

PSCAD Software Licensing – Lock-Based vs Certificate

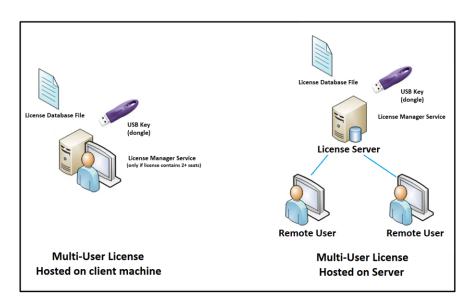
Introduction

This document provides a comparison of new certificate licensing and legacy lock-based licensing, both of which are available for running PSCAD software. The features of these licensing configurations are provided to help you to decide which method is best suited for you and your organization. Additionally, for those who already own a lock-based PSCAD license, this document also includes the general steps for migrating your lock-based license to a certificate license.

Lock-based Licensing Configuration

The lock-based licensing configuration uses a combination of Sentinel USB lock (dongle) and license database file to authorize licensing. Lock-based licensing is supported with PSCAD versions 4.2 to 5.0.

Lock-based licensing is currently available as a Multi-User license (MUL), in which licensing may either be hosted locally on the machine that is running PSCAD, or hosted on a server and shared with client machines over their Network.



An MUL permits one or more instances of PSCAD to be launched and licensed, depending on the number of PSCAD seats on that license. For example, a three-seat MUL will license up to three instances of PSCAD. Also, these instances may be shared with one or more machines over the Internet, or one or more instances may be run on the license host machine.

An MUL hosted on the client machine is portable, and is therefore suited for either in-house or remote usage. The MUL license that is hosted on a server is more suited to in-house usage because it requires frequent communication between the client and server machines to retain licensing validation, which can be challenging if Internet connections are unreliable. This configuration was never intended for remote licensing, however, some customers have managed to set up their licensing to be shared externally.

Please note that some customers may still have the older Single-User License (SUL), in which the SUL must be hosted locally on the machine that is running PSCAD, and permits a maximum of one instance of PSCAD to be launched and licensed. To determine eligibility to update your SUL to MUL, please send your query to sales@pscad.com (please provide your license number as per any of these instructions as applicable).

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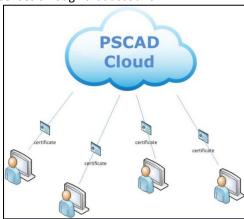
Certificate Licensing Configuration

Certificate licensing is supported with PSCAD versions 4.5.3 and newer.

Note

If you will be using a version that is not supported with certificate licensing, then lock-based licensing will still be required. Or, if you have multiple PSCAD licenses, a combination of both lock-based and certificate licensing can be provided.

Certificate licensing uses a web portal called MyCentre to host an organization's licenses and authorize licensing. Any members of the organization who are eligible for this licensing will each register a MyCentre member account, and will be granted access to the licenses through that account.



Licensing is authorized when an eligible member launches PSCAD while online and logs in using their MyCentre login credentials. A license certificate will be checked out on their machine, and may either be retained on that machine when PSCAD is exited, or returned to MyCentre so that another user may check it out. The user must be online to return the certificate. If the certificate is retained, it will initially be valid for 28 days; this period will then be refreshed to a new four-week period whenever PSCAD is 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.

Conversely, if multiple users in an organization will be sharing a license, PSCAD should be configured to always return the certificate whenever PSCAD is closed, so that licensing is available to other users.

Access to the licensing is controlled by the organization itself, specifically, by a designated person within the organization, known as the "WorkGroup Administrator" or simply "Administrator" (also known as "Local Administrator"). The workgroup administrator may add or remove access to the licenses, and may also designate other administrators for replacement or backup as needed.

One major advantage of certificate over lock-based licensing is that it permits multiple instances of PSCAD to be run simultaneously on one machine using a single certificate, whereas the number of instances in lock-based licensing is limited to the number of PSCAD seats.

Another advantage of certificate over lock-based licensing is that it may be activated in any part of the world with Internet access. Whereas the reliability of the Internet may limit ongoing network licensing with a lock-based multi-user license, certificate licensing only requires Internet access for a very short time, when activating, renewing or releasing a certificate.

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Comparison of Lock-Based and Certificate Licensing

To help determine which type of licensing is appropriate for your organization, please see the following comparison chart:

Features Licensing Configuration	Supported PSCAD Versions	Permits Multiple Instances of PSCAD	Portable	Permits Remote Access to the License	Requires a MyCentre WorkGroup Administrator	Requires Internet Access	Parallel Simulations ^[1]	Requires a USB lock and license file	Requires a MyCentre User Account and licensed Workgroup
Lock-based Licensing:	v4.2 to v5.0	No (single instance)	Yes (requires USB lock and license file)	Yes (lock may be couriered)	No	No	Base of 4 or 8 ^[3] (additional may be purchased as of v4.6.1)	Yes	No
(2) MUL (hosted on the Client machine, will not be shared)	v4.2 to v5.0	Maybe (if license contains additional seats)	Yes (requires USB lock and license file)	Yes (lock may be couriered)	No	No	Base of 4 or 8 ^[3] (additional may be purchased as of v4.6.1)	Yes	No
(3) MUL (hosted on a Server)	v4.2 to v5.0	Maybe (if license contains additional seats)	Maybe (requires continuous reliable Internet)	Maybe (requires continuous reliable Internet)	No	Yes (Network for local) (reliable Internet for external)	Base of 4 or 8 ^[3] (additional may be purchased as of v4.6.1)	Yes	No
Certificate licensing	v4.5.3 ^[2] v4.5.4 to v5.0	Yes (many instances)	Yes (may be retained on your computer)	Yes (requires reliable Internet to activate, renew or return certificate)	Typically, Yes (when sharing certificate among multiple users)	Yes (to activate, renew or return certificate)	Base of 8 (additional may be purchased as of v4.6.0)	No	Yes ^[4]

- [1] For more information on this feature, refer to the following references:
 - The manual "What's New in PSCAD (all versions)", posted here
 - Parallel and High Performance Computing
- [2] Applicable to the Professional Edition only
- [3] Base of 4 for PSCAD v4.6.1 and earlier, base of 8 for PSCAD v4.6.2 and later
- $\label{eq:continuous} \textbf{[4] The MyCentre User Account must be "linked" to the licensed MyCentre Workgroup}$

Process - Migrating from Lock-based to Certificate Licensing

If you own any lock-based licenses and are considering migrating to certificate licensing, the process is simple and designed to minimize PSCAD downtime. Temporary certificate licensing will be set up for your users, while your USB lock is either returned to our office or de-activated. The certificate licensing will then be made permanent.

Requirements for Obtaining Certificate Licensing

The following information is required to obtain certificate licensing:

- <u>PSCAD License number/s</u>: If you are migrating any existing lock-based licenses, please provide the license number/s. Also, please send in a <u>Get Info log file</u> for every license you wish to migrate.
- <u>WorkGroup Administrator</u>: Provide the name and e-mail address of the person/s you wish to designate as the administrator/s for your licensing.
- <u>Software installation</u>: If you require any software downloads, please indicate which supported PSCAD version/s you require (e.g. v4.5.5, v4.6.3).

We hope this information was helpful for selecting the PSCAD licensing configuration that is best suited to your organization. If you have any questions, please do not hesitate to ask (support@mhi.ca or sales@pscad.com).

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