



Organize and Track Your Samples with Ease

SampleWare 3.1

Administrator's Manual

Administrator's Manual for Installation and
Configuration of SampleWare

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1. Introduction

This manual is intended to help SampleWare administrators install and configure SampleWare quickly. It is a complement to the built-in SampleWare help capability and manual, and consists of procedures for performing common administrator tasks.

2. System Requirements

Minimum

- Microsoft Windows 2000, Service Pack 6
- 800 MHz Celeron Processor
- 256 MB RAM
- 150 MB Free Disk Space
- CD-ROM Drive
- Super VGA Graphics (800 x 600 resolution)
- Keyboard and Mouse

Recommended

- Microsoft Windows XP Professional, Service Pack 2
- 1.5 GHz Pentium 4 Processor or Better
- 1 GB RAM
- 2 GB Free Disk Space
- Recordable DVD Drive for backing up database(s) and Attachments
- XGA Graphics (1024 x 768 resolution)
- Keyboard and Mouse
- One free USB port for barcode or RFID reader
- Attached or networked printer

Additional Requirements for Network Edition

- Internet connection for computer hosting the MSSQL database
- Network connection to the hosting computer for all other computers
- Additional 100 MB of disk space on hosting computer
- Shared folder on hosting computer that is accessible to all users

3. Installation Procedure

SampleWare has an installation wizard that will guide you through the installation process. The installer will ask you a series of questions to determine which setup is required for you and will then proceed to install the software. If you are installing a network version of SampleWare, you will need to designate one computer to host the SampleWare database.

Trial Installation

A trial version of SampleWare is available for a free evaluation. This version provides the user with all the functionality available in the Desktop Version, but storage of sample data is limited to 5 containers. When a commercial version of SampleWare is purchased, the software will be upgraded during the installation and existing data entered during the trial period will be preserved. The Trial version of SampleWare uses a Microsoft Access database (.mdb) located on the local machine.

Basic Install

SampleWare Basic offers all the features of the desktop version. However, the user is limited to storing up to 5,000 samples. When upgrading to the Desktop or Network version, all data stored using the Basic version is preserved. The Basic version of SampleWare uses a Microsoft Access database (.mdb) located on the local machine.

Desktop Install

SampleWare Desktop offers unlimited storage of samples. The Desktop version of SampleWare uses a Microsoft Access database (.mdb) located on the local machine.

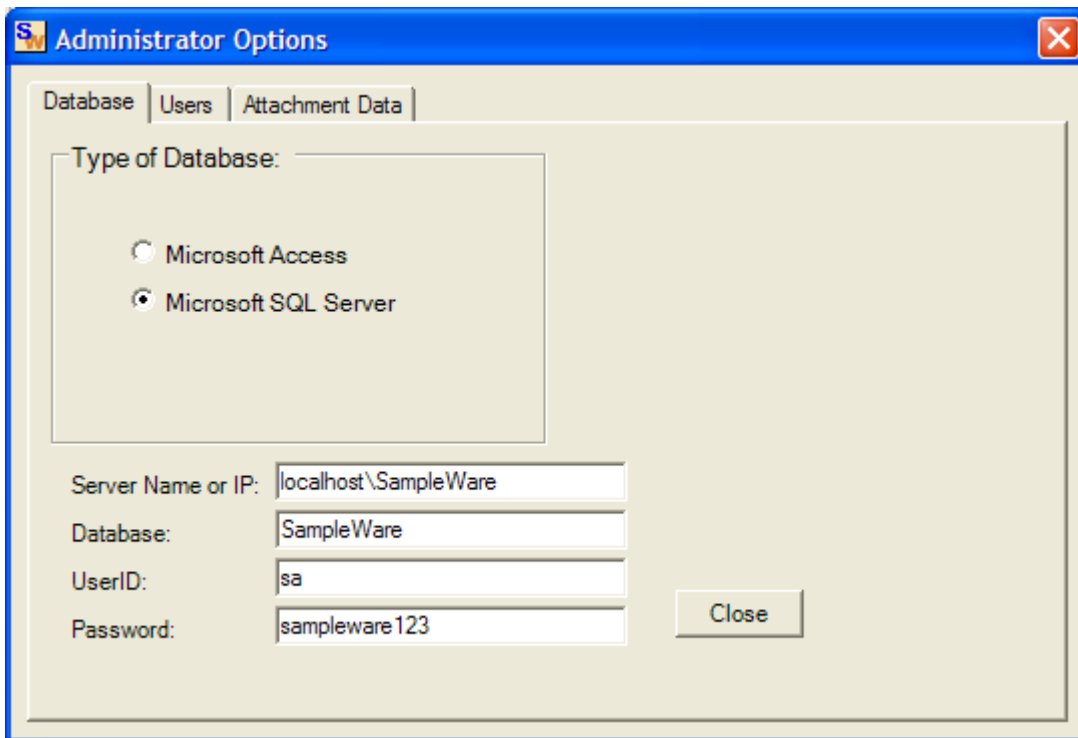
Network Install

SampleWare Network includes an MSDE SQL database installation that allows sample data to be accessed across your network. With each additional Network License, another installation of the software can be integrated with your data.

Server Configuration

During the first installation of the Network Version, you must select to install the MSDE component on the server computer. To do this, you must either have an Internet connection or a CD-ROM copy of the SampleWare installation. This is because MSDE is not included in the standard downloadable install package in order to increase download time.

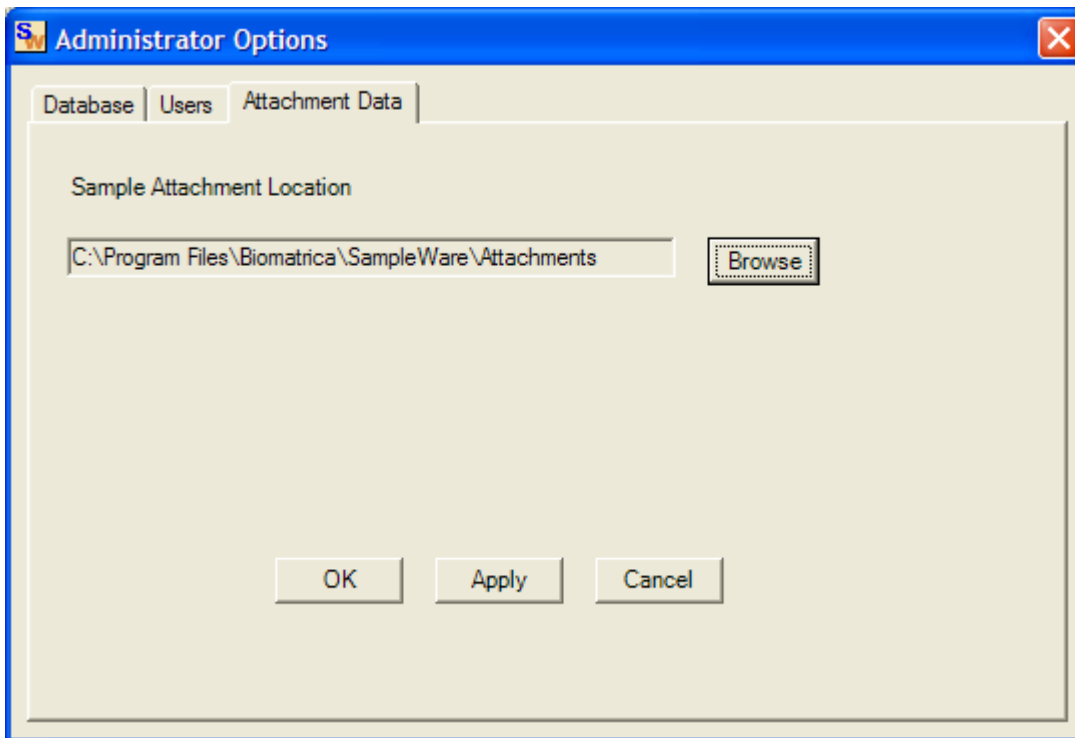
Once MSDE is installed, you should check that it is properly configured by opening up SampleWare on the Server, logging in as Admin (default), and going to Admin > Options on the menu bar. In the "Database" tab, click the radio button for Microsoft SQL Server and verify that the server options are as follows:



Once you've verified the settings, click the "Close" button and SampleWare should automatically connect to the database.

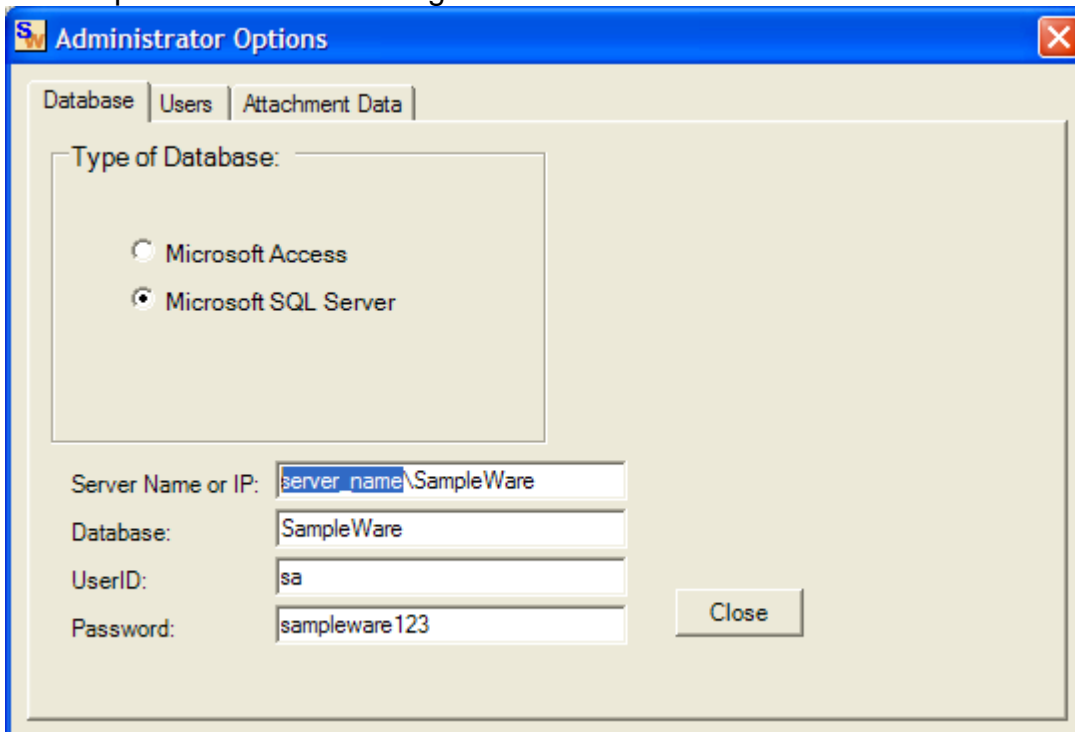
Attachments Directory

Create a shared folder on the network that all SampleWare users have read and write access to it. Sample attachments will be saved to this directory. To configure SampleWare to use this directory, select the menu item Admin > Options and click on the Attachment Data tab. Use the Browse feature to locate the shared attachment directory. Select OK to implement the configuration



Client Configuration

The Client configuration for a Network installation of SampleWare consists of setting each SampleWare installation to point to the MSSQL database and the shared Attachments folder. Select the menu item Admin > Options. In the "Database" tab, configure the server settings as follows using the appropriate server name on which the database was installed. Once complete, select the Close option to save the changes.



Select the menu item Admin > Options. In the “Attachment Data” tab, use the “Browse” feature to locate the shared attachment folder. Select “Close” to save the settings and close the window.

RFID Mousemat Drivers

Install the RFID Mousemat Drivers before plugging the Mousemat into your computer.

RFID drivers have been included in the installation package as an optional component. You will be prompted by the installer as to whether or not you want to install the drivers. If you have an RFID reader that you want to attach to the computer and use with SampleWare, select “Yes.”

During the installation, you will be asked twice on Windows XP if you want to install the drivers, even though they are not “Digitally Signed.” These drivers have been tested with all supported versions of Windows and do not conflict with the operating system. It is therefore safe to select “Continue Anyways.” You will again be prompted again by Windows when you plug the Mousemat into your computer.

In Windows Vista, you will be prompted four times when you install the drivers, but will not be prompted again when you plug in the Mousemat.

Barcode Reader Installation

If you will be using a barcode reader on this computer, follow the installation instructions provided with it.

4. Configuring Users

By default, SampleWare is configured not to require users to log in. This may be appropriate for single-user situations or where a small team of highly trusted members is working together. Users who access SampleWare will have admin level privileges (see below).

If you wish to control access to the SampleWare data base, then you will need to require users to log in with a username and password. Each username is configured with one of the following privilege levels:

Privilege Level	Capabilities
Guest	Guests can open, search and print containers only - they cannot make any changes.
User	Users gain the ability to add, edit, import, export, and delete containers, as well as configure their computer’s SampleWare preferences. This is the privilege level appropriate for most users.
Admin	Admins gain the ability to change SampleWare configuration settings, add/delete directories in the Directory

	Tree, and to add, edit, or delete Data Templates and users.
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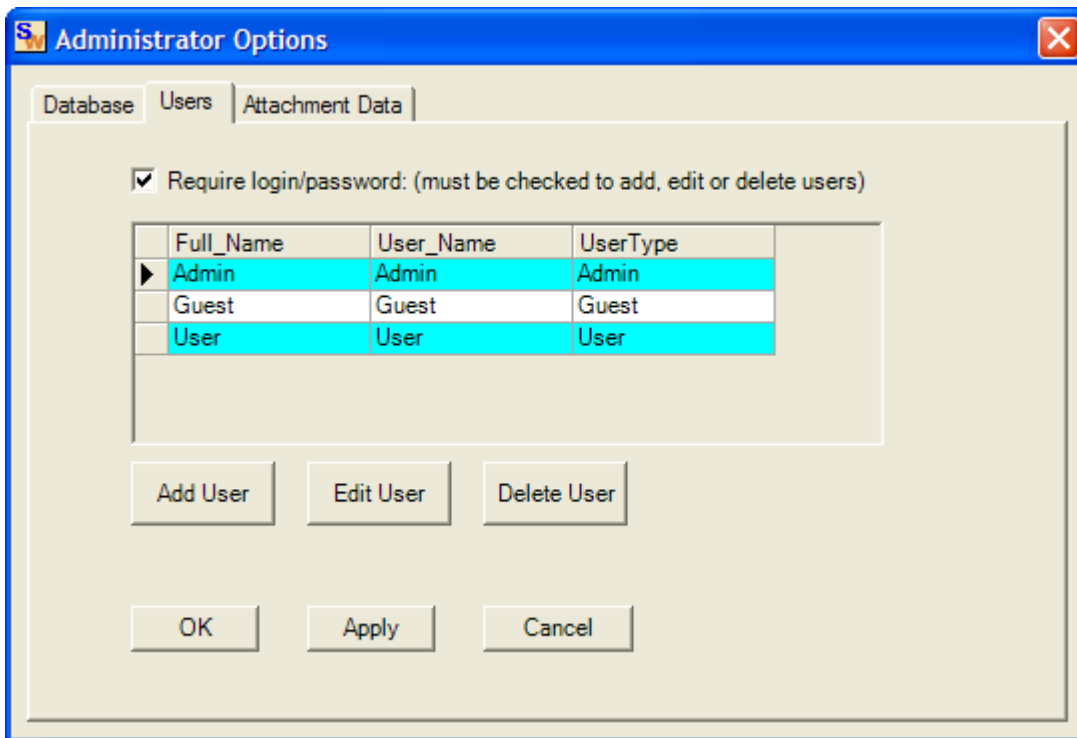
SampleWare is preconfigured with 3 users that you may elect to retain or delete. (It is strongly advised that you change the passwords if kept.)

Username	Password	Privilege Level
Guest	Guest	Guest
User	User	User
Admin	Admin	Admin

To add a user:

1. Click on Admin > Options and select the Users tab.
2. Check the “Require login/password” box (if not already checked).
3. Click the “Add User” button. The “Edit User” window will appear.
4. Users will typically log in by entering their login name and password. Hence, in configuring a user’s login, you must minimally enter the user’s Full Name, User Name, Access Level, and Password. Additionally, you may optionally allow users to log in via a barcode badge and/or an RFID enabled badge:
 - Scanning a barcoded badge – Place the cursor in the “BarCode Entry” box and scan the barcode in. Note that when using a barcoded badge, the user need not enter a password when logging in.
 - Scanning an RFID enabled badge – Click on the “Register RFID Badge” button. You will be prompted to scan the RFID badge. Place the RFID badge on the RFID mousepad and the RFID value will be automatically placed in the RFID box. Note that when using an RFID enabled badge, the user need not enter a password when logging in.
5. Click “Save”. The “User Edit” window will close and the user’s login will be added.

Click “OK” in the “Options” window.



5. Structuring the Directory Tree

Before adding any directories, you need to decide what your overall directory tree structure will be. Directories can describe a physical location or some other kind of grouping such as projects, teams, organizations, or individuals. You may have as many levels in the directory tree hierarchy as you want.

There are 3 system directories that are always present and cannot be deleted:

Directory Name	Function
Directories	The top-level root directory for the directory tree.
Unassigned	By default, when containers are created, they are placed into this directory.
Deleted Containers	When a container is deleted, it is moved into this directory. This directory is akin to the Microsoft Windows "Recycle Bin" folder. To delete containers permanently that are in this directory, click on Admin > Empty Deleted Containers Directory.

To add a directory:

1. Click on Tools > Directory Tree. The "Directory Tree" window will appear.
2. Right-click on "Directories" and select "Expand All". All directories and containers in the directory tree will be displayed. If you wish, you can resize the "Directory Tree" window by clicking and dragging the sides or corners of the window.

3. Right-click on the parent directory of the directory you wish to create and select “Add Directory”. The directory you wish to create will be placed underneath the parent directory. The “Add Directory” window will appear.
4. Enter the name of the directory you are creating. You may also optionally enter a description of the directory.
5. Click OK. The “Add Directory” window will disappear, the directory will be created and will appear in the “Directory Tree” window.

You may modify the directory’s name and description at any time in the future by right-clicking on the directory and selecting “Properties”.

6. Configuring Data Templates

You need to define the data that you want to associate with and store for your samples. First, you will need to categorize your samples – e.g., plasmid DNA, genomic DNA, RNA, etc. Second, you will need to determine what information you want to maintain for each category. This collection of information is called a Data Template.

SampleWare allows you to define as many Data Templates as you want and to define up to 20 custom data fields for each Data Template. Each data field has one of the following types:

Text – any character on your keyboard may be entered including letters, numbers, punctuation and special symbols (e.g., @, #, \$, %, etc.). This is the default type.

Numeric – only numbers may be entered¹.

Date – only dates may be entered². Dates may be of the form mm/dd/yyyy, mm-dd-yyyy, or mm.dd/yyyy.

Yes/No – shown as a checkbox where checked means “yes” (or “true”) and unchecked means “no” (or “false”).

¹ A typical use of a numeric field is to specify the quantity of the sample. In doing so, you will want to specify the units (e.g., ul, or microliters). One approach is to name the data field “Quantity (ul)” and enter numeric values for each sample’s quantity. A second approach is to name the data field ‘Quantity” and enter text values for each sample’s quantity, such as “10 ul”. In this second approach, the data field’s type is text, not numeric. The first approach has the advantages that SampleWare will enforce the data being entered as being numbers and that sample searches can be done using numeric comparisons (e.g., equal, not equal, greater, etc.). The second approach has the advantage of flexibility: any data may be entered.

² You may wish to use text fields for dates instead of date fields. Text fields have the advantage of flexibility. However, if defined as a date field, SampleWare will enforce the data being entered as a date and sample searches can be done using date ranges.

To add a Data Template:

1. Click on Admin > Data Templates > Add/Edit/Remove. This will open the Data Templates window.
2. Enter the name of the Data Template you wish to add in the Name textbox. You may optionally add a description of the Data Template. Click on the “Add Data Template” button. This will open the “Edit Data Template” window.
3. Click on the Add button. This will open the “Edit Data Template Fields” window.
4. Enter the name of the field in the “Field Name” box and select the type you wish to give the field. Click the Save button. The “Edit Data Template Fields” window will close and you will return to the “Edit Data Template” window.
5. Repeat Steps 3 and 4 until you have added all the fields that you wish.
6. You may adjust the order of the fields by selecting the field you wish to move and clicking on the up arrow or down arrow on the right hand side. The order from top to bottom is the order the fields will appear from left to right in SampleWare’s Data View (spreadsheet-like) window.
7. Click the Save button. The “Edit Data Template” window will disappear and the new Data Template will be created. You may then close the “Data Templates” window.

You may change the Data Template’s name at any time by clicking on Admin > Data Templates > Add/Edit/Remove, selecting the Data Template you wish to change the name for, clicking the Edit button, changing its name, and clicking Save.

Data Templates will often have many of the same data fields. If you are creating a new Data Template that has many of the same fields as another existing Data Template, you can save time by using the Copy Data Template capability. Please note that SampleWare is preconfigured with an example Data Template that you may copy or edit as you wish.

1. Click on Admin > Data Templates > Add/Edit/Remove. This will open the Data Template window.
2. Select the Data Template that you wish to copy by clicking on its name. Let’s call the name of this Data Template *Name*.
3. Click on the Copy button. A new Data Template called “Copy of *Name*” will be created.
4. Select the new Data Template by clicking on “Copy of *Name*” and click on the Edit button. This will open the “Edit Data Template” window.
5. Change the name of the Data Template by typing the name you wish to give it in the “Data Template Name” textbox. You may optionally add a description for the Data Template.
6. Remove any fields that you do not wish to keep by clicking on the field you wish to remove and clicking on the “Remove” button.

7. Add new fields and change the order of the fields by following the steps described above in the procedure to add a new Data Template.

Click on the Save button to save your changes. The “Edit Data Template” window will disappear and the new Data Template will be created. You may then close the “Data

7. Data Backup and Restore

Because the SampleWare data base contains critical information, it is important that you take measures to back it up periodically to protect against possible loss of data. There are 3 approaches you can take:

Enterprise File Backup Program

If you have an existing enterprise file backup program, you may be able to include the SampleWare data base under it. You will need to make sure that the file backup program can access the folders where the SampleWare data base and attachments are located. Also, you will need to ensure that the file backup program will be able to handle files and data bases that are "open" (i.e., in-use). Some file backup programs can do this and others cannot. You may need to consult with your IT organization to determine whether and how this approach will work.

Manual Copy

A second approach is to perform manual copies of the data base and attachments. You will need access to the computer and files where the data base and attachments are being stored. The steps to follow are:

1. Make sure all users have first exited SampleWare.
2. Go to the folder on the computer where SampleWare is installed.
3. For SampleWare Desktop Edition, copy the file called *SampleWare.mdb* to the folder where you are keeping the backup. For SampleWare Network Edition, you must first stop the SampleWare MS SQL service (see SampleWare help for details). Then, copy the file called *SampleWareNew.mdf* to the folder where you are keeping the backup. Then, start the SampleWare MS SQL service (see SampleWare help for details).
4. Go to the folder on the computer where SampleWare attachments are being stored. Copy the files in that folder to the folder where you are keeping the backup.

SampleWare Built-In Backup and Restore

A third approach is to use SampleWare's built-in backup and restore capability. This capability makes use of the export and import functions. All container and sample data along with attachment files are backed up. Should data in the data base become lost or corrupted, you may restore the data base to the most recent

backup copy. This method is recommended if the number of samples in the data base is approximately 50,000 or less.

To perform a backup:

1. Click on Admin > Backup. A “Save As” window will appear.
2. Navigate to select the folder that you wish to save the backup to. What is backed up is a zip file containing an XML (eXtensible Markup Language) file containing the container and sample data and all attachments files.
3. Click “Save As”. This will initiate the backup process and when done, SampleWare will pop up a window indicating that the backup is complete. Depending on the data base size, number of attachments, processing speed and loading on the computer, this process can take several minutes.

To perform a restore:

1. Click on Admin > Restore. An “Open” window will appear.
2. Navigate to select the folder that contains the zip file containing the backup information that you wish to restore. Click on the zip file you wish to restore and click on the Open button.
3. You will be prompted to make sure you want to do a restore because a restore, by its very nature, will remove all container and sample data from the existing data base and then import the data from the backup copy. Click on the Yes button. This will initiate the restore process and when done, SampleWare will pop up a window indicating that the restore is complete. Depending on the data base size, number of attachments, processing speed and loading on the computer, this process can take several minutes.

8. Other

Other administrator functions that you may perform include the following. Details may be found in the SampleWare Help or Manual.

1. Emptying the “Deleted Containers” directory – containers that are deleted are placed in the “Deleted Containers” directory. This is akin to Microsoft Windows’ “Recycle Bin” folder. Deleted containers may still be accessed, if desired. If you wish to recover the container, open the container and move it to the desired directory via the “View or Change Directory” button located on the right hand side of the Data View window. To permanently delete containers in the “Deleted Containers” directory, click on Admin > Empty Deleted Containers Directory.
2. Unlocking a container – With the SampleWare Network edition, there may be multiple users accessing the SampleWare data base concurrently. To prevent one user's changes from overwriting another user's changes, whenever a container is opened, it is locked. If another attempt is made to open that container while it is open, it is denied with a message saying that the container is locked and giving the username of the user who has the container open. When a container is closed, it

is then unlocked. Also, if a user exits SampleWare, any containers it has open are also unlocked. It is possible that if the computer SampleWare is running on hangs or crashes or SampleWare terminates abnormally, the container locked by the concerned user may not be automatically unlocked. To handle such cases, admin privilege level users can unlock a container by clicking Admin > Unlock Container(s).