



 tecplot.360 2010

Installation Guide



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Table of Contents

Introduction	5
Overview	5
Getting Started	7
Technical Support	7
License Number	7
System, Graphics, Display Recommendations	8
Supported Platforms	9
Windows Installation	11
Macintosh Installation	15
Macintosh Installation Instructions	15
Additional Information	16
Linux/Unix Installation	19
Linux Installation Instructions	19
Optional Variable Setup	20
Additional Information	21
Entering Your License	25
Single-User or Evaluation License Setup	26
Network License Setup	27
License Manager Installation	29
RLM Installation	29
RLM Administration on Windows Platforms	32
RLM Administration on Linux/Unix/Macintosh Platforms	32
RLM Administration on Macintosh Platforms	33
RLM License Setup on All Platforms	33
The Reprise License Manager Web Server	34
Additional License Administration Tools	36
Running Multiple License Managers	38
Additional Information	38

Useful Information	39
User Documentation Sources	39
License Type Definitions	40
Borrowing/Returning Licenses Over a Network	42
Common License File Error Message.	44
Obtaining License Key Files.	44
Changing License Servers.	46
Network Licenses for Multiple Tecplot Products	46
Troubleshooting RLM	46
Firewall Settings for Hosting RLM.	48
Running Tecplot Products on a Laptop	49

Introduction

Overview

Welcome to Tecplot 360! This guide contains instructions to help you successfully install Tecplot 360 and, if applicable, the accompanying Reprise License Manager. To complete the installation process, a basic understanding of file editing, folder navigation, path names, environment variables, and aliases is useful. If you are unfamiliar with any of these topics, please ask your System Administrator for assistance.

The Tecplot 360 installation is now available primarily as a download. Download the setup file corresponding to your operating system to begin. If you have difficulty downloading the installation file, contact [Technical Support](#) for help.



Tecplot 360 2009 R2 and later versions use the Reprise License Manager. If you are upgrading from Tecplot 360 2009 R1 or earlier, for a smooth transition to the new product, uninstall previous versions of Tecplot 360 after Tecplot 360 2010 is fully operational.

Tecplot 360 uses the Reprise License Manager to manage licensed use of the product. The first time you run Tecplot 360 after a fresh installation, you must provide either a valid license file (for a **Single-User** license), or the address of a Reprise License Manager server (for a network license).

If you have a **Network** license of Tecplot 360, one machine on your network will need to have the Reprise License Manager server installed. Refer to [“License Manager Installation”](#) on page 29 for instructions on how to install and configure the Reprise License Manager server for a **Network** license.

Getting Started

This chapter includes information to know before beginning your installation. Refer to the following chapters for platform-specific installation instructions.

Technical Support

If you have difficulty performing the installation, review the [“Useful Information”](#) on page 39, or visit our detailed, searchable knowledge base online at www.tecplot.com/support/installation.aspx. You can also contact our responsive Technical Support Team by the following methods:

- Internet: www.tecplot.com/support
- E-mail: support@tecplot.com
- Telephone: +1-425-653-9393

Please include your license number when contacting Support.

Our **Tecplot Talk** online forum is a convenient way to get answers from other Tecplot product users and from the Tecplot Technical Support Team. Join the forum at www.tecplottalk.com.

License Number

To obtain your license file for Tecplot 360, you will need your license number. This number identifies you as a Tecplot customer and is different from the license file you may receive to activate a single-user license. If you downloaded your installation and do not have a license number:

- If you have a physical disc, your license number is on a yellow sticker inside your product case (in the form “L00000”).

- If someone else in your organization purchased the license, contact your license administrator or license buyer in your organization, or contact [Customer Support](#) to find your license number.
- If you purchased a single-user license or are the license buyer, [Technical Support](#) can help you find your license number.

System, Graphics, Display Recommendations

We recommend, at a minimum:

- **Processor** 2 GHz (32-bit or 64-bit)
- **Storage** 500 MB disk space and 2 GB RAM
- **Graphics** An OpenGL-accelerated graphics card
- **Display** Minimum resolution of 1024 x 768

If you work with larger data sets, more RAM, more disk space, and likely a 64-bit processor will help. (32-bit processors limit applications such as Tecplot 360 to using only 2-3 GB of RAM.)

Please make sure that you are using the latest graphics drivers compatible with your hardware and operating system. These can be obtained from your graphics adapter vendor's Web site. Old versions may have issues with Tecplot 360, especially with larger data sets.

NVIDIA: <http://www.nvidia.com/Download/index.aspx>

The NVIDIA driver versions we have tested with are 185.18.x (Linux) and 6.14.x (Windows).

ATI: <http://support.amd.com/us/gpudownload/Pages/index.aspx>

Intel: <http://downloadcenter.intel.com/Default.aspx>

ATI and Intel users should download the latest drivers available for your system and adapter.

Supported Platforms

Tecplot 360 is supported only on the following operating systems. The software may also run on operating system distributions similar to the ones listed here, but we cannot provide support for users running Tecplot 360 on such systems.

Microsoft Windows	
<i>32-bit</i>	<i>64-bit</i>
XP (Service Pack 3)	XP (Service Pack 2)
Vista (Service Pack 2)*	Vista (Service Pack 2)*
Windows 7	Windows 7

* Vista and Windows 7 require that the installation be run as an administrator.

Macintosh	
<i>32-bit</i>	<i>64-bit*</i>
Mac OS X 10.4 (Universal)	Mac OS X 10.5 (Intel)

* Requires an Intel Core 2 family processor or later. Core family processors are not supported.

Linux	
<i>32-bit</i>	<i>64-bit</i>
Red Hat Enterprise Linux (RHEL) 4, 5	Red Hat Enterprise Linux (RHEL) 4, 5
SUSE 10, 11	SUSE 9 (SP 4), 10, 11
Ubuntu 6.06 LTS, 8.04 LTS*	Ubuntu 6.06 LTS, 8.04 LTS*

* Ubuntu must be a Long Term Support (LTS) release.

UNIX
HP/UX (PA-RISC) 11.0, (IA64/Itanium) 11.2i IBM (RS6000) AIX 5.3 Technology Level 7 Sun (SPARC) Solaris 9, 10

- * OpenGL must be installed by the system administrator before Tecplot 360 will run.

Windows Installation

1. **Find Setup File** To use a downloaded file for your installation, save the appropriate setup file to your hard drive from www.tecplot.com. For an installation from disc, insert the Tecplot 360 disc into your computer's optical drive.



SYSTEM ADMINISTRATORS

To install Tecplot 360 on a server as the system administrator, you can go to the command line and navigate to the folder that contains your saved setup file. For example, if installing from a disc, type:

```
D: (or your optical drive letter)
cd windows
```

Then type the following, depending on your platform:

```
setup360_win32.exe /a (32-bit), or
setup360_win64.exe /a (64-bit)
```

The administrative installation choice copies all of the files and folders included in a full installation to a user-specified folder. This installation will not set environment variables, shortcuts, or icons.

If you choose to install Tecplot 360 with a **Network** license, you must install the license manager on the server. Refer to "[License Manager Installation](#)" on page 29 for details.

2. **Launch Installer** To install from a downloaded file, navigate to the location of your saved setup file and double-click the executable file to begin installation. To install from disc, navigate to the */windows* folder on the disc and open *setup360_win32.exe* or *setup360_win64.exe*.

If you are installing on Windows Vista or Windows 7, right-click the *.exe* file and choose “Run as Administrator” from the context menu.

3. **License Agreement** Read and accept the license agreement.
4. **User Information** Fill out the Name, Organization, and License Number fields.

If you are a customer and do not have your License Number, which identifies you as a customer, see your product case or contact Technical Support. If you are installing for evaluation purposes, you may leave the License Number set to its default of L00000-0000.

On this page, you also choose whether to install Tecplot 360 for only yourself or for all users.



You must have administrator rights on your computer in order to install Tecplot 360 for all users.

5. **Destination Folder** Tecplot 360 will install into this folder. Accept the default destination folder, or browse to set a new folder (by using the Change button).
6. **Working Folder** Tecplot 360 project files are saved to this location by default. Accept the default working folder or browse to set a new folder for any new data files that you create (by using the Change button).
7. **Installation Mode** Specify whether to perform a custom or complete installation. The complete installation (recommended) installs all components of Tecplot 360.
8. **Install the Program** Click the Install button. Installation will begin.

This completes the Tecplot 360 installation.

The first time you run Tecplot 360 after a fresh installation, you will be prompted to enter your license information. See [“Entering Your License”](#) on page 25 for further instructions.

Macintosh Installation

The steps to install Tecplot 360 on a Macintosh® computer differ significantly from the steps for an installation on a Windows machine. Follow the instructions below to install Tecplot 360 on a Macintosh system. Refer to the [Release Notes](#) for further information on Macintosh installations.



For Mac OS version 10.4, if you have not already installed X11 on your system, you will need to install it before you can run Tecplot 360. You can install X11 from your Mac OS installation DVD.

Macintosh Installation Instructions



You may also use the Linux installation procedure in a terminal window (the Tecplot disc mounts in / *Volumes*). To use the Linux procedure, see "[Linux Installation Instructions](#)" on page 19. You must have administrative privileges to install Tecplot 360 using the Linux procedures.

To install Tecplot 360 on a Macintosh platform, follow these steps:

1. **Setup File** To use a download file for your installation, save the appropriate setup file to your hard drive. To install from disc, insert the Tecplot 360 disc into your computer's drive.
2. **Launch Installer** For a download installation, double-click the *.dmg* file icon to launch the installer. For a disc installation, double-click the Tecplot 360 Install icon (located in a subfolder of the *mac* folder on the disc, either *universal* or *intel64* depending on your computer's architecture) to launch Apple's installer and install Tecplot 360.

3. **Read Me** After reading the Read Me notes, Click Continue.
4. **License Agreement** Read and accept the license agreement in order to continue with the installation.
5. **Destination Folder** Select a destination volume. This step will create a new folder (by default, */Applications/Tec360_2010*), in which the installation will save the Tecplot 360 program files.
6. **Install** On the Easy Install window, click the Install button. If prompted, enter the name and password for an account with administrator privileges. (If you do not have this account information, contact your System Administrator.) Installation will begin.

This completes the Tecplot 360 installation.

The first time you run Tecplot 360 after a fresh installation, you will be prompted to enter your license information. See [“Entering Your License” on page 25](#) for further instructions.

Additional Information

Use the following information for additional help running Tecplot 360 on the Macintosh platform.

File Associations

Your Mac OS manages associations between file types and applications (that is, your OS chooses which program to use by default to open each file type). Installers cannot modify these associations. If you wish, you can modify these associations manually with the following steps:

1. Single-click on a file of the desired type (such as a *.plt* file).
2. Press Command-I, or choose “Get Info” from the **File** menu to display the **Info** dialog for that file type.
3. In the **Open With** menu, select the desired Tecplot 360 application. If the menu does not list the application

you want, click Other and navigate to your desired Tecplot 360 application.

4. Optionally, click the Change All button to change the associations for all files of the selected type.

ALT Key Assignment

Apple's X11 server for Mac OS X does not treat the Command or Option key as an Alt key. To assign the Command or Option key as an Alt key, add the following line to */etc/X11/xinit/xinitrc* file:

```
xmodmap -e "keycode 66 = Alt_L"
```

This change will take effect when the X server is restarted. To test this feature without restarting, type the `xmodmap` command in at a terminal window.

OpenGL Preference Dialog

By default, when Tecplot 360 is launched on a Mac platform, a preference dialog appears in which you can choose whether to use software OpenGL emulation. Generally, you should choose software rendering only if you intend to export large images. Hardware rendering is faster, but images can be exported only at the size they are displayed on the screen.

If you uncheck the option to always display the dialog, and later wish to display the dialog again, enter the following line into the command line to delete the saved preference and revert to displaying the dialog:

```
defaults delete com.tecplot.Tecplot
```


Linux/Unix Installation

To install Tecplot 360 on a Linux®/Unix® operating system, we suggest that you run as root (using the `su` or `sudo` command is usually best). Running as root allows you to complete the installation in a system directory, such as in `/usr`. Follow the steps in this chapter to install Tecplot 360 on a Linux or Unix operating system. For simplicity, we will assume in this section that you are installing on Linux; installing on a supported Unix platform is similar, with obvious differences.

Linux Installation Instructions

To install Tecplot 360 on a Linux/Unix system, perform these steps:

1. **Setup File** To download your installation, save a setup file from the download site to a temporary folder on your hard drive. You can choose to download either a setup file for a single Linux platform or a file containing all Linux platform setups.

Issue these two commands to uncompress and untar the files and delete the tar file:

```
tar xzf linux.tgz
rm linux.tgz
```

For a disc installation, insert the Tecplot 360 disc in the drive (exact mounting procedures may vary between platforms).

2. **Navigate to File** If installing from a download, use the command line to navigate into the directory you just unpacked from the archive.

If installing from a disc, use the command line to switch to the disc's *linux* folder. The mount point for the optical drive is generally named `/cdrom` or `/CDROM` on Linux.

3. **Launch Setup Script** Type:

```
./setup
```

4. **Platform** If asked, specify the platform for your Tecplot 360 installation from the list of available platforms. The setup script will try to detect your platform; if it can, the recommended platform designation will appear in brackets. Press Return to accept the recommended platform.
5. **License Agreement** Read and accept the license agreement.
6. **Home Directory** When asked for the name of your Tecplot 360 home directory, enter the full path to the folder in which you wish to install Tecplot 360. Installation will begin.

This completes the Tecplot 360 installation.

The first time you run Tecplot 360 after a fresh installation, you will be prompted to enter your license information. See [“Entering Your License”](#) on page 25 for further instructions.

Optional Variable Setup

As you run Tecplot 360, it creates and saves configuration files in the installation folder of Tecplot 360 unless you designate a different folder in which to save these files. To do this, follow these steps:

1. Add the following to your *.profile*¹ file (for Bourne or Korn) or to your *.bash_profile* file (for Bash) in your login home directory:

```
export TEC_360_2010=/usr/tec360_2010
...{pre-existing code}...
export PATH=$TEC_360_2010/bin:$PATH
export 360_USER = %new-location%
```

1. If you do not have a *.bash_profile* or *.profile* file, you can create this file.



These procedures assume you are using the Bash shell, which is the default in most Linux installations. If you do not know what type of shell you are using, type the following command: `echo $SHELL`. A response of `/bin/ksh` means you are using the Korn shell, `/bin/sh` indicates the Bourne shell, and `/bin/bash` means you are using the Bash shell.

2. Activate the change to your *.profile* file by typing the following (choose the commands appropriate to your shell):

- For the Korn or Bourne shells, run the following command:

```
. ~/.profile
```

- For the Bash shell, run the following command:

```
. ~/.bash_profile
```

When invoked as a login shell, Bash looks in these files in your home directory (in order) for initialization commands:

```
profile
```

```
.bash_profile
```

```
.bash_login
```

```
.profile
```

Some systems may not contain a `.bash_profile` file. If this is the case, you may create the file, or put the Tecplot commands in one of the other files above. Use the same syntax as described.

Additional Information

Use the following information for additional help running Tecplot 360 on a Linux/Unix platform.

Tecplot 360 Start-Up

To run Tecplot 360, navigate to the *bin* folder of the Tecplot 360 installation and type `tec360`. If you have set the `PATH` variable to include the Tecplot 360 *bin* folder, as described on the previous page, you do not need to change the directory before typing `tec360`.

Running Tecplot 360 Remotely

If you purchased a **Network** license, you can run Tecplot 360 remotely using the X Window System. X Window System programs send their output to the display identified by the `DISPLAY` environment variable. Enter one of the following commands to set your environment variable:

- If your login shell is the Bourne or Korn shell, type:
`export DISPLAY=hostnameofclientmachine:0`
- Or, use the `-display` flag on the command line. For example:

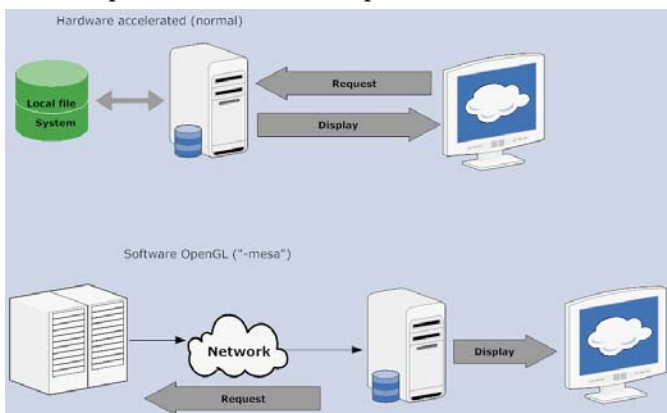
```
tec360 -display computername:0
```

If you purchased a **Single-User** license, Tecplot 360 must run and display on the same computer.

If you choose to work remotely with complex geometries¹, using the `-mesa` option (available on non-Windows platforms) will force computation to occur at the server. This may result in better display performance. At least two clients, VNC and ThinAnywhere, will automatically use this option. However, on other clients, like Exceed, Reflection, or Cygwin, you will need to specify the `-mesa` flag to enable this.

1. On the order of 50M polygons or elements

This diagram illustrates the difference in system architecture when a computer uses the `-mesa` option:



Running Tecplot 360 in batch mode (using the `-b` flag) runs Tecplot 360 with OpenGL rendering done in the software rather than with the video card, as the `-mesa` mode does. In batch mode, Tecplot 360 does not display the rendering.

Linux Help Configuration

Tecplot's HTML Help works by default with Firefox and Internet Explorer. To configure it for use in another browser (for example, Safari or Konquerer), you may want to make slight modifications to the *LaunchBrowser* file located in the *bin* folder. The comments in the file should provide sufficient information for you to customize your settings. If you have trouble viewing the help files, contact your system administrator.

Entering Your License

The first time you launch Tecplot 360 after installing it, Tecplot 360 will prompt you to type in your license information using the following dialog.

The screenshot shows the 'Tecplot Licensing' dialog box. It features a 'License Type' section with two radio buttons: 'Single-User or Evaluation License' (selected) and 'Network License'. To the right, the 'License Key Information' section displays 'Status: Invalid' and 'Expiration:'. There are two buttons: 'Request License' and 'Open License File...'. Below this is a large text area for 'License Key:'. At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Help'.

Tecplot 360 also displays this dialog if it cannot validate your license information (for example, if your evaluation license has expired, or because the network license server is not available). You can change your license information at any time by choosing **Help>Tecplot Licensing**.



SYSTEM ADMINISTRATORS

To update license information, the user account under which you run the software must have write access to the file *tecplotm.lic* in the product installation directory. Tecplot 360 installs this file as world-writable by default, so any user of Tecplot 360 on the computer can change the license. After setting up the initial license details, you may prefer to change the permissions on this file to allow only administrators to update the license in the future.

How you enter your license information depends on what type of license you have.

- If you have a **Single-User** or **Evaluation** license, you will select the license file sent to you by Tecplot, Inc. for your product. Continue with [“Single-User or Evaluation License Setup”](#) below.
- If you have a **Network** license, you will specify the address of the license server on your network. Continue with [“Network License Setup”](#) on page 27

Single-User or Evaluation License Setup

To activate your license, you need to use the license file sent to you by Tecplot, Inc. for your product. If Tecplot provided this as an e-mail attachment, please save it to a file on your computer.



If you do not have a license file, or have lost it, click Request License in the Tecplot Licensing dialog for instructions on how to obtain one.

1. Choose “Single-User or Evaluation License” as License Type in the **Tecplot Licensing** dialog.
2. Click the Open License File button. In the file browsing dialog that appears, navigate to and choose the license file provided to you by Tecplot, Inc. for your product. Then click Open.
3. If your Tecplot product recognizes the license as valid, the message “Status: Valid” will appear in the License Key Information area of the **Tecplot Licensing** dialog.
4. Click OK to save the license information.

Tecplot 360 now runs using the new license.

Network License Setup

To use a network license, you or your system administrator must first install the Reprise License Manager (RLM) and the license key for your product on a network server. (See [“License Manager Installation”](#) on page 29.) Once this has been accomplished, follow these steps.

1. Choose “Network License as the License Type in the **Tecplot Licensing** dialog.
2. Type the address of the license server and the port number it uses in the fields provided. (You may use a hostname or a numeric IP address as the address.) If you do not have this information, ask your system administrator.
3. Click the Check License button to verify that your Tecplot product recognizes the license as valid. Tecplot 360 will attempt to connect to the specified server and verify the availability of a license for the product.
4. Click OK to save the license information and close the dialog.

Tecplot 360 now runs using the new license.

License Manager Installation

To facilitate a **Network** license of Tecplot 360, you must install the Reprise License Manager (RLM), the third-party license manager that Tecplot 360 uses, on a computer on your network, which will become the license server. You should choose a single machine to be your network's license server even if you have licenses for multiple copies of Tecplot 360 or Tecplot Focus. In order to install and configure RLM, you must have Administrator privileges on the computer you designate as the license server.

With the **Network** license, a user may check out a license on a supported Linux, Unix, Mac or Windows machine from a server based on any Windows, Macintosh, Linux, or Unix platform that supports Tecplot 360.



To act as server for a Network license of Tecplot 360, the machine must:

- Be connected to the same local area network or virtual private network as the computers that will run Tecplot applications.
- Have the Reprise License Manager running.
- Be of a type and operating system that Tecplot360 or Tecplot Focus supports. See "[System, Graphics, Display Recommendations](#)" on page 8 for information.
- Be able to communicate via TCP/IP with all machines that will be running Tecplot 360 or Tecplot Focus. For example, the license server should respond to **telnet** or **ping**.

RLM Installation

Follow these instructions to install the Reprise License Manager (RLM) on a server running a supported platform.

1. **Setup File** You may obtain a RLM server installer for your platform www.tecplot.com. If you have a Tecplot 360 disc, insert the disc into your computer's drive (exact mounting procedures may vary between platforms).

On Linux, Unix, and Macintosh platforms, issue these two commands to untar the setup files and delete the tar file:

```
tar -xvf TecplotLM-8.0-Unix.tar
rm TecplotLM-8.0-Unix.tar
```

The exact name of this file may vary from release to release.

2. **Launch Installer/Script** To install from a downloaded file, navigate to the location of your saved setup file and run it. (On Windows platforms, double-click on the executable file to begin installation. On Linux/Unix Mac platforms, issue the command `./setuptec`.) To install from disc:
 - **Windows platforms:** Navigate to the *windows* folder on your installation disc and launch *SetupRlm32.exe* or *SetupRlm64.exe*.
 - **Linux/Unix/Mac platforms:** Switch to the *linux/lmonly* folder on the disc (the mount point for the optical drive is generally named */cdrom* or */CDROM*). Launch the setup script (`./setuptec`). Macintosh users may also use the GUI installer located in either *mac/intel64* or *mac/universal*.
3. On a Windows platform, progress through the wizard:
 - a. **Begin** Click Next to begin RLM installation.
 - b. **User Information** Fill out the *Name* and *Organization* fields. Choose whether to install the application for all users or for only the current user.

run Tecplot 360 or Tecplot Focus until you have placed the functional *tecplotlm.lic* file in this location.



After installing RLM on the server, to install Tecplot 360 on a client, follow the Tecplot 360 installation steps for the appropriate operating system, choose the network license type and, when asked, include the name of the machine that runs the server.

RLM Administration on Windows Platforms

On Windows platforms, the Reprise License Manager installs as a Windows service, *tec1md*, that supports a web-based interface through which you can control and perform most license manager administration. If you wish, you can disable the web-based interface and use command line prompts instead, but for most administration, the web-based interface is easier.

You can administer your license server from any computer on your network that has a Web browser. To learn more about the RLM Web Server, refer to [“The Reprise License Manager Web Server”](#) on page 34.

RLM Administration on Linux/Unix/Macintosh Platforms

The Reprise License Manager installs with a web server supported by a script. You can configure RLM to run automatically on reboot using a file named *TecplotLicenseManager*, located in your designated installation folder. (This script is configured for RedHat Linux machines; it may require modification to run on other Linux/Unix platforms.)

You can use the RLM web server to perform most administration tasks. To learn more about the RLM Web Server, refer to [“The Reprise License Manager Web Server”](#) on page 34.

In addition to the RLM Web Server, you can use the `setuplic` script (it installs with RLM in the specified installation folder) to start or stop the server, inquire of its status or re-create *myhostids.txt*. The `setuplic` script uses the following command to start RLM (you can also use this command without the script to start RLM):

```
./rlm -c tecplotlm.lic -dlog debug.log &
```

RLM Administration on Macintosh Platforms

The Reprise License Manager installs with a web server supported by a script that, unlike the Unix/Linux script installer, adds a start-up script to */Library/StartupItems/TecplotLM* that causes the RLM server to start automatically upon reboot. By navigating to */Library/StartupItems/TecplotLM* and entering the following commands from the command line, you can use this script to start, stop, or restart the server, respectively.

```
sudo ./TecplotLM start &
sudo ./TecplotLM stop
sudo ./TecplotLM restart &
```

In addition to these commands, you can use the RLM web server for control and perform most license manager administration. To learn more about the RLM Web Server, refer to [“The Reprise License Manager Web Server”](#) on page 34.

RLM License Setup on All Platforms

The RLM installation gathers the information necessary to obtain your license file, and places it in a file named *myhostids.txt* in the RLM installation folder that you specified in the steps above. Include the information in *myhostids.txt* when requesting a license key file from Technical Support. Refer to [“Obtaining License Key Files”](#) on page 44 for more information.

Once you have received your *teplotm.lic* license file, copy the file into the RLM installation folder, replacing the default *teplotm.lic* file created by your installation. You cannot run Tecplot 360 or Tecplot Focus until you have placed the *teplotm.lic* file into this location.

The Reprise License Manager Web Server

On all platforms, the Reprise License Manager includes a web server through which you can control and perform most license manager administration. In the following sections, you can learn about:

- [Accessing the RLM Web Server](#) and
- [Basic Operations of the RLM Web Server](#).

The web server includes additional documentation, accessible by clicking the RLM Manual button in the left pane of the license manager web page.

Accessing the RLM Web Server

Because the RLM server can be accessed from a web-based interface, you can administer your license server from any platform, and need only a web browser to administer the server.

To access the web server from any machine on your network, type the following into the address bar of your web browser, replacing “localhost” with the name of the machine that hosts RLM:

http://localhost:5054

Basic Operations of the RLM Web Server

Using the buttons on the left side of the license administration web page, you can control several functions of the license manager, including the following.

- **Retrieve server and license statuses**

Click the Status button to view the status of the RLM server, as well as the status of your ISV server (tec1md). The top line displays the name of the host on which RLM is running, as well as the port number.

- **Shut down the license servers**

Click the Shutdown button in the left-hand pane to display the Shutdown License Server screen. This will disallow any local Tecplot 360 installations from contacting the **Network** license, which will shut down all local usage of the **Network** license within a few minutes. However, you can still access the RLM web server and RLM operations (RLM itself will not shut down, only the ISVs).

- **Cause servers to re-read license files**

Click the Reread/Restart Servers button to re-read license files on your network.

- **Switch debug or report log files**

By clicking on the Switch Reportlog button, you can access debug reports and report logs.

- **Move the current report log file to a new name**

By clicking on the New Reportlog button, you can append the current report log to a new file for easy access.

- **Activate License**

This button is not yet supported. To activate a license, use the method described in [“RLM License Setup on All Platforms”](#) on page 33.

For further information about the RLM web server, click on the RLM Manual button in the left-hand pane of the display window to open the web-based RLM End-User Manual, or view it online at this address:

http://www.reprisesoftware.com/RLM_Enduser.html.

Additional License Administration Tools

You can use other commands to control RLM, such as the included `rlmutil` executable, which provides license manager utilities accessible through the command line. This section describes how to operate RLM from the command line.

Accessing RLM from the Command Line Using `rlmutil`

To run `rlmutil`, follow these platform-specific instructions.

Linux/Mac Platforms On Linux or Mac platforms, navigate to the RLM installation folder and run `rlmutil` from a system startup script (type `./rlmutil` in the terminal or script window).

Windows Platforms On Windows, navigate to the RLM installation folder, and type `rlmutil` into the command window.

The `rlmutil` executable contains instructions for controlling RLM using the `rlmutil` commands. For further instruction, read the following section.

Controlling RLM from the Command Line using `rlmutil`

After `rlmutil` is running, follow the instructions included in `rlmutil` to execute commands. The following table lists the available license administration utilities accessible in the executable. For a more comprehensive explanation, refer to the RLM End-User Manual online at

http://www.reprisesoftware.com/RLM_Enduser.html.

Utility	Use
rlmdown	Gracefully shuts down selected vendor daemons (both teclmd and all vendor daemons) on the license server machine
rlmhostid	Reports the hostid of a system
rlmnewlog	Moves existing report log information to a new file name and starts a new report log file with the existing file name
rlmremove	Releases a hung license to the pool of free licenses
rlmreread	Causes the license daemon to reread the license file and start any new vendor daemons
rlmstat	Displays the status of a license server system
rlmswitch	Controls debug log location and size
rlmswitchr	Switches the report log to a new file name

Refer to the platform-specific instructions on administering RLM for the best method of how to restart RLM after shutting it down.

Helpful RLM Commands

You can use the following syntax to operate RLM from the command line on Unix and Linux platforms (the Windows commands are similar):

To start the license manager:

```
./rlm -c tecplotlm.lic -dlog debug.log &
```

To start RLM with the web server disabled, you cannot use the setuplic script. However, you can do it by typing the command directly with the `-nows` flag:

```
./rlm -c tecplotlm.lic -nows -dlog debug.log &
```

To start RLM with the web server, but using a port other than the 5054 default, use this command (replacing 0000 with the desired port):

```
./rlm -c tecplotlm.lic -ws 0000 -dlog debug.log &
```

To learn more about these commands, go to the [RLM End-User Manual](#) and search for “rlm startup options”.

Running Multiple License Managers

If you choose to run multiple license managers on your network, contact your system administrator for assistance. If you as the system administrator need more information, refer to the RLM End-User Manual at

http://www.reprisesoftware.com/RLM_Enduser.html.

Additional Information

For more information about your Reprise License Manager, or for various troubleshooting issues, refer to the next chapter, [Useful Information](#).

Useful Information

This chapter covers useful knowledge on running Tecplot 360 on your machine(s). Topics include the following:

- [User Documentation Sources](#)
- [License Type Definitions](#)
- [Borrowing/Returning Licenses Over a Network](#)
- [Common License File Error Message](#)
- [Obtaining License Key Files](#)
- [Changing License Servers](#)
- [Network Licenses for Multiple Tecplot Products](#)
- [Troubleshooting RLM](#)
- [Firewall Settings for Hosting RLM](#)
- [Running Tecplot Products on a Laptop](#)

User Documentation Sources

Where can I get help understanding Tecplot 360?

Tecplot 360 includes access to the following manuals, HTML Help, and an online forum to help you explore all of Tecplot 360's features. Your installation includes these manuals in the *doc* folder within your installation folder.

- [Installation Guide](#) - These instructions give a detailed description of how to install Tecplot 360 on your machine.
- [Getting Started Manual](#) - New Tecplot 360 users are encouraged to work through the tutorials provided in the Getting Started Manual. These tutorials highlight how to work with key features in Tecplot 360.
- [User's Manual](#) - This manual provides a complete description of working with Tecplot 360 features.

- [Scripting Guide](#) - This guide provides Macro and Python command syntax and information on working with Macro and Python files and commands.
- [Quick Reference Guide](#) - This guide provides syntax for zone header files, macro variables, keyboard shortcuts, and more.
- [Data Format Guide](#) - This guide provides information on outputting simulator data to Tecplot 360 file format.
- [Add-on Developer's Kit - User's Manual](#) - This manual provides instructions and examples for creating add-ons for Tecplot 360.
- [Add-on Developer's Kit - Reference Manual](#) - This manual provides syntax for the functions included in the add-on kit.
- [Release Notes](#) - These notes provide information about new and/or updated Tecplot 360 features.

Our **Tecplot Talk** online forum serves as an ever-expanding resource for dynamic answers from other Tecplot product users as well as from Tecplot Technical Support personnel. Discussions, questions and answers cover topics of Tecplot 360, Tecplot Focus, Python Scripting, Add-on development, TecIO, and more. Visit the forum at www.tecplottalk.com.

- [Integrated Help](#) This indexed, searchable form of information about Tecplot 360 is accessible by choosing "Tecplot 360 Help" from the **Help** menu.

License Type Definitions

What license options do I have?

Three basic license types govern usage of Tecplot 360 for Windows, Macintosh, Unix, and Linux platforms: **Evaluation** licenses, **Single-User** licenses, and **Network** licenses. Your license number is provided on a yellow sticker inside your product case. If you would like to upgrade your license, please contact Tecplot, Inc. or your distributor.

The official descriptions of license types reside in your Tecplot 360 installation folder, in the *license.html* file.

- **Evaluation License** An **Evaluation** license allows a user to fully experience the software's features and functionality for a limited time.
- **Single-User License** A **Single-User** license allows a single user to install the software on up to three computers: one work computer, one home computer, and one portable computer. The one user agrees that no more than one installation will be in use at any given time. Single-User licenses cannot display remotely.

The **Single-User** license alternatively allows the installation of Tecplot 360 on one computer where multiple people can use it (one at a time), such as in a laboratory environment.

The **Site** version of the **Single-User** license does not require a license manager and is not tied to a specific computer. To install this type of license, follow the Single-User installation instructions.

- **Network License** A **Network** license allows users to run the software anywhere within a local area network (LAN), for a specified number of users. It is a "floating" license that allows you to install the software on as many computers as you desire. However, only the number of copies specified in your license can be run at any one time. For this license type, you must run the software in conjunction with the Reprise License Manager (RLM).

To set up a **Site** version of the **Network** license, your organization must designate one person as the official contact for the license. That contact will act as liaison with Tecplot, Inc. He or she will receive a license key file from Tecplot, Inc., which should be placed in the RLM installation folder.

Borrowing/Returning Licenses Over a Network

How does a network license work?

When you open Tecplot 360 from a local machine on the network, the Tecplot product contacts the license server via TCP/IP and “checks out” a key from the license manager. When you exit the program, the Tecplot product “returns” the key. The license manager limits the number of Tecplot 360 sessions currently active to the number of users allowed by the license.

Users of portable computers may need to use Tecplot 360 while not connected to the network containing the license server. For this reason, RLM allows users to manually borrow a license, use Tecplot 360 while not connected to the network, and then manually return the license later.

The Reprise License Manager Daemon

The Reprise License Manager runs as a daemon application (`tec1md`) on the network server. This daemon manages the allocation of keys to Tecplot 360 and Tecplot Focus users. During the time that a local machine borrows a license, Tecplot 360 or Tecplot Focus on that machine routinely sends out a signal to the server. If RLM does not get a signal after a certain period of time, RLM frees up the borrowed license for that instance of Tecplot 360 or Tecplot Focus. If Tecplot 360 or Tecplot Focus tries to contact the network server after the server has freed that license, Tecplot 360 or Tecplot Focus will no longer allow the user to redraw, but will still allow the user to save the current layout and exit. The user must check out a new license from RLM to regain full use of Tecplot 360 or Tecplot Focus.

In order to run Tecplot 360 or Tecplot Focus, the machine that runs the Reprise License Manager daemon must have a license key file installed. If you do not have a license key file, see the instructions located in [“Obtaining License Key Files”](#) on page 44.

Borrowing a License on a Local Network

1. To set the borrow period and initiate borrowing, go to the **Help** menu and choose "Borrow Network License". If this options appears gray, you have chosen and configured a **Single-User** license or **Evaluation** license. You will need to obtain and configure a **Network** or **Site** license to connect to your server.
2. In the "Borrow a License" field of the **Enter Value** dialog, enter the number of days you would like to borrow a **Network** license, and click the OK button.
3. An information dialog appears and states whether the license was borrowed successfully.
4. You may continue your session of Tecplot 360, or exit and disconnect from the server to commence borrowing. The usage period for your borrowed license will begin the first time you run Tecplot 360 while disconnected from the license server.

Returning a Borrowed License

1. To return a borrowed license, go to the **Help** menu and choose "Return Network License".
2. An information dialog displays whether the license was returned successfully.

To view the license number and borrow status, choose "About Tecplot 360" from the **Help** menu.



Although using the Tecplot 360 **Help** menu is the easiest way to borrow a license, you can also borrowing a license using the command line. Set the environment variable `RLM_ROAM=[days]`, and then run Tecplot 360 while connected to the server. Then disconnect from the server and run to commence borrowing. To return the license, set `RLM_ROAM=-1` and run Tecplot 360 while connected to the server. After returning the license, be sure to remove the `RLM_ROAM` variable, or set `RLM_ROAM=0` before running Tecplot 360 again. For more information, refer to the [RLM End User's Guide](#) under "Roaming."

Common License File Error Message

I cannot get my license key to work!

An error message appears if your installation folder does not contain the *tecplotm.lic* file, or if that file does not contain a valid license key (for a **Single-User** license) or license server address (for a **Network** license) from which a valid license can be obtained.

If you have a **Network** license, contact your system administrator to obtain the address of the license server you should use. If you have a **Single-User** license, contact [Technical Support](#) to obtain a valid license key file. After obtaining either the address or the license key, install it following the procedure described in "[Entering Your License](#)" on page 25.

Obtaining License Key Files

How do I get a license key?

To request a license key file, use one of these methods:

- **Internet:** www.tecplot.com/activate

Visit this web page and follow the instructions to receive your license file. It is usually the easiest way to activate your license. **Site** license holders, however, should contact us by E-mail or phone.

- **E-mail:** support@tecplot.com.
- **Telephone:** +1-425-653-9393

Remember to specify your [License Number](#) and include your Host ID information (*myhostids.txt*) when requesting a license key file.

You can find your Host ID information (*myhostids.txt*) in the following location, according to your installation type and platform.

All Platforms: Installation of a Tecplot product generates and saves a file called *myhostids.txt* in your installation folder¹. For a **Network** license, you need the *myhostids.txt* for the computer that will run the license server. This file is automatically saved in the RLM installation folder. You do not need *myhostids.txt* from any of the client machines that will be using the server.

Linux, and Mac and Unix Platforms: For a **Network** license installation on your host machine, if you cannot find the *myhostids.txt* file in your RLM installation folder, you can run the `setuplic` utility (located in the RLM installation folder) and choose:

1. Get HOSTID information.

1. On Windows platforms, Tecplot 360 installs by default to *C:/Program Files/Tecplot/Tec360 2010*.

Changing License Servers

What if I want to change which machine hosts my network license?

Your license key is linked to your Host ID, which is based on your license server's MAC address or other information. If you wish to move the license manager to a different host, send a request for a new key file to [Technical Support](#), or to your local distributor. Include your license number and your new Host ID file (see previous section) in your request.

Network Licenses for Multiple Tecplot Products

What if I want to have both Tecplot 360 and Tecplot Focus on my network? Do I get two license files?

If you procure licenses to install both Tecplot 360 and Tecplot Focus on your network, you will receive one license file for your server that enables both Tecplot 360 and Tecplot Focus on your network. One *tecplotm.lic* file will contain both license keys.

Troubleshooting RLM

I cannot get my connection to RLM to work!

If you experience problems connecting to your license manager, try the following:

- Use the license server's IP address instead of the machine name. To determine the IP address of a Windows machine, type `ipconfig` in the command prompt. The hostname is preferred if it works, however, because it allows the license manager to be moved to a different IP address without having to change the address in your Tecplot software.
- If you have `tec1md` or the FLEXnet License Manager installed on your machine, follow the troubleshooting steps in the following section.

I cannot install RLM successfully on my server!

If RLM will not run correctly, your machine might still have our old license manager, FLEXnet, trying to manage Tecplot licenses. This could prevent RLM from running successfully.

Although you can run both RLM (our current license manager) and FLEXnet (our previous license manager) on the same machine to manage different products, you cannot use both of them on the same machine to manage Tecplot products.

The daemon that each license manager uses to manage Tecplot licenses is named `teclmd`. These daemons cannot run at the same time. Thus, if your machine is still running the FLEXnet daemon for Tecplot products, the RLM daemon will not be able to start. To stop the FLEXnet daemon for Tecplot products and delete the daemon:

1. Use one of these methods to stop the daemon:
 - a. Choose “Run” from the **Start** menu and type `services.msc`, or
 - b. Right-click on My Computer and select “Manage” from the context menu to open the **Computer Management** dialog. In the navigation pane on the left, select “Services” from the “Services and Applications” directory.

In the Services pane of the **Computer Management** dialog, right-click on “`teclmd`” and choose “Stop”.

Or, from the command line, type `net stop teclmd`

2. Next, type `sc delete teclmd` from the command line to delete `teclmd`. To use this command on a Windows Vista machine, first elevate the command line to “Run as Administrator” (by right-clicking on the Command Prompt executable in the **Start** menu).

To work around this limitation of the license managers, refer to the [knowledge base article](#) (“Can the Reprise and FLEXnet

License Managers operate successfully on the same computer?") in our [online knowledge base](#).

Firewall Settings for Hosting RLM

Will my machine's firewall need any special configuration to communicate with RLM?

If you have a **Network** license, the machine on your network that hosts the license manager must allow other machines to contact RLM. To allow for this:

- **Windows Platforms** The RLM server installation for Windows platforms automatically adds *rlm.exe* to the Windows firewall exceptions list (accessible from the **Control Panel**). Usually, no manual configuration is needed.
- **Macintosh/Linux Platforms** On Macintosh and Linux platforms, RLM operates on the port number specified at the end of the HOST line of the license key, which by default is 27100. If the license key does not specify the port, RLM runs on port 5053.

The Tecplot license management utility, *tec1md*, operates on the port specified at the end of the ISV line (by default, 27101).

The port that RLM uses and the port that *tec1md* uses must both be open to successfully manage licenses.

You can use port 5054 to make the web server available from other machines in your network.

The procedure to open a port varies by platform.

On the Mac OS X 10.5 platform, follow these steps:

- a. Open **System Preferences** from the Apple menu.
- b. Click the Security button.
- c. Switch to the Firewall page.

- d. If the page is locked, click the lock and enter the administrator's name and password to allow changes.
- e. Select "Set access for specific services and applications".
- f. Click the + button, navigate to the install directory (*/Library/Application Support/Tecplot LM* for a .pkg installation), select rlm, and click Add.
- g. Repeat [Step f.](#) to add tec1md.
- h. Click the lock to prevent further changes, and close **System Preferences**.

Running Tecplot Products on a Laptop

Can I run Tecplot products on my laptop?

If you use Tecplot 360 or Tecplot Focus on a laptop, you must have your network card enabled (though not necessarily connected). If you are using a **Network** license, you may borrow a license for use when the laptop is not connected to the network by choosing "Borrow Network License" from the Help menu.

