

Getting Started With the SEL-3505/SEL-3505-3



What You Will Need



Microsoft® Windows® PC*



ACSELERATOR RTAC
Installation CD



Type B USB Cable

* Computer running one of the following operating systems: Windows 2003 (with SP1), Windows XP 32-bit (with SP2) Professional, Windows Vista® 32-bit or 64-bit, or Windows 7 32-bit or 64-bit.

Introduction

The SEL-3505 series of Real Time Automation Controllers (RTACs) are compact low-voltage powerful automation platforms that combine the best features of the embedded microcomputer form factor, embedded real-time operating system, and secure communications with flexible, feature-rich IEC 61131 compliant programmability. This guide provides instructions for the initial setup of your SEL-3505 or SEL-3505-3. Throughout this guide, the SEL-3505 or SEL-3505-3 are both referred to generically as SEL-3505 or RTAC. You will also find reference to additional instructions and documentation. If you have further questions, please call your local SEL representative or the SEL factory at +1.509.332.1890.

Procedure Overview

Following is a list of the primary tasks described in this guide:

- Apply power to the RTAC.
- Verify that the operating system and Microsoft® .NET versions on your computer meet the software requirements.
- Install ACSELERATOR RTAC® SEL-5033 Software.
- Log in to the RTAC web interface and create an administrative account.
- Launch and log in to the ACSELERATOR RTAC software.
- Create and download your first project using the *SEL-5033 Instruction Manual*.

Apply Power

The SEL-3505 is available with two power supply options: 12 to 24 Vdc or 24 to 48 Vdc. It is important to use only power supplies that are within the correct range for the unit you have. The unit ships with a yellow voltage indication label affixed to the chassis by the power connectors. If in doubt of the power supply option on your SEL-3505 or SEL-3505-3, check the part number located on the part number sticker. The seventh digit indicates power supply options, with D = 24 to 48 Vdc and E = 12 to 24 Vdc. See *Figure 1*.

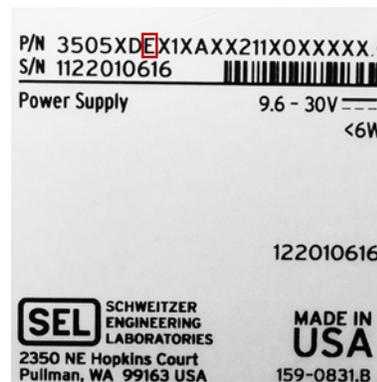


Figure 1 Identify Power Option

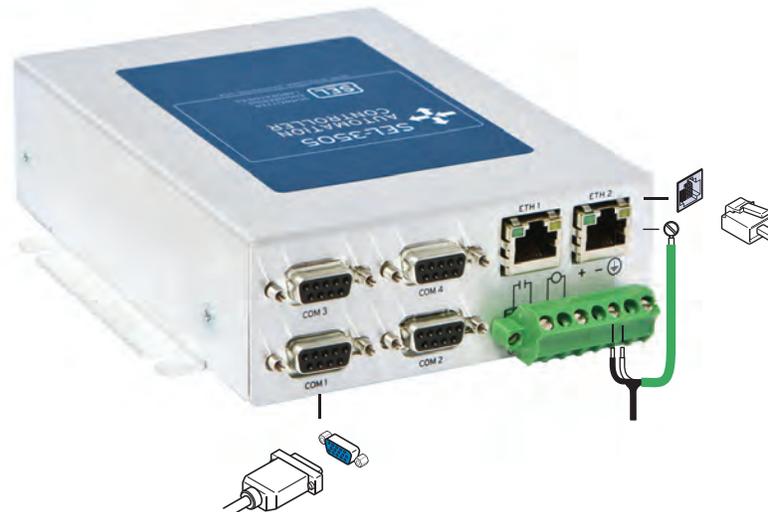


Figure 2 Wiring Detail

⚠ DANGER

Contact with this circuitry may cause electrical shock that can result in injury or death.

Insert the wiring for your incoming power into the green connector on the rear of the unit, as illustrated in *Figure 2* or as described on the unit, and apply power.

After applying power, wait a few moments (possibly as long as 30 seconds) for the green **ENABLED** LED on the RTAC to illuminate before proceeding. The red **ALARM** LED will remain illuminated while the unit is starting up and will go dark when the **ENABLED** LED illuminates.

Verify PC Operating System



Verify that your computer is running one of the operating system versions listed on the cover of this guide. ACSELERATOR RTAC software has been tested and verified for installation only on those operating systems. Also verify that your computer has at least version 4 of the Microsoft .NET Framework. ACSELERATOR RTAC uses the Microsoft .NET Framework as a supporting interface for portions of the application user interface.

If you need assistance, refer to the *Appendix* of this guide, where you will find detailed instructions for determining your PC operating system and .NET version.

Install ACSELERATOR RTAC



ACSELERATOR RTAC software provides a configuration and monitoring interface for the RTAC family of controllers. The application has tools for creating all of the communication-based connections, I/O connections, and custom logic for an RTAC. ACSELERATOR RTAC is a required tool for creating RTAC projects.

If you have the installation CD that was shipped with the RTAC, perform the following steps:

- Step 1. Ensure that all software applications are closed.
- Step 2. Place the CD in the computer CD/DVD-ROM drive.

- Step 3. If Windows autorun is enabled, the file will load automatically. If Windows autorun is not enabled, run **setup.bat** from the CD.
- Step 4. Click on the link for ACSELERATOR RTAC software in the window that appears.
- Step 5. Follow the on-screen instructions to complete the installation.
- Step 6. Close the window when the installation is complete.

NOTE: Internet access will be required to download ACSELERATOR RTAC from the SEL website.

The software is also available as a free download from the SEL website at www.selinc.com. The *Appendix* of this guide provides instructions for performing the download.

Create a User Account



In addition to the configuration and monitoring tasks that function via ACSELERATOR RTAC, each RTAC also hosts a website that displays important system information and provides a settings interface for networking and user accounts. For security reasons, every RTAC is shipped from the SEL factory with no user accounts enabled. Once you have created an administrative account, you will be able to create as many additional user accounts as needed, or enable lightweight directory access protocol (LDAP) for central authentication management. *Section 6* of the *ACSELERATOR RTAC SEL-5033 Software Instruction Manual* has more detailed information about user accounts and LDAP configuration.

To access the RTAC web interface and create an administrative account, connect the Type A end of the supplied USB cable to your computer and the Type B end of the cable to the USB port on the front of the RTAC, as illustrated in *Figure 3*.

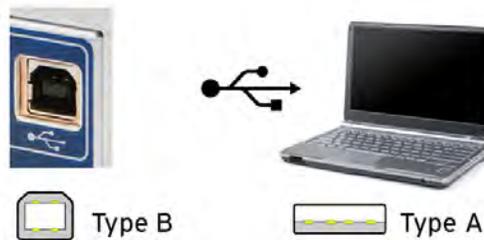


Figure 3 Connect USB to the RTAC

When you installed ACSELERATOR RTAC in the previous section, a USB driver was placed on your computer that enables a network connection to the RTAC via this USB cable. When you insert the cable for the first time, you will see a dialog box similar to the one shown on the left in *Figure 4*. Follow the prompts to install the USB driver. Select **No** when Windows asks you to search the Internet for the driver. If your computer is running Windows Vista or Windows 7, these dialogs may not appear during the automatic installation of the driver.

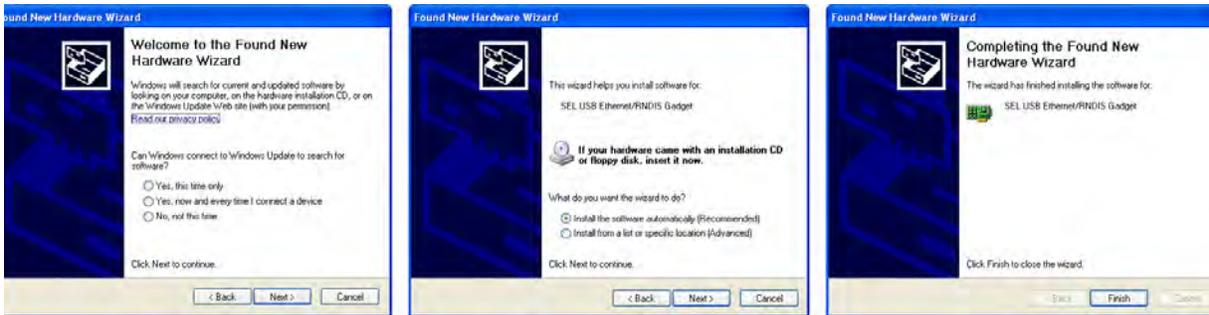


Figure 4 Installing USB Driver

As an alternate, you can access the RTAC web interface using one of the Ethernet interfaces located on the rear of the unit. The rear-panel Ethernet ports have the following default TCP/IP addresses:

ETH1 = 192.168.1.2

ETH2 = 192.168.2.2

You must set the IP address of your configuration PC so that it will be on the same subnet as the RTAC. For this example, open the network configuration tool in **Control Panel** on your PC and set your PC TCP/IP address to 192.168.1.100. Connect an Ethernet cable to your PC and to ETH1 of the converted RTAC platform.

Next, open a web browser and complete the following steps to access the RTAC web interface.

- Step 1. If you are connected to the RTAC via USB, type **https://172.29.131.1** into the address bar and press **<Enter>**. This is a fixed IP address that you will use anytime you need to log in to ACSELERATOR RTAC via the USB interface.

If you have connected to the RTAC with an Ethernet cable instead of a USB cable, enter the IP address of the connected Ethernet interface into the web browser address bar and press **<Enter>**.

- Step 2. Accept the default security certificate for first-time use, as shown in *Figure 5–Figure 7*.

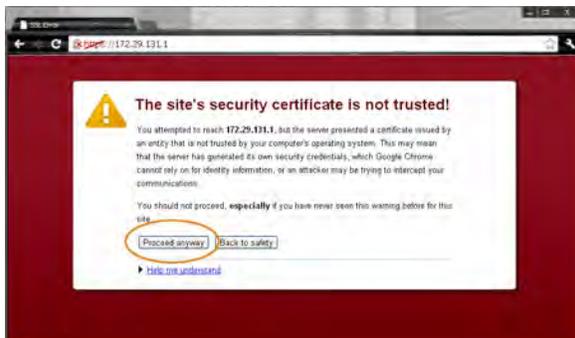


Figure 5 Google® Chrome™ Certificate Warning

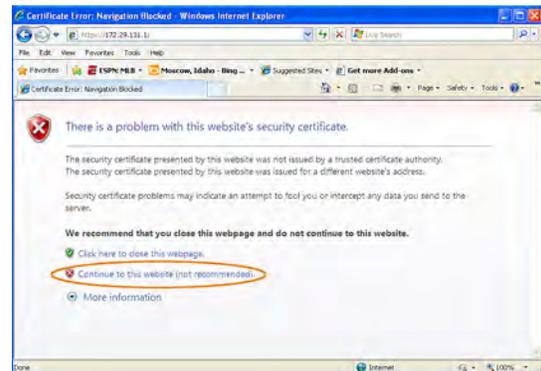


Figure 6 Internet Explorer® Certificate Warning

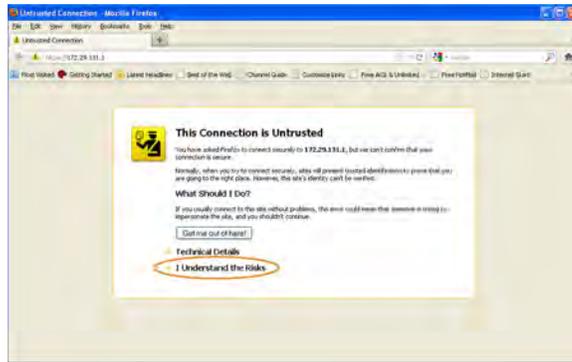


Figure 7 Mozilla® Firefox® Certificate Warning

Initial Configuration

With the web interface open, you are ready to create an initial administrator account and perform other settings changes. Follow these steps to create an initial administrator account. Ensure you do not forget the username and password you create in these steps.

- Step 1. The RTAC will automatically prompt you to create an administrative user account, as shown in *Figure 8*. Enter the desired username and password. The password must be at least eight characters and contain at least one of each: A–Z, a–z, 0–9, and special characters (!, @, #, etc.). Click **Submit**.



Figure 8 Creating Administrator Account

- Step 2. The RTAC then prompts you to log in using the account just created.
- Step 3. From the RTAC secure web interface, you can now create additional user accounts and change Ethernet interface settings. Please refer to the dashboard view shown in *Figure 9*.
- Step 4. Minimize or close the web browser.



Figure 9 RTAC Dashboard View

Open ACSELERATOR RTAC



Now the system is ready to start creating RTAC projects.

- Step 1. Double-click on the ACSELERATOR RTAC icon on your Windows desktop or select the application from the **Start** menu.
- Step 2. When prompted, log in using the default username (**admin**) and password (**TAIL**). These credentials are different from the account you created on the RTAC in the previous section. User accounts for the RTAC and for your installation of ACSELERATOR RTAC software each manage accounts independently.
- Step 3. As shown in *Figure 10*, access the instruction manual via the help icon in the upper right corner of the application window.



Figure 10 RTAC Instruction Manual

Section 1: Getting Started of the ACSELERATOR RTAC SEL-5033 Software Instruction Manual provides an overview and instructions for creating and downloading your first project into the RTAC. Later sections of the instruction manual detail the many capabilities of your new device. In addition, the SEL-3505 and RTAC product pages at www.selinc.com/SEL-3505/ and www.selinc.com/SEL-3530/ have additional video and printed material to help you learn more about the RTAC product family.

Factory Assistance

We appreciate your interest in SEL products and services. If you have questions or comments, please contact us at:

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 Email: info@selinc.com

Appendix

Verify PC Operating System

There are two different methods to view the Microsoft Windows version on your computer. If you have Windows XP or Windows 2003, follow these steps:

- Step 1. Click the **Start** button (if you do not have a rectangular **Start** button on the screen, use the instructions following *Figure 11*).
- Step 2. Select **My Computer**.
- Step 3. Under the **Systems Tasks** section select **View System Information**.
- Step 4. If you do not see a My Computer option when you click the Start button, select **Settings > Control Panel > System** in the start menu.
- Step 5. You should now see a window similar to *Figure 11*. Verify that the listed operating system and service pack meet the minimum requirements listed on the cover of this guide. ACSELERATOR RTAC software has been tested and verified for installation only on those operating systems.

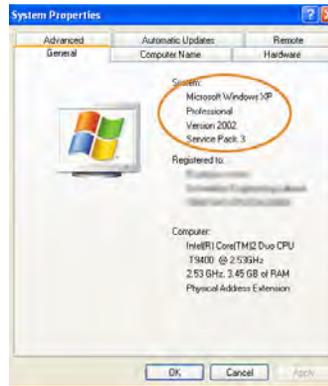


Figure 11 Microsoft Windows XP System Information

If your computer has a circular button with a Windows logo rather than the rectangular **Start** button, follow these steps to view the operating system version:

- Step 1. Click the circular **Start** button, then select **Control Panel**.
- Step 2. If your Control Panel view is set to show icons, select **System**. If your view is in Category mode, select **System and Security > System**. The resulting window will look similar to the one shown in *Figure 12*.

Verify that the listed operating system and service pack meet the minimum requirements listed on the cover of this guide. ACSELERATOR RTAC software has been tested and verified for installation and operation only on those operating systems.

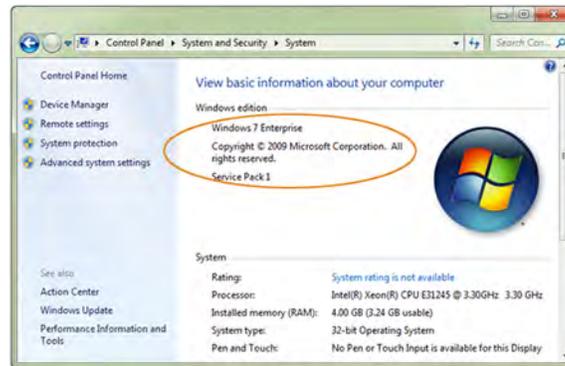


Figure 12 Microsoft Windows 7 System Information

Verify Required Supporting Software

ACCELERATOR RTAC and some components of the RTAC web interface take advantage of Microsoft .NET software. Microsoft .NET runs as a supporting interface for ACCELERATOR RTAC and many other Windows applications you already use. Therefore, you will not need any special knowledge to use Microsoft .NET. Most new computers ship with the appropriate versions of .NET already installed, but it is also freely available from the Microsoft website in case you need to install it.

If you have Microsoft Windows XP or 2003, use the following steps to evaluate your version of .NET:

- Step 1. Click **Start > Control Panel**. Alternatively, click **Start > Settings > Control Panel**.
- Step 2. Once the Control Panel window is visible, select **Add or Remove Programs**. The list of programs on your computer may take a few moments to display.

As shown in *Figure 13*, scroll to the Microsoft entries and verify that your computer has at least version 4 of the Microsoft .NET Framework. Either the Client Profile or Extended versions will work.

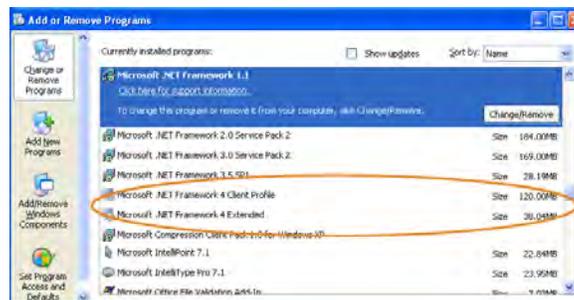


Figure 13 Verify Microsoft .NET Version

The procedure for Microsoft Windows Vista and Windows 7 is similar.

- Step 1. Click the **Start** button.
- Step 2. Select **Control Panel > Programs > Programs and Features**.
- Step 3. Scroll the resulting window until you find the Microsoft entries, as shown in *Figure 14*.

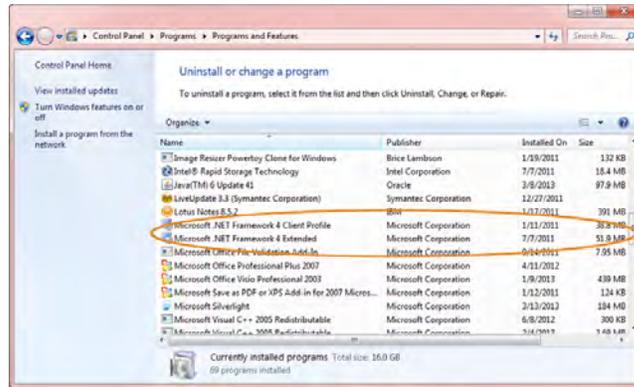


Figure 14 Verify Microsoft .NET Version in Windows 7

NOTE: Internet access will be required to download Microsoft .NET from the Microsoft website.

If you discover that your computer does not have the required version of Microsoft .NET, then browse to www.microsoft.com/net/ to download the latest version. Follow the installation instructions provided on the Microsoft website.

Downloading ACSELERATOR RTAC Software

If you already have SEL Compass® installed on your computer, perform the following steps:

- Step 1. Launch Compass and log in.
- Step 2. Browse to the ACSELERATOR RTAC SEL-5033 Software listing in Compass.
- Step 3. Run the ACSELERATOR RTAC installation.

If you do not have ACSELERATOR Compass, perform the following steps:

- Step 1. Use a web browser to access www.selinc.com/SEL-5033/ in order to directly download the installation software.
- Step 2. Click **Login**.
- Step 3. If you already have an account, enter your credentials and download the software.

If you do not have an SEL user account, click the **Register** link at www.selinc.com to create a free account. Follow the on-screen instructions to perform the download and then run the installation program.

NOTE: You will need an SEL website account in order to download the software.

You will not immediately have access to download the software after you create an account for the first time. You will receive an e-mail (normally within 24 hours) to notify you that access has been granted. Please contact an SEL representative if you need faster access to the software.

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