EPSON RC+ 7.0 v7.5.0 R1 Release Notes
October 18, 2020

Thank you for using EPSON RC+ 7.0 v7.5.0.   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 EPSON RC+ 7.0 environment Help menu.

Getting Started

Read the Getting Started chapter in the EPSON RC+ 7.0 User's Guide. This chapter will refer you to the RC700 Controller manual Installation chapter. This contains information for initial connections and start up.

What's Fixed in version 7.5.0 R1

1. Fixed a problem where after teaching vision calibration points from the Vision Guide window, the Teach Points and Calibration buttons are hidden.

2. Fixed a problem where Ctrl+C from the Run window did not stop all tasks if background tasks were not being used.

3. Fixed a problem for strobed image acquisition. The CV2-A unit became unresponsive after VRun is executed for a sequence with RuntimeAcquire set to Strobed. CV2-A firmware v3.1.3.1 must be installed, which is included in 7.5.0 R1.

4. Fixed a problem where RC+ 7.5.0 could not connect to CV2-A units using firmware v3.1.0.1 or before. Using 7.5.0 R1, after connecting to the CV2-A, the firmware should be upgraded to v3.1.3.1 or greater to allow operation with robot controllers.

5. Fixed a problem for when the Vision Guide window was opened in offline mode for RC+ sessions other than the first session and PC vision or virtual cameras were being used in the project, then an exception occurred.

What's New in version 7.5.0

Part Feeding
Note: Robot controller firmware version 7.5.0.0 or greater must be installed to use the new Part Feeding features.

1. The Part Feeding option is now included in the standard EPSON RC+ 7.0 installer.

2. Added support for IF-80, IF-380, IF-530v2 part feeders

3. Added support for simultaneous multiple parts and multiple robots.

4. Added the ability to purge parts from the feeder tray.

GUI Builder
5. Added new controls for GUI Builder: ProgressBar, StatusBar, TrackBar.　See the GUI Builder manual for details.

API
6. Added several new methods to the API, including support for reading task information, connection information, and more controller information.　See the section *What's New for RC+ 7.5.0 API* in this document.

Fieldbus
Note: Robot controller firmware version 7.5.0.0 or greater must be installed to use the CCLink version 2 features.

7. Added support for CCLink version 2 features.

Vision Guide
Note: For Compact Vision, CV2-A firmware version 3.1.3.0 or greater must be installed to use the following new features.

8. Added support for CV2-A connection password to prevent unauthorized users from connecting to the CV2-A.　See the Vision Guide 7.0 Hardware manual for details.

9. Added support for Arc search windows for Correlation, Blob, Geometric, OCR.

10. Added ability for OCR to search for curved text.

11. Added ThresholdMethod for Blob, Contour, ImageOp Binarize which supports LocalAdaptive thresholding.　See the Vision Guide Properties and Reference manual for details.

12. Added support for don't care pixels for the DefectFinder and Polar tool.

13. Added statistics for vision histogram tool.

14. Added ability to use transparency for painting don't care pixels in ShowModel.

15. Added new SaveTeachImage property for vision tools with models.　This allows the image used during teach to be saved to a file.

16. Added ability to copy / export statistics data to a CSV format file.

17. Added ability to copy / export object results data to a CSV format file.

18. Added ability to enable or disable an object from the object right click menu on the Vision Guide window.

What's Fixed in version 7.5.0

Vision Guide

1. Improved performance for ShowModel when using don't care pixels.   The data transfer time was reduced and especially helps when using larger megapixel cameras.

2. Fixed the Direction property for BoxFinder and CornerFinder.   In previous versions, the Direction value did not match the actual search direction.

3. Fixed a problem for ModelWinType.   If the value was changed and the model was taught, then after the project is re-opened, the model is shown as not being taught.

API

4. Fixed MemInW for API.   The wrong value was being returned if it was greater than 255.   Controller firmware 7.5.0.0 or greater is needed.

5. Fixed GetPoint method for point attributes.   The JxFlag (J1Flag, J2Flag, etc.) attribute values were not correct.

6. Fixed a problem were RebuildProject did not return if OperationMode was Program.

GUI Builder

7. Fixed copy / paste for some control properties.   After paste, some properties were not being updated.

8. Fixed a problem where sometimes when selecting a form or control in the form tree, the property grid was not showing the properties for the selected form or control.

9. Fixed a problem for using the same names for controls on different forms.

10. Fixed a problem where when controls are overlapped, the overlap order was not restored correctly after re-opening the project.

What's New for RC+ 7.5.0 API

Here are some of the key new features in the API option in EPSON RC+ 7.0 v7.5.0.
See the online help or the RC+ API manual for details.

I/O Additional methods

AIO_In
AIO_InW
AIO_Out
AIO_OutW
InReal
OutReal

Robot Statistics Methods

ATCLR
ATRQ
AvgSpeed
AvgSpeedClear
OLRate
PeakSpeed
PeakSpeedClear
PTCLR
PTRQ

Part Feeding Methods

PF_Abort
PF_Backlight
PF_BacklightBrightness
PF_Name
PF_Number
PF_Start
PF_Stop

Maintenance Methods

Brake
CalPls
GetJRange
Hofs

Connection

Connect now supports connection name

Fieldbus

FBusIO_GetBusStatus
FBusIO_GetDeviceStatus
FBusIO_SendMsg

Force Guide

FGGet
FGRun

Controller and Robot Information

GetControllerInfo now includes option data
GetCurrentConnectionInfo
GetRobotInfo
IsOptionActive
RebootController

Robot Points Additional Methods

PLabel

Additional Events

MotionStarted
MotionComplete

Vision Guide

Camera & Lens Selection Tool

A camera and lens selection tool is provided in the EpsonRC70\Tools folder after installation.   A PDF file with instructions is provided in the folder.

Parameter Tuning Tool

A sample project for a vision parameter tuning tool is provided in EpsonRC70\Projects\Samples\Vision\VGTuningTool. A PDF file with instructions is provided in the folder.   The GUI Builder option is required to use this tool.