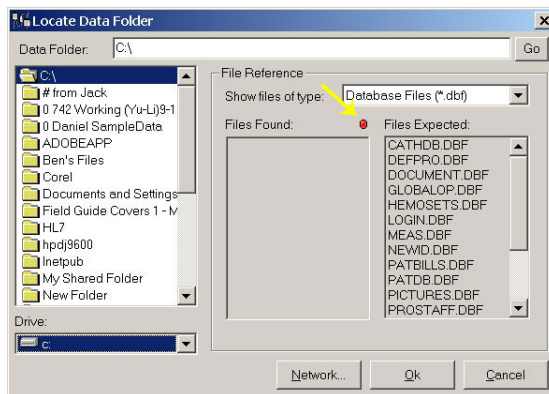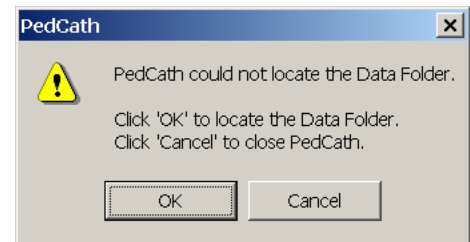# PedCath e

Using PedCath

Logging In

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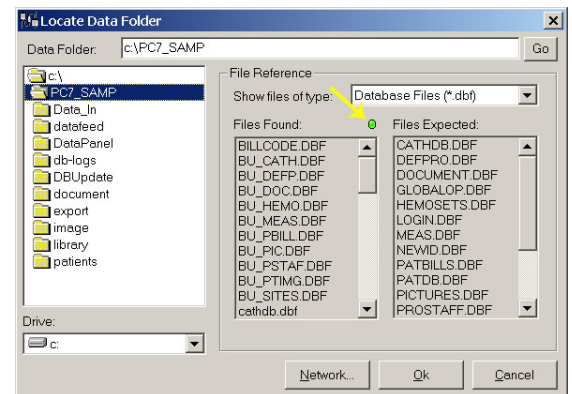
Locating the Data Folder

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 *Taussig*. Once you have used the password to login, you must change it immediately, and will be prompted to do so by **PedCath**.
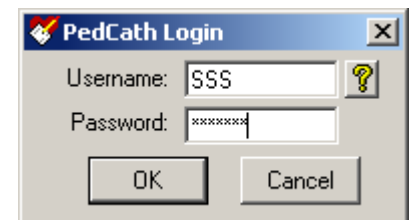
Dr. Helen Brooke Taussig, often called the "mother of pediatric cardiology," was born in 1898. Dr. Taussig attended the medical school of Johns Hopkins University, where she became interested in cardiology. In 1930, she assumed leadership of the cardiology clinic at Johns Hopkins, where she encountered 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.

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.

Photo © Karsh, used with permission.

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.

Different views in the browse screen

In the default view, cath records are sorted by patient. In addition, cath records may be viewed two other ways. In the View menu at the top of the main window, you may select to view caths by date or by staff.

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.
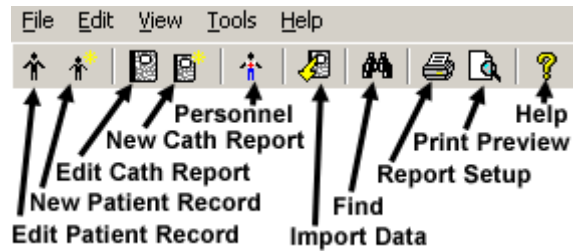
Editing patient demographics

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, or gender. Any data you enter in this window will be automatically saved after you click OK.

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 and number; access notes, height and weight; as well as contrast and fluoroscopy data. The only required field is Cath Date.

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.

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 (right).

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:

Assumed O2 by LaFarge method
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.

Indexing a measured value:
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**. If height and weight data should change, you must re-calculate the value for oxygen consumption.**

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.

PedCath7 now offers eight additional sites. Four fields can be configured to store data on four additional sites for every cath performed in your lab. Also, four patient specific sites may be used to record sites specific to the current case.
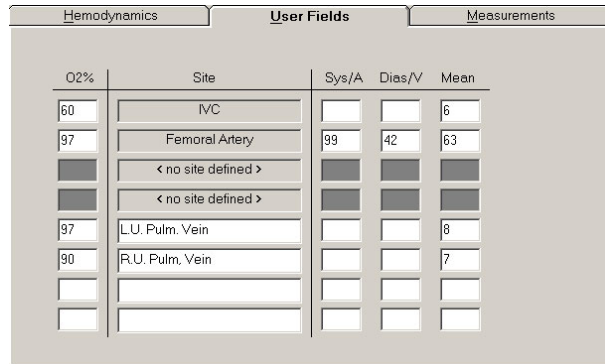
Measurements

A new group of measured values is available in **PedCath7**.

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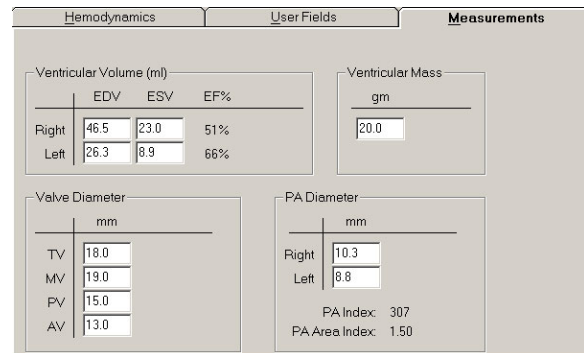
Qep

PedCath7 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.
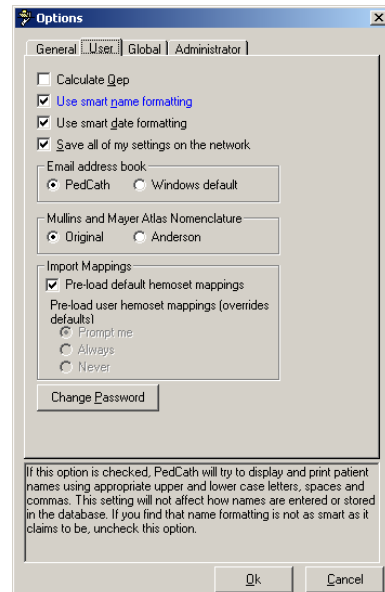
PedCath *Options*

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

General Tab

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

User Tab

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

The user may also choose whether or not to preload default hemoset mappings or to use user mappings.

Finally, the user password may be changed under this tab.

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

Administrative options under this tab include the editing of personnel information, guidelines for calculations, institutional sites for saturations, and import and export controls.

The Administrative Console may also be opened under this tab (see page 23), allowing the performance of database maintenance procedures.

In addition, guidelines for cath report locking, participation in collaborative studies, and the assignment of cath numbers (including the auto-increment feature) may be applied here.
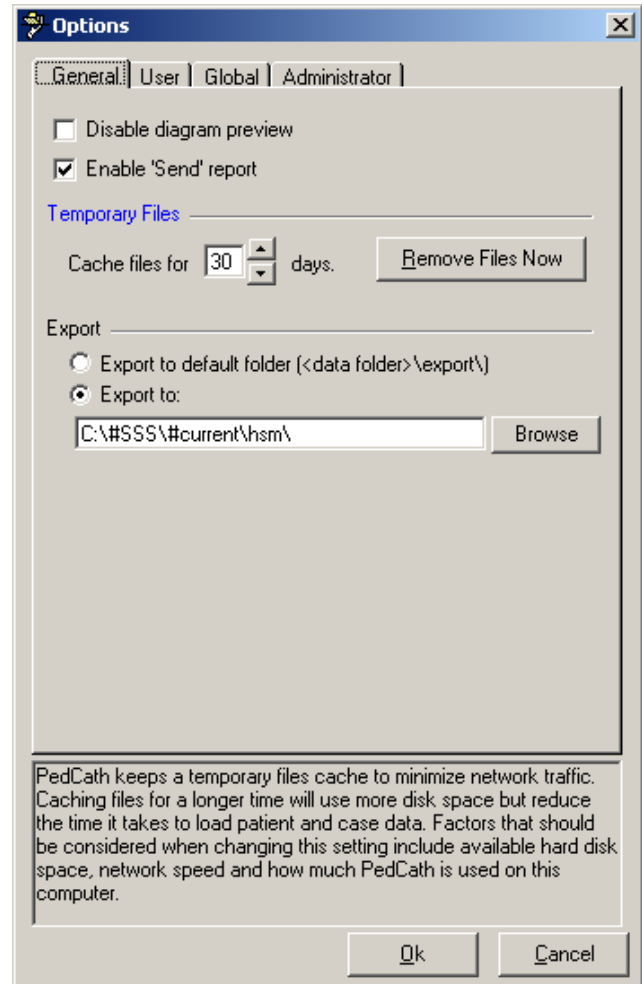
PedCath *Exports*

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/

As of version 7.5.5, we have released version 2 of our XML format that is more inclusive of the report data and better suited for data exchange. Because it is written primarily for data exchange it does not currently include a style sheet for presentation.

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.

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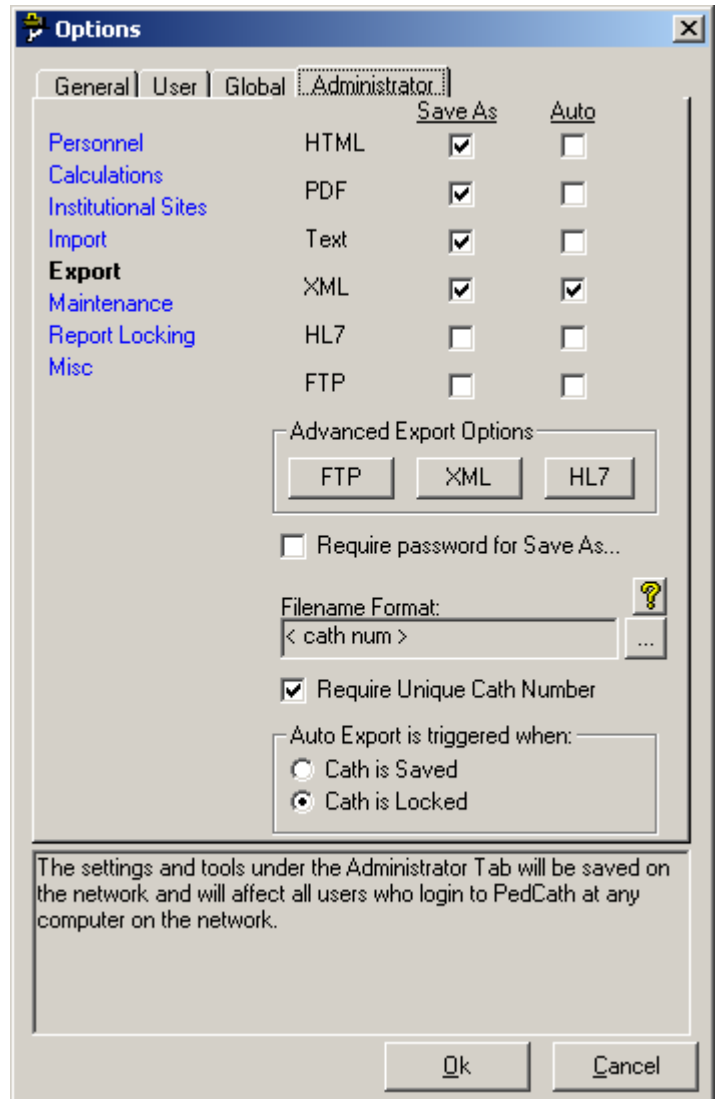
Cath Report Component Managers

✎ *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.
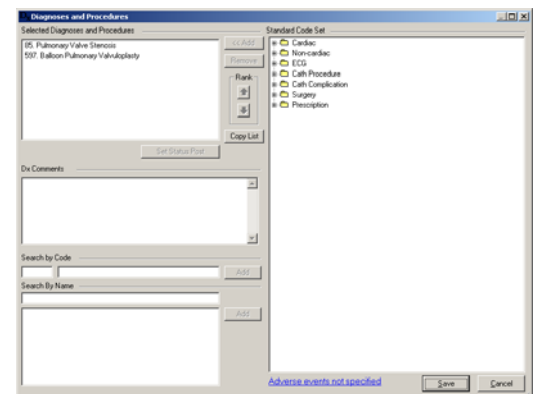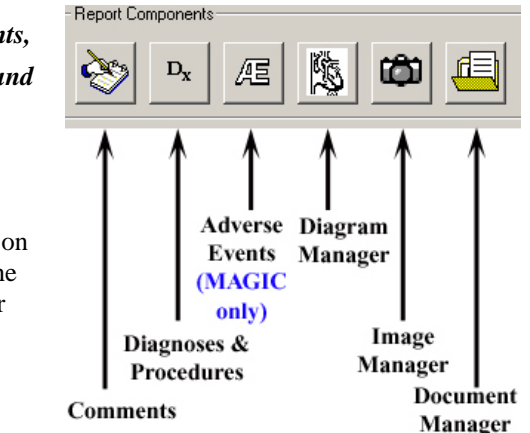
To add a code via the Search for Code box, enter a code in the small text box on the left. If this box matches a code exactly, the code is displayed in the text box immediately to the right. Click Add to add this code to the cath. Notice the Copy List button to the right of the Selected Diagnoses and 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 for MAGIC Users (Optional)

For users participating in the MAGIC studies, an AE button is provided, which 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.
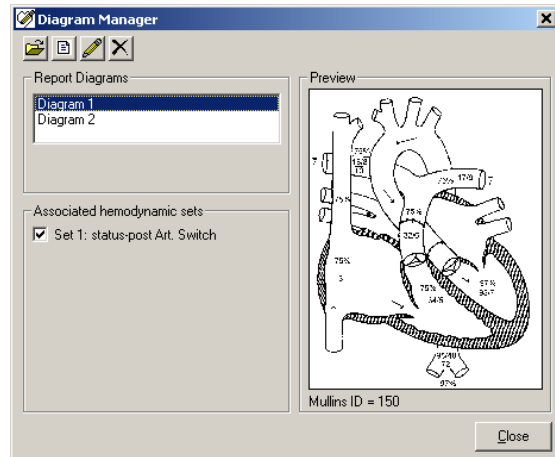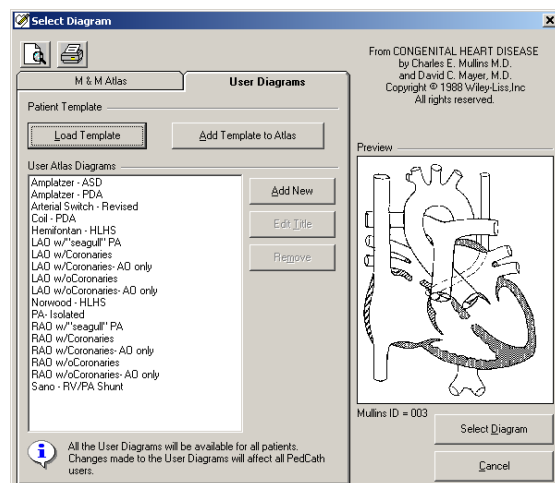
Adding Diagrams
To add a diagram, expand the folder list by either double clicking on a folder or clicking on the + sign to the left of the folder you wish to open. Select a heart description by clicking on it; a small preview will appear on the right. To see the full name of long descriptions, use the scroll bar at the bottom of the folder list or leave the mouse over a description for a few seconds; in the latter case, the full name will appear momentarily.

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.
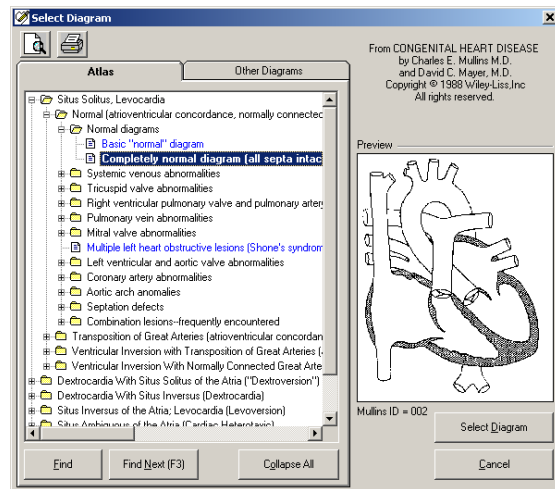
On the Other Diagrams tab you can create an additional atlas of diagrams for your institution. You can add diagrams to the User Atlas from a file or from the current patient's template. To add the patient's template to the User Atlas, click the Load Template button and then Add Template to Atlas. To load the template directly to the cath report, click the Load Template button and then the Select Diagram button.

We also provide a supplement to the Mullins and Mayer Atlas on our web site (www.pedcath.com) that can be added here. If you add a supplemental diagram you should enter the Mullins ID number which tells PedCath how measurements should be embedded.

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.
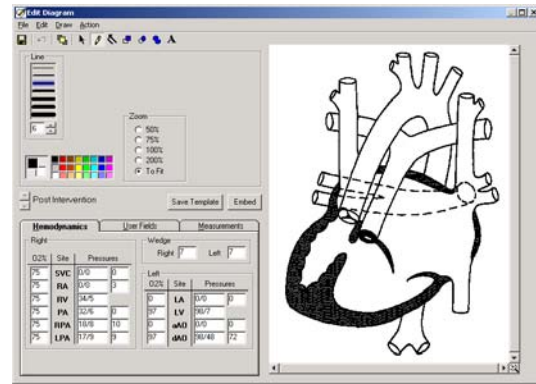
! If you make extensive changes to the patient

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.
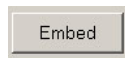
Embedding Hemodynamic Values in the Diagram

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.
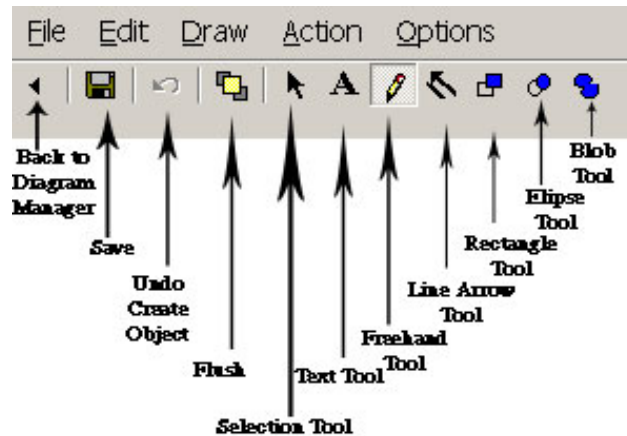
Undo Create Object
Click this icon to undo the last drawing operation.

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.

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.
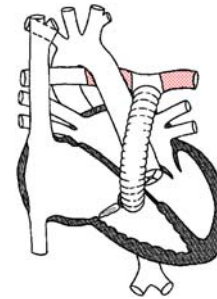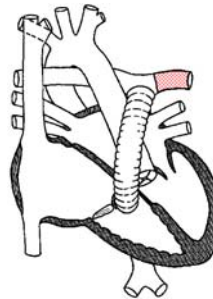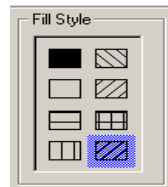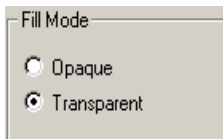
Image Manager

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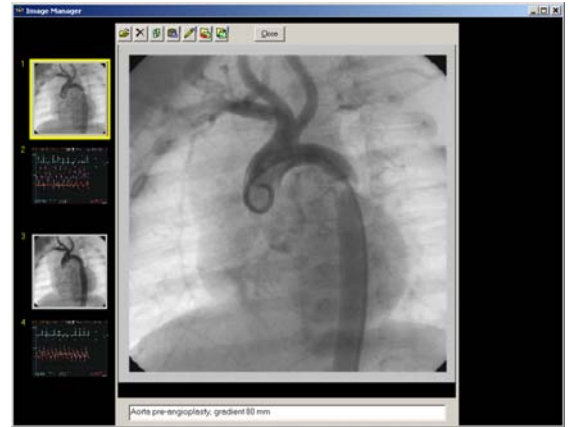
To swap two images, click on one of the two images you would like to switch. Click on the third button from the left, and, following the on-screen instructions, click on the second image you would like to swap.

You can also import images directly from the Windows clipboard.

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).
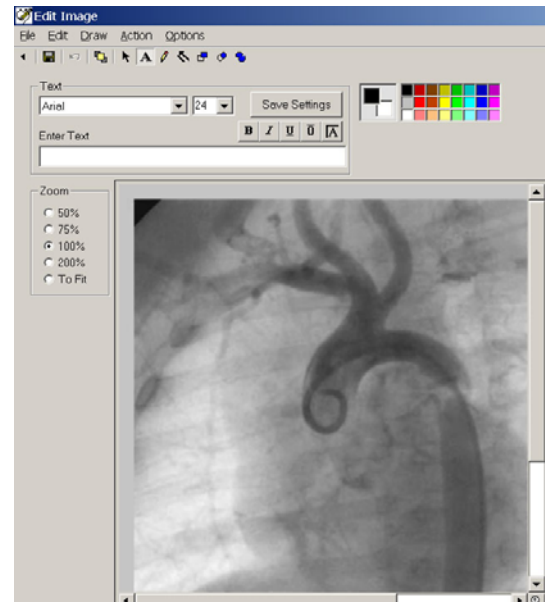
Document Manager

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

Clicking Create New Document will open the Document Editor (below), which allows you to create documents containing tables and images.
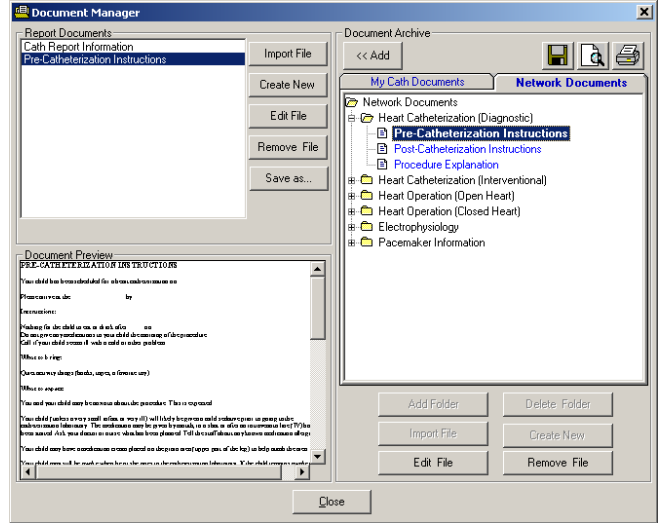
There is a preview of the document that is currently selected in the lower left window. You can edit an existing document by clicking this window or by clicking the Edit File button.

The Document Manager also allows your institution to keep a Document Archive to pull related documents into the cath report (to be used as templates, for example). 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.
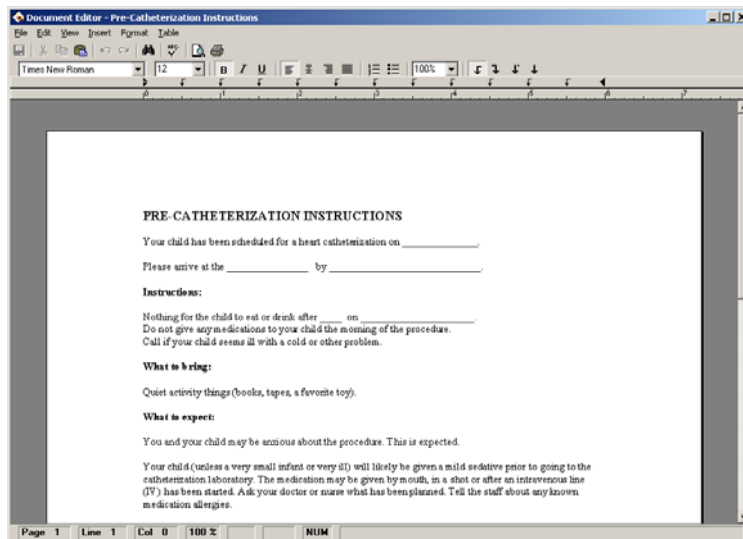
Edit Cath Report Screen Toolbar

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.
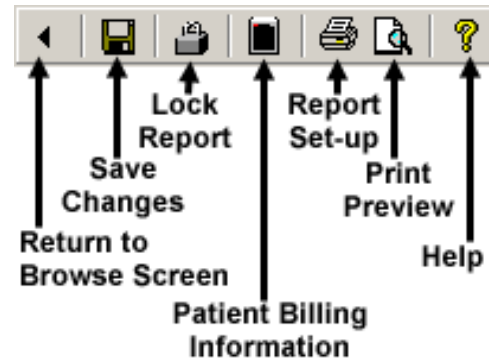
Billing Information

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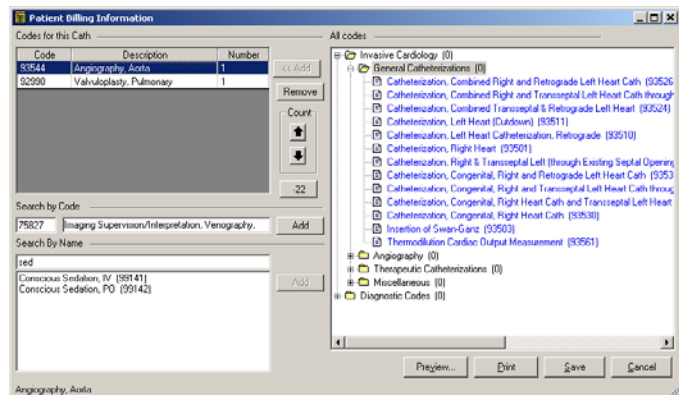
To add a code via the Search by Code box, enter a code in the small text box on the left. If this box matches a code exactly, the code is displayed in the text box immediately to the right. Click Add to add this code to the cath.

To add a code via the Search by Name box, enter a part of the name of the code for which you are searching. For instance, if you enter *sed*, the selection box below will contain any code name that contains the letters "sed" in that order, such as "Conscious Sedation, IV (99141)," and "Conscious Sedation, PO (99142)." Select the code that you wish 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.

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 (Attendings 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.

These members also have the ability to unlock the report within the following 24 hours after a lock to make changes. 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 described in the next section.

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).

Creating Updated Reports

If it is required to make changes to the cath report after the grace period of 24 hours, PedCath will allow you to create an updated report to work from so that the original report will remain unaltered. To do this choose "File" > "Create Updated Report" from the menu. You are able to add, delete, or modify anything within the updated report including resources such as documents, images, and diagrams.

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.

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.

On the Options tab you can select many report setup options such as page number location, and the caption to be used for diagrams, if any.

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/Comment 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.
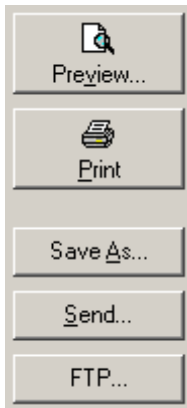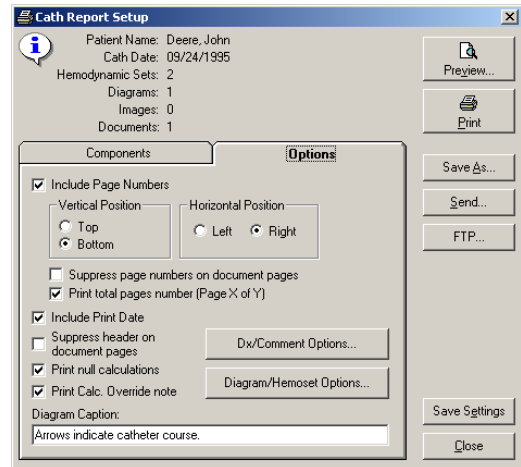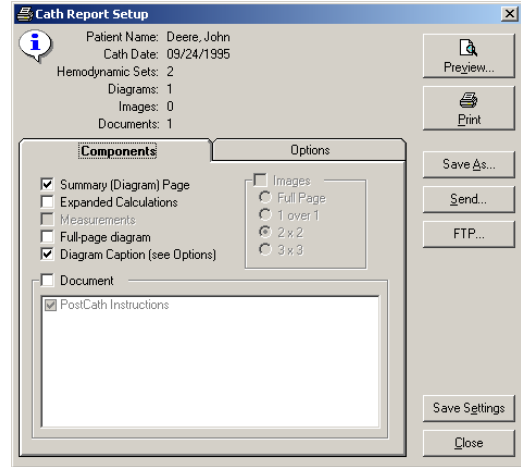
You may preview your report by clicking the Preview button.

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.
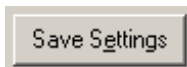
You may optionally save your report settings so that the next time you go to print a report the settings will load the same way.

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.

Creating a Report Query

On the **PedCath** main screen (Browse screen), click the Tools menu and choose "Data Reports…" The "Data Report Utility" dialog will be displayed. Criteria may be entered here to filter for the desired records. **PedCath** will allow a search based on either patients or cath records and will display the fields chosen from the "Report Setup" dialog.

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 click the "New Item" button, expand the "Personnel Data" folder in the tree view, click on Dr. Everett's name within the tree and press okay. Next select his role as "Attending" and press OK.

Follow the same procedure to add the query item for Age at Cath: Click "New Item", select "Age at Cath" under the "Case Data" folder in the list box and click OK. Next select the age at cath to be less than 3 months and click OK. The screen should now look like the figure below.
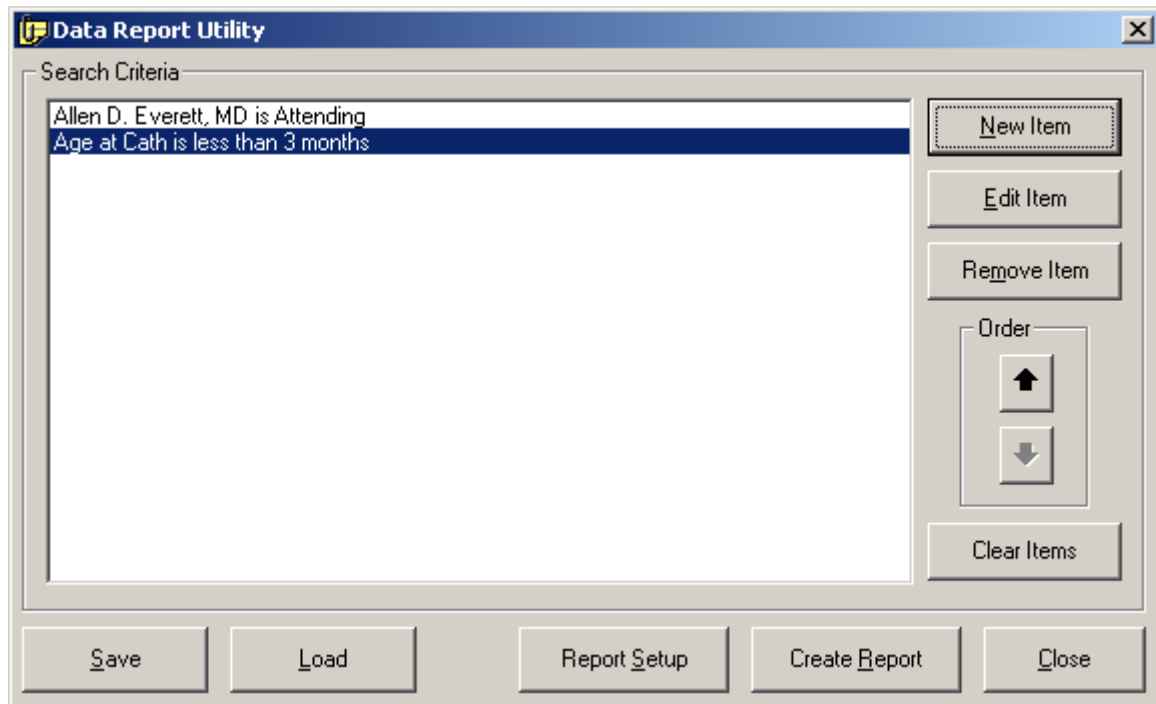
Note: A query can be saved for future use by clicking the Save button, and a previously saved query can be loaded by clicking Load and finding the query file (p7q extension). Please note this file contains the query items and report setup but does not contain the results of running the report.

Report Setup

Before running the report query, click the "Report Setup" button on the "Data Report Utility" dialog. Within this dialog, the fields may be chosen that will be displayed on the report and what order they will be displayed in. The fields that are checked will be displayed on the report and the order can be changed by selecting the field name and clicking the up or down arrows

It is important to specify whether the report is based on "Caths" or "Patients". Choosing to search for caths will create a document displaying the case information for each matching cath record with the corresponding patient information following each record. A search based on patients will return a list of all the patients matching the query provided as well as their cath records.

Within the Performance group, you have the option to run queries across the network (default) or to run queries on a local copy of the database. Choosing the option to copy the files locally can greatly improve performance for complicated queries on slow networks. If you are planning on running a large number of queries it is recommended to run against a local copy. If you choose the 'Copy tables locally' option, you have the choice for PedCath to copy down the latest tables each time you run Data Reports or not.

Click Ok to save the report setup.

Running the Report Query

From the "Data Report Query" dialog, click "Create Report" 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 are records are returned as shown in the figure below.

The "Layout" button will toggle the field labels on and off of the report. This dialog gives the option to preview, print, save, or email the report.

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).
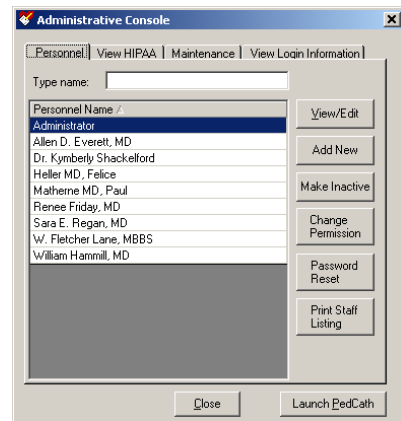
Viewing HIPAA Logs

On the second tab you can view HIPAA logging information such as when patients' records were browsed or edited and by whom. 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.
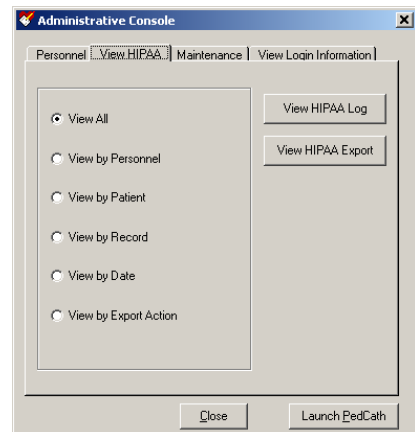
Maintenance

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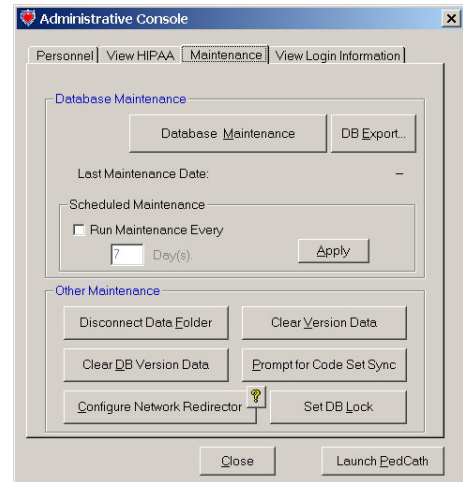
Disconnect Data Folder – This will remove the pointer to the PedCath database and it will have to be set the next time PedCath or the Administrative Console is run.

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

Clear DB Version Data – This will remove the database version number which will cause the database upgrade 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).

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.

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.

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 at least recommended to run the Indexes 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. Although unlikely, if you encounter an integrity error contact Scientific Software.
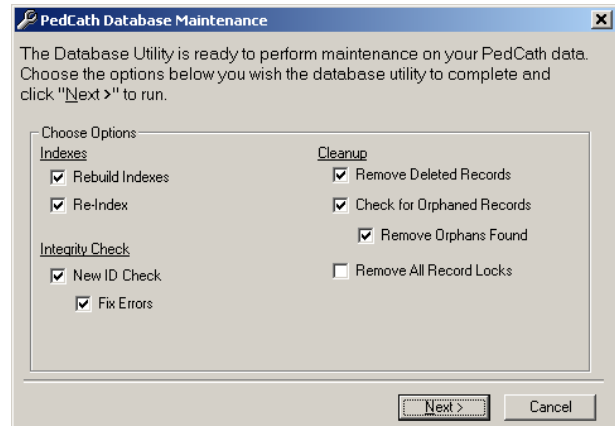
When records are deleted from a dbf table, the records are not actually removed but rather flagged for deletion. Under the Cleanup group checking the "Remove Deleted Records" option will actually remove all of these entries from these tables which will improve performance from smaller table sizes.

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.

The final option "Remove All Record Locks" will remove all dBase internal record locks from the system as well as patient locks.

Viewing Login Information

The fourth tab allows you to see who's logged into the system and what patients are currently being edited. If you select a staff member and click "Log Off User" the user's login record will be removed and the user will not be able to edit any more cath reports. Note that the users will still be in the system and connected to the databases, so if you want to perform database maintenance they will need to close PedCath. You can also remove a patient lock from a user by selecting his name and clicking "Remove Patient Lock". The selected user will not be able to save any changes to the current patient. These options are also helpful for single-user licensed institutions when, for instance, PedCath is terminated abnormally (such as by a system crash) and the login information is still present causing everyone to be locked out.