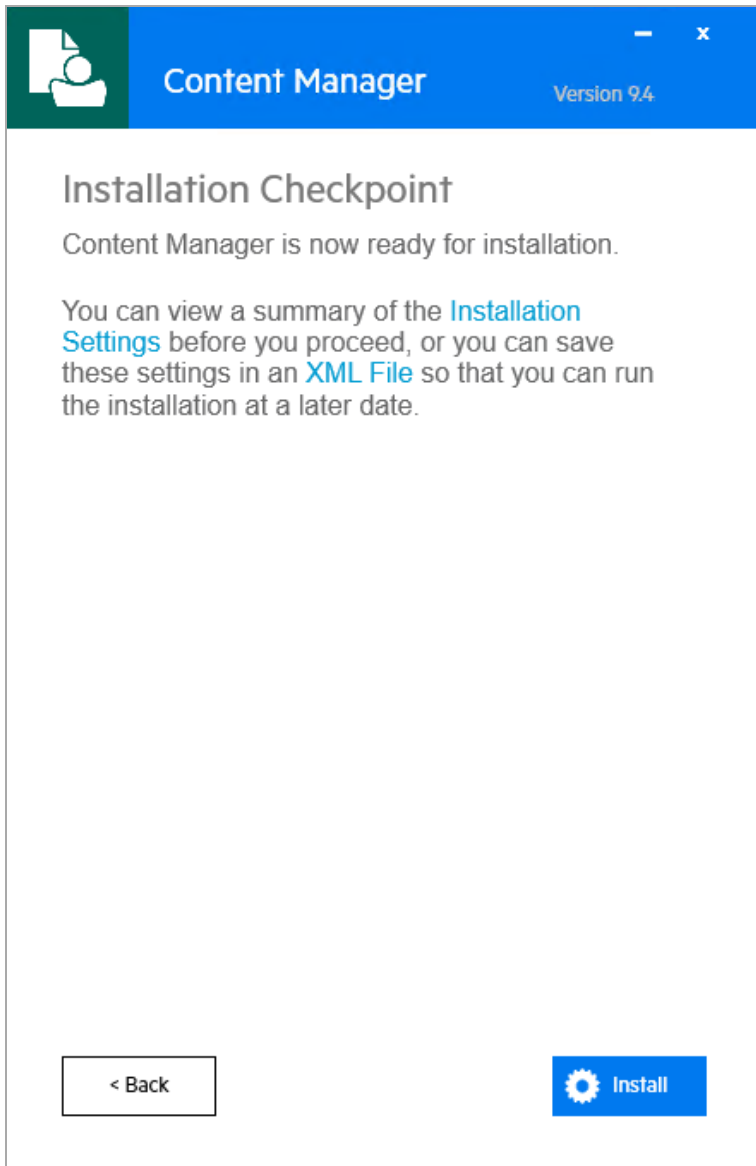
Then select **Client** from the feature list.



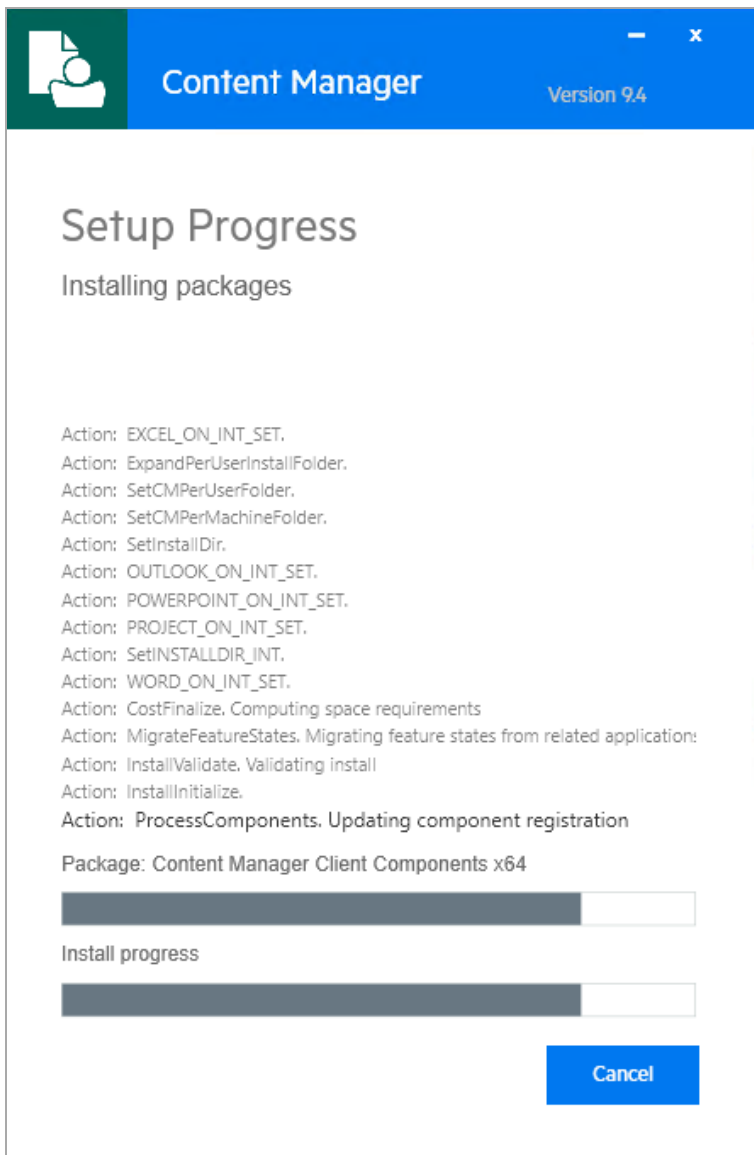
At this point, you can select which Microsoft Office products you want Content Manager to integrate.



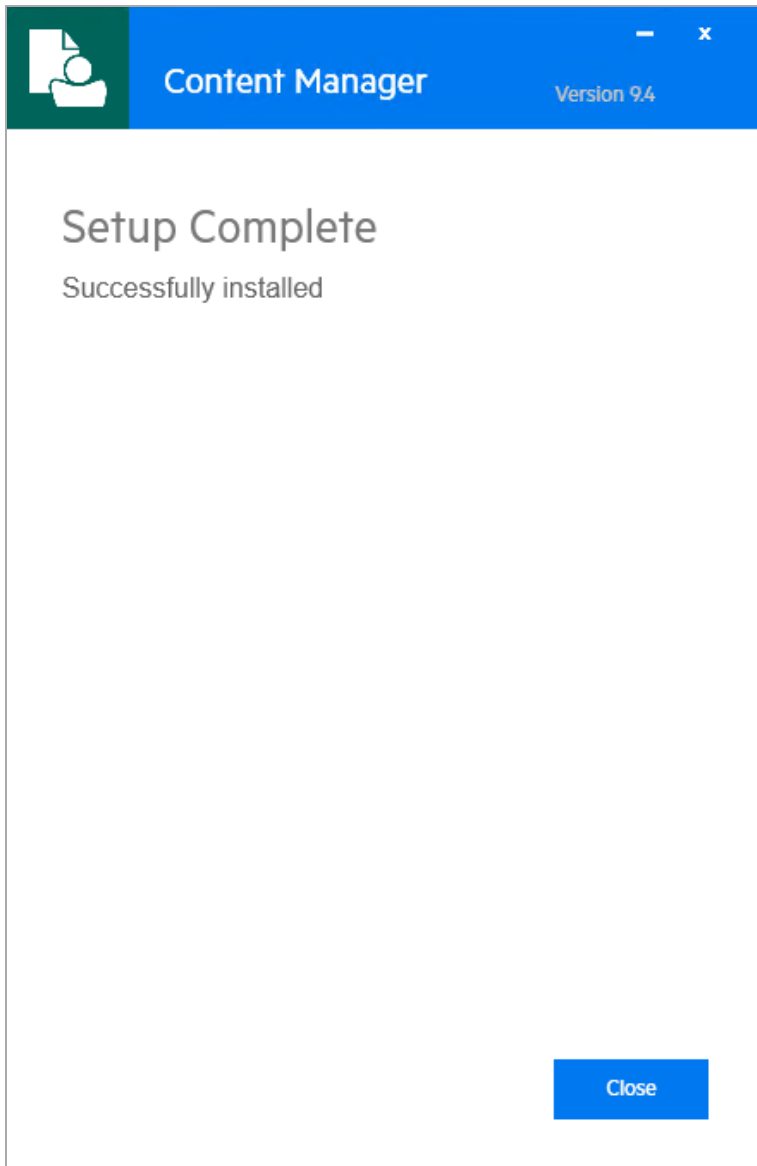
Click **Install** to begin the installation. Alternatively, you can review the Installation Settings and if needed, go back and make changes.



Progress activity is displayed as the Setup Wizard works its way through the installation:



A message indicating setup status is displayed. Click **Close** to exit the setup wizard.



Using the .msi package GUI

The Client can be installed on a per-user or per-machine basis. To install the Client on a per-user basis, use one of the following two packages:

`CM_Client_PerUser_x86.msi`

`CM_Client_PerUser_x64.msi`

To install the Client on a per-machine basis, use one of the following two packages:

`CM_Client_x86.msi`

`CM_Client_x64.msi`

NOTE: Running the per-machine installation requires administrator privileges. Running the per-user installation does not require any administrator privileges.

If you install the client using the Setup Wizard, a per-machine installation will be performed.

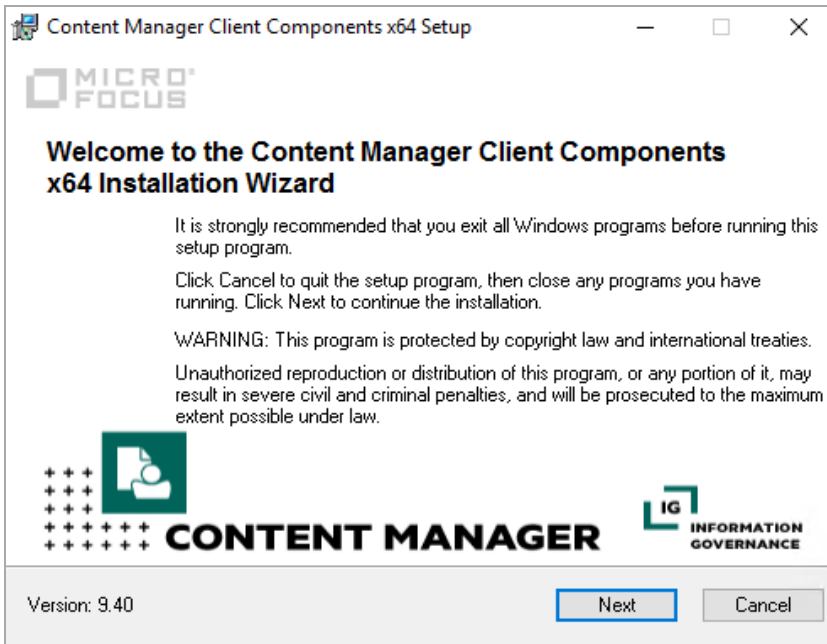
If you want to use the Microsoft Office integration, you should run the .msi that matches the version of Office you're using (32- or 64-bit).

Run the appropriate 32- or 64-bit Client .msi package via an administrative command prompt (for per-machine installation), or a regular command prompt (for per-user installation), to launch a GUI that will guide you through the installation process. For example, you can start the 64-bit Client per-machine installation by entering the following in an administrative command prompt:

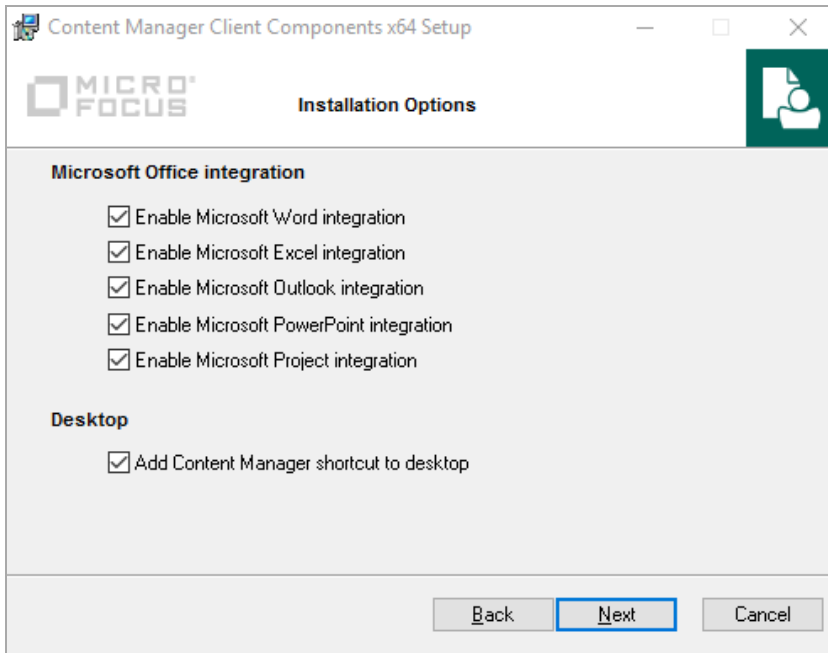
```
CM_Client_x64.msi
```

Similarly, you can start the 32-bit Client per-user installation by entering the following in a regular command prompt:

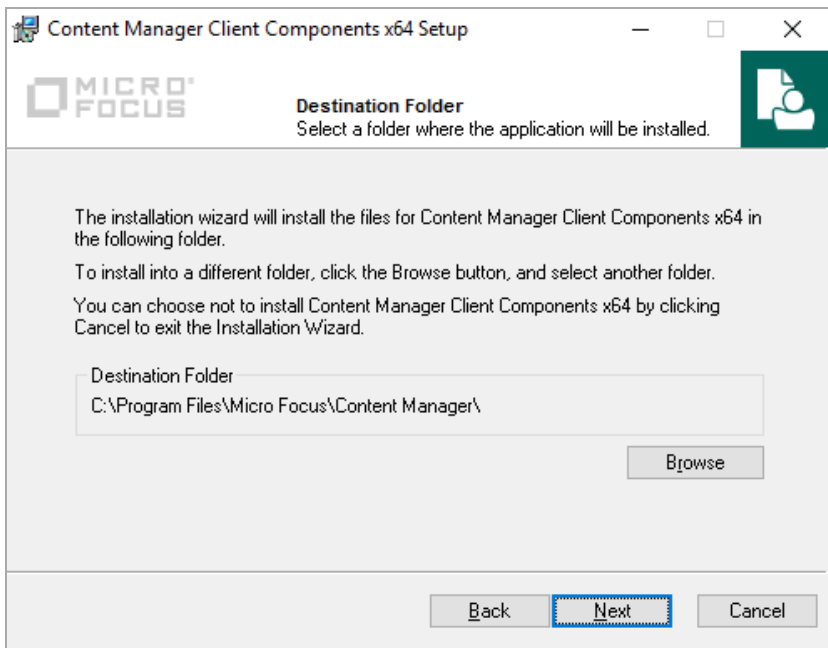
```
CM_Client_PerUser_x86.msi
```



Select which Microsoft Office products you want Content Manager to integrate.

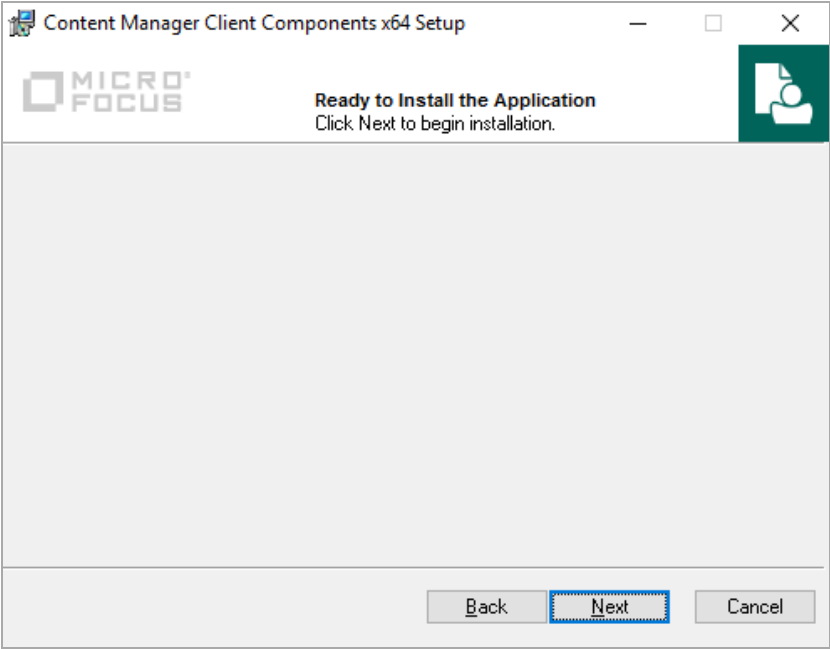


Review the installation destination and change if required.

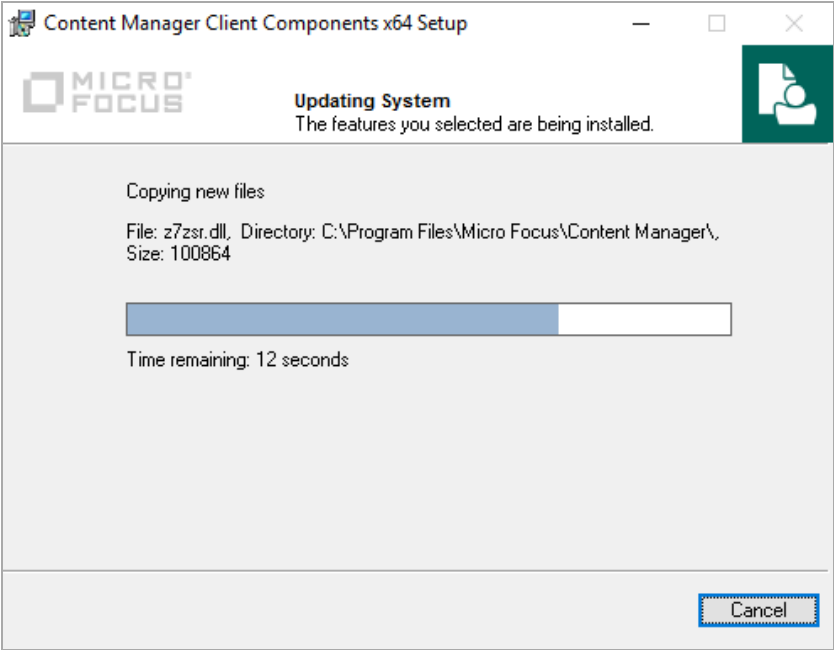


NOTE: You will only be able to change the destination folder if you are performing a per-machine installation.

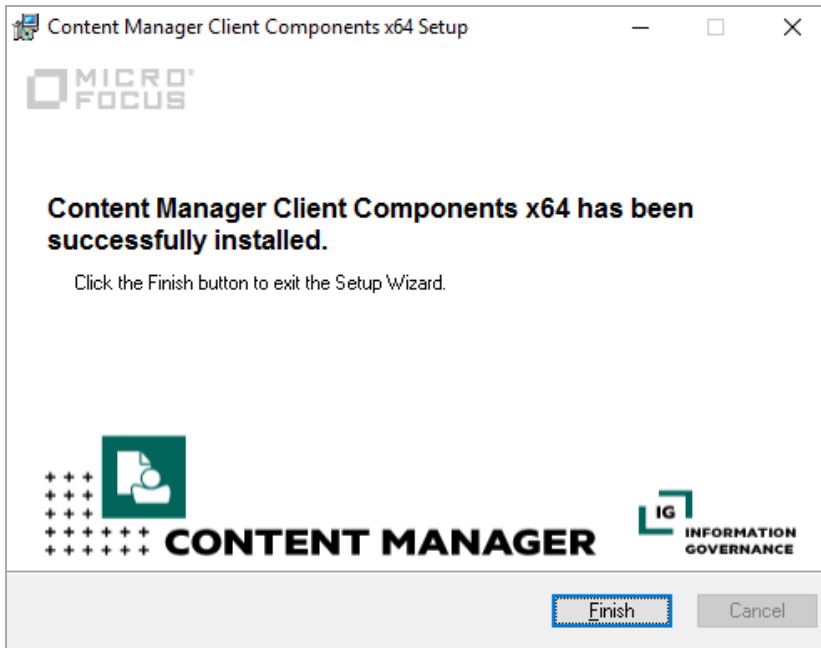
Click **Next** to begin the installation.



Progress activity is displayed as the .msi works its way through the installation:



A message indicating setup status is displayed. Click **Finish** to exit the wizard.



Using the command line

The **Client .msi** can also install Content Manager using the command line. The simplest installation using the same defaults as the GUI is achieved by first navigating to the directory in which the .msi sits, then running:

```
msiexec.exe /i CM_Client_x64.msi /qn
```

By default, **msiexec.exe** does not wait for the installation process to complete. To wait on the process to finish and ensure that **%ERRORLEVEL%** is set accordingly, we recommended using `start /wait` to create a process and wait for it to exit:

```
start /wait msiexec.exe /i CM_Client_x64.msi /qn
```

If you don't specify a location, a log file for the installation process can be found within the **%TEMP%** directory, with a randomly generated name that looks like **MSI<random>.LOG**.

You can specify a path to a log file by using the `/l` command line argument:

```
start /wait msiexec.exe /i CM_Client_x64.msi /qn /l install.log
```

Supported Windows Installer command line arguments can be viewed using:

```
msiexec.exe /help
```

Alternatively, see [Windows Installer SDK Command-Line Options](#).

Command line options

Settings are also available as command line arguments (referred to as properties) that can be passed to **msiexec.exe**.

To pass a value, append the property name and value using the format **<PROPERTYNAME>=<VALUE>** to the installation command. For example, to use a different installation directory to the default one:

```
msiexec.exe /i CM_Client_x64.msi /qn /l install.log INSTALLDIR="C:\Custom Install Directory"
```

The available command line arguments for the Client installation are:

Command line arguments	Description
INSTALLDIR	Sets the location where CM should be installed. For example, "C:\Program Files\Micro Focus\Content Manager".
TRIM_DSK	Set to 1 to install desktop shortcuts. Set to 0 otherwise. The default value is 1 .
TRIMREF	Set to "TRIM" to associate .trf and .tr5 files with TRIM.exe . Set to "DSK" to associate with TRIMDesktop.exe . The default value is TRIM .
WORD_ON	Set to 1 to enable Microsoft Word integration. Set to 0 to disable. The default value is 0 .
EXCEL_ON	Set to 1 to enable Microsoft Excel integration. Set to 0 to disable. The default value is 0 .
POWERPOINT_ON	Set to 1 to enable Microsoft PowerPoint integration. Set to 0 to disable. The default value is 0 .
PROJECT_ON	Set to 1 to enable Microsoft Project integration. Set to 0 to disable. The default value is 0 .
OUTLOOK_ON	Set to 1 to enable Microsoft Outlook integration. Set to 0 to disable. The default value is 0 .
PERUSERINSTALLFOLDER	Allows customization of the installation folder for per-user installations. The default value is %LOCALAPPDATA%\Programs .

Installing multiple versions of the client on the same machine

Starting with Content Manager 9.4, the Client installation supports a named instance method. This allows you to run multiple Content Manager versions side by side, on the same machine. For example, you may want to continue running an older version of the Client while you are testing a newer version before an upgrade or when you are deploying the Client in the Cloud and you need to support a multi-tenant scenario.

When you run the **Client .msi**, the behaviour is to install a default instance of the software. The default instance will replace any existing version and cannot be installed side by side with other versions of Content Manager.

On the other hand, a named instance can be installed side-by-side with default instances of any other version of Content Manager. To install a named instance, run the installer with the **MSINEWINSTANCE** and **TRANSFORMS** properties:

```
start /wait msixec.exe /i CM_Client_x64.msi MSINEWINSTANCE=1 TRANSFORMS="":Named"
/qn /l install.log
```

The named instance is installed to a separate folder from the default instance, and the folder name is suffixed with a version number. Desktop shortcuts and other elements are also suffixed with version numbers, to distinguish them from the elements installed by the default instance.

Named instance installations are supported by both the per-user and the per-machine Client installation packages.

Configuring Dataset properties

You can set the Client Dataset connection properties during installation by editing an XML file (**ClientDatasetConfig.xml**) contained in the .msi and then rebuilding it.

ClientDatasetConfig.xml can be modified and replaced in the **Client .msi**, by administrators, using .msi editing tools. Several third-party .msi editing tools are available for this purpose.

For example, you could edit the **Client .msi** using the [InstED](#) tool like this:

Run an administrative installation and install it to **C:\CMEnterpriseInstall**:

```
msiexec.exe /a CM_Client_x64.msi
```

Modify the following file in line with your connection requirements:

```
C:\CMEnterpriseInstall\Micro Focus\Content Manager\ClientDatasetConfig.xml
```

NOTE: When you edit the .xml file, make sure to uncomment the **<Dataset>** section by removing the “<!--” and “-->” lines. If you don’t do this, the installation will not read the updated entries.

Copy **CM_Client_x64.msi** to **C:\CMEnterpriseInstall\CM_Client_x64.msi**, overwriting the smaller .msi file the administrative install created.

Run [InstED](#) and open **C:\CMEnterpriseInstall\CM_Client_x64.msi**.

Choose the **Tables** tab and click on **Media**. One row appears on the right (containing **#ContentManager.cab** in the Cabinet field).

Right click on that row and press **Rebuild Selected CABs**.

The **Waiting for External Tool** window is displayed. Wait for it to complete and then save the file.

CM_Client_x64.msi is now ready to be deployed, with the updated **ClientDatasetConfig.xml** file.

Client Directory Layout

The 64-bit setup and .msi Client installation places config files, logs, and caches in the following locations:

Description	Default Location
Content Manager Binaries	C:\Program Files\Micro Focus\Content Manager
Documentation directory	C:\Program Files\Micro Focus\Content Manager\Documentation
Server Log Paths	C:\Program Files\Micro Focus\Content Manager\ServerLocalData\Log\
Calendar File	C:\Users\<username>\AppData\Local\Micro Focus\Content Manager\<dataset id="">\Calendar.bin</dataset></username>
Captions File	C:\Users\<username>\AppData\Local\Micro Focus\Content Manager\<dataset id="">\Captions.bin</dataset></username>
User Dictionaries Folder	C:\Users\<username>\AppData\Roaming\Micro Focus\Content Manager\Lex</username>
Temporary Folder	C:\Users\<username>\AppData\Local\Micro Focus\Content Manager\TEMP\</username>
Favorites Folder	C:\Users\<username>\AppData\Roaming\Micro Focus\Content Manager\<dataset id="">\</dataset></username>
Client Document Cache Folder	C:\Users\<username>\AppData\Local\Micro Focus\Content Manager\<dataset id="">\EstoreClientCache\</dataset></username>
Rolling Log Folder	C:\Users\<username>\AppData\Local\Micro Focus\Content Manager\Log\</username>
Queue Processing Logs Folder	C:\Users\<username>\AppData\Roaming\Micro Focus\Content Manager\<dataset id="">\QueueLogs\</dataset></username>
Offline Records DB Folder	C:\Users\<username>\AppData\Roaming\Micro Focus\Content Manager\<dataset id="">\</dataset></username>
Offline Records Documents Folder	C:\Users\<username>\Documents\Offline Records (<Dataset ID>)\</username>
Outlook Logfile Folder	C:\Users\<username>\AppData\Roaming\Micro Focus\Content Manager\Outlook\</username>
Asynchronous Document Transfer Folder	C:\Users\<username>\AppData\Roaming\Micro Focus\Content Manager\<dataset id="">\EstoreClientTransfer\</dataset></username>
User Configuration Files	C:\Users\<username>\AppData\Roaming\Micro Focus\Content Manager\<dataset id="">\Configuration\</dataset></username>
System Dictionaries Folder	C:\Program Files\Micro Focus\Content Manager\lex

Description	Default Location
Client Download Cache Folder	C:\Users\ <username>\appdata\local\micro focus\content="" id="" manager\<dataset="">\DownloadCache\</username>\appdata\local\micro>
GIS html Integration File	C:\Users\ <username>\appdata\local\micro focus\content="" manager\mapping.html<="" td=""> </username>\appdata\local\micro>
Office Integration Staging Path	C:\Users\ <username>\appdata\roaming\micro focus\content="" id="" manager\<dataset="">\OfficeCheckouts\</username>\appdata\roaming\micro>

Install the Web Client

Before you attempt to install the Web Client, you'll need to make sure all the prerequisites are in place.

The *Content Manager Specifications and Limitations* document outlines most of them which is included in your release package. On top of these, you'll need to install the Internet Information Services Web Server (IIS) role with the following features and role services selected:

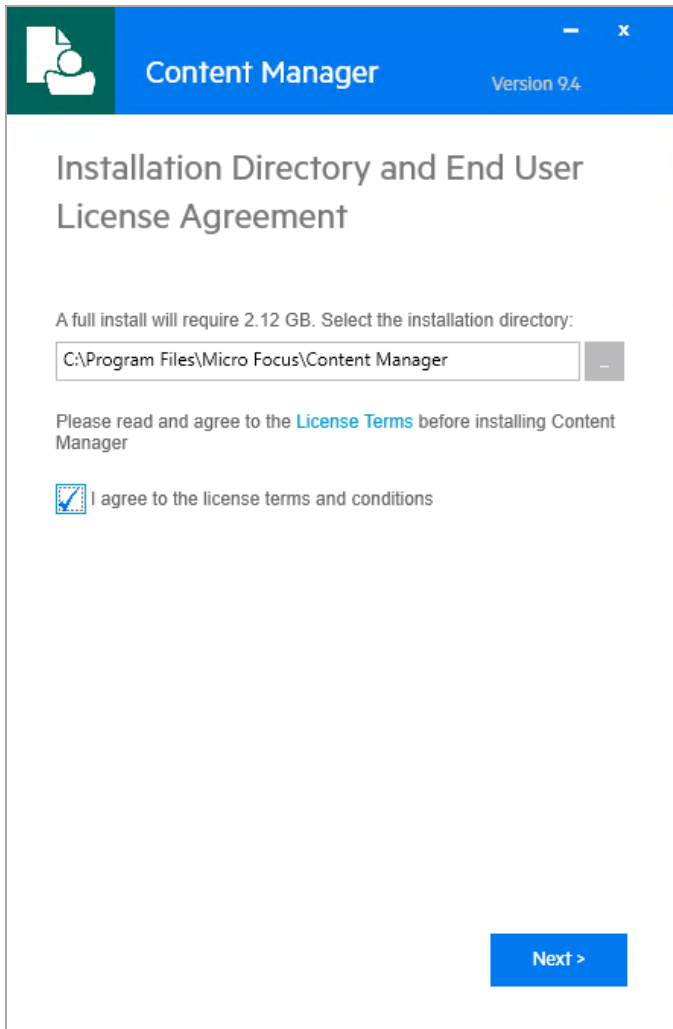
Feature or Role Service	Feature or Role Service Options
.NET Framework 4.6 or 4.7 Features	.NET Framework 4.7, ASP.NET 4.7, WCF Services with HTTP Activation
Windows Process Activation Service	Process Model, .NET Environment 3.5, Configuration APIs
Common HTTP Features	Default Document, Directory Browsing, HTTP Errors, Static Content
Performance	Static Content Compression
Security	Request Filtering, Windows Authentication
Application Development	.NET Extensibility 3.5, .NET Extensibility 4.7, Application Initialization, ASP.NET 3.5, ASP.NET 4.5, ISAPI Extensions, ISAPI Filters, Server Side Includes
Management Tools	IIS Management Console

Using the Setup Wizard GUI

NOTE: Make sure you run the Setup Wizard with an account that has administrative privileges and using the menu option **Run as administrator**.

Run the 64-bit Setup Wizard to launch a GUI wizard that guides you through the installation process.

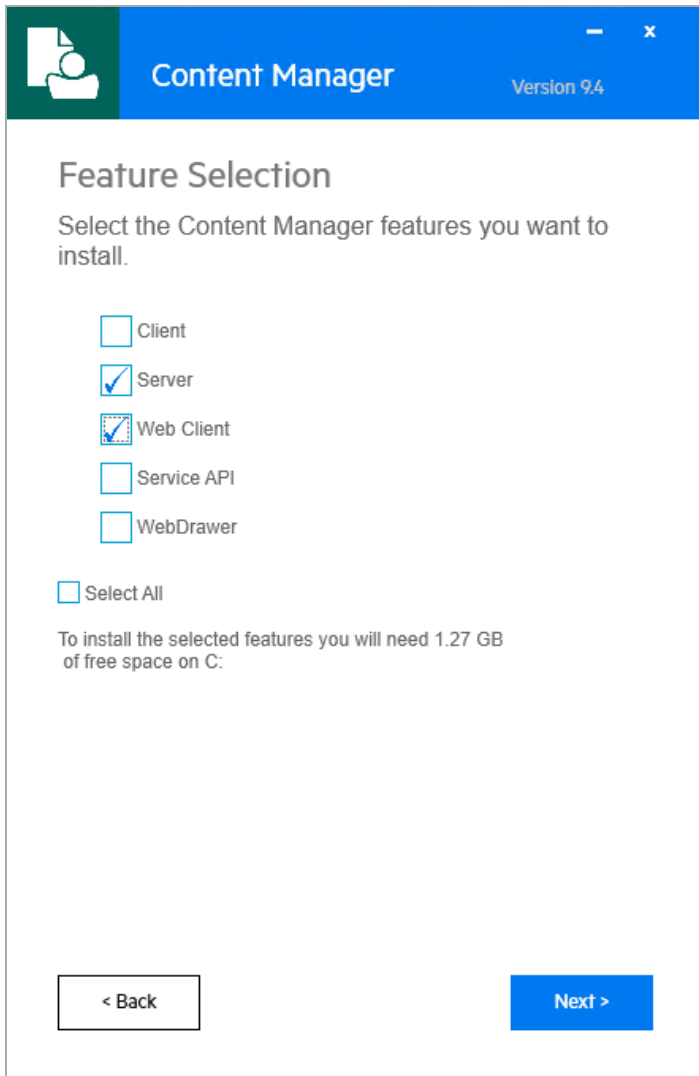
Within the first screen, select the directory for the installation and agree to the license terms and conditions.



Then select **Server** and **Web Client** from the feature list.

NOTE: If the feature you want to select is highlighted in red text the Setup Wizard has determined you don't have the required prerequisites in place. For example, Web Client, Service API, and WebDrawer all require IIS to be installed.

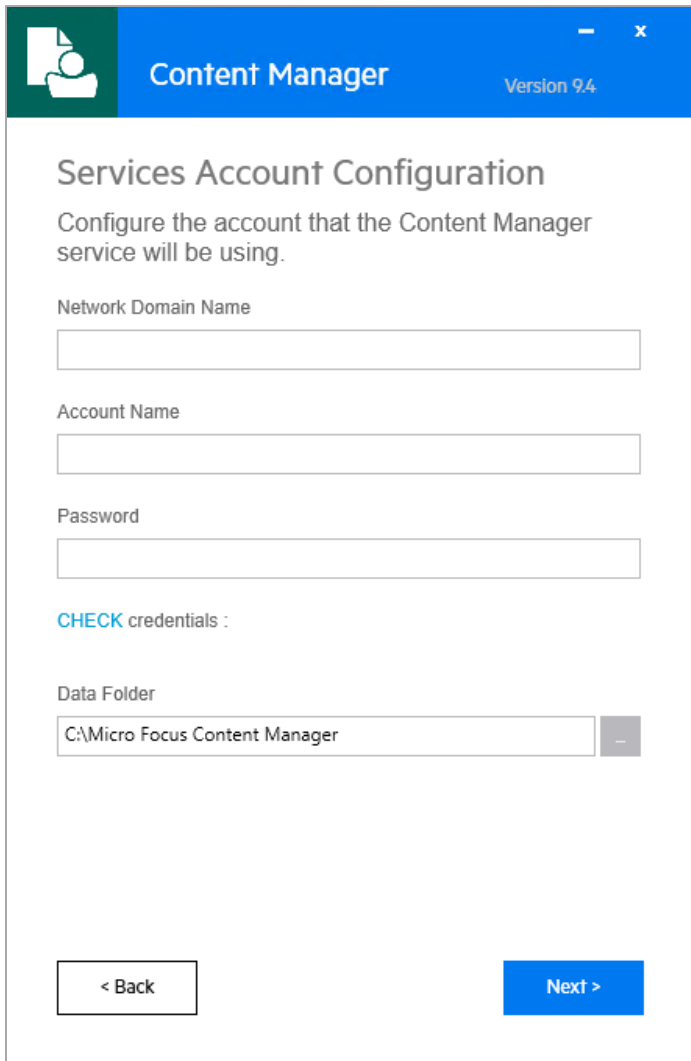
The Web Client depends on and uses files included in the Workgroup Server installation. You'll notice this reliance in the Setup Wizard as you cannot install the Web Client without also selecting the Workgroup Server feature.



Click **Next** and enter the **Network Domain Name** and **Account Name**. These credentials are used to run the Workgroup Server service.

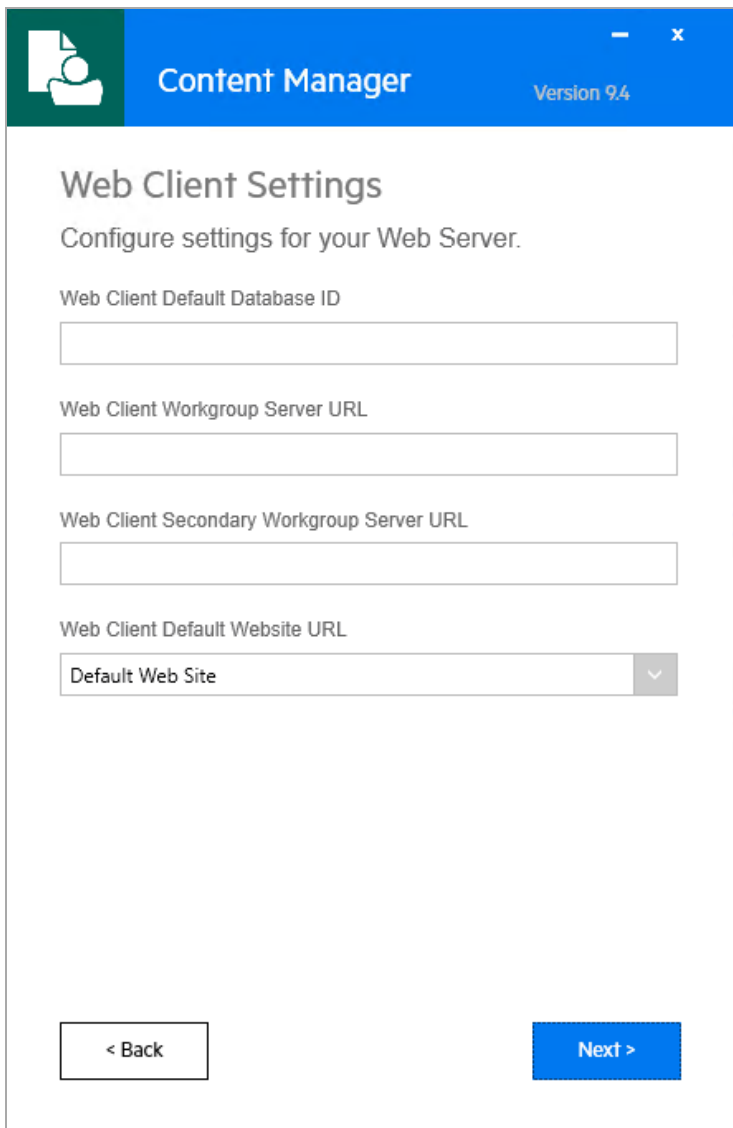
NOTE: The user account you choose to run the Workgroup Server service must have the **Log on as a service** user right assigned to it.

You can check the credentials to ensure you've entered the correct username and password. At this point, you can also specify an alternative location for the Data folder.



The screenshot shows a window titled "Content Manager" with "Version 9.4" in the top right corner. The window contains a "Services Account Configuration" section with the instruction: "Configure the account that the Content Manager service will be using." Below this are four input fields: "Network Domain Name", "Account Name", "Password", and "Data Folder". The "Data Folder" field contains the text "C:\Micro Focus Content Manager" and has a folder selection icon to its right. Below the input fields is a "CHECK credentials :" link. At the bottom of the window are two buttons: "< Back" and "Next >".

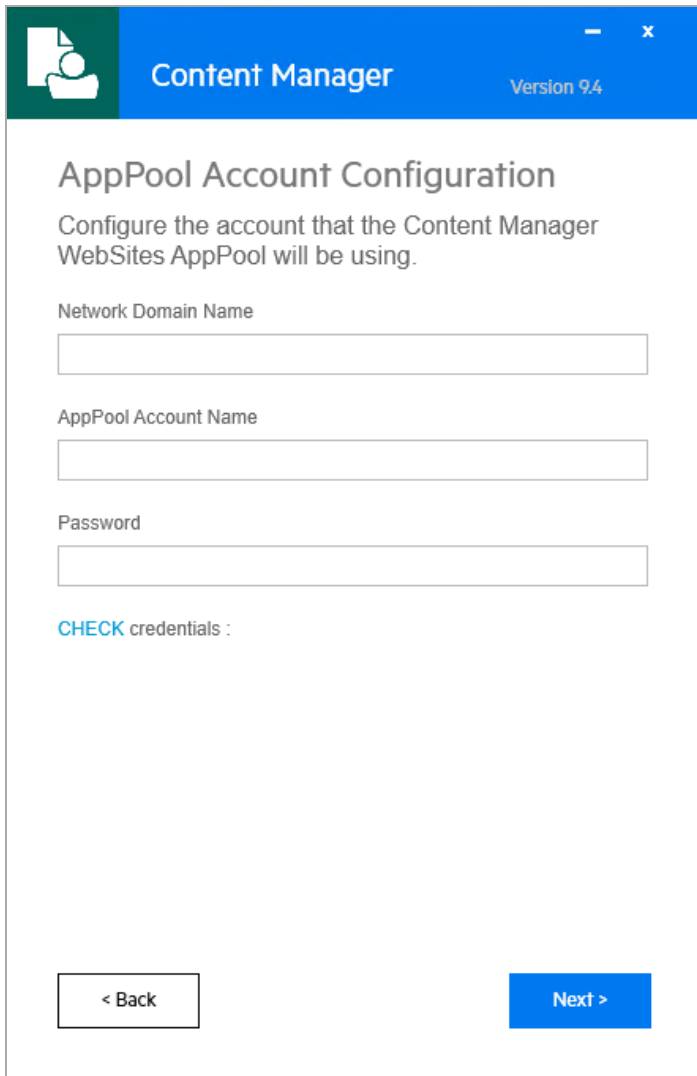
Enter your **Database ID**, **Workgroup Server URLs**, and the **Default Website URL**.



The screenshot shows a window titled "Content Manager" with "Version 9.4" in the top right corner. The main heading is "Web Client Settings" with the instruction "Configure settings for your Web Server." Below this are four configuration fields: "Web Client Default Database ID" (text input), "Web Client Workgroup Server URL" (text input), "Web Client Secondary Workgroup Server URL" (text input), and "Web Client Default Website URL" (dropdown menu currently showing "Default Web Site"). At the bottom, there are two buttons: "< Back" and "Next >".

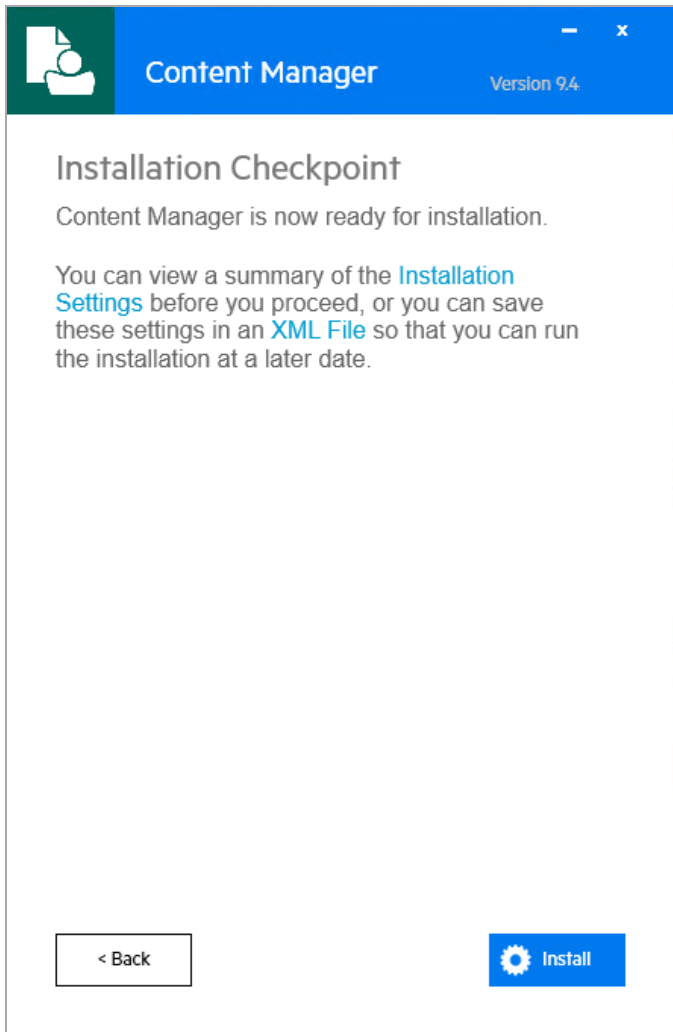
Enter the AppPool account credentials.

NOTE: If the AppPool user account you choose is different to the Workgroup Server service account it must be added to the list of authorized user accounts that the Workgroup Server will trust. The *Content Manager Web Client Configuration* Guide has more information on this.

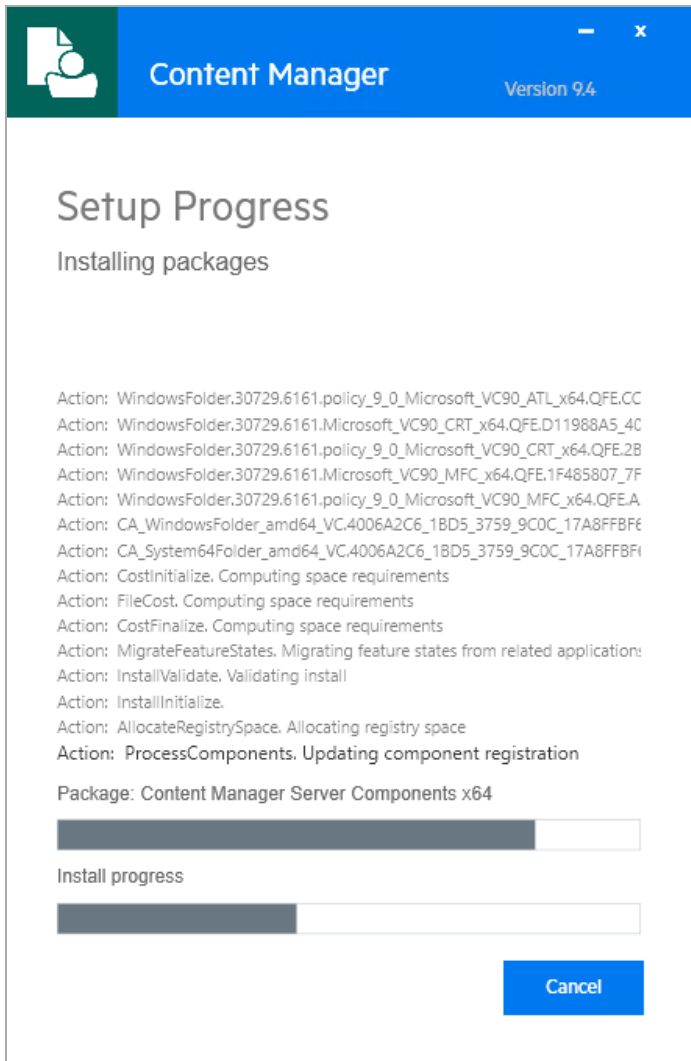


The screenshot shows a window titled "Content Manager" with "Version 9.4" in the top right corner. The window contains a configuration form for "AppPool Account Configuration". The form includes three text input fields: "Network Domain Name", "AppPool Account Name", and "Password". Below these fields is a link that says "CHECK credentials :". At the bottom of the window, there are two buttons: "< Back" and "Next >".

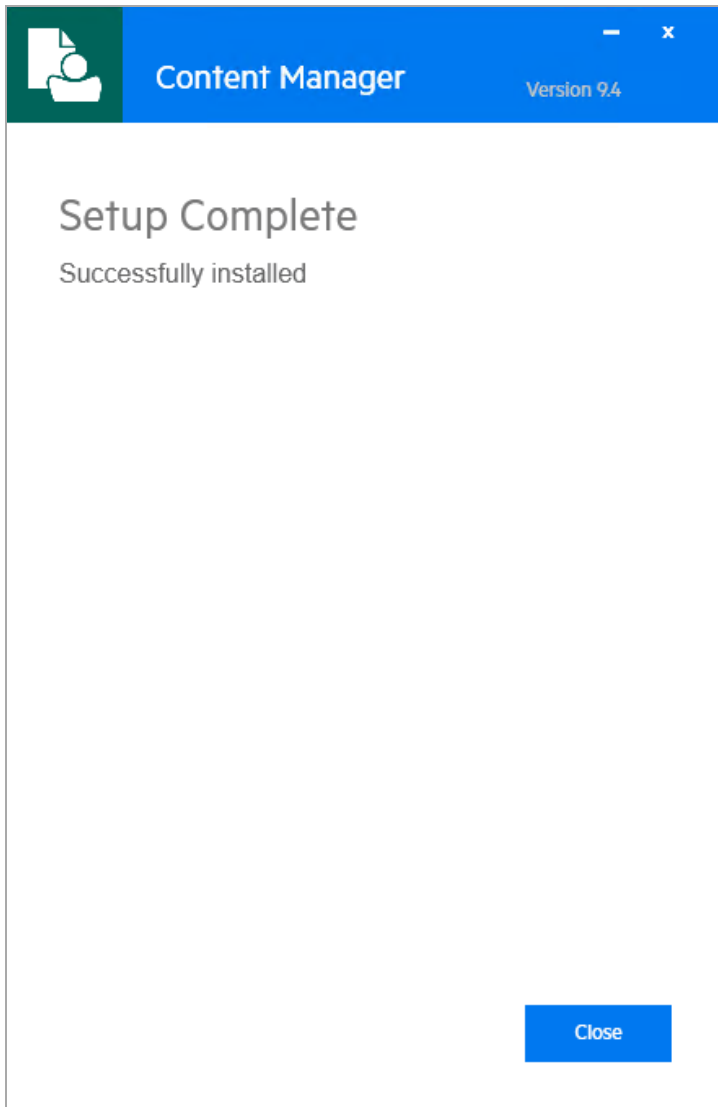
Click **Install** to begin the installation. Alternatively, you can review the Installation Settings and if needed, go back and make changes.



Progress activity is displayed as the Setup Wizard works its way through the installation.



A message indicating setup status is displayed. Click **Close** to exit the setup wizard.



When you've completed the Web Client installation, you'll notice three virtual directories have been installed under your web site:

Directory Name	Description
ContentManager	The core Web Client virtual directory
ContentManagerMobile	Allows users to connect to the Web Client via a mobile device.
CMWebDav	Required for the check out and edit option available in the Web Client on Internet Explorer browsers. See <i>CM9.4_Web-Client-Install.pdf</i> for more information on configuring WebDav.

You can verify the Web Client is running by opening a browser and navigating to:

<your web site url>/ContentManager

Using the command line

Installing the Web Client using the command line uses the same approach as the Setup Wizard GUI. That is, you'll have to install a Workgroup Server and then the Web Client for it to complete successfully.

Firstly, run the [Workgroup Server installation](#) from the command line as an administrator:

```
start /wait msixexec.exe /i CM_Server_x64.msi /qn /l wgsinstall.log
```

When this is complete, run the Web Client installation:

```
start /wait msixexec.exe /i CM_WebClient_x64.msi /qn /l webclientinstall.log
```

The available command line arguments for the **Web Client .msi** installation are:

WC_WEBSITE_DESCRIPTION	Website to install the Web Client in
------------------------	--------------------------------------

After you install the Web Client using the command line

When both installations are complete, we recommend you change the account credentials for the Content Manager Workgroup Service and the Web Client Application Pool (ContentManagerAppPool) account in IIS. These accounts should be unique to your environment and have access to the Dataset's database.

Web Client Directory Layout

When using the default settings, you'll find the Web Client binaries, config files, logs, and caches in in the following locations:

Description	Default Location
Default Installation directory and configuration file location	C:\Program Files\Micro Focus\Content Manager\Web Client\
Web Client binaries	C:\Program Files\Micro Focus\Content Manager\Web Client\bin
ADFS configuration file location. Used by the Office integration to handle ADFS communication with the Web Client Service API.	C:\Program Files\Micro Focus\Content Manager\Web Client\ADFS\
File system location to cache documents as users download them.	C:\Micro Focus Content Manager\ServiceAPIWorkpath
File system location to cache documents as users upload them.	C:\Micro Focus Content Manager\ServiceAPIWorkpath\Uploads
Directory that contains all checked out	C:\Micro Focus Content

Description	Default Location
documents using WebDav.	Manager\WebClientWorkpath\CMWebDAV
Web Client log files	C:\Micro Focus Content Manager\ServiceAPIWorkpath\Log

Install the Service API

The Content Manager Service API is designed with a focus on Mobile and Web applications.

You'll find comprehensive documentation for the Service API hosted within the service itself which you can view after installation.

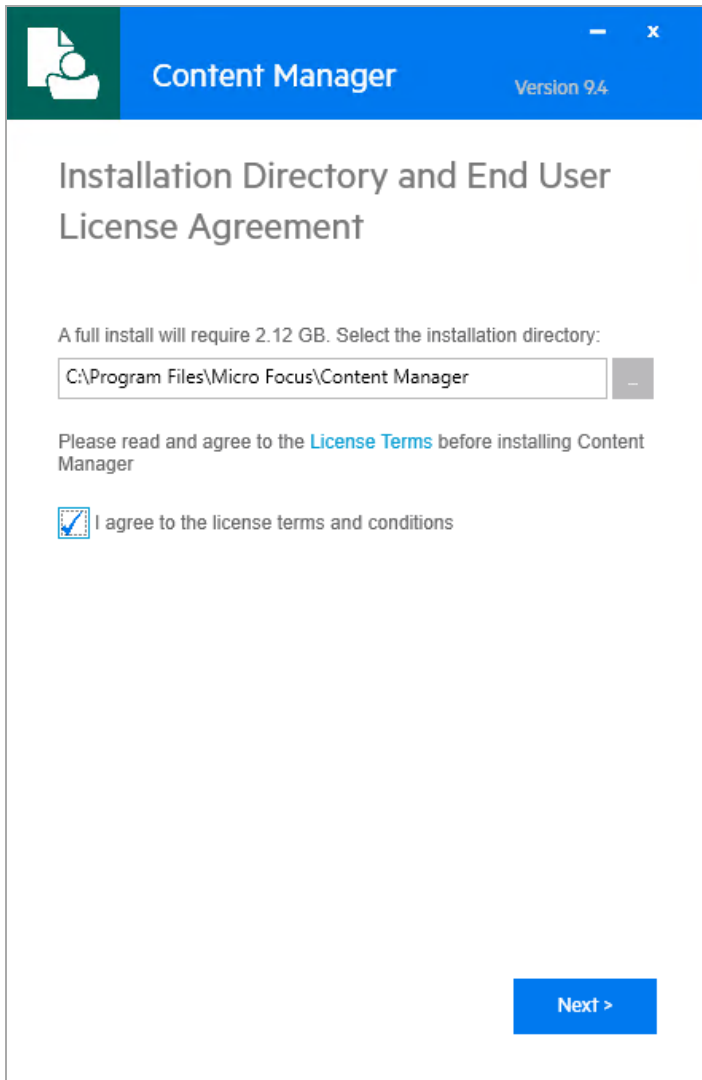
The Service API requires all the same prerequisites as the [Install the Web Client](#). You should make sure these are in place before installing it.

Using the Setup Wizard GUI

NOTE: Make sure you run setup with an account that has administrative privileges and using the menu option **Run as administrator**.

Run the 64-bit Setup Wizard to launch a GUI wizard that guides you through the installation process.

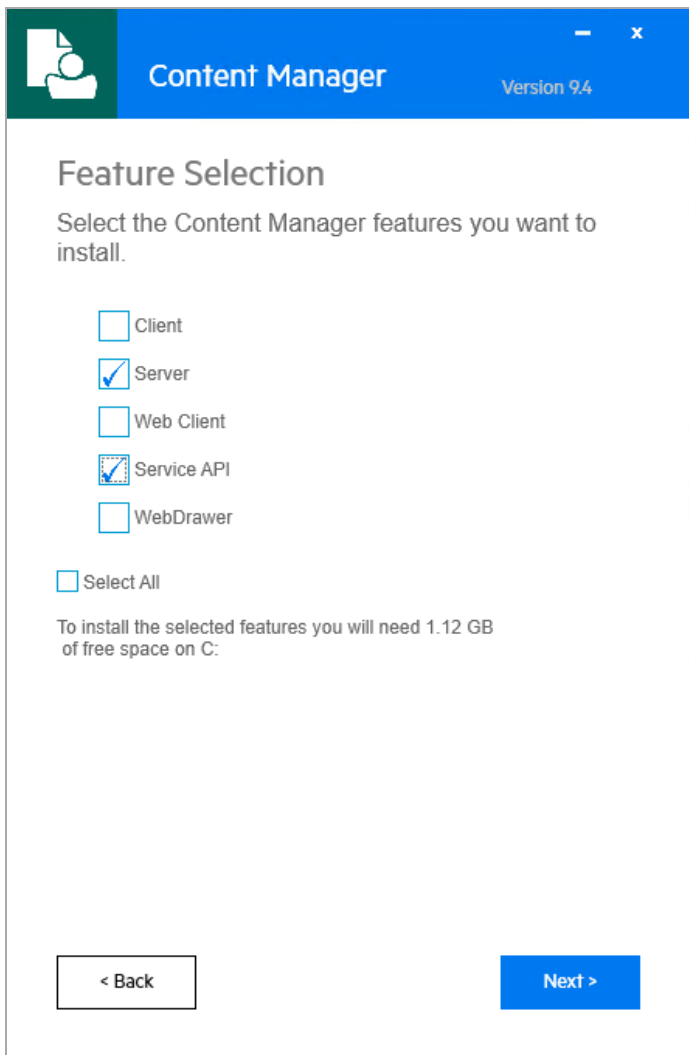
Within the first screen, select the directory for the installation and agree to the license terms and conditions.



Then select **Server** and **Service API** from the feature list.

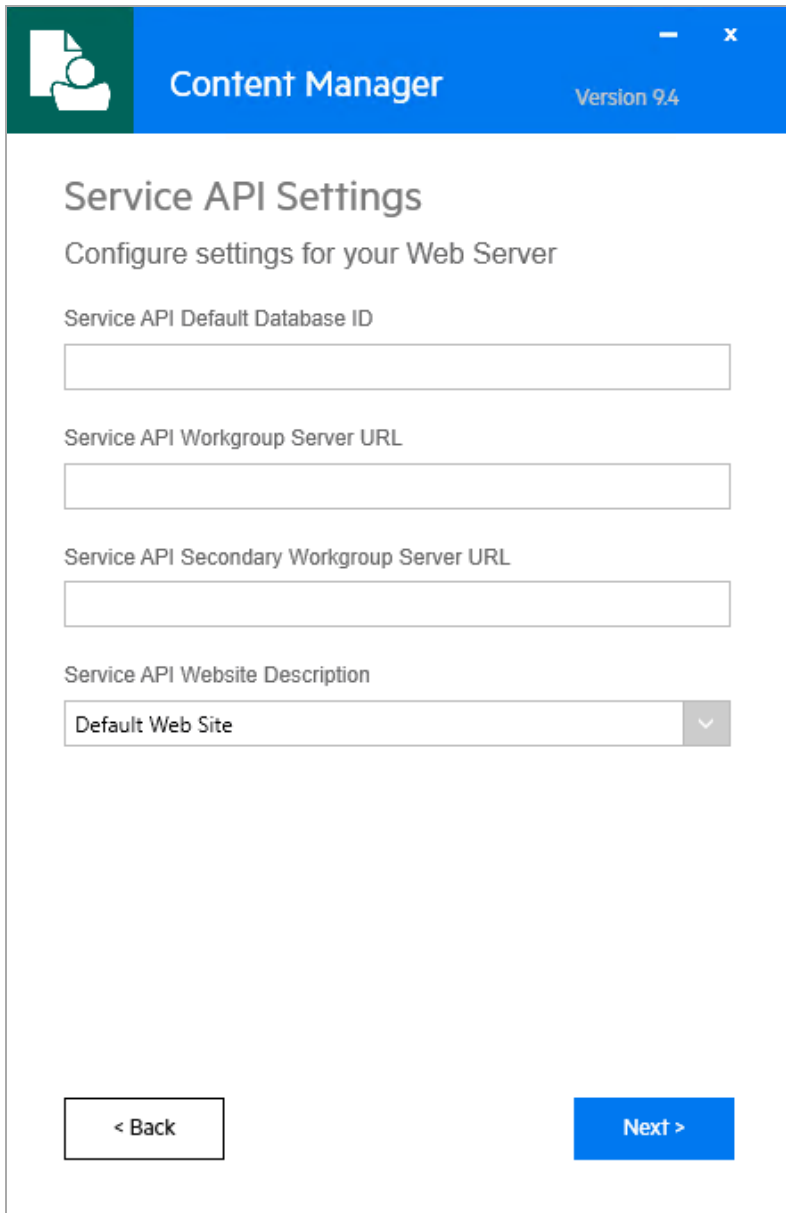
NOTE: If the feature you want to select is highlighted in red text the Setup Wizard has determined you don't have the required prerequisites in place. For example, Web Client, Service API, and WebDrawer all require IIS to be installed.

The Service API depends on and uses files included in the Workgroup Server installation. You'll notice this reliance in the Setup Wizard as you cannot install the Service API without also selecting the Workgroup Server feature.



Enter the **Database ID**, **Workgroup Server URLs**, and the **Service API Website**.

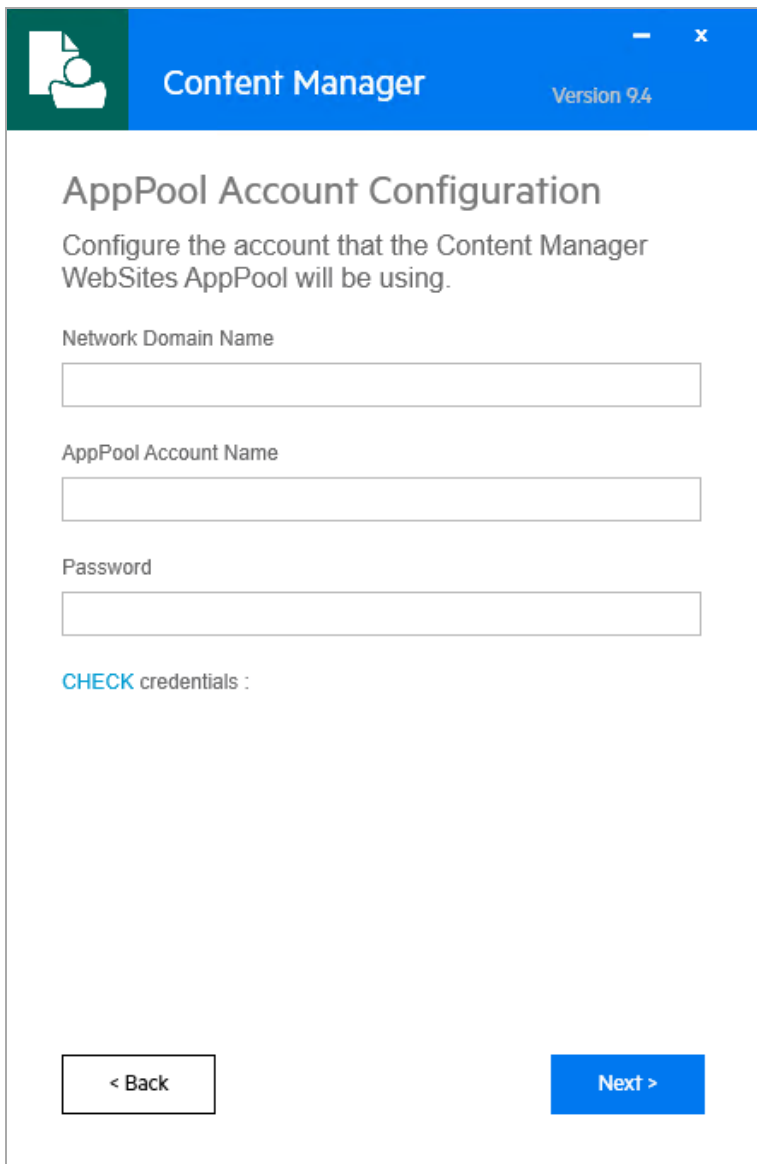
NOTE: If you're installing the Service API into a production environment, we do not recommend you include the Help and Example files.



The screenshot shows a window titled "Content Manager" with "Version 9.4" in the top right corner. The window contains a section titled "Service API Settings" with the subtitle "Configure settings for your Web Server". There are four input fields: "Service API Default Database ID", "Service API Workgroup Server URL", "Service API Secondary Workgroup Server URL", and "Service API Website Description". The "Service API Website Description" field is a dropdown menu currently showing "Default Web Site". At the bottom of the window, there are two buttons: "< Back" and "Next >".

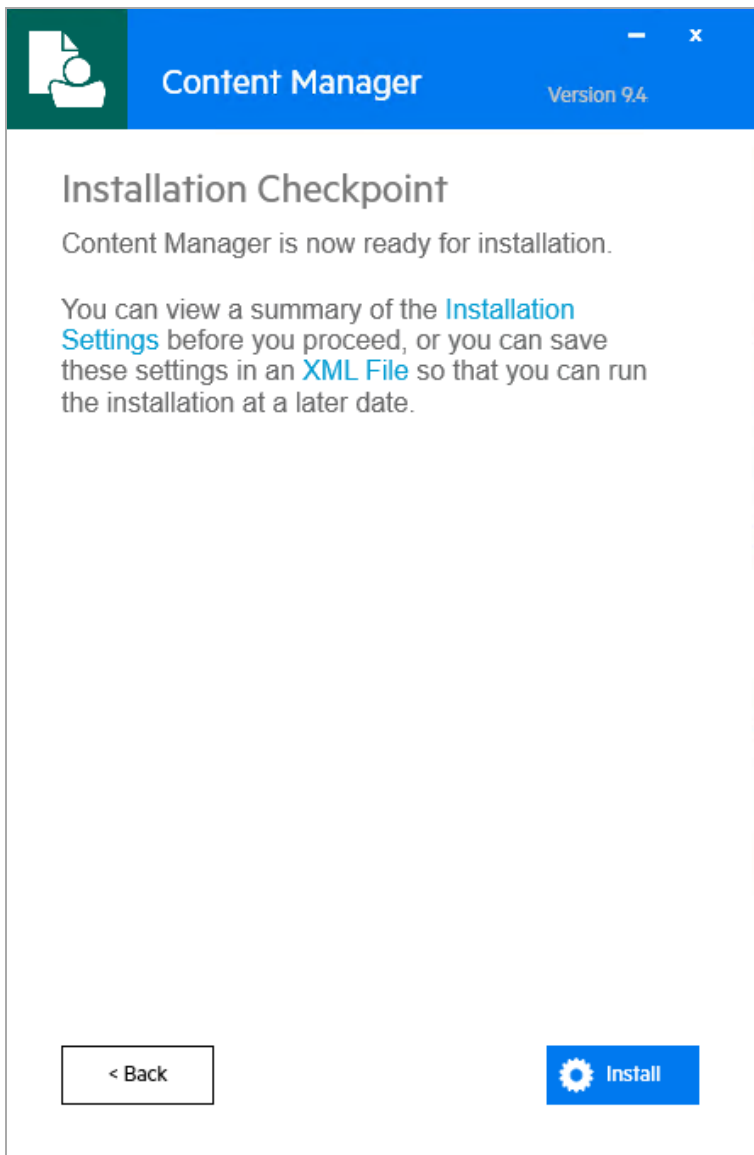
Enter the AppPool account credentials.

NOTE: If the AppPool user account you choose is different to the Workgroup Server service account it must be added to the list of authorized user accounts that the Workgroup Server will trust.

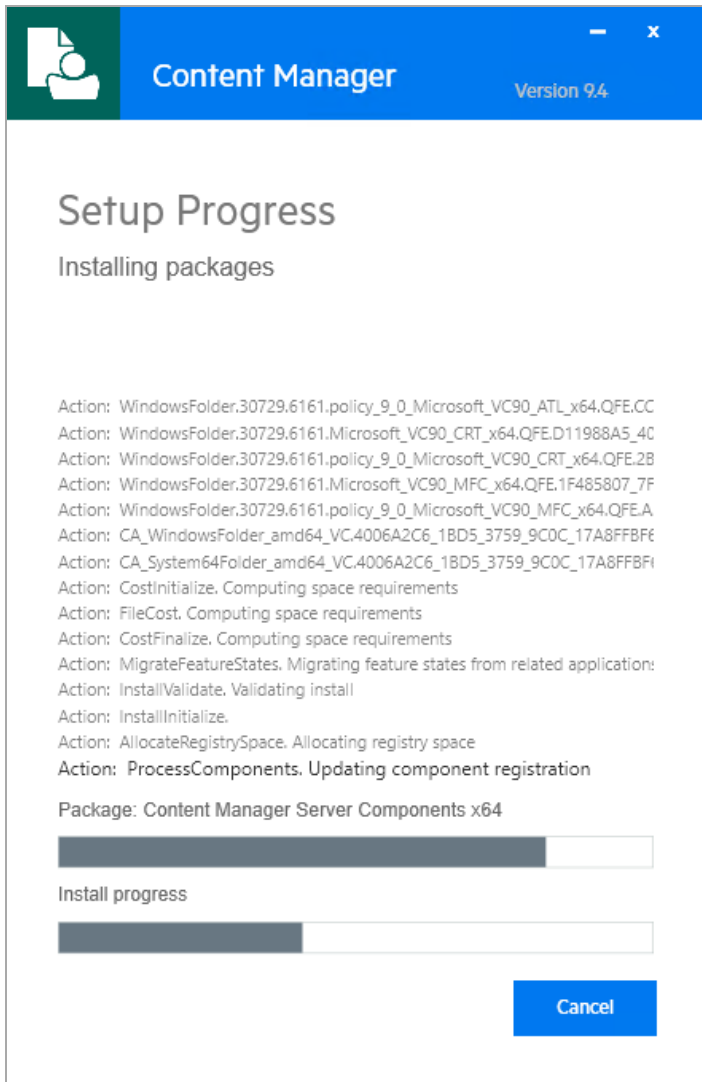


The screenshot shows a window titled "Content Manager" with "Version 9.4" in the top right corner. The window contains a configuration form for "AppPool Account Configuration". The form includes three text input fields: "Network Domain Name", "AppPool Account Name", and "Password". Below these fields is a blue link labeled "CHECK credentials :". At the bottom of the window, there are two buttons: a white button with a left arrow and the text "< Back", and a blue button with the text "Next >".

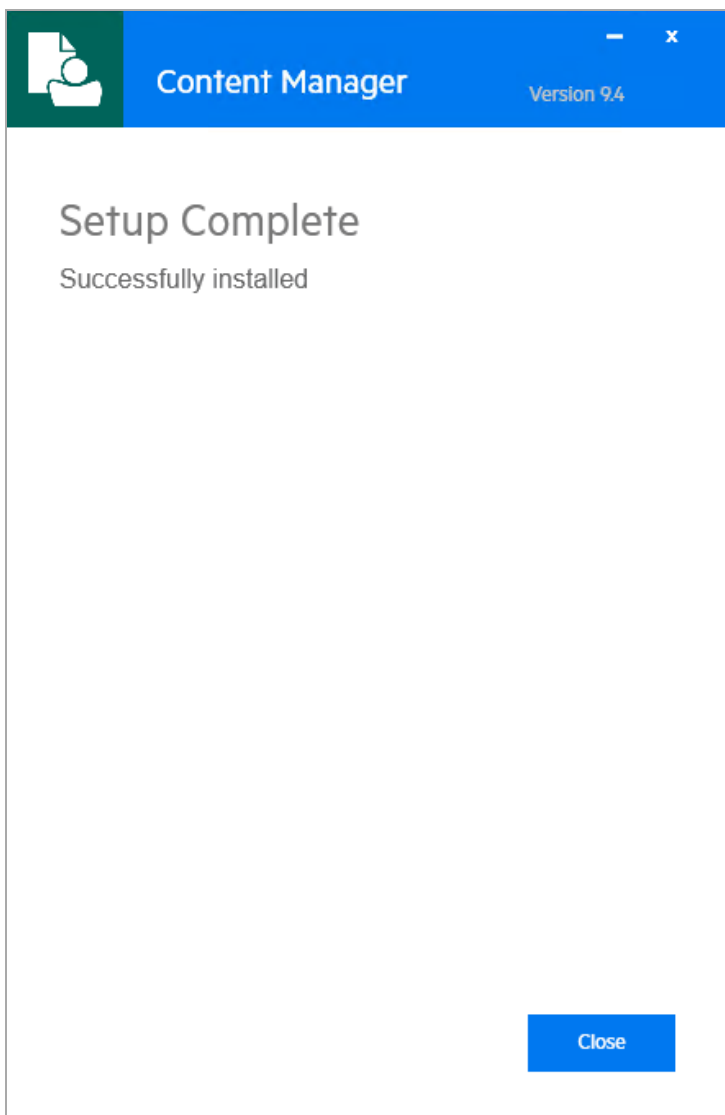
Click **Install** to begin the installation. Alternatively, you can review the Installation Settings and if needed, go back and make changes.



Progress activity is displayed as the Setup Wizard works its way through the installation.



A message indicating setup status is displayed. Click **Close** to exit the setup wizard.



When you've completed the Service API installation, you'll notice the virtual directory **/CMSServiceAPI** has been installed under your web site.

If you've chosen to install the Help and Example files, you can access them via a browser at:

<your web site url>/CMSServiceAPI/help/index

Using the command line

Installing the Service API using the command line uses the same approach as the Setup Wizard GUI. That is, you'll have to install a Workgroup Server and then the Service API for it to complete successfully.

Firstly, run the [Workgroup Server installation](#) from the command line as an administrator:

```
start /wait msixexec.exe /i CM_Server_x64.msi /qn /l wgsinstall.log
```

When this is complete, run the Service API installation:

```
start /wait msixec.exe /i CM_Service_API_x64.msi /qn /l serviceapiinstall.log
```

The available command line arguments for the **Service API .msi** installation are:

WC_WEBSITE_DESCRIPTION	Website to install the Web Client in
SERV_API_INCLUDE_FILES	Install Help and Example files. Set to 1 to install, and 0 not to install.

After you install the Service API using the command line

When both installations are complete, we recommend you change the account credentials for the Content Manager Workgroup Service and the Service API Application Pool (**CMServiceAPIAppPool**) account in IIS. These accounts should be unique to your environment and have access to the Dataset's database.

Service API Directory Layout

When using the default settings, you'll find the Service API binaries, config files, logs, and caches in the following locations:

Description	Default Location
Default Installation directory and configuration file location	C:\Program Files\Micro Focus\Content Manager\Service_API
Service API binaries	C:\Program Files\Micro Focus\Content Manager\Service_API\Bin
File system location to cache documents as users download them	C:\Micro Focus Content Manager\ServiceAPIWorkpath
Service API log files	C:\Micro Focus Content Manager\ServiceAPIWorkpath\Log

Next Steps

You now have a Content Manager environment set up. Before you start serious development or go into production with Content Manager, you must do some additional setup and configuration:

- Setup a Dataset using Enterprise Studio on one of your Workgroup Servers. For details, see *Creating a Content Manager dataset* section in the *Content Manager Enterprise Studio Help*.
- To configure Content Manager, see the Content Manager Client and Enterprise Studio Help files.
- Configure important system settings by reviewing the available options under the **Administration** tab in the Client and reading the Help for each option.

- Control access and secure communications between Content Manager components by configuring Transport Layer Security (TLS), Active Directory Federation Services (ADFS), and Access Controls. For more information, see the Content Manager Client Help, Enterprise Studio Help and relevant configuration guides.
- Install additional peripheral applications and integrations.

Peripheral Apps and Integrations

There are several peripheral apps and integrations included in the release package that you can take advantage of. These have their own installation and configuration guides or are covered in Content Manager Help.

IMPORTANT: To utilise COM SDK and Lotus Notes Integration with Content Manager, you need to run the **CM_COMComponents_xxx.msi** to register the COM SDK. For detailed information, refer the respective installation and configuration guides of the peripheral apps.

Description	.msi and Installation\Configuration Document Location
SharePoint Integration	64BitInstalls\CM_SharePointIntegration_x64.msi Documentation\CM9.4_SharePointIntegrationInstall.pdf Documentation\CM9.4_SharePointIntegrationUserGuide.pdf
Office Integration	Content Manager Help
Thin Office Integration	64BitInstalls\CM_ThinOfficeIntegration_x64.msi 64BitInstalls\CM_ThinOfficeMultiLanguage_x64.msi 32BitInstalls\CM_ThinOfficeIntegration_x86.msi 32BitInstalls\CM_ThinOfficeMultiLanguage_x86.msi Content Manager Help
ArchiveLink (SAP Integration)	Content Manager Help, Content Manager Enterprise Studio Help Documentation\CM9.4_ArchiveLinkInstall.pdf
Elasticsearch Integration	Content Manager Help, Content Manager Enterprise Studio Help Documentation\CM9.4_ElasticsearchInstall_Config.pdf
Micro Focus Intelligent Data Operating Layer (IDOL) integration	Content Manager Help, Content Manager Enterprise Studio Help Documentation\CM9.4_IDOL_DCI_Install_Config.pdf
EmailLink	Documentation\CM9.4_EmailLink.pdf
Kofax Integration	32BitInstalls \CM_Kofax_x86.msi Documentation\CM9.4_KofaxTemplate.pdf

Description	.msi and Installation\Configuration Document Location
Lotus Notes Integration	32BitInstalls\CM_COMComponents_x86.msi Content Manager Help Documentation\CM9.4_LotusNotesIntegration.pdf
WebDrawer	64BitInstalls\CM_WebDrawer_x64.msi 64BitInstalls\Setup_CM_x64.exe Documentation\CM9.4_WebDrawer.pdf
Media Server (OCR rendering)	64BitInstalls\CM_MediaServer_x64.msi Documentation\CM9.4_IDOL_DCI_Install_Config.pdf
WareHouse Integration (O'Neil, Iron Mountain)	64BitInstalls\CM_IronMtn_WareHouse_Integration_x64.msi 64BitInstalls\CM_ONeil_WareHouse_Integration_x64.msi Documentation\CM9.4_WarehouseIntegration_IronMountain.pdf Documentation\CM9.4_WarehouseIntegration_ONeil.pdf
Physical Storage Vendor Integration (Azure, iCAS, Isilon, Azure Blob Store, Amazon S3)	Content Manager Help, Content Manager Enterprise Studio Help
Directory Synchronisation (LDAP Integration)	Content Manager Help
GIS Mapping	Content Manager Help
Iron Mountain Policy Center Solution Integration	Content Manager Help
Micro Focus IDOL Connector Framework System (CFS) connector	64BitInstalls\CM_IDOLComponents_x64.msi Content Manager Help, Content Manager Enterprise Studio Help Documentation\CM9.4_IDOL_DCI_Install_Config.pdf

Installing the Thin Office Integration

The Content Manager thin integration with Microsoft Office and Outlook enables you to use a ribbon tab to access Content Manager directly from their Microsoft Office and Outlook applications without the need to have the Content Manager client installed on your computer. Instead, you connect to Content Manager by using the Content Manager Web Client.

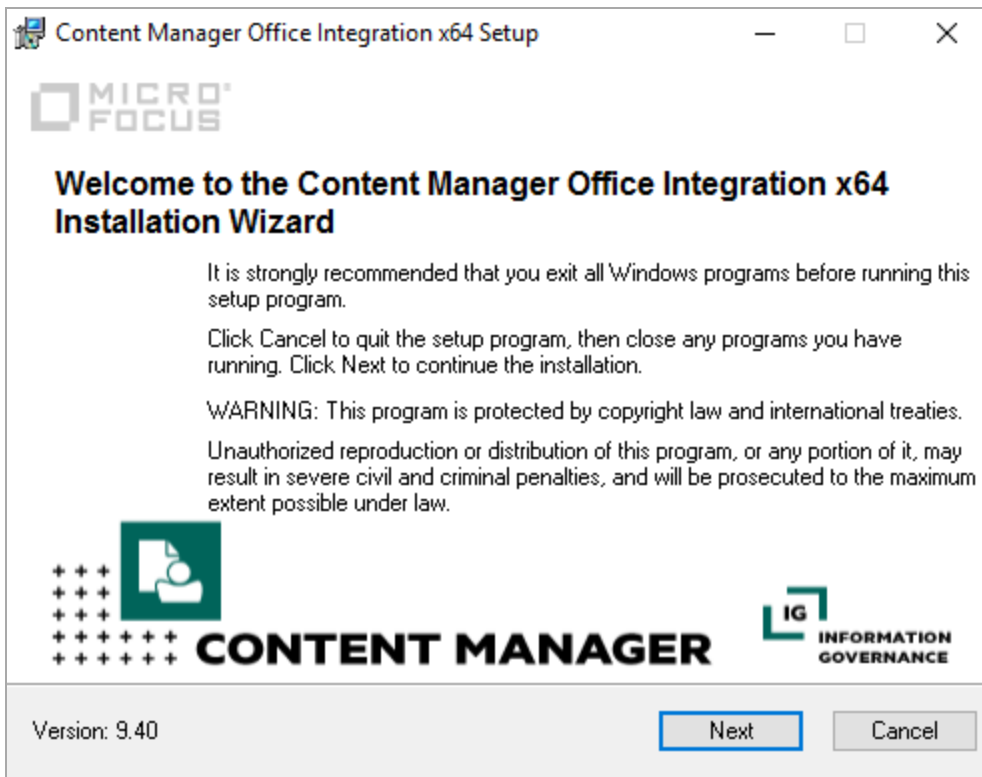
Before you install the Thin Office integration, make sure you review the *Content Manager Specifications and Limitations* document included in the release package.

Using the .msi package GUI

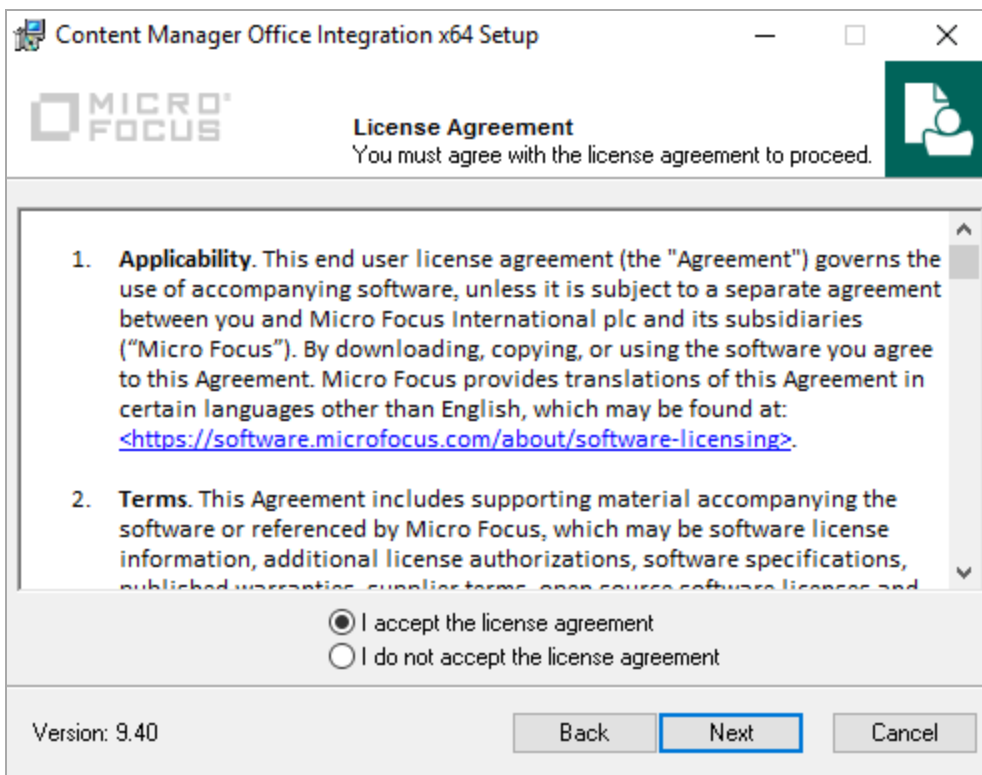
NOTE: You should run the .msi that matches the version of Office you are using (32- or 64-bit).

Run the appropriate 32- or 64-bit Thin Office integration .msi package to launch a GUI that will guide you through the installation process. For example, you can start the 64-bit installation by entering the following in an administrative command prompt:

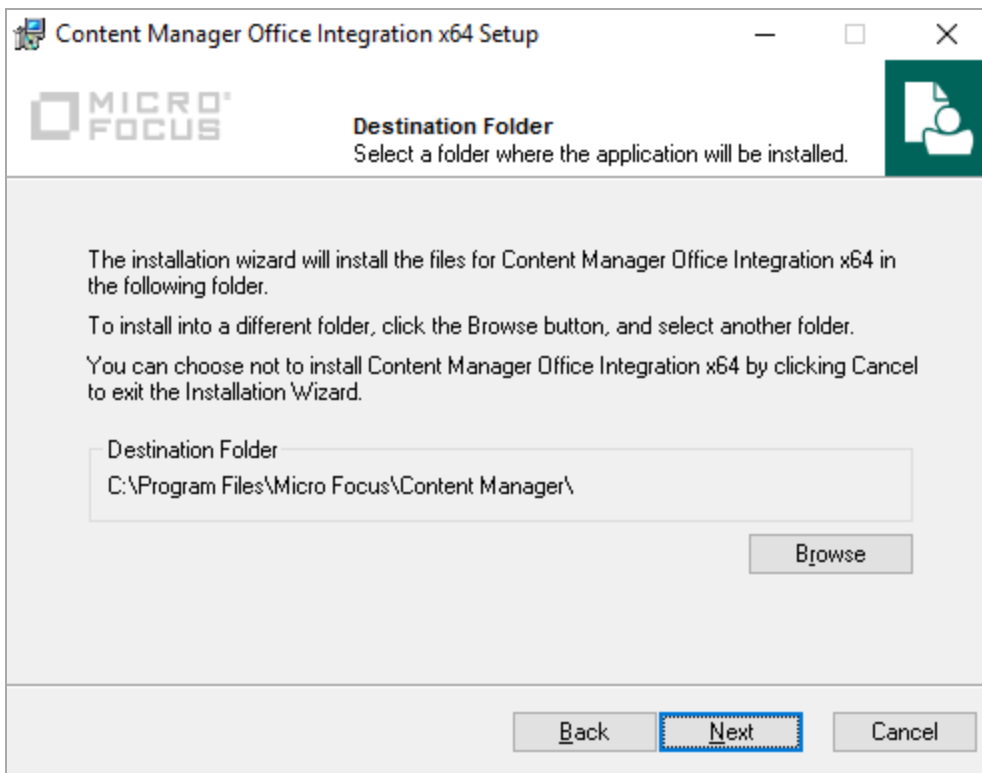
```
CM_ThinOfficeIntegration_x64.msi
```



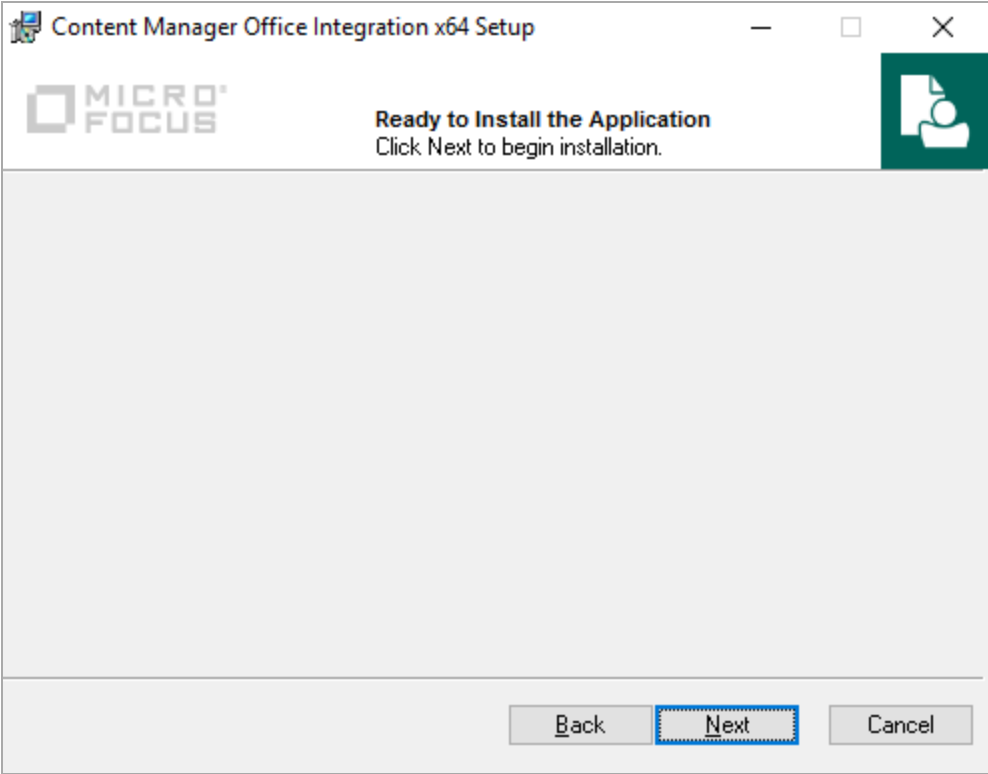
Accept the License Agreement.



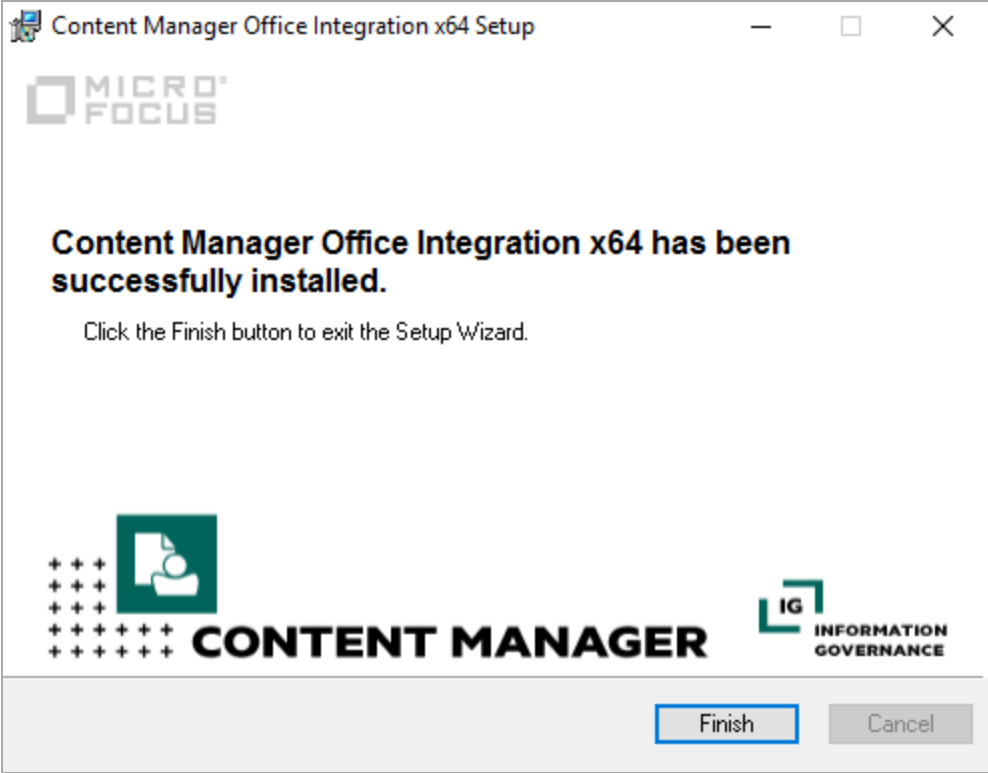
Review the installation directory.



Click **Next** to begin the installation.



Progress activity is displayed as the .msi works its way through the installation. A message indicating setup status is displayed. Click **Finish** to exit the wizard.



Using the command line

You can install the Thin Office Integration using the command line by first navigating to the directory in which the .msi sits, then running the 32- or 64-bit version as an administrator:

```
start /wait msixexec.exe /i CM_ThinOfficeIntegration_x64.msi /qn /l
thinofficeinstall.log
```

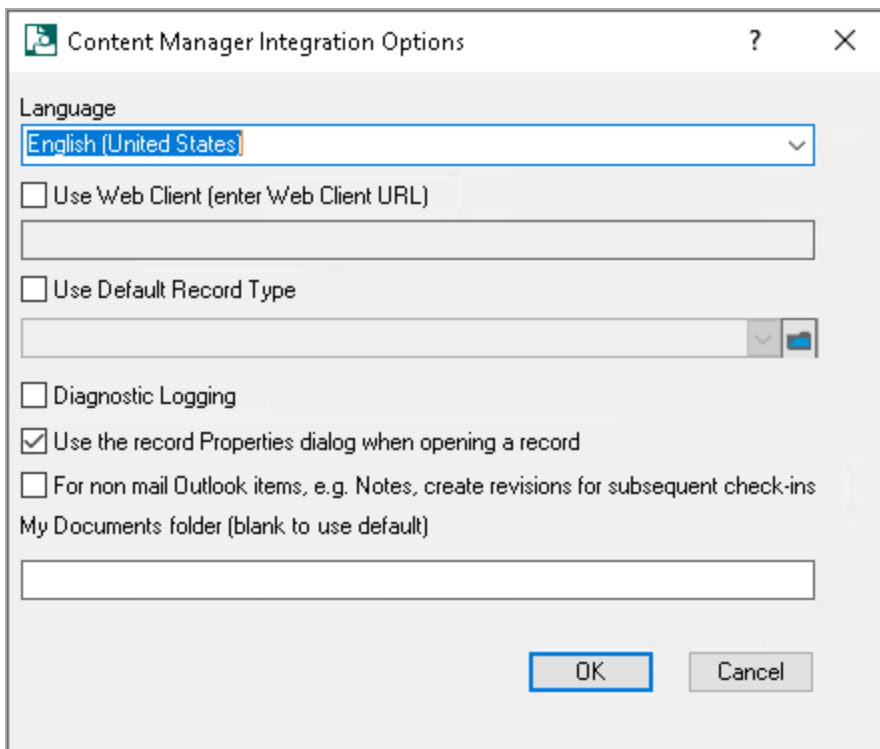
You can verify a successful installation by viewing the corresponding entry in Control Panel, Programs and features.

After installing the Thin Office Integration

When you access the Thin Office Integration for the first time a preferences file is created in the following directory

C:\Users\

You can customise the settings contained in this file in Microsoft Office or Outlook through the **File > Content Manager Integration Options** menu:



You can learn more about configuring and using the Thin Office Integration by clicking on the Help (?) icon at the top of the Options box.

Thin Office Integration Directory Layout

Description	Default Location
Default Installation directory	C:\Program Files\Micro Focus\Content Manager\
Preference file directory (created on first use)	C:\Users\<username>\AppData\Roaming\Micro Focus\Content Manager\OfficeIntegration</username>

Upgrading the Content Manager Stack

Every major and minor release of the Content Manager Stack introduces new and powerful features, as well as important bug fixes and enhancements to existing features. At the same time, the Content Manager team is constantly striving to improve performance, stability, and security.

While upgrading requires an investment of your time and resources, it enables you to benefit from these improvements and opens the door to using the Stack in new and better ways. You can minimize the impacts of upgrading by scheduling regular upgrades to ensure that you are running actively supported versions of the Workgroup Server, Client, Web Client, and Service API.

The longer you wait between upgrades, the more difficult the upgrade process becomes. If you lag behind more than one major release, when you do upgrade, you could face the prospect of staged Dataset upgrades, reindexing your Document Stores, as well as a more significant development effort to migrate your custom integrations and applications.

Supported Upgrade Paths

When upgrading to a new version of Content Manager, you need to upgrade each of the components in your Stack.

Upgrades are supported from Content Manager 9.0x or later.

Stack version compatibility

To give you flexibility when scheduling your upgrade, you can, for a short time, run an older version of a Workgroup Server with a newer version of the Client. This compatibility is built into the Stack to allow for the scenario where your environment is large, and you cannot upgrade both their Clients and Workgroup Servers at the same time.

We don't recommend you operate in a mixed mode for an extended period. Technology differences between versions can mean full product functionality is not always available. This reduced functionality may become difficult for you to accommodate over an extended upgrade period. Moving quickly to upgrade both your clients and servers to the same version allows you to take advantage of all the new and improved functionality in the latest version.

If the gap between the version you're currently on and the version you're upgrading to does not fall within the supported scenario, upgrade your clients and servers at the same time.

Mixed mode environments are supported when you're upgrading from:

- 9.3x to 9.4x

Preparing to upgrade

Before upgrading Content Manager, ensure the following:

1. Review the Release Notes for detailed information on new features and breaking changes.
2. If you use custom add-ins or Third-Party tools that integrate with Content Manager, make sure they are compatible with the version you're upgrading to.

Upgrade Process

NOTE: If you're upgrading from a version that pre-dates 9.1, you'll have to run the access control security filter conversion tool. You should run the conversion after upgrading the Schema. This step is mandatory in order to successfully upgrade and should be run after upgrading your Schema. To run this tool, from the Content Manager Client, on the **Administration** tab, in the **Conversions group**, click **Security Filter Converter**. This tool is designed to run while your system is "live".

When you're ready to upgrade, follow these steps:

1. Test the upgrade in a development environment before upgrading your production environment.
2. Back up your data. You cannot roll back to an earlier version unless you have a backup of your data.
3. Consider the impact the upgrade will have on your environment and the resulting downtime. Upgrades require Workgroup Server services to be stopped and the Dataset Schema to be updated. Access to Content Manager is limited during these times.
4. Upgrade the components of your Content Manager Stack in the following order:
 - a. Clients
 - b. Workgroup Servers
 - c. Dataset Schema (if required)
 - d. Web Client
 - e. Service API
 - f. Peripheral Applications and Integrations

Performing the upgrade

Upgrading the Client

Upgrading the Client is identical to running a [new installation](#). You can choose to use the Setup Wizard or the .msi.

To upgrade the Client, follow these steps:

1. Close all running instances of the Client.
2. Run the 32- or 64-bit **Client .msi** or Setup Wizard with the required features/command line

properties selected.

3. Allow the upgrade to run through to completion.

Upgrading Workgroup Servers

To upgrade a Workgroup Server and your Dataset Schema, follow these steps:

1. Stop the Content Manager Workgroup Server Service.
2. If present, stop all IDOL services.
3. Close all open instances of Content Manager Enterprise Studio and Client.
4. With administrative privileges, run the **Workgroup Server 64-bit .msi** or Setup Wizard. The options available are the same as a [new Workgroup Server installation](#).
5. Allow the upgrade to run through to completion.
6. If required, upgrade all registered Dataset Schemas (see "Upgrading a dataset schema" in Content Manager Enterprise Studio Help).
7. If required, make configuration changes and save them.
8. Ensure the Windows services you've stopped are running or start them if they are not running.
9. Upgrade all other Workgroup Servers in your environment in the same way.
10. In Content Manager Enterprise Studio, deploy the new configuration to all running Workgroup Servers.

IMPORTANT: When upgrading from an earlier version of the Web modules, such as Web Client, ServiceAPI, WebDrawer, you will need to check and manually update the related AppPool identities in Internet Information Services (IIS) after upgrading to 9.4.

Upgrading the Web Client

NOTE: As a part of the upgrade process, copies of your Web Client configuration files are made and new ones created. These copies are placed in the default installation directory and have the date and time of the upgrade added to the file name.

These copies are for reference only and you should not use them to replace your new configuration files.

On upgrade the Web Client **web.config** file is replaced so any customisations made prior to upgrade will need to be re-applied.

After upgrading if the Web Client reports an unrecognised attribute "*advancedSearch*", you will need to modify the **hprmServiceAPI.config** file to remove the *advancedSearch* attribute in the *Setup* node.

To upgrade the Web Client, follow these steps:

1. Stop the Content Manager Service Web Client Application Pool in IIS to prevent users from accessing the Web Client during the upgrade.
2. With administrative privileges, run the **Workgroup Server 64-bit .msi** or Setup Wizard on your Web Server. The options available are the same as a [new installation](#) of the Web Client.
3. Allow the upgrade to run through to completion.
4. Update your configuration files with any custom settings.
5. Start the Content Manager Web Client Application Pool in IIS.

Upgrading the Service API

NOTE: As a part of the upgrade process, copies of your Service API configuration files are made and new ones created. These copies are placed in the default installation directory and have the date and time of the upgrade added to the file name.

These copies are for reference only, and you should not use them to replace your new configuration files.

If you've customised your Service API configuration files before upgrading you'll have to re-enter your customisations in the new file by using the old one as a reference.

To upgrade the Service API, follow these steps:

1. Stop the Content Manager Service API Application Pool in IIS to prevent users from accessing the Service API during the upgrade.
2. With administrative privileges, run the **Service API 64-bit .msi** or Setup Wizard on your Web Server. The options available are the same as a [new installation](#) of the Service API.
3. Allow the upgrade to run through to completion.
4. In your Service API installation directory, rename the **hptrim.config.template** file to **hptrim.config** (replacing the existing **hptrim.config**).
5. Update your configuration files with any custom settings.
6. Start the Content Manager Service API Application Pool in IIS.

Upgrading the Thin Office Integration

Upgrading the Thin Office Integration is identical to running a [new installation](#).

To upgrade the Client, perform the following steps:

1. Close all running instances of Office and/or Outlook.
2. Run the 32- or 64-bit Thin Office Integration .msi the required features/command line properties selected.

Allow the upgrade to run through to completion.