



Excel Medical Electronics, Inc.

CathCenter Hemodynamic Interface

Operator's Manual

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Theory of Operation

The CathCenter Hemodynamic Interface provides a networked interface between the Camtronics Vericis reporting system and third party hemodynamic cardiac catheterization devices, such as the GE/Marquette Mac-Lab and Health Level Seven (HL7) devices. Health Level Seven is one of several ANSI-accredited Standards Developing Organizations operating in the healthcare arena. Health Level Seven's domain is clinical and administrative data.

The CathCenter Hemodynamic Interface resides on a CathCenter server. The CathCenter server has bi-directional application software to directly interface to HL7 devices and/or Mac-Lab devices and control the export and import of patient and hemodynamic data. To accomplish this, the CathCenter server has dual networking capabilities to allow multiple cathlabs and the Vericis system connection to a single CathCenter server using a routable TCP/IP protocol or non-routable protocols such as NetBEUI.

Once connected to the network, the CathCenter will automatically import patient data from a HL7 compatible hemodynamic cathlab or Mac-Lab and export the data across the network in a XML format. CathCenter optionally allows a Mac-Lab device to import patient data from the CathCenter. Patients can be pre-admitted on the CathCenter and then admitted by Mac-Lab. A list of all imported patients are stored in the CathCenter database.

A list of completed cathlab studies, completed Mac-Lab, and scheduled Mac-Lab cases are available for reviewing on the CathCenter. This list is automatically updated when a patient is discharged or saved. CathCenter also allows the user to configure exported patient data. CathCenter divides the patient data into sections and exports the selected sections.

CathCenter Installation

CathCenter Components

The CathCenter server consists of a monitor, tower, keyboard, and mouse as shown in Figure 2-1. Setup of the unit varies by hospital; typically, the CathCenter server installs in the IT department with network cabling provided to the cathlab and Vericis systems.



Figure 2-1

CathCenter Network Setup

The CathCenter server comes with two network adapters. Both adapters use the TCP/IP protocol to connect to a local area network (LAN). The primary adapter is located at the back of the tower, near the bottom. It is the topmost of the two adapters present (See Figure 2-2).

A second optional network adapter provides additional connections as needed to implement a connection between the Cathlab and Vericis systems. This adapter is located at the back of the tower, near the bottom. It is the lower of the two adapters (See Figure 2-2).

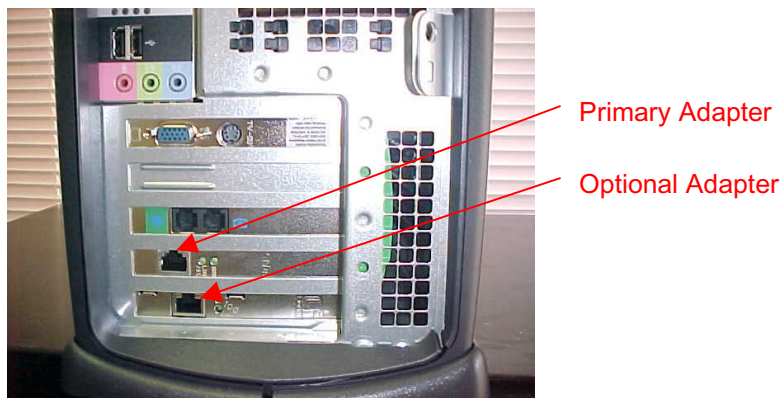


Figure 2-2

Some cathlab versions support network connections using older 10Base2 BNC connectors instead of CAT-5 10BaseT connections. A hub supporting both a BNC connector and a 10BaseT overcomes this limitation.

Each cathlab must have TCP/IP networking software installed to communicate on the network. Additionally, CathCenter must be known to the cathlab in order to support export of HL7 data. This may include setting up TCP/IP addresses and ports.

Maclab System Configuration

Bring up the System Configuration screen by selecting **Edit** from the Maclab main menu, and then select **Config**.

- Enter 'CathCenter' in the Workstation field.
- Enter the hospital name in 'Institution name' (Maps as HospitalName within LabId section of the XML file)
- Enter an integer in 'Lab location' (Maps as LabName within LabId section of the XML file)

CathCenter supports Maclab versions 6, 7, and 17.

Vericis and Witt

UNC naming convention

In order for CathCenter to communicate with Vericis and other HL7 cathlabs, the path must be known. UNC (Universal Naming Convention) path names are supported on CathCenter to facilitate communication with these devices. The general format of the UNC is:

```
\\nserv0-0000\Physiologout
```

Where:

\\nserv0-0000 is the network name of the server.

\Physiologout is the name of the network share.

DNS resolution

On some hospital networks, a DNS (Domain Name Service) is not available to resolve the network names of the Vericis server and/or other workstations. In order to use network names in CathCenter, a manual entry into the hosts database will be necessary to resolve an IP address to a network name. This is performed by editing the hosts file in the system directory system32\drivers\etc. This is a text file that simply adds a name to an IP address. An example of this is:

```
192.168.1.100      nserv0-0000
```

Create CathCenter User

A CathCenter user must be added to the Vericis system and when using other HL7 cathlabs. Please see the Hemodynamic to Vericis Interface manual for further information on setting up a user account on Vericis. The hospital administrator is responsible for setting up accounts on other HL7 cathlabs.

CathCenter Program

Once the CathCenter server has been set up and connected to the appropriate networks, the user may log onto the CathCenter using the username **CathCenter** and the password **hello**. The CathCenter application program automatically starts when CathCenter boots up. During normal operation, there is no requirement to log in.

Patient Tab

The Patient Tab is the default page. From the Patient Tab, the user may view or search the list of patients or schedule new patients. The full screen view is located in Appendix A.

Patient Search

The patient list may be searched for patients using their last name, patient ID, or procedure date. By entering the name, ID, or selecting a date from the drop down calendar, a list of patients matching the entered information will be displayed (See Figure 3-1).

| Patient Name | Patient ID | Test/Sched Date | Physician |
|----------------------|-----------------|-----------------|--------------|
| Washington, George | Test Patient #5 | 03 May 02 08:57 | Test2 |
| SupTest, Test Middle | 0000 | 22 Jul 02 00:00 | SZYNISZEWSKI |
| Angio, Test Middle | 00333 | 22 Jul 02 00:00 | SZYNISZEWSKI |

Figure 3-1

The radio buttons allow the user to select whether to list all of the patients, just those who have completed procedures, or those patients that have procedures scheduled. By pressing the *Clear* button, the list will return to the default state. In the default state, patients are listed in order of scheduled patients first and then completed patients by order of their Test/Sched Date, most recent first.

By selecting the column heading, CathCenter sorts the list of patients by the heading selected, Patient Name, Patient ID, Test/Schedule Date, or Physician. The list will initially be sorted in ascending order, with subsequent selections alternating between descending and ascending order (See Figure 3-2).

| <input checked="" type="radio"/> All Patients <input type="radio"/> Completed <input type="radio"/> Scheduled Total Patients: 31 | | | |
|---|------------------|-----------------|-----------|
| Patient Name | Patient ID | Test/Sched Date | Physician |
| New, [highlighted] | 444 | 30 May 02 11:04 | DDD |
| LastTest, FirstTest | 9876 | 15 May 02 12:27 | |
| TestLastName, TestFirstN | 12345 | 15 May 02 11:17 | |
| . | | 15 May 02 10:49 | |
| XXX, YYY | 333 | 15 May 02 09:44 | ZZZ |
| FFF, GGG | 222 | 15 May 02 09:43 | JJJ |
| AAA, BBB | 111 | 15 May 02 09:41 | CCC |
| Lname, Fname | ABCDEF | 15 May 02 09:38 | |
| Lname, NewName | ABC | 15 May 02 09:28 | Test1 |
| . | Test Patient #4 | 10 May 02 08:20 | |
| Washington, George | Test Patient #5 | 03 May 02 08:57 | |
| Williams, John | Test Patient #6 | 30 Apr 02 09:39 | |
| Smith, John | Test Patient Two | 25 Apr 02 10:45 | |
| LastNameLastname, FirstNames | Test Patient One | 25 Apr 02 09:43 | Test2 |
| Test Age, FirstNames | Weeks | 25 Apr 02 09:43 | Test2 |
| Test Age, FirstNames | Hours | 25 Apr 02 09:43 | Test2 |
| Test Age, FirstNames | Months | 25 Apr 02 09:43 | Test2 |
| Test Age, FirstNames | Days | 25 Apr 02 09:43 | Test2 |
| Test Gender, FirstNames | Female | 25 Apr 02 09:43 | Test2 |
| Test Gender, FirstNames | Other | 25 Apr 02 09:43 | Test2 |
| Test Race, FirstNames | Black | 25 Apr 02 09:43 | Test2 |
| Test Race, FirstNames | Oriental | 25 Apr 02 09:43 | Test2 |
| Test Race, FirstNames | Hispanic | 25 Apr 02 09:43 | Test2 |
| Test Race, FirstNames | Amer Indian | 25 Apr 02 09:43 | Test2 |
| Test Race, FirstNames | Hawaiian | 25 Apr 02 09:43 | Test2 |
| Test Race, FirstNames | Pacific Isle | 25 Apr 02 09:43 | Test2 |
| Test Race, FirstNames | Mongolian | 25 Apr 02 09:43 | Test2 |
| Test Race, FirstNames | Asian | 25 Apr 02 09:43 | Test2 |
| Test Race, FirstNames | Eskimo | 25 Apr 02 09:43 | Test2 |
| Test Race, FirstNames | Blank | 25 Apr 02 09:43 | Test2 |
| Jones, Sally | Test Patient #3 | 09 Jun 97 09:07 | |

Figure 3-2

A patient may be selected from the list by clicking the appropriate entry. The title bar displays the selected patient's information. The user may press the *Clear* button to remove the selected patient from the title bar, remove the highlight from the patient within the patient list, and remove entries in the Last Name, Patient ID, or Procedure Date. CathCenter displays a count of the total number of patients in the list above the upper right corner of the list.

Patient Scheduling

Patients may be added or modified through the Patient Scheduling section (See Figure 3-3). Patient scheduling is optional for HL7 protocols and is standard on Mac-Labs using the Hilltop protocol. A Last name, patient ID or case number entry is required in order to schedule a patient. Once the information has been entered, the user selects the *New* button to add the patient to the list. CathCenter displays newly scheduled patients in blue within the patient list.

The screenshot shows a 'Patient Scheduling' form with the following fields and controls:

- Scheduled Date: [Dropdown]
- Time: [Text]
- Procedure: [Dropdown]
- Case No.: [Text]
- Patient ID: [Text]
- Last Name: [Text]
- First Name: [Text]
- Address: [Text]
- City: [Text]
- State / Pr.: [Text]
- Postal Code: [Text]
- Phone (H): [Text]
- Phone (W): [Text]
- Date of Birth: [Dropdown]
- Attending MD: [Dropdown]
- Referring MD: [Dropdown]
- Gender: Male Female
- Race: [Dropdown (Caucasian)]
- Ht (in): [Text]
- Ht (cm): [Text]
- Wt (lb): [Text]
- Wt (kg): [Text]
- Buttons: New, Modify, Delete, Clear

Figure 3-3

Once an entry has been created, changes to the patient may be made. By selecting the patient from the list, the information entered previously will populate the appropriate fields. Changes may be made directly within the fields. Selecting the *Modify* button will save the new information.

To delete an entry that has been created, select the patient from the list and select the *Delete* button.

To remove all the information entered in the Patient Scheduling section, select the *Clear* button with the Patient Scheduling area. If a patient has already been saved using the *New* button, pressing the *Clear* button will not delete the patient from the list.

Export XML

Pressing the button labeled *ExportXML* will send the selected patients XML file to the destination defined in the Configuration Tab. For a view of the *ExportXML* button see Appendix A.

Configuration Tab

The Configuration Tab allows the user to adjust the import and export features of the CathCenter. The full screen view is located in Appendix B.

Institution Demographics

The user may enter information specific to the institution in the Institution Demographics section (See Figure 3-4). If an institution name is entered, the title bar will display it below the Procedure entry.



Institution Demographics

Institution Name Telephone Fax

My Institution (123)456-7890 (098)765-4321

Address

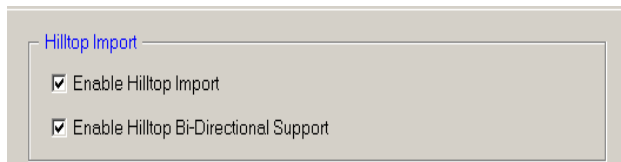
Address 1 City State Postal Code

Address 2 My City My State 33458

Figure 3-4

Hilltop Import

If the "Enable Hilltop Import" box is checked, the CathCenter will retrieve patient data sent from a Maclab unit. The "Enable Hilltop Bi-Directional Support" allows the CathCenter to import patients from a Maclab and allows a Maclab to retrieve patients from CathCenter (See Figure 3-5).



Hilltop Import

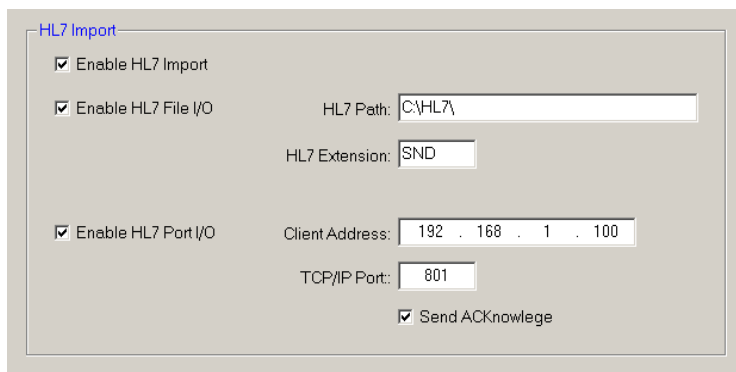
Enable Hilltop Import

Enable Hilltop Bi-Directional Support

Figure 3-5

HL7 Import

The HL7 Import section allows the user to configure HL7 Importing of data to the CathCenter (See Figure 3-6).



HL7 Import

Enable HL7 Import

Enable HL7 File I/O HL7 Path: C:\HL7\

HL7 Extension: SND

Enable HL7 Port I/O Client Address: 192 . 168 . 1 . 100

TCP/IP Port: 801

Send ACKnowledge

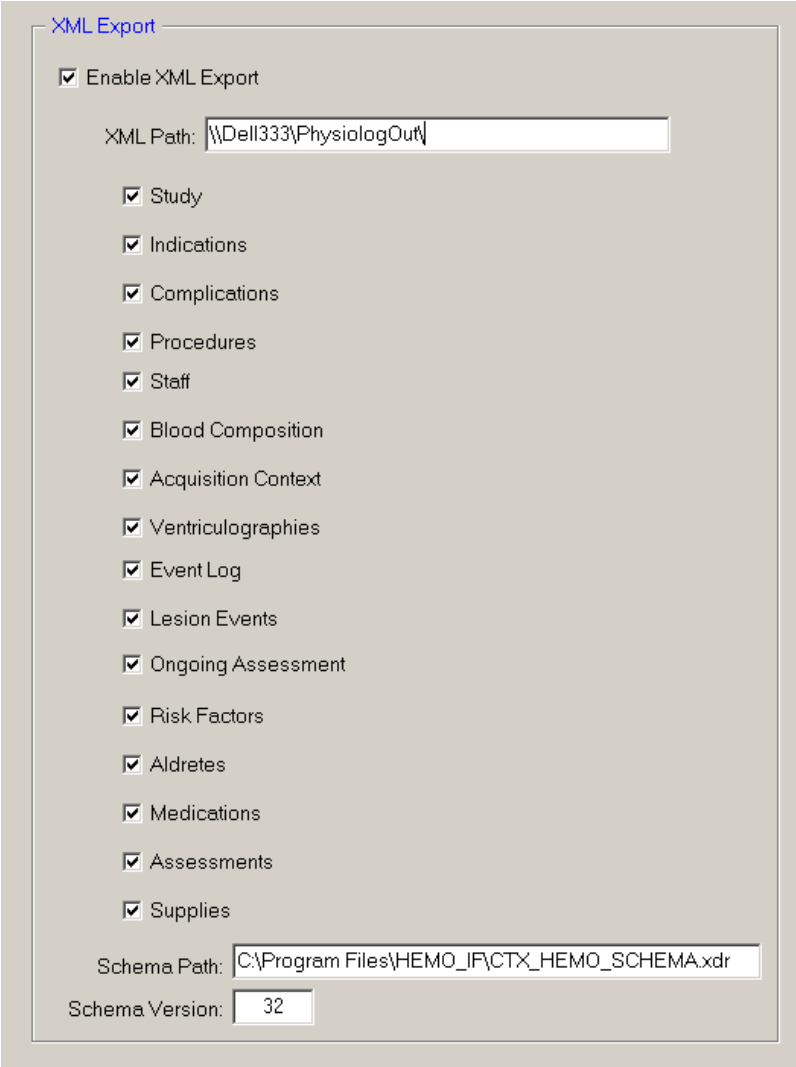
Figure 3-6

To enable HL7 import, check the *Enable HL7* check box. CathCenter supports two methods of HL7 import, File I/O and Port I/O. Use File I/O when the cathlab exports HL7 messages in file format in a specific directory. Edit boxes are provided for HL7 Path and File extensions. Use Port I/O when the cathlab exports using the TCP/IP protocol. Edit boxes are provided for the client IP address and the TCP/IP port number. Optionally, an

acknowledge message can be sent back to the cathlab by checking the *Send Acknowledge* check box.

XML Export

The XML Export section allows the user to configure the exported XML files. If the *Enable XML Export* box is unchecked, CathCenter will not export XML files (See Figure 3-7).



The screenshot shows the XML Export configuration window. At the top, there is a title 'XML Export'. Below it, the 'Enable XML Export' checkbox is checked. The 'XML Path' is set to '\\Dell333\PhysiologOut'. A list of 16 items follows, each with a checked checkbox: Study, Indications, Complications, Procedures, Staff, Blood Composition, Acquisition Context, Ventriculographies, Event Log, Lesion Events, Ongoing Assessment, Risk Factors, Aldretes, Medications, Assessments, and Supplies. At the bottom, the 'Schema Path' is 'C:\Program Files\HEMO_IF\CTX_HEMO_SCHEMA.xdr' and the 'Schema Version' is '32'.

Figure 3-7

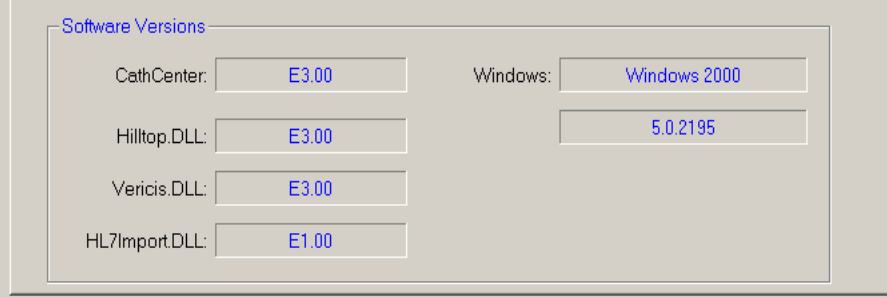
The XML Path determines where to export the XML files on the network. The Vericis system must have the appropriate share enabled to allow for proper export. The XML Export section contains a number of check boxes that represent the various sections of patient data that can be exported via XML. CathCenter exports only those sections selected.

The *Schema Path* gives the location of the schema file used to support the XML files. The *Schema Path* will initially contain a default path, but the path may be edited.

The *Schema Version* contains the version number of the schema used by CathCenter. The *Schema Version* will initially contain a default path, but the path may be edited.

Software Version

The Software Version section contains the various versions of the software and operating system in use (See Figure 3-8).



| Component | Version |
|----------------|--------------|
| CathCenter: | E3.00 |
| Hilltop.DLL: | E3.00 |
| Vericis.DLL: | E3.00 |
| HL7Import.DLL: | E1.00 |
| Windows: | Windows 2000 |
| | 5.0.2195 |

Figure 3-8

System Log Tab

The System Log Tab allows the user to track the activities of the CathCenter program. The log gives the time and date of each entry. The full screen view is located in Appendix C.

Reports Tab

The Reports Tab provides the user with an additional means to view, print, E-mail, and save patient records. The full screen view is located in Appendix D.

- The *Report* button will display the currently selected patient, from the Patient Tab, in the report form.
- The *Xml* button will display the currently selected patient, from the Patient Tab, in the XML form.
- The *Print* button will print the currently displayed patient, in Report or XML format, to the default printer.
- The *E-Mail* button will send the currently selected patient's XML file to Excel-Medical Electronics tech support if the hospital network is configured properly.
- The *Diskette* button will save the currently selected patient's XML file. A standard Windows Save As dialog box will appear when the *Diskette* button is pressed (See Figure 3-9).

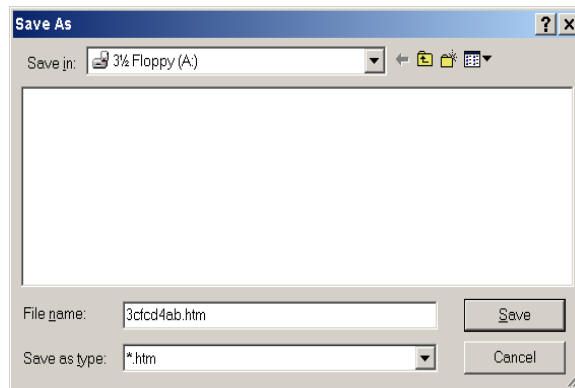


Figure 3-9

The user selects the destination, enters the name to save the file as, and selects *Save*. By pressing the *Cancel* button, the file is not saved and the dialog box is closed.

Mac-Lab List Setup

The Vericis system specifies known list items that can be imported for inclusion in the Vericis final report. These list items are mapped into Mac-Lab Complications, Contrast, Procedures and Supplies lists. This section will guide you into configuring Mac-Lab with these list items. Any or all of the data from the following tables may be entered into Mac-Lab.

In all versions of Mac-Lab, the Mac-Lab list items can be directly edited into Mac-Lab list tables.

In Mac-Lab version 7 and 17, Vericis compatible lists can be created in a computer application and imported into Mac-Lab. The following procedure uses Microsoft Excel, although any computer application that can save a text file in a tab-delimited format may be used.

List Setup via Computer Application

Creating a Mac-Lab Backup Diskette

1. On Mac-Lab, create two backup diskettes for the lists by selecting the *Load* menu item. Select *Backup* and follow the screen prompts. After the backups are complete, remove the diskettes and take one to the computer where the master list is to be created. **Save the other diskette in case you want to revert to the original configuration.**
2. Copy all list files with the “.lis” extension from the Mac-Lab backup diskette to the computer hard drive. Leave the other files on the diskette.
3. Start Excel (or other computer application) and load one of the list files with text format (See Table 4-1, 'Master List File Prefix' for the prefix of each list type).

Table 4-1

| Prefix | Master List File Prefix |
|--------|-------------------------|
| Com | Complications List file |
| Inv | Supplies List file |
| Med | Medications List file |
| Per | Personnel List file |
| Pro | Procedures List file |
| Rad | Radiology List file |

4. Multiple files for each category may be made. Save each category file in numeric order, using the appropriate extension with the “.lis” file extension. For example, “com000.lis” is the first Complications List category, “com001.lis” is the second, etc.

Saving the List File

After you have edited a list in the computer application, you must save the files to the backup diskette. To save each list file:

1. From the *File* menu, click on “Save As...” and select text (tab delimited) from the “Save as type:” box. Save the file to the Computer hard drive.

2. Type the list file name in the "File name:" box, using the Master List File Prefixes, Table 4-1. Note that Excel will append the ".txt" extension to the file.
3. Go to Windows Explorer and rename the file with the ".txt" extension to ".lis".

Caution:

Create all master lists on the computer BEFORE transferring files to the Mac-Lab. When restoring, Mac-Lab removes all list entries and will only add lists that are on the diskette.

Transferring the Lists to Mac-Lab

After each list file has been saved and renamed, you can then copy the files to the Mac-Lab backup diskette. Copy all lists from the computer to the Mac-Lab backup diskette. The new lists will replace the original lists on the Mac-Lab backup diskette.

1. On the Mac-Lab, select *Load* from the main menu bar. Select *Restore* from the displayed submenu.
2. Insert the diskette containing the lists into the diskette drive.
3. Press the Enter key. Lists that have been saved onto the diskette are copied to the hard disk drive. If there are any errors reading the diskette, a restore failure message will appear at the bottom of the RESTORE window. Otherwise, when the retrieval process is complete, a RESTORE COMPLETE message will be displayed. Press the Enter key, then press the Esc key to return to the main menu bar. Press the diskette eject button to remove the floppy diskette. Place the diskette in a safe place for later use (if needed).

Caution:

All previous lists on the Mac-Lab will be replaced with the lists from the diskette during the restore procedure!

Creating a Complications List

The following steps detail how to create a Vericis compatible Complications list.

1. Open a new/existing spreadsheet file. In Row 1, Column A, type a name for the category, example "Complications List A" (category name can be up to 24 characters).
2. In Row 1, Column B, type the name of the list file (ex. "COM000.LIS"). This information is optional.
3. In Row 2 through Row 301, Column A, type the name of the complication in the list (item name can be up to 31 characters). This information is required. Note there is a limit of 300 Complications per Category. If you have more than 300 list items, you must create another category file.

4. In the corresponding row, Column B, type the number associated with a group name from the table below (see Table 4-2, 'Group Names'). This information is optional.

Table 4-2

| Number | Group Names |
|--------|-------------|
| 0 | Unknown |
| 1 | Minimal |
| 2 | Mild |
| 3 | Moderate |
| 4 | Severe |
| 5 | Extreme |

5. In the corresponding row, Column C, type an asterisk to "lock" the item so that it cannot be edited in Mac-Lab. Leave the cell blank to permit the item to be edited. This information is optional.

6. To include Vericis known complications in the Mac-Lab Complications List, include any of the following Complications. Note each desired Complication must be entered exactly as show in the table below. The Group number may be any number from Table 4-3.

Table 4-3

| Complication Name | Group |
|---------------------------------|-------|
| MI (new) | 0 |
| MI (After lab visit) | 1 |
| Cardiogenic Shock | 2 |
| Atrial Fibrillation | 3 |
| Atrial Flutter/Tachycardia | 4 |
| Bradycardia | 0 |
| 1 degree AV Block | 0 |
| 2 degree AV Block | 0 |
| 3 degree AV Block | 0 |
| Ventricular Fibrillation | 0 |
| Ventricular Tachycardia | 0 |
| CVA | 0 |
| CVA (after cath lab visit) | 0 |
| Tamponade | 0 |
| Bleeding | 0 |
| Bleeding (after cath lab visit) | 0 |
| Vessel occlusion | 0 |
| No distal pulse | 0 |
| Dissection | 0 |
| Pseudoaneurysm | 0 |
| AV Fistula | 0 |
| Contrast Rctn (Minor) | 0 |
| Contrast Rctn (Severe) | 0 |
| Contrast Rctn (after lab visit) | 0 |
| Congestive Heart Failure | 0 |
| Renal Failure (new) | 0 |
| Emergency PCI | 0 |

| | |
|------------------------------|---|
| Emergency CABG/Valve surgery | 0 |
|------------------------------|---|

7. Additional free-text entries may be added, although the entries must conform to standards provided below.

| Cell | Cell/Column information |
|---------|--|
| 1A | Category Name - max 24 characters. (Required) |
| 1B | File Name (Optional) |
| 2A-301A | Description Name – max 31 characters. (Required) |
| 2B-301B | Group Number – from Table 1-2 (Optional) |
| 2C-301C | Write Protect – “*” to lock (Optional) |

Creating a Supplies List

The following steps detail how to create a Vericis compatible Supplies list. Note the supply name is free-form text, but the group must conform to one of the Vericis known groups.

1. Open a new/existing spreadsheet file. In Row 1, Column A, type the name of the category, example "Supplies" (category name can be up to 24 characters).
2. In Row 1, Column B, type the name of the list file. This information is optional (ex. "INV000.LIS").
3. In Row 2 through Row 301, Column A, type the name of the supply items in the list (item name can be up to 23 characters). This information is required.
4. In the corresponding row, Column B, type the name of the group (The group name can be up to nine characters). The group must be one of the following to be exported properly to the Vericis system:

Balloon
Catheter
Wire
Roto/TEC
Sheath
Stent
Suture
Sealant
ICD

Note: ICD is the abbreviation for Implantable Closure Devices.

5. In the corresponding row, Column C, type any notes that may be useful to describe the item (a note can be up to nine characters). This information is optional.
6. In the corresponding row, Column D, type an asterisk to “lock” the item so that it cannot be edited in Mac-Lab. Leave the cell blank to permit the item to be edited. This information is optional.

| Cell | Cell/Column information |
|-----------|---|
| 1A | Category Name – max 25 characters, 24 displayed. (Required) |
| 1B | File Name (Optional) |
| 2A - 301A | Item Name – max 23 characters. (Required) |
| 2B - 301B | Group Name – max 9 characters. (Optional) |
| 2C - 301C | Note Area – max 9 characters. (Optional) |
| 2D - 301D | Write Protect – “*” to lock (Optional) |

Creating a Medications List

The following steps detail how to create a Medications List. Medications on the Vericis system are dynamically mapped by description. There are no unique mapping requirements for Vericis compatibility.

1. Open a new/existing spreadsheet file. In Row 1, Column A, type the name of the category, example "Medications" (category name can be up to 24 characters). This cell is required.
2. In Row 1, Column B, type the name of the list file. This information is optional.
3. In Row 2 through Row 301, Column A, type the description of the medication items in the list (item name can be up to 23 characters). This information is required.
4. In the corresponding row, Column B, type any notes associated with the items (notes can be up to nine characters). This information is optional.
5. In the corresponding row, Column C, type the number associated with how the medication is to be administered (from Table 4-4, 'Administration'). This information is optional.

Table 4-4

| Number | Administration |
|--------|----------------|
| 0 | Other |
| 1 | Oral |
| 2 | Rectal |
| 3 | IV |
| 4 | IM |
| 5 | SL |
| 6 | IC |
| 7 | TOP |
| 8 | IA |
| 9 | SQ |

6. In the corresponding row, Column D, type the number associated with the measurement unit of the medication (see Table 4-5, 'Units'). This information is optional.

Table 4-5

| Number | Units |
|--------|---------|
| 0 | Unknown |
| 1 | ml |
| 2 | mg |
| 3 | Ug |
| 4 | Tabs |
| 5 | Caps |
| 6 | fl oz |
| 7 | grains |
| 8 | gm |
| 9 | cc |
| 10 | unit |
| 11 | IU |
| 12 | sec |
| 13 | mcg |
| 14 | mEq |

7. In the corresponding row, Column E, type an asterisk to "lock" the item so that it cannot be edited in Mac-Lab. Leave the cell blank to permit the item to be edited in Mac-Lab. This information is optional.

| Cell | Cell/Column information |
|----------|--|
| 1A | Category Name – max 24 characters (Required) |
| 1B | File Name (Optional) |
| 2A - 62A | Item Description – max 23 characters. (Required) |
| 2B - 62B | Note Area – max 9 characters. (Optional) |
| 2C - 62C | Admin Area Number – from Table 1-4. (Optional) |
| 2D - 62D | Units Number – from Table 1-5. (Optional) |
| 2E - 62E | Write Protect – "*" to lock. (Optional) |

Creating a Personnel List

The following steps detail how to create Vericis compatible Staff lists. Personnel (Staff) on the Vericis system are dynamically mapped by the Mac-Lab Duty Field. There are no unique mapping requirements for Vericis compatibility.

1. Open a new spreadsheet file. In Row 1, Column A, type the name of the category, example "Personnel" (category name can be up to 25 characters, although up to 24 characters are displayed). This cell is required.
2. In Row 1, Column B, type the name of the list file. This information is optional.

3. In Row 2 through Row 301, Column A, type the last names of the personnel to be included in the list (last names can be up to 15 characters). This information is required.

4. In the corresponding row, Column B, type the first name of the personnel to be included in the list (first names can be up to nine characters). This information is optional.

5. In the corresponding row, Column C, type the number from Table 4-6, 'Personnel Titles' that corresponds with the correct title. This information is optional.

Table 4-6

| Number | Personnel Titles |
|--------|---------------------|
| 0 | Physician |
| 1 | Referring Physician |
| 2 | Fellow |
| 3 | Surgeon |
| 4 | Nurse |
| 5 | Tech (default) |
| 6 | Other |

6. In the corresponding row, Column D, type the department name that corresponds with the correct title (department names can be up to 11 characters). This information is optional.

7. In the corresponding row, Column E, type the number from Table 4-7, 'Duty Types' that corresponds with the proper duty. You must select one of the Duty type to provide for the correct mapping to the Vericis system.

Table 4-7

| Number | Duty Types * |
|--------|----------------------|
| 0 | Unknown* |
| 1 | Attending Physician |
| 2 | Assisting Physician* |
| 3 | Referring Physician |
| 4 | Fellow* |
| 5 | Surgeon* |
| 6 | Scrub |
| 7 | Circulate |
| 8 | Monitor |
| 9 | Other 1* |
| 10 | Other 2* |

* Mapped by Vericis system as "Other".

8. In the corresponding row, Column F, type an asterisk to "lock" the item so that it cannot be edited in Mac-Lab. Leave the cell blank to permit the item to be edited in Mac-Lab. This information is optional.

| Cell | Cell/Column information |
|------|-------------------------|
| 1A | Category Name – max 25 |

| | |
|-----------|---|
| | characters, 24 displayed. (Required) |
| 1B | File Name (Optional) |
| 2A - 301A | Last Name – max 15 characters. (Required) |
| 2B - 301B | First Name – max 9 characters. (Optional) |
| 2C - 301C | Title Number – from Table 1-6 (Optional) |
| 2D - 301D | Department – max 11 characters. (Optional) |
| 2E - 301E | Duty Number – from Table 1-7 (Optional) |
| 2F - 301F | Write Protect – “*” to lock (Optional) |

Creating a Procedures List

The following steps detail how to create a Vericis compatible Procedures list. The procedures list is mapped by Procedure group. There are two procedure groups, Diagnostic and Interventional. These lists can be separated into separate categories (Diagnostic and Interventional) or combined in one category.

1. Open a new spreadsheet file. In Row 1, Column A, type the name of the category, example, "Diagnostic Procedures" (category name can be up to 25 characters, but up to 24 characters are displayed). This cell is required.
2. In Row 1, Column B, type the name of the list file. This information is optional.
3. In Row 2 through Row 301, Column A, type the name of the procedure in the list (item name can be up to 31 characters). This information is required.
4. In the corresponding row, Column B, type the name of the group (group name can be up to nine characters). This information is optional.
5. In the corresponding row, Column C, type an asterisk to “lock” the item so that it cannot be edited in Mac-Lab. Leave the cell blank to permit the item to be edited in Mac-Lab. This information is optional.
6. The following are the Vericis compatible Procedures. These must be entered in Mac-Lab exactly as shown in both the Procedure and Group fields in Table 4-8

Table 4-8

| Procedures | Group |
|--------------------------------|--------------|
| R Heart Cath | Diag |
| RHC w/Swan | Diag |
| L Heart Cath | Diag |
| L & R HC | Diag |
| Angiogram (Arterial LV) | Diag |
| Coronary Angiogram | Diag |
| Coronary Angiogram (SVG) | Diag |
| Coronary Angiogram (LIMA) | Diag |
| Coronary Angiogram (RIMA) | Diag |
| Coronary Angiogram (Free RIMA) | Diag |

| | |
|---------------------------------|------|
| Coronary Angiogram (Rad Art) | Diag |
| Coronary Angiogram (Rad Access) | Diag |
| Coronary Angiogram (Gstropplc) | Diag |
| Angiogram (AO Arch) | Diag |
| Angiogram Man (AO Arch) | Diag |
| Angiogram (Dsc Thoracic) | Diag |
| Angiogram Man (Dsc Thoracic) | Diag |
| Angiogram (Asc Aorta) | Diag |
| Angiogram Man (Asc Aorta) | Diag |
| Angiogram (Abd Aorta) | Diag |
| Angiogram Man (Abd Aorta) | Diag |
| Angiogram (Aortic arch) | Diag |
| Angiogram Man (Aortic arch) | Diag |
| Angiogram (LL Leg) | Diag |
| Angiogram Man (LL Leg) | Diag |
| Angiogram (UL Leg) | Diag |
| Angiogram Man (UL Leg) | Diag |
| Angiogram (LR Leg) | Diag |
| Angiogram Man (LR Leg) | Diag |
| Angiogram (UR Leg) | Diag |
| Angiogram Man (UR Leg) | Diag |
| Angiogram (Renal L) | Diag |
| Angiogram Man (Renal L) | Diag |
| Angiogram (Renal Vein L) | Diag |
| Angiogram Man (Renal Vein L) | Diag |
| Angiogram (Renal R) | Diag |
| Angiogram Man (Renal R) | Diag |
| Angiogram (Renal Vein R) | Diag |
| Angiogram Man (Renal Vein R) | Diag |
| Angiogram (BL Renal Art) | Diag |
| Angiogram Man (BL Renal Art) | Diag |
| Angiogram (BL Renal Vein) | Diag |
| Angiogram Man (BL Renal Vein) | Diag |
| Angiogram (Cartd Art left) | Diag |
| Angiogram Man (Cartd Art left) | Diag |
| Angiogram (Cartd Art right) | Diag |
| Angiogram Man (Cartd Art right) | Diag |
| Angiogram (Vertebral left) | Diag |
| Angiogram Man (Vertebral left) | Diag |
| Angiogram (Vertebral right) | Diag |
| Angiogram Man (Vertebral right) | Diag |
| IVUS | Diag |
| Fluoroscopy | Diag |
| NOGA | Diag |
| Biopsy (Diagnostic) | Diag |
| Cardiocentesis (Diagnostic) | Diag |
| FFR | Diag |
| CFR | Diag |
| CPS | Diag |
| CVP Placement | Diag |
| Doppler FloWire | Diag |
| IABP | Diag |
| Intubation | Diag |

| | |
|------------------|------|
| Pacemaker Temp | Diag |
| Run Off | Diag |
| TEE | Diag |
| Thrombo Infusion | Diag |
| Transseptal | Diag |
| Vein Graft Study | Diag |

7. The following are the Vericis compatible Procedures. These must be entered in Mac-Lab exactly as shown in both the Procedure and Group fields in Table 4-9

Table 4-9

| Procedures | Group |
|---------------------------------|--------------|
| PTCA (Coronary) | Intventnl |
| PTCA (Grafts) | Intventnl |
| PTA (Arterial) | Intventnl |
| PTA (Access) | Intventnl |
| PTA (Valves) | Intventnl |
| PTA (Venous) | Intventnl |
| Cutting balloon PTCA (Coronary) | Intventnl |
| Cutting balloon PTCA (Grafts) | Intventnl |
| Cutting balloon PTA (Arterial) | Intventnl |
| Cutting balloon PTA (Access) | Intventnl |
| Cutting balloon PTA (Valves) | Intventnl |
| Cutting balloon PTA (Venous) | Intventnl |
| Stent (Coronary) | Intventnl |
| Stent (Grafts) | Intventnl |
| Stent (Arterial) | Intventnl |
| Stent (Access) | Intventnl |
| Stent (Valves) | Intventnl |
| Stent (Venous) | Intventnl |
| Rotablator (Coronary) | Intventnl |
| Rotablator (Grafts) | Intventnl |
| Rotablator (Arterial) | Intventnl |
| Rotablator (Access) | Intventnl |
| Rotablator (Valves) | Intventnl |
| Rotablator (Venous) | Intventnl |
| TEC (Coronary) | Intventnl |
| TEC (Grafts) | Intventnl |
| TEC (Arterial) | Intventnl |
| TEC (Access) | Intventnl |
| TEC (Valves) | Intventnl |
| TEC (Venous) | Intventnl |
| DCA (Coronary) | Intventnl |
| DCA (Grafts) | Intventnl |
| DCA (Arterial) | Intventnl |
| DCA (Access) | Intventnl |
| DCA (Valves) | Intventnl |
| DCA (Venous) | Intventnl |
| Laser (Coronary) | Intventnl |
| Laser (Grafts) | Intventnl |
| Laser (Arterial) | Intventnl |
| Laser (Access) | Intventnl |
| Laser (Valves) | Intventnl |

| | |
|---------------------------------|-----------|
| Laser (Venous) | Intventnl |
| AngioJet (Coronary) | Intventnl |
| AngioJet (Grafts) | Intventnl |
| AngioJet (Arterial) | Intventnl |
| AngioJet (Access) | Intventnl |
| AngioJet (Valves) | Intventnl |
| AngioJet (Venous) | Intventnl |
| Brachytherapy (Coronary) | Intventnl |
| Brachytherapy (Grafts) | Intventnl |
| Brachytherapy (Arterial) | Intventnl |
| Brachytherapy (Access) | Intventnl |
| Brachytherapy (Valves) | Intventnl |
| Brachytherapy (Venous) | Intventnl |
| IABP (Interventional) | Intventnl |
| Pacemaker Temp (Interventional) | Intventnl |
| Cardiocentesis (Interventional) | Intventnl |
| Ablation (Coronary) | Intventnl |
| Ablation (Graft) | Intventnl |
| Ablation (Arterial) | Intventnl |
| Ablation (Access) | Intventnl |
| Ablation (Valves) | Intventnl |
| Ablation (Venous) | Intventnl |
| Balloon Septostomy (Coronary) | Intventnl |
| Balloon Septostomy (Graft) | Intventnl |
| Balloon Septostomy (Arterial) | Intventnl |
| Balloon Septostomy (Access) | Intventnl |
| Balloon Septostomy (Valves) | Intventnl |
| Balloon Septostomy (Venous) | Intventnl |
| Blade Septostomy (Coronary) | Intventnl |
| Blade Septostomy (Graft) | Intventnl |
| Blade Septostomy (Arterial) | Intventnl |
| Blade Septostomy (Access) | Intventnl |
| Blade Septostomy (Valves) | Intventnl |
| Blade Septostomy (Venous) | Intventnl |
| Catheter Retrieval (Coronary) | Intventnl |
| Catheter Retrieval (Graft) | Intventnl |
| Catheter Retrieval (Arterial) | Intventnl |
| Catheter Retrieval (Access) | Intventnl |
| Catheter Retrieval (Valves) | Intventnl |
| Catheter Retrieval (Venous) | Intventnl |
| Coils (Coronary) | Intventnl |
| Coils (Graft) | Intventnl |
| Coils (Arterial) | Intventnl |
| Coils (Access) | Intventnl |
| Coils (Valves) | Intventnl |
| Coils (Venous) | Intventnl |
| ICD Implantation (Coronary) | Intventnl |
| ICD Implantation (Graft) | Intventnl |
| ICD Implantation (Arterial) | Intventnl |
| ICD Implantation (Access) | Intventnl |
| ICD Implantation (Valves) | Intventnl |
| ICD Implantation (Venous) | Intventnl |
| Intracornary Thrombo (Coronary) | Intventnl |

| | |
|---------------------------------|-----------|
| Intracornary Thrombo (Graft) | Intventnl |
| Intracornary Thrombo (Arterial) | Intventnl |
| Intracornary Thrombo (Access) | Intventnl |
| Intracornary Thrombo (Valves) | Intventnl |
| Intracornary Thrombo (Venous) | Intventnl |
| IV Thrombolysis (Coronary) | Intventnl |
| IV Thrombolysis (Graft) | Intventnl |
| IV Thrombolysis (Arterial) | Intventnl |
| IV Thrombolysis (Access) | Intventnl |
| IV Thrombolysis (Valves) | Intventnl |
| IV Thrombolysis (Venous) | Intventnl |
| Periph Thrombo (Coronary) | Intventnl |
| Periph Thrombo (Graft) | Intventnl |
| Periph Thrombo (Arterial) | Intventnl |
| Periph Thrombo (Access) | Intventnl |
| Periph Thrombo (Valves) | Intventnl |
| Periph Thrombo (Venous) | Intventnl |
| Valvuloplasty (Coronary) | Intventnl |
| Valvuloplasty (Graft) | Intventnl |
| Valvuloplasty (Arterial) | Intventnl |
| Valvuloplasty (Access) | Intventnl |
| Valvuloplasty (Valves) | Intventnl |
| Valvuloplasty (Venous) | Intventnl |
| Vasc Embolization (Coronary) | Intventnl |
| Vasc Embolization (Graft) | Intventnl |
| Vasc Embolization (Arterial) | Intventnl |
| Vasc Embolization (Access) | Intventnl |
| Vasc Embolization (Valves) | Intventnl |
| Vasc Embolization (Venous) | Intventnl |
| VC Filter Implant (Coronary) | Intventnl |
| VC Filter Implant (Graft) | Intventnl |
| VC Filter Implant (Arterial) | Intventnl |
| VC Filter Implant (Access) | Intventnl |
| VC Filter Implant (Valves) | Intventnl |
| VC Filter Implant (Venous) | Intventnl |
| ACT | Intventnl |
| Biopsy (Interventional) | Intventnl |
| Cardioversion | Intventnl |
| ICD Generator Change | Intventnl |
| ICD Lead Change | Intventnl |
| ICD Lead Implantation | Intventnl |
| Pacemaker Perm | Intventnl |
| PPM Generator Change | Intventnl |
| PPM Insert | Intventnl |
| PPM Lead Change | Intventnl |

8. Additional free form entries may be added. The entries must comply with the standards provided below.

| Cell | Cell/Column information |
|------|--|
| 1A | Category Name – max 25 characters, 24 displayed. (Required) |

| | |
|-----------|--|
| 1B | File Name (Optional) |
| 2A - 301A | Procedure Name – max 31 characters. (Required) |
| 2B - 301B | Group Name – max 9 characters. (Optional) |
| 2C - 301C | Write Protect – “*” to lock. (Optional) |

Creating a Radiology (Contrast) List

The following steps detail how to create a Vericis compatible Contrast list. The Contrast list is mapped by Description.

1. Open a new/existing spreadsheet file. In Row 1, Column A, type the name of the category, example "Contrast" (category name can be up to 24 characters). This Cell is required.
2. In Row 1, Column B, type the name of the list file. This information is optional.
3. In Row 2 through Row 301, Column A, type the name of the contrast in the list (item name can be up to 23 characters). This information is required.
4. In the corresponding row, Column B, type any notes associated with the items (notes can be up to nine characters). This information is optional.
5. In the corresponding row, Column C, type the number from Table 4-10, 'Administration' that corresponds with the medication that is to be administered. This information is optional.

Table 4-10

| Number | Administration |
|--------|----------------|
| 0 | Other |
| 1 | Oral |
| 2 | Rectal |
| 3 | IV |
| 4 | IM |
| 5 | SL |
| 6 | IC |
| 7 | TOP |
| 8 | IA |
| 9 | SQ |

6. In the corresponding row, Column D, type the number from Table 4-11, 'Units' that corresponds with the medication measurement unit. This information is optional.

Table 4-11

| Number | Units |
|--------|---------|
| 0 | Unknown |
| 1 | ml |
| 2 | mg |

| | |
|----|--------|
| 3 | ug |
| 4 | tabs |
| 5 | caps |
| 6 | fl oz |
| 7 | grains |
| 8 | gm |
| 9 | cc |
| 10 | unit |
| 11 | IU |
| 12 | sec |
| 13 | mcg |
| 14 | mEq |
| 15 | inch |

7. In the corresponding row, Column E, type an asterisk to “lock” the item so that it cannot be edited in Mac-Lab. Leave the cell blank to permit the item to be edited in Mac-Lab. This information is optional.

8. The Vericis supported contrast items are shown in Table 4-12.

Table 4-12

| Description | Administrator | Units |
|-------------|---------------|-------|
| Isovue-370 | IV | Cc |
| Hexabrix | IV | Cc |
| Hypaque | IV | Cc |
| Omnipaque | IV | Cc |
| Vispaque | IV | Cc |

9. Additional entries may be added. They must comply with the standards provided below.

| Cell | Cell/Column information |
|-----------|--|
| 1A | Category Name – max 24 characters. (Required) |
| 1B | File Name (Optional) |
| 2A - 301A | Item Description – max 23 characters. (Required) |
| 2B - 301B | Note Area – max 9 characters. (Optional) |
| 2C - 301C | Admin Number – from Table 1-10. (Optional) |
| 2D - 301D | Units Number - from Table 1-11. (Optional) |
| 2E - 301E | Write Protect – “*” to lock. (Optional) |

List Setup via Manual Entry

Mac-Labs with a software version less than seven do not support list creation described in the previous sections. In order to create the Vericis compatible lists, the lists must be entered manually.

Entering Complications List

1. From the main screen, press Alt-M. This brings up the Complications list.
2. Press Ctrl-A to add a new complication.
3. Enter the description and group of the complication from Table 1-3.

Entering a Supplies List

1. From the main screen, press Alt-V. This brings up the Supplies list.
2. Press Ctrl-A to add a new supply.
3. Enter the Supply name; it can be up to 23 characters.
4. Enter the Supply group; it must be one of the following group names to be exported properly to the Vericis system:

Balloon
Catheter
Wire
Roto/TEC
Sheath
Stent
Suture
Sealant
ICD

5. In the Notes section, enter any notes that may be useful to describe the item (a note can be up to nine characters). This information is optional.

Entering a Medications List

1. From the main screen, press Alt-B. This brings up the Medications List.
2. Press Ctrl-A to add a new medication.
3. Enter the description of the medication; it can be up to 24 characters.
4. In the Notes section, enter any notes that may be useful to describe the item (a note can be up to nine characters). This information is optional.
5. Select an Admin type from the list provided by Mac-Lab.
6. Select the Units from the list provided by Mac-Lab.

Entering a Personnel List

1. From the main screen, press Alt-C. This brings up the Personnel list.
2. Press Ctrl-E to edit the Personnel list.
3. Press Ctrl-A to add a new entry to the Personnel list.
4. Enter the last name of the person to be added, it can be up to 15 characters.
5. Enter the first name of the person to be added, it can be up to 9 characters.

6. Select a title from the list provided by Mac-Lab. The following selections are mapped by the Vericis system as "Other":

Fellow
Assisting
Surgn
Other

7. In the Dept section, enter the department name; it can be up to 11 characters. This information is optional.

8. Select a duty from the list provided by Mac-Lab.

Entering a Procedures List

1. From the main screen, press Alt-X. This will bring up the Procedures List.
2. Press Ctrl-A to add a procedure to the list.
3. Enter the Vericis compatible Procedures as shown in Table 1-8 and Table 1-9.

Entering a Radiology (Contrast) List

1. From the main screen, press Alt-N. This will bring up the Radiology (Contrast) List.
2. Press Ctrl-A to add a procedure to the list.
3. Enter the description; it can be up to 23 characters.
4. In the Notes section, enter any notes that may be useful to describe the item (a note can be up to nine characters). This information is optional.
5. Select an Admin type from the list provided by Mac-Lab.
6. Select the Units from the list provided by Mac-Lab.
7. The Vericis supported contrast items are shown in Table 1-12.

Other Cathlab Menu List Setup

The Vericis system specifies known list items imported for inclusion in the Vericis final report. These list items map into cathlab Complications, Contrast, Procedures and Supplies Menu lists. This section will guide you into configuring a cathlab with these list items. Editing these items may involve entering a password to enter the Cathlab Utility Module. See the Cathlab User's Guide for further details.

Menu List Setup

Caution:

Before changing any Menu items on the cathlab, it is advisable that backup be performed.

Creating a Complications List

The following steps detail how to create a Vericis compatible Complications list.

1. Enter the Utility Screen and press the Edit Menu button. A password may be required. Select the Complications menu.
2. Enter in the desired Vericis Compatible Complication names from Table 4-3. Additional non-compatible Vericis free text entries may also be added.

Creating a Supplies (Equipment) List

The following steps detail how to create a Vericis compatible Supplies list. Some cathlabs refer to Supplies as Equipment.

1. Enter the Utility Screen and press the Edit Menu button (A password may be required). Select an Equipment menu.
2. Enter in the desired Supply (Equipment) name. The name is free text. The Vericis Category must be embedded in this free text enclosed in braces. For Example, "6F Catheter {Catheter}"

The following are the allowable Vericis Categories:

- Balloon
- Catheter
- Wire
- Roto/TEC
- Sheath
- Stent
- Suture
- Sealant
- ICD

Note: ICD is the abbreviation for Implantable Closure Devices.

Creating a Medications List

The following steps detail how to create a Medications Menu list. Medication names on the Vericis system are dynamically mapped by description. The Vericis system also supports dosage, units of measure and site location fields that are not specifically exported supported on some cathlabs. In order to record a dosage, units of measure, location, and who administered it, the following syntax must be followed. The medication

name must be in quotes, e.g. "Nipride". The dosage given must be enclosed in parenthesis, e.g. (12.3). The units of measure must be enclosed in square brackets, e.g. [MCG]. The location must be enclosed in left and right brackets, e.g. <IC>. The person who administered the medication must be enclosed in braces, e.g. {by Jane Doe}.

"Nipride" (50)[MCG] <IC> {by Jane Doe}. Any other text on the line will be ignored.

- Table 4-5 describes the allowable Vericis units of measure.
- Table 4-4 describes the allowable Vericis Locations.

Creating a Procedures List

The following steps detail how to create a Vericis compatible Procedures list. Vericis procedures are mapped according to Procedure group. There are two supported procedure groups, Diagnostic and Interventional abbreviated "diag" and "intventnl".

Table 4-8 and 4-9 describe the allowable procedures. The procedure group must be enclosed in braces along with the actual procedure.

E.g. VUS {diag}
Rotablator {intventnl}

Additional non-compatible free form entries may be added.

Radiology (Contrast)

Table 4-12, Description column, describes the Vericis allowable Contrast media. These are entered in the Contrasts list. Additional entries may also be added.

CathDefinedEvents

The Vericis reporting system supports predefined special events entered into the Event Log. When these events are present during export, the exporter will process these events differently than regular logged events. The Vericis pre-defined events are:

- Patient Ready
- Physician Called
- Physician Arrived
- Case Start
- Case Complete
- Patient Discharge
- Scheduled Start
- Patient Sent
- Room Ready
- Patient Arrival
- Transport Team Return
- Patient Discharge

The CathCenter automatically generates the following events when data are present in the appropriate field.

- Physician Called is automatically generated when a time exists in the Physician Paged edit box.
- Case Start is automatically generated from the Case Begin Time.
- Case Complete is automatically generated from the Case End Time.
- Patient Discharge is automatically generated when a time exists in the Patient Out edit box.
- Patient Arrival is automatically generated when a time exists in the Patient In edit box.

Additional events can be entered in the procedure log, pre-procedure notes, intra-procedure notes, or post procedure notes. Each pre-defined event must be a single line log entry.

Known Limitations

The following are the known limitations between some cathlabs and the Vericis system.

1. **Multiple Cardiac Outputs in any one condition.** It is highly recommended that each Cardiac Output measurement reside in a separate CONDITION. If more than one cardiac output is performed in any one CONDITION, the following order will be observed. Thermal Dilution CO will take precedence over Fick CO and Angio CO. Fick CO will take precedence over Angio CO. This will affect Valve Calculations and Resistance Calculations.
2. **There is a 40-character name limitation in Procedures.**
3. **There is a 38-character limitation in Medications.**
4. **There is a 40-character name limitation in Supplies**
5. **Site Labels for Saturations.** The CathCenter translates some site labels to Vericis compatible labels in O2 Saturations. Translated labels are RA to MID_RA, RV to MID_RV, PA to MPA, PW to LPCW, AO to MID_AO and LV to MID_LV.
6. **Within CathStudy section: if MainContrast is Hexabrix or Hypaque, 'Ionic = yes', for all others, 'Ionic = no'.**
7. **Labels for Admin Context in CathMedications are always 'In_lab'**
8. **Staff labels not supported are mapped as 'Other'**

Appendix B

Patient Name: Case No. Procedure: **Cath** **Center**
Patient ID: Physician: My Institution

System Configuration

Institution Demographics

| | | | |
|----------------------|----------------------|----------------------|----------------------|
| Institution Name | Telephone | Fax | |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | |
| Address | | | |
| <input type="text"/> | City | State | Postal Code |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

Hilltop Import

Enable Hilltop Import

Enable Hilltop Bi-Directional Support

HL7 Import

Enable HL7 Import

Enable HL7 File I/O HL7 Path:

HL7 Extension:

Enable HL7 Port I/O Client Address:

TCP/IP Port:

Send ACKnowledge

Software Versions

| | | | |
|----------------|------------------------------------|----------|---|
| CathCenter: | <input type="text" value="E3.00"/> | Windows: | <input type="text" value="Windows 2000"/> |
| Hilltop DLL: | <input type="text" value="E3.00"/> | | <input type="text" value="5.0.2195"/> |
| Vericis DLL: | <input type="text" value="E3.00"/> | | |
| HL7Import DLL: | <input type="text" value="E1.00"/> | | |

XML Export

Enable XML Export

XML Path:

- Study
- Indications
- Complications
- Procedures
- Staff
- Blood Composition
- Acquisition Context
- Ventriculographies
- Event Log
- Lesion Events
- Ongoing Assessment
- Risk Factors
- Aldretes
- Medications
- Assessments
- Supplies

Schema Path:

Schema Version:

Configuration Tab

Appendix C

Patient Name:


Patient ID:

Case No.:

Physician:

Procedure:

My Institution



Patient

Configuration

System Log

Reports

System Log

| Date | Message |
|-------------------------|---|
| 20 May 2002 04:41:20 PM | CathCenter Started |
| 16 May 2002 02:59:38 PM | CathService Started |
| 16 May 2002 02:54:05 PM | CathCenter Started |
| 16 May 2002 02:46:33 PM | CathService Started |
| 16 May 2002 02:44:58 PM | CathCenter Started |
| 16 May 2002 02:43:38 PM | CathService Started |
| 16 May 2002 01:24:43 PM | CathService Started |
| 16 May 2002 01:14:10 PM | CathService Started |
| 16 May 2002 12:50:31 PM | CathService Started |
| 16 May 2002 11:56:50 AM | CathCenter Started |
| 16 May 2002 11:45:18 AM | CathService Started |
| 16 May 2002 10:51:03 AM | CathCenter Started |
| 16 May 2002 10:47:16 AM | CathService Started |
| 16 May 2002 10:43:32 AM | CathCenter Started |
| 16 May 2002 10:43:20 AM | CathService Started |
| 16 May 2002 10:28:32 AM | CathCenter Started |
| 16 May 2002 10:27:35 AM | CathService Started |
| 16 May 2002 10:23:52 AM | CathCenter Started |
| 16 May 2002 10:23:31 AM | CathService Started |
| 16 May 2002 10:18:30 AM | Converted and Exported Test Race, FirstNames, PID: Blank to Xml File: 3ce3cdc6.Xml |
| 16 May 2002 10:18:30 AM | Added Patient Test Race, FirstNames, PID: Blank |
| 16 May 2002 10:05:23 AM | Converted and Exported Test Race, FirstNames, PID: Asian to Xml File: 3ce3ceb3.Xml |
| 16 May 2002 10:05:23 AM | Updated Patient Test Race, FirstNames, PID: Asian |
| 16 May 2002 10:05:06 AM | Converted and Exported Test Race, FirstNames, PID: Mongolian to Xml File: 3ce3caa2.Xml |
| 16 May 2002 10:05:06 AM | Updated Patient Test Race, FirstNames, PID: Mongolian |
| 16 May 2002 10:04:48 AM | Converted and Exported Test Race, FirstNames, PID: Pacific Isle to Xml File: 3ce3ce90.Xml |
| 16 May 2002 10:04:48 AM | Updated Patient Test Race, FirstNames, PID: Pacific Isle |
| 16 May 2002 10:04:22 AM | Converted and Exported Test Race, FirstNames, PID: Hawaiian to Xml File: 3ce3ca76.Xml |

Source

System

Data Base

Network

Devices

Level

Normal

Diagnostic

Warning

Severe

Log To File

System Log Tab

Appendix D

Patient Name:
Case No.
Procedure:
CathCenter

Patient ID:
Physician:
My Institution

Patient
Configuration
System Log
Reports

CathCenter Reports

CathCenter Patient Viewer

[CathStudy](#)

| | | |
|--------------------------------|-----------------------------|--|
| EncounterID: 15 | PatientHeight: 180.340cm | |
| StudyID: 1234567891 | PatientWeight: 79.091kg | |
| Pat_ Transferred: | Age: 35year | |
| | PatBSA: 1.990M ² | |
| OverallInterventionalOutcome: | PatBodyTemp: | |
| InOutPatient: | RoomTemp: | |
| DateOfRegistration: 2002.04.25 | FluoroTime: 0.000min | |
| InsurancePayer: | MainContrast: | |
| MY_ACCESSION_NUMBER: | Total Contrast: | |
| | ContrastAdmin: | |

[SA_PATIENT](#)

| | | |
|---------------------------------|-----------------|--|
| MY_PATIENT_ID: Test Patient Two | MY_GENDER: M | |
| SSN: | MY_OTHER_ID: | |
| MY_LAST_NAME: Smith | MY_PUBLIC_ID: | |
| MY_FIRST_NAME: John | MY_MIDDLE_NAME: | |
| MY_BIRTH_DATE: | RACE: | |
| Address: | City: | |
| State: | Zip: | |

[CathProcedures](#)

| Procedure | Interventional | ProcNum | ExtralInfo | ProcedureStatus | CPT ProcSite |
|------------------|----------------|---------|------------|-----------------|--------------|
| Pacemaker Temp | No | 1 | | | |
| R Heart Cath | No | 2 | | | |
| RHC w/ Swan | No | 3 | | | |
| Run Off | No | 4 | | | |
| TEE | No | 5 | | | |
| Thrombo Infusion | No | 6 | | | |
| Transseptal | No | 7 | | | |
| Voin Graft Study | No | 8 | | | |
| Ablation | Yes | 9 | | | |
| Ablation | Yes | 10 | | | |
| Ablation | Yes | 11 | | | |
| ACT | Yes | 12 | | | |
| AnnioJet | Yes | 13 | | | |

Reports Tab

