Frequently Asked Questions
Contact us: info@fchart.com

I. General Information

Is a trial version available?

The demo version, available at no cost, is available for this purpose.

How can I buy EES?

Licenses may be purchased with payment by credit card at our secure webstore. A purchase order with payment by check or wire transfer will also be accepted. Payment terms usually are net 30 days, but payment may be required in advance. Payment terms in excess of 30 days will not be accepted. The name and email address of the end user (single-user) or license manager (multi-user or academic) must be provided with the order.

How is the software delivered?

The software is downloaded from the fchartSoftware.com website. The end user or license manager will receive an email with instructions, including a license file and unique password. We do not provide our software on a CD or DVD.

How many equations can EES solve?

The Commercial version of EES can solve up to 6000 simultaneous equations. The Professional version can solve up to 12000 equations. The 64-bit Professional version solves up to 24000 equations.

What are the system requirements for EES?

EES is designed to run under Windows 10. It should also run properly under Windows 7 and 8. The program and its support files require 125 MB of storage. EES will dynamically allocate the memory it needs while running. The minimum memory requirement is about 40MB. The memory use will grow with the size of the problem that is being solved.

What property data are included with EES?

EES property information can be classified as Ideal Gases, Real Fluids, or Incompressible Fluids. EES provides properties for hundreds of pure fluids and refrigerant mixtures. A complete list of the fluids for which property data are available is provided on our website. Also, see the next item.

Does EES provide property information for mixtures?

EES provides thermodynamic and transport property information for several common refrigerant mixtures including ammonia-water, R404A, R407C, R407H, R410A, R417A, R422D, R423A, R427A, R438A, R448A, R449A, R450A, R452A, R452B, R453A, R454A, R454B, R454C, R455A, R457A, R460A, R463A, R466A, R469A, R470A, R470B, R507A, R508B, R513A, R513B, R514A, R515A, R515B and R516A. Some of the mixtures are only available in the Professional version. The NIST REFPROP program can provide property information for any

mixture. The optional EES_REFPROP Interface that allows the REFPROP property database to be used with the equation-solving and other features of EES. See our website for more information about this interface.

Can property data be added to EES?

EES uses a detailed equation of state to determine property information for Real Fluids. Instructions for entering fluid information represented by the Martin-Hou equation of state are provide on our website. Starting with version 10.627, EES can read .FDL files used with the NIST REFPROP program, which extends the number of pure fluids for which EES can provide property information. Data for Ideal Gases and Incompressible Fluids can be entered as described on our website.

Is training available?

Several training options are available. Online Help is provided with the program and it is robust and complete. YouTube Tutorials that are available on our website cover basic subjects. The Mastering EES ebook is a comprehensive presentation of all of the features in the Commercial and Professional versions of EES. In addition, our personnel may be available to provide a 1 day EES short course at your site tailored to new or experienced EES users. Contact us for pricing and availability.

What is the difference between the Commercial and Professional versions?

The basic features provided in all versions of EES are listed on our website, https://fchartsoftware.com/ees/. The Professional version offers many additional capabilities compared to the Commercial version. Differences are outlined at https://www.fchartsoftware.com/ees/pro-comm-versions.php, and in greater detail in Mastering EES.

I have a 64-bit Windows Operating System. Do I need the 64-bit version?

No. The 32-bit version of EES (Commercial or Professional) is designed to operate on both 32 and 64-bit Windows operating systems. A 64-bit version of EES can be purchased to upgrade a Professional version. Calculation speeds for the 64-bit version can be about 2 times faster than the 32-bit Professional version for computationally-intensive problems.

Will EES run on Macintosh Computers or Linux?

EES has been specifically developed to run under the 32 and 64-bit Windows operating systems. However EES can be run on Macs using Boot Camp, Parallels Desktop, or VMWare Fusion. Also, EES can operate under Linux using Wine, an Open Source implementation of the Windows API. Academic versions of EES may be made available through Citrix Online XENAPP or AppsAnywhere, which can be run on any operating system.

Is EES available from distributors?

EES is distributed solely by F-Chart Software. While we will accept an order from a third party vendor, we do not allow reselling. We do not provide a discount to a third party vendor.

My computer has crashed. Will you send a replacement license file?

Replacement of a license file will be provided at no cost if the [Instant Update and Technical Service](#) for a named user license is current or if [Academic Update Service](#) for an Academic license is current.

I need to reference EES in my publication

If you use EES to produce results that are to be published, you should reference the program as follows.
Klein, S.A.,
EES – Engineering Equation Solver, Version XX.YYY, date
F-Chart Software, https://fchartsoftware.com

The version number and date are displayed on the EES startup screen

II. Named User Licenses

Is a single or multi-user license perpetual?

No. The initial license purchase includes one year of [Instant Update and Technical Service](#) (IUTS). Renewal of IUTS is optional. The license will be terminated after 5 years if IUTS is not renewed.

May I install my license on more than one computer?

Yes, a license may be installed on more than one computer, but only for use by the designated end user.

Is a floating license available?

No, we do not offer a floating license. Every user must be designated. A Single-User License is registered for use only by the end user. The license manager of a multi-user license is responsible for ensuring that only the designated users have access to the software.

How can I determine when update service for my license expires?

The data of expiration of [Instant Update and Technical Service](#) (IUTS) is sent to the end user or license manager with the license file and again when this service is renewed. Also, the expiration date is displayed with the License Information command in the EES Help menu for versions 10.178 or newer.

How much does it cost to renew Instant Update and Technical Service?

The cost to renew IUTS depends on whether it is a Commercial or Professional version, the number of users, and the time elapsed since the last purchase of IUTS. The cost for this service is 20% of current cost of the program per year, but the cost increases to 40% for EES versions that have not been updated within the last two years. IUTS cannot be renewed for licenses that are 5 or more years old. Prices are shown at our [webstore](#).

Is it possible to upgrade a license?

Yes. A Commercial license may be upgraded from a Commercial to the Professional version, and the number of users may be increased. The cost of the upgraded license will be discounted by the amount initially paid provided that Instant Update and Technical Service is current. Another upgrade is the 64-bit version, which is available only for the Professional version.

Is it possible to downgrade a license?

Under some circumstances, a multi-user license may be downgraded, e.g.,20- to 10-user. We generally discourage such action because credit for the cost of the initial license will not be available towards an upgrade if such action is requested is the future.

May I transfer my license to a different user?

Yes. It is possible to transfer the registration of a license to another user while the Instant Update and Technical Service (IUTS) contract is in effect.

III. Multiple-User Licenses

What is a multiple-user license?

A multiple (N-user) license is managed by a designated administrator. It allows EES to be used by N specific individuals who are all affiliated with one work unit and located in one physical location. Each of the N individuals can install the program on his/her computer. Alternatively, EES can be installed on a central server for N individuals. In this case, the administrator must provide appropriate monitoring to ensure that only the N specified individuals have access to the software.

What is difference between a multiple-user license and a floating license?

The N-user license is restricted to a set of N users designated by the license administrator. A floating license would allow any N users to use the program at one time. Floating licenses are not available for EES.

What is the role of the administrator for multiple user licenses?

The administrator is charged with ensuring that EES is restricted to a set of N-users that he/she designates. All issues related to technical support and updates are channeled through the administrator.

Can one of the users of a multiple-user license be changed?

The administrator of the multiple-user license is expected to ensure that only N-users have access to EES. The administrator may substitute one or more users provided that such changes are made infrequently.

IV. Academic Licenses

Term of the License
Academic licenses issued in June, 2020 (version 10.835 or newer) do not expire. However, no support of any kind is provided unless an annual subscription to Academic Update Service (see below) is in effect.

Is a student version available?
No, a student version is not offered. Many students find our Demonstration version (which is free) useful. An Academic license is available for use by students and faculty. The Academic EES program may be installed on personal computers, but it can only be used when connected to the internet with a registered IP address that maps to the adopting university. The least expensive license that may be used without an internet connection is the Single-User Commercial EES License ($600).

What is the requirement for an Academic License?
Academic licenses are available only to educational institutions involved in formal classroom instruction leading to a degree in an accredited university. The Academic license may be installed on a server that provides access to students and faculty in the adopting department(s), but restricts access by others.   Academic licenses require an internet connection with an IP address that maps to the university.

May I install the software on a personal computer and use it at home?
Academic licenses may also be installed on personal computers owned by students and faculty in the adopting department. However, use of the Academic version of EES requires an internet connection with a registered IP address that maps to the university. Off-campus access to EES may be provided by the department through their use of a program that provides internet delivery, such as AppsAnywhere, XENAPP, Remote Login to a server computer, or full-tunnel VPN provided that there is a login procedure for authorized users and it refers to a registered university IP address.

How many users will an academic license allow?
The number of users for an academic license is not restricted. It may, however, be used only by faculty and students in the designated department and only for educational purposes. A single academic license may be used only by one department. Access MUST be restricted to persons in other departments. F-Chart Software will provide a license for the whole college or equivalent if two departments within the college both obtain a license. In this case, both licenses must be the same type, e.g., Commercial or Professional.

May an academic license be used for research?
An academic license may be used for research only if that research is part of a student's degree requirement. A named user (non-academic) license is required if the license is used for sponsored research or other activities that are not part of a student's graduation requirement. Thesis research that leads to an advanced degree is considered an academic activity and is

allowed under the license agreement. Use for research by a post-doctoral candidate is not allowed with an Academic license.

Academic Update Service
Access to the setup program for the current Academic version and technical support are only available with a annual subscription to the Academic Update Service (AUS). Technical support includes changing or adding registered IP addresses for the license in addition to services related to the program operation. The cost of this optional service is:
- $500 (Commercial, update service expired less than 1 year ago)
- $1000 (Commercial, update service expired more than 1 year ago)
- $1000 (Professional, update service expired less than 1 year ago)
- $2000 (Professional, update service expired more than 1 year ago)

Academic Update Service will allow departments to access the most recent version of EES to take advantage of program enhancements that are continuously being added. Departments that do not have a subscription to Academic Update Service can continue to use the Academic version of EES released in June 2020 without support.

Why is EES showing a License Error?
When the Academic EES program starts it needs to connect to our website (fchartsoftware.com) by FTP on port 21. If you see the message "This version of EES can be used only if you are connected to the internet", the problem is likely that your network is restricting FTP access. You will need to have your IT support open access to https://fchartsoftware.com on port 21.

How can I tell what IP numbers are accepted by the Academic version of EES?
The IP addresses that EES will allow can be seen using the **License Information** command in the **Help** menu. Use of EES will be blocked if it is not connected to an allowable IP address. If there is a need to modify the allowable list of IP addresses, the license manager should contact us (info@fchart.com). A current subscription to Academic Update Service is required for changes to be made to registered IP addresses.