

Users-Manual for PhotoUtil

Monday, January 29, 2001

by
Witkowski-Design, Edmund J. Witkowski III
©2000 Witkowski-Design, Edmund J. Witkowski III

Technical Support:

For any questions, comments, or suggestions
please e-mail Edmund J. Witkowski III anytime at **ed@witkowski-design.com**
or visit me at **www.Witkowski-Design.com**

Brief Summary:

PhotoUtil is an image Database that allows you to view pictures on your Palm.

- Use PhotoUtilPC on your PC to add images to the database.
- View BITMAP images on your Palm.
- Invert Colors, see Negative Image, Flip and Mirror images.
- Works Great! with Kodak PalmPix Now bring images Back Into the Palm!
- Title each image whatever you want (up to 15 characters.)
- Store up to 24-images in 1-bit 2-color mode.
- Store up to 6-images in 4-bit 16-color mode.
- Store up to 3-images in 8-bit 256-color mode.

Table of Contents

Chapter 1 - Purchasing / Registering	4
Palm-Basics	4
Registering Program	5
Sending the Fee	5
Registration-Screen	5
Reg-Key	5
Upgrading Older Versions	6
Delete Old One	6
Overwrite Old One	6
Chapter 2 – PhotoUtilPC	7
Adding Images	7
Start PhotoUtilPC	7
What's in the Listbox	7
Create New Database File	8
Set for PalmIIIc	8
Hit Create Button	8
Where to Save?	9
Image Editing Window	10
Viewing Images in your Database	11
Image Specs	11
Locating New Images	12
Viewing Images on your Computer	12
Adding Image to Database	13
HotSync Database	14
Chapter 3 – PhotoUtil	15
Summary	15
Edit Screen	16
Flip Button	16
Diag Button	16
Mirror Button	16
Neg Button	16
RGB Button	16
1-2-4-8 Buttons	16
Menu Button	16

Name Screen	17
Del Button	17
Up/Down Arrows	17
List Screen	18
Del Button	18
Show Button	18
Menu Button	18

Chapter 1 - Purchasing / Registering



Palm-Basics

Above is a diagram showing where the different buttons are and what they are called. The diagram's main purpose is as a guide for the next section on how to Register the program you purchased.

Registering Program

Sending the Fee

For up-to-date instructions on how to pay the \$10 fee visit me at <http://www.witkowski-design.com> .

Registration-Screen

A screenshot of a registration screen. At the top is a purple header bar with the text "Register Now!". Below this, the text reads: "To purchase this title please purchase it at my web-site: www.Witkowski-Design.com". This is followed by "FEE \$10", "Your data is NOT lost!", and "Send Reference# when Registering.". The "Reference #" is listed as "EDMUNDWI". Below that is a "Reg-Key:" label followed by a dotted line and an upward-pointing arrow. At the bottom left is an "(exit)" button, and at the bottom right is a "Register" button.

Register Now!

To purchase this title please
purchase it at my web-site:
www.Witkowski-Design.com

FEE \$10

Your data is NOT lost!

Send Reference# when Registering.

Reference # : EDMUNDWI

Reg-Key : ↑

(exit) Register

A Reg-Key will unlock the 15-day limitation and allow the program to run indefinitely. In order for me to Generate your unique Reg-Key I need you to send me your REFERENCE# and which Palm-Model (PalmIII, PalmV, etc.) you use. The REFERENCE# is found on the Registration-Screen.

There are two ways to get to the Registration-Screen:

- 1) Allow the program to expire and the only screen it goes to is the Registration-Screen.
- 2) Hit the REGISTER button on the Introduction Screen. The REFERENCE# should be 8 Capital Letters and/or Numbers.

Reg-Key

The Reg-Key must be entered in the Text-Field to the right of "Registration Code:" The Reg-Key is case sensitive and MUST be entered exactly as I give it to you. After entering the Reg-Key into the Text-Field press the REGISTER button. If you entered it incorrectly it will display INVALID. If you entered it correctly it will return to the application and refuse you further access to the Registration-Screen.

Upgrading Older Versions

Upgrading versions to applications you've already purchased are FREE, as long as the Reg-Key is still valid. Contact the programmer for further assistance. There are two ways to upgrade a newer version: Delete Old One or Overwrite Old One.

Don't forget to HotSync first to back up your database with your PC so you don't lose any saved data. Assuming you have your PalmDesktop Software set to Synchronize Palm and PC, or Palm overwrites PC, the 1st being the best choice, your database will be backed up on your PC during a HotSync.

Delete Old One

To delete ANY Palm application you must go to the Palm System Menu (see diagram) and choose DELETE. Then a list will appear showing all currently HotSynced programs. Choose the application name you want to DELETE (in this case PHOTOUTIL) and delete it. You are now ready to HotSync the new version into your Palm.

Overwrite Old One

As the Programmer/Developer, I often just HOTSYNC the newer version of a program into my palm over top of the older version. This usually works, however, I have encountered times when it still sees the older version no matter how many times I HotSync the newer version over top of the older version. In this case, you must DELETE the older version BEFORE HotSyncing the newer version (see section-a above.)

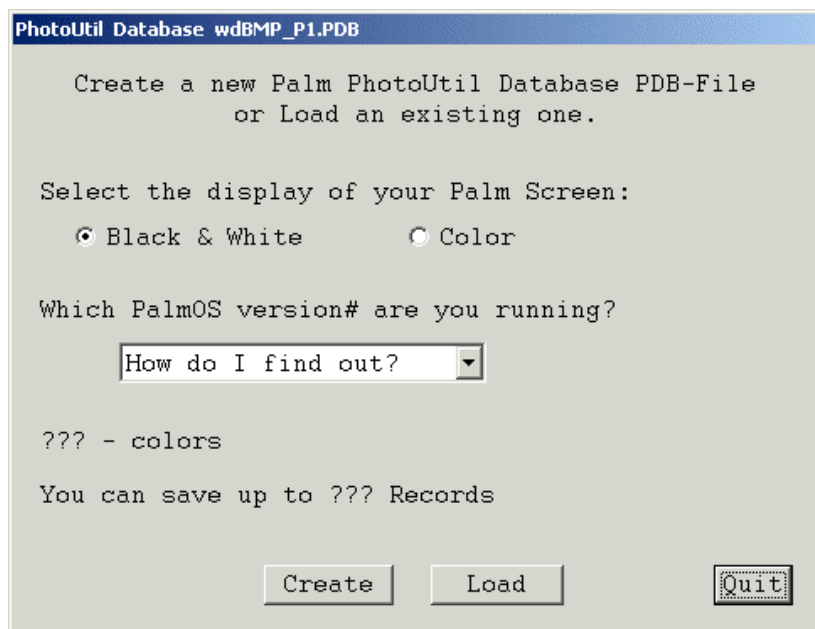
Chapter 2 – PhotoUtilPC

Adding Images

The only way to add an image from your PC to your Palm is to convert the image so that it can be viewed on the Palm. **PhotoUtilPC** is a program that runs on your PC and converts the Bitmap images into a format that your Palm can view. Every time you want to add images to PhotoUtil (so that you can view them on your Palm Handheld) you must use **PhotoUtilPC**.

Start PhotoUtilPC

The first screen to come up (if you are using this for the first time) should look like:



This screen is going to create a new database file that your palm can read or it will load one that you created earlier. If you are using it for the first time, then the CREATE button will be what you hit.

What's in the Listbox

The ListBox has different PalmOS versions. Basically this screen is trying to determine your maximum display ability. You can always (purposely) choose a lesser setting so that you can have more images. At present the maximum # of photos is as follows:

- 2-bit color (2 colors) max. 24 photos
- 4-bit color (16-colors) max. 6 photos
- 8-bit color (256-colors) max. 3 photos

Why the limitation? It has to do with the fact that I store all photos in 1 single database. In a single database file all address offsets are represented by 16-bit (2-

byte) addresses. If you had 4 color photos in a single database, the 4th images offset would be a number greater than 65535 which is the largest 16-bit number you can have. Beyond that you need 24-bits or 32-bits, etc. to represent a number. The PalmOS is setup to read 16-bit memory addresses.

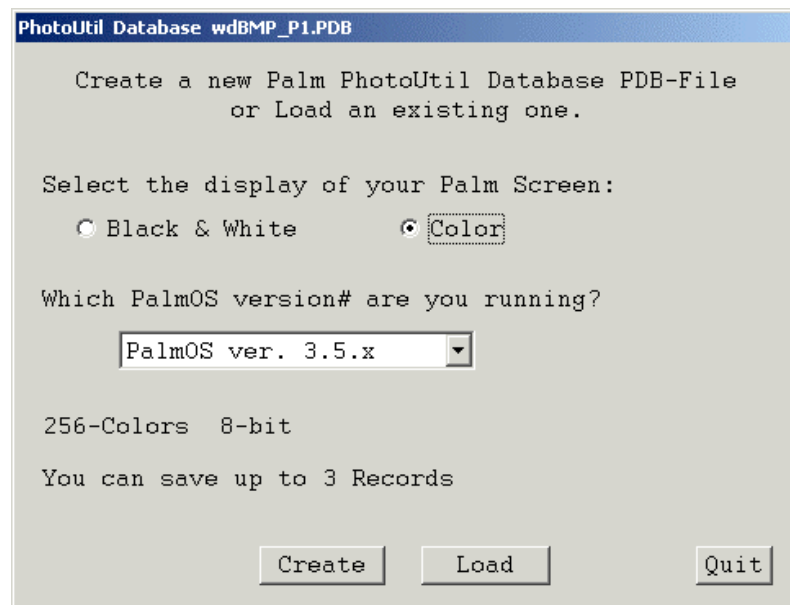
A palm running the following OS versions can display the following Bit-Depth:

- PalmOS 3.0.x 2-bit
- PalmOS 3.1.x 2-bit
- PalmOS 3.2.x 4-bit
- PalmOS 3.3.x 4-bit
- PalmOS 3.5.x on Non-Color Palm 4-bit
- PalmOS 3.5.x on color Palm 8-bit

Create New Database File

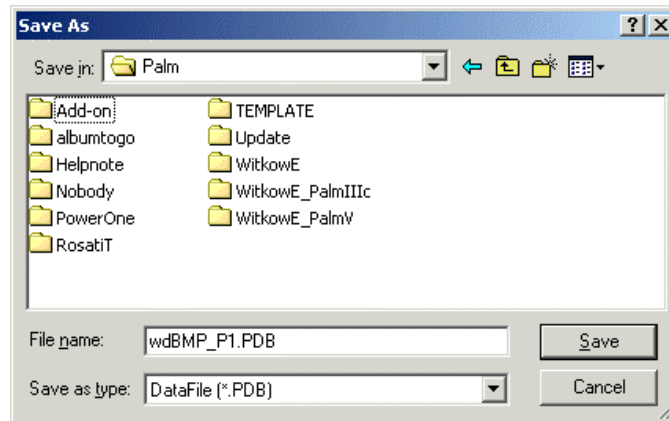
Set for PalmIIIc

Assume you have a PalmIIIc. You could set the settings (as listed above) to purposely create photos in 2-bit or 4-bit color depth so you can store more images. But assuming you want maximum display and 3 images is fine, you would set the window to look like:



Hit Create Button

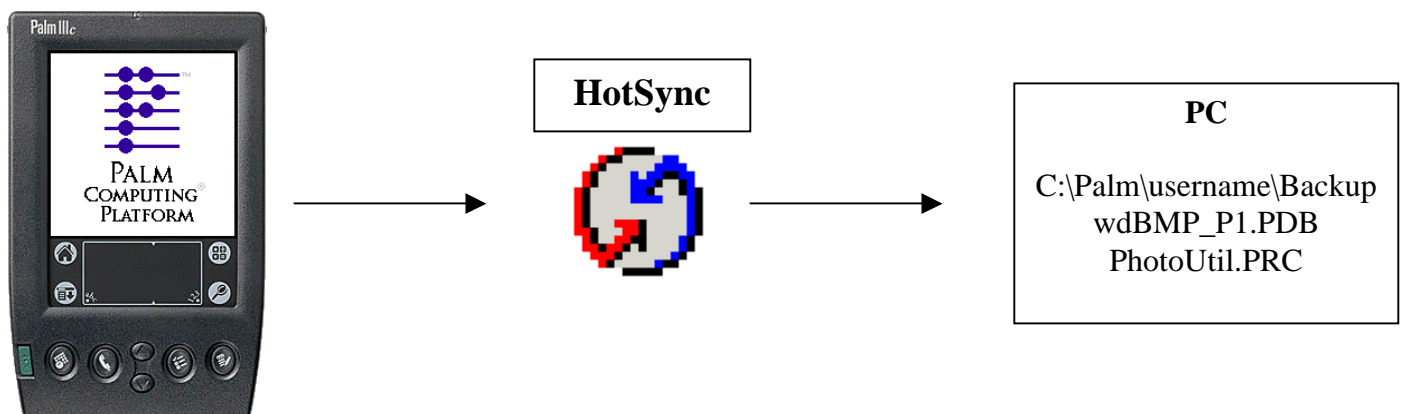
Now that you set the settings for 8-bit you are ready to create the photo database file "wdBMP_P1.PDB". When you hit the button it will prompt you to choose a location on your hard-drive for where you want to save your new database file. You will get a SAVE-AS BROWSE box up on your screen that looks like:



The yellow folders are your directories and the Save-In box at the top is the folder that these folders are inside of. Just navigate these folders and place the PDB-File in whichever folder you want. You can also create a NEW Folder by clicking the little yellow folder in the upper-right corner with the starburst on its right edge.

Where to Save?

Now you have to decide where to save this new file. This database file is the file you will want to HotSync into your Palm. And every time after that, each time you HotSync, the database file will be backed-up to your Palm user-name Backup directory: C:\Palm\<username>\Backup

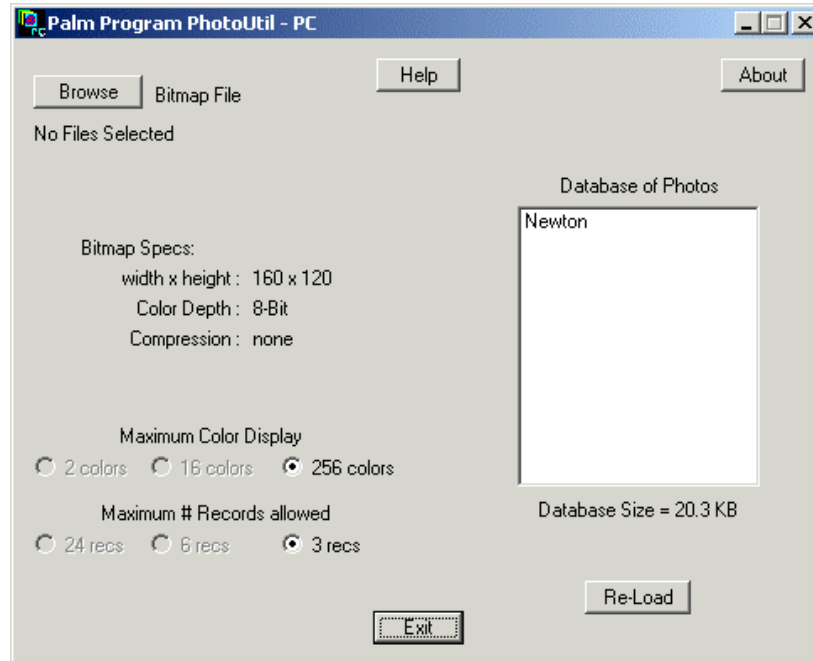


So this is a directory you DO NOT want to save your PDB-file in. Why? Because it will be OVER-WRITTEN by the Palm's HotSync, the very process you will use to Install the file into the Palm with. As you edit the photo database with newer images, you don't want the new one getting over-written by the old photo database that you already had on your Palm when you go to HotSync the newer one. So please keep this in mind. For testing purposes I chose my Root-Directory (C:\). Once you decide on a directory

(or Folder as they are called) just hit the SAVE button and the file will be saved there.

Image Editing Window

Now the Image Editing Screen comes up. This screen shows your current photo database PDB file on the right with a ListBox of all the current images it contains. Below it, it shows the current size of that file. On the left is the viewing window that starts out saying the current image specs:



Viewing Images in your Database

The first time you create your photo database you will have a picture of my dog Newton. You can delete this file, but you must have at least 1 image in the database at all times so the delete button won't work for now. Select an image in the ListBox and the image will appear on the left:

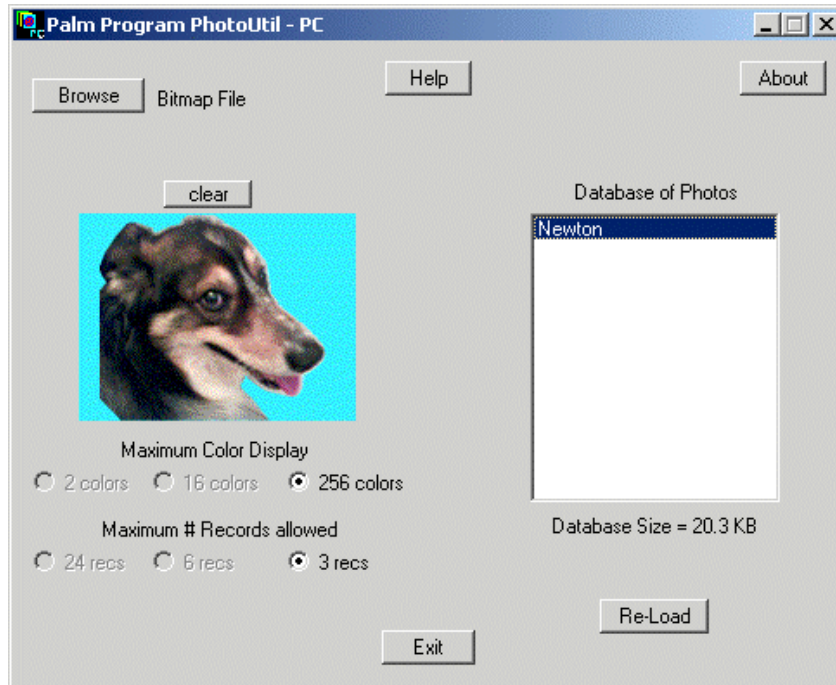


Image Specs

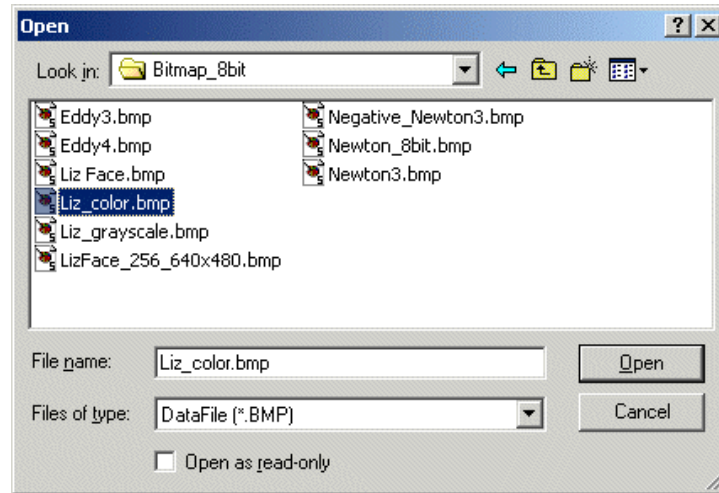
When you want to add a new image into your database, you must click the BROWSE button in the upper-left corner. This will bring up a BROWSE window and you will locate a Bitmap Image on your HardDrive that meets the specs listed below the image (hit the CLEAR button to see the specs again.) In this example, the specs are:

- Size : Pixel (width x height) (160 x 120)
- Colors : 256 Colors 8-bit color depth
- No Compression
- Bitmap format (.bmp file)

At present (because of a lack of a more sophisticated image conversion algorithm built into PhotoUtilPC) the user (meaning you) has to use 3rd party imaging software to manipulate their images to meet these specs. Some people may find this hard or impossible because they've never done that. Unfortunately I can't offer any help because everybody has different imaging software and it will differ from person to person.

Locating New Images

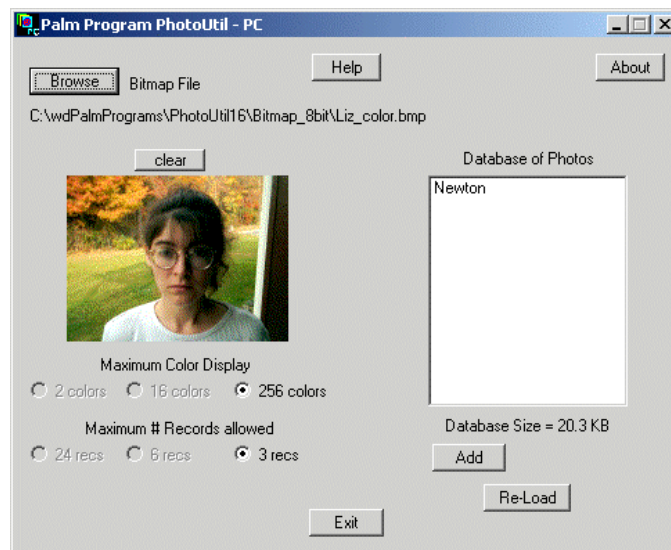
Now that you know, for a fact, that you have a compatible image, you have to select it. Hit the BROWSE Button, as stated in the previous section, and the following box appears:



I have located a file on my hard-drive (as shown above) in a folder that contains compatible images. After selecting an image, either double-click or hit the OPEN button.

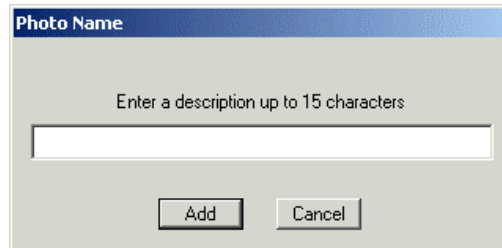
Viewing Images on your Computer

After selecting the image, you are now returned back to the Editing window with the new image shown in the window on the left:



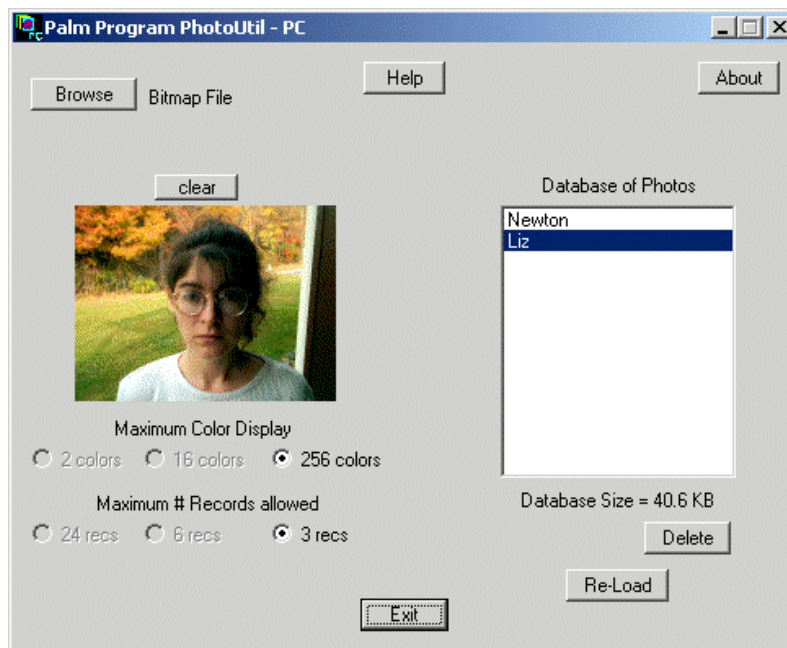
Adding Image to Database

You'll notice that an ADD button now appears below the photo database file ListBox. When you want to add the image hit the ADD Button and the following box appears:



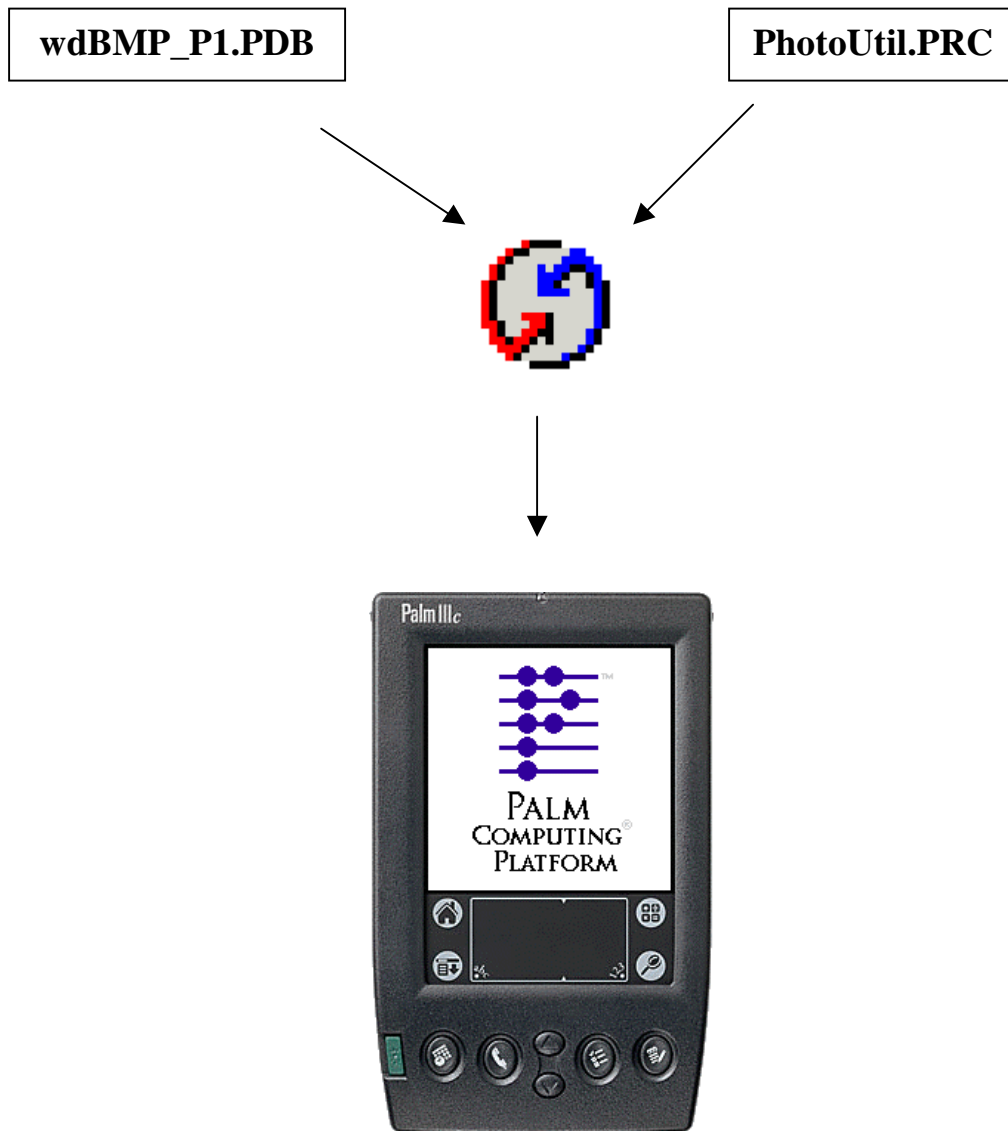
Simply type in a name (don't worry, you can later edit the name inside of your Palm) and hit the Add button. Also note, the Palm will Alphabetize the list and re-sort your database records, so don't worry about the order of the images as you add new images to the database ListBox.

Now the Image appears in the PhotoUtil Database and is displayed in the ListBox.



HotSync Database

You are now ready to add the newly created (or newly edited) photo database into your Palm. Hit the EXIT Button. Start your PalmDesktop Software or whatever it is you use to HotSync files (mostly the INSTALL TOOL). If you have to, make sure you also HotSync the Palm program PhotoUtil.PRC into your Palm, if you haven't done so already; this is the viewer for the photo database you just created.



Chapter 3 – PhotoUtil



Summary

This is the program that HotSyncs into the Palm called PhotoUtil.PRC. This is the program you will use on your Palm to view your Photo Database images. This is the Introduction Screen (also called the ABOUT Box) which contains the version # and the e-mail address and web-site of the developer.

Edit Screen

The edit screen allows you to play with your images.



Flip Button

Flips image upside down.

Diag Button

Flips image upside down but bottom left corner to upper right corner.

Mirror Button

Flips image from right to left.

Neg Button

Makes a Negative of the current Image.

RGB Button

Flips the RGB color table values.

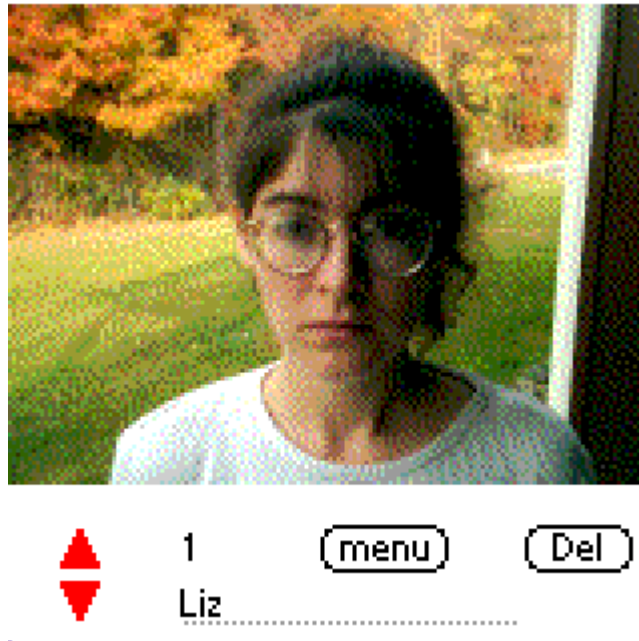
1-2-4-8 Buttons

Puts your Palm into different display modes: 1-bit, 2-bit, 4-bit, and 8-bit.

Menu Button

You can use this or your palm's menu button, either one will display a menu.

Name Screen



This screen shows your images with their description shown beneath. You can change the description if you want (up to 15-characters). The name is automatically saved as you toggle new images or exit the screen.

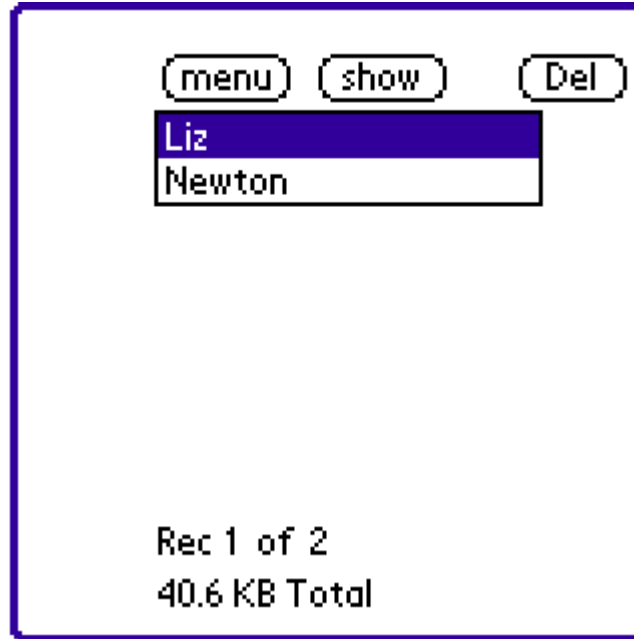
Del Button

Delete the photo from the database.

Up/Down Arrows

You can also use the scroll buttons at the button. If you have more than 1 image you can scroll back and forth through your database of images.

List Screen



The List Screen is a ListBox of all the photos currently in your photo database. The current size and record # of the selected image is shown at the bottom of the screen.

Del Button

Deletes the currently selected image from your photo database.

Show Button

Shows the currently selected image on the Edit Screen.

Menu Button

You can use this or your palm's menu button, either one will display a menu.