



EXTERRO ARMOUR PRODUCT LINE

ARMOUR OP Setup Guide

Licensing, installation, network configuration, and NVIDIA CUDA GPU acceleration — everything you need to deploy and run ARMOUR OP.

Covers CodeMeter licensing · network multi-seat · CUDA GPU setup · running the application



DOCUMENT TYPE

Deployment & Setup Guide

PRODUCT

Exterro ARMOUR OP

PREPARED FOR

Forensic Investigators

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PART 1

Licensing & Installation

CodeMeter setup, licence activation,
ARMOUR OP installation, and network licensing

What you'll do

Install CodeMeter, activate your licence, then download and run Armour OP.

You will need

Your unique **licence activation URL** from Exterro, and either a **CmDongle** (USB) or a **CmActLicense** (virtual) entitlement.

Time required

Roughly 15 minutes for an online machine; allow longer if your Armour OP machine is offline.

Step 1 — Install CodeMeter (WIBU)

Armour OP is licensed through **Wibu CodeMeter**. Install the CodeMeter runtime first — it manages your licence container and must be present before you activate a licence or launch Armour OP.

↓ DOWNLOAD CODEMETER

Download and install the CodeMeter User Runtime from Wibu, then run the installer and accept the defaults: [CodeMeter User Runtime \(wibu.com\)](https://wibu.com)

Version

CodeMeter **8 or newer** is required on every Armour OP machine.

Verify install

Open **CodeMeter Control Center** to confirm the runtime is running and to view your licence containers.

Step 2 — Activate your licence

CodeMeter licences live in a **licence container**. There are two types — the path you follow depends on which one Exterro issued you.

PHYSICAL

CmDongle

A USB dongle you can move between machines. Listed as **"CmStick/B"** in CodeMeter Control Center.

VIRTUAL

CmActLicense

A software licence tied to a single machine. Listed as **"Universal Firm Code"** in CodeMeter Control Center.

WHICH PATH DO I FOLLOW?

If your Armour OP machine has internet access, use **Online activation** — a few clicks in the browser. If it is air-gapped, use **Offline activation**, which moves request and update files via a second, internet-connected machine. Expand the section that matches your container type and setup.

2.1 Online activation

Activate through the **CodeMeter License Central WebDepot** on an Armour OP machine that has internet access. You will need your unique licence activation URL.

PHYSICAL

CmDongle — online

PREREQUISITES

- CodeMeter 8 or newer on your Armour OP machine.
- A physical CmDongle provided by Exterro.
- Internet access on your Armour OP machine.
- Your unique licence activation URL.

STEPS

1. On your Armour OP machine, use a browser to navigate to your unique licence activation URL.
2. On the **My Licenses** page, click **Activate Licenses**.
3. On the **Available Licenses** page, select **CmDongle**.

4. Select the desired licence(s) to activate.
5. From the **Select CmContainer** drop-down, select your **CmDongle**.
6. Click **Activate Selected Licenses Now**.
7. Wait for the **Online License Transfer** dialog to report the transfer is complete, then click **OK**.

My Licenses

Name	Activated On	CmContainer	Status
FTK Standalone	-		Available
Registry Viewer	-		Available
LTU	-		Available
Visualization	-		Available
CERBERUS	-		Available
FTK Enterprise	-		Available

Activate Licenses

My Licenses — click Activate Licenses to begin.

Available Licenses - Select the Container Type for Your Licenses

There are different ways to activate your licenses. Please select the type of the container you want to use for the storage of your licenses.



CmDongle

I want my licenses in a dongle to be able to use them offline on different computers.



CmActLicense

I want my licenses offline on one computer.

Available Licenses — choose CmDongle as the container type.

Available Licenses

To activate your licenses:

1. Select the licenses you want to activate.
2. Select the locally connected CmContainer to which you want to transfer the licenses.
3. Click "Activate Selected Licenses Now".

☒	Name	Activated On	CmContainer	Status
☒	FTK Standalone	-		Available
☒	Registry Viewer	-		Available
☒	Visualization	-		Available
☒	LTU	-		Available

Select the licences you want to activate and the CmContainer to receive them.

Online License Transfer

Starting license transfer.
Downloading license template.
Registering license template.
Creating license request.
Downloading license update.
Importing license update to CmContainer.
Creating receipt.
Uploading receipt.



License transfer completed successfully!

OK

Online License Transfer — wait for the success message, then click OK.

VIRTUAL CmActLicense — online

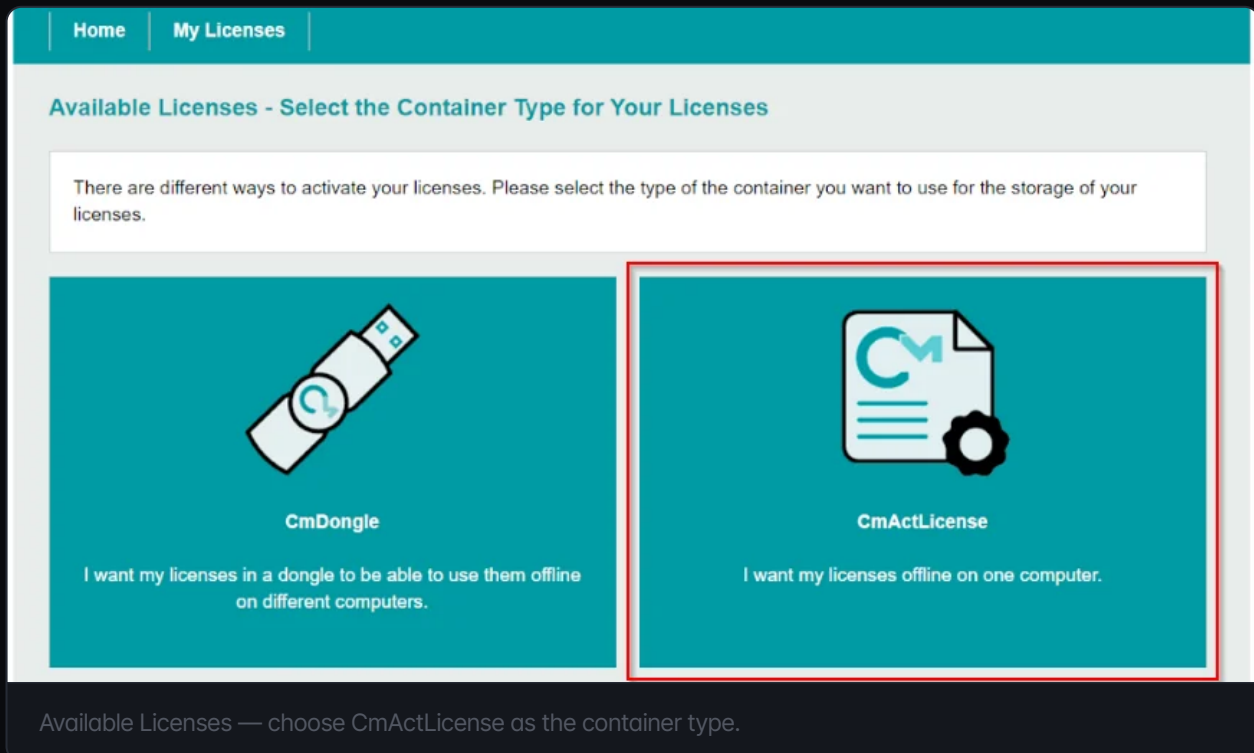
PREREQUISITES

- CodeMeter 8 or newer on your Armour OP machine.

- Internet access on your Armour OP machine.
- Your unique licence activation URL.

STEPS

1. On your Armour OP machine, use a browser to navigate to your unique licence activation URL.
2. On the **My Licenses** page, click **Activate Licenses**.
3. On the **Available Licenses** page, select **CmActLicense**.
4. Select the desired licence(s) to activate.
5. From the **Select CmContainer** drop-down, select **Get CmContainer automatically**.
6. Click **Activate Selected Licenses Now**.
7. Wait for the **Online License Transfer** dialog to report the transfer is complete, then click **OK**.



The **My Licenses** and **Online License Transfer** screens are the same as the CmDongle flow above.

2.2 Offline activation

For an air-gapped Armour OP machine. You will move request and update files between your Armour OP machine and a second machine that has internet access.

PHYSICAL CmDongle — offline**NOTE**

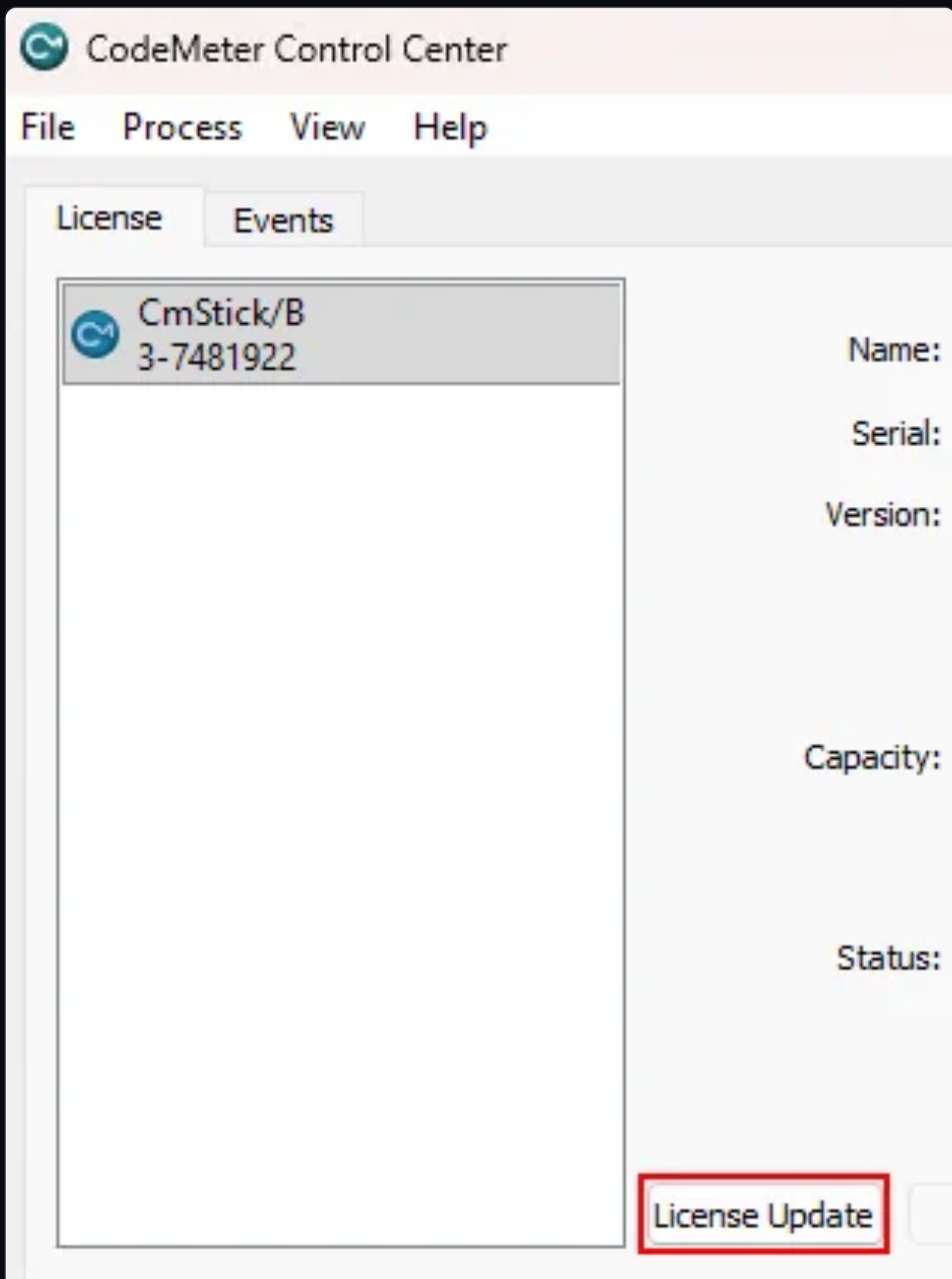
Physical CmDongles typically come pre-stocked with your licences.

PREREQUISITES

- CodeMeter 8 or newer on your Armour OP machine.
- A physical CmDongle provided by Exterro.
- Your unique licence activation URL.
- Access to a secondary machine with internet access.

STEPS

1. On your Armour OP machine, in CodeMeter Control Center, highlight the **"CmStick/B"** entry and click **License Update**.
2. On the "Welcome to the CmFAS Assistant" page, click **Next**.
3. Select **Create license request** and click **Next**.
4. Select **Extend existing license** and click **Next**.
5. Check the box for **Access Data Corp** and click **Next**.
6. Choose a destination for the resulting **WibuCmRaC** file and click **Commit**.
7. Click **Finish**, and transfer the **WibuCmRaC** file to the machine with internet access.
8. On that machine, browse to your unique licence activation URL.
9. On the **My Licenses** page, click **Activate Licenses**.
10. On the **Available Licenses** page, select **CmDongle**, then select the desired licence(s).
11. Click **Choose File**, browse to your **WibuCmRaC** file, and click **Start Activation Now**.
12. On the resulting page, click **Download License Update File Now**.
13. Transfer the resulting **WibuCmRaU** file to your Armour OP machine and double-click it to apply the activated licences.



CodeMeter Control Center — highlight CmStick/B and click License Update.

To transfer your licenses via file - Second

1. Click "Download License Update File No
2. Import this license update file to the Cmc
CodeMeter Control Center. [How it works](#)
3. After you have successfully transferred t

Download License Update File Now

On the WebDepot, click Download License Update File Now to get your WibuCmRaU file.

▲ THEN COMPLETE THE RECEIPT STEP

Offline activation is not finished until you upload the confirmation receipt — see **"Upload confirmation receipt"** below.

VIRTUAL CmActLicense — offline

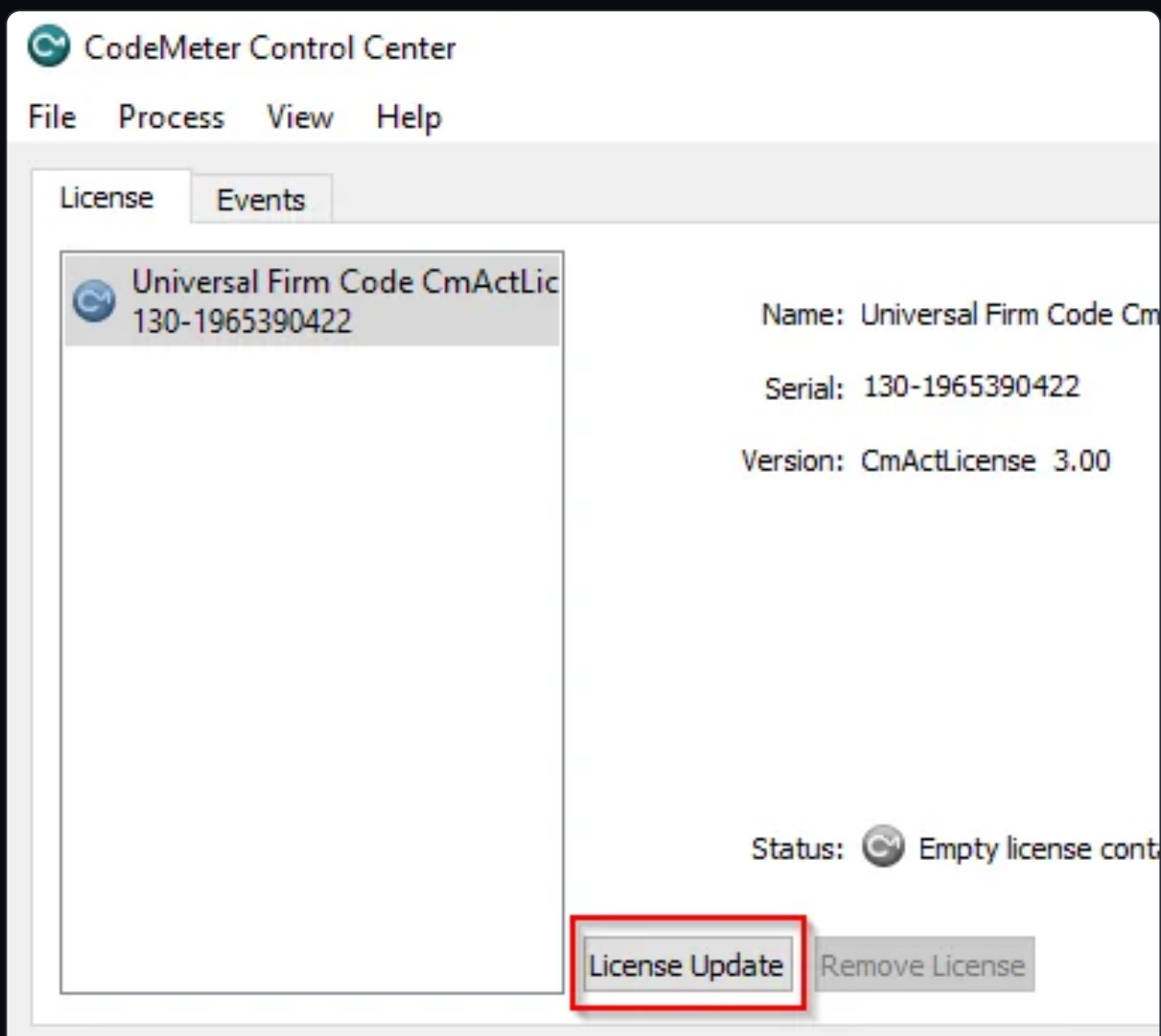
PREREQUISITES

- CodeMeter 8 or newer on your Armour OP machine.
- Your unique licence activation URL.
- Access to a secondary machine with internet access.

STEPS

1. On a machine with internet access, browse to your unique licence activation URL.
2. On the **My Licenses** page, click **Activate Licenses**.

3. On the **Available Licenses** page, select **CmActLicense**.
4. In the "To activate your licenses via file transfer" box, click **How it works** next to step 1, then under step 1b click **Download template now**.
5. Transfer the resulting **WibuCmLIF** file to your Armour OP machine and double-click it to import it into CodeMeter Control Center.
6. In CodeMeter Control Center, highlight the "**Universal Firm Code**" entry and click **License Update**.
7. On the CmFAS Assistant, select **Create license request** and click **Next**.
8. Choose a destination for the resulting **WibuCmRaC** file, click **Commit**, then **Finish**.
9. Transfer the **WibuCmRaC** file to the machine with internet access.
10. Back on that machine, select the desired licence(s), click **Choose File**, browse to your **WibuCmRaC** file, and click **Start Activation Now**.
11. Click **Download License Update File Now**, then transfer the resulting **WibuCmRaU** file to your Armour OP machine.
12. On your Armour OP machine, double-click the **WibuCmRaU** file to apply the activated licences.



CodeMeter Control Center — highlight Universal Firm Code and click License Update.

▲ THEN COMPLETE THE RECEIPT STEP

Offline activation is not finished until you upload the confirmation receipt — see **“Upload confirmation receipt”** below.

▲ UPLOAD CONFIRMATION RECEIPT (OFFLINE ONLY — DO NOT SKIP)

After applying the `WibuCmRaU` file on an offline machine, you must complete activation by uploading a confirmation receipt back to CodeMeter License Central. Without it, the licence will **not** be recognised as fully activated.

1. After applying the `WibuCmRaU` file, open **CodeMeter Control Center**.
2. Select the relevant container: **"CmStick/B"** for CmDongle, or **"Universal Firm Code"** for CmActLicense.
3. Click **License Update**, select **Create receipt**, and click **Next**.
4. Choose a destination to save the generated receipt file (`WibuCmRaC`), and transfer it to the machine with internet access.
5. On the online machine, navigate to your unique licence activation URL and upload the receipt file when prompted.

Once the receipt uploads successfully, the offline activation is complete.

Step 3 — Download & run Armour OP

With CodeMeter installed and your licence activated, you're ready to install the application itself. Armour OP is portable — there is no installer to run.

▮ APPLICATION DOWNLOAD

NEEDS YOUR REVIEW

Contact the **Product Team at Exterro** to obtain your Armour OP download link.

1. Download the application package from the link provided by Exterro.
2. Extract the contents of the package to a folder of your choice.
3. Run `ForensicTriage.exe`.

▲ RUN AS ADMINISTRATOR

Right-click `ForensicTriage.exe` and choose **Run as administrator**. Elevation is what gives Armour OP access to the physical disks on the machine.

Run normally

The application launches, but it will **not** have access to the physical disks on the machine.

Run as administrator

The application launches with access to the physical disks on the machine.

Network Licensing — Multi-seat setup

If Exterro issued you a **multi-seat licence**, a single CodeMeter licence can be shared across several machines over the network. One machine acts as the **licence server** — it holds the licence container and makes seats available. Every other machine on the network is a **client** that checks out a seat on demand.

Licence server

The machine that holds the CodeMeter container (CmDongle or CmActLicense) with the multi-seat licence activated against it. Runs continuously so clients can reach it.

Client machines

Any machine that needs to run Armour OP but does not hold the licence locally. Must have CodeMeter installed and network access to the server.

Port

CodeMeter uses **TCP/UDP port 22350** by default. Ensure this port is open between server and all client machines.

DO THIS IN ORDER

Complete the server setup first, then repeat the client steps on each machine that needs to run Armour OP.

Server setup

Perform these steps on the machine that will host the licence. CodeMeter must already be installed and your multi-seat licence activated on it (see Steps 1 and 2 above).

▲ INSTALL CODEMETER AS A NETWORK SERVER

If you are reinstalling CodeMeter on the server machine, select the **Network Server** option during installation. This configures the Windows Firewall rules for TCP and UDP automatically. If CodeMeter is already installed, you can enable network server mode through WebAdmin in the step below.

1. Open **CodeMeter Control Center** (from the taskbar icon or the Start menu).
2. Click **WebAdmin** in the lower-right corner of the Control Center window. You can also open it directly in any browser at `http://localhost:22352`.
3. In WebAdmin, go to **Configuration → Server → Server Access**. Tick the **Network Server** checkbox and click **Apply**. This allows client machines on the network to reach this CodeMeter instance.
4. Next, go to **Configuration → Basic → Server Search List**. Click **Add new server**, enter `127.0.0.1`, then click **Apply**. This tells the server's own CodeMeter to check itself first when resolving licence requests.
5. Note the server's **IP address or hostname** — you will need this when configuring each client machine.

ASSIGN A STATIC IP TO THE SERVER

If the server's IP address changes (for example, after a reboot) client machines configured with that IP will lose their connection. Assigning a **static IP address** to the server machine, or pointing clients at the server's **hostname** rather than its IP, prevents this from happening.

Client setup

Repeat these steps on every machine that needs to run Armour OP using a seat from the server. Each client needs CodeMeter installed but does **not** need a locally activated licence.

1. Install CodeMeter on the client machine if it is not already present (see Step 1 above). The standard installation option is sufficient — you do not need to select Network Server.
2. Open **CodeMeter Control Center** and click **WebAdmin** in the lower-right corner.
3. In WebAdmin, go to **Configuration → Basic → Server Search List**. Enter the server's **hostname or static IP address**, click **Add**, then click **Apply**. CodeMeter will now look to that server when Armour OP requests a licence seat.

HOSTNAME VS IP ADDRESS

Using the server's **hostname** (e.g. `FORENSICS-SERVER`) is more resilient than an IP address. If the server is ever restarted and its IP changes, a hostname reference continues to work without needing to reconfigure clients.

⚠ IF CLIENTS CANNOT REACH THE SERVER

Check the following in order:

1. **Server licence first.** On the server itself, confirm Armour OP launches successfully before testing from a client.
2. **Network connectivity.** From the client machine, open a command prompt and run `ping <server hostname or IP>`. A successful reply confirms basic connectivity; no reply points to a network or firewall issue.
3. **Port 22350.** CodeMeter communicates on port 22350 by default. Ensure this port is open in the firewall on both the server and client. Anti-virus software can also block it — temporarily disabling AV can confirm if it is the cause, after which an exception should be added.

✓ NETWORK LICENCES READY

Once the server is configured and each client has the server address in its Search List, any client machine can launch Armour OP and automatically check out a seat for the duration of the session.

PART 2

Running ARMOUR OP

Launching the application and triaging drives, images, and archives

Launch & triage

When you run `ForensicTriage.exe`, Armour OP launches a self-contained web UI inside its bundled portable Firefox browser, served locally at `127.0.0.1:8000`. From the home page you can triage drives, images, or archives.

Interface

A self-contained web UI, opened automatically in the prepackaged portable Firefox browser.

Address

`127.0.0.1:8000`

Home page

Triage drives, images, or archives directly from the landing screen.

WHERE TO FIND THE USER GUIDE

Full documentation is available from the **Help** button in the **top-right corner** of the application's home page — the same screen where you triage drives, images, and archives.

PART 3

GPU Acceleration

Using Exterro ARMOUR OP with
NVIDIA CUDA-enabled GPUs

What you'll do

Install CUDA 12 and cuDNN 9, then run the in-app **System Check** to verify your GPU.

You will need

A machine with an **NVIDIA CUDA-capable GPU** and administrator rights to install the NVIDIA components.

Result

Armour OP's System Check reports the GPU, the CUDA / cuDNN libraries, and the GPU build as present.

DO I NEED THIS?

These steps apply only to machines with an **NVIDIA GPU**. Armour OP runs fine without one — GPU-accelerated features are simply disabled. Follow this guide to turn them on.

Step 1 — Install the NVIDIA CUDA Toolkit 12

Armour OP's GPU build targets the **CUDA 12** runtime. Install the latest 12.x release (for example, 12.9.x).

↓ DOWNLOAD CUDA TOOLKIT 12

Open the CUDA Toolkit Archive and choose the latest **12.x** release for Windows: [CUDA Toolkit Archive \(developer.nvidia.com\)](https://developer.nvidia.com/cuda-toolkit-archive)

⚠ PICK CUDA 12, NOT 13

NVIDIA's main download page now defaults to CUDA 13. Armour OP needs **CUDA 12.x**, so use the archive link above and select a 12.x version.

Run the installer and accept the **Express (default)** options. A reboot may be requested once installation completes.

Step 2 — Install cuDNN 9

cuDNN 9 provides the deep-learning libraries Armour OP uses on the GPU. Install the latest **9.x** release built for CUDA 12.

↓ DOWNLOAD CUDNN 9

Open the cuDNN downloads page (this serves the latest 9.x) and select the Windows build for **CUDA 12.x**: [cuDNN Downloads \(developer.nvidia.com\)](https://developer.nvidia.com/cudnn-downloads)

Match the CUDA version

When prompted, choose the cuDNN 9 package for **CUDA 12.x** — not CUDA 13.

Account

An NVIDIA developer account (free) may be required to download cuDNN.

Run the cuDNN installer and accept the defaults.

Step 3 — Verify the GPU in Armour OP

With CUDA 12 and cuDNN 9 installed, confirm that Armour OP can see your GPU.

1. Launch `ForensicTriage.exe` (right-click → **Run as administrator**).
2. Click the **Check** button in the top-right corner of the home page.

 Check

The **Check** button, top-right of the home page.

Armour OP inspects your GPU, copies any drivers it needs, and opens a **System Check** window.

If everything is in place

You'll see green ticks against **NVIDIA GPU detected**, **CUDA / cuDNN DLLs present**, and **Running GPU build**, plus **All default models present**.

System Check

[↻ Re-check](#)[✕](#)

NVIDIA GPU

- ✓ NVIDIA GPU detected: **Yes** — NVIDIA GeForce RTX 3060 Ti
- ✓ CUDA / cuDNN DLLs present: **Yes**
- ✓ Running GPU build: **Yes**

MODELS

- ✓ All default models present

Missing models only disable their feature. Re-check after staging models / CUDA DLLs.

A successful System Check — the GPU, libraries, and GPU build are all detected.

✓ YOU'RE DONE

When every check is green, no further action is needed — Armour OP is GPU-accelerated.

Step 4 — If the check reports missing DLLs

If the System Check shows a red ✕ against **CUDA / cuDNN DLLs present: No**, Armour OP can't yet see the cuDNN libraries. Stage them manually so the application has direct access.

System Check

Re-check



NVIDIA GPU

NVIDIA GPU detected: **Yes** — NVIDIA GeForce RTX 3060 TiCUDA / cuDNN DLLs present: **No**Running GPU build: **Yes**

⚠ CUDA 12 runtime + cuDNN 9 not found — install the NVIDIA CUDA Toolkit 12.x + cuDNN 9 (auto-detected once installed).

Hide missing DLLs

```

cudart, cublas, cublasLt, cudnn, cudnn_graph, cudnn_ops, cudnn_cnn, cudnn_adv,
cudnn_engines_precompiled, cudnn_engines_runtime_compiled, cudnn_heuristic

```

→ stage the CUDA / cuDNN DLLs in `_internal\tools\cuda`, then Re-check

MODELS



All default models present

Missing models only disable their feature. Re-check after staging models / CUDA DLLs.

An unsuccessful System Check — the cuDNN DLLs need to be staged for Armour OP.

1. Open File Explorer and go to your installed cuDNN `bin` folder:

```
C:\Program Files\NVIDIA\CUDNN\v9.x\bin\12.x\x64
```

Substitute your installed versions — `v9.x` is your cuDNN 9 version and the `bin` sub-folder (e.g. `12.x`) is named after your CUDA version.

2. Select and **copy all** `.dll` files in that folder.
3. In your Armour OP folder, open `forensic_triage\_internal\tools\` and create a new folder named `cuda` if it doesn't already exist:

```
...\forensic_triage\_internal\tools\cuda
```

4. **Paste** the copied DLLs into that `cuda` folder.

5. Back in the System Check window, click **Re-check**.

✓ **GPU ACCELERATION ACTIVE**

Armour OP now has direct access to the libraries it needs, and the System Check should report **CUDA / cuDNN DLLs present: Yes**. Your GPU-accelerated features are ready to use.

NOTE

Missing models only disable their individual feature — they don't affect GPU setup. You can always re-run the check with the **Re-check** button after staging models or DLLs.

✓ **YOU'RE READY**

CodeMeter is installed and licensed, GPU acceleration is configured where needed, and ARMOUR OP is running. Point it at a drive, image, or archive and start your first triage.