tkDerm touch 1.5.1 Documentation

Manabu Inuzuka

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Contents

1 Using iCloud **7**
1.1 The storage location is determined at the first startup 7
1.2 Uninstalling tkDerm touch 8

2 Shooting photos **11**
2.1 Shooting photos by the internal camera in the iPhone or iPad 11
2.2 Showing and deleting unregistered photos 11
2.3 Using photos taken by external cameras 12
2.4 Showing and deleting external photos 12

3 Inserting and editing data **15**
3.1 Inserting Data 15
3.2 Deleting and editing unregistered data 16
3.3 Deleting and editing registered data 17
3.4 Copying session data 18

4 Registering photos **19**
4.1 Registering photos when using iCloud or the local sandbox as the storage location 19
4.2 Registering photos when using the server 20
4.2.1 Registering photos by tkDerm touch 20
4.2.2 Registering photos by tkDerm on the server machine . 21

5 Showing photos **23**
5.1 Browsing data 23
5.2 Filtering data 24
5.2.1 Recent: 24
5.2.2 Distribution: 24

5.3 Enlarging photos by double-tapping 25
5.4 Enlarging or shrinking images by pinching 25
5.5 Scrolling by flick 25
5.6 Saving photos into the Photos app 25

6 Executing tkDerm touch in the background 27
6.1 Transitions between the foreground and background 27
6.2 Terminating tkDerm touch in the background state 27
6.3 Completing the data to photos mapping in the backgropund . 28

7 Setting up the server 29
7.1 Installing software 29
7.1.1 PostgreSQL 29
7.1.2 ImageMagick 30
7.1.3 Tcl/Tk 31
7.1.4 Perl 31
7.1.5 Image::ExifTool 31
7.1.6 tkDerm 32
7.2 Starting the web server 32
7.2.1 Windows 33
7.2.2 Macintosh 33
7.2.3 Linux 33
7.3 Making the photo directory readable by postgres 33
7.4 Creating the import directory for PNG photos 33
7.5 Creating the photo directory for PNG photos 34
7.6 Preferences dialog settings of tkDerm to use tkDerm touch . . 34
7.7 Creating databases 35
7.8 Making a database created for tkDerm to be ready for tkDerm touch 36
7.9 Connecting to the Server 37

8 Using tkDerm appliance server 39
8.1 Installing tkDerm appliance server 39
8.2 Executing tkDerm Setup Wizard 40
8.3 Inserting data 41
8.4 Registering photos 41
8.5 Letting the server connect to a wireless network 42
8.6 Connecting to the Server with tkDerm touch 42

8.7 Connecting to the Server with tkDerm running on Windows 7 43
8.8 Further readings 44

Chapter 1

Using iCloud

tkDerm touch is a dermatological image database running on the iPhone and iPad manufactured by Apple.

By default, tkDerm touch stores data and photos in iCloud or the local sandbox. Of these two locations, which will be used depends on the choice you will make when tkDerm touch starts up at the first time.

Additionally, you can use tkDerm touch as a client application if you set up the server as described in Chapter 7 (29 page).

1.1 The storage location is determined at the first startup

If iCloud is available at the first startup, tkDerm touch will pop up a dialog by which the user can choose iCloud or the local sandbox as the storage location. Depending on the choice, tkDerm touch will set itself up as using iCloud or the local sandbox as data and photo storage. If iCloud is not available at the first run, the local sandbox will be selected automatically. Therefore, if you wish to store data and photos of tkDerm touch in iCloud, you should set up iCloud before starting tkDerm touch at the first time.

To set up iCloud,

1. Follow the instruction at http://www.apple.com/icloud/setup/.

2. Be sure to set the Documents & Data setting on. If the Documents & Data setting is off, tkDerm touch will not pop up a dialog by which the

user can choose the storage location and will choose the local sandbox automatically.

Caution : You cannot change the storage location after it is determined at the first startup.

1.2 Uninstalling tkDerm touch

If you use the local sandbox as the storage location, simple deletion of the app icon will remove the app as well as its data and photos. In contrast, if you use iCloud, removing the app icon is not sufficient to uninstall tkDerm touch.

Data synchronization by iCloud requires the transaction log, which will not be removed by simple deletion of the app icon. The residual transaction log may interfere with the proper data synchronization by tkDerm touch subsequently installed. Therefore, if you wish to uninstall tkDerm touch while you are using iCloud as the storage location, it is essential to remove the transaction log before uninstalling the app.

To uninstall tkDerm touch while using iCloud as the storage location,

1. Go to Preferences page, which you can visit by tapping the > icon at the right end of Preferences row of Data page.
2. Choose On from Uninstall section and you will be prompted for confirmation.
3. Tap Save button at the upper-right corner.
4. Terminate the app as described in Section 6.2 (27 page).
5. Restart the app by tapping the app icon.
6. A prompt confirming that the transaction log will be removed will appear in a few minutes.
7. The transaction log will be removed if you tap the OK button.
8. Terminate the app again.
9. Hold your finger on the app icon until the icon begin to wiggle.

10. Tap the "x" in the upper-left corner of the app icon, which will remove the app itself.

11. Be sure to remove the Documents & Data of tkDerm touch from Settings $->$ iCloud $->$ Storage & Backup $->$ Manage Storage.

Chapter 2

Shooting photos

2.1 Shooting photos by the internal camera in the iPhone or iPad

To shoot photos by the internal camera in the iPhone or iPad,

1. Visit Data page by tapping Data button on the tab bar.
2. Tap Camera button at the upper-left corner of Data page.
3. Camera interface will appear.
4. Tap Shutter button to shoot a photo.
5. Tap Use button at the lower-right corner of Camera interface.
6. Be sure to insert data as described in Chapter 3 (15 page).

2.2 Showing and deleting unregistered photos

You can show and delete photos that have not been mapped to data yet.

To show and delete unregistered photos,

1. Unregistered photos are shown in Photos page, which you can visit by tapping the > icon at the right end of Photos row of Unregistered section of Data page.

2. To see the full-sized photo, tap the > icon at the right end of the row.
3. When you tap Edit button at the upper-right corner of Photos page, you will be in the edit mode.
4. Tapping the delete icon at the left end of the photo row will show the delete button at the right end of the row.
5. Tapping the delete button will delete the photo represented by the row.
6. After completing to delete photos, tap Done button at the upper-right corner of Photos page.

2.3 Using photos taken by external cameras

You can use photos taken by your favorite digital cameras other than the internal camera in the iPhone or iPad.

To use photos taken by external cameras,

1. Connect your iPhone or iPad to your computer on which iTunes are running.
2. In iTunes, click the device button in the upper-right corner of the window.
3. Click the "Apps" tab up on top in the main panel of iTunes.
4. Scroll down to the bottom where you will find a "File Transfer" section with a list of apps. From that list, choose "tkDerm touch".
5. Onto the document list to the right of the app list, drag in the photos taken by your external camera. You can also click "Add..." to browse for the photo file and choose it. As soon as you've chosen the file, it will transfer to your device.

2.4 Showing and deleting external photos

You can show and delete external photos that have not been mapped to data yet.

To show and delete unregistered external photos,

1. Unregistered photos taken by your external camera and transferred to your device as described above are shown in Documents page, which you can visit by tapping the > icon at the right end of Documents row of Unregistered section of Data page.

2. If there is no timestamp information as an Exif property in the file, the font color of the file name will be red. Otherwise, the font color of the file name will be black. Files shown with red color cannot be used as photos to be mapped to data.

3. If the file is JPEG or PNG file, there will appear the > icon at the right end of the row. Therefore, only files with black font and with the > icon at the right end can be used as photos to be mapped to data.

4. To see the full-sized photo, tap the > icon at the right end of the row.

5. When you tap Edit button at the upper-right corner of Documents page, you will be in the edit mode.

6. Tapping the delete icon at the left end of the photo row will show the delete button at the right end of the row.

7. Tapping the delete button will delete the photo represented by the row.

8. After completing to delete photos, tap Done button at the upper-right corner of Documents page.

Chapter 3

Inserting and editing data

3.1 Inserting Data

tkDerm touch maps data to photos on the basis of comparison between the shooting time and the data insertion time.

Therefore, it is essential to insert session data when you shoot photos.

To insert session data,

1. Visit Data page by tapping Data button on the tab bar.
2. Tap New button represented by a pen and paper icon at the upper-right corner of Data page.
3. New Data page will appear.
4. Fill entries and choose buttons.
5. Tap Save button at the upper-right corner of New Data page.
6. The data will be saved and the badge at the upper-right corner of the Data tab on the tab bar will display the number of unregistered data.

If the Server setting in Preferences is On, New Patient page will appear instead of New Data page. Tapping Save button after completing the fields will pop up New Session page.

Some comments on selected entries:

ID When you hit the return key after entering an ID, the patient data corresponding to the ID will appear if such a patient exists.

Birthday The date picker will pop up when you tap the entry.

Distribution When you tap the button just right to the entry, you will be moved to Distribution page, which shows illustrations of the human body. Specify the distribution of skin lesions by tapping some of the blue boxes on the illustrations. Tapping a box will make it red, which means the selected state. When tapping the same box again, it will revert to blue, which means the unselected state. When you tap OK button, you will go back to New Data page, whose Distribution entry will be filled with an 8 digit code of the distribution.

Diagnosis Enter a diagnosis. If the diagnosis is not found in the database, you will be moved to Register Diagnosis. If the word(s) you have just entered is a diagnosis, tap New Diagnosis at the top of the table and it will be registered as a diagnosis in the database. If the word(s) you have just entered is an abbreviation for a diagnosis, tap the diagnosis that it stands for. Now that the word is registered as an abbreviation,when you enter it into Diagnosis entry and hit the return key later, the Diagnosis entry will be automatically filled with the diagnosis that it stands for.

If you wish to delete diagnoses or their abbreviations already registered, go to Diagnoses page, which you can visit by tapping the > icon at the right end of Diagnoses row of Data page. To delete a diagnosis or an abbreviation,

1. When you tap Edit button at the upper-right corner of Diagnoses page, you will be in the edit mode.
2. Tapping the delete icon at the left end of the row you wish to delete will show the delete button at the right end of the row.
3. Tapping the delete button will delete the row.
4. After completing to delete the row, tap Done button at the upper-right corner of Diagnoses page.

Time The current time will appear automatically.

3.2 Deleting and editing unregistered data

Registering photos means to map data to photos.

You can delete and edit data that have not been registered yet.
To delete or edit unregistered data,

1. Unregistered data are shown in Unregistered Data page, which you can visit by tapping the > icon at the right end of Data row of Unregistered section of Data page.
2. Tap the > icon at the right end of the patient of which you wish to delete or edit data. You will be moved to Session Data page of the patient.
3. When you tap Edit button at the upper-right corner of Session Data page, you will be in the edit mode.
4. Tapping the delete icon at the left end of the session data will show the delete button at the right end of the row.
5. Tapping the delete button will delete the row.
6. If you tap a session data row while you are in the edit mode, you will be moved to Edit Data page.
7. After completing to edit data, tap Save button at the upper-right corner of Edit Data page.

3.3 Deleting and editing registered data

You can delete and edit data that have been related to photos.

Caution : When you delete registered data, photos related to the data will be removed. When you delete the last session data related to a patient, the patient data will be removed.

To delete and edit registered data,

1. Move to Search page by tapping Search button on the tab bar.
2. Navigate yourself to go to Session Data page showing session data that you wish to edit.
3. You can delete session data as described in the previous section.
4. You can edit session data as described in the previous section.

5. You cannot edit Time field of registered data.

If the Server setting in Preferences is on, you cannot delete registered data.

3.4 Copying session data

Tapping a row on Session Data page will move you to Copy data page, which enable you to omit completing entries on the second or later visit of the same patient.

To copy session data,

1. Move to Session Data page and tap the session data you wish to copy.
2. You will be moved to Copy Data page.
3. A copy of data with only Time entry being updated will be saved by tapping + button at the upper-right corner of Copy Data page.
4. You can edit any field if necessary before tapping + button.

Chapter 4

Registering photos

You should map photos to data before doing a search. tkDerm touch relates photos to data automatically based on the timestamps. Thanks to this function, you can register photos belonging to multiple sessions at once.

4.1 Registering photos when using iCloud or the local sandbox as the storage location

1. Shoot photos as described in Chapter 2 (11 page) and insert data as described in Chapter 3 (15 page).

2. Tap > button at the end of Register row in Data page.

3. Register page will appear. You will see rows representing session data and ones representing photos. Each data row will be followed by corresponding photo rows, which shows the result of mapping.

4. Tapping Edit button at the upper-right corner will change it to Done button, which means you are in the edit mode. Each session data excluding the first one will have a handle on the right end.

5. You can move session data rows to the place you like by dragging a finger while placing the finger on the handle. In this way, you can change the mapping result as you like if it is different from the one you expected.

6. When you confirm the mapping is right, tap Done button at the upper-right corner.

7. Relating data to photos will be done based on the mapping.

8. Now that registration is done, you are ready to show photos as described in Chapter 5 (23 page).

4.2 Registering photos when using the server

When you use the server as the storage location, there are two ways to map data to photos:

1. By tkDerm touch

2. By tkDerm on the server machine

As for setting the server for tkDerm touch, refer to Chapter 7 (29 page).

4.2.1 Registering photos by tkDerm touch

1. Copy image files to the directory that you chose as Import Directory in Preferences dialog of tkDerm on the server machine.

2. Tap > button at the end of Register row in Data page.

3. The progress bar will appear, showing creating PNG files and mapping data to photos are being processed.

4. Register page will appear. You will see rows representing session data and ones representing photos. Each data row will be followed by corresponding photo rows, which shows the result of mapping. To see the full-sized photo, tap the > icon at the right end of the row.

5. Tapping Edit button at the upper-right corner will change it to Done button, which means you are in the edit mode. Each session data excluding the first one will have a handle on the right end.

6. You can move session data rows to the place you like by dragging a finger while placing the finger on the handle. In this way, you can change the mapping result as you like if it is different from the one you expected.

7. When you confirm the mapping is right, tap Done button at the upper-right corner.

8. PNG files will be deployed based on the mapping.

9. JPEG files will be deployed according to the mapping by tkDerm touch when you choose Register... from Register menu of tkDerm on the server machine.

4.2.2 Registering photos by tkDerm on the server machine

Choose Register... from Register menu of tkDerm on the server machine. JPEG files will be deployed based on your mapping. Subsequently, PNG files will be created and deployed automatically according to the mapping.

Chapter 5

Showing photos

5.1 Browsing data

You can navigate yourself from Search to Patients, Dates or Diagnoses page by tapping the > button at the right end of Patients, Dates or Diagnoses row of Search by: section in Search page, respectively.

You will be moved to Session Data page of the patient by tapping the > button of a patient.

Further tapping > buttons will let you visit Thumbnail pages where you can tap a thumbnail and see the full size image of the thumbnail.

Names Showing patients in alphabetical order.

Dates Showing patients in order by shooting or access time. You can choose shooting or access time by the segmented control on Date of:row in Order by: section on Search page. You can set the default choice by Date of: segmented control in Order by: section on Preferences page.

Diagnoses Showing diagnoses in alphabetical order. Tapping a row will show patients with the diagnosis in order by shooting or accessing time, which attribute will be used depends on your choice of Order by: section, while tapping a > icon will show patients in alphabetical order.

When the row you want to see is no longer on the screen, you can jump to the row by tapping the index at the right side of Patients, Dates or Diagnoses page.

5.2 Filtering data

Filter by: section of Search page enables you to show only data that meet some conditions.

5.2.1 Recent:

With Recent: field filled, only data that were saved or accessed within the specified period will be shown. Of shooting and access time, which attribute will be used depends on your choice of Order by: section.

The Recent: setting can be saved for subsequent sessions by Preferences page, which will be shown by tapping Preferences row of Data page.

5.2.2 Distribution:

With Distribution: field set, only data that have match a distribution pattern you specify will be shown.

To specify a distribution pattern,

1. When you tap the button just right to the entry, you will be moved to Distribution page, which shows illustrations of the human body.

2. Specify the distribution of skin lesions by tapping some of the blue boxes on the illustrations. Tapping a box will make it red, which means the selected state. When tapping the same box again, it will revert to blue, which means the unselected state. You can make more than one box selected at the same time.

3. When you tap OK button, you will go back to Search page, whose Distribution entry will be filled with an 8 digit code of the distribution.

4. Specify the inclusion relationship of the specified distribution to the distribution of data you wish to show by choosing an item from the segmented control just below the Distribution: row. Each item from the control means:

   Incl(ude) The distribution of data you wish to show *includes* the distribution you specified.

   Incl(uded) in The distribution of data you wish to show is *included in* the distribution you specified.

Inter(sect) The distribution of data you wish to show *intersects* the distribution you specified.

Match The distribution of data you wish to show *matches* the distribution you specified.

Excl(ude) The distribution of data you wish to show *excludes* the distribution you specified.

5. To clear the distribution as a filter, go to Distribution page by tapping the button just right to Distribution entry and tap Clear and OK buttons in this sequence.

5.3 Enlarging photos by double-tapping

When you double-tap an image, the image will enlarge in such a way that the portion you tapped will be near the center of the enlarged image.

The enlarge image will shrink to the original size when you double-tap again.

5.4 Enlarging or shrinking images by pinching

Pinching out enlarges images, while pinching in shrinks them.

5.5 Scrolling by flick

You can scroll an image by flicking your finger across it when it is enlarged to a size larger than the view.

5.6 Saving photos into the Photos app

Tapping Save button at the upper-right corner will save the photo being displayed into the Photos app.

Chapter 6

Executing tkDerm touch in the background

6.1 Transitions between the foreground and background

1. While executing tkDerm touch in the foreground, pressing the Home button will not quit tkDerm touch but move it to the background state.

2. Double pressing the Home button will reveal the multitasking toolbar from the bottom. On iPad, four- and five-finger gestures to swipe up will take the same effect if the Multitasking Gestures setting is on in the General section of the Settings app.

3. Tap the tkDerm touch icon in the multitasking toolbar to move tkDerm touch to the foreground state.

6.2 Terminating tkDerm touch in the background state

1. Reveal the the multitasking toolbar by double pressing the Home button or four- and five-finger gestures as described above.

2. Touch and hold the tkDerm touch icon until it wiggles.

3. Tap the minus sign badge appeared at the upper left corner of the tkDerm touch icon to terminate the application.

4. Press the Home button to complete the action.

6.3 Completing the data to photos mapping in the backgropund

When you use the server as the storage location, you can launch another application just after starting the time-consuming data to photos matching.

1. Tap > button at the end of Register row in Data page to do the data to photos mapping as described in Section 4.2 (20 page). tkDerm touch will start playing a sound. The sound can be off by the On Mapping: setting in Sound section of Preferences page.

2. Pressing the Home button to move tkDerm touch to the background state. The mapping will proceed in the background, which you will know by the fact that tkDerm touch continues playing the sound.

3. Launch another application.

4. When completing the mapping, tkDerm touch will stop playing the sound, by which you can know when the mapping is completed.

5. Double press the Home button to suspend the foreground application.

6. Then you should move tkDerm touch to the foreground state by tapping its icon in the multitasking toolbar.

7. You will get the Preparing Register page showing the mapping result.

Chapter 7

Setting up the server

The data and photos handled by tkDerm touch can be stored in the server machine, with which tkDerm touch communicates via a wireless LAN.

To set up the server for tkDerm touch, you should install PostgreSQL, tkDerm (http://sourceforge.net/projects/tkderm/) and some associated software in the server machine.

This chapter will describe how you can set up the server machine and connect to it with tkDerm touch.

Instead of setting up the server by yourself, you can use tkDerm appliance server as described in Chapter 8 (39 page).

Setting up the server is optional. If you are going to use only iCloud or the local sandbox as the storage location, you can omit the server setup.

7.1 Installing software

It is necessary to install PostgreSQL, tkDerm and some associated software in the server machine to use tkDerm touch as a client.

7.1.1 PostgreSQL

One of the most convenient ways to install PostgreSQL is to use the installer provided by EnterpriseDB (http://www.enterprisedb.com/products-services-training/pgdownload). This document supposes you would install PostgreSQL by the EnterpriseDB installer.

The directory into which PostgreSQL will be installed defaults to C:/Program Files. It is strongly recommended that you should choose a directory whose name doesn't include spaces as the install directory because spaces in the directory name may cause troubles when executing tkDerm.

To let PostgreSQL accept connections from hosts other than the local host, you should edit the pg_hba.conf file. On how to edit the pg_hba.conf file, visit to the chapter "Client Authentication" in the PostgreSQL Documentation

7.1.2 ImageMagick

Apple's recommendation of the image file format used on the iPhone and iPad is PNG. tkDerm touch uses ImageMagick, an image manipulating software, which has affinity to the command line and therefore is suitable for automatic image processing, to make PNG files from JPEG ones. Detailed instructions on how to install ImageMagick can be found at http://www.imagemagick.org/.

To install ImageMagick on Macintosh, you should install Xcode at first, which is found in the install DVD of Mac OS X.

Caution : The install DVD of Mac OS X 10.5 Leopard includes Xcode 3.0, which is not compatible the MacPorts installer. Leopard users should download and install Xcode 3.1.

Then you should install MacPorts (http://www.macports.org/).

After installing MacPorts, type

```
sudo port install ImageMagick
```

in the terminal.

The executables will be installed in /opt/local/bin.

After installation, please set the ImageMagick Directory in the preferences dialog of tkDerm on the server machine. This entry specifies the directory in which the ImageMagick executables "convert "and "identify" are installed. When using MacPorts, the directory may be /opt/local/bin .

On Macintosh or Linux, type

```
which convert
```

in the terminal to show the absolute path of convert.

7.1.3 Tcl/Tk

tkDerm touch makes PNG files with the PostgreSQL functions written by the PL/Tcl language. Execution of the functions requires Tcl installed on the server machine. PostgreSQL installed by EnterpriseDB installer requires Tcl 8.5 to create PL/Tcl language. which is essential for tkDerm touch.

Also, Tcl/Tk is necessary to run tkDerm.

You must install ActiveTcl (http://www.activestate.com/activetcl) 8.5 after installing 8.4 as ActiveTcl 8.5 or later doesn't include the packages tkDerm requires.

7.1.4 Perl

tkDerm touch maps data to photos with the PostgreSQL functions written by the PL/Perl language. Execution of the functions requires Perl installed on the server machine.

Windows users should install ActivePerl ((http://www.activestate.com/activeperl) as a standard installation of Windows doesn't include Perl. If you use the windows version of PostgreSQL 8.4 installer, ActivePerl 5.10 is required.

It isn't necessary for Macintosh or Linux users to install Perl.

7.1.5 Image::ExifTool

Exif data such as the shooting time and the camera model name are read with a Perl module, Image::ExifTool. The module should be installed separately from Perl itself. The package management tool of ActivePerl, ppm, can be used to install the module. As for ppm, consult the manual of ActivePerl.

Also you can download Image::ExifTool from CPAN, the archive of the Perl modules. On Macintosh, as the first step to use CPAN, type as follows in the terminal to install cpan, which is a Perl module that installs Perl modules.

```
sudo -H cpan
```

You will be prompted as

```
Would you like me to configure as much as possible automatically? [yes].
```

Strike the return key. cpan will be installed and the cpan shell will be launched automatically.

Type,

```
cpan[1]> install Image::ExifTool
```

to install Image::ExifTool.

To quit from cpan, enter

```
cpan[2]> quit
```

You should enter the directory path in which Image::ExifTool is installed as the ExifTool Directory of the preferences dialog of tkDerm on the server machine.

In the terminal, the command

```
perldoc -ml Image::Exiftool
```

will show the absolute path of Image::ExifTool. The path excluding the last /Image/Exiftool.pm should be entered as the ExifTool Directory of the preferences setting. If you are on Macintosh and installed Image::Exiftool from CPAN, the path may be like /opt/local/lib/perl5/site_perl/5.8.9. The last component of the path is the version of Perl.

7.1.6 tkDerm

You can download tkDerm from http://sourceforge.net/projects/tkderm/. You should install tkDerm version 1.6.0 or later on the server machine. Earlier versions are not compatible with tkDerm touch 1.2.0 or later.

On Windows, you should make the postgres directory in the tkDerm installation directory readable by the PostgreSQL superuser postgres. Without this action, you will fail in making your database ready for tkDerm touch as describes below.

Setup Wizard will be launched at the first execution. On how to setup tkDerm by using the wizard, refer to Section 8.2 (40 page).

7.2 Starting the web server

Photos that tkDerm touch shows are distributed by a web server. So, you should make it run on the server machine. You can find plenty of documents describing how to set up a web server on your platform.

7.2.1 Windows

On Windows, you should install a web server by yourself. The Windows version of the apache web server is available without charge at

http://archive.apache.org/dist/httpd/binaries/win32/.

7.2.2 Macintosh

Macintosh is shipped with the apache web server. Visit System Preferences − >Sharing and set Web Sharing on to launch the web server.

On OS 10.5 Leopard and 10.6 Snow Leopard, the document root may be set to

/Library/WebServer/Documents by default.

7.2.3 Linux

Many Linux distributions are shipped with the apache web server.

7.3 Making the photo directory readable by postgres

When registering photos, the user postgres makes PNG photos from JPEG photos deployed under the photo root directory which is specified in the Photo Directory setting of the preferences dialog. From this reason, the Photo Directory for JPEG files must be readable by postgres. If you define the Photo Directory as the "photo" directory in your home directory (this is the default), you should move the Photo Directory to a directory outside from your home directory and make it readable by postgres.

7.4 Creating the import directory for PNG photos

tkDerm touch and tkDerm share the import directory in which photos to be registered are temporally pooled. So, the import directory must be writable both for postgres and the operating system account of the tkDerm user on the server machine.

If you are a tkDerm user, the import directory may already be set in your home directory and is not writable for postgres. In such a case, you should move the import directory to a directory where both of your operation system account and postgres can write files.

On Macintosh for example,

```
cd /Library/WebServer/Documents
sudo mkdir import
sudo chmod 777 import
```

Be sure to set the Import Directory of the preferences dialog of tkDerm.

In this example, enter /Library/WebServer/Documents/import.

7.5 Creating the photo directory for PNG photos

The directory in which PNG files are deployed must be under the document root of the web server and named photo. Additionally, it must be owned by postgres.

On Macintosh for example,

```
cd /Library/WebServer/Documents
sudo mkdir photo
sudo chown postgres photo
```

At the same time, the PNG Photo Directory of the preferences dialog of tkDerm must be set.

In this example, enter /Library/WebServer/Documents/photo.

7.6 Preferences dialog settings of tkDerm to use tkDerm touch

To use tkDerm touch, the following preferences settings of tkDerm on the server machine must be properly set. Confirm these settings before proceeding.

Import Directory Refer to Section 7.4.

PNG Photo Directory Refer to Section 7.5.

ImageMagick Directory Refer to Section 7.1.2.

ExifTool Directory Refer to Section 7.1.5.

PNG Full Height If you use the iPhone, original iPad or iPad 2, enter 1536. If you use the new iPad with the retina display, enter 3072.

PNG Thumb Height If you use the iPhone, original iPad or iPad 2, enter 154. If you use the new iPad with the retina display, enter 308.

PNG Icon Height If you use the iPhone, original iPad or iPad 2, enter 44. If you use the new iPad with the retina display, enter 88.

7.7 Creating databases

tkDerm touch lacks the capability to create databases in the server.

Therefore, databases that you will use on tkDerm touch must be created by tkDerm on the server machine.

To create a database for tkDerm touch on the server machine,

1. Choose Database... from the Admin menu of tkDerm.
2. The Create & Drop Database dialog will pop up.
3. Click the Create button. The Create Database dialog will appear.
4. Enter a database name in the DB entry.
5. Enter a brief explanation for the database in the Description entry.
6. Choose yes as Tables.
7. Choose bf or aes as Encryption. Databases for tkDerm touch must be encrypted.
8. Choose eruption32 as Body_Diagram. tkDerm touch supports only eruption32 as Body_Diagram.
9. After completing the fields, click the Add button.

10. You will be prompted for the postgres password. Please give it.

11. You will be asked to type an encryption key. Be sure to remember the key as it will be required whenever you are going to connect to the database.

12. Choose png from the Package menu.

13. You will see the message saying "The database has been enabled to deploy PNG files." if everything works fine. Any other messages mean something wrong did happen in the processing.

Caution : On Windows, you should make the postgres directory in the tkDerm installation directory readable by the PostgreSQL superuser postgres before creating a database for tkDerm touch.

7.8 Making a database created for tkDerm to be ready for tkDerm touch

If you are a tkDerm user for some time, you may want to make the database you have been using to be compatible with tkDerm touch. To make your database to be ready for tkDerm touch,

1. Start tkDerm and connect to the database you are going to make to be the one tkDerm touch can handles.

2. Choose png from the Package menu.

3. You will see the message saying "The database has been enabled to deploy PNG files." if everything works fine.

4. Choose deploy_png from the Package menu. It may several hours to create and deploy PNG files depending on the amount of your photos.

Caution : On Windows, you should make the postgres directory in the tkDerm installation directory readable by the PostgreSQL superuser postgres before creating a database for tkDerm touch.

7.9 Connecting to the Server

Now you did complete to set up the server and it is ready to connect to it.

To connect to the server with tkDerm touch,

1. Visit Data page by tapping Data button on the tab bar.
2. Tap the > icon at the right side of Preferences row and you will be moved to Preferences page.
3. Choose On from Server: buttons in Connection section.
4. Enter the IP address of the server machine into Host: entry.
5. Enter your database role name of PostgreSQL into User: entry. This must be the name appearing in the Account column of the Insert & Delete Doctor Data dialog, which will pop up when you choose the Doctor... item from the Admin menu of the tkDerm on the server machine.
6. Tap Save button at the upper-right corner of Preferences page.
7. The password dialog will pop up. Enter it and hit the return key.
8. Database selection buttons will appear if there are more than one database created for tkDerm touch. Choose the one you are going to connect to.
9. Enter your encryption key into Encryption Key: entry and hit the return key. You will be connected to the database.
10. If you with to connect to another database, visit Search page by tapping Search button on the tab bar and tap Action button at the upper-right corner of Search page.

Chapter 8

Using tkDerm appliance server

The easiest way to set up the server for tkDerm touch is to use tkDerm appliance server, in which all the server software have been installed and configured using openSUSE, a Linux-based operating system, as a platform.

If you choose to use tkDerm appliance server, you can omit Chapter 7 (29 page).

8.1 Installing tkDerm appliance server

To install tkDerm appliance server,

1. Download the tkDerm appliance server ISO image from

   `http://susestudio.com/a/RtX7Yv/tkderm-appliance-server`

   Be sure to choose "CD & DVD" from Download section.

2. After having successfully downloaded the ISO image, burn the image with your favorite burning application to a DVD or CD. Please do not burn a data DVD/CD, but rather choose the option to burn an ISO image.

3. Boot from the DVD or CD. In case your computer does not automatically boot from CD/DVD, open the BIOS setup to allow booting from CD or DVD.

4. You will automatically log in as a user "derm" with the password "derm".

5. You can install the appliance server into your hard disk by clicking the Install icon on the desktop. Alternatively, you can continue the live CD session. In the latter case, all the changes you have made on the file system during the live CD session will be lost when the session ends.

8.2 Executing tkDerm Setup Wizard

To set up tkDerm,

1. Copy a photo taken by the camera you are going to use with tkDerm to your home directory (/home/derm). It will be necessary to register the camera when executing tkDerm Setup Wizard.

2. Launch the GNOME Terminal, which can be found in Computer − > More Applications. . . .

3. Move to tkderm directory and start tkDerm by the following command.

```
cd tkderm
wish tkderm.tcl &
```

4. The Select dialog will pop up. Choose "Setup Database for tkDerm touch" and click OK button.

5. You will be prompted for the password for postgres. Enter 'postgres' as the password.

6. tkDerm Setup Wizard will be launched. Fill up the entries on the Setup Wizard and click the Execute Setup button.

7. You will be prompted for your encryption key twice.

8. Clicking the Quit button on the Setup Wizard will launch tkDerm and you will be prompted for your encryption key.

9. If authentication is successful, you will be connected to the database whose default name is "db1".

8.3 Inserting data

To insert new data,

1. Select the New... command from the File menu or click the New... button on the tool bar at the left side of the main window.

2. Enter ID, Last_Name, First_Name and Birthday and choose Sex.

3. Click the Macro tab.

4. Distribution can be entered by the Distribution dialog that will appear by clicking the ... button just right to the entry.

5. Enter a diagnosis and hit the return key.

6. The Register Diagnosis window will appear. Click the Diagnosis button.

7. Click the Save button on the New Data window.

8.4 Registering photos

1. Take photo(s).

2. Copy the photo(s) to /usr/share/public/import.

3. Select Register... from the Register menu or click the Register... button on the tool bar.

4. The Camera Select dialog will pop up. Click OK button.

5. The Register window will appear. Click the Register button at the lower-right corner of the window.

6. If registration is successful, the message saying "Deploying PNG files... done." will appear in the message line at the bottom.

8.5 Letting the server connect to a wireless network

1. Click the network connection icon at the bottom.
2. Choose a network you are going to connect to.

8.6 Connecting to the Server with tkDerm touch

To connect to the server with tkDerm touch,

1. Launch tkDerm touch.
2. Visit Data page by tapping Data button on the tab bar.
3. Tap the > icon at the right side of Preferences row and you will be moved to Preferences page.
4. Enter the IP address of the server machine into Host: entry.
5. Enter "derm" into User: entry.
6. Tap Save button at the upper-right corner of Preferences page.
7. Visit Search page by tapping Search button on the tab bar.
8. Tap Action button at the upper-right corner of Search page.
9. The password dialog will pop up. Enter it and hit the return key.
10. Enter your encryption key into Encryption Key: entry and hit the return key.
11. If authentication is successful, you will be moved to Search page.
12. On how to browse photos, refer to Chapter 5 (23 page).

8.7 Connecting to the Server with tkDerm running on Windows 7

A Windows file sever called Samba (http://www.samba.org/) is running on tkDerm appliance server. The Samba server enables a remote Windows machine to mount the import and photo root directories of tkDerm appliance server. To use tkDerm appliance server from a remote machine running Windows 7,

1. Make your machine running Windows 7 join the same network as tkDerm appliance server.
2. Install ActiveTcl (http://www.activestate.com/activetcl). If you choose ActiveTcl 8.5, you must install 8.5 after installing 8.4 as ActiveTcl 8.5 or later doesn't include the packages tkDerm requires.
3. Download tkDerm 1.6.0 or later from http://sourceforge.net/projects/tkderm.
4. Launch tkDerm by double-clicking the tkderm file. The Select dialog will pop up. Choose "Connect to Server" and enter the IP address of tkDerm appliance server.
5. Choose Preferences from File menu of tkDerm.
6. Click the button just right to Import Directory entry. The directory selection dialog will pop up.
7. Click the small triangle just left to Network icon to show the content.
8. Click the small triangle just left to LINUX icon.
9. You will be prompted for the user name and the password. Enter "derm" as the user name and "derm" as the password.
10. The directories to be shared will be shown. Choose "import" and click OK button.
11. "//LINUX/import" will appear in the Import Directory entry.
12. Click the button just right to Photo Directory entry. The directory selection dialog will pop up.

13. Choose "photo" and click OK button.
14. "//LINUX/photo" will appear in the Photo Directory entry.
15. When registering photos, copy photos to Network $-$ > LINUX $-$ > import folder in the left pane of the Explorer.

8.8 Further readings

1. You can insert data with tkDerm touch. Refer to Chapter 3 (15 page).
2. You can register photos with tkDerm touch. Refer to Section 4.2 (20 page).