

PCASE Installation and Configuration Guide

January 2025

1. The PCASE installation file is available at the link below.
<https://transportation.erdcdren.mil/pcase/software.aspx>.
2. Download, then open the zip File and extract the PCASE 7.0.x Setup.exe file. As a cybersecurity measure, the administrator has the option of running a hash algorithm on the setup.exe before beginning the install. The zip file contains a .txt file with the algorithm, SHA256 and the hash code. This information is also posted on the download site above as a check.



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Software

PCASE software is considered public information and is therefore free to all users. PCASE 7.0 has undergone significant functional and cybersecurity testing. It is approved for use on USACE IT systems after going through the Risk Management Framework Assessment process. As with any new software release, we anticipate some minor bugs. If you encounter any issues please contact the PCASE Program Manager, Matthew Bennett at Matthew.D.Bennett@usace.army.mil, 402-326-5646.

PCASE software implements Department of Defense Unified Facility Criteria for the design and evaluation of airfields and roadways including:

- Rigid, Flexible, Overlay, Aggregate, or Mat surfaces
- Subsurface Drainage
- Seasonal Variations
- Evaluation Equipment Support Software
 - Dynamic Cone Penetrometer (DCP)
 - Non-Destructive Testing (NDT) using Falling Weight Deflectometer (FWD) data
- Evaluation Analysis Software using empirical or layered elastic methodology
 - Back-calculate Modulus values based on testing data
 - Calculate allowable loads and passes based on mission traffic
 - Calculate Pavement Classification Numbers (PCN) based on mission traffic
 - Calculate overlays required to support mission traffic

PCASE 7.0.7 replaces version 7.0.6

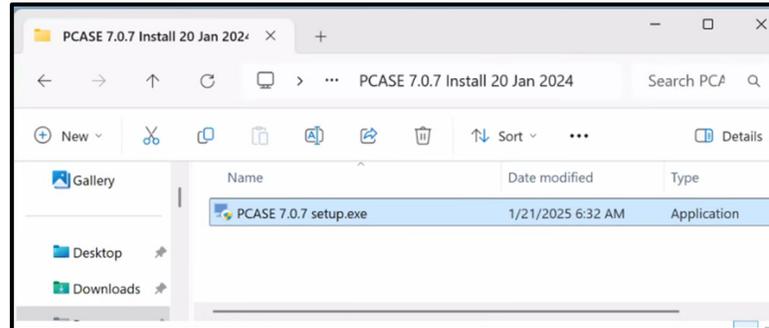
The install file is hashed using the SHA256 algorithm.

Hash: A2DC0B3D84F2583875720D82C7314FBA4F06F88C56A80E7D135E1D054021F9F1

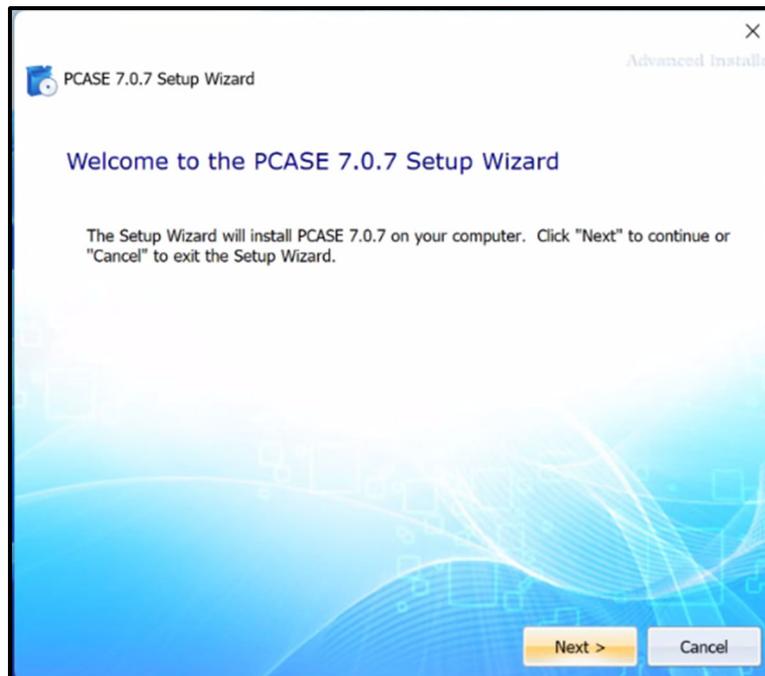
Training: All PCASE training is conducted with the latest PCASE version. See the [training page](#) for dates.

Posted 21 Jan 2025 - [Download PCASE 7.0.7](#) (.zip file)
[PCASE Installation and Configuration Guide](#) - June 2024
[PCASE Version Changes 7.0.6-7.0.7](#) (.pdf)
[PCASE 7.0.7 - User Guide](#) (.pdf)

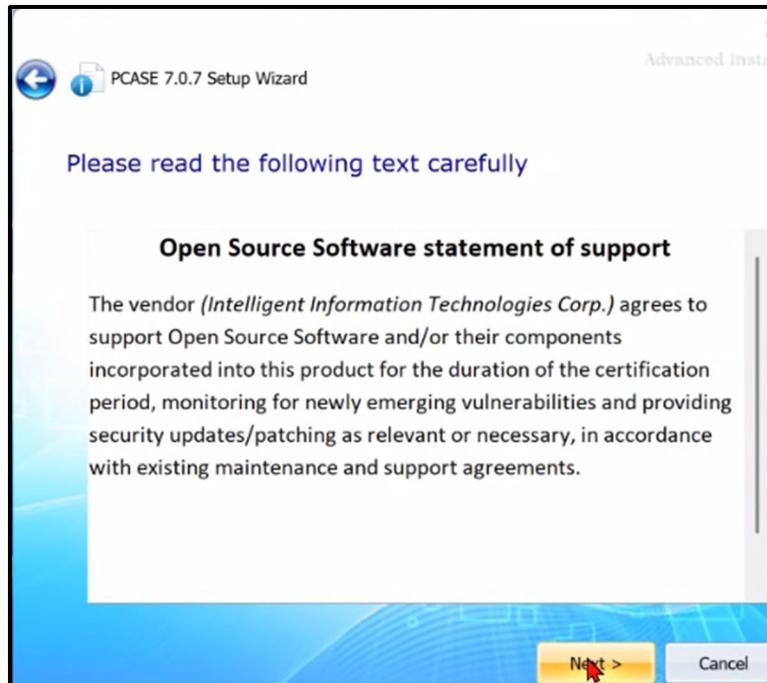
3. Installation requires administrator privileges on US Government users. In this case, it is assumed PCASE is being installed on a Non-Secure Internet Protocol Router (NIPR) network system.
4. Navigate to the PCASE 7.0.x install file and double click or right click and select run as administrator. For non-DoD systems you will follow the same procedure if your company requires administrator privileges to install an application. For other users, just double click on the file.



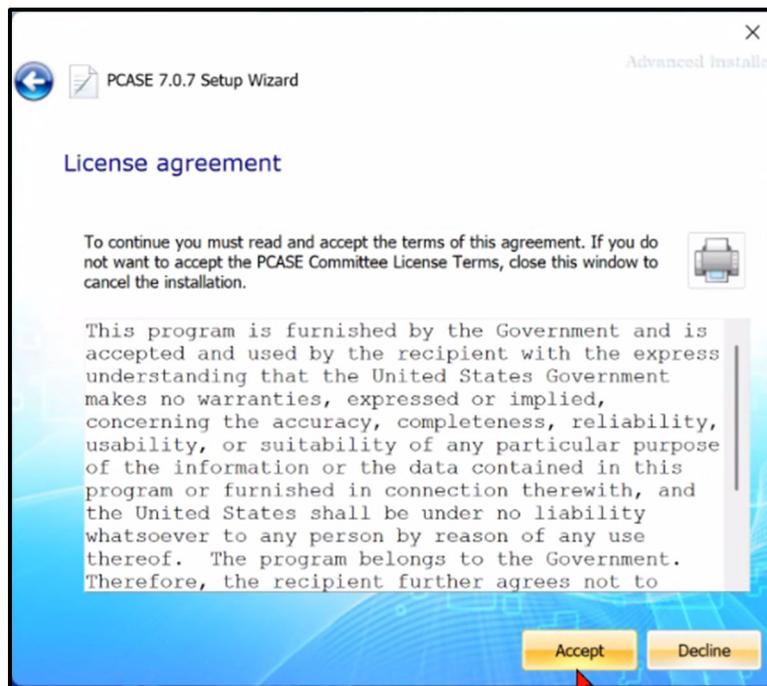
5. The PCASE 7.0.x Setup Wizard form opens. Select **Next**



6. Open-Source Software Statement form opens. This form states that the US Army Corps of Engineers contractor maintains any open source code used in the PCASE application. Select **Next**

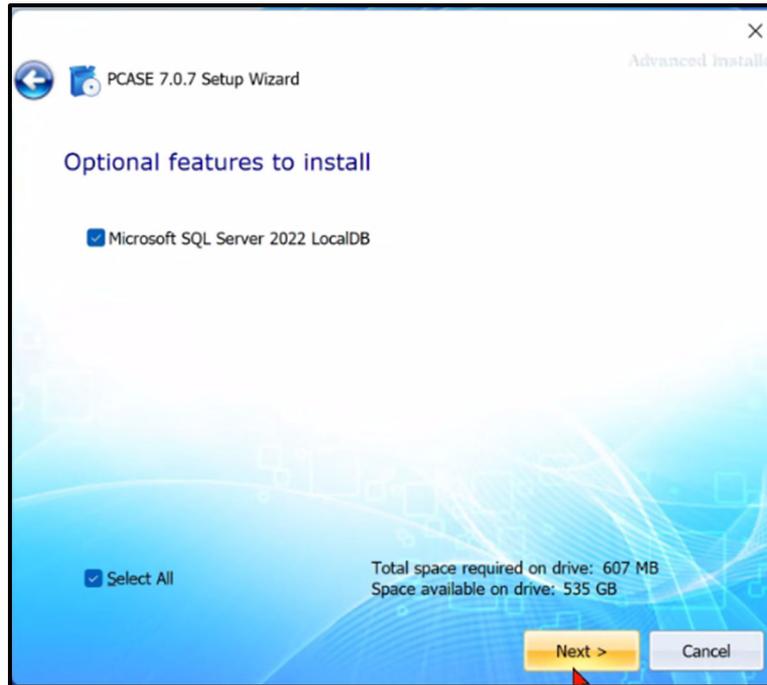


7. License Agreement form opens. Read the text and select **Accept** to continue.

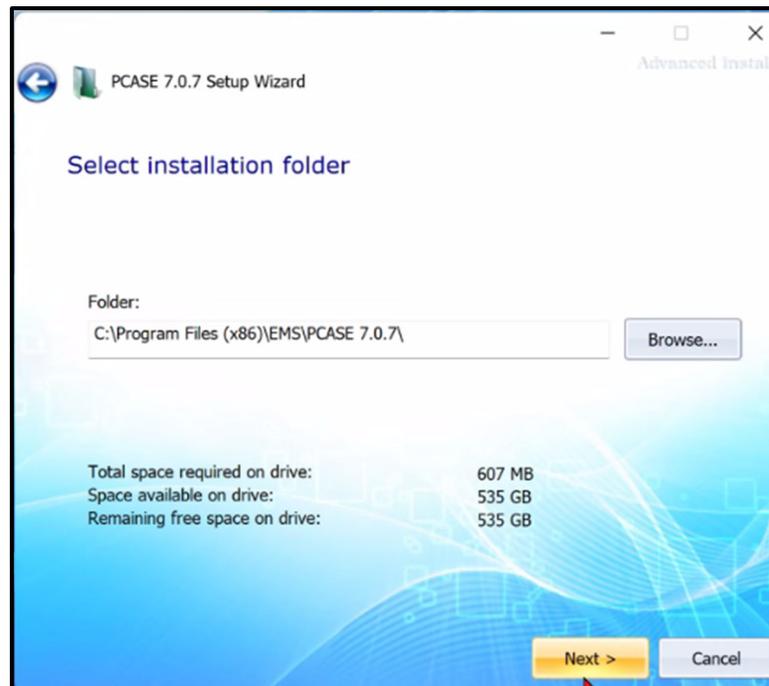


8. Microsoft SQL Server 2022 Local DB. When this box is checked an instance of local DB will be installed on the computer. Local DB is a which is a single user stripped down version of SQL Server Express. Local DB can be used in either the 32 bit or 64 bit version of PCASE, both of which are included in the install. Local DB is especially useful for large databases. If the box is unchecked,

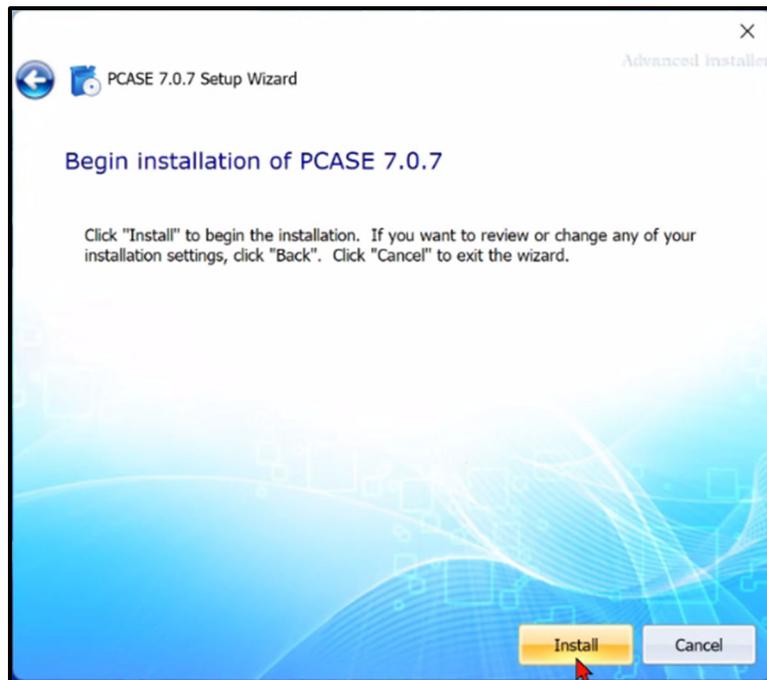
Local DB will not be installed and the user will only be able to use the 32 bit version of PCASE with Access databases (included as part of the install). Select **Next**.



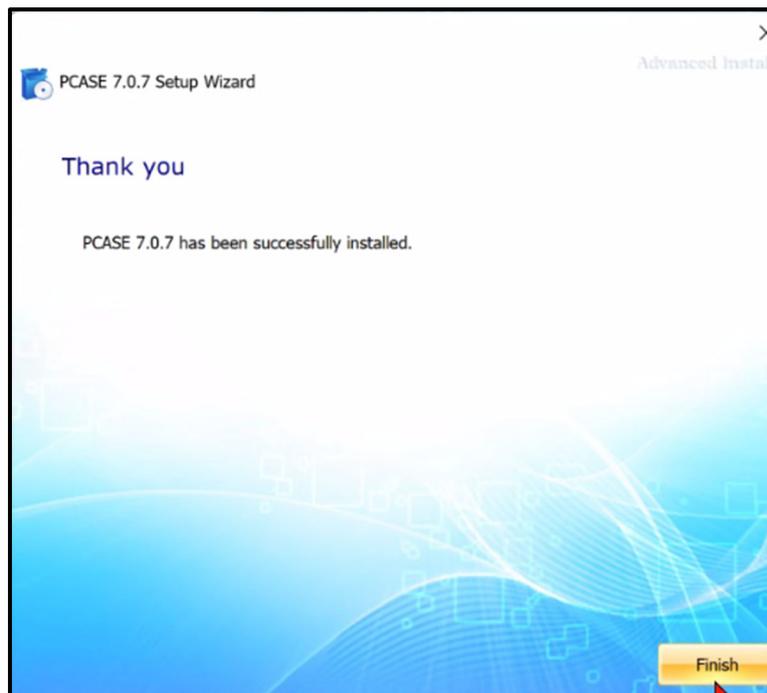
9. Program Default Install: The PCASE application installs to C:\Program Files (x86)\EMS\PCASE 7.0.x folder. We recommend the default install location. If there is a need to change the install location, contact the PCASE Program Manager, Matthew Bennett, matthew.d.bennett@usace.army.mil, 402-720-3457.



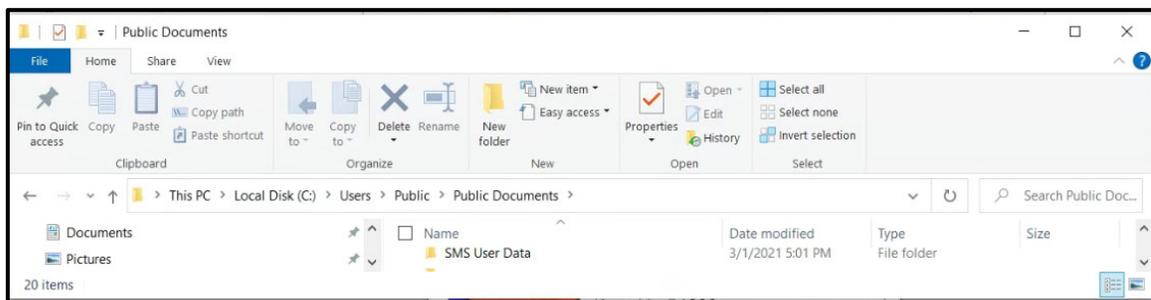
10. Begin Installation of PCASE form opens. Select **Install**.



11. Install Successful form opens. Select Finish. If you encounter any issues with the installation, contact the PCASE Program Manager, Matthew Bennett, matthew.d.bennett@usace.army.mil, 402-720-3457.

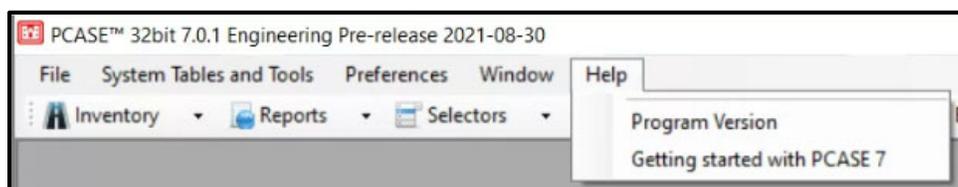


12. Silent Install: Use the options below when doing a silent install.
- Use flags /qn and /quiet to install silently.
 - If this does not work, use /exenoui /qn. Note that the installer also needs elevated privileges for this option.
13. Default Data Folder: When a new version of PCASE is installed, the user **will not lose any data** created in an earlier PCASE 7.0.x version and will be able to import any data created in PCASE 2.0.x. If you are prompted to define the user data folder locations, we recommend the default user data folder location C:\Users\Public\Documents\SMS User Data.
- If the user data folder is set to a location that's not writable by all users, other users will not be able to access the data if the computer is given to another individual or the computer is shared.
 - The user data folder is where the user preferences, data and maps are stored. Thus, any user will need read/write privileges for the directory and the assumption is that a database created in this folder is publicly releasable unclassified information.
 - PCASE uses a configuration file to remember the user's specified 'User data folder'. It is located at **C:\ProgramData\iitcorp\WGServerConfig.xml.cy** (Note: C:/ProgramData is the operating system's recommended location to store application configuration that should apply to all user accounts on a computer.)

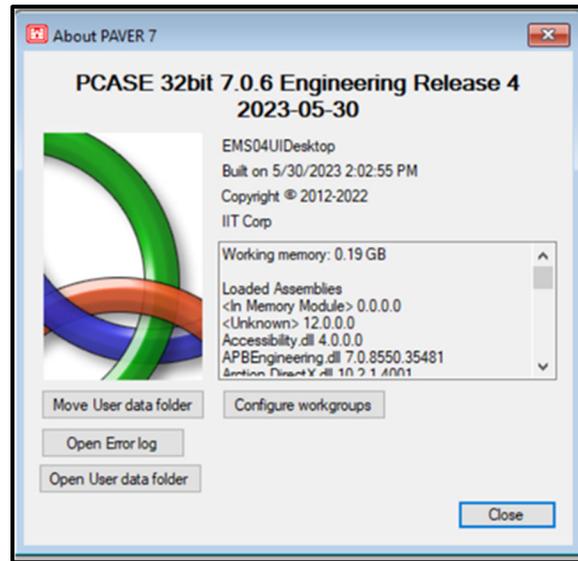


14. **Controlled Unclassified Information (CUI):** If the data in a database is considered CUI, change the data directory to a location only the user and administrator have read/write permissions to and is not publicly accessible. The process for changing the user data directory is outlined below. It is the host systems responsibility to ensure that successful and unsuccessful access attempts to access the information are audited and that the CUI is protected appropriately.

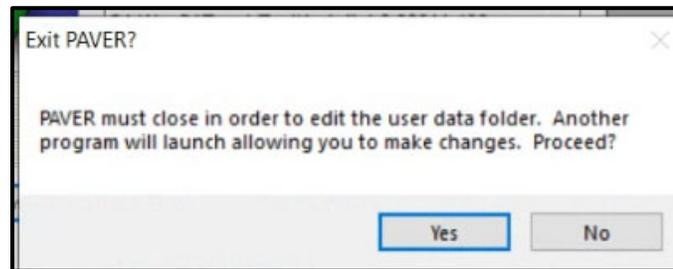
- In PCASE, go to Help>>Program Version



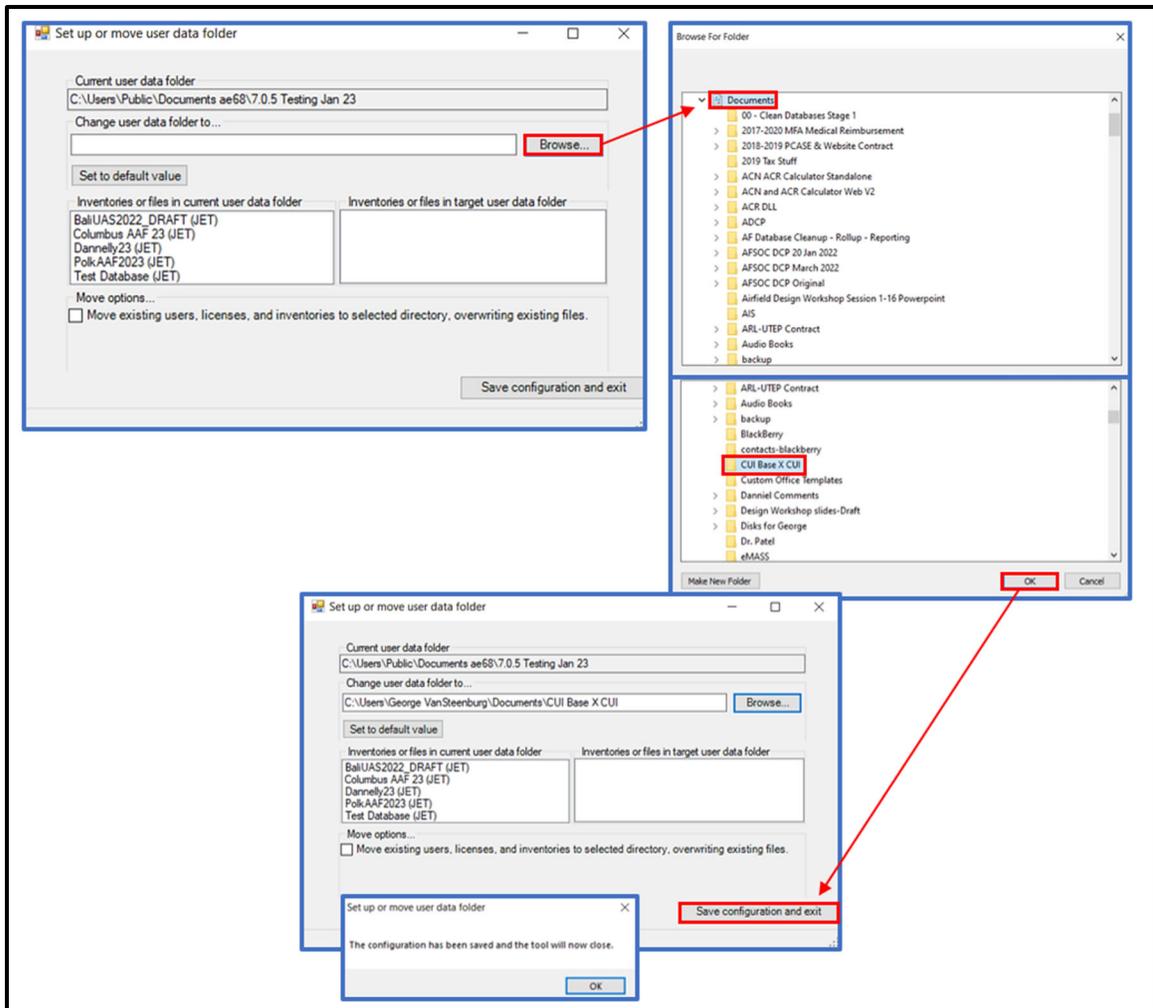
- b. Select Move User Data Folder



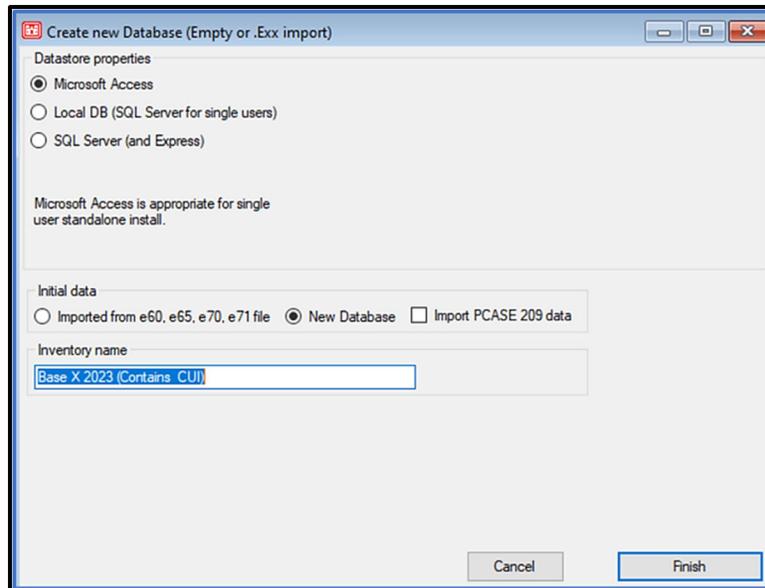
- c. Select Yes



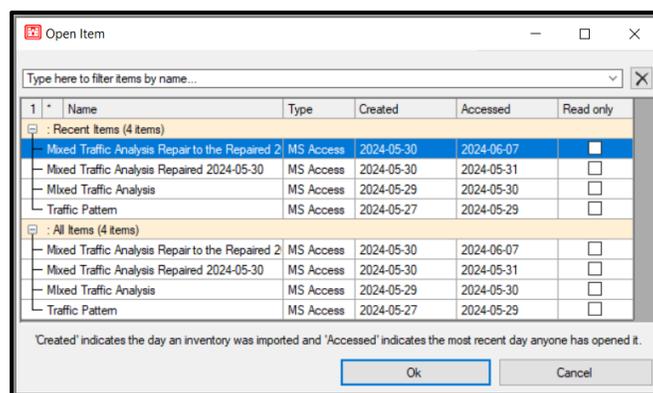
- d. Browse to a location with read/write permissions accessible to the user e.g., C://Users/user name/documents and create an SMS folder there.



- e. Select Ok (screen shot above), select Save Configuration and Exit, select Ok
- f. Open PCASE and create a database following the User Guide Chapter 2.1.1 New/Import guidance. The recommended best practice is to include the classification level in the name of the file and whenever exporting a database.



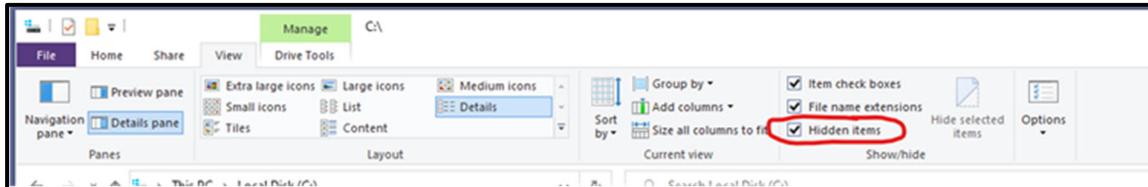
15. **Audit and Accountability:** PCASE creates a log entry whenever the application is opened or closed but does not track the user that accessed it. It also creates an entry whenever the application produces an error with a description of the error. All entries are time stamped and the log is saved as a text file that can be accessed through PCASE but going to Help>>Program Version and selecting Open Error Log or by opening it in file manager at C:\Users\User ID\Documents\iitcorp\errorlogs. A user can also track when a database was created and when it was accessed as shown below by going to File>>Open Pavement Database. Note that PCASE does not track which specific data field have been changed or by who, just that the database was accessed. The user is responsible for determining the classification of the data and taking steps to protect it as described above. PCASE has no external connectivity to create audit files to track changes to the data or the classification of the data.



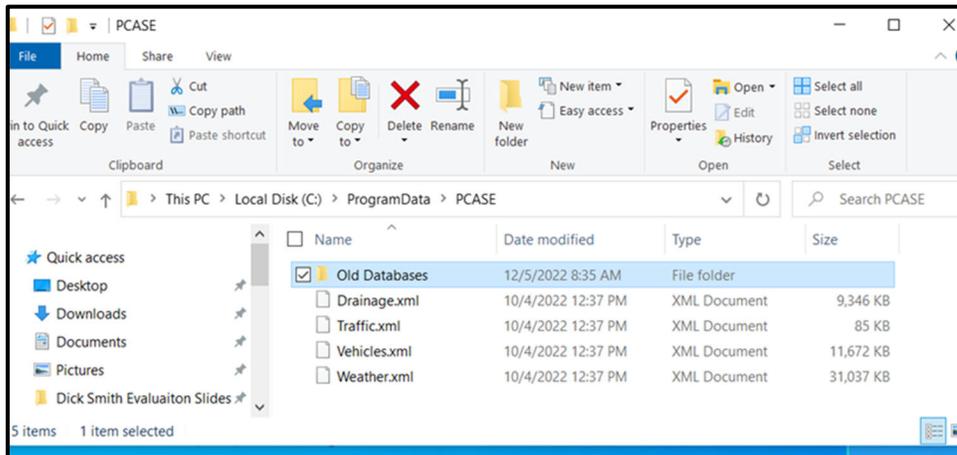
16. **Report Generation:** PCASE reports use excel templates without any classification markings based on the assumption that all data is unclassified, publicly releasable. If the information in the individual database is CUI, it is the user's responsibility to properly mark any reports generated by PCASE at the appropriate classification level. The user will add a header and footer with the appropriate classification markings.

17. **Updating PCASE 7.0 Vehicle, Traffic, Climate, and Precipitation Databases (.xml files).** Note that updating these .xml files requires administrator rights

- a. Exit PCASE.
- b. Go to C:/ProgramData/PCASE
- c. If you don't see the Program Data folder, select the view tab "View" tab in Windows Explorer and check the "Hidden items" box.



- d. Create a new folder for "Old Databases" in C:/ProgramData/PCASE and move the .xml file you want to replace to the Old Databases folder. Note this is just a precaution in case you encounter any issues.



- e. Go to <https://transportation.erdcdren.mil/pcase/software.aspx> and download the .xml file you wish to update (Vehicles, Traffic (standard traffic patterns), Weather (climate data), or Drainage (precipitation data).
- f. Save the new .xml file from the site to C:/ProgramData/PCASE.
- g. Once you open PCASE, the new database(s) will be available
- h. Note: this procedure will not affect any custom vehicles you may have. These are stored at <User Data Directory>\Shared\System\PCASE\Custom Vehicles. You can determine your User Data Directory by selecting Help>>Program Version in PCASE and then selecting the Open user data folder button.