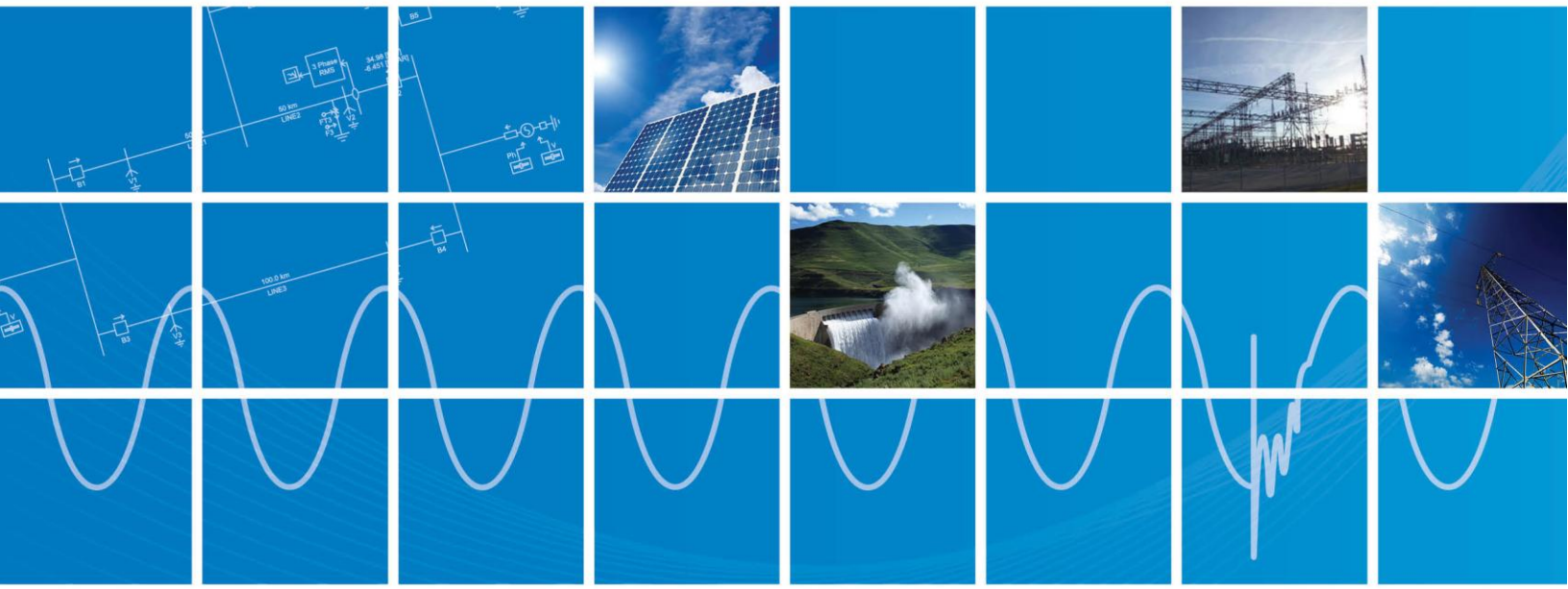
Resolving Issues with the Initializer Software

October 27, 2026
Revision 4



Powered by Manitoba Hydro International Ltd.
211 Commerce Drive
Winnipeg, Manitoba
R3P 1A3 Canada
mhi.ca

Contents

1. INTRODUCTION 1

1.1 Overview 1

2. ISSUES WHEN COMPILING A PSS/E PROJECT 2

2.1 Receiving a "Communication failure. Unable to connect and communicate with PSS/E" Error Message 2
2.2 Receiving a "Communication failure. Unable to connect and communicate with PowerFlow" Error Message 3
2.3 Receiving a "The application was unable to start correctly (0xc000007b)" Error Message 6
2.4 Receiving the Error "Unable to find PSS/E Executable" 7
2.5 Receiving the Error "An unexpected error occurred while performing this operation. Index was outside the bounds of the array" 8
2.6 An Error Related to Missing Required Files occurs while Launching the PSCAD Initializer 9
2.7 Receiving Error "Unable to connect and communicate with PowerFlow" 10

APPENDIX A USING THE FORTRAN MEDIC UTILITY 12

A.1 Overview 12
A.2 Running the Fortran Medic Utility 12
A.3 Generating the Log File 12
A.4 Fixing Issues using the Utility 12
A.5 Errors Listed in the Utility 13

1. Introduction

1.1 Overview

This manual presents known issues and solutions related to the initializer software. It is intended to be a continuously developing diagnostic tool as this software evolves.

The initializer is a tool for converting projects created in PSS/E (Power System Simulator for Engineering) into PSCAD (Power System Computer Aided Design).

2. Issues when Compiling a PSS/E Project

2.1 Receiving a "Communication failure. Unable to connect and communicate with PSS/E" Error Message

Problem

When trying to compile a PSS/E project in the Initializer, messages similar to the following display in the "Output" pane:

```
Finished resolving Power-Flow structure
Begin Writing .raw file…
End Writing .raw file
Launching PSS/E
Error: Communication failure. Unable to connect and communicate with PSS/E
```

Versions

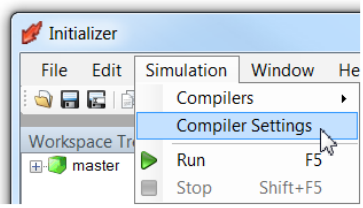
These messages were seen when using PSS/E v32.2.1 and v33.5.2.

Cause

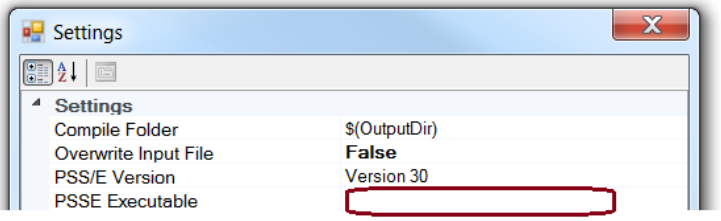
An incorrect path or filename for the PSS/E Executable was entered into the Initializer.

Solution

- Display the Settings (from the "Simulation" menu, select "Compiler Settings").

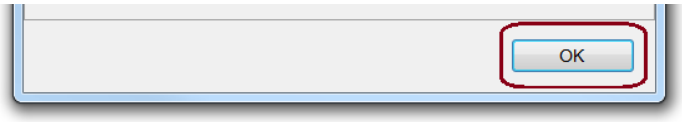


- Check that the correct path and filename were enterd in the "PSSE Executable" field:



Note
Ensure that the filename is in the format of "pssecmd##.exe".

- Click the "OK" button to apply the change and close the dialog box.



2.2 Receiving a "Communication failure. Unable to connect and communicate with PowerFlow" Error Message

Problem

When trying to run the Initializer, a message similar to the following displays:

Begin Writing .raw file...
End Writing .raw file
Launching PowerFlow
Error: Communication failure. Unable to connect and communicate with PowerFlow
Compile failed with * Errors and * Warnings

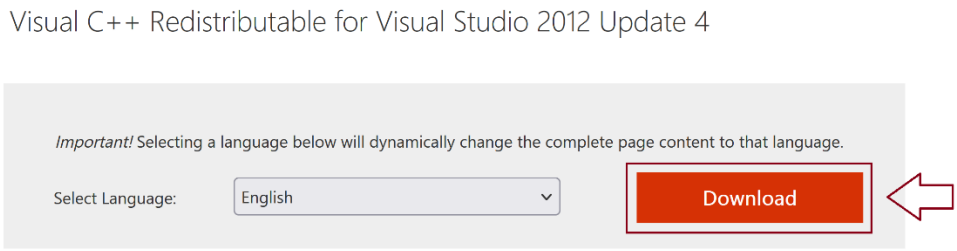
Cause 1

Missing pre-requisite software: Visual C++ Redistributable for Visual Studio 2012 Update 4 (x86 edition)

Solution 1

Install the above pre-requisite software:

- Display this link in a web browser:
  https://www.microsoft.com/en-ca/download/details.aspx?id=30679
- Click "Download":

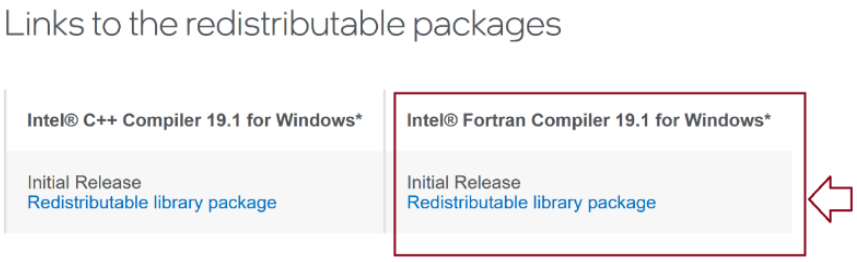


Cause 2

Missing one or both Intel Fortran Compiler 19.1 Redistributable libraries.

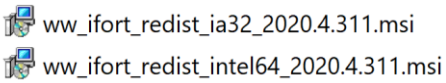
Solution 2

- Display this link in a web browser:
  https://www.intel.com/content/www/us/en/developer/articles/tool/redistributable-libraries-for-intel-c-and-fortran-2020-compilers-for-windows.html
- On the above page, download the following package:



Continued…

- Extract (unzip) the downloaded file, and install both unipped files:



Cause 3

This issue occurs in Initializer 1.0.0 to 1.0.1 Update 4 for unknown reasons.

Solution 3

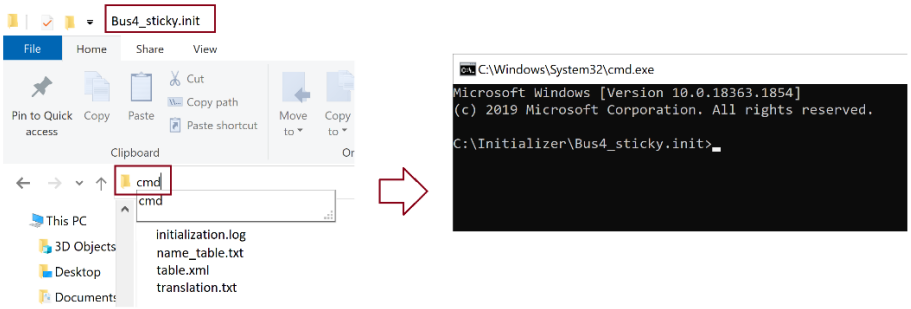
- Download and install PSCAD Initializer 1.0.1 Update 5 (or newer).
- Now when running the PSCAD Initializer to initialize a PSCAD case, this should work, with messaging similar to the following:

```
Finished resolving Power-Flow structure
Begin Writing .raw file…
End Writing .raw file
Launching PowerFlow
PowerFlow Message > !======================
PowerFlow Message > ! PFlite (V0.1.13) for PSCAD
```

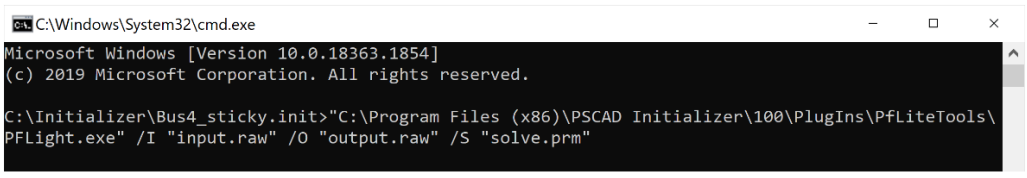
Further Diagnostics

If the “Communicatin Error…” still persists even though the above solutions have all been applied, please feel free to send in some diagnostics to the MHI support team as follows:

- Try launching PFLight manually as follows:
    - Launch a Windows Command Prompt in the *.init folder generated by the initializer.
      (open a Windows browser e *.init folder, then enter “cmd” in the title bar, as shown in the following example)



- Copy the following line and paste it in at the command line, as shown in the image below:
  "C:\Program Files (x86)\PSCAD Initializer\100\PlugIns\PfLiteTools\PFLight.exe" /I “input.raw” /O “output.raw” /S “solve.prm”



- Press the <Enter> button on your keyboard. Save a screenshot of the results, and send as per the next step.

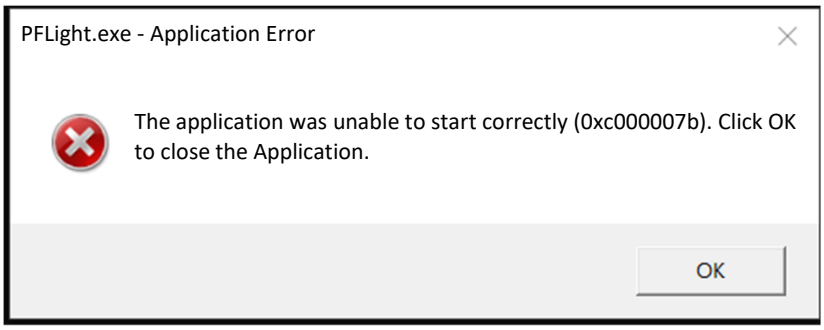
Continued…

- To obtain assistance from the support@mhi.ca, please send in the following:
    - Provide details of the issue you are seeing, steps taken, and screenshots of any errors.
    - A screenshot showing the output messages from the Command Prompt (see **Further Diagnostics**, above).
    - Specify your Windows setup for your Initializer and project files – are these installed and being launched from a standard Windows 10 machine, or is this a different setup?
    - Is this being launched from a virtual machine?
    - Is this being launched from an emulator?
    - Is this being launched from Windows Server?
    - Your Initializer license number.

2.3 Receiving a "The application was unable to start correctly (0xc000007b)" Error Message

Problem

When trying to run the Initializer, a message similar to the following displays:



Cause

PFLight requires one of the following prerequisites:

- Intel Fortran compiler or
- Redistributable Libraries for Intel® C++ and Fortran 2020 Compilers for Windows

Solution

Install one of the above software.

2.4 Receiving the Error "Unable to find PSS/E Executable"

Problem

The following error displays:

Error: Unable to find PSS/E Executable at location 'C:\Program Files (x86)\PSCAD Initializer\101\Plugins\PfLiteTools\PFLight.exe'

Cause

PfLight.exe was not included in Initializer v1.0.1 Release (Initial).

Solution

PfLight.exe was restored into v1.0.1 Update 1. However, to take advantage of some further fixes, it is recommended to skip to v1.0.1 Update 3 minimum.

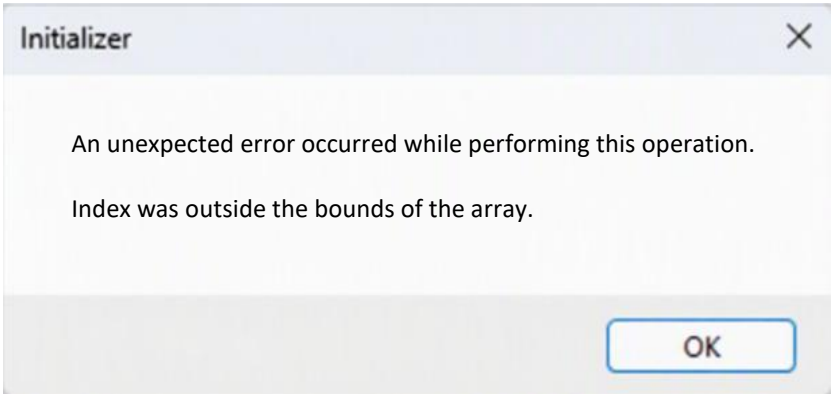
Refer to this article for information on updates.

Contact sales@pscad.com if you do not already have the installer.

2.5 Receiving the Error "An unexpected error occurred while performing this operation. Index was outside the bounds of the array"

Problem

An error similar to the following displays:



Cause

A PSCAD project using the *Jumbo* canvas size was loaded into the Initializer. The PSCAD Initializer v1.0.1 Update 5 and older does not support this canvas size.

Solution 1

Upgrade your Initializer to v1.0.2 or newer (not available at the time of publication).

Solution 2

Reduce the size of the canvas .

2.6 An Error Related to Missing Required Files occurs while Launching the PSCAD Initializer

Problem

When launching the PSCAD Initializer, an error displays, referring to missing required files.

Cause

Required Intel Fortran runtime libraries are missing.

This may be checked by running the Fortran Medic Utility as per Appendix A.2, and viewing the entry as shown in Appendix A.5, Item 2.

Solution

Update your Initializer software to version 1.0.1 Update 5 or newer, which will include the required libraries.

The necessary runtime libraries are conveniently installed alongside the Initializer installer starting at this version.

2.7 Receiving Error "Unable to connect and communicate with PowerFlow"

Problem

When trying to run a project in the Initializer, the following error message displays:

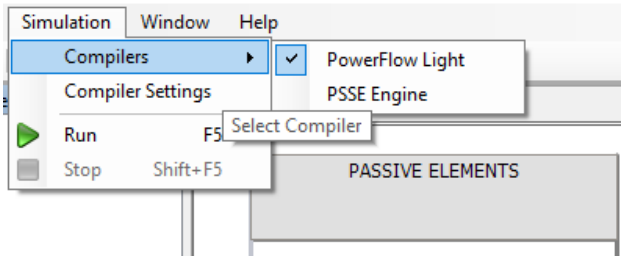
> Error: Communication failure. Unable to connect and communicate with PowerFlow

Cause

The PowerFlow engine program failed to start.

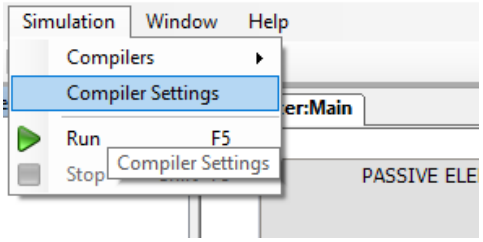
Solution 1

Ensure that the correct engine, PowerFlow Light, is selected in the settings:



Solution 2

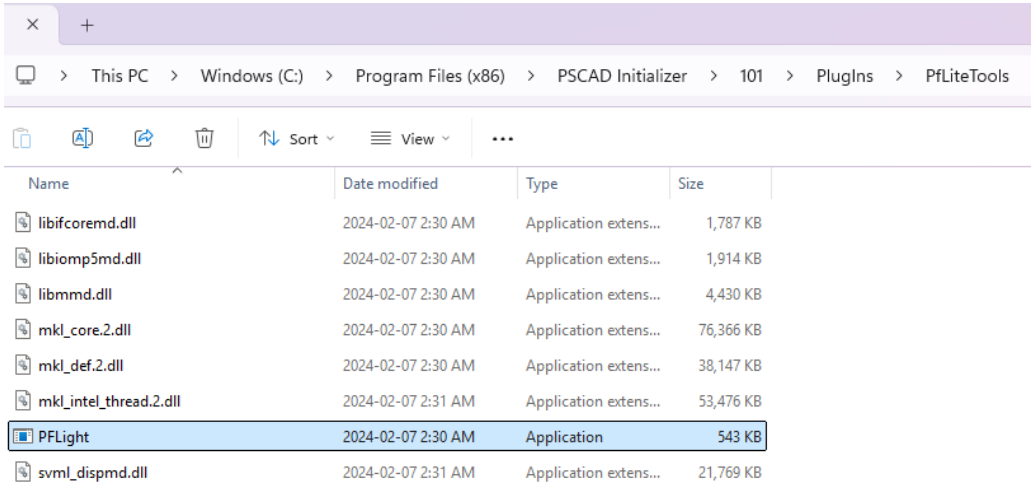
Ensure the path to the engine is valid:



Solution 3

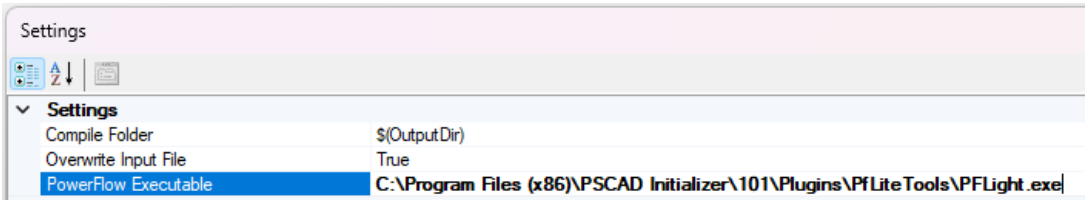
Ensure the path to the PowerFlow executable file (PFLight.exe) is correctly listed in the Settings.

- Locate the path: *C:\Program Files (x86)\PSCAD Initializer\<version>\PlugIns\PfLiteTools*



Continued…

- Ensure the path is correct within the Settings:



Solution 4

Ensure all required Redistributables are installed:

- Refer to this article for information on required Redistributables:
  https://www.pscad.com/knowledge-base/article/666

- Refer to the following article for information on how to obtain and install required Redistributables:
  https://www.pscad.com/knowledge-base/article/754

Solution 5

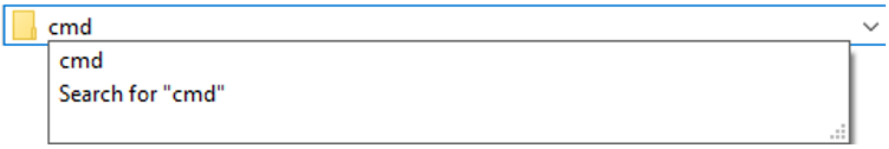
Ensure you have the most recent Initializer version:

- Refer to this article to determine the latest version:
  https://www.pscad.com/knowledge-base/article/875

- Refer to this article to determine your own version:
  https://www.pscad.com/knowledge-base/article/853

Solution 6

- Open a Windows Command Prompt to the ".init" folder (browse to the ".init" folder in the File Explorer, type “cmd” into the top bar, and select the <Enter> key:



- When the Command Prompt displays, launch the command line with the following settings:

  {Path-To-PowerFlow.exe} \I “{Input-File-Name}” \O “{Output-File-Name}” \S “{PMR-File-Name}”

  For example:

  C:\Program Files (x86)\PSCAD Initializer\101\Plugins\PfLiteTools\PfIght.exe \I “input.raw” \O “output.raw” \S “Solve.prm”

- This will manually launch the program to solve the raw file. This may provide additional information as to what is going wrong when launching the file.

Appendix A Using the Fortran Medic Utility

A.1 Overview

The Fortran Medic utility is our standard mechanism for gathering and displaying information about a user's machine that is relevant to installing, launching, licensing, and running PSCAD (see Appendix A.2).

This utility does not perform any reporting back to us, other than allowing a user to generate a text log file and forward it to our Support Desk to assist with troubleshooting (see Appendix A.3).

This utility does not modify anything on a machine without a user's explicit permission, which is obtained by clicking on the green or red arrows and confirming the recommended action (see Appendix A.4).

Many of the issues that may be detected by the utility are related to software installation and compatiblity, integration of Intel Fortran compilers with Microsoft Visual Studio, and protection software preventing PSCAD usage (see Appendix A.5 for some of the more common issues).

Appendix A.6 lists some of the functions in the Fortran Medic Utility.

A.2 Running the Fortran Medic Utility

The utility may be run as follows:

a. Download the latest "FortranMedic" from our website:

   http://updater.pscad.com/utilities/FortranMedic.zip

b. Unzip the downloaded file, save it to a local drive, and run the unzipped "FortranMedic.exe" file.

   To run the Medic without Windows Administrator privileges, select "No" when prompted by the Windows User Account Control. (The Medic will not be able to be used to make any changes to your machine)

   To run the Medic with Windows Administrator privileges, select "Yes" when prompted by the Windows User Account Control. (The Medic will be able to be used to make changes to your machine)

c. When the Medic opens, click on the "Actions" menu and select "Start". The utility will retrieve information about your computer.

A.3 Generating the Log File

The utility log file may be generated as follows:

a. Run the utility as per Appendix A.2.

b. Click on the "Actions" menu and select "Save Messages". The FortranMedic message window will display the location of the saved messages text file on your computer.

c. Send this log file to support@mhi.ca, along with any other relevant details.

A.4 Fixing Issues using the Utility

The utility may be used to fix issues as follows:

a. Run the utility as per Appendix A.2.

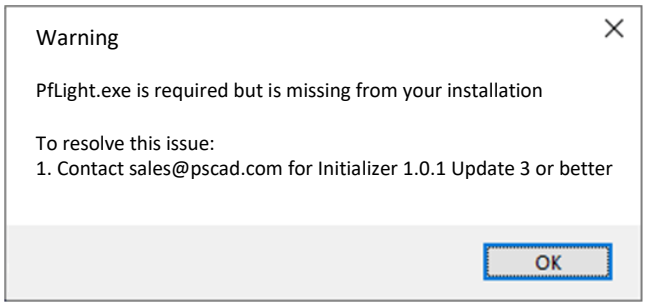
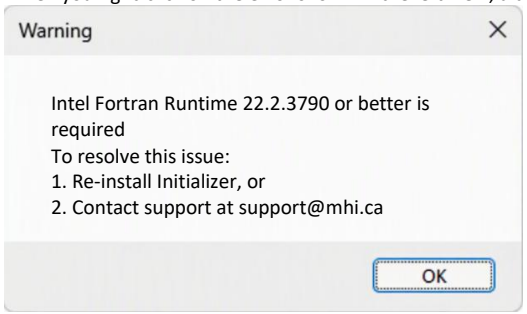
b. Right-click on any red arrow to display a menu to fix it.

c. Right-click on any green arrow to optionally perform additional actions only if instructed by support@mhi.ca.

Specific errors within this utility are listed in Appendix A.5.

A.5 Errors Listed in the Utility

The following table lists common errors within the utility along with solutions:

	Error	Solution
1.	PSCAD Initializer [version] [Build Date: *] … Conflicts PfLight.exe is missing	Right-clicking on the error in the left view displays the warning dialog below. The PSCAD Initializer v1.0.1 Release did not contain PfLight. PfLIght was added back in at v1.0.1 Update 3. 
2.	**Intel Fortran runtimes** None detected	Intel Fortran Runtimes are required by the PSCAD Initializer (and other products). As shown, in the left pane, the Fortran Medic Utility has detected that Intel Fortran Runtimes are missing. Refer to Section 2.6 for further information on missing Intel Fortran runtimes.
3.	PSCAD Initializer [version] [Build Date: *] … Conflicts Intel Fortran Runtime 22.2.3790 or better is required	When you right-click on the error shown in the left view, a dialog similar to the following displays:  The Utility has detected that Intel Fortran Runtime, required for running the PSCAD Initializer, is missing. The issue may be resolved as specified in the above listed dialog. Select “OK” to close the warning.

4.	**Intel Fortran runtimes** Intel® Fortran Compiler runtime <some version>	Intel Fortran Runtimes are required by the PSCAD Initializer (and other products). If the non-ascii character "®" is detected in the Registry for this product, as shown in the left pane, then this issue will be detected in the Fortran Medic Utility as shown in the left pane. This non-ascii text has not been known to cause issues when using the PSCAD Initializer (although it can cause issues within PSCAD). However, the ability to replace the non-ascii text "®" with ascii text,"(R)" resides in the Utility, simply right-click on the error, and select the option to replace the text. Note – The non-ascii character was introduced by Intel as of Version 19.2 (oneAPI). Note - Refer to Section 7.103 of the solutions manual posted to this article regarding this issue with PSCAD.

DOCUMENT TRACKING

Rev.	Description	Date
0	Initial	25/Jan/2016
1	Changed Title	17/Feb/2017
2	Update to New Brand Guidelines	07/May/2018
3	New Sections 2.2 and 2.3	09/Oct/2021
4	New Sections 2.4, 2.5, 2.6, 2.7; Update to Section 2.2; Added Appendix A.1, A.2, A.3, A.4, A.5; Added Items 1, 2, 3, 4 to Appendix A.5	27/Oct/2026

Copyright ©2026 Manitoba Hydro International. All Rights Reserved.