EPSON RC+ 5.3.1 Release Notes
May 27, 2009

Thank you for using EPSON RC+ 5.3.1.   This document contains the latest information
for this release.   Please read before using this software.

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 Controller manual Installation chapter. This contains information for initial connections and start up.

What's New in version 5.3.1

1. Improved auto acceleration for RS series robots when motion distance is short. This requires controller firmware 1.8.2.0 or later.

2. VB Guide SpelNetLib methods GetVar and SetVar now support arrays.
   For example:

   ```
   Dim myArray() As Integer
   myArray = m_spel.GetVar("MyArray")

   Dim myValue As Integer
   myValue = m_spel.GetVar("MyArray(1)")

   m_spel.SetVar("MyArray", myArray)

   m_spel.SetVar("MyArray(1)", 1)
   ```

What's Fixed in version 5.3.1

1. Fixed problem when sometimes a motion command did not stop for a Till condition. This requires controller firmware 1.8.2.0 or later.

2. Fixed problem for global preserve variable access which can sometimes occur if the variable is declared in one program file and used in another.

3. Fixed teaching points for RS series robots when J1Flag or J2Flag were non-zero.

4. Fixed horizontal scrolling for program editor.

5. Fixed the Confirm Teach Robot Manager preference. It was not being preserved for the next session.

6. Fixed vision graphics for Run Window when the display was switched between cameras with different resolutions.

7. Now when points are saved from the Robot Manager Points page, the current row in the points grid is not changed.

8. Fixed exceptions that sometimes occurred when executing many Print statements.

9. Fixed several 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.