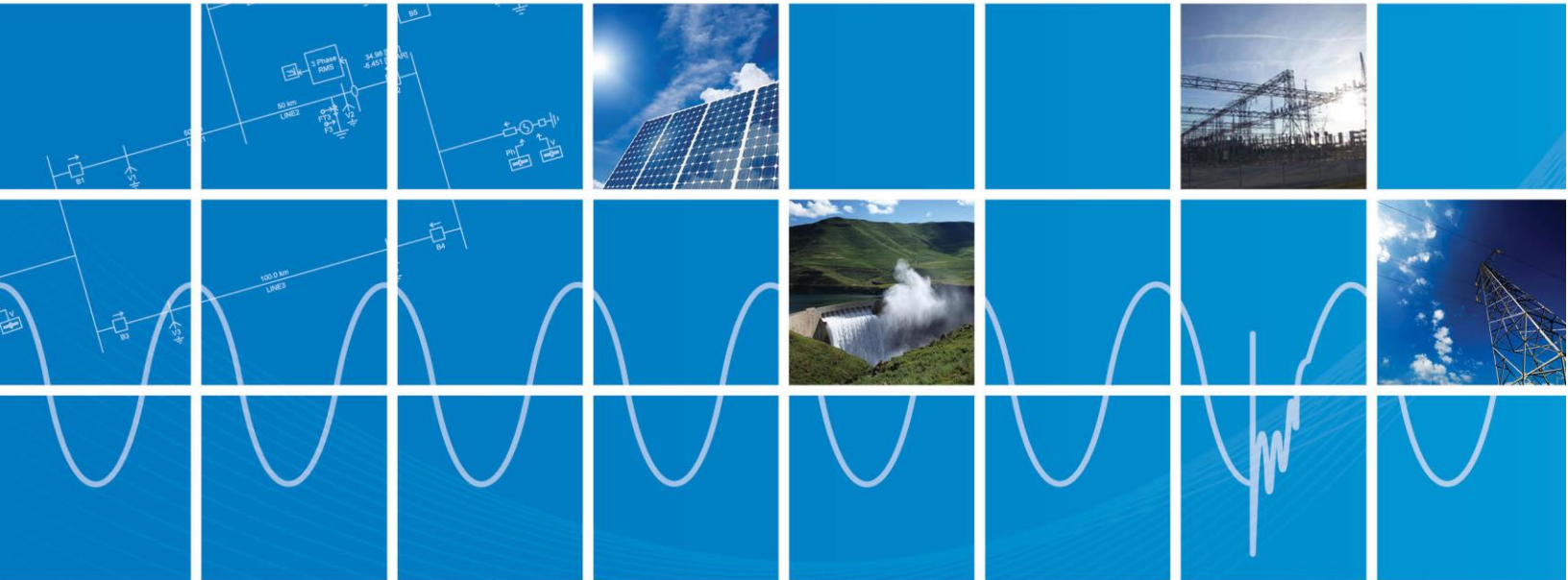




PSCAD™

Getting Started with PSCAD v5.0.0

July 19, 2020
Initial



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1. PSCAD Product Editions

PSCAD is available in a few 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 [sales desk](#) 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 [sales desk](#). 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 request becoming a Beta edition user.



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
STORE/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 [article](#).
- 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

A third-party compiler is required for building PSCAD projects. PSCAD supports a 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 Section 4.1, or it may be [downloaded and 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](#).

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	July 19, 2020