# Jelec CCTV

## JCAM 7.2

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2 INSTALLATION

In this Section, we describe how to install JCAM step-by-step.

1. Double click on the installer: Jcam_x86_0.7.2.3_installer.exe

2. Click Yes when asked if you want to allow this app to make changes to your PC
3. Click **OK** when prompted to select a language (by default only English is available – contact Jelec if you require another language)

![Installer Language](image)

4. Click **Next** to continue, when the Jcam installation Wizard appears

![Welcome to the Jelec - Jcam Setup Wizard](image)
5. Click **Install** to continue, when prompted to choose a start menu folder

![Choose Start Menu Folder Window]

Select the Start Menu folder in which you would like to create the program's shortcuts. You can also enter a name to create a new folder.

6. Click **Finish** one more time

![Completing the Jelec - Jcam Setup Wizard]

Jelec - Jcam has been installed on your computer. Click Finish to close this wizard.
3  **START UP & LOGIN**

1. If JCAM isn’t running, then click on Jcam icon, either in the start menu or on your desktop.

2. The first time you run Jcam you may need to allow access through the windows firewall

   ![Windows Security Alert](image1)

3. By default you should be greeted with the following screen

   ![JCam Screen](image2)
4. Select a user, enter the corresponding password, and click **Login**

![Login Screen]

5. The first time you login this settings tab will be automatically opened:

![Settings Tab]

6. You can determine the current active user in the top right corner

![User Icon]

7. You can change the active user by clicking the active user icon
4 Settings

There are a few global settings that can be modified by the user.

- **Aspect Ratio**: This will control the aspect ratio of all the videos in all the views
  - **Ignore**: stretch the video to fit the view
  - **Maintain**: keep original aspect ratio
  - **Maintain & Crop**: stretch the video to fit while keeping the original aspect ratio. This option will crop video that does not fit in the view
- **Hardware Acceleration**: Checking OpenGL will increase the performance of JCAM
  - This is not available on some older computers
- **Station Address**: The IP JCAM uses to communicate to other JCAM stations
  - Select the address that other JCAM stations can communicate with (if applicable)
- **Connection Timeout**: The amount of milliseconds to wait for a connection to a camera
  - Check **Always Reconnect** to reconnect to cameras automatically
- **Default User**: The user that will automatically be logged in when JCAM starts
  - Select a user from the dropdown. Note: password authentication will be bypassed

1. Open the configuration dialog and select the **Settings** tab
2. Now adjust the settings to your preferences
5 USERS

There are two built-in users with Jcam which cannot be removed:

1. Jelec – Admin
2. Anonymous – Viewer

User Roles:

1. Viewer – can only add views and view cameras which they have access to.
2. Operator – can add views, view cameras, and control cameras which they have access to.
3. Admin – full control. Sets camera permissions per user.

5.1 ADD/EDIT USER

Admin users can add additional users and specify their camera permissions.
5.1.1 Camera Permissions
Click edit camera permissions to open the camera permissions dialog.

NOTE: Leave password field blank to keep the password unchanged.

Drag cameras between lists to control camera permissions for that user.
6 SETUP CAMERAS

6.1 DISCOVER AND ADD CAMERAS

In this Section, we describe how you can add cameras to JCAM. There are two ways to add cameras: Scanning and manual adding.

6.1.1 Scanning for Cameras

1. Before adding cameras, you need to login as an admin user
2. Click the configuration gear icon in the top right corner to open the configuration dialog (this will open automatically, the first time you run JCAM)
3. Select the Cameras tab in the configuration dialog
4. Click the **Scan** button in right side of the configuration dialog (in the cameras tab) to open the scan dialog.

   ![Scan dialog](image)

   **There are two choices for scanning:**
   1. **Multicast**: This choice will scan cameras that are on the same subnet as JCAM.
   2. **Unicast**: This choice will scan the specified subnet.

5. In the dialog, enter the username and password associated with the cameras you are scanning for, then click the **Scan** button.

   ![Unicast scanning dialog](image)

6. Finally, click **OK** when the scan is completed, and close the scan dialog.

   ![Scan completed dialog](image)

   **JCAM reports the number of found devices when the scan is completed.**
7. All the found cameras should now appear in the **Camera List**
6.1.2 Adding a Camera
In some cases, when network latency is an issue, you can increase the connection timeout by using “Add” instead of scan. It works in a similar way to scan but just for a single camera and an adjustable timeout.

1. Click the Add button in right side of the configuration dialog (in the cameras tab) to open the add camera dialog.

   ![Add button](image)

   *Edit and Remove are greyed out when no camera is selected.*

2. Complete the Add Camera dialog, and click Add. Increase the **Connection Timeout** if needed.

   ![Add Camera dialog](image)

3. Click **OK** when the scan is completed, and close the Add Camera dialog.

4. The camera should now appear in the camera list.
6.2 CONFIGURE CAMERA SETTINGS

6.2.1 Set the Thumbnail for a Camera
It is possible to add a thumbnail to each camera in the Camera List. This makes it significantly easier to select the camera in a different context, e.g., when making a view.

1. Select a camera in the camera list, then click Edit. This will open the edit camera dialog.

**Hint:** Double clicking a camera in the camera list will open the edit camera dialog.

**Note:** To quickly set a thumbnail for each camera click in the Auto Capture button next to the camera list.
2. In the **Edit Camera** dialog click the empty **Thumbnail**, this will open the capture image dialog.

3. Click **Capture** to capture the image that you want to use as the thumbnail.

4. The image should now appear in the **Edit Camera** dialog and the camera list.
6.2.2 Camera Name

The camera location is a way to easily identify the camera. This value is set automatically as a camera number. You can change this to a more meaningful name by following these steps:

1. Select a camera in the camera list, then click **Edit**. This will open the edit camera dialog.
   a. See step 1 from section 6.2.1 for details.

2. Enter a new **Camera Name**, and click **Save**
6.2.3 Stream Profiles
A stream profile specifies what stream JCAM requests from the camera. Each camera has four different stream profiles. JCAM attempts to initialize these with given common sense default values.

- **HIGH**: This is the highest quality stream profile. It is reserved for when the camera is the main focus in a view
- **MEDIUM**: This is the second highest quality stream profile, and is the one used in general
- **LOW**: This is the lowest quality stream profile, and it is typically used when JCAM is displaying a lot of streams at the same time.

6.3 RECORDING: This profile is only available to Station
This is a convenience function that works the same as backup and restore.
Here we describe how to edit the stream profiles of a camera.

1. Select a camera in the camera list, then click **Edit**. This will open the edit camera dialog.
   a. See step 1 from section 6.2.1 for details.
2. Select a stream profile in the **Stream Profiles List**, and click **Edit**

3. Make any adjustments to the settings of the stream profile in the **Edit Stream Profile** dialog, then click **Apply**
4. Click **Compare** to compare the different stream profiles

5. Click **Test** to test the specific stream profile

**Hint:** if you are experiencing network latency try to decrease Resolution and FPS, also, increase GOV.
6. Finally, click **Save**, if you are happy with the changes.
7 Views

A view is a layout of camera streams. JCAM supports the following range of views (other types are available upon request):

<table>
<thead>
<tr>
<th>View</th>
<th>Layout</th>
</tr>
</thead>
<tbody>
<tr>
<td>V-Split</td>
<td><img src="image" alt="V-Split Layout" /></td>
</tr>
<tr>
<td>H-Split</td>
<td><img src="image" alt="H-Split Layout" /></td>
</tr>
<tr>
<td>Quad</td>
<td><img src="image" alt="Quad Layout" /></td>
</tr>
<tr>
<td>2x3</td>
<td><img src="image" alt="2x3 Layout" /></td>
</tr>
<tr>
<td>3x2</td>
<td><img src="image" alt="3x2 Layout" /></td>
</tr>
<tr>
<td>3x3e1</td>
<td><img src="image" alt="3x3e1 Layout" /></td>
</tr>
<tr>
<td>3x3</td>
<td><img src="image" alt="3x3 Layout" /></td>
</tr>
<tr>
<td>3x4</td>
<td>![3x4 Grid]</td>
</tr>
<tr>
<td>-----</td>
<td>-------------</td>
</tr>
<tr>
<td>3x5</td>
<td>![3x5 Grid]</td>
</tr>
<tr>
<td>4x4</td>
<td>![4x4 Grid]</td>
</tr>
<tr>
<td>4x4e1</td>
<td>![4x4e1 Grid]</td>
</tr>
<tr>
<td>5x5</td>
<td>![5x5 Grid]</td>
</tr>
<tr>
<td>6x6</td>
<td>![6x6 Grid]</td>
</tr>
<tr>
<td>Sequence</td>
<td>![Sequence Diagram]</td>
</tr>
<tr>
<td>Five</td>
<td><img src="image1.png" alt="Image" /></td>
</tr>
<tr>
<td>------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Seven</td>
<td><img src="image2.png" alt="Image" /></td>
</tr>
</tbody>
</table>
7.1 ADD VIEW

1. Open the configuration dialog, and click on the Views tab

2. Click on the Add button in the left side of the configuration dialog. This opens the create view dialog.

*Edit and Remove are greyed out if no views have been added/selected.*
3. Select a view template by dragging it from the list into the left side

![Image of view selection process]

4. Click on the **Cameras** tab, then drag-and-drop the cameras you want into the view

![Image of camera placement]

**NOTE:** You can also drag and drop within the view to rearrange the cameras.
5. Finally, when you have selected cameras for each position, then enter a name in the name field, and click create

<table>
<thead>
<tr>
<th>Name:</th>
<th>Downstairs</th>
</tr>
</thead>
</table>

6. The view you created should now appear in the main window as a tab, and also in the list of views in the configuration dialog.
7.2 CREATE SEQUENCE

A sequence is a view where a list of camera streams are displayed one at a time. In the following, we describe how to create a sequence step-by-step.

1. Open the configuration dialog, and select the Views tab

2. Click the Add button

3. Select the Sequence template
4. Now drag-n-drop the cameras you want in the sequence into the Drop Camera Here areas in the sequence configuration.

5. Double click on a sequence element to open the edit sequence dialog. Specify the amount of time that the sequence should linger at each camera (for PTZ cameras you can also specify a preset to use).

   - **Duration(s):** The duration for which this particular element is displayed before switching to the next element in the sequence
   - **Preset:** The preset called when switching to this element

6. You can remove sequence positions by clicking on the Remove Element button

7. Finally, click Create to create the sequence view
7.3 **EDIT VIEW**

1. Open the configuration dialog and select the **Views** tab

2. Select the view you want to edit, and click the **Edit** button. This opens the edit view dialog

3. In the edit view dialog, you can drag and drop cameras (and views) into the different areas of the view you are editing. You can also change the name of the view

4. After you finish editing, click **Save**
7.4 REMOVE VIEW

1. Open the configuration dialog and select the Views tab

2. Select the view you want to remove in the views list, then click the Remove button and confirm that you want to remove it
8 PTZ

JCAM supports VAPIX, ONVIF, and Analog PTZ. (contact Jelec for custom Analog PTZ drivers)

1. Select the **Jelec** tab in the main window

2. Select a PTZ camera from the camera list (check the PTZ checkbox to only display cameras with PTZ capability)
3. Select the **PTZ controls** tab or the **PTZ presets** tab
8.1 CREATE PTZ PRESETS
1. Select the **Jelec** tab in the main window

![Jelec Tab Image]

2. Select the relevant camera and drag it into the viewing area
3. Select the **PTZ controls** tab and maneuver the camera into the desired preset position
4. Select the **PTZ presets** tab, and click the **Add Preset** button in the bottom part of the tab

![Add Preset Button Image]

5. In the create preset dialog, enter the name for the preset and click **Create**
8.2 TAKE CONTROL

Taking control of a camera means you are the only one able to use PTZ controls with the camera. E.g., if there are two JCAM stations: #1 and #2, where Station #1 takes control of a camera, then another user on Station #2 will not be able to control the camera. **Note:** Taking control only works between JCAM stations, so any 3rd party software will still be able to control the camera.

In the following, we describe step-by-step how-to take control of a camera.

1. Select a camera in the PTZ camera list
2. Click **Take Control**
3. Wait for control to be established
4. Click **OK**, when control has been accepted

5. You now have exclusive PTZ control of the camera, and your username and station name appear in the list of cameras (so people at other stations will know who is controlling the camera)
9 STATIONS

The Stations tab in the configuration window lists all the stations on the network. You can determine if a station is up and who is logged in.

9.1 ADD/REMOVE STATION

9.1.1 Add
You may need to add a station manually if they are on different subnets.
1. The Station will now show up in the station list as Inactive and Unknown.

   a. Once the stations communicate to each other the fields will be populated.

9.1.2 Remove
If a station becomes inactive or cannot communicate you can remove the station by selecting it and clicking Remove.
9.2 **Backup/Restore Station**

You can backup any station with the same *Schema* and save the backup file where you prefer. When restoring a station you can only restore a local station.

9.2.1 **Backup**

9.2.2 **Restore**

Jcam will restart after a restore.
9.3 **Replicate Station**

This is a convenience function that works the same as backup and restore.
10 JCAMRECORDER

JcamRecorder is a separate instance of Jcam which can view and record the RECORDING stream profile. This section discusses settings specific to JcamRecorder.

10.1 SETTINGS

1. Open the configuration dialog and select the Settings tab

2. Adjust the recording days and recordings directory as needed.
11 TROUBLESHOOTING

11.1 CANNOT FIND AXIS ONVIF CAMERA

1) Make sure an Onvif user is added via the camera webpage
2) If a user exists then the issue is probably a security setting that must be disabled.
   a. Access the plain config in the camera webpage.
   b. Select the WebService group from the dropdown.
   c. Deselect the “Enable replay attack protection” checkbox.
   d. Save changes
11.2 FREQUENT DISCONNECT OF SYNECTICS CAMERAS
This is typically caused by the **RTP default keep alive timeout** setting on the camera.

1. Login to the synectics camera.
2. Navigate to the network configuration settings.
3. Change the RTP default keep alive timeout setting to 120.