# PSCAD X4 Software Setup – Quick Start (Lock-Based Licensing)

## 1.       Introduction

This document provides quick setup instructions for PSCAD™ v4.3 to v4.6, the standalone license manager, and the lock-based license. For more detailed instructions, please refer to the user manual posted to this article.

## 2.       Scope Boundaries

The boundaries imposed for each edition (Professional and Educational) are specified in this article.

## 3.       Requirements

The following are required for this setup:

- System requirements
- Windows Administrator Privileges
- If licensing will be hosted on this machine, the License.txt file and hardware USB lock will be required
- If licensing will be hosted on another machine (server), the server name or IP address will be required

## 4.       Obtaining Access to the Software

Obtain access to the software as follows:

a.    Register a MyCentre user account if you do not already have one.

b.    Send an email using your facility's e-mail domain the MHI Sales Desk requesting the software, along with the license number.

c.    The software download and setup instructions will be provided to authorized users through their MyCentre user account. Log in to MyCentre, and download the software from your *Downloads* tab.

**Note:** If you are provided a join code, apply the join code first, as shown:



## 5.       Installation Instructions – PSCAD Machine

On the PSCAD machine, install PSCAD, as well as the GFortran compiler and License Manager if required, as follows:

a.    Download the zipped file, extract (unzip) and save the files to your desktop.

b.    From the unzipped files, right-click on "setup.exe" and select "Run as administrator".
The installation will launch.

c.    When prompted to select products for installation:

- Select PSCAD
- Select GFortran if you do not have a license for the Intel compiler
(refer to Step 10 for information on selecting and setting up a compiler)

- Select the License Manager on the PSCAD machine only if: (1) The licensing will be hosted on this machine, AND (2) The license contains two or more seats.

d. When prompted to select the type of licensing, select "Lock-based self-licensing".

e. If the License Manager was selected for installation, refer to this installation in Step 6.c to Step 6.f, then return to Step 5.f, below.

f. When the installation is complete, log out and log back in to your machine to apply the changes.

## 6. Setup Instructions – Standalone License Manager

The Standalone License Manager is installed in the following situations:

- **On a Server Machine (Network Licensing):** If licensing will be hosted on a server and shared with client machines over the Network, the License Manager MUST be installed on the server, alongside the license.

- **On a PSCAD Machine (Local Licensing, Multiple Seats):** If licensing will be installed locally on a PSCAD machine, AND if the license contains two or more seats, the License Manager MUST be installed on the PSCAD machine, alongside the license.

The Standalone License Manager may be installed and configured as follows:

a. Download the zipped file, extract (unzip) and save the files to the machine desktop.

b. From the unzipped files, open the "License" sub-folder, right-click on "setup.exe" and select "Run as administrator".

c. When the License Manager installation launches, proceed through the menus.

d. The *Setup Tool* will display as part of the installation:
(Or the *Setup Tool* may be launched from Windows Start menu, or the *Setup Tool* may be downloaded from this link, the files extracted, and the "SetupTool.exe" file is run)

  i. Configure the *Access* tab as follows:
  - On a PSCAD machine: Select "This machine only (private)".
  - On a server machine:
    o Select "Authorized networks (protected)" to share with machines on specified networks, or
    o Select "Everyone (public)" to share with machines on any network.

  ii. If "Authorized networks (protected)" was selected in Step (i), above, configure as many rows in the *Networks* tab as required, as follows:
    **Note:** Refer to the detailed user manual posted here for further information on this.
    - "Description": Enter a description for your own reference (not monitored by the utility)
    - "IP Address": Specify a network
    - "CIDR Mask": Specify the CIDR mask
    - "First…" and "Last…" IP address file fields: Will be populated automatically.

  iii. From the *Actions* menu, select "Save Settings and Exit".

e. When prompted whether to install or update your license, select "Yes" if you have the license text file (License.txt), follow steps 7.d to 7.f, then return to Step 6.f, below. Or, if you do not have the license text file, select "No".

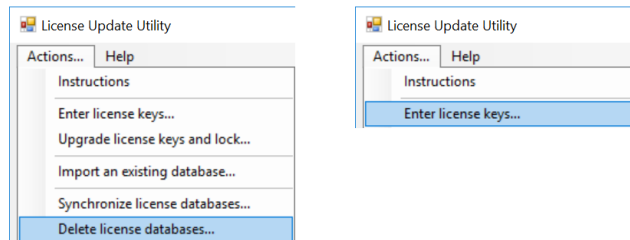f. The License Manager installation will be complete.

### 7. Setting up the PSCAD License

The license may be set up on the PSCAD machine or on the server as applicable. If the license file was not already installed (e.g. alongside the License Manager in Step 6.e), install the file as follows:

a. Securely plug in the USB lock.

b. Save the License.txt file to your desktop.

c. From the Windows Start menu, locate and launch "Enter License Key" (this utility would have been installed alongside PSCAD or the License Manager), and select "Yes" when prompted by the *User Account Control*.

> **Note:** If the *Enter License Key* utility is not available from your Windows Start menu, it may be downloaded from <u>here</u>; extract (unzip) the files, and run the "LicenseUpdate.exe" file.

d. From the "Actions" menu, select "Delete license databases", and confirm when prompted. Then select "Enter license keys", browse to the License.txt file when prompted, and select "Open".



e. A message similar to the following should display, listing the edition and license number; the utility may be closed:



f. If the license installation is unsuccessful, please contact our <u>support desk</u>, ensuring to provide your license text file and the utility log file (select "Save messages…" from the *Actions* menu).
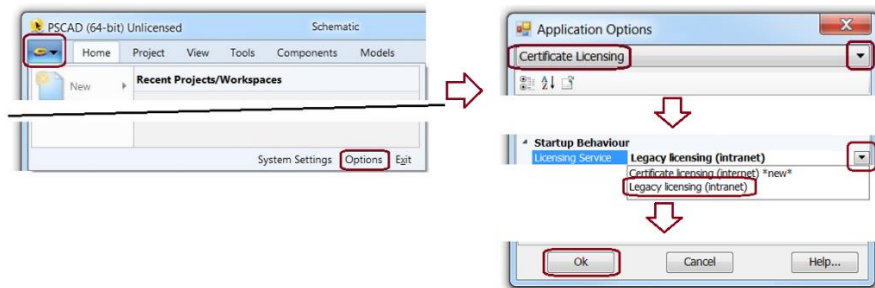
### 8. Launching PSCAD
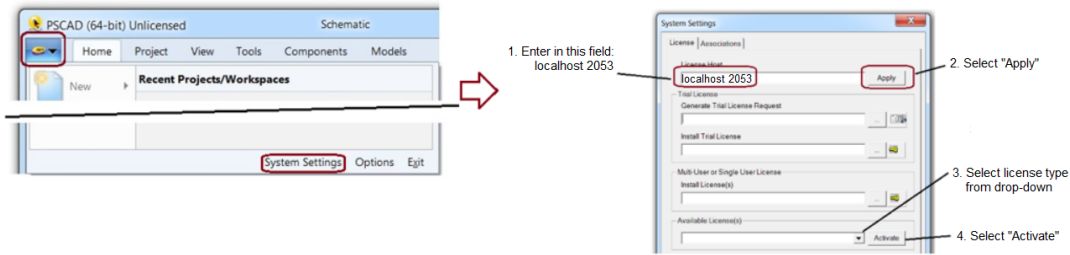
Launch "PSCAD v4x" from the Windows Start menu.

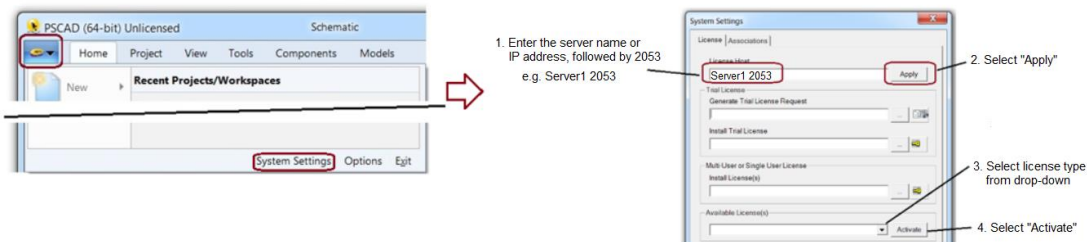### 9. Activating a License

Activate the license as follows:

a. Launch PSCAD, and configure the software to use lock-based (legacy) licensing as shown:



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b. Activate a license as follows:

   i. If licensing is hosted on the PSCAD machine:



   ii. Or, if licensing is hosted on a server:



c. The software should now be licensed and available to use.

d. Or, if license activation is unsuccessful, please send your licensing log files to our support desk:

   i. **On the PSCAD machine**: Send in the "PscadLmgr.txt" file:
     C:\ProgramData\Manitoba HVDC Research Centre\LicenseManager\PscadLmgr.txt

   ii. **On the machine hosting the license**: Run the "GetInfo utility" from the Windows Start menu, and send in the log file (file location will be specified at the end of the utility).

   iii. **On the machine hosting the License Manager**, if applicable: Send in the "Lmgrd-log.txt" file:
     C:\ProgramData\Manitoba HVDC Research Centre\LicenseManager\Lmgrd-log.txt

## 10.　Selecting, Setting up, and Testing your Compiler

A third-party compiler is required for building PSCAD projects. PSCAD supports the Free GFortran compiler that comes bundled with the PSCAD installer, as well as the commercially available Intel® Parallel Studio Composer Edition for Fortran for Windows®. If using the Intel compiler, another third-party software is also required, Microsoft® Visual Studio. Refer to detailed information on selecting your compiler.

GFortran may be installed alongside PSCAD as per Step 5.c, or it may be installed separately from PSCAD.

For selecting and setting up the Intel compiler, please refer to the following references:

- Selecting the Intel compiler version and license type
- Selecting the Visual Studio version and edition
- Setting up the software

Once PSCAD and the compiler are installed, your setup should be tested before building your own projects.

If you have any compiler selection or setup questions, please forward your questions to our support desk.

## 11.　Resources for Using PSCAD

For new users, resources for using this software are available in this article.

We hope this information was helpful. If you have any setup or usage questions, please contact support@mhi.ca.