

# Database Management Software DB22X

## Contents

<b>1. About DB22X</b>	...	<b>2</b>
<b>2. Limitations</b>	...	<b>2</b>
<b>3. Set-Up Work Flow</b>	...	<b>3</b>
<b>4. Preparation</b>	...	<b>3</b>
4-1. Backup inspection programs		
4-2. Understand stamps you have		
<b>5. Install</b>	...	<b>4</b>
<b>6. Interface</b>	...	<b>5</b>
6-1. Main screen		
6-2. Setting screen		
<b>7. Add/Delete Stamps</b>	...	<b>7</b>
7-1. Add stamps		
7-2. Delete stamps		
7-3. Stamp management		
7-4. Category		
7-5. Add to category		
<b>8. Example of Building Your Stamp Database</b>	...	<b>9</b>
<b>9. Maintenance</b>	...	<b>11</b>
9-1. Verify and Restore database		
9-2. Clean unnecessary stamps		
9-3. Backup		
9-4. Re-install database in new PC		
9-5. Upgrade from version 1		
9-6. Auto stamp update		
<b>10. Un-install</b>	...	<b>14</b>
<b>Appendix A. How to share Database in LAN</b>	...	<b>16</b>
Share DB, concept of Mac file sharing, memo Account/Password, Setting on 22X		
<b>Appendix B. Table of Stamp Type</b>	...	<b>19</b>

# 1. About DB22X

DB22X is database management software for Model22X AOI series.

This instruction manual explains the operation of DB22X. Please read this manual carefully before using.

## ■ DB22X Features

- Write memo for each stamp.
- Database can be used in 2 styles. One is **alone style**: database for 1 AOI, install database in the same Mac as controlling the AOI. The other is **share style**: share database with multiple AOI, install database in Mac which is exclusive for database.

## ■ Warranty

- We will not be liable for any loss of stamps, damage to inspection programs, or capital loss by missing defects caused by DB22X.

# 2. Limitations

## ■ Mac

- Mac OS should be greater than OS10.5.x
- Mac hardware should be MacPro with more than 6GB RAM (More than 8GB if the Mac is used also for OLT.)
- \* Operation on Power Mac G5 not possible.
- \* Operation on iMac, Mac mini is not guaranteed.
- If you use database in share mode, network should be 1000 Base ethernet connected via cables. Less than 1000base network and wireless network is not guaranteed.
- If you use database in share mode, **you must have Mac exclusive for database**. Mac is not capable for simultaneous use of inspection and database.

## ■ 22XX

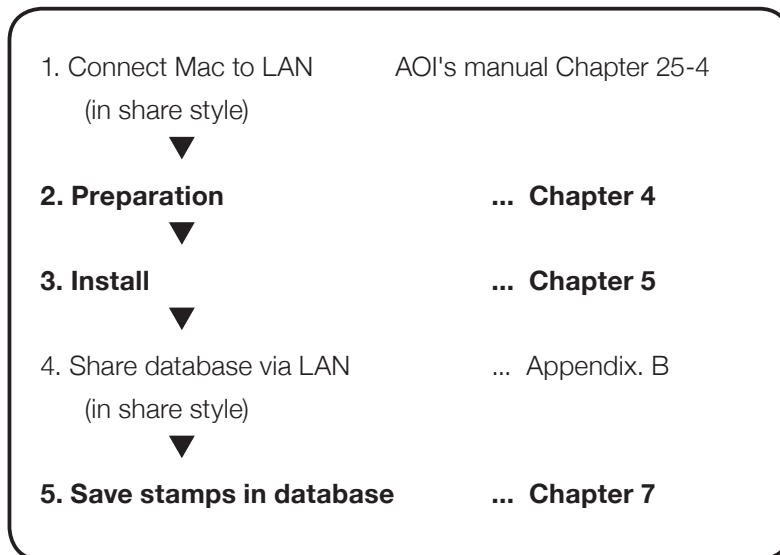
- Greater than version 4.6 (If DB22X is version 1.x, version 4.3.2 to version 4.5.2 is applicable.)

## ■ DB22X

- Stamps included in the inspection data version 3 or less can not be treated with DB22X.
- Group stamps can not be saved in database.

### 3. Work Flow

Below is the work flow when you first install database. The detail of each work is described in the following chapters. If you use database in **share style**, work from **step 1 to 5**, if you use in **alone style**, work step **2, 3 and 5**.



### 4. Preparation

#### ▼ 4-1 Backup inspection programs

Please back-up all inspection programs. Once you save the stamps in database, the structure of stamp changes.

#### ▼ 4-2 Understand stamps you have

The major purpose of using stamps database is ' **share same stamps with all programs** '. If you start to use database at the timing of buying AOI, you can easily build your master stamp libraries in database. However, if you already have AOI and have lots of inspection programs, you should overview these programs, understand what kind of stamps you have, and make plans; which stamp should be master, which stamps can be replaced, and so on.

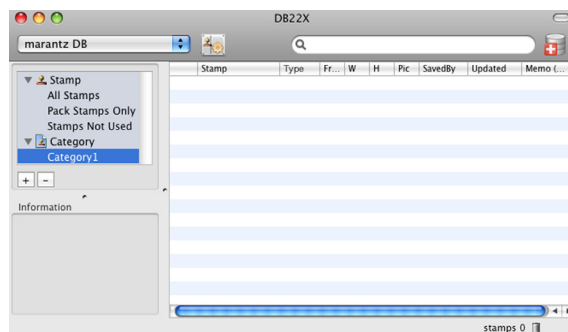
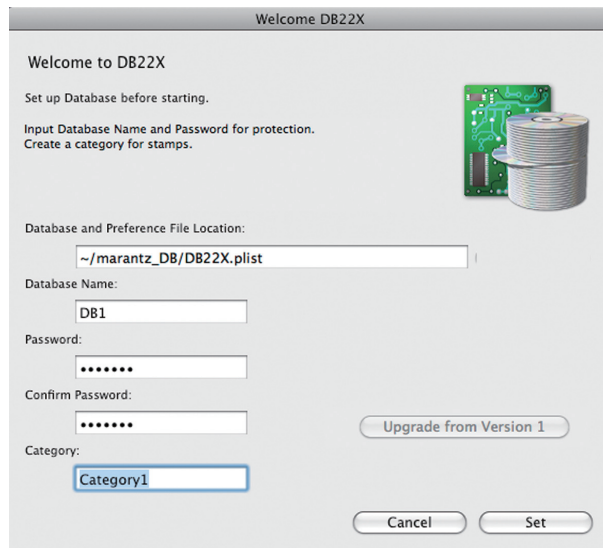
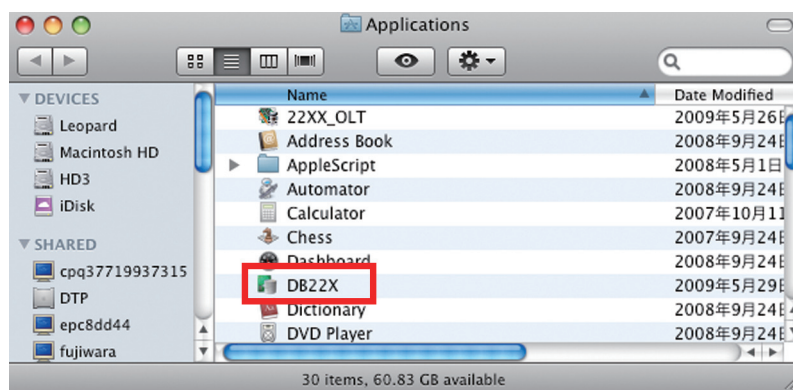
This preparation work is the most time consuming, nevertheless, it will be the base for your future database operation. Please take time.

## 5. Install

Installing DB22X can be done by following the wizard.

1. Double click DB22X installer and follow the instruction. After installation is completed, DB22XX application is installed in Applications directory (Screen 1).
2. Double click DB22X. When you first start DB22X, a wizard to create database is shown (Screen 2).
3. Input *database name*, *protection password*, *confirm password* and *category name*. Then press **Set** button (Screen 2). The location of Database and Preference file is not changeable.
4. Main screen of DB22X is displayed (Screen 3).

5

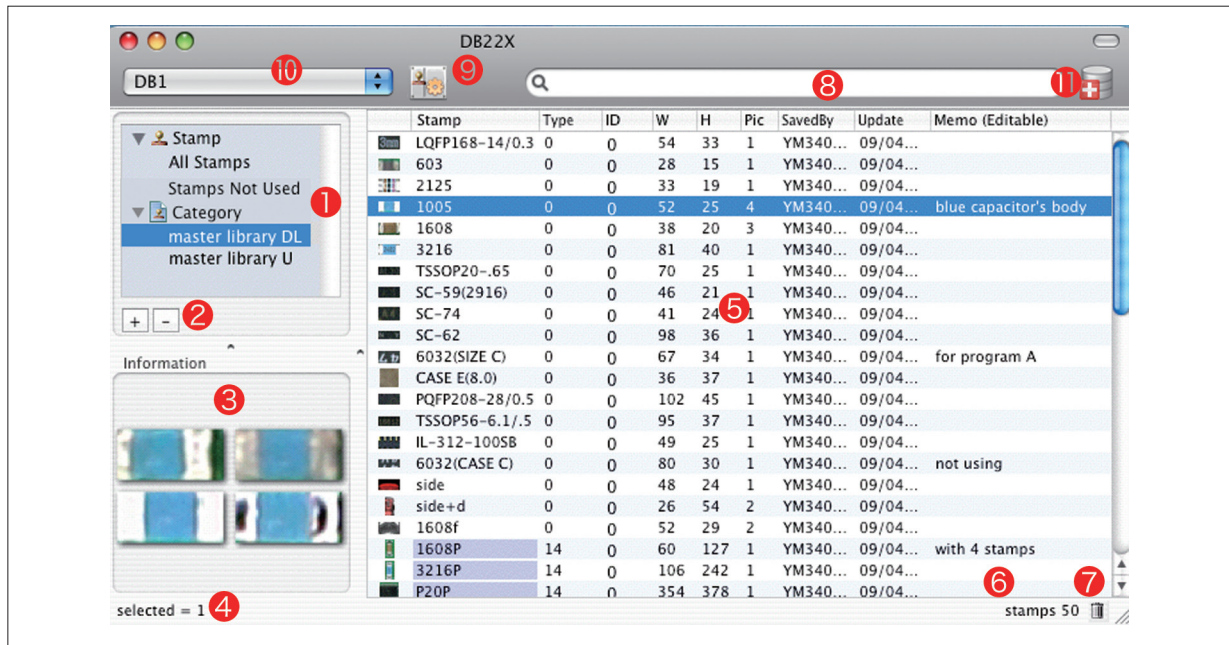


## 6. Interface

### ▼ 6-1 Main Screen

Window and each area is resizable.

Descriptions pops up when you move the mouse pointer closer to the header of the list.



1. Stamp and category is displayed in tree style.

All Stamps: All stamps in this database

Pack Stamps Only: Only Pack stamps in this database

Stamps Not Used: Unused stamp in this database (stamps not belonging to category)

Category: List of all categories

2. Add/Delete category

3. Show all master pictures of the selected stamp

4. Number of the selected stamps

5. Stamps are listed when selecting All Stamps, Pack Stamps Only, or each Category

Columns can be re-order in ascending/descending by clicking their name. Notes is the only editable area, you can input memo.

\* Please refer Appendix.C corresponding stamp type and name for Type number.

6. Number of the stamps in current list.

7. Trash, select stamp(s) and click trash to delete or delete key.

8. Search stamp

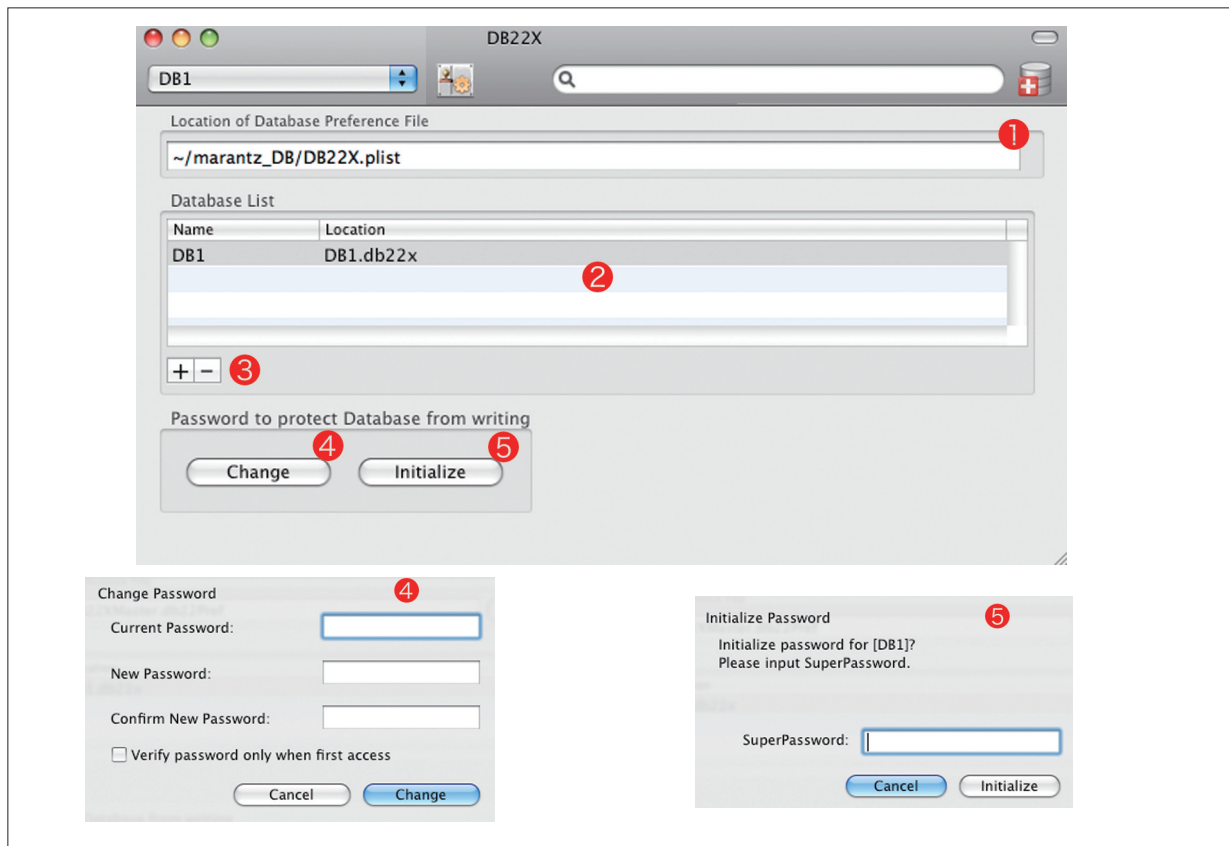
9. Swap Main Screen and Setting Screen.

10. Swap DB if you have more than one DB.

11. Move to Verify/Restore menu.

## ▼ 6-2 Setting Screen

Click No.9. Swap screen button on Main Screen, then this Setting Screen appears.



1. Place where DB Preference file is saved.
2. List of Database
3. Add/Delete database. Change is not possible. Normally 1 database is enough, however, if you are EMS company and having lots of suppliers and producing various PCB, you can create database for each supplier.
4. Change protection password of selected database. If "**Verify password only when first access**" is checked, you just need to input once password on StampDB, then protection key is released forever.
5. Initialize password when you forget it.  
To initialize, you need Super Password. Please ask Super Password for your local reseller.

## 7. Add/Delete stamps

### ▼ 7-1 Add stamps

Adding stamps to possible by accessing and uploading from 22X software. Procedure is described in 22X operation manual "Chapter 27 Stamp Database".

### ▼ 7-2 Delete stamps

In **All Stamps**, **Pack Stamps Only** or **Stamps Not Used**, select stamps that you want to delete and press **delete** key or press **trash** icon on bottom. Be careful delete key does not display any warning message.

To delete all stamps in DB, go to **Edit** menu and choose **Select All**, then press **delete** key or **trash**. If you want to select more than one stamp, select by pressing **Shift** key.

\* If you delete stamp in a category, it is just deleted from the category. Stamp still exists in database.

### ▼ 7-3 Stamp management

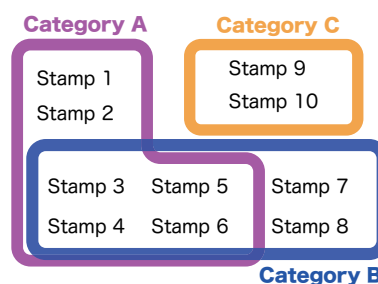
On 22X software, stamps are handled based on their name. But once you begin to use database, stamps are controlled based on **UUID (Universal Unique Identification)**. UID is given to all stamps automatically when adding stamps to database.

- You can not confirm UID of each stamp either on DB22X or StampDB.
- Stamps with same name can be saved in database, because they are given different UID.

### ▼ 7-4 Category

Database can save thousands of stamps. And so it is very time consuming to find the right stamp. DB22X offers Category for stamp management (Ex 1).

On 22X software you select/synchronize stamps based on category. This means if the stamp is not belonging to any category, you can not use the stamp on 22X software.



\* When you are new to the stamp database, please start with only one 'master' category. When you feel the necessity to increase category, then create more than one category.

- Stamp can belong to more than one category.
- Even deleting stamp from category, the stamp still exist in database.
- Category can not have stamps with same name.

\* In sample picture (Ex.1), the categories are made by AOI model. However, it is more efficient to create database by AOI model. The access and operation speed is faster in database with less stamps.

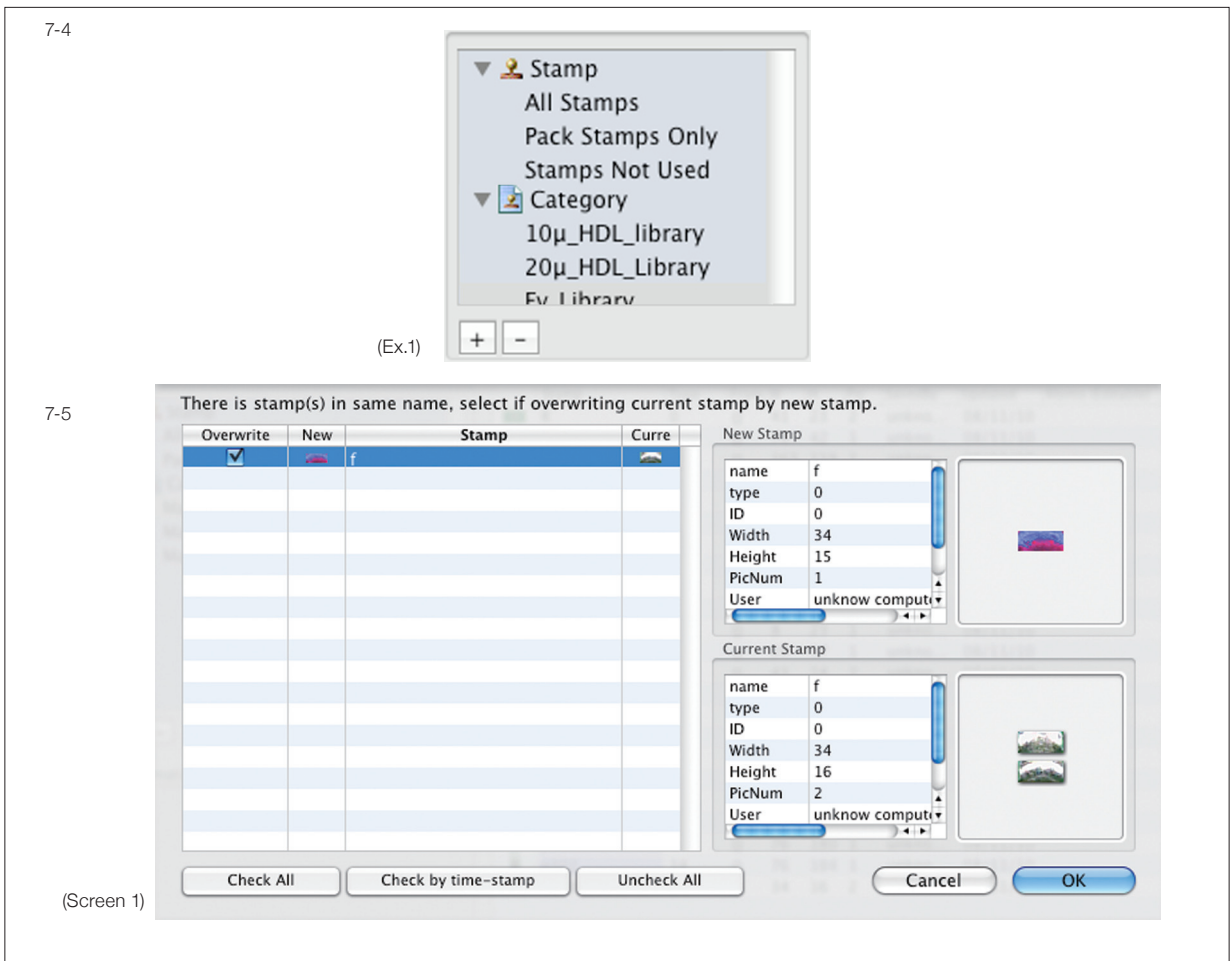
▼ **7-5 Add/Delete stamp to Category**

Adding stamps to a category is normally operated from 22X software. However you can also add stamps to category in DB22X.

just drag & drop stamps from **All Stamps, Pack Stamps Only** or the other **category**. If you drag from Pack Stamps Only, the stamps inside Pack Stamp also are dragged.

Select stamp to delete in the category, click trash at right-bottom or press delete key. The stamp will be deleted in the category, but this operation just deletes the link between stamp and category, therefore stamp itself still exists in the database.

\* If you try to add a stamp where the stamp with same name already exists, a selection dialogue whether overwrite current stamp will be displayed (Screen 1).





## 8. Example of Building Your Stamp Database

By this chapter, all functions of DB22X are introduced. Nevertheless, it will still be hard to imagine how you can build your database. Here is an example of the procedure (Setting and Installation should be finished in advance).

### Example.

**I already have AOIs for years, I wanted to use common stamps for all AOIs. Therefore I made one inspection program file to be master stamp library. Now I want to shift it to database.**

#### 1. BackUp all inspection programs

Backup all data to external devices such as HDD, CD or DVD.

#### 2. Add stamps in master stamp library file to database

Start DB22X, after following the instruction of **Welcome to DB22X wizard**, a category is made. Open StampDB window in 22X application, open the master stamp library file. Press **Check** button, then unlock database by pressing **key icon** and input password, then press **Sync** button in StampDB window. All stamps in the master stamp library file will be saved in database (Screen 1).

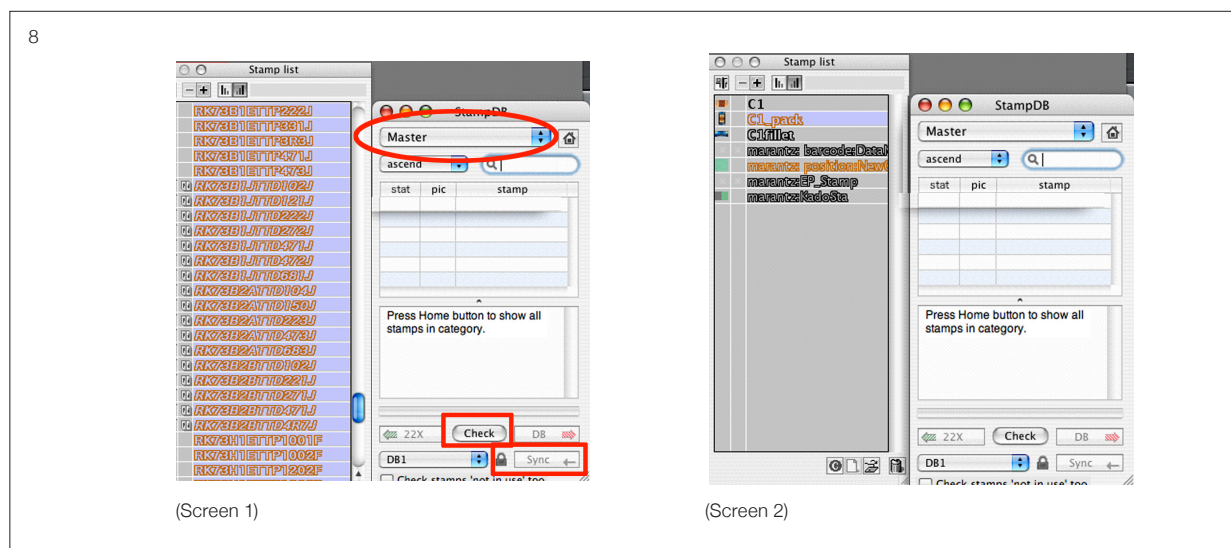
\* If there are more than 3000 stamps in one category, access speed will be slower.

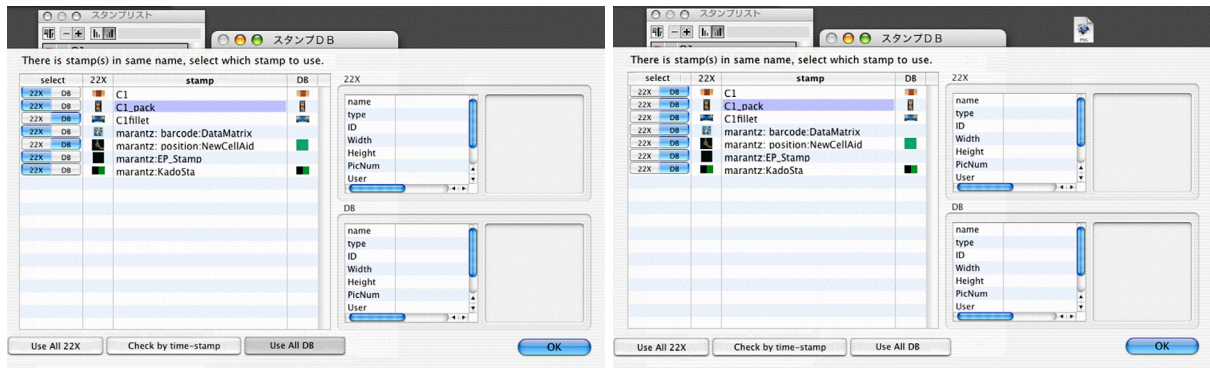
#### 3. Replace stamps in all inspection programs by stamps in database

Open StampDB, the category of master stamp is selected (Master in this example) (Screen 2).

Press **Check** button in StampDB to compare stamps. A window to warn the existence of stamps with same name pops up (Screen 3).

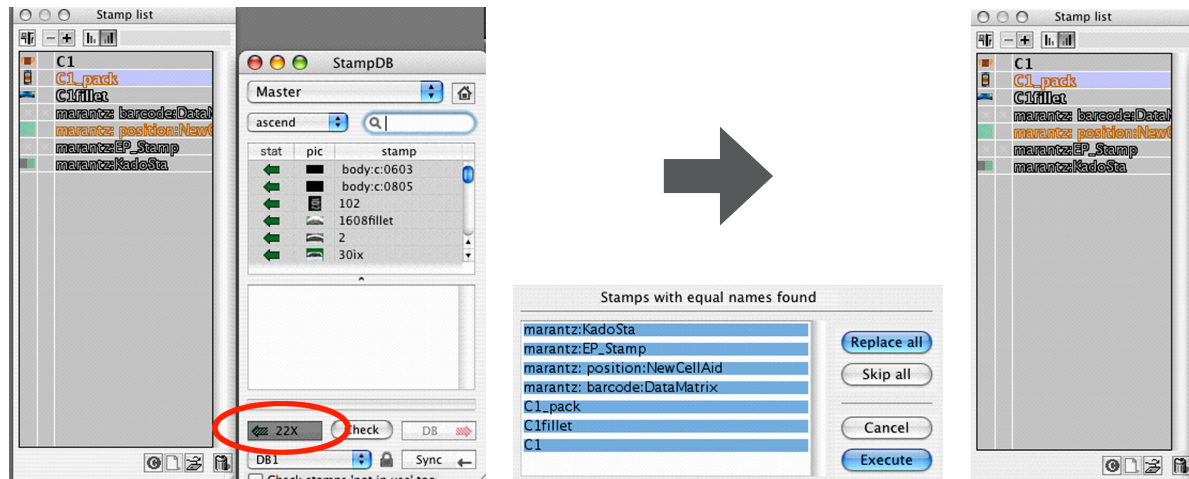
\* Reason why warning window is displayed here is because names of stamps in the program and database is the same, but stamps in database have UUID. These stamps were the same origin, however they are different stamps now. In following work, you make them to be the same.





(Screen 3)

(Screen 4)



(Screen 5)

Your mission here is overwriting stamps in the program by stamps in database. Thus click **Use All DB** button, then press **OK** to close this window (Screen 5). Back to StampDB window, and press **22X** button to overwrite current stamps by stamps in database (Screen 6).

## 7. Complete

Save the inspection program. Repeat this work on all inspection programs. After overwriting all stamps in the inspection programs, database is built and you can smoothly start programming.

\* Next time when you compare stamps in the inspection program and stamps in database, no warning window for stamps with same name will display. Only updated stamps are listed on StampDB after pressing Check button.

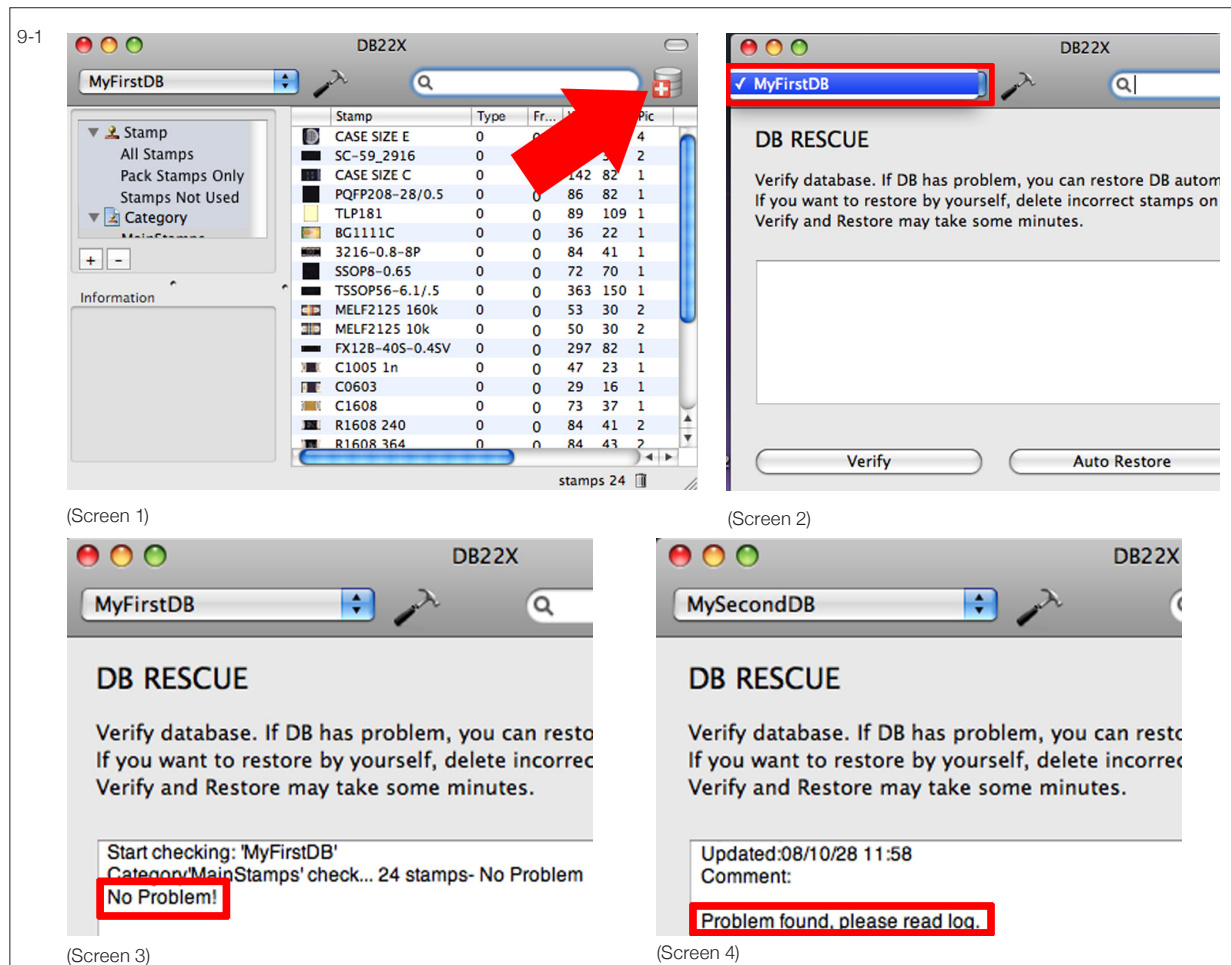
# 9. Maintenance

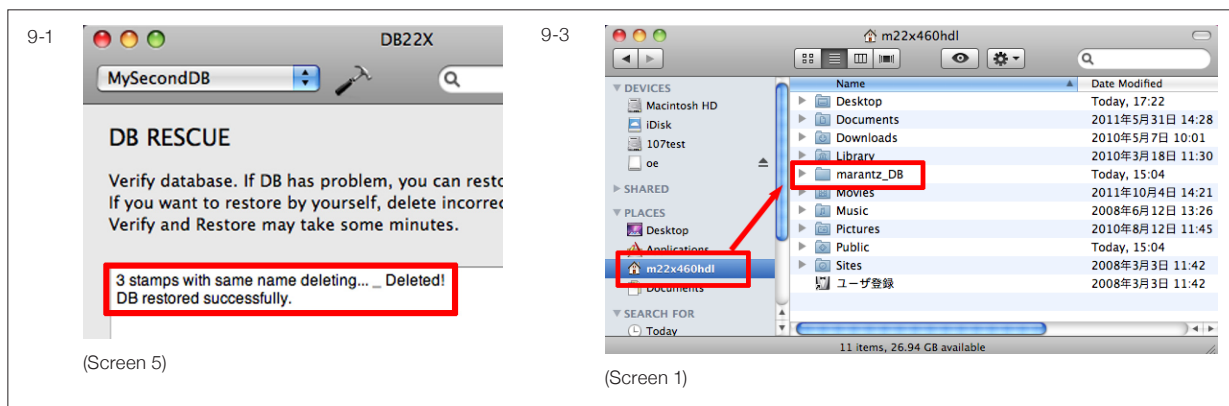
## ▼ 9-1 Verify and Restore database

By using database for long time, sometimes unexpected problem may occur. There is a function to check and repair database. We recommend to check your database periodically.

### Procedure

1. Click DB Check icon in tool bar. Window switches to **DB RESCUE** (Screen 1).
2. Select database from DB selection tab (Screen 2).
3. Press Verify button to check database.
4. "No Problem!" message is shown after verification if all data in database is correct (Screen3). If there is any problem, a message "Problem found, please read log." will be shown (Screen 4).
5. After verification, if problem is found, you can automatically repair database by pressing Auto Restore button (Screen 5). Auto Restore deletes incorrect stamps (such as stamps with same name in category).
6. If you want to decide stamps to delete by yourself, copy and paste the log after verification to text editor (text editor is in Applications/Utilities), go back to main screen and delete incorrect stamps manually by referring the copy of the log.





### ▼ 9-2 Clean unnecessary stamps

The longer you use database, the more stamps will be saved in database. Keeping unnecessary old stamps may decrease the database performance. Check and delete unnecessary stamps regularly.

For deleting unnecessary stamps, it is easy to use **Stamps Not Used** list. There are stamps listed which are not belonging to any category.

### ▼ 9-3 Backup

This database is file structured database. So that backup is as easy as copying document file. Copy **marantz\_DB** folder in User's directry to the external devices (Screen 1).

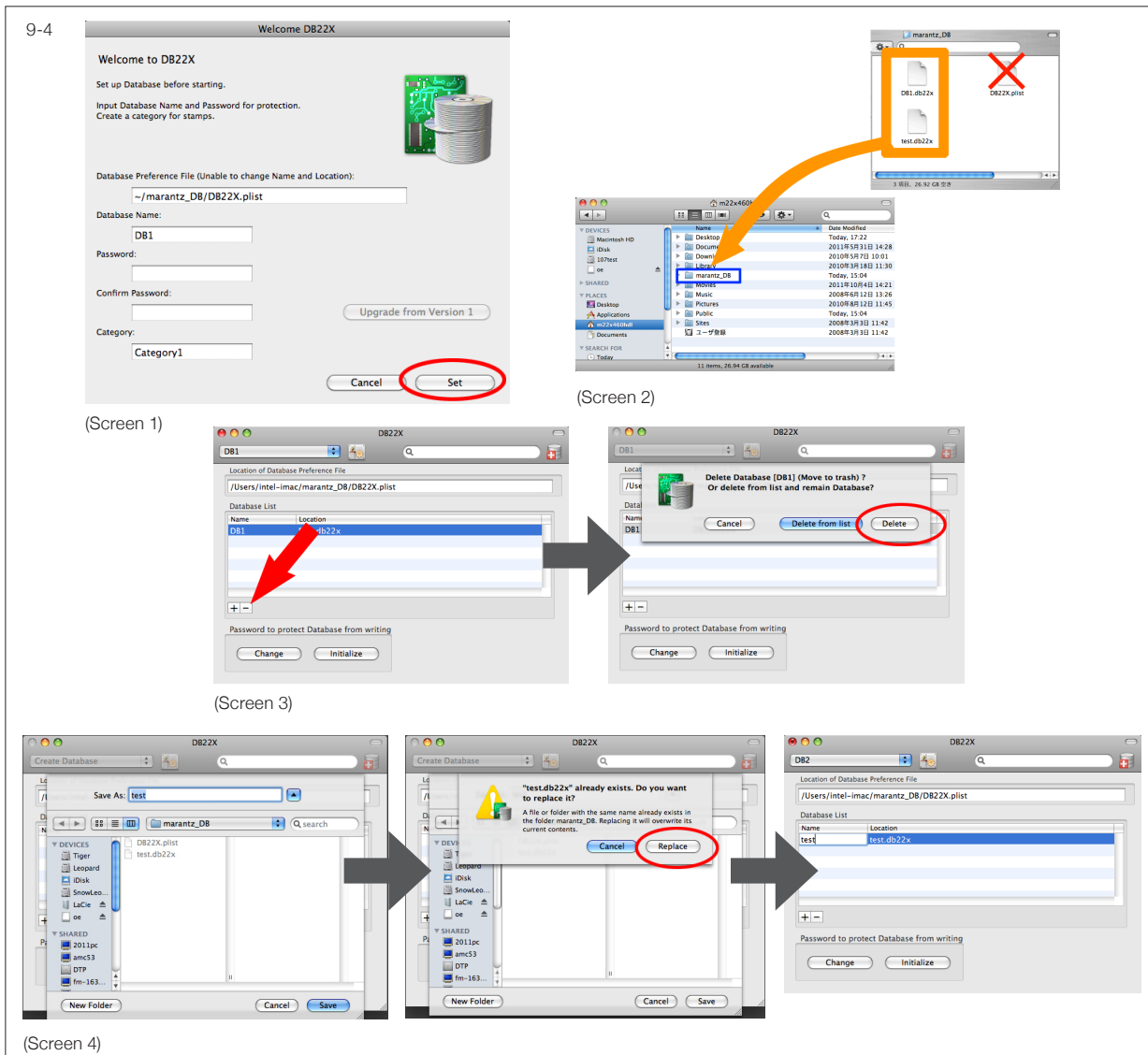
\* Do not backup on Windows PC, hence management system is diferent.

### ▼ 9-4 Re-install database in new PC

You can easily re-install database in another PC, if database is backedup.

#### DB22X side

1. Double click DB22X installer and follow the instruction.
2. Start DB22X. A wizard to create database is shown. In the wizard, change nothing and just press "Set" button (Screen 1).
3. DB22X main screen opens automatically. Switch screen to Settings screen.
4. Copy all files in backup folder "marantz\_DB" except DB22X.plist to the marantz\_DB folder under current User's directry (Screen 2). DB22X.plist is not necessary and must not copy.
5. In settings screen, delete DB1 by pressing "-" (minus) button (Screen 3).
6. Press "+" (plus) button. Database copied in the procedure 4 will be listed. Add them in the DB list (Screen 4).



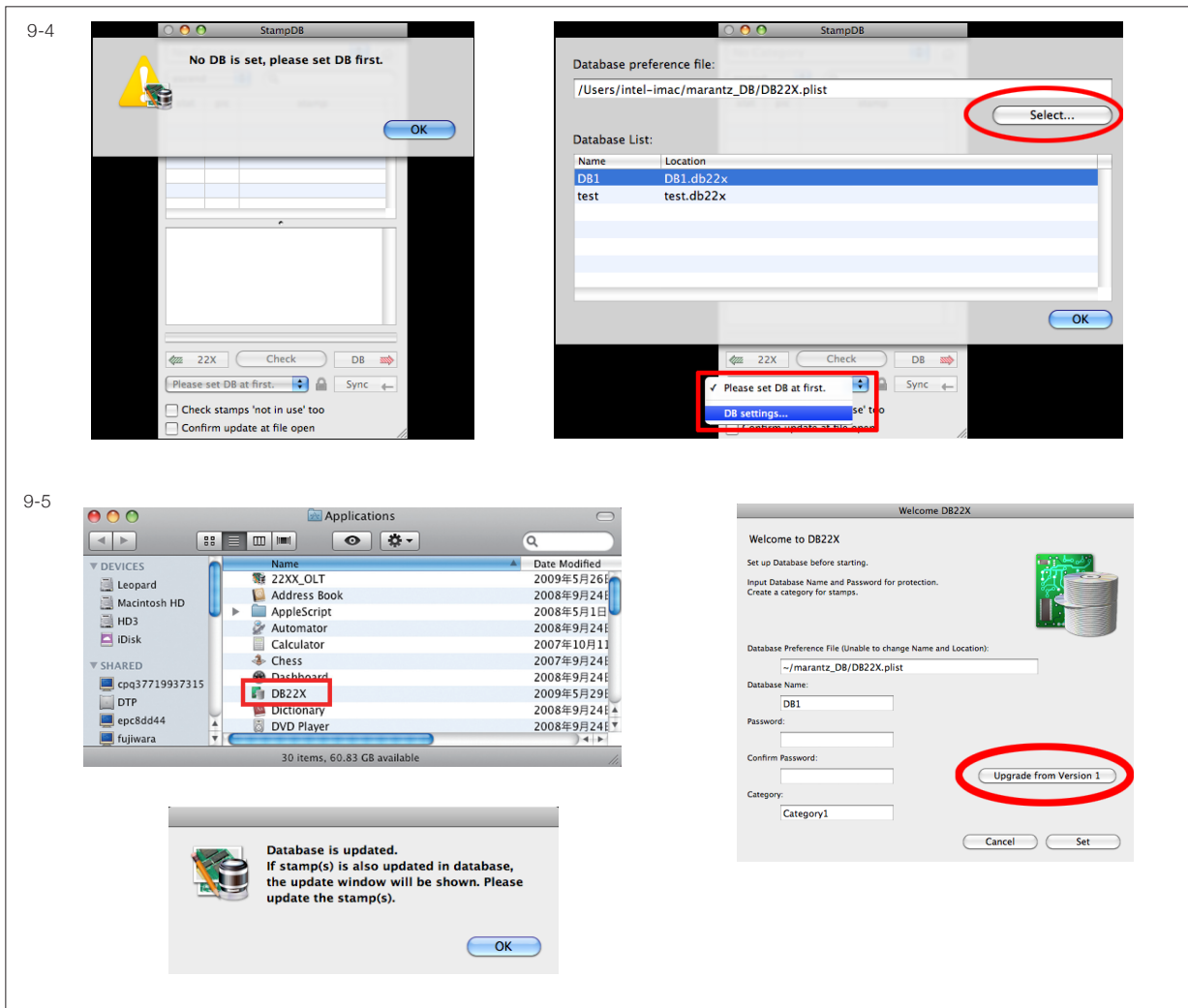
## 22X side

1. Because now DB is installed in new PC, you need to change the setting in StampDB. When you open StampDB, an error message "No DB is set, please set DB first" will be shown (Screen 5).
2. Open DB settings, go to marantz\_DB folder under User directory, select DB22X.plist (Screen 6).
3. When same error occurs again, change DB settings as well.

## ▼ 9-5 Upgrade from version 1

It is very easy to upgrade database from version 1.x to greater.

1. Double click DB22X installer and follow the instruction.
2. DB22XX application is installed in Applications directory. Start DB22X (Screen 1).



A wizard to create database is shown. In the wizard, there is a button "**Upgrade from Version 1**" (Screen 2).

3. A message "**Ready to start upgrade?**" is shown. Press OK.

4. While upgrading, the progress bar will be shown. Upgrade will be completed within 1 to 3 minutes. At completion, a message will be shown (Screen 3). Press **OK**, DB22X will automatically start.

5. Upgrade is finished successfully.

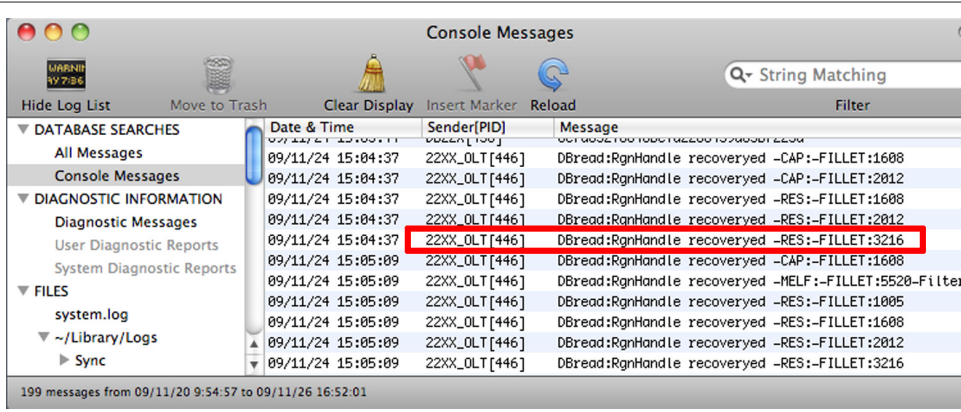
### ▼ 9-6 Auto stamp update

Customers who have been using our AOI for years, succeed legacy stamps for years.

We upgrade software frequently to offer the latest technologies. Especially, mask technology changed a lot (Interface was not changed at all). If there are old masked stamps that succeeded for years, there is a possibility that they cause problems.

Therefore, we made legacy masked stamps to be automatically upgraded to latest technology. Old

9-6



masked stamps are updated when copying to the inspection program from database. Most of stamps can be updated, however very few are not upgraded. In such case, mask of these stamps is reset. With these stamps, please re-create mask.

The stamp name which is successful or failed to upgrade is listed in Console log (Screen 1).

## 10. Un-install

To uninstall database, do following operations.

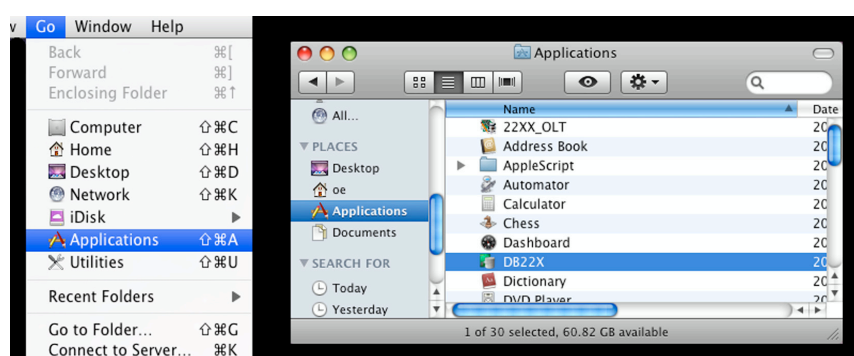
### 1. Delete database

Delete database in DB22X's setting screen by pressing - button. When deleting, you will be asked whether deleting database just from database list or put it in trash, if you wish complete uninstall select move to trash.

### 2. Delete DB22X

Move DB22X application in application folder to trash (Screen 1).

10



## Appendix A. Database Share Settings

This appendix explains the way to enable to access a Mac from other Mac via LAN.

### ▼ A-1 Share DB

At first, you should make DB to be shared via network.

1. Open System Preferences, select Sharing.
2. Check File Sharing (Screen 1).

\* If you logged in by non administrator account, key on left bottom is locked. Input administrator password and release lock.

3. Press minus (-) button and delete User's Public Folder.

\* Public Folder is a special folder. The files in Public Folder is read-only. Therefore, this folder is not necessary for us.

\* It will be useful if you memo computer name before quitting System Preferences, because later you will look for this Mac from other Mac.

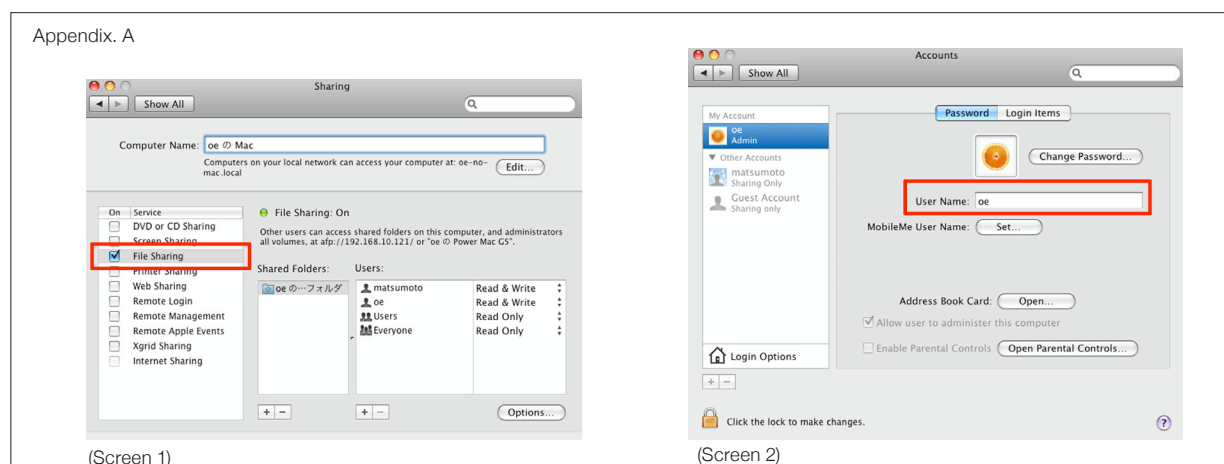
### ▼ A-2 Concept of file sharing on Mac

Mac OS is built on UNIX file system. File access permission, file sharing level is strictly controlled. Therefore, not everybody can access to database freely after sharing.

Operators who access to database must have permission of "write". To enable "write" permission, each operator must pretend to **be the owner of database**. The owner of database is user account who installed DB22X. Please refer next item how you can pretend to be the owner.

### ▼ A-3 Create memo of Account

After you finish share setting, write down Account and Password of current user on a piece of paper. This is because accessing to DB by pretending DB owner as explained in Mac file share.





This memo paper is necessary to work on the initial settings of StampDB in 22X software.

1. Open System Preferences, select Account (Screen 2 and 3 of Appendix.A).
2. Memo user name and password (Screen 2).

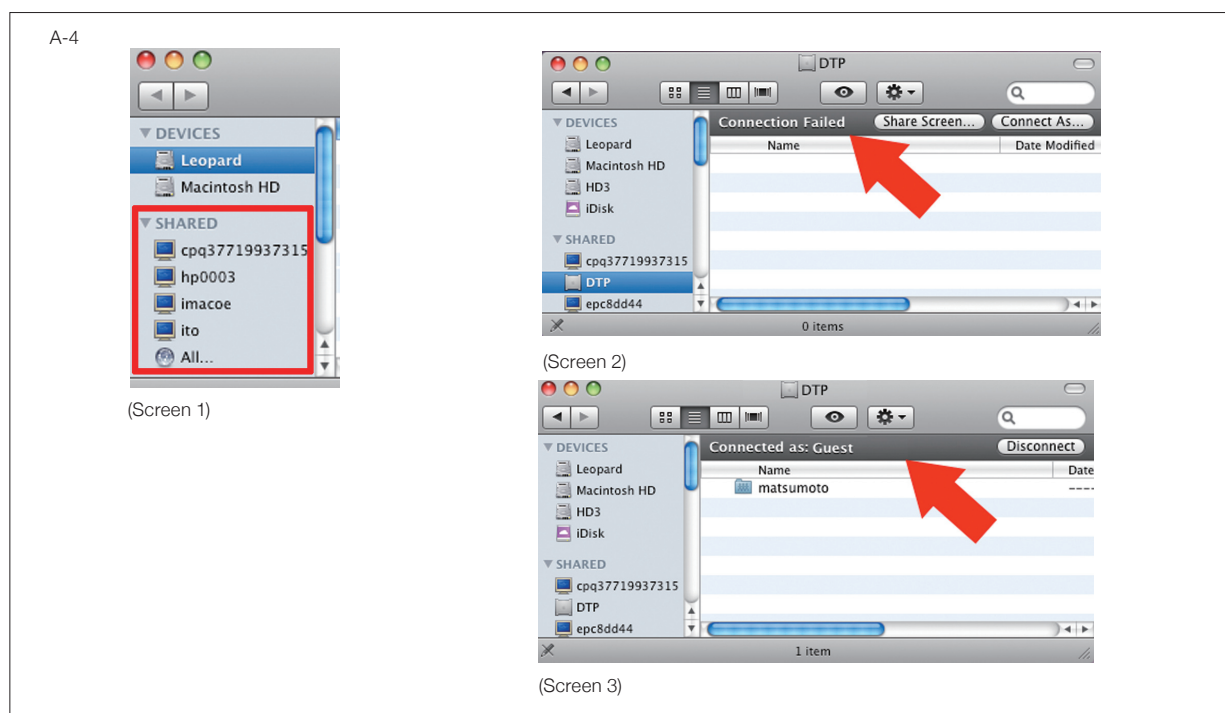
\* If your local reseller has set up Mac and you do not know the password, please ask.

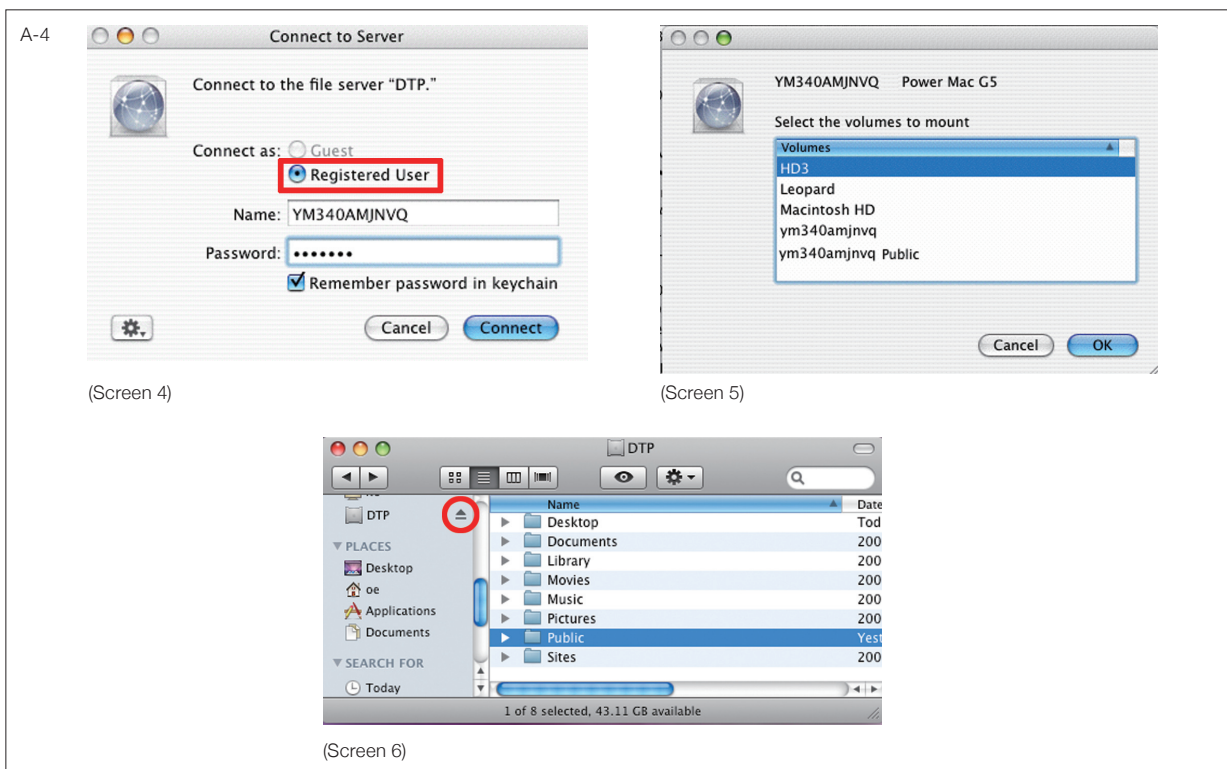
\* Account must have password, if no password is set on your account, please create now. Without password, the error message such as "Kerberos error..." will be shown on OS10.7 or greater, and on prior to OS10.6, you will be asked to input password everytime.

#### ▼ A-4 Setting on PC for AOI

Move in front of the PC for AOI (means not PC for database)

1. Prepare a memo on which user name and password is written. (Account and password of Mac where database is installed, created on step A-3 Screen 2)
2. Open Finder, and click on the Mac listed in **SHARE** menu, in which database is installed (Screen 1). If the Mac is not found, click **All...** to show all PC. If no PC is shown in SHARE menu, refer to 27-6 Network Troubleshooting.
3. Immediately after clicking the Mac, your Mac try connecting in Guest account. Connection may fail (Screen 2) or success as Guest (Screen3).
4. In either case, click **Connect As...** button. A dialogue **Connect to server** pops up. Select **Reg-**





**Registered User**, and input Name and Password that you prepared in the procedure 1 (Screen 4). Check **Remember password in keychain** for easy connection next time.

5. Select volume to mount. Various volumes are listed according to settings. If there is the volume to mount users name or Macintosh HD, select either (Screen 5).

6. In Finder, **eject symbol** is shown next to Mac currently connecting in **SHARE** menu (Screen 6)

\* If you connect by Guest account, you can not write in database.

\* If you create database other than user's public (though not recommended), mount that volume.

## Appendix. B Table of Stamp Type

Stamp type table.

Number	Stamp Type
-1	Main Fiducial
-2	Sub Fiducial
0	Rectangle
1	Oval
2	Region (Mask)
3	Shape Paste
4	Polygon
5	IC Lead Gap Stamp
6	CellAid
7	Lead Short Stamp
8	BlockMark Stamp
9	old Code39 barcode
10	SPI
11	SPI exception
12	Standard Lightness
13	Capture Stamp
14	Pack Stamp
15	BlockMark inclusion frame
16	Histogram Stamp
128	Side A
129	Side B
130	Sampled
131	Kado Stamp
132	PanelBlockMark Stamp
133	TargetFrame Stamp for PanelBlockMark
200	NG Mark
201	OK Mark
202	Alway Mark
203	Auto Barcode reading
204	QR Barcode
205	DataMatrix Barcode
206	EP Stamp
207	Type128 Barcode
208	Code39 Barcode