

DE550-03

# **PracticeWorks, a Sensei product**

## **Technician's Installation Guide**

# Notice

© 2024 Carestream Dental LLC. No part of this publication may be reproduced, stored in a retrieval system, translated to another language, or transmitted in any form by any means, electronic, mechanical, photocopied, recorded, or otherwise, without prior written permission.

NEITHER CARESTREAM DENTAL LLC NOR ITS PARENTS, AFFILIATES, OR ANY OF ITS SUBSIDIARIES MAKE ANY WARRANTY OF ANY KIND WITH RESPECT TO THIS MATERIAL, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, NONINFRINGEMENT, AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED IN THEIR ENTIRETY.

The information in this document is subject to change. Neither Carestream Dental LLC nor its parents, affiliates, or any of its subsidiaries shall be liable for errors contained herein, omissions herefrom, or for indirect, incidental, consequential, or special damages (including, without limitation, lost profits or lost revenue) in conjunction with the furnishing, performance, or use of this material.

PracticeWorks is a trademark of Carestream Dental Technology Topco Limited.

All other trademarks and registered trademarks are the property of their respective owners.

Manual Name: PracticeWorks, a Sensei product: Technician's Installation Guide

Document Number: DE550-03

Revision Number: 03

Print Date: June 2024

The names of persons and the data reflected in this guide are fictitious and are not intended to represent any real individual, event, or condition. Any resemblance or similarity of the names of persons or data reflected in this guide to any actual person's name, or any event or condition is purely coincidental and unintended.



## Table of Contents

Overview.....	1
Technician Acknowledgement.....	1
System Requirements, Installation, and Configuration .....	2
Self-Installation Recommendations – Download the Installer Files .....	2
Hardware Recommendations .....	2
Configuring the Hardware Environment.....	2
Licensing and Registration .....	4
Installing the License File .....	5
Registering the Software .....	5
To Register via the Internet .....	5
To Register by Phone.....	5
Backup and Restore Recommendations .....	5
Nightly Backups .....	6
Files to Backup .....	6
Restoration Scenarios .....	6
Restoration of an Individual File or Multiple Files.....	7
Full Restoration of Data to a Current Server.....	7
Full Restoration of Data to a New Server .....	7
Database Engines.....	7
PracticeWorks Installer File for Locally Hosted Offices.....	8
Installing PracticeWorks.....	8
Performing a New PracticeWorks Installation.....	8
Installing the Pervasive PSQL Server on the Server.....	8
Installing PracticeWorks on the Server .....	12
Installing PracticeWorks on a Workstation.....	14
Updating the Server .....	15
Verifying No Active PSQL Sessions Are Running.....	15
Updating PracticeWorks on the Server.....	16
Migrating PracticeWorks to a New Server .....	17
Verifying the PracticeWorks Version .....	17
Verifying the Pervasive Version.....	18
Ready to Install .....	19
Ready to Demote Old Server and Promote New Server.....	19
Demoting the Old Server .....	19
Promoting the New Server .....	20

Configuring the Workstations .....	21
Dual Database Installation .....	22
Multiple License Files .....	22
Directory Structure .....	22
Diagram of Directory Structure .....	23
Updating PracticeWorks in a Multi-Database Environment.....	23
Third Party Products .....	25
Printers .....	25
Related Documentation and Resources .....	25
Installation Troubleshooting .....	26

## Overview

This **Technician's Installation Packet** (Tech Pack) outlines the responsibilities of the local technician, and how support can assist. This document covers recommended hardware, network, and software configurations. It also contains information on configuring PracticeWorks, a Sensei product, as well as migrating the data to a new server, and maintaining and backing up data and files for PracticeWorks.

PracticeWorks is a critical systems application that must be running every day with as little down time as possible. In addition to the application, the hardware is critical to ensuring the stability of an automated practice management system. Our hardware recommendations follow what has been tested. Carestream Dental is only able to test PracticeWorks in a limited number of environments. PracticeWorks support will work with you as best as we can if you are not following our recommendations, but we will be limited in modifications we can make to get PracticeWorks working in environments that do not meet the requirements listed in the current **Systems Requirements**.

Carefully read and follow the installation instructions in the **Installation Guide** and the recommendations contained within this **Tech Pack**. If you have any questions, contact PracticeWorks support.

## Technician Acknowledgement

The local technician is fully responsible for the configuration, installation, and maintenance of the client's computer network. Our company does not support the installed network or its related issues, including printer installations or operations.

The local technician is fully responsible for making sure the hardware is configured and the client is trained to save and restore a backup of the PracticeWorks data and all necessary PracticeWorks files. Since there are many types of backup programs, PracticeWorks support does not train offices on configuring the backup system or restoring a database. If an office must send data to PracticeWorks support for in-house analysis, send backups on external hard drives / flash media, or internet transfers. No other forms of backup media are accepted for data analysis. Addendums to installation documents will be made, as necessary.

The local technician is fully responsible for the support and maintenance of the client's computer network system. Give your clients your contact information and specific instructions to contact you first for system-related problems. Any questions about optimizing the network environment for use with PracticeWorks products are welcome. We recommend that you be familiar with the client's Windows operating system and carry an MCSE (Microsoft Certified Systems Engineer) certification or equivalent on staff.

PracticeWorks representatives are highly trained and capable of assisting you to ensure a smooth software/hardware installation and systems upgrade. When contacting support, be sure to have the client's account or phone number ready.

Questions can be emailed directly to [practiceworkssupport@csdental.com](mailto:practiceworkssupport@csdental.com) or call support at 800.603.4438.

# System Requirements, Installation, and Configuration

Before installing PracticeWorks or migrating the data, review the following items in the [Resource Library \(gosensei.com\)](http://gosensei.com):

- **System Requirements** – Review before proceeding to ensure the hardware meets or exceeds the current requirements.
  - [Locally Hosted or Shared Server System Requirements](#)
  - [PracticeWorks Cloud System Requirements](#)
- **Configuration Guide** – Review the current configuration recommendations.
- **Installation Guide** – Follow the steps to perform an upgrade or new installation.

## Self-Installation Recommendations – Download the Installer Files

You are now able to directly access an online portal and download your software update.

To access the portal, follow these steps:

1. On the server, go to [softwaredownload.csdental.com](http://softwaredownload.csdental.com). The **Dental Practice Management Software Download Service** login window is displayed.
2. Enter the **Customer ID** and **Zip Code**. Your **Customer ID is between 6 and 10 digits long** and is **located on the Support Schedules, Annual Contract Renewals, and any Invoice**.
3. Click **Submit**. The installer file download is displayed, along with instructions.
4. Click **Download** and save the file to the default download location.

**STOP!** Before you proceed, verify any 3<sup>rd</sup> party vendors used by the office are compatible with the version of the DPMS software downloaded. It is the office's responsibility to check with any 3<sup>rd</sup> party Application/Software companies to ensure that it is compatible with the new version of DPMS/SQL software being installed. Carestream Dental is not responsible for incompatibility issues with 3<sup>rd</sup> party vendors.

## Hardware Recommendations

- Purchase only fully tested devices listed on the [System Requirements](#).
  - While some non-recommended hardware performs acceptably with PracticeWorks, it remains the responsibility of the hardware technician to maintain the performance of the non-recommended hardware in question. If you are unsure as to whether a particular device is compatible with PracticeWorks, email [practiceworkssupport@csdental.com](mailto:practiceworkssupport@csdental.com) or call support at 800.603.4438.
- Configure the backup system to back up the required files for PracticeWorks.
  - The default directory for PracticeWorks is **C:\PWORKS\Data** on the server.
  - The **PWimages** folders should be included in the backup.
- PracticeWorks support does not support backup system configuration or the restoration process.

## Configuring the Hardware Environment

This section provides general guidelines for setting up the hardware environment to run PracticeWorks efficiently. All suggestions may not apply to every client.

- Unless expressly stated in the hardware specifications, use commercial class hardware versus consumer class or white box computers.
- Set the screen resolution to **1024x768** or higher to properly display information in PracticeWorks. In addition, set the font size to **Small (96 DPI)** or **Normal (96 DPI)**, depending on the operating system.
- Run PracticeWorks on a wired networking architecture only. Wireless networks have not been tested with the software and are not recommended due to interference and latency issues.
- Only install the **TCP/IP protocol** over the network and at each individual computer.
- Share the **PWORKS** folder with full permissions and security for everyone using the software.
- If using a Windows 7 and higher operating system, disable the **Sharing Wizard**, also referred to as **Simple File Sharing**.
- Any networked printers should use a **TCP/IP port** to the printer's IP Address.
- Configure the hardware and software firewall to open ports **3351** to **13024** internally.
- All users should have their own Windows username and password within the network. Each Windows user profile should be an **Administrator** or **Power User**.
- When using Windows 7 or higher, make sure all users executing PracticeWorks have their own username and password.
- Assign all computers running PracticeWorks to the same domain or workgroup.
- PracticeWorks is not supported in virtual environments such as VMware or OSX as it has not been tested in such environments.
  - Performance may decrease as a result of using virtual machines.
- The PracticeWorks license server must be run within a console session.
  - The PracticeWorks license server will not execute properly within a Remote Desktop or terminal services session.
- In domain environments, DNS should be configured on the PracticeWorks server, and all workstations should be pointed to the server's static IPv4 address for DNS resolution. External DNS resolution, such as IP addresses of ISPs or third-party DNS services, should not be used. Use of external DNS resolution may cause poor performance, errors, or other technical issues.
- Do not map any computer to the administrative shares.
- Exclude the local and network directories for PracticeWorks and Carestream Dental Imaging from real-time antivirus scans. The default locations of the directories to be excluded are as follows.
  - **C:\PWORKS**
  - **C:\TW**
- Realtime virus scans can slow processing times in PracticeWorks and Carestream Dental Imaging. The use of antivirus or security software that *stealth* ports, causing them to be hidden from other devices instead of simply closed, is not recommended.
- Configuring DNS on the PracticeWorks server or usage of hosts files can be used for DNS resolution.
  - If utilizing DNS, both forward and reverse lookup zones should be configured in DNS on the PracticeWorks server. Unique names and static IP addresses for each

- computer should be entered in both forward and reverse lookup. Scavenging and Aging options should be enabled to prevent stale or duplicate DNS records.
  - If using the hosts file, the name and static IP address of each computer should be specified within each hosts file of each PracticeWorks computer.
- Give full control and security permissions to the default server share and folder.
- **Power Management, Energy Efficient Ethernet, Green Ethernet**, or similar power saving options should be disabled on each computer's NIC.
  - Errors or technical issues may occur if these settings are not disabled.
- **Disable sleep mode** for all operating systems.
- RAID 0 configurations are not recommended.
- If using PracticeWorks within a domain environment, make sure the reverse DNS is set up and running properly.
- All servers must have a physical keyboard, mouse, and monitor attached.
  - Ensure the office is aware of the physical location of the server and at least one person knows the administrative username and password for the server. This is necessary for PracticeWorks support representatives to provide remote assistance.
- Make sure the printer that will be used with PracticeWorks uses an actual PCL5e or PCL6 series print driver.
  - Do not use an emulated PCL5e or PCL6 print driver.
  - Print drivers designed for the specific make and model of printer in use are recommended, when available, over universal print drivers.
- Ensure the **Link** and **Dual** speeds are set to **auto-negotiate**.
- Disable any wireless connections.
  - Wireless network connections are prone to interference and poor performance, and as such, are not supported for use with PracticeWorks.
- Ensure the network interface card's drivers are up to date.
- Notable performance increases have been displayed when the maximum amount of RAM has been installed in servers that serve files to ten or more workstations.
- We recommend setting both the **Receive** and **Transmit** buffers on the NIC card for each computer to **512** for optimal performance.
- If a server migration will be performed and Carestream Dental Imaging is being used by the office, the server name should be kept the same as the previous server. This will avoid the need for data editing.

## Licensing and Registration

Before removing any software from the old server, copy the contents of the **PWSVR** folder which contains the license file.

### Notes:

- This **PWSVR** folder is normally installed within the **PWORKS** folder on the data server. This location may vary if the office is using Carestream Dental Imaging.
- Install the license file on the new server before installing the software on the workstations.



- If you do not have a current copy of the license file, contact support. The support team can either send a copy via email or connect to the server and upload a copy.

## Installing the License File

If a prompt to install the license file is displayed when installing or opening PracticeWorks, do the following:

1. Browse to the location of the saved **PWSVR** file.
2. Select the file.
3. Click **OK**.

## Registering the Software

If a prompt to register the software is displayed when installing or opening PracticeWorks, register the software using one of the following methods:

- **Register online via the internet**
- **Contact support by phone**

**Note:** If you are unable to register the software at this time, click **Cancel** to continue with the update. You have seven days to register the product.

### To Register via the Internet

1. Select **Automatically via the Internet**.
2. Click **OK**. The **Registration Code** window is displayed while the code is generated. After the registration code is obtained, the **Installation Complete** window is displayed.
3. Click **Finish**.

**Note:** If you have registered the software more than three times, you will be required to contact support to receive a registration code.

### To Register by Phone

1. Select **Contact support by telephone**.
2. Click **OK**.
3. Contact support using one of the following methods:
  - Call 800.603.4438.
  - Email [practiceworkssupport@csdental.com](mailto:practiceworkssupport@csdental.com).
4. Provide the **Customer ID** and **Hardware ID** information from the **Registration** window when contacting support. These numbers are used to generate the **Registration Code**.
5. Type the registration code in the **Registration Code** field.
 

**Note:** Use capital letters when typing the registration code.
6. Click **OK**. The **Installation Complete** window is displayed.
7. Click **Finish**.

## Backup and Restore Recommendations

This section covers recommendations for configuring a backup routine for PracticeWorks data and related files. When setting up the backup routine, review the following sections in the **PracticeWorks Configuration Guide** in the [Resource Library](#) for more information:

- Backing Up Data
- Using a Backup Checklist
- Establishing a Backup Routine
- Managing Files and Backup Media

## Nightly Backups

A **full non-incremental backup** of the PracticeWorks data, including the **eForms** and **eReminders** data, should be performed nightly and should be complete before the start time of the office's business hours.

- Nightly backups should NOT be overwritten.
- One backup should be made at the end of each year and saved.
- Backups should be stored offsite.

The office is responsible for ensuring the backup system is configured properly and must be able to perform a successful backup.

PracticeWorks support **does not** provide training and is **NOT** responsible for:

- Setting up or assisting with the setup of nightly backups
- Specifying or recommending which backup system to use
- Configuring a backup system
- Restoring the contents of a backup

Configuration, execution, and restoration from a nightly backup is the exclusive responsibility of the client and their local technician.

## Files to Backup

In a default installation, the path to the PracticeWorks data is **C:\PWORKS\Data**. To verify the directory location on your system to backup, do the following:

1. Open the **PracticeWorks Utilities**.
2. Click **Data Location**.
  - The directory containing the data is specified in the **Dictionary says data is located at** field.
3. If the office uses **eForms** or **eReminders** or both, include the following files and folders in the backup:
  - **C:\Program Files\Common Files\PracticeWorks\eFormsWebHost\**
  - **C:\Program Files (x86)\Microsoft SQL Server\MSSQL10\_50.PWNGSQL\MSSQL\Data\**
  - The **NextGenV2.md** and **NextGenV2\_log.ldf** files.

**Note:** If the data was installed in a location other than the default directory, configure the backup system to back up the actual data location.

## Restoration Scenarios

**Note:** During any restoration, all workstations should close out of PracticeWorks.

Restoration from a backup generally falls into one of the following categories.

## Restoration of an Individual File or Multiple Files

**Important:** It is critically important that the restoration of select files is done with support's assistance. Very few files may be restored independently without destroying the integrity of the database.

An individual file or multiple files can be restored directly to the existing **DATA** directory, overwriting any corrupt files. After restoration, a **Data Integrity Check** must be run prior to any workstations attempting to use PracticeWorks to ensure relational integrity between the existing files and the restored files.

### Full Restoration of Data to a Current Server

1. Rename or move the existing **DATA** directory to a different location prior to restoring data, as a failure during the restoration process may cause additional problems.
2. Create a blank **DATA** directory after the existing directory has been moved.
3. Start the restoration process to the new **DATA** directory.

### Full Restoration of Data to a New Server

Data restoration must be performed PRIOR to the installation of PracticeWorks.

1. Create a blank **\\PWORKS\\DATA** directory on your drive of choice.
2. Restore all data to that location.
3. Extract and run the PracticeWorks installation media.
4. Perform a server installation, selecting the **\\PWORKS\\DATA** directory created in first step. The PracticeWorks installer program automatically detects the presence of existing data and generates the infrastructure necessary to support the data without modifying any of it.

## Database Engines

PracticeWorks uses **Pervasive SQL 11 Service Pack 3** for the database engine. Pervasive must be installed and running before PracticeWorks can be installed or updated.

This engine supports access from operating systems as listed on the system requirements. This database engine is correctly recognized by **PracticeWorks 7.0.19** and higher.

Pervasive SQL 10 Service Pack 1 or 3 was used in older versions of PracticeWorks. Offices using **Pervasive 10** are encouraged to update to **Pervasive SQL 11 Service Pack 3**.

PSQL Version	Minimum PracticeWorks Version	Server OS
PSQL 10.1.30	7.0.11	<ul style="list-style-type: none"> <li>Windows Server 2008 (32bit)</li> </ul>
PSQL 10 SP 3 (10.30)	7.0.13	<ul style="list-style-type: none"> <li>Windows Server 2008 (32bit)</li> </ul>
	7.0.14	<ul style="list-style-type: none"> <li>Windows Server 2008 (64bit)</li> </ul>
PSQL v11 SP 1 (11.10)	7.0.19	<ul style="list-style-type: none"> <li>Windows Server 2008 (32 &amp; 64bit)</li> <li>Windows Server 2008 R2</li> </ul>
PSQL v11 SP 3 (11.30)	7.5.4	<ul style="list-style-type: none"> <li>Windows 8 Professional</li> <li>Windows 10</li> <li>Windows Server 2008 (32 &amp; 64bit)</li> <li>Windows Server 2008 R2</li> <li>Windows Server 2012</li> </ul>
	7.10.0	<ul style="list-style-type: none"> <li>Windows Server 2016</li> </ul>

## PracticeWorks Installer File for Locally Hosted Offices

Beginning with version 10.1.1, the **PracticeWorks Installer** is available for download via the **Dental Practice Management Software Download Service**.

1. Save the **PracticeWorks Install.exe** file to the server.
2. Follow the procedures in this document to install or update PracticeWorks.

## Installing PracticeWorks

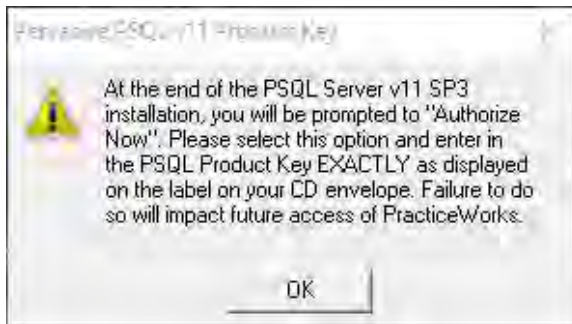
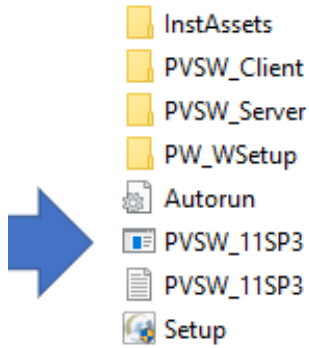
### Performing a New PracticeWorks Installation

When installing PracticeWorks for the first time on the server, install **Pervasive PSQL Server** before installing **PracticeWorks**.

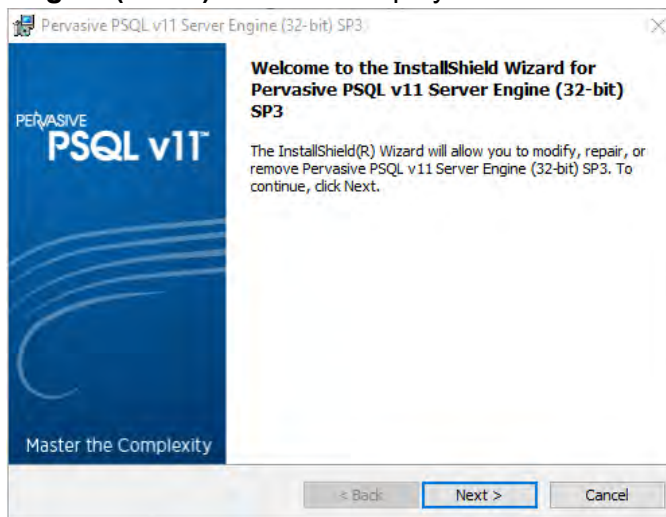
#### Installing the Pervasive PSQL Server on the Server

Do not install the PracticeWorks license file during this process.

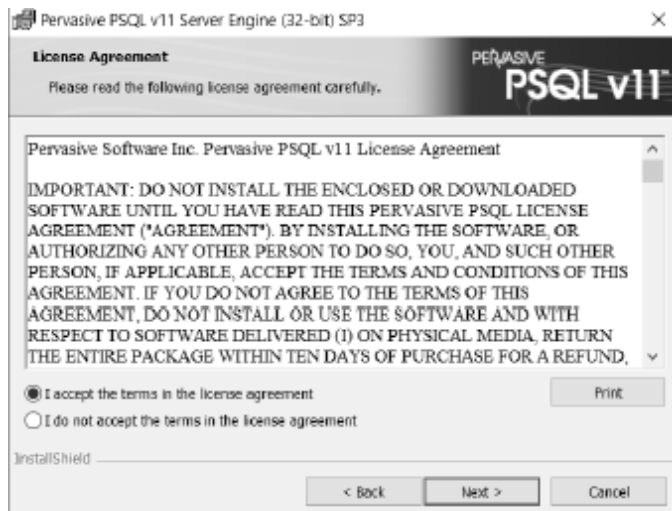
1. Verify all programs on the server are closed.
2. Browse to the location of the transferred media **C:\CD\_SUPPORT**.
3. Right-click the **Pervasive 11 SP3.zip** file.
4. Click **Extract**.
5. Follow the prompts to extract the files.
6. Double-click **PVSW\_11SP3**. The **Pervasive PSQL v11 Product Key** window is displayed.



7. Read the message.
8. Click **OK**. The **Welcome to the InstallShield Wizard for Pervasive PSQL v11 Server Engine (32-bit)** window is displayed.



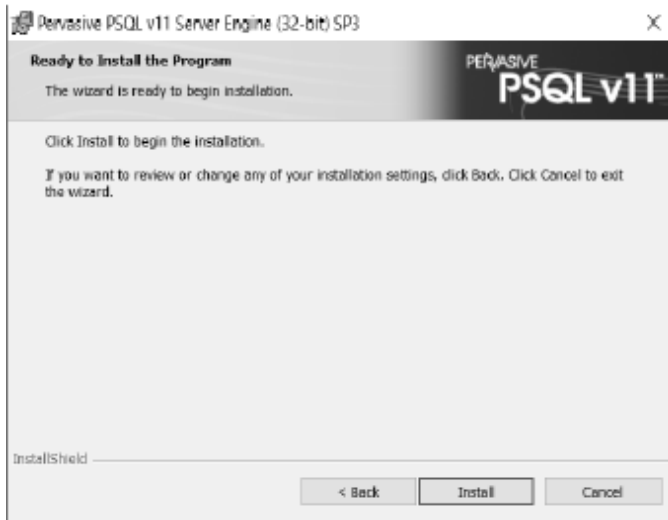
9. Click **Next**.



10. Read the license agreement carefully.
11. Select **I accept the terms in the license agreement**.
12. Click **Next**. The **Setup Type** window is displayed.



13. Select the **Complete** option to install all program features.
14. Click **Next**. The **Ready to Install the Program** window is displayed.



15. Click **Install**. After the installation is complete, the **InstallShield Wizard Completed** window is displayed.



16. Select **Authorize Now**.
17. Click **Next**. The **PSQL Authorization** window is displayed.



18. Enter the **PSQL product key** provided.

- If the office has the original install media, the key is included in the packaging.
- If this was a recent purchase, the sales agent sent the key to the office in an email.
- If the staff cannot locate their copy of the key, contact support for a copy.

**Important:** You must enter the product key exactly as given. If the key is entered incorrectly, you will have problems accessing PracticeWorks.

19. Click **Authorize**. The **Pervasive PSQL v11 Installation Utility** window is displayed, followed by a message when the installation is complete.

20. Click **OK**. A prompt to restart the computer is displayed.

21. Click **OK**.

**Note:** If there is no internet access on the server, call PracticeWorks support for assistance in activating the **Pervasive** license.

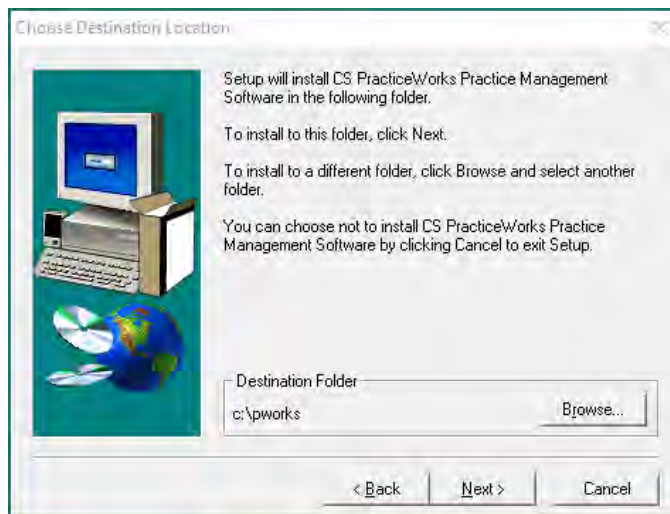
### Installing PracticeWorks on the Server

1. If the following window is not displayed, navigate to the folder where the Installer files are saved.
2. Select **Install PracticeWorks v10.x.xx**. The **Setup** window is displayed.
3. Wait for the window to close. The **Welcome** window is displayed.





4. Read the **Welcome** message.
5. Click **Next**. The **Choose Destination Location** window is displayed.



6. Install the software.
  - To install PracticeWorks in the default directory, do the following:
    - Leave the default path, **C:\PWORKS**, in the **Destination Folder** field.
    - Click **Next**.
  - To select a different directory for the installation, do the following:
    - Click **Browse**.
    - Browse to and select the directory for the installation.
    - Click **OK**.
    - Click **Next**.

The **PracticeWorks Practice Management Software Data Installation** window is displayed as the data files are installed, followed by the **PracticeWorks Practice Management Software Workstation Installation** window.

After the program files are installed, a prompt to restart the computer is displayed.

7. Click **OK**. When the restart is complete, the **PracticeWorks** icon is displayed on the desktop.
8. Open the software in one of the following ways:
  - Double-click the **PracticeWorks** icon.
  - From the **Start** menu, select **All Programs > CS PracticeWorks > CS PracticeWorks**.

A prompt to install the license file is displayed.

- Follow the steps in the [Installing the License File](#) section to install the license file.
- Follow the steps in the [Registering the Software](#) section to register the software.

### Installing PracticeWorks on a Workstation

The **PracticeWorks Installer** installs the **Pervasive PSQL** software and other necessary files on the computer before installing the PracticeWorks program files.

#### To install PracticeWorks on a workstation:

1. Exit all other programs.
2. From the **Start** menu, select **Run**.
3. Click **Browse**.
4. Select the drive mapped to the server from the drop-down list.
5. Browse to the **\PWORKS\Data\WSetup** folder.
6. Double-click **Setup.exe**. The selected path is displayed in the **Run** window.
7. Click **OK**. A message is displayed stating the **Pervasive PSQL v11 Client software needs to be installed**.
8. Click **OK**. The **Open File - Security Warning** window is displayed.
9. Click **Run**. Status messages are displayed while the **Pervasive** files are installed.

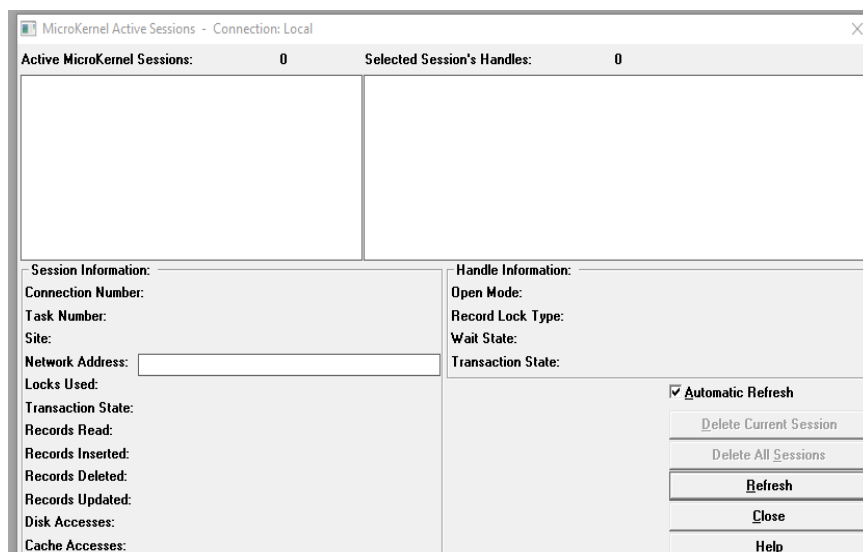
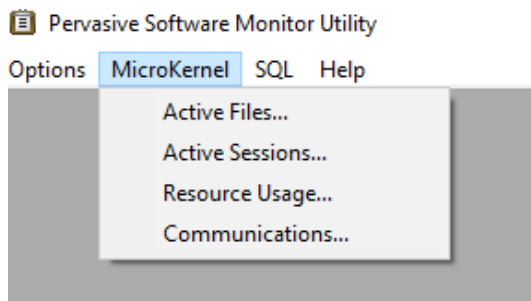
When the installation is complete, a message is displayed stating the **Pervasive PSQL v11 Workgroup (32-bit) Setup completed successfully**.
10. Click **OK**.

## Updating the Server

Perform this procedure when updating from a previous version of PracticeWorks to PracticeWorks version 10.1. Installing this version updates the database and program files on the server. Before you begin, verify there are no active sessions of Pervasive PSQL running on the server. Then follow the installation instructions below.

### Verifying No Active PSQL Sessions Are Running

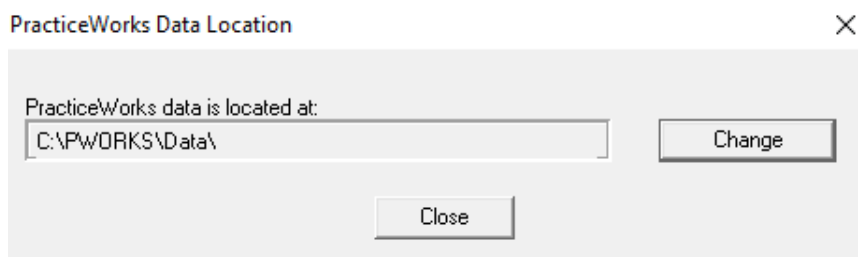
1. From the **Start** menu, select **Pervasive PSQL 11 > PSQL Monitor**. The **Pervasive Software Monitor Utility** is displayed.
2. Select **MicroKernel > Active Sessions**. A window is displayed, showing any active sessions.



3. If there are any sessions running, select the session and click **Close** or **Delete Session** as needed.  
**Note:** If **SRDE** is listed in the monitor, disable **SRDE Anonymous** in **Services**. This is a third-party program used for appointment reminders and text confirmation.
4. Exit the utility.

Before you begin the update, open the **PracticeWorks Utilities**.

1. From the **Start** menu, select **CS PracticeWorks > Utilities**.
2. Select **Data Location**.



- This will display the default installation path on the server that must be selected when prompted to choose the location; for example, if the PracticeWorks data is located at **C:\PWORKS\Data**, the installation location is **C:\PWORKS**.
- On workstations, the default installation path is always **C:\PWORKS**.

## Updating PracticeWorks on the Server

1. Verify all programs on the server are closed.
2. Navigate to the folder where the **Installer** file is saved.
3. Double-click the **PracticeWorks Install.exe** file. A prompt is displayed confirming you want to proceed with the **PracticeWorks Installer**.
4. Click **Yes**. The files are extracted, and the **PracticeWorks Installer Menu** is displayed.
5. Select **Install PracticeWorks v10.x.xxx**. The **Setup** window is temporarily displayed.
6. Wait for the window to close. The **Welcome** window is displayed.
7. Read the welcome message.
8. Click **Next**. The **Importance of a good backup** window is displayed.
9. Read the document.
10. Ensure you have a valid backup.
11. Click **Yes** to continue with the installation. The **Release Code** window is displayed. You must obtain a release code before continuing the installation.
12. Follow the steps in the [Registering the Software](#) section to register the software.

### Notes:

- After registering the software, the **Welcome Window** is displayed.
  - If you are unable to register the software at this time, click **Cancel** to continue with the update. You have seven days to register the product.
13. Read the welcome message.
  14. Click **Next**. The **Choose Destination Location** window is displayed.
  15. Select a location:
    - To install the software in the default directory, **C:\PWORKS**, click **Next**.
    - To select a different directory for the software installation, click **Browse**, select the directory from the list, and click **OK**. After the **Choose Destination Location** window is displayed, click **Next**.

The **PracticeWorks Practice Management Software Data Installation** window is displayed. A detailed description of the percentage of program files that have been updated and installed is displayed in the window.

When the program files are installed, the **Setup Complete** window is displayed.

16. Click **Finish**. When the computer restarts, the **PracticeWorks** icon is displayed on the desktop.

## Migrating PracticeWorks to a New Server

Before migrating PracticeWorks data to a new server, do the following:

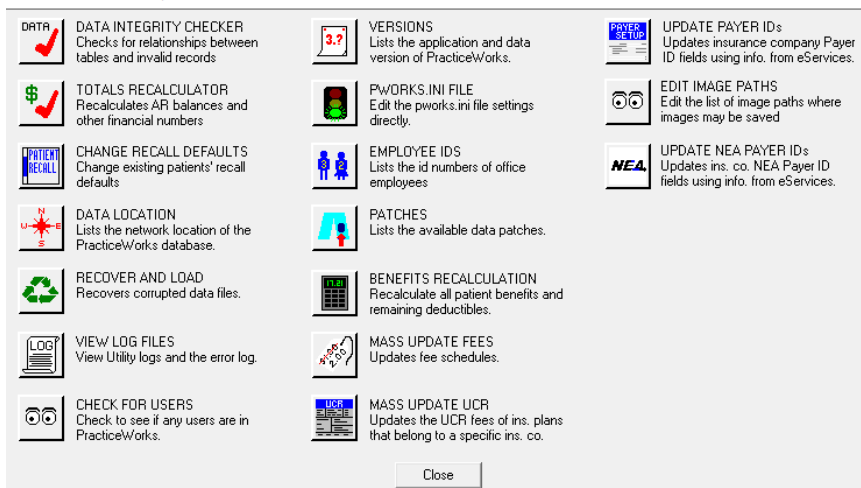
1. Verify software and hardware compatibility. Refer to the [System Requirements](#) for the current recommendations.
2. Verify the version of **Pervasive** and **PracticeWorks** the office is currently using.

**Important:** You **MUST** install the same version of PracticeWorks on the new server that exists on the old server.

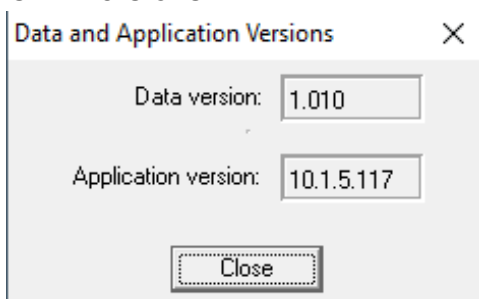
## Verifying the PracticeWorks Version

1. From the **Start** menu, select **CS PracticeWorks > Utilities**.

CS PracticeWorks Utilities, v9.1.0 -



2. Click **Versions**.



3. Note the version number.
4. Click **Close**.

## Verifying the Pervasive Version

1. Open **PracticeWorks**.
2. Click **Help > About PracticeWorks Software**.

Database engine information	Client:	V11.30 (N)
	Requester:	V11.30 (T)
	Server:	V11.30 (T)

**Important:** If the office is not using **Pervasive 11**, contact our sales department at (800) 944-6365 to purchase the **Pervasive upgrade**.

3. Obtain the **Pervasive 11 License key** from the old sever.
  - o Type **Pervasive License Administrator** in the **Search** line.

Product	Product Key	State	Platform	License Type	User Count	Session Count	Data In Use GB	Expiration Date	Vendor
Pervasive PSQL 11 Server	6DXPW-M4P6P-MY9DX-36T6V-XXRGM-MHF4K	Active	Win32	Permanent	5	n/a	n/a	n/a	0

At the bottom, there is a checkbox for 'Hide Expired' and buttons for 'Remaining Authorizations...', 'Help', and 'Close'.

- o Make a note of the license key.
4. Obtain a copy of the license file from the current server.
  - o Search for the **PWSVR** folder in **Windows Explorer**.
  - o Copy the **PWLF.DAT** file from the **PWSVR** folder.
5. Use the **Dictionary Location** in the **Utilities** screen to locate the **PracticeWorks** data on the current server.

PracticeWorks data is located at:

## Ready to Install

**Important: DO NOT** connect the new server to the current network because it will affect the PracticeWorks license server.

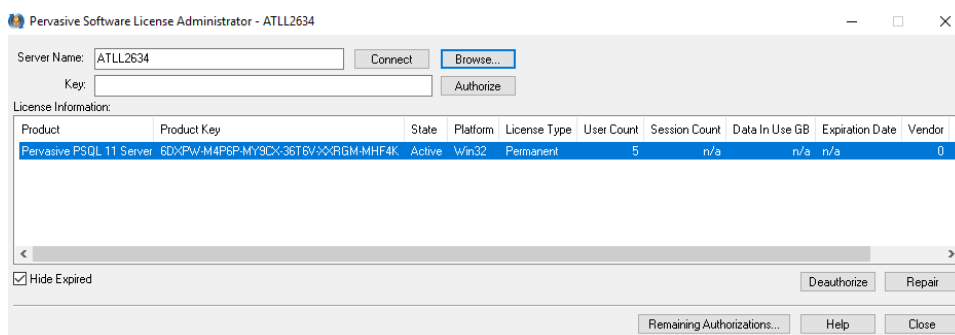
Install Pervasive, PracticeWorks, and the license file in the following order:

1. Follow the steps in the [Installing the Pervasive PSQL Server on the Server](#) section to install Pervasive.
2. Follow the steps in the [Installing PracticeWorks on the Server](#) section to install PracticeWorks.
3. Follow the steps in the [Installing the License File](#) section to install the license file.
4. Follow the steps in the [Registering the Software](#) section to register the software.

## Ready to Demote Old Server and Promote New Server

### Demoting the Old Server

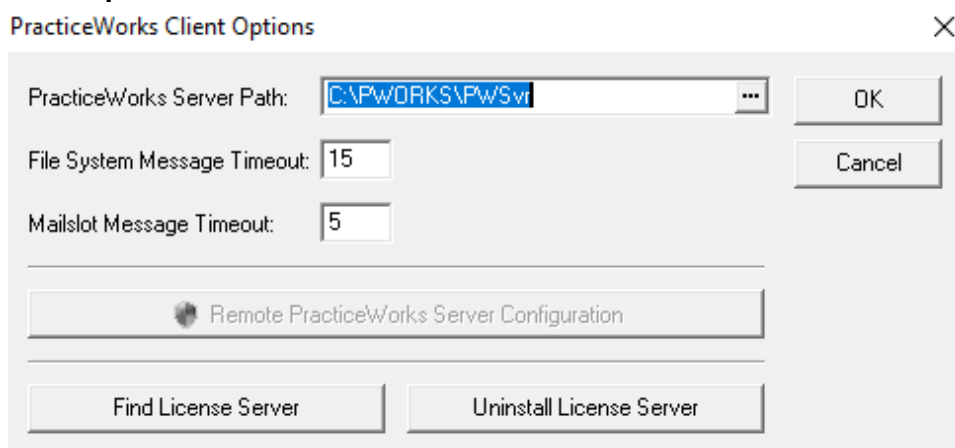
1. Copy all content, except for the **WSetup** folder, from the **Data** folder on the old server.
2. If the office uses **eForms** or **eReminders** or both, copy the following:
  - **C:\Program Files\Common Files\PracticeWorks\eFormsWebHost\**
  - **NextGenV2.md** and **NextGenV2\_log.ldf** in **C:\Program Files (x86)\Microsoft SQL Server\MSSQL 10\_50.PWNGSQL\MSSQL\Data\**
3. Go to the **Pervasive License Server**.



- Document the license key.
  - Click **Deauthorize**.
  - Click **Close**.
  - Repeat these steps to document and deauthorize any additional license keys.
4. Open **PWClient** located in the following location, depending on the operating system.
    - **C:\Windows\SysWOW64\PWClient.exe**
    - **C:\Windows\SysWOW32\PWClient.exe**



5. Click **Options**.

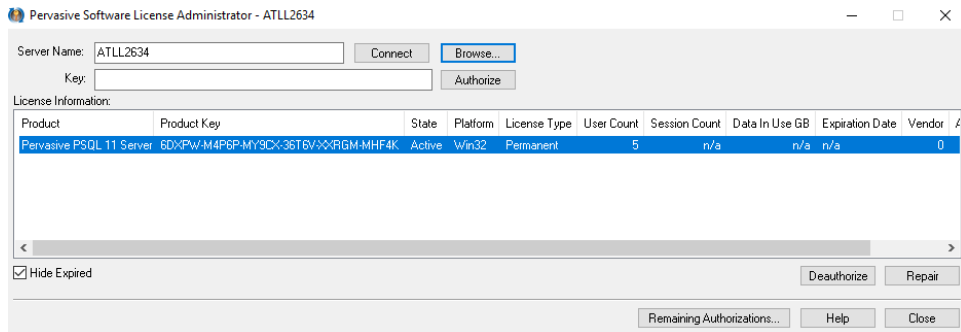


6. Click **Uninstall License Server**.
7. If the old and new servers have the SAME name, rename the old server.

### Promoting the New Server

1. Connect the new server to the network.
2. Copy contents of the **Data** folder to the new server.  
**Important:** The **WSetup** folder should not be COPIED.
3. If the office uses **eForms** or **eReminders** or both, copy the following to the new server:
  - o **C:\Program Files\Common Files\PracticeWorks\eFormsWebHost\**
  - o **NextGenV2.md** and **NextGenV2\_log.ldf** in **C:\Program Files (x86)\Microsoft SQL Server\MSSQL 10\_50.PWNGSQL\MSSQL\Data\**
4. Open **Pervasive License Administration**.





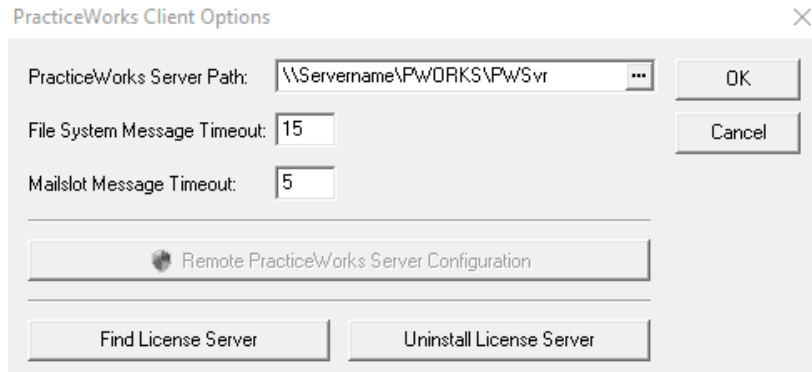
5. Enter the **License key**.
6. Click **Authorize**.
7. Share the **Data** folder on the new server.
  - We recommend using the same file structure. See the [Directory Structure](#) section for more information.
8. Open **PracticeWorks** on the new server.
9. Verify the data was copied correctly.

### Configuring the Workstations

1. Disconnect the current network drive that points to the old server.
2. Map a network drive to the new server using the same drive letter previously mapped to the old server. Use the network path to the share data and files on the new server.
3. Run the workstation setup via ***mapped drive*\Data\WSetup\Setup.exe**.
4. Verify **PWClient** is pointing to the new server.
  - Type the following in the search bar, depending on the operating system:
    - **C:\Windows\SysWOW64\PWClient.exe**
    - **C:\Windows\SysWOW32\PWClient.exe**
  - Click **Options**.



- Verify the **PracticeWorks Server Path** is correct; for example, **\\Servername\PWWORKS**.



5. Open **PracticeWorks** and continue working.

**Notes:**

- If the printer was previously shared via the old server, it must be set up on the new server.
- If the office is using **eForms** or **eReminders** or both, these services need to be installed on the new server.

## Dual Database Installation

**Important:** Proceed with the steps in this section only if the office has multiple license files.

### Multiple License Files

1. Open **PracticeWorks** on the server.
2. Click on **Help > About > Install License File**.
3. Install the license files for each database.

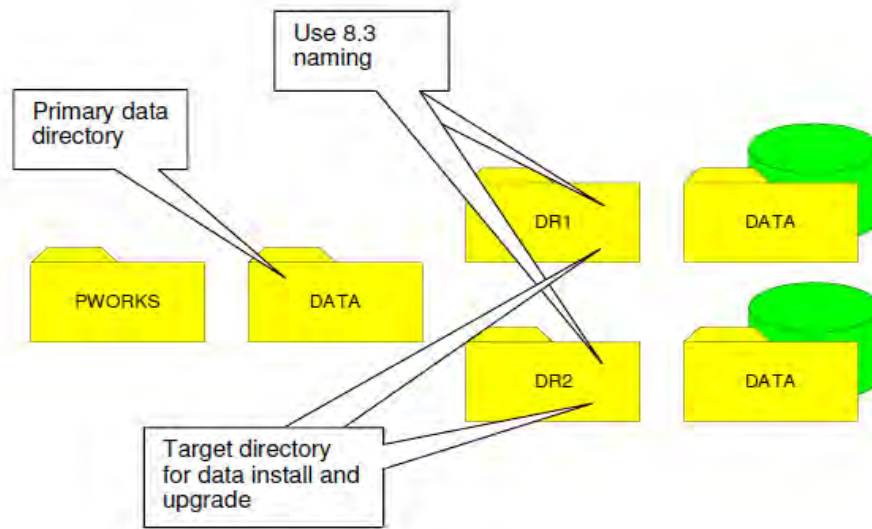
### Directory Structure

The key to multiple databases hosted on a single machine is the directory structure. The install and update procedures are manual. The process is much simpler if the directory structure is planned out prior to the installation. In the future, PracticeWorks installations will be able to recognize this structure and accommodate updating each database automatically; therefore, implementing this structure is imperative.

Keep all data under the primary **Data** directory. Using the defined directory structure reduces troubleshooting time for PracticeWorks support representatives when setting up and finding files. This structure aligns the backup path with the standard setup. Back up the entire **PWORKS\Data** directory.

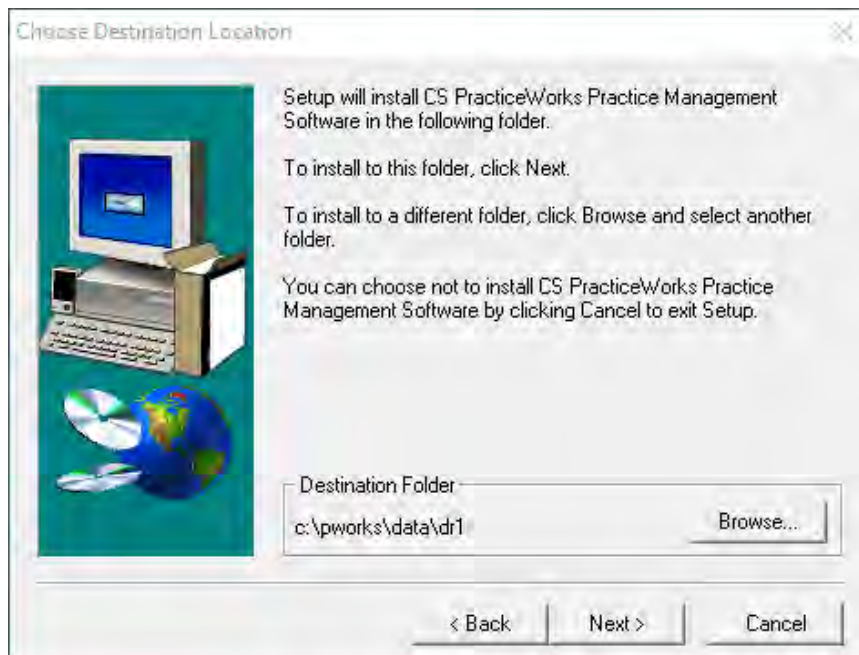
The following diagram outlines the structure required to be in place before continuing with the installation. Directly beneath the primary **Data** directory, place a subdirectory for each of the databases, **DR1** and **DR2**. Keep the names in *8.3 format* and make the names descriptive. The **PWORKS** directory will contain one object, a data folder named **Data**. The child **Data** directories will contain the actual data files and subfolders.

## Diagram of Directory Structure



## Updating PracticeWorks in a Multi-Database Environment

1. Open the **PracticeWorks Utilities**.
2. Select the default location.
3. Click **Data Location**.
4. Note the location of the data. This path is typically blank.
5. Open the utilities for each data set.
6. Note the location of each data set. Using the [Directory Structure](#) outlined in this document, the paths will be listed as:
  - Default – **C:\PWWORKS\Data**
  - Dr1 – **C:\PWWORKS\Data\Dr1\Data**
  - Dr2 – **C:\PWWORKS\Data\Dr2\Data**
7. Rename the **Pworks.ini** located in the **C:\PWWORKS** folder to **pworks.bak**.
8. From the **Start** menu, select **Run**.
9. Click **Browse**.
10. Browse to **C:\PWWORKS > Data > Dr1 > Data > WSetup > Setup.exe**.



11. Click **Next**. Allow the installation to complete.
12. Navigate to the folder where the Installer files are saved.
13. Double-click **Setup.exe**. Allow the installation to run.
14. Ensure the destination folder is set to **C:\PWORKS\Data\Dr1**.
15. Allow the installation to complete.
16. Delete the **Pworks.ini** located in **C:\PWORKS\Data\Dr1\Data**.
17. Repeat the steps for the **Dr2** and **Data** locations.
  - **DR2**
    - Run **WSetup** through **C:\PWORKS\Data\Dr2\Data\WSetup\ Setup.exe**.
    - Follow the prompts and allow the installation to complete.
    - Navigate to the folder where the Installer files are saved.
    - Double-click **Setup.exe**.
    - Change the destination folder to **C:\PWORKS\Data\Dr2**.
    - Allow the installation to complete.
    - Delete the **Pworks.ini** located in **C:\PWORKS\Data\Dr2**.
  - **Data** – The process should be run on this location last.
    - Run **WSetup** through **C:\PWORKS\Data\WSetup\Setup.exe**.
    - Navigate to the folder where the Installer files are saved.
    - Double-click **Setup.exe**.
    - Change the destination folder to **C:\PWORKS**.
    - Allow the installation to complete.
    - Delete the **Pworks.ini** located in **C:\PWORKS**.
18. Rename the **pworks.bak** file located in the **C:\PWORKS** folder to **Pworks.ini**.
19. Open **PracticeWorks**.
20. **Verify all of the data sets are updated.**

## Third Party Products

PracticeWorks integrates with multiple third-party vendors. As such, some configuration for clients that use these products may be required.

**Note:** This listing is not a complete list of third-party integrated products used by the office. It is used to aid with the most common issues. For a more comprehensive list of third-party products integrated with the software, refer to the [System Requirements](#).

## Printers

PracticeWorks operates on a named printer per document basis.

This is broken down to an office-wide level, then computer level, providing four levels of customization. The **computer's default** configuration information is stored in the **Pworks.ini** file in the **C:\PWORKS** folder.

Before printing, documents must be set up through the **Configuration of PracticeWorks** utility. See the **Documents Menu** section of the **Initial Training Workbook** in the [Resource Library](#) for more information.

The maximum length for the printer name may affect both printer and computer names. Printer names as long as twenty-eight characters are possible, but the entire printer name should be viewable from within the **Printer** drop-down list in the **Configuration of PracticeWorks** utility. The character limit for the **Printer** drop-down display is approximately twenty-eight characters.

As a general rule, use **PCL 6** drivers, when available, or the latest **PCL 5** driver when the PCL 6 driver is not available or is not appropriate.

In the event a user wants to reconfigure the printer setup on a computer, do the following:

1. Open the **Pworks.ini** file on the machine.
  - From the **Start** menu, click **Run**.
  - Type **C:\PWORKS\Pworks.ini**.
  - Press **Enter**.
2. Remove any keys from the **Forms** section.

If the global printer setup should be removed, do the following:

1. Open the **Pworks.ini** file on every computer.
2. Remove the keys from the **Forms** section.
3. Open the **pwglobal.ini** file in the data directory on the server.
4. Remove any keys from the **Forms** section.

## Related Documentation and Resources

Additional information available in the [Resource Library \(gosensei.com\)](#):

- Initial Training Workbook
- Online Help
- Release Notes
- Getting Started Guide: ePrescriptions
- Link to our virtual agent, Cassidy

- o [gosensei.com/pages/support-practiceworks](https://gosensei.com/pages/support-practiceworks)  
Cassidy is Carestream Dental's AI-powered virtual agent offering 24/7/365 online customer support. When you need a quick step-by-step guide or question on product needs, information is instantly available via Cassidy.
- Link to the Carestream Dental Institute: [carestreamdental.com/cdi](https://carestreamdental.com/cdi)

## Installation Troubleshooting

### Timeout Error

**Issue:** The PracticeWorks server gold key is not in the system tray.

OR

The gold key or the server or both have frozen.

**Note:** The server gold key cannot and will not run over Remote Desktop.

**Solution:** Log into a console session on the server. The server gold key must be at **Session 0**.

1. Verify **PWClient** on the server computer is directed to the correct **PWSvr.exe** folder.
  - o This reference must be a local drive letter not a mapped drive or UNC path reference. This means the **PWClient** setting on the **PWSvr** computer will always be different than on the workstation computers.
  - o Verify the **Registry** entry  
HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\Run\PWSvr matches the **PWClient** setting exactly to ensure the gold key will start properly on boot.
2. Verify no other computer on the network has a gold key in its system tray.
3. Double-click the **PWSvr.exe** file in the **\pworks\pwsvr\** folder and verify the gold key stays on the system tray.
4. Right-click the *PracticeWorks server gold key*, which is located in the system tray at the bottom of the screen.

**Note:** Although shutting down all the workstations and restarting the server may restore the gold key, there is a less drastic method. Open the **PWSvr** folder inside the **PWORKS** directory on the server and double-click the gold key to launch the server executable. Once this is accomplished, the office should attempt to open PracticeWorks by the normal process before taking the steps below.

1. Right-click the gold key in the system tray.
2. Select **Open**.
3. Click **Options**.
4. Change the value in the **Message Check Frequency** field to **1** second.
5. Select the following options:
  - o **File System Message Polling**
  - o **Automatic Server Detection**
  - o **Duplicate Server Resolution**
6. Click **OK**.

Do the following on the workstations:

7. Click **Start**.

8. Click **Run**.
9. Type **C:\Windows\Syswow64\pwclient\pwclient.exe** in the **Open** field.
10. Click **OK**.
11. Click **Options**.
12. Click **Find License Server**.

**Note:** In some instances a message will say the **License Server was not found** on the network. When this message is displayed, it will be necessary to load the path manually.

- i. Click the ellipse at the end of the **PracticeWorks Server Path** field.
  - ii. Browse through the mapped drive to the server path. For example:  
**P:\PWORKS\PWSVR**
  - iii. Make sure this path is displayed correctly and completely in the **Path** window.
13. Set the **File System Message Timeout** to **15**.
14. Set the **Mailslot Message Timeout** to **5**.
15. Click **OK**.
16. Close all unneeded windows.
17. Open PracticeWorks to verify the issue is resolved.

### **Startup Problem No Data Dictionary**

**Issue:** This can occur when opening PracticeWorks on one or more workstations.

**Cause:** The network drive is disconnected for some reason. This can be verified by checking *Computer Network Drives*. If the data path has a red **X** over it, it indicates it is disconnected. The network drive letter can vary.

#### **Solution:**

1. Click **OK** on the error message.
2. Click **Start**.
3. Click **Computer**.
4. Double-click the mapped drive to see if the location is accessible. The actual mapped drive letter can vary.
  - If the network location is accessible, close the folder and open PracticeWorks. PracticeWorks should open normally.
  - If the network location is not accessible, a Windows networking error is displayed.
5. Turn off the computer for 5 seconds and reboot.

In cases where the network location is accessible and the problem persists, run the **Workstation Setup** on the affected computer.

1. Go to **Start > CS PracticeWorks > CS PracticeWorks Workstation Setup**.
2. Follow the prompts and complete the installation.
3. Open PracticeWorks and verify everything works.

## **Btrieve error 3012**

**Issue:** Pervasive services are not running on the server, or simply need to be restarted. The services will need to be restarted even if the issue only happens on one machine and other machines are functioning fine.

**Note:** **Pervasive SQL** listens through **Port 3351** on the server's IP address. A static IP address is not required here, but it is helpful. If the IP on the server changes without **Pervasive Services** being restarted, the services will still be listening on the original IP address, and workstations will not be able to find it. This is what oftentimes causes 3012 errors, and it is why we begin troubleshooting by restarting the **Pervasive Engines**.

**Solution:** Restart the **Pervasive Engines** on the server by doing the following:

1. Click **Start > Run**.
2. Type **services.msc** in the **Open** field.
3. Click **OK**. The **Services** window is displayed.
4. Locate **Pervasive** in the list.
5. Right-click **Pervasive PSQL Relational Engine** and click **Stop**.
6. Right-click **Pervasive Transactional Engine** and click **Stop**.
7. Right-click **Pervasive PSQL Relational Engine** and click **Start**.
8. Right-click **Pervasive PSQL Transactional Engine** and click **Stop**.
9. Close the **Services** window.
10. Open **PracticeWorks**.
11. Ensure the mapped network drives are connected (no red **x**'s).
12. Open PracticeWorks on the server and verify everything works.
  - If the issue is not resolved, contact support.

Verify **Telnet** connects.

1. From the workstation, go to **Start > Control Panel > Programs and Features**.
2. Click **Turn Windows features on or off** on top-left side of the screen.
3. Locate and select **Telnet Client**.
4. Click **OK** to install.
5. Once installation is complete, open a command prompt window.
6. Type **Telnet <servername> 3351**. Replace **<servername>** with the name of the Pervasive server.
7. Press **Enter**.
  - If CMD goes blank with blinking curser, then it successfully connected.
  - If a failed message is returned, the office technician will need to resolve for communication on **port 3351**. This can be caused by the Firewall or a communication issue between workstations and the server.

Make sure server has the network location set to private domain.

1. Go to **Start > Control Panel > Network and Sharing Center**.
2. Verify the network setting in the **View your active networks** section.
  - Is the network is set to **Public**, **Private**, or **Domain**?



3. If set to **Public**, this needs to be changed to **Private** or **Domain** depending on the network.

The steps to change the network type vary depending on the version of Windows.

### **Btrieve Error 161**

**Issue:** The temporary license for **Pervasive** has expired or the permanent license is disabled.

Or there are more computers trying to access **PracticeWorks** than the number of **Pervasive licenses**. If the number of computers currently in PracticeWorks are less than the number of **Pervasive licenses**, then you have a case of phantom users in PracticeWorks.

**Solution:** To enter the Pervasive license activation key on the server:

1. Go to **Start > All Programs > Pervasive > PSQL 11/10 > Utilities > License Administrator**.
2. Enter the key in the **Key** field.
  - The office will receive the key via email when they purchase the additional licenses.
  - Make sure to keep the caps lock on and manually enter the dashes.
3. Click **Activate**.

To re-activate a disabled license key:

1. Go to **Start > All Programs > Pervasive > PSQL 11/10 > Utilities > License Administrator**
2. Right-Click the disabled key and select **Repair**.
3. Confirm the **Repair**.
4. After the repair is complete, the key should show as **Active** in the **State** column.
5. Open **PracticeWorks**.

### **Additional Information:**

Btrieve 161 errors can also mean the office does not have enough Pervasive license to allow all machines to open PracticeWorks. The number of licenses available and currently in use will need to be assessed to determine if this is the case. To confirm if all licenses are currently in use, check the **PSQL Monitor** utility.

1. On the server, go to **Start > Programs > Pervasive > PSQL 11/10 > Utilities > (PSQL) Monitor**.
2. Click the **Microkernel** and select **Resource Usage**.
3. Verify the entry for **Licenses in Use**.