

## EPSON RC+ 4.2.2 Release Notes

July 23, 2008

Thank you for using EPSON RC+ 4.2.2. This document contains the latest information for this release. Please read before using this software.

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### Documentation

All RC+ manuals are in PDF format and are installed on the PC hard disk. These manuals are accessible from the RC+ environment Help menu.

### Getting Started

Read the Getting Started chapter in the EPSON RC+ User's Guide. This chapter will refer you to the RC520 / RC420 Controller manuals Installation chapter. This contains information for initial connections and start up.

## **Upgrading from Previous Versions of EPSON RC+**

You may install EPSON RC+ 4.2.2 without uninstalling the previous version. However, EPSON RC+ 4.2.2 runs on Windows XP, so you will need to upgrade your operating system to Windows XP first. Refer to the section *Upgrading from Windows 2000 to Windows XP* in this document.

## **Installing on Windows Vista for offline development**

EPSON RC+ 4.2.2 can be installed on a Windows Vista system for offline development only. You can edit and compile your projects. You cannot install the SPEL drivers on a Windows Vista system, so programs will not run. Also, if Vision Guide is installed, only VGA mode is supported.

## **Items fixed in EPSON RC+ 4.2.2**

This is a revised list of items fixed in EPSON RC+ 4.2.2:

1. Fixed problem for multiple Sony HR70 cameras in progressive scan mode. A Y shift of an acquired image could occur. To correct the problem, please use the hr70c1 camera interface.
2. Fixed problems for VCreateSequence and VDeleteSequence when VSaveProps was not being called. Errors would occur if the Vision Guide window was opened after running.
3. The Sentinel hardlocks will now work again.
4. Fixed a problem where if a camera was disconnected, live video could no longer be displayed.
5. The EdgeType property is now copied when an Edge object is copied.
6. Fixed a problem for Japanese descriptions in I/O labels and User Errors. Sometimes the text was being chopped or RC+ was crashing.
7. Fixed a problem where the bottom of the video image was sometimes black when using cameras in async reset mode.
8. Fixed VSet for ExposureTime.
9. Fixed a problem where errors were occurring if a vision sequence that used a robot camera was being run in offline mode.
10. Fixed a problem where RC+ did not reset all ISA outputs if the port size was 16 and the number of ports / board was greater than 2.

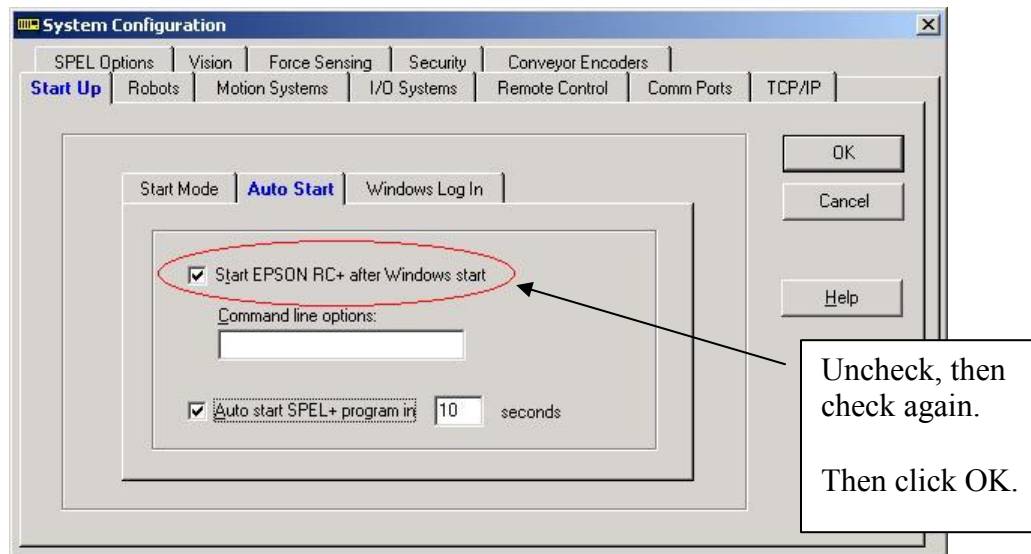
11. Fixed error 91 which occurred when the Operator Window was closed and there was no vision system.
12. Fixed a problem where a duplicate image could sometimes occur when a Sony HR70 camera was being used in async reset mode. To correct the problem, please use the hr70a1 camera interface.
13. Now EPSON RC+ can be used on Windows XP SP3. In previous versions, the SPEL Runtime drivers could not run on SP3.
14. Improved vision reload time after all tasks are stopped and changes to vision properties were not saved with VSaveProps. Correlation, Polar, and Geometric models are not reloaded unless they were changed at runtime.
15. Fixed a problem where the image is sometimes very light or black when using multiple async reset cameras with RuntimeAcquire for one or more cameras set for stationary acquire and different exposure times are used.
16. Fixed error 9068 which occurred if the Halt button on the Task Manager is clicked twice quickly.
17. Fixed a problem where all outputs were not being reset if the port width is 16.
18. Fixed a problem where when a vision model was being taught and an ImageOp is used in a previous sequence step, the ImageOp results were not being used for the taught model.

## **EPSON RC+ Upgrade**

### ***Auto start does not work after upgrading from 3.x versions***

If RC+ was configured to auto start after Windows start, it will no longer start up automatically after upgrading to a 4.x version. This is easily fixed.

1. Run EPSON RC+. Click **Change Startup Mode**. Select **Program / Debug**, then click **OK**.
2. Select Setup->System Configuration. On the **Start Up** tab, click the **Auto Start** tab. Uncheck **Start EPSON RC+ after Windows start**. Then check it again. Click **OK**.



3. Continue working in RC+ or exit the application.

## Vision Guide

### ***Changing frame grabber from Meteor to Morphis***

If you are using a system that has a Meteor2 frame grabber and you are replacing it with a Morphis frame grabber, then follow these instructions:

1. Uninstall RC+.
2. Shutdown the PC.
3. Remove the Meteor2 frame grabber board.
4. Install the Morphis frame grabber board.
5. Install EPSON RC+ 4.2.2 and select the Morphis vision option.

### ***Changing memory size for systems using Vision Guide***

If you want to change the size of memory used on your system and you are using Vision Guide, you must do a repair installation after upgrading memory. If you do not repair the RC+ installation, Windows will not recognize the memory changes and the vision system will not work properly. Follow these steps to upgrade memory:

1. Shutdown the system.
2. Upgrade the memory.
3. Start the system.
4. Run the RC+ installer.
5. Select the repair option and continue.

The repair installation will uninstall the vision drivers, reboot the system, then reinstall the vision drivers using the new memory size.

## VB Guide

### ***RunDialog for Vision Guide can hang***

When executing RunDialog for Vision Guide, your VB application can hang. Also, when running other dialogs, the title bar for the dialog flashes 3 times when the dialog is first displayed.

This is due to a setting in Windows XP that by default prevents background applications from taking focus. To turn off this feature, set the value for the following registry setting to 0: HKEY\_CURRENT\_USER\ControlPanel\Desktop\ForegroundLockTimeout. Then, reboot Windows.

### ***Upgrading from 3.x versions***

After upgrading to EPSON RC+ 4.2.2 from 3.x versions, you must upgrade your SPELCom and SPELVideo controls in your VB projects that use VB Guide.

Follow these steps:

1. Open your VB project.
2. Select Components from the Project menu.
3. Check the EPSON SPELCom 4.0 ActiveX Control and EPSON SPELVideo 4.0 Active X Control (if required) and click OK.
4. For every form that has a SPELCom or SPELVideo control, delete the control, then replace it with the new control from the tool box.
5. Select Components from the Project menu.
6. Uncheck EPSON SPELCom 3.0 ActiveX Control and SPELVideo 3.0 ActiveX Control.
7. Save changes.
8. Compile your project.

## Offline Development

### ***To edit Fieldbus labels offline***

Before you can edit Fieldbus I/O labels on an offline system, you must copy the \EpsonRC\Fbusio\fbus.dat file from the online system to the same folder on the offline system.

## Upgrading from Windows 2000 to Windows XP

To use EPSON RC+ with Windows XP Professional, you must purchase your own copy of Windows XP Professional and either upgrade from Windows 2000 or install a new copy of Windows XP.

You need a minimum of 256MB of memory installed to use Windows XP. 512MB of memory is recommended.

Windows XP is supported for RC420 and RC520 controllers using two types of SBC (single board computer) boards:

- SPI-6941-EPC (integrated mouse and keyboard connector)
- SPI-4400-LV

There are separate instructions below for each type of SBC board.

After upgrading the operating system to Windows XP, install EPSON RC+ 4.2.2.

## Upgrading to Windows XP for SPI-6941 SBC board

To upgrade:

1. Boot Windows 2000.  
**Note:** It is important to boot Windows 2000 first, then start the upgrade. Do not boot the XP installation CD to upgrade. The previous Windows 2000 installation may not be recognized.
2. If you are using an RC420 controller, connect a USB CD drive to one of the USB ports.
3. Insert the CD for XP Professional. The XP installer should automatically start.
4. Follow the instructions to upgrade.
5. During the upgrade you may be asked for the viaide.sys file. Navigate to the C:\WINNT\System32\Drivers directory and click Open.
6. During the upgrade, you may see a warning that the 8255xER PCI Adapter has not passed Windows Logo testing. Click Yes to continue.
7. During the upgrade, you may be asked for a path to the 8255xER PCI LAN driver directory. Insert the single board computer CD and navigate to the LAN directory for Windows XP and click Open.
8. The installation should continue until finished.
9. Install Windows XP SP3.
10. Install the latest Lynx3DM video driver. Use one of the following methods:
  - A. If your controller is connected to the Internet, you can instruct Windows to update the video driver. From the Windows Device Manager, right click on the Silicon Motion Lynx3DM video board and select Update Driver. When prompted to connect to Windows update, select "Yes, this time only" and continue with the update.
  - B. You can obtain the video driver from this website:  
<http://www.siliconmotion.com.tw/en/en2/download2c.htm>.  
Download and unzip the driver for XP, then update the driver from the Windows Device Manager. Right click on the Silicon Motion Lynx3DM video board and select Update Driver. Navigate to the folder where the driver files were unzipped and continue with the update.

11. Install EPSON RC+ 4.2.2 to upgrade your previous version of EPSON RC+.

## **Installing a new copy of Windows XP for SPI-6941 SBC board**

To install a new copy of Windows XP:

1. Make sure you have backups of any files you need to keep. All files will be destroyed.
2. Boot the computer and access the BIOS menu.
3. Configure the computer to boot from CDROM if using an RC520 controller, or boot from USB-CDROM if using an RC420 controller.
4. If you are using an RC420 controller, connect a USB CD drive to one of the USB ports.
5. Insert the Windows XP CD and boot the computer. Press any key when prompted to boot from CD.
6. When prompted for the partition to use, delete all partitions.
7. Continue with the installation.
8. Install Windows XP SP3.
9. Install the LAN drivers for Windows XP from the single board computer CD that came with your controller.
10. Install the latest Lynx3DM video driver. Use one of the following methods:
  - A. If your controller is connected to the Internet, you can instruct Windows to update the video driver. From the Windows Device Manager, right click on the Silicon Motion Lynx3DM video board and select Update Driver. When prompted to connect to Windows update, select "Yes, this time only" and continue with the update.
  - B. You can obtain the video driver from this website:  
<http://www.siliconmotion.com.tw/en/en2/download2c.htm>.  
Download and unzip the driver for XP, then update the driver from the Windows Device Manager. Right click on the Silicon Motion Lynx3DM video board and select Update Driver. Navigate to the folder where the driver files were unzipped and continue with the update.



11. Install EPSON RC+ 4.2.2.
12. Add the SPEL MIB Resource from Control Panel - Add Hardware.

## **Upgrading to Windows XP for SPI-4400 SBC board**

To upgrade:

1. Boot Windows 2000.  
**Note:** It is important to boot Windows 2000 first, then start the upgrade. Do not boot the XP installation CD to upgrade. The previous Windows 2000 installation may not be recognized.
2. If you are using an RC420 controller, connect a USB CD drive to one of the USB ports.
3. Insert the CD for XP Professional. The XP installer should automatically start.
4. Follow the instructions to upgrade.
5. The installation should continue until finished.
6. Install Windows XP SP3.
7. Install EPSON RC+ 4.2.2 to upgrade your previous version of EPSON RC+.

## **Installing a new copy of Windows XP for SPI-4400 SBC board**

To install a new copy of Windows XP:

1. Make sure you have backups of any files you need to keep. All files will be destroyed.
2. Boot the computer and access the BIOS menu.
3. Configure the computer to boot from CDROM if using an RC520 controller, or boot from USB-CDROM if using an RC420 controller.
4. If you are using an RC420 controller, connect a USB CD drive to one of the USB ports.
5. Insert the Windows XP CD and boot the computer. Press any key when prompted to boot from CD.

6. When prompted for the partition to use, delete all partitions.
7. Continue with the installation.
8. Install Windows XP SP3.
9. Install EPSON RC+ 4.2.2.
10. Add the SPEL MIB Resource from Control Panel - Add Hardware.