

## EPSON RC+ 5.3.2 Release Notes

July 16, 2009

Thank you for using EPSON RC+ 5.3.2. This document contains the latest information for this release. Please read before using this software.

<b>DOCUMENTATION</b> .....	2
<b>GETTING STARTED</b> .....	2
<b>WHAT'S NEW IN VERSION 5.3.2</b> .....	2
<b>WHAT'S FIXED IN VERSION 5.3.2</b> .....	2
<b>VISION GUIDE 5.0</b> .....	2
<b>IMAGEFILE PROPERTY</b> .....	2
<b>USING ONE CAMERA FROM TWO CONTROLLERS</b> .....	3
<b>OFFLINE MODE</b> .....	3
<b>IMPORTING FROM EPSON RC+ 3.X AND 4.X WITH VISION GUIDE</b> .....	3
<b>CAMERA CONNECTED TO ANOTHER PC WARNING MESSAGE</b> .....	4

## 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+ 5.0 User's Guide. This chapter will refer you to the RC170/RC180 Controller manual Installation chapter. This contains information for initial connections and start up.

## What's New in version 5.3.2

1. Added support for C3 series robots. This requires controller firmware 1.8.3.0 or later.
2. Step jogging for 6 axis robots now uses CP motion. A warning is displayed before passing a singularity point, and PTP motion is then used to pass the singularity point. For details, see the paragraph *How to Jog* in section 5.11.1 of the EPSON RC+ User's Guide.
3. Three new SPEL+ commands are supported: Align, AlignECP, and SoftCP. For details, see the SPEL+ Language Reference.

## What's Fixed in version 5.3.2

1. Fixed a GUI problem where sometimes when you clicked on the control of an MDI child form, the form was not activated.
2. Fixed problems with Vision Guide graphics when using a high resolution camera display in one window and a normal resolution camera display in another window.
3. Fixed robot calibration wizard. Sometimes errors occurred when starting the wizard after a motor was replaced. This requires controller firmware 1.8.3.0 or later.
4. Fixed minor GUI bugs.

## Vision Guide 5.0

### ***ImageFile Property***

The EPSON Smart Camera supports one image file stored in each camera project. When an ImageFile is specified for a sequence, it is copied to the camera when the sequence is selected from the Vision Guide GUI.

You can use the SaveImage property to save an unlimited number of images on the PC.

### ***Using one camera from two controllers***

The EPSON Smart Camera supports two vision projects. Each vision project can be used by one controller, so two controllers can use the same camera. Project 1 is used by default. To use project 2, change the camera project number from RC+ Project | Properties | Vision.

### ***Offline Mode***

When you open the Vision Guide window, RC+ attempts to communicate with the Smart Cameras configured in Setup | Vision. If communication cannot be initiated, a message box is displayed stating that one or more Smart Cameras cannot be connected and asking if you would like to open Vision Guide in offline mode. Answer Yes to enter Offline Mode. In Offline Mode, you can edit Sequences, Objects, and Calibrations. To enter Online Mode, close the Vision Guide window, then open it again.

### ***Importing from EPSON RC+ 3.x and 4.x with Vision Guide***

You can import projects that were created in EPSON RC+ 3.x and 4.x that used the Vision Guide option.

To import a project:

1. In EPSON RC+ 5.0, select Project | Import.
2. Select PC and click Next.
3. Select EPSON RC+ 3.x / 4.x for the Project Type.
4. Select the drive and project to import and continue with the wizard.

Please review the following information regarding imported EPSON RC+ 4.x projects:

- Vision calibrations are imported, but the associated calibration data is not imported. You will need to run your calibrations after import.
- the RobotU vision result is changed. In EPSON RC+ 4.x, RobotU was reported with 0 degrees aligned with the robot world Y axis. Now RobotU is reported with 0 degrees aligned with the robot world X axis.
- Maximum NumberToFind is changed. In Vision Guide 5.0, the maximum NumberToFind for any multi-result object is 100. During import, NumberToFind is reduced to 100 if necessary.
- Calibration properties cannot be set at runtime.
- VCalPoints and VCal are not supported. Vision calibrations cannot be executed at runtime.
- Vision model properties cannot be set at runtime.

- VTeach is not supported. Vision models cannot be taught at runtime.
- OCR and Code Reader objects are currently not supported in Vision Guide 5.0. During import, OCR objects are converted to Correlation objects, and Code Reader objects are converted to Blob objects.

### ***Camera connected to another PC warning message***

Normally, if one PC tries to connect to a Smart Camera that is already connected to another PC or controller, you will see a message box stating this.

However, sometimes if the Ethernet cable is disconnected or if the RC+ process is terminated while connected to a Smart Camera, then on the next connection attempt, you may receive the message described above. In this case, reset the camera from Setup | Vision, or power cycle the camera. Then rebuild the current project using Project | Rebuild. Smart Camera firmware v1.0.0.4 reduces the occurrence of this problem.