

PSCAD X4 Compatibility Charts

The following charts summarize the known compatibility of PSCAD with relevant external software.

“PSCAD X4” includes v4.3 to v4.6; some information related to v4.2 is also included.

1.a Supported Operating Systems - PSCAD

The following matrix illustrates the compatibility history of Windows Operating Systems with PSCAD, including released and non-released versions.

PSCAD Versions	Windows ^[5]	Windows XP	Windows Vista		Windows 7 SP1		Windows 8		Windows 8.1		Windows 10		Windows Server 2008 R2 SP1	Windows Server 2012 R2	Windows Server 2016	Windows Server 2019	Windows Server, VM 2022
			32-bit	64-bit	32-bit	64-bit	32-bit	64-bit	32-bit	64-bit	32-bit	64-bit					
4.2.0	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4.2.1 (2006)	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4.2.1 (2007)	✓	✓	✓	✓	✓	✓	---	---	[3]	[3]	[3]	[3]	---	[3]	[3]	[3]	---
X4 (4.3.0)	✓	✓	✓	✓	✓	✓	---	---	---	---	---	---	---	---	---	---	---
X4 (4.3.1)	✓	✓	✓	✓	✓	✓	---	---	---	---	---	---	---	---	---	---	---
X4 (4.4.0)	✓	✓	✓	✓	✓	✓	---	---	---	---	---	[6]	---	---	---	---	---
X4 (4.4.1)	✓	✓	✓	✓	✓	✓	---	---	---	---	---	---	---	---	---	---	---
X4 (4.5.0)	--- ^[2]	✓	✓	✓	✓	✓	---	---	---	---	---	---	---	---	---	---	---
X4 (4.5.1)	--- ^[2]	✓	✓	✓	✓	✓	[3]	[3]	[3]	[3]	---	---	---	---	---	---	---
X4 (4.5.2)	--- ^[2]	✓	✓	✓	✓	✓	[3]	[3]	[3]	[3]	---	---	---	---	---	---	---
X4 (4.5.3)	--- ^[2]	✓	✓	✓	✓	✓	[3]	[3]	[3]	[3]	---	---	---	---	---	---	---
X4 (v4.5.4)	--- ^[2]	✓	✓	✓	✓	✓	[3]	[3]	[3]	[3]	---	---	---	---	---	---	---
X4 (v4.5.5)	--- ^[2]	[4]	[4]	✓	✓	✓	[3]	[3]	[3]	[3]	[3]	[3]	---	---	---	---	---
X4 (v4.6.0)	X	[3]	[3]	✓	✓	✓	[3]	[3]	[3]	[3]	---	[3]	[8]	---	---	---	---
X4 (v4.6.1)	X	[3]	[3]	✓	✓	✓	[3]	[3]	[3]	[3]	---	[3]	[8]	---	---	---	---
X4 (v4.6.2)	X	---	---	✓	✓	✓	---	---	---	---	---	---	[8]	[3]	[3]	---	---
X4 (v4.6.3)	X	---	---	✓	✓	✓	---	---	---	---	✓	✓	[8]	[3]	[3]	[3]	[7]
X4 (Free) ^[1]	X	[3]	[3]	[3]	✓	✓	[3]	[3]	[3]	[3]	[3]	[3]	---	---	---	---	---

PSCAD / Windows Operating System Compatibility

- ✓ Officially Supported – Tested, should work
- X Not Officially Supported – Will likely not work
- Unknown – Not tested

1. The PSCAD X4 Free Edition is no longer available; replaced by the PSCAD V5 Free Edition.
2. Although not officially supported, this version has been shown to work with Windows XP 32-bit (Service Pack 3) and Windows XP 64-bit (Service Pack 2).
3. Although not officially supported, this combination has worked for some customers and/or on our test machines.
4. Supported, with Service Pack 1.
5. Lock-based PSCAD licensing is not supported in a cloud desktop environment.
6. During the PSCAD installation, when prompted to install Microsoft .NET 2 and .NET 3.5 Frameworks, elect to skip these, as they are not supported on Windows 10. Testing has shown that the PSCAD installation will proceed without them, and GFortran 4.2 compiling will work.
7. Tested, works.
8. Expected to work.

1.b Supported Operating Systems – Standalone License Manager

The following matrix illustrates the compatibility history of Windows Operating Systems with the standalone License Manager.

License Manager	Windows	Windows XP	Windows Vista (32/64-bit)	Windows 7 SPO	Windows 7 SP1 32-bit 64-bit	Windows 8 32-bit 64-bit	Windows 8.1 32-bit 64-bit	Windows 10 32-bit 64-bit	Windows Server 2008 R2 SP1	Windows Server 2012 R2	Windows Server 2016	Windows Server 2019
	<i>LM 1.28 (PSCAD v4.3)</i>	---	---	---	✓	✓	---	---	X	X	---	---
<i>LM 1.29 (PSCAD v4.4.0)</i>	---	---	---	✓	✓	---	---	X	X	---	---	---
<i>LM 1.30 (PSCAD v4.4.1)</i>	---	---	---	✓	✓	---	---	X	X	---[1]	---	---
<i>LM 1.31 (PSCAD v4.5.0)</i>	---	---	---	✓	✓	---	---	X	X	---	---	---
<i>LM 1.32 (PSCAD v4.5.1)</i>	---	---	---	✓	✓	---	---	X	X	---	---	---
<i>LM 1.33 (PSCAD v4.5.2)</i>	---	---	---	✓	✓	---	---	X	X	---[1]	---	---
<i>LM 1.34 (PSCAD v4.5.3)</i>	---	---	---	✓	✓	---	---	X	X	---[1]	---	---
<i>LM 1.35 (PSCAD v4.5.4)</i>	---	---	---	✓	✓	---	---	X	X	---	---	---
<i>LM 1.36/1.41 (PSCAD v4.6.0)</i>	---	---	---	✓	✓	---	---	X	X	---	---	---
<i>LM 1.37 (PSCAD v4.5.5)</i>	---	---	---	✓	✓	---	---	[1]	[1]	---[1]	---	---
<i>LM 1.42 (PSCAD v4.6.1)</i>	---	---	---	✓	✓	---	---	[1]	[1]	---	---	---
<i>LM 1.43 (PSCAD v4.6.2)</i>	X	---	---	✓	✓	---	---	✓	✓	---[1]	---[1]	---
<i>LM 1.44 (PSCAD v4.6.3)</i>	X	X	X	✓	✓	[1]	[1]	✓	✓	---[1]	---[1]	---[1]
<i>LM 1.45 (PSCAD v5.0.0)</i>	X	X	X	✓	✓	[1]	[1]	✓	✓	---[1]	---[1]	---[1]
<i>LM 1.46 (PSCAD v5.0.1)</i>	X	X	X	✓	✓	[1]	[1]	✓	✓	---[1]	---[1]	---[1]
<i>LM 1.47 (PSCAD v5.0.2)</i>	X	X	X	✓	✓	[1]	[1]	✓	✓	---[1]	---[1]	---[1]

License Manager / Windows Operating System Compatibility

- ✓ Officially Supported – Tested, should work
- X Not supported - will likely not work
- Unknown – Not tested

1. Although not officially supported, this combination has been shown to work (both internally and on customer machines).

1.c Required Microsoft® Visual C++ Redistributables – Prerequisites for PSCAD

The following matrix illustrates the compatibility history of Microsoft Visual C++ Redistributables with PSCAD, including released and non-released versions.

Visual C++ Redistributables	2008	2010	2015	2017
PSCAD Versions				
4.2.0	X	X	X	X
4.2.1 (2006)	X	X	X	X
4.2.1 (2007)	X	X	X	X
X4 (4.3.0)	✓	X	X	X
X4 (4.3.1)	✓	X	X	X
X4 (4.4.0)	X	✓	X	X
X4 (4.4.1)	X	✓	X	X
X4 (4.5.0)	X	✓	X	X
X4 (4.5.1)	X	✓	X	X
X4 (4.5.2)	X	✓	X	X
X4 (4.5.3)	X	✓	X	X
X4 (v4.5.4)	X	✓	X	X
X4 (v4.5.5)	X	✓	X	X
X4 (v4.6.0)	X	✓	X	X
X4 (v4.6.1)	X	✓	X	X
X4 (v4.6.2)	X	X	✓	✓ ^[2]
X4 (v4.6.3)	X	X	✓	✓ ^[2]
X4 (Free) ^[1]	X	X	✓	✓ ^[2]

PSCAD / Microsoft® Visual C++ Redistributables Compatibility

- ✓ Officially Supported
- X Not Officially Supported

1. The PSCAD X4 Free Edition is no longer available; replaced by the PSCAD V5 Free Edition.
2. Visual C++ 2015 and 2017 Redistributables may not co-exist on the same machine; the 2017 version will over-write the 2015 version. Only one of these two Redistributables versions is required for running the listed PSCAD versions.

1.d Versions of Microsoft Visual C++ Redistributables released with Microsoft Visual Studio

The following matrix lists the versions of Microsoft Visual C++ Redistributables released with Microsoft Visual Studio.

MS Visual Studio version	MS Visual C++ Redistributables	
	Official Name	Corresponding Version
2008 (v9)	<i>MS Visual C++ 2008 Redistributables</i>	9.0
2010 (v10)	<i>MS Visual C++ 2010 Redistributables</i>	10.0
2012 (v11)	<i>MS Visual C++ 2012 Redistributables</i>	11.0
2013 (v12)	<i>MS Visual C++ 2013 Redistributables</i>	12.0
2015 (v14)	<i>MS Visual C++ 2015 Redistributables</i>	14.0
2017 (v15)	<i>MS Visual C++ 2017 Redistributables</i>	14.10.***
		:
		14.16.***
2019 (v16)	<i>MS Visual C++ 2019 Redistributables</i>	14.20.***
		:
		14.29.***
2022 (v17)	<i>MS Visual C++ 2022 Redistributables</i>	14.30.***
		14.31.***
		14.32.***
		14.33.***
		14.34.***

1.e Supported Operating Systems – FORTRAN Compilers

The following matrix illustrates the compatibility history of Windows Operating Systems with Fortran compilers.

(Intel information was determined per Intel Release Notes)

Compiler	Windows XP	Windows Vista	Windows 7	Windows 8	Windows 8.1	Windows 10	Windows Server 2016	Windows Server 2019
Compaq Visual Fortran 6.5	✓	---	[1]	---	---	[1]		
Intel Visual Fortran:	✓	✓	✓					
9						---		
10						---		
11						✓ ^[3]		
Intel Fortran Composer XE:	✓	✓	✓			✓		
12 (2011)								
13 (2013)								
14 (2013 SP1)								
Intel Parallel Studio XE:								
15 (2015)			✓			✓		
16 (2016)			✓			✓		
17 (2017)			✓			✓		
18 (2018)			✓			✓		
19 (2019)			✓			✓		
19.1 (2020)							✓	✓
19.2 (2021) tbd								
19.2 (2022) tbd								
GFortran Compilers:								
GNUFortran	✓	✓	✓	---	---	✓		
GFortran 4.2.1	✓	✓	✓	---	---	✓		
GFortran 4.6.2	---	---	✓	---	---	✓		

FORTRAN Compiler / Windows Operating System Compatibility

- ✓ Tested, should work
- Not tested – Unknown^[2]

1. Some users have reported difficulties with this installation. Refer to this [article](#) for details and setup tips.
2. Refer to this [article](#) when attempting to run older third-party software on a newer Windows operating system.
3. Prompted to install .NET 3.5 Framework during this installation. With Internet connection, the installer easily performs this installation.

1.f Compatibility of Microsoft Visual C++ Redistributables

The following chart illustrates which versions of Microsoft Visual C++ Redistributables are actually supported when required within another program.

A program which requires this version	Can use Visual C++ 2015	Can use Visual C++ 2017	Can use Visual C++ 2019	Can use Visual C++ 2022
Visual C++ 2015	✓	✓	✓	✓
Visual C++ 2017	X	✓	✓	✓
Visual C++ 2019	X	X	✓	✓
Visual C++ 2022	X	X	X	✓

2.b PSCAD Program Folders for Supported Intel Parallel Studio Fortran Compilers (IVF) and Microsoft Visual Studio (VS)

The following matrix illustrates the compatibility between PSCAD and IVF/VS, along with the specified program folders and reconfiguration capability.

PSCAD Program Folder ^[1]	Applicable Versions of IVF	Applicable Versions of Visual Studio	Whether PSCAD can be Toggled ^[2]
v4.6.0			
IF12	IVF12 IVF13 IVF14	VS 2013 (and older)	X
v4.6.1 to v4.6.3			
IF12	IVF12 IVF13 IVF14	VS 2013 (and older)	X
IF15	IVF15 IVF16 IVF17 IVF18 IVF19	VS 2010 (and newer)	✓

1. When PSCAD is installed, these folders are installed to the following location:
C:\Program Files (x86)\PSCADxxx\emtdc\
2. Some versions of PSCAD can be toggled to use older Visual Studio libraries (2013 and older) or newer Visual Studio libraries (2015 and newer). More information is available in this [article](#).

2.c Supported Visual Studio Versions

The following matrix illustrates the compatibility of Microsoft Visual Studio with PSCAD.

MS Visual Studio PSCAD	2005 (v8)	2008 (v9)	2010 (v10)	2012 (v11)	2013 (v12)	2015 (v14)	2017 (v15)	2019 (v16)	2022 (v17)
4.2.1	✓	✓	✓	--- ^[1]	✓	X	X	X	X
X4 (4.3.0)	✓	✓	✓	--- ^[1]	✓	X	X	X	X
X4 (4.3.1)	✓	✓	✓	--- ^[1]	✓	X	X	X	X
X4 (4.4.0)	✓	✓	✓	--- ^[1]	✓	X	X	X	X
X4 (4.4.1)	✓	✓	✓	--- ^[1]	✓	X	X	X	X
X4 (4.5.0)	---	✓	✓	--- ^[1]	✓	X	X	X	X
X4 (4.5.1)	---	✓	✓	--- ^[1]	✓	X	X	X	X
X4 (4.5.2)	---	✓	✓	--- ^[1]	✓	X	X	X	X
X4 (4.5.3)	---	✓	✓	--- ^[1]	✓	X	X	X	X
X4 (4.5.4)	---	✓	✓	--- ^[1]	✓	X	X	X	X
X4 (4.5.5)	---	✓	✓	--- ^[1]	✓	X	X	X	X
X4 (v4.6.0)	---	---	✓	--- ^[1]	✓	X	X	X	X
X4 (v4.6.1)	---	---	✓	--- ^[1]	✓	✓	X	X	X
X4 (v4.6.2)	---	---	✓	--- ^[1]	✓	✓	X	X	X
X4 (v4.6.3)	---	---	✓	--- ^[1]	✓	✓	✓	✓	✓
X4 (Free)	X	X	X	X	X	X	X	X	X

- ✓ Officially Supported – Tested, should work
- X Not Officially Supported – Tested, will not work
- Unknown – Not tested

1. This version of Visual Studio is not recommended to ever be installed, as it can interfere with other versions, even after it has been removed.

3.a Calling Pre-compiled Objects or Libraries – Comparison of Compilers

If any pre-compiled objects or libraries will be called within a project using a particular version of compiler, a compatible compiler must be used when running the project itself:

Pre-compiled using this	May run project with this			Intel® Visual Fortran			Intel® Fortran Composer XE			Intel® Parallel Studio XE Composer Edition for Fortran										InteloneAP I		Compaq	GNU-Fortran	GFortran 4.2.1	GFortran 4.6.2
	v9	v10	v11	v12 2011	v13 2013	v14 2013 SP1	v15 (2015)		v16 (2016)		v17 (2017)		v18 (2018)		v19.0 (2019)		V19.1 (2020)		V19.2 (2021-2023)		Visual Fortran 6				
							32-bit	64-bit	32-bit	64-bit	32-bit	64-bit	32-bit	64-bit	32-bit	64-bit	32-bit	64-bit	32-bit	64-bit					32-bit
Intel 9	✓	✓	✓	✓	✓	✓	✓	X	✓	X	---	X	---	X	---	X	---	X	---	X	X	X	X	X	X
Intel 10	---	✓	✓	✓	✓	✓	✓	X	✓	X	---	X	---	X	---	X	---	X	---	X	X	X	X	X	X
Intel 11	---	---	✓	✓	✓	✓	✓	X	✓	X	---	X	---	X	---	X	---	X	---	X	X	X	X	X	X
Intel 12	---	---	---	✓	✓	✓	✓	X	✓	X	---	X	---	X	---	X	---	X	---	X	X	X	X	X	X
Intel 13	---	---	---	---	✓	✓	✓	X	✓	X	---	X	---	X	---	X	---	X	---	X	X	X	X	X	X
Intel 14	---	---	---	---	---	✓	✓	X	✓	X	---	X	---	X	---	X	---	X	---	X	X	X	X	X	X
Intel 15 (32-bit)	---	---	---	---	---	---	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	---	X	X	X	X	X	X
Intel 15 (64-bit)	X	X	X	X	X	X	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	X	X	X	X
Intel 16 (32-bit)	---	---	---	---	---	---	---	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	X	X	X	X	X
Intel 16 (64-bit)	X	X	X	X	X	X	X	---	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	X	X	X	X
Intel 17 (32-bit)	---	---	---	---	---	---	---	X	---	X	✓	X	✓	X	✓	X	✓	X	✓	X	X	X	X	X	X
Intel 17 (64-bit)	X	X	X	X	X	X	X	---	X	---	X	✓	X	✓	X	✓	X	✓	X	✓	X	X	X	X	X
Intel 18 (32-bit)	---	---	---	---	---	---	---	X	---	X	---	X	✓	X	✓	X	✓	X	✓	X	X	X	X	X	X
Intel 18 (64-bit)	X	X	X	X	X	X	X	---	X	---	X	---	X	✓	X	✓	X	✓	X	✓	X	X	X	X	X
Intel 19.0 (32-bit)	---	---	---	---	---	---	---	X	---	X	---	X	---	X	✓	X	✓	X	✓	X	X	X	X	X	X
Intel 19.0 (64-bit)	X	X	X	X	X	X	X	---	X	---	X	---	X	---	X	✓	X	✓	X	✓	X	X	X	X	X
Intel 19.1 (32-bit)	---	---	---	---	---	---	---	X	---	X	---	X	---	X	---	X	✓	X	✓	X	X	X	X	X	X
Intel 19.1 (64-bit)	X	X	X	X	X	X	X	---	X	---	X	---	X	---	X	---	X	✓	X	✓	X	X	X	X	X
Intel 19.2 (32-bit)	---	---	---	---	---	---	---	X	---	X	---	X	---	X	---	X	---	X	✓	X	X	X	X	X	X
Intel 19.2 (64-bit)	X	X	X	X	X	X	X	---	X	---	X	---	X	---	X	---	X	---	X	✓	X	X	X	X	X
Compaq 6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	✓	X	X	X	X	X
GNUFortran	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	✓	X	X	X
GFortran 4.2.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	✓	X	X
GFortran 4.6.2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	✓	X

✓ Compatible
 X Not compatible
 --- Not tested, might work

3.b Calling Pre-compiled Objects or Libraries – Changes as of Microsoft Visual Studio v2015 and later

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This chart is in addition to considering the compatibility of the Visual Studio version with the Intel Fortran compiler version (see Table 4).

For any pre-compiled files containing non-Fortran code (e.g. C-code), the version of Visual Studio that was used to pre-compile the file must be considered.

Specifically, due to some changes that Microsoft® made to Visual Studio 2015 libraries, for pre-compiled models containing any non-Fortran code:

- If the model was pre-compiled using VS 2013 and older, it will not be compatible with VS 2015 and newer. The model may only be built using VS 2013 and older.
- If the model was pre-compiled using VS 2015 and newer, it will not be compatible with VS 2013 and older. The model may only be built using VS 2015 and newer.

Whether the model will run with this version Model containing non-Fortran code, was pre-compiled using this	Visual Studio 2013 and Older					Visual Studio 2015 and Newer			
	2005	2008	2010	2012	2013	2015	2017	2019	2022
Visual Studio 2005									
Visual Studio 2008									
Visual Studio 2010			✓						
Visual Studio 2012									
Visual Studio 2013									
Visual Studio 2015									
Visual Studio 2017							✓		
Visual Studio 2019									
Visual Studio 2022									

If the model does not contain any non-Fortran code (e.g. C-code), and only contains Fortran code, then the above Visual Studio compatibility issue is not a consideration; any version of Visual Studio is acceptable, and the table below can be disregarded.

4. Intel Fortran Compilers and Visual Studio Compatibility

The following matrix illustrates the compatibility history of Fortran compilers and Visual Studio.

Intel Fortran Compiler	Intel® Visual Fortran						Intel® Fortran Composer XE			Intel® Parallel Studio XE Composer Edition for Fortran								Intel® oneAPI											
	v9.0	v9.1	v10.0	v10.1	v11.0	v11.1	2011	2013	2013 (SP1)	2015 v15		2016 v16		2017 v17		2018 v18		2019 v19.0		2020 v19.1 ^[19]		2021 v19.2 ^[19]		2022 v19.2 ^[19]		2023 v19.2 ^[19]			
							v12.0/v12.1	v13.0/v13.1	v14.0	32-bit	64-bit	32-bit	64-bit	32-bit	64-bit	32-bit	64-bit	32-bit	64-bit	32-bit	64-bit	32-bit	64-bit	32-bit	64-bit	32-bit	64-bit	32-bit	64-bit
2002	PSCAD✓ IVF ✓	PSCAD✓ IVF ✓	PSCAD✓ IVF X	PSCAD X IVF X	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	X	X	X	X	X	X	X	X		
2003	PSCAD✓ IVF ✓	PSCAD✓ IVF ✓	PSCAD✓ IVF ✓	PSCAD X IVF ✓	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	X	X	X	X	X	X	X	X		
2005 (v8)	PSCAD X IVF X	PSCAD X IVF ✓	PSCAD✓ IVF ✓	PSCAD✓ IVF ✓	---[2]	---	---	---	---	---	---	---	---	---	---	---	---	---	---	X	X	X	X	X	X	X	X		
2008 (v9)	PSCAD X ---	PSCAD X ---	PSCAD X ---	PSCAD✓ IVF ✓	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	X	X	X	X	X	X	X	X		
2010 (v10)	PSCAD X ---	PSCAD X ---	PSCAD X ---	---	---	---	---	PSCAD✓ IVF ✓	PSCAD✓ IVF ✓	PSCAD✓ IVF ✓	PSCAD✓ IVF ✓	PSCAD✓ IVF ✓	---	---	---	---	---	---	---	X	X	X	X	X	X	X	X		
2012 (v11) ^[7]	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	X	X	X	X	X	X	X	X	X	
2013 (v12)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	X	X	X	X	X	X	X	X	X	
2015 (v14) ^[6]	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2017 (v15) ^[6]	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2019 (v16) ^[6]	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2022 (v17) ^[6]	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

- PSCAD✓ We support this combination (per internal testing)
- PSCAD X We do not support this combination (per internal testing)
- IVF ✓ Intel Fortran officially supports this combination (per IVF Release Notes) (Note: earlier updates within an Intel version might not support this)
- IVF X Intel Fortran does not officially support this combination (per IVF Release Notes)
- Unknown

1. When compiling PSCAD projects using the Intel compiler, a compatible version of Microsoft Visual Studio must also be installed.
When compiling projects containing C-code or components using DLLs, an edition of Microsoft Visual Studio containing a C-compiler must be installed (Professional, Enterprise, or Community).
When compiling projects not containing C-code or components using DLLs, any of the above editions are suitable, as well as the free Visual Studio Premier Partner edition ("Shell Edition") that comes bundled with a licensed edition of Intel Fortran is sufficient. (see Chart 5, below, for information on the bundled versions of Microsoft Visual Studio Premier Partner Edition).
2. Although not verified, some users have successfully used this combination with PSCAD.
3. This compiler/Visual Studio combination appears to work on our test computers without any problems, but our support may be limited.
4. Not officially supported, but appears to work on test machines.
5. Microsoft Visual Studio 2015 is officially supported with Intel Fortran 15 Update 5 and newer (15.0.5.280+). However, testing reveals that VS 2015 also works with Intel 15 Update 4 (15.0.4.221).
6. Notes about Visual Studio 2015 and newer:
 - a. Visual Studio 2015 is compatible with PSCAD v4.6.1 and newer.
 - b. Visual Studio 2017 and newer is compatible with PSCAD v4.6.3 and newer.
 - c. PSCAD program files must be configured to use VS 2015 and newer as per Step 2 of this [article](#).
 - d. If installing a standalone edition of Visual Studio 2015 and newer (Professional/Enterprise), ensure the required components are selected for installation as specified in this [article](#).
7. It is not recommended to install Visual Studio 2012, as it can interfere with other Visual Studio installations even after the uninstallation of Visual Studio 2012.
8. Microsoft Visual Studio 2017 is supported with Intel Fortran 17 Update 4 and newer (17.0.4.210+).
9. The following combination worked on a customer's machine: Intel Fortran 18.0.156, Visual Studio 2015 Professional Edition, PSCAD v4.6.2.
10. DELETED
11. Specifically, this worked on a Windows 10 machine.
12. In addition to Visual Studio 2013 Professional/Enterprise Editions being officially supported with Intel 15, Visual Studio 2013 Community Edition is supported with Intel Fortran 15 Update 2 and newer (15.0.2.179+).
13. Intel supports Microsoft Visual Studio 2005 with Intel Fortran v12.0 Updates 0 to 4 (12.0.0.104 to 12.0.4.196). Support dropped as of v12.0 Update 5 (12.0.5.221).
14. In addition to Visual Studio 2015 Professional/Enterprise Editions being officially supported with Intel 17, Intel 17.0.210 worked with Visual Studio Community Edition 2015 on a customer's machine.
15. In addition to Visual Studio 2017 Professional/Enterprise Editions being officially supported with Intel 19.0, Intel 19.0 also worked with Visual Studio Community Edition 2017 on a customer's machine.
16. In addition to Visual Studio 2017 Professional/Enterprise Editions being officially supported with Intel 18, Intel 18.0.185 also worked with Visual Studio Community Edition 2017 on a customer's machine.
17. Intel 18 and newer / Visual Studio 2013: Although this combination is supported in PSCAD X4, this combination is **not** supported with PSCAD Version 5.x.
18. Visual Studio 2019 is supported with Intel 19.0 Update 4 (19.0.4.228) and newer.
Note: It is not officially documented whether the VS Community Edition is supported with IVF, however, one customer was able to run IVF 19 Update 5 and VS 2019 Community Edition.
19. Can be used with PSCAD v4.6.3 and newer (see Note 6).

5. Version of Visual Studio that comes Bundled with Intel Fortran

The following matrix lists the v

ersion of Microsoft Visual Studio Shell (or Premier Partner Edition) that comes bundled with an academic or commercial license for Intel Fortran version.

Note

Visual Studio software does not comes bundled with the free Intel Fortran trial edition. Instead, Visual Studio software must be obtained and installed separately (and it must be installed prior to the installation Intel Fortran software to ensure integration between these two software).

Intel Fortran Compiler	Intel® Visual Fortran				Intel® Fortran Composer XE				Intel® Parallel Studio XE Composer Edition for Fortran												
	9.0/ 9.1 ^[1]	10.0/ 10.1	11.0	11.1	2011 12.0	2011 12.1	2013 13.0/ 13.1	2013 (SP1) 14.0	2015		2016		2017		2018		2019 Updates 0-2		2019 Update 3 and Newer		
VisualStudio (Microsoft)									32-bit 15	64-bit 15	32-bit 16	64-bit 16	32-bit 17	64-bit 17	32-bit 18	64-bit 18	32-bit 19.0	64-bit 19.0	32-bit 19.0	64-bit 19.0	
2002																					Not applicable ^[3]
2003																					
2005 (v8)		✓	✓																		
2008 (v9)				✓	✓																
2010 (v10)						✓	✓	✓	✓	✓											
2012 (v11) ^[2]																					
2013 (v12)											✓	✓	✓	✓							
2015 (v14)															✓	✓	✓	✓			

✓ This version of Visual Studio comes bundled with the associated version of Intel Fortran.

1. No version of Visual Studio comes bundled with Intel 9.
2. This version of Visual Studio does not come bundled with any version of Intel Fortran.
3. As of Intel Fortran 2019, v19.0 Update 3 and later, the Microsoft Visual Studio Shell Edition no longer comes bundled with a licensed edition of Intel Fortran. Instead, a supported standalone edition must be installed separately, and prior to the Intel software. Supported editions include the Professional Edition, Enterprise Edition and Community Edition. Further details on software selection are available [here](#).

6. Supported MATLAB and Fortran Compiler Compatibility Chart

The following matrix represents known compatibility between MATLAB and Fortran compilers.

MATLAB Versions	GFortran 95	Compaq Visual Fortran 6	Intel Visual Fortran 9	Intel Visual Fortran v10	Intel Visual Fortran v11	Intel Fortran Composer XE 2011 v12	Intel Visual Fortran Composer XE 2013 (SP1) v13 v14		Intel Parallel Studio XE Composer Edition for Fortran												Intel oneAPI			
							2015 (32-bit) v15	2015 (64-bit) v15	2016 (32-bit) v16	2016 (64-bit) v16	2017 (32-bit) v17	2017 (64-bit) v17	2018 (32-bit) v18	2018 (64-bit) v18	2019 (32-bit) v19.0	2019 (64-bit) v19.0	2020 (32-bit) v19.1	2020 (64-bit) v19.1	2021 and newer (32-bit) v19.2	2021 and newer (64-bit) v19.2				
R2006a, 7.2 to R2007b, 7.5	X	✓	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2008a, 7.6	X	X	✓	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2008b, 7.7	X	X	✓	✓	X ^[3]	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2009a, 7.8	X	X	✓	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2009b, 7.9	X	X	X	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2010a, 7.10	X	X	X	✓	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2010b, 7.11	X	X	X	✓	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2011a, 7.12	X	X	X	X	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2011b, 7.13	X	X	X	X	✓	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2012a, 7.14	X	X	X	X	X	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2012b, 8.0	X	X	X	X	X	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2013a, 8.1	X	X	X	X	X	✓	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2013b, 8.2	X	X	X	X	X	✓	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2014a, 8.3	X	X	X	X	X	✓	✓	X	X ^[2]	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2014b, 8.4	X	X	X	X	X	✓	✓	✓	X ^[2]	X ^[2]	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2015a, 8.5	X	X	X	X	X ^[3]	✓	✓	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2015b, 8.6	X	X	X	X	X	✓	✓	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2016a, 9.0 (64-bit)	X	X	X	X	X	X	X ^[4]	X ^[4]	X	✓ ^[5]	X	✓ ^[5]	X	X	X	X	X	X	X	X	X	X	X	X
R2016b, 9.1 (64-bit)	X	X	X	X	X	X	X ^[4]	X ^[4]	X	✓ ^[5]	X	✓ ^[5]	X	X	X	X	X	X	X	X	X	X	X	X
R2017a, 9.2 (64-bit)	X	X	X	X	X	X	X ^[4]	X ^[4]	X	✓ ^[5]	X	✓ ^[5]	X	✓ ^[5]	X	X	X	X	X	X	X	X	X	X
R2017b, 9.3 (64-bit)	X	X	X	X	X	X	X ^[4]	X ^[4]	X	✓ ^[5]	X	✓ ^[5]	X	✓ ^[5]	X	X	X	X	X	X	X	X	X	X
R2018a, 9.4 (64-bit)	X	X	X	X	X	X	X ^[4]	X ^[4]	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X	X	X	X	X	X	X	X	X
R2018b, 9.5 (64-bit)	X	X	X	X	X	X	X	X	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X	X	X	X	X	X	X
R2019a, 9.6 (64-bit)	X	X	X	X	X	X	X	X	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]
R2019b, 9.7 (64-bit)	X	X	X	X	X	X	X	X	X	X	X	X	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]
R2020a, 9.8(64-bit)	X	X	X	X	X	X	X	X	X	X	X	X	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]
R2020b, 9.9 (64-bit)	X	X	X	X	X	X	X	X	X	X	X	X	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]
R2021a, 9.10 (64-bit)	X	X	X	X	X	X	X	X	X	X	X	X	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]
R2021b, 9.11 (64-bit)	X	X	X	X	X	X	X	X	X	X	X	X	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]	X	X ^[6]

Supported MATLAB and Fortran Compiler Compatibility (Source: https://www.mathworks.com/support/sysreq/previous_releases.html)

- ✓ Fortran compiler is officially supported by MATLAB
- X Fortran compiler is not officially supported by MATLAB^[1]

1. Although not supported, these combinations might work.
2. Internal testing has shown that these combinations work.
3. This combination was successfully run by a customer.



4. Although this combination is supported by Mathworks, it is not supported with PSCAD due to incompatible editions (Matlab is 64-bit and Intel is 32-bit).
5. For PSCAD v4.6.0, contact support@mhi.ca for special configuration instructions for this setup (not required as of v4.6.1).
6. Although this combination is supported by Mathworks, it is not supported with PSCAD v4.6.
7. DELETED

7. PSCAD/MATLAB/Fortran Compiler Compatibility Chart

The following matrix represents compatibility of combining PSCAD, MATLAB, and FORTRAN compilers.

MATLAB Versions ^[1]	PSCAD v4.2.1	PSCAD X4 v4.3.0	PSCAD X4 v4.3.1	PSCAD X4 v4.4.0	PSCAD X4 v4.4.1	PSCAD X4 v4.5.0	PSCAD X4 v4.5.1	PSCAD X4 v4.5.2	PSCAD X4 v4.5.3	PSCAD X4 v4.5.4	PSCAD X4 v4.5.5	PSCAD X4 v4.6.0	PSCAD X4 v4.6.1	PSCAD X4 v4.6.2	PSCAD X4 v4.6.3
R2006a, 7.2	✓	---	---	---	---	---	---	---	---	---	---	---	---	---	---
R2006b, 7.3	✓	---	---	---	---	---	---	---	---	---	---	---	---	---	---
R2007a, 7.4	✓	---	---	---	---	---	---	---	---	---	---	---	---	---	---
R2007b, 7.5	✓	---	---	---	---	---	---	---	---	---	---	---	---	---	---
R2008a, 7.6	✓	---	---	---	---	---	---	---	---	---	---	---	---	---	---
R2008b, 7.7	✓	---	---	---	---	---	---	---	---	IVF 11.1 ^[2]	---	---	---	---	---
R2009a, 7.8	X	---	---	---	---	---	---	---	---	---	---	---	---	---	---
R2009b, 7.9	X	---	---	---	---	---	---	---	---	---	---	---	---	---	---
R2010a, 7.10	X	IVF 11.1	---	---	---	---	---	---	---	---	---	---	---	---	---
R2010b, 7.11	X	---	IVF 12.0	✓	---	---	---	---	---	---	---	---	---	---	---
R2011a, 7.12	X	---	---	IVF 12.0	---	---	---	---	---	---	---	---	---	---	---
R2011b, 7.13	X	---	---	---	IVF 12.1	---	---	---	---	---	---	---	---	---	---
R2012a, 7.14	X	---	---	---	---	IVF 13.0	---	---	---	---	---	---	---	---	---
R2012b, 8.0	X	---	---	---	---	---	---	IVF 13.0	IVF 13.0	IVF 13.0	---	---	---	---	---
R2013a, 8.1	X	---	---	---	---	IVF 13.1	IVF 13.1	IVF 13.1	---	---	---	---	---	---	---
R2013b, 8.2	X	---	---	---	---	IVF 14.0	IVF 14.0	IVF 14.0	IVF 14.0	---	---	---	---	---	---
R2014a, 8.3	X	---	---	---	---	---	---	---	---	IVF 14.0	---	IVF 14.0	---	---	---
R2014b, 8.4	X	---	---	---	---	---	---	---	---	IVF 15	IVF 15	IVF 15	---	---	---
R2015a, 8.5	X	---	---	---	---	---	---	---	---	IVF 11.0	---	---	---	---	---
R2015b, 8.6	X	---	---	---	---	---	---	---	---	---	---	---	---	---	---
R2016a, 9.0 ^[5]	X	X	X	X	X	X	X	X	X	X	X	IVF 15/16 ^[3] VS 2010 IVF 17 (64-bit) ^[3] VS 2013	IVF 17 ^[2] VS 2013	---	---
R2016b, 9.1	X	X	X	X	X	X	X	X	X	X	X	---	IVF 16 VS2010	---	---
R2017a (9.2)	X	X	X	X	X	X	X	X	X	X	X	---	IVF 15 VS 2010	IVF 15 VS 2013	---
R2017b (9.3)	X	X	X	X	X	X	X	X	X	X	X	---	---	---	IVF 19.0 VS 2015 ^[9]
R2018a (9.4) ^[8]	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2018b (9.5) ^[8]	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2019a (9.6) ^[8]	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2019b (9.7) ^[8]	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2020a (9.8)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2020b (9.9)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2021a (9.10)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2021b (9.11)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Production Server	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

PSCAD/MATLAB/Fortran Compiler Compatibility

- IVF # This combination is compatible; the Intel Fortran compiler (IVF) version is identified
- VS# This is the Microsoft® Visual Studio version that was used.
- ✓ This combination is compatible; the Intel Fortran compiler version is not identified
- X This combination is not compatible
-

1. PSCAD v4.5.5 and earlier is compatible with some 32-bit (not 64-bit) versions of Matlab. PSCAD v4.6 is compatible with some 32- and 64-bit versions.
2. This combination successfully run by a customer.
3. Contact support@mhi.ca to request special “matlab_versions.xml” replacement file (already fixed in PSCAD v4.6.1).
4. This combination will likely work.
5. As of R2016A and later, Matlab is only available as a 64-bit application.
6. DELETED
7. A customer reported that he was unable to run this combination with Matlab R2015a 64-bit.
8. Preliminary testing does not support PSCAD/Matlab co-simulation using MATLAB R2018 nor R2019 at this time.
9. This combination is expected to run.

8. Supported Licensing

The following matrix lists the compatibility history of PSCAD versions and corresponding supported licensing.

PSCAD Released Versions	Lock-based Licensing				Certificate Licensing
	License Manager Released Versions	Serial port locks	Parallel port locks	USB locks	
4.0.0 ^[1]	1.16	✓	X	✓	X
4.0.X – 4.2.0 ^[1]	1.17-1.25	✓	✓	✓	X
4.2.1 (2006) ^[1]	1.26	✓	✓	✓	X
4.2.1 (2007) ^[2]	1.27	✓	✓	✓	X
X4 (4.3.X)	1.28	X	✓	✓	X
X4 (4.4.0)	1.29	X	✓	✓	X
X4 (4.4.1)	1.30	X	X	✓	X
X4 (4.5.0)	1.31	X	X	✓	X
X4 (4.5.1)	1.32	X	X	✓	X
X4 (4.5.2)	1.33	X	X	✓	X
X4 (4.5.3)	1.34	X	X	✓	✓ ^[3]
X4 (v4.5.4)	1.35	X	X	✓	✓
X4 (v4.5.5)	1.37	X	X	✓	✓
X4 (4.6.0)	1.36/1.41	X	X	✓	✓
X4 (4.6.1)	1.42	X	X	✓	✓
X4 (4.6.2)	1.43	X	X	✓	✓
X4 (4.6.3)	1.44	X	X	✓	✓
X4 (Free)	n/a	X	X	X	✓

- ✓ Security lock is supported
- X Security lock is not supported

1. Support for this version is no longer available.
2. Support for this version with an Educational Edition license is no longer available.
3. Certificate Licensing is only supported with the Professional Edition for this PSCAD version; not supported with the Educational Edition.

DOCUMENT TRACKING

Rev.	Description	Date
0	made corrections to PSCAD 4.2.1 and 4.3.0	2011.Jun.06
1	added supported security locks	2011.Aug.15
2	added LM version for 4.5.0, Compaq no longer supported by Beta	2012.Apr.20
3	updated to PSCAD v4.5.1, added Free and Beta Editions, added new chart: PSCAD/MATLAB/Fortran Compiler Compatibility	2013.Apr.16
4	updated to PSCAD v4.5.2 release	2013.Sep.10
5	updated to PSCAD v4.5.3 release, updated to Matlab 13.b (8.2), improved compatibility information - Intel® Fortran compiler and Microsoft Visual Studio, minor corrections	2013.Dec.03
6	incorporated support for Intel 13.0, minor corrections and formatting improvements	2013.Dec.06
7	added compatibility information for VS 2008 and VS 2012	2014.Feb.27
8	updated to: PSCAD v4.5.4 release; release candidates v4.5.5 RC / v4.6.0 RC; Matlab 8.3 and 8.4 releases; Intel 14.1 and Intel 15 releases. added new GFortran 4.6.2; new Chart 8	2015.Feb.06
9	updated Chart 1 per Windows 8.1 testing	2015.Feb.13
10	correction to Chart 6, Matlab 2012b row	2015.Feb.14
11	correction to Chart 2, Intel 15 64-bit column	2015.Mar.25
12	incorporated support for Intel 14 and Intel 15 (32-bits)	2015.Mar.31
13	incorporated support for MS VS2010 in Chart 4; updated to: Matlab R2015a (8.5)	2015.Apr.20
14	incorporated further support for Intel 14 and 15; incorporated support for VS 2010 for IVF 13	2015.Apr.20
15	incorporated v4.6.0 release, and new v4.6.1 RC; update to Matlab R2015a (8.5)	2015.Jun.18
16	added Note 6 to Chart 2.	2015.Jul.08

Rev.	Description	Date
17	Update to Chart 4 (added VS 2015, added VS versions)	2015.Jul.28
18	Includes Intel 16 and VS 2013 and VS 2015	2015.Nov.02
19	Update to Matlab 8.6 release; Update to Matlab 7.7; Corrections to Charts 7 and 8	2015.Nov.18
20	Update to PSCAD v4.5.5 release; Update to Free Edition at v4.6	2015.Nov.30
21	Update to Chart 1	2015.Dec.07
22	Added 32/64-bit operating system comparisons to Chart 1; Added Alpha Edition to Charts 1, 7 and 8; Removed compatibility with 32-bit operating system for PSCAD Beta; Added reference to Window 10 to Chart 1	2016.Jan.08
23	Added new Chart 3, and renumbered all subsequent charts; Updated Chart 2 Note #4	2016.Jan.15
24	Updates to Chart#4	2016.Feb.22
25	Correction to Chart#4, IVF 15 and VS 2015 Added new Chart 5, moved related information from Chart 4, renumbered all subsequent charts	2016.Mar.11
26	Update to Chart#1: v4.1.1 on Windows 7 (64-bit); Update to Chart#4: compatibility for Visual Studio 2015; Update to Chart#5: update to Visual Studio bundled with Intel Fortran 11.1; Update to Chart#6: added Intel Fortran 16 and Matlab R2016a; Update to Chart#7: added Matlab R2016a; added support for 64-bit versions of Matlab at PSCAD v4.6	2016.May.31
27	Update to Chart#2: added PSCAD Alpha; Minor improvements throughout	2016.Jun.01
28	Update to PSCAD v4.6.1 release Update to Chart#4: added Note [2] to 2 combinations; Updated PSCAD Beta and Alpha to support 64-bit only; Minor corrections throughout	2016.Sep.12

Rev.	Description	Date
29	Incorporated Intel Fortran compiler v17 release (2017) Incorporated Matlab R2016b (9.1) release	2016.Oct.14
30	Updates to v4.6.1 release; Update to PSCAD v4.6.2 Release Candidate; Update to new Visual Studio 2015 fix at PSCAD v4.6.1	2016.Dec.30
31	Updates to Charts 1 and 7; Added product "Matlab Production Server"	2017.Jan.27
32	Updates to Charts 1 and 7	2017.Feb.23
33	Updates to Charts 1, 4 and 9	2017.Mar.06
34	Update to Matlab R2017a (9.2); Update to Chart 5; Minor corrections	2017.Jun.12
35	Update to v4.6.2 release	2017.Jun.13
36	New Chart #1.b; Updates to Chart #1.a	2017.Jun.30
37	Updates to Charts 4 and 5 re new release Visual Studio 2017	2017.Jul.27
38	Corrections to Chart 4	2017.Jul.31
39	New Chart 3.b; Renaming and updates to Chart 3.a	2017.Aug.30
40	Update to Chart 6	2017.Sep.01
41	Update to Intel Fortran 18 compiler (Charts 2, 3.a, 4 and 5); Update to Matlab R2017a (9.2) in Chart 6; Added Matlab R2017b (9.3) to Charts 6 and 7; Added Chart 1.c	2017.Oct.03
42	Update to Chart 4	2017.Dec.29

Rev.	Description	Date
43	Added new Chart 1.d; Update to Matlab R2018a (9.4) in Charts 6 and 7; Update to Intel Fortran 18 in Chart 6. Update for New Branding Guidelines	2018.May.15
44	Update to PSCAD v4.6.3 release and License Manager 1.44 release	2018.May.31
45	MHI rebranding Update to Section 1.d	2018.Jul.20
46	Update to Charts 1.b and 1.c Renumbered Chart 1.d to Chart 1.e. Added new Chart 1.d	2018.Aug.20
47	Update to Intel Fortran 19 compiler, in Charts 1.e, 2, 3.a, 4, 5, 6, 7; Correction to Charts 4 and 5; Update to MATLAB R2018b to Chart 6	2018.Nov.25
48	Update to Chart 4 (Intel Fortran 18 compiler and VS 2017 CE)	2018.Dec.13
49	Update to Charts 2 and 4	2019.Mar.27
50	Update to Chart 4 (Microsoft Visual Studio 2019) and Chart 1.d Corrections to Chart 4 Chart 5 (Microsoft VS Shell Edition no longer comes bundled with Intel Fortran (IVF 19 Update 3+))	2019.Jun.04
51	Updates per Visual Studio 2019: Charts 1.d, 4, 5; Updates per Intel Fortran 19: Charts 3.a, 4, 5; Updates per Matlab R2019a: Charts 6, 7; Updates per upcoming PSCAD v5.0 Release: Chart 3.b New PSCAD/Visual Studio chart: Chart 2.b	2019.Jul.23
52	Corrections to table formatting: Chart 3.a	2019.Jul.24
53	Corrections to Charts 2.a, 2.b, 3.b	2019.Jul.25
54	Updates to Chart 4	2019.Aug.14
55	Updates to Chart 4	2019.Dec.19
56	Updates per IVF 20 and R2019b releases; Renumbered Chart 2.b to 2.c; Added new Chart 2.b; Removed reference to PSCAD V5 Beta / Alpha Editions (moved to new V5 Compatibilities Charts);	2020.Feb.21

	Update to Chart 8	
57	Update to Charts 2.b and 2.c	2020.Mar.11
58	Incorporating recent releases of: Windows Operating System, Matlab and Intel, License Manager, GFortran	2021.Dec.15
59	Correction to compatibilities of PSCAD with Visual Studio 2017+ and Intel compiler (Charts 2.a, 2.c, and 4)	2021.Dec.22
60	Added Chart 1.7, added Visual Studio 2022 to Chart 2.c Added Visual Studio 2022 and Intel 19.2 (2022) to Chart 4 General improvements	2022.Apr.28
61	Chart 1.a – Updated the <u>indows Server 2008 R2 SP1</u> column; Chart 1.b – Added compatibility for LM v1.46 and v1.47; Chart 1.d – Updated versions of Visual Studio 2022; Chart 2.a – Added compatibility for Intel 19.2 (2023); Chart 3.b - revised content and added table; Chart 4 - Added compatibility for Intel 19.2 (2023)	2023.