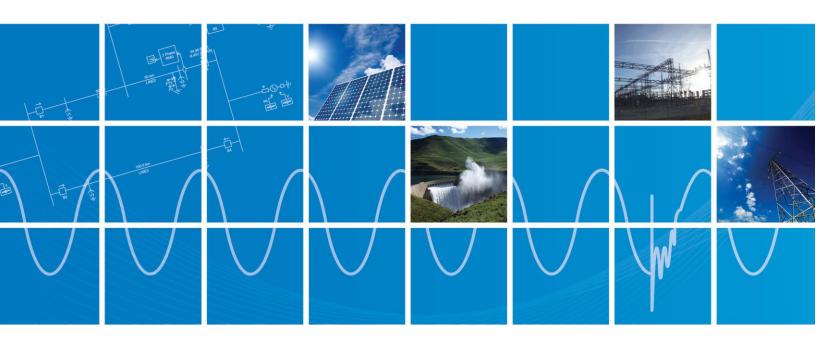


 $\mathsf{PSCAD}^\mathsf{TM}$

Getting Started with PSCAD v5.0.2

March 29, 2023 Initial









Contents

1.	PSCA	AD PRODUCT EDITIONS	. 1
1. 1. 1. 1. 1.	1 2 3 4	PROFESSIONAL AND EDUCATIONAL EDITIONS	1
1. 1.		FREE EDITION	
		EM REQUIREMENTS	
3.	PSCA	AD IMPOSED BOUNDARIES (ALL EDITIONS AND COMPILERS)	. 2
3. 3. 3.	2	PSCAD Imposed Boundaries (all Editions and Compilers) Edition Specific Boundaries Free Edition Restrictions	.2
4.	SETT	ING UP YOUR PSCAD SOFTWARE	. 3
4. 4. 4.	2	Professional and Educational Editions	3
5.	SELE	CTING AND SETTING UP YOUR FORTRAN COMPILER	. 3
6.	TUTO	ORIALS AND EXAMPLES TO GET YOU STARTED	. 3



1. PSCAD Product Editions

PSCAD is available in different editions, all of which contain mainly the same feature set, but with varying capacities. A general overview of each edition is provided below, while a comparison of product limitations for the released and free editions is listed in Section 3.

1.1 Professional and Educational Editions

The Professional and Educational editions are the two officially released editions of PSCAD. The Professional edition is our fully-featured edition, and is available to commercial users, as well as to educational facilities for the purpose of teaching and research.

The Educational edition contains all of the same features as the Professional edition with some limitations as specified in Section 3.2, and is available only to educational facilities.

1.2 Purchasing or Leasing

The Professional and Educational Edition are available for either purchase or lease. Please contact our <u>sales desk</u> for a quotation. Please ensure to include your name, organization, and location in your request.

1.3 Obtaining a Trial License

A temporary trial license for the Professional or Educational edition may be obtained in order to use and test the suitability of the software, prior to purchase. The trial may be requested by contacting our <u>sales</u> <u>desk</u>. Please ensure to include your name, organization, and location in your request.

1.4 Obtaining a Training License

When attending an MHI training session, a training license for the Professional edition may be obtained by contacting our training desk, through our PSCAD Support Desk Portal.

1.5 Free Edition

The Free edition is virtually identical as the released editions, but with several limitations imposed. This edition is available mainly to allow new users to try out PSCAD, and to test its functionality.

1.6 Beta Edition

The Beta edition represents latest in product development, and is available only to authorized and experienced users for testing. Feedback generated by the user community helps to drive further refinement, prior to the official product release.

Feedback from Beta edition users is invaluable to product development: It assists with early detection of issues, and allows users to directly affect development, by critiquing new features and functionalities. Contact PSCAD Support Services to become a Beta edition user.



1.7 Certificate and Lock-based Licensing

Information on the two types of licensing available for PSCAD are discussed in this article.

2. System Requirements

Requirements for installing, licensing and running PSCAD are specified in this article.

3. PSCAD Imposed Boundaries (all Editions and Compilers)

Any boundaries imposed on your projects will depend on which PSCAD edition you are using. The following tables list the most commonly encountered boundaries.

3.1 PSCAD Imposed Boundaries (all Editions and Compilers)

Description	Boundary
Transformers	Unlimited
Mutually coupled windings	Unlimited
Component Graphical Layers	256
T-Lines/Cables	Unlimited
Conductors per T-line Right-of-Way	30
Cables per Right-of-Way	12
Data signal dimension	1,024
Radio Transmitters/Receivers	1,024
STOR allocations	Unlimited
STORF/L/I/C allocations	Unlimited

3.2 Edition Specific Boundaries

Description	Free	Educational	Professional
Simultaneous, Parallel EMTDC simulations	4	8*	8*
Electrical Sub- systems	1	1	65,536
Electrical Nodes	15	200	1,048,576
Modules	5	64	65,536
Components	1,024	32,768	1,048,576
Output Channels	256	1,024	32,768

^{*}Contact the PSCAD Sales Desk (sales@pscad.com) for details on increasing this limit.



3.3 Free Edition Restrictions

Description	PRO and EDU Editions	Free Edition
Create Definition	✓	×
Edit Definition	✓	×
Import/Export	✓	×
Definition		
Commercial Fortran	✓	×
Compiler		
Frequency-Dependent	✓	×
T-Lines/Cables		
MATLAB Interface	✓	×
Python Automation	✓	×
UI/Library		
Blackbox	✓	×
Co-Simulation Interface	✓	×
Graph Watermarks	×	✓

4. Setting up your PSCAD Software

4.1 Professional and Educational Editions

Both detailed and quick start setup instructions are available as follows:

- If using certificate licensing, refer to this <u>article</u>.
- If using lock-based licensing, refer to this article.

4.2 The Free Edition

Instructions for setting up the PSCAD Free Edition software are available in this article.

4.2 The Beta Edition

Instructions for setting up the PSCAD Beta Edition software are available in this article.

5. Selecting and Setting Up Your Fortran Compiler

This information is available in this topic.

6. Tutorials and Examples to get you started

Resources for becoming familiar with using PSCAD are listed in this article.



DOCUMENT TRACKING

Rev.	Description	Date
0	Initial	29/Mar/2023

Copyright @ 2023 Manitoba Hydro International Ltd. All Rights Reserved.