

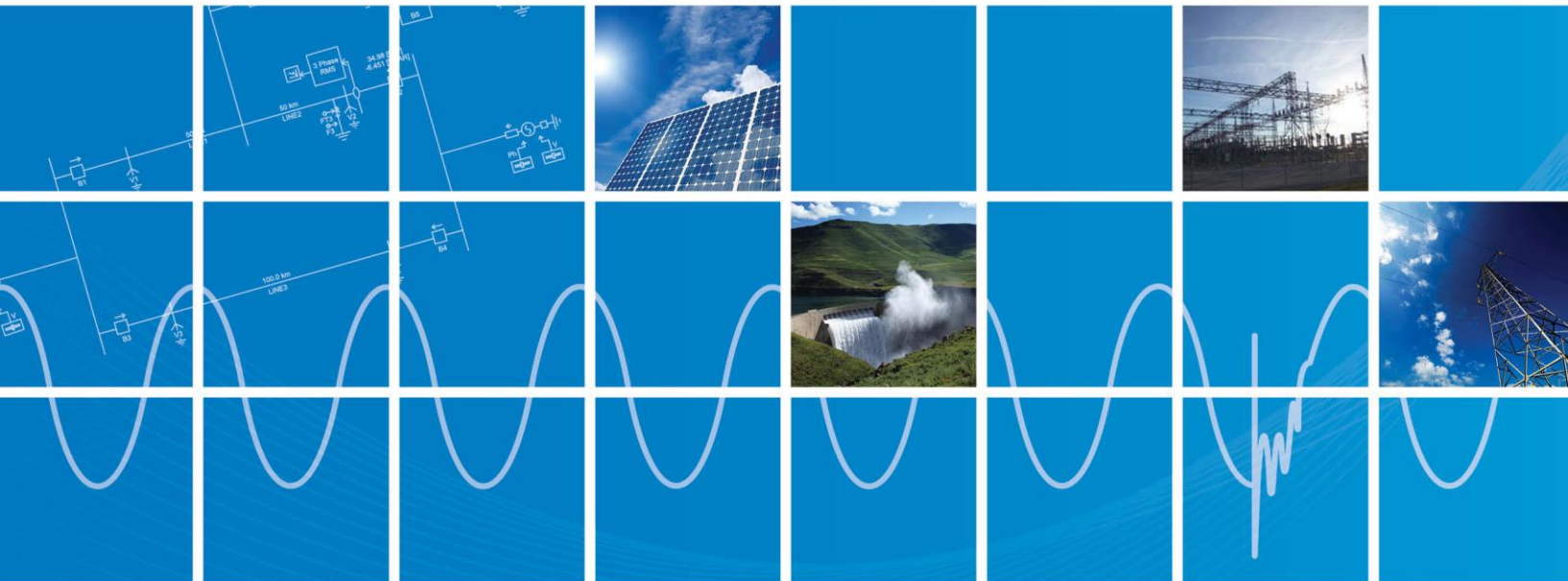


PSCAD™

Certificate Licensing: WorkGroup Members

Written for PSCAD X4: Version 4.5 and Version 4.6

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1. General

1.1 Introduction

This manual provides instructions for installing software and activating certificate licensing. Certificate licensing is currently applicable for the following product types:

- PSCAD versions 4.5.3 to v4.6.3
- Educational and Professional licenses
- Permanent licensing
- Temporary licensing, such as for a lease or evaluation (trial)

1.2 Licensing

Certificate licensing, also known as Advanced Licensing or Internet Licensing, is used for running PSCAD software. Login credentials in an Internet-based user portal called MyCentre are used to authorize licensing, and a certificate to run PSCAD is checked out onto the computer.

When a certificate is checked out, it may either be retained on that computer when PSCAD is exited, or returned to MyCentre so that another user may check it out. If the certificate is retained, it will initially be valid for a four-week period; this period will then be refreshed to a new four-week period whenever PSCAD is re-launched with Internet access. The benefit to retaining a certificate on a machine is that PSCAD may be run for up to four weeks without requiring Internet access, making it portable.

If the certificate is returned, it is available for another user to activate on their machine.

The license for the certificate is held within MyCentre in a special grouping called a “workgroup”. A workgroup contains products, such as certificate licensing, and authorized users, who are called “members”.

When licensing will be shared among many users within one workgroup, access to a workgroup may be controlled by a designated person (or people) within the organization. The designated person is referred to as the “WorkGroup Administrator”, “Local Administrator” or simply “Administrator”. In addition to adding and removing member access to the workgroup, the workgroup administrator may also designate other members as additional administrators.

This manual provides all required instructions for a member to register a MyCentre user account, join a workgroup if applicable, and set up the software and licensing.

1.3 Software

PSCAD (Power Systems Computer Aided Design) is a powerful and flexible graphical user interface to the world-renowned, EMTDC electromagnetic transient simulation engine. This software enables the user to schematically construct a circuit, run a simulation, analyse the results, and manage the data in an integrated, graphical environment. Online plotting functions, controls, and meters are also included, enabling the user to alter system parameters during a simulation run, and thereby view the effects while the simulation is in progress.

PSCAD comes complete with a library of pre-programmed and tested simulation models, ranging from simple passive elements and control functions, to more complex models, such as electric machines, full-on FACTS devices, transmission lines, and cables. If a required model does not exist, the software provides avenues for building custom models.

A FORTRAN compiler is required for building a PSCAD project in order to view the simulation results. As such, two GFortran compilers are included in the installation package. GFortran v4.2.1 is compatible with PSCAD v4.5 and v4.6, and GFortran 4.6.2 is compatible with PSCAD v4.6. These compilers comply with the American National Standards Institute, ANSI 95.

If you own a Professional or Educational PSCAD license, it is recommended that you use the Intel® Fortran Composer XE 2015 compiler. When compared with GFortran, Intel® Visual Fortran Composer is faster, has superior debugging capabilities, and is more frequently updated. As such, Intel is recommended over GFortran when running larger PSCAD cases, as typically found in commercial and educational environments. Intel Fortran is also compatible with MATLAB, whereas GFortran is not. For purchasing details, please contact our sales desk (sales@pscad.com).

1.4 Quick Start Instructions

This manual contains detailed instructions for setting up a member's software. For a shortened set of instructions, refer instead to the document "Quick Start – WorkGroup Members", which may be downloaded from this [webpage](#).

1.5 Changes to the Software

All changes made since v4.2 are listed in the manual "What's new in PSCAD (all versions)", which may be downloaded from this [webpage](#).

Please note the following additional changes related to software installation and licensing:

- For software being launched using MyUpdater, administrator privileges are not required.
- The default number of parallel simulations used with [high performance computing features](#) were increased from four to eight, applicable for all PSCAD versions using certificate licensing. Additional parallel simulations are available for sale (sales@pscad.com).



1.6 How to Use this Manual

Section 2 contains instructions for setting up your software, including registering a user account in MyCentre, joining a workgroup, and installing and licensing the software.

If you encounter any issues during this setup, assistance may be requested through our support desk as per Section 3.

Appendix A contains a list of resources for learning PSCAD.



2. Software and Licensing Setup

This section provides all required steps for setting up PSCAD software and certificate licensing, and should be performed in the order presented.

2.1 Requirements

Requirements for installing and running PSCAD v4.6.3 are listed in the [System Specifications and Requirements](#) manual. Some of these requirements are displayed in the following table for your convenience:

Requirement	Install	Run
Windows 7 SP1 Operating System, or better	✓	✓
Microsoft Visual C++ 2015 Redistributable (x86 and x64) ^[1]	✓	✓
.NET Framework 4.0 Full, minimum ^[1]	✓	✓
Windows Administrator privileges	✓	X
Access to a PSCAD License Certificate ^[2]	[3]	✓
MyCentre User Account (https://mycentre.hvdc.ca) ^[4]	[3]	✓
MyUpdater ^[5]	[3]	[3]
The executable files must be whitelisted in all protection software: <ul style="list-style-type: none"> For the PSCAD 32-bit Edition: <ul style="list-style-type: none"> C:\Program Files (x86)\PSCAD46\bin\win\pscad.exe C:\Program Files (x86)\PSCAD46\bin\win\tline.exe For the PSCAD 64-bit Edition: <ul style="list-style-type: none"> C:\Program Files (x86)\PSCAD46\bin\win64\pscad.exe C:\Program Files (x86)\PSCAD46\bin\win\tline.exe 	X	✓
The Common Documents folder must be present and writeable to, from PSCAD.	X	✓
Users must have permission to create the folders listed below, as well as to create files within this folder: C:\Users\Public\Documents\Manitoba HVDC Research Centre\Licensing\Licenses	X	✓
At least one of the following URLs must not be blocked for certificate licensing (these URLs should be added to all anti-virus and firewall whitelists): ^[6] http://licensing.pscad.com:80/Licensing (mandatory) net.tcp://licensing.pscad.com:443/Licensing (optional)	X	✓

1. If not already installed, this will be installed in Section 2.7.
2. See Section 2.2 to obtain access.
3. Only required if using MyUpdater to install and run the software.
4. See Sections 2.3 to 2.5 for setup instructions.
5. See Section 2.7.2 for setup – Required only if using MyUpdater to install and launch the software.
6. Do not use this information to update any settings in the PSCAD application. This information should only be used for white-listing in anti-virus and firewall software.



2.2 Obtain Access to the Software and License

2.2.1 For a Licensed Edition (Owned or Leased)

If an organization owns licensing for the Professional or Educational edition, obtain access and set up your software as follows:

- a. Obtain a join code from your workgroup administrator (see Section 1.2).

Note

To find out who the workgroup administrator is, send a request to our sales desk (sales@pscad.com), ensuring to include your name and organization.

- b. If you do not already have a MyCentre user account, register one per Sections 2.3, 2.4 and 2.5.
- c. Log in to MyCentre per Section 2.4.
- d. Use the join code to join the workgroup per section 2.6.
- e. Download the software as directed by your administrator.

Note

If the software is not available in your Downloads tab, send a request to our Sales Desk (sales@pscad.com), ensuring to include the required PSCAD version number and your license number (detected as per Section 3.14).

- f. Install the software per Section 2.7.1.
- g. Launch PSCAD per Section 2.8.1.
- h. Configure licensing per Section 2.9, and activate a certificate per Section 2.10.



2.2.2 For a Trial License

To try the licensed edition (Professional or Educational), obtain access and set up your software as follows:

- a. Contact our Sales Desk (sales@pscad.com) and request a trial, ensuring to include your associated company or school. Our Sales Desk will provide further instructions.
- b. If you do not already have a MyCentre user account, register one as per Sections 2.3, 2.4 and 2.5.

Note

During the registration, ensure to register the e-mail address that you used when sending your trial request. Or, notify our Sales Desk if you have registered a different e-mail address.

- c. If you were provided a join code, use the code to join to attach the licensing to your MyCentre account per Section 2.6.
- d. Download the software as directed by our Sales Desk, and install PSCAD as per Section 2.7.1.

Notes

1. Also select the GFortran compiler for installation when prompted (required for running PSCAD cases).
 2. Do not select the License Manager for installation when prompted.
- e. Launch PSCAD per Section 2.8.1.
 - f. Configure licensing per Section 2.9, and activate a certificate per Section 2.10.



2.2.3 For a Training License

If you have been assigned training licensing, our Training Desk will have sent you a “join code” and further information. Your software may be set up as follows:

- a. If you do not already have a MyCentre user account, register one as per Sections 2.3, 2.4 and 2.5.
- b. Attach the licensing to your MyCentre account using the provided join code per Section 2.6.
- c. Download the software as directed by our Training Desk, and install PSCAD as per Section 2.7.1.

Notes

1. Also select the GFortran compiler for installation when prompted (required for running PSCAD cases).
 2. Do not select the License Manager for installation when prompted.
- d. Launch PSCAD per Section 2.8.1.
 - e. Configure licensing per Section 2.9, and activate a certificate per Section 2.10.
 - f. Configure the licensing to “Retain certificate” as per Section 2.12. The certificate will remain activated on your computer, and therefore be available when you next launch PSCAD (until the expiry).

2.2.4 For the Free Edition

Access to the Free Edition is granted automatically upon registering a MyCentre user account (Sections 2.3 to 2.5). The software may be set up as per Sections 2.7.2 and 2.8.2.



2.2.5 For the Beta Edition

Access to the Beta Edition is granted to select users to evaluate and comment on our upcoming features.

Warning

The PSCAD Beta edition should not be used for commercial work, as it is not a stable, official version. The Beta edition is used for testing new features and bug fixes, and is frequently modified. For more information on the Beta edition, please refer to our [End User License Agreement](#).

Your software may be set up as follows:

- a. If you do not already have a MyCentre user account, register one as per Sections 2.3, 2.4 and 2.5.
- b. If you were provided a join code, use the code to join to attach the licensing to your MyCentre account per Section 2.6.
- c. Set up the software as per Sections 2.7.2 and 2.8.2.

2.3 Register a MyCentre User Account

A MyCentre user account is required to authorize certificate licensing for the Professional and Educational editions, and the Free and Beta editions. If you do not already have a MyCentre user account, register one as follows:

- a. Open a web browser the following link:

<https://mycentre.hvdc.ca/register>

Note

Firefox, Google Chrome or a later version of Internet Explorer are recommended.

- b. Proceed through the registration process when prompted.

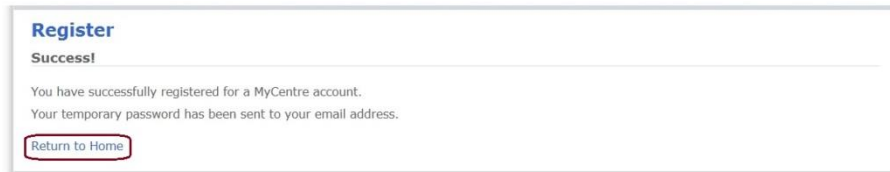
Note

If the “Next” button does not work during the registration, switch to a different browser.

- c. When the following dialog box displays, place a checkmark in the field as shown:



- d. If the registration process is successful, you will be informed that you have registered a MyCentre user account, and that an e-mail with a temporary password has been sent to you. Select “Return to Home” to continue.



- e. Obtain your temporary password from your e-mail account.

Note

If you have not received an e-mail with the password within a few minutes of finalizing the registration, refer to Section 3.3.3 to troubleshoot the problem.

- f. Proceed to Section 2.4 to log in to MyCentre.



2.4 Log in to MyCentre

Log in to MyCentre as follows:

Requirement

A MyCentre user account (Section 2.3)

- a. Open a web browser, and go to the following link:

<https://mycentre.hvdc.ca/login>

- b. When prompted, enter your MyCentre login credentials, then select “Log in”.

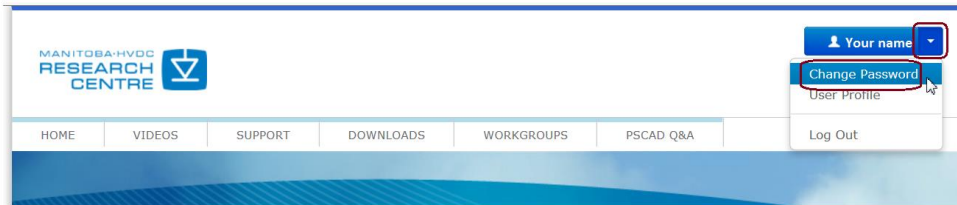
Notes

1. If this is your first time logging in, use the provided temporary password (see Section 2.3).
2. Refer to Section 3.3 for login tips and troubleshooting.
- c. It is recommended that upon registering in MyCentre, you change the temporary password per Section 2.5.
- d. If you have been provided a join code to join a workgroup, proceed to Section 2.6 to join the workgroup. Otherwise proceed to Section 2.7 to install the software.

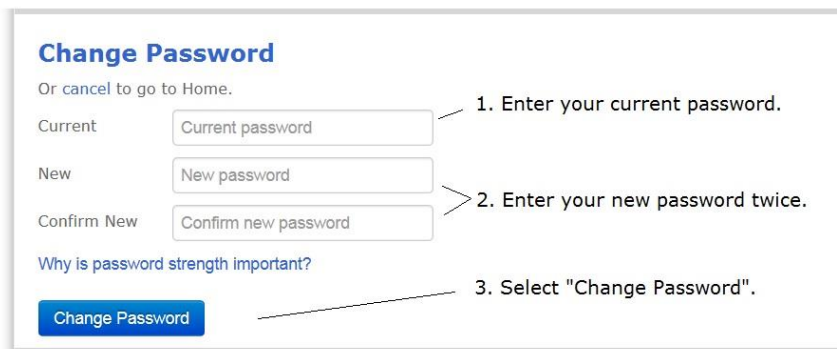
2.5 Change your MyCentre Password

If a MyCentre user account was newly registered (per Section 2.3), it is recommended that you change the assigned temporary password, as follows:

- a. If not already logged in, log in to MyCentre (Section 2.4).
- b. From the drop-down menu on the right-hand side, select "Change Password".



- c. When prompted, enter your current and new passwords, then select "Change Password".



- d. You will be notified that you have changed your account password. Select "Return to Home" to continue.



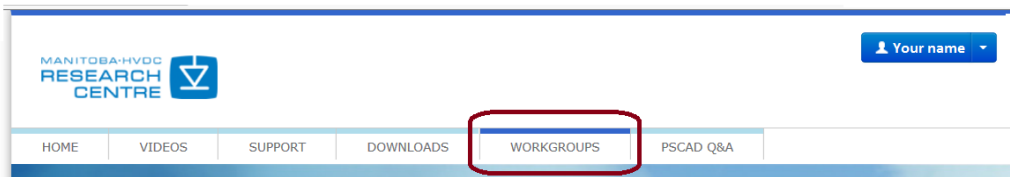
2.6 Join a WorkGroup via a Join Code

If you have been provided a join code, use the join code to join the WorkGroup to your MyCentre user account as follows:

Note

Refer to Section 2.2 for more information on when a join code is used.

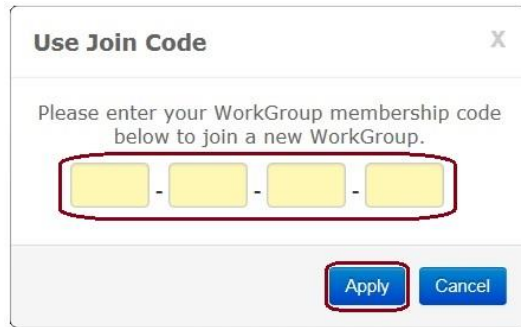
- a. If not already done, create a MyCentre user account and change your password (Sections 2.3 to 2.5).
- b. Log in to MyCentre (Section 2.4).
- c. Display the “WORKGROUPS” tab.



- d. Select “Use Join Code”.



- e. Enter the join code when prompted, then select “Apply”.



Note

These characters are case sensitive. If you received this code digitally, simply copy and paste it in.

- f. If the join code was entered correctly, you will be informed that you have successfully joined the workgroup. You will now have access to the products within this workgroup. Proceed to Sections 2.7 to 2.10 to set up your software.

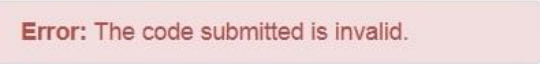


Note

To view the licensing information in a workgroup, refer to Section 2.14.

- g. Or, if the join code was not entered correctly:

- An error message will display.



- Re-enter the code. Each of the four fields should contain five characters.
- For any ongoing difficulties, contact our support desk as per Section 3.6, ensuring to include the join code in your e-mail.



2.7 Install the Software

This section provides instructions for installing software. There are two tools for installing software:

- **Installation Package:** If you received an Installation Package (e.g. software CD or download), perform this installation as per Section 2.7.1.
- **MyUpdater Tool:** If you are installing the PSCAD Free or Beta Edition, perform this installation as per Section 2.7.2.

2.7.1 Using the Installation Package

These instructions are for installing a licensed edition of PSCAD (Professional and Educational). The PSCAD installation package includes the following software:

- PSCAD (required)
- Microsoft Visual C++ Redistributables (x86 and x64) (required)
- Microsoft .NET Framework (required)
- GFortran compiler (optional)

Notes

1. A compiler is required for compiling PSCAD cases. Install GFortran alongside PSCAD only if a commercial compiler such as Intel® Fortran Composer is not available).
2. If GFortran is installed, ensure to log out and log in on your computer following this installation, prior to running a PSCAD case with GFortran.

Notes

1. Refer to Section 2.1 for requirements.
2. Refer to Section 2.2 to obtain access to a licensed edition.
3. If you encounter any installation issues, refer to Section 3.1.



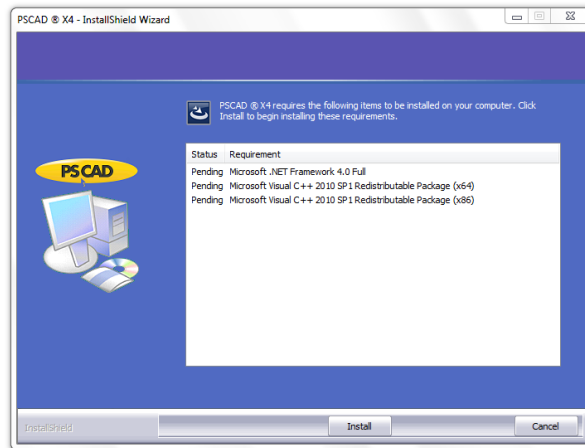
Install the software using the Installation Package as follows:

- a. Ensure the installation package is saved to a local drive (e.g. a folder on your desktop), then launch the installation (from the installation files, right-click on “setup.exe”, and select “Run as administrator”).

Note

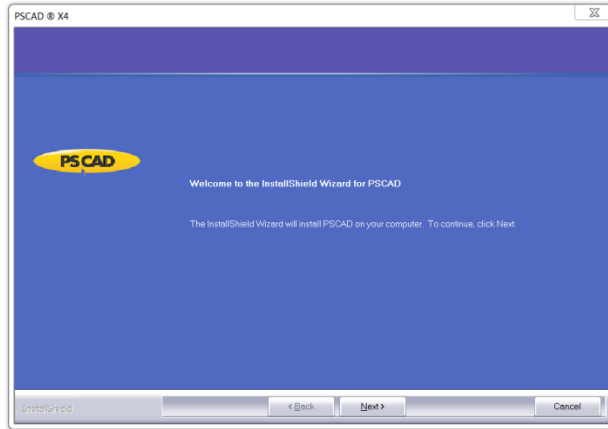
The files would have been provided via a CD, or a download through Hightail or MyCentre (log in to MyCentre per Section 2.4, and download the files from the “Downloads” tab).

- b. When the “User Account Control” dialog box displays, select “Yes” to proceed with the installation. The InstallShield Wizard will launch.
- c. If prompted, select “Install” to install the required prerequisite software (Microsoft Visual C++ and Microsoft .NET Framework). This may take a few minutes.

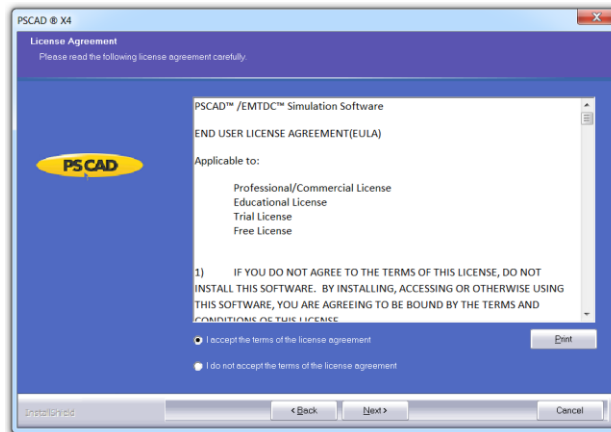




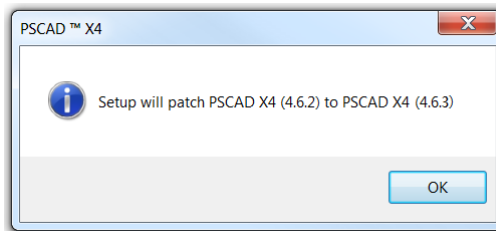
- d. Select "Next" to continue.



- e. Select "I accept the terms of the license agreement" if you agree with the terms, then select "Next".

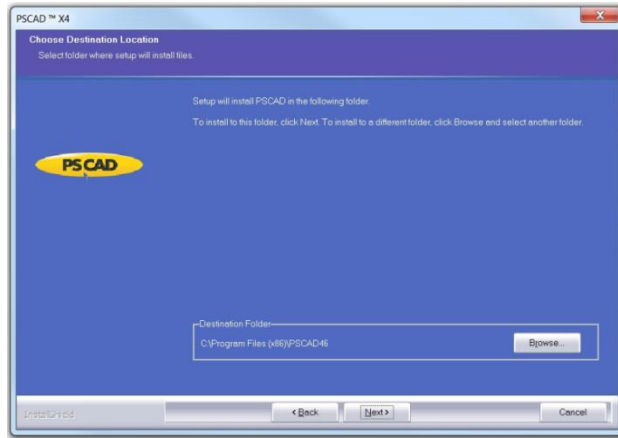


- f. If this is an update (patch), a message similar to the following will display. The installed (earlier) version will be updated to the later version. Select "OK".





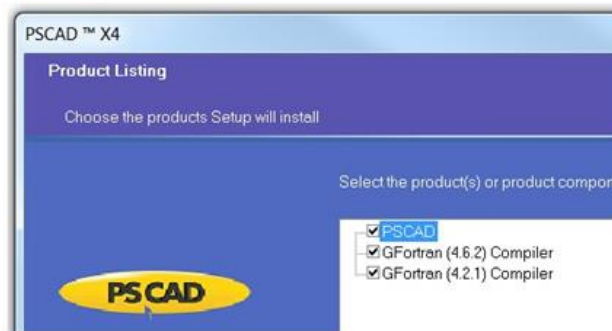
- g. Review the default destination folder for the program files. To install to a different folder, set the file path with the “Browse” button. Select “Next”.



The default directories are as follows:

- **PSCAD v4.5:** C:\Program Files (x86)\PSCAD45
- **PSCAD v4.6:** C:\Program Files (x86)\PSCAD46

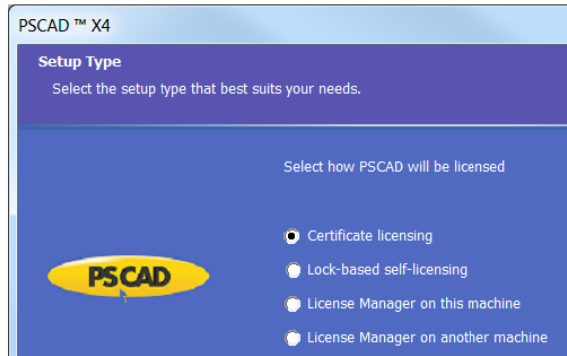
- h. Place a checkmark against all programs to be installed, then select “Next”. Normally, “PSCAD” is selected, along with a GFortran Compiler if you do not have a commercial compiler.



Notes

1. To select a product for installation, left-click on the checkbox to place a checkmark.
2. To display a description of a product in the “Description” field, click on the product name.
3. If GFortran will be installed, ensure to log out and log in to your computer following this installation, prior to running a PSCAD case with GFortran. This is required to apply the changes to your computer.

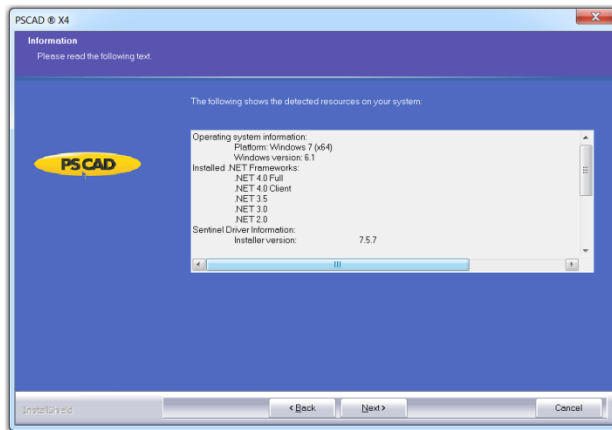
- i. Select the option to use “Certificate Licensing”, then select “Next”.



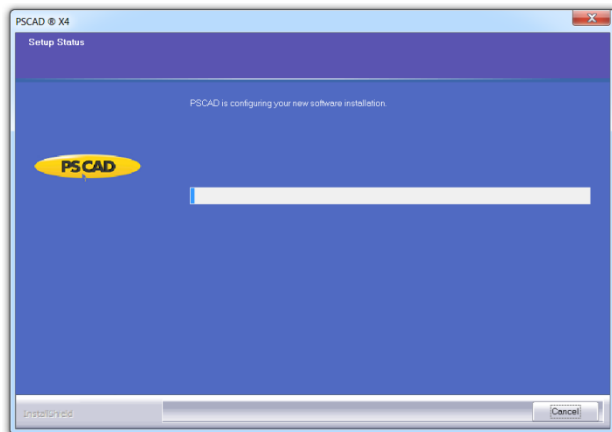
Note

For v4.5.3 and v4.5.4, select “PSCAD will use self-licensing”.

- j. The “Information” screen will display your system resources. Select “Next”.

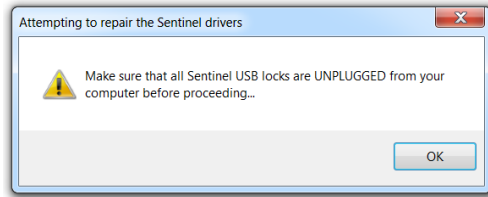


- k. The “Setup Status” screen will display, and PSCAD will be installed.



- l. If you also chose to install GFortran, this will be installed next.

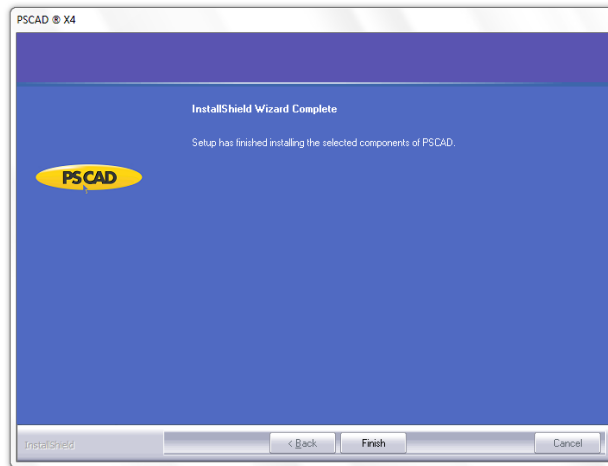
- m. If prompted, unplug any Sentinel USB locks, then select “OK”. The InstallShield Wizard will install or repair your Sentinel Drivers.



Note

Although not required with Certificate Licensing, Sentinel drivers are installed or repaired as they are part of the standard installation package.

- n. This concludes the installations. Select “Finish”.



- o. Proceed to Section 2.9 to configure the licensing.



2.7.2 Using MyUpdater

Install the PSCAD Free or Beta Editions using MyUpdater as follows:

Warning

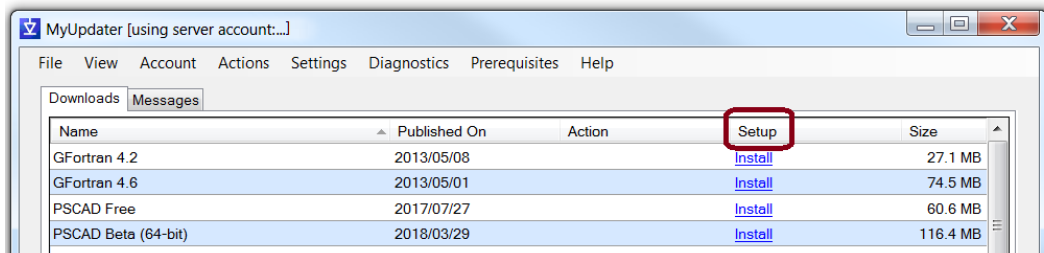
Some corporate networks block MyUpdater activities. If you encounter any login or installation issues with MyUpdater, try performing this installation on a different network (e.g. at home). Or:

- For the Beta Edition, notify our Support Desk (support@pscad.com) for assistance.
- For the Free Edition, please see some [suggestions](#).

Notes

1. Refer to Section 2.1 for requirements.
2. Refer to Section 2.2 to obtain access to the software.
3. If you encounter any installation issues, refer to Section 3.2.
4. On rare occasions, MyUpdater can be used to install licensed editions (Professional or Educational editions).
 - a. If MyUpdater is not installed, install it as follows:
 - Open a web browser to this [link](#), select “Install”, and run the installation.
 - When prompted by the Windows User Account Control dialog box, select the option to run this installation with Windows administrator privileges by selecting “Yes”.
 - MyUpdater will be installed, and will launch automatically.
 - When prompted, enter your MyCentre login credentials, then select “OK”.
 - Note**
Refer to Section 3.3 for login tips and troubleshooting.
 - b. If not already running, launch MyUpdater (in the Windows Start menu, browse to All Programs | PSCAD | MyUpdater). When prompted, ensure to select the option to run with Windows administrative privileges (required when installing, updating or uninstalling software).
 - c. If not already logged in to MyUpdater, log in using your MyCentre login credentials. Refer to Section 3.3 for login tips and troubleshooting.

- d. Your authorized products will be listed in MyUpdater. In the “Setup” column, select the “Install” button corresponding with the intended software, and it will be installed.



- e. PSCAD requires a Fortran compiler to run PSCAD cases. As such, if you do not have a commercial compiler, such as the Intel Fortran composer, it is recommended to also install GFortran from the MyUpdater utility. For more information on these compilers, refer to Section 1.3.

Note

If GFortran will be installed, ensure to log out and log in to your computer following this installation, prior to running a PSCAD case with GFortran.

- f. Proceed to Section 2.8.2 to launch this software.



2.8 Launching PSCAD

Launch PSCAD as follows:

- If PSCAD was installed using the Installation Package, refer to Section 2.8.1 for this launch.
- Or, if PSCAD was installed using the MyUpdater utility, refer to Section 2.8.2 for this launch.

2.8.1 Launch PSCAD from the Windows Start Menu

If PSCAD was installed using the Installation Package, PSCAD may be launch from the Windows Start menu, according to your Windows operating system, version, and edition:

- If operating on Windows XP / Vista / 7 / 8 / 8.1, proceed as shown:

PSCAD Version	Educational Edition	Professional Edition
v4.5.0	<p><u>Windows 32-bit or 64-bit</u></p> <p>From the Windows Start menu, select All Programs, then go:</p> <div style="border: 1px dashed black; padding: 5px;"> PSCAD PSCAD X4 PSCAD (32-bit)¹ PSCAD (32-bit, non-elevated)² </div> <p>Note The 64-bit version of PSCAD is not available for the Educational Edition at v4.5.0. It is however available as of v4.5.1 and later.</p>	<p><u>Windows 32-bit</u></p> <p>From the Windows Start menu, select All Programs, then go:</p> <div style="border: 1px dashed black; padding: 5px;"> PSCAD PSCAD X4 PSCAD (32-bit)¹ PSCAD (32-bit, non-elevated)² </div> <p><u>Windows 64-bit</u></p> <p>From the Windows Start menu, select All Programs, then go:</p> <div style="border: 1px dashed black; padding: 5px;"> PSCAD PSCAD X4 PSCAD (64-bit)¹ PSCAD (64-bit, non-elevated)² </div>
v4.5.1 and later	<p><u>Windows 32-bit or 64-bit</u></p> <p>From the Windows Start menu, select All Programs, then go:</p> <div style="border: 1px dashed black; padding: 5px;"> PSCAD PSCAD X4 PSCAD v4x (non-elevated)² PSCAD v4x¹ </div> <p>Note The links will launch the PSCAD version corresponding to the computer's operating system (i.e. 32-bit or 64-bit), for both the Professional and Educational Editions.</p>	
<ol style="list-style-type: none"> 1. Select this option if you have Windows administrative privileges on your computer. 2. Select this link if you do not have Windows administrative privileges on your computer, and/or you are operating on Windows XP. <p>Note PSCAD v4.6 may not be run on Windows XP.</p>		

- Or, if operating on Windows 10, there is one shortcut in the Windows Start menu. In v4.6.1 and later, this shortcut launches the application without Windows administrative privileges.



In v4.6.0 and earlier, this shortcut will try to launch the application with Windows administrative privileges. If you do not have Windows administrative privileges on your machine, simply set the shortcut to run without administrative privileges (right-click on the shortcut, go Properties | Advanced, de-select the checkbox "Run as administrator", and select "Ok").



2.8.2 Launch PSCAD using MyUpdater

If PSCAD was installed using MyUpdater (Section 2.7.2), launch this software as follows:

- a. Launch MyUpdater (from the Windows Start menu, browse to All Programs | PSCAD | MyUpdater).

Note

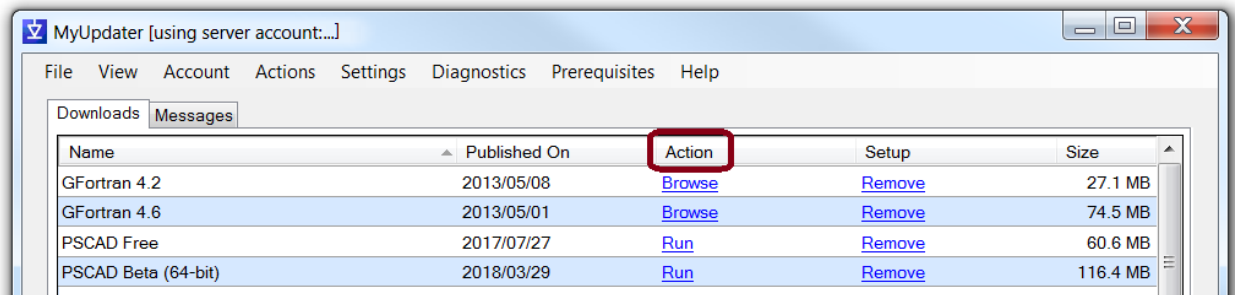
When prompted, you may select the option to run MyUpdater without Windows administrative privileges (administrative privileges are only required when installing, updating or uninstalling software).

- b. When prompted, enter your MyUpdater login credentials, then select “OK”.

Note

Refer to Section 3.3 for login tips and troubleshooting.

- c. In the “Action” column, select the “Run” button corresponding with the intended software, and it will be launched:



- d. For the PSCAD Free and Beta editions, licensing will be automatically activated.
- e. If a licensed edition was installed using MyUpdater (not the preferred method of installation), refer to Sections 2.9 and 2.10 to activate licensing.

2.9 Switch to Certificate Licensing

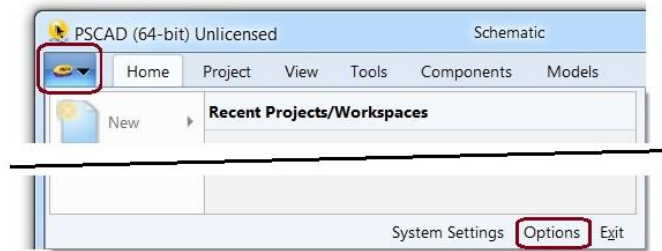
This section provides instructions for configuring PSCAD to use certificate licensing.

Note

This section is applicable for licensed editions of PSCAD (Professional or Educational).

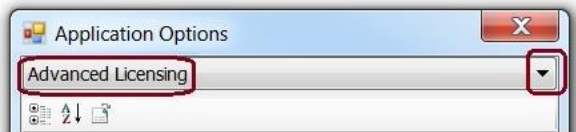
Once a licensed edition of PSCAD has been installed (Section 2.7), configure the licensing as follows:

- a. If not already running, launch PSCAD as per Section 2.8. Close out of all automatically displayed dialog boxes.
- b. Display the “Application Options” dialog box (from the PSCAD Start button, select “Options”).

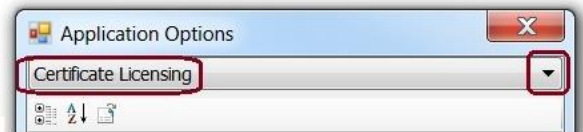


- c. Select the “Advanced” or “Certificate” licensing page from the drop-down menu, as applicable.

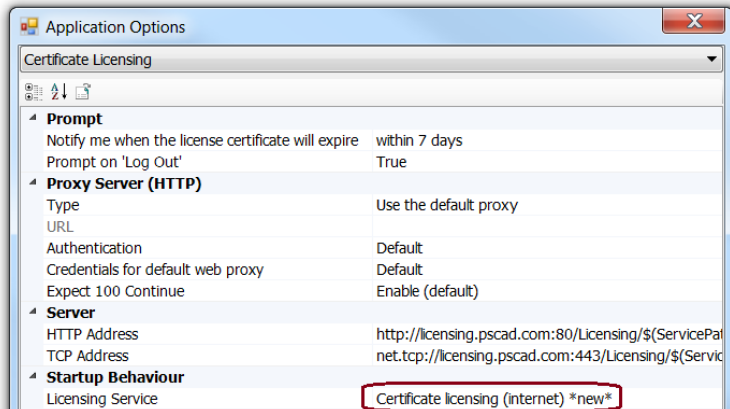
**"Advanced Licensing" Page
v4.5.3 and v4.5.4**



**"Certificate Licensing" Page
v4.5.5 and Later**

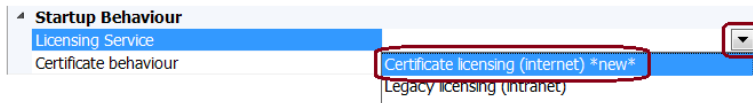


d. Review the “Startup Behaviour – Licensing Service”:

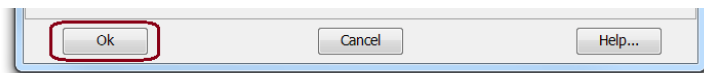


e. If the above field is not set to either “Certificate licensing” (for v4.5.5 or later) or “Advanced licensing” (for v4.5.3 or v4.5.4), perform the following:

- Click on the drop-down menu, and select “Certificate licensing” or “Advanced licensing” as applicable.



- Select “Ok” to apply the change.



f. The licensing will now be configured to Certificate (Advanced) Licensing.

g. Proceed to Section 2.10 to activate a certificate to run PSCAD.

2.10 Activate a Certificate

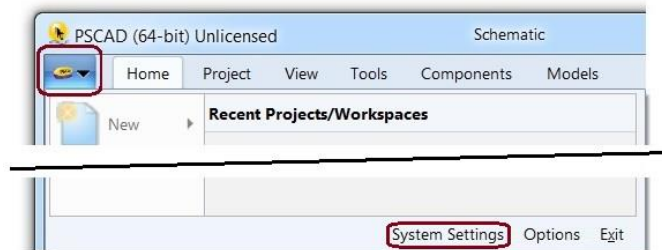
This section provides instructions for activating a certificate to run the PSCAD Professional or Educational edition.

Notes

1. Refer to Section 2.1 for requirements.
2. If you encounter any issues when activating a certificate, please refer to Section 3.4.
3. PSCAD must be configured to “Certificate” or “Advanced” licensing as applicable, per Section 2.9.

Activate a certificate as follows:

- a. If not already running, launch PSCAD as per Section 2.8, and close out of all dialog boxes.
- b. Display the System Settings dialog box (from the PSCAD Start button, select “System Settings”):



- c. Select “Edit”.



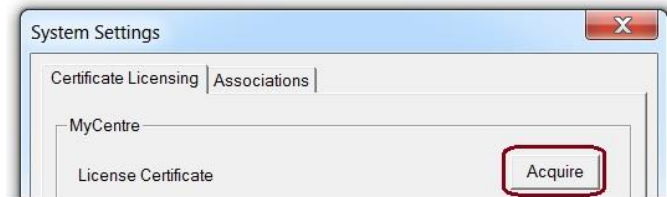
- d. Enter your MyCentre login credentials, then select “OK”.



Note

Refer to Section 3.3 for login tips and troubleshooting.

- e. Select “Acquire”.



- f. A temporary, renewable certificate will be activated to use the software. See Section 1.2 for details on certificate licensing.
- g. Configure licensing behaviour upon exit as per Section 2.12.

WARNING

To ensure that licensing will be available for you or your colleagues, it is strongly recommended that you configure PSCAD for appropriate exiting behaviour as per Section 2.12.

- h. For new PSCAD users, a listing of resources is available in Appendix A.

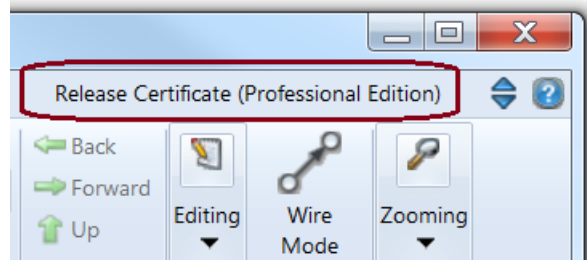
2.11 Return the Certificate

A certificate may be returned either manually or automatically to MyCentre so that it is available to be activated on another machine. Return the certificate as follows:

2.11.1 Manually Return the Certificate

a. The following method is applicable for v4.5.4 and later:

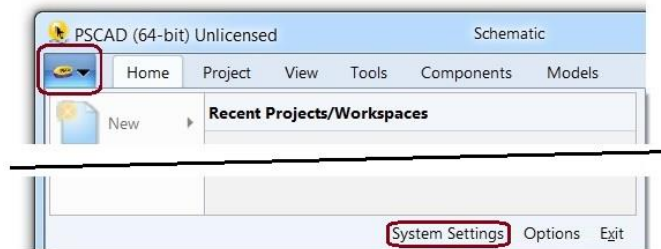
- Select the “release” or “return” button as applicable, located in the top right-hand corner of the application:



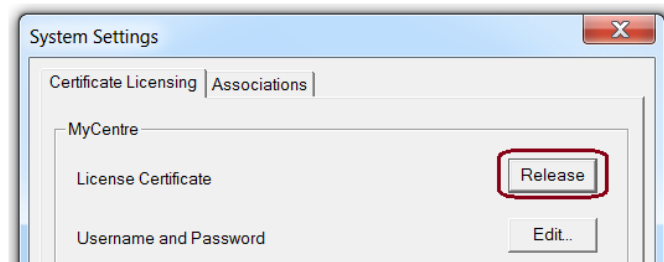
- The certificate will be returned to MyCentre.

b. The following method is applicable for v4.5.3 and later:

- Display the System Settings dialog box (from the PSCAD Start button, select “System Settings”):



- Select the “Release” or “Return” button as applicable.



- The certificate will be returned to MyCentre.

2.11.2 Automatically Return the Certificate

Set the certificate to be returned automatically whenever PSCAD is closed as per Section 2.12.

2.12 Configuring PSCAD to Retain or Return a Certificate

This section provides instructions for configuring PSCAD to either retain or return a certificate automatically, whenever the application is exited. This will ensure that the certificate will be available when PSCAD is next launched.

2.12.1 Selecting the Behaviour

There are three considerations for your next software launch:

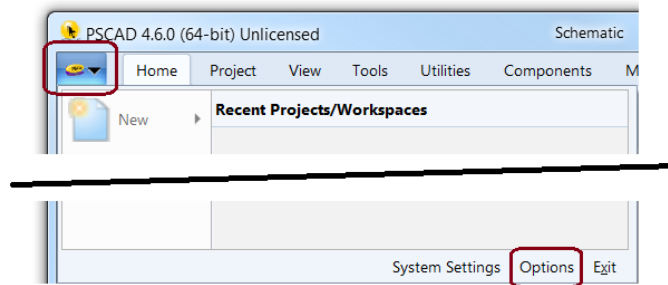
- If the next launch will be on this same machine, and you will not be working offline, the certificate may either be retained or returned.
- Or, if the next launch will be on this same machine, but you will be working offline, the certificate should be retained.
- Or, if the next launch will be on a different machine (e.g. other user), the certificate should be returned so that it will be available for activation on the other machine.

2.12.2 Procedure

Configure the certificate behaviour upon exit as follows:

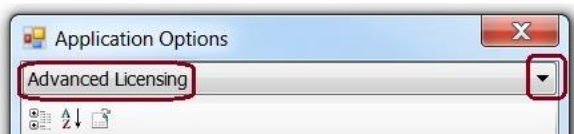
Notes

1. For the v4.5.4 Educational Edition, refer to Section 2.12.3.
2. Select an exit behaviour as per Section 2.12.1.
 - a. From the "PSCAD" start button, select "Options" to display the "Application Options" dialog box.

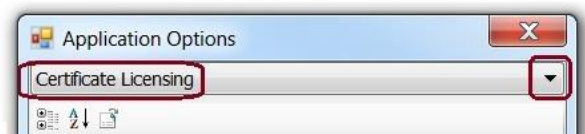


- b. Select the "Advanced" or "Certificate" licensing page from the drop-down menu, as applicable.

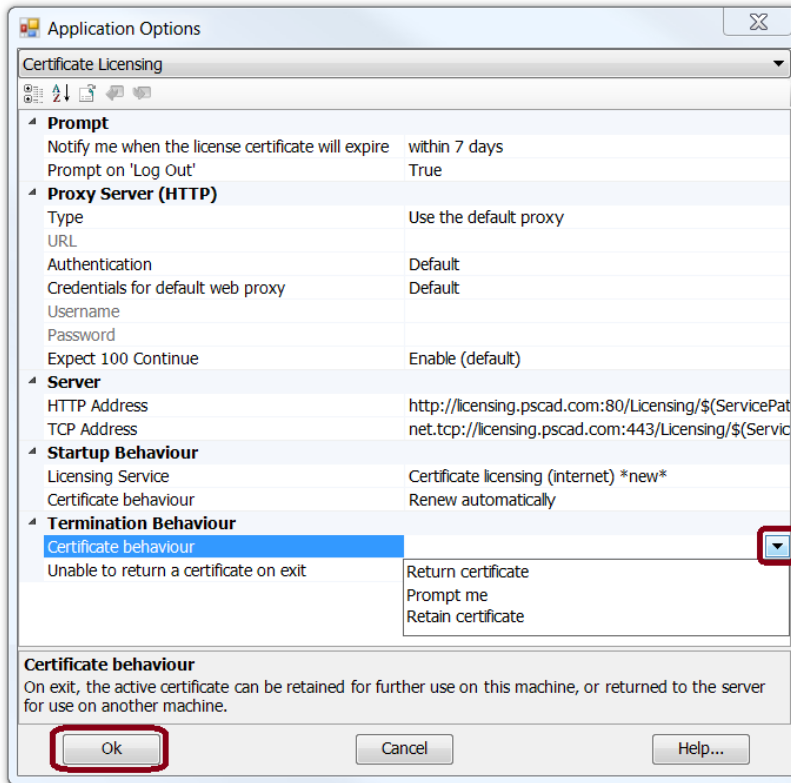
**"Advanced Licensing" Page
v4.5.3 and v4.5.4**



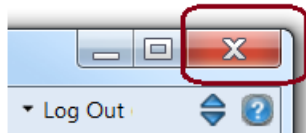
**"Certificate Licensing" Page
v4.5.5 and Later**



- c. From the “Certificate Behaviour” drop-down menu, select the appropriate exiting behaviour, then select “Ok”:



- d. PSCAD will now perform the selected behaviour whenever the application is exited:

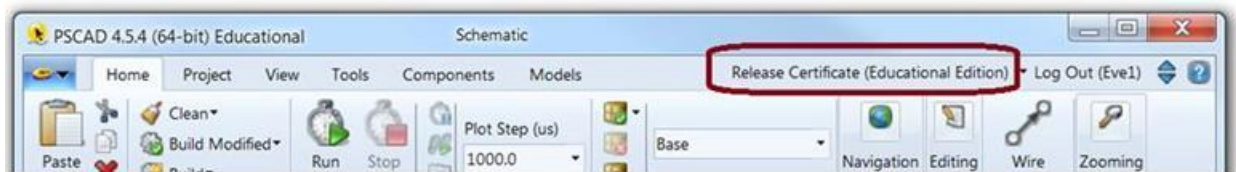


2.12.3 Procedure for the v4.5.4 Educational Edition

Configure the certificate for the v4.5.4 Educational Edition upon PSCAD exit as follows:

Notes

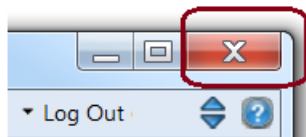
1. For all other editions/versions, refer to Section 2.12.2.
2. The “Prompt me” feature as mentioned in Section 2.12.2 is not available in the v4.5.4 Educational Edition.
3. Select an exit behaviour as per Section 2.12.1.
 - a. To retain the certificate upon exit, perform the steps as listed in Section 2.12.2, and select “Retain certificate” at Step (c).
 - b. Or, to return the certificate upon exit, perform the following two steps on all machines that will be running this certificate:
 - Perform the steps in Section 2.12.2 to set the Termination Behaviour to “Return certificate”.
 - Whenever exiting PSCAD, always select the “Release” or “Return” button (as applicable) to return the certificate first:



Caution

If the certificate is not returned before exiting PSCAD, the certificate will default to be retained, and will consequently not be available for use on another machine.

- c. PSCAD will now perform the selected behaviour whenever the application is exited:





2.13 Sharing a Certificate with Multiple Users

This section provides an important PSCAD configuration when multiple users will be accessing a certificate.

2.13.1 Background

A certificate may be activated (checked out) on one computer to run one or more instances of PSCAD. When PSCAD is closed, the certificate should be configured to be returned to the license server, to make it available for activation on another user's machine.

If the certificate is not returned to the license server, it will remain checked out on this user's machine, and will not be available to any other users until it is returned.

To avoid locking a certificate on a particular machine, PSCAD should be configured to always return the certificate to the license server whenever the application is closed as per Section 2.13.2.

2.13.2 Instructions

To ensure that a license will be available to other users, set up PSCAD to always return the certificate to the license server upon exit as follows:

- a. Follow the instructions in Section 2.12 with the following note:
 - At Step (c), select "Return certificate".

2.14 Removing Software

2.14.1 Windows Control Panel

If the software was initially installed using the Installation Package (Section 2.7.1), the software may be removed as follows:

Requirement

Windows administrative privileges if operating on Windows Vista or later

- Display the Windows Programs and Features dialog box (from the Windows Start menu, go Control Panel | Programs and Features).
- From the displayed software listing, right-click on the program to be removed, select “Uninstall”, and proceed through the removal screens.
- Log out then log in to your computer to apply the changes.

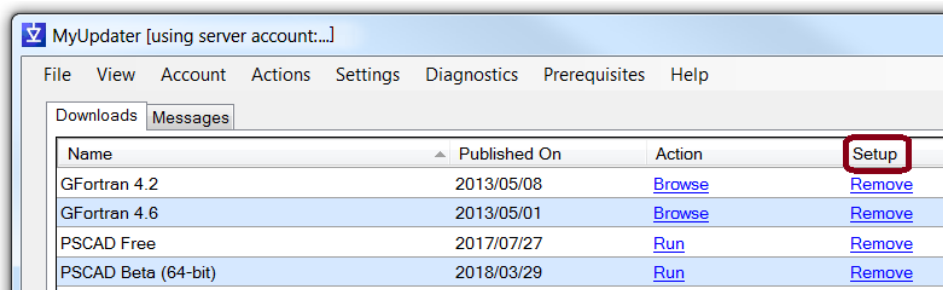
2.14.2 MyUpdater

If the software was initially installed using MyUpdater, the software may be removed as follows:

Requirement

Windows administrative privileges if operating on Windows Vista or later

- If not already running, launch MyUpdater (in the Windows Start menu, browse to All Programs | PSCAD | MyUpdater). When prompted, ensure to select the option to run with Windows administrative privileges (required when installing, updating or uninstalling software).
- Log in to MyUpdater using your MyCentre login credentials. Refer to Section 3.3 for login tips and troubleshooting.
- In the “Setup” column, select the “Remove” button corresponding with the intended software, and it will be removed.



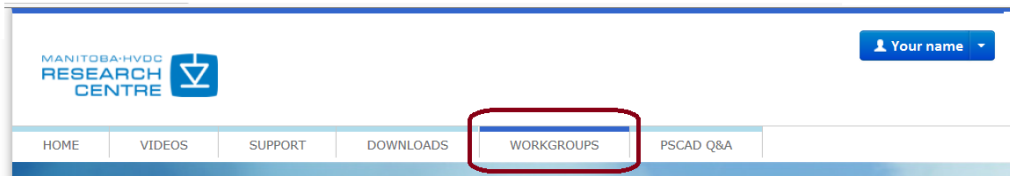
2.15 Viewing your WorkGroup Contents

This section provides instructions for viewing the products contained in your workgroup, as follows:

Requirement

You have joined a workgroup (see Section 2.2).

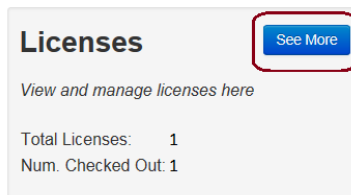
- a. Log in to MyCentre (Section 2.4).
- b. Select the “WORKGROUPS” tab.



- c. Select the appropriate workgroup from the drop-down menu. Your workgroup will have been assigned a name or number, as provided by the workgroup administrator.



- d. The total number of licenses and the number of licenses currently checked out will be listed. To view more information about these licenses, select “See More”.





e. All licenses will be displayed in table format, with the following information:

1. ID	2. Name	3. Expiration	4. Product	5. Feature Set	6. Checked Out To	7. Checked Out Expires
###	Company A v4.6.0		PSCAD	Standard	John Doe	November 30

1. This column displays the license's unique identification number.
2. This toggle sorts the license identification numbers in ascending or descending order.
3. This column displays some description about the organization and type of license.
4. This column displays the license expiration date. In the above example, the license is permanent, and therefore there is no expiration date shown. If this license were temporary, for example a trial or a lease, an expiration date would be shown.
5. This column displays the product type. In the above example, PSCAD is available.
6. This column displays whether any additional features were included with the product.
7. If a certificate is currently checked out, this column will list the member's name or username. This information helps the workgroup administrator to manage licenses and members as needed.
8. If the license is currently checked out as a certificate to one of the members, this column displays when the certificate checkout expiry. For more information on a check-out, refer to Section 1.2.

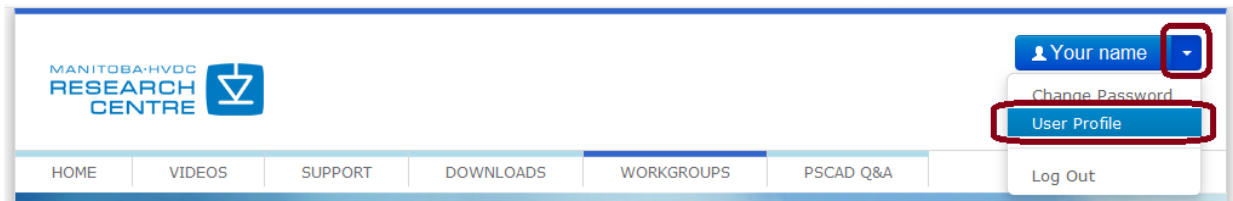
2.16 Viewing and Updating your Profile

This section provides instructions for viewing and updating your profile for your MyCentre user account. Proceed as follows:

Requirement

You have registered a MyCentre user account as per Section 2.3.

- a. Log in to MyCentre (Section 2.4).
- b. Display your “User Profile”.



- c. Select the “Edit” button to edit the fields as required.

Note

The username and e-mail address may not be edited.



3. Resolving Issues

Refer to the following sections if you encounter any issues:

- See Section 3.1 for software installation issues when using the Installation Package
- See Section 3.2 for software installation issues when using MyUpdater
- See Section 3.3 for MyCentre login issues
- See Section 3.4 for licensing issues
- See Section 3.5 to determine your license number
- See Section 3.6 to contact our support desk



3.1 Software Installation Issues – Installation Package

If you encounter any software installation issues using the Installation Package (Section 2.7), you may troubleshoot them using the Resolving Installation Issues manual, that may be downloaded [here](#).

If you are still unable to resolve the problem, please contact our support desk as per Section 3.6. Ensure to include as much information as possible to describe when the problem occurred and screenshots of any error messages, as well as “Get Info” and “Fortran Medic” log files, which are generated as follows.

GetInfo.txt file: This file is generated as follows:

- Download the GetInfo utility from the following link, and unzip and save it to your computer:
<http://updater.pscad.com/utilities/GetInfo32.zip>
- Run the “GetInfo32.exe” file. When prompted whether to test shortcuts, select “No”.
- The utility will display the results and save the generated log file. The location of the log file will be displayed. Send the file in to the Support Desk (see Section 3.6)

Fortran Medic log file: This file is generated as follows:

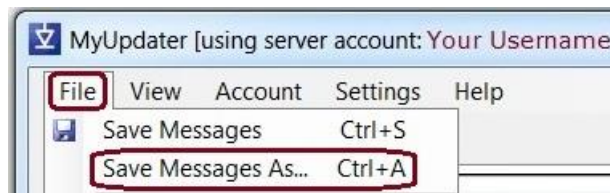
- Download the latest “FortranMedic” from our website, and unzip and save it to your computer:
<http://updater.pscad.com/utilities/FortranMedic.zip>
- Run the “FortranMedic.exe” file.
- In the Fortran Medic utility, click on the “Actions” menu and select “Start”.
- After the utility is done retrieving information, click on the “Actions” menu and select “Save messages as”, save the file on your machine, then send it in to the Support Desk (see Section 3.6).

3.2 Software Installation Issues - MyUpdater Installation

For issues related to installing and using MyUpdater, refer to the manual “Update Client (MyUpdater) - Common Issues”, which may be downloaded from [here](#).

If you require further assistance, please forward the following information to our support desk as per Section 3.6.2:

- Your username and e-mail address as registered in MyCentre.
- A description of the problem and the point at which it occurred.
- Screenshots of any error messages.
- If MyUpdater is installed, save the messages to your computer following the failed step, and send in the log file:



3.3 MyCentre Login Issues

This section provides assistance when MyCentre login issues are encountered, used with PSCAD and MyUpdater (Sections 2.4, 2.10 and 2.7.2). Proceed as follows:

- See Section 3.3.1 for general login tips.
- See Section 3.3.2 if a password is forgotten.
- See Section 3.3.3 if a password set or reset e-mail is not received.

3.3.1 General Login Tips

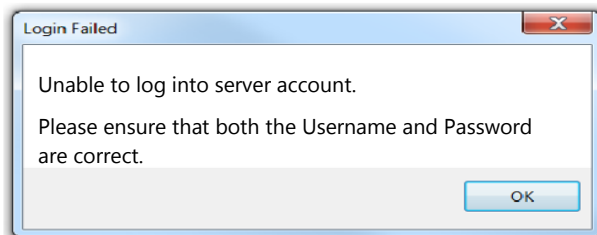
The following are general login tips for MyCentre:

- In the “Username” field, you may enter either the username or e-mail address associated with your MyCentre user account.
- In the “Password” field, enter the password associated with your MyCentre user account.

Note

Ensure that you are not entering your Windows or network login password.

- Both login fields are case sensitive.
- If incorrect login credentials are entered, an error message will display. Select “OK”, and you will be prompted to retry entering your MyCentre login credentials.



Warning

Too many incorrect login attempts will cause your MyCentre user account to be locked for a period of time.

- If you have forgotten your password, it may be reset as per Section 3.3.2.
- If you have not received the automatically-generated e-mail containing the password information following MyCentre registration or password reset, see Section 3.3.3.
- For any ongoing login issues, please contact our support desk as per Section 3.6. Include your MyCentre username and e-mail address, as well as screenshots of any error messages.

3.3.2 Resetting your Password

If you have forgotten your password, it may be reset as follows:

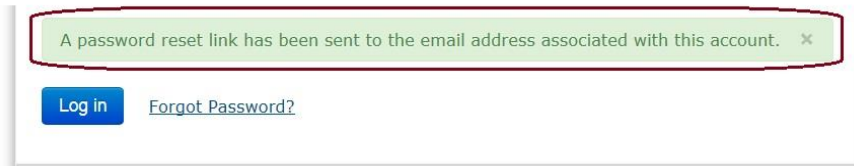
- a. Go to the “Log In” page:

<https://mycentre.hvdc.ca/login>

- b. Fill in the page as shown:



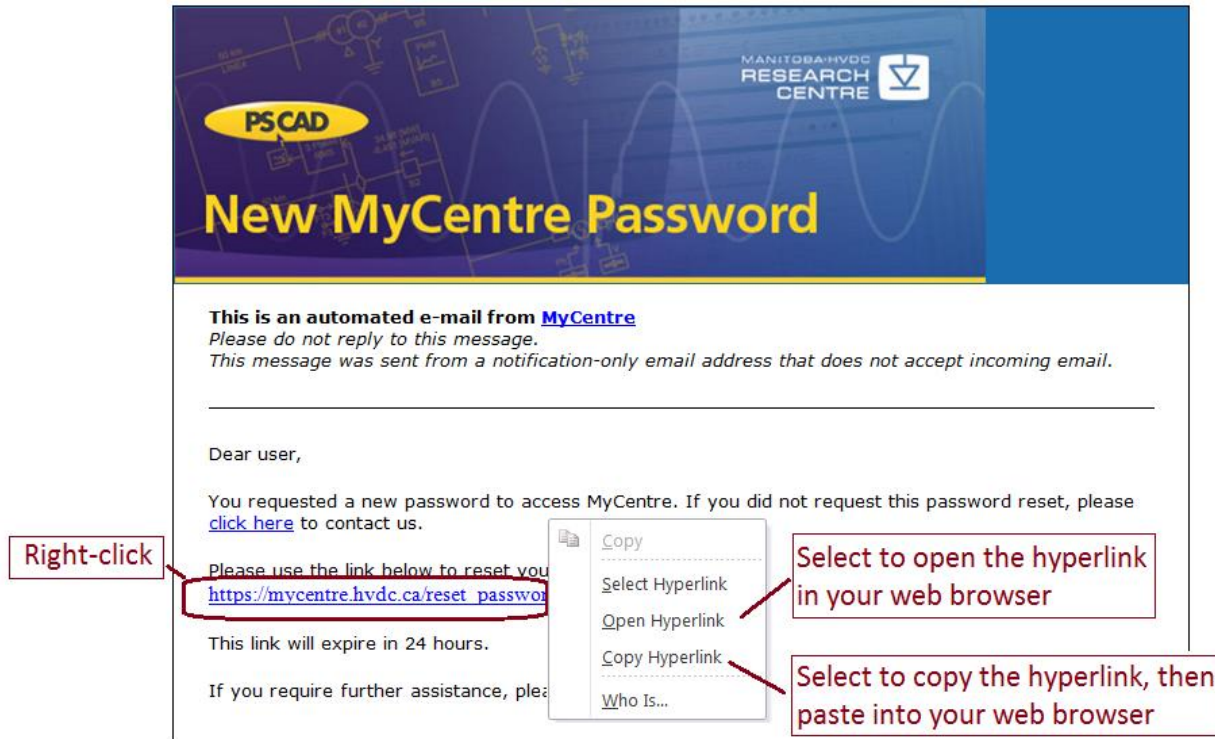
- c. You will be notified that your password has been reset, and that a reset link has been e-mailed to you.



Note

If you have not received an e-mail with a temporary password within a few minutes, refer to Section 3.3.3.

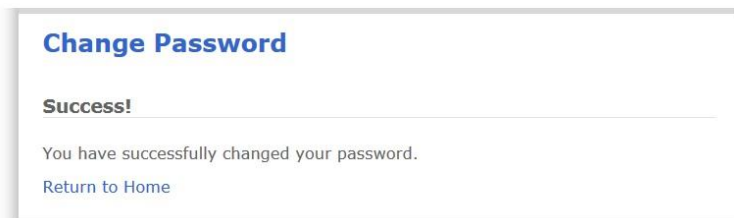
- d. In the generated e-mail, follow the link provided to display the login reset webpage. The two methods for displaying this webpage are shown in the following screenshot:



- e. When prompted, reset your password as shown:



- f. If the password reset was successful, you will be notified as shown. Selecting "Return to Home" will log you in to MyCentre and display the "Home" page.





3.3.3 Blocked E-mails

When registering a new MyCentre user account (Section 2.3) or resetting your password (Section 3.3.2), you should receive an automatically generated e-mail with password information shortly after submitting the request (usually within a few minutes).

If you did not receive this e-mail, the following may be considered:

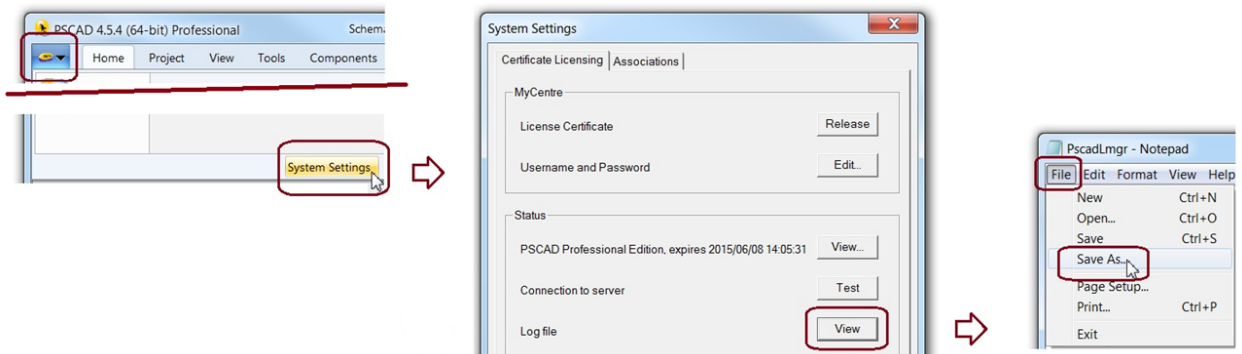
- The auto-generated e-mail may be in your “Junk” e-mail folder.
- For a password reset, if you enter an incorrect username/e-mail address in the “Username” field, the auto-generated e-mail will not be sent to you.
- If your organization is blocking auto-generated e-mails, the MyCentre e-mail would likely be blocked. Have your IT staff set their server to not block e-mails from mycentre@hvdc.ca, then reset your password per Section 3.3.2.

Or, if your IT staff may not unblock these e-mails, register a new MyCentre user account using a different e-mail address on a different network (e.g. home). Once you have received your temporary password over this other network, you may use it to log in to MyCentre on either network.

3.4 Certificate Licensing Issues

If you encounter any issues with activating a certificate (Section 2.10), please forward your PscadLmgr.txt file to our support desk to determine the reason.

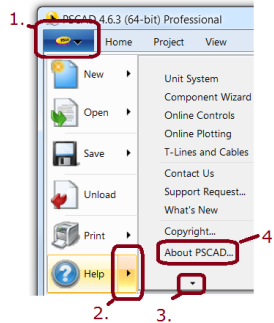
This file may be saved to your computer through your System Settings dialog box as shown below, then attached in an e-mail and forwarded to our support desk as per Section 3.6.



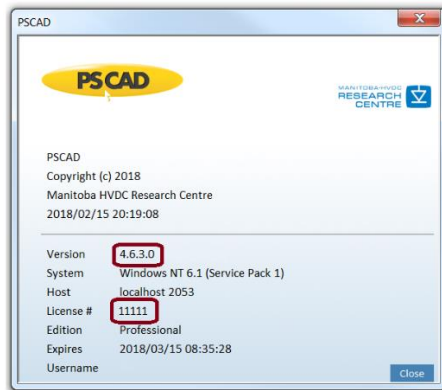
3.5 Determining your PSCAD License Number

When requesting support from our support desk, your license certificate number is required. This may be determined as follows:

- a. Through the PSCAD Application:
 - Launch PSCAD (Section 2.8), and activate a certificate (Section 2.10).
 - Display the “About PSCAD” dialog box:



- The PSCAD version and license number will be displayed:



- b. Through MyCentre:
 - Follow instructions in Section 2.15 to determine your license number.



3.6 Contact the Support Desk

If you are unable to resolve an installation, login, join code, or licensing issue, please submit a support request to our support desk.

Send an e-mail to the support desk (support@pscad.com), ensuring to include all relevant information to expedite assistance, including:

Ensure to include all relevant information in your support request to expedite assistance, including:

- The name of your organization
- If known, your license number, which may be determined as per Section 3.5
- A detailed description of the issue
- For a licensing issue, include your licensing log file as per Section 3.4
- Screenshots of any error messages

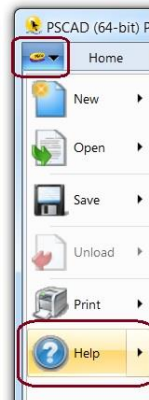
Appendix A: Resources for New Users

The following resources may assist new users to become familiar with PSCAD:

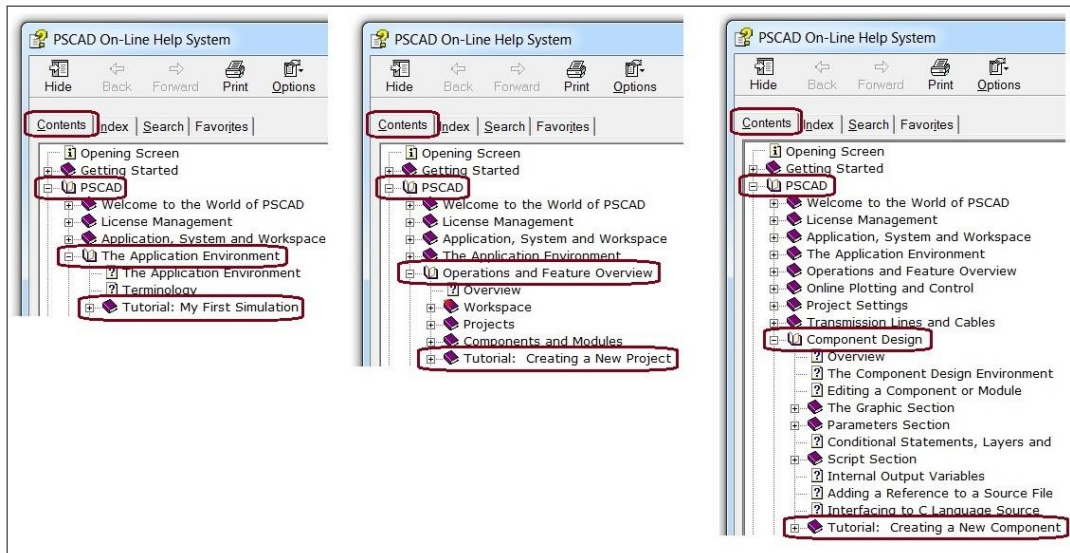
- The [Knowledge Base](#) contains videos, user guides, examples, tutorials, webinars, and manuals.
- Examples and tutorial projects to view and run are available through the “PSCAD” start button (C:\Users\Public\Documents\PSCAD\4.x\Examples):



- The Help system provides information on PSCAD tools and features:



- Three tutorials for designing PSCAD cases are available in the Help system:





DOCUMENT TRACKING

Rev.	Description	Date
0	Initial	20/Apr/2015
1	Updated to v4.5.5 release; Updated to MyCentre changes; Re-organization	08/Jan/2016
2	Added Appendix B	26/Jan/2016
3	Update to Section 2.7	19/Apr/2016
4	Update to Section 2.8; Section 2.12 renumbered to 2.13 New Section 2.12	30/Jun/2016
5	Minor corrections to Section 2.8, and update to weblinks	28/Jul/2016
6	Updated Section 2.12, Moved Section 1.4 to 1.5; Added new Section 1.4	29/Jul/2016
7	Moved the section on setting up certificate trial licensing from the manual "Installing a Trial License" into this manual; Minor improvements throughout Combined Sections 2.7.1 and 2.7.2 into Section 2.7.1; Added new Section 2.7.2; Renumbered Sections 2.8-2.13 to Sections 2.9-2.14; Added new Section 2.8; Renumbered Sections 3.2-3.4 to Sections 3.3-3.5; Added new Section 3.2	31/Aug/2016
8	Correction to Section 2.7	12/Sep/2016
9	Update to Sections 2.3 and 3.3.3, and to Appendix B	03/Apr/2016
10	Update to PSCAD v4.6.2 release; Renumbered Section 1.5 as Section 1.6; Added new Section 1.5; General improvements	31/May/2017
11	Updated linking	31/May/2017
12	Update to Appendix B	14/Jun/2017
13	Added new Section 2.15	27/Nov/2017
14	Updated to PSCAD v4.6.3 and License Manager v1.44 releases; Overhauled Sections 2.1 and 2.2; Renumbered Sections 2.14 and 2.15 to Sections 2.15 and 2.16; Added new Section 2.14; Renumbered Section 3.5 to 3.6; Added new Section 3.5 Deleted Appendix B, amalgamated content into Section 2.1; General improvements	26/Mar/2018
15	Update to New Brand Guidelines	02/May/2018
16	Update to New Brand Guidelines	17/Jul/2018