

INSTALLATION MANUAL

Version 16.5 - November 2020



Multicam.LSM



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What's New?

In the Multicam Installation manual, the icon  has been added on the left margin to highlight information on new and updated features in release 16.5.

The specific changes linked to new features in version 16.5 are listed below:

A connection with a DNS server in the same network can be configured.

- See section "Installing Multicam" on page 10.

1. Requirements



WARNING

Before you install Multicam 16 or upgrade to this software version, we suggest that you carefully read this guide and the corresponding release notes.

Multicam 16.X can only be installed on EVS servers equipped:

- with an MTPC board HS873, revision A3/A6 or A3/A5
- with 2 GB of RAM
- with a TGE board as GBE interface
- with internal LAN
- with an MV4 board if an internal multiviewer is installed

The server must have the following hardware revision:

- revision 4.21 for XT3, XS3 and XTnano servers
- revision 5.11 for XT4K and XS4K servers
- revision 6.00 for XT-VIA servers

2. Installing and Upgrading Multicam

2.1. Overview

Installation with USB Key or with XNet(Web) Monitor

You can upgrade Multicam in two different ways:

- Plugging a USB key including the installer into the EVS server.
This upgrade process is described in the Multicam Installation manual.
- Launching the delivered .gz file via XNet (Web) Monitor.
This upgrade process is described in the XNet (Web) Monitor user manual.



NOTE

Upgrade from Multicam 15 to Multicam 16 can be done directly using a compatible version of XNet(Web) Monitor.

Creating a USB Installation Key

When you upgrade Multicam with a USB key, you first need to prepare the USB installation key you will plug into the EVS server.

You will generate the USB installation key using the **Multicam USB Creator** tool.

See section "Creating a USB Installation Key" on page 2 for detailed information on how to create a USB installation key.

Standard Installation vs. Installation with Formatting

Two installation methods are available when you upgrade Multicam with a USB key:

Options	Suited ...
Format and Install Multicam	<ul style="list-style-type: none">• for a very first installation• when getting an error about disk not correctly formatted• when you want to erase all the content of the Linux drive partition
Install Multicam	<ul style="list-style-type: none">• in all other cases (standard process)

2.2. Creating a USB Installation Key

Introduction

When you first install Multicam 16.X on your EVS server from Multicam 14.X or 15.X, you can, but do not have to, perform the installation from a USB key (of min. 2GB capacity, 4GB recommended).

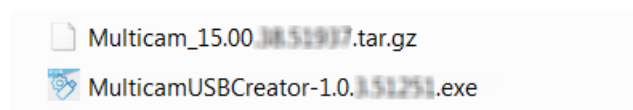
If you do not use the USB key, you can install the version via XNet Monitor or XNet Web Monitor.

When you upgrade Multicam from a USB key, you first need to create the USB installation key with the requested version using the **Multicam USB Creator** tool.

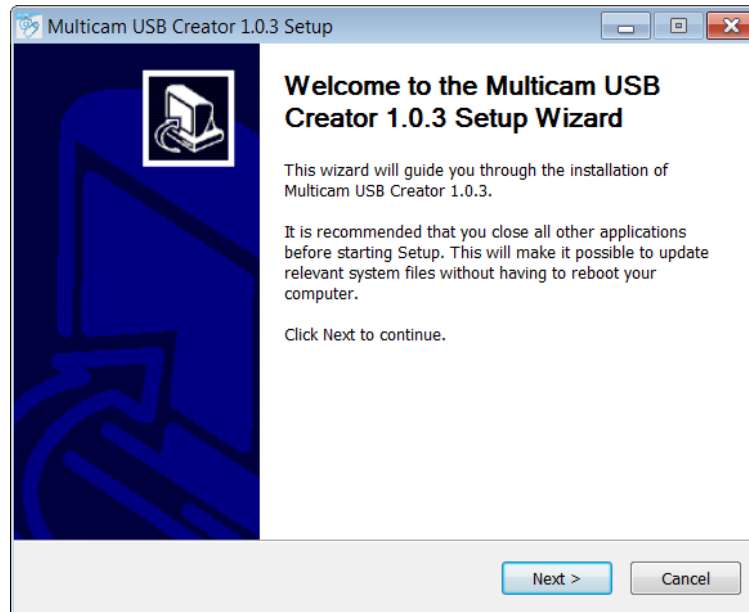
How to Install the Multicam USB Creator Tool

To be able to generate the USB installation key, you need to install the **Multicam USB Creator** tool.

You will find the USB Creator executable on the Multicam package, next to the Multicam version file (.tar.gz):

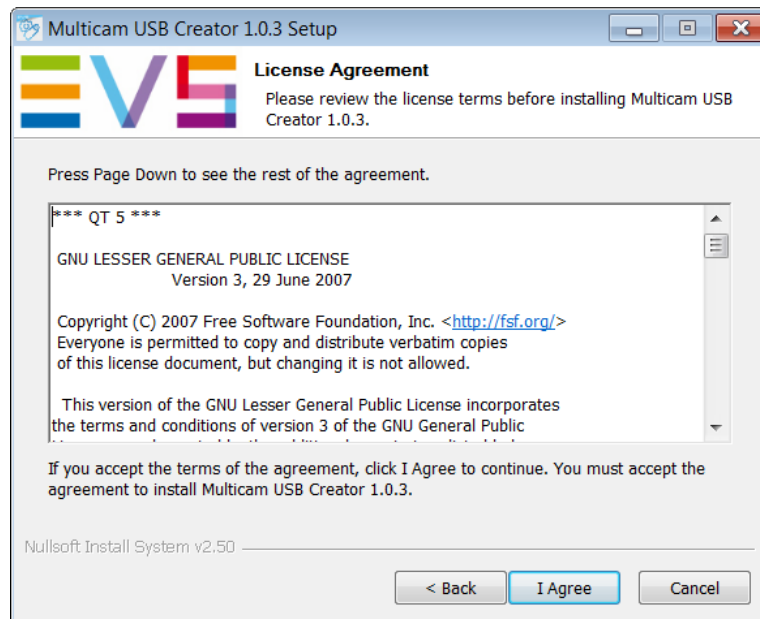


1. Double-click the executable. The Welcome window opens.
2. Click **Next** in the Welcome window.



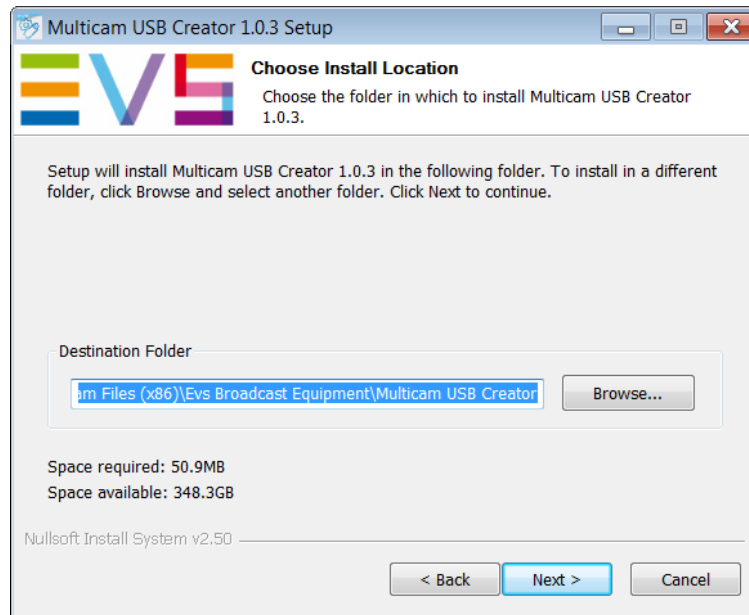
The License Agreement window opens.

3. In the License Agreement window, read the license agreement, and press **I Agree**.

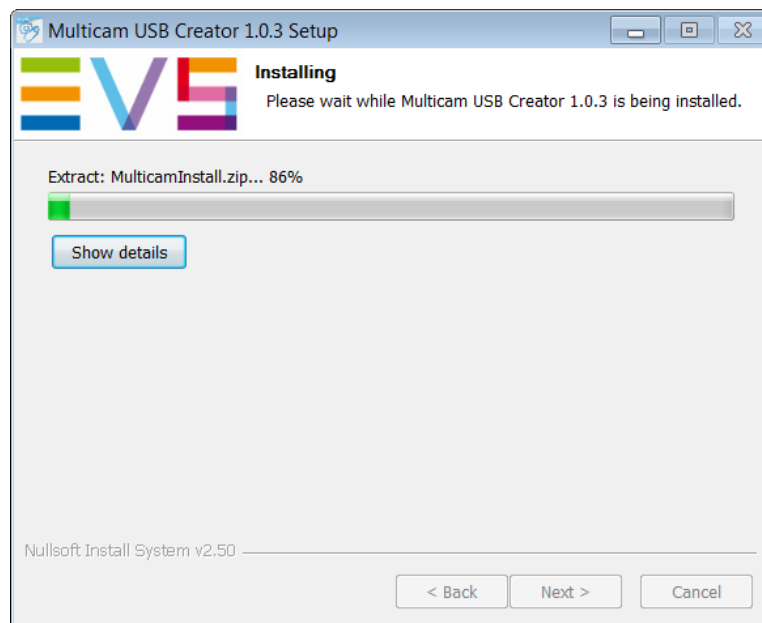


The Choose Install Location window opens.

4. In the Choose Install Location window, click **Browse** to browse to the folder where you want to install the Multicam USB Creator tool, or keep the default installation path, and click **Next**.



5. The Installing window opens and displays a progress bar, as well as details on the installation when you click on the **Show Details** button.



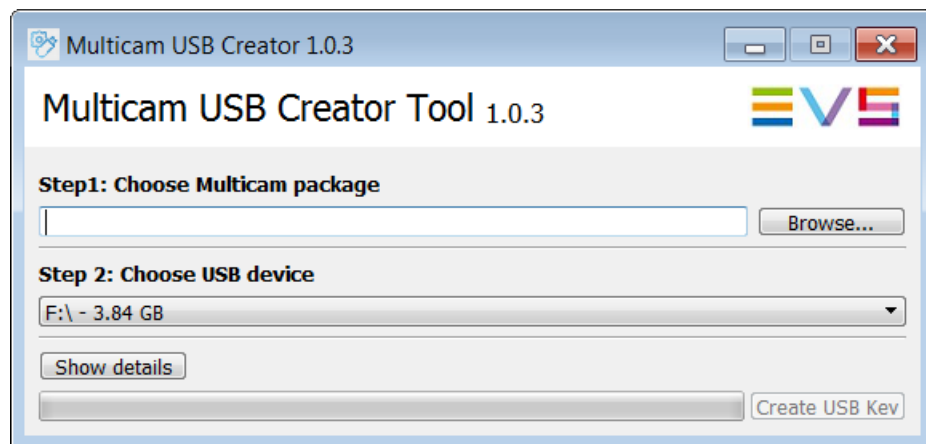
6. When the tool is installed, the Completing Installation window opens. Click **Finish** to close the installation wizard.

How to Generate the USB Installation Key

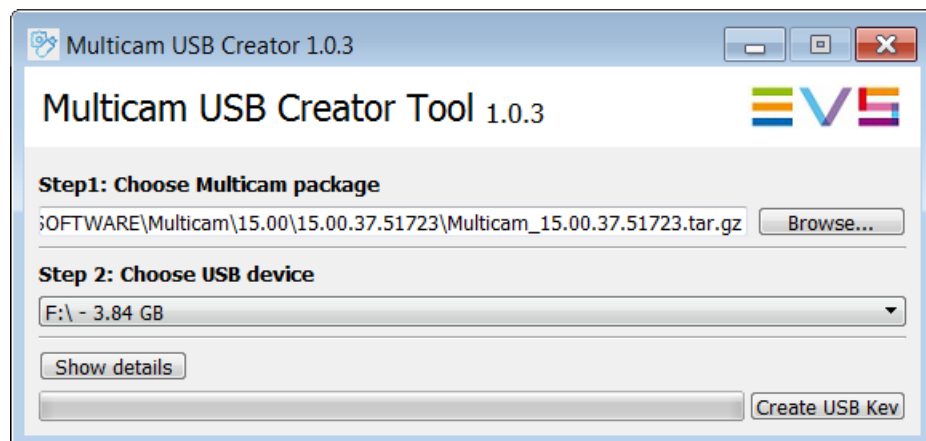
Once the Multicam USB Creator tool is installed on your computer, you can generate your USB installation key with the Multicam version you want to install.

1. Double-click the Multicam USB Creator Tool icon on your desktop.

The tool opens:



2. In the Multicam USB Creator tool, do the following actions:
 - In the Step 1 area, click the **Browse** button, point to the Multicam installation file (.gz file) and click **Open** to come back to the tool.
 - In the Step 2 area, click the drop-down field and select the USB key to which the installation package should be copied. The USB key must have at least 2GB capacity, and 4GB is recommended.



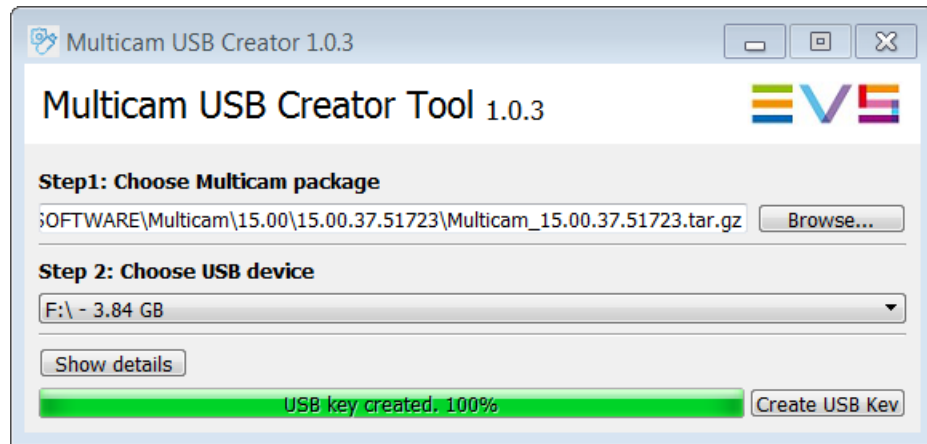
3. Click the **Create USB Key** button to start formatting the key and copying the installation package on the key.

The following warning message is displayed: **"Are you sure you want to erase all the content of the selected drive?"**

4. Click **OK** to confirm you want to proceed to the key creation.

A progress bar is displayed.

When the progress bar shows 100%, the installation package is prepared on the the USB key, and you can close the tool clicking the cross in the upper right corner:



The USB installation key is now ready, and you can proceed to the installation of the Multicam version on the EVS server. See section "Installing Multicam" on page 10.

Once the USB installation key has been created, you can reuse it to install other Multicam packages. You will simply have to copy the .gz installation file in the **Package** folder created on the USB installation key.

You can have several installation files on an USB key. In this case, you are asked to select the Multicam version you want to install at the beginning of the installation process.

2.3. Formatting the System Drive Partition

When to Format the System Drive Partition?



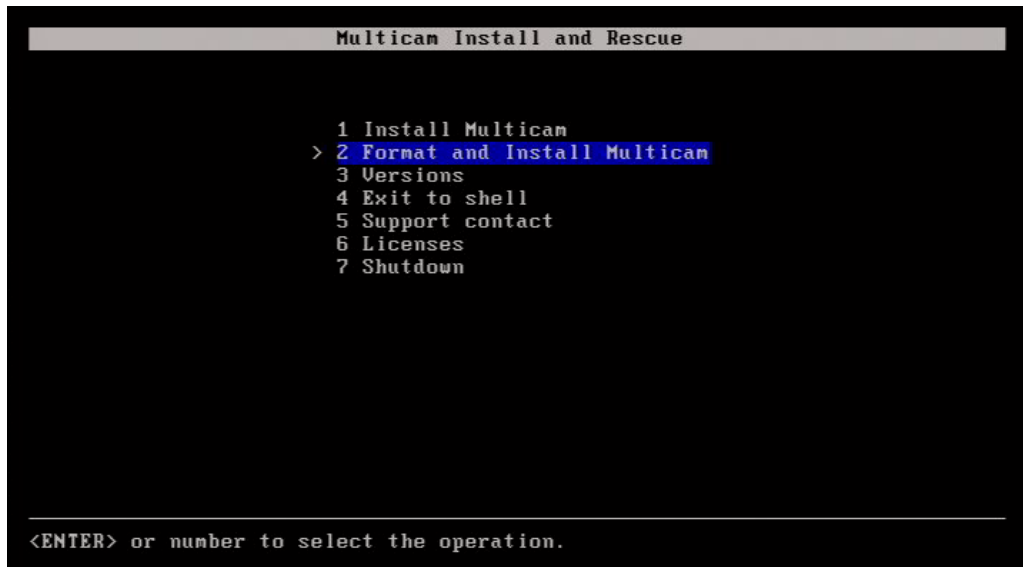
NOTE

Formatting the system drive partition will format the Linux partition. It will keep the Windows CE partition.

In the following cases, you need to select the option **Format and install Multicam** in the Multicam Installation window:

- when you install Multicam 15.00 for the first time.
- when you want to erase all the content of the system drive partition and perform a full installation.
- if you get the error message: "**Disk not correctly prepared for installation**".

A full install starts by erasing all the contents of the system drive partition.



```
Multicam Install and Rescue

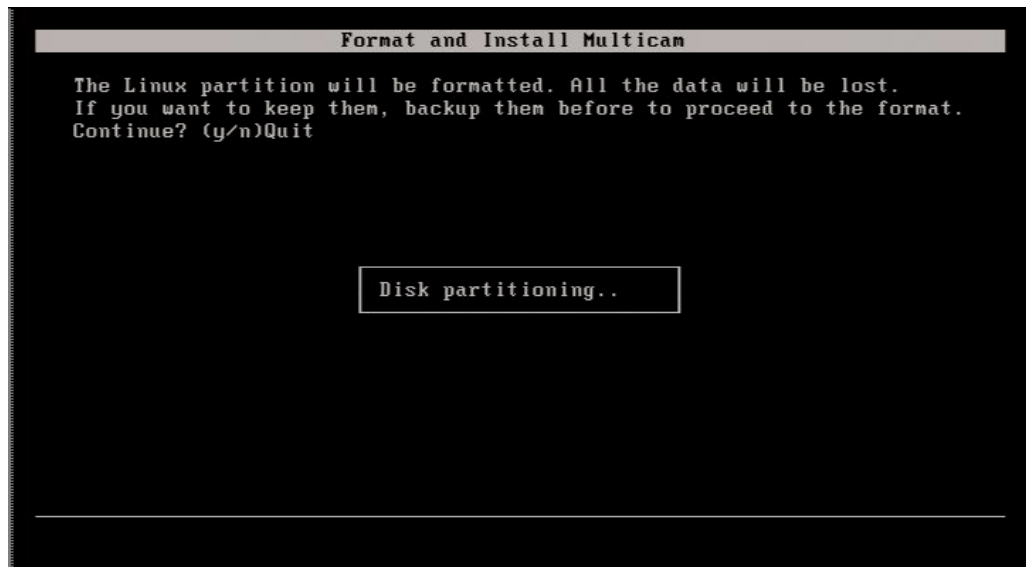
1 Install Multicam
> 2 Format and Install Multicam
3 Versions
4 Exit to shell
5 Support contact
6 Licenses
7 Shutdown

<ENTER> or number to select the operation.
```

When the disk has been formatted, the standard installation automatically follows. See section "Installing Multicam" on page 10.

Required Confirmation

When you launch the system drive formatting, a warning states that the system drive partition will be cleared during the operation:



You need to validate the action:

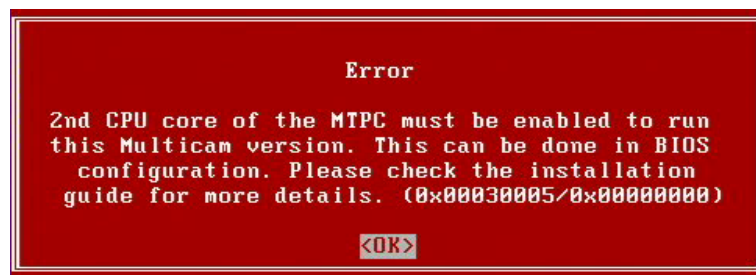
- Pressing **N** will cancel the operation and return to the installation menu so that you can still back up your data before formatting the drive.
- Pressing **Y** will proceed to the format of the drive before installing the Multicam.

2.4. Enabling Second MTPC CPU Core

Introduction

When upgrading to Multicam 16.0 or higher, you need to enable the second CPU core on the MTPC in the BIOS, as described in this section.

If you do not perform this action, you will get the following error message when you will try to upgrade:



How to Enable the Second MTPC CPU Core



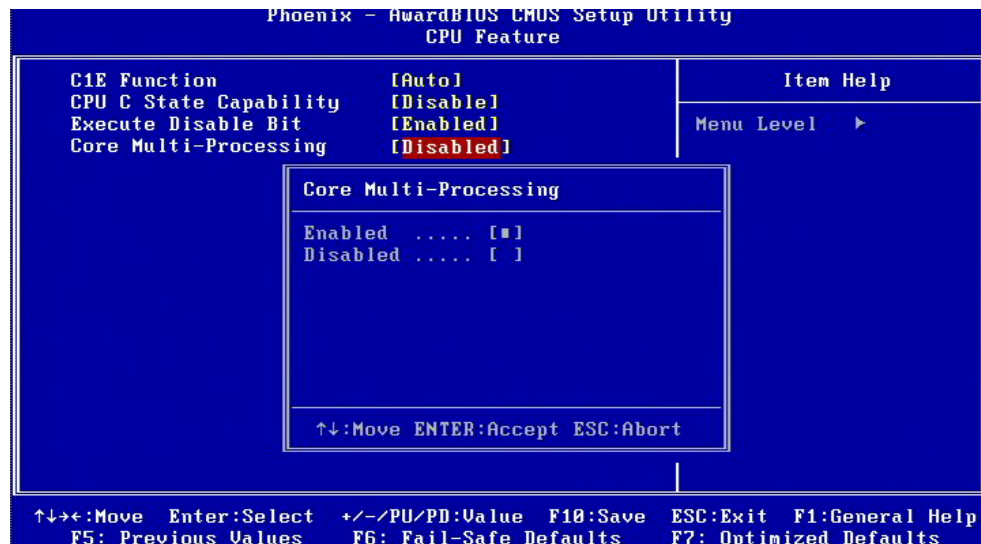
TIP

For a quicker and easier way to enable the second MTPC CPU core, select the option **4. reset bios** in Multicam Maintenance menu (See section "Resetting BIOS" on page 22). The CPU cores are indeed enabled by default.

You will find below the full procedure to access the BIOS and enable the second MTPC CPU core. A quicker and easier way to do this

1. As you switch on or reboot the EVS server, press quickly **DEL** (when you see the DOS screen) to enter the BIOS setup.
2. In the BIOS menu, select **Advanced BIOS features** and press **ENTER**.
3. Select **Press Enter** next to **CPU feature** and press **ENTER**.
4. Select **Disabled** next to **Core Multi-processing** and press **ENTER**.

This opens the Core Multi-Processing dialog box:



5. Using the arrows, move the square bullet to **Enabled** and press **ENTER**.
6. Press **F10** to open the Save window.
7. Type **Y** and press **ENTER** to answer positively to the question "Save to CMOS & Exit?"

The server continues booting and the Multicam maintenance window opens, then the Multicam Maintenance window opens.

8. Move in the Multicam Maintenance window to stop the countdown.

At this stage, you can start upgrading to Multicam 16.00 using XNet Monitor, for example.

2.5. Installing Multicam

Overview



WARNING

Before you update to Multicam 16.0, make sure that you perform the following actions:

- Upgrading the RAM from 1 GB to 2 GB
- [Enabling the 2nd MTPC core](#) in the BIOS

The standard installation process includes the following steps.

The steps requiring the user intervention in all cases are followed by **user** between brackets:

1. [Inserting the USB key](#) (user)
2. [Selecting the Multicam version on the USB key](#) (user)
3. [Check of the disk format](#) (automatic)
4. [Check of the memory size](#) (automatic)
5. [Check of the current version](#) (automatic)
6. [Check of disk space available](#) (automatic)
7. [Installation of Multicam](#) (automatic)
8. [Configure the VGA resolution](#) (user)
9. [Configuring the PC LAN 1 and DNS Server Address](#) (user)
10. [End of installation process](#) (automatic)

By clicking the hyperlink, you will directly jump to the detailed section in the installation process.

Automatic RAID Reformatting

When you upgrade to Multicam 16.X for the 1st time, the disk RAID are reformatted.

Should you need to downgrade from Multicam 16.X back to 14.X or 15.X, use at least the Multicam maintenance versions 14.02.49 or 15.03.44. Only these maintenance versions include RAID reformatting.

How to Install Multicam



NOTE

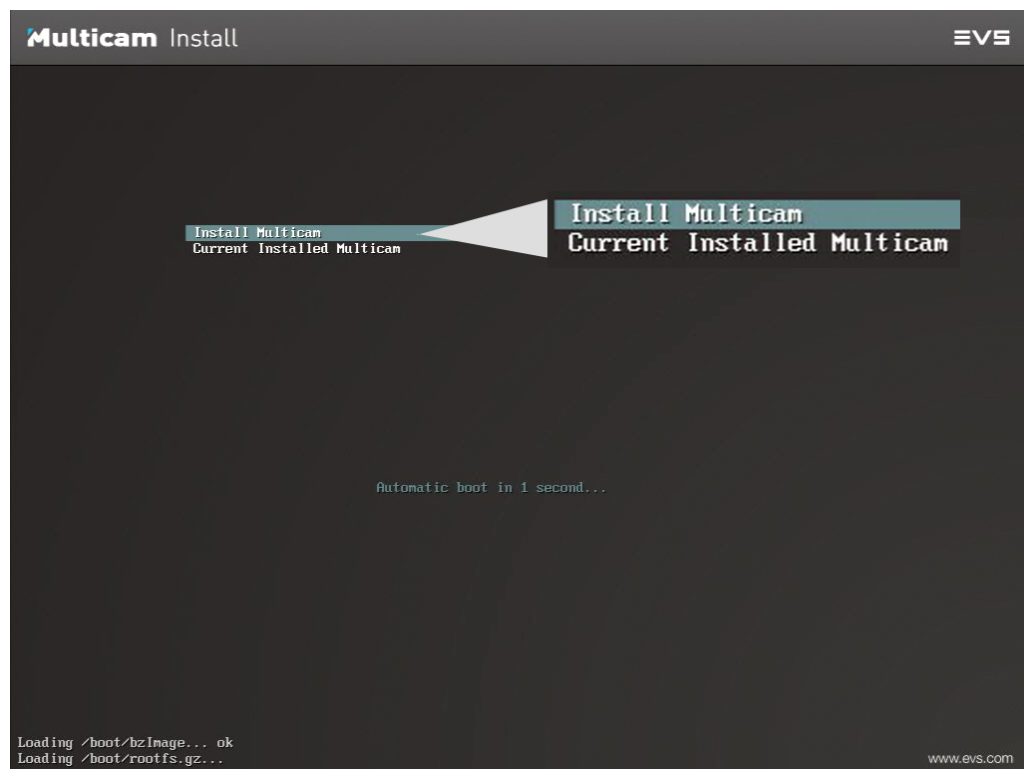
Should the USB key disconnect from the server, an error message would appear during the installation process to inform you that the installation has failed. In this case, you need to reboot the server and restart the installation process.

1. Inserting the USB key

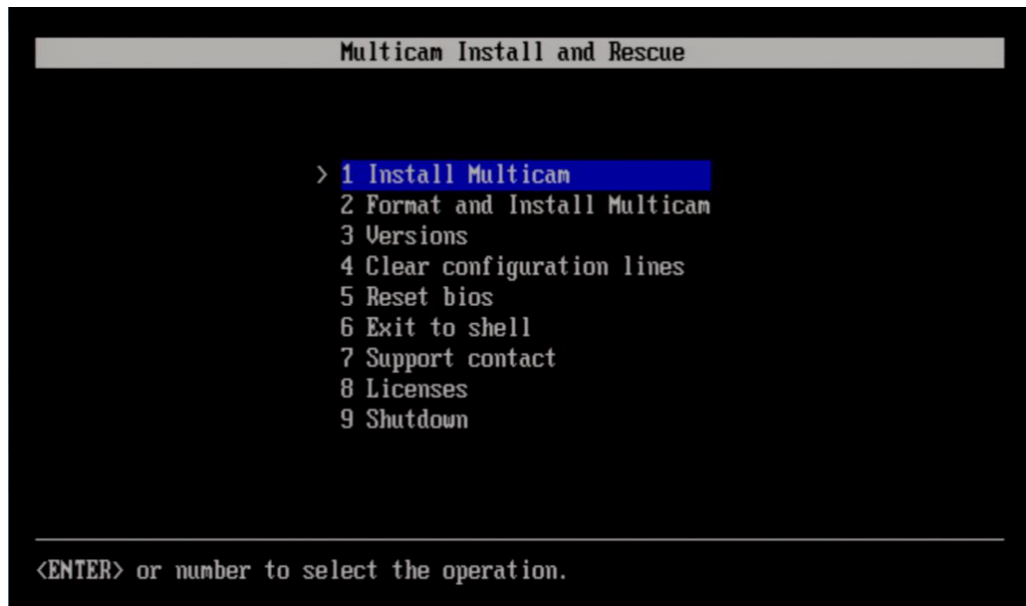
You have previously prepared the USB installation key as described in section "Creating a USB Installation Key" on page 2.

1. Shutdown the EVS server, insert the USB installation key and switch on the EVS server.

The EVS server detects a USB key is inserted, and displays the following window if you have already a version of Multicam installed on your EVS server:



2. Press **Enter** to enter the Multicam Install and Rescue window or wait 5 seconds and the window will automatically be displayed:

A screenshot of a terminal window titled "Multicam Install and Rescue". The window has a black background with white text. A list of options is displayed, with the first option, "1 Install Multicam", highlighted in blue. The options are: 1 Install Multicam, 2 Format and Install Multicam, 3 Versions, 4 Clear configuration lines, 5 Reset bios, 6 Exit to shell, 7 Support contact, 8 Licenses, and 9 Shutdown. At the bottom, a prompt reads "<ENTER> or number to select the operation."

```

Multicam Install and Rescue

> 1 Install Multicam
  2 Format and Install Multicam
  3 Versions
  4 Clear configuration lines
  5 Reset bios
  6 Exit to shell
  7 Support contact
  8 Licenses
  9 Shutdown

<ENTER> or number to select the operation.

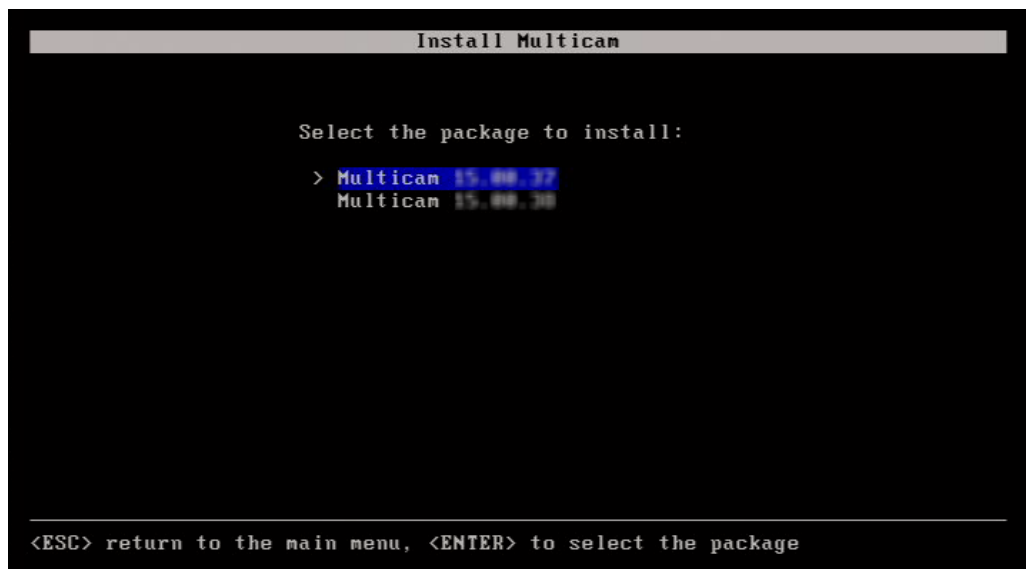
```

The **Install Multicam** option is selected by default.

Press **Enter** to launch the Multicam installation process.

2. Selecting the Multicam Version on USB Key

If several Multicam versions are available on the USB key, you will be prompted to select the version you want to install:

A screenshot of a terminal window titled "Install Multicam". The window has a black background with white text. It prompts the user to "Select the package to install:". Two versions of Multicam are listed: "Multicam 15.00.37" and "Multicam 15.00.30". The first version is highlighted in blue. At the bottom, a prompt reads "<ESC> return to the main menu, <ENTER> to select the package".

```

Install Multicam

Select the package to install:

> Multicam 15.00.37
  Multicam 15.00.30

<ESC> return to the main menu, <ENTER> to select the package

```

- Press the up and down arrows to select the version you want to install and press **Enter**.

The installation process is directly launched.

3. Check of Disk Format

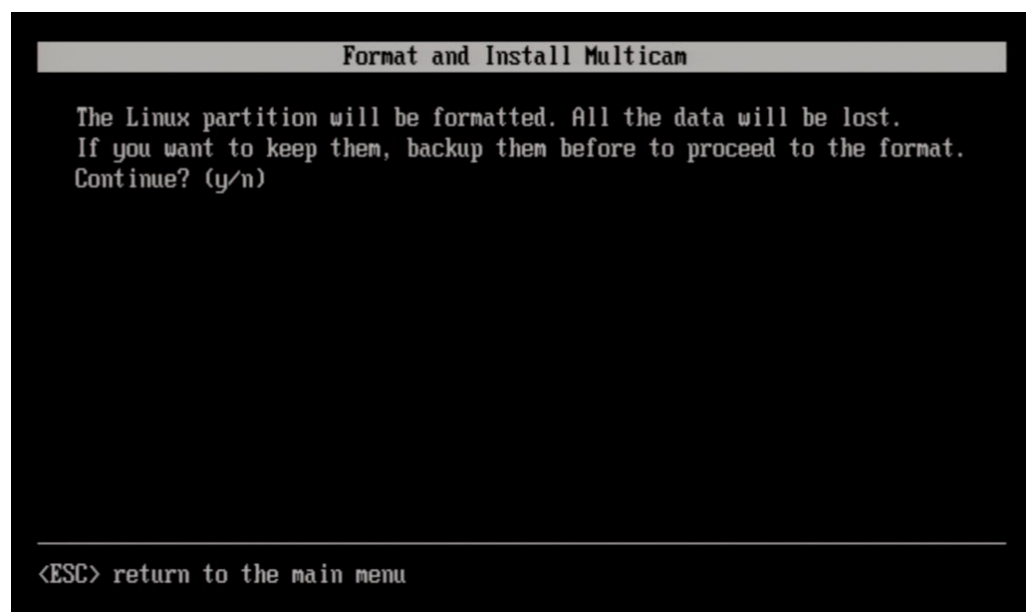
During the installation process, the disk format is checked to make sure that the disk is correctly formatted for the installation.

If this is not the case, the installer displays the following message:

**"Disk not correctly prepared for installation.
Please reboot the server and retry the installation of Multicam".**

This message will appear when you upgrade from Multicam 14.XX directly to Multicam 16.XX. In this case, you need to restart the installation selecting the **2. Format and Install Multicam** option from the Multicam Installation menu.

If you have to select the option 2, you will have to type **Y** to confirm that the Linux partition will be created and formatted:



4. Check of Memory Size

During the installation process, the memory size is checked to make sure that 2GB of RAM is available on the MTPC board.

If this is not the case, the installer displays the following message:

**"Not enough memory to install or start Multicam
Please contact your EVS regional office".**

In this case, you need to request an upgrade of the MTPC board to the EVS regional office.

5. Check of Current Version

During the installation process, the highest installed version is checked.

Should the same Multicam version already be installed, you would be asked whether you want to overwrite the existing installation.

6. Check of Disk Space Available

During the installation process, the disk space is checked to determine whether the disk has enough space to install a new version.

If this is not the case, the installer displays the following message:

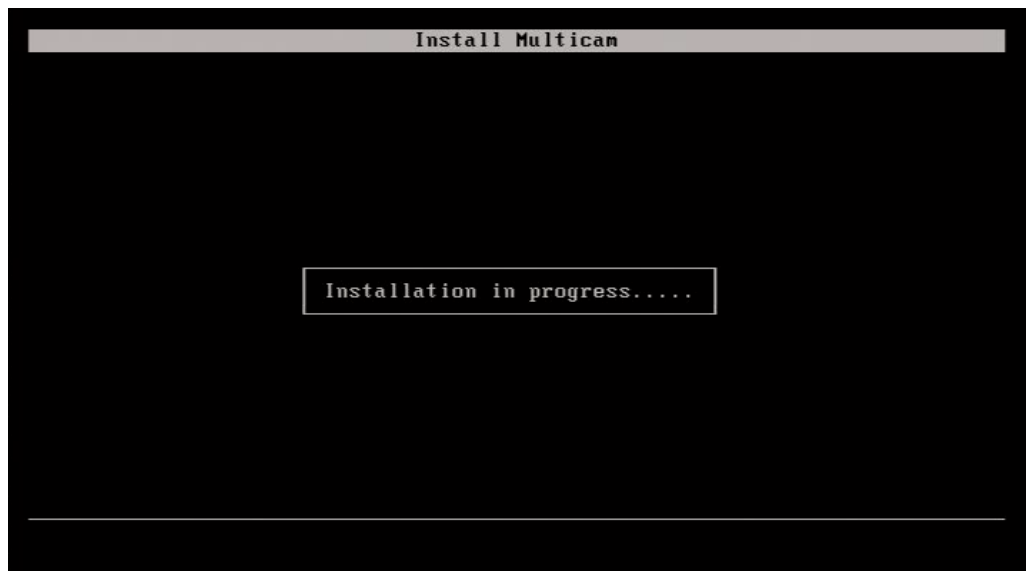
"Package installation failed! Not enough space available for installation of Multicam, XXX MB are missing. Please delete unused version and relaunch the installation process."

In this case, you are redirected to the maintenance menu from which you can uninstall unused versions. See section "Managing Multicam Versions" on page 21.

7. Installation of Multicam

Once all checks have been performed, the installer proceeds to the installation.

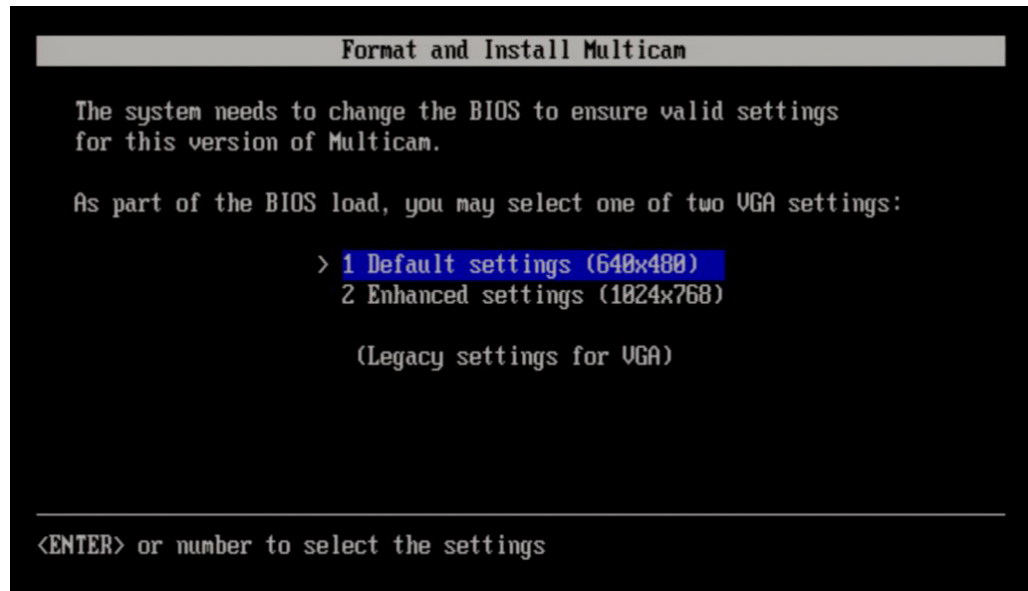
During the installation, the message "Installation in progress" is displayed:



8. Configuring the VGA Resolution

You will be requested to select the appropriate resolution for the VGA:

1. Use the up and down arrow keys to select the requested value.
2. Press **Enter** to validate:

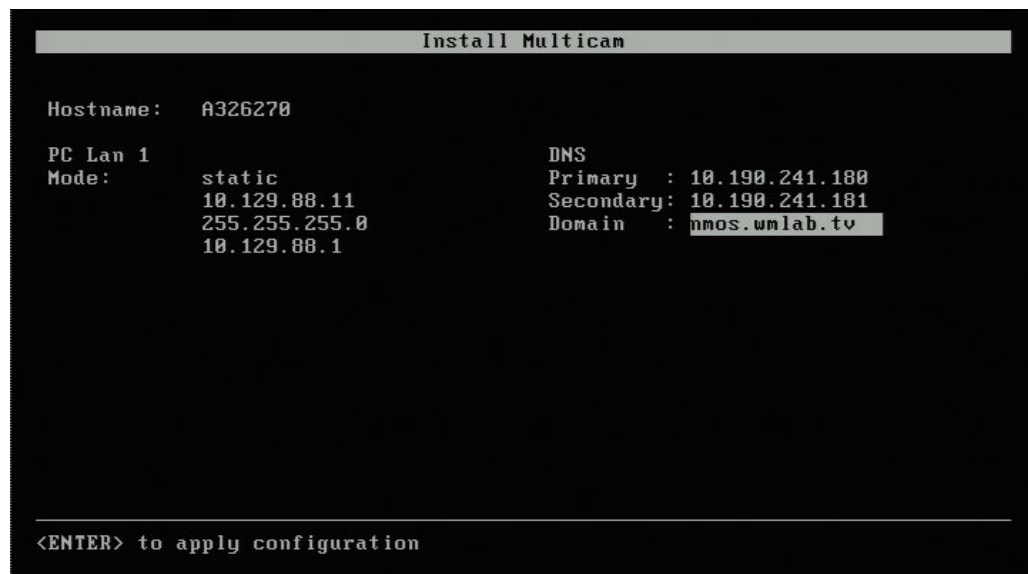


9. Configuring the PC LAN 1 and DNS Server Address

When Multicam has been successfully installed, the following window is displayed to let you enter:

NEW !

- the hostname and the PC LAN 1 address of the EVS server;
 - the IP address of a primary and secondary DNS server and the search domain.
1. Use up and down arrows to select a field.
 2. Type the value, and press **Enter** to validate the changes.
 3. Press **Enter** again to apply the configuration.



```
Install Multicam

Hostname:  A326270

PC Lan 1
Mode:      static
           10.129.88.11
           255.255.255.0
           10.129.88.1

DNS
Primary   : 10.190.241.180
Secondary : 10.190.241.181
Domain    : nmos.unlab.tv

<ENTER> to apply configuration
```

The entered data will be populated to all Multicam configuration lines.

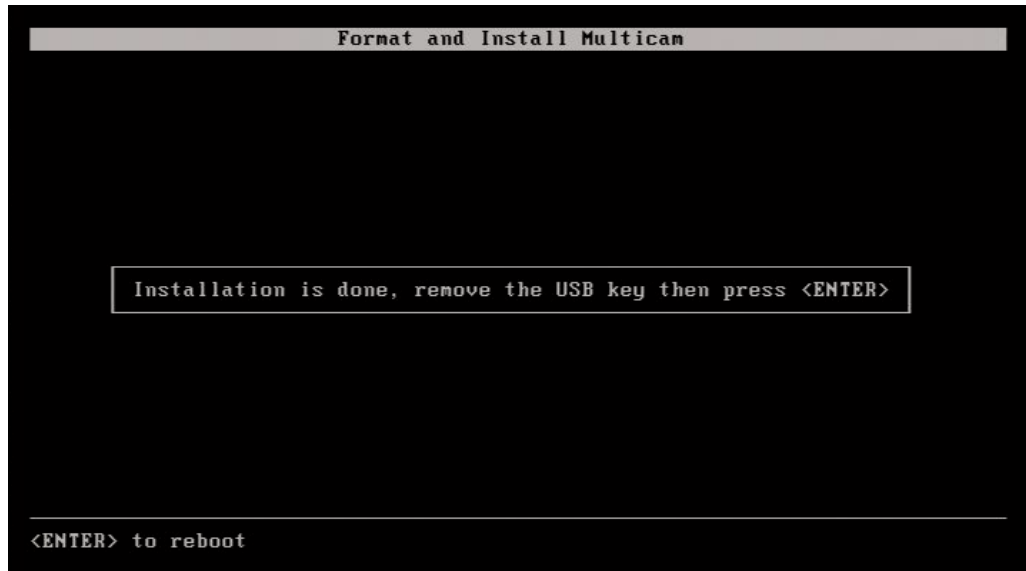


NOTE

- To be able to view the DNS server settings in the screen above, you need to use the USB Creator tool version 1.5.10.
- For the search domain you can use up to 24 characters.

9. End of Installation Process

When the installation process is finalized, you will be requested to remove the USB key and press **Enter** to reboot the EVS server:



NOTE

When you will boot the EVS server for the first time after upgrading to Multicam 16.X, you will be requested to perform a clear video disks. This will also reformat the disk RAID to make it compatible with Multicam 16.X. The **Clear Video Disk** option is available in the Multicam Setup module. Refer to the EVS server Configuration manual for more information.

3. Maintaining Multicam

3.1. Multicam Maintenance Menu

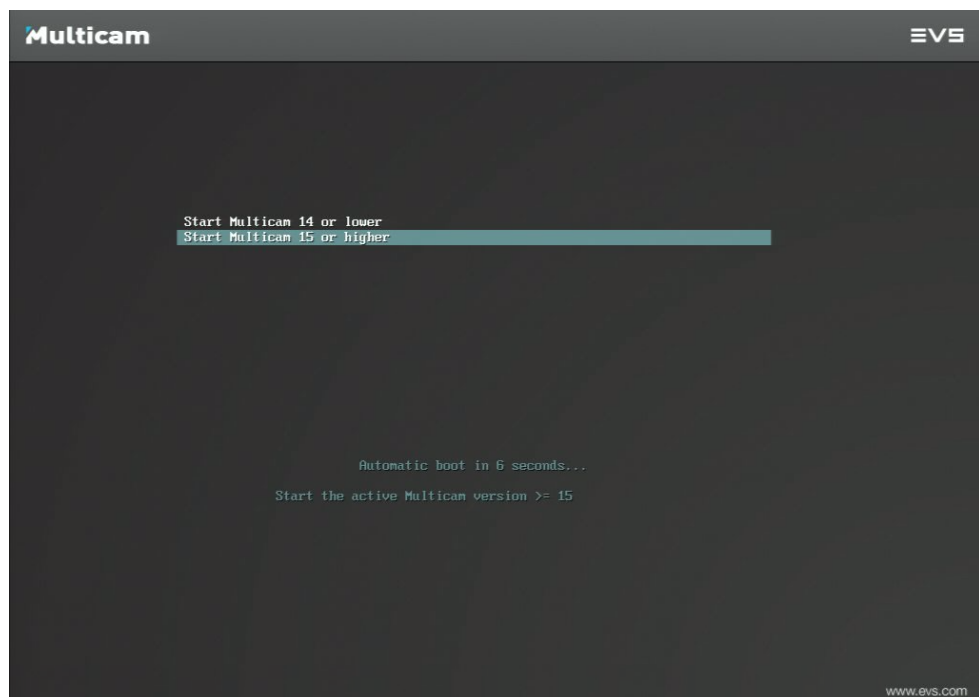
Introduction

The **Multicam Maintenance** menu is similar, but not identical, to the **Multicam Install and Rescue** menu: The 1st two installation commands are replaced by a start command.

The first chapter of this manual deals with the installation process, which covers the installation commands. This chapter deals with the maintenance options available in the Multicam Maintenance menu.

Accessing the Multicam Maintenance Menu

1. Switch on or reboot the EVS server.
2. If Multicam 14 and Multicam 15 (or higher) are available on your server, the system will first request you to select whether you want to access Multicam 14 or Multicam 15 (or higher):



If you do not select anything within 7 seconds, the EVS server will automatically boot onto the last drive partition used.

When the EVS server boots onto the Linux partition to access Multicam 15 (or higher), the Multicam Maintenance window opens after the boot sequence:

```

Multicam Maintenance

> 1 Start version 16.XX.XX
  2 Versions
  3 Clear Configuration lines
  4 Hardware maintenance
  5 Reset bios
  6 Exit to shell
  7 Support contact
  8 Licenses
  9 Shutdown

<ENTER> or number to select the operation.

```

If you do not select one of the following commands within 7 seconds, the active Multicam version is automatically launched.

How to Select a Command

Proceed as follows to call the commands:

1. Select the requested command in the Multicam Maintenance menu using the keyboards up and down arrows.
2. Press **Enter** to execute the command or enter the sub-menu.

Available Commands

The following commands are available. You can click the section corresponding to the command to jump to a description of the command:

Command	Section
Start version 16.XX.XX	"Starting Multicam" on page 20
Versions	"Managing Multicam Versions" on page 21
Clear Configuration Lines	"Clearing Configuration Lines" on page 22
HW Maintenance	"Performing Hardware Maintenance" on page 23
Reset BIOS	"Resetting BIOS" on page 22
Exit to shell	"Accessing the Linux Shell" on page 28
Support contact	"Viewing Support Information" on page 29
Licenses	"Viewing License Information" on page 30
Shutdown	"Shutting Down the EVS Server" on page 30

3.2. Starting Multicam

How to Start the Active Version

As you are in the Multicam Maintenance menu, Multicam will automatically start with the active version (last version used or installed) within 7 seconds if you do not press any key on the keyboard.

You can also select the **Start Version 16.XX.XX** command to manually start the Multicam active version more rapidly.

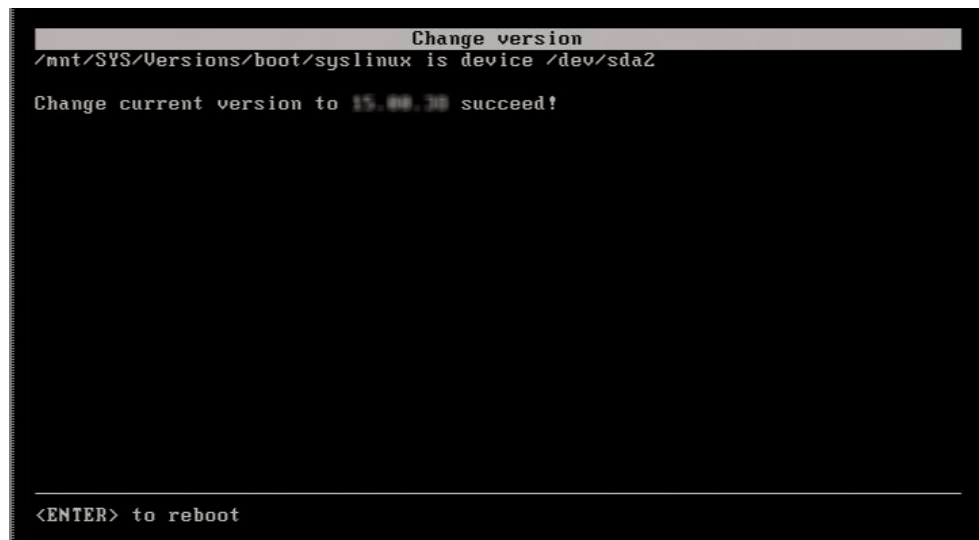
By default, the active version is the version you ran or installed last on the EVS server.

How to Start Another Multicam Version

You can start another Multicam version, even a Multicam 14 or lower, by changing the active version as follows:

1. Select **2. Versions**.
2. Select **1.Change active version**.
3. Select the Multicam version you want to start with the up and down arrows, and click **Enter**.

A Change Version window opens with the confirmation message that your active version has successfully been changed:



```
Change version
/mnt/SYS/Versions/boot/syslinux is device /dev/sda2
Change current version to 15.00.30 succeed!

<ENTER> to reboot
```

4. Press **Enter** to reboot the EVS server.

The Multicam Maintenance menu will be displayed again, and the new active version can be launched manually or automatically after 7 seconds.

3.3. Managing Multicam Versions

Introduction

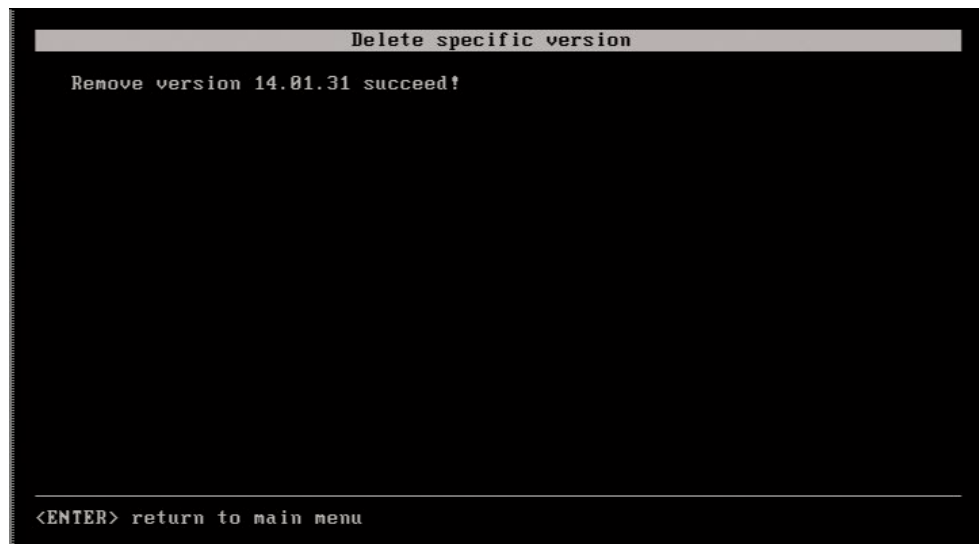
In the Multicam Maintenance menu, select the **Versions** command to access a sub-menu from which you can manage the Multicam version, and perform the following actions described below:

- Changing the active version
(See section "How to Start Another Multicam Version" on page 20)
- [Deleting a specific version](#)
- [Deleting all unused versions](#)

How to Delete a Specific Version

1. Select **Versions** in the Multicam Maintenance menu.
2. Select **Delete specific version**.
3. Select the Multicam version you want to delete with the up and down arrows, and click **Enter**.

A Delete specific version window opens with the confirmation message that the selected version has successfully been removed:



4. Press **Enter** to return to the Maintenance menu.

How to Delete all Unused Versions

This command allows you to delete all Multicam versions except the active version:

1. Select **Versions** in the Multicam Maintenance menu.
2. Select **Delete all unused versions**.

A warning message asks you to confirm the deletion command:

"All versions of Multicam will be deleted, continue? y/n"

3. Type **y** and press **Enter** to confirm the Delete command.

During the deletion, the message **"Uninstall in progress"** is displayed, followed by the message **"Remove versions XX.YY.ZZ succeeded"** for each deleted version.

4. When all versions are deleted, press **Enter** to return to the Maintenance menu.

3.4. Clearing Configuration Lines

If your configuration lines become invalid further to an upgrade or downgrade of Multicam, you can clear them from the Multicam Maintenance menu.

1. In the Multicam Maintenance menu, select the **Clear configuration lines** command.

A warning message asks you to confirm the clear command:

"All configuration lines of Multicam will be deleted, continue? y/n"

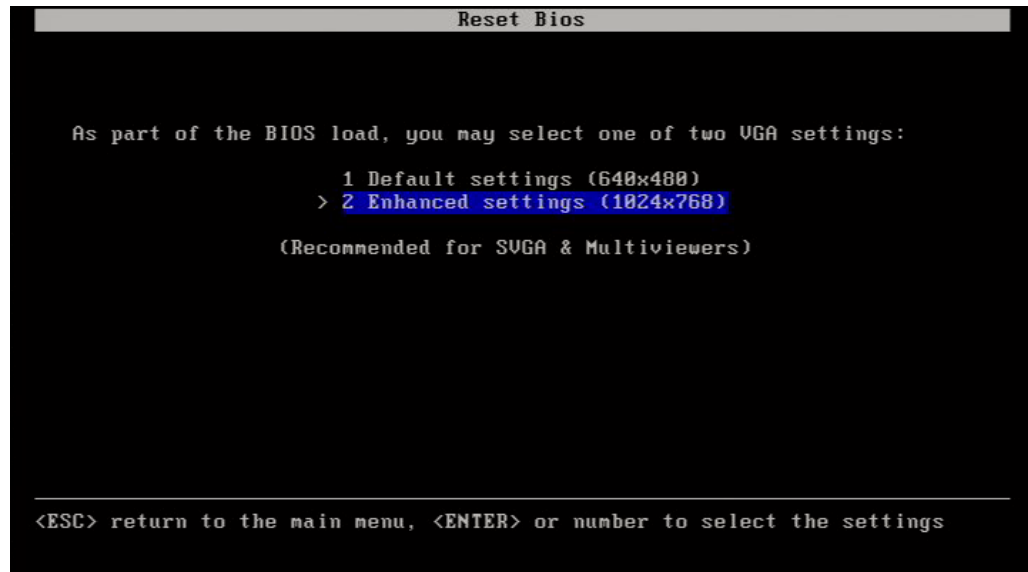
2. Type **y** and press **Enter** to confirm the Clear command.
3. When all configuration lines are deleted, press **Enter** to return to the Maintenance menu.

3.5. Resetting BIOS

If needed, Multicam can reset the BIOS of the MTPC board.

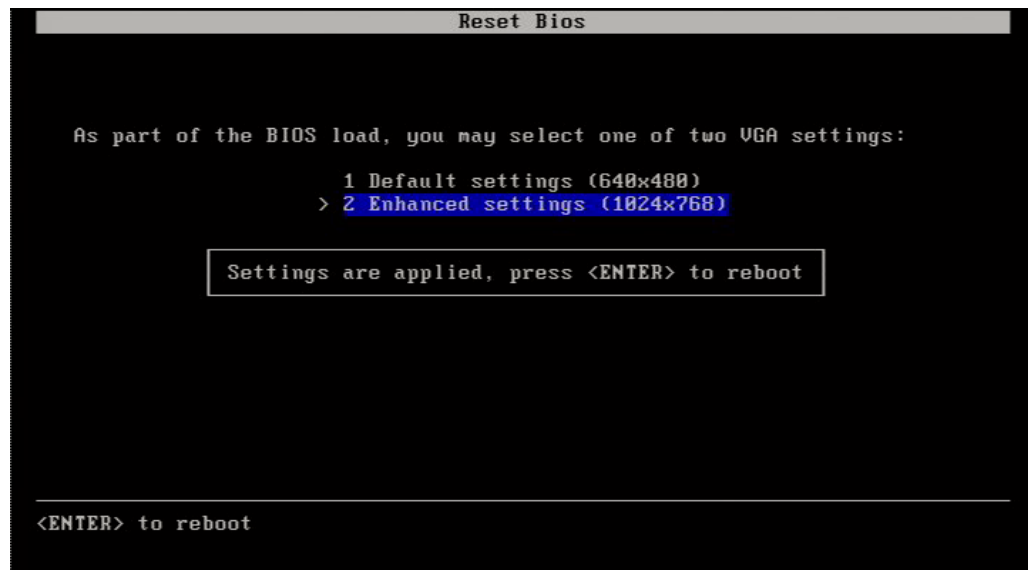
As part of resetting the BIOS, you are prompted to select the VGA resolution:

1. Select the requested setting and press **ENTER**



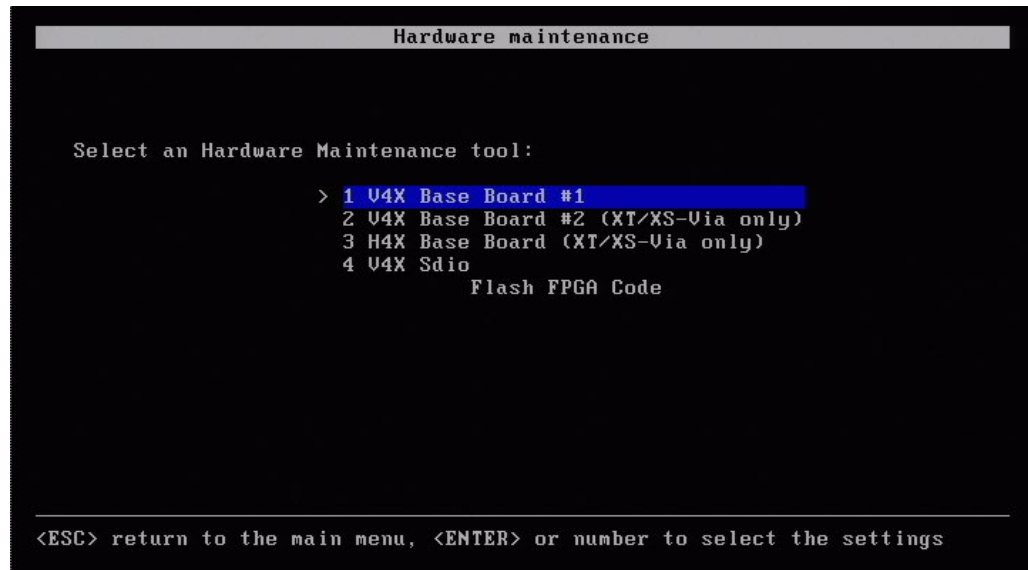
The settings are then applied.

2. Press **ENTER** again to reboot.



3.6. Performing Hardware Maintenance

In the **Multicam Maintenance** menu, select the **HW Maintenance** command to get access to a number of tools that will allow you to update some of the boards in the server.



V4X Base Board Update

Introduction

This tool is used to update the V4X base boards so PTP can be used as Genlock source.

Update Procedure

1. Select **V4X x Base Board** and press **ENTER**.

The V4X Base Reflash screen appears.



NOTE

For XT-VIA/XS-VIA, two boards must be checked whereas for XT4K/XS4K only board #1 must be checked.

2. Check the current ID of the V4X base board.


```
H4X Base Reflash (1.3):
-----

In case of bad use of this Software, or in case of Power Supply Failure
during update, the unit will be unusable and must be returned to factory!

H4x Base Board

Current FPGA ID: 0x11

FPGA Path for Update.....: EXE Path
FPGA Filename for Update....: H4x_Cit_V11.jic
FPGA File Date and Time.....: 2019-02-28 08:13

Reflash - Do you want to continue [Y to continue] ? █
```

- If it corresponds to the available ID, no update is needed.
 - If it differs, you need to perform an update. Continue to step 3.
3. Press capital **Y** to start the update. To cancel the update, press any other key.



WARNING

Do not power off the server during the update.

Do not Power Off -> Unit will be unusable and must be returned to factory!

Once the update has been successfully completed, you will be redirected to the Hardware Maintenance menu.

4. To complete the update procedure, switch off the server and switch it back on again.

H4X-4S Board Update

Introduction

This tool is used to update the H4X-4S board so XNet-Via can be used as XNet speed.

Update Procedure

1. Select **H4X Base Board** and press **ENTER**.
2. In the H4X Base Reflash screen, check the current ID of the H4X base board.
 - If it corresponds to the available ID, no update is needed.
 - If it differs, you need to perform an update. Continue to step 3.

```
H4X Base Reflash (1.3):
-----

In case of bad use of this Software, or in case of Power Supply Failure
during update, the unit will be unusable and must be returned to factory!

H4x Base Board

Current FPGA ID: 0x11

FPGA Path for Update.....: EXE Path
FPGA Filename for Update....: H4x_Cit\11.jic
FPGA File Date and Time.....: 2019-02-28 08:13

Reflash - Do you want to continue [Y to continue] ?
```

3. Press capital **Y** to start the update. To cancel the update, press any other key.



WARNING

Do not power off the server during the update.

Once the update has been successfully completed, you will be redirected to the Hardware Maintenance menu.

4. To complete the update procedure, switch off the server and switch it back on again.

V4X SDIO Board Update

Introduction

This tool is used to update the V4X SDIO board.

This might be required in Multicam 16 or higher to work in XiP.

Update Procedure

1. Select **V4X sdio** and press **ENTER**.
2. In the V4X SDIO Board Management screen, press **K**.

```

V4X SDIO Board Management:                                     Version 4.4
-----

<M> Update Mode: Latest

<V> Verify SDIO PIC Firmware
<K> Check for SDIO PIC Firmware Update
<F> Make SDIO PIC Firmware Update

< > V4X/H4X info
<G> Genlock Menu
<R> Full Unit & Modules Reset + Reboot
<?> Verify PIC data base
<L> List SDIO board

<Q> Quit
    
```

3. In the Check for SDIO PIC Firmware Update screen, check if the V4X SDIO board needs an update.

If an update is recommended, the following warning will be displayed: 'Need upgrade to xxxx'.

```

Check for SDIO PIC Firmware Update      Update Mode = Latest
-----

V4X-1 A...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Update Not Needed
V4X-1 B...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Update Not Needed
V4X-1 C...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Update Not Needed
V4X-1 D...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Update Not Needed
V4X-2 A...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Update Not Needed
V4X-2 B...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Update Not Needed
V4X-2 D...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Update Not Needed
H4x_Sdti...: H4xST_A1  Comp=22  BL=01  FW=00.01 - Update Not Needed
H4x_4S....: H4x4S_A0  Comp=00  BL=01  FW=00.01 - Need upgrade to 0002

Press any key to continue
    
```

4. Press any key to return to the previous screen.
5. Press **F** to start the update.

```

SDIO PIC Firmware Update                                Update Mode = Latest
-----
V4X-1 A...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Update Not Needed
V4X-1 B...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Update Not Needed
V4X-1 C...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Update Not Needed
V4X-1 D...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Update Not Needed
V4X-2 A...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Update Not Needed
V4X-2 B...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Update Not Needed
V4X-2 D...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Update Not Needed
H4x_Sdti...: H4xST_A1  Comp=22  BL=01  FW=00.01 - Update Not Needed
H4x_4S....: H4x4S_A0  Comp=00  BL=01  FW=00.01 - Make Upgrade to 0002

V4X-1 A...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Compare OK
V4X-1 B...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Compare OK
V4X-1 C...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Compare OK
V4X-1 D...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Compare OK
V4X-2 A...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Compare OK
V4X-2 B...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Compare OK
V4X-2 D...: 2U2S_A2   Comp=23  BL=01  FW=00.06 - Compare OK
H4x_Sdti...: H4xST_A1  Comp=22  BL=01  FW=00.01 - Compare OK
H4x_4S....: H4x4S_A0  Comp=00  BL=01  FW=00.02 - Compare OK

Press any key to continue

```

6. Once the update has been successfully completed, press any key to return to the previous screen.
7. To complete the update procedure, switch off the server and switch it back on again.

3.7. Accessing the Linux Shell

In the Multicam Maintenance menu, select the **Exit to shell** command to exit the Multicam Maintenance menu and goes back to the Linux shell to be able to use command lines.

This is possible to activate specific parameters via a file that will launch the Linux command lines. Contact the technical support for additional information.

3.8. Viewing Support Information

In the Multicam Maintenance menu, select the **Support contact** command to view all support contacts for the EVS video servers. This information may be outdated.

Contacts			
TECHLINE SUPPORT			
Asia & Pacific			
	Phone	Out of working hours phone	Email
Hong Kong	+852 2914 2501	+852 2201 1599	support.APAC@evs.com
China	+86 10 5670 9883	+86 186 0139 3869	support@evschina.com
Australia	+61 2 9998 7600	+852 2201 1599	support.australia@evs.com
Europe, Middle East & Africa			
	Phone	Out of working hours phone	Email
Belgium	+32 4 361 70 00	+32 495 28 40 00	support@evs.com
France	+33 1 46 99 9003	+32 495 28 40 00	support.france@evs.com
Italy	+39 334 631 14 93	+32 495 28 40 00	support.italy@evs.com
UK	+44 1 372 387 266	+32 495 28 40 00	support.uk@evs.com
Middle East	+971 4 3654 231	+32 495 28 40 00	support.dubai@evs.com
Iberica	+34 91 490 39 33	+32 495 28 40 00	support.iberica@evs.com
Germany	+49 89 4111 949 77	+32 495 28 40 00	support.germany@evs.com
North America & Latin America			
	Phone	Out of working hours phone	Email
USA	+1 973 575 7813	+1 973 575 7813	support.usa@evs.com
Mexico	+52 55 46 31 22 09	+52 55 46 31 22 09	support.mexico@evs.com
<ESC> return to main menu, <UP> and <DOWN> to scroll text			

3.9. Viewing License Information

In the Multicam Maintenance menu, select the **Licenses** command to view all open source software licenses used by Multicam:

```

                                Licenses
::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::
                                toolchain-external: unknown license file(s)
::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::

                                augeas: COPYING file
::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::

                                GNU LESSER GENERAL PUBLIC LICENSE
                                Version 2.1, February 1999

                                Copyright (C) 1991, 1999 Free Software Foundation, Inc.
                                59 Temple Place, Suite 330, Boston, MA 02111-1307 USA
                                Everyone is permitted to copy and distribute verbatim copies
                                of this license document, but changing it is not allowed.

                                <ESC> return to main menu, <UP> and <DOWN> to scroll text

```

3.10. Shutting Down the EVS Server

In the Multicam Maintenance menu, select the **Shutdown** command to shut down the EVS video server.

You can switch off the server when the **System halted** message is displayed:

```

                                Multicam is shutting down, please wait the system to be halted
                                before switching off the system.
mount: can't remount /dev/sda2 read-only
mount: can't remount /dev/sda2 read-only
mount: devtmpfs busy - remounted read-only
The system is going down NOW!
Sent SIGTERM to all processes
Sent SIGKILL to all processes
Requesting system halt
[ 324.056659] System halted.

```


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