PedCath 8

Using PedCath

	Page No.
Logging In	**3**
Locating the Data Folder	3
Your Password	3
The Browse Screen	**4**
Sorting Patients	4
Locating Patients	4
Different Views in the Browse Screen	5
The Browse Screen Toolbar	5
Editing Patient Demographics	5
Adding New Patients	6
Editing Staff Records	6
Adding a New Cath	6
Edit Cath Screen	**7**
Demographic Information	7
Case Information	7
Adding Cath Personnel and Their Roles	7
Hemodynamic Sets	8
Calculated Values	8
Oxygen Consumption Calculator	8
User Fields	9
Measurements/QEP	10
PedCath Options	**11**
General	11
User	11
Global	11
Administrator	11
PedCath Imports	**12**
Overview	12
Running the Direct Data Import Utility	12
Import Review Screen	13
Hemodynamics	13
Staff	15
Document and Image Resources	15
Import	15
Importing into an Existing Cath	16
PedCath Exports	**17**
Overview	17
Export Protocols	17
Supported File Formats	17
Manual and Automatic Export	18
Cath Report Component Managers	**19**
Comments	19
Diagnoses and Procedures	19
Adverse Events (Optional)	19
Diagram Manager	20
Adding Diagrams	20
Editing Diagrams	21
Embedding Hemodynamic Values in the Diagram	21
Edit Diagram Toolbar	21
Image Manager	23
Document Manager	24
Edit Cath Report Screen Toolbar	**25**
Billing Information	25
Locking the Cath Report	26

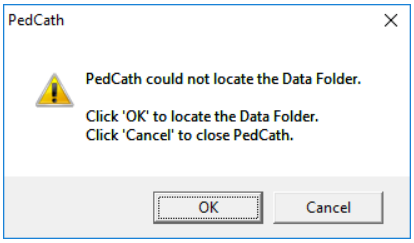
Report Setup……..……. 27
Global Report Settings.....…….. 28
Data Reports.....…… .....…..…… ……. 29
Creating a Report Query..... …… 29
Running the Report Query..... …… 31
Administrative Console.....…… .....…..…… …… 33
Editing Personnel.....……. 33
Viewing HIPAA Logs.....…… 33
Maintenance.....…….....…… 35
Database Maintenance.....…….. 36
Viewing Login Information.....…….. 37
Institutional-Wide Upgrade.....…….... 38
Import Settings…….....……... 38

Logging In

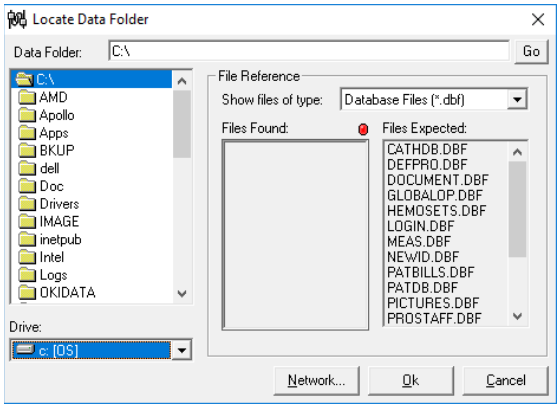
Start **PedCath** as you would any Windows program: Click the Start menu, and select **PedCath** from its own program group.

Locating the Data Folder

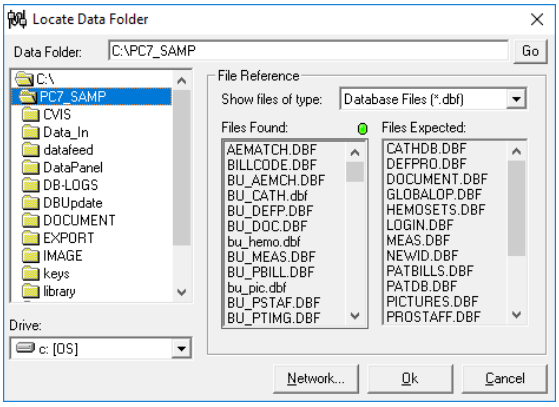
If this is the first time **PedCath** has been run on this computer, a message box will appear, telling you that **PedCath** could not locate the Data Folder. Click OK and the Locate Data Folder screen will appear. Browse to locate your **PedCath** data files.



When you have located the proper directory, the red light above "Files Found" will turn from red to green. When the light is green, you are ready to proceed. Click OK.



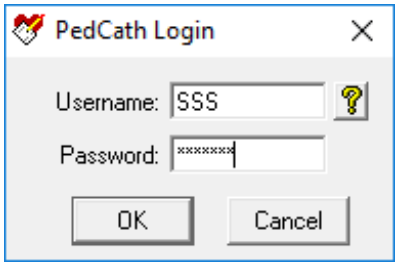
Locate Data Folder Screen - Red Light



Locate Data Folder Screen - Green Light

Your Password

After you have located the data files, the **PedCath** login Screen will appear. Enter the user login and the password given to you by your network administrator.



The default password for new users is ***Taussig1!*** Once you have used the password to login, you must change it immediately, and will be prompted to do so by **PedCath**.

Dr. Helen Brooke Taussig, often called the "mother of pediatric cardiology," was born in 1898. Dr. Taussig attended the medical school of Johns Hopkins University, where she became interested in cardiology. In 1930, she assumed leadership of the cardiology clinic at Johns Hopkins, where she encountered many "blue babies." She investigated the reasons for cyanosis and discovered that its major cause in cases of Tetralogy of Fallot was insufficient blood flow to the lungs.

Taussig

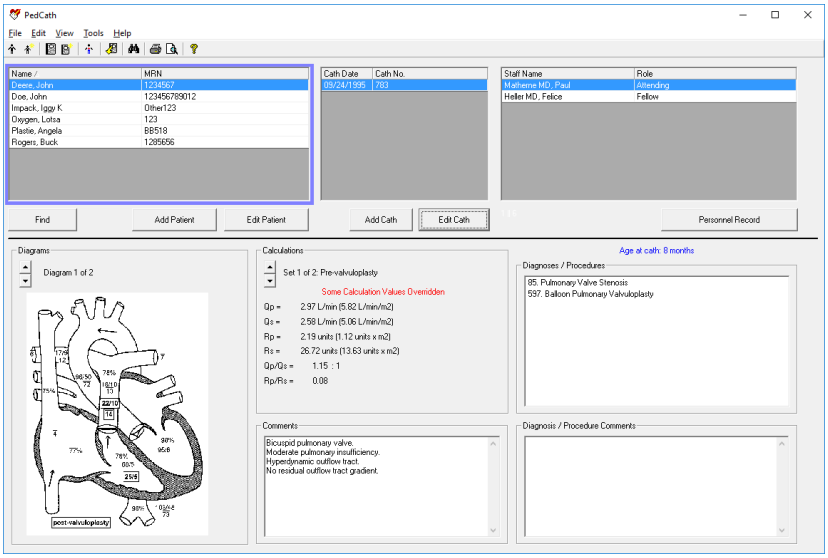
Photo © Karsh, used with permission.

Dr. Taussig was a pioneer in devising surgical treatments for congenital heart disease. In 1944, the Blalock-Taussig Shunt operation, which she developed with surgeon Dr. Alfred Blalock, was first performed. The publication of this procedure revolutionized the medical approach to congenital heart disease. It also inaugurated the new specialty of pediatric cardiology and led to he saving of many thousands of lives in the decades to come.

In later years, her failing hearing made Dr. Taussig rely increasingly on her sense of touch, using her hands to diagnose cases of congenital heart disease. Helen B. Taussig's contribution to pediatric cardiology was recognized through the bestowal of many honors, including the United States' Medal of Freedom, the French Chevalier Legion de la Legion d'Honneur, and the Italian Feltrinelli Prize. She died in 1986.

After you log in, PedCath opens to the browse screen, with snapshot views of every cath.

The Browse Screen



The patient list is located at the upper left part of the main screen. Each line shows a patient's first and last names, and the hospital history number (MRN). The cath list, in the upper middle, shows cath records that have been saved for the selected patient. Each patient may have multiple cath records, which are identified in the list by date and the hospital's cath number. To the right side of the screen is the staff list, which shows the personnel involved in each cath, as well as their roles.

The lower two thirds of the screen is devoted to a summary of the cath highlighted in blue in the cath list. On the left there are patient diagrams. In the middle are calculations derived from up to eight hemodynamic measurement sets. On the right are any diagnoses or procedures that accompany the present cath, along with their codes. Across the bottom are staff comments about the cath.

To view a patient's caths, either click on the patient's name, or use the arrow keys and the "Page Up" and "Page Down" keys to locate the desired patient's record.

To view a larger version of the diagram, double click on it.

Sorting patients

When you start, you will notice a blue frame around the patient list. This indicates that the patient list is active. If you click on a cath record or staff record, the corresponding list will be highlighted.

Records may be sorted in ascending or descending order by clicking on the appropriate column heading. For example, to arrange patients by medical record number, click MRN in the gray box at the top of the patient list. A small arrow will appear next to MRN. To reverse the order, click in the same place again. Clicking on any of the gray field headings - Name, MRN, Cath Date, Cath No., Staff Name, or Role - will also provide quick sorting by field.

Locating Patients

When the patient list is sorted alphabetically, you may quickly jump to records with a specific beginning letter. For example, if the patient list is sorted by name, typing ***S*** will highlight the first patient whose last name begins with an "S." Likewise, if the list is sorted by medical record number, typing ***4*** will highlight the first patient with a medical record number beginning with "4". For more detailed searches, there is a find function to locate a patient. To access this function, press Ctrl+F [hold down the Ctrl key, press F, then release both], click on the binoculars on the toolbar at the top of the screen, click on the Find button below the patient box, or select "Find…" from the tools menu. The find button will highlight the first patient it finds matching the search string you enter.

Choosing View > Patient Filter Search from the main menu will allow you to filter the patients shown in the grid by the name, MRN, or internal patient ID.

Different views in the browse screen

In the default view, cath records are sorted by patient. There are other views available and the view may be changed by using the View menu at the top of the main window. The following views are available:

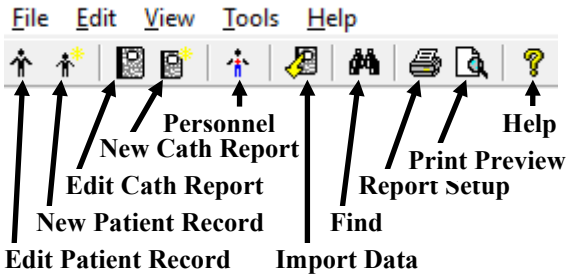
- View by Patient – Shows the list of all patients within the patient grid.
- View by Cath – Shows the list of all cath reports within the cath grid.
- View by Staff – Shows your personnel list within the staff grid. When highlighting a staff member, all cath reports where they were listed in the case staff will be loaded into the cath grid.
- Patient Filter Search – Will allow you to filter the patients shown in the patient grid by name, MRN, and internal patient ID. The patients will be filtered as you type within one of the search boxes. The patient name filter will include results from partial patient names. For instance typing in "**Wil**" could return patients with the last name "**Wil**son" and "**Wil**kins", while typing "**Smith, J**" could return "**Smith, J**ohn" and "**Smith, J**ane". The patient grid will be empty initially.
- View by Recent Cath – Similar to View by Cath but will show only the most recent 30 cases within the cath grid. When scrolling to the end additional cases are loaded. This can improve load times when your cath database becomes large.

You can set your default view for PedCath to load upon startup, in the options on the User tab. Setting this to Patient Filter Search or By Recent Cath will speed up load times.

You will need to be in View by Patient or Patient Filter Search mode in order to add new patients, add cath reports, or import data from a hemodynamics system.

The Browse Screen Toolbar

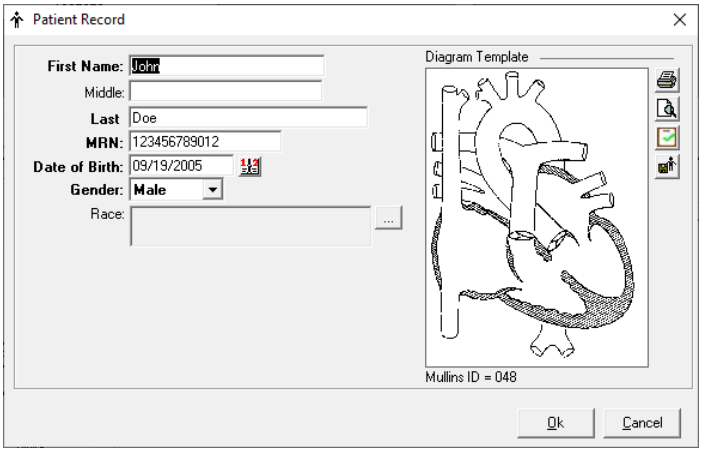
The toolbar is located at the top of the screen, just below the menus (File, Edit, View, Tools, and Help).



If you forget what a button does, you can find out by leaving the mouse over the button for a few seconds. A label will appear with the name of the button.

Editing patient demographics

Clicking the Edit Patient button or the Edit Patient icon will pop-up the Patient Record Window.



In this window, you may edit the patient name, MRN, date of birth, gender, and race. Any data with a bold label is a required field. Any data you enter in this window will be automatically saved after you click OK.

If a diagram template has been created, it is shown here as well. From this screen you can print, copy it to the clipboard, and save to an image file. Patient demographics can be included on the printout. Templates can be added to the patient record from the Browse screen Edit menu, or after editing a diagram for a cath report (See section on Diagram Manager).

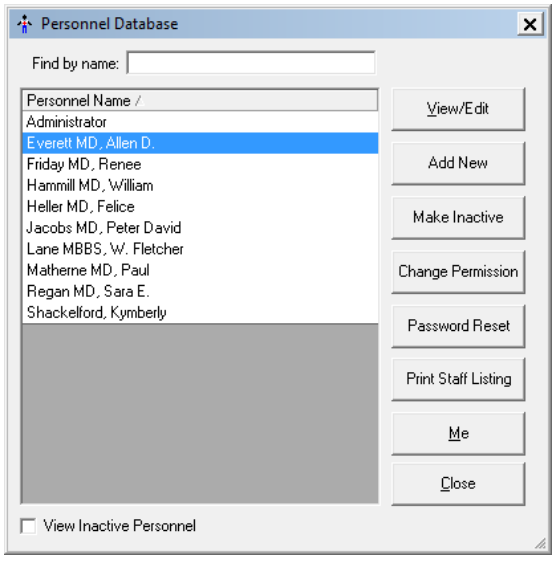
Patient demographics may be edited by double clicking on the patient's name.

Adding new patients

Clicking the Add Patient button or the Add Patient icon will pop-up an empty Patient Record Window.

Editing staff records

Clicking the View Personnel icon will pop up the staff list. Select a staff member and click View/Edit to make changes.



New staff may be added by those with administrator level access, under; **`Tools-Options-Administrator-Personnel`**. ***You can also edit staff from the Browse screen by choosing*** **`View-Personnel`**.

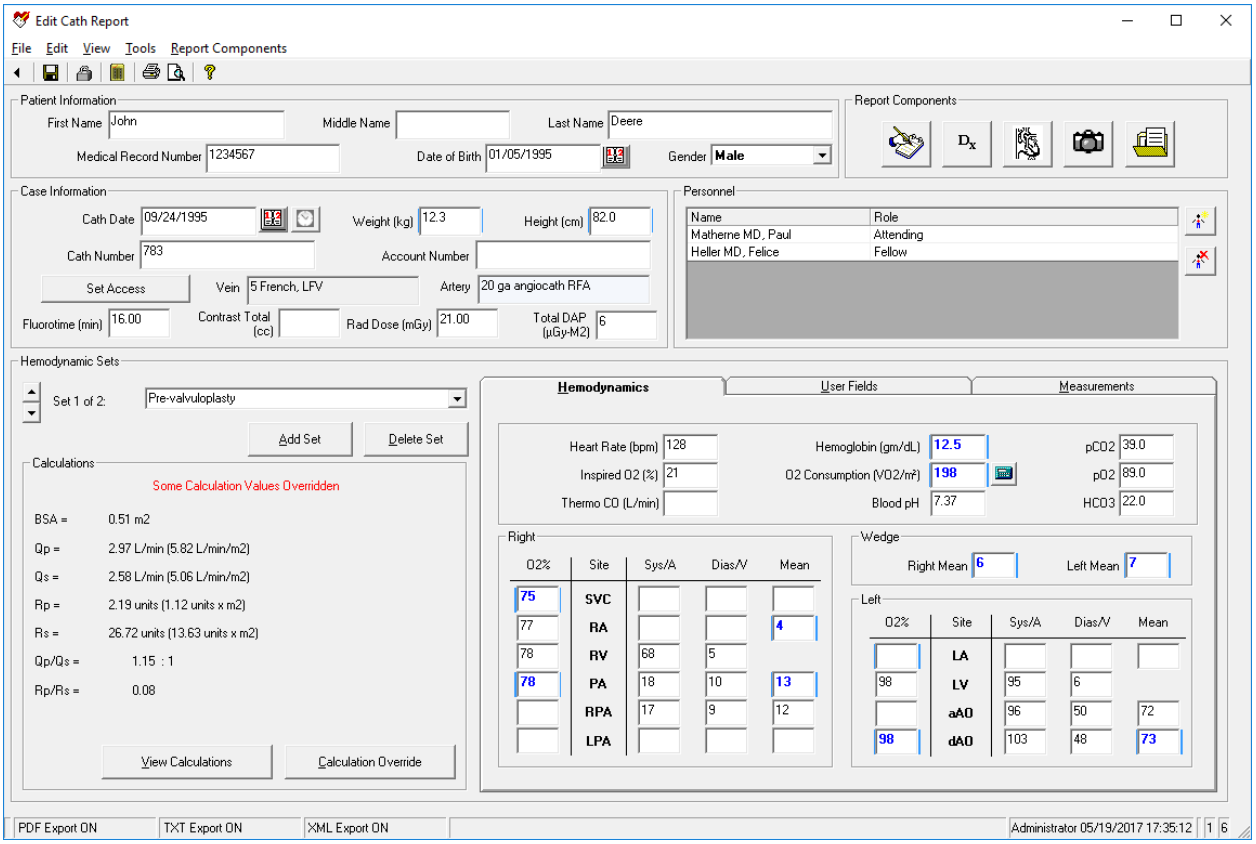
Editing cath data

To edit an existing cath report; 1) click on the Edit Cath Report icon, 2) double click on the cath date in the cath list or 3) click the Edit Cath button below the cath list.

Adding a new cath

To create a new cath report; 1) click on the New Cath Report icon, or 2) click the New Cath button below the cath list.

The Edit Cath Screen



Demographic information

In the previous section we used a pop-up window to add and edit patient information. These same fields may also be edited in the top two lines of the Edit Screen.

Case information

The case information frame includes cath date, cath number, and procedure start and end times; access notes, height and weight; as well as contrast, radiation dose and fluoroscopy data. The only required field is Cath Date. (Cath Number and Account Number may be required depending on your export settings). The Vein/Artery access information can be set by clicking the Set Access button. Multiple arterial and venous access sites are supported and include the access site (chosen from an option list), sheath size and closure methods. The closure methods can optionally be printed on the report based on per-cath and global settings. Use the override boxes to modify the text that will appear on the report if needed.

Adding cath personnel and their roles

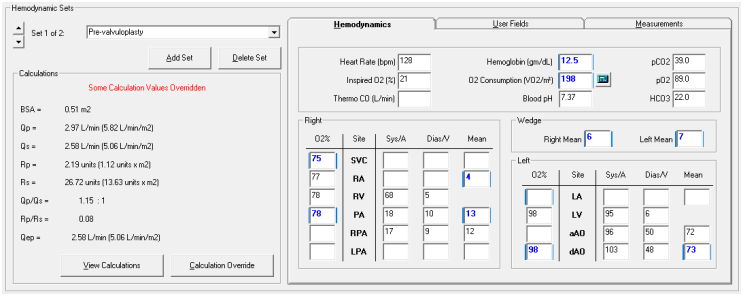
Add personnel to this cath by clicking on the Add Personnel to Cath Report icon.

Delete personnel from this cath by clicking the corresponding row in the grid and clicking on the Remove Selected Person from Cath Report icon.

To change the role of the staff member, either double-click on the role, or click once and then click on the gray box on the right hand side of the field. A drop down list will appear with the roles at your hospital.

When adding personnel, users with Full-Edit permissions will be able to add "No-Access" staff to the global personnel database here if they don't already exist, such as Referring Physicians.

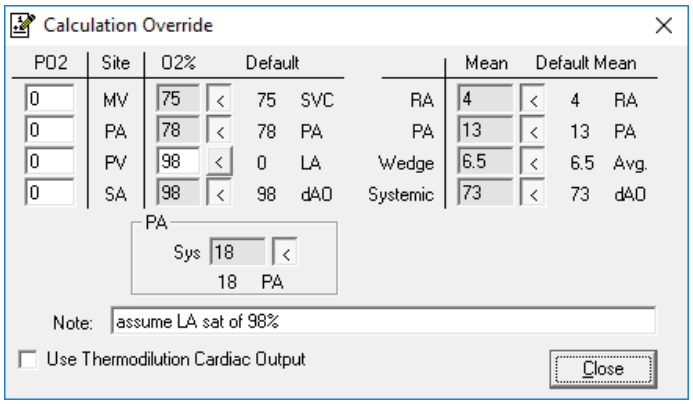
Hemodynamic Sets



You can use the Tab key to move logically through the data entry screen. Pressing Tab will move to the next field while Shift-Tab will move to the previous field. Try it!

Although the top half of the edit window stays the same for an entire cath report, the bottom half changes with each set of hemodynamic measurements. Up to eight hemodynamic sets can be associated with a single cath. The name of the set may be selected from the drop down box on the left hand side of the screen. This will contain common conditions that your hospital uses to gather hemodynamic data. You may also manually enter a condition by double-clicking this box and typing the name. Add or delete sets by clicking on the buttons below the set name. When deleting a set, a dialog box will pop up to confirm the deletion.

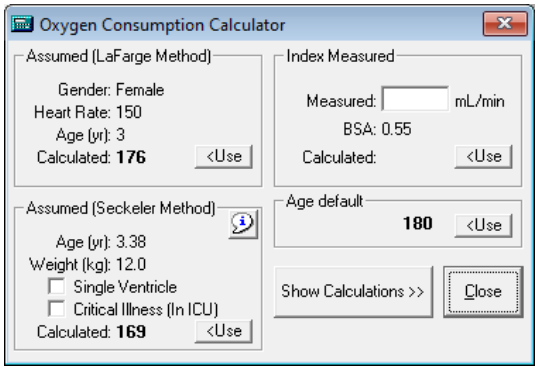
Calculated values



Calculated values are shown in the lower left-hand corner of the edit screen. Clicking the "View Calculations" button displays a window with all formulas and calculations displayed.

Any default value used in these calculations can be changed by clicking the Calculation Override button and changing the appropriate values in the window that appears.

Oxygen consumption calculator



You may enter a value for Oxygen Consumption, leave the field blank or you may use **PedCath**'s built in oxygen consumption calculations:

<u>Assumed O2 by LaFarge method</u>
The LaFarge method uses patient gender, age, and heart rate to calculate an assumed oxygen consumption. The LaFarge method is only available for patients between the age of 3 and 30.

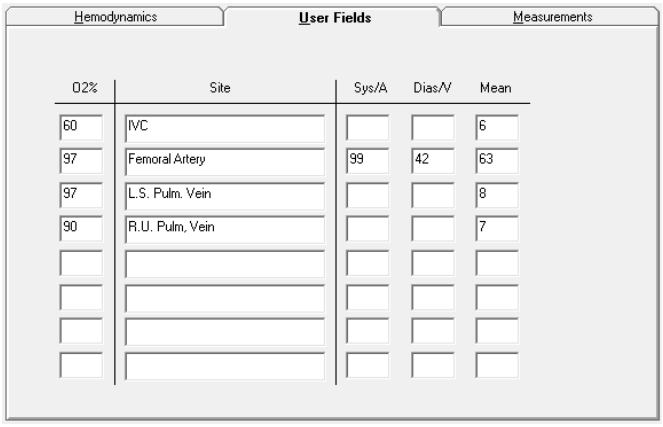
<u>Assumed O2 by Seckeler method</u>
The Seckeler method uses patient age, weight (kg), whether the patient is single ventricle, and if they have a critical illness. The original equation was validated for patients 0 through 59 years old. In addition, patients with other conditions, such as pulmonary hypertension, could be considered "critically-ill", but these populations were not specifically validated in the original manuscript. Use for these patients is based on clinical judgement.

<u>Indexing a measured value:</u>
If you use a measured value for oxygen consumption (ml/min), the calculator can use the stored value for Body Surface Area to compute an indexed value (ml/min/m^2). When you open the calculator, the BSA value will automatically appear as the divisor for the oxygen consumption calculation. Patient height and weight are used to calculate BSA**. <u>If height and weight data should change, you must re-calculate the value for oxygen consumption.</u>**

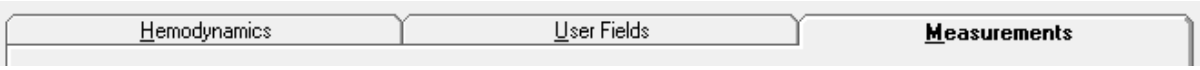
Age default:
If your institution has set up a list of age-based defaults to use, and the patient falls within one of the age ranges, the default value will be shown. Age-based values can be useful for patients under 3 years old, when the LaFarge method cannot be used.

User Fields

PedCath intentionally limits the number of reporting sites in the interest of brevity and clarity. Pressures and saturations not listed in the site grid can be reported in the comments section and/or added to the diagram.

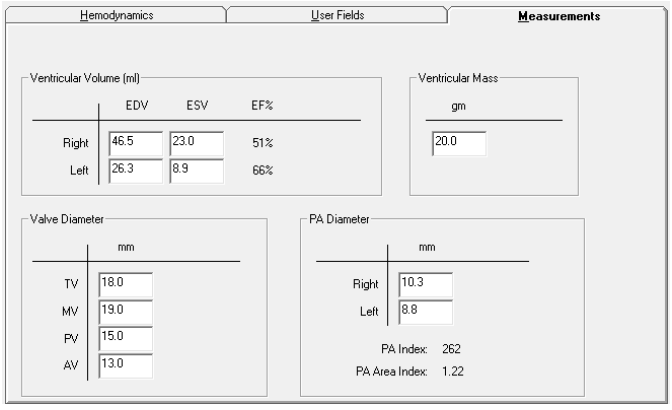


PedCath now offers eight additional sites. The site labels can be prefilled with commonly used sites (called Institutional Sites in the options). Patient specific sites may also be used to record sites specific to the current case. If the data is filled in for common sites and the report is saved, any rows without measurements will be removed freeing up space for additional patient specific sites.



Measurements

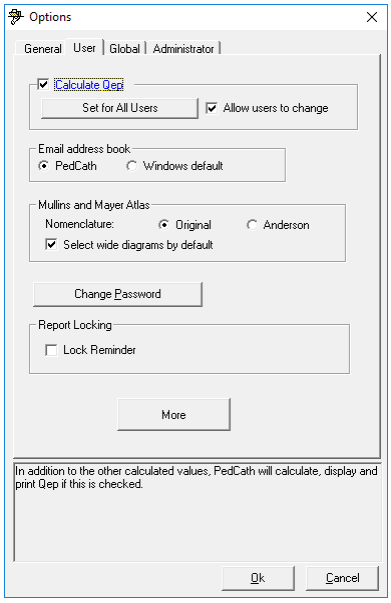
A new group of measured values is available in **PedCath**.



Review the default settings under **`Tools>Options>Administrator>Calculations`** to set global values for your institution.

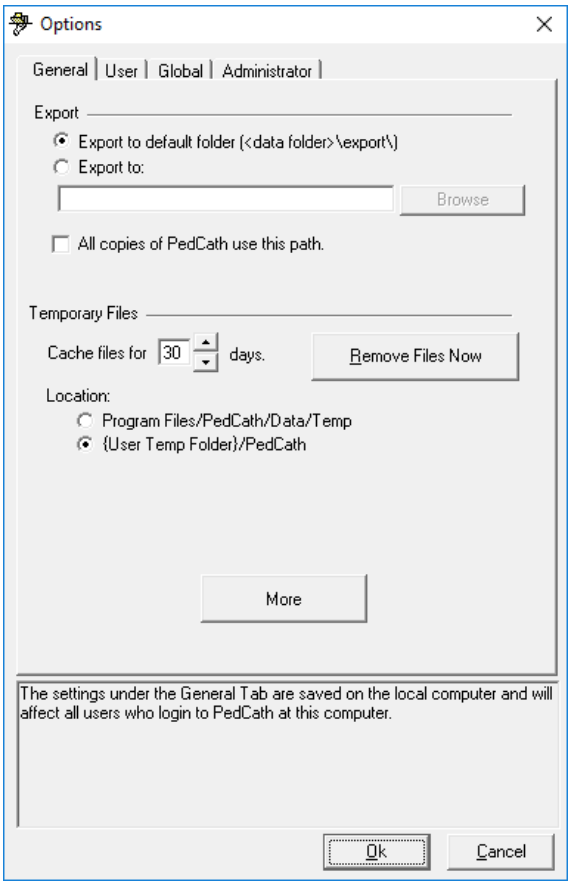
Qep

PedCath can calculate, display, and print QEP values.
In the browser screen, go to **`Tools>Options>User`** and click on the calculate QEP checkbox to turn QEP calculations on or off.



PedCath *Options*

From the Browse Screen, select Tools>Options to open the options screen



General Tab

Allows the user to set guidelines for the destination folder for exported files, temporary file storage, diagram previews and startup options.

These are per-workstation settings.

User Tab

Includes options specific to a PedCath user. Options include calculation of QEP, whether or not to use smart name and/or date formatting, choice of the email address book and protocol, and whether or not to use the original or Anderson Mullins and Mayer Atlas nomenclature.

The user password may be changed under this tab as well.

Global Tab

Personnel roles may be added, deleted, or their rankings changed under this tab. Which staff roles will be included on the cath report and which will be authorized to lock a cath may also be determined here.

Administrator Tab

This tab includes global settings accessible to a PedCath administrator. The options available include:

- Managing the personnel database, configuring staff options, configurating login constraints, and enabling Active Directory support.
- Setting calculation constants and options
- Setting Institutional sites (up to 8).
- Configuring import and export options, custom interfaces, and CVIS integration options.
- Launching the Administrative Console to perform maintenance and other administrative functions. (See pg 32).
- Setting report locking options.
- Setting the billing codes code set (ICD-9, ICD-10, or ICD-11) and code sync options.
- Specifying field units (for radiation fields).
- Setting audit logging settings.
- Other Misc. options such as auto-incrementing the cath number, auto-logoff, and enabling global style sheets for documents.

PedCath *Imports*

Overview

If your institution is licensed to use the **PedCath** Direct Data Import interface for your Cath Lab, you will be able to import patient demographics, case, and hemodynamic data as well as the procedure log and any available angio/snapshot images directly into **PedCath** from your hemodynamic monitoring system.

The cath report should not exist prior to import; it will be created during the import process. **PedCath8** however does give you added flexibility to run the import at any time into an existing case to bring in select components (see the **Import Into an Existing Cath** section).

You are always free to create and edit case data manually, whether it is brought in with the Direct Data Import Utility or not.

Please note the following sections show the interface with the GE MacLab. The interfaces have minor differences, but largely work in the same way.

Running the Direct Data Import Utility

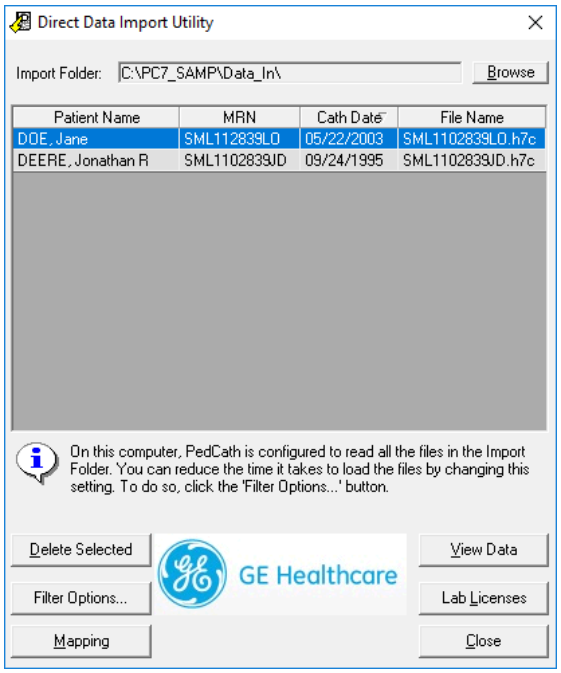
From the **PedCath** Browse screen click the Import Data button on the toolbar, or choose Tools > Import Cath Data (F4) from the main menu.

The Direct Data Import Utility screen will show a list of cases that have been sent to the Import folder from your hemodynamic system.

Any entries that show up in red have already been imported and cannot be imported again. (the administrative Import settings will allow you to configure whether files should be deleted or renamed after they are imported so that they will no longer show in the list – cleaning up the files will also greatly speed up loading the Import Module).

Any entries that show in yellow should be checked to see if the patient's demographics (Name, Birth Date, MRN) in the hemosystem exactly match what's currently in **PedCath**. Double click the entry to see what fields do not match.

PedCath8 will allow you to import more than one case per day for a given patient.



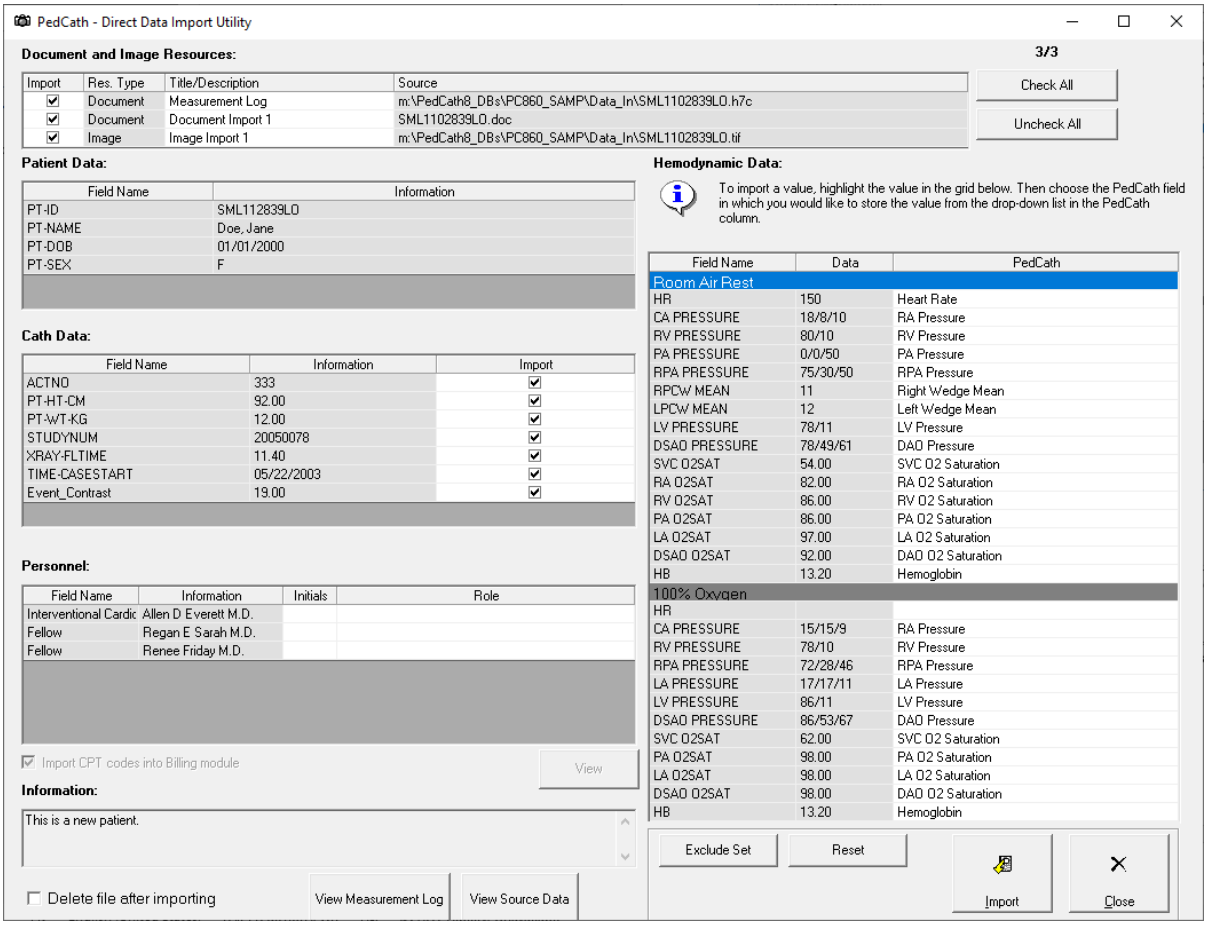
To start the import process, highlight a patient's case in the grid and click **View Data**. This will bring up the Import Review screen.

Import Review Screen

The Import Review Screen will show you what will be brought into PedCath during the import. You will have the chance to choose the best hemodynamics to bring in for the case, map staff to **PedCath** staff records, and selectively import case data, documents and images.

You have control to set any grid cells that have a white background; the cell values will determine what data will be brought into PedCath and what fields they will be stored in.

Any rows with blank white cells will not be brought into PedCath.



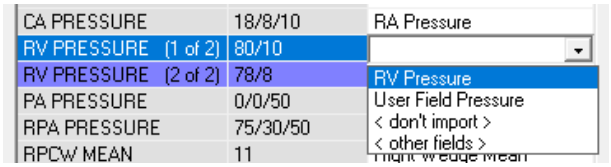
Hemodynamics

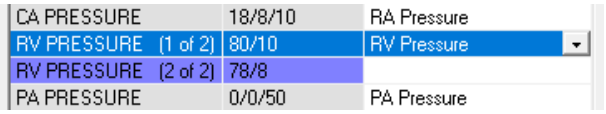
The first two columns of the Hemodynamics grid show the field names and data values taken from your hemodynamic system. The third column “PedCath” shows what fields the import data will be saved to in the **PedCath** database.

Because **PedCath** stores summary data and not every measurement taken, you must choose the best hemodynamic measurements to bring into **PedCath**, if more than one measurement was taken for a site per condition. By default **PedCath** will choose the last measurement taken.

To choose a different measurement, click the cell within the “PedCath” column and choose the field name where the data should be mapped from the drop-down list. Any other measurements taken for that field will be cleared for that hemoset.

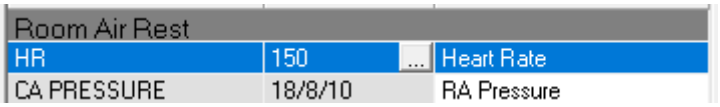
For example to bring in the first RV pressure rather than the second, choose *RV Pressure* in the pull down menu next to the first RV measurement:

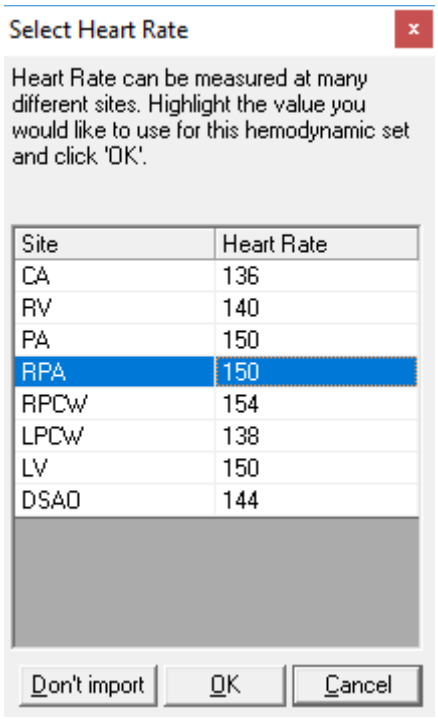




PedCath will allow you to bring in at most eight hemodynamic sets. If there are more you must choose what sets to exclude from the import by highlighting a row within that set and clicking Unmap Set.

There are some measurements that PedCath stores per hemoset that may have been measured at multiple sites during a case condition (such as the heart rate or blood gases). Depending on your hemodynamic interface, PedCath will allow you to choose the site to take the measurement from, in a pop-up list. If you see a box with a “…” next to the measurement when you click the row, clicking the button will bring up the list of site measurements to choose from.



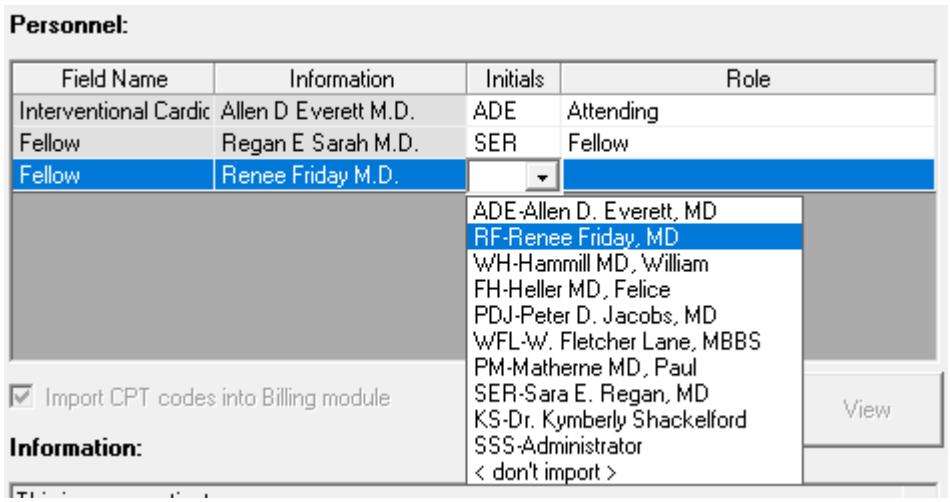


Staff

When you first start using the PedCath Direct Data Import Utility, the Initials and Role columns will be blank. You will need to associate those columns with the staff name and role in the first two columns, in order for PedCath to import the staff members.

To do this, expand the drop down list to find the users login (usually their initials) in the “Initials” column. Their default PedCath role will populate the “Role” column automatically. If this is not the correct role for the case, choose their role in the drop down list in the “Role” column.

PedCath will remember your choices for future imports.

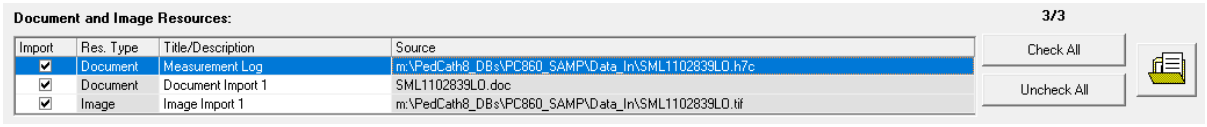


Document and Image Resources

The document and image resources group shows what resources will be brought into **PedCath**. Documents will be saved to the Document Manager, and images to the Image Manager. If a resource is unchecked within the Import column, it will not be brought into PedCath.

You can view a document or image by highlighting it in the list and clicking the document/image icon on the right side of the screen.

You are also free to edit the document or image titles by double-clicking the cell within the “Title/Description” column.



Import

When you have had a chance to review the import data and all of the mappings look good, click the **Import** button.

A new cath report will be created in PedCath, and will be highlighted on the Browse screen.

If you find particular measurements are not coming over or you would prefer certain measurements to be mapped to a different field, contact your PedCath administrator to work with Scientific Software Solutions to resolve the mappings.

Importing into an Existing Cath

PedCath will allow you to import data into an existing cath report as well.

Importing into an existing case could be useful for a number of scenarios:

- When you would like to work on the case diagram before the initial import.

- When importing documents/images that were not available when the case was first imported.

- Reimporting the hemodynamics, or any other section, and not having to delete the case and start over.

- Importing data after each condition during the case to review a summary of the hemodynamics/calculations in the lab or to auto-embed the measurements in a PedCath Live diagram.

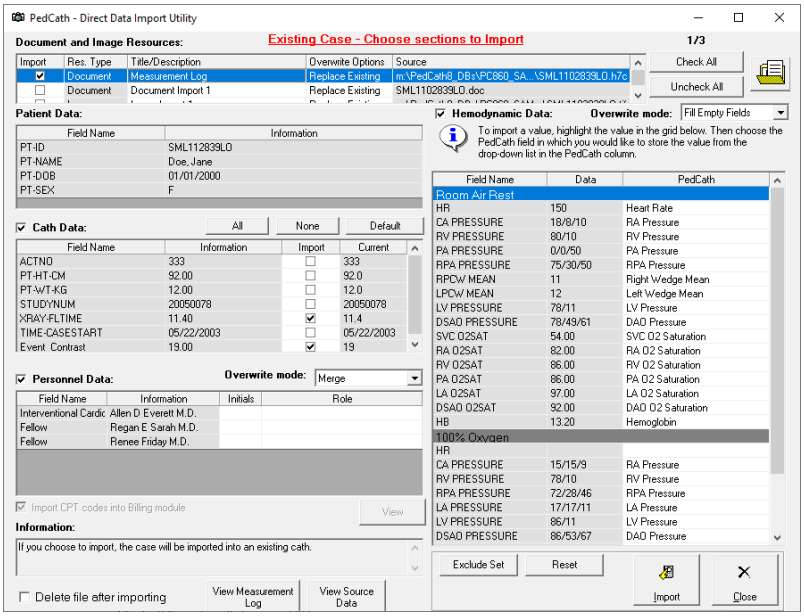
To load data into an existing case, load the Edit Screen for that case and from the main menu choose

File > Import Into Current Cath

This will load the Direct Data Import Utility, with only matching cases showing, if any.

- Highlight the case and click **View Data**

This will show the Import Review screen, but with check boxes next to each report section. All sections are unchecked by default, except for the cath section (only with fields that are updated throughout the case such as fluoroscopy time and contrast, which will more easily allow for progressive imports). It is possible to configure the default overwrite options.



- Check off the sections that you would like to bring in (Cath Data, Personnel Data, Hemodynamic Data, and individual documents and images.)

- For the Hemodynamic Data section, set the Overwrite mode as desired:
  - **Fill Empty Fields**: This will bring data into fields that are blank in the PedCath database, and will leave existing data alone.
  - **Overwrite All**: This will overwrite all data whether something is there or not.

The number of hemodynamic sets must match what is currently in PedCath (or otherwise no hemosets should exist in the existing PedCath record).

The personnel records can either be merged with the existing records or replace them.

Check off any documents and images you would like to bring in. Any that match existing resources will replace existing ones by default. To bring those in as new resources instead click within the cell on the Overwrite Options column to set it to Add New from the pull-down menu.

Click **Import** to import the data into **PedCath.**

PedCath Exports

Overview

PedCath has a wide array of export capabilities to externalize the cath report data once it is completed. You can configure **PedCath** to allow manual exports and/or automatic exports when a cath report is saved or locked in a variety of both visual and data-driven formats.

Export Protocols

Files (Windows Sharing) – You can save the **PedCath** report data to one of several file formats. When running automatic exports you can specify local or shared network locations for the file(s) to be saved to. See the next section for supported file formats.

Print – **PedCath** will allow you to print the report to a printer attached to your local computer or network. There are many options to configure what is printed on the report.

FTP – You can send the **PedCath** report in any file format via the File Transfer Protocol. This can be done both manually and automatically when a report is saved or locked. When configuring the FTP setup, you have the option to strip patient identifying data if the files are to be exported outside of your organization. SFTP is also supported (over SSH-2) and is recommended when sending data with patient identifying information to outside of your institution.

Email – We support any MAPI-enabled mail client and will load your default mail client with the **PedCath** PDF report as a mail attachment.

Supported File Formats

HTML (.htm) – PedCath can generate the report as a hypertext document that can be displayed within any web browser.
TEXT (.txt) – PedCath can export the report to a simple ASCII-format text file for simple parsing or backup.
PDF (.pdf) – PedCath also supports Adobe's PDF document format. Files of this type have the advantage that they cannot be altered and preserve the original page layout when printed or viewed on different platforms. The PDF export has many configuration options that can be set during the report setup. This is the format **PedCath** uses for printing.

Optional Formats

XML/XSL (.xml / .xsl) – PedCath can write the report data in XML format, which is becoming the standard for data exchange between systems. We also export an XML stylesheet file (XSL) that presents the XML data in a web page format. If our PDF document or our XSL style sheet does not suit your needs for the printed report, your organization can develop its own XSL file to define the presentation of the XML data.
http://www.w3.org/Style/XSL/

Version 1 of the XML export will include the XSL style template, however versions 2 and above do not because they are written primarily for data exchange with EMR systems. The later versions are more inclusive of the report data. You can configure which version to use in the export administrative options.

HL7 – PedCath can write the report in the industry standard Health Level 7 format.(v2.3.1).

Manual and Automatic Export

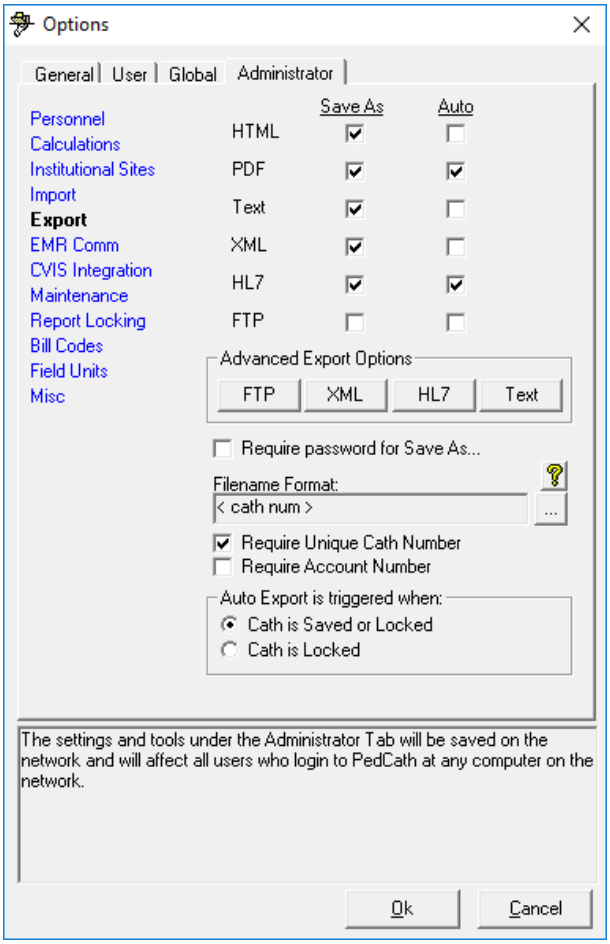
PedCath allows you to configure which exports **PedCath** users may export manually and which ones will be automatically exported when the cath report is either locked or saved.

For manual exports you can also force the user to enter their user name and password before they can export.

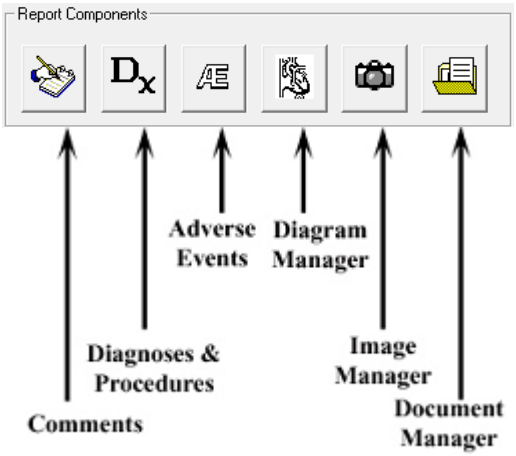
For automatic exports the default path is set to the ***export***\ folder within the **PedCath** network directory. Each user has the choice to use the default path or set it to a different location. That is set on the General tab, and can set globally there as well.

You can also define the file name format for the automatic exports by combining fields such as the MRN and cath number.

There are configuration options for several of the file types to configure the content and resources that are included, header information, etc., within the Advanced Export Options.



Cath Report Component Managers



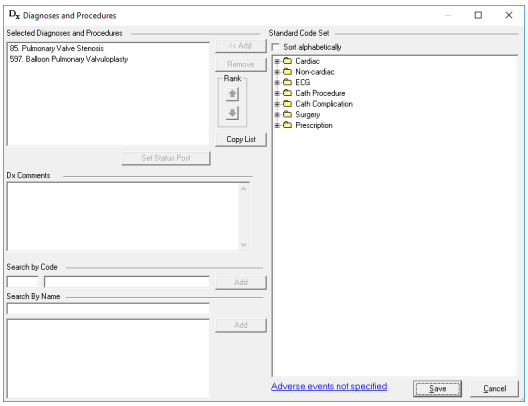
The six buttons (shown at right) launch (left to right) the comments, diagnoses and procedures, adverse events, and the diagram, image, and document managers.

Comments

Comments may be edited by selecting the comments button on the toolbar, pressing F2, or selecting "Comments…" from the view menu. This is the best place for short notes. For longer commentary, entire documents may be added to the report.

Diagnoses and Procedures

The diagnoses coding screen may be activated by selecting the Dx button on the toolbar, pressing Ctrl+D, or selecting Diagnosis and Procedures from the tools menu.



To add a code, you may either browse through the Code Set box or use a search facility.

In the Code Set box, expand the folder list by either double clicking on a folder or clicking on the + sign to the left of the folder you wish to open. Select a code by clicking on it. To see the full name of long descriptions, use the scroll bar at the bottom or leave the mouse over a description for a few seconds; in the latter case, the full name will appear momentarily. To add a code to the cath, use either the Add button or double click on the code.

To add a code via the Search for Code box, enter a code in the small text box on the left. If this box matches a code exactly, the code is displayed in the text box immediately to the right. Click Add to add this code to the cath. Notice the Copy List button to the right of the Selected Diagnoses and Procedures list. This will allow pasting of the selections under Comments or into another document.

You can add a code via the Search by Name box. Just enter a part of the name of the code for which you are searching. For example, entering ***stra***, the selection box will list all diagnoses that contain the letters "stra" in order, such as "00105. Stradling mitral valve," and "00106. Stradling tricuspid valve."

Select Dx. codes by double clicking or highlighting and pressing the Add button.

You may remove a patient's Dx. codes by highlighting them, then clicking the Remove button.

You can change the position (order of importance) of a selected code by highlighting it and then clicking the up and down arrows in the Rank box to the right.

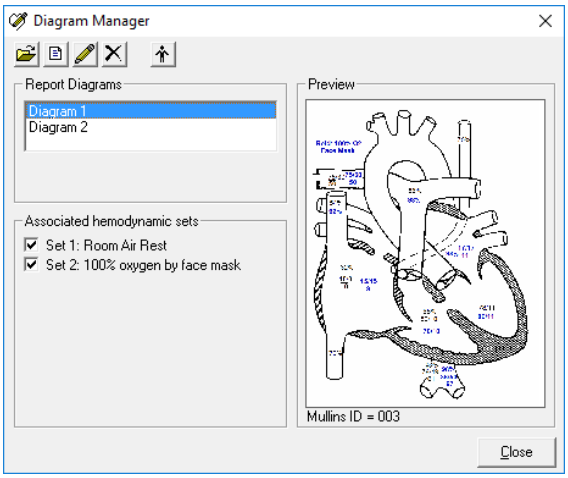
Click the "Set Status Post" button to mark a procedure as status post. Procedures imported from earlier cases will automatically be set to status post. This option is not available for all coding sets.

Adverse Events (Optional)

Adverse Events is an optional button. If activated, this button will open the Adverse Events screen. This will present the Adverse Events code list and relevant qualifiers.

Diagram Manager

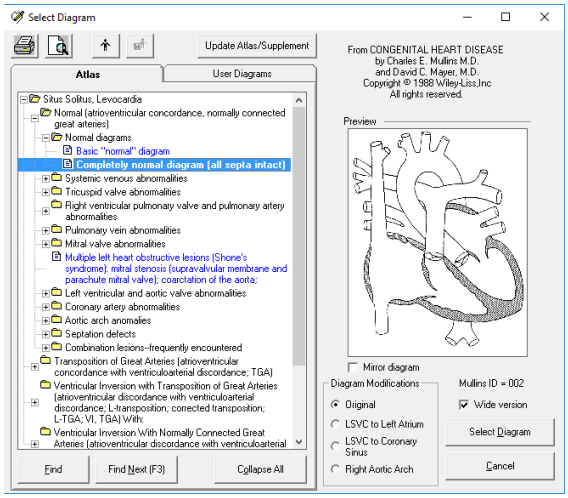
To access the diagram manager, press F6, select "Diagram Manager…" from the Report menu, or click on the Diagram Manager button in the upper right of the edit screen.



In the Report Diagrams selection box in the upper left of this window, you may select the diagram you wish to view. A preview will appear on the right. Each diagram may be associated with between zero and four hemodynamic sets. Click the check boxes of the hemo sets which you would like to associate with each diagram. To remove a diagram, click the button marked with an "X." To add a new diagram, click on the Add Diagram button, the button marked with a folder on the far left of the toolbar.

Adding Diagrams

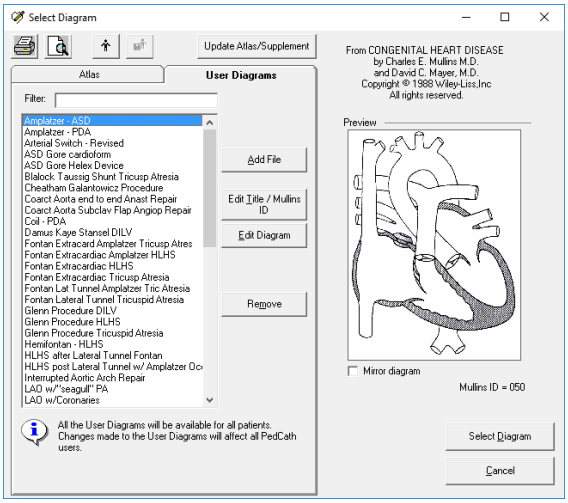
To add a diagram, expand the folder list by either double-clicking on a folder or clicking on the + sign to the left of the folder you wish to open. Select a heart description by clicking on it; a small preview will appear on the right.



For most of the original diagrams there are variations available (such as adding an LSVC to the Left Atrium, LSVC to the Coronary Sinus, or Right Aortic Arch). To choose a variation, select one of the choices within the Diagram Modifications group. You can also choose to use a wider version of a diagram that shows expanded pulmonary arteries, by clicking the **Wide version** box. The Mirror diagram box will flip the diagram horizontally for Dextrocardia patients.
(*Note: If the diagram modifications are greyed out, you may be missing the new diagrams. Click the* ***Update Atlas/Supplement*** *button to install the latest diagrams from the web or from a PedCath CD*).

Once you have chosen the diagram that best matches the patient, click the Select Diagram button at the bottom of the form, and the diagram will be added to the cath.

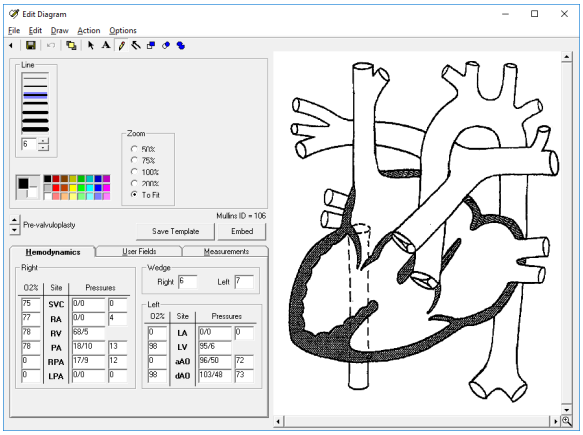
On the Other Diagrams tab you can create an additional atlas of diagrams for your institution. You can add diagrams to the User Atlas from a file or from the current patient's template.



To add the patient's template to the User Atlas, click the Load Template button and then the Add Template to Atlas button. To load the template directly to the cath report, click the Load Template button and then the Select Diagram button. Adding the template to the cath report can also be done directly from the Diagram Manager screen.

We provide an atlas of supplemental diagrams preloaded into the user atlas, that includes surgical and device implantation diagrams. (You can see if your supplement is up to date by running the **Update Atlas/Supplement** module).

Editing Diagrams



To edit a diagram, click on the pencil icon in the toolbar in the diagram manager or double click on the diagram you want to edit. This will activate the drawing screen.

The **PedCath** drawing program is specially designed to help you produce anatomical diagrams for your cath reports. The drawing tools are easy to use, and should look familiar to anyone who has used other Windows drawing programs. Hemodynamic data appears in a table next to the picture, allowing you to drag numeric values directly to the diagram.

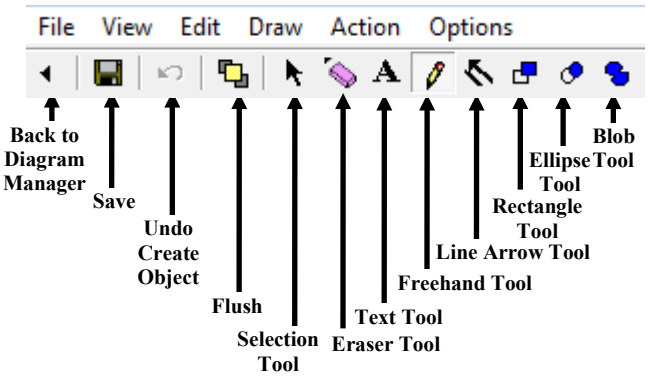
If you make extensive changes to the patient diagram, you may wish to save the diagram as a template by clicking the Save Template button. This option will save this diagram for this patient, allowing it to be recalled in the future. Each patient may have only one template.

Embedding Hemodynamic Values in the Diagram

You may automatically embed all hemodynamic values from the data grid to the diagram. Values embedded in this way will appear at the appropriate places in the anatomy image, and will use the same automatic formatting features as when the same values are manually inserted. The Undo feature does not apply to embedded data; however, you may cancel an embed operation by closing the edit diagram screen without saving.

Edit Diagram Toolbar

The Edit Diagram toolbar contains options for adding various elements to a patient's diagram: hemodynamic data and other text, as well as arrows, lines and shapes. Each element that you add to the diagram is called an object. Use one of the six drawing tools to add or edit objects on the diagram. Each of the tools has specific options, which are displayed below the toolbar.



Undo Create Object

Click this icon to undo the last drawing operation.

Flush

After you have added drawn objects to the diagram, they can be moved or edited individually until you either save the diagram or press the flush button. Although flushing does not save the diagram to the patient's cath record, flushing the objects in the diagram makes them part of the diagram bitmap; they no longer exist as separate, editable elements. After an object has become part of the drawing, you can modify that object only by drawing over it.

Selection Tool

Use the selection pointer to select objects for editing or deletion. Only objects added to the diagram in the current editing session may be selected. After you have clicked the selection tool, the mouse pointer will change to a bull's eye when it is over a selectable object. Click in the drawing on any object. A box will appear around it indicating that you may use one of the drawing tools to change it, or drag it to a new position on the diagram. To delete a selected object, press the Delete key. You may also select an object by right clicking on it with the mouse, even if you have not previously chosen the Selection Tool.

Text Tool

Choosing the text tool shows a text box where you may enter a string of characters to be placed on the

diagram. Select a font and other formatting options, and then click on the diagram where you want the text to appear. If you click on any value in the hemodynamics tab, that figure will appear in the text box. You may format it as you would any text, and click on the diagram at the appropriate location. You may also pre-set the formatting options, and drag numbers onto the diagram with the mouse. Automatic formatting, such as the bar over mean values, will override your formatting when you use the drag and drop method.

Eraser Tool

Erase parts of the diagram with a freehand eraser. Set the eraser thickness, and then drag the mouse on the diagram while holding down the left button.

Freehand Tool

Draw freehand lines and shapes using the freehand tool. Set the line color and thickness, and then drag the mouse on the diagram while holding down the left button.

Drawing with any tool in white works as an eraser.

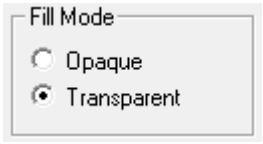
Line Arrow Tool

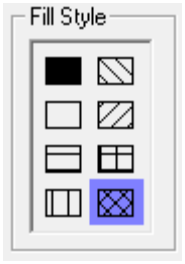
Draw straight lines and arrows with the line tool. To draw a line, click at a starting position on the diagram and hold the mouse button down while you drag to the point where you want the line to end. Release the button to place the line on the diagram. Arrows are useful for indicating the catheter course. Select a size for the arrow's head, and draw a line. You may place the arrowhead at the beginning or the end of the line.

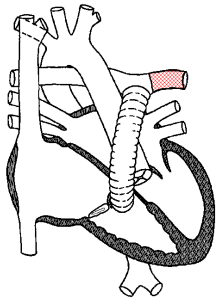
Rectangle, Ellipse, and Blob Tools

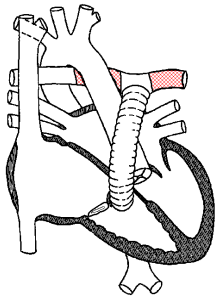
Use one of the three shape tools to draw enclosed shapes on the diagram: (left to right) rectangles, ovals, or irregular shapes (blobs). For each of these shapes, set a Line Color for the outline, and a fill color for the enclosed, inside area. You may also select a fill pattern; for non-solid patterns, the transparent option will allow the diagram beneath your shape object to show through.

Tip: The blob tool is useful for drawing in stents by tracing an outline of each stent along the walls of an artery. Try using a diagonal crisscross Fill Style, and a transparent Fill Mode.





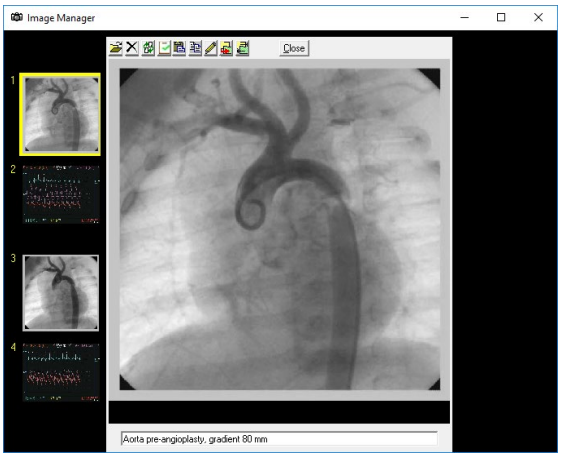




If you are working on a complicated diagram we recommend saving often. You can set up a Save Reminder in the Options menu within the Diagram Editor.

Image Manager

To activate the Image Manager, click on the camera icon in the *Report Component Manages* window. You can also launch the Image Manager by pressing F7 or selecting "Image Manager…" from the Report menu.



The image manager allows you to add images and captions to the cath record. To add an image, click on the folder icon in the image manager. A window will pop up allowing you to find and select an image to attach. A caption may be entered in the text box along the bottom of the image. To remove an image, click on the button with an "X," just to the right of the Add Image button. When multiple images are associated with a cath, previews of the images are displayed along the left and right margins of the image manager window. To view an image in a larger size, click once on it, and the yellow cursor will surround the preview of the image.

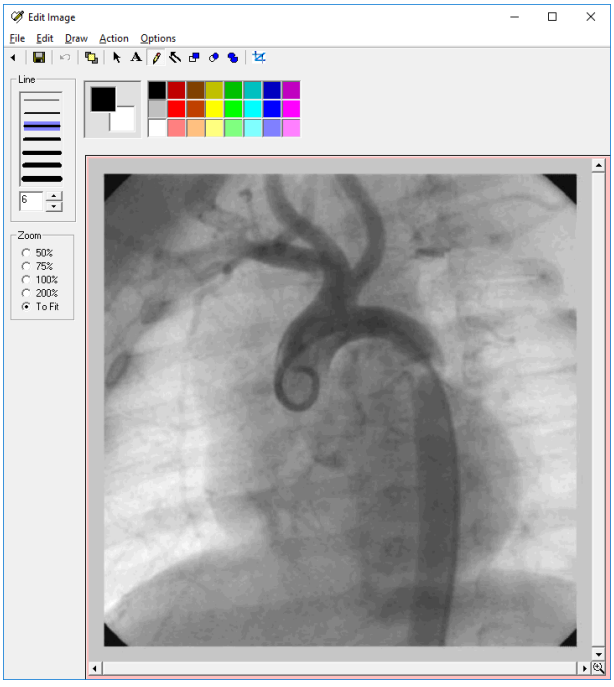
To swap two images, click on one of the two images you would like to switch. Click on the third button from the left, and, following the on-screen instructions, click on the second image you would like to swap.

You can copy the currently selected image to the Windows clipboard, or paste an image from the clipboard into the Image Manager.

Click this button to add a duplicate copy of the selected image to the Image Manager.

These options will allow you to shrink the resolution or change the format of images currently in the database, or set up to have image modifications applied automatically during imports. This can be helpful to conserve disk space.

To edit an image select it within the Image Manager Window and click the Edit Image button. The Image Editor (shown right) allows you to draw lines, shapes and text similar to how it is done in the in the Diagram Editor (see previous section for more details).

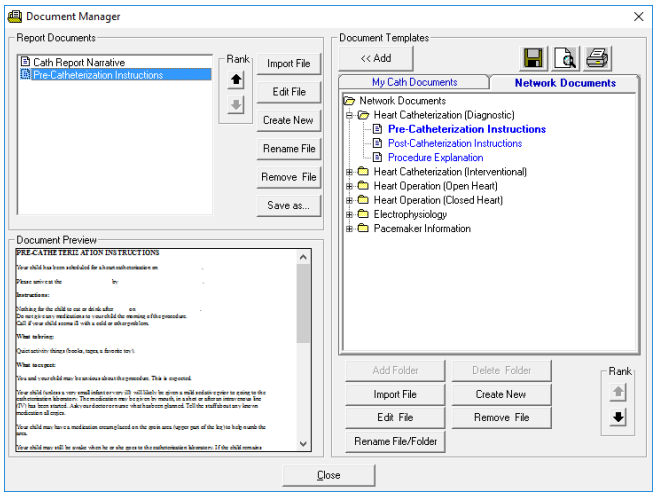


A crop tool is also available to zoom into a particular area of the image for greater detail. To crop an image click the crop button and draw a rectangle over the part of the image you would like to keep on the pop-up dialog. Once an image is cropped it cannot be reverted to the original so it's recommended to make a copy of the original image within the Image Manager to work from if you plan to crop it.

PedCath will allow you to select which images appear on the cath report on the Report Setup dialog (see the **Report Setup** section, page 26). The report image selections will be retained for each cath report.

Document Manager

To show the document manager, press F8, select “Document Manager…” from the support menu, or click the Document Manager button from the upper right corner of the edit window.



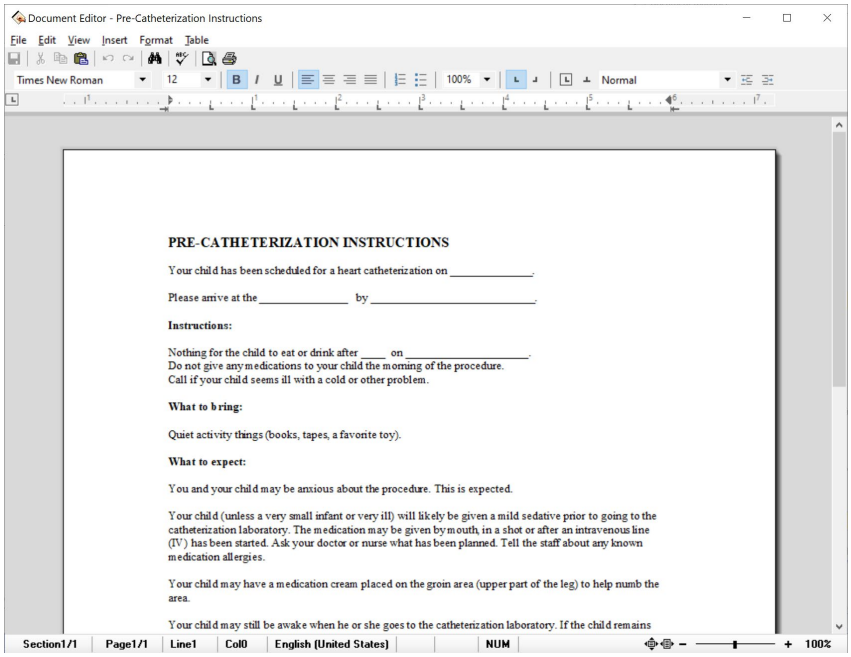
The Document Manager enables you to import existing documents into the report or create new ones. You may also open, modify, and delete documents using the Document Manager.

When you click Import File, you may browse and select the document you wish to import. You may import documents in the following formats: *.rtf, *.txt, *.doc, *.htm, and *.html. PDF files are also supported for import, but as read-only documents.

Clicking Create New Document will open the Document Editor (below), which allows you to create documents containing tables and images.

There is a preview of the document that is currently selected in the lower left window. You can edit an existing document by clicking this window or by clicking the Edit File button.

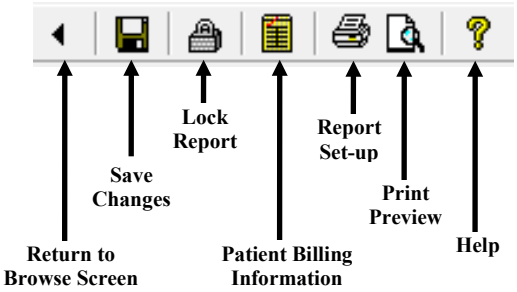
The Document Manager also allows your institution to keep an archive of Document Templates to pull related documents into the cath report. The documents listed within the My Cath Documents tab can be seen only by you, and those listed under Network Documents can be seen by all PedCath users. We provide over 20 documents for the institutional document archive to get you started. PedCath administrators can modify the hospital-wide archive.



The document editor is also linked to the cath report resources and will allow you to easily insert them within the document, including cath diagrams, images and other documents from the My Cath or Network Documents templates. Those can be added from the Insert menu.

Edit Cath Report Screen Toolbar

The six icons on the toolbar in the upper left of the Cath Report Screen (left to right) return to the Browse Screen, save changes, launch patient billing information, launch the report set-up, provide a print preview, and open help information.



Billing Information

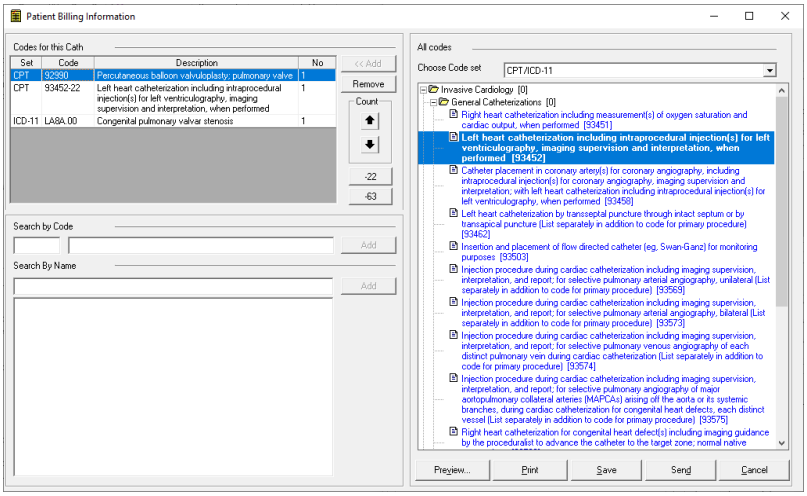
To access patient billing information, press Ctrl+B, click the Patient Billing Information button on the toolbar, or select "Patient Billing Information" from the tools menu.
To add a code, you may either browse through the All codes box or use a search facility.

In the All codes box, expand the folder list by either double clicking on a folder or clicking on the + sign to the left of the folder you wish to open. Select a code by clicking on it. To add a code to the cath, use either the add button or double click on the code. If a code is added to the active cath through these methods or the others discussed below, it will be displayed as bold in the All codes box.

To add a code via the Search by Code box, enter a code in the small text box on the left. If this box matches a code exactly, the code is displayed in the text box immediately to the right. Click Add to add this code to the cath.

To add a code via the Search by Name box, enter a part of the name of the code for which you are searching. Select the code that you wish from the results to add and press the Add button.

In the "Codes for this Cath" box, you may change the number field by clicking the up and down arrows in the Count box to the right. You may also remove codes by clicking the remove button.



To add the -22 modifier to a billing item, select it and click the "-22" toggle button.

To add the -63 modifier to a billing item indicating a patient less than 4 kg, select it and click the "-63" toggle button.

Procedural (CPT) and Diagnosis (ICD-9, ICD-10, or ICD-11) codes are included in the All codes listing. Administrative options are available to specify which sets are available. If multiple sets are available the set being used is displayed above the All codes list, and can be changed using the pull-down combo box.

Once the codes are added, PedCath will allow you to print a billing sheet or email it as a PDF file ("Send" button).

Locking the Cath Report

PedCath has the ability to lock the cath report so that no edits can be made. To lock the cath report, click the padlock toolbar button or choose “Lock Cath Report” from the File menu (shortcut Ctrl+L). In order to lock a cath you must be a staff member listed on the cath report with a role with lock privileges (Attending’s only by default). Administrators can set the roles able to lock a cath report by choosing “Tools” > “Options…” from the Browse screen and clicking the Global tab.

The staff member who locks the report is essentially saying the report is complete and thus signs off on it. The report printout will specify that this staff member signed the report.

Administrators can decide whether PedCath users can print preliminary reports and if so the text that will be printed on it to indicate that it is unsigned. To configure this option “Tools” > “Options…” > “Administrator” and click the “Report Locking” link.

Auto-export can be configured to trigger either when the cath is saved or when it is locked (default).

Unlocking and Creating Updated Reports

To make any modifications after a report has been locked, staff members who have rights to lock a report also have the ability to unlock them or to create an updated report. To unlock the report choose “File” > “Unlock Cath Report” from the menu. After 24 hours this menu item will not be available, and you will need to create an updated report to make changes. Creating an updated report will make a full backup of the original data and resources, before allowing you to make any changes. To create an updated report choose “File” > “Create Updated Report” from the menu.

If PedCath has been configured to automatically send reports to the EMR, it's recommended to always use the "Create Update Report" command rather than "Unlock Cath Report" to make changes even if you are within the grace period. For this scenario the "Unlock Cath Report" command should only be used to fix issues with and resend a final report that was initially rejected by the EMR.

You can make as many updated reports as necessary and older updated reports or the original report can be viewed from the “View Backup Cath Report” item on the “File” menu. If you print an older report there will be a message on the printout saying that a newer report is available.

If the report you are editing or viewing is an updated report, a message will be shown in the status bar and a message will be printed on the report saying so.

HL7 Acknowledgements

If your institution is sending reports to the EMR through HL7 and has HL7 acknowledgement processing turned on, PedCath can automatically unlock reports if there are negative acknowledgements received that indicate a filing issue. If this happens, the staff member who locked the case will be notified of the issue and that the case has been unlocked. This automatic unlocking will ignore the standard grace period but will rather use a timeout period if it’s configured.

Server Time

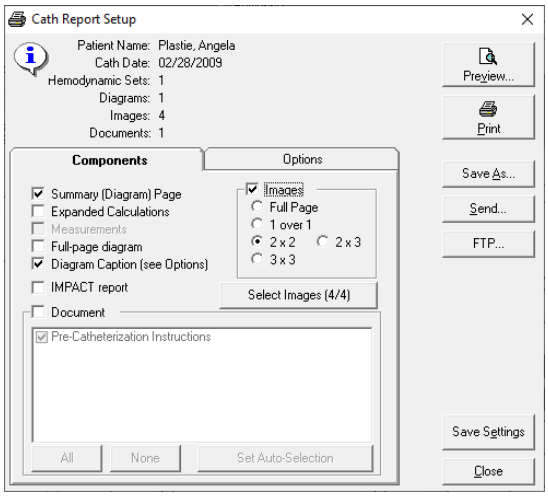
There is an administrative setting to query the server time when locking and unlocking cath reports rather than using the local system time. While there are some checks in place to prevent local date tampering normally, querying the server time should always prevent date tampering while also making the timestamps more accurate and consistent (it’s also possible that a user is working remotely in a different time zone in which case the server time would be preferable). This option can be set in the Report Locking section of the Administrative Options. Any Windows system can be used for the time server; it doesn’t have to be the same as the PedCath data share.

Lock Reminder

There is a per-user setting that will show a lock reminder after changes have been made to a cath report and saved. At least 1 diagram must exist and 1 set of hemodynamics before the reminder is shown. The setting can be turned on in the Options on the User tab.

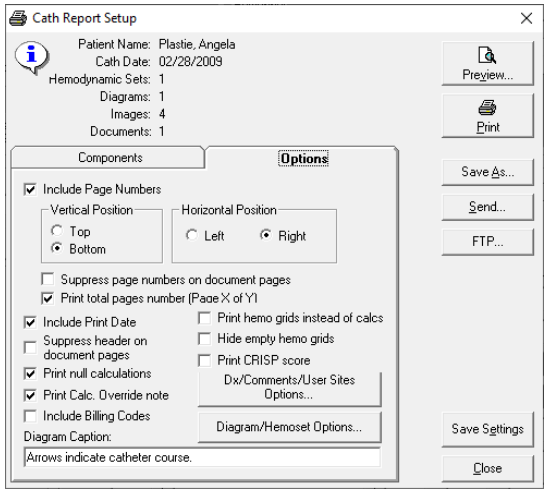
Report Setup

To setup, preview, and print a cath report, press Ctrl+R, click the Report Setup button on the toolbar, or select "Report Setup…" from the Report menu. Reports can also be printed from the Browse screen in the same manner.



On the Components tab select the items you wish to include in the report. A check box is grayed if the associated cath component is not available for the current cath report. For instance, if there are no images, the Images check box is grayed; if you do not check the Documents check box in the Components box, each individual document's check box will be grayed in the Documents box.

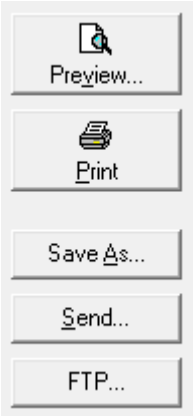
In the Images box, you may select the layout of the images. Clicking the **Select Images** button will allow you to choose which images to include in the report, and optionally retain those choices for future printouts.



On the Options tab you can select many report setup options such as the page number location, the caption to be used for diagrams, if any, as well as the ability to hide null calculations or blank grids, or replace the calculation block with the hemoset grids (if more than one hemoset is shown on the page). The CRISP score can also be included on the report if calculated.

By clicking the "Diagram/Hemoset Options…" button you can specify which diagrams are to be printed and if summaries of all associated hemosets will be printed on each summary page or just one expanded set.

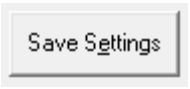
The "Dx/Comments/User Sites Options…" will give you control over inclusion and positioning of the diagnoses, diagnoses' comments, and cath comments. You can choose to roll the cath comments to the second page for instance, or choose to print the Dx comments rather than the Dx procedure list.



You may preview your report by clicking the Preview button.

When you are satisfied with the appearance and content of your cath report, press the Print Button and select the number of copies you wish to print.

You may also save the report in one of several formats; including ASCII, HTML, PDF, XML, or HL7. The PDF file will look the same as the printed report and uses the options set from the report setup. You can also email the PDF report by clicking the 'Send…' button, or manually send the report via one of the FTP profiles set by your institution.



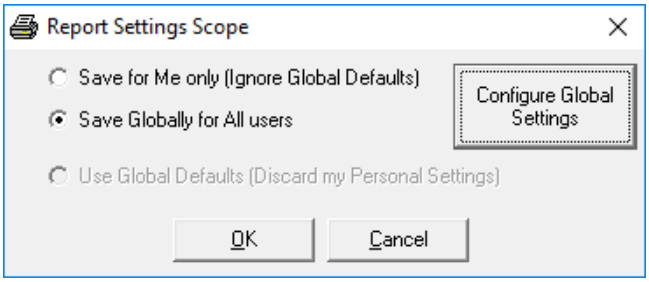
You may optionally save your report settings so that the next time you go to print a report the settings will load the same way. The settings can also be saved globally for all users.

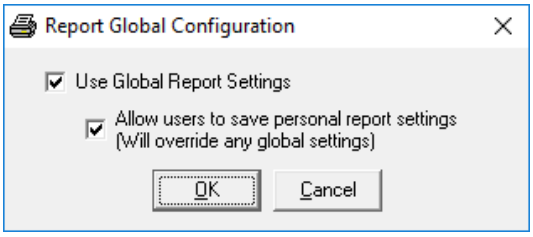
Global Report Settings

If you are a PedCath administrator clicking Save Settings will allow you to make the active report settings global for all users. This will achieve a consistent layout for cath reports generated across workstations.

To enable global report settings click "Configure Global Settings" and check "Use Global Report Settings". To allow users to override the global defaults also check "Allow users to save personal report settings".

To save the currently selected report setup (report components included and other options), select Save Globally for All users on the Report Settings Scope dialog and click OK.





The global settings will be used whenever the report is printed as well as for any auto-exports set up.

Users will always be able to alter the report sections included and options for any individual report when printing, no matter if global settings are used or not.

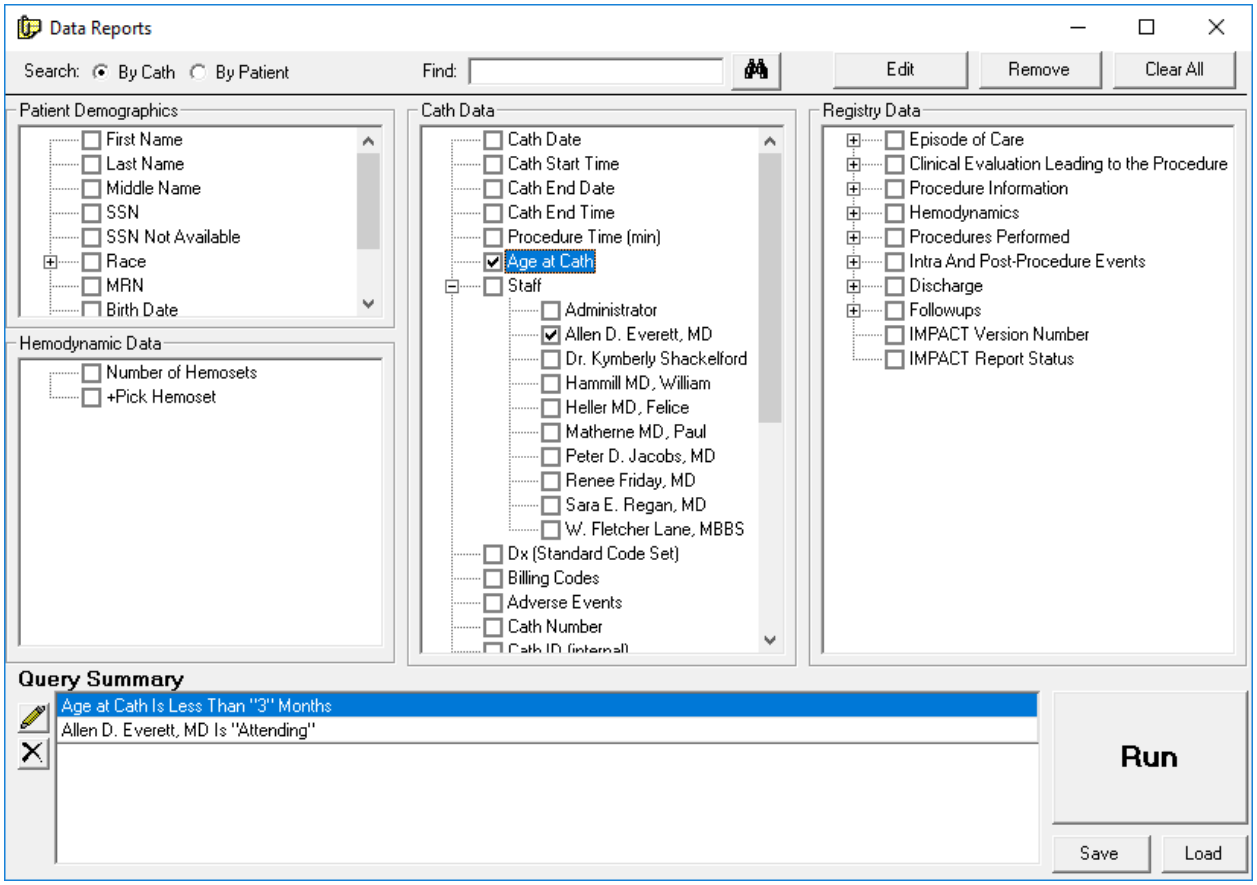
Data Reports

PedCath includes a data reporting tool that can be used to create reports based on criteria (query items) specified for your cath database. For example, a report could display all the caths where the patient was less than 7 days old, or list all the patients with Tetralogy of Fallot where Dr. Everett was the attending physician. Once the report query is run, the report will be created as a PDF document that can be printed, saved, or emailed.

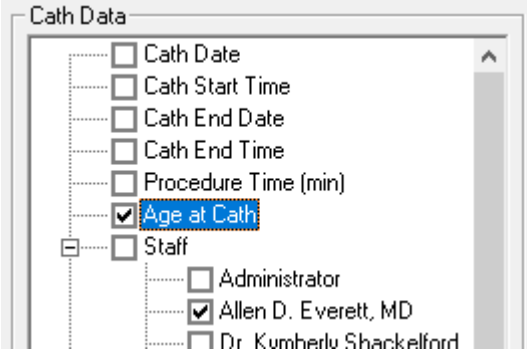
The Data Reports module has been rewritten in version 8.1. New features include a user interface overhaul, expanded data fields (including hemodynamics and IMPACT Registry data), and the ability to load the query results into the **PedCath** Browse screen.

Creating a Report Query

On the **PedCath** main screen (Browse screen), click the Tools menu and choose "Data Reports…" The "Data Reports" dialog will be displayed. Criteria may be entered here to filter for the desired records.



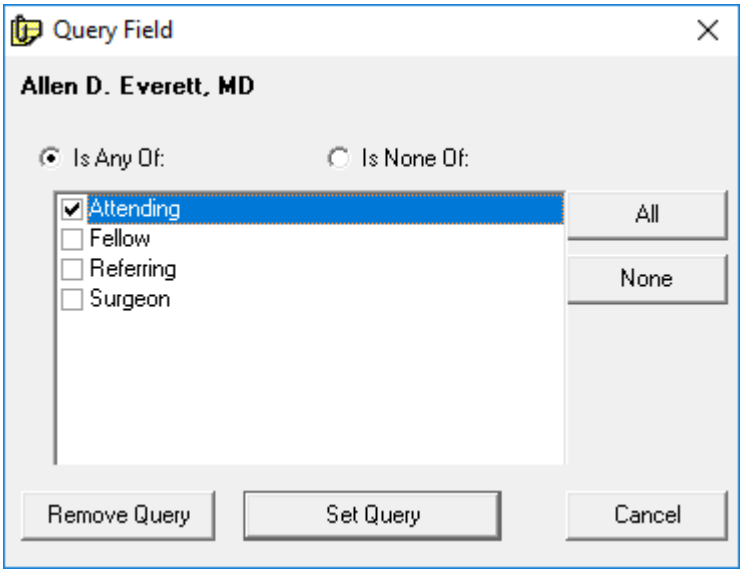
Let's say we want to create a query for all cath records for patients less than 3 months old where Dr. Everett is the attending physician.



In this case we would need to create two query items – one for Dr. Everett being the attending physician and the other specifying the age to be less than 3 months.

To do this expand the Staff entry tree group in the Cath Data tree by clicking the + next to it and check off "Allen D. Everett, MD".

The Query Field pop-up will be displayed.

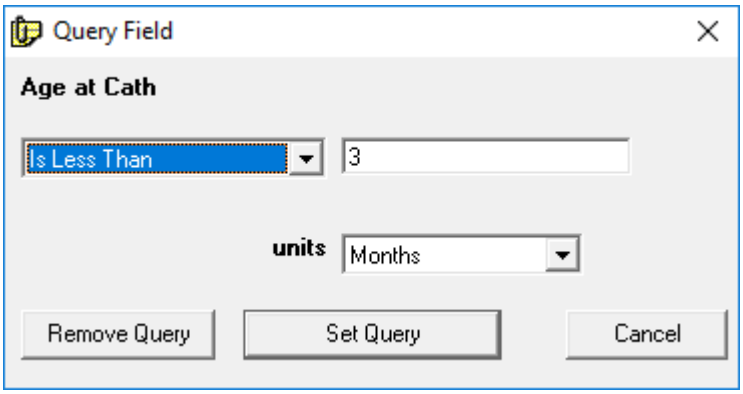


Leave the query type set to "Is Any Of:" and check "Attending"

Click Set Query to confirm the query.

The query item will be added to the Query Summary area at the bottom of the screen.

To add the query based on the Age at Cath, check the "Age at Cath" item in the Cath Data grid. Choose "Is Less Than" as the query criteria, enter "3" in the text box, and select "Months" from the units drop-down box. Click "Set Query", and the query item will be added to the Query Summary.



You can edit a query item's criteria, by double-clicking the field name the query trees (and not the check box) or by highlighting the item within the Query Summary area and clicking the Pencil icon (or by double-clicking the query item).

You can delete a query item by unchecking the box next to the field name in the query trees, or by highlighting the item in the Query summary and clicking the X button (or the pressing the Delete key).

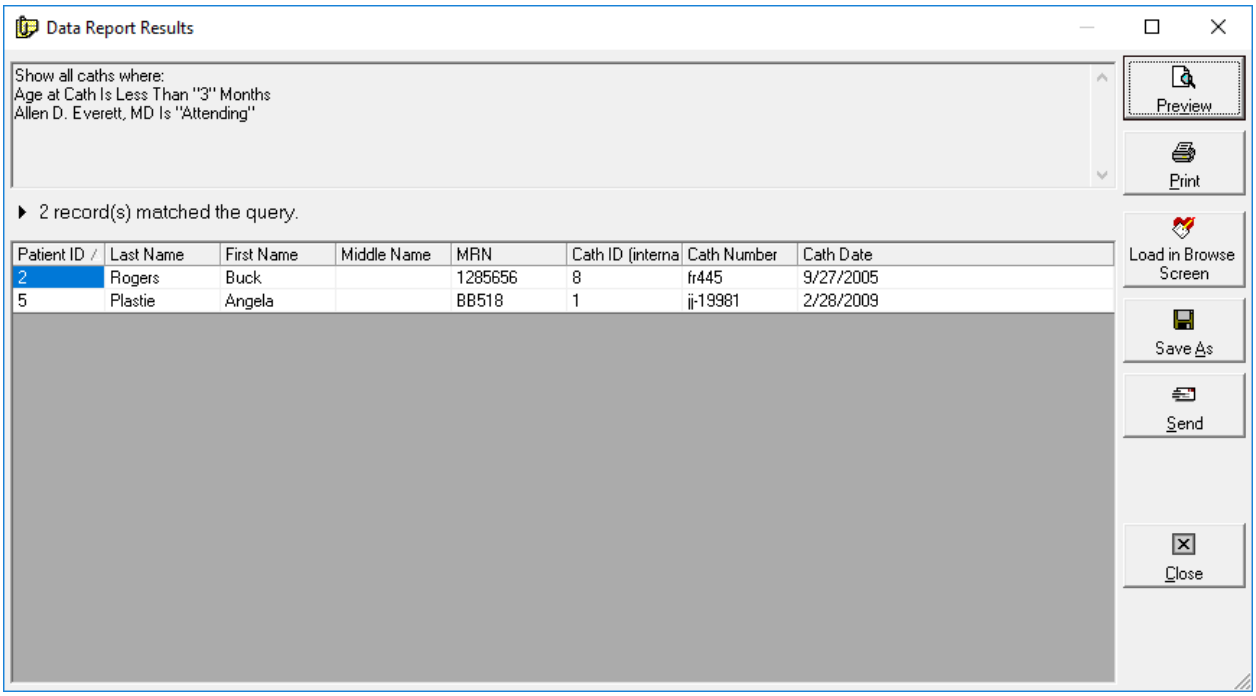
Note: A query can be saved for future use by clicking the Save button, and a previously saved query can be loaded by clicking Load and finding the query file (p8q extension). Please note this file contains the query items and report setup but does not contain the results of running the report.

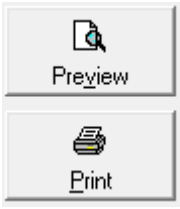
Running the Report Query

Make sure to specify if you are searching “By Cath” or “By Patient”. If searching by Patient, the results will show a list of Patients who have at least one cath that matches the query.

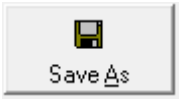
From the “Data Reports” dialog, click the big “Run” button to run the report query. Processing times can vary depending on the size of the cath database, complexity of the query, and speed of the network.

If we run the query entered in the previous sections on the sample data set, 2 cath records are returned as shown in the figure below.





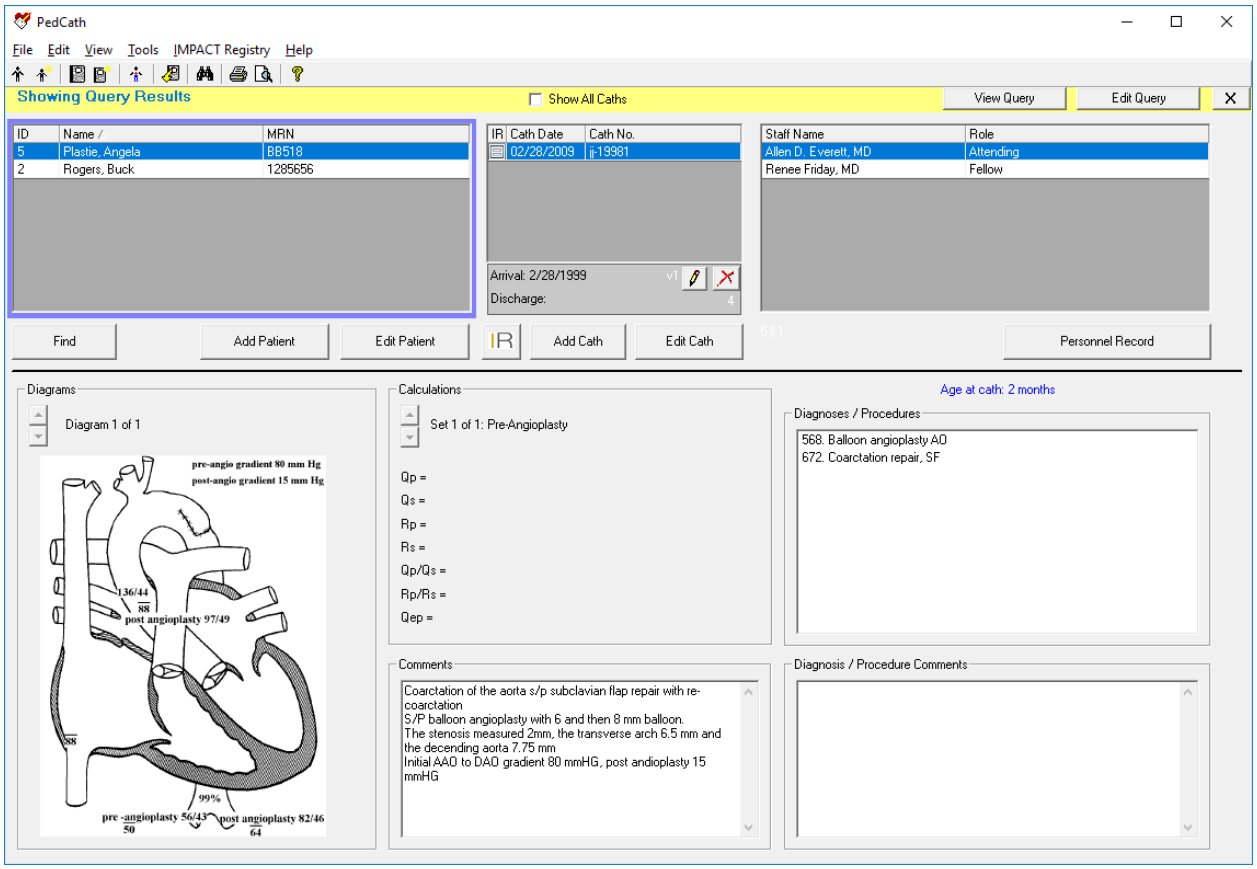
Clicking the Preview or Print button will allow you to view/print the results report. You can order results rows by clicking on one of the column headers (click a header multiple times to toggle between ascending and descending order). The printed report will be in the same order.



Clicking the Save As button will allow you to save the report in .CSV format, which can be opened and further processed in Excel or other spreadsheet programs. By default the fields shown in the grid will be included in the .CSV file, but you will be given the option to include additional patient, cath, and staff fields. Additional processing will be required to search the database for the additional data.

Clicking the Load in Browse Screen button will open the Browse screen showing only the patients returned in the query results. Here you will be able to further inspect any of the cases returned by the query, and make any changes to any cath reports if necessary. If you did a Search By Cath, then only the patient's caths that matched the query will be shown in the Cath grid. To view all of a patient's cases whether they matched the query or not, check the "Show All Caths" box.

Viewing by cath (View > By Cath) is supported while in query mode, but viewing by staff is not.



You can make modifications to the query by clicking the Edit Query button.

Click the X on the right side of the yellow header bar to close the Query Results View and show all of the PedCath patients.

Administrative Console

The Administrative Console is a separate application from PedCath that contains many administrative features such as viewing login information, viewing access log information (HIPAA logging), running database maintenance and modifying the staff database.

You can start the Administrative Console from the start menu or within PedCath.

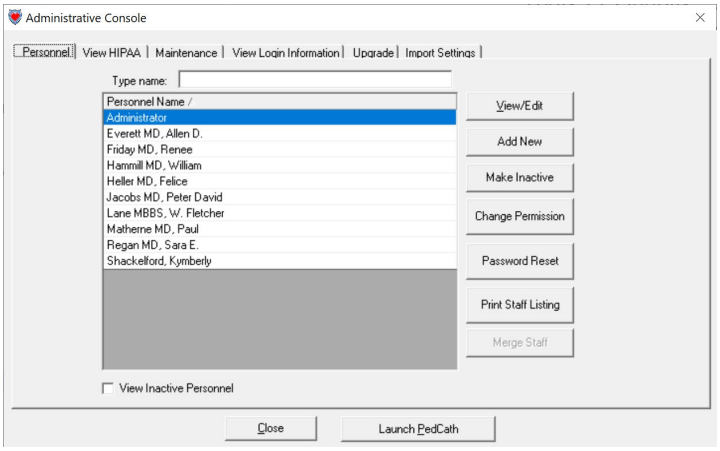
To start from Windows:

Start >> Programs >> PedCath >> Administrative Console
You will need to enter your PedCath initials and password to log in.

To start from within PedCath:

On the Browse screen choose:
Tools >> Options … >> Maintenance >> Run Administrative Console
You will be prompted to close PedCath if you plan on running the database maintenance utility.

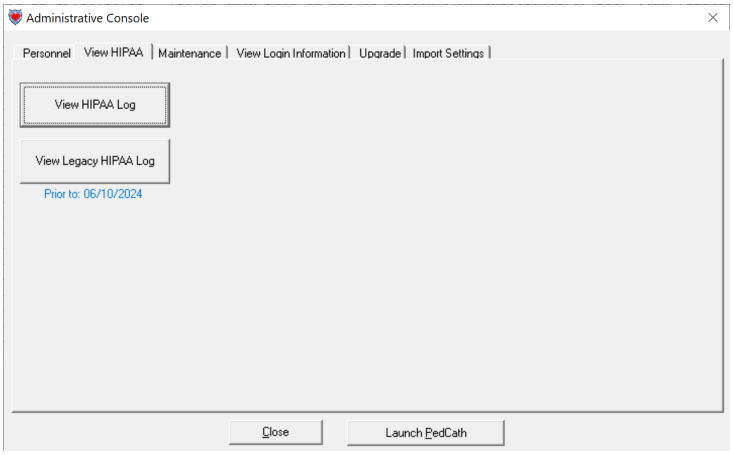
Editing Personnel



The first tab contains the PedCath staff listing for your organization. Here you can add, remove, and modify staff members. The staff listing may be edited within PedCath as well (see the installation guide for more information on these options).

If a staff member contains duplicate records you can merge them here. To do so highlight the record that you'd like to be the master record, click the Merge Staff button, and choose the duplicate entry. Repeat the procedure for additional duplicates. The potential duplicates list only shows staff with the same last name (including disabled records). The Manage Staff button will be greyed out if there are no matches.

Viewing HIPAA Logs



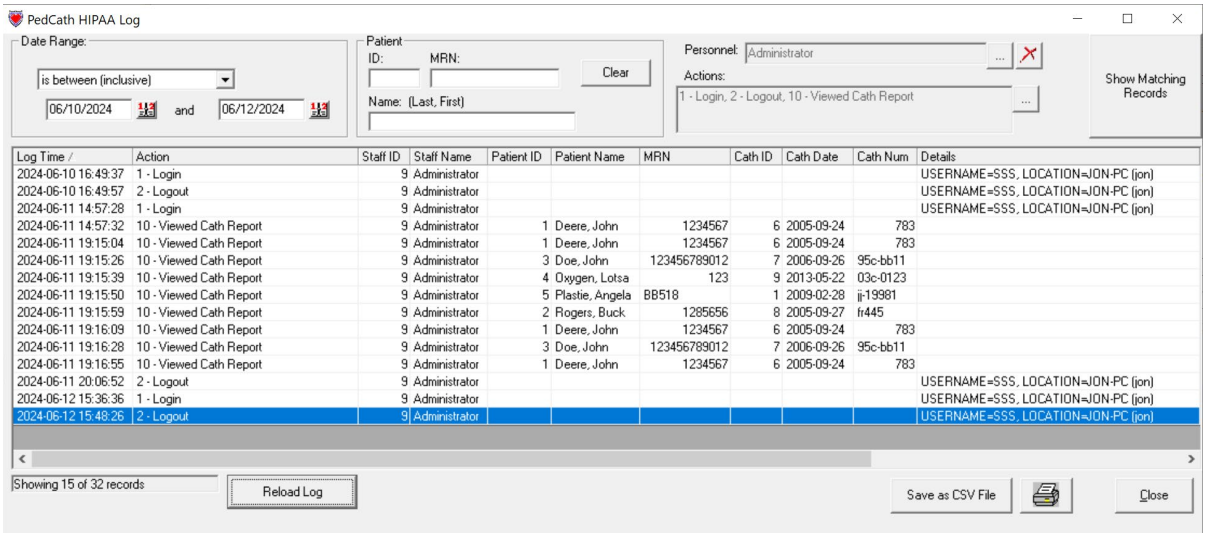
On the second tab you can view HIPAA logging information such as when patients' records were browsed or edited and by whom. Many other actions are logged such as logins/logouts, exports, cath locks/unlocks, configuration changes, and data queries (see the reference manual for a full listing).

To view the log click the 'View HIPAA Log' button.

You can enter criteria to filter the results. The criteria includes a date range, patient name and MRN, the personnel member who performed the action, and which actions you'd like to view. With the criteria filled out, click the Show Matching Records button to see the log results. Leaving the criteria set to the defaults will show all records found. You can sort each column by clicking the column header.

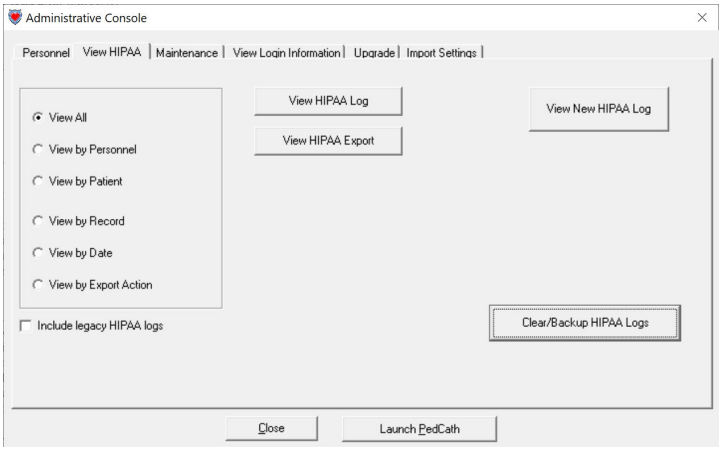
It's also possible to open the log in a spreadsheet program such as Excel, as it is in CSV format.

If you've found the log has grown larger than you would like, there is a function in the database maintenance to archive old log entries.



Viewing Legacy HIPAA Log

The HIPAA log format changed in version 8.6.3. If you were using PedCath prior to this version you may have log entries in the older format. Those can be viewed by clicking the View Legacy HIPAA Log button.



Here you can view HIPAA logging information such as when patients' records were browsed or edited and by whom. This information can be seen by selecting a filtering option and clicking the "View HIPAA Log" button. For instance, to see a listing of when a particular patient's cath information was viewed or edited click the "View by Patient" option and then the View HIPAA Log.

The View HIPAA Export feature works similarly except that it displays information related to exports and cath report locking. The last filter option "View by Export Action" is applicable to this feature and will allow you to search for a particular action type that happened, for instance a listing of all the cath reports printed.

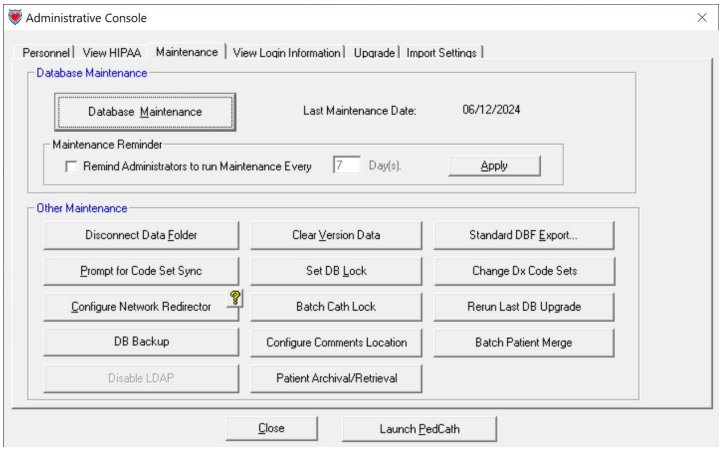
There is also a feature to clear out and back up old entries from the legacy HIPAA tables.

Maintenance

The Maintenance table contains many features necessary to maintain the PedCath databases. The most important of these features is the Database Maintenance wizard which is described in the next section.

You can also set up database maintenance reminders within the Scheduled Maintenance grouping.

There are several options beneath the Other Maintenance group. These options are likely to be used rarely but are necessary in certain circumstances.



Disconnect Data Folder – This will remove the pointer to the PedCath database and it will have to be set the next time PedCath or the Administrative Console is run.

Clear Version Data – This will clear the version information from the database making it possible to revert to an earlier version of PedCath.

Standard DBF Export – This will export a snapshot of the PedCath database to a folder in standard DBase format.

Prompt for Code Set Sync – This will cause PedCath to check for code set (Diagnosis/Procedure set and Billing) differences between the "master" set on the network and the sets that are used on the current workstation the next time PedCath is run.

Set DB Lock – This will prevent users from accessing PedCath. This can be used if you are working with the PedCath support team to resolve an issue for instance.

Change Dx Code Sets – This will allow you to change from one diagnostic code set to another, while retaining your old codes. You will only be able to switch codes once while retaining the legacy codes.

Configure Network Redirector – This will allow you to set a database redirector to be used during database migration. All PedCath users who attempt to connect to the current path will be redirected to the new path you specify.

Batch Cath Lock – If your physicians start to use the cath locking feature, you can batch lock the legacy cases with this command. It's recommended that each attending physician run this command to lock their own cases, and then have an administrator lock the rest.

Rerun Last DB Upgrade – This will set the database version number to the prior version which will force the database upgrade wizard to run the next time PedCath is started. This can be helpful if the database upgrade needs to be run again or if you are reverting to an earlier version through a minor release (not recommended).

DB Backup – This will allow you to do full or incremental backups of the PedCath database, case resources (diagrams, images, documents), and import files to a folder. You can also manually do a backup of the PedCath files by copying the entire network folder to a backup location.

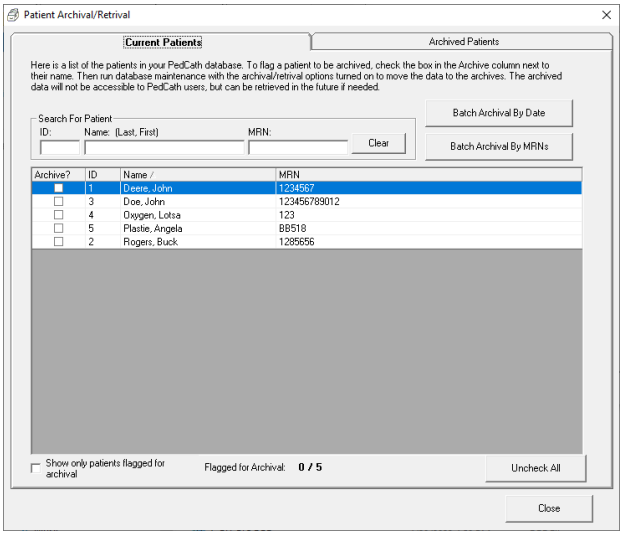
Configure Comments Location –Your cath report comments and Dx comments are traditionally stored within the database memo file (cathdb.smt). If you have a large number of cases, moving comments to external files can improve performance when loading PedCath and reduce the probability of corruption of the comments.

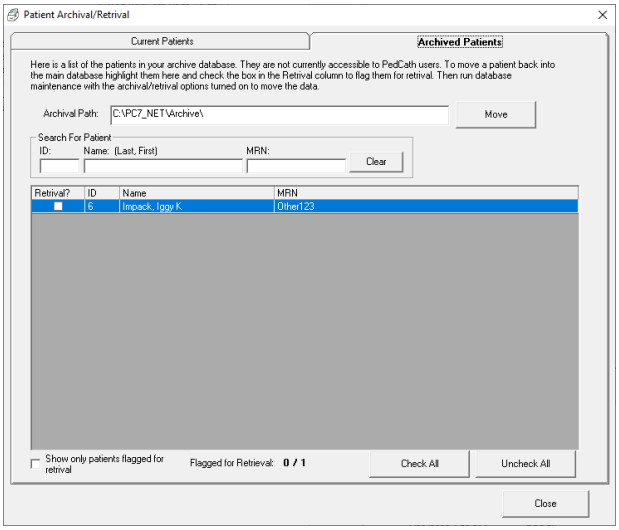
Batch Patient Merge – This will merge duplicate patient records. If two records have the same MRNs with the only difference being the leading 0s they will be merged.

Disable LDAP – This will disable LDAP auto logins and revert to using PedCath credentials. This can be useful if you are locked out of PedCath due to the LDAP server credentials changing or the server being down, and you do not have the fallback Login enabled.

Patient Archival/Retrieval – This allows you to back up patients who you do not expect to have additional cath procedures for to an external database, which will reduce the size of the database and improve performance. Patients who have been archived will not be shown to PedCath users. This form will allow you to view patients in the PedCath database and flag them for archival. Batch operations are available such as flagging all patients for archival who haven't had a cath procedure in a specified number of years, or flagging patients using an MRN list. PedCath users can also flag individual patients for archival from the PedCath Browse screen Edit menu.

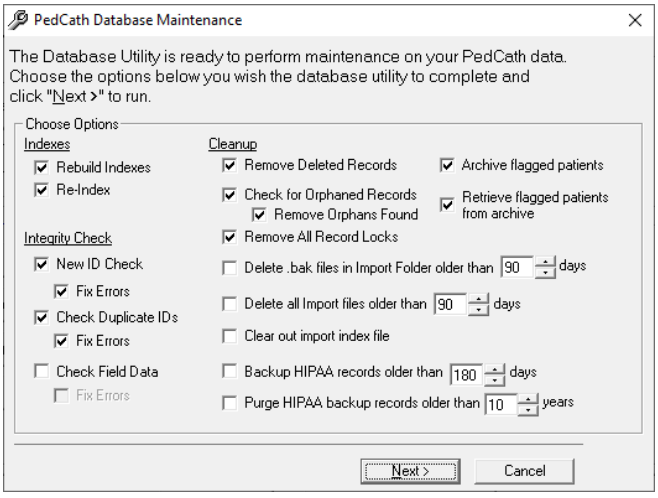
You can also view all of the patients who have been archived, and flag them for retrieval. You will need to run database maintenance with the appropriate options set to complete the archival/retrieval process. By default the archived database records and files are saved to a sub folder "Archive" of the data folder, but you can move it to another location if desired.





Database Maintenance

The Database Maintenance utility can be used to perform cleanup and integrity checks on your PedCath database. The picture to the right shows the maintenance options available. It is recommended to at least run indexing options which will rebuild the indexes in case they have become corrupted. The Integrity Check is recommended as well and will verify that the ID table is valid. The Check Field Data option will check for invalid field data. Invalid field data can occasionally come from out of range values from your hemodyanmics system, and may prevent reports from fully loading. Although unlikely, if you encounter an integrity error contact Scientific Software.



When records are deleted from a dbf table, the records are not actually removed but are rather flagged for deletion. Under the Cleanup group checking the "Remove Deleted Records" option will actually remove all of these entries from these tables which will shrink the table sizes and improve performance.

Checking for orphaned records will tell you if there are any cath records without a corresponding patient or any cath sub-table records without a corresponding cath record. You should rarely find many orphaned records. However, if you find a large number contact Scientific Software for assistance.

Checking "Remove All Record Locks" will remove all dBase internal record locks from the system as well as patient locks. If PedCath locks up when accessing a particular cath or patient record it's recommended to run this.

The files stored within the PedCath import folder (Data_In\) are files from your hemodynamics system, and are generally not needed after they have been imported. It's generally good to clean out old files from that folder during maintenance. The files can usually be regenerated from your hemodynamics system if needed. The import index file speeds up loading the import list, since files will not have to be parsed again to determine the patient name and cath date, but it's good to clean out the table since the entries aren't needed after files have been imported.

Backing up older HIPAA (user access) logs can also speed up the system by shrinking the active log table. You will still be able to access the backed-up records within the HIPAA viewer.

In order to complete the archival / retrieval of patient records that have been flagged (either in the admin maintenance tools archival module or by PedCath users on the Browse screen edit menu), you would need to check off the options here. When archiving records it's recommended to also have the Remove Deleted Records option checked which will reduce the size of the database.

Viewing Login Information

The fourth tab allows you to see who's logged into the system and see what patients are currently being edited.

If you select a staff member and click "Boot User" the user will be prompted to save their work and close PedCath. PedCath will automatically close after a couple of minutes if the workstation is unattended. If the status is stuck as shutdown notify for more than a couple of minutes it could be that PedCath was closed abnormally. If this is the case, click "Remove Login Record" to remove the record. Only use this option to clean up stuck records – if you remove the login record while someone is still connected to the database, their PedCath software will be left open. If you plan on running maintenance or another feature that requires exclusive access, then PedCath would need to be manually shut down where the login record was prematurely cleared.

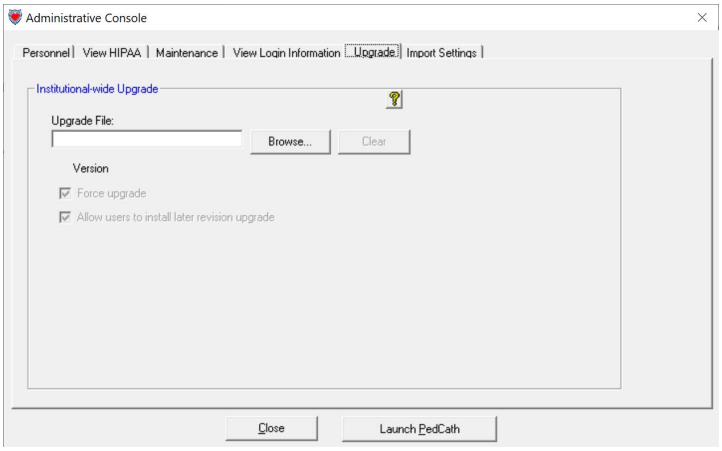
To boot off all users at once, click the "Boot All Users" button.

You can also choose "Remove Patient Lock" which will release the lock on a particular patient so that another user can edit them.

If you are experiencing issues will logins, you can use the Clear Login Table button. All users would need to be closed out of PedCath in order to run this.

The "View Hosts Listing" command will show you a listing of the workstations that have ever accessed PedCath. This can be helpful to determine what machines will need PedCath updates.

Upgrade (Institutional-Wide Upgrade)

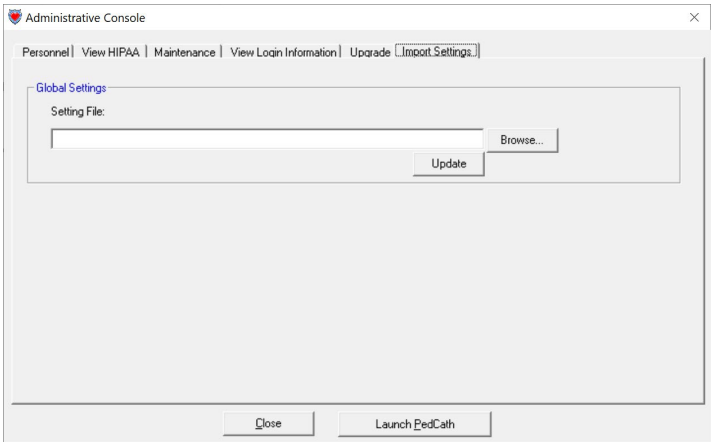


The Institutional-wide upgrade feature allows you to specify a PedCath upgrade file to install on all machines. When PedCath is started on each workstation the upgrade will automatically be applied, if needed. You can specify an update file (.p7u,) to use as well as a few options. This option requires that users have administrator rights on their workstations in order to install the upgrade using Windows installer. A legacy p7u can also be used that doesn't require admin rights, however it's recommended to check with Scientific Software to see if it's supported for the version you're upgrading to and from.

Force Upgrade - Will lock out users running an earlier version of PedCath until they upgrade, even if that version is compatible.

Allow user to install later revision upgrade - Will allow a user to install a later revision of PedCath than is installed on the network. This will allow only revision updates (i.e. 8.4.x to 8.4.y), so that the database will not be modified.

Import Settings



There are some settings that cannot be set through the PedCath user interface. This will allow you to set those settings directly using a settings file (*.p7s). Scientific Software may send you settings files to use in certain circumstances, and you would apply them on the Import Settings tab by browsing to the file and clicking the Update button.