User Manual v4.01

The ***DarkRoom Wizard***™ *is a program that performs a number of tasks to make work in the darkroom more productive and more accurate. Various versions of this application has been in use WorldWide since its inception in 1995.*

Now available for the Apple iPad iOS 12.0+

Table of Contents

Table of Contents

Printing & Developing

Timing Devices

Data Charting

Table of Contents

Formulas

Reduce or Enlarge Print Sizes

This will calculate the time for a new print based upon the size & time of the first print and the size of new one. Variables that can affect the accuracy of this calculation are as follows:

1) Variations in voltage to enlarger during exposure if the lamp head does not have some sort of voltage or compensating circuitry.

2) Accuracy in both measurements.

3) Temperature variations in print developer temperature between first and subsequent prints.

4) Print agitation

5) Print Development time

Note:

If variations in these areas are kept to a minimum, accuracy between the original and new print size should be within ¼ of an f/Stop or less.

f/Stop Used: Select the f/Stop from the picker

Length of First Print: Enter the Length of one long or short side (*enter Inches in Fractions, Metric in decimals*.)

Length of New Print: Enter the Length of new print (*if using long side above, use same side here*.)

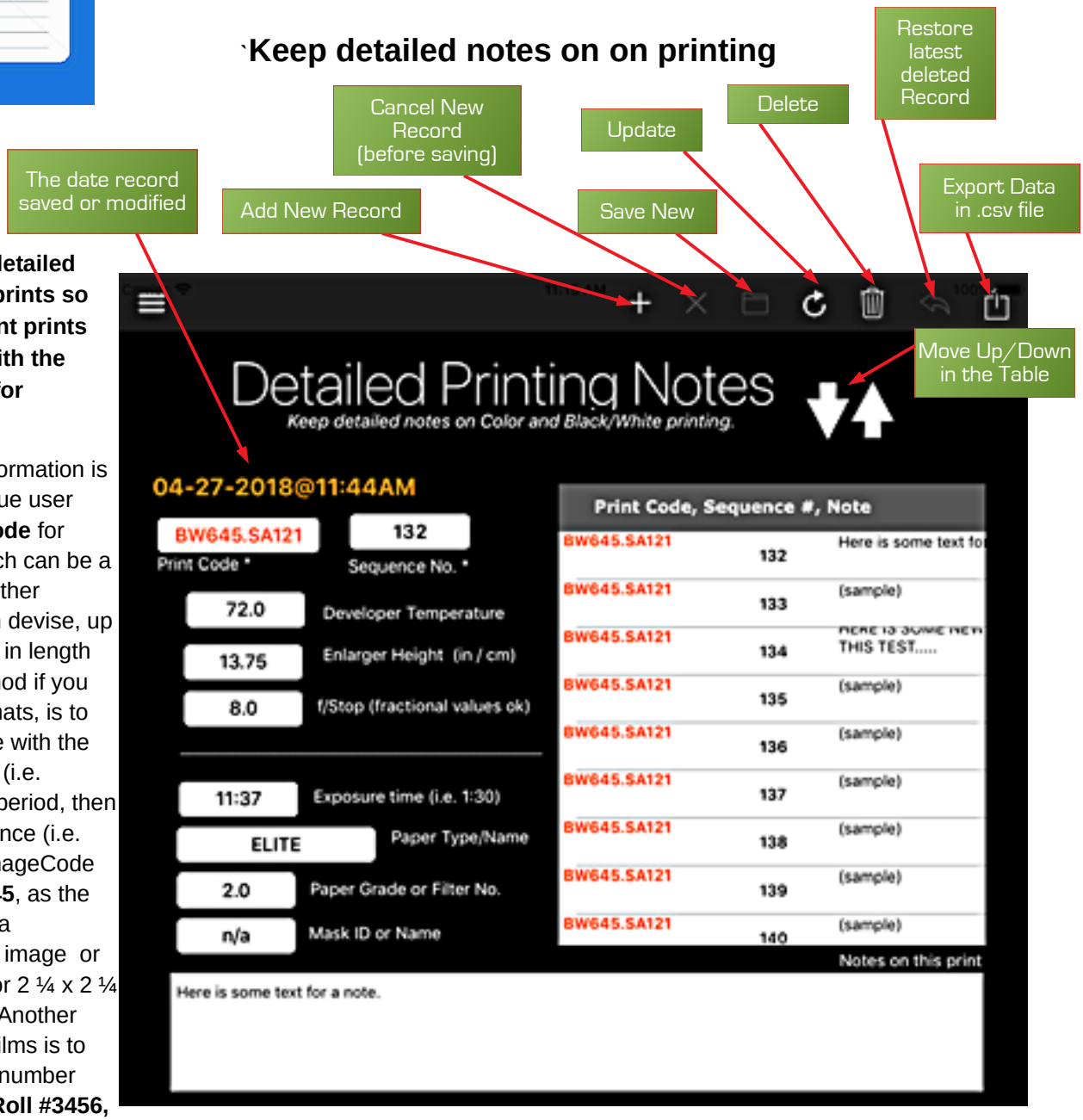
Time of First Print: Enter the time in minutes:seconds (I.e: 01:23 for 1 min, 23 sec.)

Calculate New Print Time. After calculating new time you can use the picker to change f/ stops and time.
Changing the picker f/Stop will change the new time based upon current settings and new f/Stop

Reset Button: Reset all values to blank startup values.

Detailed Printing Notes

`Keep detailed notes on on printing



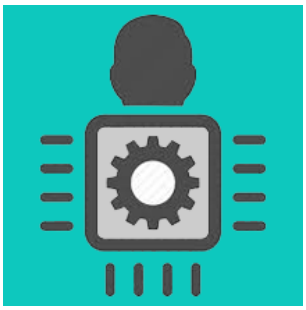
This will keep detailed notes on your prints so that subsequent prints can be made with the same settings for repeatability

[**Print Code**] Information is stored by a unique user defined **Print Code** for each image which can be a number or any other schema one can devise, up to 24 characters in length One useful method if you use several formats, is to preface the code with the film type, format (i.e. BW4X5) then a period, then a number sequence (i.e. 12345) for an ImageCode of **BW4X5.12345**, as the Image Code for a Black/White 4x5 image or CN6X6.00345 for 2 ¼ x 2 ¼ Color Negative. Another schema for roll films is to use a roll/frame number sequence, i.e. **Roll #3456, Frame #12 for PrintCode 3456-13, etc.**

[Seq No] A sequence number is needed for each print record for a given Image Code. This allows for multiple prints form a single code. Records will then appear in PrintCode/Sequence number order. The sequence number must be unique for each ImageCode, but does not need to be unique between PrintCodes.

A listing of print records are shown in a grid at the right, clicking on a list item will bring the record into the data fields for use.

—



Process Control

This is a process controller and will control a process of up to 24 steps with a drain time between each step.

1) Create a Process using the **Process ID** tab at the bottom of the screen

2) Enter the data for each step in the process using the **Process Edit** tab at the bottom of the screen

3) Once the data is entered into the database it can be recalled at any time by using the picker on the **[Run Process]** tab. You will be presented with a list of current processes, click on the one wanted and all steps will be loaded.

4) Pressing the **[Start Process]** button will start the loaded process at step #1. A count down of the time remaining for the current step will be shown in the Current Step Time Remaining box as the step time counts down and the total time remaining in the process will be show just above this box.

While the current step is in process, the data for the Next Step, will be shown in white just below the description and to the right of the volume and temp boxes.

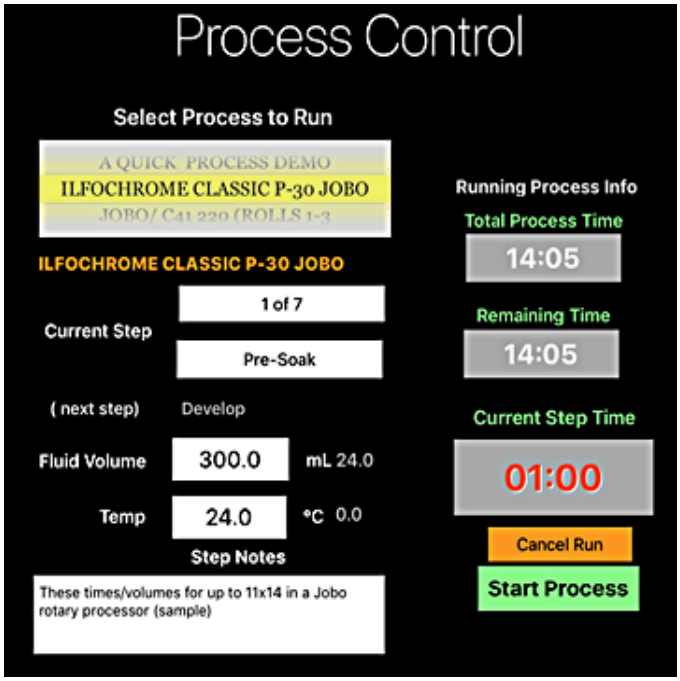
When the current step time reaches 00:00 a user selectable sound is played and the DRAIN box appears until the drain time is completed. The process will then Pause if "Pause at Drain" is selected or the next step then becomes the current step and processing continues. If paused, then pressing the **[Continue]** button will start the next step.

When the process is completed another user selectable sound is played and the **Process Completed** box appears. A process can be stopped while running by pressing the **[Cancel]** button.

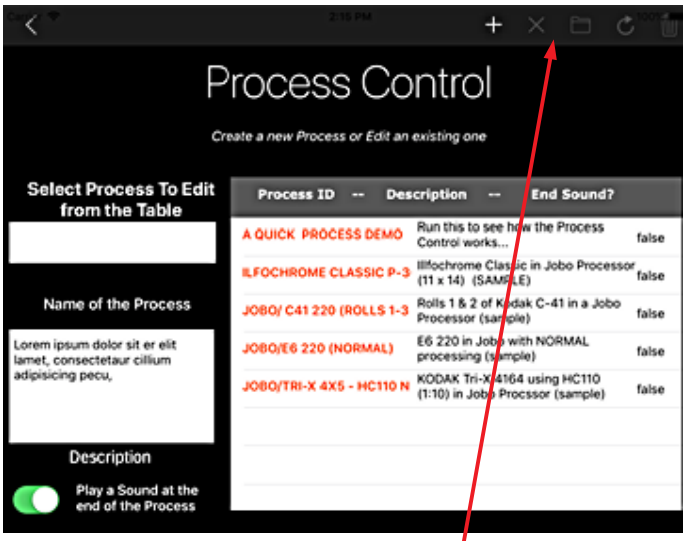
Process Run Screen

Select Process Picker	Select an existing Process to Run
Total Time for Process	Shows total time for current process
Remaining Process Time	Shows amount of time remaining in current process
Start the Process.	Run the Selected Process
Continue Button	Continue with the next step after draining, pausing after a step
Cancel Run	Stop the running process and clear all data

Process Control

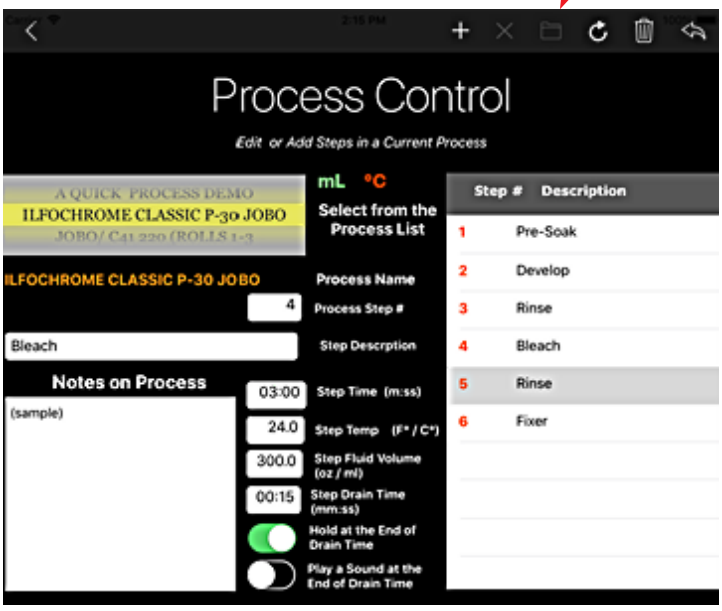


Process Run Screen



Process Edit/New Screen

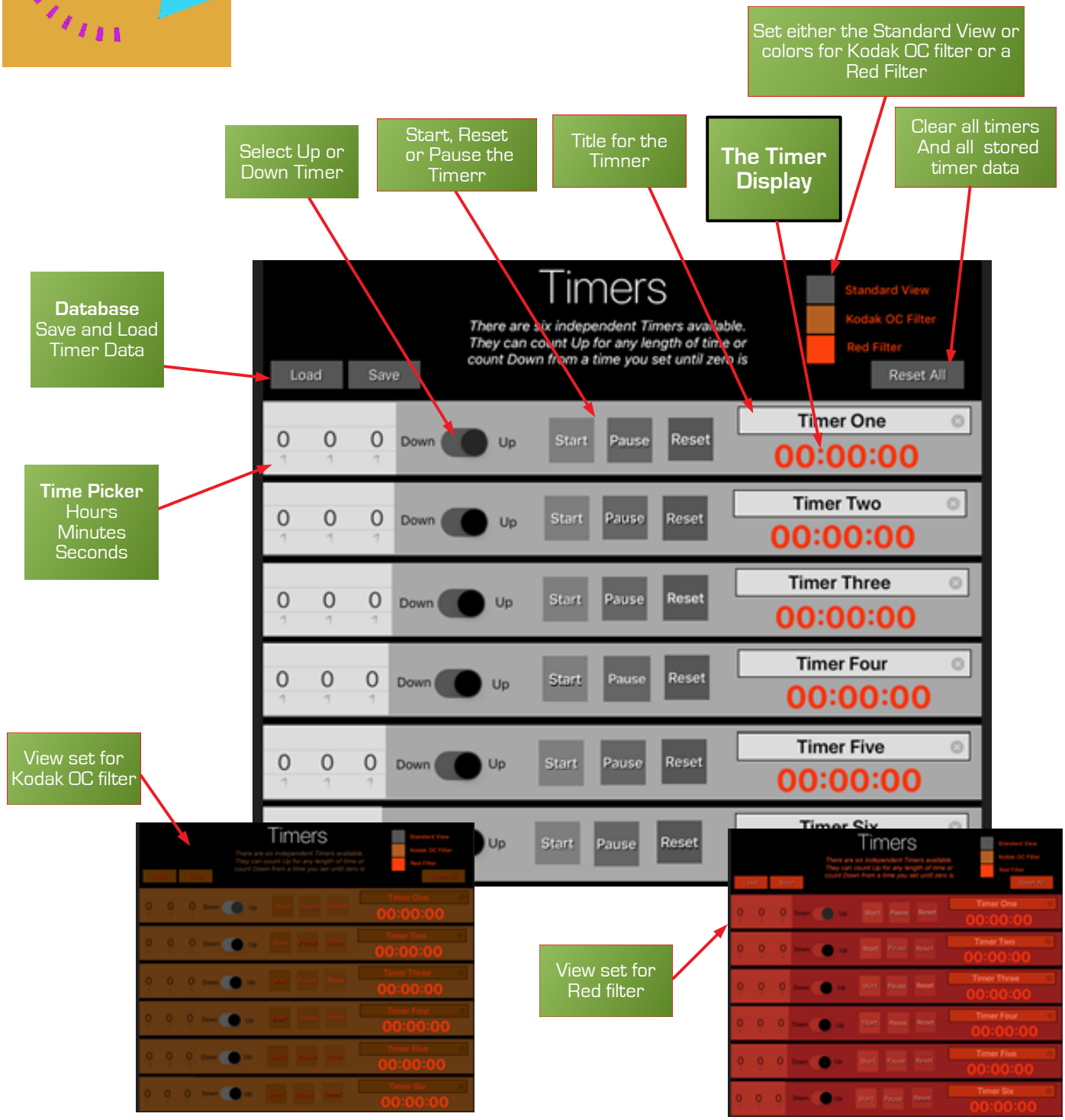
Add, Cancel, Save New, Update & Delete Records



Process Step-Edit or New-Step Screen

Timers

There are six independent Timers available. A title can be set for each Timer. They can count Up for any length of time or count Down from a time you set until zero is reached. Each Timer can have its own title of any length, which will appear on the Timer. Times can be saved and recalled at any time *(all six timers are saved and recalled at the same time). A sound can be played and/or a message can be shown when a time has completed.*



Charts

This section will create a graphic representation of any data entered into the grid section

Select an existing Chart from the picker list – OR –

1) Press the + button on the top menu to create a new Chart

2) Set all of the parameters for your Chart in each section

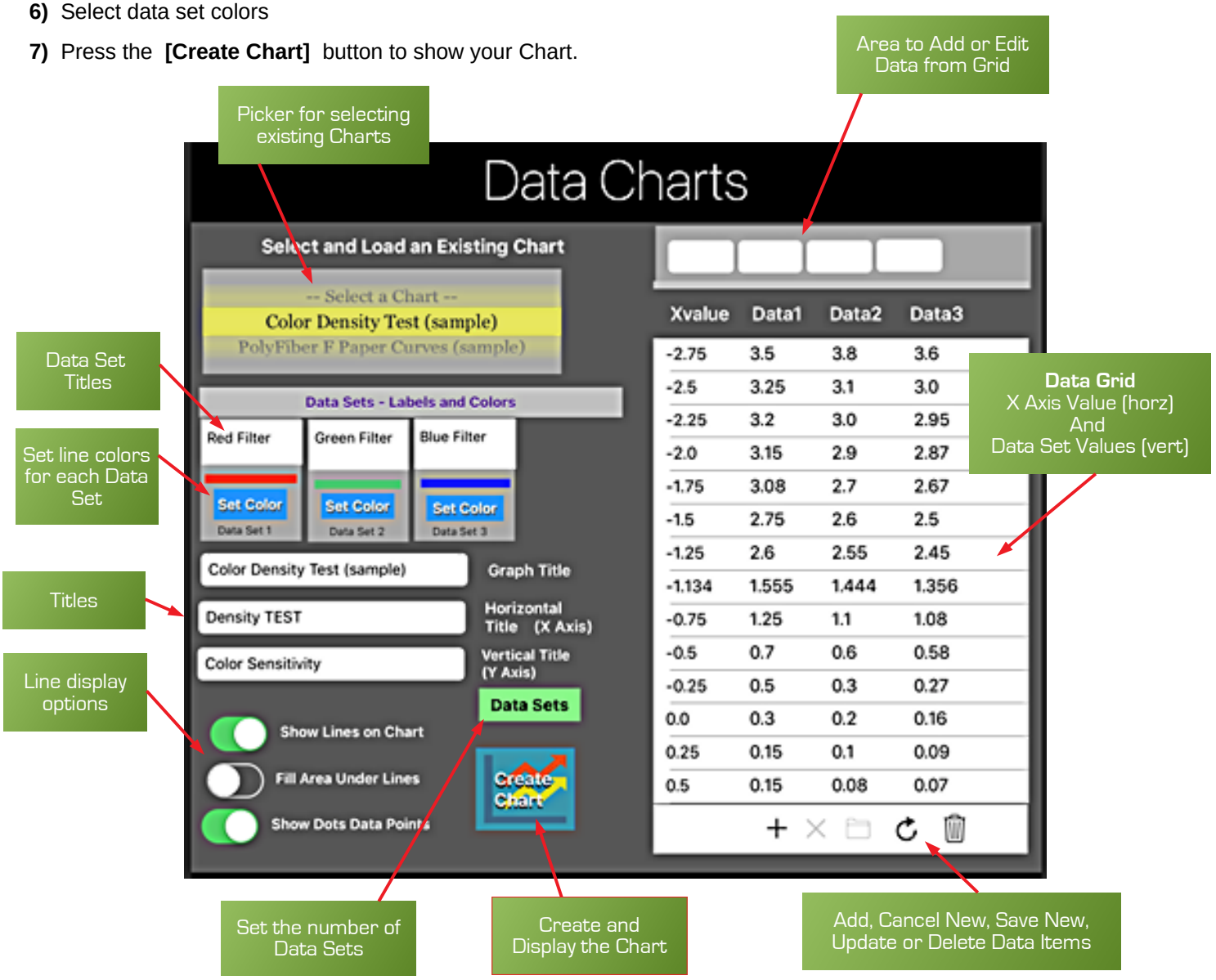
3) Enter the Legend titles for each of your data sets.

4) Enter the title for the vertical and horizontal axis and for the Chart

5) Enter you data into the data grid.

6) Select data set colors

7) Press the **[Create Chart]** button to show your Chart.

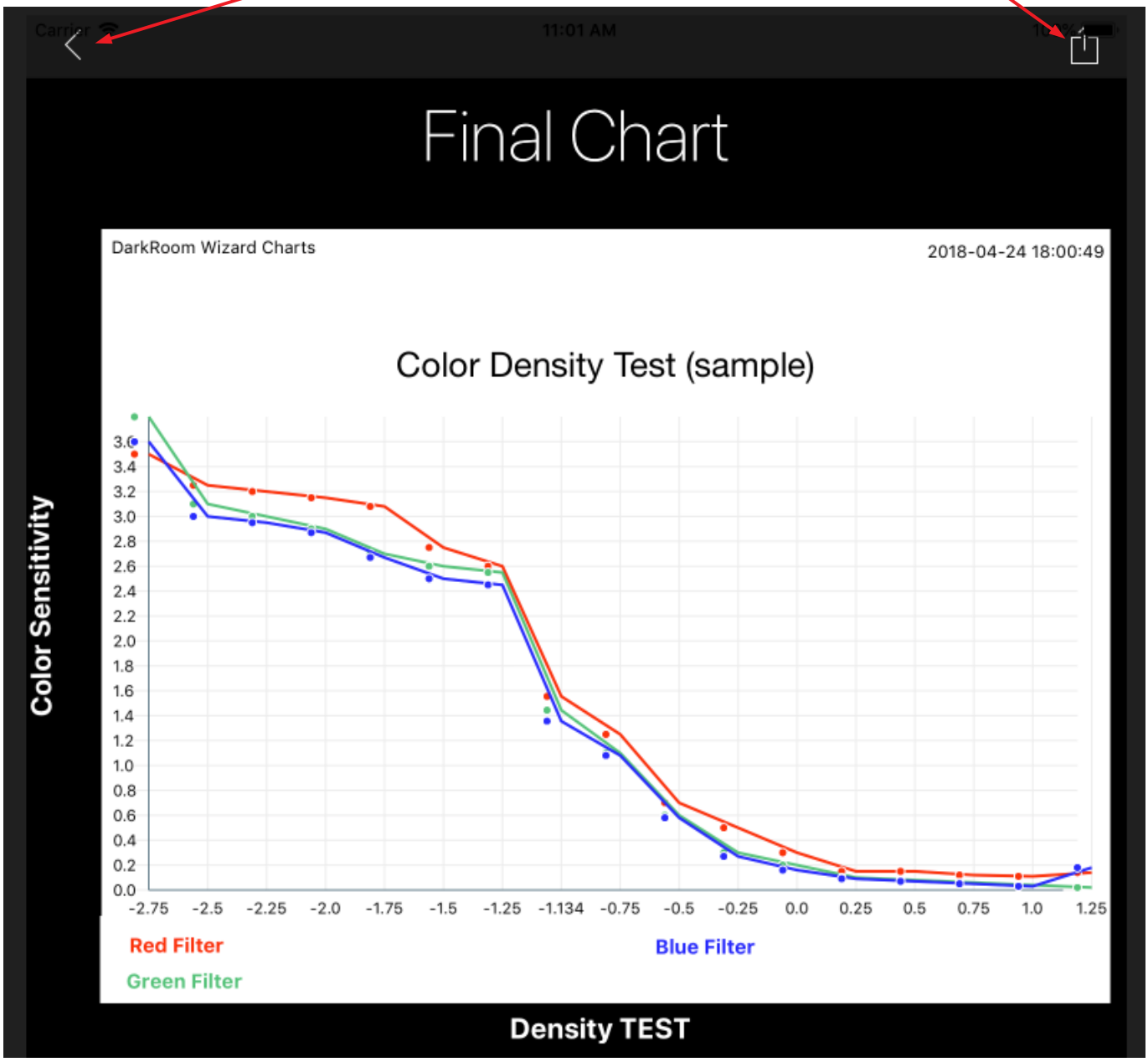


Charts

Final Chart Display from the data on the previous page

Return to the Chart data page

Share the generated Chart as a .png image



Mixture from a Concentrate

This will calculate the mixture percent of a volume a concentrate solution diluted with another solution, either another concentrate or water.

i.e. *1 Fluid Oz. of 28% Acetic Acid diluted with 15 Fluid Oz. of water gives a 1.75% solution of* **Acetic Acid.**

How to Use:

Percent Strength of Concentrate
Enter the % strength of the Concentrate used, *(i.e. 28 for a 28% solution.)*

Percent Strength of Diluting Solution (0 for water)
Enter % strength for the Dilute, *(use 0 if water used).*

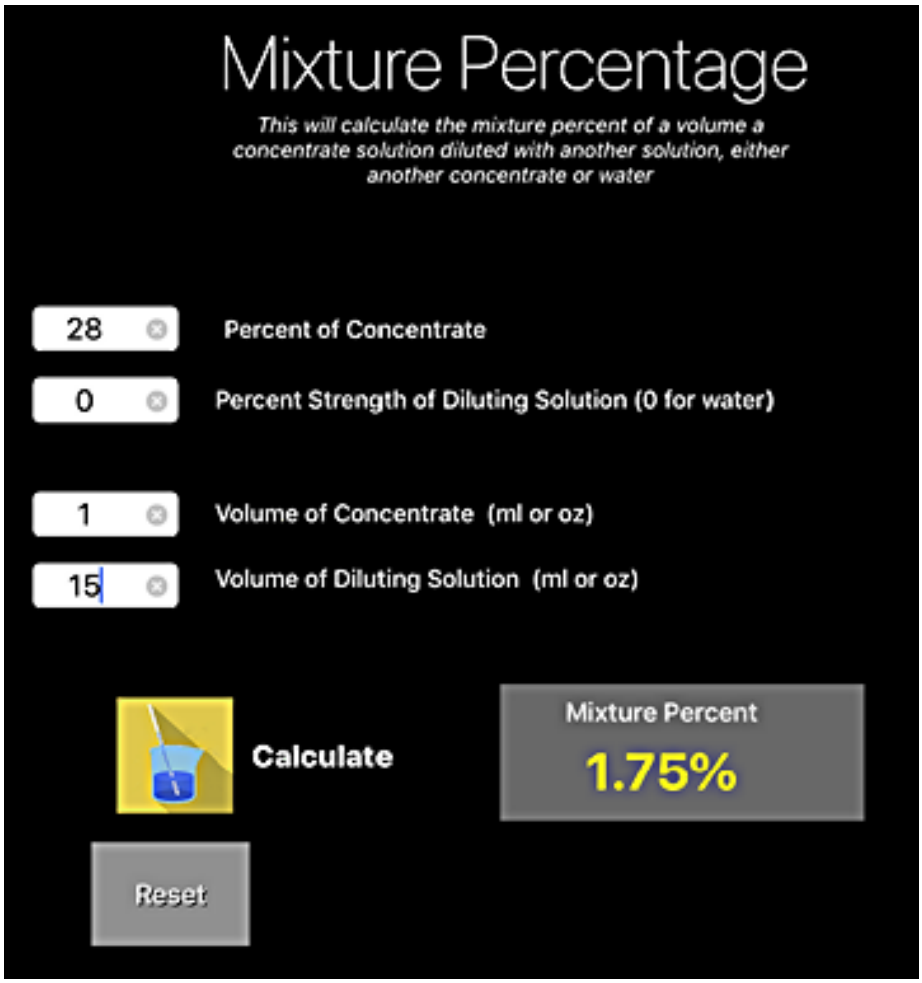
Volume of Concentrate (ml or oz)
The volume of Concentrate to be used.

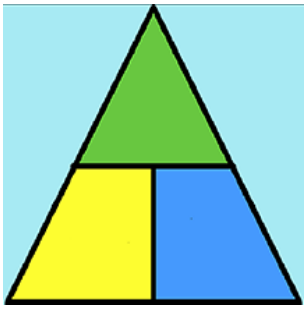
Volume of Diluting Solution (ml or oz)
The volume of the Dilute solution to be used.

Calculate Button
Calculate the Mixture Percent.

Mixture Percent Box
This is percent mixture of the concentrate and the dilute solution.

Reset Button
Reset all values to 0.





Volume by Percent

This will calculate the volume of a concentrate and the volume of water needed to create a specific volume at a particular percent of dilution.

i.e. You need 16 Fluid Oz of a 1% solution of Acetic Acid
You would use: *0.6 Oz of 28% Acetic Acid*
15.4 Oz of Water

How to Use:

Percent Strength of Concentrated Solution
Enter the % strength of the Concentrate, i.e. 28 for 28%

Enter final volume needed (ml or oz)
Enter the final volume needed in ml or Oz.

Enter final percent needed
Enter the final % needed, *(i.e. 3 for 3%)*

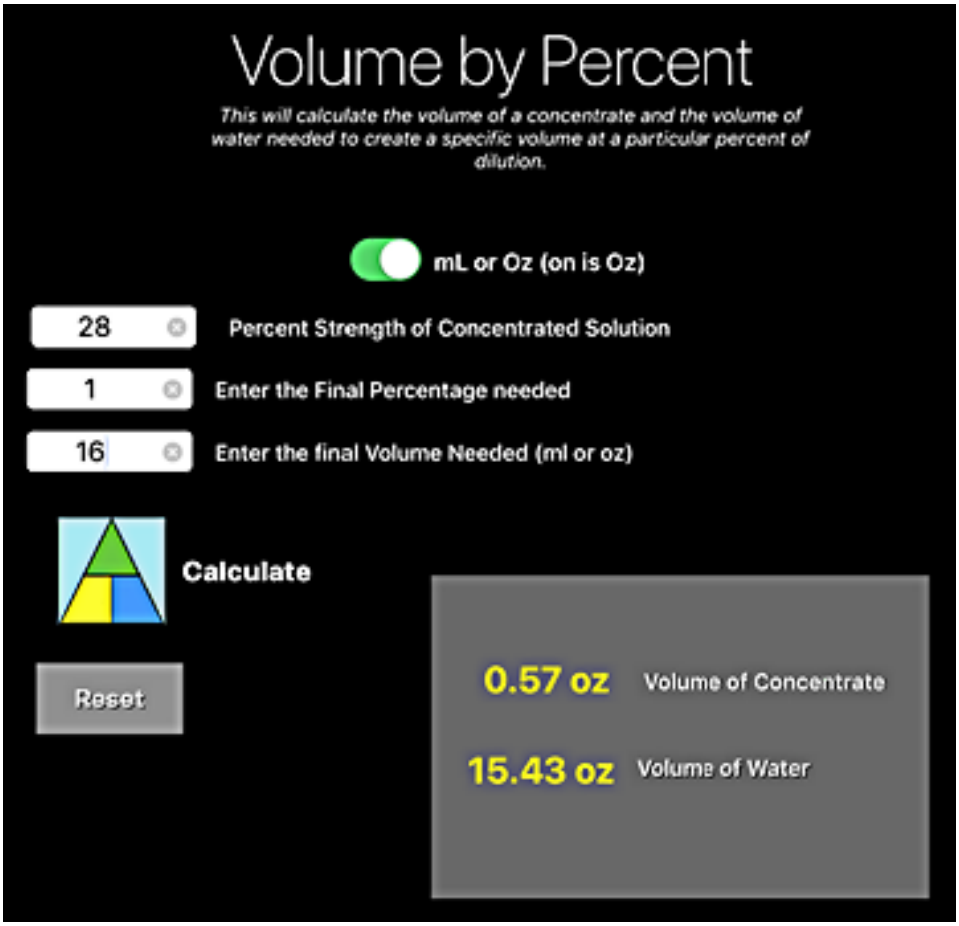
Calculate Button
Calculate the value

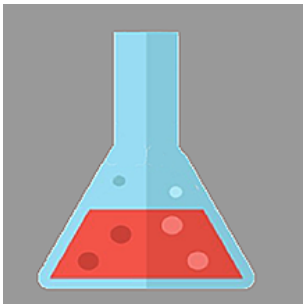
Volume of Concentrate
Volume of concentrate needed to create the % needed

Volume of Water
Volume of water needed to create the % needed

Reset Button
Reset to starting values

mL or Oz Switch
The Ounces or milliliter value is initially set on the Settings section of DarkRoom Wizard. This switch will override the *settings value temporarily.*





Dilutions

This will calculate the amounts of two solutions needed to make a third, given the ratio between the two and the volume of the third solution.

i.e. *You need to dilute your developer at a ratio of 1:7 and you need 330ml of dilute developer.*

You need: *41.2ml of Developer*
288.8ml of Water

How to Use:

Dilution Ratio (i.e. 1:10)
- **1** - Value for the Left Side of Ratio
- **2** - Value for the Right Side of Ratio

Final Volume Needed
The final volume of solution needed *(can be in Oz. or ml)*

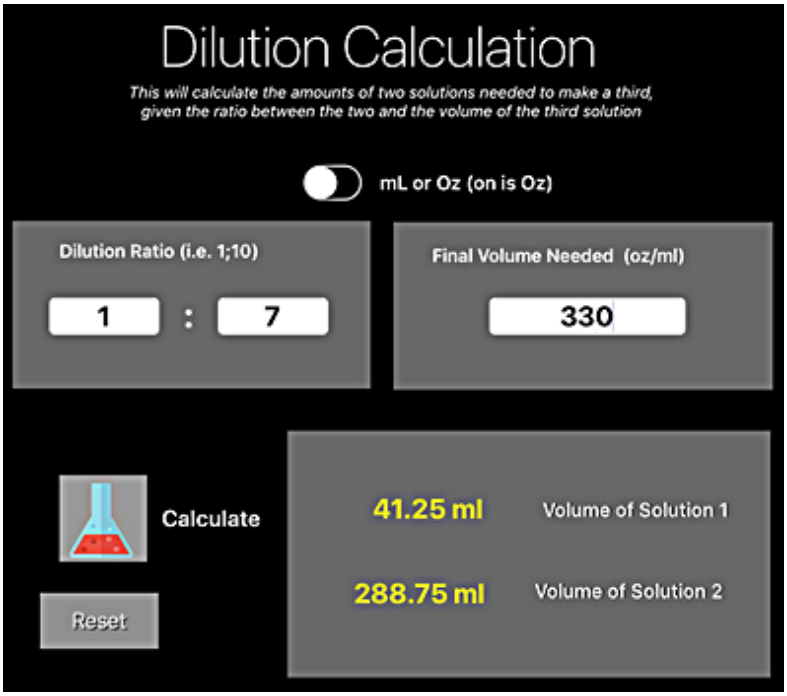
Calculate Button
Press to Calculate

Volume Solution 1
Volume of Solution 1 based upon Left Side of Ratio & Final Volume

Volume Solution 2
Volume of Solution 2 based upon Right Side of Ratio & Final Volume

Reset Button
Reset all Values to blank

mL or Oz Switch
The Ounces or milliliter value is initially set on the Settings section of DarkRoom Wizard. This switch will override the settings value temporarily.



Conversions

This allows for the conversion of measurements from one form to another.

It will convert Fluid, Dry Linear and Temperature measurements.

How to Use:

Select the type of Conversion with the **[Type of Conversion]** selector

Select the type of Measurement to **[Convert From]** by clicking on the picker value you want.

Select the type of Measurement to **[Convert To]** by clicking on the picker value you want.

Move to the **[Value to be Converted]** box, enter the value you wish to convert from into this box. This value may be entered as a decimal value for metric or US units.

When entry completed, press the **[Convert]** button to display the new value.

General Informati

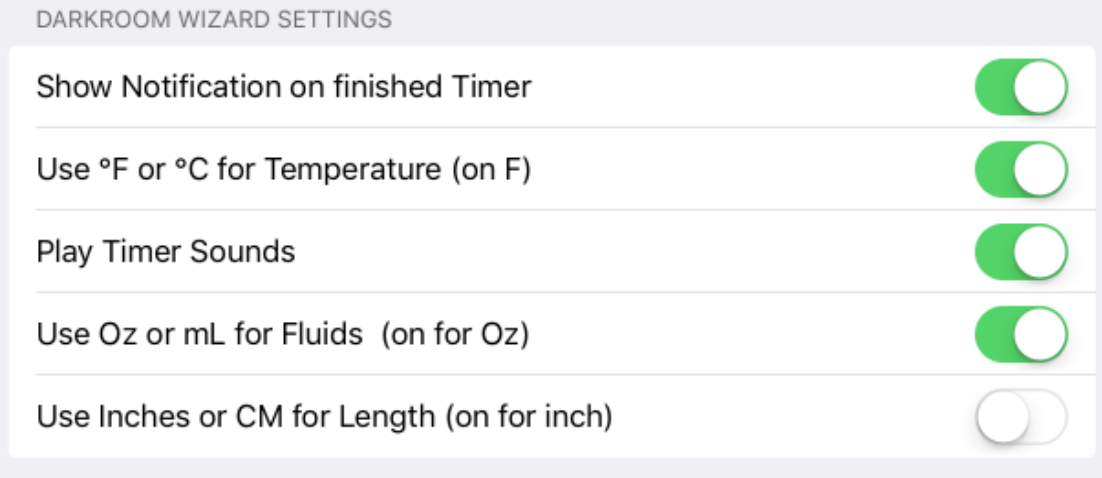
NOTIFICATIONS

*W*hen first starting the application, a box will pop-up asking if Notifications will be allowed for DarkRoom Wizard. If YES, then Notifications can be used with the Timers, if NO, Notifications cannot be used (*if NO, this can be changed in [Settings, DarkRoom Wizard, Notifications]*)

As shown in the Settings Box below, if YES was selected at startup, the Notifications can be suspended by setting the Notification switch.

SYSTEM SETTINGS

There are a number of settings available in the DarkRoom Wizard settings panel in Systems setting for DarkRoom Wizard:



Version 4 for the iPad is substantially the same as previous versions, with the same functionality as the original *(currently v2.1 for the Windows platform)* with some added abilities that are available on the iPad platform. The alarm clock sections in the original are not included in v4 as the iOS applications already have alarms available.

Original reviews can be viewed at:

http://www.photosoftsystems.com/products/drkWizard/dkwz_ca_review.php

http://www.photosoftsystems.com/products/drkWizard/shutterbug_review.php

Database Information

This app utilizes a SqlLite v3.0 database to store all of the information utilized by the various sections, with tables for each function that needs to store information. Stored data from the **Printing Notes** section can be Exported in a .csv (*Comma Separated Values*) file that that will easily import into Numbers or other data applications. Data from the **Process Control** and **Charts** sections are not as easily exported as each consists of more than one table.

The Main Screen has three Icons at the top right, the one on the left checks the database tables to make sure there are no orphaned records and the database is in valid condition.

The database is located in a section of the file structure that will be backed up whenever the iPad is backed up to either iCloud or your computer.

Database Information

This is the structure of the PrintNotes table:

Table name: PrintNotes — WITHOUT ROWID

	Name	Data type	Primary Key	Foreign Key	Unique	Check	Not NULL	Collate
1	ID	INTEGER						
2	ImageCode	VARCHAR (36)						
3	SeqNum	VARCHAR (36)						
4	Height	REAL						
5	fStop	REAL						
6	Time	TEXT						
7	Temp	REAL						
8	Paper	VARCHAR (36)						
9	Grade	REAL						
10	maskID	VARCHAR (36)						
11	Notes	TEXT						
12	prDateTime	REAL						

The two tables for Process Control

Table name: processID — WITHOUT ROWID

	Name	Data type	Primary Key	Foreign Key	Unique	Check	Not NULL
1	recID	INTEGER					
2	ProcessID	varchar (24)					
3	Description	varchar (256)					
4	SoundAtEnd	BOOLEAN					

Table name: processDetail — WITHOUT ROWID

	Name	Data type	Primary Key	Foreign Key	Unique	Check	Not NULL
1	recID	INTEGER					
2	processRecID	INTEGER					
3	detailID	varchar (24)					
4	stepNo	INTEGER					
5	stepDesc	varchar (256)					
6	stepTime	text					
7	stepDrain	text					
8	stepTemp	REAL					
9	fluidVolume	REAL					
10	stepHoldAtDrain	BOOLEAN					
11	stepSoundAtDrain	BOOLEAN					
12	stepNotes	VARCHAR (2048)					

Database Information

These are the Charting tables:

Table name: GraphID WITHOUT ROWID

	Name	Data type	Primary Key	Foreign Key	Unique	Check	Not NULL	C
1	ID	INTEGER						
2	GraphTitle	TEXT						
3	XTitle	TEXT						
4	YTitle	TEXT						
5	DataSets	INTEGER						
6	Legend1	TEXT						
7	Legend2	TEXT						
8	Legend3	TEXT						
9	Legend4	TEXT						
10	GraphLines	BOOLEAN						
11	GraphStyle	BOOLEAN						
12	ShowDots	BOOLEAN						
13	color1	TEXT						
14	color2	TEXT						
15	color3	TEXT						
16	color4	TEXT						

Table name: GraphDetail WITHOUT RO

	Name	Data type	Primary Key	Foreign Key	Unique	Check	Not NULL	
1	GraphTitle	TEXT						
2	GraphItem	INT						
3	XValue	REAL						
4	Set1	REAL						
5	Set2	REAL						
6	Set3	REAL						
7	Set4	REAL						
8	ID	INTEGER						

Data Privacy Information

All information within this application is retained within the application and the associated database and is not shared in any in any fashion (*with the exception of a user selected export of Printing Notes and a generated Chart***). There is no personal data of any kind collected by this application.**

The database itself is located in a protected location and is not available to users.

PhotoSoft Systems

Atlanta, Ga USA 30339

http://support@photosoftsystems.com

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