eBUS SDK Licensing

Knowledge Base Article

A Runtime license is required to take full advantage of the eBUS SDK's transmit and receive capabilities. When a license is activated, the embossed watermark that appears on received images is no longer applied, and restrictions for receiving raw data as well as the 15-minute connection limit for transmitters are removed. To access eBUS SDK (Version 6.0 and later), a Developer Seat license is also required.

This knowledge base article explains the eBUS SDK license structure, explains how to obtain a license, and provides activation instructions. If you are experiencing difficulty activating your license, please review the troubleshooting steps at the end of this publication.

This knowledge base article applies to eBUS SDK 5.1 (and later). Contact your Pleora Support representative if you require information related to enterprise-wide eBUS SDK licensing.

The following topics are covered in this knowledge base article:

About eBUS SDK Licenses

There are three types of licenses for the eBUS SDK:

Developer Seat (990-1024) license:

- Available in eBUS SDK 6.0 (and later).
- Bundles together the receiver licenses for GigE Vision and USB3 Vision devices and the transmitter license for software-based GigE Vision devices.
- Includes one year of download access to the eBUS SDK maintenance releases.
- Unlocks all of the features that are required to develop with GigE Vision and USB3 Vision.

eBUS Receiver (eBUS GEV-Rx (990-1000) and eBUS U3V-Rx (990-1005)) Runtime License:

- Removes the watermark from images received from devices that use third-party non-Pleora GigE Vision or USB3 Vision transmitter technology.
- Allows you to receive the GenICam raw data payload type from third-party non-Pleora transmitter technology.
- Licenses are available for GigE Vision devices or USB3 Vision devices.
- A Receiver license is not required to receive images from a Pleora transmitter.

eBUS Transmitter (eBUS GEV-Tx (990-1023)) Runtime License:

- Available in eBUS SDK 6.0 (and later).
- Removes the 15-minute time limit for applications connected to a software-based GigE Vision device that was developed with the eBUS Tx portion of the eBUS SDK.
- Allows software developers to customize the device information strings for their software-based GigE Vision device, such as the device model name.

The following tables summarize the eBUS SDK Receiver (eBUS GEV-Rx (990-1000) and eBUS U3V-Rx (990-1005)) and eBUS SDK Transmitter (eBUS GEV-Tx (990-1023)) runtime licensing options.

Table 1: eBUS Receiver (eBUS GEV-Rx (990-1000) and eBUS U3V-Rx (990-1005)) Licensing

Camera technology	Type of license	Watermark appears on received images?	Receives the raw payload type?
Third-party non-Pleora transmitter technology	No license	Yes	No
	GEV-Rx (990-1000)	No	Yes
	U3V-Rx (990-1005)	No	Not applicable for USB3 Vision devices
	Developer Seat (990-1024)	No	Yes
Pleora transmitter technology, such as eBUS Tx	N/A	No	Yes

Table 2: eBUS Transmitter (eBUS GEV-Tx (990-1023)) Licensing

Type of license	Continues to transmit video after 15 minutes?	Allows software developers to customize the Device Information?
No license	No	No
GEV-Tx (990-1023)	Yes	Yes
Developer Seat (990-1024)	Yes	Yes

Obtaining a License

Licenses can be purchased in one of the following formats from your Pleora representative.

Table 3: License Formats

License format	Details
Standalone license file	• Received by e-mail. • Available for the Receiver, Transmitter, and Developer Seat licenses. • At the time of purchase, you will provide the MAC address of a NIC in the workstation (for the Receiver or Developer Seat license) or a NIC in the embedded computer (for the Transmitter license). The MAC address is required regardless of the protocol (GigE Vision or USB3 Vision). • Must be copied to a particular location on the workstation or embedded computer, as outlined later in this publication. • Supported on the Windows, macOS, and Linux operating systems.
Pre-programmed USB dongle (990-1018)	• Physical USB dongle that is sent from Pleora. • Available for the Receiver license. Not available for the Transmitter or Developer Seat licenses. • Must be connected to (and remain connected to) a USB port in the workstation. • Supported in eBUS SDK 5.0 (and later) on the Windows operating system. Supported in eBUS SDK 6.2 (and later) on the Linux operating system for x86 platforms.

Activating a License

When you activate a license on your computer or embedded computer, the restrictions are removed.

Activating a Standalone License File

This section explains how to activate a standalone license file on your computer or embedded computer. If you purchased a pre-programmed USB dongle, see "Using a Pre-Programmed USB Dongle" on page 5.

Please take note of the following important points:

• DO NOT rename the license file provided by your Pleora representative.
• DO NOT disable or remove the NIC (or WiFi adapter) that is associated with the license (Windows and Linux).
• Ensure the link status is active in the Network Utility (macOS).

- Ensure the Pleora eBUS Player Toolkit or eBUS SDK is installed on your computer or embedded computer.

> If you are activating a license on a Linux machine, ensure that you uninstall any previous versions of eBUS SDK before installing eBUS SDK 6.2.

Table 4: To Activate a License

Operating system	Do the following...
Windows	**1.** Copy the license file to: eBUS SDK 5.1.2 (or later) **\Program Files\Pleora Technologies Inc\eBUS SDK\Licenses** eBUS Player Toolkit: **\Program Files\Pleora Technologies Inc\eBUS Player\Licenses** eBUS SDK 5.0.2 (or earlier) 32-bit operating systems: **\Program Files \Pleora Technologies Inc\eBUS SDK\Licenses** 64-bit operating systems: **\Program Files (x86)\Pleora Technologies Inc\eBUS SDK\Licenses** **2.** Close and reopen any applications that use the eBUS SDK, such as eBUS Player. **Important:** If you have used eBUS SDK licenses in eBUS SDK Release 5.0.2 (or earlier) and are upgrading to eBUS SDK Release 5.1, please see the important note at the end of these instructions.
Linux	**1.** Copy the license file to: **/opt/pleora/ebus_sdk/<*Distribution_Targeted_by_eBUS_Installer*>/licenses** **2.** If you are using eBUS SDK Version 4.0 to 6.1, stop and restart the eBUS daemon* by executing the commands below. If you are using eBUS SDK 6.2 or later, proceed to step 3. • To stop and restart the eBUS daemon: **cd/opt/pleora/ebus_sdk/<*Distribution_Targeted_by_eBUS_installer*>/bin** **sudo service eBUSd stop** **sudo service eBUSd start** **3.** For USB3 Vision devices that use third-party non-Pleora transmitter technology: You must add the device's vendor ID to the eBUS SDK. **Tip:** If you are not sure if your device uses Pleora transmitter technology, observe the USB GUID that appears on the device's label or in your software application. If it begins with the Pleora vendor ID (**28b7**), it uses Pleora transmitter technology. • To add the vendor ID to the eBUS SDK: **cd /opt/pleora/ebus_sdk/<*Distribution_Targeted_by_eBUS_Installer*>/bin** **sudo ./set_udev_rules.sh**. **4.** If you are using eBUS SDK Version 4.0 to 6.1, stop and restart the eBUS daemon, as outlined in step 2. **5.** Close and reopen any applications that use the eBUS SDK, such as eBUS Player.
macOS	**1.** Copy the license file to: **/Library/Application Support/Pleora/eBUS SDK/licenses** 2. Restart the eBUS daemon*. **cd /Library/Application Support/Pleora/eBUS SDK** **sudo ./eBUSDaemonHelper.sh --autoload** The eBUS daemon stops and restarts.

*The eBUS daemon is used by the eBUS SDK for connection to USB3 Vision devices and is also used to license the eBUS SDK's transmit and receive capabilities in Versions 4.0 to 6.1.

Using a Pre-Programmed USB Dongle

Connect the pre-programmed USB dongle to the workstation. When you use eBUS Player, a Pleora sample application, or an application created with the eBUS SDK, the license is detected and the restrictions are removed.

The pre-programmed USB dongle is compatible with:

- On the Windows operating system, Version 5.0 (or later) of the eBUS Player and Pleora sample applications, and applications created with Version 5.0 (or later) of the eBUS SDK.
- On the Linux operating system for x86 platforms, Version 6.2 (or later) of the eBUS Player and Pleora sample applications, and applications created with Version 6.2 (or later) of the eBUS SDK.
- Pleora Receiver licenses (not Transmitter or Developer Seat licenses).
- The Windows operating system and the Linux operating systems for x86 platforms.

If you are using the macOS or a Linux ARM operating system, you should purchase the standalone license file from Pleora.

The USB dongle must remain connected to the workstation for the license to be detected. The Pleora applications periodically check that the USB dongle is connected.

Troubleshooting Tips

Issue: Licensing restrictions have not been removed

The license may not have been installed properly if you have any of the following symptoms:

- In the **Device Selection** dialog box in eBUS Player, **Invalid** appears beside **License**.
- The Pleora Technologies embossed watermark appears on received images.
- Raw data is not received from devices that use third-party non-Pleora transmitter technology.
- Applications connected to your software-based GigE Vision device disconnect after 15 minutes.
- Using the eBUS Tx API, you can customize the device information, but it remains unchanged when you run your software-based GigE Vision device.

Possible Resolutions

- If you are using the standalone license file (not the pre-programmed USB dongle), perform the following troubleshooting tasks:
    - Check that you copied the license to the correct location on your computer or embedded computer, as outlined in "Activating a Standalone License File" on page 3.
    - Check that the name of the **Licenses** folder and license file (.lic) have not been changed.
    - For the NIC or WiFi adapter to which the license is associated, check that the NIC or WiFi adapter is enabled (on the Windows and Linux operating systems) or active (macOS).
    - On the Linux operating system or macOS, restart the eBUS daemon (eBUSd), as outlined in "Activating a Standalone License File" on page 3.

- For eBUS SDK 4.0.8 (and earlier) and 4.1.1 (and earlier) on the Ubuntu distribution, with more than one license file in the **licenses** folder, you may be experiencing a known issue that has been fixed in subsequent releases. To work around this issue, we recommend you update to the latest eBUS SDK release.

Advanced Tasks to Resolve the Issue

You can perform the following advanced troubleshooting tasks:

- For the standalone license file and the pre-programmed USB dongle, uninstall all non-Pleora GigE Vision software and drivers from your computer.
- For the standalone license file on the Windows operating system, check that the system environment variable is set to the right path:
    - In the **Windows Control Panel**, click **System and Security** and then click **System**.
    - In the left-hand panel, click **Advanced system settings**.
    - In the **System Properties** dialog box that appears, click **Environment Variables**.
    - Under **System variables**, click **PUREGEV_ROOT** and then click **Edit**. If the variable value has more than one path entered, delete the incorrect path. By default, the paths are:
        - 32-bit Windows: **C:\Program Files\Pleora Technologies Inc\eBUS SDK**
        - 64-bit Windows: **C:\Program Files (x86)\Pleora Technologies Inc\eBUS SDK**
    - Click **OK** to close all open dialog boxes.
- If you completed the above tasks and the issue is not resolved, contact your Pleora Support representative.

Issue: USB3 Vision device name is all zeros and you cannot connect to it

If you are using the standalone license file on the Linux operating system and macOS, if your USB3 Vision device appears in eBUS Player with zeros instead of the device name, the eBUS daemon may not be running. The eBUS daemon is supported on eBUS SDK Versions 4.0 to 6.1 on Linux operating systems. On the Linux operating system, an additional cause can be that the device's vendor ID has not been added to the eBUS SDK.

Possible Resolutions

On the Linux operating system:

For eBUS SDK Versions 4.0 to 6.1, ensure the eBUS daemon is installed and configured to automatically load at startup:

```
sudo ./installdaemon.sh
```

To add the device's vendor ID to the eBUS SDK, run the **set_udev_rules.sh script** to add the vendor ID for the device, as outlined in "Activating a Standalone License File" on page 3.

On macOS:

To ensure the eBUS daemon is installed and configured to load automatically at startup, run the **eBUSDaemonHelper.sh** script with the autoload argument, as outlined in "Activating a Standalone License File" on page 3.

Issue: eBUSd daemon is not loaded and cannot restart (in eBUS SDK Versions 4.0 to 6.1)

If you are using eBUS SDK Versions 4.0 to 6.1 and want to activate a license on the Linux operating system or macOS but the eBUSd is failing to restart and is reported as "not loaded", for example:

```
sudo service eBUSd stop
Failed to stop eBUSd.service: Unit eBUSd.service not loaded.
```

Possible Resolution

On the Linux operating system:

To ensure the eBUS daemon is installed and configured to automatically load at startup:

```
cd /opt/pleora/ebus_sdk/<Distribution_Targeted_by_eBUS_installer>/bin
sudo ./install_daemon.sh
```

On macOS:

To ensure the eBUS daemon is installed and configured to load automatically at startup, run the `eBUSDaemonHelper.sh` script with the autoload argument, as outlined in "Activating a Standalone License File" on page 3.

Important Note for Customers Upgrading to eBUS SDK Release 5.1.5 (or Later) on the Windows Operating System

The eBUS SDK installation path has changed on the Windows operating system, including the location of the **Licenses** folder. If you were using eBUS SDK 5.0.2 (or earlier) and you had previously placed eBUS SDK receive license files in the **Licenses** folder, you must do the following after you upgrade to Release 5.1.5 (or later):

1. In Windows Explorer, move the eBUS SDK receive license files from one of the following locations:
   - **32-bit operating systems:** \Program Files\Pleora Technologies Inc\eBUS SDK\Licenses
   - **64-bit operating systems:** \Program Files (x86)\Pleora Technologies Inc\eBUS SDK\Licenses
2. To the following location (the location is now the same for 32-bit and 64-bit Windows operating systems):

   If you installed the eBUS SDK: \Program Files\Pleora Technologies Inc\eBUS SDK\Licenses

   If you installed the eBUS Player Toolkit: \Program Files\Pleora Technologies Inc\eBUS Player\Licenses
3. Delete the original folder (**\Program Files\Pleora Technologies Inc\eBUS SDK\licenses** or **\Program Files (x86)\Pleora Technologies Inc\eBUS SDK\Licenses**). It is no longer required.

Technical Support

On the Pleora Support Center, you can:

- Download the latest software and firmware.
- Log a support issue.
- View documentation for current and past releases.
- Browse for solutions to problems other customers have encountered.
- Read knowledge base articles for information about common tasks.

To visit the Pleora Support Center

- Go to supportcenter.pleora.com.

  Most material is available without logging in to a Support Center account. To access software and firmware downloads, in addition to other content, log in to the Support Center. If you do not have an account, click **Request Account**.

  Accounts are usually validated within one business day.

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