Thank you for using EPSON RC+ 3.4.1. This document contains the latest information for this release. Please read before using this software.

**Service Pack 4**

EPSON RC+ 3.4.1 Service Pack 4 is included on the current v3.4.1 installation CD. It is not automatically installed with the v3.4.1 installation program. It must be installed separately. If your system was configured at the factory, the service pack will already be installed.

**Note:** Service Pack 4 includes Service Packs 1 and 2. If you install Service Pack 4, do not install Service Packs 1, 2, or 3.

**How to verify if Service Pack 4 is installed**

1. Run EPSON RC+.
2. Select Help | About.
3. If the service pack is installed, the version number will be 3.4.1 SP4.

**How to install Service Pack 4**

To install Service Pack 4:

1. Navigate to the \Service_Packs directory on the installation CD.
2. Run the file rc341sp4.exe and follow the on screen instructions.

**How to uninstall Service Pack 4**

To uninstall Service Pack 4:

1. Open Add / Remove Programs in the Windows Control Panel.
2. Select EPSON RC+ 3.0 and run it.
3. Select Repair.
4. This will re-install 3.4.1 and remove the changes made by the service pack installation.
5. If a previous service pack exists, you add it now.
Known Problems

This section contains information on the latest important problems found after release. Several of these problems have been fixed in Service Packs 1, 2, and 3, as noted.

**Quit command can cause local variables to be cleared or memory access violation errors**

*Note: This has been fixed in Service Pack 4*

Fixed local variable problems when tasks were being Quit and no abort occurred. Sometimes local variable values could be changed after making a function call. This was more likely to happen when SPEL+ tasks are started from VB Guide.

**Error 419 can occur when tasks waits for resource more than 3 seconds**

*Note: This has been fixed in Service Pack 4*

Previously, if one task was waiting to execute certain commands (including vision) and several other tasks were also executing these commands, then after 3 seconds error 419 could occur.

**Overflow error can occur for Vision Guide Edge tool**

*Note: This has been fixed in Service Pack 4*

If an edge was found, and then not found for a few hundred cycles, an overflow error could occur. The exact not found count depends on the score when found.

**FmtStr appends CRLF to end of formatted string**

*Note: This has been fixed in Service Pack 4*

FmtStr no longer appends a CRLF at the end of the formatted string.

**Wait during motion with CP and parallel process hangs**

If a motion command is executed with CP and parallel processing, a Wait statement without a timeout whose condition is never satisfied will hang the motion statement. For example, the following statement hangs if input 1 never turns on during the move.

```
Go Pl CP !Wait Sw(1); On 1!
```

To workaround this problem, add a timeout parameter to the Wait statement:

```
Go Pl CP !Wait Sw(1), 5; On 1!
```
Using a timeout is recommended because if there is no timeout, then the task will never finish the parallel processing and the task will have to be aborted.

**Wait statement does not work with In, InW, Out, OutW, Ctr, Lof, Motor, MCcalComplete**  
*Note: This has been fixed in Service Pack 3*

SPEL+ was not waiting for the expression to become true when these functions were used in the Wait condition expression: In, InW, Out, OutW, Ctr, Lof, Motor, MCcalComplete.

**Remote outputs not updated when robot is changed**  
*Note: This has been fixed in Service Pack 3*

When the current robot is changed via remote inputs, the remote outputs related to robot status were not being updated.

**Vision Guide properties text cursor is sometimes hidden**  
*Note: This has been fixed in Service Pack 3*

If you clicked on a result value in Vision Guide, then clicked on a property that contains text, the text cursor (caret) did not appear.

**Error 4242 can occur after Cont in CP mode**  
*Note: This has been fixed in Service Pack 2*

If the safeguard is open during CP motion, then closed, error 4242 can sometimes occur after Cont is executed.

**Pause does not work with QP OFF**  
*Note: This has been fixed in Service Pack 2*

If QP OFF is used, then Pause does not pause the robot after the first time called.

**Crash can occur when Exit Function is used in single line If statement**  
*Note: This has been fixed in Service Pack 2*

If some cases, RC+ can crash or memory can be corrupted if Exit Function is used in a single line If statement.  
For example:

```
   If a = 1 Then Exit Function
```
To workaround this problem, use a block If statement:

\[
\text{If } a = 1 \text{ Then}
\]
\[
\text{Exit Function}
\]
\[
\text{EndIf}
\]

**Cameras 5 - 12 cannot be selected on Vision Guide calibration dialog**

Note: This has been fixed in Service Pack 2

If the Meteor2 frame grabber is being used, you can select up to 12 cameras. But the Vision Guide calibration dialog only allows 4 cameras.

**Need small delay after calling ENetIO_AnaSetConfig**

After setting the configuration for an Ethernet I/O analog module, a small delay must occur before reading or setting values.

Function Main

\[
\text{ENetIO_AnaSetConfig 32, 0, 0, -5, 5}
\]
\[
\text{Wait .1 ' Add this delay before reading / setting values}
\]
\[
\text{ENetIO_AnaOut 32, -2.5}
\]
\[
\text{Fend}
\]

**Parentheses needed for setting negative analog outputs from monitor window**

When setting negative values for Ethernet I/O analog outputs from the monitor window, you must add parentheses around the negative value, as shown below.

\[
>\text{ENetIO_AnaOut 32, -(2.5)}
\]

**Point Type is not displayed in I/O Label Editor for Ethernet I/O labels**

Note: This has been fixed in Service Pack 1

When using the I/O Label Editor for Ethernet I/O labels, the column that displays the point type (Digital Input, Digital Output, Analog Input, Analog Output) is not displayed. However, the labels work correctly. To view the point types, open the I/O Monitor and click on the Ethernet I/O tab.

**Remote outputs for current robot do not work**

Note: This has been fixed in Service Pack 1

If the current robot number is changed from a remote input, the remote output bits CurrRobot0 - CurrRobot3 are not updated.
**Video is not updated after strobe input**

Note: This has been fixed in Service Pack 1

After a strobe input is received, the vision sequence executes correctly and the results are correct, but the video display is not updated.

**Error 4103 can occur when jogging from Vision Guide Calibration dialog**

Note: This has been fixed in Service Pack 1

If you try to teach calibration points from the Vision Guide Calibration dialog Teach Points button, you will receive error 4103, "Motion Control Module initialization error", if you have not previously opened Jog & Teach or the Vision Guide Jog tab. If you receive error 4103, you can easily fix the problem by opening Jog & Teach, then closing it. You will not see error 4103 again during jogging as long as the SPEL Runtime Drivers are running.

**ES653S robot model is not available when adding a new robot to the system**

Note: This has been fixed in Service Pack 1

To install an ES653S robot, you must first install Service Pack 1.

**Error statement and Trap GoTo can cause memory access violation errors**

Note: This has been fixed in Service Pack 1

If an Error statement is used in a function without a local error handler, then memory access violations can occur. The same is true for Trap with GoTo if the trap fires in a function called by the function that set the trap.

**Local variables are not initialized if program previously aborted**

Note: This has been fixed in Service Pack 1

When a program is aborted, then on the next run, the local variables in the function where the abort occurred are not initialized. To work around this problem, initialize all local variables.

**Error 76 occurs when System Configuration is open and vision mode is VGA**

Note: This has been fixed in Service Pack 1
If the current vision mode is VGA and Setup | System Configuration is open, error 76, "Path not found" occurs.

To fix this problem, create the following directory:

\D:\EpsonRC\Vision\Meteor2\DCF