

CAMIO VM/CPH Installation Guide

V5.5.2

May 2025



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INTRODUCTION

This document is a guide for installing CAMIO server software on a customer provided VM or hardware platform. It is intended for Chyron support personnel.

CAMIO can be installed on a single server, a DR pair of servers or a MSSQL Cluster. This document focuses on the single server installation. Contact Chyron Support for more information on installing CAMIO on a DR pair or MSSQL Cluster.

CAMIO requires one or more CAMIO Render servers for rendering previews and animations. Up to six render servers can be attached to a single CAMIO Core server.

REQUIRED PLATFORMS

1. 1 or 2 CAMIO Core Server(s) (client-supplied VM platform or Windows hardware)
2. 1 to 6 CAMIO Render Server(s) (can be purchased from ChyronHego, or installed on client provided hardware)

Specifications for a CAMIO Core VM

- Client will provide a pre-configured Virtual Machine with Windows 2019/2022 Server Standard (installed and licensed)
- GigE port
- Xeon 8 cores at 3.0 GHZ or above, with 32 GB RAM
- Hard Drives
 - C = 200 GB minimum (Internal system drive)
 - D = 500GB minimum (used for Database and CAMIO cache)
 - I = 3TB recommended (used for Media storage)
 - J = 3TB recommended (used for FileSync storage)

Specifications for a CAMIO Core CPH Server

- Client will provide a pre-configured hardware server with Windows 2019/2022 Server Standard (installed and licensed)
- Rack mount chassis with dual redundant power supplies (optional but recommended)
- GigE Port (2 x 10GigE optional but recommended)
- USB Ports (required for license dongle)
- Xeon 8 cores at 3.0 GHZ or above, with 32 GB RAM
- Hard Drives
 - C = RAID 1 system drive (2 x 240 GB Micron SSD)
 - RAID 6 Media Drive (4 x 3.8 TB SSD) partitioned as
 - D ~ 500GB minimum (used for Database and CAMIO cache)
 - I ~ 3TB recommended (used for Media storage)
 - J ~ 3TB recommended (used for FileSync storage)

Specifications for a CAMIO Render CPH Server

- Client will provide a pre-configured hardware server with Windows 2019/2022 Server Standard (installed and licensed)
- Rack mount chassis with dual redundant power supplies (optional but recommended)
- GigE port (2 x 10GigE optional but recommended)
- Xeon 8 cores at 3.0 GHZ or above, with 32 GB RAM
- Hard Drives
 - C = RAID 1 system drive (2 x 240 GB Micron SSD)
 - I = RAID 5 media drive (4 x 3.8 TB SSD)
- USB ports (required for license dongles)
- nVidia RTX4000 GPU

Specifications for a Client Provided DR Server or VM

- A CAMIO DR system requires 2 identical Core Servers (as specified above) and additional DR management software.
- With the use of VMs it is recommended that the two servers in a DR pair be installed on separate VM hosts for redundancy.
- See the **CAMIO DR User Guide** for more information.

Specifications for a Client Provided Cluster Server or VM

- CAMIO Cluster Server requires two CAMIO servers configured as a MSSQL SQL Cluster with a common virtual IP.
- It is recommended that CAMIO VM server pairs be installed on separate VM hosts for redundancy..
- Hardware/VM
 - GigE port
 - Xeon 8 cores at 3.0 GHZ or above, with 32 GB RAM
 - Hard Drive C = 500 GB minimum (Internal system drive)
- Operating System
 - Windows 2019/2022 Standard Edition
 - SQL Server 2019/2022 Standard Edition
 - Configure Windows and SQL per Chyron commissioning instructions
- Shared storage system
 - Dual Redundant 10G iSCSI required (2 per CAMIO server)
 - D, I, Q drives required, J is optional
 - Recommended drive config:
 - D = 500GB minimum (used for Database and CAMIO cache)
 - I = 3TB minimum (used for Media storage)
 - J = 3TB minimum (used for FileSync storage)
 - Q = 4GB (quorum drive needed for MS Windows Clustering only)

LICENSING

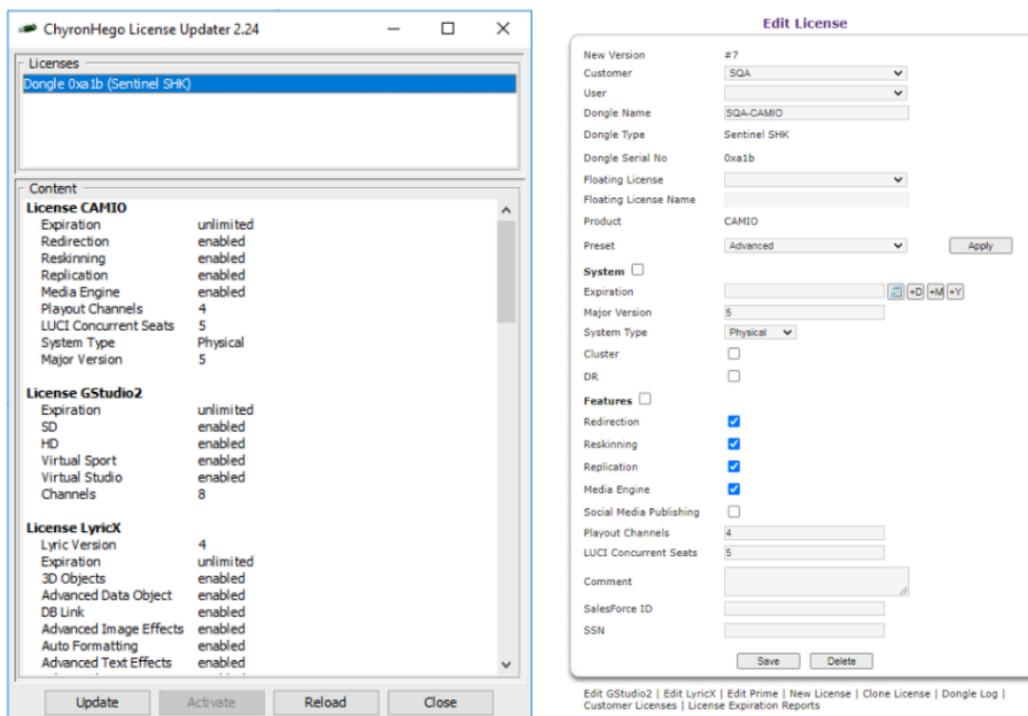
One of several licensing options must be installed on the system before CAMIO can be installed. The license can be provided as a Local Hardware Key, External Hardware Key or a Software Key.

Hardware License

Programming the Hardware Key

Hardware License requires a Chyron SHK dongle that has been programmed with the appropriate license features for your system. Use the ChyronHego License Updater to check the state of the dongle. If it is not already programmed, perform the following steps.

- System must have internet access. If not, then the dongle can be programmed on another computer and transferred.
- Use LicenseUpdater to read the key code (such as 0xabc)
- Give key code info to Customer Service to program the license then update the license dongle using Updater
- Confirm the dongle is properly licensed using the ChyronHego License Updater.



Local Hardware License

- If CAMIO will be running on a Windows hardware platform the dongle is plugged into an available internal or external USB port.
- If CAMIO is running as a Virtual Machine (VM) that is running on a Windows host platform the dongle can be installed on the host platform and the USB port configured in passthru to the CAMIO VM.

External Hardware License

- If CAMIO is running on a VM that does not have easy access to a USB port, the Hardware dongle can be installed on an external Windows Server along with the External License Manager software.
- It is possible to have a second External License Manager for redundancy.
- The External License Manager is typically installed on the CAMIO Render Engine(s). Note that in this case it is possible to share the same SHK Dongle used for Prime Renderer licensing.
- The following XML file needs to be added to the CAMIO server as C:\ProgramData\ChyronHego\CAMIO\LicensingConfiguration.xml

Single License Server (Primary only)

```
<configuration>
  <licensing>
    <servers>
      <server type="primary">{PRIMARY LICENSE SERVER IP}</server>
    </servers>
  </licensing>
</configuration>
```

Dual License Server (Primary and Backup)

```
<configuration>
  <licensing>
    <servers>
      <server type="primary">{PRIMARY LICENSE SERVER IP}</server>
      <server type="backup">{BACKUP LICENSE SERVER IP}</server>
    </servers>
  </licensing>
</configuration>
```

Software License

Procedure for generating and installing a Software License is described in this document

[CAMIO Software License](#). This can be applied to CAMIO Core running on hardware and on AWS.servers. Note that software license requires that the system have continuous access to the internet may not work for all installations.

CAMIO Core running on a VM cannot use a software license and should use an external hardware license as described above.

COMMISSIONING THE SYSTEM

Pre-Commissioning: System Analysis

1. If possible, try to arrange to have access to the VM/CPH system sometime *before* the commissioning is to take place. If not, have the customer run this system check, and send the results to the ChyronHego Professional Services Manager.
2. Copy and paste the following line into Notepad, then save the file as **info.bat** on the VM system:

```
msinfo32 /info %~dp0test.nfo
```

3. Double click the .bat file to run it. It will do a system analysis and create a file in the same folder called **text.nfo**. (Note that it may instead have the machine's name for its name, and may or may not have the file extension.)
4. Send this file to Chyron Professional Services, so that it can be reviewed with Product Management and Engineering to ensure the system meets the requirements.

Installing Prerequisites

Prior to installing CAMIO software it is necessary to create the Admin user on all servers which will be used to install MSSQL, CAMIO Core and CAMIO Render software. It is then necessary to install and configure IIS, IIS components, Windows features and security settings. These prerequisites must be installed on both the CAMIO Core and CAMIO Render servers..

Creating the Admin User

A logged-in user with administrator privileges is needed to install and run both the CAMIO Core and CAMIO Render systems. For the purpose of this document we will use:

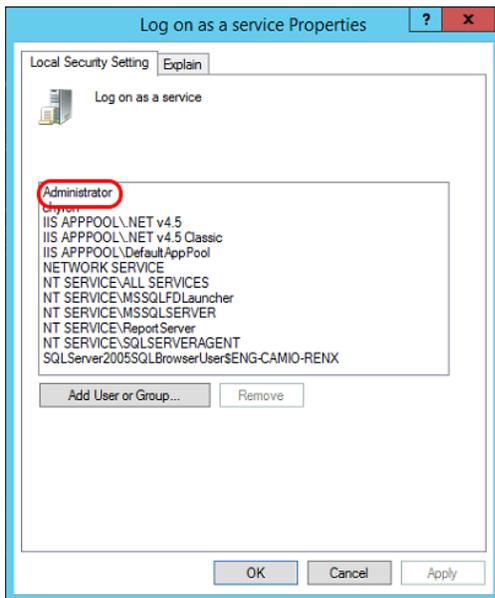
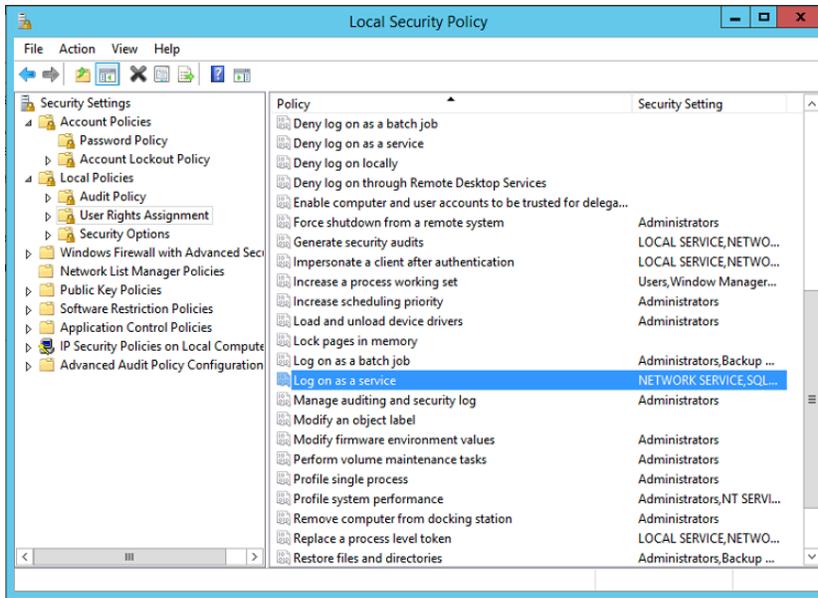
Username: Administrator

Password: P@ssw0rd

You may want to create your own unique login for additional security. Make sure the password you use meets the Windows complexity requirements or other requirements that might apply in your network.

Next, make sure the admin user has **permission to logon as a service**.

- Open Server Manager > Tools > Local Policies > User Rights Assignment.
- Add the admin user to this list if it is not already there.



IMPORTANT: All the following commissioning steps need to be run as the logged-in Admin User, especially the MSSQL installation.

IIS and Components

1. Open Server Manager and click Manage > Add Roles and Features. Click Next.
2. Select Installation Type = "Role-based or feature-based installation" and click Next.
3. Select Server Selection = Local Server. Click Next.

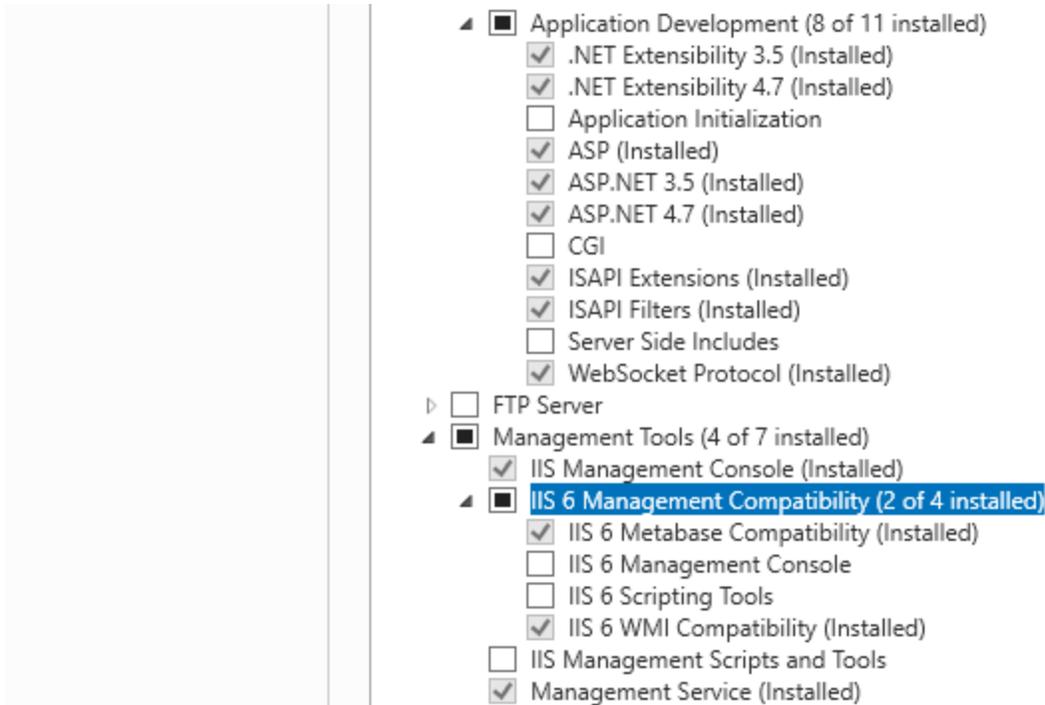
4. Under Server Roles, enable Web Server (IIS). and select the roles shown in the screenshots below. Click Install then Next.

Installation Type

- Server Selection
- Server Roles**
- Features
- Confirmation
- Results

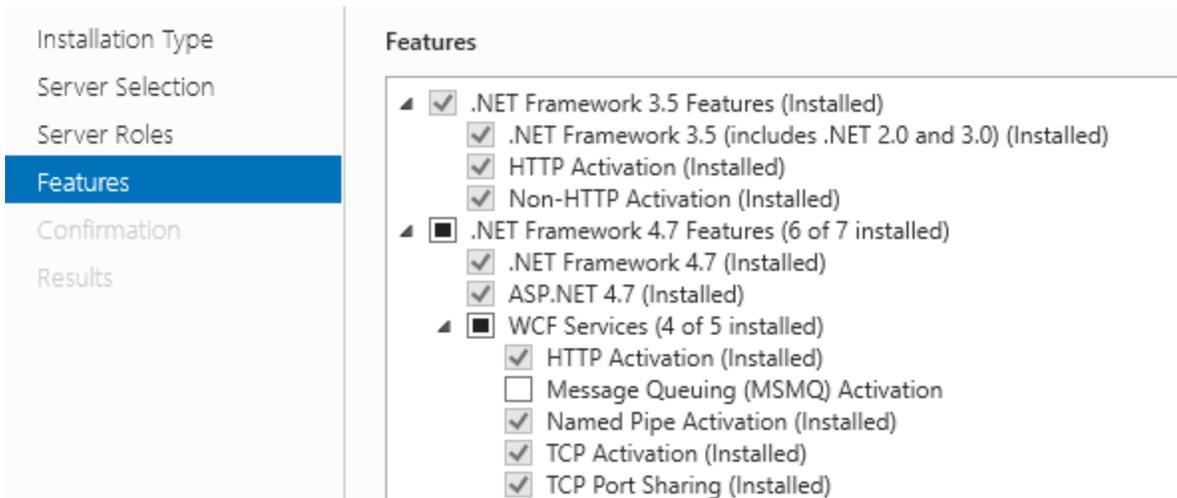
Roles

- Web Server (IIS) (21 of 43 installed)
 - Web Server (17 of 34 installed)
 - Common HTTP Features (4 of 6 installed)
 - Default Document (Installed)
 - Directory Browsing (Installed)
 - HTTP Errors (Installed)
 - Static Content (Installed)
 - HTTP Redirection
 - WebDAV Publishing
 - Health and Diagnostics (2 of 6 installed)
 - HTTP Logging (Installed)
 - Custom Logging
 - Logging Tools
 - ODBC Logging
 - Request Monitor (Installed)
 - Tracing
 - 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
 - IIS Client Certificate Mapping Authentication
 - IP and Domain Restrictions
 - URL Authorization
 - Windows Authentication (Installed)



Windows Features

Under Features, enable the features shown in the screenshots below.. Click Install then Next.



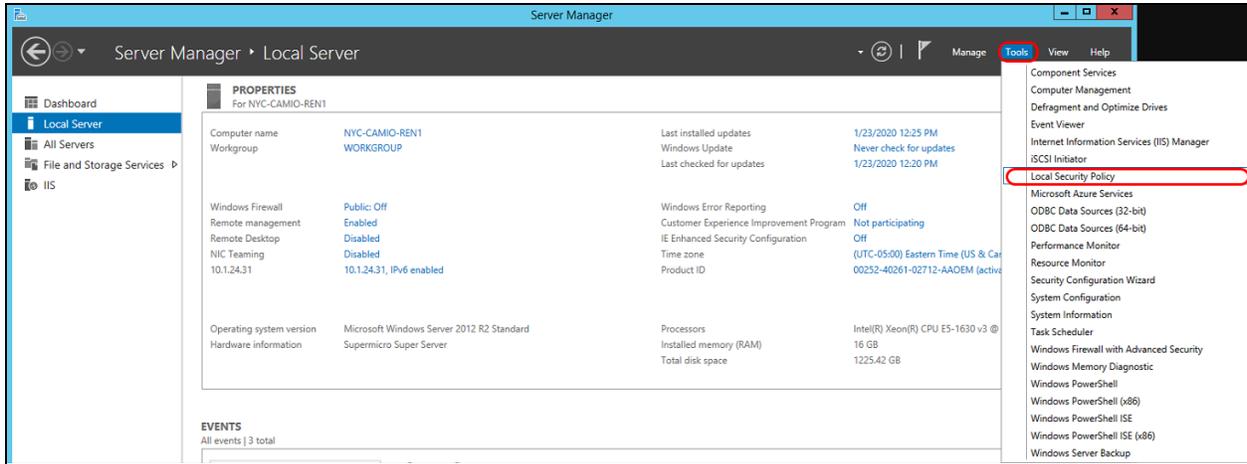
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results

Features

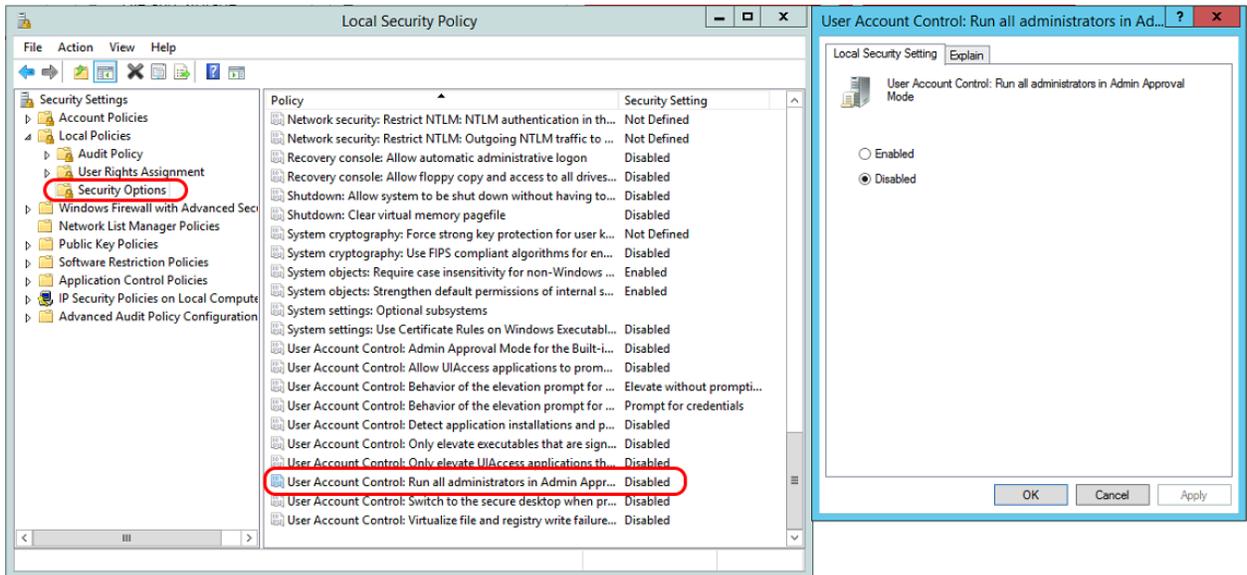
- ▲ Message Queuing (1 of 7 installed)
 - ▲ Message Queuing Services (1 of 6 installed)
 - Message Queuing Server (Installed)
 - Directory Service Integration
 - HTTP Support
 - Message Queuing Triggers
 - Multicasting Support
 - Routing Service
 - Message Queuing DCOM Proxy

Security Settings

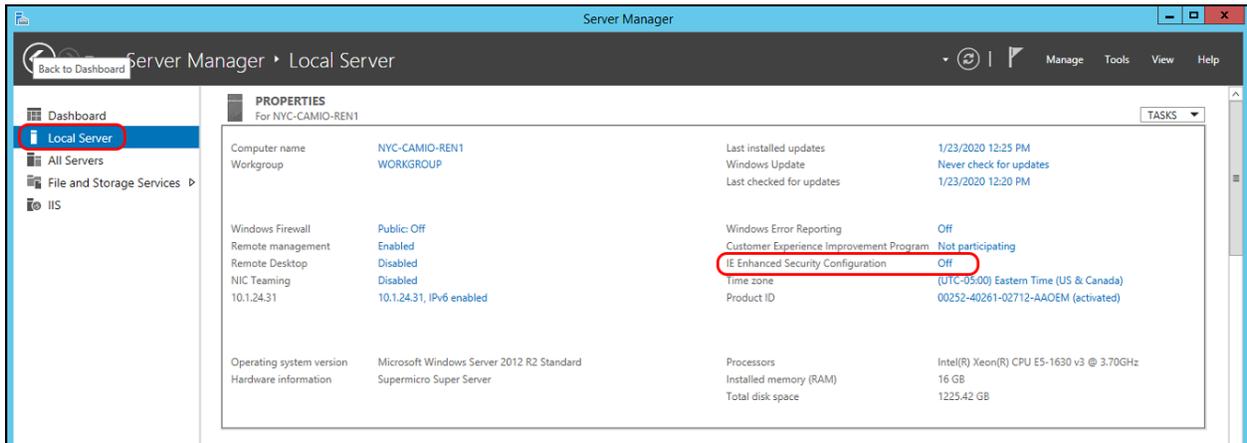
Disable UAC - Open Server Manager > Tools > Local Security Policy



The select Security Options > User Account Control: Run All Administrators in Admin Approval Mode and set to Disabled, click OK



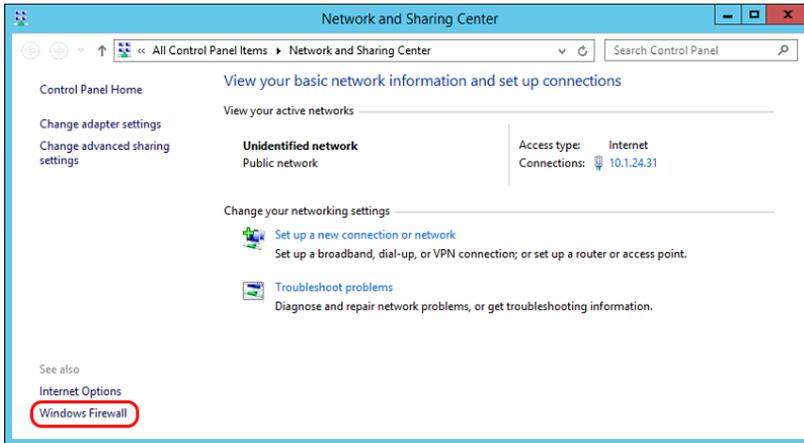
Disable IE Security - Open Server Manager > Local Server Properties > IE Enhanced Security Configuration



Turn off for Administrators



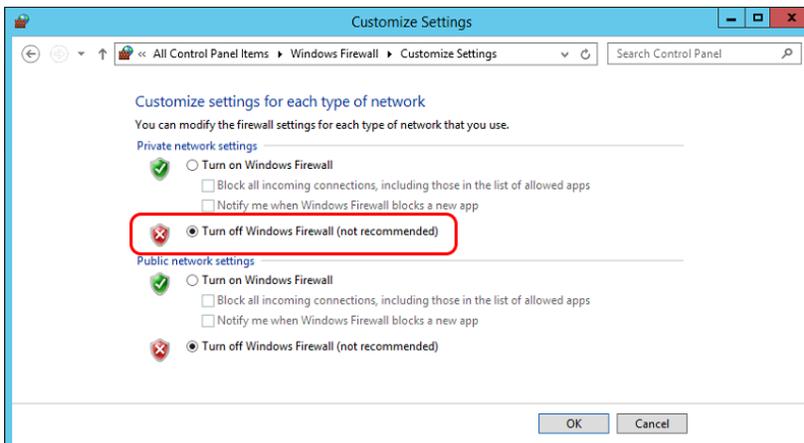
Disable Firewall - Open Network and Sharing Center > Windows Firewall



Select Turn Windows Firewall on or off



Turn off Windows Firewall for Private Networks



Installing CAMIO Core

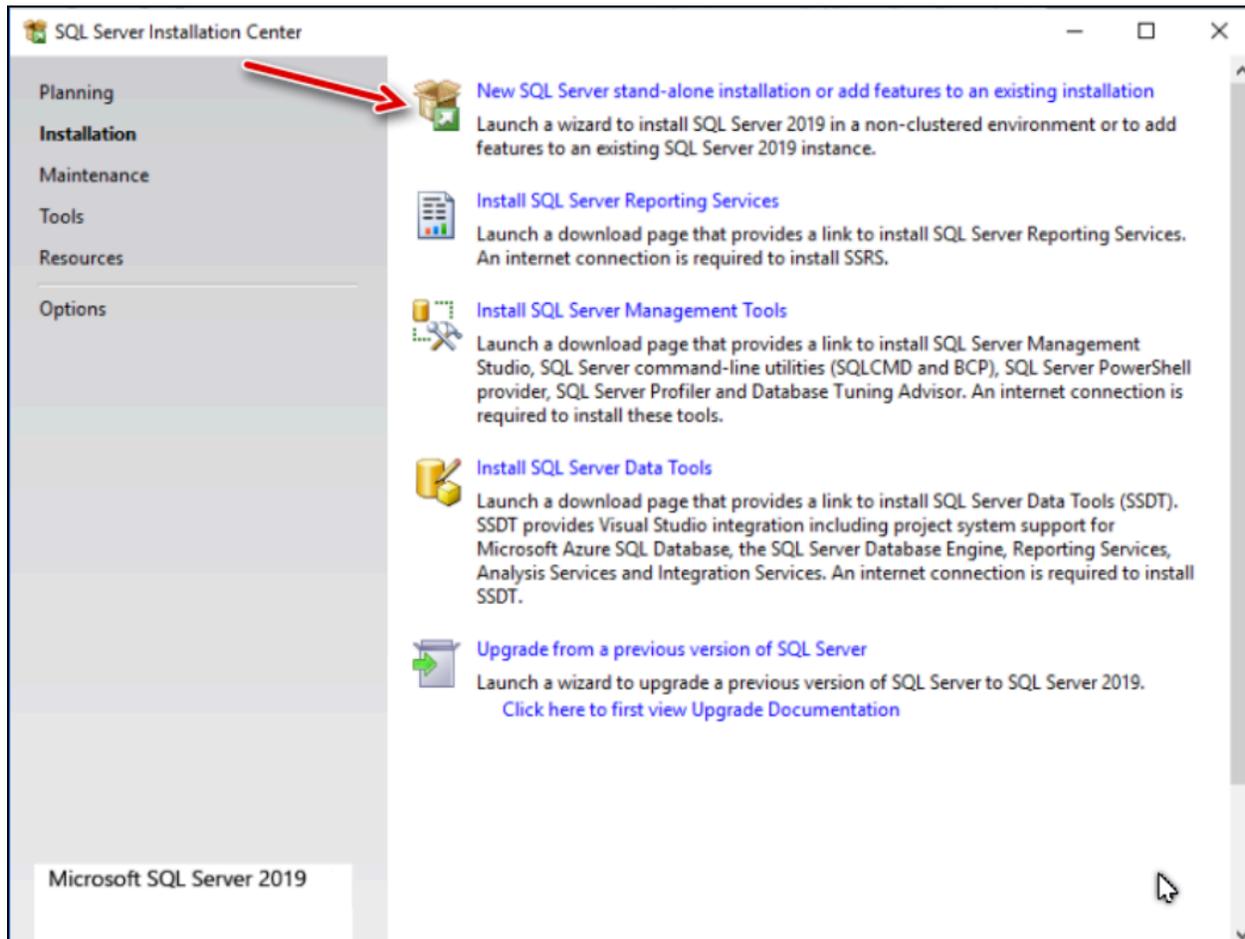
IMPORTANT: Ensure that all prerequisites listed above are installed and configured on this server.

Installing SQL

Note: for a Test platform **only** SQL 2019 or 2022 Express Advanced Installer can be downloaded from Microsoft at [SQL 2019 Express Advanced](#) or [SQL 2022 Express Advanced](#)

Verify that you have a D: drive before continuing. SQL Database files must be installed on the D: drive, CAMIO installation will fail otherwise.

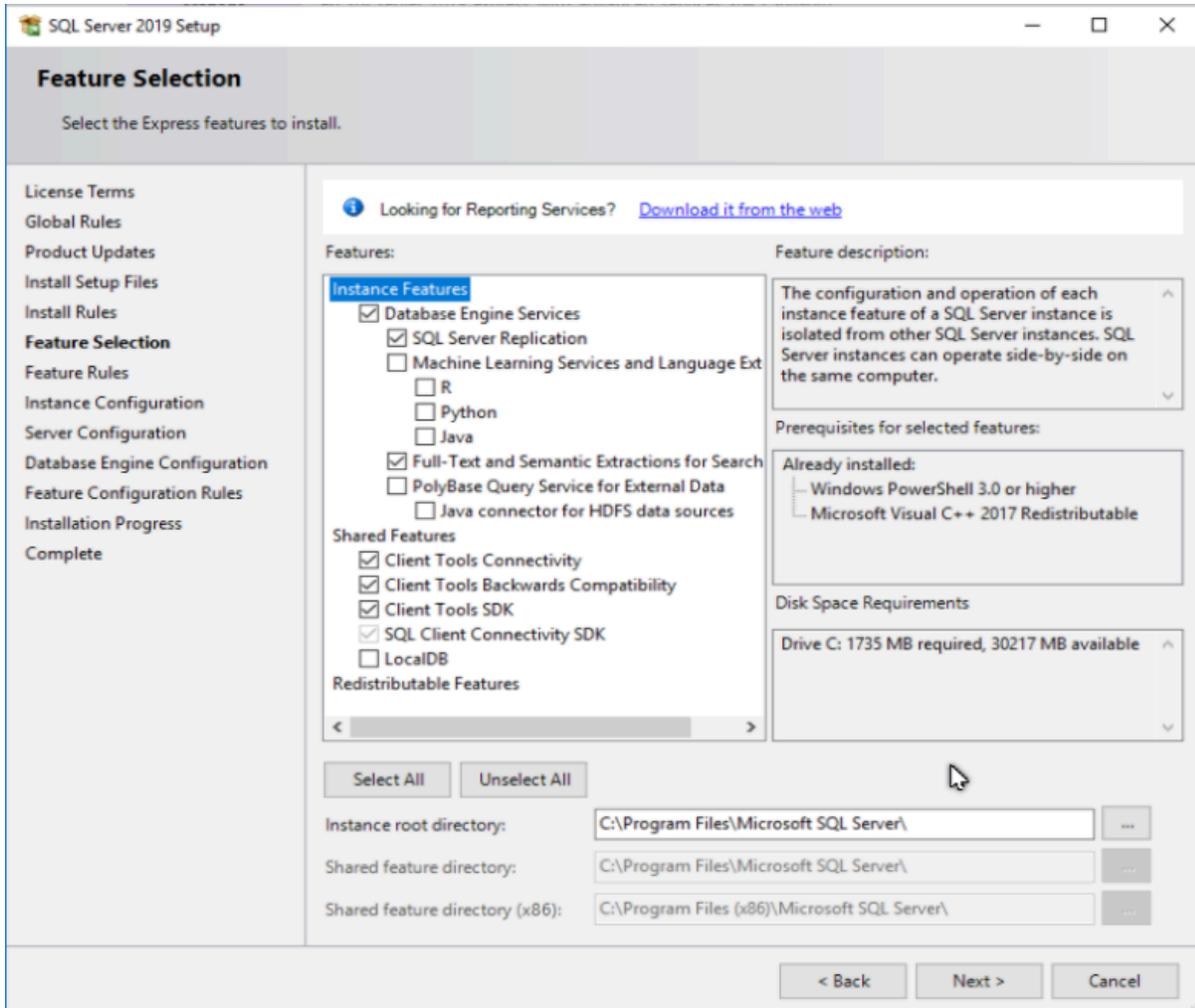
Run the SQL 2019 or 2022 installer and select the new server option.



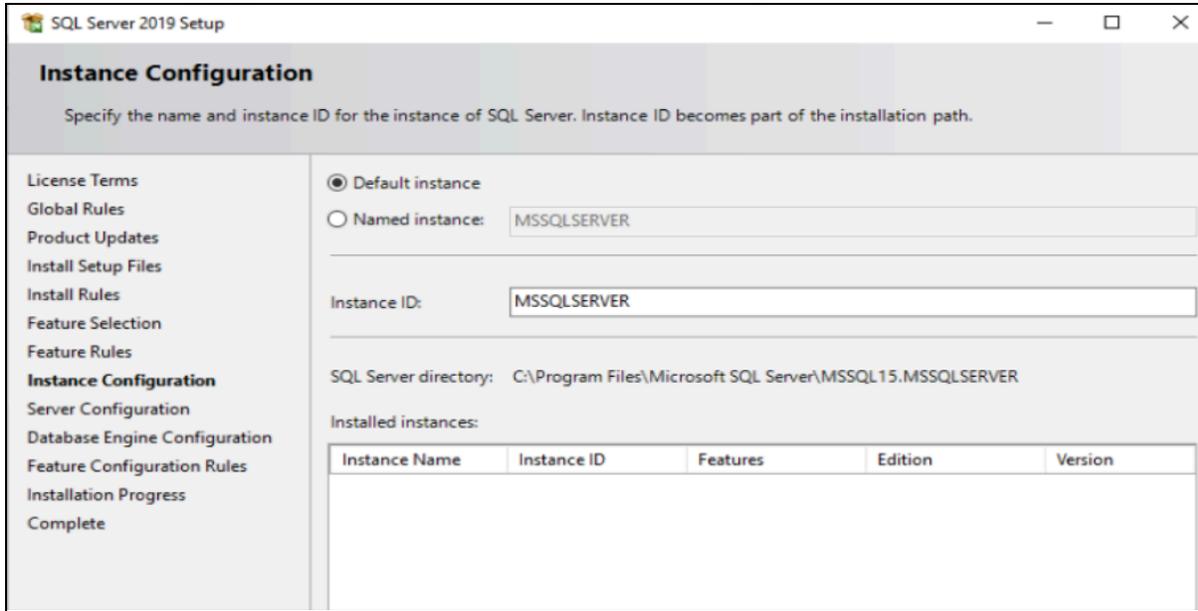
Accept the license terms and click next



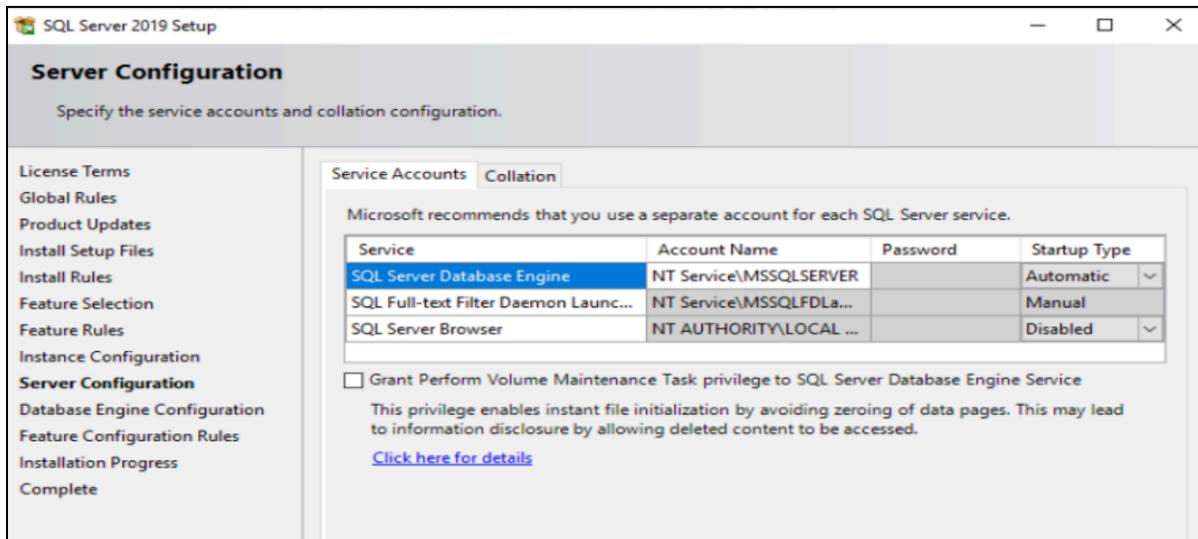
Select these Options



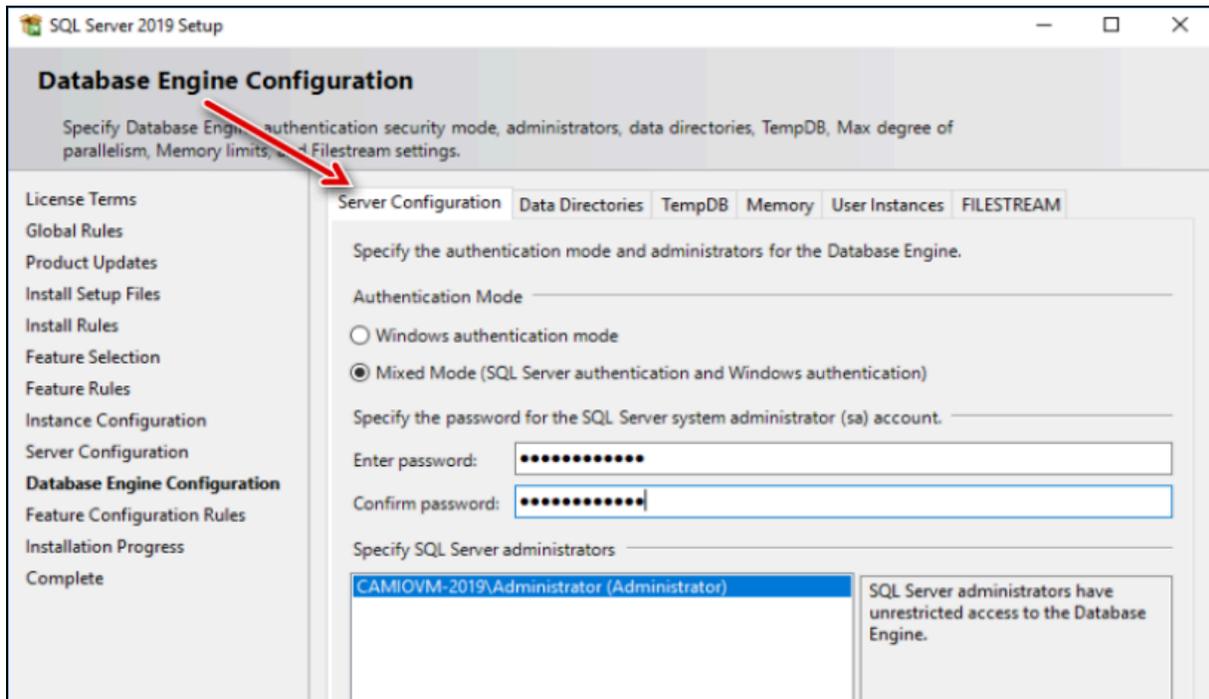
Select MSSQLSERVER as the default Instance



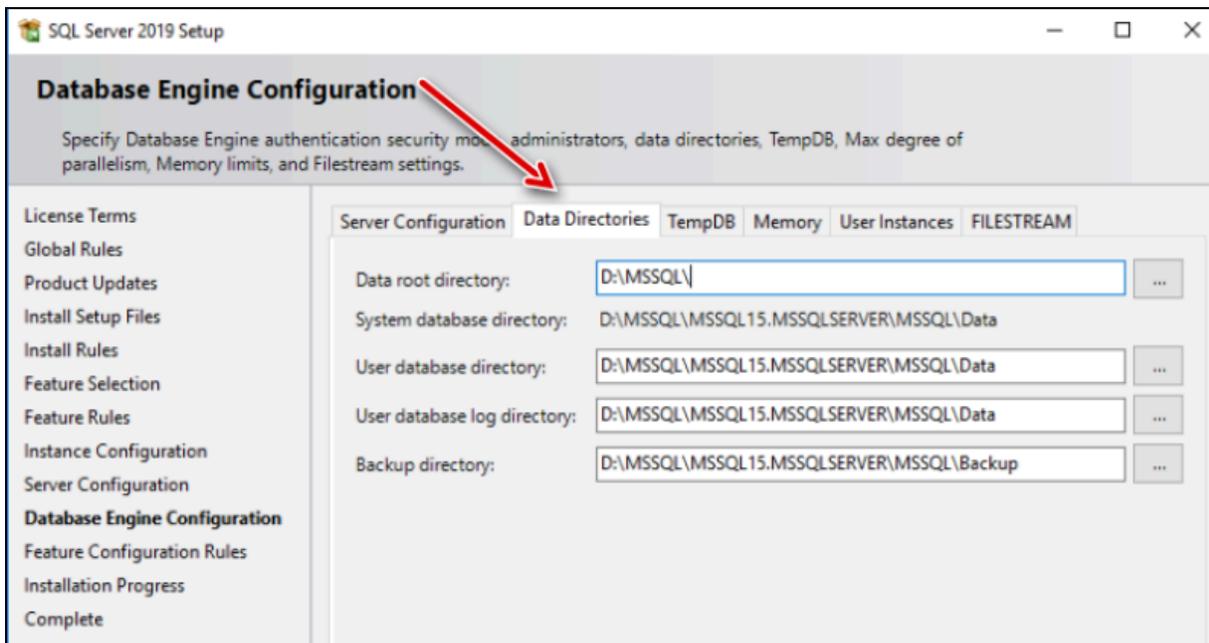
Click Next



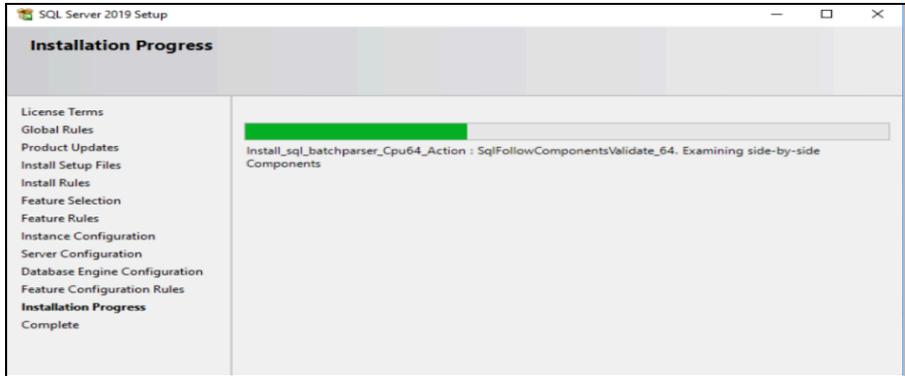
Select Mix Mode and enter the password **Chyron.CAMIO** then Next.



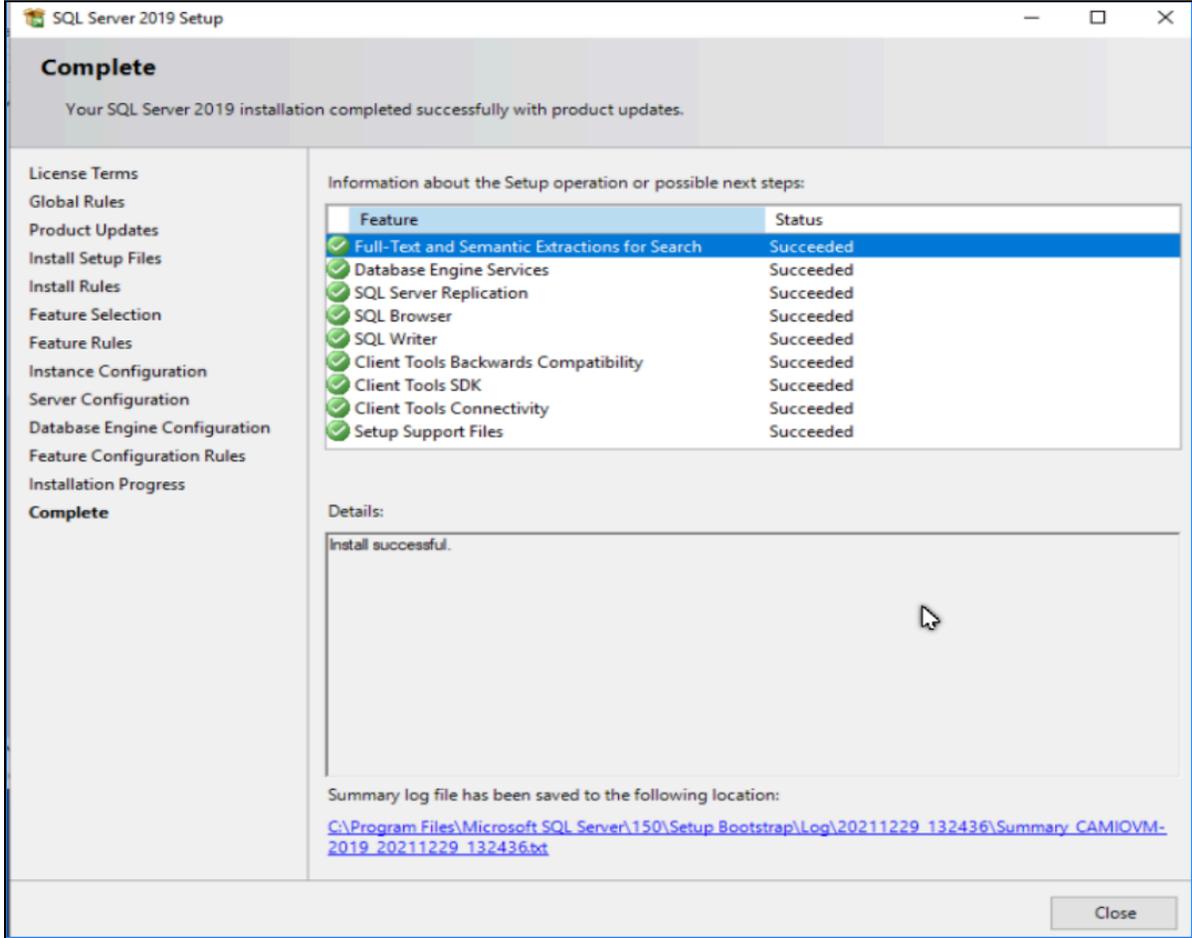
Follow these Options on the Data Directories Tab



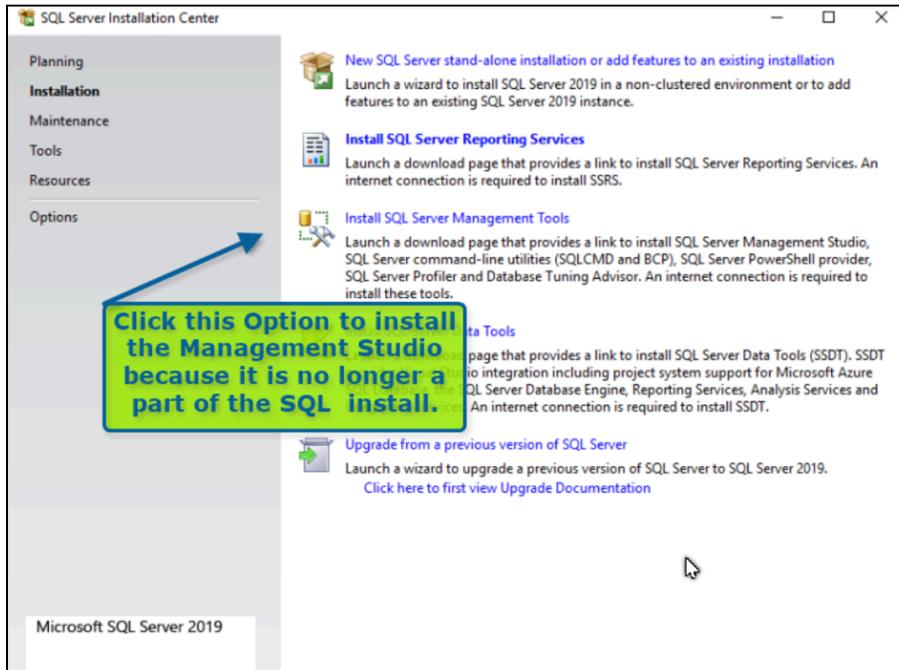
Install Progress Screen



Completed Screen should look like this.



Installing SQL Management Studio click the link and follow the screen.

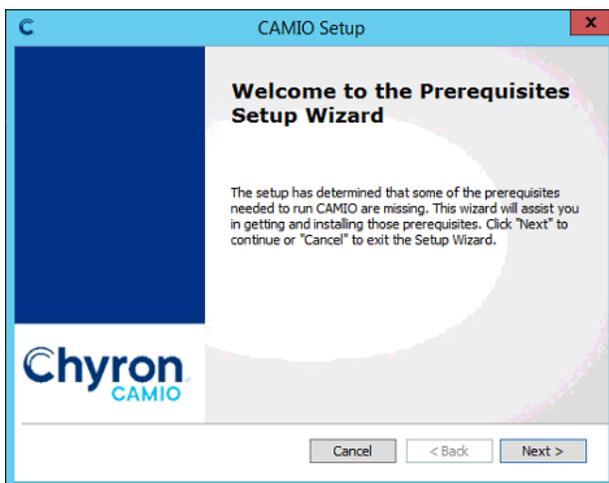
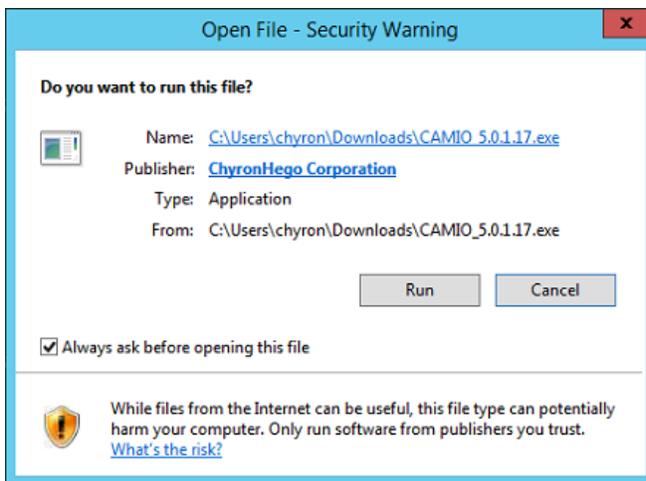


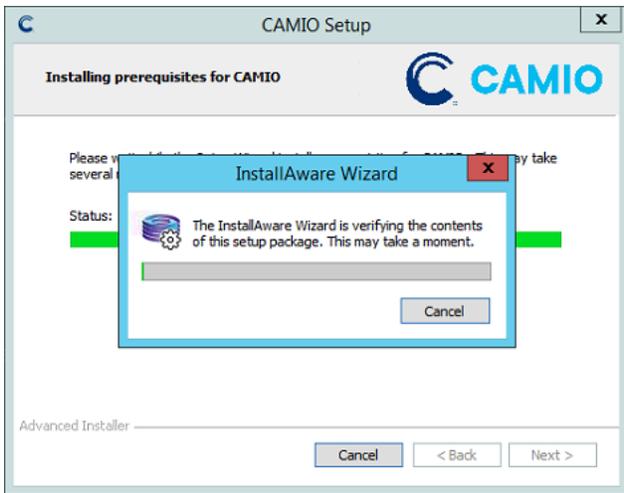
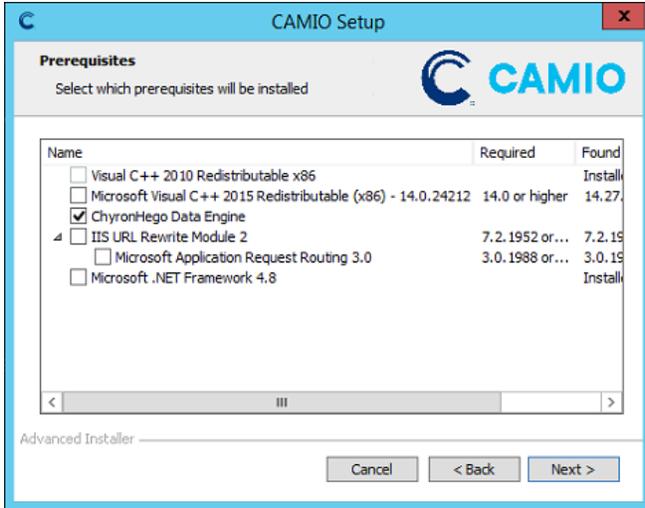
CAMIO Core Software

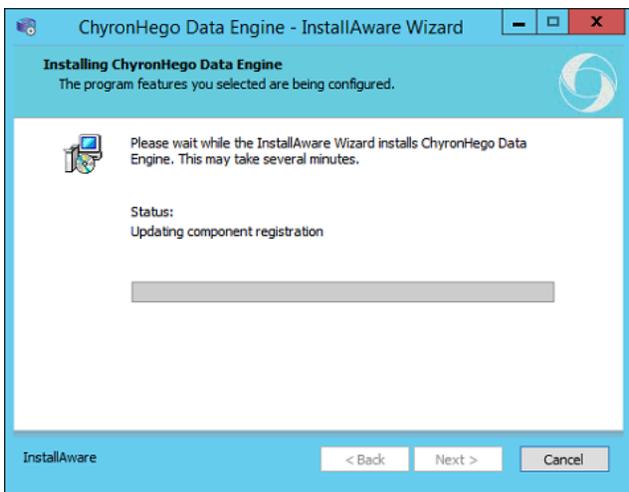
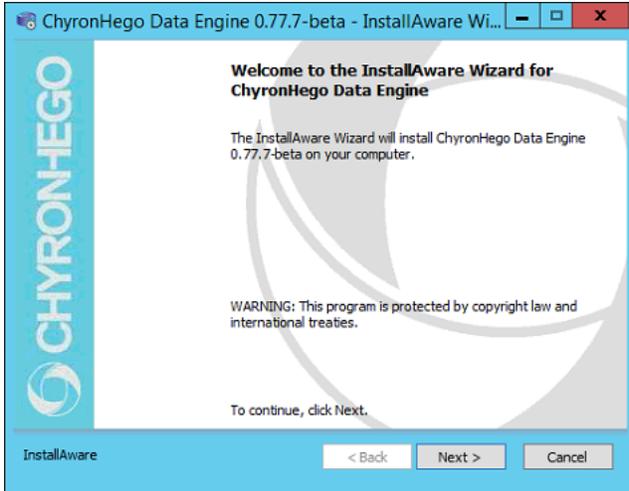
Ensure that hardware or software licensing has been properly installed with ChyronHego License Updater.

- Check the licensed system options are correct (base vs advanced, media engine, dr, etc)
- Check that the number of license playout devices is correct for the customer's system
- Check that the number of licensed Concurrent LUCI users is correct for the customer's expectations

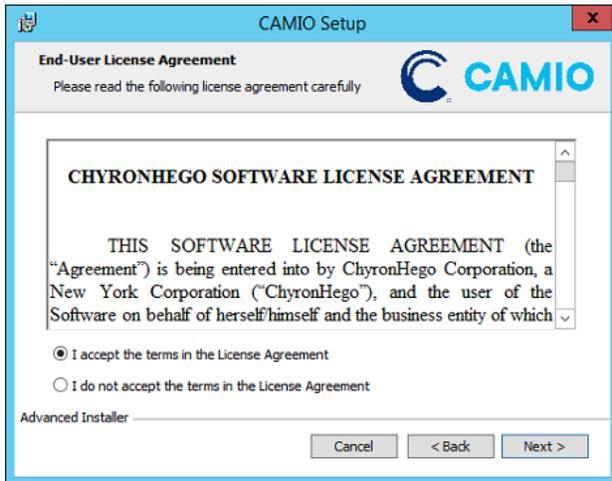
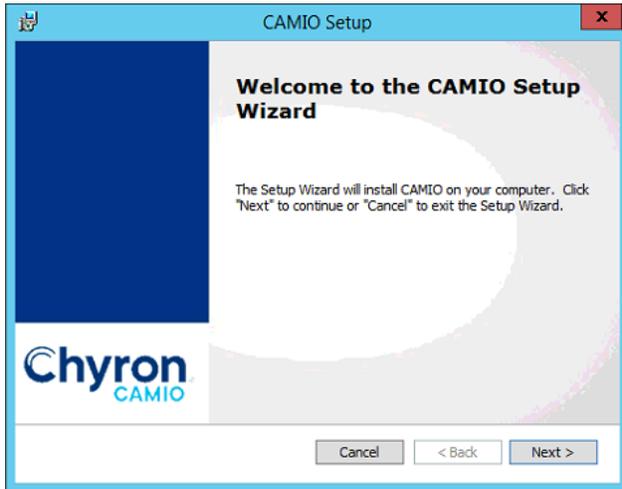
Run CAMIO5 installer. Install sequence is similar to CAMIO4 installer. The installer will first check for and install any needed prerequisites. (.NET 6.0 too)



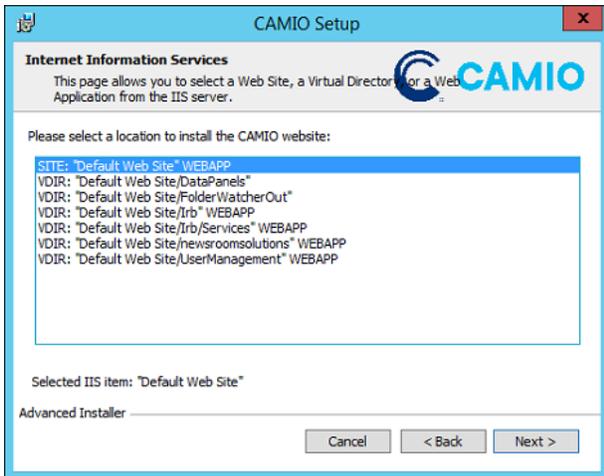
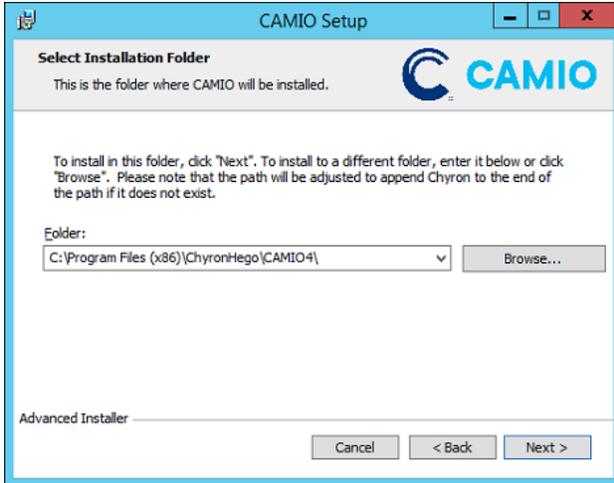




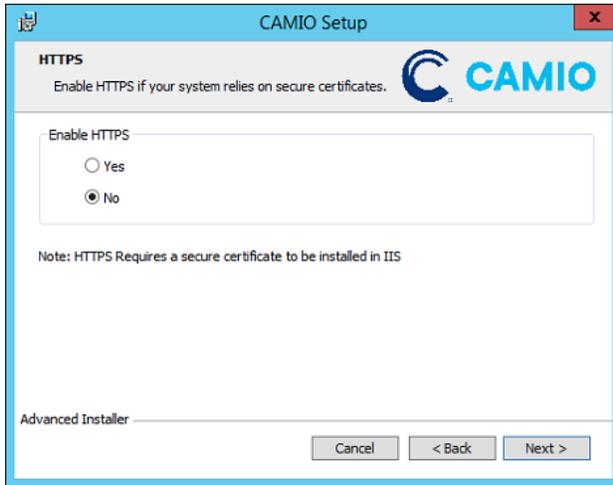
Next the CAMIO Core software will be installed. After accepting the license agreement, select the default settings as shown below (except for the user account settings)



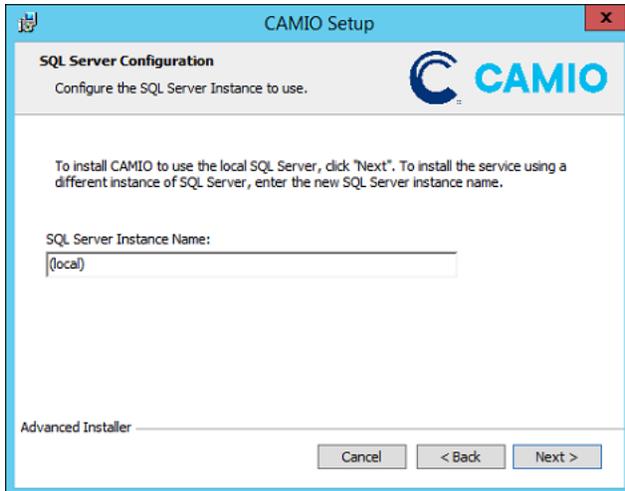
CAMIO 5 must be installed in the c:\Program Files (x86)\ChyronHego\CAMIO4 folder. The CAMIO website must be installed in the "Default Website". Note that the list of web site locations may be different on your system but the correct location will always be the first on the list.



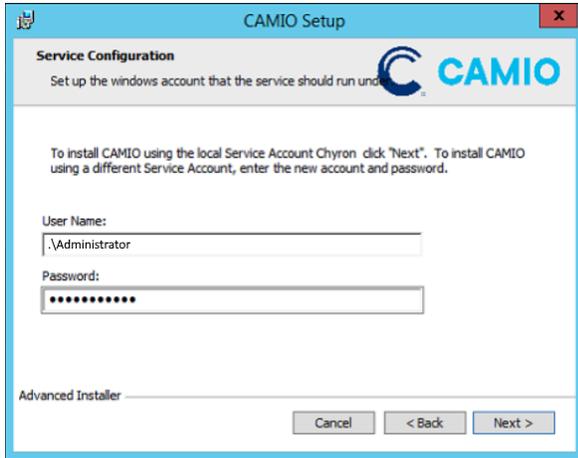
HTTPS Enable option is displayed during CAMIO install. In most cases select “No”. HTTPS Enable is only needed when CAMIO is used with Avid Media Central and Ross Inception newsroom systems. See the **CAMIO Configuring for HTTPS User Guide** document for further information on configuring CAMIO for HTTPS



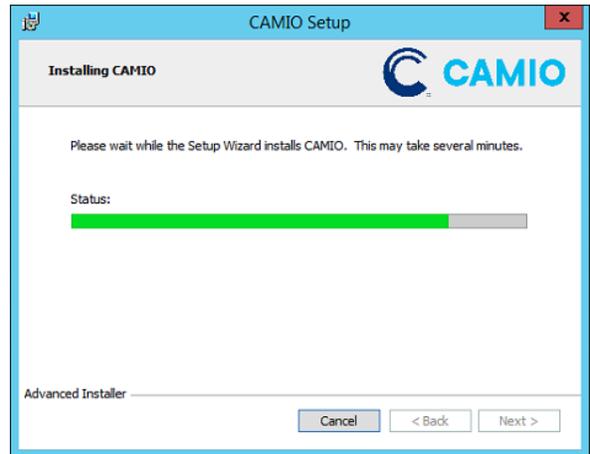
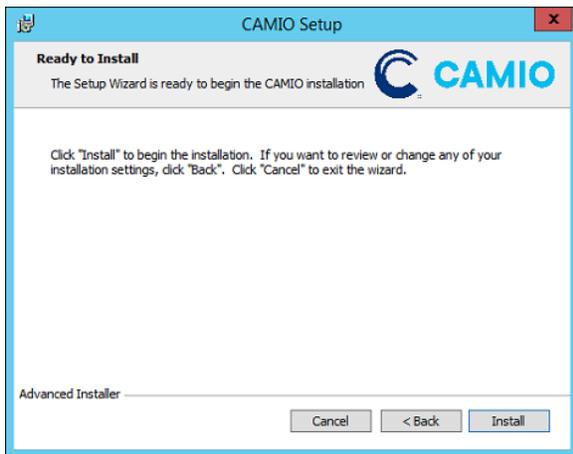
On single server and DR CAMIO systems, SQL Server instance name is set to (local). Contact Chyron Support for help with installing CAMIO on a MSSQL Cluster system.



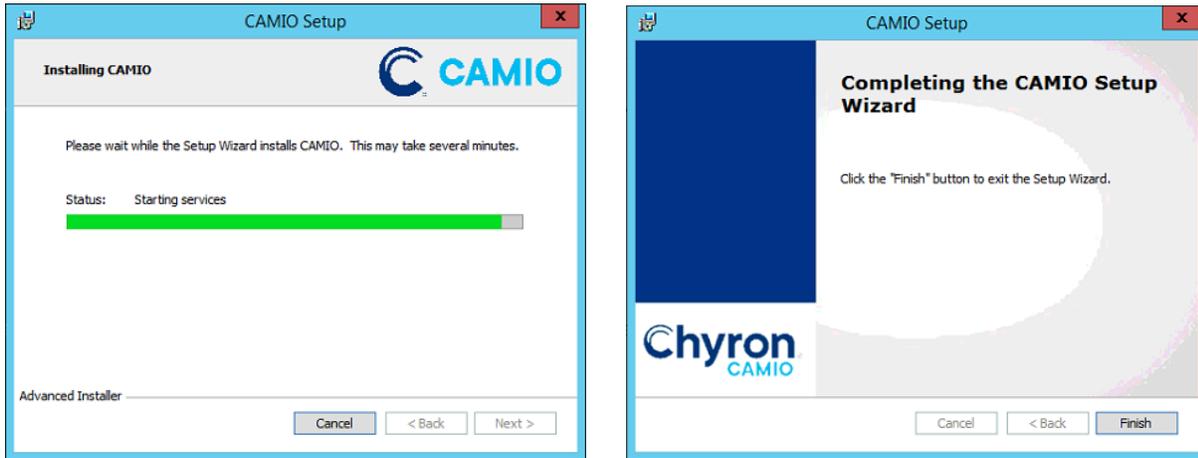
CAMIO needs to run under the logged in user account. Enter the username and password of the Windows logged in user. In our example, that is Administrator/P@ssw0rd. Username needs to be fully qualified with a .\ or domain name. This is very important or the CAMIO services will not install properly.



CAMIO is now ready to install.



CAMIO installation will conclude. Note that the “Starting Services” step will fail if the username/password was entered incorrectly in the previous step.



This screen grab from Windows Services shows the services installed by CAMIO Core installer plus optional FileSync Server.

Chyron CAMIO Asset Management Service	This component is responsible for ...	Running	Automatic	.\Chyron
Chyron CAMIO Axis Interface Service	This component is responsible for ...	Running	Automatic	.\Chyron
Chyron CAMIO External Render Service	This component is responsible for ...	Running	Automatic	.\Chyron
Chyron CAMIO File Distribution Service	This component is responsible for ...	Running	Automatic	.\Chyron
Chyron CAMIO File Ingest Management Service	This component is responsible for ...	Running	Automatic	.\Chyron
Chyron CAMIO Job Scheduling Service	Schedules notification for other ser...	Running	Automatic	.\Chyron
Chyron CAMIO Legacy Asset Replication Service	This component is responsible for ...	Running	Automatic	.\Chyron
Chyron CAMIO Legacy SOAP Proxy Service	This component is responsible for ...	Running	Automatic	.\Chyron
Chyron CAMIO Licensing Service	This component is responsible for ...	Running	Automatic	.\Chyron
Chyron CAMIO MOS Service	This component is responsible for ...	Running	Automatic	.\Chyron
Chyron CAMIO Replication Service	This component is responsible for ...	Running	Automatic	.\Chyron
Chyron Media Engine	Chyron Media Engine	Running	Automatic	.\Chyron
ChyronHego Data Engine		Running	Automatic	Local Syste...
ChyronHego HubDrive Server			Automatic (D...	Local Syste...

This screen grab from Add/Remove Programs shows the CAMIO Core components installed. Note that the CAMIO installer includes Media Engine and LUCI Website, Media Engine only runs if licensed. FileSync Server and License Updater installations are optional.

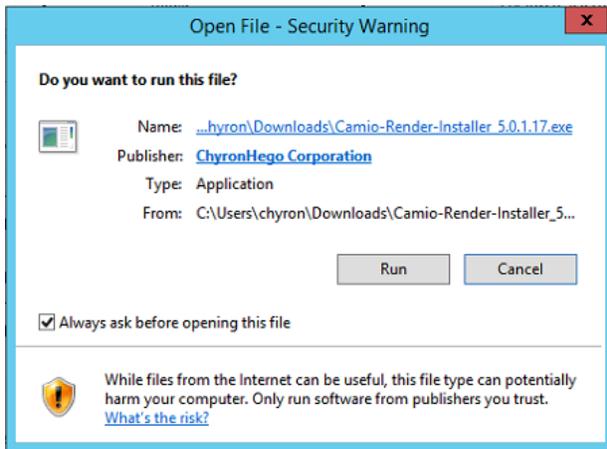
Chyron CAMIO	Chyron	10/18/2021	5.0.1.17
ChyronHego Data Engine	ChyronHego	12/11/2018	0.77.7-beta
ChyronHego License Updater 2.24	ChyronHego	6/16/2021	85.0 MB 2.24
HubDrive Server	ChyronHego	1/22/2020	1.2.1-3

Installing CAMIO Render

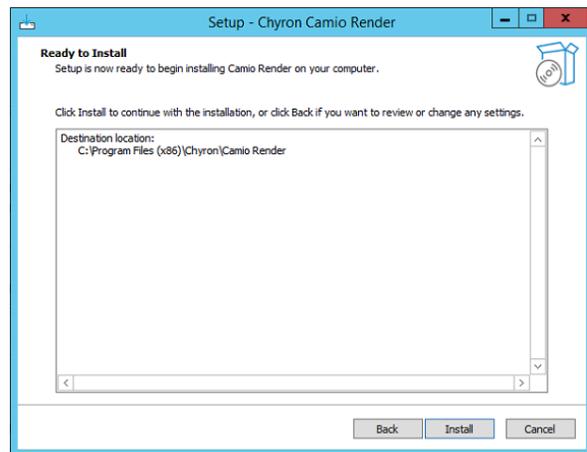
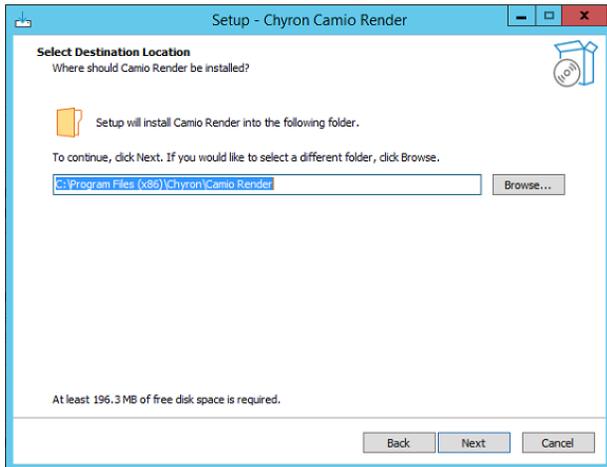
IMPORTANT: Ensure that all prerequisites listed above are installed and configured on this server.

CAMIO Render Software

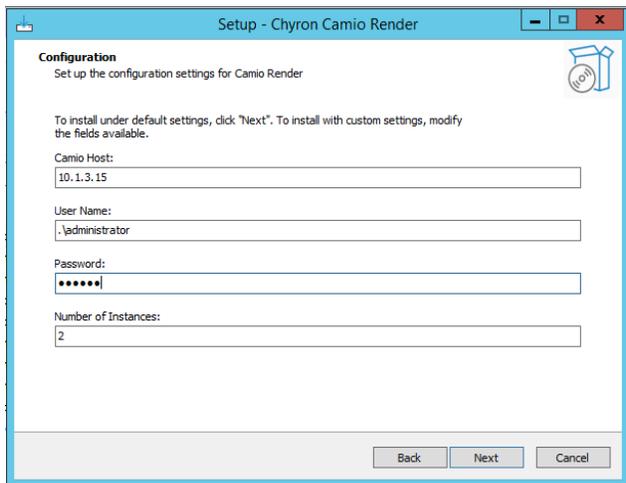
Install latest/desired version of Camio Render Installer.



Click through these dialogs, installing in the default locations.



Please be aware of the following dialog which can be confusing. CAMIO Render needs to run as a logged in user account



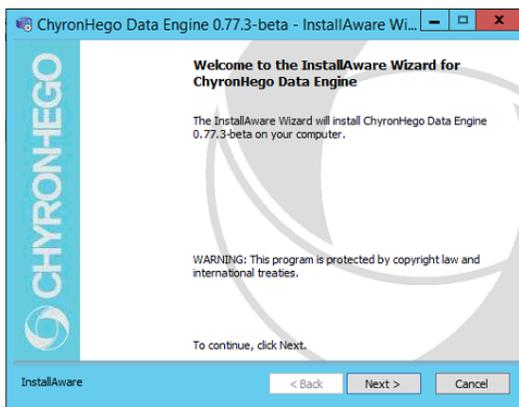
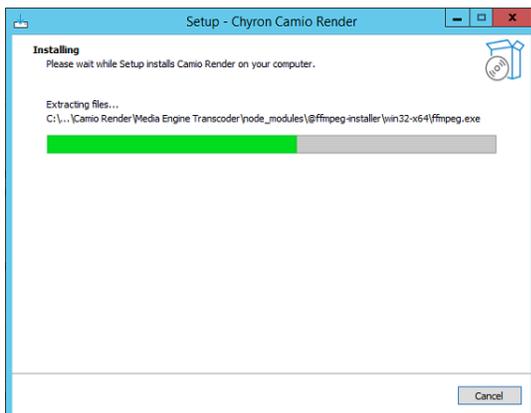
CAMIO Host - the IP address or hostname of the CAMIO Core server

User Name - the logged-in username on the Renderer. It should be fully qualified with a \ prefix unless otherwise needed.

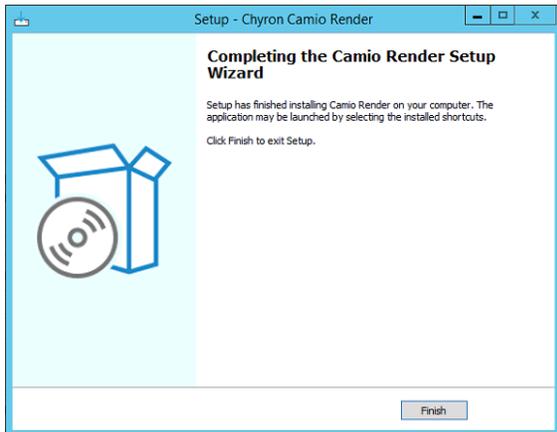
Password - password for the logged in user.

Number of Instances - the number of Lyric renderer instances that will run. If the Lyric templates use a lot of macros then 2 instances are recommended. If not, 4 instances are recommended.

Start installation of CAMIO Render. The installer will also install Chyron Data Engine if it is not already installed.



The installation will be completed.



This screen grab from Windows Services shows the services installed by CAMIO Render Installer plus optional Licensing Service. Two instances of Lyric were selected on installation. Note that there is not a service called CAMIO Render.

Chyron CAMIO Licensing Service	Processes license requests for CAMIO.	Running	Automatic	.\Chyron
Chyron Media Engine Transcoder		Running	Automatic	.\Chyron
ChyronHego CAMIO Endpoint	ChyronHego CAMIO Endpoint	Running	Automatic	Local Syste...
ChyronHego Data Engine		Running	Automatic	Local Syste...
ChyronHego Lyric Render Device (Instance: 0)	ChyronHego Lyric Render Device	Running	Automatic (D...	.\Chyron
ChyronHego Lyric Render Device (Instance: 1)	ChyronHego Lyric Render Device	Running	Automatic (D...	.\Chyron

This screen grab from Add/Remove Programs shows the CAMIO Render components installed. License Updater and Licensing Service installations are required if CAMIO is using external licensing hosted on the Renderer. FileSync Client software is normally installed on the Renderer.

Chyron Camio Render	Chyron	10/18/2021	147 MB	5.0.1.17
ChyronHego CAMIO Endpoint Beta	ChyronHego	10/18/2021	72.1 MB	1.1.26.0
ChyronHego Data Engine	ChyronHego	1/24/2020		0.77.7-beta
ChyronHego License Updater 2.29	ChyronHego	10/5/2021	85.0 MB	2.29
ChyronHego Licensing Service	ChyronHego	10/18/2021	7.10 MB	5.0.1.17
HubDrive 1.3.0	ChyronHego	9/26/2021	222 MB	1.3.0

Installing Lyric and Prime Renderers

The CAMIO Renderer requires LyricX and/or Prime renderers to be installed, licensed and configured to run as renders. Further information on using Prime with CAMIO can be found in the **Prime CAMIO Users Guide**.



Installing LyricX

- Do not license Lyric as a Service, license it as Offline.
- must register Lyric (Lyric.exe -register) within a Command

Prompt that is run as admin.

- Install Server Config [ServerConfig.exe](#)
- Run Server Config as an admin
- set Lyric to run in Interactive Mode

Installing Lyric Pro 8.8

- .NET 3.5 must be installed in addition to other steps.

Installing FileSync

FileSync Server

FileSync Server can be installed and run from the CAMIO VM or CPH. Be sure to use current FileSync Server version 1.2.1-3 or above as it addresses the remote licensing needed for the VM.

FileSync Server installation and operations are documented in the **CAMIO Filesync User Guide**.

FileSync Client

FileSync Client is typically installed on the CAMIO Render box to manage the assets needed to render previews and movie files.

FileSync Client installation and operations is also covered in the FileSync user guide mentioned previously.

ABOUT US

Chyron is ushering in the next generation of storytelling in the digital age. Founded in 1966, the company pioneered broadcast titling and graphics systems. With a strong foundation built on over 50 years of innovation and efficiency, the name Chyron is synonymous with broadcast graphics. Chyron continues that legacy as a global leader focused on customer-centric broadcast solutions. Today, the company offers production professionals the industry's most comprehensive software portfolio for designing, sharing, and playing live graphics to air with ease. Chyron products are increasingly deployed to empower OTA & OTT workflows and deliver richer, more immersive experiences for audiences and sports fans in the arena, at home, or on the go.

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