
Controller Setup Manual and library configuration

EPSON Robotics Library

Setup overview

The setup procedure for DigiMetrix Robotics Library for Epson consist of the following steps:

1. Checking system requirements
2. Uninstalling ImagingLab Robotics Library for Epson
3. Installing DigiMetrix Robotics Library for Epson
4. Loading and compiling the server part of the library (Epson RC+ project)
5. Configuring the robot controller options
 1. Auto start options
 2. Communication parameters
 3. Pause and Resume options

Precaution

Please carefully read the Safety and Installation manual provided by the manufacturer and other related manuals dedicated to the installation and setup procedures for the robot system before using it with this library.

Following manual assumes that qualified personnel performed all the installation procedures for the robot system.

Checking system requirements

Please verify the following system requirements.

EPSON system requirements

- Epson RC90/RC170/RC180/RC620+/RC700 robot controller
- Epson SCARA/Spider/6-axis robot arm
- Epson RC+ Software installed on standard laptop/PC

LabVIEW system requirements

- LabVIEW 2009 or above (32 & 64 bit)
- Ethernet card and Ethernet cable
- Microsoft Windows XP, Vista, 7, 8 (32 & 64 bit) or LabVIEW Real-Time

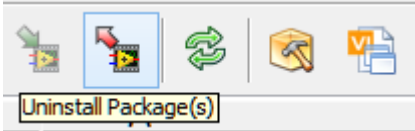
Uninstalling ImagingLab Robotics Library for EPSON

If you have ImagingLab Robotics Library for Epson already installed on your machine, you need to uninstall it first.

The library de-installation

Please use VI Package Manager 2014 or later in order to uninstall the library.

1. Open JKI VI Package Manager from your Desktop or using LabVIEW menu Tools -> VI Package Manager with Administrative privileges. To do so, right-click on VI Package Manager icon and select **Run As Administrator**
2. Select **Epson Robotics Library by ImagingLab** product in the list
3. Select **Uninstall Package(s)** command in the top left corner

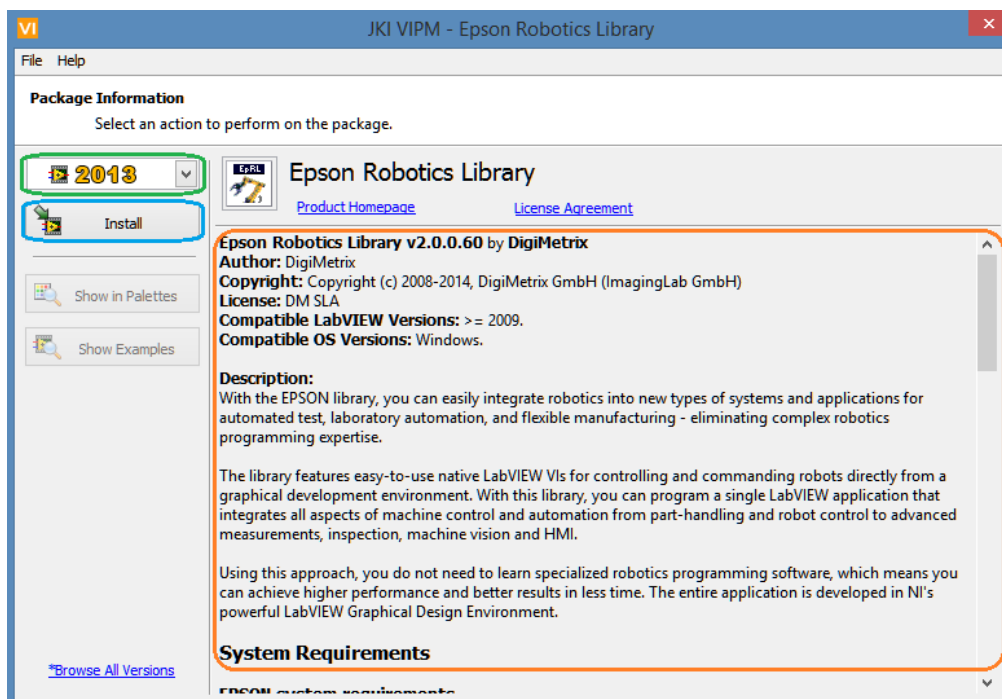


Installing DigiMetrix Robotics Library for EPSON

The library installation

Please use VI Package Manager 2014 or later in order to install the library.

1. Open JKI VI Package Manager from your Desktop or using LabVIEW menu Tools -> VI Package Manager
2. Select **Epson Robotics Library by DigiMetrix** product in the list or open .vip file using top menu command File -> Open Package File(s).
3. Read the library **description**, select your LabVIEW **version** and click **Install** button



Loading server part of the library into the controller

Locating Epson RC+ project

The server part of the library (Epson RC+ project) is stored in the following location:

<Public Program Data>\DigiMetrix\Epson Robotics Library\Epson RC+ project

C:\ProgramData\DigiMetrix\Epson Robotics Library\Epson RC+ project

You can open this folder by using this command:

LabVIEW Tools menu -> DigiMetrix Tools -> Epson Robotics Library -> Epson RC+ project

Loading and compiling the project

1. Copy the folder EpRL to the folder C:\EpsonRC**\projects\

Note: Destination folder can be different depending on the installation directory for Epson RC+

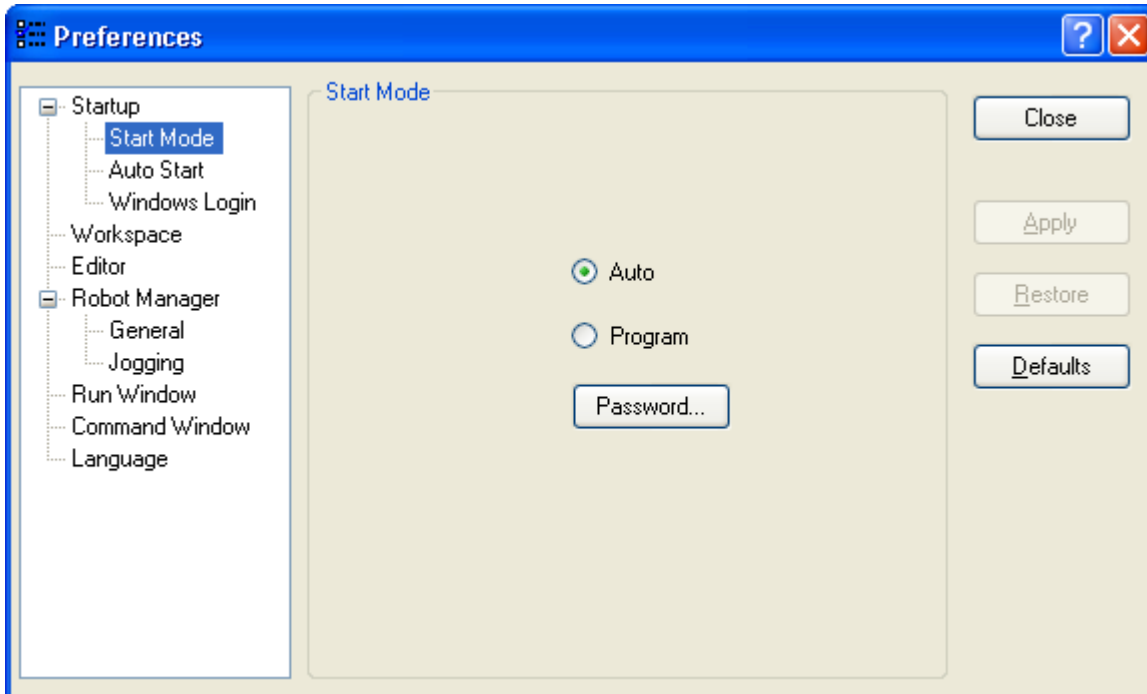
2. Launch Epson RC+ Software

Note: If you are not familiar with Epson RC+ Software please read Epson RC+ User's Guide manual

3. Go to Project menu and choose Open option
4. In the dialog Open Project select EpRL project and then click Open button
5. Go to Project menu and choose Rebuild option

Configuring auto start options

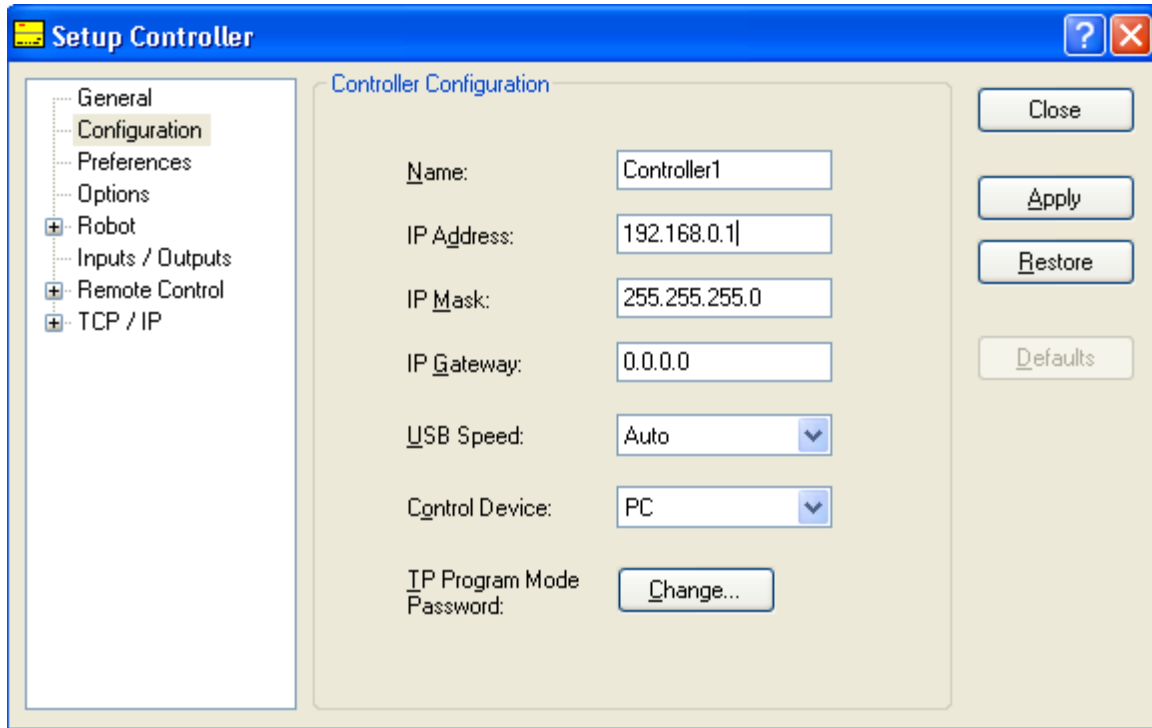
1. In Epson RC+ software go to Setup menu and then choose Preferences option
2. Open Start Mode tab and then select Auto radio button



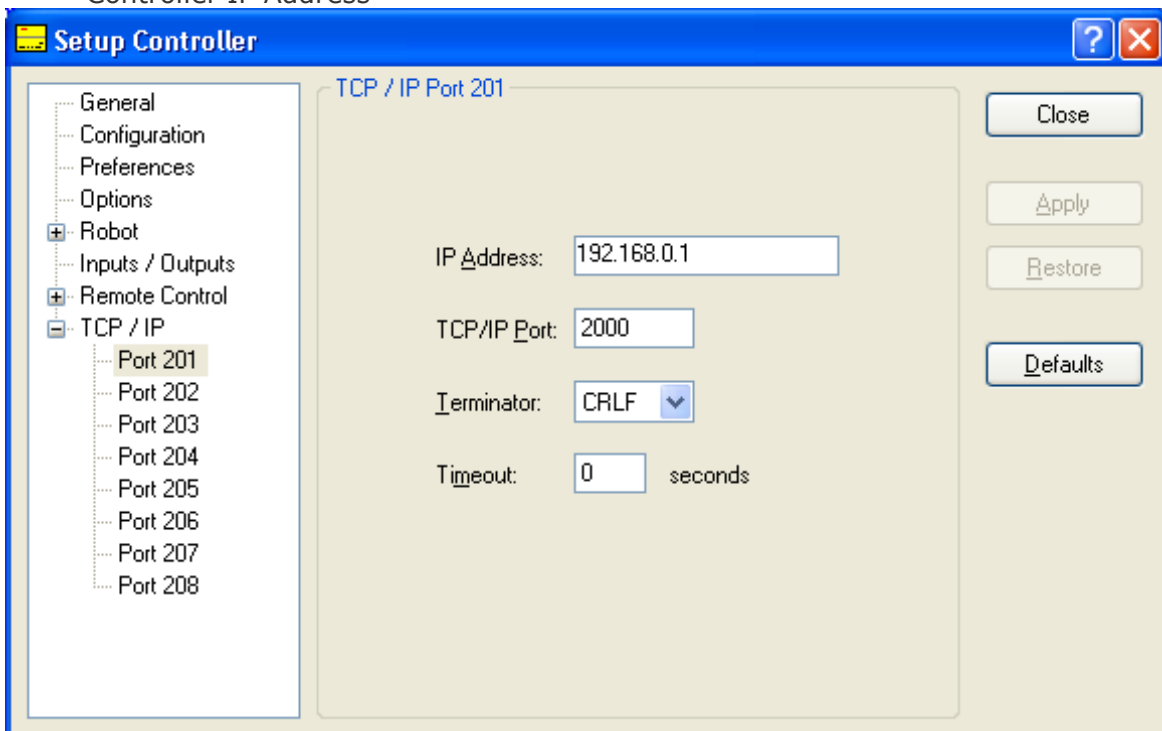
3. Click Apply button to apply changes
4. Click Close button to close Preferences window

Configuring auto start options

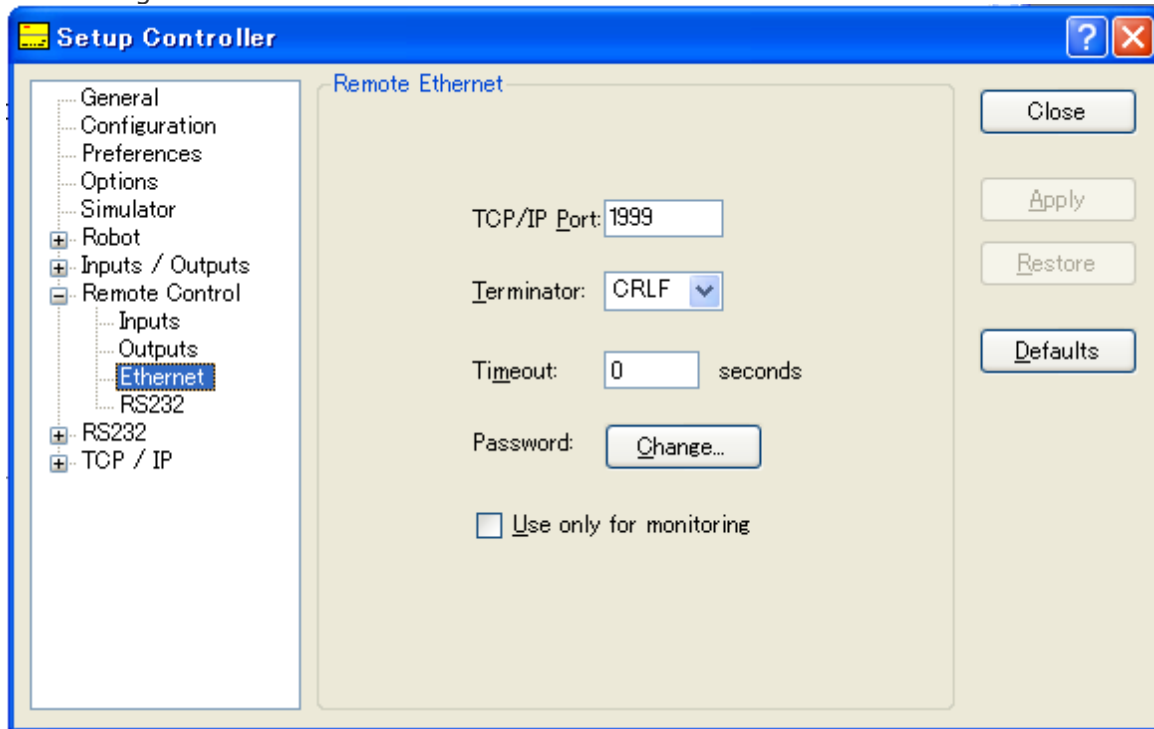
1. In Epson RC+ software go to Setup menu and then choose Controller option
2. In the Setup Controller window open Configuration page and specify Network settings for the controller: IP Address, IP Mask and IP Gateway according to the picture below. Click Apply button to apply changes.



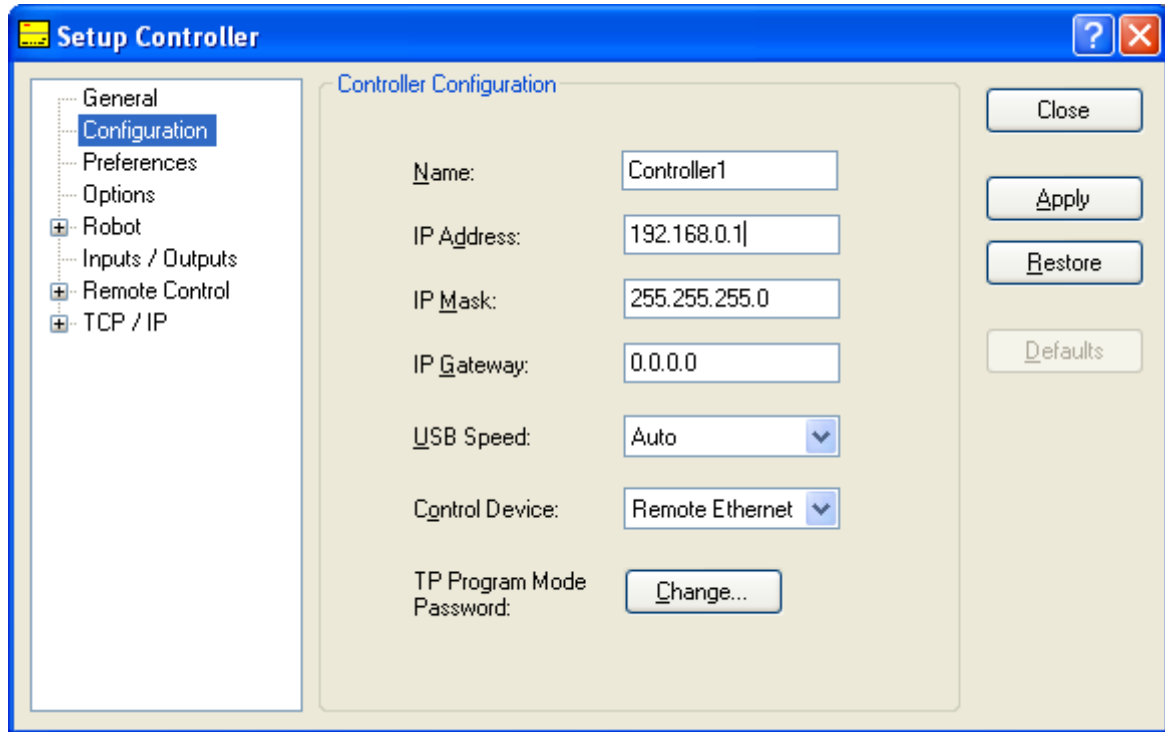
3. In the Setup Controller window go to TCP/IP tree element and set:
 1. For the Port 201 element: TCP/IP Port = 2000, Terminator = CRLF, Timeout = 0, IP address = Controller IP Address
 2. For the Port 202 element: TCP/IP Port = 2001, Terminator = CRLF, Timeout = 0, IP address = Controller IP Address



4. **Required for RC90/RC180.** If you are using RC90/RC180 controller then do the following:
 1. In Setup Controller window expand Remote Control element and choose Ethernet tab
 2. Set the following: TCP/IP Port=1999, Terminator = CRLF, Timeout =0, Use only for monitoring = FALSE



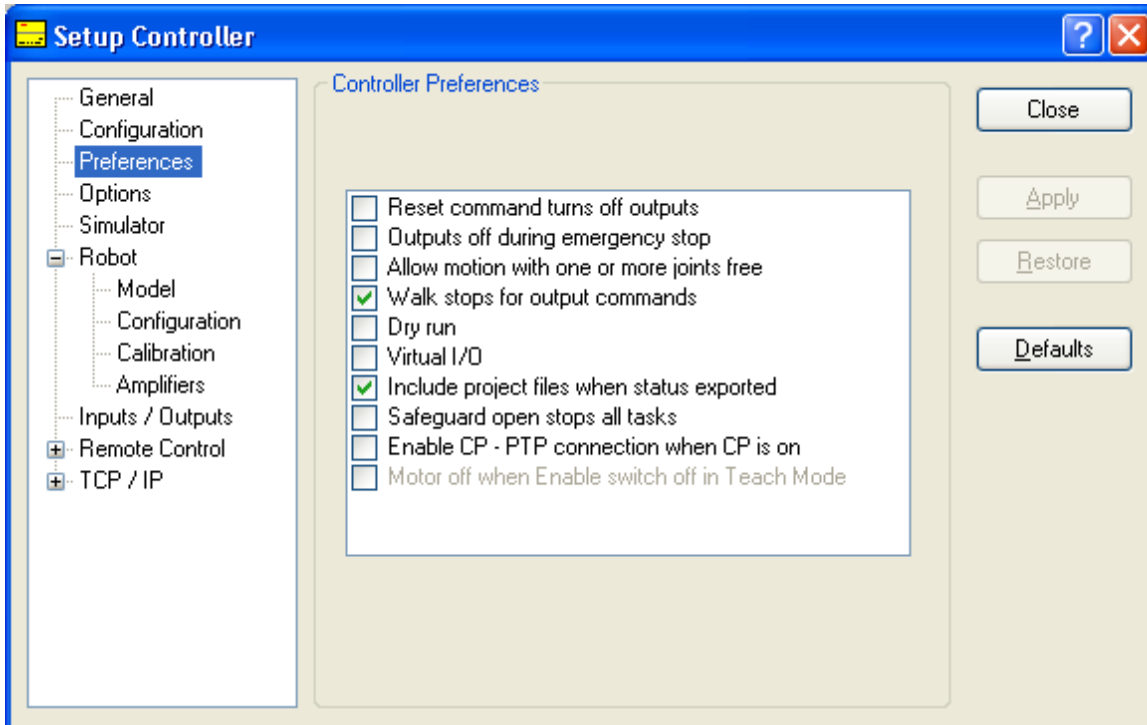
3. Go to Configuration tab
4. Set Control Device to Remote Ethernet. Controller will be rebooted after a while.



5. Click Close button to close Setup Controller window.

Enabling Pause and Resume functionality (required for RC90/RC180)

1. In Epson RC+ software go to Setup menu and then choose Controller option
2. In the Setup Controller window open Preference page and set "Output off during Emergency Stop" to unchecked state.
3. Set "Safeguard open stops all tasks" to unchecked state.



Next steps

Now your robot controller is configured. We suggest you start with library examples. Please refer to the Getting Started help topic.