User's Guide for the

Eyeglasses Inventory Program Version 6.4-3 (or above) Including 7.6-3 and Glasses Reader Program version 3.2-4 (or above) Including 4.6-15

Kendall Optometry Ministry, Inc.

Written By

Holland Kendall

hollandkendall@kendalloptoministry.org

President

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Kendall Optometry Ministry, Inc.

http://kendall-optometry-ministry.org/

Phone: (502)-640-2227

Fax: (502)-416-0015

PN: 10023 $25

Revision History

Date	Location of change.
9-1-2009	Cover page fax number.
9-1-2009	Appendix K - GR: Transferring your inventory to the KOM Laptop
6-14-2010	Updated to GI version 7.0-3 and GR version 4.0-3.
8-16-2010	Updated to GI version 7.0-4.
9-24-2010	Updated to GI Version 7.1-1 and GR Version 4.1-0.
2-10-2011	Updated to GI Version 7.1-3 and GR Version 4.2-3.
8-9-2011	Updated to GI Version 7.1-6 and GR Version 4.2-5.
10-20-2012	Updated to GI Version 7.2-2 and GR Version 4.3-1.
4-13-2013	Updated to GI Version 7.4-3 and GR Version 4.4-3.
5-7-2014	Updated to GI Version 7.5-3 and GR Version 4.4-6.
8-15-2015	Updated to GI Version 7.5-7 and GR Version 4.6-1
7-20-2017	Updated to GI Version 7.5-9 and GR Version 4.6-9
8-24-2018	Updated to GI Version 7.5-10 and GR Version 4.6-12
4-5-2019	Updated to GI Version 7.5-13 and GR Version 4.6-12
3-5-2021	Updated to GI Version 7.6-3 and GR Version 4.6-15

Table of Contents

1.0 Introduction

With primary emphasis in underdeveloped countries, Kendall Optometry Ministry, Inc. was established in 2003 to spread the Word of our Lord and Savior Jesus Christ. This is accomplished by providing glasses to improve the vision of people living in many underdeveloped countries. These impoverished people can now see to read their Bible, and also improve their standard of living.

Kendall Optometry Ministry, Inc (KOM) is a 501-3c non-profit organization formed to provide optical equipment and training to Christian optical mission teams traveling all over the world. The equipment and training is provided at no cost and supplies are provided at a break even price. Teams are responsible for building their own eyeglasses inventory but much assistance (in the form of training and software) is provided by KOM to build this inventory. KOM also has a limited supply of barcoded glasses (prescription in barcode) which can be used to quickly build an inventory.

KOM has spent years developing programs and procedures for glasses ministry. The goal of this document is to give relevant and easy to use information about the use of both KOM programs in an optical clinic environment. To present this information quickly, many pictures are employed throughout.

The Eyeglasses Inventory Program (Version 6.4-3 or above) is used to dispense glasses in the optical clinic while the Glasses Reader program (Version 3.2-4 or above) is typically used in advance of the clinic to build the inventory and to update the inventory when the clinic is not in operation.

Glasses Inventory has now been updated to version 7.6-3 to provide support for Windows VISTA, 7, 8, 8.1 and 10 with 32 & 64 bit operating systems and work in a wireless network of multiple PCs. Also, support for the Nidek HandyRef autorefractor was added. Additional features have also been added to this program to provide more valid matches. Detailed documentation of these new networking features are outlined in a document entitled “Running Multiple Glasses Inventory Systems on a Single Physical Inventory-Version 2”. Appendix R shows the network drawing for such a system. KOM provided the wireless system, all laptops and 3 out of the 4 autorefractors.

Glasses Reader has been upgraded to version 4.6-15 to support the additional operating system versions up to Windows 10, new lensmeters and features of existing units plus enhancements for network operation. Support to allow vacancy labels and 2 types of update inventory labels to be printed on the DYMO printer was added, several bugs were fixed and the ability to flag reading glasses was also added. This document details the differences to accomplish this new compatibility.

Note that Appendices with “GI:” in front of their name apply to the Eyeglasses Inventory program while those with “GR:” in front of their name apply to the Glasses Reader program. Those Appendices without the GI or GR or with a GI & GR prefix apply to both programs.

2.0 Getting Started

The most frequent question asked is "How do I get started". This section should help you.

There are two programs. Both programs have been tested and work in Windows 2000, XP, VISTA, 7, 8, 8.1 and 10 (both 32 and 64 bit versions). Windows 10 introduces a "feature" called Virtual Store. See Appendix F as to how to resolve this issue. Programs are provided on a CD which when inserted brings up a browser window. Only Internet Explorer versions 6 through 11 plus Windows 10 EDGE have been fully tested except to play video training under Windows 10 you need to use IE 11 and Adobe Shockwave Player (http://www.adobe.com with download link at bottom of page). Do not use any other version of browser. Do not use Chrome or FireFox browsers. Screen resolution for both programs must be 1024 x 768 or above. Part of the program window will be cropped if the resolution is less. Video training is also available on my website on YouTube. The Glasses Reader program (Section 3) is used to BUILD your inventory before or replenish it during your trip. The Glasses Inventory program (Section 4) is used to DISPENSE your inventory in the clinic.

Since you first need to build your inventory, the first thing you should do is install the Glasses Reader program. Use this program to build your inventory. Installation instructions are on the Glasses Reader CD. Insert the CD and a web page will be launched from the CD. If Internet Explorer isn't your default browser, launch it and enter **D:\Index\Index.html** where "D" is your CD drive letter. To find Internet Explorer under Windows 10 go to **C:\Program Files (x86)\Internet Explorer** and launch a file named **iexplore.exe** Now page down a small amount until you see an Install link. Click this link and do the installation. Take all defaults. After the installation is completed, do not launch the program until you click the update link just a few lines below the install link. Install this update. There may be 32 or 64 bit update links. Be sure to click the right one. Check and apply newer updates as shown in the below paragraph. Launch the program and setup the options window (which appears first) showing in Appendix H.

Sometimes Nortons Security will block the installation and operation of the programs. Please refer to another document called "**Unblock Nortons Security for Eyeglasses Programs**" to resolve this issue.

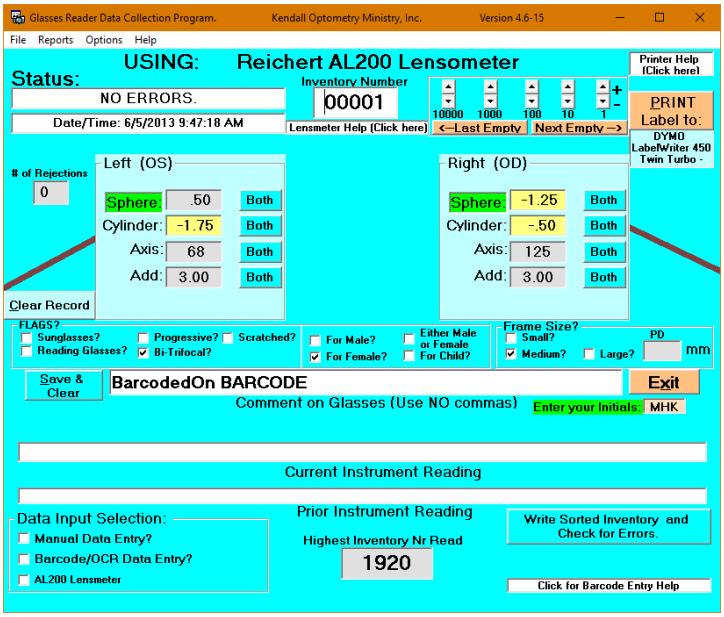
After you have built your inventory, install the Glasses Inventory program on the same PC. Installation instructions are on the Glasses Inventory CD. Install it the same way as you did the Glasses Reader program. Do the latest update. There may be 32 or 64 bit update links. Be sure to click the right one. Check and apply newer updates as shown in the below paragraph. Always apply the latest update patch. Launch the program and setup the options window (which appears first) as shown in Appendix F. Now transfer your inventory from the Glasses Reader program to the Glasses Inventory Program. (Sections 5 through 6) Examine your inventory to be certain it is what you expected.

Updates: A huge amount of documentation plus program updates is available from Kendall Optometry Ministry. You can download much of it by clicking on the following hidden link on the Kendall Optometry Ministry website: http://kendall-optometry-ministry.com/kendall-optometry/id39.htm Many of the links mentioned in subsequent sections of this manual are from this area of the website. Links to many YouTube videos are also here. You can also go to this link for the videos: http://eyeglasses-inventory.org/id22.htm

Both installation CDs have extensive documentation which is both in PDF format and also video format. You can watch a program narration being used in different situations. A DVD is also available to show you how to use the Retinomax 2 autorefractor. The Retinomax 3 is almost identical in operation.

Don't be afraid to play with the programs to understand how all program features work. If you would like some practice inventory to use before you build your actual inventory, send a request to this E-Mail link: hollandkendall@kendalloptoministry.org You can also find practice inventory and instructions in the Glasses Inventory CD **Practice-Inventory** folder. This document should help you accomplish your goal to understand how these programs work. As you read this manual use both programs.

3.0 Building/Preparing your inventory using Glasses Reader.

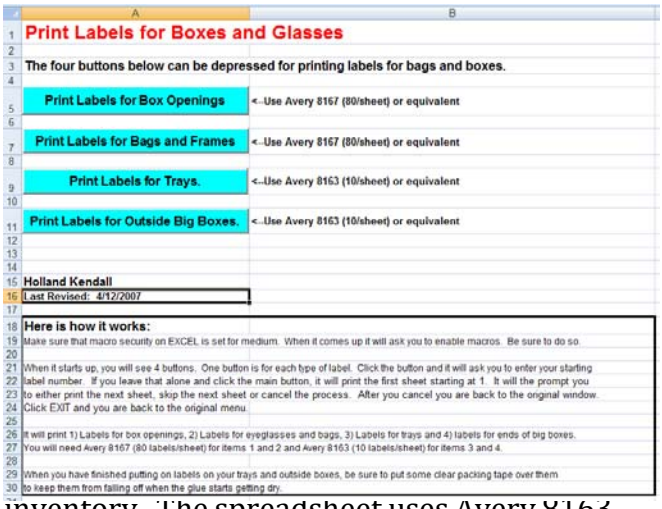


The Glasses Reader program is used to build your inventory in advance of your trip. You can also use it to replenish your inventory during the evening. To the right is a copy of the main window of the Glasses Reader program. Refer to Appendix H to set up the Glasses Reader Options window which must be done when you initially setup the program for operation.

The Glasses Reader program is used to build your inventory from 3 different sources. 1) manually entered glasses, 2) barcoded glasses and 3) glasses being measured by a lensmeter. The automatic reader detection feature training video is at this link:

https://youtu.be/i6v5y3_4O5s

3.1 Printing Labels for Glasses and Boxes.



Before entering any glasses, it is necessary for you to print labels to go on each pair of glasses. This gives a unique number to each pair of glasses. You can produce these labels using a spreadsheet named **Boxes and Glasses Labels Automated**. You can get a copy of this from the Excel directory of the Glasses Reader CD or you can download a copy of this directly from the website at this link:

http://kom-inc.com/documents/Auto-Label.xls

As you can see to the right instructions are built into the spreadsheet. It uses Avery 8167 labels for the temple of the glasses and the top edge of the bag. The same label type is used for the openings in the Eyeglasses Inventory boxes. You need three[1] 8167 labels for each pair of glasses which will be placed in inventory. The spreadsheet uses Avery 8163 (or equivalent) for the ends of the trays and the large boxes. You need six 8163 labels for each Eyeglasses Inventory Box that you use. Four of them go in each ends of the two trays while 2 more go on the ends of the outer box. Be sure to place clear packing tape over the large labels to keep them from peeling off. Realize that these labels can be printed on the DYMO labelwriter also.

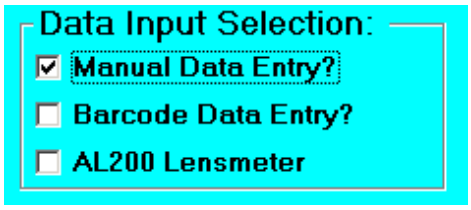
After you have labeled all your glasses you are ready to enter the data into the program.

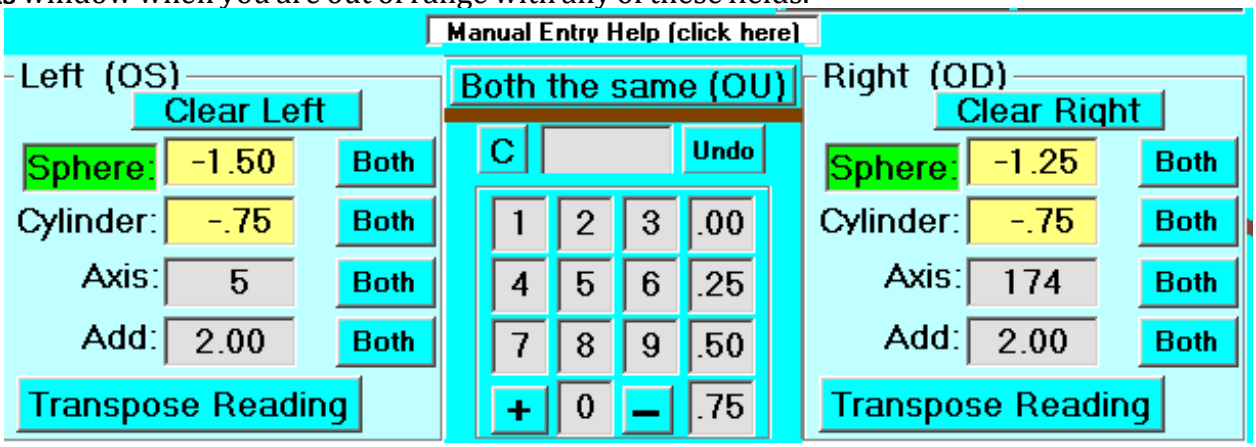
[1] Three labels are needed for each pair of glasses because you place one label on the top edge of the Ziploc bag, one label on the temple of the pair of glasses and a third label on the opening in the box which stores the glasses.

3.2 Manual Data Entry

Instead of using the automatic entry method, the program allows manual data entry should you already have a large collection of measured eyeglasses. Manually entering glasses is faster than Lensmeter data entry in speed to input glasses into your inventory.

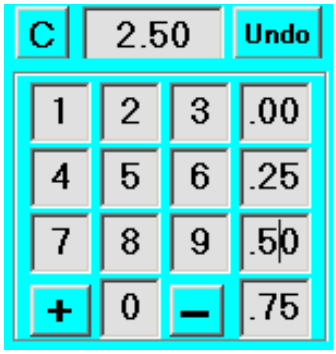
To enter the manual entry mode click the "Manual Data Entry?" checkmark as shown in the Data Input Selection block at the bottom/left of the main window as shown to the right. You will see the manual mode entry window below appear. You are entering 4 different fields: Sphere (+ and -), Cylinder (– only)[2], Axis (0-180 only) and Add (+ only). Errors will appear in the **Status** window when you are out of range with any of these fields.





Notice the numeric entry panel which has been created in the center of the window. The **C** is to clear the field while the **Undo** is to undo the very last click (only).

For detailed information about manual entry, click the **Manual Entry Help** white bar or go to Appendix I. Below are a few hints.

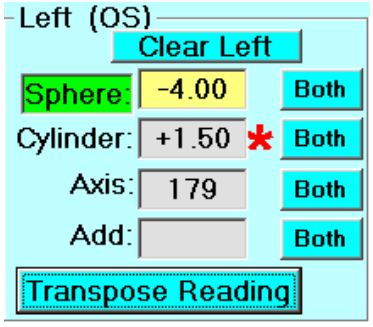


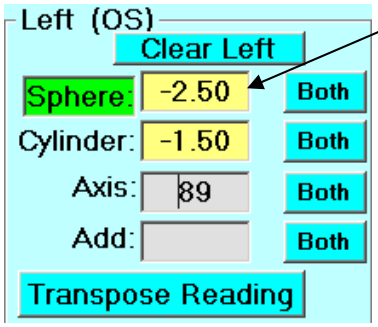
The numeric input pad allows you to build a number to go into any of the fields on the screen. For example if you click 2 and then .50 you will see the graphic to the right. As you click numbers in the entry pad, they will be assembled in the field at the top/center. If you want the field to be a minus field, click the minus key also. "+" (plus) is implied by default.

Now if this is a number to go into the left sphere then click into the left sphere field and you will see the next graphic to the right. If you decide after you enter this field that it is wrong, you can double click it to clear the field. If you decide that it should have been entered as a minus number, double click the green **Sphere** and the sign will be reversed and you will see the graphic to the right.

[2] Plus cylinder can be entered by changes in the **Options** window but minus cylinder notation is the standard used for these programs.

For compatibility with the Eyeglasses Inventory program the cylinder is entered in the minus cylinder notation. If you are entering glasses in plus cylinder notation, click the **Transpose Reading** button before saving the entry. Here is an example of what happens:

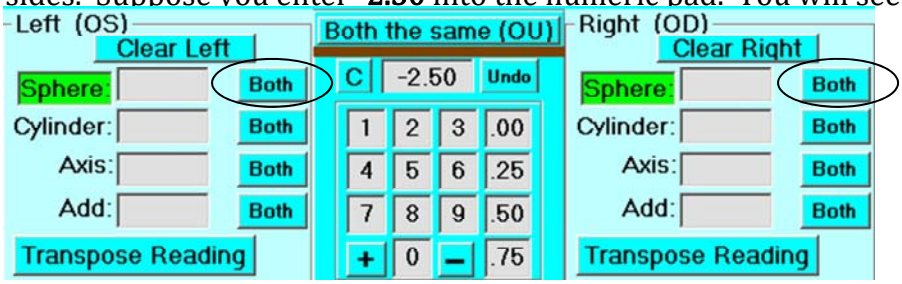




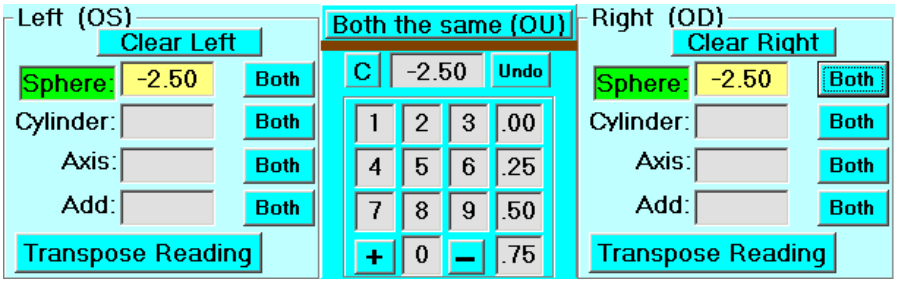
Minus entries always have a yellow background.

Enter the left graphic (plus cylinder notation), click **Transpose Reading** and you will see the right reading (minus cylinder notation). At this point you can enter the other eye, transpose if necessary and then click the SAVE button to save the results. Notice that a large red asterisk appears to the right of the plus cylinder. To the left of this cylinder entry you will see: PLUS! –> This is a warning that you are entering plus notation which is not compatible with the Eyeglasses Inventory program. There is an options window setting which when checked forces all cylinder entry to have a minus sign added. It is this option: → ☑ Add Minus "-" to cylinder

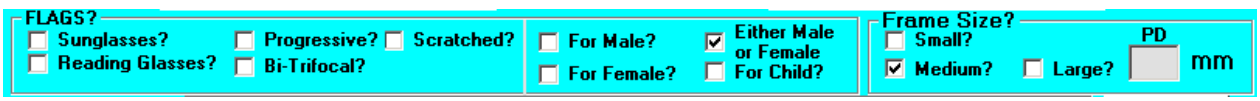
Notice that over the left entry area there is a **Clear Left** button and over the right entry area there is a **Clear Right** button. Click these buttons to clear the entire entry area for one eye or the other. Along the left and right entry area you see a series of **Both** buttons. If you enter a number into the numeric pad and click the appropriate **Both** button, this number is duplicated on corresponding fields on both sides. Suppose you enter **-2.50** into the numeric pad. You will see the below.



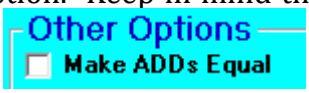
Now if you click either **Both** buttons circled above you will see the below.



You have now entered both the left and right sphere with just one click of the mouse. At this point you will need to click on the appropriate flags from the below graphic:

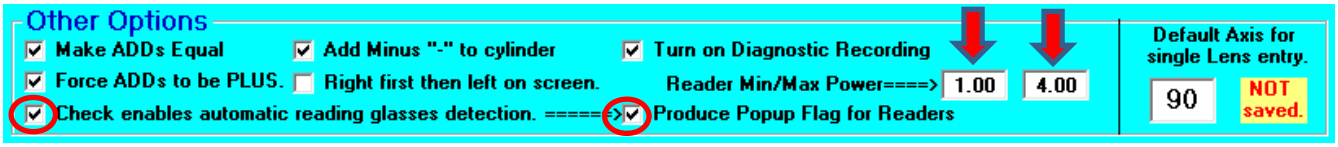


You next click Click **Save & Clear** to save your entry. If you enter a completed prescription on one eye and you want this prescription to be duplicated on both eyes you can click the button entitled **Both the same (OU)** and both eyes will be the same prescription. Keep in mind that when you enter an **Add** by default it is duplicated on both sides unless

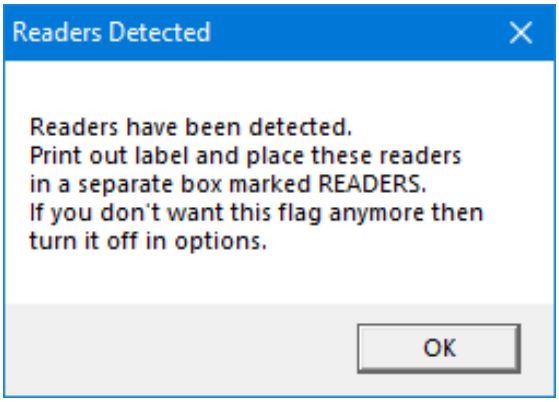


is unchecked (as shown) in the options setting. If this is not correct, it can be overwritten.

The program also has a feature to automatically detect reading glasses. This feature is in effect when you are manually entering glasses, barcode entering them or measuring them into the program using a lensmeter. You enable this feature by going to the options setting of the program to the areas:



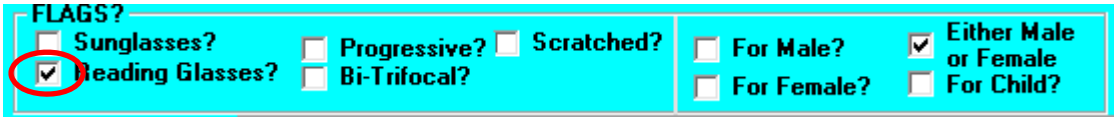
It will do the automatic reader detection if you click the first checkmark. However, if you click the second checkmark it produced a popup like the below alerting you to the fact you are entering readers into the system.



Readers are defined as any glasses with these characteristics:

1. Spherical powers as shown by the fields pointed to by the red arrows above.
2. Spherical power of 4.25 will be tagged as readers as long as the other eye is 4.00
3. Left and right sphere must be within .25 of each other.
4. Cylinder must be -.25 or less.
5. They must be single vision glasses and not Bi-Focal or Progressive.

If you are measuring glasses into the system then we usually print the label and put readers aside to be sorted later and to be matched to the patient using the reading chart. You can remove this popup if you clear the second circled option above. If you are doing manual into the system you may want to turn off the popup option. It is automatically turned off if you are doing barcode entry. However the Reading Glasses flag on the main menu is always turned on as you see circled below when readers are detected.

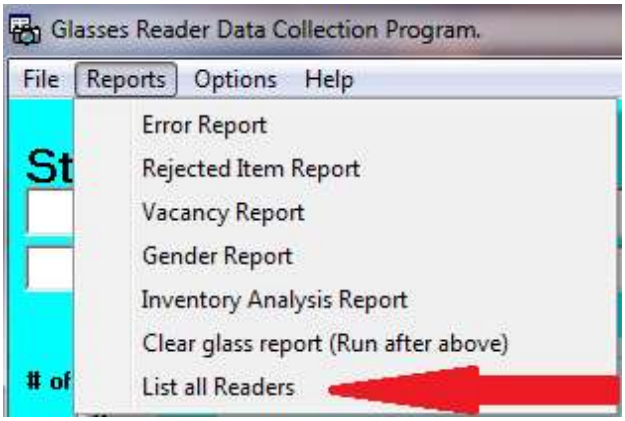


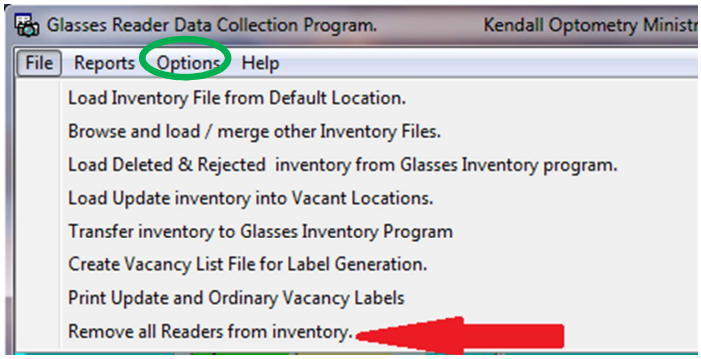
3.3 Glasses Reader New Features.

While Version 4.6-12 allows you to flag readers when they are measured, Version 4.6-13 added a feature to allow the removal of readers from the inventory. It also prevented the execution of multiple copies of the program. If you try to execute a second copy of the Glasses Reader program you will get the error message to the right.

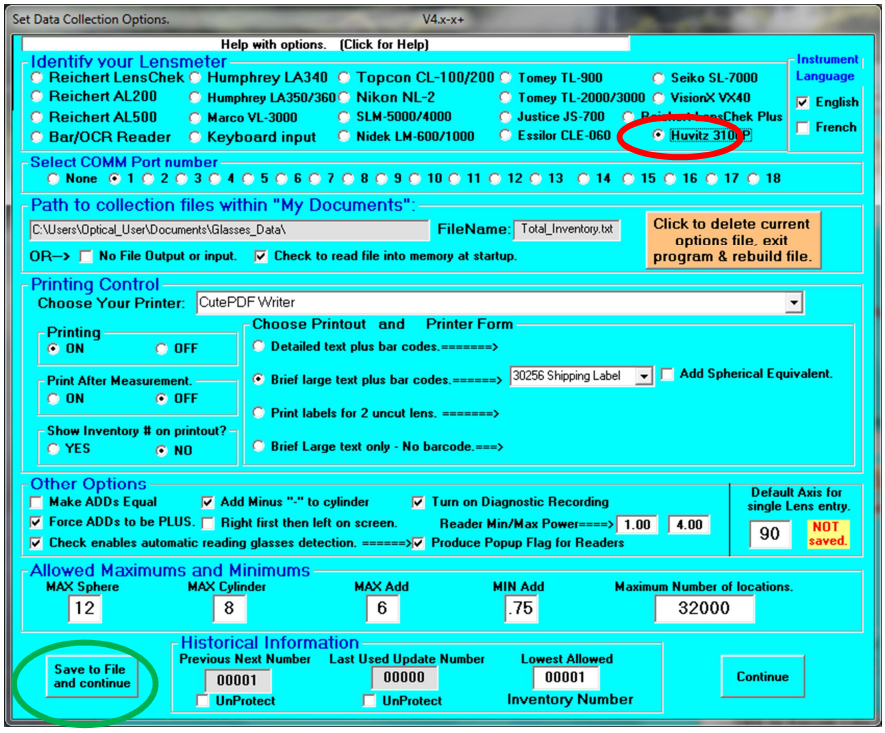
You can also use Glasses Reader to list all the readers in your inventory by clicking on **Reports** and then select **List all Readers** as you see to the right. =□

You can also remove those readers by clicking on the **Remove all Readers from inventory** selection shown below by the red arrow.



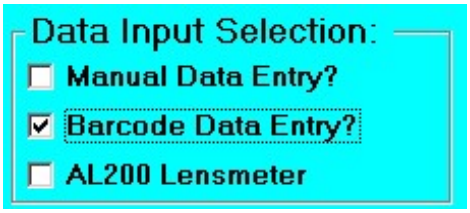


Glasses Reader Version 4.6-14 added support for the Huvitz CLM-3100P lensmeter shown to the left. You select that lensmeter by clicking on Options (circled in green above) to see the below window. Click on the selection circled in red below.



Click on the Save to **File and Continue** button circled in green to the right and you will be ready to use the instrument. Here is a link to a YouTube video showing how to operate this instrument. https://youtu.be/hsiNUnpPqzE

3.4 Barcode Data Entry



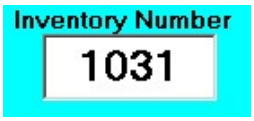
Barcode data entry is by far the fastest way to enter glasses into your inventory. When you use barcode entry, with practice you can enter 50 pair of glasses into inventory in 4-5 minutes. Follow these steps for barcode data entry. 1) click the checkmark identified as Barcode Data Entry as shown in the graphic in the top/right. You will then see a yellow button as you see to the right. 2) Click this button and you will see the window below appear at the top of the screen. The primary window you had before cannot be accessed unless you click HIDE on the window below.

Click **Expand Window** and you will see:

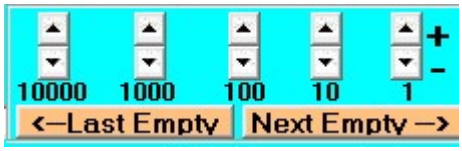
Whenever you are scanning glasses into inventory if you have the **Check enables automatic reading glasses detection** in the options enabled, the readers flag will automatically checked for readers. If you have clicked the option **Produce Popup Flag for Readers** the popup window will be turned on and will appear for barcode reading but the **Reading Glasses** flag will be checked.

For detailed information about doing barcode data entry with Glasses Reader do **Help Barcode Data Entry** or go to Appendix J of this manual. You should also download and print the barcode data entry sheet from the below link. You can see a sample of this sheet on the next page.

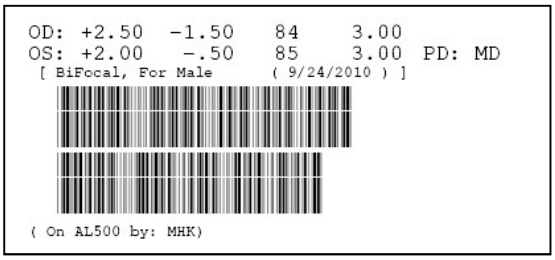
http://kendall-optometry-ministry.com/documents/Training/Manual/Miscellaneous Folder/Barcode Sheet.jpg



Before barcoding glasses into inventory, label each pair of glasses both on the temple and also on the top of the Ziploc bag. When you get ready to start, verify that the inventory number at the top of the screen (see graphic to the right) matches the number on the bag. If now change the number by clicking on the + or - side of the lower window to change the number in increments of 1, 10, 100, 1000, and 10000. Now scan the glasses into inventory. After you have changed the flags (see above) if necessary, then scan the **SAVE** barcode and the inventory number will automatically increment. If the next location is not empty, scan the **NEXT** barcode to move the pointer so the next pair will go into the next empty location.



This sheet makes barcode data entry (see barcode below) possible without using either the mouse or the keyboard. There are four main groupings of barcodes on this sheet.



At the top/left is the **SAVE** barcode. When you have scanned in both the top and the bottom barcode on the glasses label, (see above) scan this barcode to save it to the file.

The second group of barcodes on this sheet are labeled **FLAGS**. Scan these barcodes to change the identification of the glasses.

SUNGL Identify glasses as sunglasses.

READGL Identify glasses as readers if the automatic reader detection feature has not.

SCRATCH Identify glasses as scratched. They should not be scratched in the line of vision of the patient or they should be discarded.

PROGRES Identify glasses as progressive glasses.

RESET Reset or clear all flags.

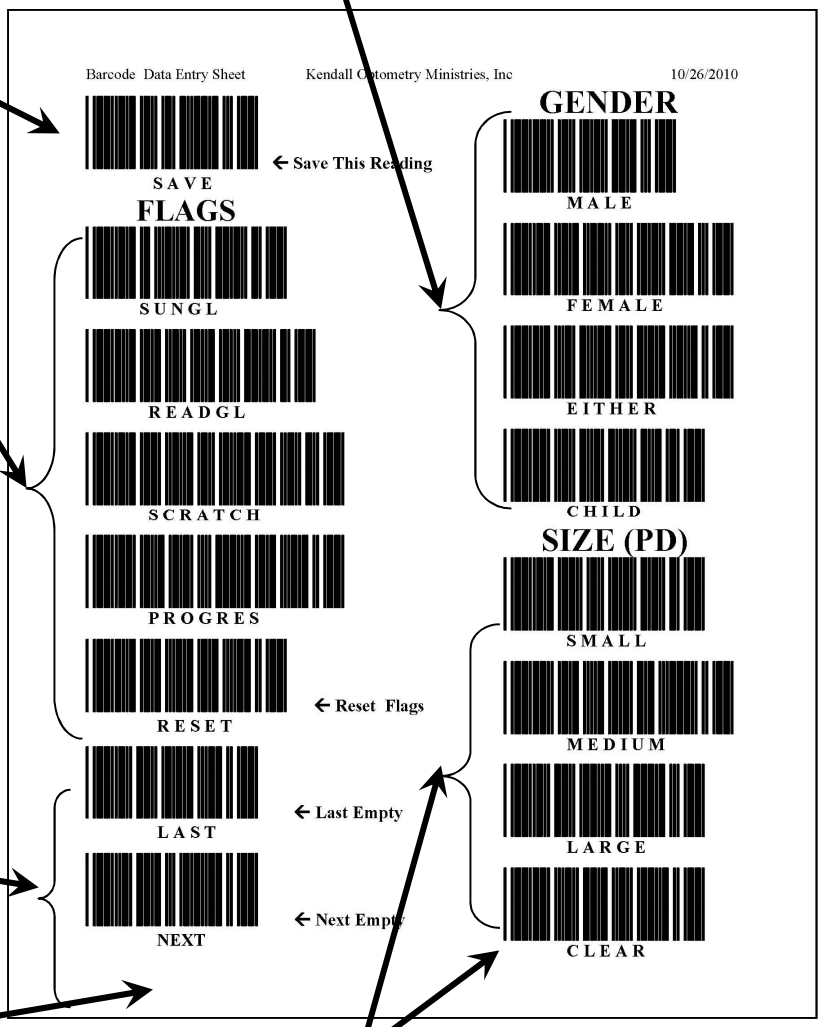
Use the next two barcodes when you are refilling empty locations in the inventory.

LAST Go to the last empty location encountered. The inventory number field will go backwards if there is a previous empty location available.

NEXT Go to the next empty location encountered. The inventory number field will go forwards to the next empty location.
It might go 1+ the highest valid location available. If so, consider your inventory full.

CLEAR Click this to clear both the left and right entry and scan it into the program again.

The **GENDER** group allows you to change the gender identification for a pair of glasses. Scan **MALE / FEMALE** to identify it as for a male or a female. Scan **EITHER** to identify it as for either Male or Female. Scan **CHILD** to identify glasses for a child. Reading glasses can be automatically flagged by the automatic reader detection flag under



The **SIZE** group identifies information about the PD (Papillary Distance) of the patient.

SMALL is for glasses which have a PD which is 60mm or below.

MEDIUM is for PDs between 61 and 68 mm and

LARGE is for PDs which are 69mm and above.

NOTICE

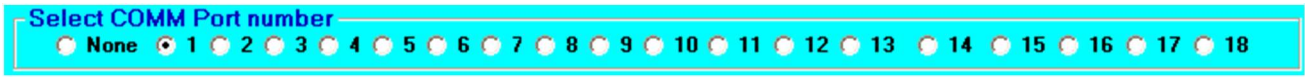
When you scan **SAVE** the inventory number increments by 1. If the next location is already empty, scan into it and do not scan **NEXT** as you will skip a location which needs inventory.

3.5 Lensmeter Data Entry

The steps for lensmeter data entry is very much dependant upon the lensmeter chosen. Kendall Optometry Ministry has used extensively all the supported lensmeters but the most extensive documentation is provided for the Reichert LensChek and AL200 lensmeter. To download a copy of the Reichert LensChek usage manual, click the following link:
http://kom-inc.org/documents/LensChek/Operating%20the%20Reichert%20LensChek%20Lensmeter.pdf
To download the Reichert AL200 usage manual, click this link:
http://kom-inc.org/documents/Training/Manual/3rd-Tab/Operating%20the%20Reichert%20AL-200%20Lensmeter.pdf
Video training is also available for both of these instruments. Click the following link for the Reichert AL200 lensmeter video: https://youtu.be/nsZElD_-WY0
Click on the following link for the Reichert LensChek lensmeter video: https://youtu.be/2jHYIx1qRaU

You can see the list of lensmeters supported by version 4.6-15 (or above) in the following graphic for the options window for the Glasses Reader program.

Select the lensmeter and COMM port on the computer you are using.



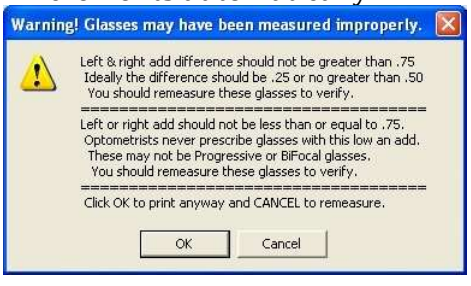
If you do not have a serial port on the computer you should purchase an ATEN UC-232A serial to USB adapter as you see to the right. ATEN configuration information is in Appendix M. Drivers are available for all current 32 and 64 bit versions of windows including Windows 10. You should setup the printing capability as shown in graphic 3 in Appendix H. Appendix N shows how to setup the Dymo Labelwriter for use with this program.

If you plan to print barcoded labels, contact Kendall Optometry Ministry (email: hollandkendall@kendalloptoministry.org) so we can provide you with the necessary barcode fonts or you can go to this link: http://eyeglasses-inventory.com/id21.htm and a Dymo printer setup as shown in Appendix N.

General Lensmeter Data Entry

After you have setup and connected to your lensmeter, follow these general steps.

1. Enter your initials into the initial area of the Glasses Reader screen (under **EXIT** button). Note that version 4.4-6 and above of Glasses Reader will retain these initials upon program exit.
2. Measure both the right and left lens of the glasses.
3. Press the lensmeter **PRINT** button to transfer the measurement to the computer.
4. Change the flags setting to indicate male, female, child, either, readers, etc.
5. Click the **PRINT** button on the Glasses Reader screen to print a label.
6. If the glasses are going into inventory, press **SAVE** button also or just measure another pair of glasses and the save will be automatic. The inventory number increments automatically.
7. Repeat steps 2-6 for further pairs of glasses.
8. Numerous checks are made to be sure that:
   a) the adds don't differ by more than .75,
   b) the add is not less than .75,
   c) duplicate labels aren't printed, and
   d) Printing a blank label by printing too quick.



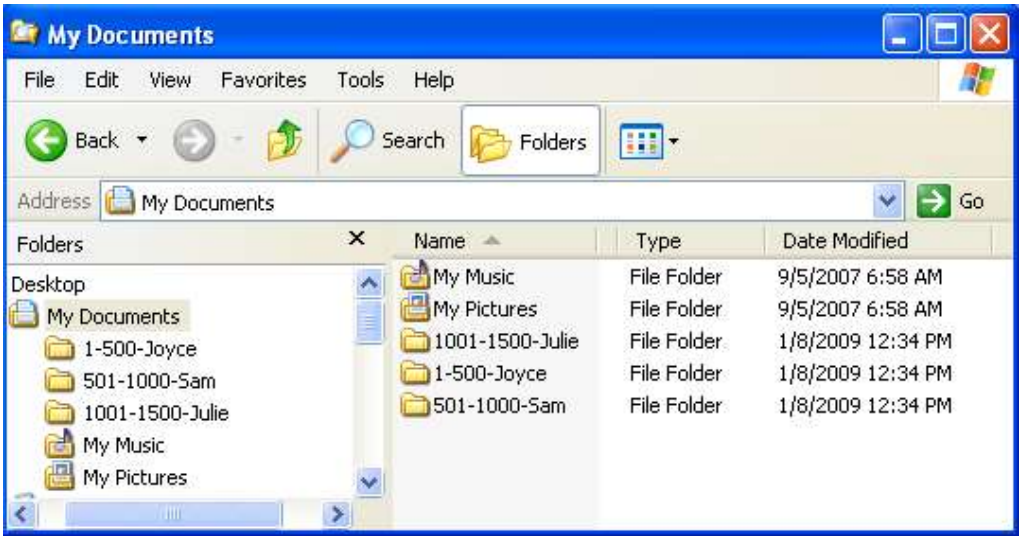
To the right is an example of both errors "a" and "b" occurring.

Note the diagnostics option mentioned in Appendix H.

3.6 How to merge multiple inventory files.

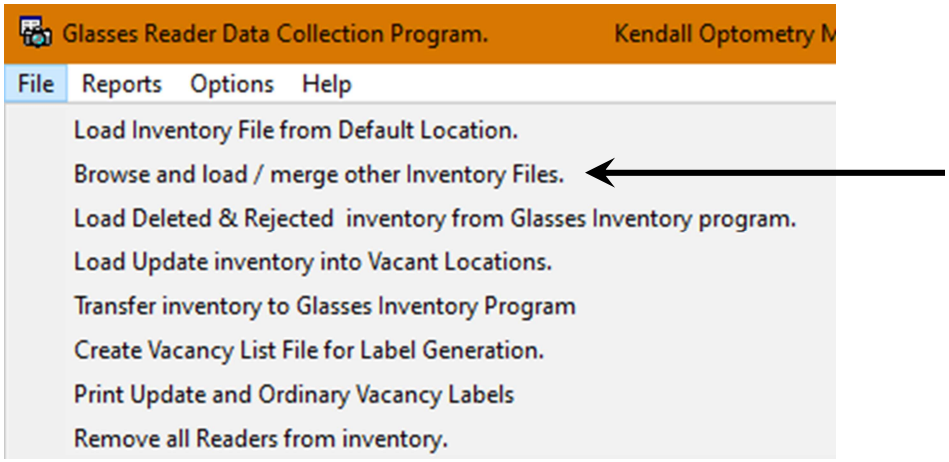
When a large eyeglasses inventory file is being created, it is sometime necessary for several people to work on different parts of the inventory. This section describes how the inventory from 3 different people working with 3 different PCs can brought together into a single inventory file. Suppose three people each measure 500 pairs of glasses. Joyce is assigned numbers 1-500, Sam is assigned pairs 501-1000 while Julie is assigned pairs 1001-1500. A 4th PC is going to be used to put them all together. Here are the steps.

Get all the inventory files onto PC number 4 as you see below. For Glasses Reader version 3.2-4 or below they are at **C:\My Documents\Glasses_Data\Total_Inventory.txt** while on version 4.0-3 or above they are at **<My Documents>\Glasses_Data\Total_Inventory.txt**.

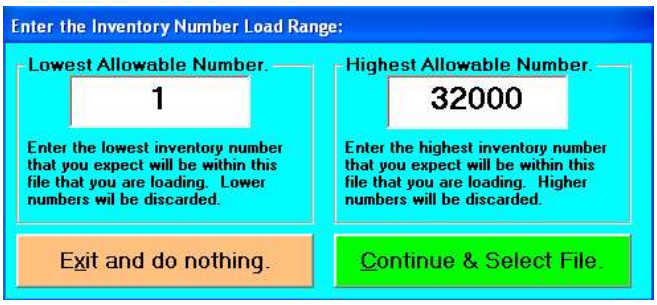


Launch Glasses Reader the first time and you will see either the below in the status window or the window is emp

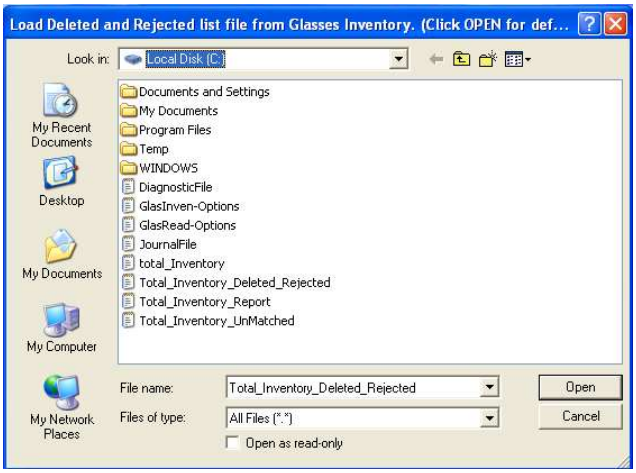
This says that Glasses Reader has seen no inventory file. Click on File and select the **Browse and load / merge other Inventory Files** as shown below.

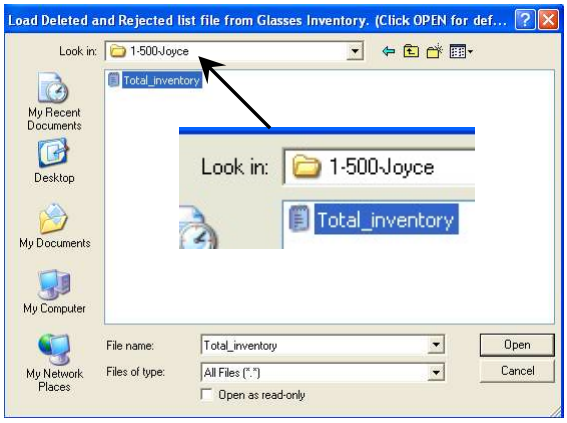


The following Window on the left will appear. Since you are bringing in Joyce's inventory which only covers locations 1-500, change this window to be the one to the right.

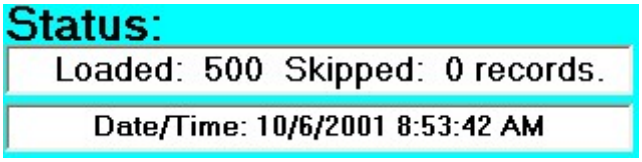


Click Continue and Select File and you will see the graphic to the right. Now browse until you find Joyce's inventory as you see below.



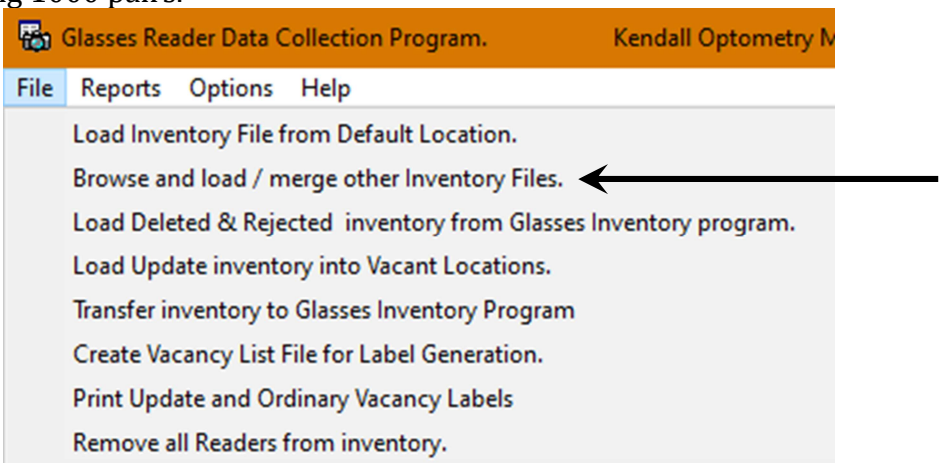


Click on the Total_Inventory.txt file that she created and click OPEN and you will see the window to the right. You have now loaded 500 pairs of glasses into inventory. Now we will do the same steps for the remaining 1000 pairs.

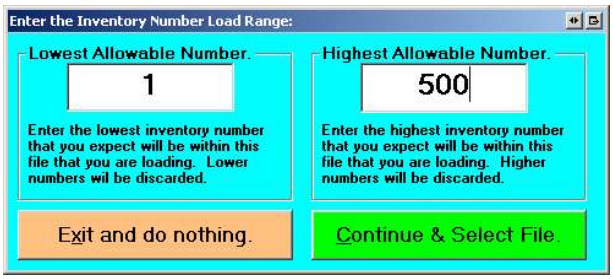


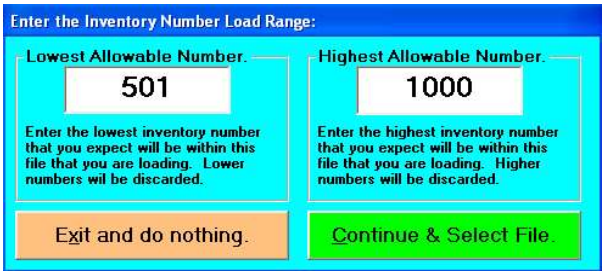
.

Click File and then click the indicated option.

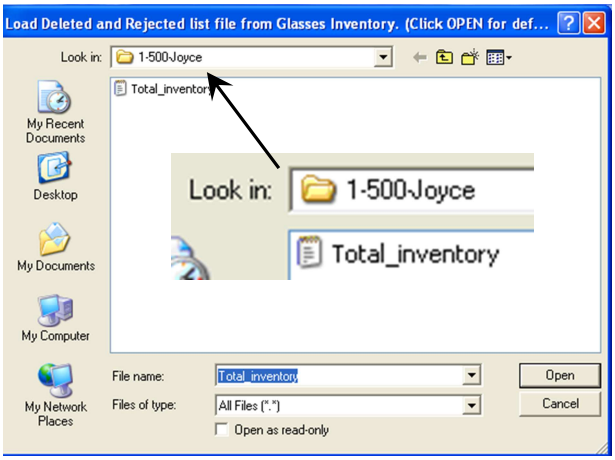


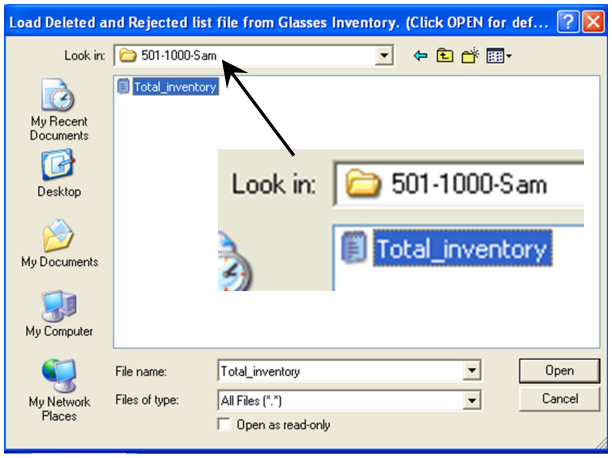
You will see the window on the left below. Change it to be as you see to the right below.



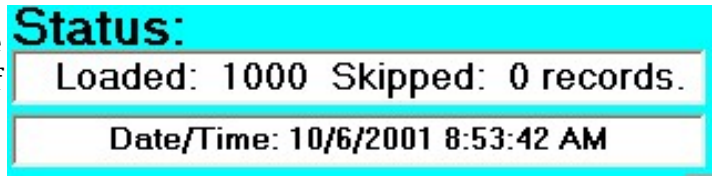


This setting is very important as you are saying that if Sam accidentally entered any pair of glasses with a number outside of the range of 501-1000, his entry will not overwrite previous glasses in the file with the same number. Click Continue and Select File and you will see the graphic on the below/left. This is still Joyce's inventory. Browse until you select Sam's inventory (on the right) and click OPEN.

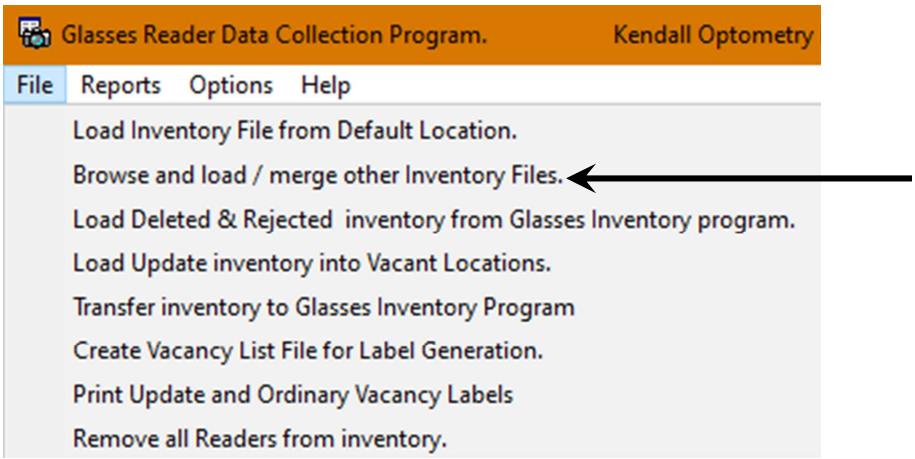




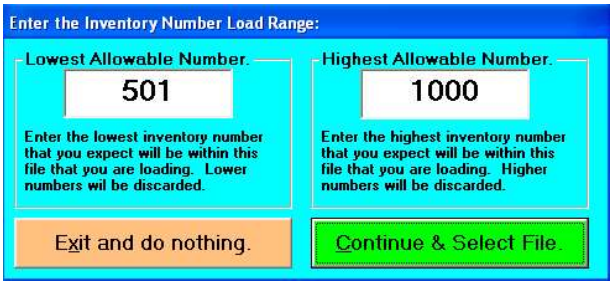
You will see the status window setting to the right. You have now loaded 1000 pairs of glasses. Now you need to load 500 more pairs.



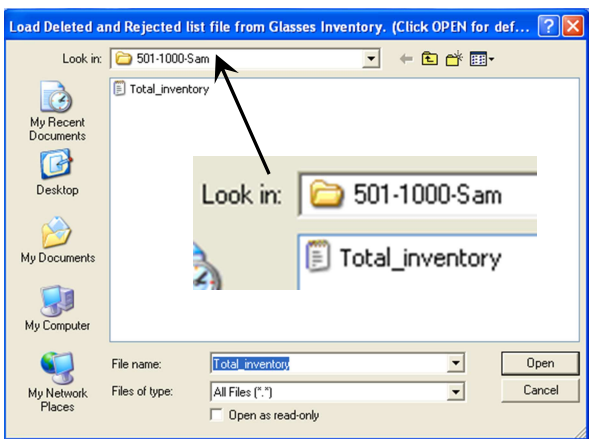
Select the option in the graphic shown to the right.

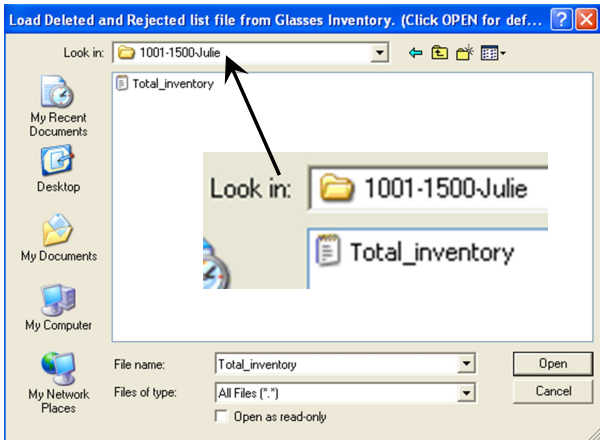


You then see the graphic to the left below. Change it to read as what you see on the right below.

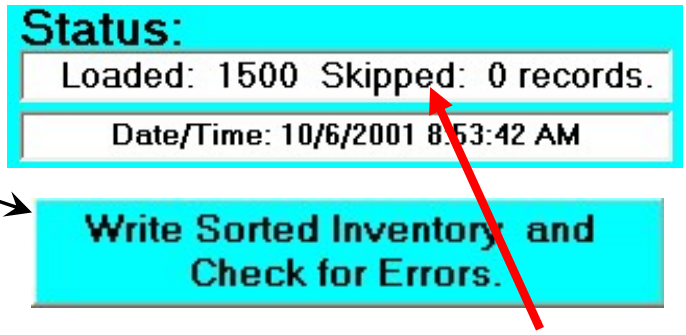


And click **Continue and Select File** and you will see the graphic on the below/left. This is still the selection for Sam. Browse to change it to Julie and you will see the graphic on the right..





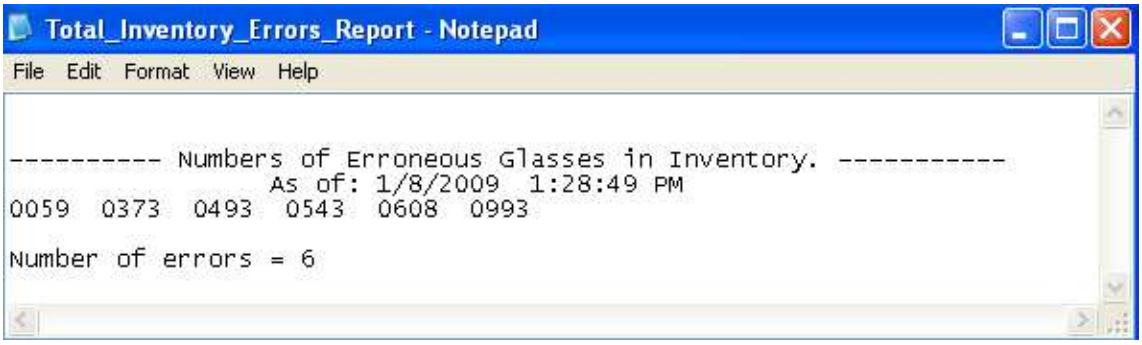
Click **OPEN** and you will see the graphic to the right. You now have loaded 1500 pairs of glasses into inventory but they have not been written to a file. Click the button to the right below and click **CONTINUE** on the graphic below



If there is a non-zero number after **Skipped** in the Status windows above, then this means that you were trying to load inventory over previous inventory with the same number.

and you will then sort the inventory 100 records at a time and check for errors. You will then see the graphic below. You might not show any errors as you see below.

If there are errors, then you should check them by seeing the list by doing **Reports | Error Report** and you will see the below.



You can go to each of these locations and check that the prescription of the pair is right and correct it if necessary. You can also choose to do a **CLEAR RECORD** and replace this pair with another pair followed by clicking **Write Sorted Inventory and Check for Errors** when you are completed.

At this point you have a single inventory file containing the 1500 pairs entered by the three different PCs.

3.7 Using Update Inventory to replenish your inventory.

There are several ways you can use Glasses Reader to replenish/fill the openings in your inventory. You can manually key in the glasses prescriptions one pair at the time, you can barcode scan them in, or you can use a Lensmeter to measure new glasses and put them into inventory directly. The fastest way; however, is to use "Update" inventory.

Update inventory is inventory which has already been previously measured or scanned in and a single **Total_Inventory.txt** file has been created containing the measurements of these glasses. You should put this file in an **Update_Inventory** folder on your PC. Each pair of glasses is uniquely labeled with a temporary/update inventory number. This temporary number is not the actual location where the pair will eventually reside in inventory but is a temporary number to be used until a permanent number can be assigned. See note on the next page (in Red) as to how to create the temporary update labels. You will be using Avery 8167 labels or equivalent.

When you use Glasses Reader to load the update inventory to replenish the main inventory, each inventory record is assigned a new number. A file called **Vacancy_List.txt** is created which contains the correlation between the original/temporary number and the actual physical location where the pair of glasses will now reside. To the right is a sample of that file. The first number (1) is the temporary number. The second (34) is the number of the location in the inventory system.

```
1,34
2,43
3.76
4,99
5,104
6,108
7,109
8,119
9,131
10,13
4
11,14
```

This sample says that temporary pair number 1 is to be now placed in location 34, pair number 2 goes into location 43, pair 3 goes into location 76, pair 4 goes into location 99, etc.

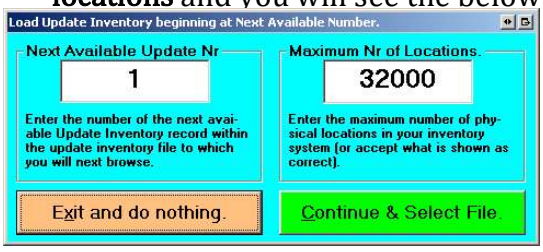
Refer to Appendix O for an explanation of how the box of update inventory is handled.

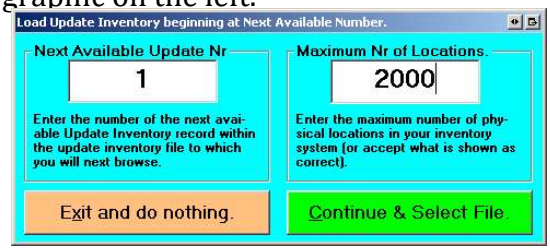
To the right is the label sheet which is produced to go with this inventory update. Note the enlarged label to the right showing the temporary number (in red) plus the physical number (in black).

1	34	1
2	43	2
3	76	3
4	99	4
5	104	5
6	108	6
7	109	7
8	119	8
9	131	9
10	134	10
11	145	11
12	156	12

Here are the steps involved:

1. The glasses are removed from inventory using the Glasses Inventory Program.
2. Do **FILE | Save Deleted/Rejected inventory** with the Inventory program.
3. With Glasses Reader do **FILE | Load Deleted & Rejected Inventory from Glasses Inventory Program** to make Glasses Reader aware of the glasses deleted.
4. With Glasses Reader you do **FILE | Load Update Inventory into vacant locations** and you will see the below graphic on the left.

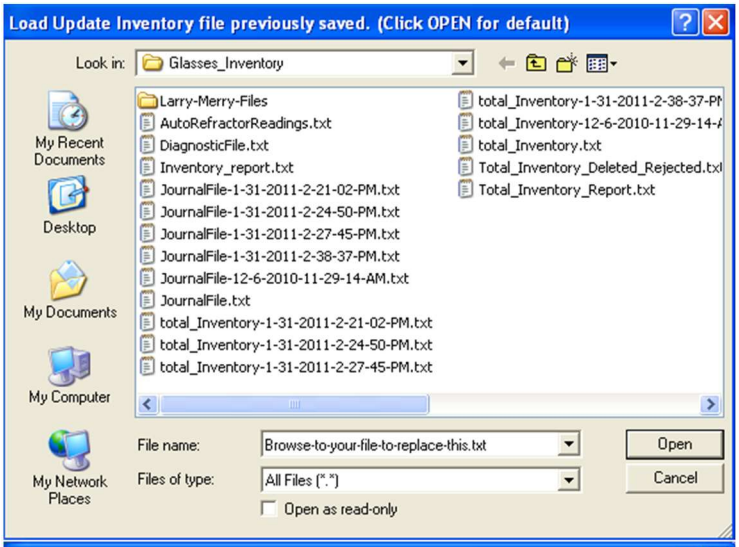


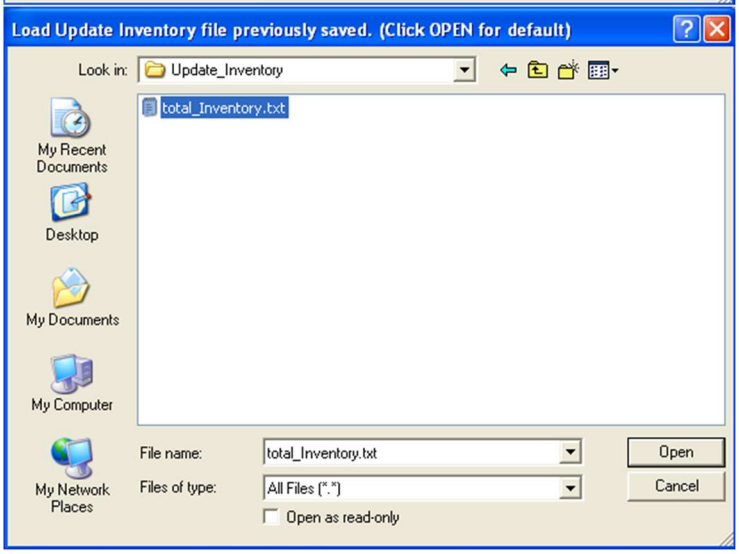


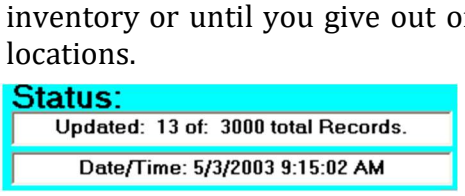
5. Change the **Maximum Nr of Locations** to be the total number of locations in your inventory. Change the **Next Available Update Nr** to be the first number in your update inventory file which is still available for use. You may load inventory from this file multiple different times so each time this number will

need to change to be 1+ the last pair used. On subsequent times the system sets this number automatically.

6. Next click **Continue & Select File** and browse to the **Total_Inventory.txt** file which you created previously and click **OPEN**. (Example is to the right) The **Status** window (below) in Glasses Reader will show the number of locations which you have loaded with inventory. Loading continues until you give out of update inventory or until you give out of empty locations.

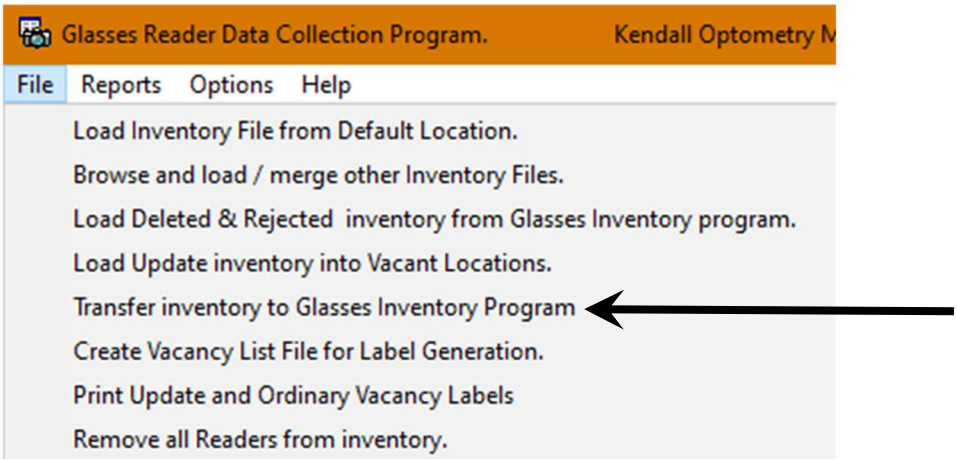






7. To save the revised inventory file, click the button called **Write Sorted Inventory and Check for Errors**. (Below).

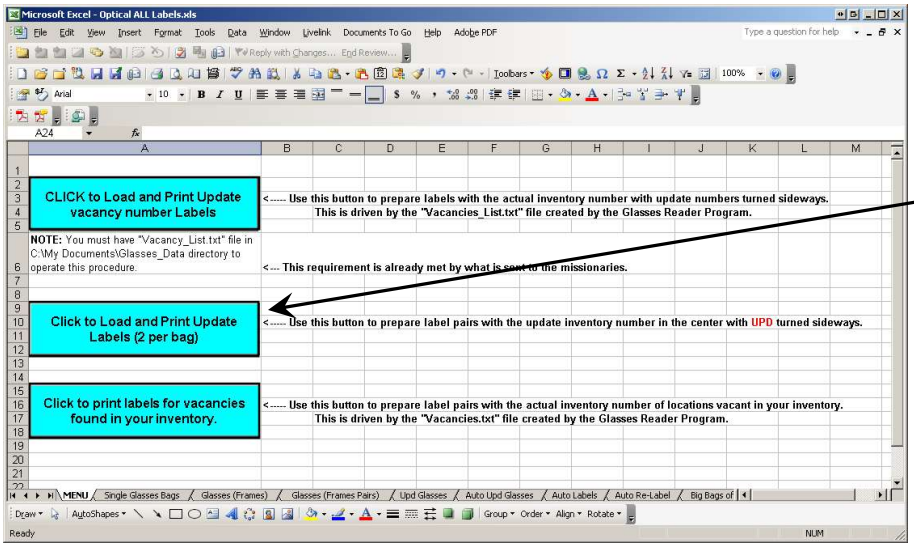
8. When this is completed, you can click **File | Transfer Inventory to Glasses Inventory Program** (below) and the Glasses Inventory program is now aware of the changes.



3.8 Printing Update Inventory Labels.

You will need to create update inventory labels as shown above. You do this by these steps. Make sure your copy of Excel is set for either Medium or Low macro security.

1. Click **Start | Programs | Glasses Reader | Print Update Labels with Excel** and you will see the below window. Click **Enable Macros** if prompted.



Note

You create the temporary labels for the update inventory by clicking the center button on the left.

2. Click the top button to print the update inventory labels and you will see the graphic to the right.

3. Click the first button and you will see the next graphic to the right.
4. Load the first label sheet into the printer and click **OK** to print it.
5. Keep clicking **OK** until all sheets are printed or unto you click **Cancel**.

Refer to Appendix O as to how to apply the update inventory labels.

NOTE: When you are inserting update inventory and you find a pair of glasses already in the location, remove that pair and insert the new pair. That is because the computer is only aware of the new and not the old pair of glasses.

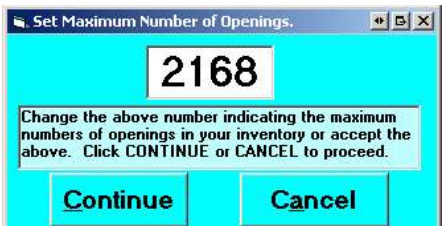
3.9 How to print vacancy number labels.

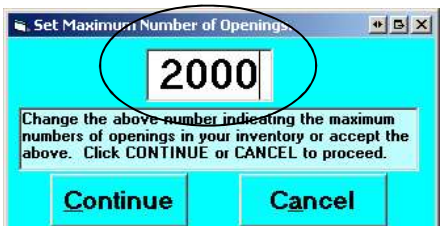
3.9-1 Printing using a full carriage printer.

After using the Glasses Inventory program for some time you will then want to replenish your inventory using Glasses Reader. Perhaps in this case you wish to either key in inventory manually or barcode scan them into inventory. Before putting them into inventory you will also need to print new labels. This section describes how to print those labels. You will be using Avery 8167 labels or equivalent.

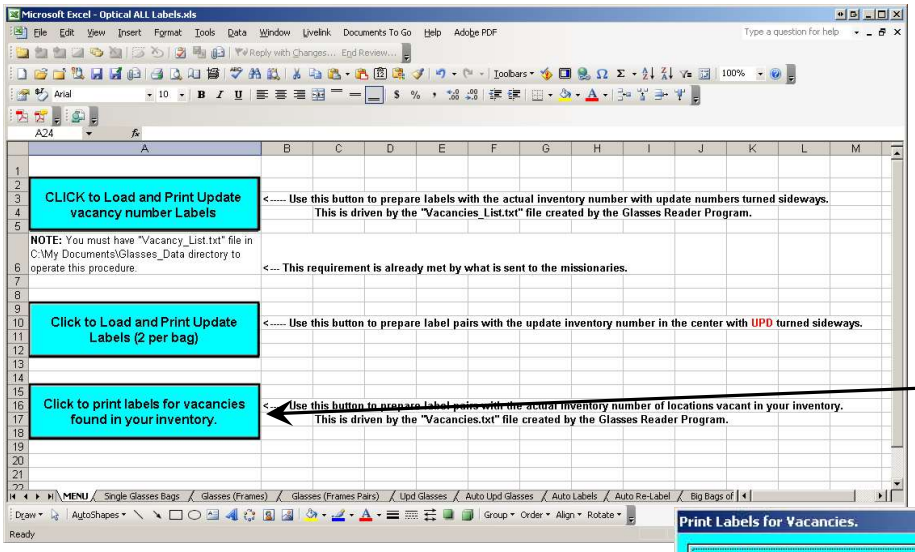
Follow these steps:

1. The glasses are removed from inventory using the Glasses Inventory Program.
2. Do **FILE | Save Deleted/Rejected inventory** with the Inventory program.
3. With Glasses Reader do **FILE | Load Deleted & Rejected Inventory from Glasses Inventory Program** to make Glasses Reader aware of the glasses deleted.
4. With Glasses Reader do **File | Create Vacancy List for Label Generation** and a the following graphic will appear:

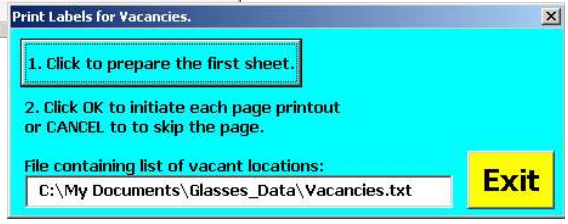




5. Change it to have the right maximum number of location (circled) in your inventory and click Continue.
6. Your Status window will show: **Vacancies.txt file created for labels**.
7. Click **Start | Programs | Glasses Reader | Print Update Labels with Excel** and you will see the below window. Click **Enable Macros** if prompted. Make sure your copy of Excel is set for either Medium or Low security. Click the indicated button.



8. You will see the window to the right.



Click button number 1 and you will see the graphic to the right. Load the first sheet into your printer.

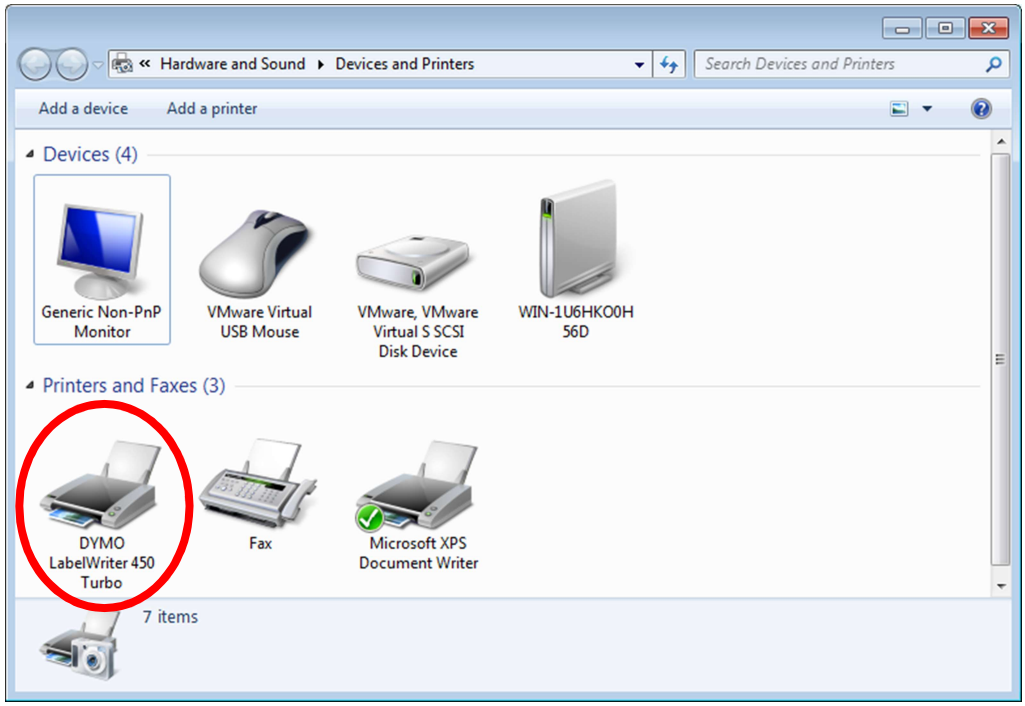
9. Click **OK** for every sheet printed.
10. Now apply the labels to the glasses and enter them into the Glasses Reader program.

Sort your inventory (using button to the right) and it is now ready to transfer back to the Glasses Inventory Program.

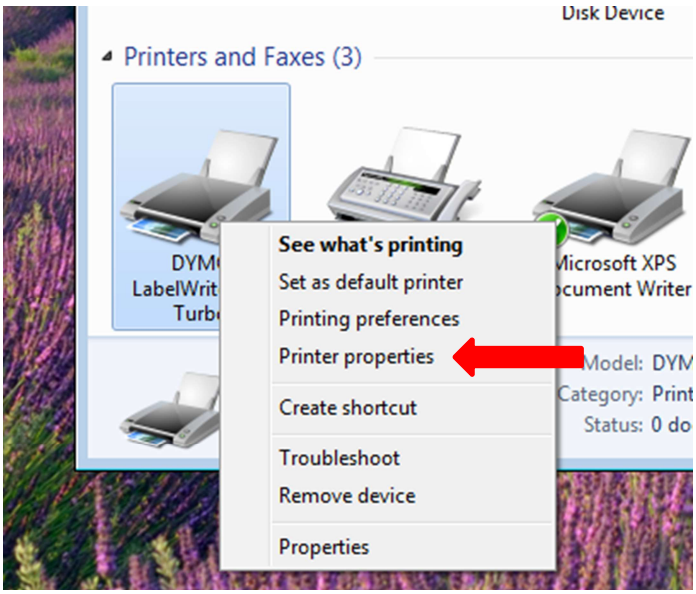
NOTE: When you are inserting inventory and you find a pair of glasses already in the location, remove that pair and insert the new pair. That is because the computer is only aware of the new and not the old pair of glasses. Save the old pair to be inserted into the inventory later.

3.9.2 Setup for printing with the DYMO printer.

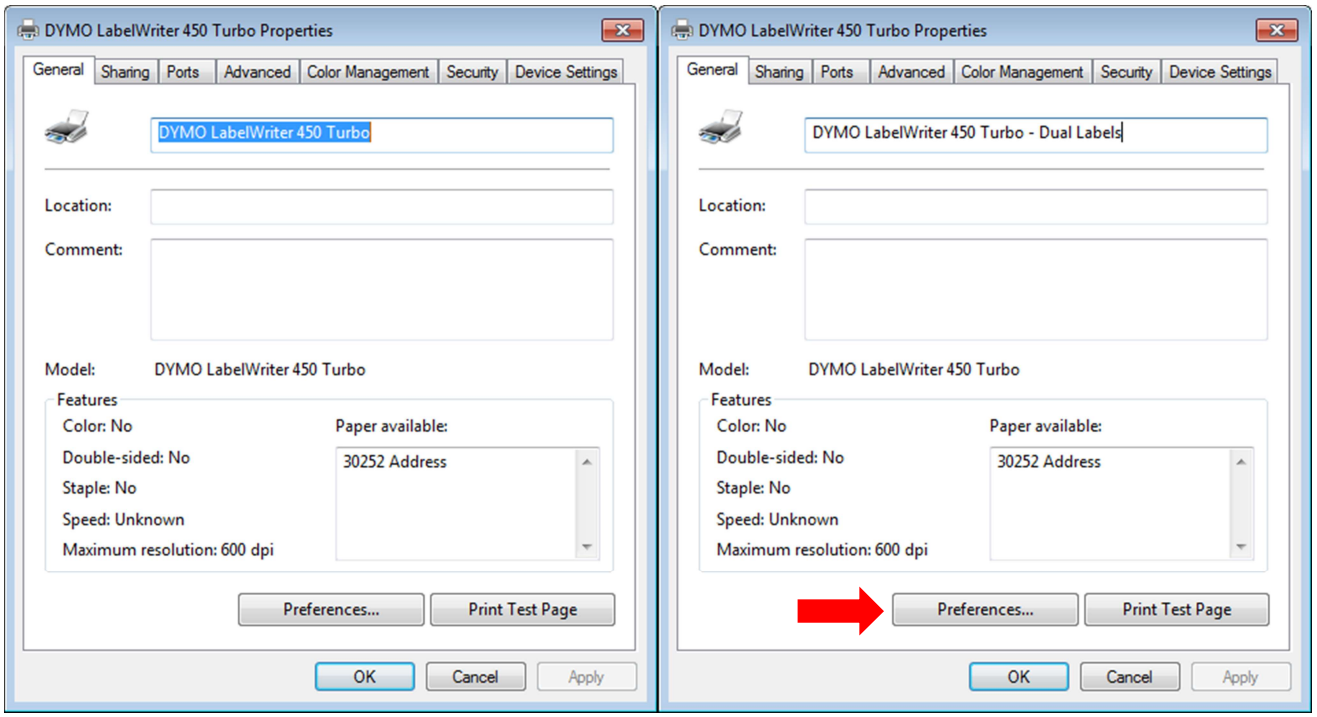
First you install the DYMO Labelwriter driver software and plug in the printer. At that time you will see something like this under Control Panel Devices and Printers:



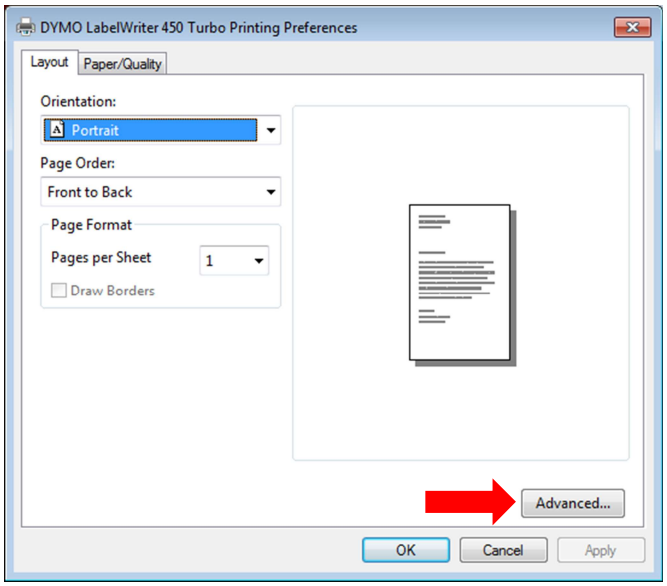
You will then right click the circled ICON and you will see:

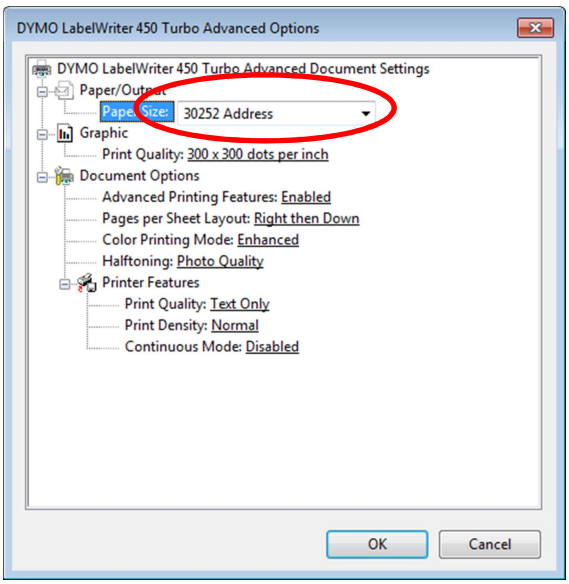


Left click Printer Properties as shown by the above arrow and you will see the below left. Change the name (below right) to add "- Dual Labels" and then click Preferences (see arrow below).

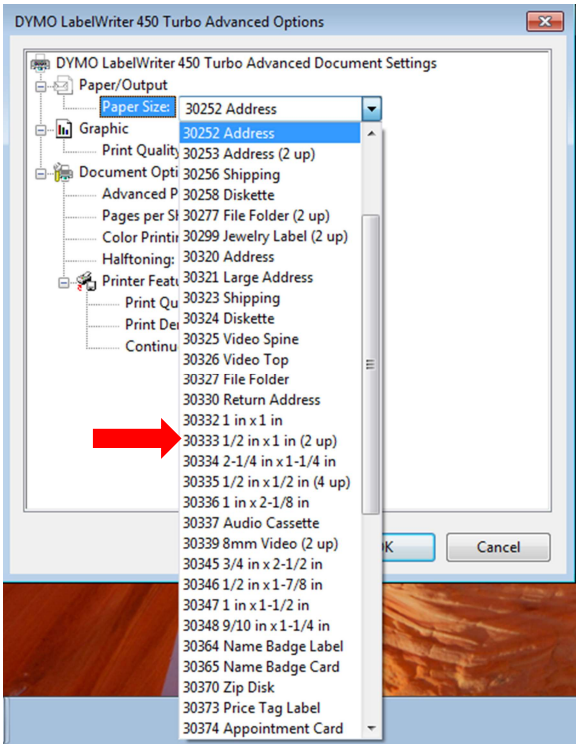


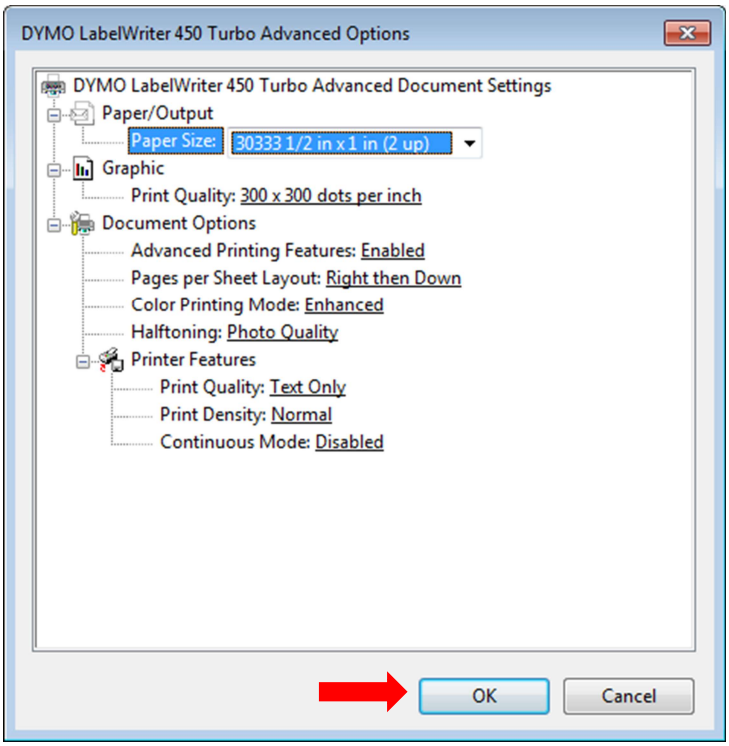
And you will see the below left graphic. Click Advanced (see arrow) and you will see the below/right graphic.



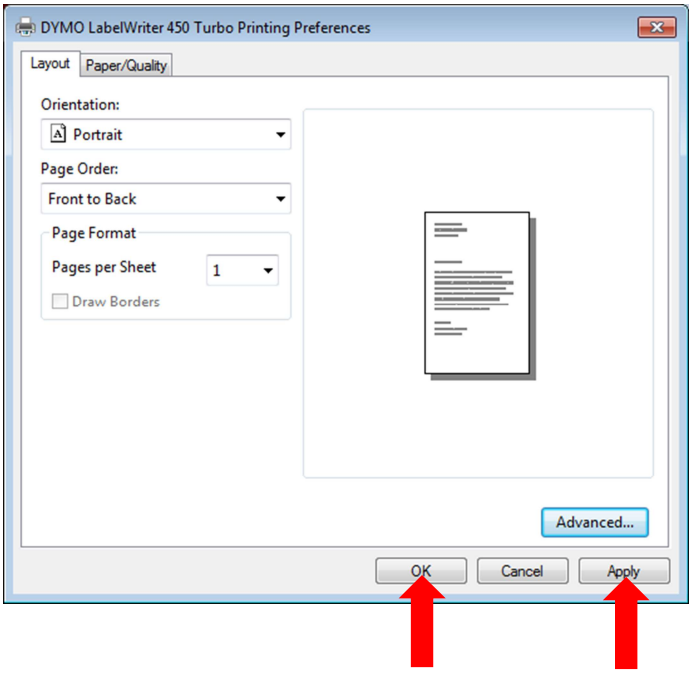


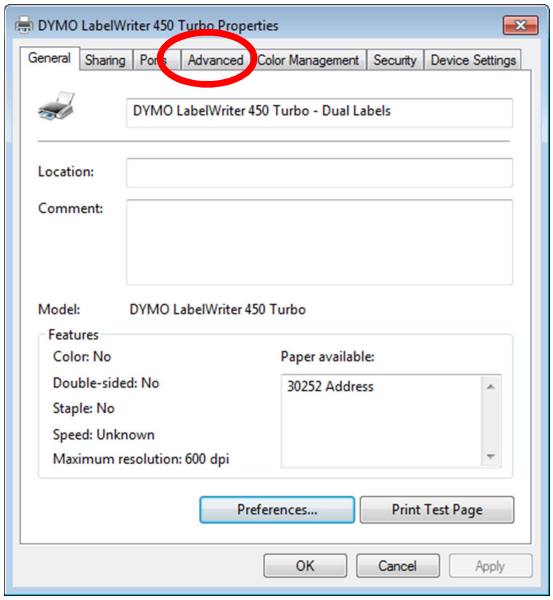
Click the above circled dropdown and you will see the below/left graphic. Select **30333 1/2 in x 1 in (2 up)** pointed to by the arrow below and you will see the graphic to the right below.



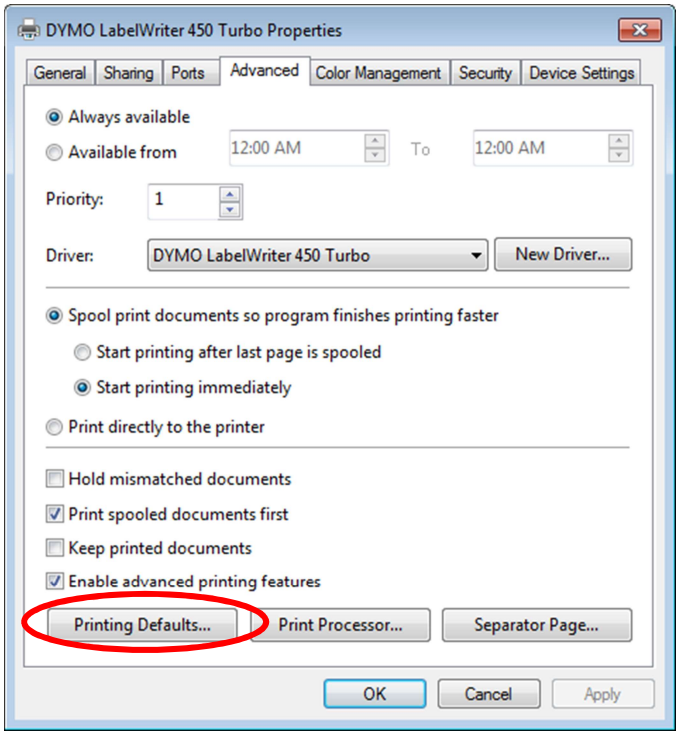


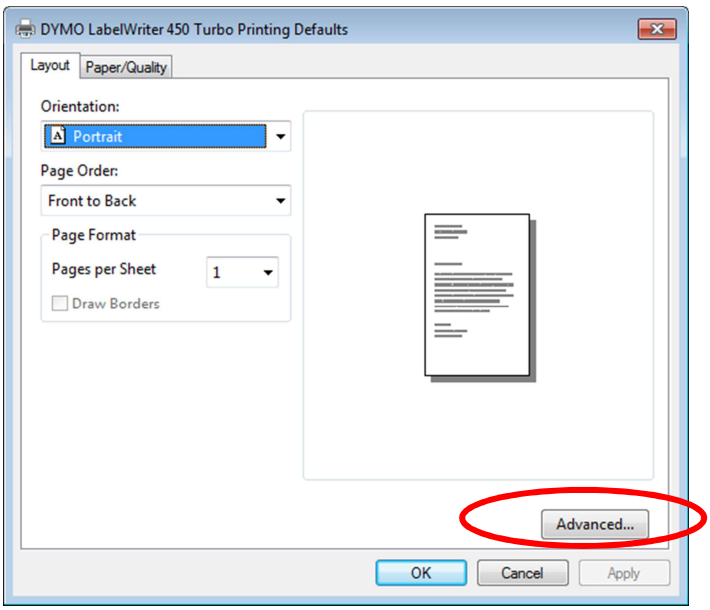
Click OK (see above/right arrow) and you will see the below/left graphic. Click APPLY and OK (see 2 arrows) and you will see the below/right graphic.



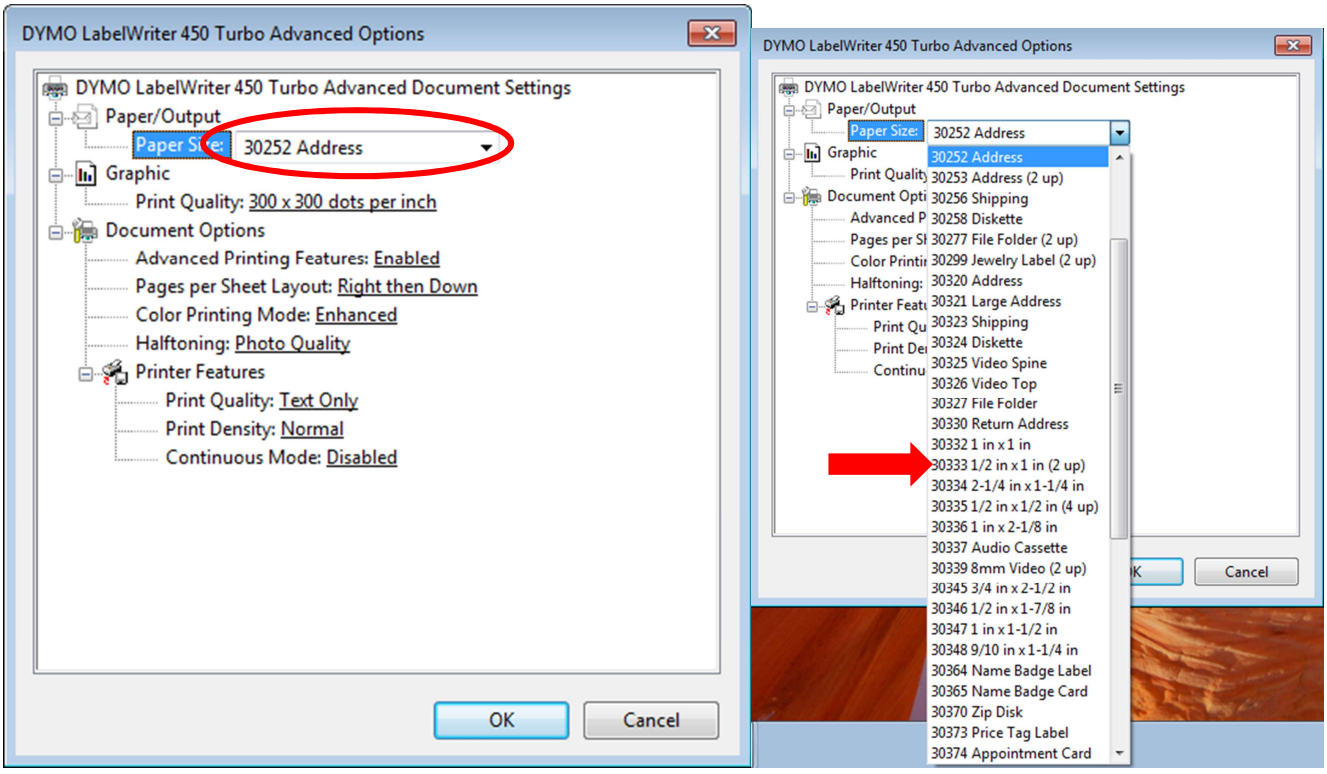


Click Advanced (circled in above/right graphic) and you will see the below graphic. Click Printing Defaults circled in the below/left graphic and you will see the below/right graphic.

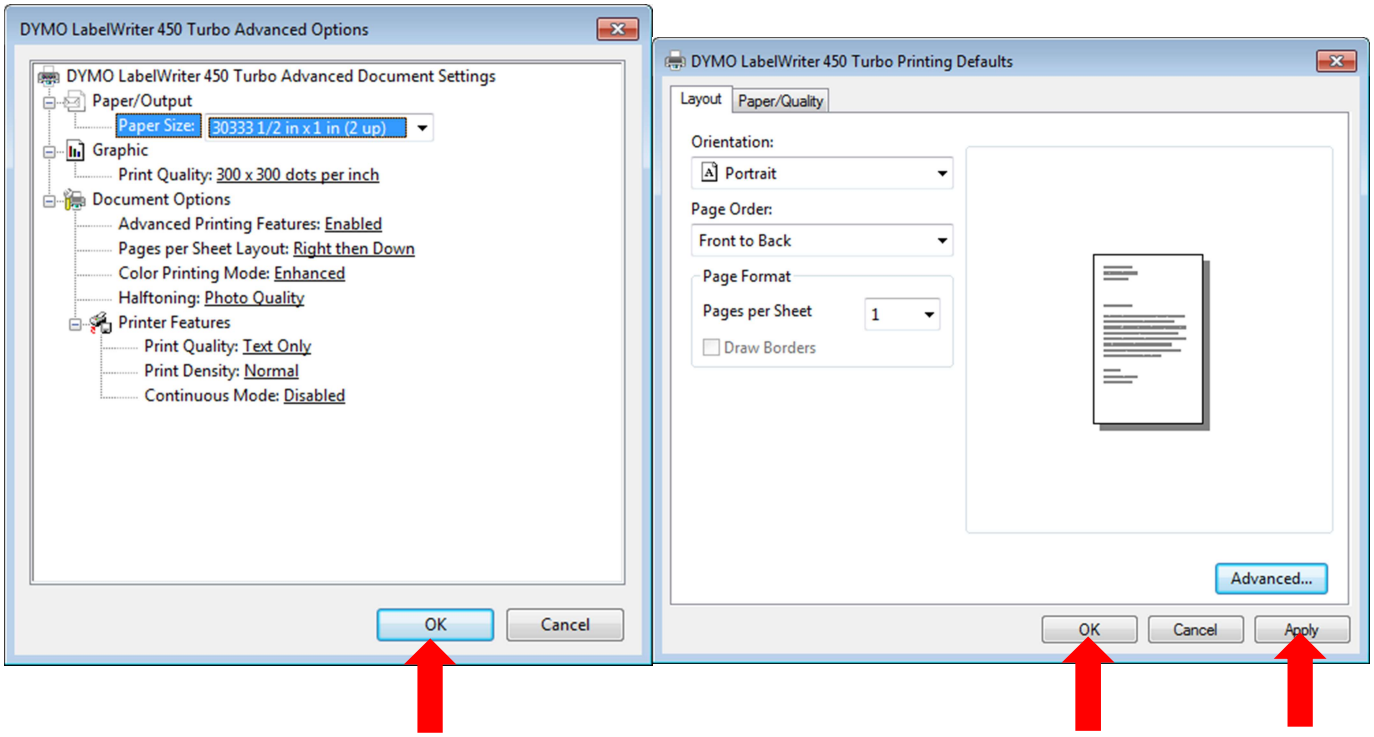




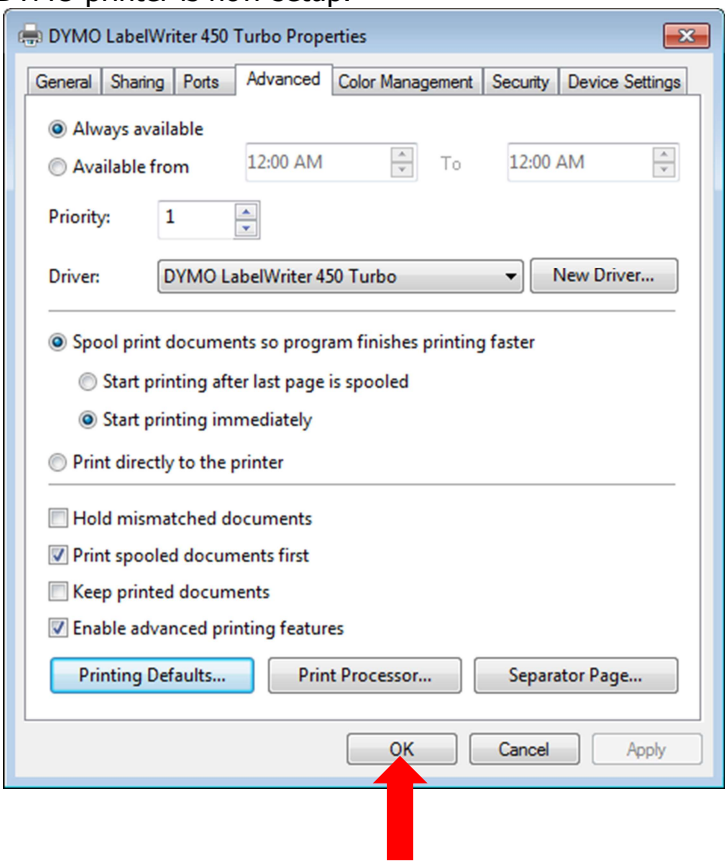
Click Advanced circled in the above right graphic and you will see the below graphic. Click the circled dropdown in the below/left graphic and you will see the below/right graphic.



Select **30333 1/2 in x 1 in (2 up)** and you will see the below/left graphic. Click OK on the below/left graphic and you will see the below/right graphic.

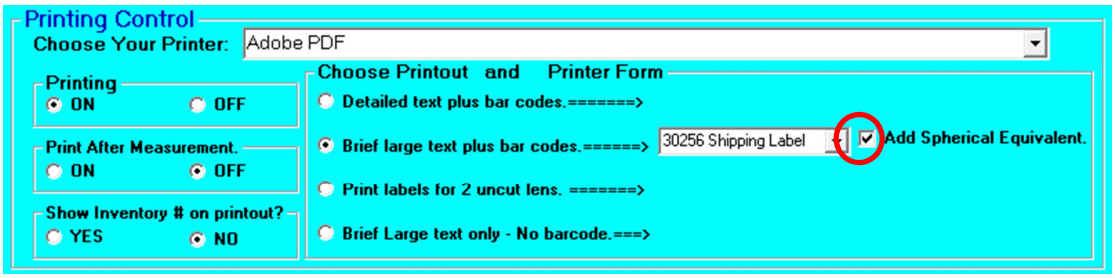


Click OK and Apply as you see in the above/right graphic and you will see the below graphic. Click OK (see arrow) and the DYMO printer is now setup.



3.10 Printing Prescription Labels with Glasses Reader.

If you look at the options setting in glasses reader you see the selections as identified to the right. If you turn printing **ON** you will see the **PRINT** button appear on the main screen as you see below and to the right.

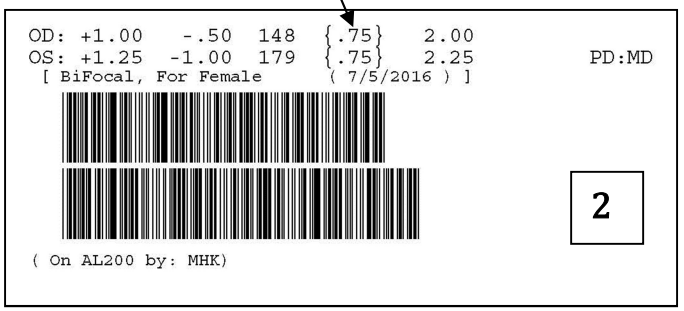


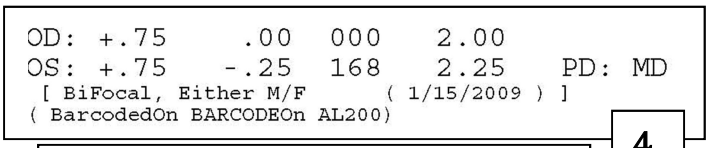
There are four different types of printouts.

1. **Detailed Text plus bar codes** with 30270 Continuous Wide and 30256 Shipping Label as options for paper.
2. **Brief large text plus bar codes** with 30270 Continuous Wide and 30256 Shipping Label as options for paper (Most popular option with barcodes). Notice that the Spherical Equivalent (in braces) shows on the label and is selected circled in red above.
3. **Print labels for 2 uncut lens** with 30270 Continuous Wide and 30252 Address Label as options for paper.
4. **Brief Large text only – No barcode** with 30252 Address Label, 30336 Short Address label and 30270 Continuous Wide as options for paper.

Select one of the above and click **SAVE TO FILE AND CONTINUE.** (Bottom/Left of window)

Below are examples of all 4 labels:



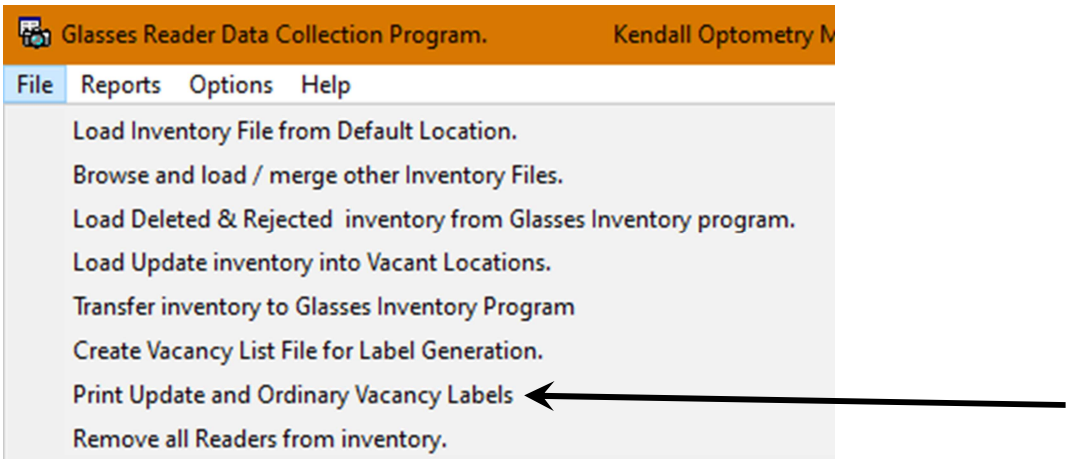


#3 is two of the 30252 labels. One for left lens and one for the right lens.

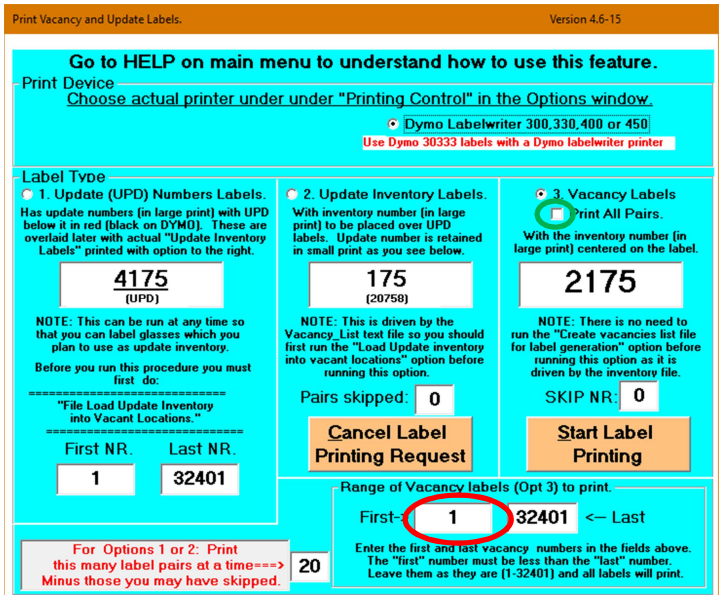
Glasses Reader now has a feature[3] which is designed to print both the update and vacancy number labels to a full width printer.

[3] The main problem at this time for label printing to wide carriage printers is it does not always align properly on all types of printers. The information is correct and if it aligns on your printer, go ahead and use it.

A new feature allows printing to the Dymo labelwriter with special labels (DYMO 30333) inserted. You can see this option by selecting **File | Print Update and Ordinary Vacancy Label** as shown below.



And you will see the below graphic to the right.

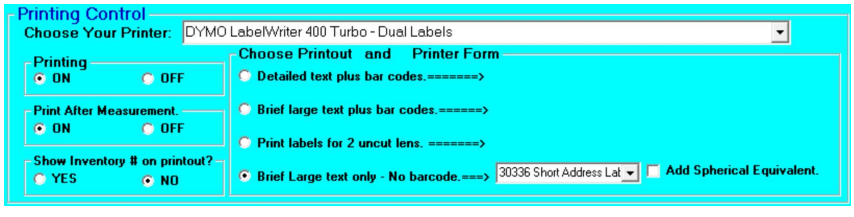


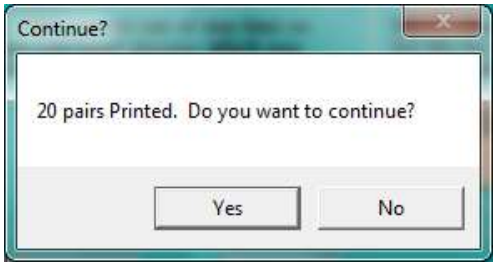
Note that it prints Vacancy labels, UPD labels (for update glasses themselves) and update inventory labels which are placed over the UPD labels indicating the final location for the pair in inventory.

If you click Print All Pairs (circled in green) you will print labels starting from the first to the last pairs noted in the below/right of the window.

By default the DYMO printer will print 20 pairs of labels and then pause waiting for you to click **Yes** to the popup below. If you run out of labels in the middle of printing them, you can load a new spool of labels and continue at a different starting point by changing the number in the circled field above.

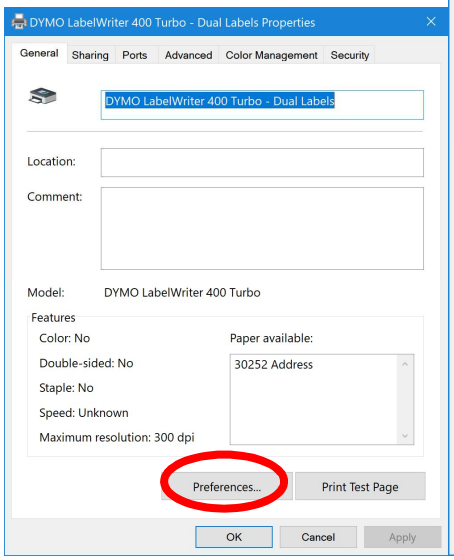
Each white block above shows a sample of what each label will look like. It will support both wide carriage printers (later feature) but now supports the Dymo printer printing to part number 30333 labels. For this to work you must set your options file to the below:

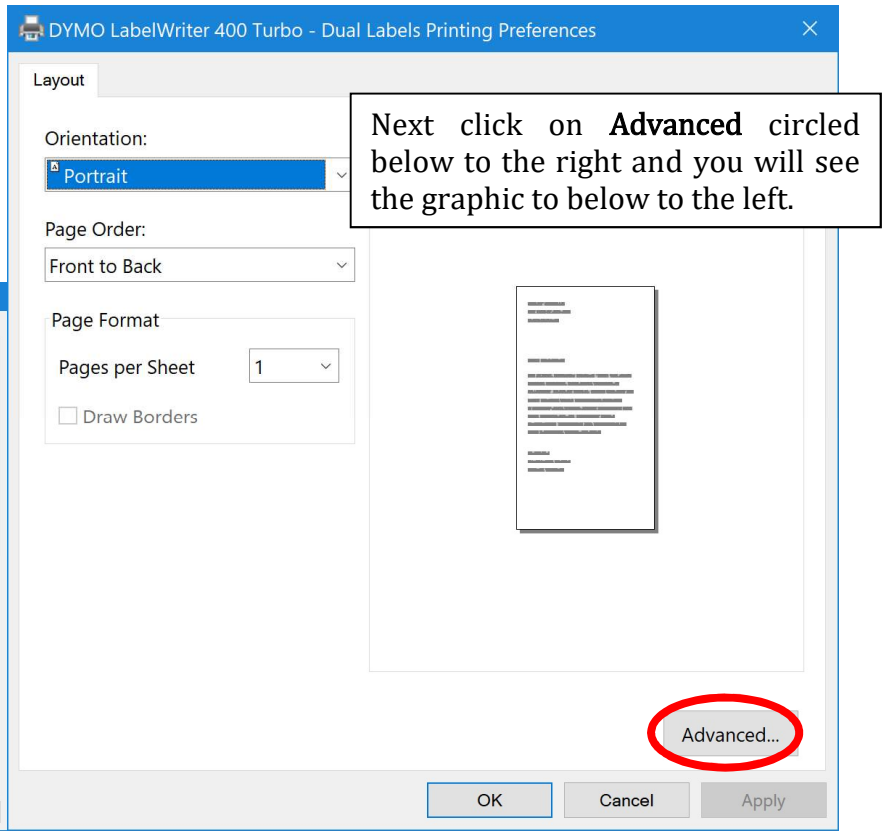




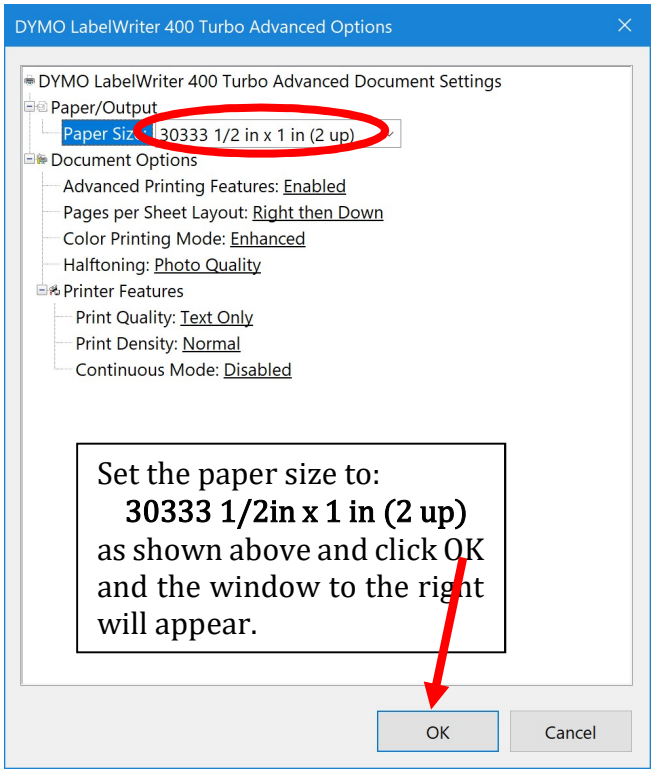
You must also set your DYMO Labelwriter printer setting to the below:

Right click **Printer properties** on your printer in **Devices and Printers** and then click **Preferences** circled below and you will see the graphic to the right. ▪.

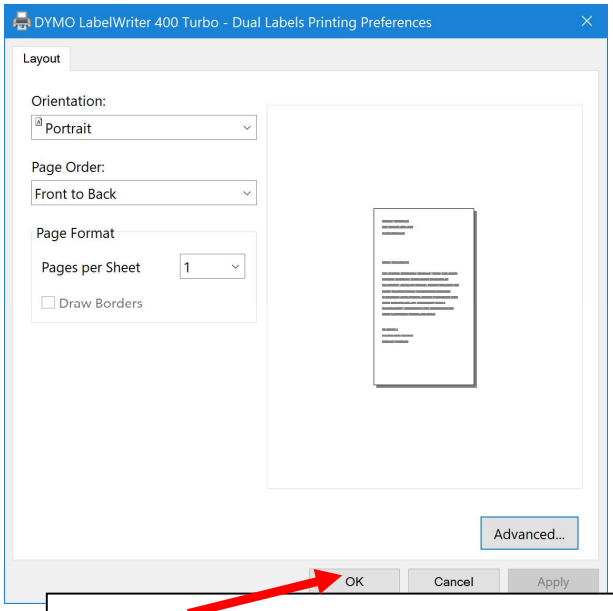




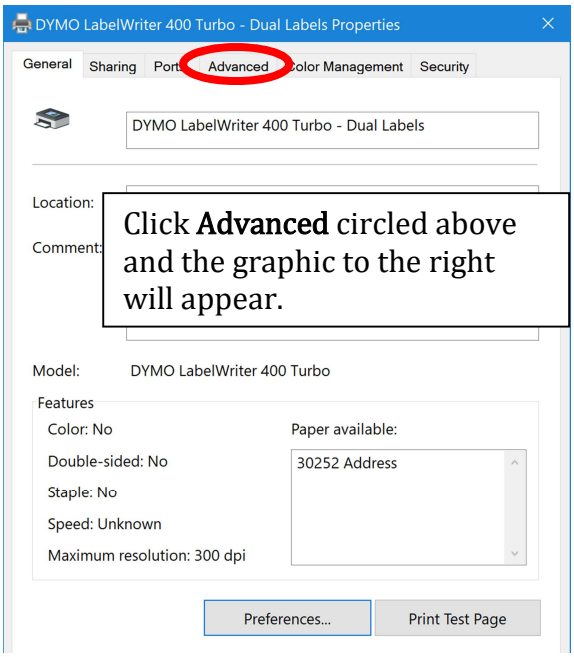
Next click on **Advanced** circled below to the right and you will see the graphic to below to the left.



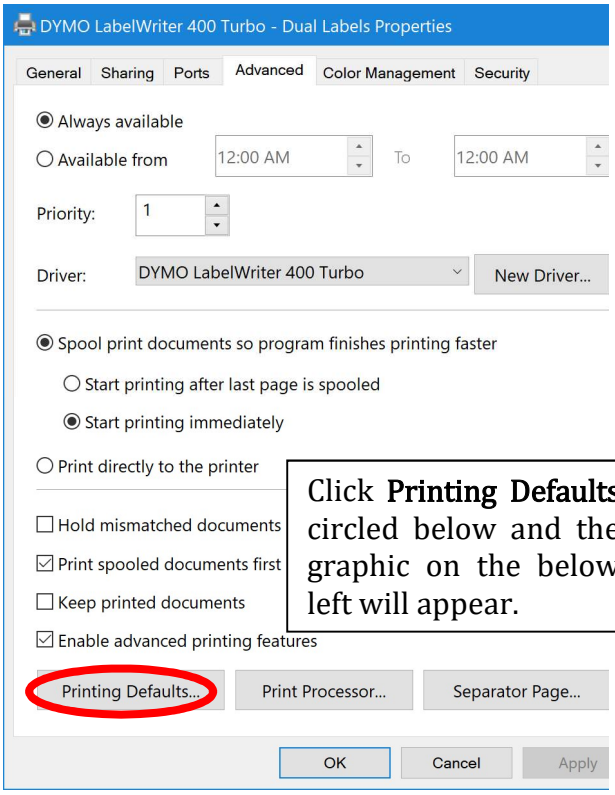
Set the paper size to:
30333 1/2in x 1 in (2 up)
as shown above and click OK and the window to the right will appear.



Click OK here and the top/left graphic on the next page will appear.

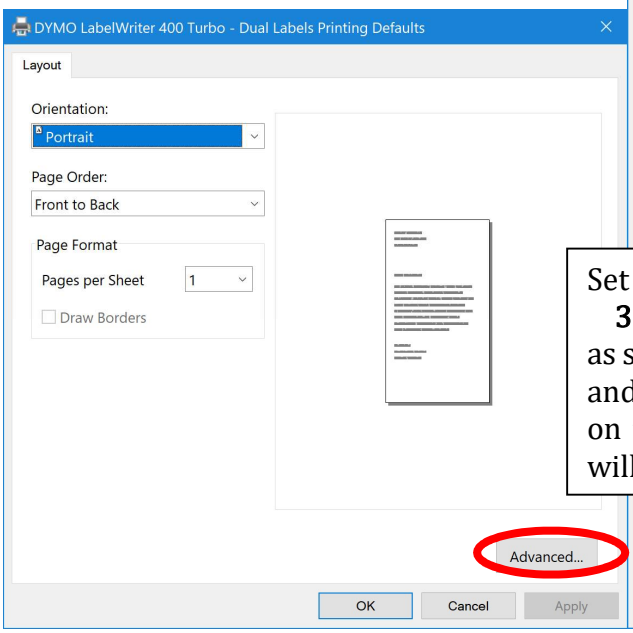


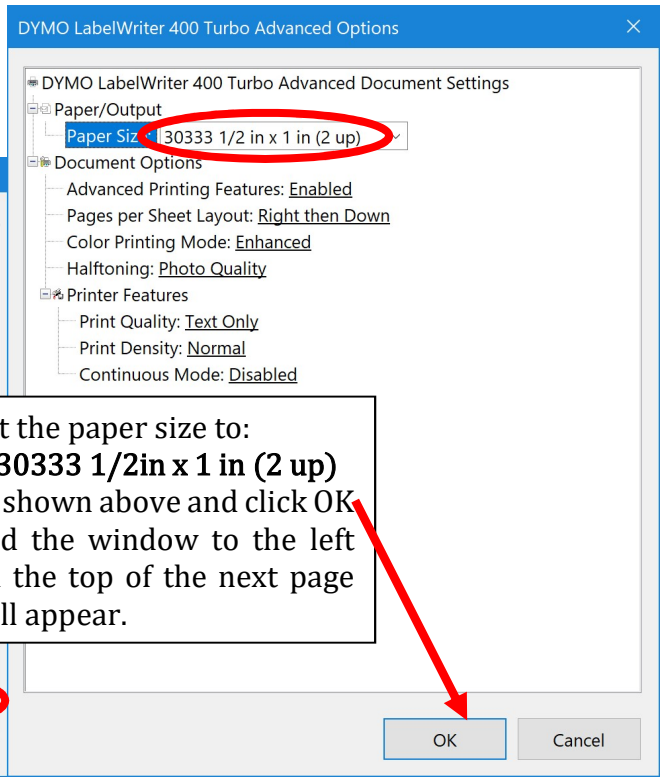
Click **Advanced** circled above and the graphic to the right will appear.



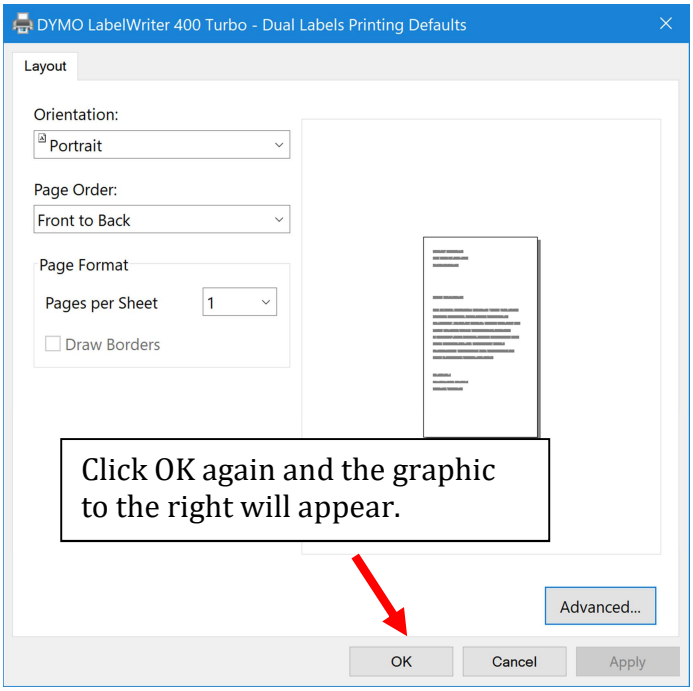
Click **Printing Defaults** circled below and the graphic on the below left will appear.

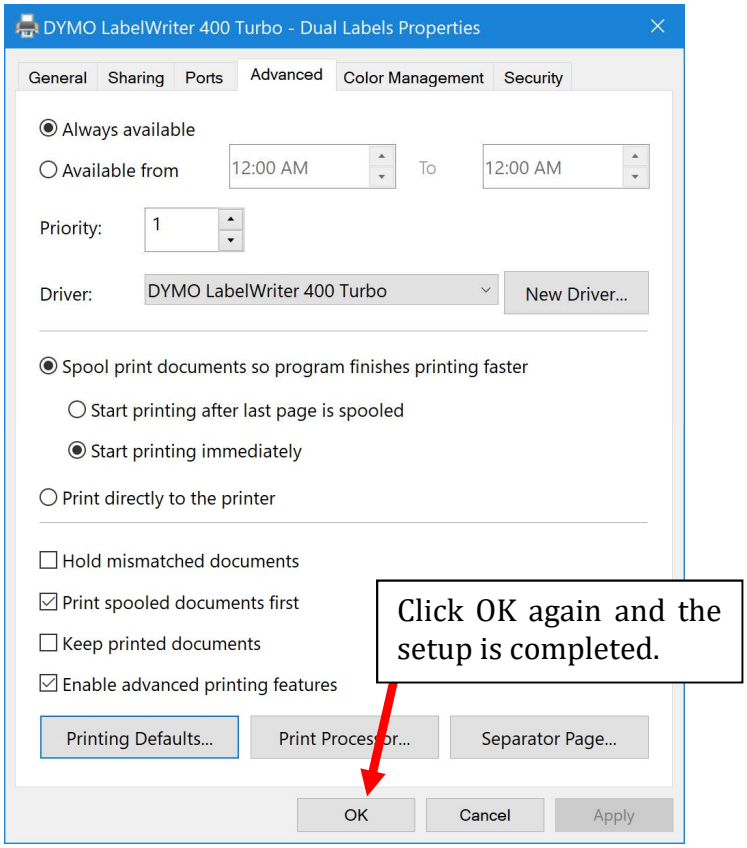
Click **Advanced** circled below and the graphic to the right will appear.



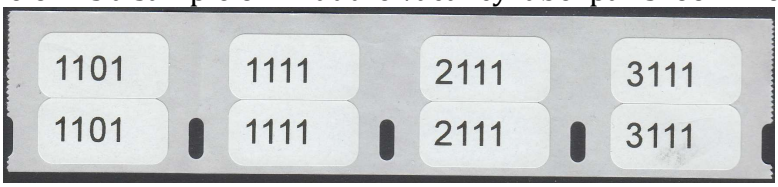


Set the paper size to:
30333 1/2in x 1 in (2 up)
as shown above and click OK and the window to the left on the top of the next page will appear.



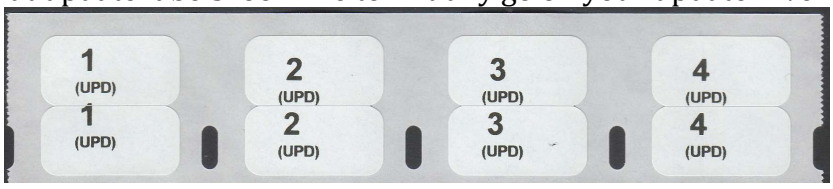


Below is a sample of what the vacancy label pairs look like.

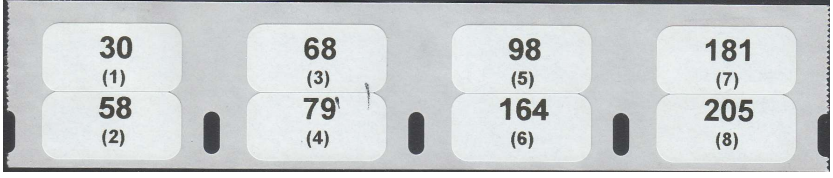


Here is what sequential labels look like to initially label your glasses.

Here is what update labels look like to initially go on your update inventory.

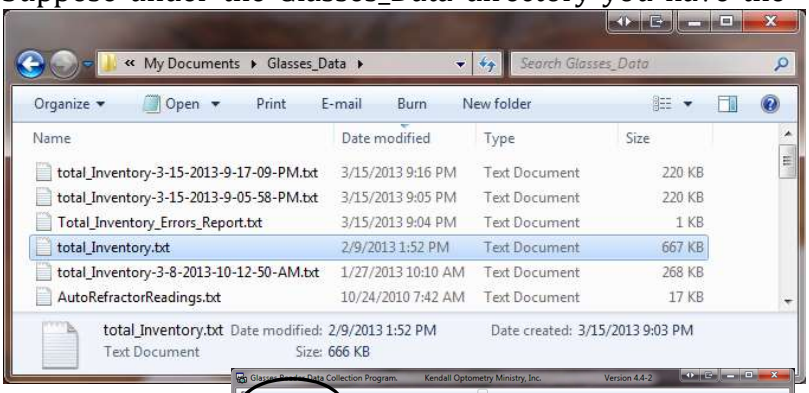


Here is what labels look like when applied over update inventory glasses.



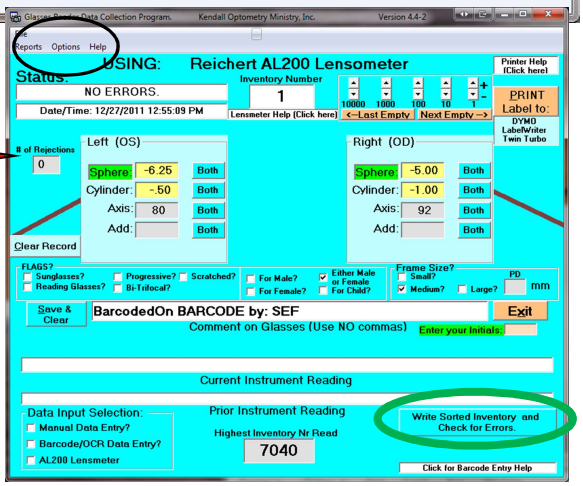
3.11 Splitting your inventory file into two pieces.

There are occasions that teams have a large inventory and need to split it in half so that part of their group can go to one village and part to another village. They don't want to have to redo their inventory. Glasses Reader version 4.4-2 and above has been modified to handle this situation. Here is an example to explain this feature. Suppose under the Glasses_Data directory you have the following list of files.

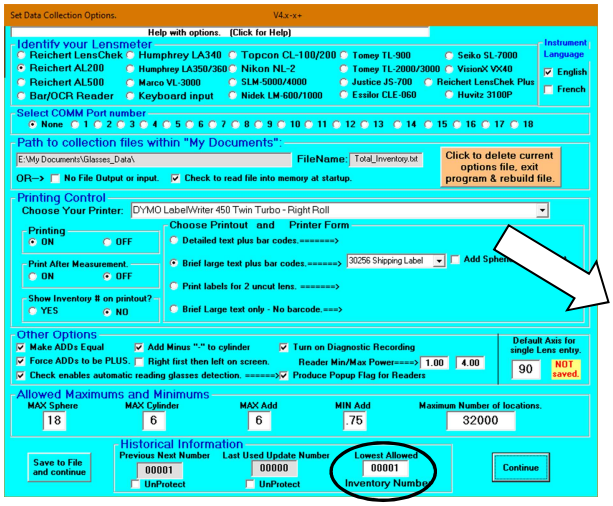


The Total_Inventory.txt file highlighted contains 7040 pairs of glasses. Suppose you want to split this inventory in half giving pairs 1-3520 to one team and pairs 3521-7040 to another team. To do this you follow the below steps.

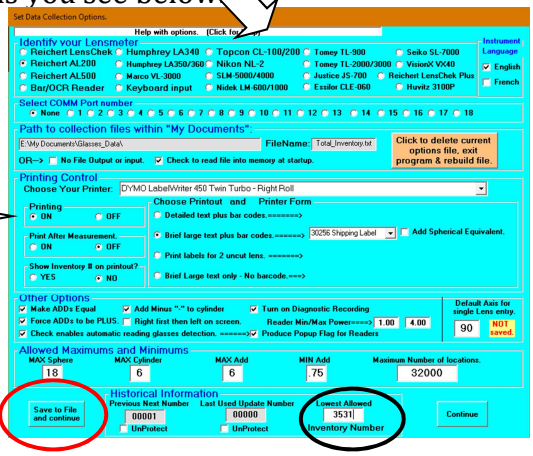
1. Launch the Glasses Reader program & you will see the graphic to the right where 7040 pairs of glasses have been loaded into Glasses Reader.



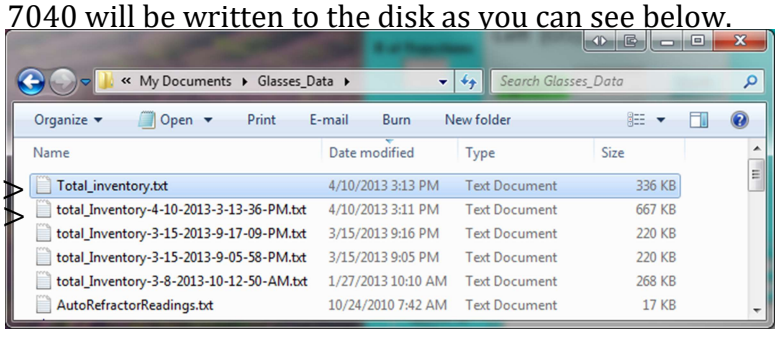
2. Click Options (circled) at the top of the window and you will see the below window.



3. Change the field entitled **Lowest Allowed Inventory Number** (black circled) to be 3521 which is the beginning of the second block of inventory as you see below.

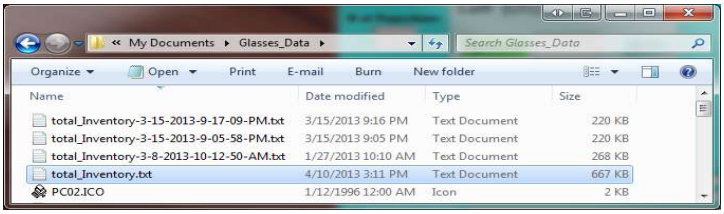


4. Click **Save to File and Continue** (red circled) as you see to the right and you return to the previous screen. Exit the Glasses Reader program.
5. Restart Glasses Reader. Click **Write Sorted Inventory and Check for Errors** (green circled above) and records 3521-7040 will be written to the disk as you can see below.

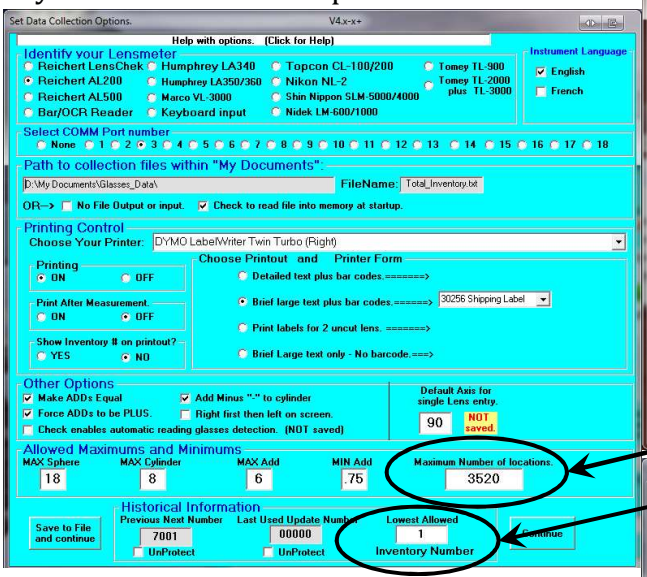


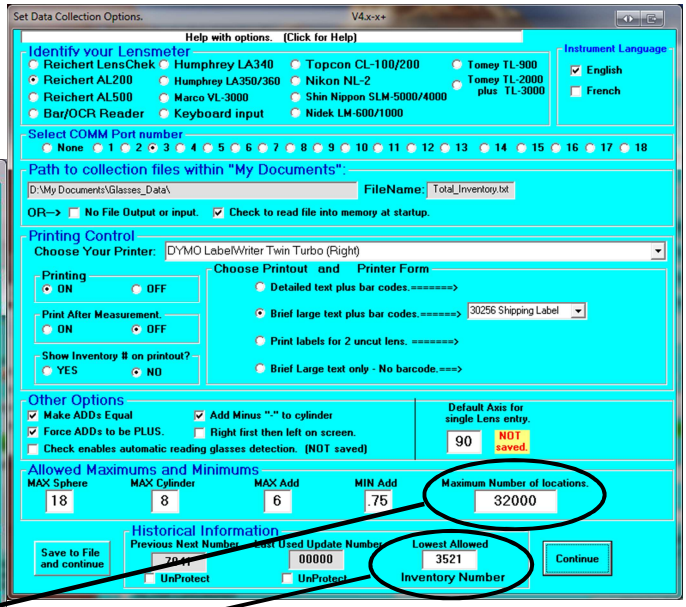
Notice that the current inventory file (#1) is 1/2 the size of the prior one (#2) which has been saved.

6. Now copy the **Total_Inventory.txt** file for pairs 3521-7040 to be used by team number 2. Delete this file and rename the file named:
Total_Inventory-4-10-2013-3-13-36-PM.txt
to instead be **Total_Inventory.txt** as you see to the right. You are now going to split this file in half leaving the first 3520 pairs.

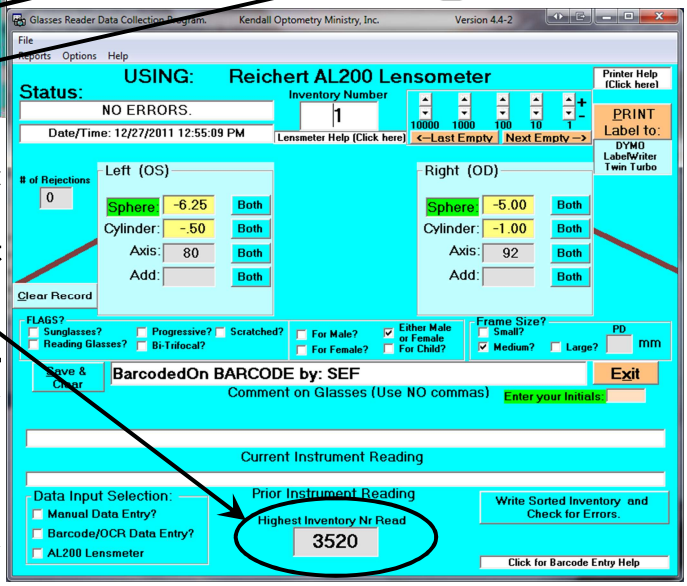


7. Launch Glasses Reader program and go into options as you see to the right. Change the field **Maximum Number of locations** to 3520 and change **Lowest Allowed Inventory Number** to 1 as you see circled and repeated below.



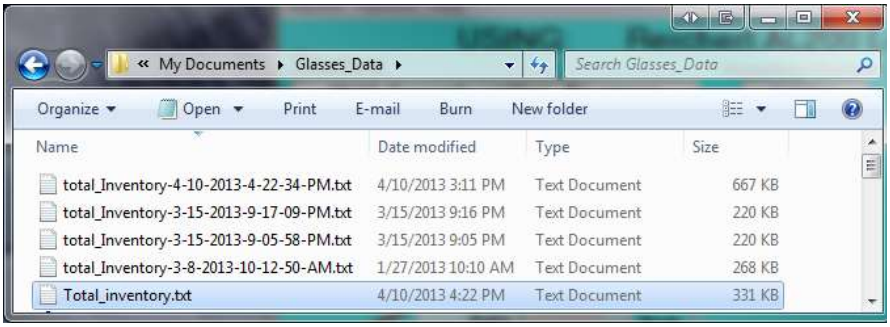


8. Click **Save to File and Continue** and then exit and restart Glasses Reader and you will see the window on the right. Notice how the **Highest Inventory Nr Read** at the bottom is now 3520.



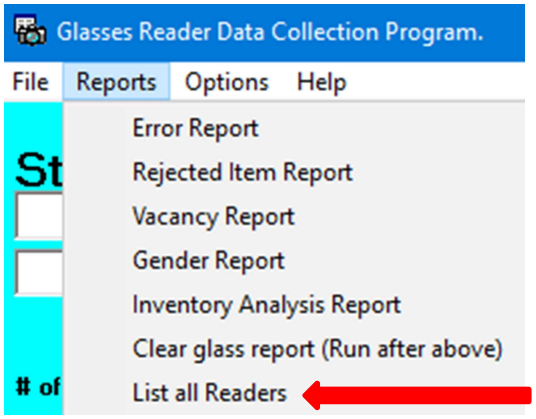
9. Now do a **Write Sorted Inventory and Check for errors** and you will see the below. Notice how the **Total_Inventory.txt** file is now 1/2 the size of the one at the top of the list. This file starts at 1 and then ends at 3520. Copy the file to be used by the first team and you are now completed.

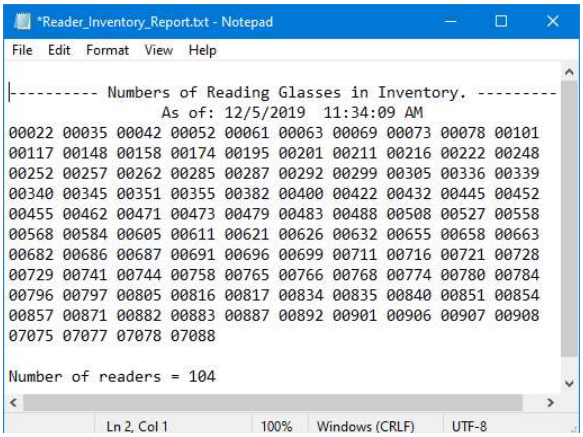
When the teams return update each file separate and merge them together using the Glasses Reader Merge function. **Remember to change the Maximum Number of Locations back to the default of 32000.**



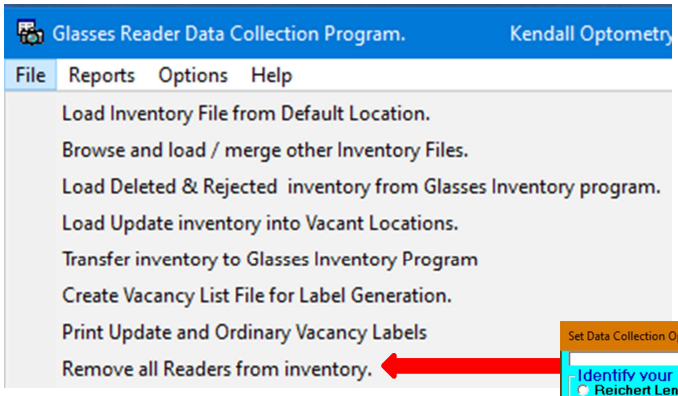
3.12 Listing and removing readers from inventory.

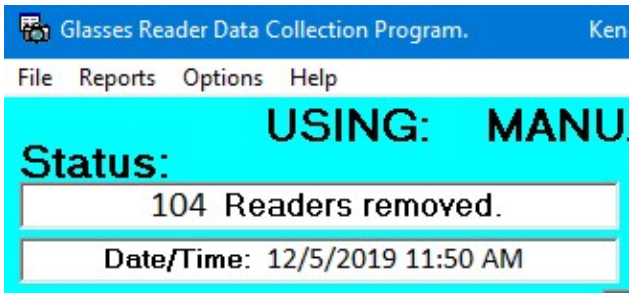
In order to increase the probability of a match we suggest that readers be removed from the inventory and be replaced with prescription glasses. To make that easier, the Glasses Reader program has two new features available. First you can list all readers by clicking **Reports | List all Readers** as you see below left. Select this option and you see the below right list of readers.



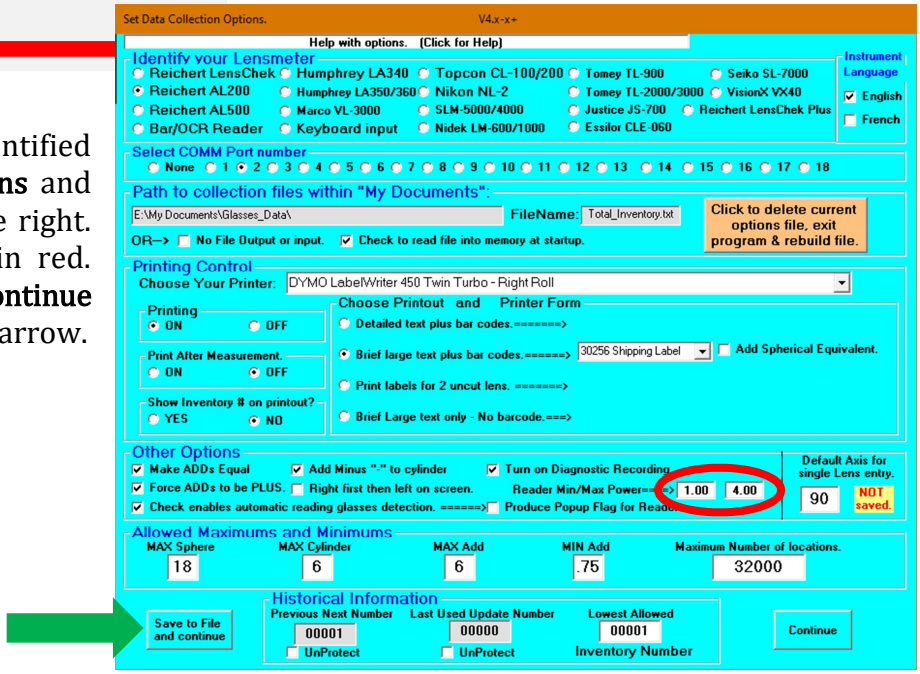


To remove all these readers click on **Remove all Readers from Inventory** as you see at the below/left and then on the top/left of the screen you will see the graphic at the below/right.



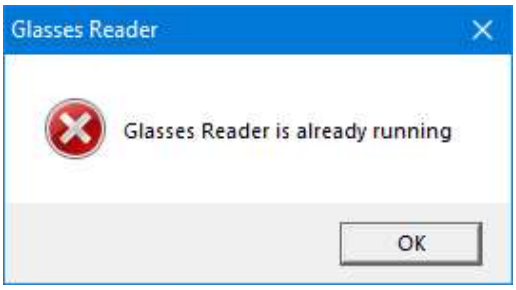


To control what glasses are identified as readers just click on **Options** and you will see the graphic to the right. Change the numbers circled in red. Now click the **Save to File and continue** button pointed to by the green arrow.



3.13 Preventing multiple executions of Glasses Reader.

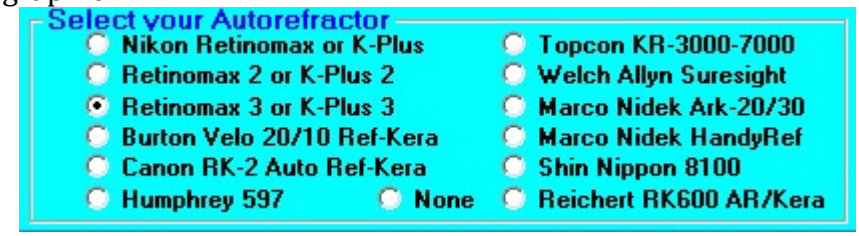
Sometimes when you double click Glasses Reader it might not respond immediately. Then you may double click again. As a result you could end up with two copies of the program running. This means that when you measure a pair of glasses the measurements might go into the first execution of the program rather than the second. Version 4.6-13 and above of this program resolves this issue. If you try to bring up a 2nd copy of the program this is what you will see.



4.0 Using the Glasses Inventory Program

The Glasses Inventory program is used to dispense your glasses in the clinic. Even though in most cases there is only one laptop involved, the inventory can be shared between multiple autorefractors being controlled by multiple PCs. See Section 4.4.

The Glasses Inventory Program version 7.4-2 or above supports the list of autorefractors as shown in the below graphic:



which is what you see when you go into the options screen of this program.

4.1 Clinic Operational Steps using the Inventory Program

In an eyeglasses clinic there are several steps which must be performed in order to satisfy a patients needs for prescription eyeglasses.

Here are the major steps: (Review the footnotes)

1. Assign a patient number to the patient when he/she enters the clinic. Write their age on the armband which also has their patient number. You can also use wide masking tape (placed on shirt or blouse) with a sequential patient number plus their age written on it. You may also determine the dominant eye at that point. If so, place **Right** or **Left** on the tape also.
2. Dilate the **young**[4] patient's eyes before testing with the autorefractor.
3. Set up the computer for measurement. Press CLEAR, Enter Patient number and age.
4. Prepare the patient for the test. (No blinking, Open wide, and look straight)
5. Measure the patient's eyes with the autorefractor.
6. Transfer the measurement to the computer by pressing PRINT on the autorefractor.
7. The computer displays possible glasses for the patient. Refine list if needed using the Wizard.
8. Print the pick list.
9. Fitters work with the patient fitting him/her with the appropriate pair of glasses from the list.
10. Fitters return the pick list with the pair of glasses circled which have been removed. They also should put "-R" to the right of any pair of glasses which have been rejected.
11. Computer operator records that the glasses have either been **rejected**[5] or removed from inventory.
12. Shake hands with the happy patient. Teach them about the Lord.

If you want to learn more about the program, read the next section and the Appendices with "GI:" before their name.

---

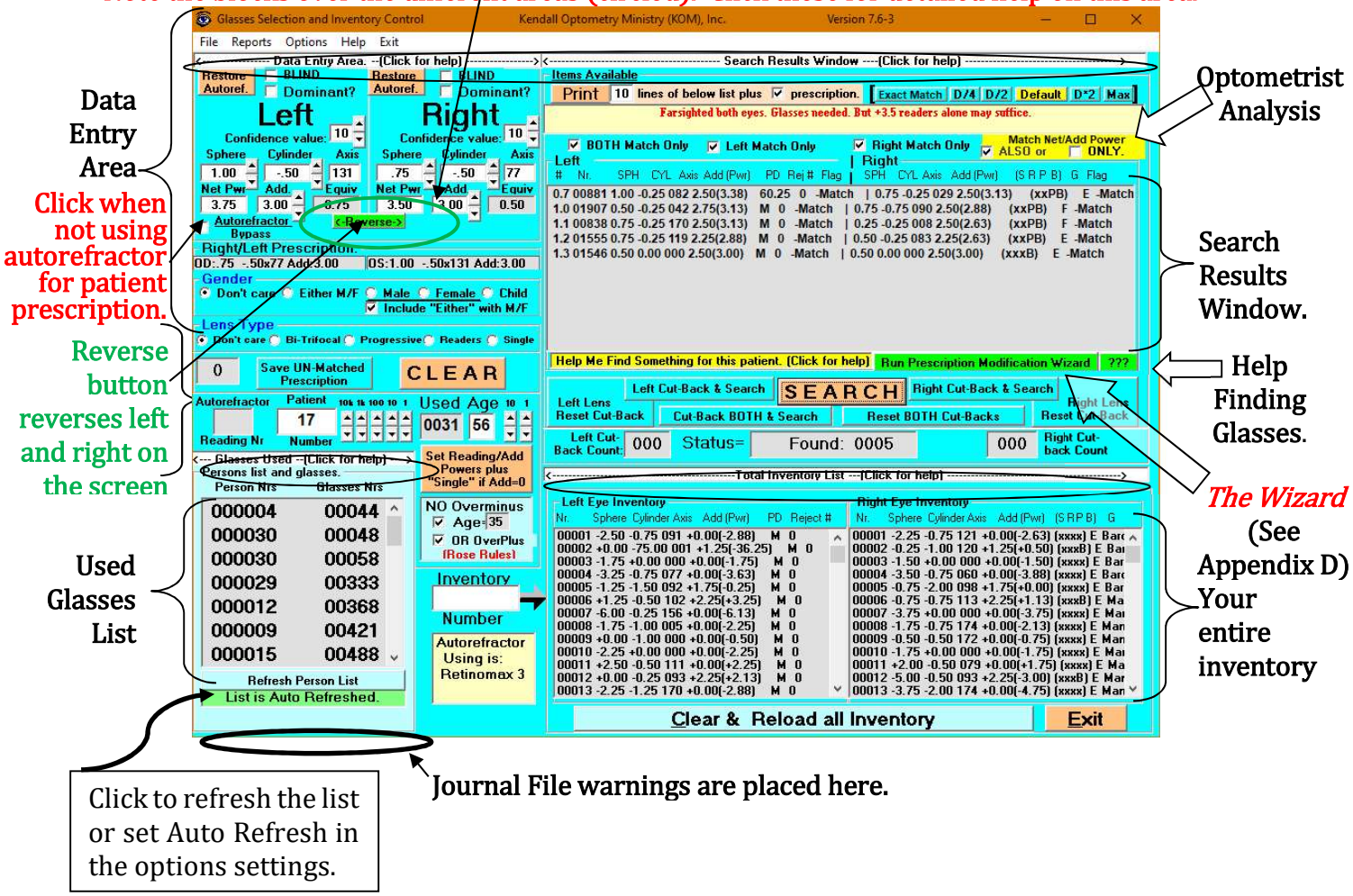
[4] "Young" is defined as follows. If the person is less than 20 of age, always dilate. If this person is between 21 and 30 you might have to dilate. If you have plenty of time, always dilate. If not, test the person twice and if the two tests spherical component widely differs, do the dilation. If they are close to being the same, go with their results. If the patient is between 31 and 40, you might have to dilate. Go ahead & test the patient twice and if the results are similar, go with their results. If they differ, do the dilation. You will likely never have to dilate if the patient is over 40 except for elderly people with a very tiny pupil.

[5] You classify a pair of glasses as "rejected" if the prescription on them is very close to their measurement but the patient cannot see out of them. "Rejected" does not mean that the patient does not like the glasses. When you categorize a pair of glasses as "rejected" you are saying that you suspect (but are not sure) that the glasses have been measured improperly. If the pair has been rejected 3 or more times, you should remove it from inventory.

4.2 Clinic Operational Steps Pictured

Below is a copy of the main screen of the Eyeglasses Inventory Program. Practice play (see section 4.10) is enabled. It is circled in green.

Note the blocks over the different areas (circled). Click these for detailed help on this area.



Here is a description of the steps involved.

1) **Assign a patient number to the patient when he/she enters the clinic.** You can put a 3"x2" piece of masking tape on their shirt or blouse with the number written on it or you can use an armband.

2) **Write their age on the armband or masking tape.**

Notice that the below patients all have uniquely numbered arm bands. When they enter the room, their age should be written on the armband.

3) Dilate the young patient's eyes before testing with the autorefractor.

There is no certain way of determining that you do or do not have to dilate a patients eyes. The younger they are, the more likely it will be needed. Teenagers and younger are certainly going to need to be dilated. (See footnote in section 4.1) Here are dilation instructions:

Dilating the eyes for the Autorefractor Tests.

(Do both eyes with one type of drops and then both with the other type)

Below are the types of drops. You put the drops into the eye in this order.

1. Proparicane Hcl .5% (Numbs the eye in about 5-15 seconds)
2. Tropicamide (1%) (will paralyze the focusing capability / accommodation of the eye and dilate it somewhat)

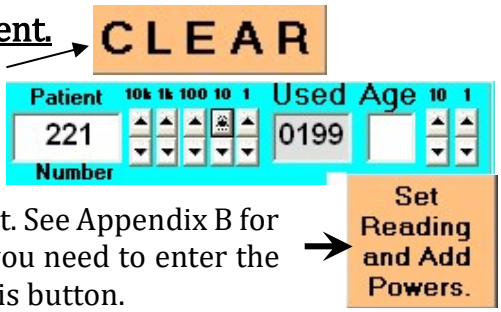
Put the patients you are dilating in a row and go down the row putting the first drop into 4 people. Go back to the first of the 4 and put a drop of the second medicine. If you do not numb the eye first, the 2nd drop will sting. Hand each a piece of paper with the current time on it. It takes about 15 minutes for the drops to take

One way of knowing if dilation is needed is to test the eyes with the autorefractor and get a 9 or 10 confidence level reading (Retinomax 2 only as Retinomax 3 doesn't show confidence level). Now test 1 or 2 more times getting the same confidence level. It the 2-3 readings differ a lot in the sphere, then you must dilate their eyes to get an accurate reading.

IMPORTANT

1) Even though these drops are prescription only, it isn't necessary to work with your licensed MD in their instillation as they are totally safe.
2) Work with your local Optometrist or Ophthalmologist to acquire Mydriatic Glasses (sunscreens) or sunglasses to give to the patient whose eyes have been dilated.

4) Set up the computer for measurement.



When you need to measure a new patient, click the **CLEAR** button as you see to the right. If you plan to look for bifocals which match the patient's reading power, then enter the age. So your pick list printout will have the right patient number on it, enter the patient number also. Double click patient number or age to clear or reset it. See Appendix B for more information on entering these fields quickly and easily. If you need to enter the age after you have measured the patient, enter it and then click this button.

5) Prepare the patient for the measurement

Either you or the translator must tell the patient two things: 1) "Keep your eyes WIDE open, 2) and do not blink" See training manual "How to do Many Optical Things" for Spanish for this.

6) Measure the patient's eyes with the autorefractor

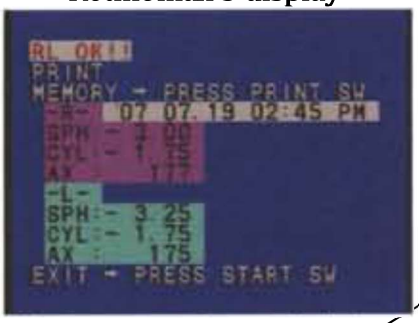
Be sure that you stabilize your elbow (as shown to the below/right) and use your hand to bridge between the autorefractor and the side of the patients head. Make sure that if the patient moves, the autorefractor will move the same direction and amount.

Measure the eyes

When you transfer the reading in the next step, the autorefractor printer will print a prescription for the patient. Try to get a reading accuracy of 9 or 10 (Retinomax 2 only) as shown on the printout on the next page. If you have no autorefractor printer, you can see this number in the viewfinder. With the Retinomax 3, follow the orientation rectangle at the top of the screen and the alignment arrows in the circle of dots for maximum accuracy.

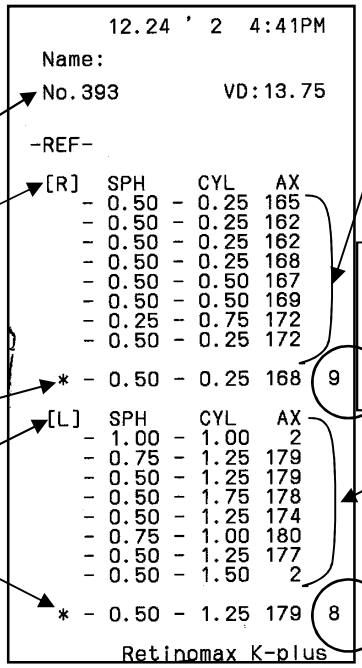
You improve your accuracy by 1) holding the instrument stable, 2) make sure the patient keeps his/her eyes wide open, 3) dilate younger patients, and 4) make sure the patient does not blink. With the Retinomax 2 and 3 autorefractors be sure the mire ring (the circle of dots) and the 2 dots on the left and right are clear.

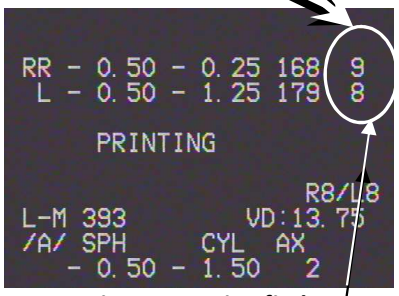
Retinomax 3 display



The confidence level does not show in the Retinomax 3 display.

Retinomax 2 Autorefractor Printout





Retinomax 2 Viewfinder

8 readings

Right eye

On PC screen

Reading number

Average reading sent to the computer

Left eye

8 readings

Confidence levels

NOTE

The confidence level is NOT automatically trans-ferred from the autorefractor to the computer. You must manually enter it on the main computer screen to get it right on the

Dymo Printout

Note

When there is no auto-refractor printer, then the Dymo printer will print the prescription.

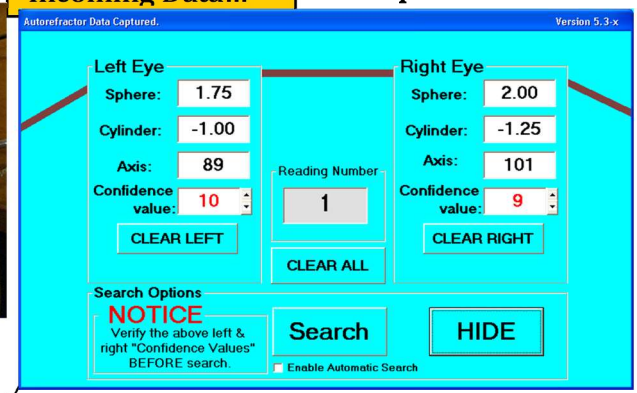
Your goal is a 9 or a 10 with the confidence levels. Only settle for 8 or less after trying several times to improve it. The Retinomax 3 does not display a confidence level.

7) Transfer the measurement to the computer.

Point the instrument & press PRINT

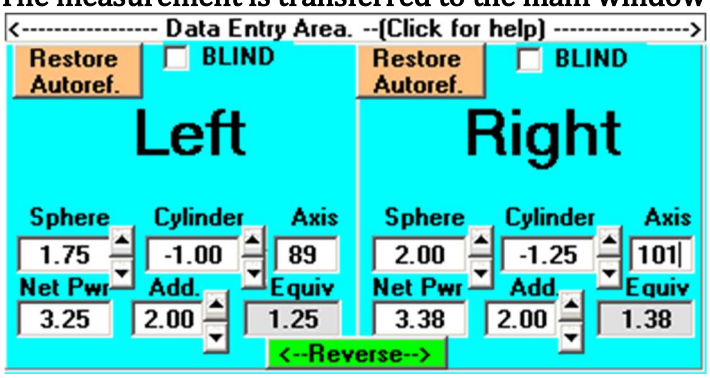
You see this window on the PC shows at the top of window.

Incoming Data...

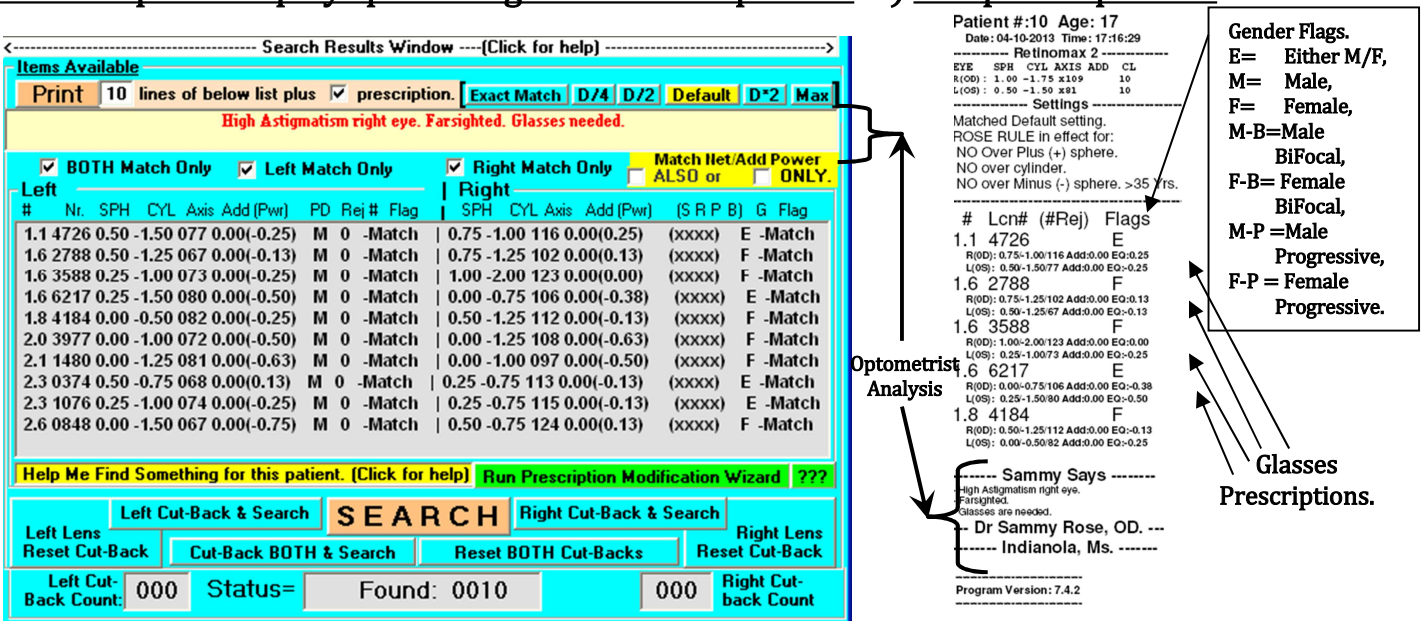


With KOM autorefractors in kits 101-102 through 131-132, there is no autorefractor printer so the instrument is cabled directly to the computer. Therefore, regardless as to where you point the autorefractor, the computer will receive the prescription. An autorefractor printer will be required with newer kits and is also in kit 133-134.

The measurement is transferred to the main window



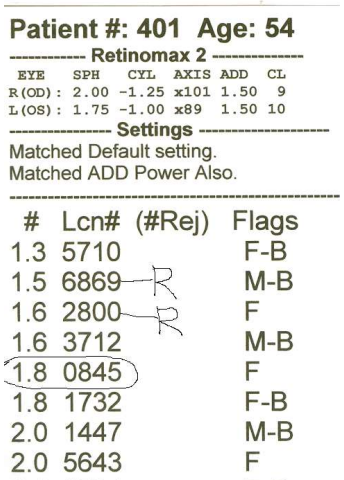
8) The computer displays possible glasses for the patient. 9) You print a pick list



On the pick list under the "Flags" column, "F-B" means "Female-BiFocal" and "M-B" means "Male-Bifocal". A number in the "(#Rej) column indicates the number of times this pair of glasses has been previously rejected. See footnote in Section 4.1 to describe meaning of "rejected" Now staple the above picklist to the prescription showing in step 5 and hand it to the fitters. See Appendix A on how to understand and revise the above search results. Appendix D shows how to use the Prescription Modification Wizard (green bar above) to find glasses when nothing else works. Note the **Optometrist Analysis** information now included with version 7.4-2.

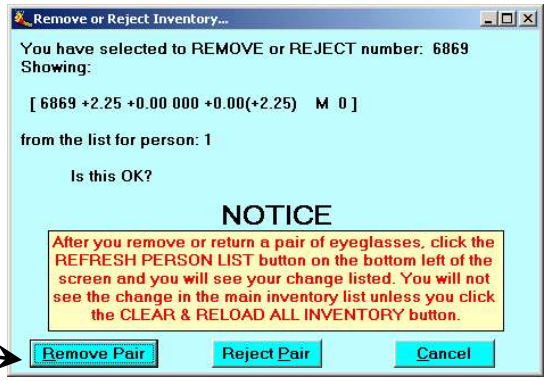
10) Fitters work with the patient fitting him/her with the appropriate pair of glasses from the list.

The pick list to the right shows a column identified with a #. This is the number which has been assigned to the pair of glasses to characterize how close the glasses came to the patient's prescription. The smaller the number, the closer is the match. The fitter should try glasses on the patient starting with the top item (#5710) on the list. Keep in mind that some of these glasses might be too big or the patient might not like their style. These are not "rejects". (See footnote in Section 4.1) If you try them on and the patient is not able to see through them (even though you BELIEVE they are the right prescription and size), you should call this a "reject" and mark it on the list accordingly. When you identify a pair of glasses, the fitter should mark the picklist and return it to the computer operator to record what has happened. To the right is a sample of a picklist which has been marked and returned to the computer operator.

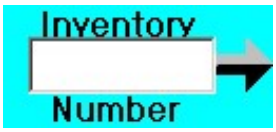


11) The computer operator records that the glasses have either been "rejected" or removed from inventory.

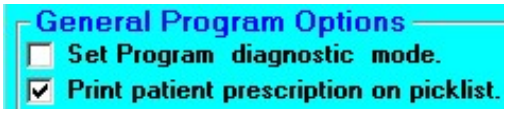
On an inventory list (showing in step 7) the operator clicks on a line. The first line (for the list in step 9) is for location number 6869. The operator will see the response to the right. Since the list has been marked with an "R" (for reject), the operator clicks on **Reject Pair**. The operator does the same thing for line number 2800. Lastly, the operator clicks line 0845 and then clicks **Remove Pair** to remove the glasses from inventory.



You can also enter the number into the Inventory Number field as shown to the right and then the window at the bottom/right quadrant of the screen will be repositioned so that the pair you wish to remove is at the top. This is what you normally will do.



The pick list on the bottom of the previous page does not show the prescription under every pair of glasses on the list. This is because the options setting to the right has been unchecked.



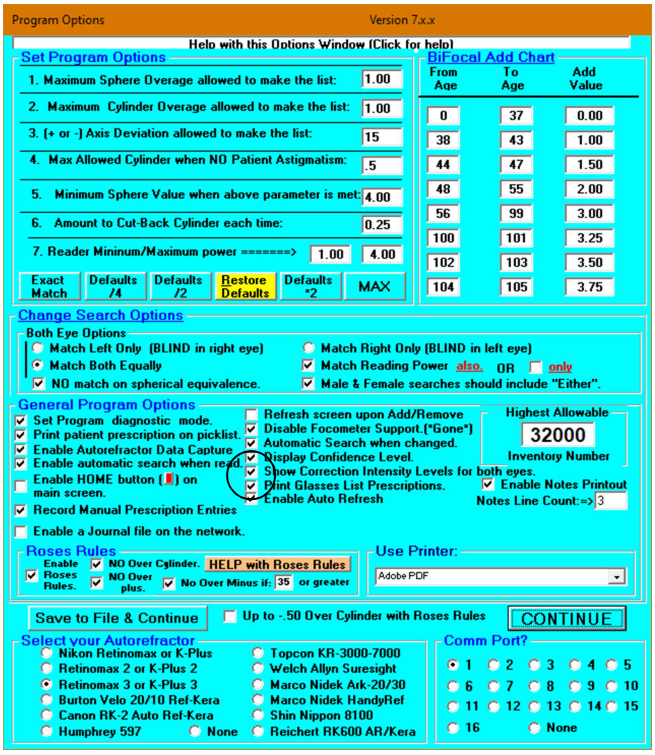
12) Shake hands with the happy patient.

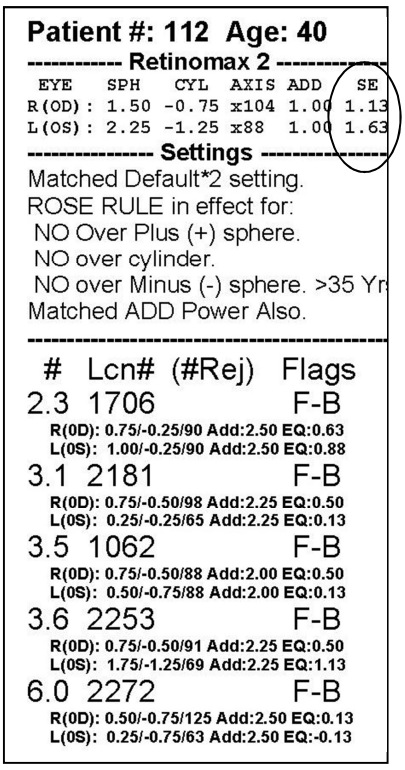
This man could not read or write but he wanted glasses. He could not plow a straight line across his field because he could not see anything across his field to plow toward. He was very happy he got glasses to help him in his farming.

13) and teach them about the Lord.

4.3 Add Spherical Equivalent to Prescription Printout

If you unselect "Display Confidence Level" (circled) in the options window to the left below, you will get a printout of the spherical equivalent (Sphere + ½ the cylinder) when you print the patient's prescription as shown to the right below. It is not a problem to no longer display the confidence level as most of the autorefractors this program supports do not transmit this information to the computer anyway.

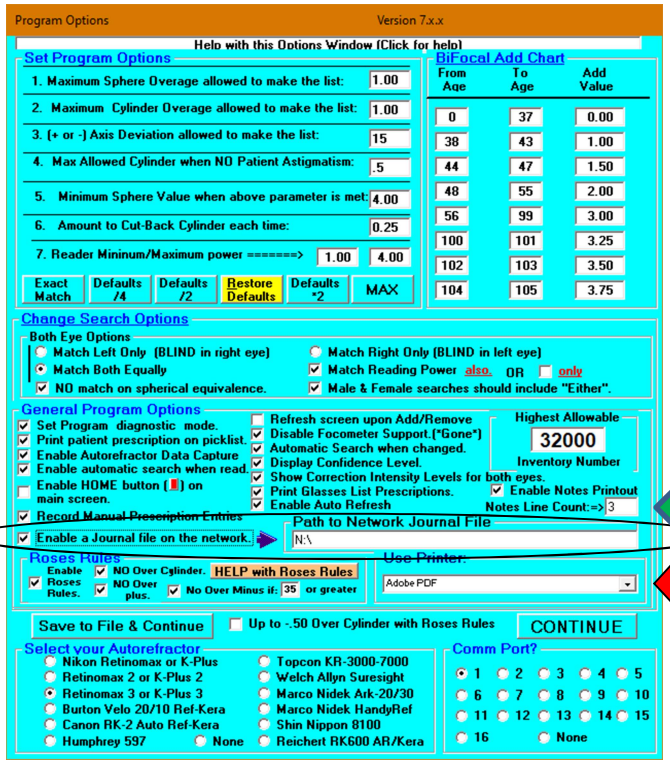




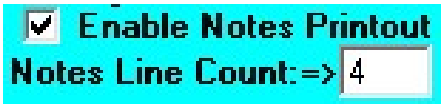
4.4 Share a common inventory from multiple laptops.

This feature allows you to have several laptops share and maintain a single eyeglasses inventory. This can be helpful if you have multiple autorefractors and you want to speed up the processing of your patients. You can also use it to place a laptop at the glasses inventory where the glasses are being fitted. This allows the fitters to immediately remove the pair of glasses from inventory without passing that responsibility over to the person operating the autorefractor.

A separate document describing this procedure has been written. This document is called **Running Multiple Glasses Inventory Systems on a Single Physical Inventory**. This is available upon request. The primary change to the setup of the Eyeglasses Inventory program is circled in the options window showing to the right.



The Notes Printout option pointed to by the green arrow above and also to the right allows you to create a space on the printout where you can write notes about the patient. You can specify the number of lines to be saved for this note.



Here is an example picklist showing this notes feature.

Patient #:17 Age:56
Date: 03-05-2021 Time: 16:45:57
---------- Retinomax 3 ----------
Wizard adjusted from:
R(OD): 0.00 0.00 x
L(OS): 0.00 0.00 x
to below for a match.

EYE	SPH	CYL	AXIS	ADD	CL
R(OD):	0.75	-0.50	x77	3.00	10
L(OS):	1.00	-0.50	x131	3.00	10

---------- Notes ----------

Write your note here.

---------- Settings ----------
Matched Default setting.
ROSE RULE in effect for:
NO Over Plus (+) sphere.
NO over cylinder.
NO over Minus (-) sphere. >35 Yrs.
Matched ADD Power Also.

#	Lcn#	(#Rej)	Flags
0.7	0881		E-P
	R(0D): 0.75/-0.25/29 Add:2.50 EQ:0.63		
	L(0S): 1.00/-0.25/82 Add:2.50 EQ:0.88		
1.0	1907		F-P
	R(0D): 0.75/-0.75/90 Add:2.50 EQ:0.38		
	L(0S): 0.50/-0.25/42 Add:2.75 EQ:0.38		
1.1	0838		F-P
	R(0D): 0.25/-0.25/08 Add:2.50 EQ:0.13		
	L(0S): 0.75/-0.25/170 Add:2.50 EQ:0.63		
1.2	1555		E-P
	R(0D): 0.50/-0.25/83 Add:2.25 EQ:0.38		
	L(0S): 0.75/-0.25/119 Add:2.25 EQ:0.63		
1.3	1546		E-B
	R(0D): 0.50/0.00/00 Add:2.50 EQ:0.50		
	L(0S): 0.50/0.00/00 Add:2.50 EQ:0.50		

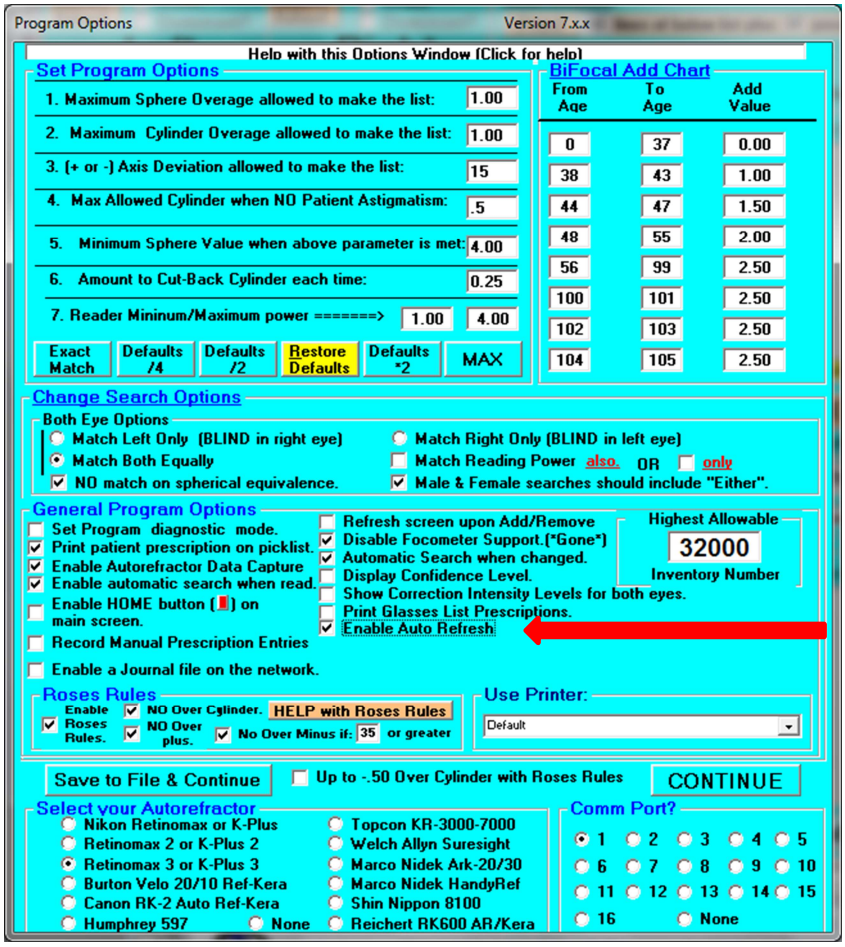
-------- Sammy Says --------
- Farsighted both eyes.
- Glasses are needed.
- But +3.5 readers alone may suffice.
- Because sphere plus and <= 3.00.
- And cylinder is low to moderate <= 1.00.

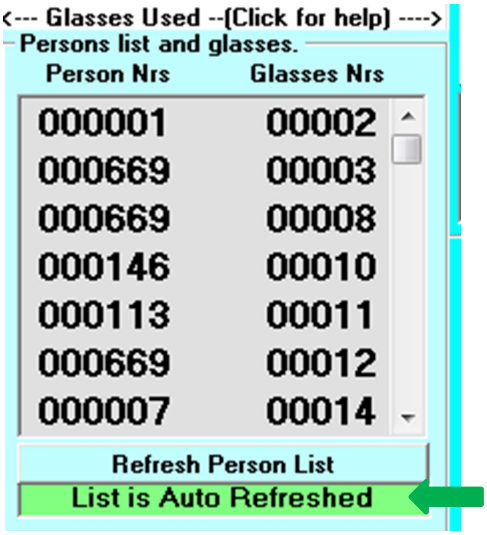
--- Dr Sammy Rose, OD. ---
-------- Indianola, Ms. -------

Program Version: 7.6.3

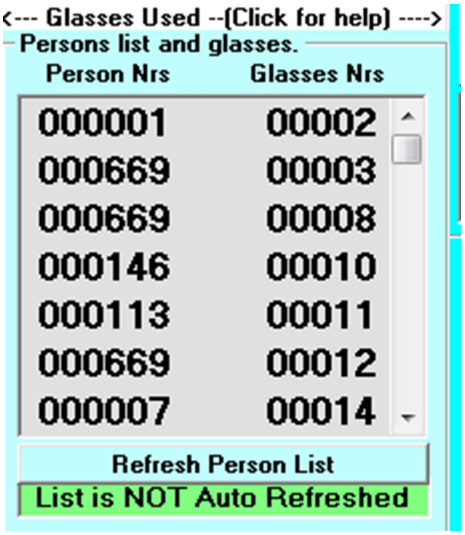
Glasses Inventory version 7.5-15 added a feature to prevent the execution of multiple copies of the Glasses Inventory program. Should you attempt to start another copy the graphic below will show. It is important that multiple copies not be executing as the first copy can capture the data from the autorefractor and not show it in the second copy making the operator think the communications between the autorefractor and program has failed.

Glasses inventory version 7.6-1 adds several features. It first allows you to enable/disable the auto refresh feature by turning it on and off in the options windows as you see at the red arrow below.

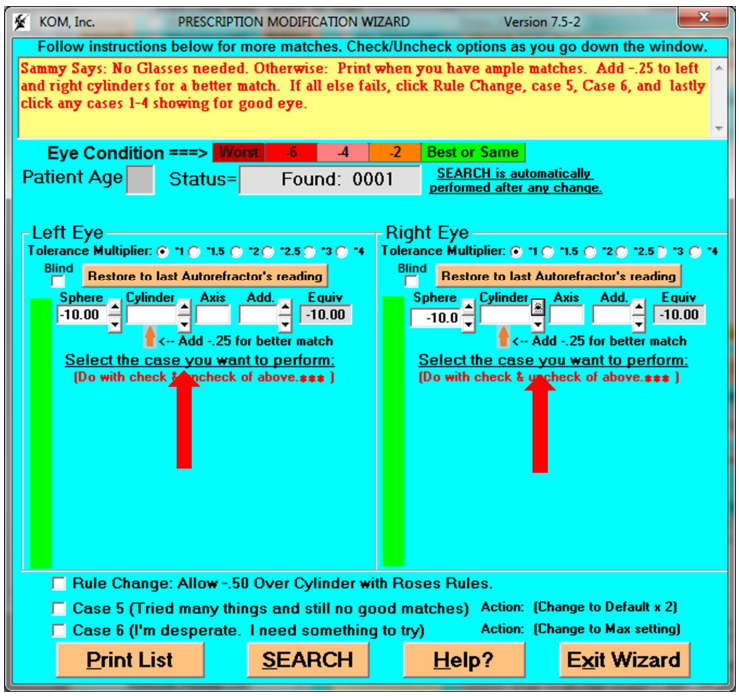




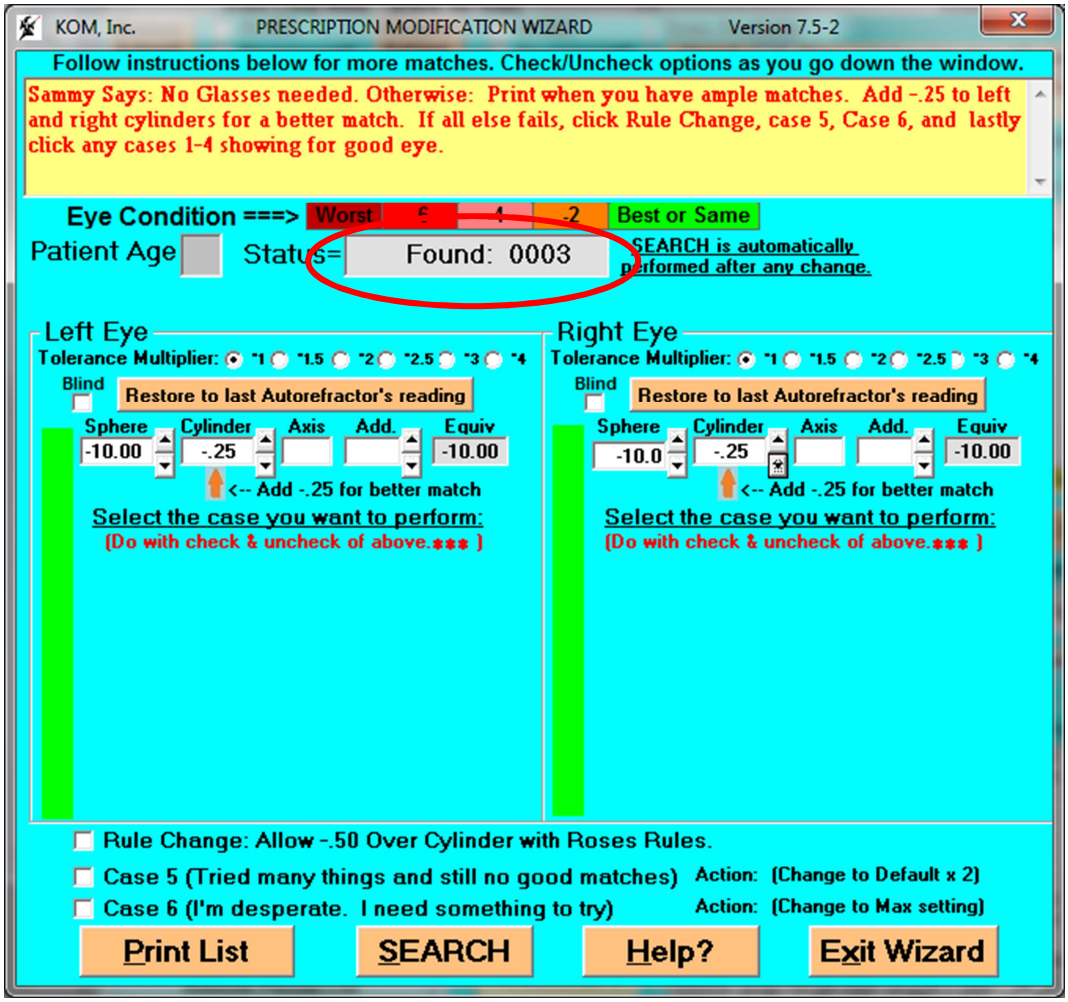
Click the green arrow to change this to read **List is NOT Auto Refreshed** as shown below to disable auto refresh.



Another new feature of Glasses Inventory version 7.6-1 is to increase the number of matches by prompting you to increase the cylinder on both left and right prescription from 0.00 to -0.25 as shown below.



If you click once the down arrow pointed to by the red arrows to the left you increase the cylinder by -.25 and you increase the number of matches from 1 to 3 as you see circled in red on the next page.



Another change in version 7.6-1 is to lessen the importance of axis when the cylinder is less than minus 2.00. This makes the order of the matches found to be more valid. The smaller the cylinder the less valid is the axis.

4.5 Selecting the Default Printer.

Within the graphic in section 4.4 there is a red arrow pointing to a dropdown. This dropdown allows you to select the appropriate picklist printer from your list of installed printers. This feature was introduced in version 7.1-6 of the Glasses Inventory Program.

4.6 Recording Manually Entered Prescriptions.

The green arrow above shown an option which allows you to record manually entered patient numbers, ages, and prescriptions. This allows you to use:

File | Load Previous Autorefractor and Manual Measurements.

to reload the information for another try at getting the best pair of glasses.

4.7 Listing Readers in your inventory file.

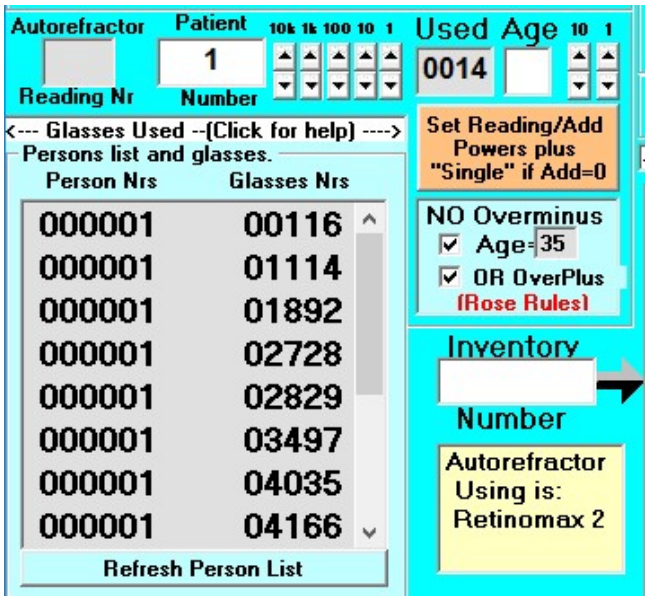
If you click on: **Reports | List all readers** you will get a list of readers in your inventory as you can see below.

---------- Numbers of Reading Glasses in Inventory. ----------
As of: 4/6/2019 6:25:45 PM
00116 01114 01892 02728 02829 03497 04035 04166 04173 04226
04252 04254 04282 04283

Number of readers = 14

4.8 Removing Readers from your inventory file.

To remove readers from your inventory file enter: **File | Remove all Readers from Inventory**
and you will see the below in the bottom left of the Glasses Inventory window:



You identify the minimum and maximum range of readers in the options windows as shown below:

4.9 Various Useful Search Options.

SEARCH BY GENDER

When searching for **Female** or **Male** eyeglasses, there may be occasions that you want to include glasses which are identified as **Either Male or Female**. If you click the **Include "Either" with M/F** checkbox on the main window, it will change the operation of the male or female search to include "Either".

On the Main window:

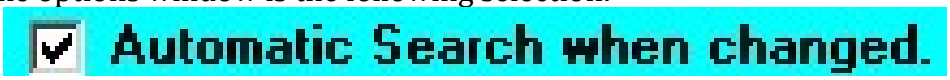
On the options window you can set the default for this to be checked.

SEARCH BY LENS TYPE

In the main window you see the following search selection.

If you click any of the above and click SEARCH the search window will just list glasses of that type. For example if you click "Bi-Trifocal" only Bifocal or Trifocal glasses will appear on the list.

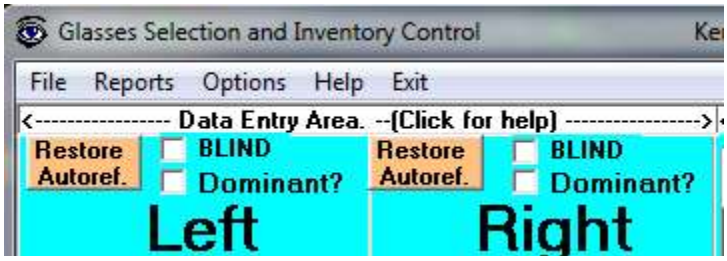
In the options window is the following selection.



If this option is checked, the search is automatically initiated when you change the Lens Type as shown above.

BLIND IN ONE EYE.

When a patient is blind in one eye it greatly increases the likelihood of getting a match. This is because only up to four parameters (Sphere, Cylinder, Axis and Add) need to be matched for the single good eye. To the right is the area of the screen which is affected. If the patient is blind in the left eye, click the "Blind" checkmark on the left side of the screen. If the patient is blind in the right eye, click the right "Blind" checkmark.

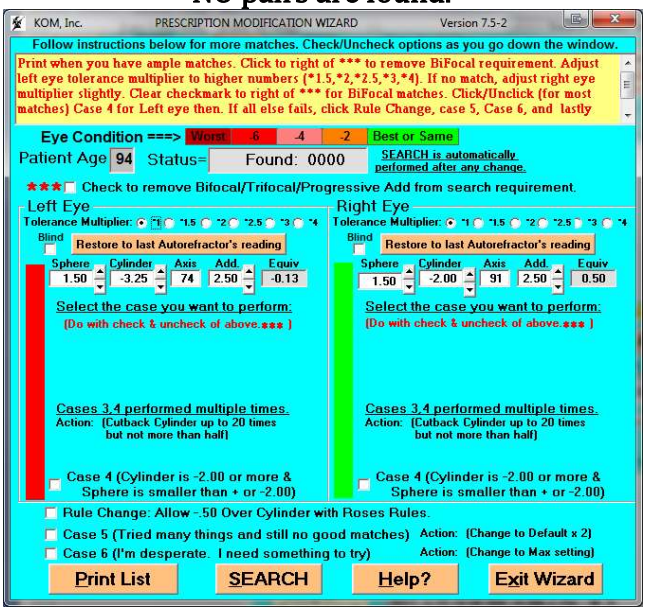


Sometimes you may have a patient with a VERY bad left eye (nearly blind) and a moderately bad right eye. If you search for a match and get nothing, then focus on correcting the right eye as it is much better that they can see clearly out of one eye than out of neither eye. You can also use this feature to fit a pair of glasses by matching the prescription of the better eye.

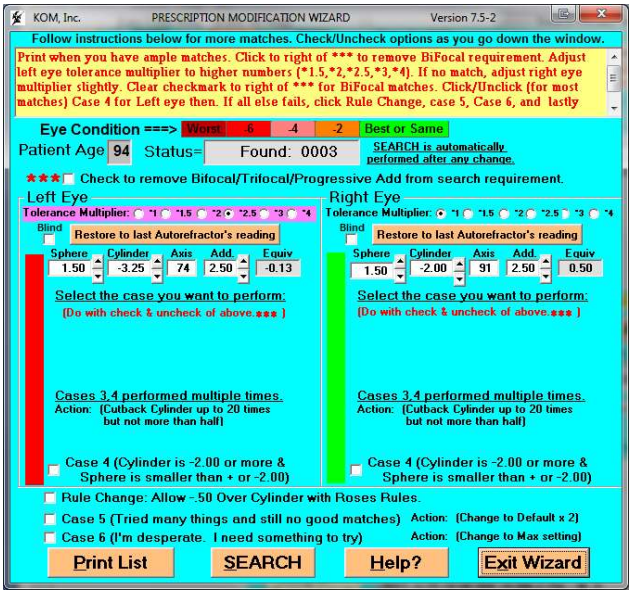
The wizard also can be used to make a good match to the dominant eye while improving the other eye. If you click **Dominant** for the appropriate eye as shown at the bottom of the previous page, they wizard will try to make a good match to the dominant eye regardless of whether it is the best eye. Check out the second pair of graphics below. Here is a video showing how to identify the dominant eye: https://youtu.be/BFxa7fWl8ZQ

Note that you can also use the **Prescription Modification Wizard** (see appendix D) to fit one eye better than the other. Assume in the below example the right eye is the best eye. Look at the below window on the left where no matches are found. On the right the tolerance multiplier for the left eye (the worst eye) has been changed from 1 to 2.5. This allows you to find 3 pairs to the list that could fit the right eye even better but do not degrade the left eye.

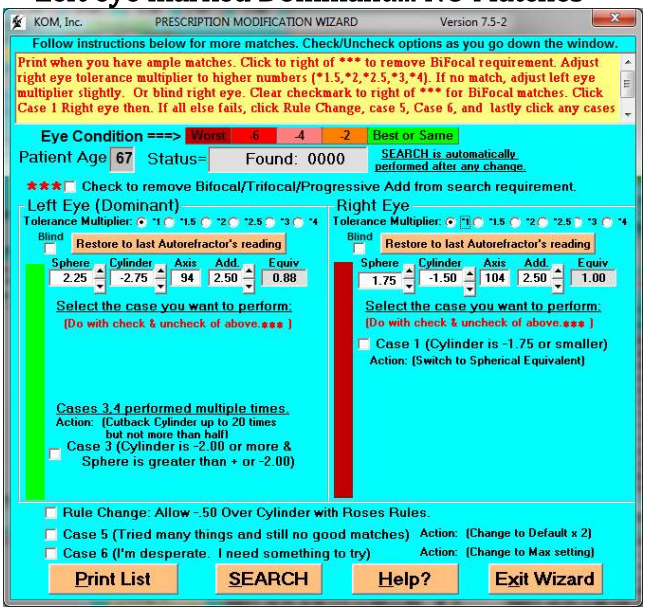
NO pairs are found.



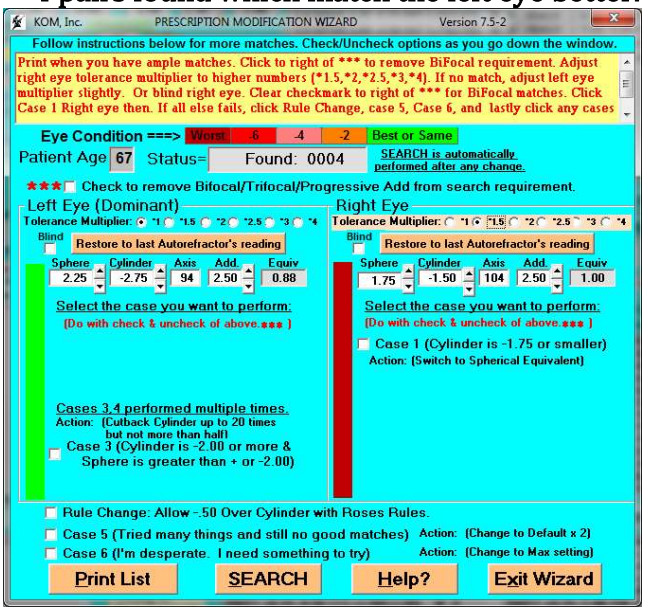
3 pairs found which match right eye better.



Left eye marked Dominant.... NO Matches



4 pairs found which match the left eye better.



4.10 Reloading a previous patient prescription.

Sometimes the fitter will find no glasses on the pick list which satisfies the patient. Perhaps they request that the operator of the PC re-enter the patients prescription and search for another possible list of glasses. Version 7.1-1 and above of the Glasses Inventory program has that feature.

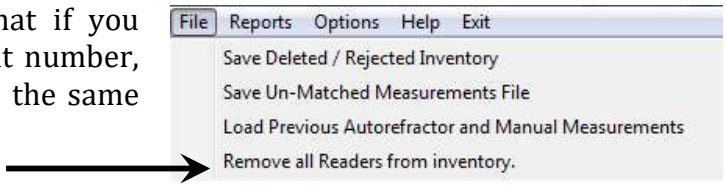
Every time an autorefractor measurement is made, a record is created in a file called **AutorefractorReadings.txt** which contains this information:

Patient Nr, Age, Right Sphere, Cylinder, Axis, Left Sphere, Cylinder, Axis, Measurement Date, Time.

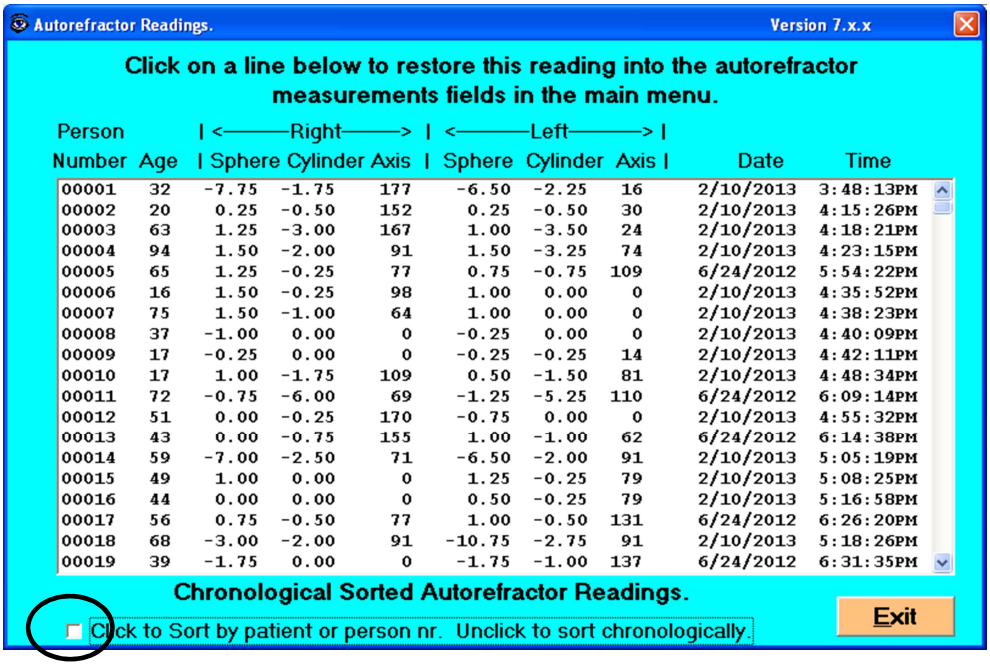
If sometime later one wants to see the list of autorefractor readings, they can do:

File | Load Previous Autorefractor and Manual Measurements

as shown to the right. Please note that if you manually enter a prescription the patient number, age and prescription will be recorded in the same list.

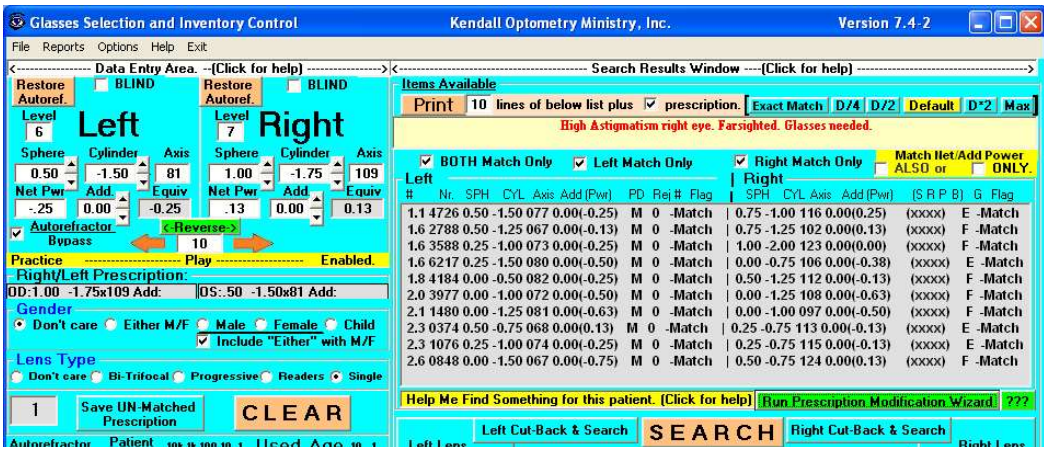


And a scrollable window like the below will appear.



Person Number	Age	Right Sphere	Right Cylinder	Right Axis	Left Sphere	Left Cylinder	Left Axis	Date	Time
00001	32	-7.75	-1.75	177	-6.50	-2.25	16	2/10/2013	3:48:13PM
00002	20	0.25	-0.50	152	0.25	-0.50	30	2/10/2013	4:15:26PM
00003	63	1.25	-3.00	167	1.00	-3.50	24	2/10/2013	4:18:21PM
00004	94	1.50	-2.00	91	1.50	-3.25	74	2/10/2013	4:23:15PM
00005	65	1.25	-0.25	77	0.75	-0.75	109	6/24/2012	5:54:22PM
00006	16	1.50	-0.25	98	1.00	0.00	0	2/10/2013	4:35:52PM
00007	75	1.50	-1.00	64	1.00	0.00	0	2/10/2013	4:38:23PM
00008	37	-1.00	0.00	0	-0.25	0.00	0	2/10/2013	4:40:09PM
00009	17	-0.25	0.00	0	-0.25	-0.25	14	2/10/2013	4:42:11PM
00010	17	1.00	-1.75	109	0.50	-1.50	81	2/10/2013	4:48:34PM
00011	72	-0.75	-6.00	69	-1.25	-5.25	110	6/24/2012	6:09:14PM
00012	51	0.00	-0.25	170	-0.75	0.00	0	2/10/2013	4:55:32PM
00013	43	0.00	-0.75	155	1.00	-1.00	62	6/24/2012	6:14:38PM
00014	59	-7.00	-2.50	71	-6.50	-2.00	91	2/10/2013	5:05:19PM
00015	49	1.00	0.00	0	1.25	-0.25	79	2/10/2013	5:08:25PM
00016	44	0.00	0.00	0	0.50	-0.25	79	2/10/2013	5:16:58PM
00017	56	0.75	-0.50	77	1.00	-0.50	131	6/24/2012	6:26:20PM
00018	68	-3.00	-2.00	91	-10.75	-2.75	91	2/10/2013	5:18:26PM
00019	39	-1.75	0.00	0	-1.75	-1.00	137	6/24/2012	6:31:35PM

If you would like to reenter patient 10, then click the line beginning with 10 and the following will appear in the main window. Notice how the patient number, age and prescription have been entered. If you have problems finding the patient, click the circled checkmark and the list will be sorted by patient number. Click EXIT on the above window to use the main window.



There are several benefits to this feature.

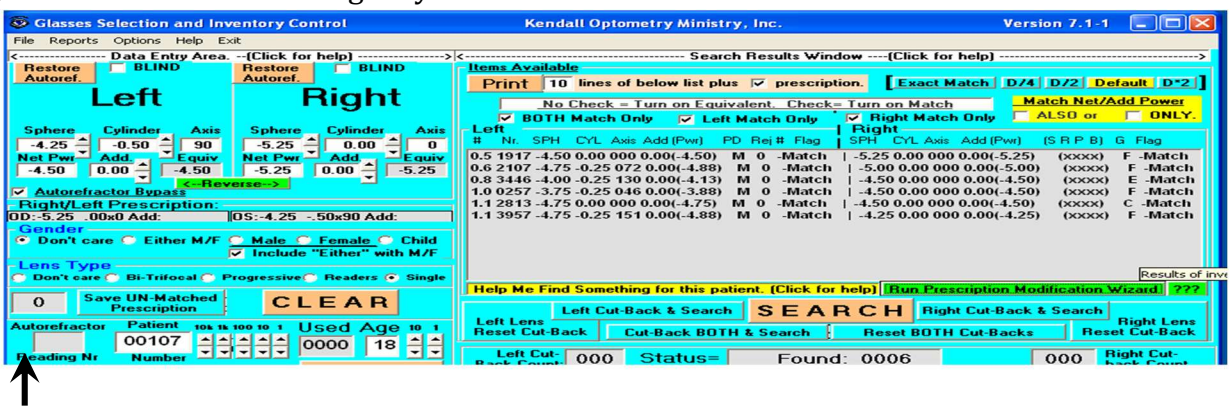
1) You produce a list of glasses for a patient and nothing on the list works. Perhaps the patient doesn't like any of the glasses identified. You would like to produce a new list without having to re-measure the patient.
2) You would like to reload prescriptions into the program to practice using the wizard to find an increased number of matches.
3) You return from your trip and would like to know what prescriptions you measured for the patients. Perhaps you want to see if most of the patients were near sighted. Perhaps many of them had a lot of astigmatism. From this analysis you might decide to bring more near sighted glasses on your next trip.

4.11 Version 7.1-1 and above changes.

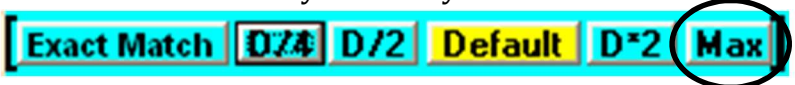
Several bugs were discovered and fixed. These changes increased the number of valid glasses listed in the search window.

The sort order was changed to allow the axis to have a greater affect on the "closeness of fit" or "margin" based upon the magnitude of the cylinder. The larger the cylinder, the greater the affect the axis difference will have on the margin. The smaller the Cylinder, the axis difference will have a smaller affect on the margin.

You can see the margin column identified with a "#" at the top in the below graphic from the search window of the main Glasses Inventory screen as you can see below. This is when searching for Left Eye: -4.25 -.50 90 and Right eye: -5.25 0.00 0



At the top/right of the Glasses Inventory window you will see the MAX button (shown below).



This new button is used when you have reached the end of your ropes trying to find a pair of glasses to help the patient. Sometimes you have a patient who comes in with a -11 prescription (VERY nearsighted) in both eyes. The program would not find a -7 prescription without clicking the MAX button. The -7 might allow the patient to navigate around the room where otherwise they are totally lost.

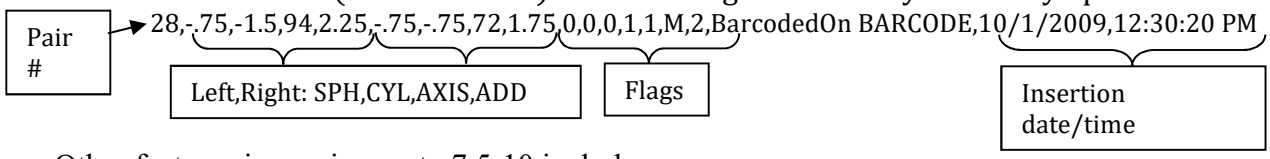
With versions 7.1.3 through 7.1-6 the following changes and bug fixes have been made.

Bug Fixes:

- Set ADD did not always work. (V7.1-5)
- Printer may not work under MAX or high closeness of match. (V7.1-5)
- Low minus sphere may not be found and MAX may not help. (V7.1-5)
- Autorefractor readings file corruption fixed. (V7.1-5)
- MAX setting now shows on printout. (V7.1-5)
- When closeness of fit number is > 10 it will appear on the printout. (V7.1-6)

Others fixed or functions added:
-Allow printer selection and save like Glasses Reader. This means something other than the default printer can now be used. (V7.1-5)
- When you save deleted-rejected do a rename of current file and not a delete. (V7.1-5)
- Roses rule for NO over cylinder now allows .25 (V7.1-5)
- Optionally .50 cylinder is allowed under the Prescription Modification Wizard. (V7.1-5)

The item in **red** above is useful if you want to review the glasses and their prescriptions of what had been removed during your trip. The files named **Total_Inventory_Deleted_Rejected.txt** and **Total_Inventory_Deleted_Rejected-7-14-2011-2-01-06-PM.txt** (with date & time in the name) will contain information (like the below) about those glasses. Every inventory update creates a new file.



Other features in version up to 7.5-10 include:

1. Support for the Nidek HandyRef autorefractor.
2. Close match for the dominant eye.
3. Introduction of the Wizard.
4. Analysis of every prescription using the artificial intelligence of an optometrist.
5. And several bug fixes.

4.12 The files being managed.

The inventory file for the Glasses Inventory program is called **Total_Inventory.txt**. Its location is shown in Appendix P. It is not changed by the Glasses Inventory program but is only changed by the Glasses reader program. You can go to this link for a description of the format of this file: http://eyeglasses-inventory.com/id7.htm
Note that this file can be easily imported into Excel to allow you to sort and print the file in different ways. Some teams do this as a backup to the laptop but to date no team has had to use it. A separate document is available from Kendall Optometry Ministry showing how to load your inventory into Excel.

There is another file which is called **Journalfile.txt**. This file holds the list of eyeglasses which have been removed from the main inventory file. It is maintained by the glasses inventory program. When new inventory is available for the Glasses Inventory program, the Glasses Reader program is used to update this file and reset it back to a null state.

Several users have deleted this journal file. If this is done with version 6.1-5 or earlier, when the program exits it can no longer keep track of the inventory which has been deleted. No future deletions were recorded. Version 6.1-6 and above allows you to delete the file named **JournalFile.txt** without having that affect. When the Glasses Inventory program starts up again, it sees that there is no journal file. When the first pair of glasses is removed, it is recreated.

Users should keep in mind that deleting this file causes the Glasses Inventory Program to no longer know which pairs have been removed from inventory.

The last file type is the file named: **AutoRefractorReadings.txt.** This file contains all the previous reading made on the autorefractor as described in the last section. Here is a sample excerpt from that file:

101,21,+ 3.75,-1.50,121,+ 2.75,-0.50,105,8/31/2010,3:04:24 PM
102,23,-04.50,-0.50,155,-05.75,-1.00,92,8/31/2010,3:10:22 PM
103,47,-04.50,-1.25,169,-04.50,-0.25,162,8/31/2010,3:15:33 PM
104,53,-04.00,-1.50,159,-04.00,-1.25,50,8/31/2010,3:16:00 PM
105,51,-06.50,-1.25,168,-04.50,-1.00,172,8/31/2010,4:51:49 PM
106,65,+ 0.25,-5.75,14,-01.50,-1.00,99,8/31/2010,4:52:01 PM
107,18,-05.25,-0.00,0,-04.25,-0.50,90,8/31/2010,4:52:12 PM

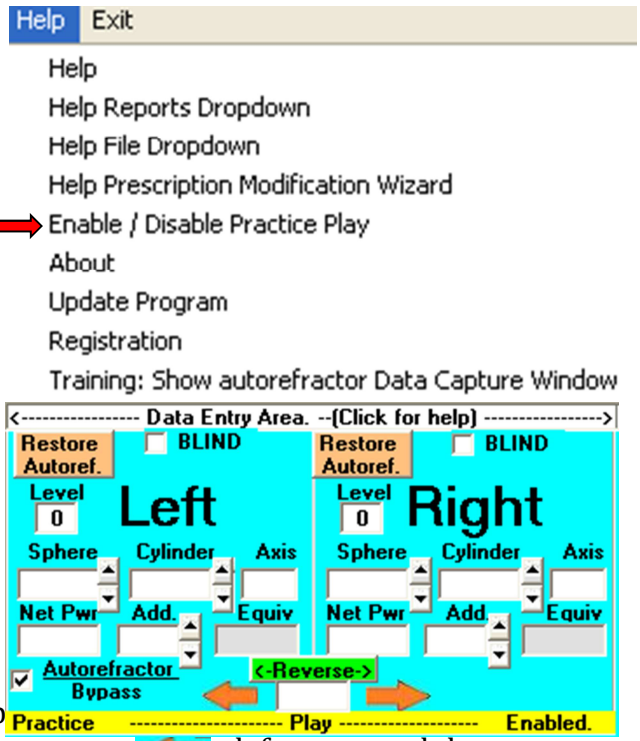
which is interpreted:

Patient Nr, Right Sphere, Cylinder, Axis, Left Sphere, Cylinder, Axis, Measurement Date, Time.

Footnote

The numbers in the Journalfile.txt file are indexes (not actual inventory numbers) into the file named **Total_Inventory.txt** which is your actual inventory. If your inventory file is contiguous with no openings, then the index and the inventory number will be the same, but when there are gaps in the inventory file, the index and the inventory number will be different.

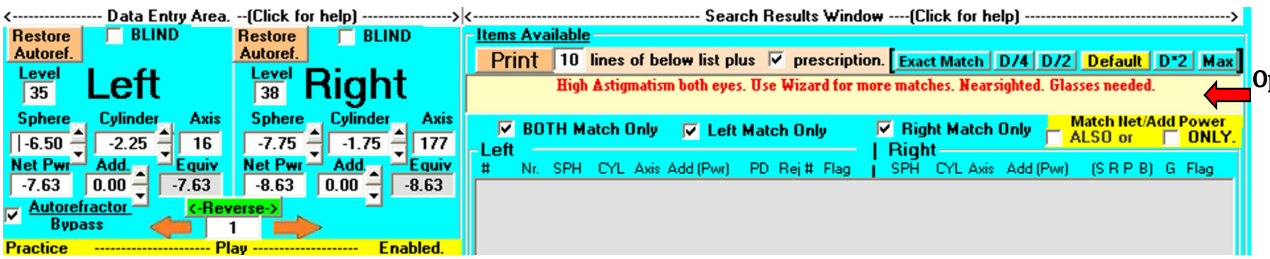
4.13 The Practice Play Feature.

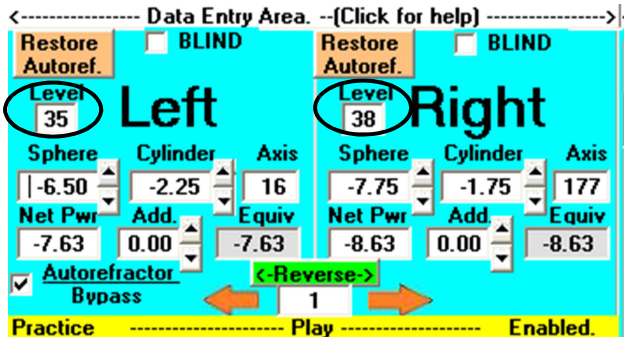


Introduced with version 7.4-3 is a practice play feature. This allows you to play a previously recorded series of measurement from either your own team or a recording provided on the Glasses Inventory CD Practice Inventory directory. Instructions to put this file in place are in a readme.txt file in this directory. The file name is **AutorefractorReadings_Practice.txt**. If the file doesn't exist, it is created by copying the file **AutorefractorReadings.txt** (which could be from your previous mission trip) and naming the copy **AutorefractorReadings_Practice.txt**.

Here is how you turn on the Practice Play feature. On the Glasses Inventory program click on **Help** at the top and you will see the graphic to the right/above. Select the option indicated and the **Data Entry Area** will change to look like the graphic to the right.

Click the orange right arrow a 1 (for patient number 1) will be entered in the field and you will see the graphic b the patient number will increment 1 each time. Click the orange (left arrow and the patient number will decrement. Enter a patient number between the arrows and it will jump to that number. The **Prescription Modification Wizard** in Appendix D can now be used.





The circled numbers in the graphic to the right are called the **Prescription Intensity Level** of the prescription required to restore the vision of the left and the right eye. The higher the number the worse the eye. It is calculated as: (All numbers made plus below.) (Sphere-AgeAdjustment+Cylinder)/.25 and is used for the Optometrist Analysis logic.

4.14 The Optometrist Analysis.

As seen on the previous page, version 7.4-2 now contains an analysis of each prescription entered. This same information is entered in more detail on the printer pick list. Below are a series of examples. First you see what is viewed on the screen followed by what is on the end of the printer pick list. They are similar but with more details on the pick list.

High Astigmatism both eyes. Use Wizard for more matches. Nearsighted. Glasses needed.

-------- Sammy Says --------
- High Astigmatism both eyes.
- Use Wizard for more matches.
- Nearsighted.
- Glasses are needed.

--- Dr Sammy Rose, OD. ---
-------- Indianola, Ms. -------

Tolerable Astigmatism. No Glasses Needed. Use Wizard for more matches. Remember dilation rules.

-------- Sammy Says --------
- Tolerable Astigmatism. No Glasses Needed.
- Tolerate: -1.00(CYL) and below(Adults) and
- -1.50(CYL) and below (Child 10 & below)
- Use Wizard for more matches.
- Remember dilation rules.

--- Dr Sammy Rose, OD. ---
-------- Indianola, Ms. -------

Few or no BiFocal matches made. Add may be wrong on any listed. Use Wizard or uncheck ALSO for more matches. Farsighted. Glasses needed. But +2.75 readers alone may suffice.

-------- Sammy Says --------
- Few or no BiFocal matches made.
- Add may be wrong on any listed.
- Use Wizard/uncheck ALSO for more matches.
- Farsighted.
- Glasses are needed.
- But +2.75 readers alone may suffice.
- Because sphere plus and <= 3.00.
- And cylinder is low to moderate <= 1.00.

--- Dr Sammy Rose, OD. ---
-------- Indianola, Ms. -------

Near Perfect Distance Vision. No glasses needed.

-------- Sammy Says --------
- Near Perfect Distance Vision.
- No glasses needed.

--- Dr Sammy Rose, OD. ---
-------- Indianola, Ms. -------

As you can see from these examples sometimes the optometrist says glasses are needed while in other cases they are optional or not needed at all. This decision is made based upon the years of experience of the optometrist considering the age of a patient. The same prescription for a young person might mean glasses are optional while for an older patient they are definitely required. Your people can tolerate bad eyes more readily than older people. In order to get a correct analysis it is critical that you enter the age of the patient.

4.15 The Enhanced Wizard features

Appendix D shows the Wizard as it was with version 7.4-3. This section shows the same Wizard with guidance features showing how to use the wizard to its fullest.

Many patients will not require the use of the Wizard for the program to produce a list of glasses which match their prescription. However; for those patients whose prescription requires use of the Wizard, the best matches are made only when the operator uses the Wizard skillfully.

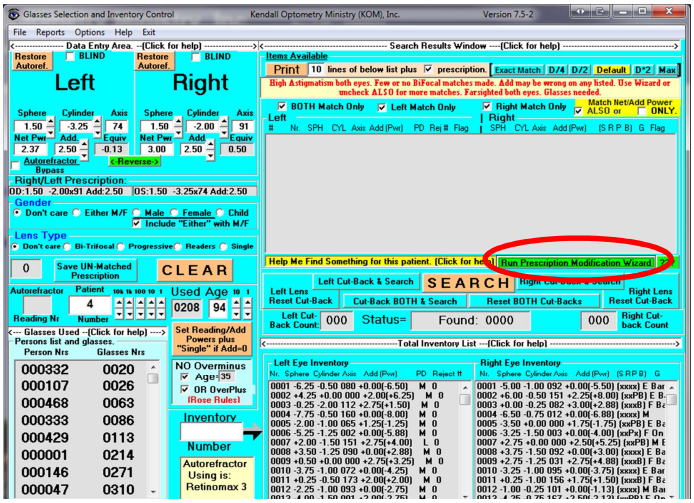
Conditions requiring the use of the Wizard are 1) high astigmatism[6] on one eye and not the other, 2) extreme nearsighted[7], 3) extreme farsighted[8], 4) blind in one eye, 5) near sighted in one eye and far sighted in the other, 6) high astigmatism in both eyes, and many other conditions which are rare and make it more difficult to find a match.

The following examples show how to use the Wizard properly.

[6] Cylinder is high.
[7] Sphere is a large minus number.
[8] Sphere is a large plus number.

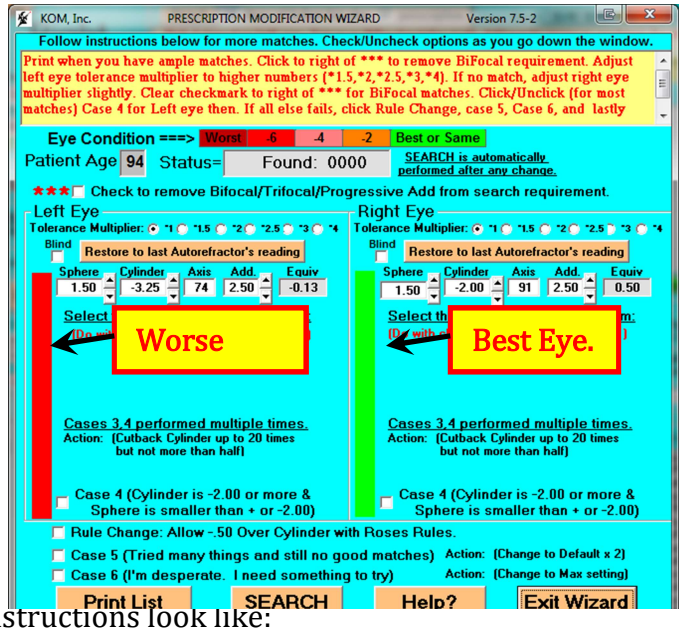
Example 1 (High Astigmatism both eyes)

Measure the eyes and get the below... No match. Green button (circled) is flashing. Click to start Wizard.



In this example the worst eye has the red bar and the best eye has the green bar. You adjust the tolerance multiplier on the worst eye.

Read the instructions at the top of the wizard window and follow them exactly to get more valid matches.

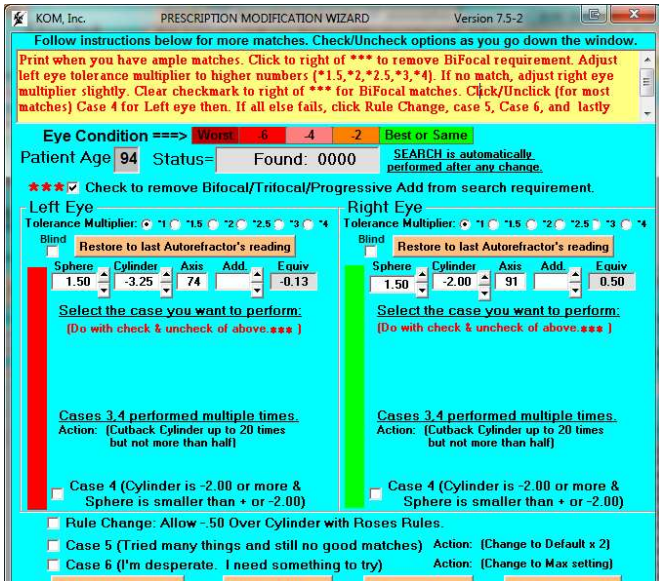


Here is what the instructions look like:

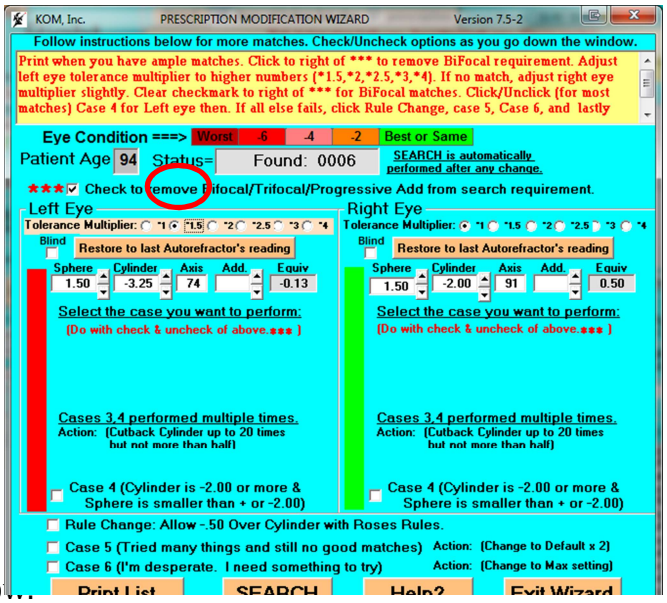
Print when you have ample matches. Click to right of * to remove BiFocal requirement. Adjust left eye tolerance multiplier to higher numbers (*1.5,*2,*2.5,*3,*4). If no match, adjust right eye multiplier slightly. Clear checkmark to right of *** for BiFocal matches. Click/Unclick (for most matches) Case 4 for Left eye then. If all else fails, click Rule Change, case 5, Case 6, and lastly click any cases 1-4 showing for good eye.**

Click Scroll down to see last line.

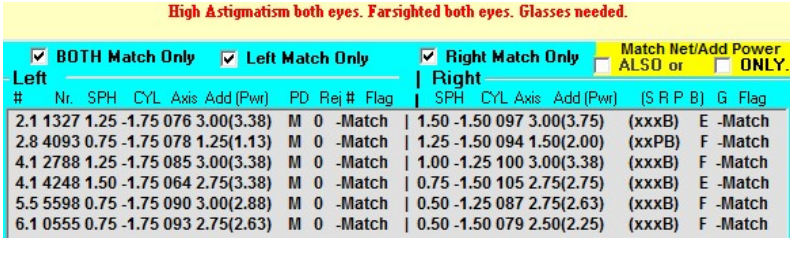
First you do: **Click to right of *** to remove BiFocal requirement** and it is still the same. No matches.



Next you do: **Adjust left eye tolerance multiplier to higher numbers (*1.5,*2,*2.5,*3,*4)** and there are 6 matches when you select ***1.5** as shown below.



Here are the list of matches from the main window...



High Astigmatism both eyes. Farsighted both eyes. Glasses needed.

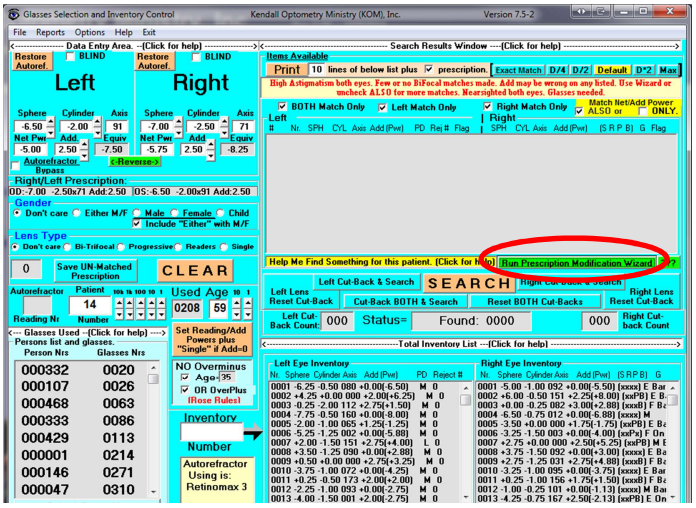
BOTH Match Only | Left Match Only | Right Match Only | Match Net/Add Power ALSO or ONLY

Left #	Nr.	SPH	CYL	Axis	Add (Pwr)	PD	Rej #	Flag	Right SPH	CYL	Axis	Add (Pwr)	(S R P B)	G	Flag
2.1	1327	1.25	-1.75	076	3.00(3.38)	M	0	-Match	1.50	-1.50	097	3.00(3.75)	(xxxB)	E	-Match
2.8	4093	0.75	-1.75	078	1.25(1.13)	M	0	-Match	1.25	-1.50	094	1.50(2.00)	(xxPB)	F	-Match
4.1	2788	1.25	-1.75	085	3.00(3.38)	M	0	-Match	1.00	-1.25	100	3.00(3.38)	(xxxB)	F	-Match
4.1	4248	1.50	-1.75	064	2.75(3.38)	M	0	-Match	0.75	-1.50	105	2.75(2.75)	(xxxB)	E	-Match
5.5	5598	0.75	-1.75	090	3.00(2.88)	M	0	-Match	0.50	-1.25	087	2.75(2.63)	(xxxB)	F	-Match
6.1	0555	0.75	-1.75	093	2.75(2.63)	M	0	-Match	0.50	-1.50	079	2.50(2.25)	(xxxB)	F	-Match

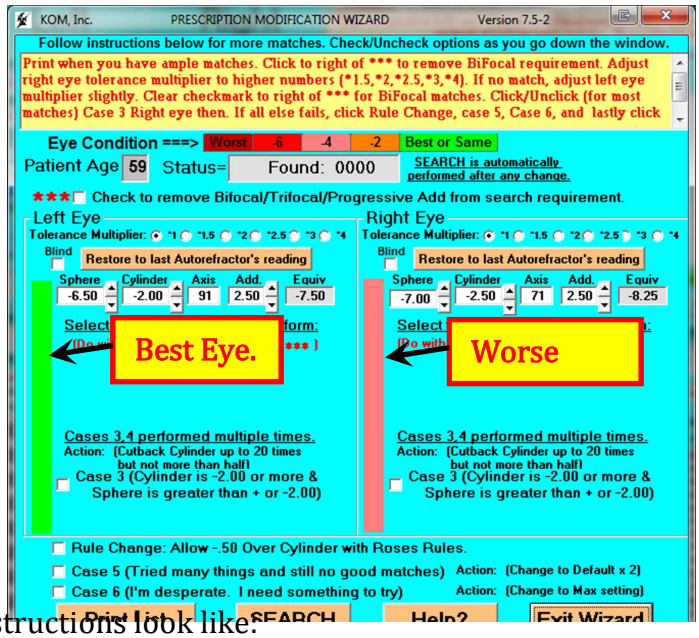
Print out these matches, hand the list to the glasses fitters and then go on to the next patient.

Example 2. (Moderate near sighted & Astigmatism)

Measure the eyes and get the below... No match. Green button (circled) is flashing. Click to start Wizard.



Read the instructions at the top of the wizard window and follow them exactly to get more valid matches.



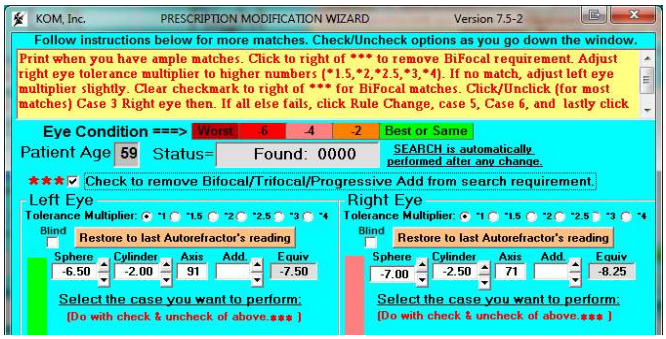
In this example the worst eye has the pink bar and the best eye has the green bar. You adjust the tolerance multiplier on the worst eye.

Here is what the instructions look like:

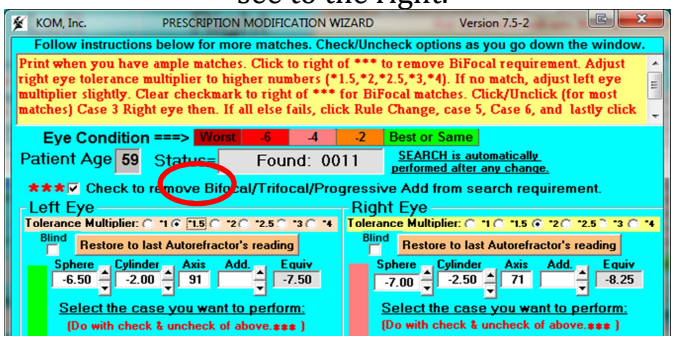
Print when you have ample matches. Click to right of *** to remove BiFocal requirement. Adjust right eye tolerance multiplier to higher numbers (*1.5,*2,*2.5,*3,*4). If no match, adjust left eye multiplier slightly. Clear checkmark to right of *** for BiFocal matches. Click/Unclick (for most matches) Case 3 Right eye then. If all else fails, click Rule Change, case 5, Case 6, and lastly click any cases 1-4 showing for good eye.

Click Scroll Down to view last

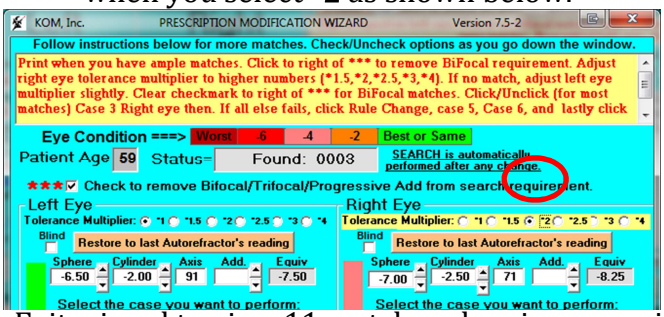
First you do: **Click to right of *** to remove BiFocal requirement** and it is still the same. No matches.



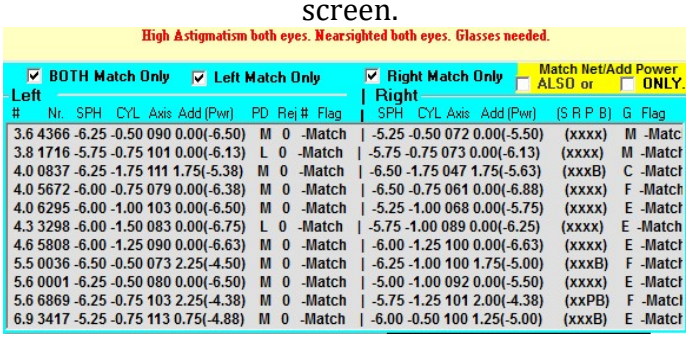
Next do: **If no match, adjust left eye multiplier slightly** click ***1.5** and you get 11 matches as you see to the right.



Next you do: **Adjust right eye tolerance multiplier to higher numbers (*1.5,*2,*2.5,*3,*4).** and there are 3 matches when you select ***2** as shown below.



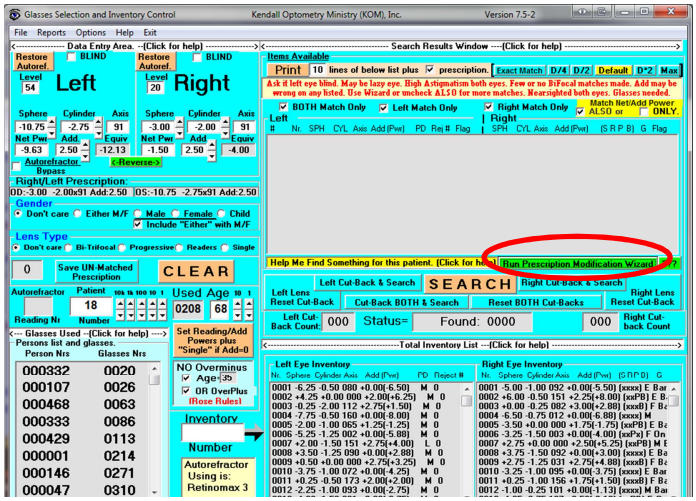
Exit wizard to view 11 matches showing on main screen.



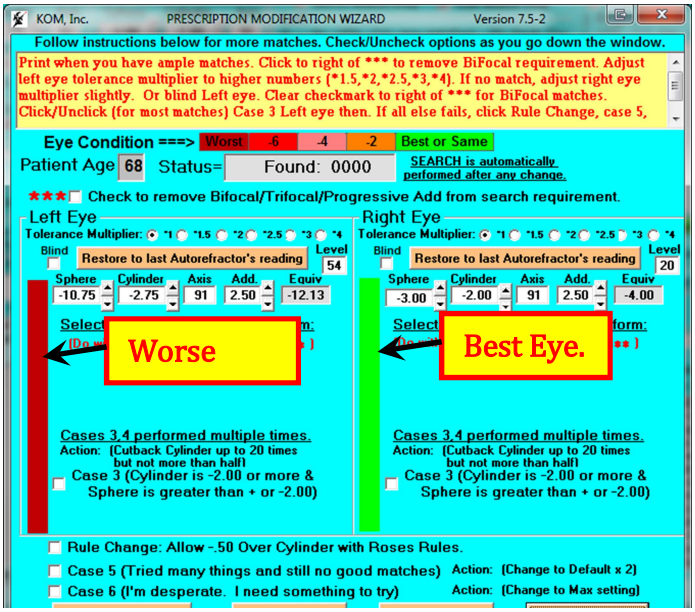
Print out these matches, hand the list to the glasses

Example 3. (Blind in one eye)

Measure the eyes and get the below... No match. Green button (circled) is flashing. Click to start Wizard.

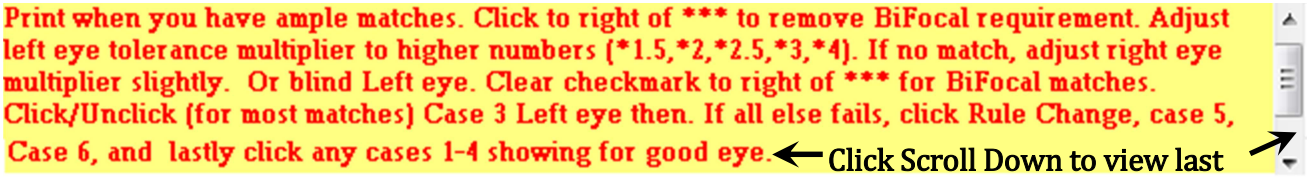


Read the instructions at the top of the wizard window and follow them exactly to get more valid matches.

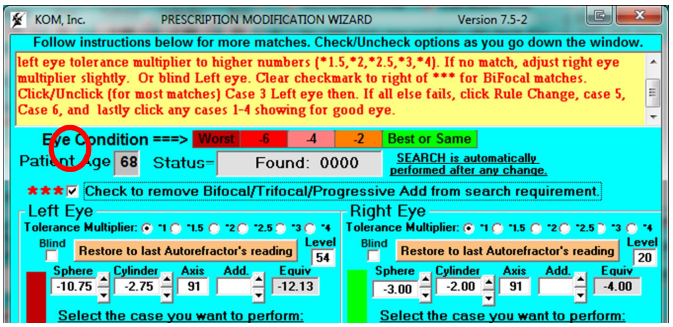


In this example the worst eye has the red bar and the best eye has the green bar. The worst eye is likely blind. You adjust the tolerance multiplier on

Here is what the instructions look like:

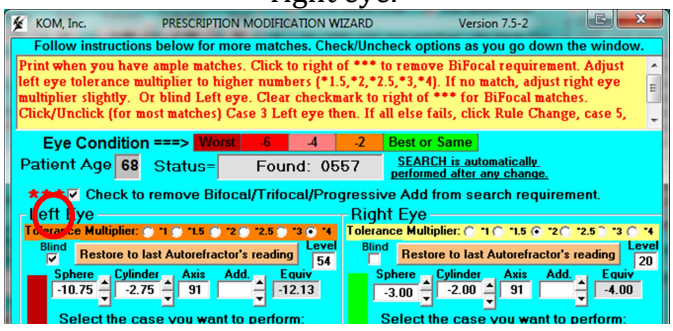


First you do: **Click to right of *** to remove BiFocal requirement** and it is still the same. No matches.

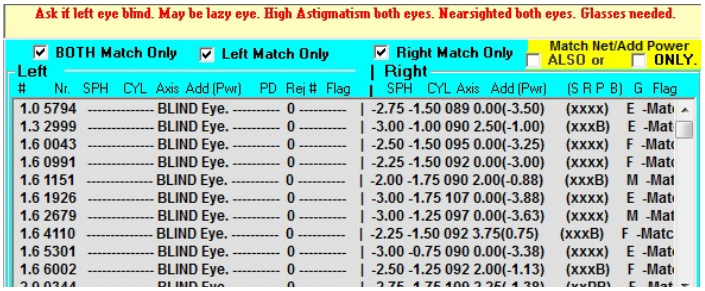


Next you do: **Adjust left eye tolerance multiplier to higher numbers (*1.5,*2,*2.5,*3,*4).** with *4 no matches. Then **If no match, adjust right eye multiplier slightly** when you select ***2** as shown below but no matches.

Finally do: **Or blind Left eye** and you have 557 matches because you are only matching the right eye.



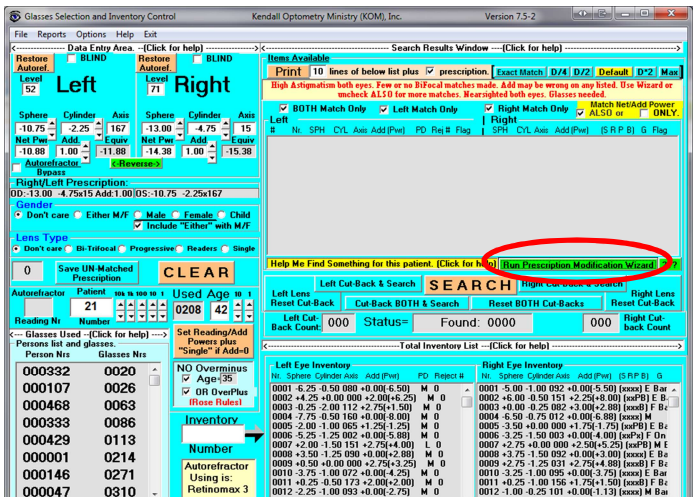
Exit wizard to view 557 matches showing on main screen.



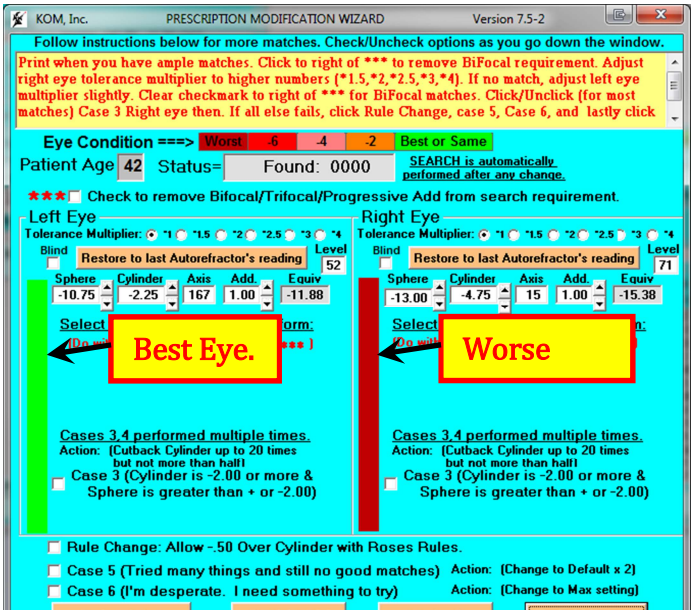
The left eye is marked **BLIND Eye**. Print out matches, hand the list to glasses fitters and go on to the

Example 4. (Extreme near sighted & Astigmatism)

Measure the eyes and get the below... No match. Green button (circled) is flashing. Click to start Wizard.



Read the instructions at the top of the wizard window and follow them exactly to get more valid matches.

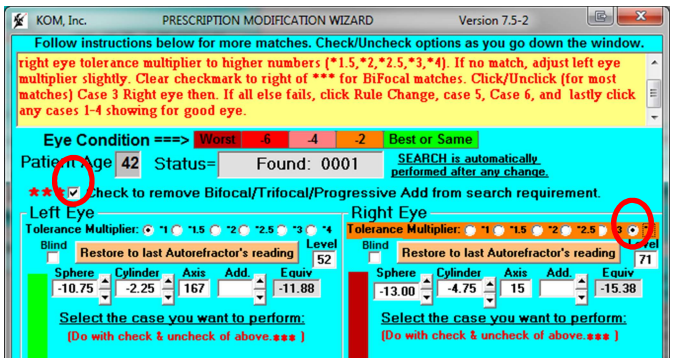


In this example the worst eye has the red bar and the best eye has the green bar. You adjust the tolerance multiplier on the worst eye.

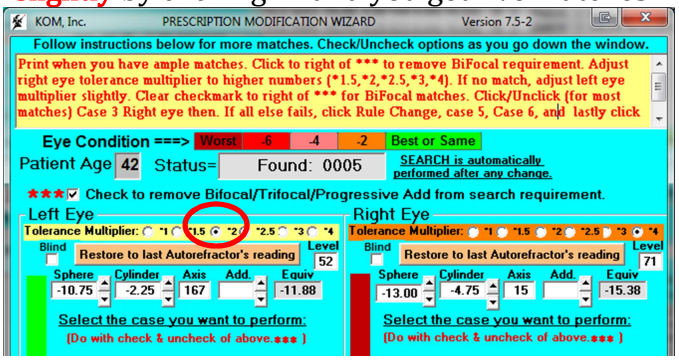
Here is what the instructions look like:

Print when you have ample matches. Click to right of *** to remove BiFocal requirement. Adjust right eye tolerance multiplier to higher numbers (*1.5,*2,*2.5,*3,*4). If no match, adjust left eye multiplier slightly. Clear checkmark to right of *** for BiFocal matches. Click/Unclick (for most matches) Case 3 Right eye then. If all else fails, click Rule Change, case 5, Case 6, and lastly click any cases 1-4 showing for good eye. ← Click Scroll Down to view last →

First do: Click to right of *** to remove BiFocal requirement then Adjust right eye tolerance multiplier to higher numbers (*1.5,*2,*2.5,*3,*4) to ***4** and there is 1 match. Print this match.



Next you do: If no match, adjust left eye multiplier slightly by clicking *2 and you get five matches.



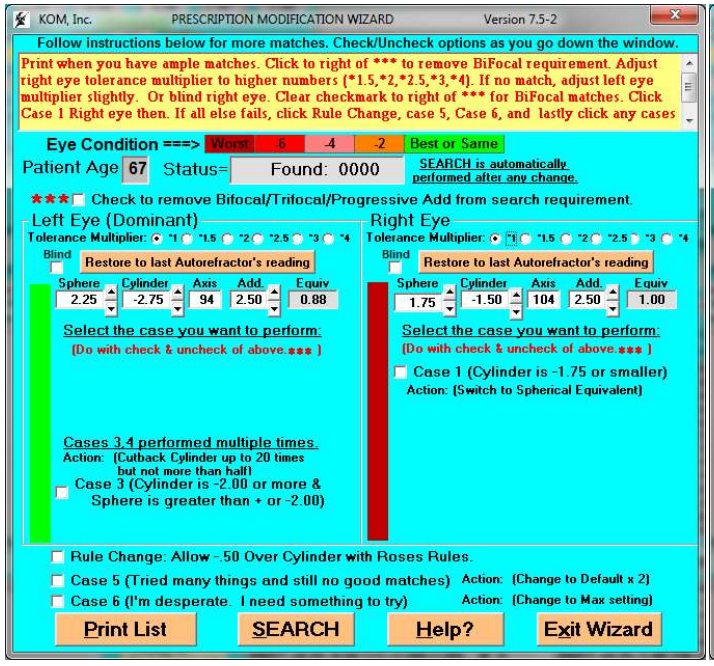
Exit wizard to view 5 matches showing on main screen.

Print out these matches, hand the list to the glasses fitters and then go on to the next patient.

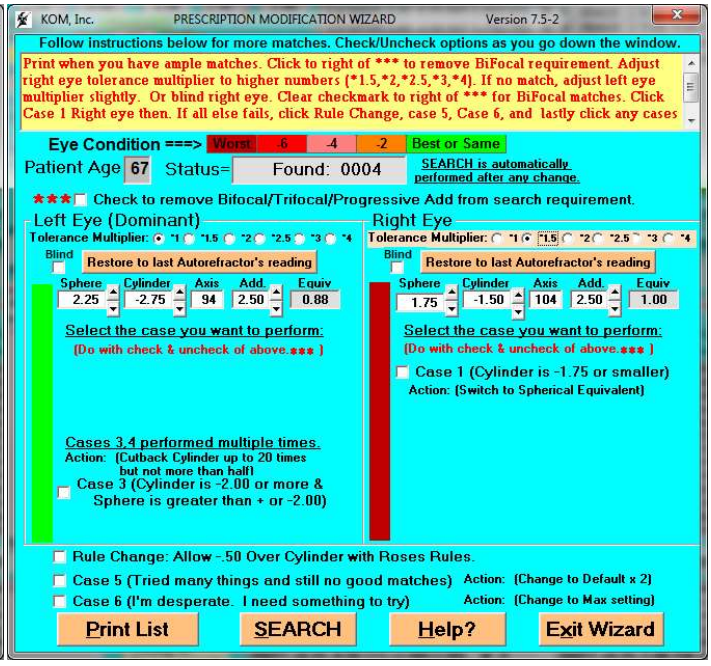
Example 5. Best match for the dominant eye.

On the top/left of the Glasses Inventory window you see the graphic to the right. If (for example) you click on **Dominant?** for the left eye and then activate the wizard. The wizard will try to make a better match for the left eye while improving the right eye as you see below;

No matches were found.



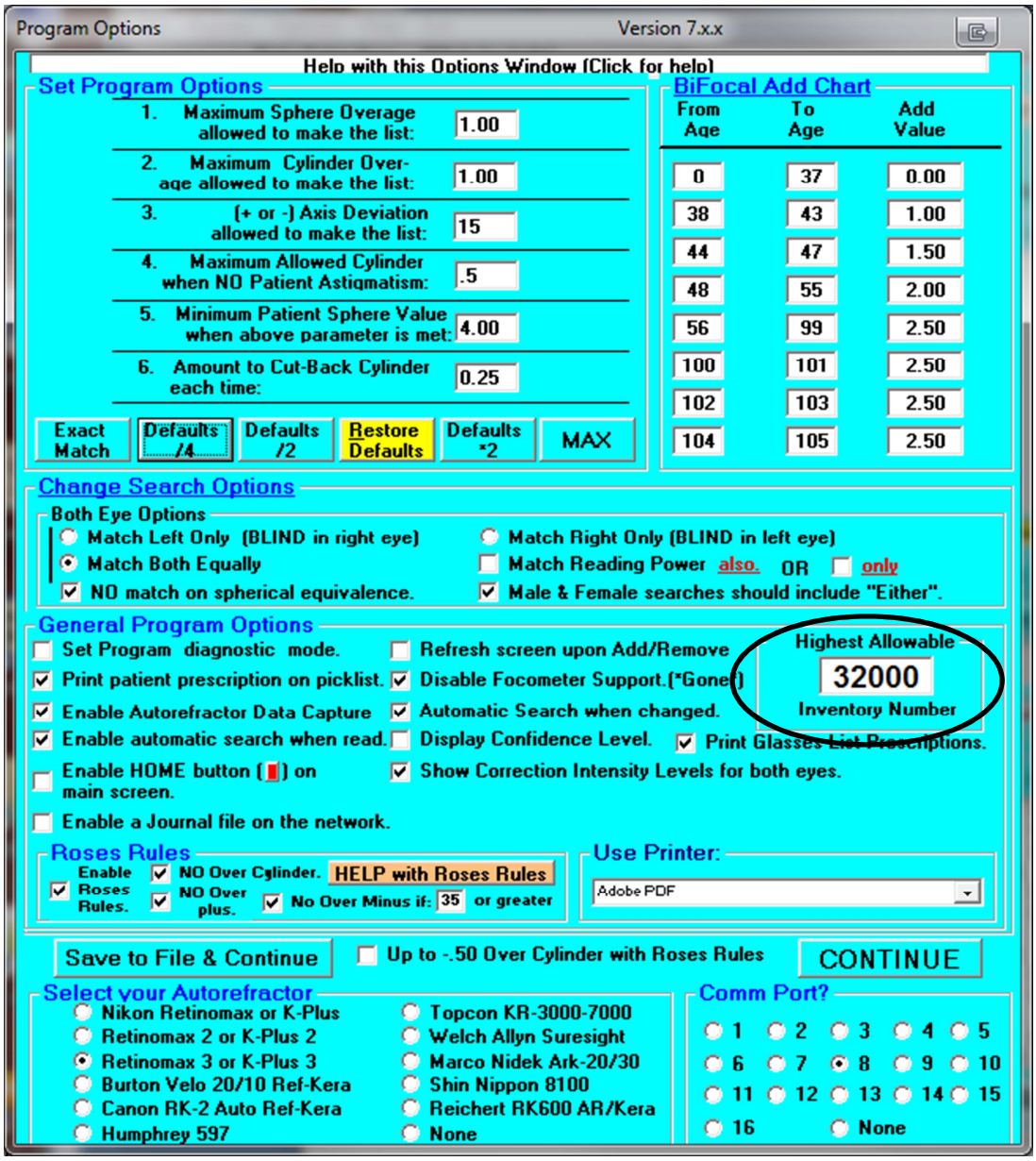
Adjust right eye tolerance multiplier & 4 matches found.



Sometimes it may be a better approach to get a close match for the dominant eye rather than the best eye which might be the same eye.

4.16 Operating with a Reduced Size Inventory file

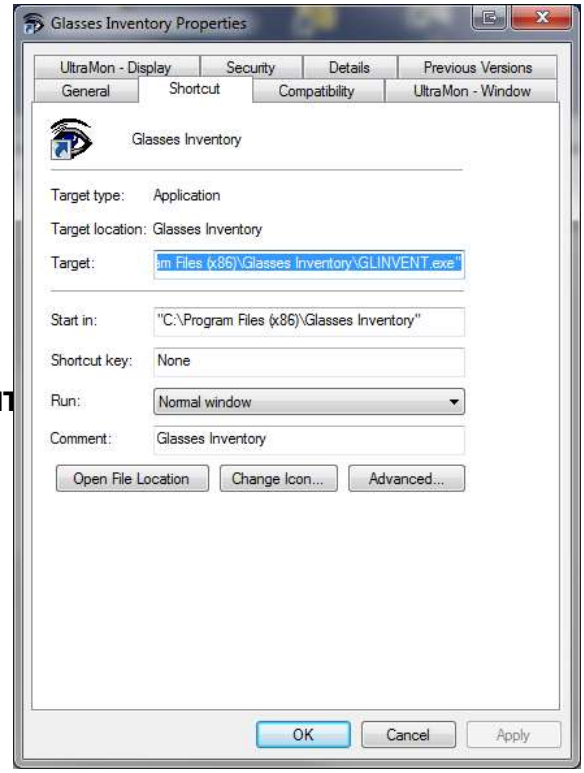
If you launch Version 7.5-3 of the Glasses Inventory and select OPTIONS you will see the below window



If you have (for example) an inventory of 4000 pairs of glasses and only want to take 2000 pairs with you, change the number circled from 32000 to 2000 and then click the **Save to File & Continue** button. Exit and restart Glasses Inventory and you are now ready. When you want your full inventory file, just change it back to 32000, exit and restart Glasses Inventory and you are back where you were before.

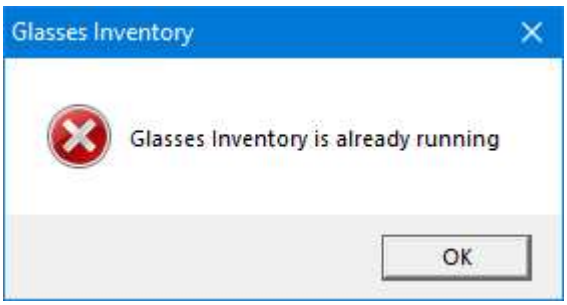
If; however, would like to quickly change back and forth between a full inventory file and a partial inventory file you can put two links to the Glasses Inventory program on your desktop. Do the following steps:

1. Click the **start** button.
2. Click **All Programs**.
3. Click Glasses Inventory folder.
4. Right click the Glasses Inventory Icon and click on COPY.
5. Right click your desktop and click on paste.
6. Right click the newly created icon and click on properties and you will see the graphic to the right.
7. Click in the target field and go to the very end where you see GLINVENT.exe" and add a space followed by 2000 and you will see the below.
   "C:\Program Files (x86)\Glasses Inventory\GLINVENT 2000
8. Click APPLY and now when you double click this ICON Glasses Inventory will only bring in the first 2000 pairs of glasses.



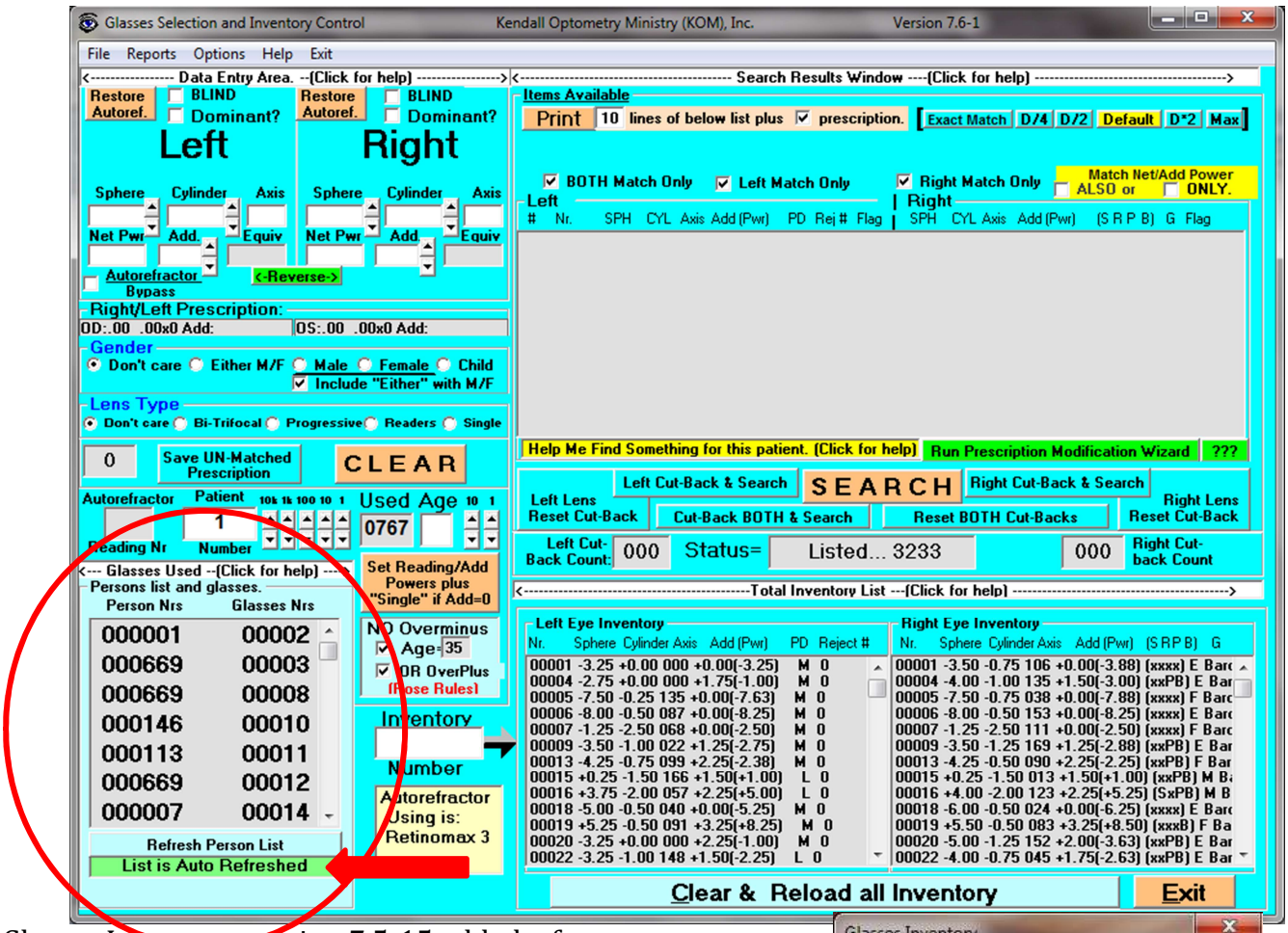
4.17 Multiple copies of Glasses Inventory

Some time when you double click on the Glasses Inventory icon you don't get an immediate response. Perhaps the computer is busy doing some else like windows updates. You then double click it a second time thinking the first double click didn't work. What happens is that you end up with multiples copies of the program running. Because of this when you measure a person's eyes the patient prescription goes into the first copy you activated which is covered up the second copy and you think that the connection between the computer and the autorefractor is broken. Glasses Inventory version 7.5-15 and above solves that problem. If you try to launch a second copy you will get the below message and the second copy will not start up.



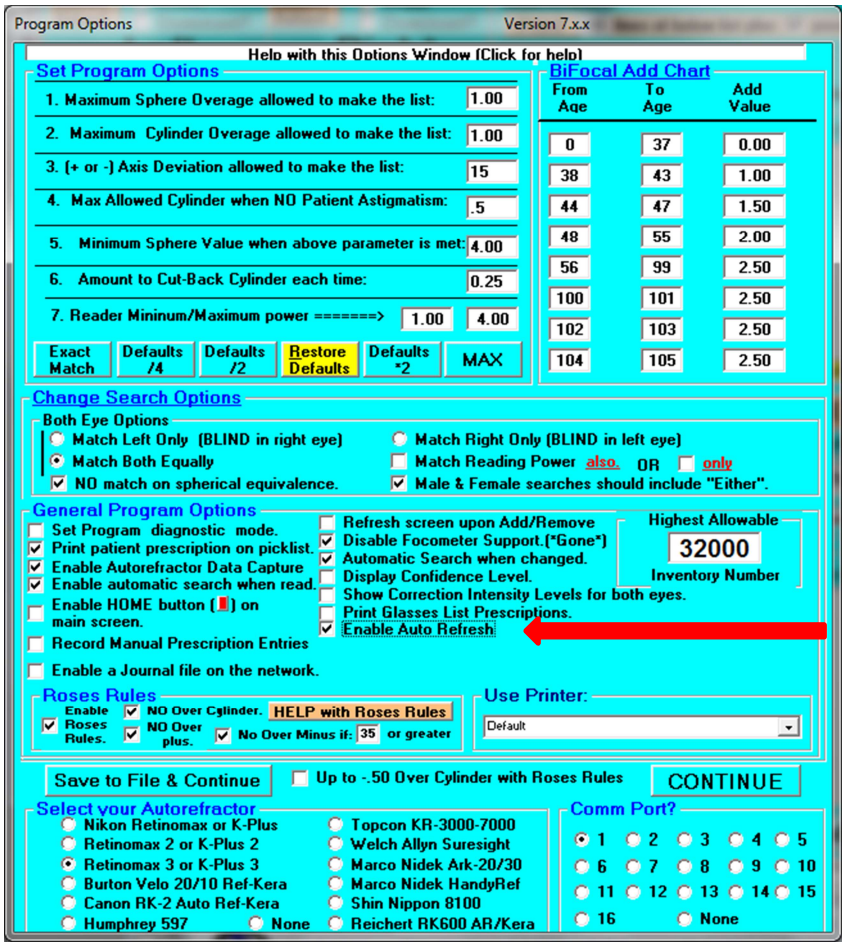
4.18 Glasses Inventory New Features.

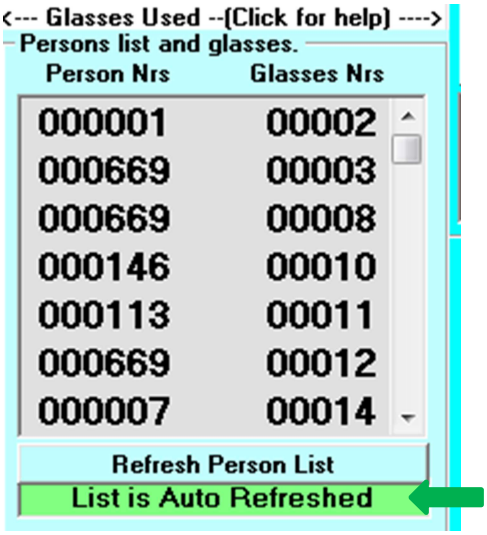
Glasses Inventory version 7.5-14 added a new feature to automatically refresh the person list as shown circled below. This is very useful when you are operating in a network environment where multiple PCs are sharing a common inventory.



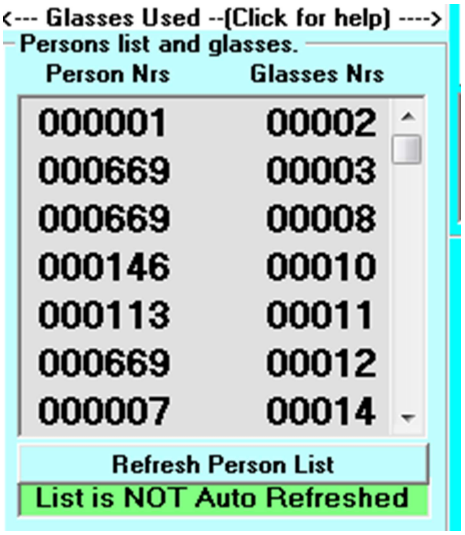
Glasses Inventory version 7.5-15 added a feature to prevent the execution of multiple copies of the Glasses Inventory program. Should you attempt to start another copy the graphic to the right will show. =➔ It is important that multiple copies not be executing as the first copy can capture the data from the autorefractor and not show it in the second copy making the operator think the communications between the autorefractor and program has failed.

Glasses inventory version 7.6-1 adds several features. It first allows you to enable/disable auto refresh feature by turning it on/off in the options windows as you see at the red arrow below.

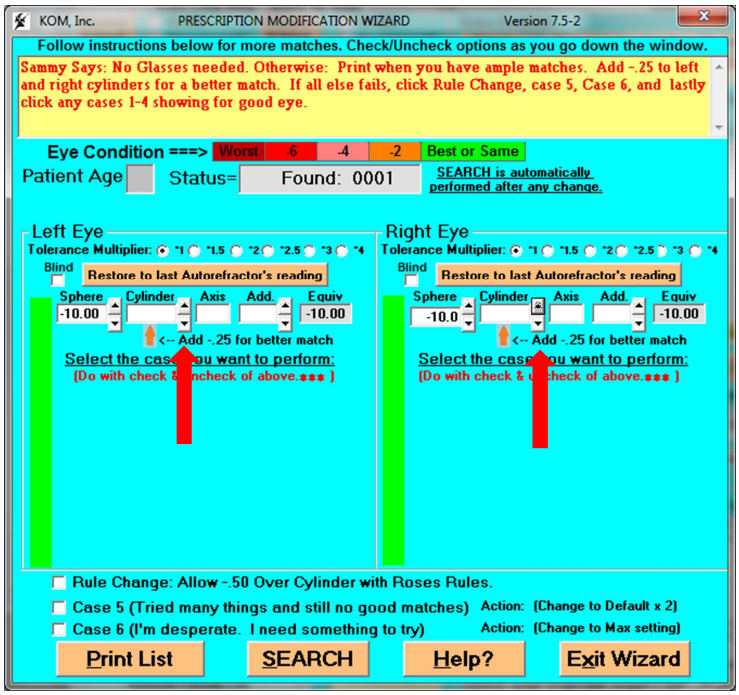




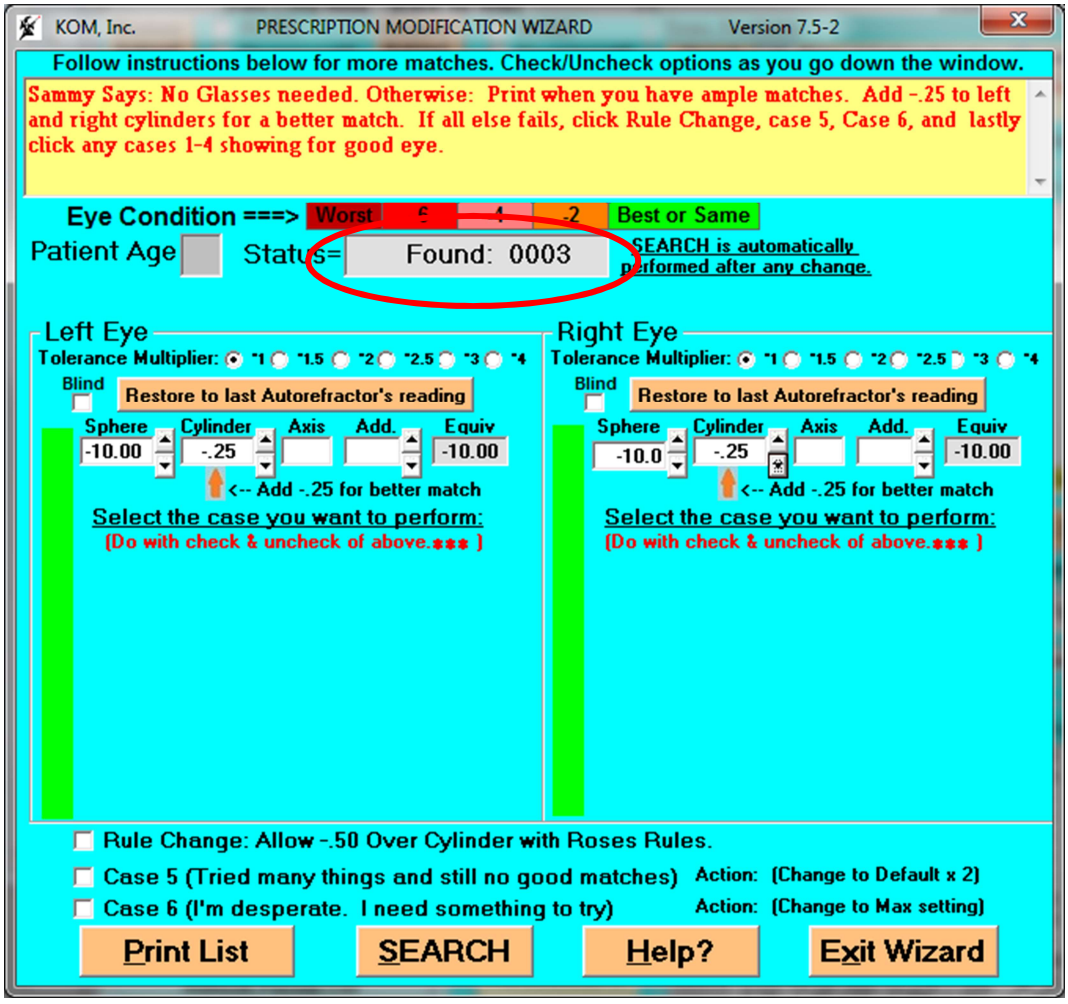
Click the green arrow to change this to read **List is NOT Auto Refreshed** as shown below to disable auto refresh.



Another new feature of Glasses Inventory version 7.6-1 is to increase the number of matches by prompting you to increase the cylinder on both left and right prescription from 0.00 to -0.25 as shown below.



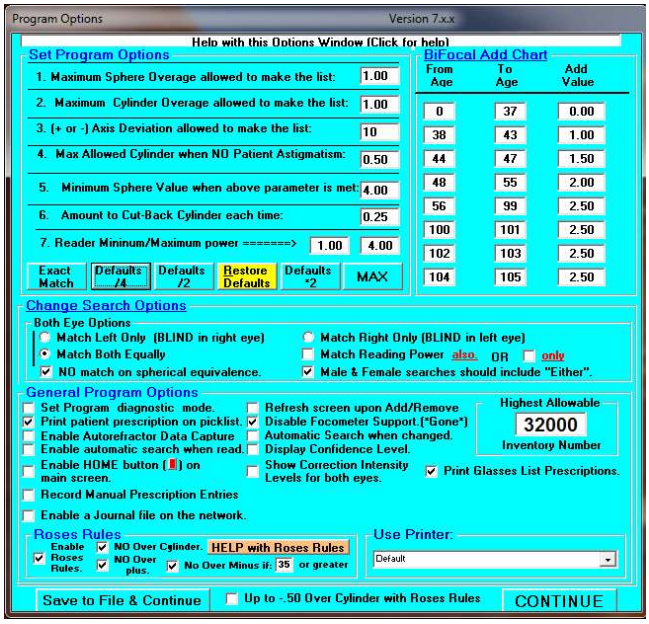
If you click once the down arrow pointed to by the red arrows to the left you increase the cylinder by -.25 and you increase the number of matches from 1 to 3 as you see circled in red on the next page.

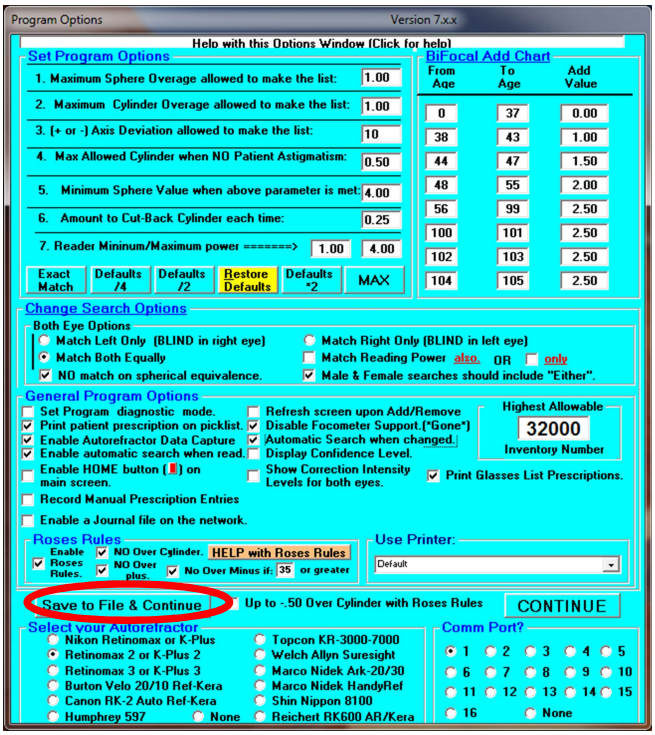


Another change in version 7.6-1 is to lessen the importance of axis when the cylinder is less than minus 2.00. This makes the order of the matches found to be more valid. The smaller the cylinder the less valid is the axis.

4.19 Working around the Glasses Inventory Startup Problem.

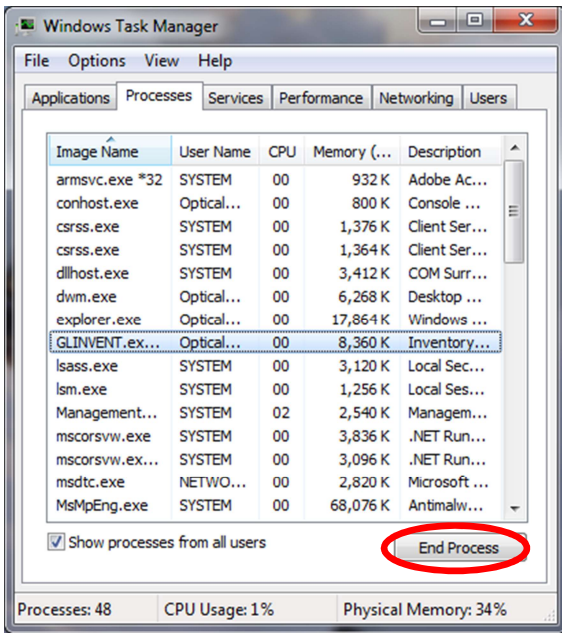
First install Glasses Inventory version 7.5-15 or above. Next launch the program and you will see the below window on the left. Change it to look like the window on the right and click **Save to File Continue** .

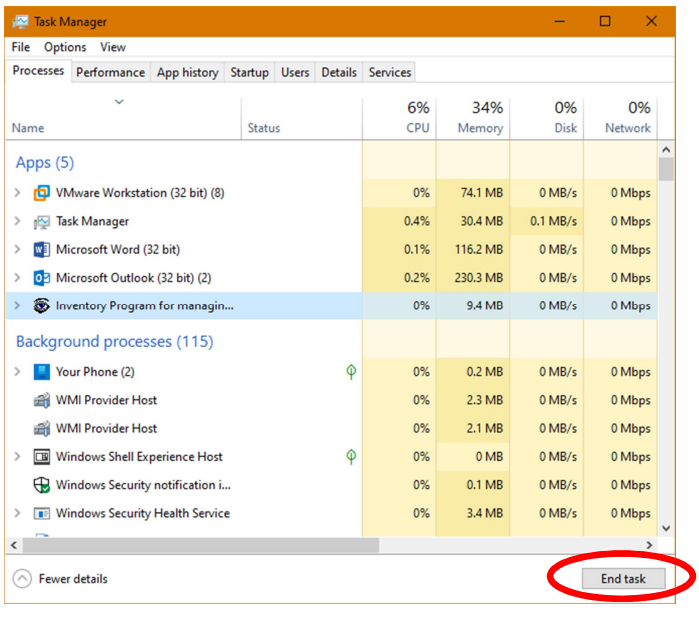




The program should exit allowing you to start it up again but it does not. If you double click the Glasses inventory icon you will see the below graphic. To resolve the issue you can either reboot your PC or take the following steps.

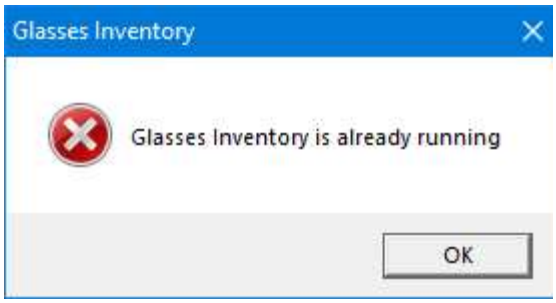
1). Right click your taskbar. **2)** Click on Start Task Manager (Windows 7) or Task Manager (Windows 10).
3) Click on the Processes tab and the scroll down and select under image name (Windows 7) an executable named GLINVENT.EXE or Windows 10 named Inventory Program. **4)** Click on it and then click on the End Process button (circled in red) as you see the below/left for Windows 7 and Windows 10 is below right. **You can now restart the program without further problems.**





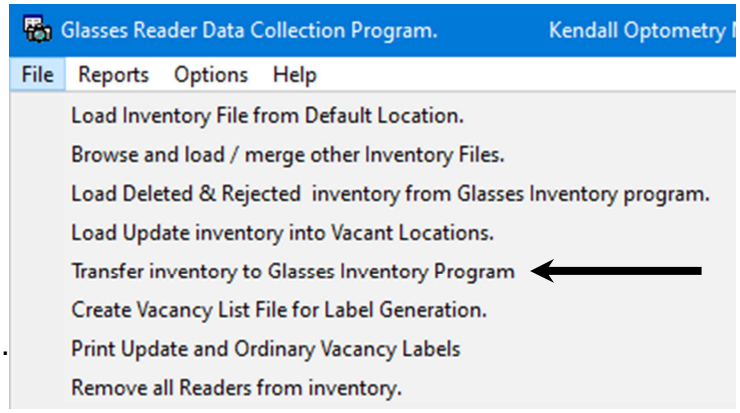
4.20 Multiple copies of Glasses Inventory.

Some time when you double click on the Glasses Inventory icon you don't get an immediate response. Perhaps the computer is busy doing some else like windows updates. You then double click it a second time thinking the first double click didn't work. What happens is that you end up with multiples copies of the program running. Because of this when you measure a person's eyes the patient prescription goes into the first copy you activated which is covered up the the second copy and you think that the connection between the computer and the autorefractor is broken. Glasses Inventory version 7.5-15 and above solves that problem. If you try to launch a second copy you will get the below message and the second copy will not start up.

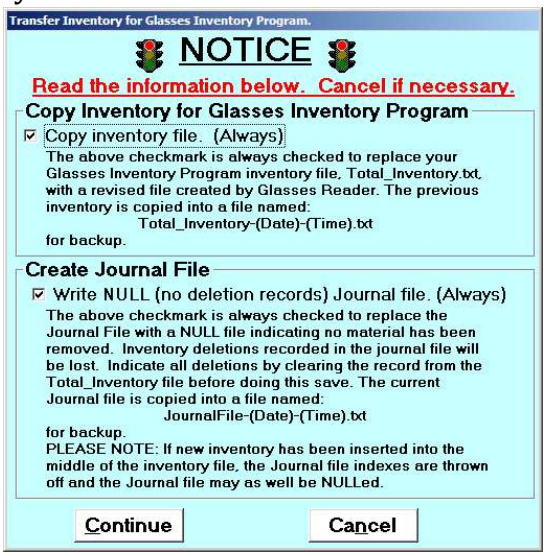


5.0 Exchanging inventory Graphical Steps

After you have built your inventory using the Glasses Reader program, you will want to transfer your inventory to the Glasses Inventory program as shown to the right. Select this option.



and you will see the below. Click CONTINUE.



If the inventory file has not been sorted you will see:

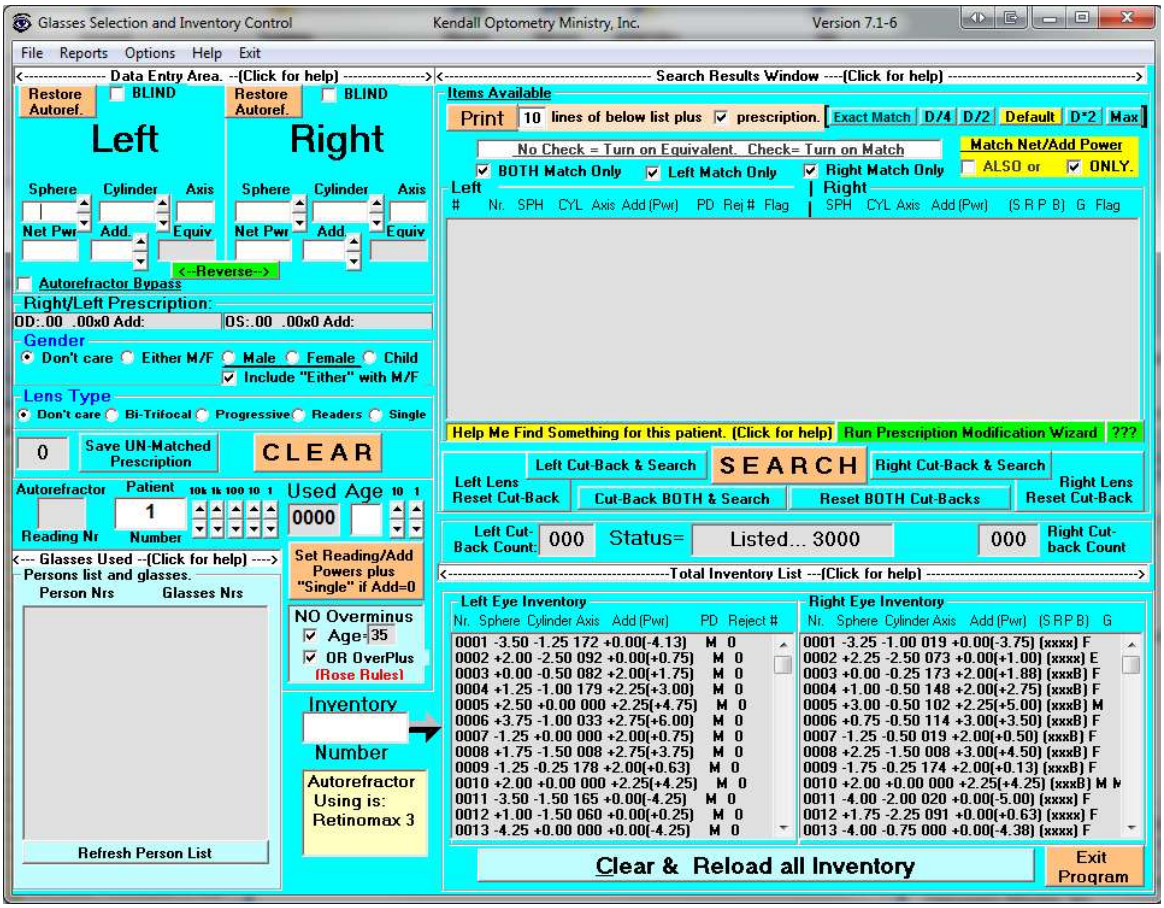
If the above message appears, you will need to click this button to sort the inventory and then try the transfer again.

The Glasses Reader program will also show the Status window to the right.

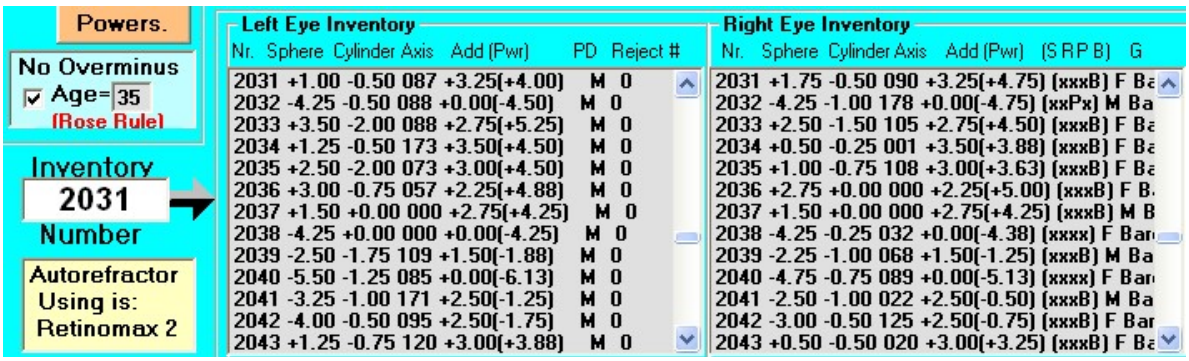
You can now **EXIT** the Glasses Reader program by clicking on:

Launch the Glasses Inventory program and you can review your inventory. You can now copy the file named **Total_Inventory.txt** from folder **Glasses_data** to folder **Glasses_data** of the KOM laptop (or the laptop you plan to use in the clinic). See Appendix K for instructions with Glasses Inventory 6.x.x & Glasses Reader 3.x.x and Appendix Q for the newer versions of the programs. See Appendix P for file locations for the various program versions.

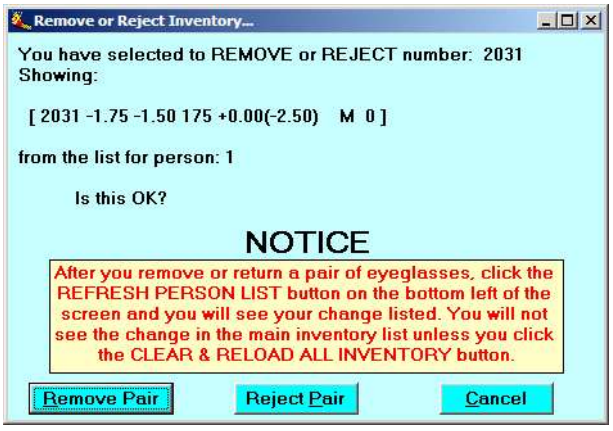
When you launch the Glasses Inventory program, you will see the below. Notice under the **SEARCH** button you see **Listed xxxx** and under the **CLEAR** button you see **Used 0000**.



Now we will remove 11 pairs of glasses. In the below enter inventory number 2031 and the pane to the right automatically positions itself until 2031 is at the top.

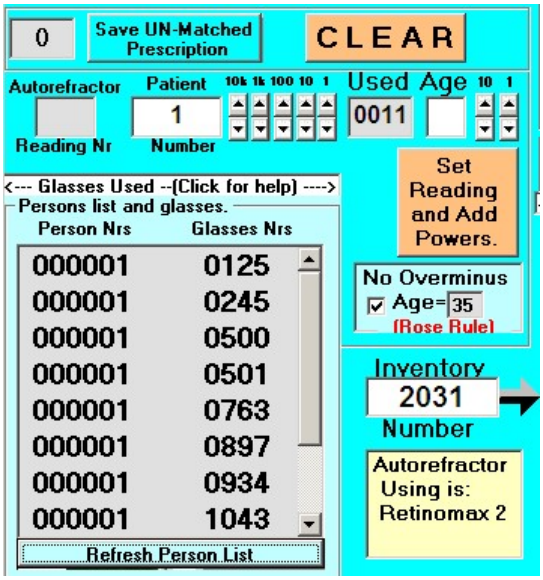


Click line 2031 and you will see the popup to the right.

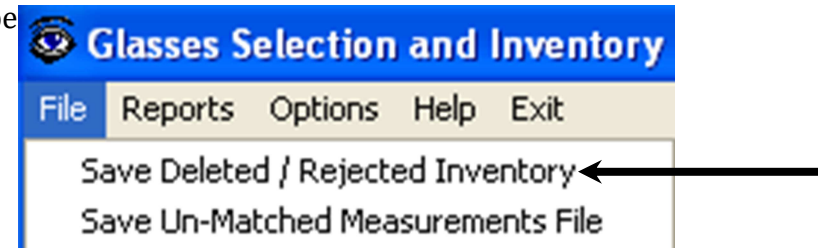


Click **Remove Pair** and the pair will be removed from inventory. If you click **Refresh Person List** you will see the list to the right. As you can see pair 2031 is on the list.

Continue to remove 10 more pairs of eyeglasses and you will see the window to the right when you click **Refresh Person List**.



Perhaps now you are at the end of your day and you want to replenish your inventory. You need to tell the Glasses Reader program that you have used these numbers of glasses. Here are the steps you perform. On the Glasses Inventory Program click on File and select the option indicated be



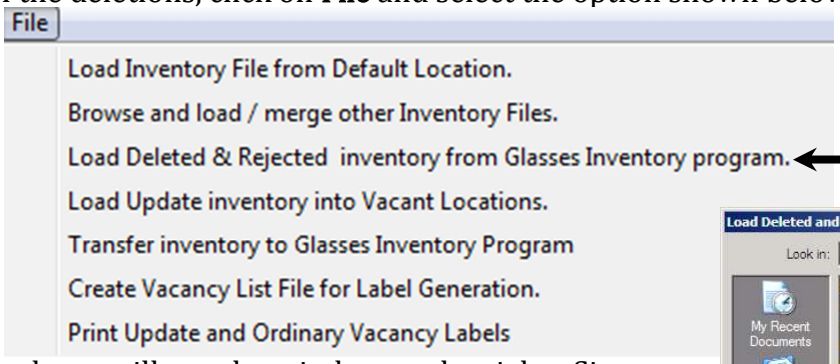
You will see the popup to the right. The file which contains the list of inventory removed from your system is located in the Glasses_Inventory folder and is called:

Total_Inventory_Deleted_Rejected.txt.

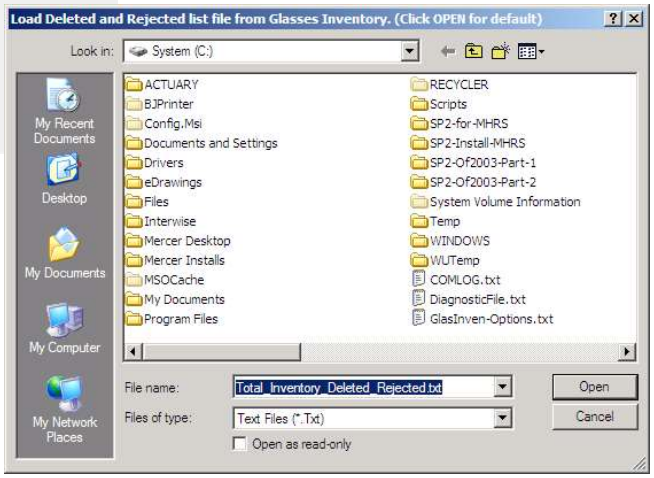
This file is very useful as it shows the prescriptions for all the glasses you have removed.

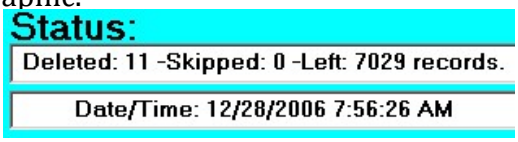
You will now exit the Glasses Inventory program by clicking on: 

Start the Glasses Reader program now. You are going to use it to replenish your inventory. You will see the screen which is showing on the first page of this section.. The Glasses Reader program is not aware of the 11 pairs of eyeglasses which were removed. To make it aware of the deletions, click on **File** and select the option shown below.



And you will see the window to the right. Since you want to accept the default file name and location, click **OPEN** and the status window will show as in the below graphic.

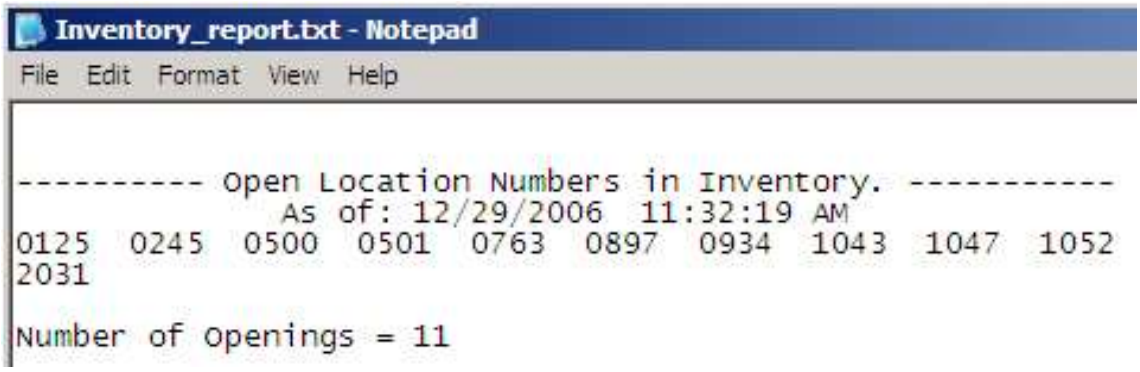




It shows 11 locations deleted and none skipped.

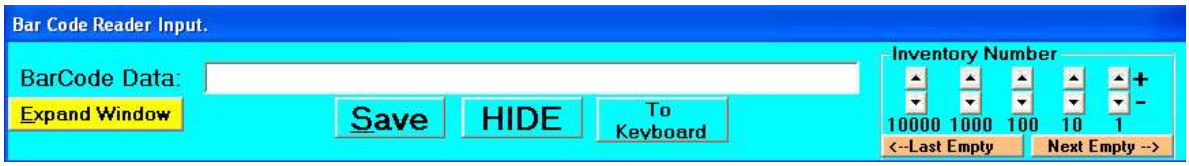
You always want it to show **Skipped: 0** If it does not, you have modified the inventory being retained by the Glasses Reader program AFTER you last transferred it to the Glasses Inventory program. The modifications you made were with the locations being deleted. You should return the Glasses Reader inventory to the same as the Glasses Inventory file or keep in mind that the locations "skipped" were not deleted.

If you do a vacancy report, you will see the below report.

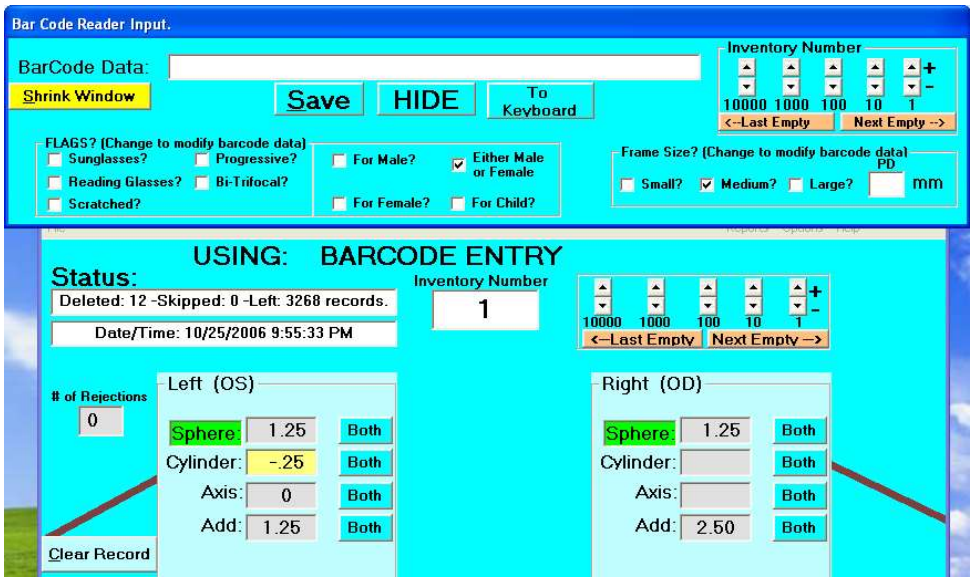


You will now need to replenish this inventory and transfer it to the Eyeglasses Inventory program. Click on the **Barcode Data Entry** and the bottom of your screen will look like the below. The yellow button will show on the right.

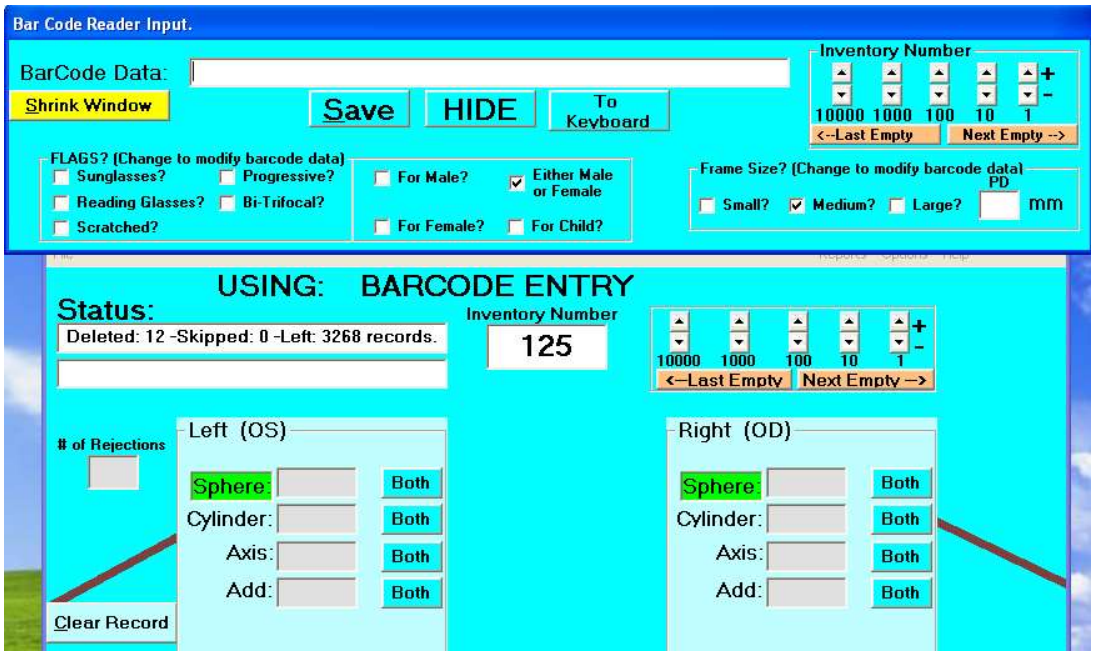
Click the yellow button and the following window will appear on the screen.



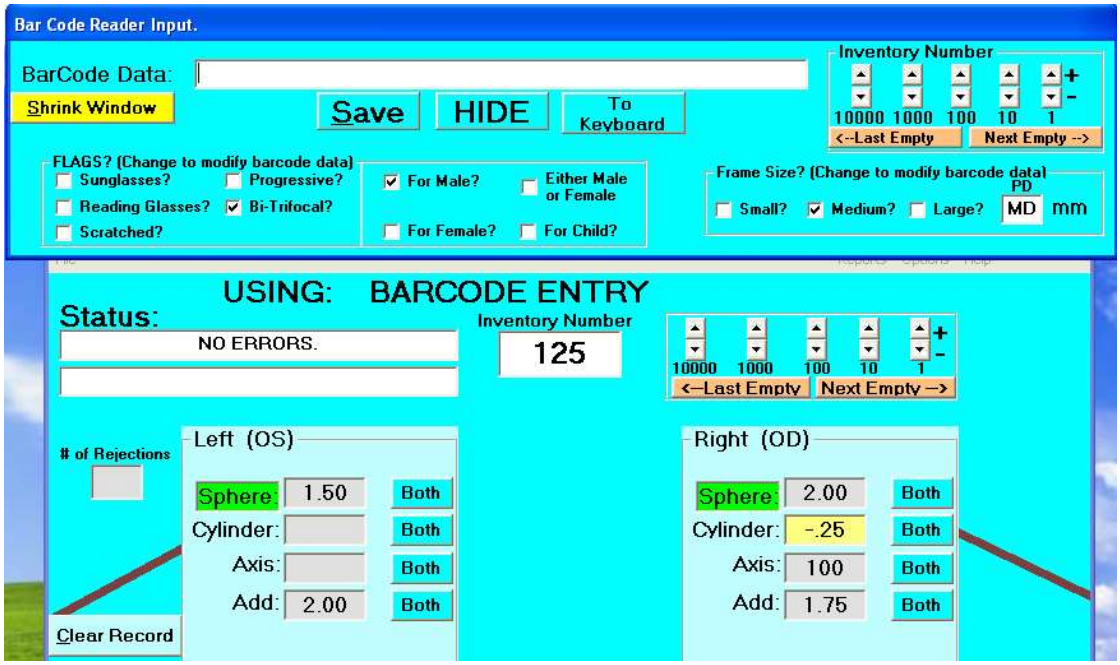
Click the Expand Window button and you will see on the top of your screen the below:



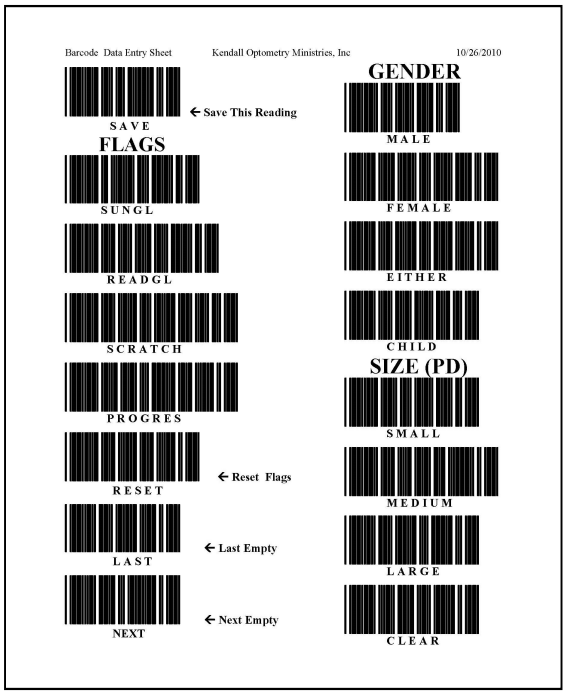
You are positioned at Inventory number =1 and it already has something in it. Click **Next Empty** (or scan it from the barcode sheet) in the barcode window and the top of the screen will look like the below.



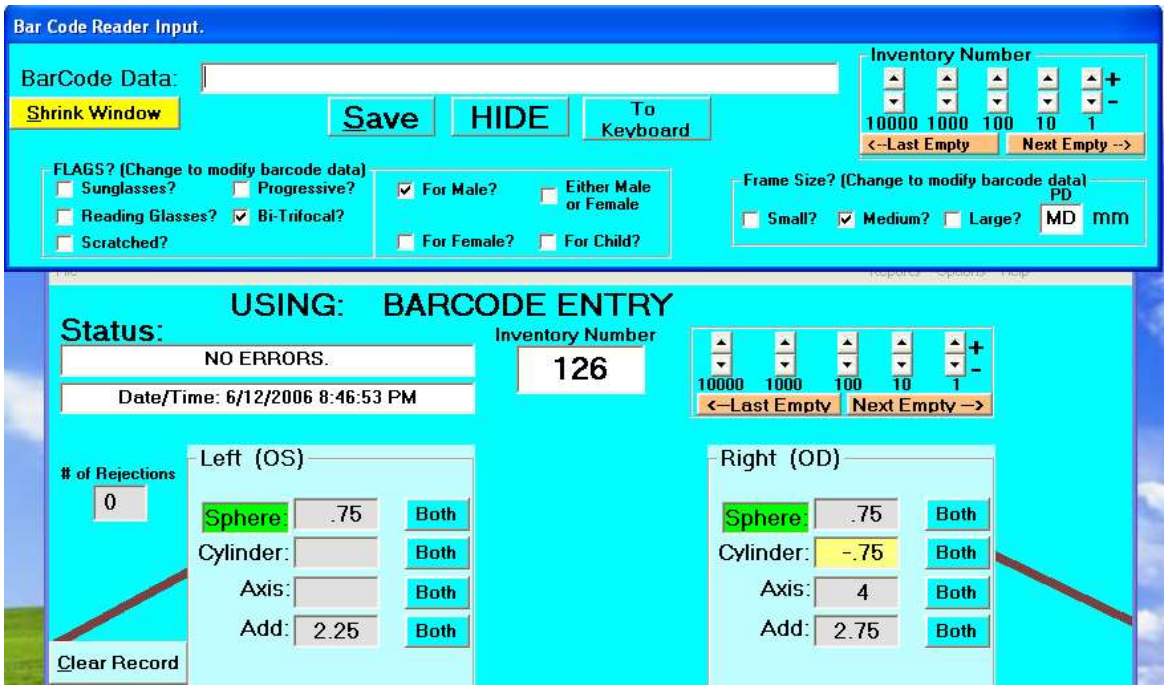
Location 125 is the first empty location which needs to be replenished. Now you will barcode the pair of glasses and put it into this location. Barcode the label in any order top then bottom, bottom then top, upside down, etc. You will then see the below screen:



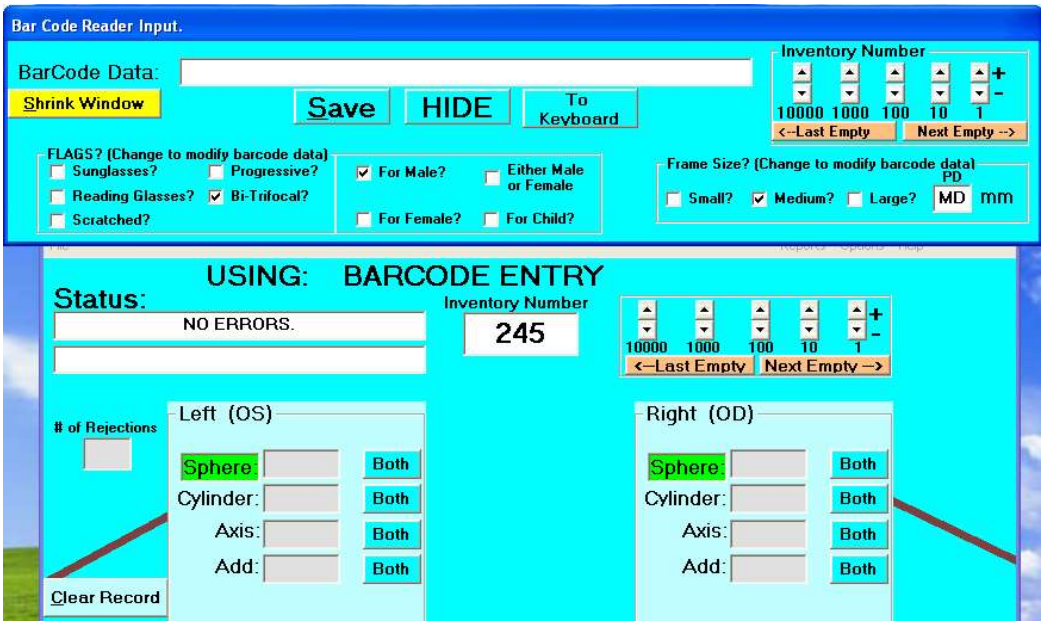
You will now use your barcode entry sheet shown to the right. The most important barcode is the **SAVE** barcode at the top/left. Before doing **SAVE** you can scan any of the other barcodes, if for example, you want to change the eyeglasses from male to female, you scan the **FEMALE** barcode. To move to the next empty location you will scan the **NEXT** barcode at the bottom/left of the page.



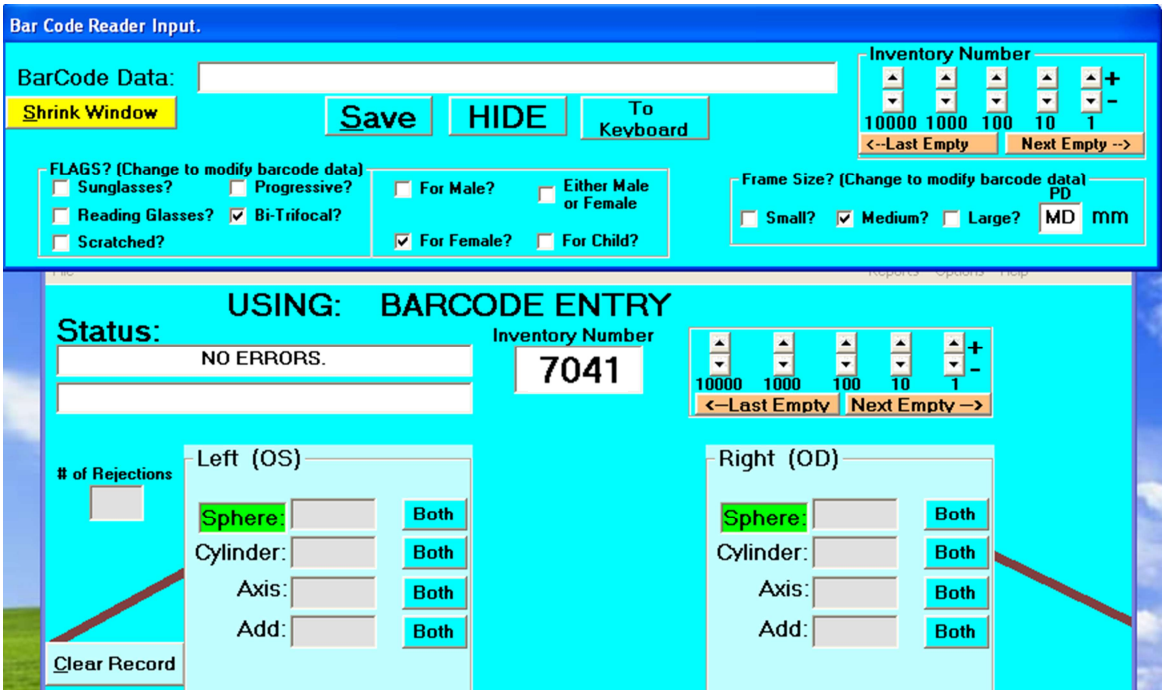
Scan the SAVE barcode and your screen will look like the below.



Since location number 126 is not the next empty location, you will also need to scan the **NEXT** barcode and you will see the below.



Now continue to scan the barcoded glasses into the system clicking **SAVE** followed by **NEXT** every time the next location isn't empty. Do this until the Inventory Number reads 1 higher (xxxx+1) than the maximum number of locations in your inventory (7041) as shown below.



You can now click **HIDE** on the **Bar Code Reader Input** window as you have now replenished your inventory.

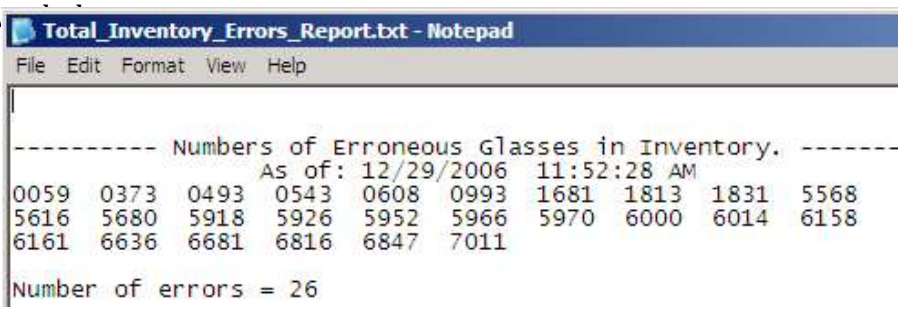
The next thing you need to do is to sort and error check your inventory in preparation for transferring to the Eyeglasses Inventory program. You cannot transfer it before sorting, as the program will not let you do so. Click the button to the right.

You will then see the graphic on the below. Click **CONTINUE.**

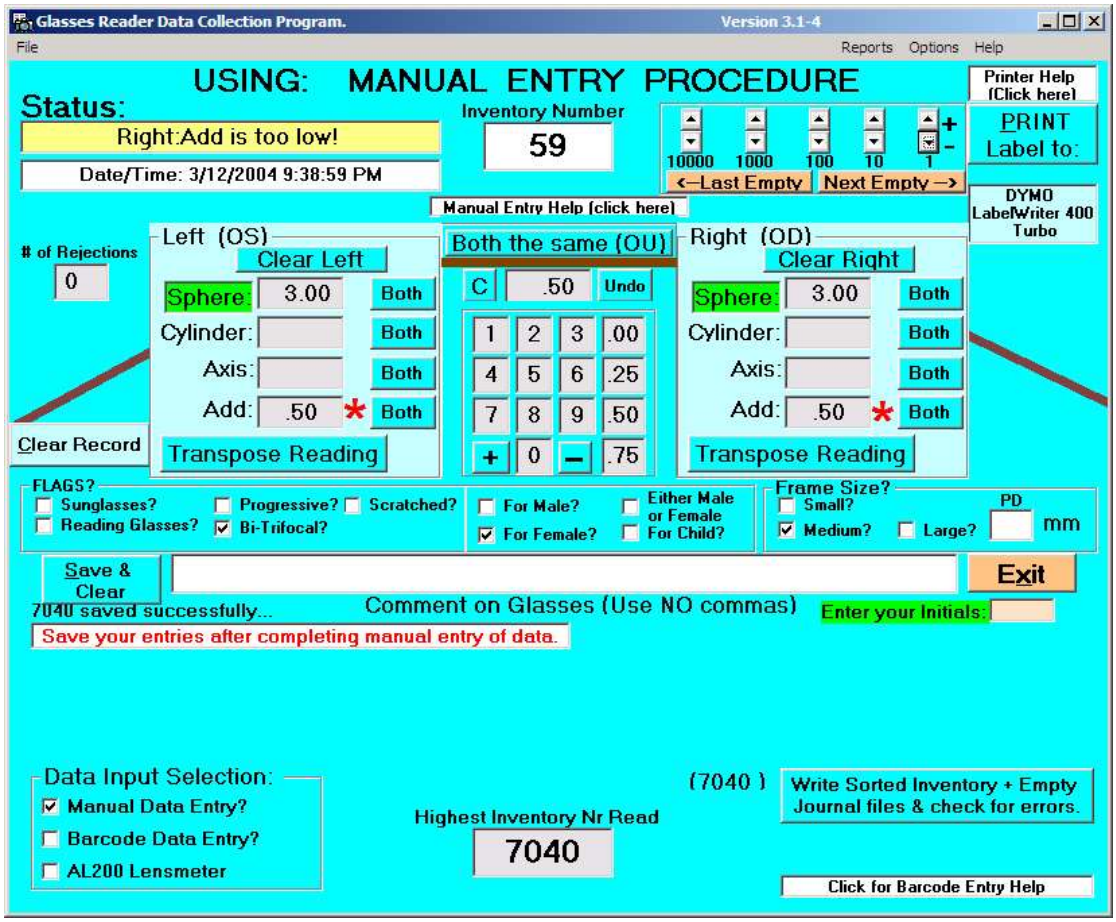
The top of the window will look like this as the inventory number increments by 100 every few seconds. The system is rewriting the inventory 100 records at a time.

You can now transfer the inventory to the Eyeglasses Inventory program.

If you see errors (like shown above) you can create an error report (**Reports | Error Report**) as shown below:



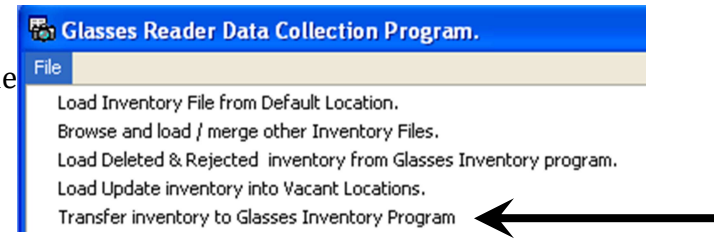
This is a list of the locations which have some sort of error. You can go to these locations and correct them one at a time and then save the correction. You then will need to save the inventory again. In this case if you go to the first location (number 59) you will see the below:



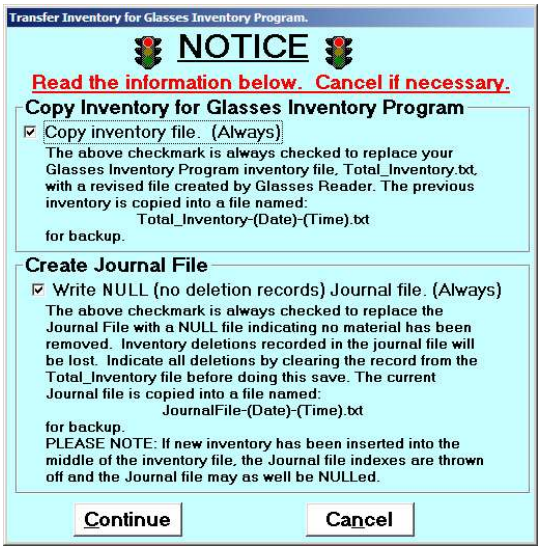
The **Add** is actually 2.50. Correct this **Add**, save it and move on to correct the next location. After all corrections have been made, you will have to resort your inventory by clicking on:

before transferring it back to the Glasses Inventory program.

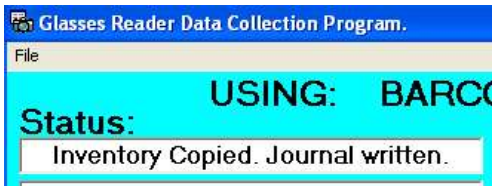
Click File and select the option pointed to in the graphic to the right.



You will then see the graphic to the right.
Click **Continue**.



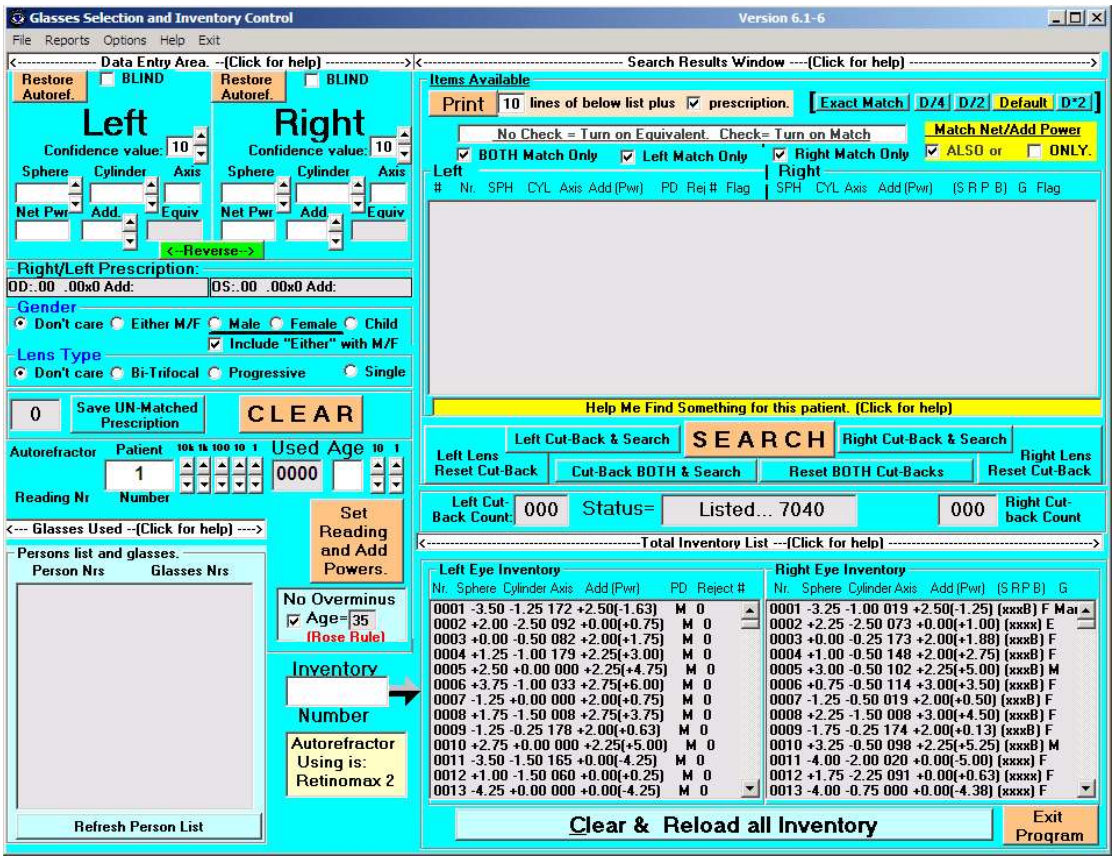
Unless you are transferring the inventory to another computer, click **Exit** and you will see the below in the top of the window. Otherwise see Appendix K for instructions for version 6.x.x of Glasses Inventory and 3.x.x of Glasses Reader. See Appendix Q for instructions for the version 7.x.x of Glasses Inventory and 4.x.x of Glasses Reader.



The new inventory file has now been transferred to the Eyeglasses Inventory Program.

Exit the Glasses Reader program by clicking the Exit Button. 

Start the Glasses Inventory Program and you will see the below.



You can see that under the **Search** button it says **Listed xxxx** and under the **CLEAR** button it says **Used 0000**.

At this time you have replenished your inventory.

6.0 Exchanging Inventory List of Steps

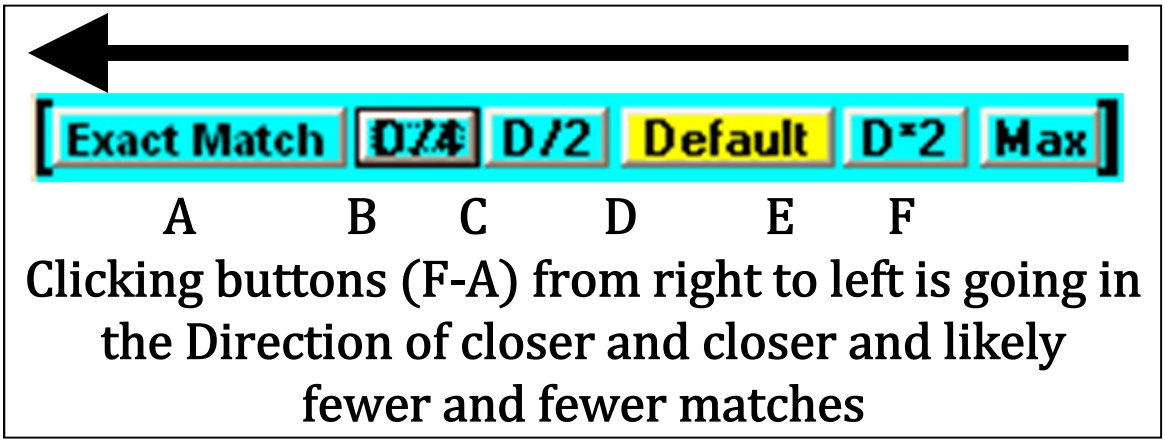
Refer to the graphical illustrations in the previous section. Below are the steps that you will take to transfer your inventory to and from the Glasses Inventory program. See Appendix L for a flowchart of how these steps work. Inventory file locations shown on this drawing are for the latest versions of the programs. Refer to Appendix P for the locations of the inventory files for the older program versions.

1. Build your inventory with the Glasses Reader program.
2. Sort your inventory with the sort button.
3. Transfer your inventory to the Glasses Inventory Program. Use Appendices K or Q if the inventory is on another computer.
4. Use the Glasses Inventory program to hand out your eyeglasses.
5. Do a **File | Save Deleted / Rejected Inventory** in the Glasses Inventory Program to create a file named: **Total_Inventory_Deleted_Rejected.txt** in the Glasses Inventory Storage area.
6. Exit the Glasses Inventory Program.
7. Start the Glasses Reader program.
8. Use the **File | Load Deleted and Rejected inventory from Glasses Inventory program** to cause Glasses Reader to be aware of the inventory which has been deleted.
9. Glasses Reader will indicate the number of locations deleted.
10. Use Glasses Reader to replenish the inventory.
11. Sort your inventory with the sort button.
12. Transfer your inventory to the Glasses Inventory Program using **File | Transfer inventory to Glasses Inventory Program**.

You are ready for another day of operation.

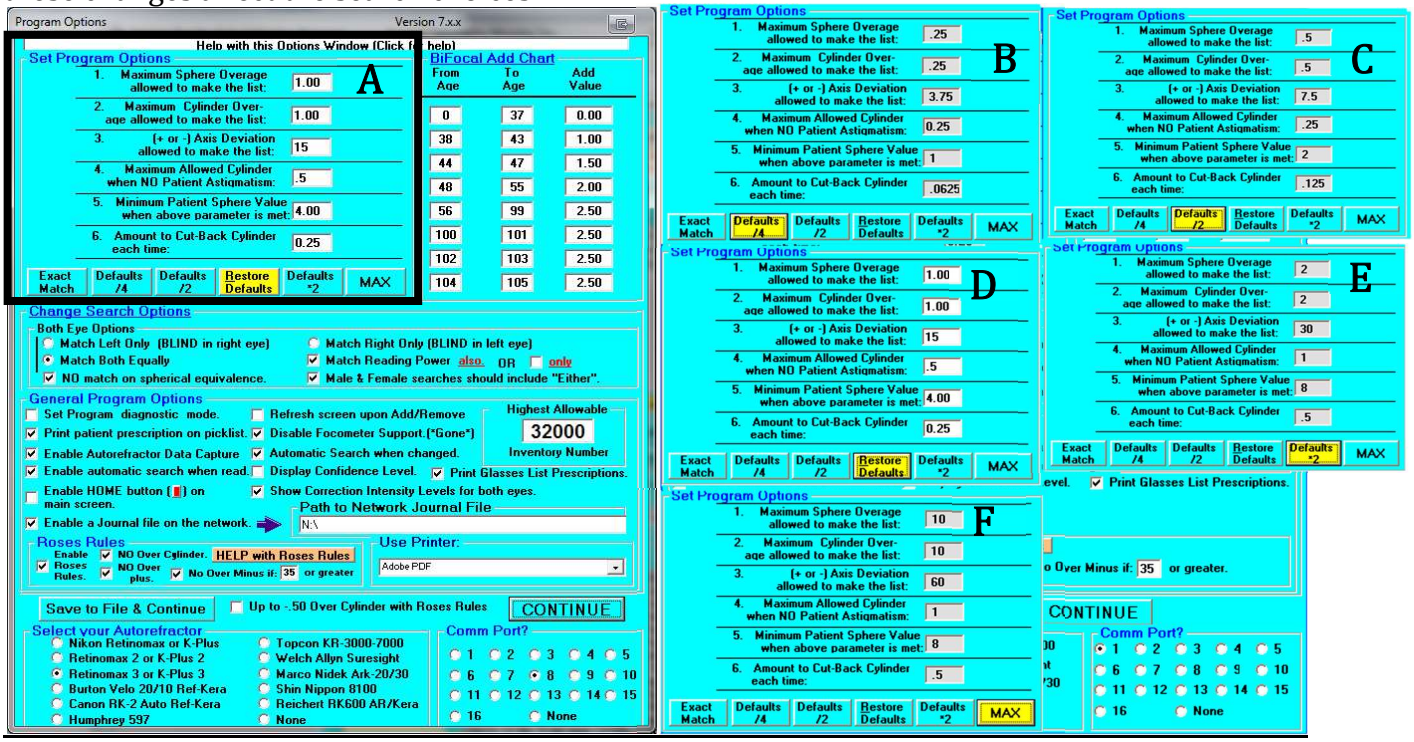
Appendix A–GI: Revising & understanding the search results.

Looking at the screen for the Eyeglasses Inventory Program, examine the row of buttons (shown below) that are at the top/right part of the main screen.



Read the words in the above block as it very quickly summarizes the action of the search control buttons.

If you click on the Options area of the screen as shown to the right,
you will see the below display. The part of the options settings which affect what glasses are reported in the search results window
is shown in the large square box A. You change the values displayed in items 1-3 when you click from left to right the buttons **Exact Match**, **Default/4**, **Default/2**, **Default, Defaults*2** and **MAX** and these changes affect the search choices.



The changes you make in this window are duplicated in the selections in the top / right area of the main window as shown at the top of this page. Buttons in both windows turn yellow when clicked.

The below table shows the values of these parameters at the various settings.

Item Nr	Item Description	Exact Match value	Default / 4 value	Default / 2 value	Default value	Default * 2 value	MAX value
1	Maximum sphere overage allowed to make the list.	0.00	0.25	0.50	1.00	2.00	10
2	Maximum cylinder overage allowed to make the list.	0.00	0.25	0.50	1.00	2.00	10
3	+ or – axis deviation allowe to make the list.	0	2	5	10	20	60

What this means is when the **MAX VALUE** setting setting is chosen, every pair of glasses appearing in the search window must be within + or -10.00 diopter of the correct sphere, + or - 10.00 diopter of the correct cylinder, + or – 60 degrees of the correct axis.

When the **DEFAULT*2 VALUE** setting setting is chosen, every pair of glasses appearing in the search window must be within + or -2.00 diopter of the correct sphere, + or – 2.00 diopter of the correct cylinder, + or – 20 degrees of the correct axis.

When the **DEFAULT VALUE** setting is chosen, every pair of glasses appearing in the search window must be within + or -1.00 diopter of the correct sphere, + or – 1.00 diopter of the correct cylinder, + or – 10 degrees of the correct axis.

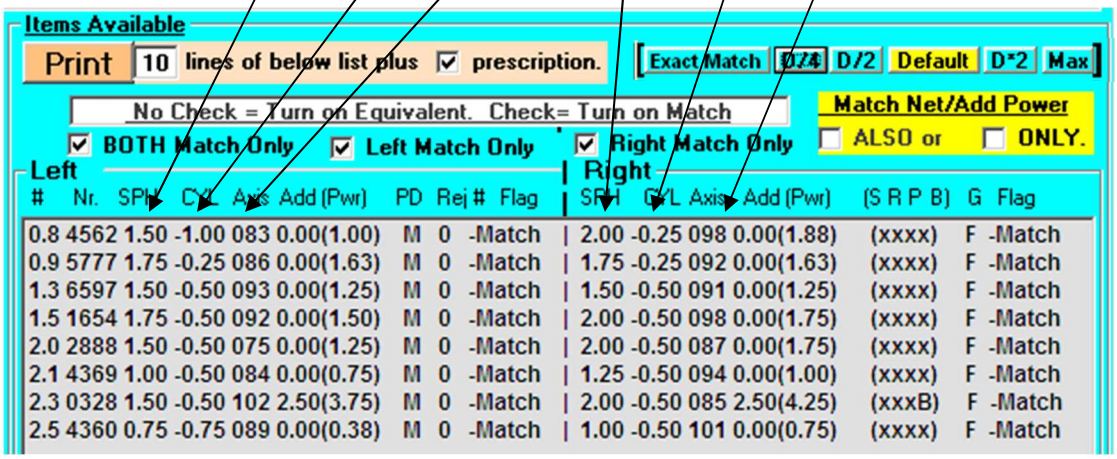
When the **DEFAULT/2 VALUE** setting is chosen, every pair of glasses appearing in the search window must be within + or -0.50 diopter of the correct sphere, + or – 0.50 diopter of the correct cylinder, + or – 5 degrees of the correct axis.

When the **DEFAULT/4 VALUE** setting is chosen, every pair of glasses appearing in the search window must be within + or -0.25 diopter of the correct sphere, + or – 0.25 diopter of the correct cylinder, + or – 2 degrees of the correct axis.

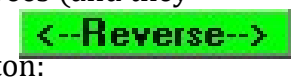
When the **EXACT MATCH VALUE** setting is chosen, every pair of glasses appearing in the search window must match the patient prescription **exactly**.

Suppose you have the below prescription. (Arrows are to show items of comparison.)

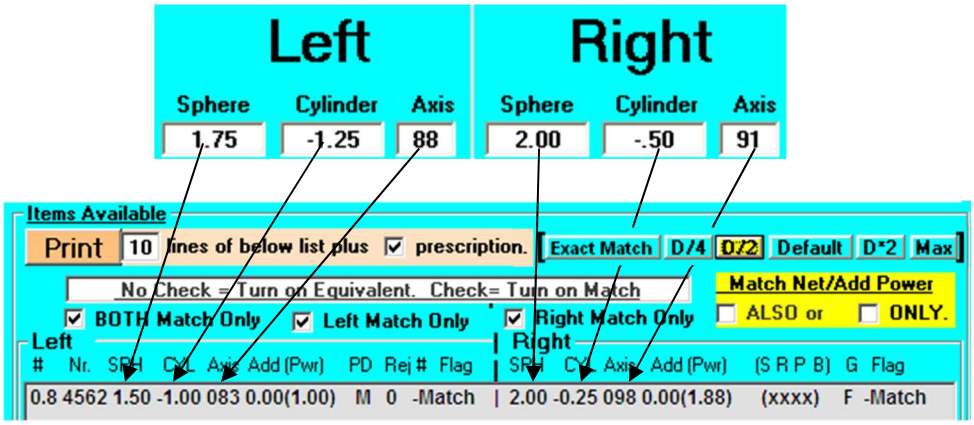
and you get the below search results:



Notice that since **Default** is chosen, both the Sphere and Cylinder results must be within + or – 1.00 diopter (and they are) and all the axis values must be within + or – 10 degrees (and they are).

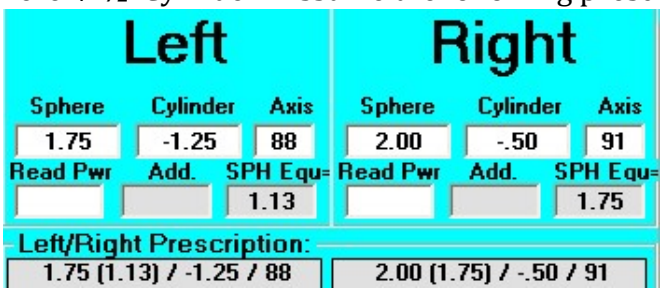
To reverse the order on the screen from “Left first” to “Right first” click this button: 

Now click on D/2 (Default divided by 2) and the below is shown. The prescription is repeated for easy comparison. (Arrows are to show items of comparison.) Notice in this case both the Sphere and Cylinder results must be within + or – 0.50 (and they are) and the axis must be within + or – 5 degrees (and they are) except the right axis since a cylinder of -.25 makes it illogical to insist that the axis be close. A cylinder that low is considered clear glass.



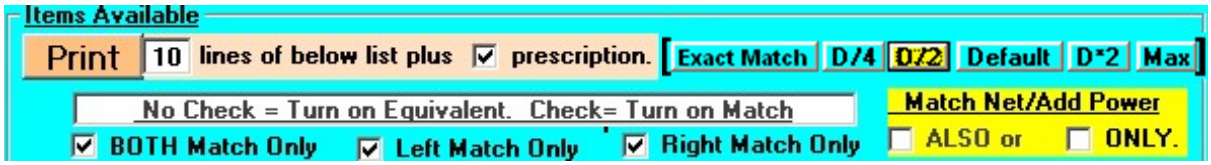
Clicking on **D/4** gives no results as there are no glasses in the inventory that are that close.

Sometimes you may not get any results at all especially for those people with astigmatism (high cylinder). If so, you can make a special type of search for "Spherical Equivalent" lens. A "Spherical Equivalent" lens is a lens with sphere power only (or sphere plus very low cylinder) whose value is calculated as: Sphere + ½*Cylinder. Assume the following prescription:



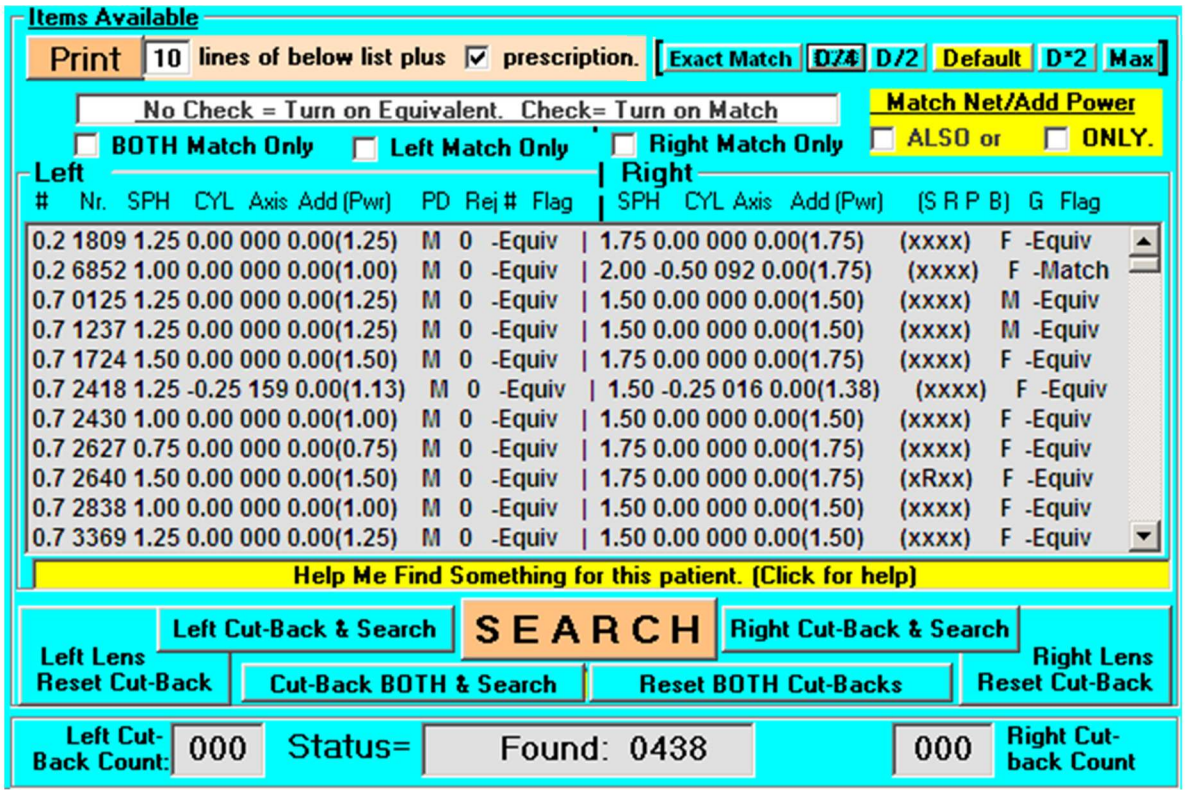
Spherical equivalent is only usable when the cylinder is -1.50 or less.

Notice that the calculated spherical equivalence is: Left=1.13 and Right= 1.75. If you go to the top right portion of the screen where you see:

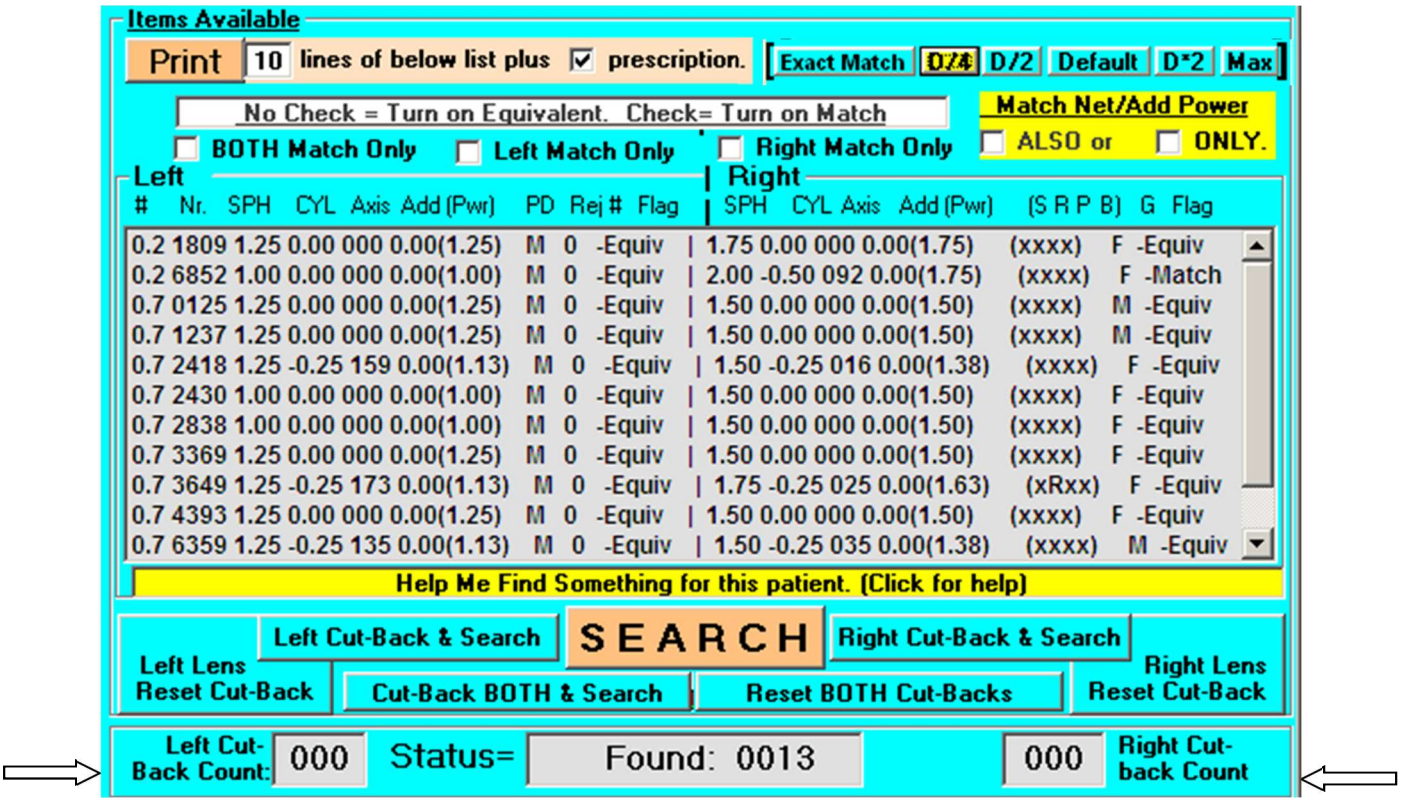


and click off the **BOTH Match Only** checkmark and then do a search for the above you will see the graphic on the next page.

NOTE: You can also use the Wizard as described in Appendix D.



Which shows a HUGE number of matches to the spherical equivalent of the prescription. If you click on D/2 you will find 241. If you click on D/4 you will only have 13 matches as you see below:

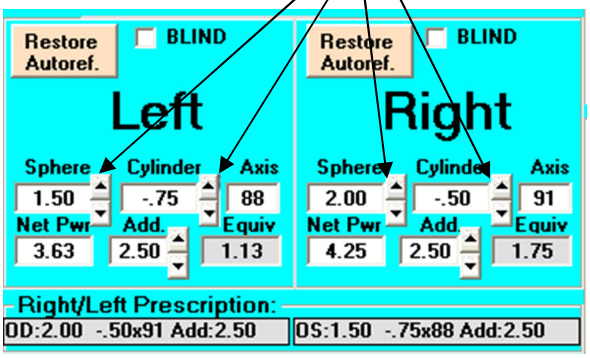


These are very close matches to the spherical equivalence. **NOTE** that frequently for patients with low cylinder values (1.50 or less) the spherical equivalent will be <u>totally</u> acceptable. Click the yellow bar (see arrows) for more help in finding a pair of glasses for the patient.

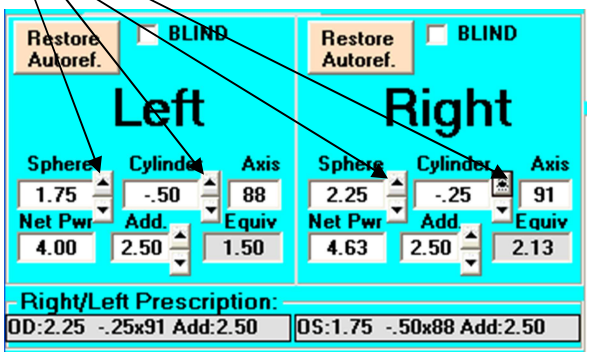
Appendix B –GI: Convenience Options

Here are the various functions (numbered 1-7 in red) you can perform in the data entry area:

1) Add +.25 to the Sphere and/or the Cylinder.



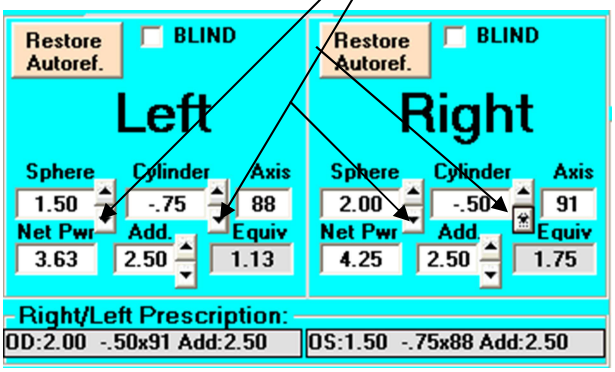
BEFORE



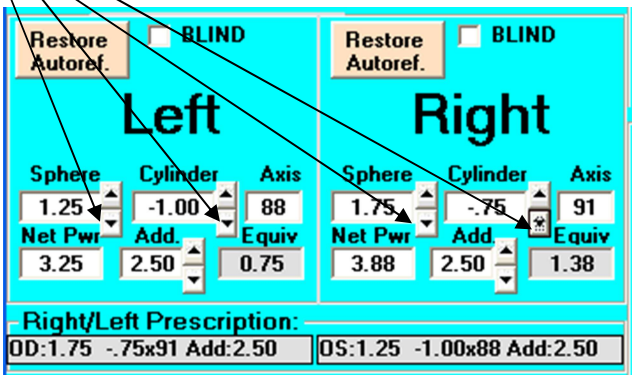
AFTER

In each of the up/down scroll bars, click them several times to add or subtract values from the associated field.

2) Remove .25 from the Sphere and/or the Cylinder.

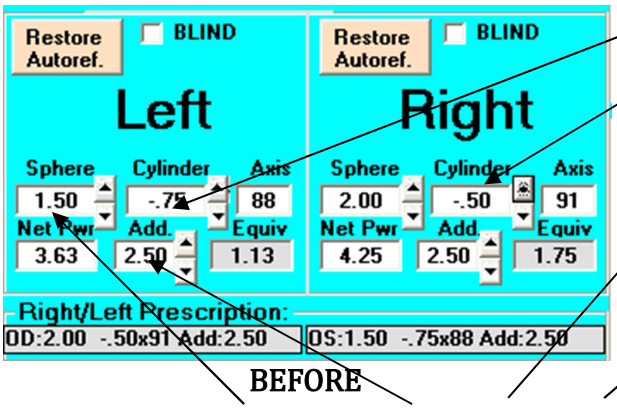


BEFORE

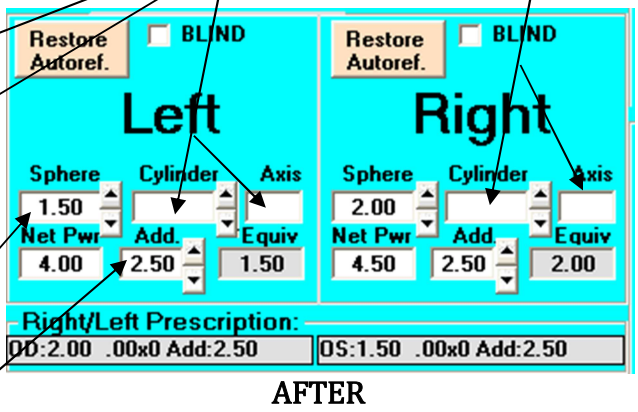


AFTER

3) Clear Left or Right Cylinder and Axis together. Double click the Cylinder Field.



BEFORE

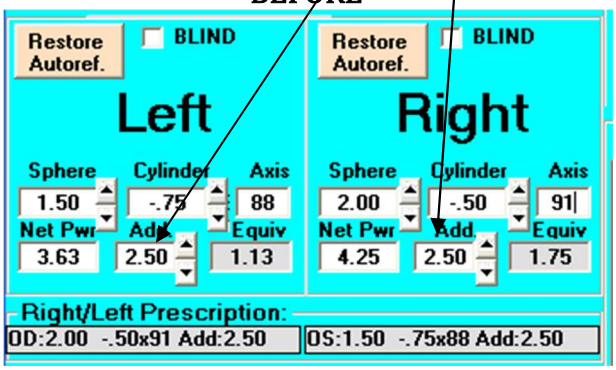


AFTER

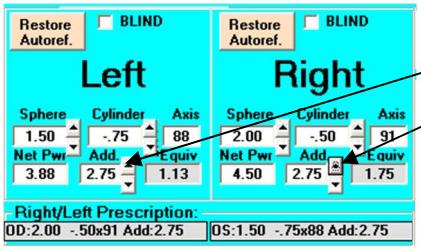
4) Clear Sphere and Add by double clicking the field.

5) Add .25 or subtract .25 from the Left or Right Add field.
You cannot make the field become less than zero.

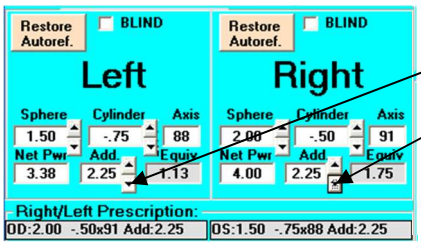
BEFORE



AFTER



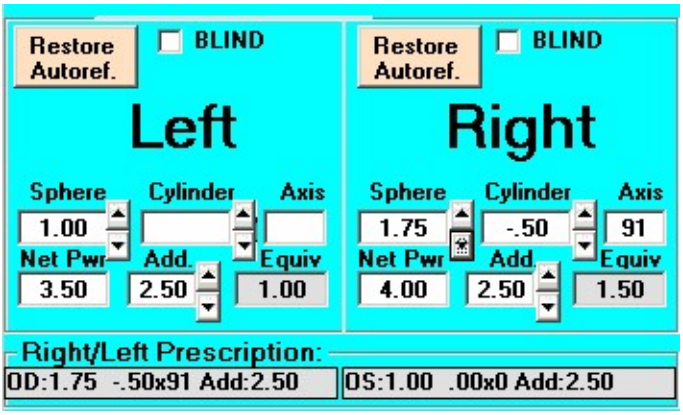
Add .25 to the Add Field.



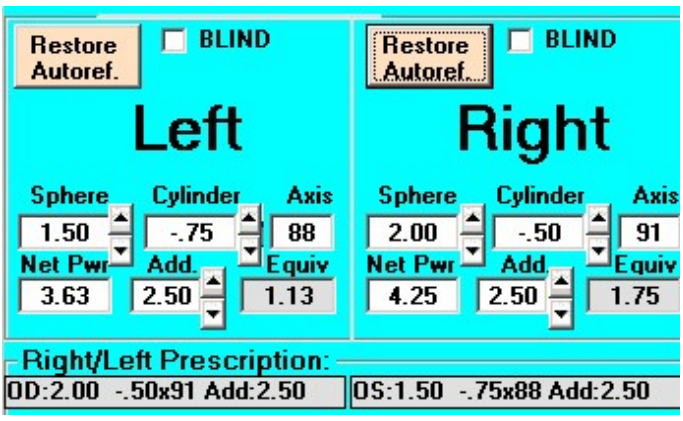
Subtract .25 from the Add Field.

6) Restore the original left and/or right autorefractor reading after your changes

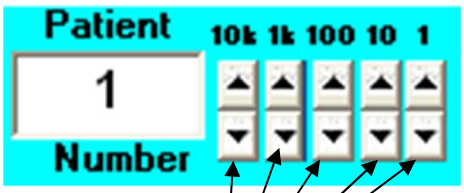
BEFORE



AFTER



7) Click Up or Down to add or subtract 10k, 1k, 100, 10, or 1 from the Patient Number and Age fields. Double click Age to clear and Patient Number to set to 1.



Two Miscellaneous features

Subtract

Subtract

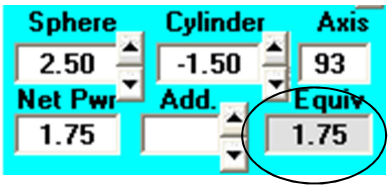
8) Look at the **Match Only** checkboxes below. This means when you click one of these checkboxes, you will only get **Match**es which match Sphere, Cylinder, and Axis. When you uncheck this box, you may get **Match**es and also **Equiv** which match the Spherical **equiv**alent of the prescription only. In case you find nothing better a spherical equivalent may be a good substitute for a person with "low" cylinder (around 1.5 or lower). You can do the left or right eye separately or both together.

9) Note the data entry area showing at the beginning of this Appendix. The field labeled **Equiv** indicates the calculated Spherical Equivalent of the patient's prescription. Spherical equivalent is calculated below as:

Spherical Equivalent = Sphere + ½ Cylinder.

For example for a person with: Sphere=2.5, Cylinder=-1.50 and Axis = 93 the spherical equivalent is 2.5 + ½(-1.50) = 2.5 -.75 = 1.75

Notice this part of the screen=



Appendix C – GI: Cutback for Astigmatism

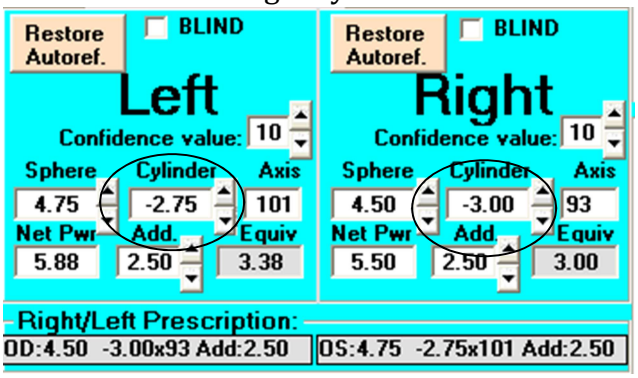
Please note that the wizard will not automatically guide you through using the manual functions listed in this Appendix.

If you refer to the document entitled "How to do many optical things" you will see that Astigmatism can be quite a problem for patients. Even a young child cannot adapt his or her eyes to the problems caused by astigmatism. Therefore, it is very important you understand how to use the Eyeglasses Inventory Program to select glasses for a patient with astigmatism.

Remember the three components of the measurement of the eye. 1) Sphere, 2) Cylinder, 3) axis. It is the last 2 parameters that describe astigmatism for the patient.

Astigmatism (for the sake of this discussion) is divided into high and low astigmatism. "High" astigmatism is when the power of the cylinder is GREATER than 1.75-2.00 diopters. "Low" cylinder is when the power of the cylinder is less than 1.75 diopters. Keep in mind that when a patient has "high" astigmatism, this patient can **rarely** accept a pair of glasses which provide correction for all of this astigmatism. This is where "cutback" of the cylinder comes into the picture.

Now let us look at the eyeglasses inventory program. In the below figure we see the cylinder components for the left and right eye:



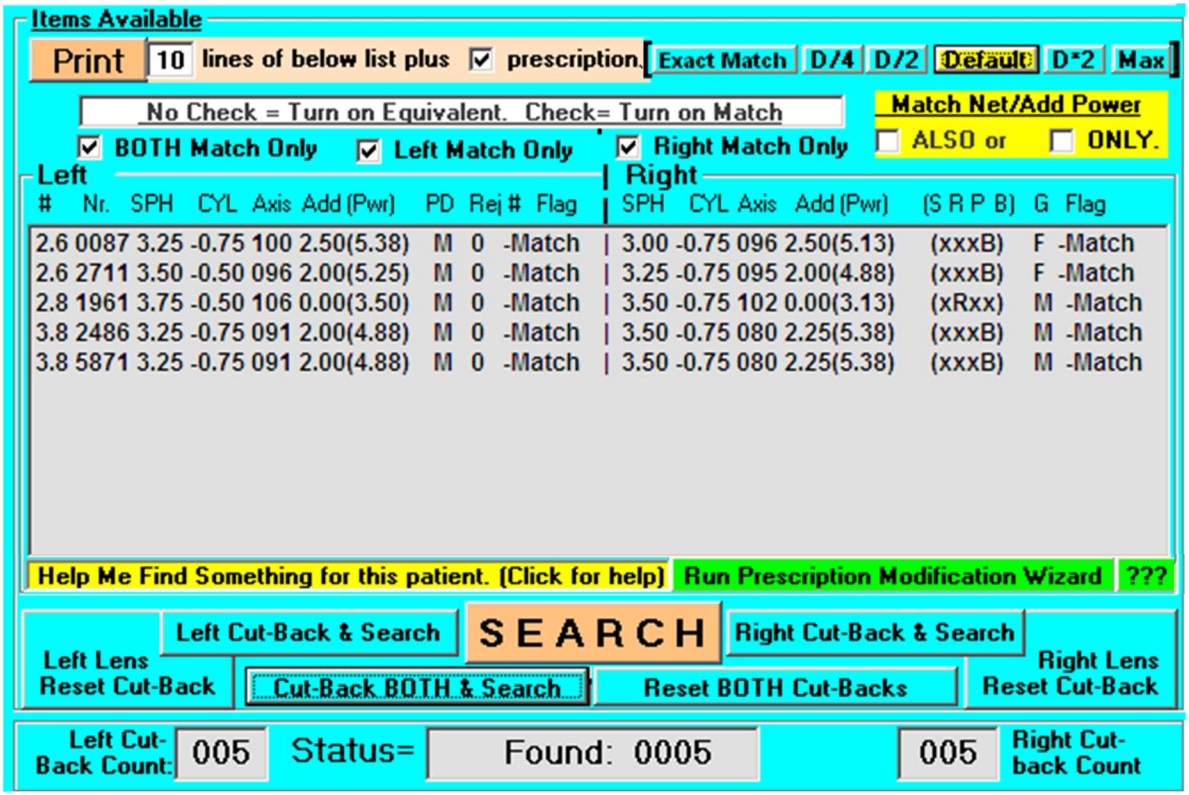
NOTE
The Wizard described in the next section will be able to perform the below steps automatically.

This patient has "High" astigmatism. If you look for a pair of glasses which match this prescription, you might find a match. Even if you do, you should not give these glasses to the patient as it will probably make them feel "dizzy". Here is what you do. Look at this area of the screen below.

All around the search button you will find buttons which are used in cutback. Let me list them and explain each of them.

1) **Left Cut-Back & Search, Right Cut-Back & Search, or Cut-Back BOTH & Search.** If you click on this button the cylinder for the left, right, or both lens is reduced by .25 diopters HOWEVER, the sphere is adjusted to keep the spherical equivalent the same. The **Left (or right) Cut-Back Count** is incremented by 1.
2) **Left Lens Reset Cut-Back**, **Right Lens Reset Cut-Back**, or **Reset BOTH Cut-Backs**. If you click on this button the Sphere and Cylinder for the respective side is returned to its original value. The respective cut back counts are return to zero.

No glasses were found when trying to find glasses for the patient with the above prescription. Let us click the Cut-Back BOTH and Search button 5 times and you will see the below.



Now 5 pairs of glasses have been found which will be highly acceptable to the patient. Please note that if you only had "High" cylinder on the left eye, you would just cut back the left eye. The same applies to the right eye.

Using Cutback can not only improve your chances for a match but will give the patient glasses which are highly acceptable.

A Good Rule of thumb

Use cutback to reduce the "high" cylinder value by half.
Use it on either eye or both eyes.

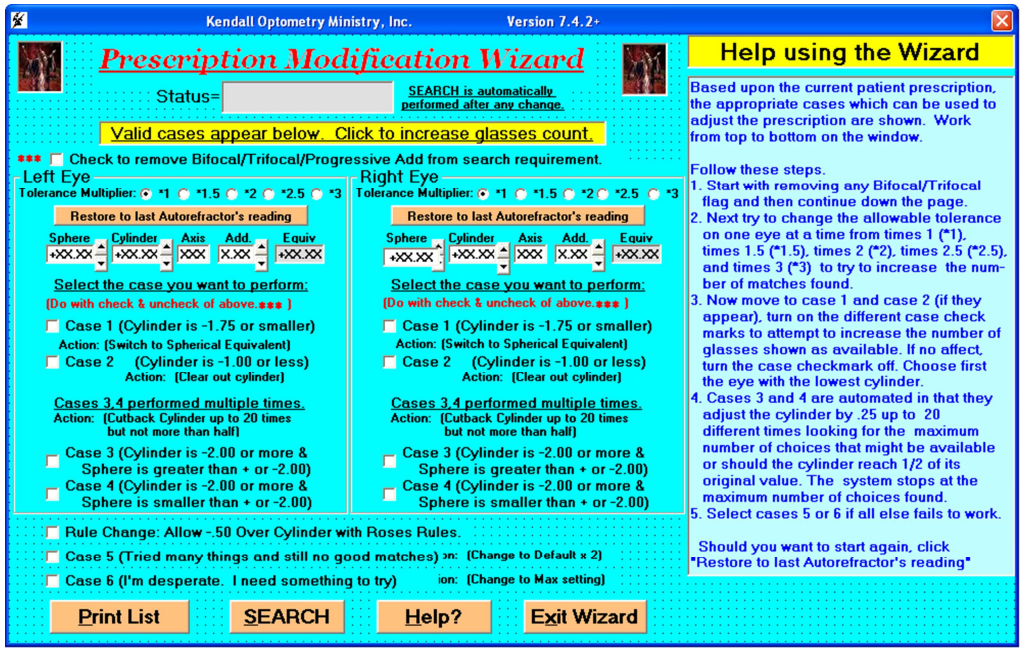
Keep in mind that the *Prescription Modification wizard* (described in the next appendix) performs cutback for you automatically.

Appendix D – GI: The Prescription Modification Wizard

The Prescription Modification Wizard.

This section is somewhat made obsolete by section 4.12 which describes the new Version 7.5-3 wizard features. It is retained because it describes the concept behind manual operation of the wizard.

The wizard is typically used when one searches for new glasses for a patient and finds few or none which match his/her current prescription. The purpose of this wizard is to modify that prescription in an acceptable fashion so that matches will now appear in the list. Here is what the full Wizard window displays with the help portion to the right:



Please note

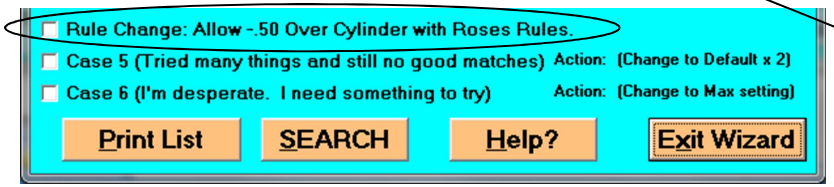
The wizard does not work properly unless an autorefractor is connected and transmitting data properly. If an autorefractor is not being used or is not working properly, you need to click Autorefractor Bypass on the top / left of the main window as sh 

ght.

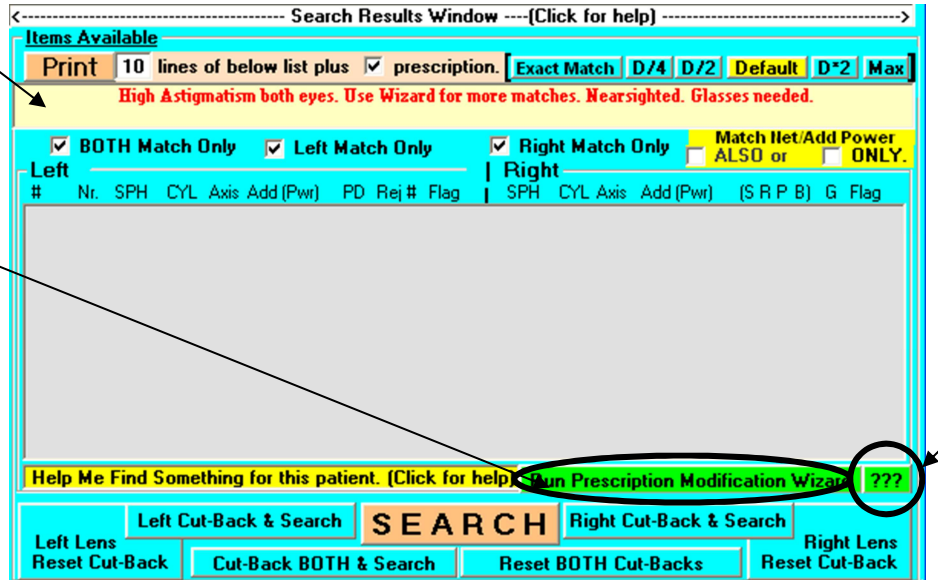
This is the analysis by the optometrist, Dr Sammy

This wizard is initiated by clicking the button (off the main window) that is circled to the right.

Version 7.1-6 of Glasses Inventory goes beyond Roses Rules to allow more possible valid matches. This is circled below.



This is allowed because it is believed that glasses can be as much as .25 diopers off and the eye measurements can also be that much off. The combination adds up to .50. It is also believed that a patient can tolerate some amount of over



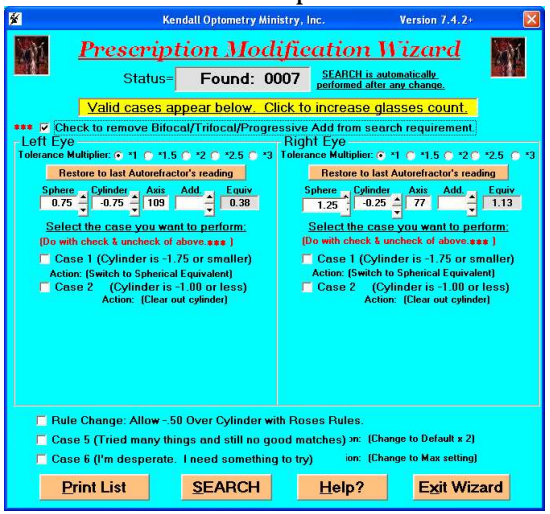
Click for this help screen.

Here are a series of cases where this wizard is helpful. Keep in mind you work from the top to the bottom of the window selecting these cases.

As you can see in this case by selecting the option to remove BiFocals, TriFocals and Progressive from the search requirement your number of glasses found go from 0 to 7.

Option to remove bifocals from search unchecked.

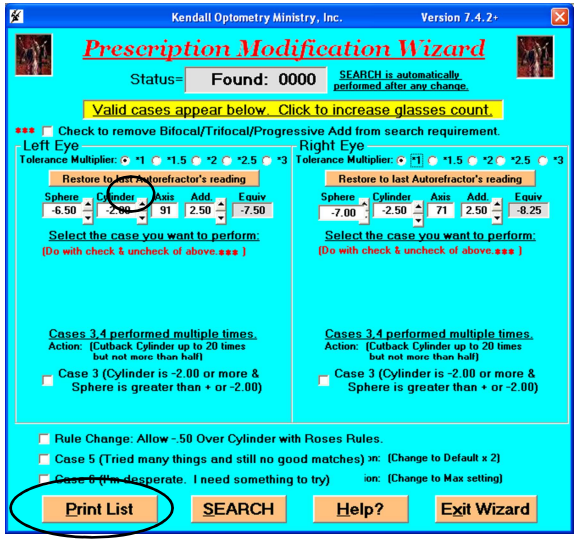
Option is checked.



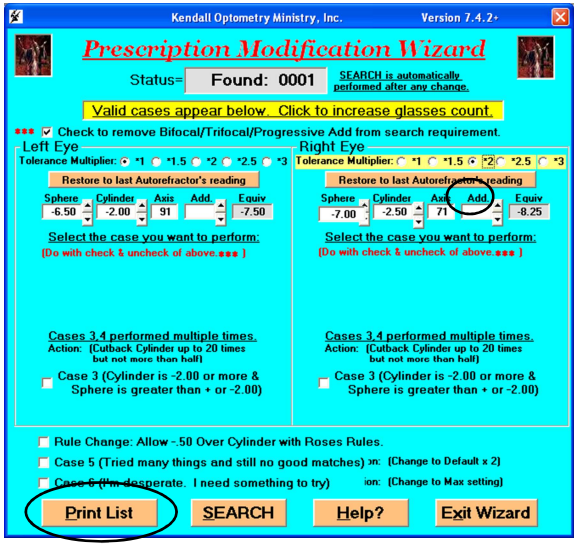
Now suppose you have a patient where their right eye is worse than their left. You would rather get a very good match for the left eye and not degrade their right eye. To the right are the steps:

What this is doing is allowing the tolerance to make the match to be loose on the right eye but not on the left eye. This produced your match. Click print as indicted to save what you have found.

Nothing is checked so nothing found.



Click the two indicated and found 1.

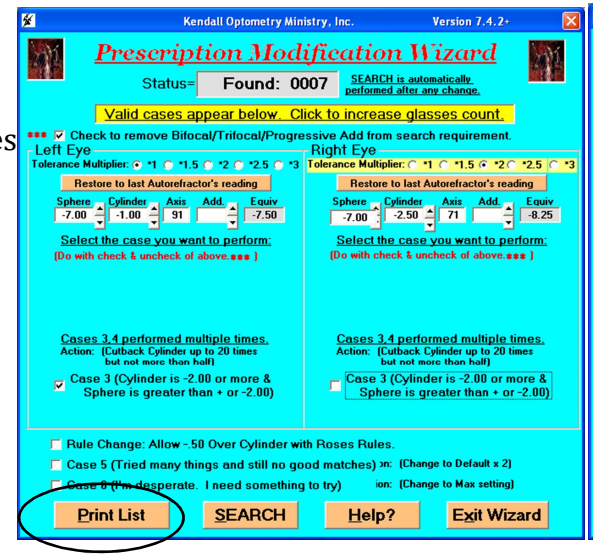


Now continue the above example to find more matches

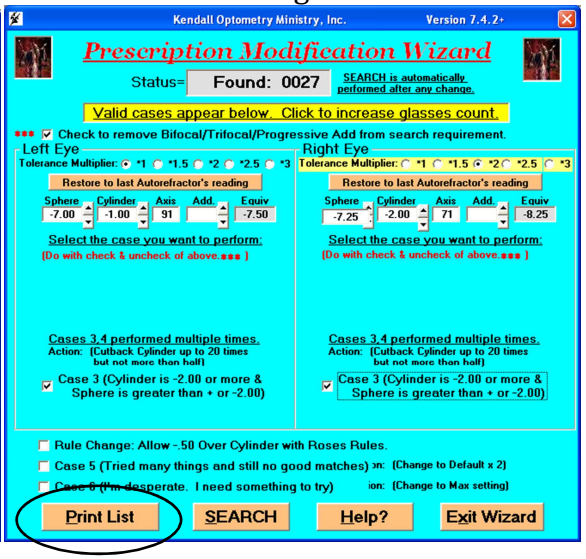
Click case 3 on the left eye gives 7 matches while in addition to clicking case 3 on the right eye gives a total of 27 matches. Click PRINT at each stage.

In the example to the right, click the list at every circled PRINT button but do not tear it off. Fittings will be attempted starting at the top of the first list printed.

Check case 3 left and found is 7.



Also check case 3 right and found is 27.



Here is another example.

Notice that when Case 1 is chosen the number listed go from 5 to 157 pairs of glasses.

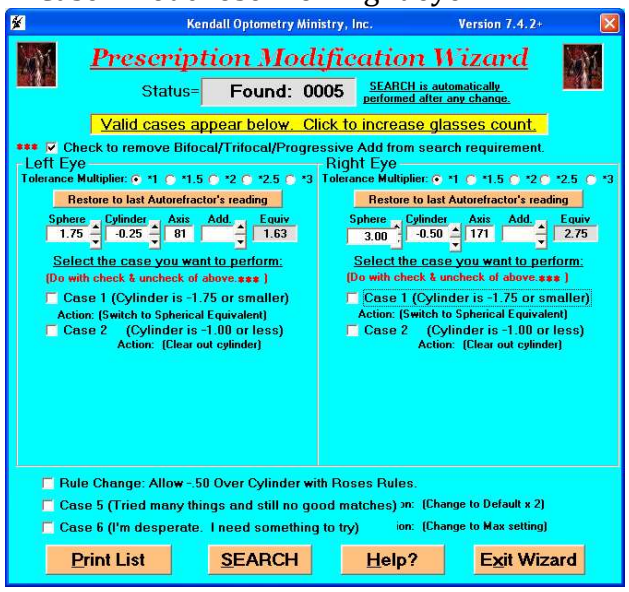
Case 1 right eye not chosen.

Case 1 right eye is chosen

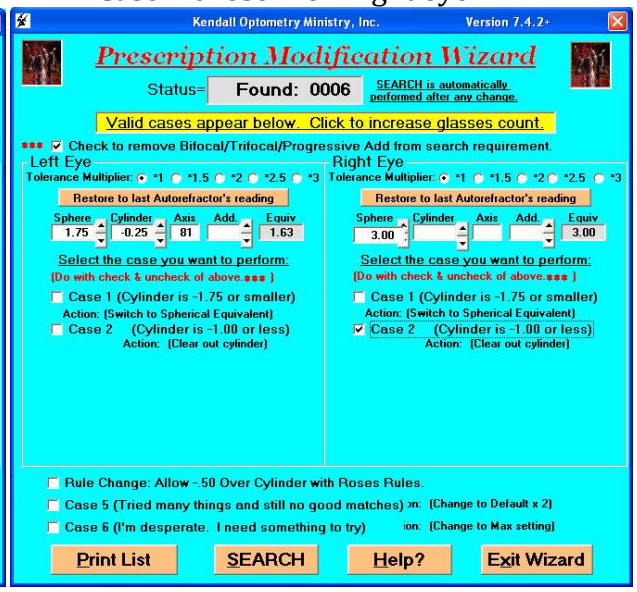
Here is another example where clicking case 2 helped extend the list of choices.

Cylinder is cleared and the choices go from 5 to 6 pairs of glasses.

Case 2 not chosen for Right eye.



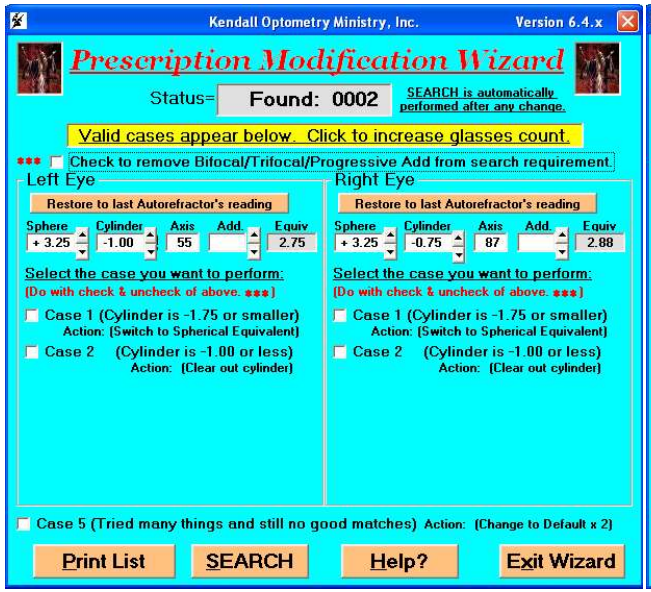
Case 2 chosen for Right eye.



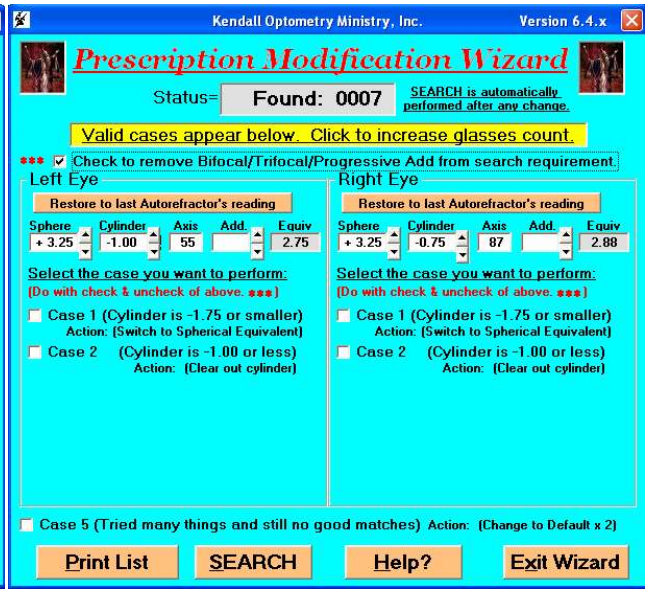
Here is an example where you may give a person one pair of glasses for distance and then another pair for reading. With the below you eliminate the requirement that BiFocals be included on the list.

As you can see if the "ADD" is not included in the search, the more choices will appear on the list. If the patient needs reading glasses, give him/her a pair of separate readers.

Bifocals are allowed on the list



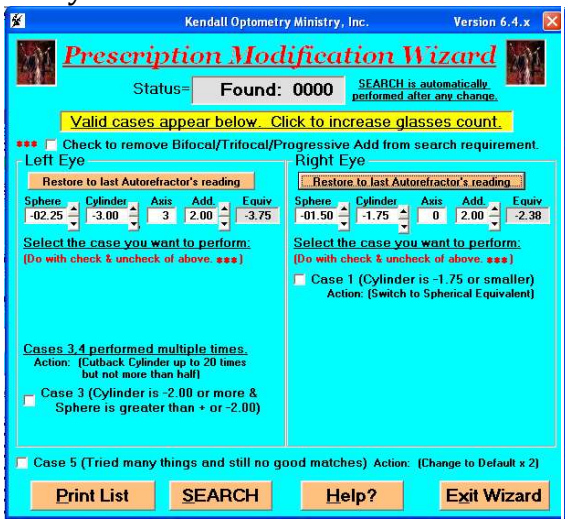
Bifocals are removed from the list.

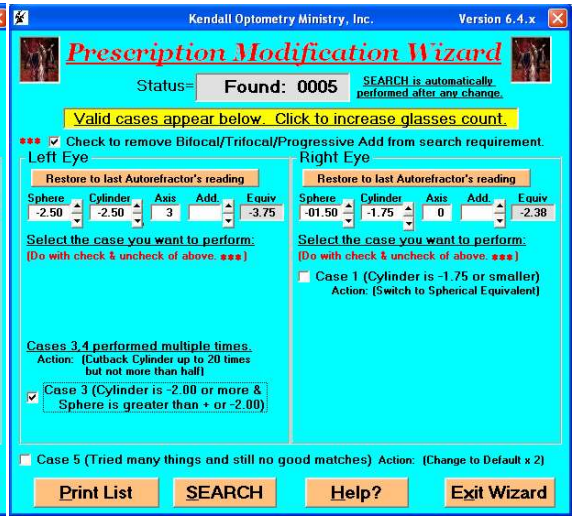


Case three is a highly automated option. Case 3 will reduce the cylinder by .25 up to 20 times looking for the maximum number of glasses available. It maintains the spherical equivalent the same by changing the sphere. It will not reduce the cylinder more than ½ the prescription value.

Notice that the cylinder is cut and the choices go from 0 to 5 pairs of glasses.

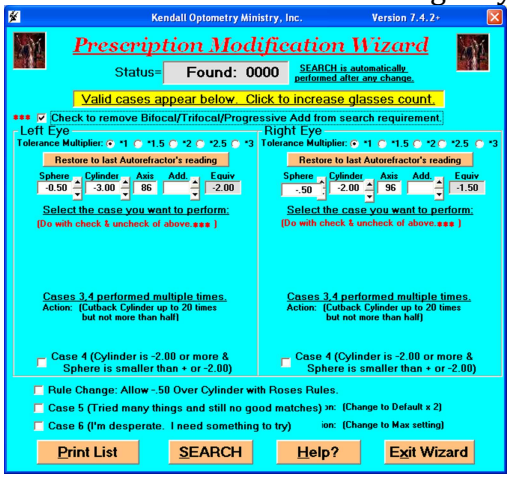
Case 3 not chosen on left eye. No Bifocals allowed & Case 3 chosen on left eye.





Case 4 reduced the cylinder by .25 up to 20 times looking for a case where the maximum number of glasses were found. It does not change the sphere as it is already too small. It never reduces the cylinder by more than half. In this example the number of choices go from zero to 3. Look at a copy of the picklist for this case. Pair 4078 is ideal. Notice that the first choice is very close to the modified prescription. It is also a more acceptable pair of glasses for the patient.

Case 4 not chosen for left and right eye. Case 4 chosen for both eyes



Remember to check and uncheck case 4 one or more times to look for more matches.

Picklist for this case.

```
Patient #:170  Age: 73
  Date: 04-07-2013  Time: 16:09:09
---------- Retinomax 2 ----------
Wizard adjusted from:
  R(OD) :  -0.50 -2.00 x96
  L(OS) :  -0.50 -3.00 x86
to below for a match.
EYE    SPH   CYL AXIS ADD   SE
R(OD) :-0.50 -1.75 x96       -1.38
L(OS) :-0.50 -2.25 x86       -1.63
------------ Settings ----------------
Matched Default setting.
ROSE RULE in effect for:
 NO Over Plus (+) sphere.
 NO over cylinder.
 NO over Minus (-) sphere. >35 Yrs.
-----------------------------------------
 #  Lcn# (#Rej)  Flags
0.8  4078            F-B
   R(0D): -0.50/-1.75/101 Add:3.25 EQ:-1.38
   L(0S): -0.50/-1.75/82 Add:3.00 EQ:-1.38
2.1  6074            F
   R(0D): -0.25/-1.25/106 Add:0.00 EQ:-0.88
   L(0S): -0.25/-1.25/80 Add:0.00 EQ:-0.88
2.4  1820            M
   R(0D): -0.50/-1.25/95 Add:0.00 EQ:-1.13
   L(0S): -0.25/-1.25/71 Add:0.00 EQ:-0.88

-------- Sammy Says --------
- High Astigmatism both eyes.
- Few or no BiFocal matches made.
- Add may be wrong on any listed.
- Use Wizard for more matches.
- Nearsighted.
- Glasses are needed.
--- Dr Sammy Rose, OD. ---
-------- Indianola, Ms. -------

--------------------
Program Version: 7.4.2
--------------------
```

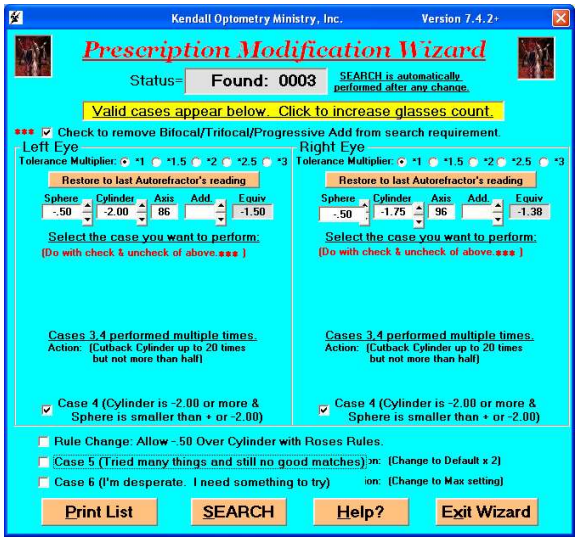
Original Prescription.

Modified Prescription.

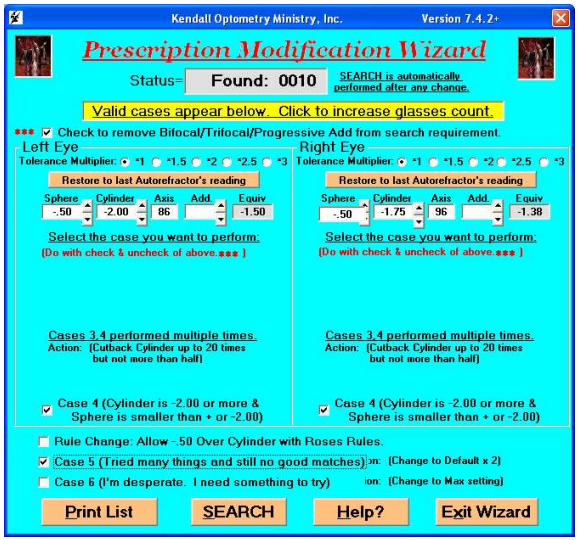
Optometrist's Recommendation.

Case 5 changes the tolerance of the choice window to double what it was previously. This is allowing choices not so close to appear. This selects the D*2 screen option.

Case 5 not chosen.

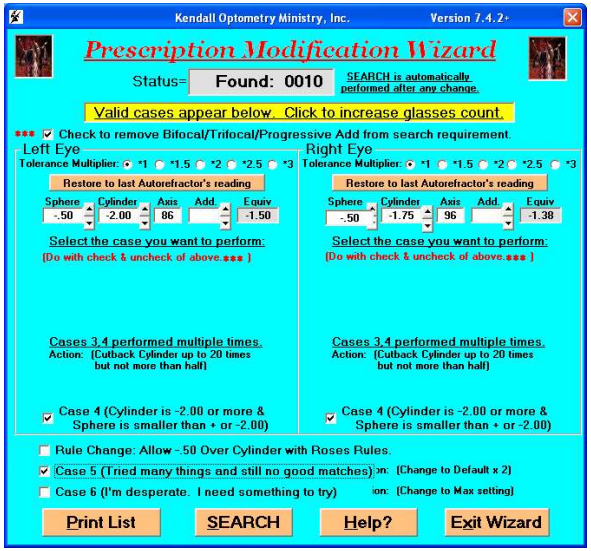


Case 5 chosen.

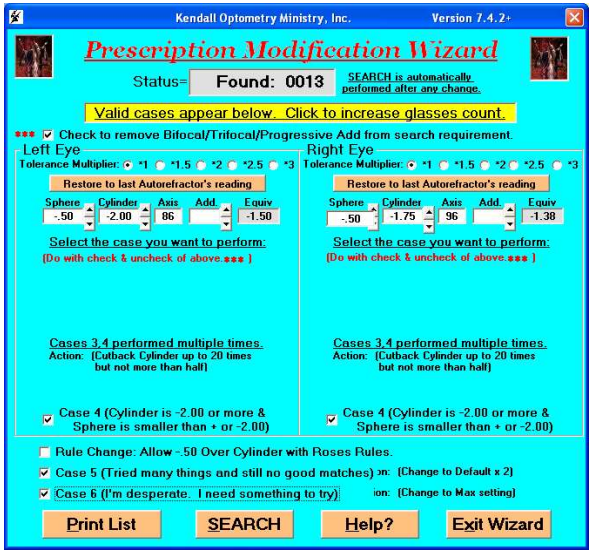


When case 6 is chosen the number of choices go from 10 to 13. This selects the MAX option on the main screen.

Case 6 not chosen.



Case 6 chosen .



The prescription modification wizard can greatly increase the number of acceptable pairs of glasses that can be found in the eyeglasses inventory.

Appendix E – GI: File and Reports

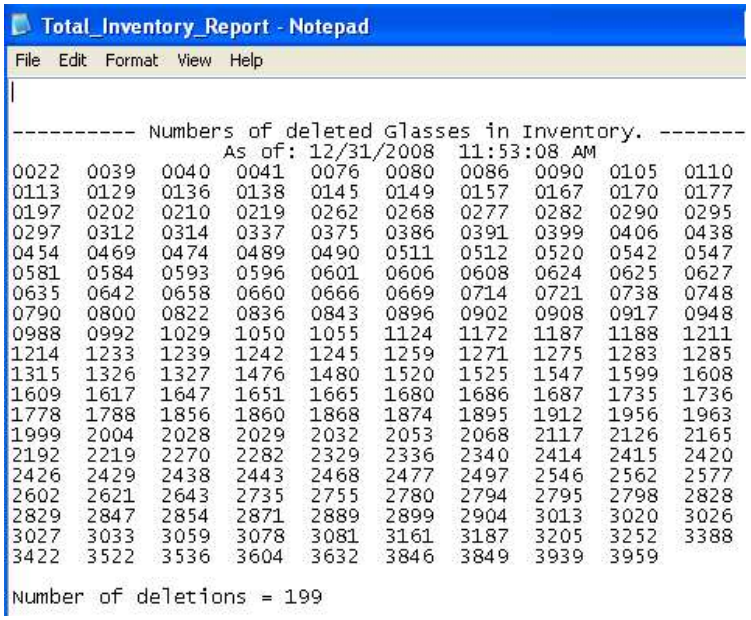
The top window of the Eyeglasses Inventory Program is as shown below:

When you select the "File" dropdown you will see the graphic to the left below.

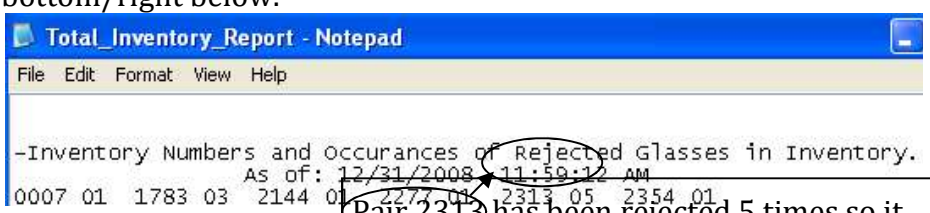
The first option **Save Deleted/Rejected Inventory** allows you to save a file named Total_Inventory_Deleted_Rejected.txt to the root of the C drive. This file is created to transfer the list of glasses used to the Glasses Reader Program. The second option **Save Un-Matched Measurements File** is used to save to a file named Total_Inventory_UnMatched.txt the list of prescriptions for patients for whom you could not find a match. This file is added to every time you depress the **Save Un-Matched Prescription** button shown at top/right above.

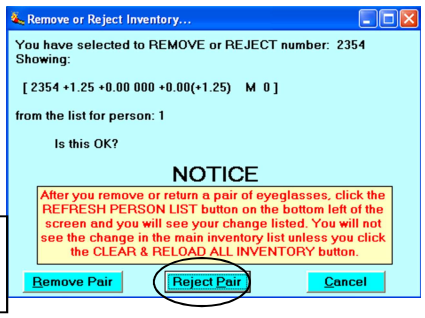
When you select the **Reports** dropdown you will see the graphic below

The **Deleted Item Report** (shown below) shows the list of glasses deleted from the



The **Rejected Item Report** (shown below) shows the list of glasses which have been rejected by patients. "Rejected" is defined as glasses which match their prescription, and the style is acceptable but the patient could not see through them. They are likely candidates for being improperly measured. You reject a pair of glasses just like you remove one by clicking the "Reject Pair" button as circled in the graphic at the bottom/right below.

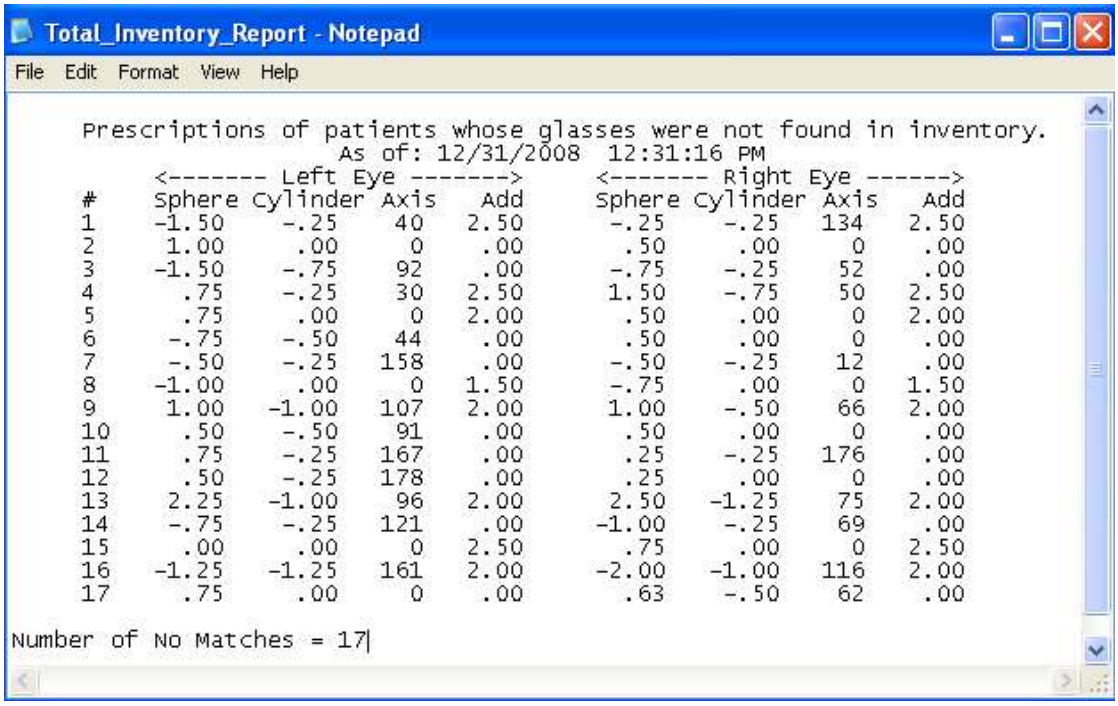




Pair 2313 has been rejected 5 times so it should be removed as it is likely measured

The **Vacant Location Report** shows the same list as the deleted item report except it shows locations which were empty all along but not because a pair of glasses was removed.

The **Display Measurements without a match** report shows the list of prescriptions of patients for whom you could find no match. An entry is made in this report only when you click the **Save Un-Matched Prescription** button shown on the previous page. Below is a sample of this report:



Total_Inventory_Report - Notepad

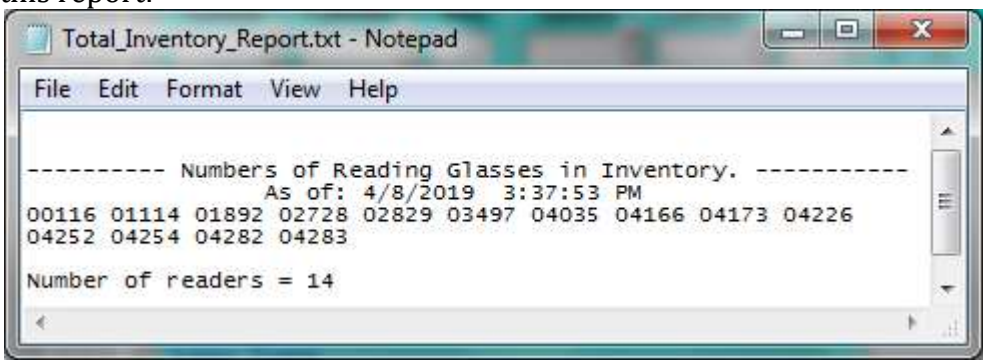
File Edit Format View Help

Prescriptions of patients whose glasses were not found in inventory.
As of: 12/31/2008 12:31:16 PM

	<------- Left Eye ------->				<------- Right Eye ------>			
#	Sphere	Cylinder	Axis	Add	Sphere	Cylinder	Axis	Add
1	-1.50	-.25	40	2.50	-.25	-.25	134	2.50
2	1.00	.00	0	.00	.50	.00	0	.00
3	-1.50	-.75	92	.00	-.75	-.25	52	.00
4	.75	-.25	30	2.50	1.50	-.75	50	2.50
5	.75	.00	0	2.00	.50	.00	0	2.00
6	-.75	-.50	44	.00	.50	.00	0	.00
7	-.50	-.25	158	.00	-.50	-.25	12	.00
8	-1.00	.00	0	1.50	-.75	.00	0	1.50
9	1.00	-1.00	107	2.00	1.00	-.50	66	2.00
10	.50	-.50	91	.00	.50	.00	0	.00
11	.75	-.25	167	.00	.25	-.25	176	.00
12	.50	-.25	178	.00	.25	.00	0	.00
13	2.25	-1.00	96	2.00	2.50	-1.25	75	2.00
14	-.75	-.25	121	.00	-1.00	-.25	69	.00
15	.00	.00	0	2.50	.75	.00	0	2.50
16	-1.25	-1.25	161	2.00	-2.00	-1.00	116	2.00
17	.75	.00	0	.00	.63	-.50	62	.00

Number of No Matches = 17

The **List all Readers** report shows the list of the locations of all the readers in your inventory. Below is a sample of this report:



Total_Inventory_Report.txt - Notepad

File Edit Format View Help

---------- Numbers of Reading Glasses in Inventory. ----------
As of: 4/8/2019 3:37:53 PM
00116 01114 01892 02728 02829 03497 04035 04166 04173 04226
04252 04254 04282 04283

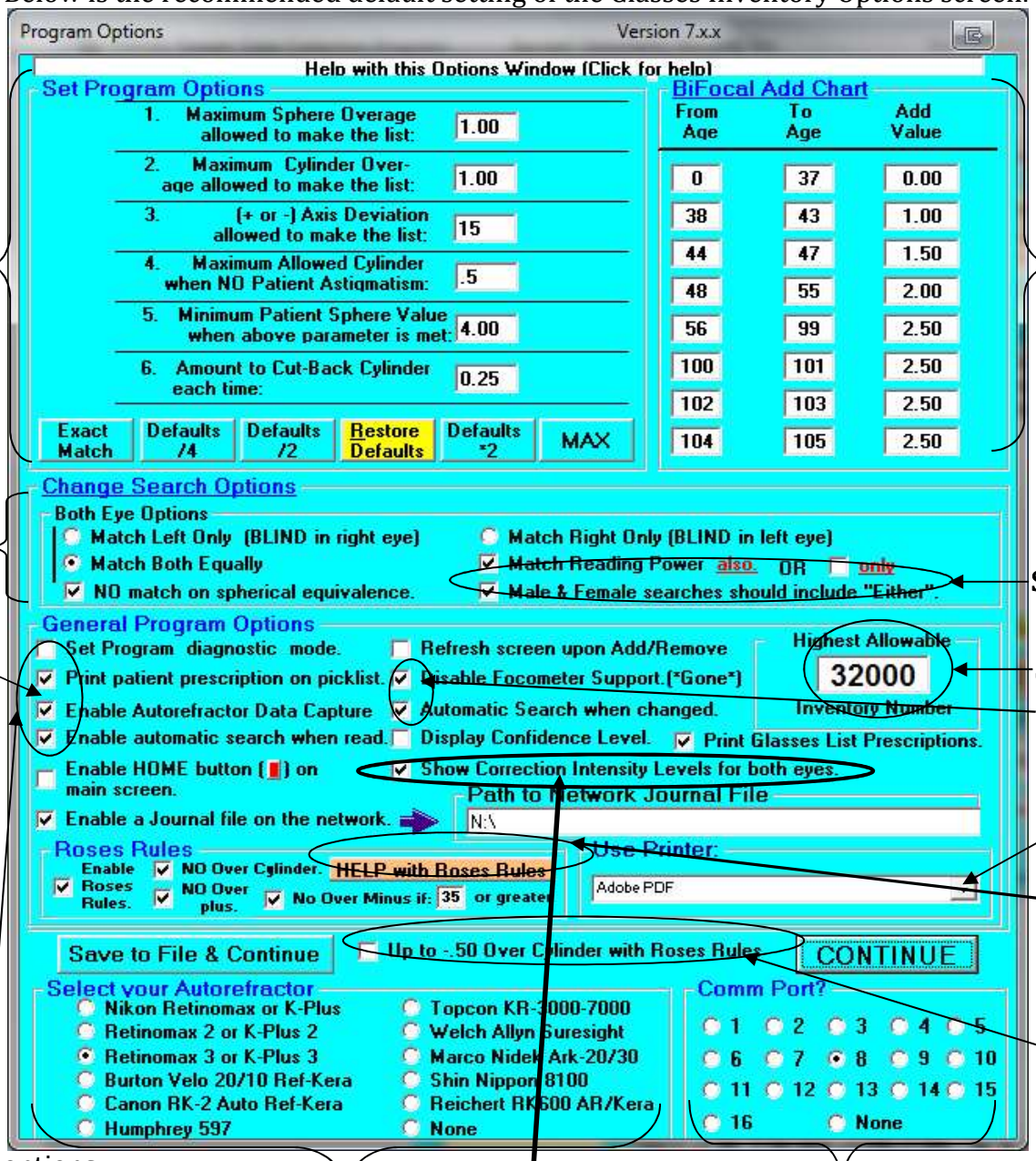
Number of readers = 14

The range of reader powers is defined under options as you see below:

This is the minimum and maximum spherical power of what is defined as “readers”.

Appendix F – GI: Options Settings & Roses Rules

Below is the recommended default setting of the Glasses Inventory Options screen.



See Appendix A for information about this area.

This table determines the patient ADD based upon their age.

Defaults

See Section 4.6

Autorefractor choice window below opens when you click here.

See Section 4.13

2 options chosen here.

See Section 4.5 (For printer Selection.)

See next page for printout of Rose's rules.

See Page 1 of Appendix D at bottom/left.

3 options chosen here.

Up to 11 different autorefractors chosen here. Choose what shows if you don't have an autorefractor attached to your practice PC.

Choose Comm port 1 or None if you don't have an autorefractor attached.

When data comes into the program from the autorefractor the system will display the window shown in Section 4.2, step 6.

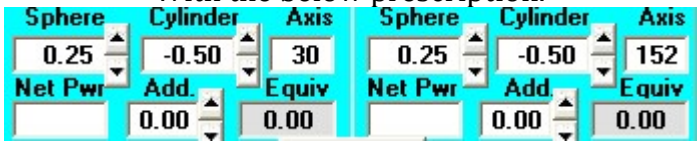
The Correction Intensity Level is an indicator of how bad the prescription is. It is calculated as ((Sphere-AgeAdjustment)+Cylinder)/.25 The cylinder is made into a plus number. This number allows the program to compare the eyes and to also understand the severity of the problem with the patient's eyes.

ROSE'S RULES

-- It is OK to have Myopia under corrected or over corrected by -0.50/+0.50. TRANSLATION: A minus sphere prescription can be more or less minus by .50. For example if the patient's prescription is -2.00 sphere, you may be able to use -2.50 or -1.50.
-- Never over correct cylinder. To avoid this set (NO Overcylinder) on main window. TRANSLATION: The cylinder for the glasses cannot be larger numerically than the cylinder for the patient; i.e. If the patient cylinder is -1.00 then -.75 is OK but -1.25 is not.
-- You can decrease cylinder up to -0.75 and be just as effective most of the time. Setting (NO Overcylinder) on the main window will give glasses which have less cylinder than the prescription. TRANSLATION: If the cylinder is -2.00 you can decrease the cylinder to -1.25 most of the time.
-- Never over correct hyperopia. To avoid this set the (NO Overplus) checkmark on main window. TRANSLATION: When a patient has + sphere do not dispense glasses which have MORE + sphere, i.e. if the patient prescription is 2.00 do not dispense a 2.50 but 1.50 will likely work quite well.
-- It is OK to under correct hyperopia up to one diopter. TRANSLATION: When a patient has + sphere it is OK to dispense a smaller value by up to 1.00; i.e., if the patient prescription is 4.00, it is OK to dispense 3.00.
-- Never over minus Miopic patients 35 years of age or older. If the patient is less than 35 you can over minus them some (.50) but not 35 years or older. (See Rule 1).
Compliments: Dr Sammy Rose,OD Indianola, Ms.

With Version 7.4-2 and above an optometrist recommendation shows in the main window.

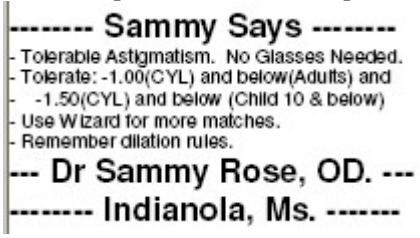
With the below prescription.



and this age.

You see this on the main window.

and this explanation on the pick list.

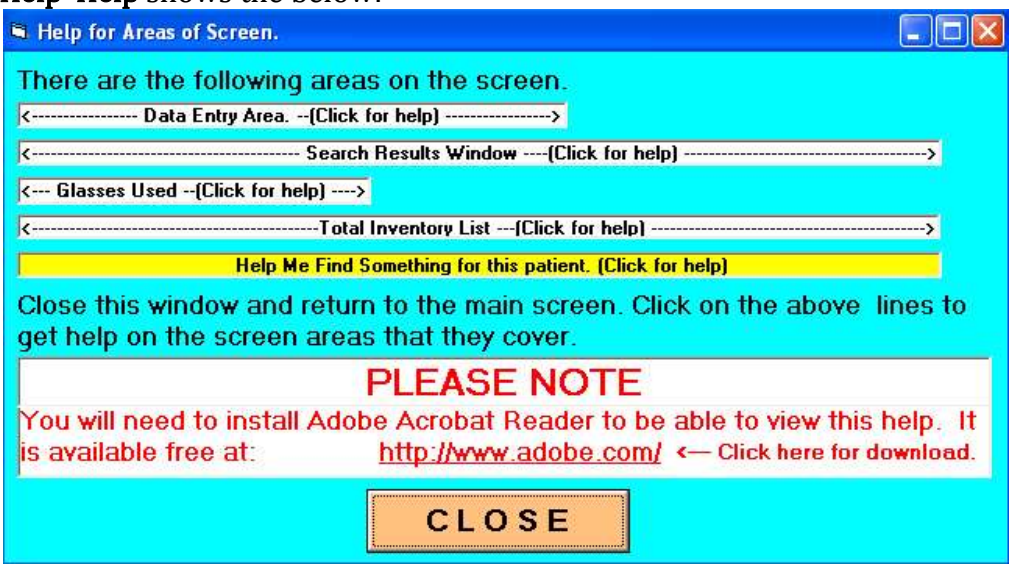


Appendix G – GI: Help selection.

Below is a copy of the Help dropdown menu.

Go to Section 4.10 for the Practice Play option.

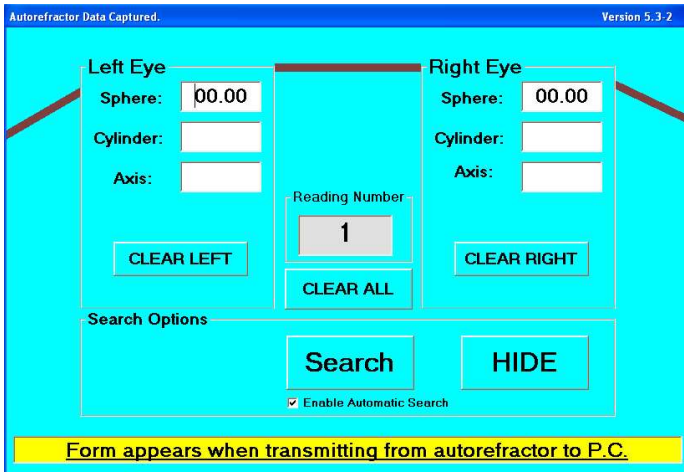
Help Help shows the below:



Click any of the white and yellow lines for information about this part of the program. Note that these same lines exist on the Eyeglasses Inventory main

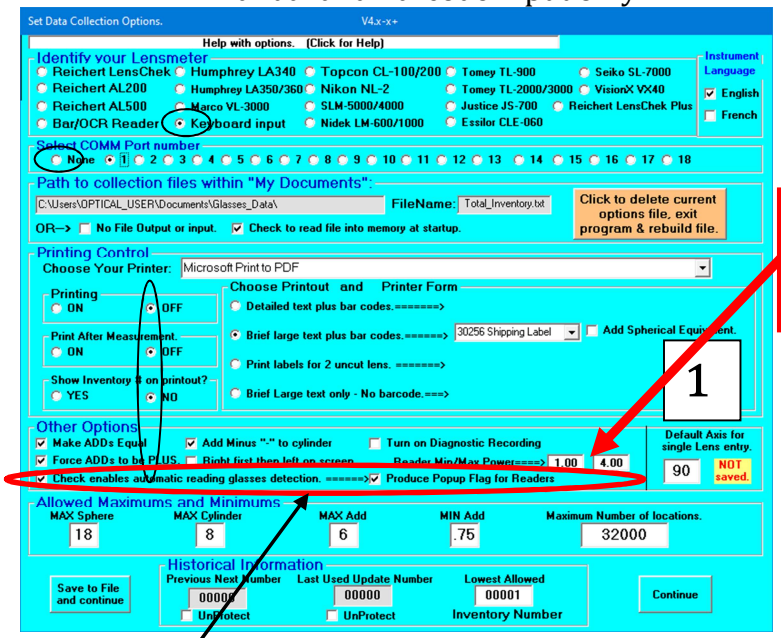
The other help items are self explanatory.

The item named **Training: Show autorefractor Data Capture Window** (shown to the right) allows you to see a copy of the window which appears when prescription data is sent from the autorefractor to the computer.



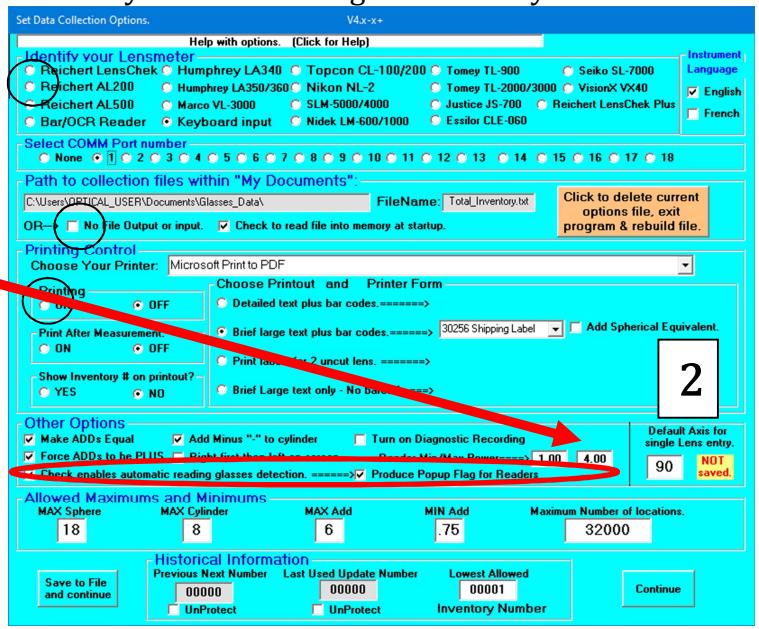
Appendix H – GR: Options Settings

Manual and Barcode input only



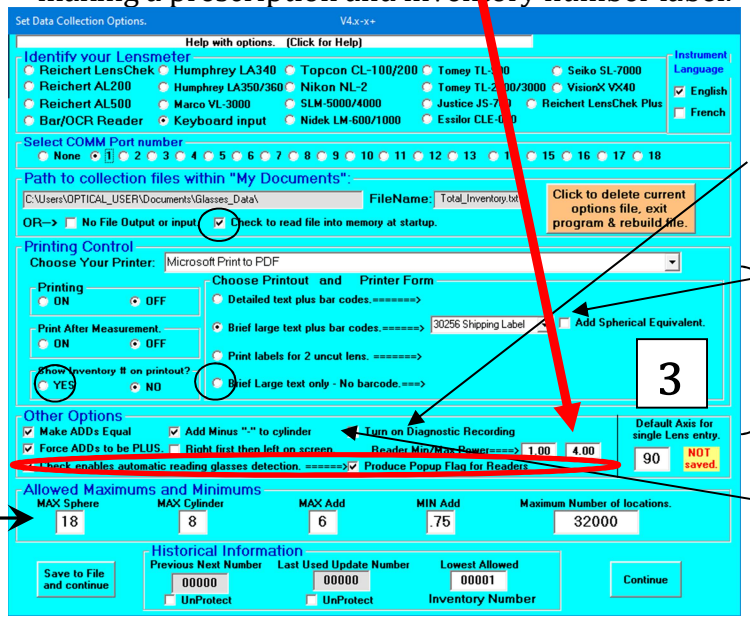
Selects min and max value for readers.

When you are measuring glasses and making a barcode label only but not creating an inventory file.



In the red circled items on graphics 1, 2 or 3 there are two fields. 1) If you click on **Check enables automatic reading glasses detection** then when readers are detected, the reading glasses flag on the main menu is automatically set. 2) If you click on **Produce Popup Flag for Readers** then a popup window comes alerting you that readers have been detected. This is useful to know when you are measuring

When measuring glasses, creating inventory, and making a prescription and inventory number label.



Creates a diagnostic file in the **Glasses_Data** directory which shows potential errors in measurements and the lensmeter data. Popups occur to the operator describing the nature of these errors.

Causes the Spherical equivalent of the prescription to show on the label

See section 3.8

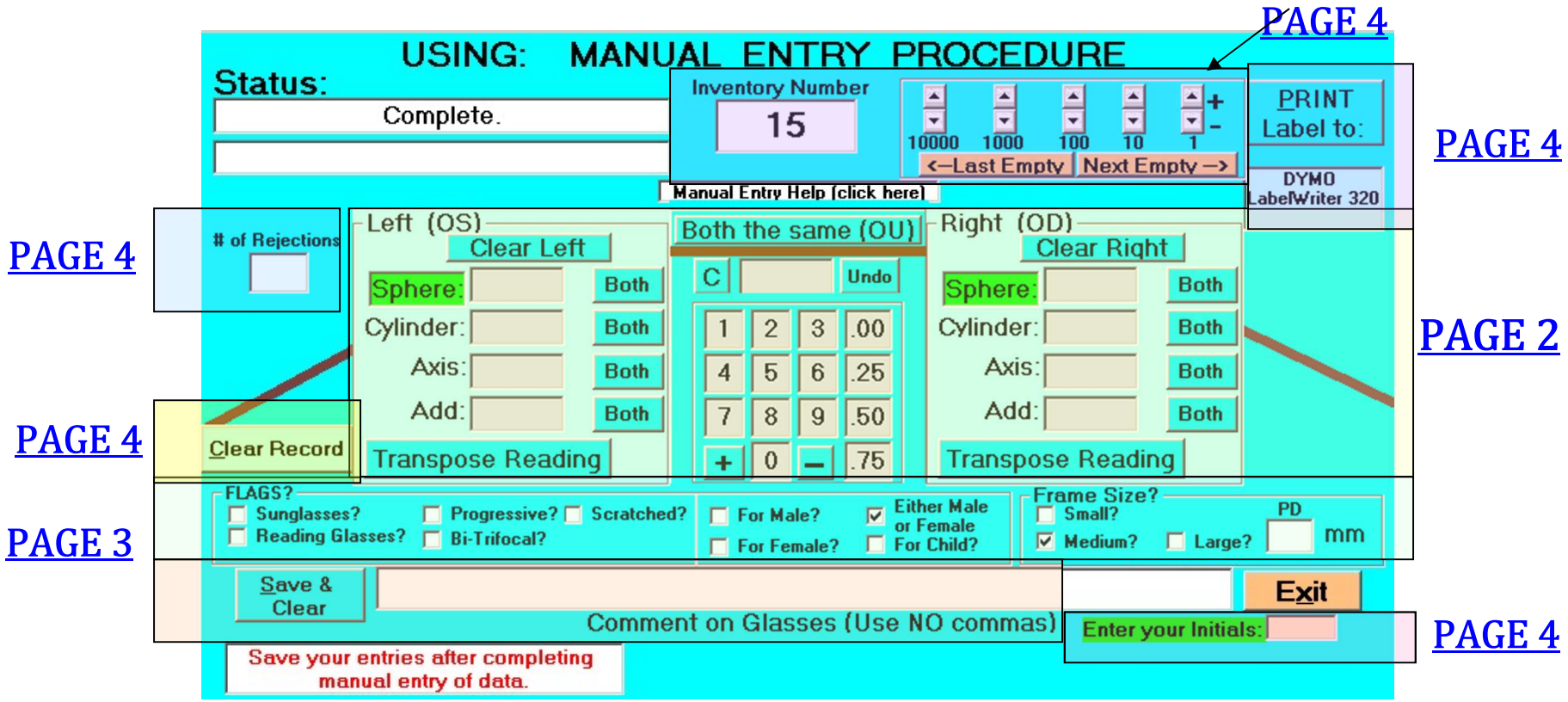
See error discussion on last 3 pages of section 5.0

See second page of Section 3.1

Appendix I – GR: Manual Data Entry

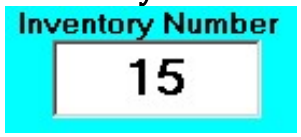
Manual Data Entry Help PAGE 1

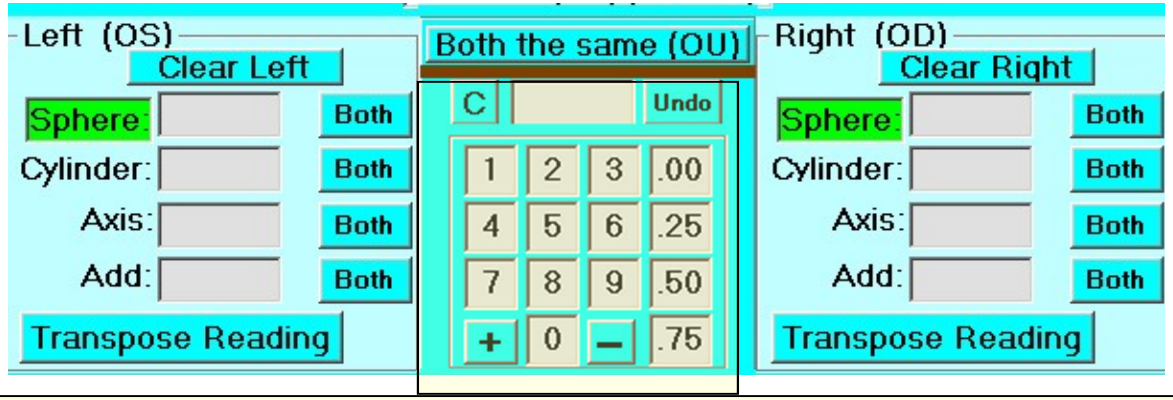
This help covers the part of the screen which is shown below. Go to the page number indicated in the blue underlined areas for the part of the screen for which you need help or information.



Manual Data Entry Help PAGE 2

Be sure you select your inventory number.

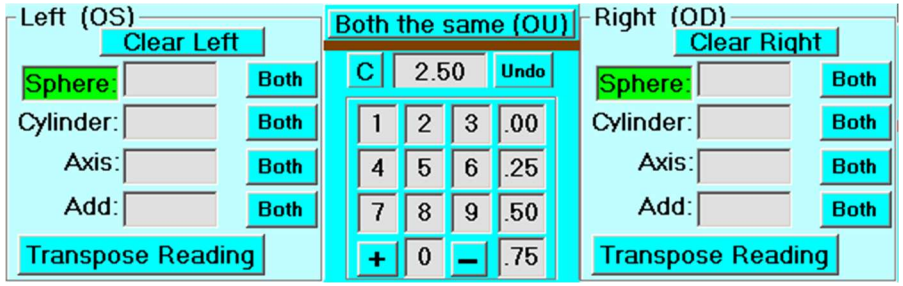




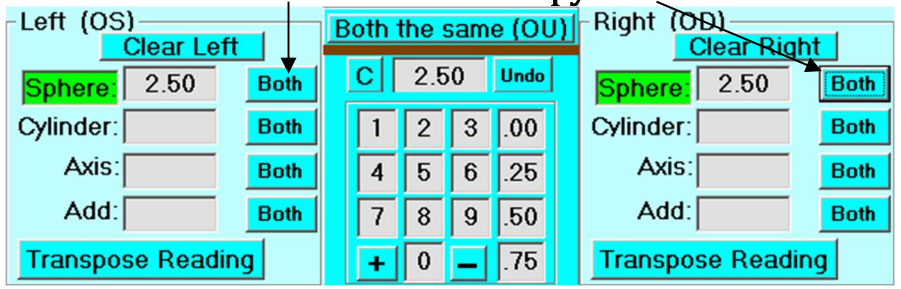
The above keypad is used for manual data entry. Below are the steps for entering the following prescription

<-------Left Eye -------->				<-------Right Eye ------>			
Sphere	Cylinder	Axis	Add	Sphere	Cylinder	Axis	Add
2.50	-1.25	87	2.25	2.50	-.75	97	2.25

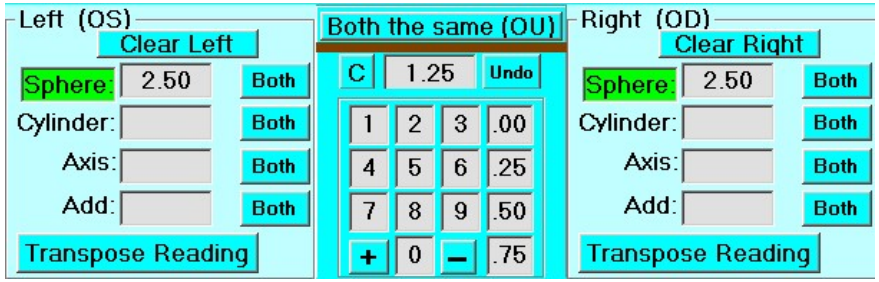
Click 2 .50



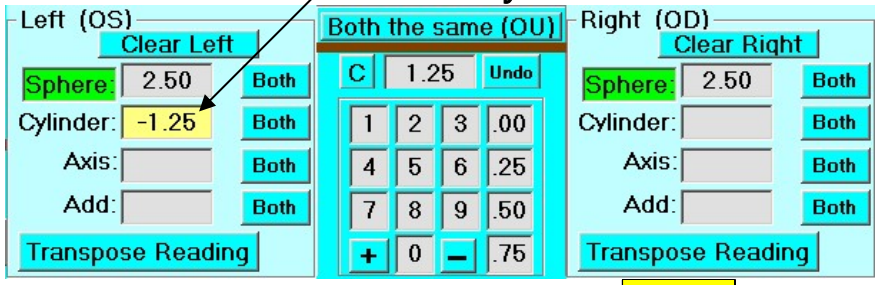
Then click Either BOTH to copy it to both sides.



Click 1 .25



Then click into the Left Cylinder Field.

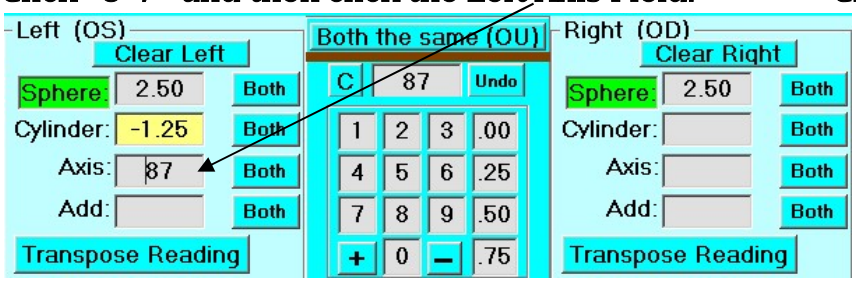


Notice that minus numbers always show up as yellow.

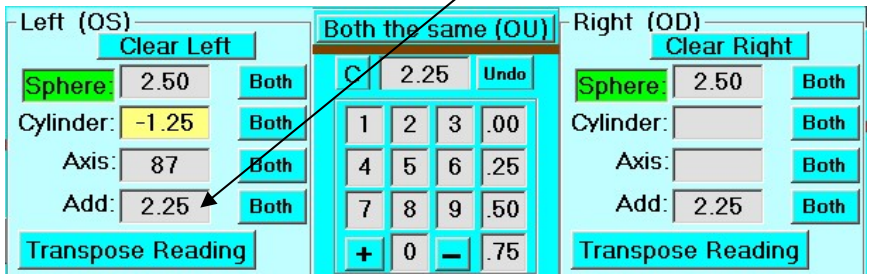
Notice that when you enter a positive cylinder the system automatically makes it minus. (Option setting)

Manual Data Entry Help PAGE 3

Click 8 7 and then click the Left Axis Field.

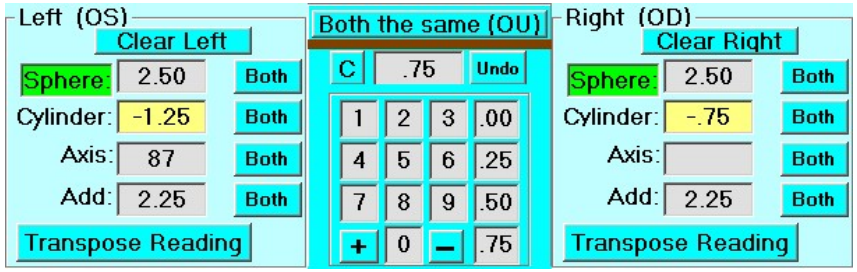


Click 2 .25 and then click the Left Add Field.

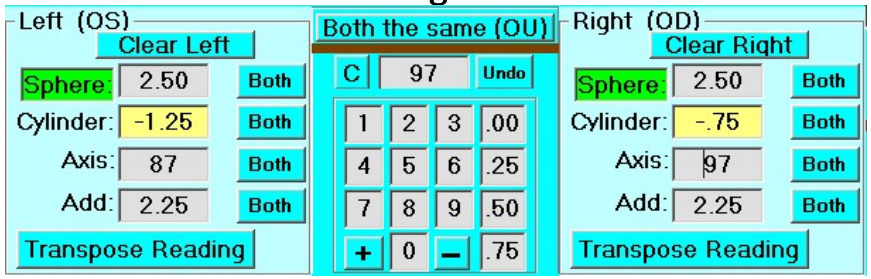


Notice how the Left Add is duplicated on both the left and right. If that is wrong, just overwrite the other Add.

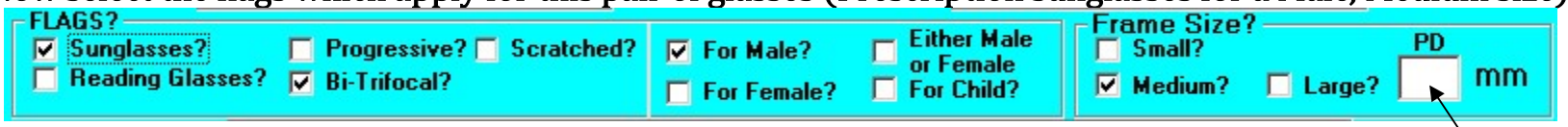
Now click .75 and then click the right Cylinder field.



Click 97 then click the right axis field.

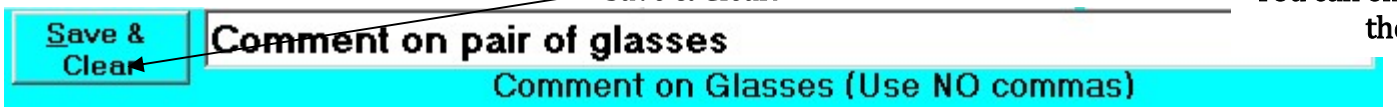


Now select the flags which apply for this pair of glasses (Prescription sunglasses for a Male, Medium size)



Enter your comment (if any) on this pair of glasses and then click Save & Clear.

You can enter the mm size of the PD here.



You will see:

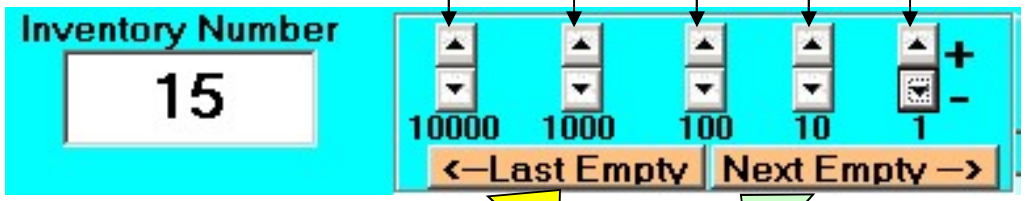
and you are ready to enter the next pair of glasses.

Notice that you can double click any field to clear it. Double click an Add field and both Adds are cleared.

Manual Data Entry Help

PAGE 4

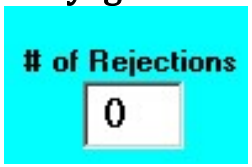
Click the appropriate UP or DOWN arrows to change the inventory number up or down the indicated amount.



Click Last Empty to go backwards to the last empty location.

Click Next Empty to go forwards to the next empty location.

This displays the number of times this pair of glasses has been rejected by the Eyeglasses Inventory Program.



Enter the initials of the operator and they will appear on the barcoded label in the comments field.

Click this button to empty a location.

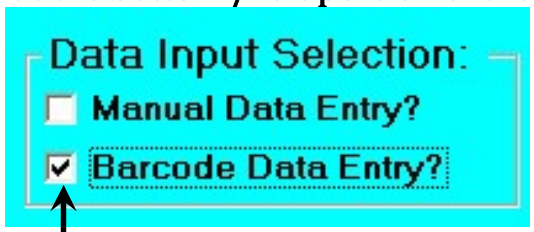
Click to print the label (as selected in Options) to the indicated label printer.

Appendix J – GR: Barcode Data Entry

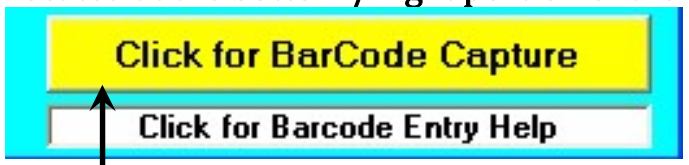
Barcode Data Entry Help PAGE 1

This help covers the part of the screen which is shown below. Click on blue underlined areas for the part of the screen for which you need help or information.

Located at the bottom / left portion of the screen.

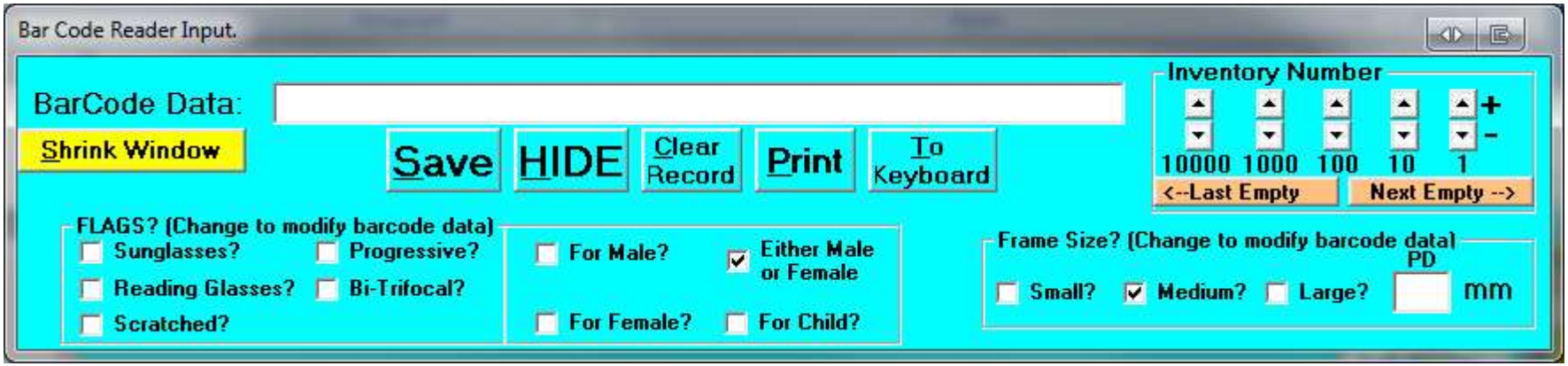


Located at the bottom / right portion of the screen



1. When you click the above checkmark,
2. The yellow button on the right bottom appears.
3. When you click the above yellow button,
4. The below window appears.

5. When you click the above Expand Window button.
6. The below window appears.



Barcode Data Entry Help PAGE 2

Below is a repeat of the larger barcode window and the very important inventory number on the main window.

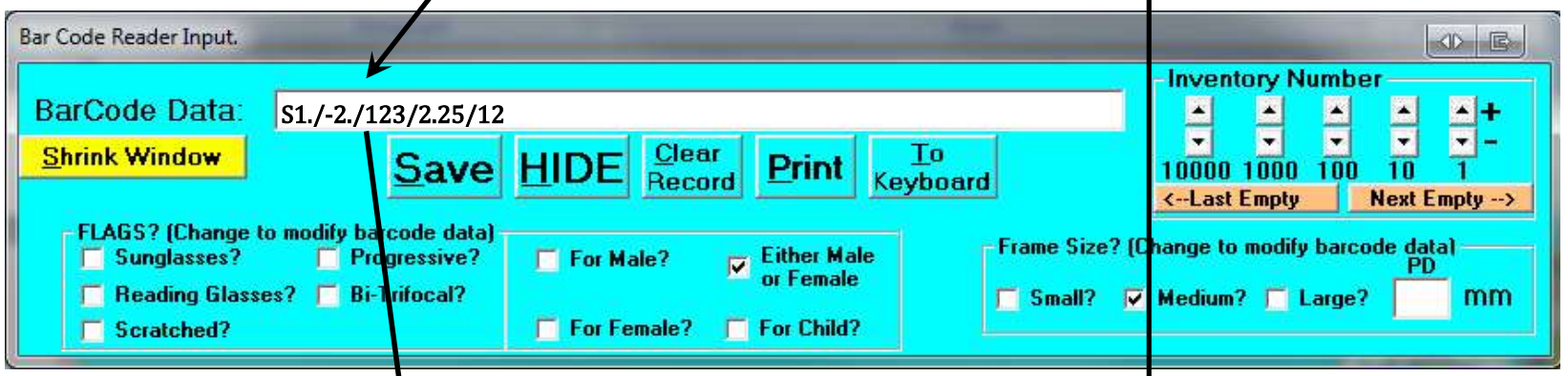
Barcode Label

OD: -1.75 -.75 89 1.25 [10453]
OS: -1.25 -1.25 103 1.25 PD: MD
[BiFocal, Either M/F (8/8/2004)]

1. The bottom barcode is scanned into the window. (You may scan either barcode first or even with the barcode upside down.)

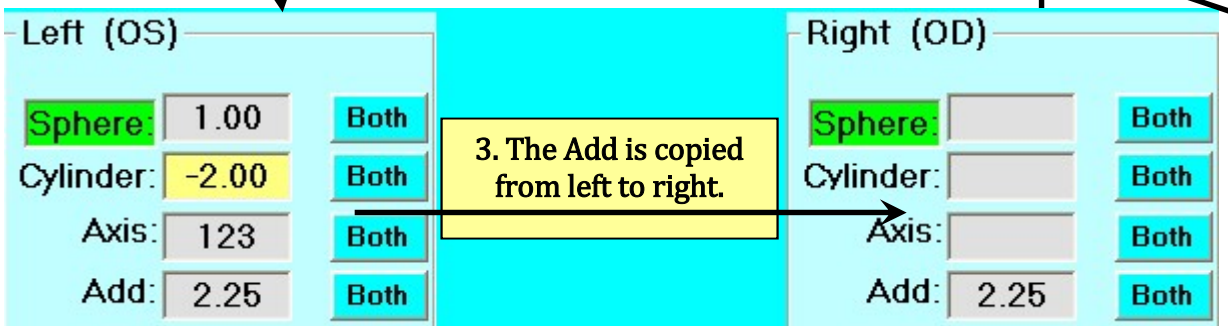
Inventory Number 3976

5. And the Inventory number increments automatically to the next number.



2. The data is extracted and placed in the left side of the main window.

4. When both barcodes are scanned, the SAVE barcode is scanned also.



3. The Add is copied from left to right.

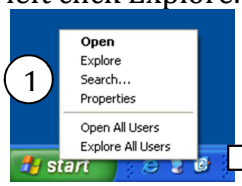
S A V E

Appendix K - GR: Transferring your inventory to the KOM Laptop

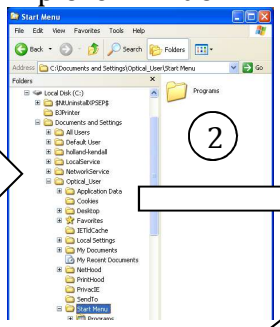
For version 7.xxx of Glasses Inventory and 4.x.x of Glasses Reader only.

See also Appendix Q. Copy your inventory file named **Total_Inventory.txt** (located at **<My Documents>\Glasses_data**) to a thumb drive. (One is included in the KOM laptop case) Only get the file with this name and no other file. **Now, on the KOM laptop.**

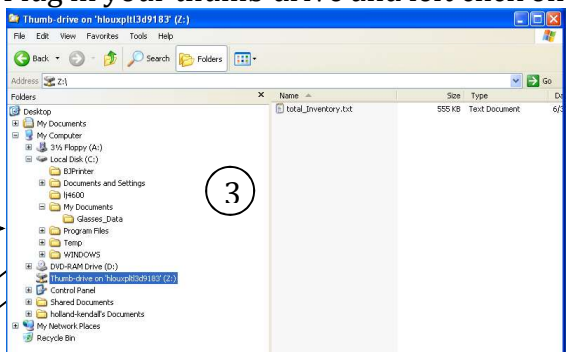
Right click START & left click Explore.



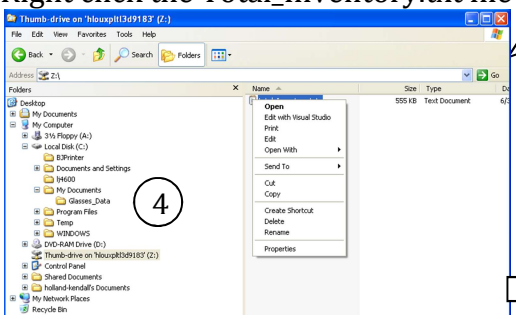
You see the following Explorer window.



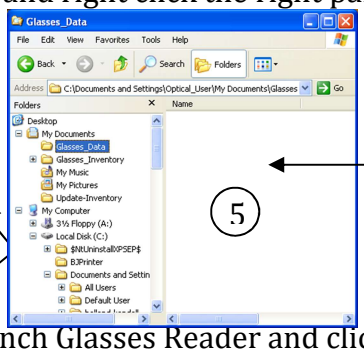
Plug in your thumb drive and left click on it.



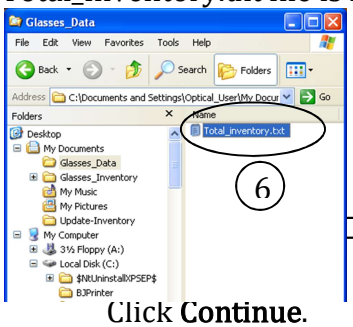
Right click the Total_Inventory.txt file on the thumb drive and click on copy.



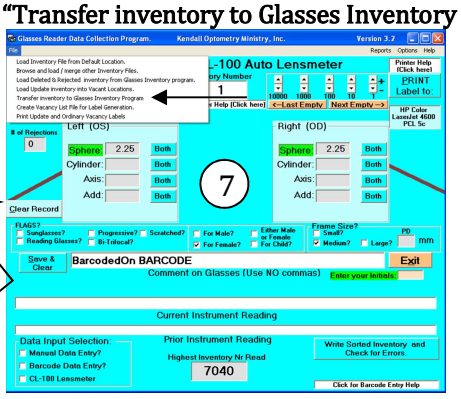
Click on <My Documents>\Glasses_data Folder and right click the right pane and click on paste.



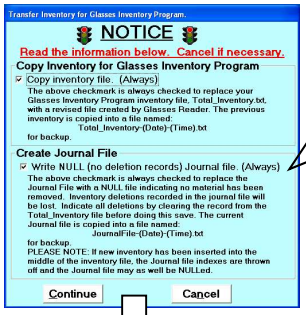
Total_Inventory.txt file is now in place.



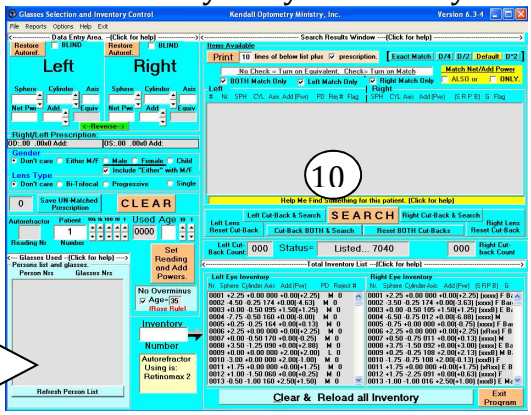
Launch Glasses Reader and click on **"Transfer inventory to Glasses Inventory Program"**



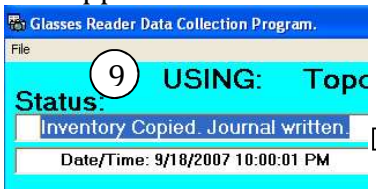
Click **Continue**.



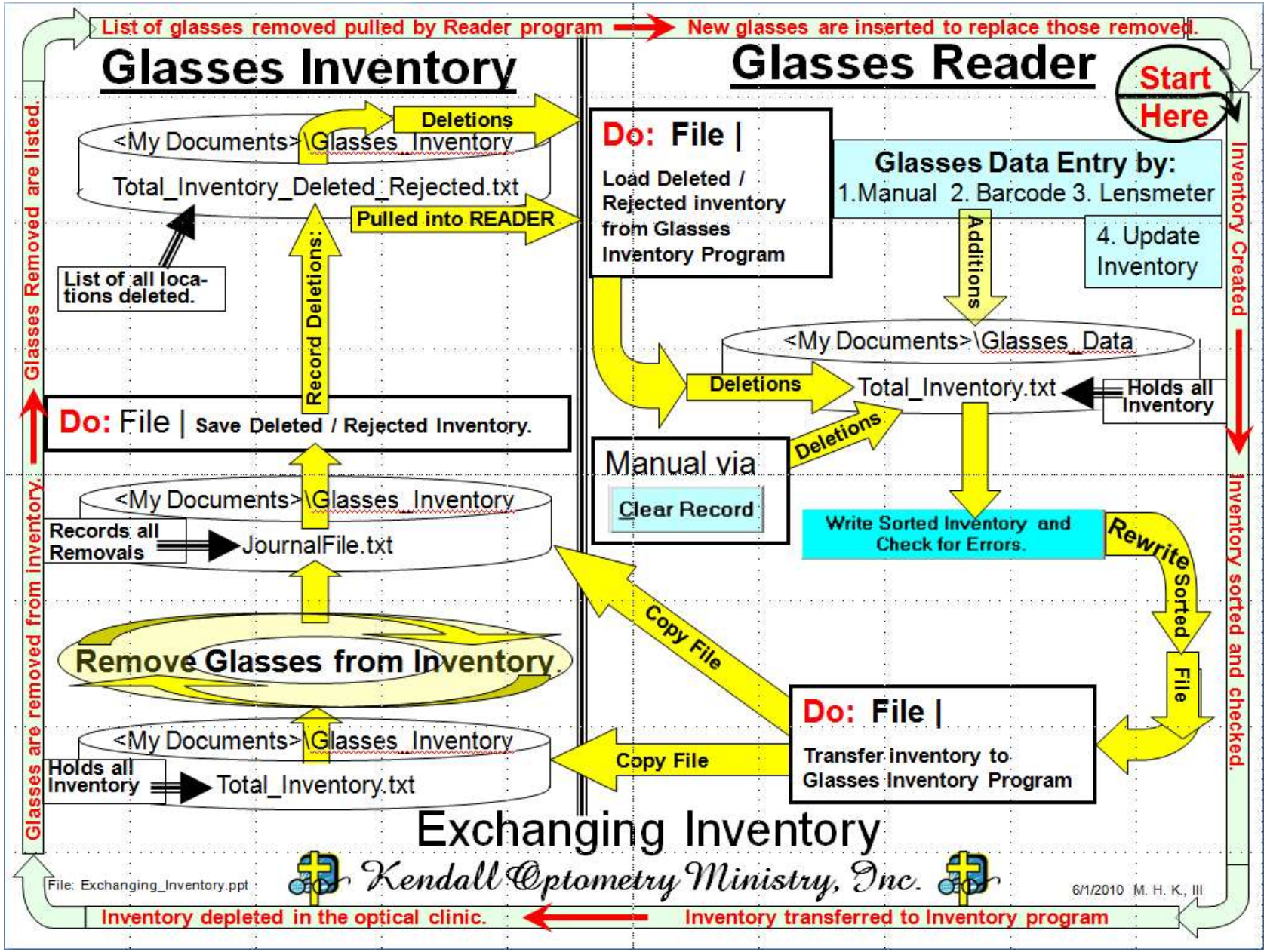
Launch Glasses Inventory and you will see your inventory.



This appears in **Status** window:



Appendix L - Exchanging Inventory



Go to START HERE and follow the green arrows around the chart. Notice the locations of the inventory files for Glasses Inventory (left side) and the Glasses Reader program (right side of drawing). Look at the various actions shown in yellow.

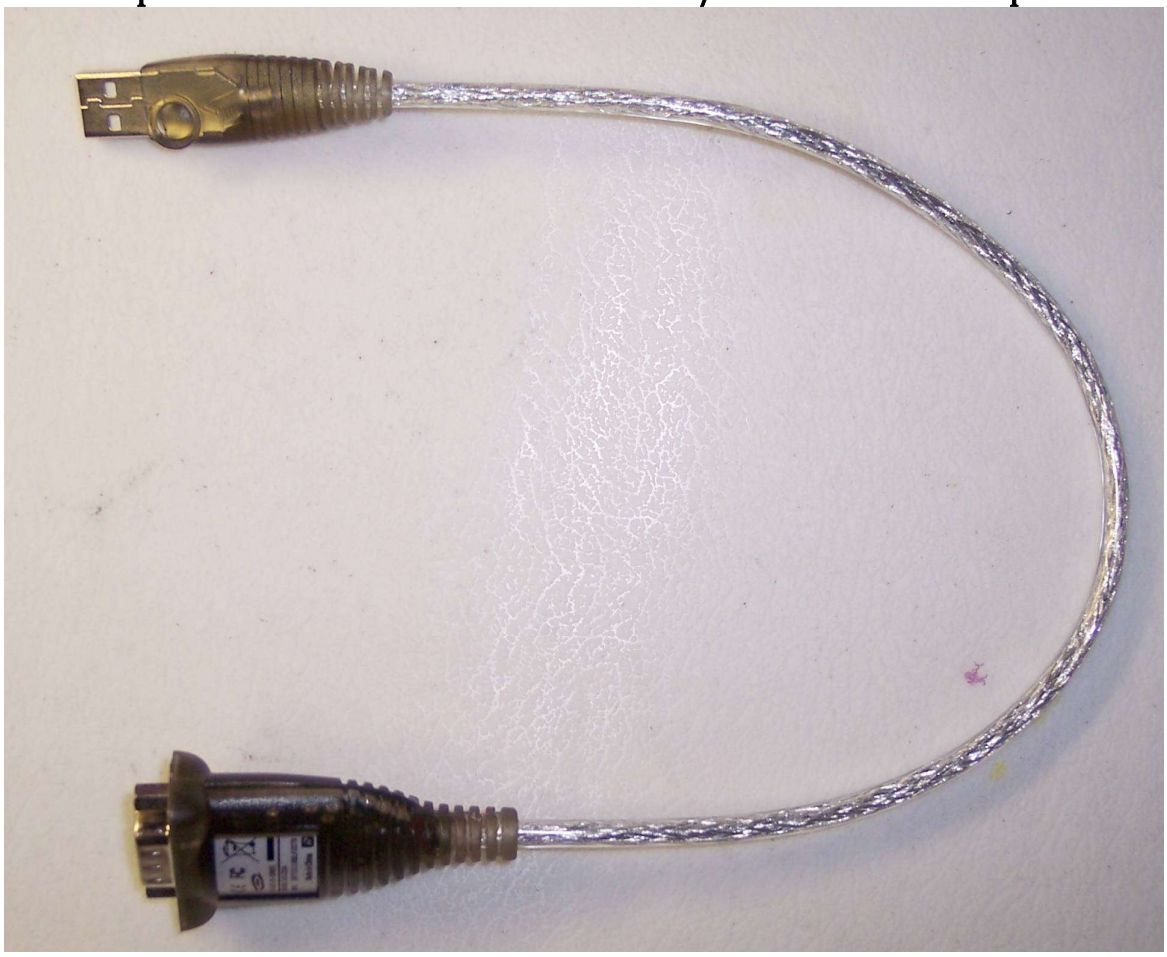
Appendix M - GI & GR: Configuring ATEN USB to Serial adapter

The ATEN model UC-232A/C adapter is used to convert the serial data coming from either the autorefractor or a lensmeter to allow connection to a USB port on the computer. Newer computers no longer have serial ports available.

Drivers are available for this unit for all 32 and 64 bit version of Windows XP, VISTA, 7, 8, 8.1 and 10. Also, this unit is identical to the IOGEAR model GUC232A. The same drivers can be used for the IOGEAR and ATEN units.

Note this Appendix might also be needed should the lensmeter or autorefractor not be able to communicate with the PC due to a mismatch of the ATEN COMM port number with the settings for the Glasses Reader or Glasses Inventory programs.

This is a picture of the ATEN model UC-232A/C serial to USB adapter.



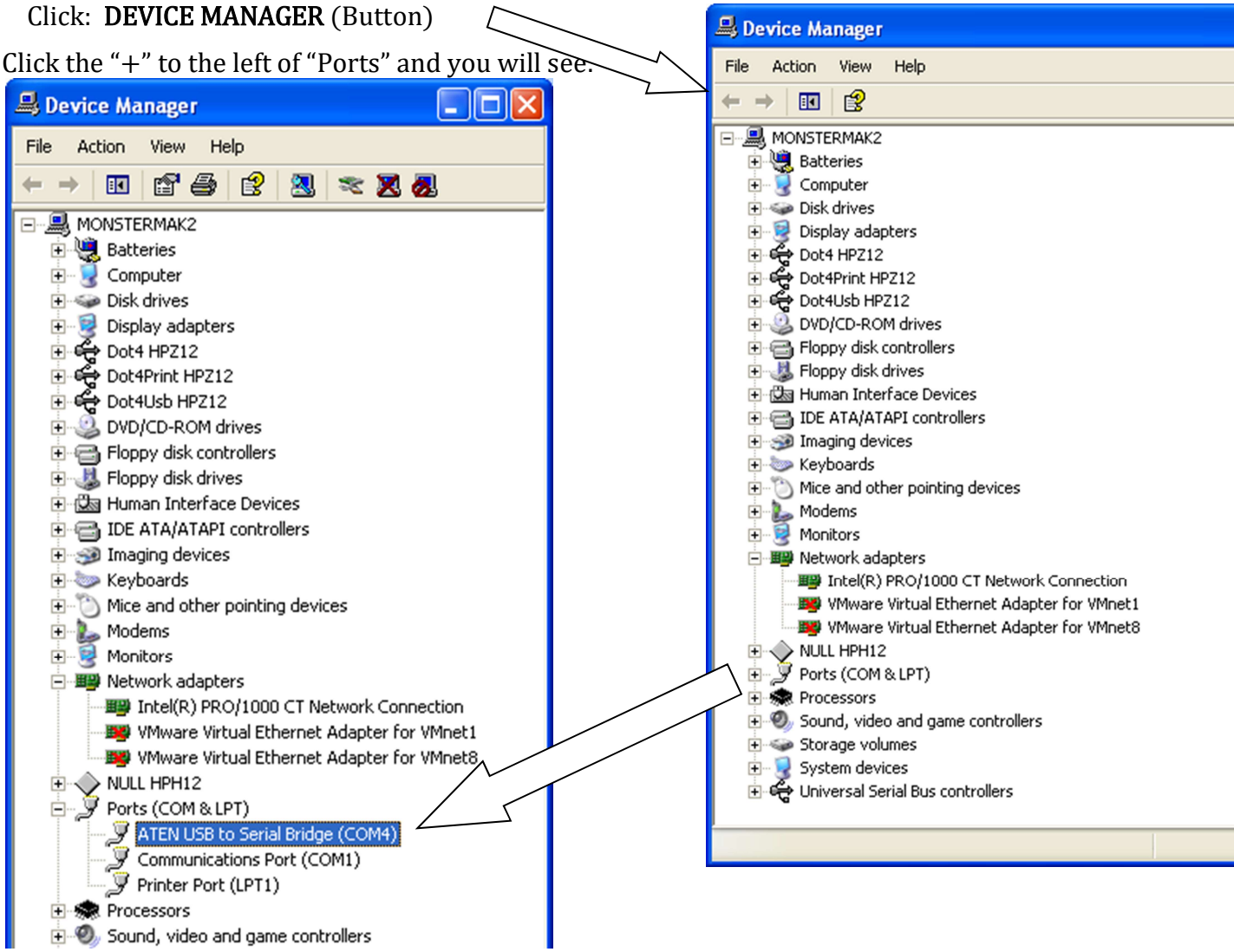
This Appendix describes how to use this adapter with the Kendall Optometry Ministry, Inc Glasses Reader and Glasses Inventory programs.

FINDING THE COMM PORT NUMBER.

For Windows XP: (Windows 7 is below)

Click: **START** (Button) **CONTROL PANEL** **SYSTEM** (Icon)
Click: **HARDWARE** (Tab)
Click: **DEVICE MANAGER** (Button)

Click the "+" to the left of "Ports" and you will see:



Note the line showing as:

ATEN USB TO Serial Bridge (COM4)

"4" is your COMM port number.

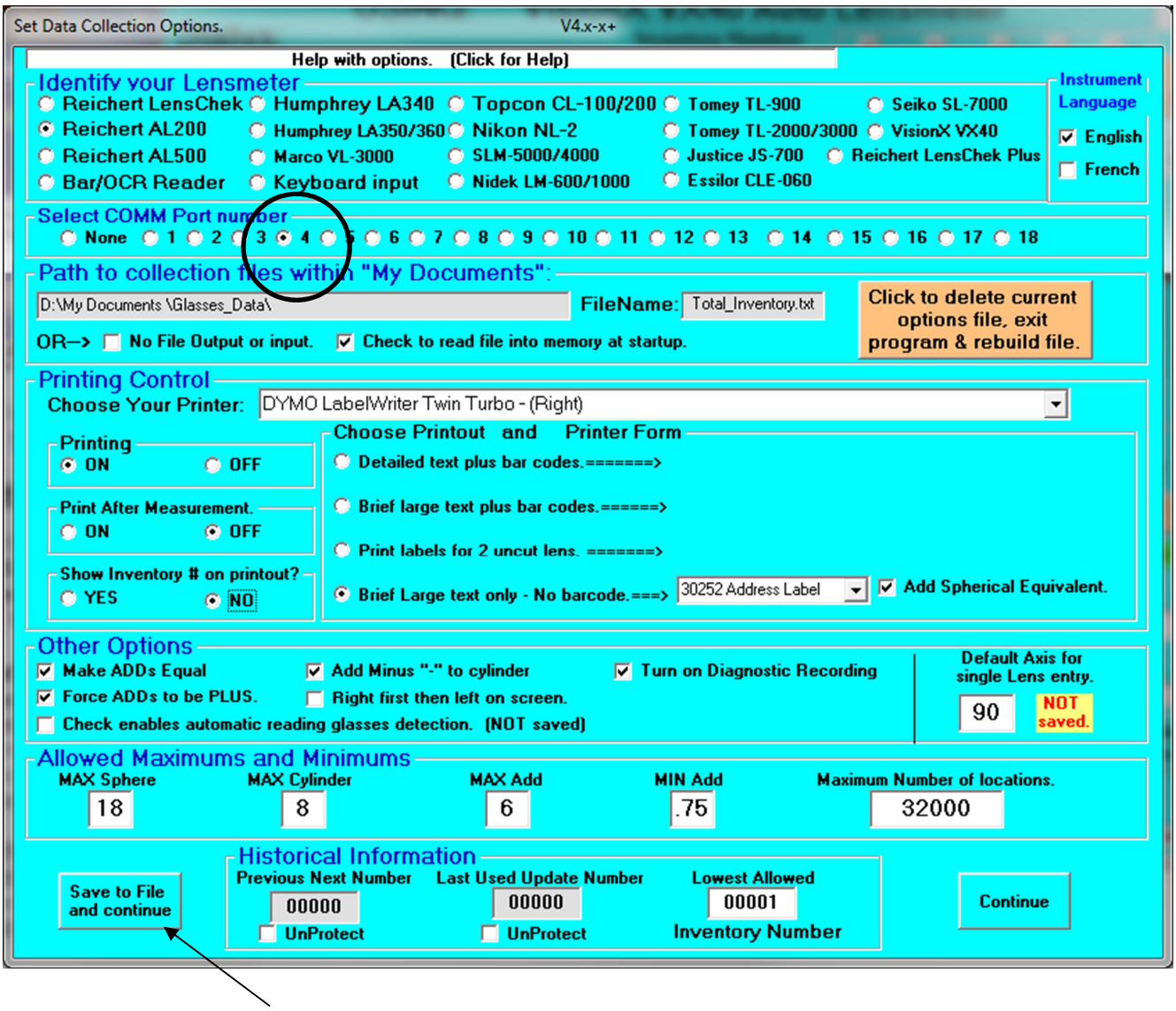
THIS is the number you need for both Glasses Reader and Glasses Inventory Program. **Do NOT have both programs running at once if they are both configured to use the same ATEN adapter.**

Finding Device Manager for Windows 7:

Click START
Click CONTROL PANEL
Click SYSTEM
Click Device Manager (top/left) and you will find the graphics above.

CONFIGURING GLASSES READER FOR THE ATEN ADAPTER.

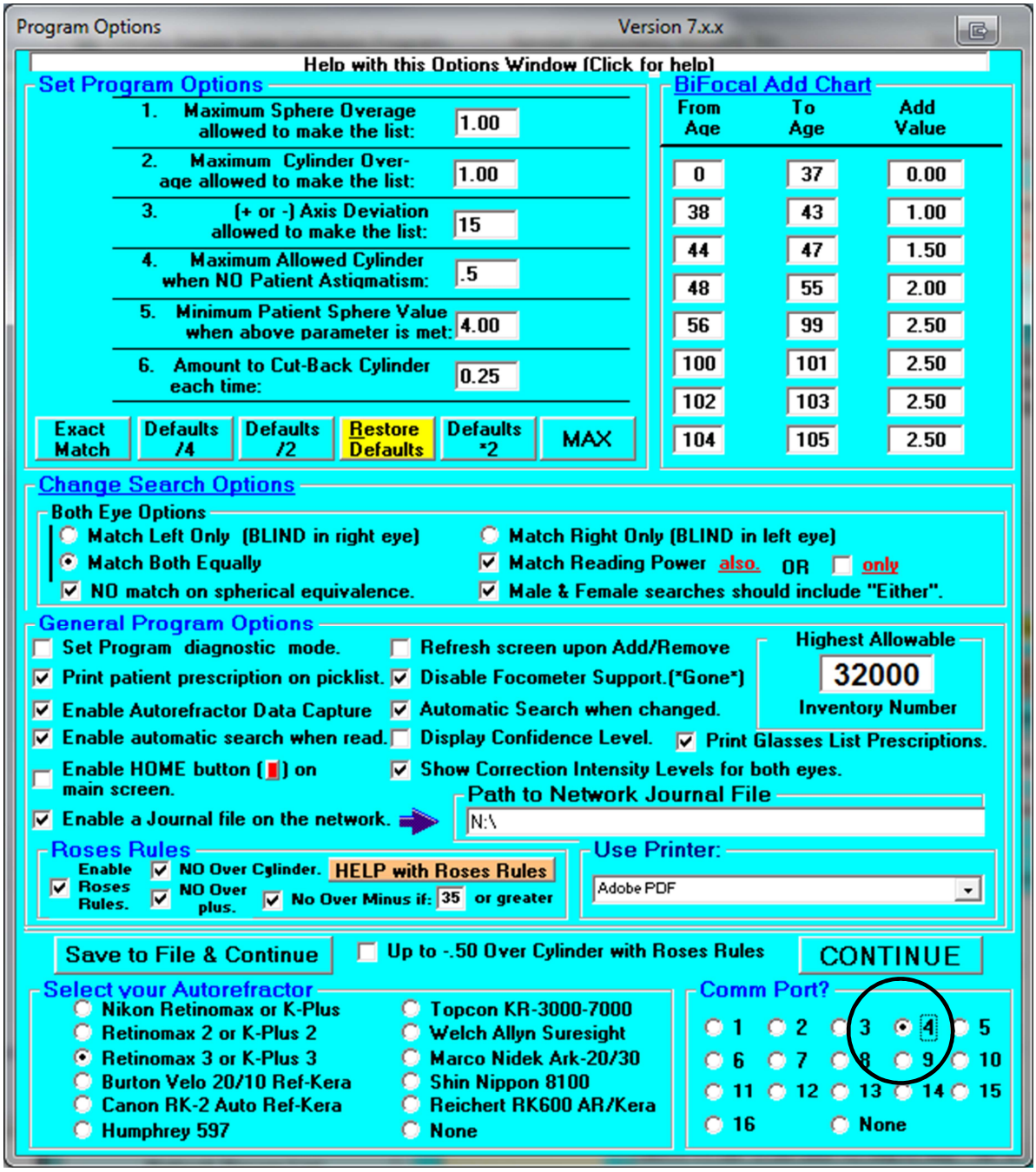
This is only required if you are using the Glasses Reader program with a Lensmeter. Launch the Glasses Reader program and click on **Options** in the top right of the main window. Select your lensmeter (**Reichert AL200** in this case) and select a Comm Port number of 4.



Click **SAVE TO FILE AND CONTINUE** and you are finished with your Glasses Reader setup.

SETUP WITH GLASSES INVENTORY PROGRAM Version 7.5-13 & above.

Select your autorefractor (Retinomax 2 in this case) and select COMM port of 4 and click **SAVE TO FILE AND CONTINUE.**



Appendix N - GI & GR: Configuring DYMO 400 & 450 printers.

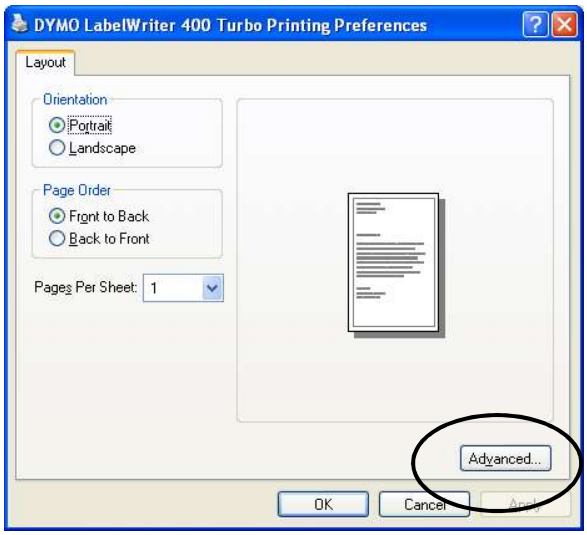
DYMO LABELWRITER 400/450 SETUP INFORMATION

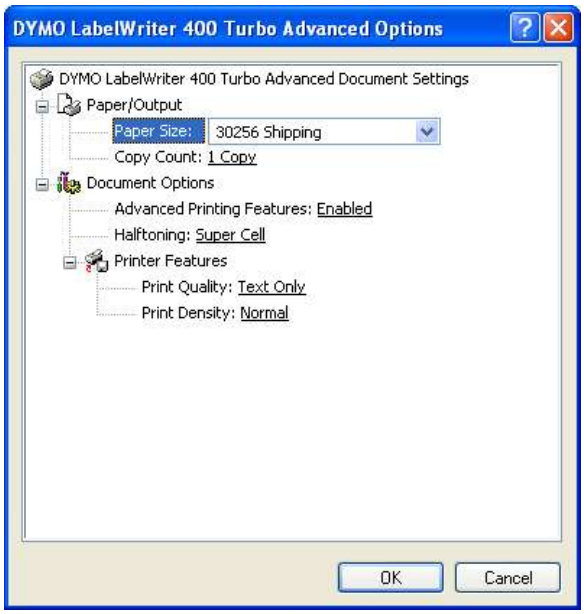
Below are the steps to setup the Labelwriter 400/450 for Kendall Optometry Ministries, Inc programs. Use this if your printouts are cut in half with the right half missing.

First install the printer drivers from the included Dymo Labelwriter CD. There is no need to install any of the other Dymo software included on this CD.

Next Click on **START Printers and Faxes**
And you will see a folder which includes an icon like this:
It may not have the hand under it indicating it is shared.

Right click this icon and click on **Printing Preferences** and you will see the window to the right. Click on the **Advanced** button (circled) and you will see the window below it. Click in the **Paper size** field and select **Continuous Wide** for the Eyeglasses inventory program. For the Glasses Reader program select **30256 shipping** for bar coded labels and **30252 address** for printing just the prescription portion of the measurement (no barcode). Click OK twice and you are finished.





Appendix O: How to handle the glasses in this box.

This Appendix describes how to handle boxes of update inventory in the optical clinic.

In the update inventory box you have 50 pairs of glasses which look like the picture to the right. The number on the bag (2306 in this case) is called the "update" number. It is NOT the actual inventory number in the computer. The glasses inside the bag have the same number on them. Should you take the glasses out of the bag to try on a patient and need to return it, the two corresponding numbers (the **red 2306** and the 2306 on the pair of glasses) will help you get the glasses back into the correct bag number.

You will be handed a full sheet of 80 labels which look like the below. The black numbers in the center of each label are actual inventory numbers or physical location numbers in the inventory boxes. The smaller **red** numbers (turned sideways) on each end of the label are the "Update" number of the bag which should receive this label.

1	34	1	21	210	21	41	353	41	61	575
2	43	2	22	233	22	42	355	42	62	581
3	76	3	23	244	23	43	358	43	63	593
4	99	4	24	247	24	44	363	44	64	595
5	104	5	25	249	25	45	370	45	65	599
6	108	6	26	250	26	46	378	46	66	606
7	109	7	27	255	27	47	385	47	67	609
8	119	8	28	258	28	48	393	48	68	623
9	131	9	29	263	29	49	408	49	69	635
10	134	10	30	264	30	50	453	50	70	639
11	145	11	31	277	31	51	475	51	71	645
12	156	12	32	288	32	52	501	52	72	655
13	167	13	33	291	33	53	505	53	73	659
14	173	14	34	303	34	54	533	54	74	668
15	181	15	35	305	35	55	538	55	75	681
16	192	16	36	309	36	56	544	56	76	684
17	201	17	37	320	37	57	549	57	77	685
18	205	18	38	329	38	58	558	58	78	690
19	207	19	39	341	39	59	567	59	79	699
20	209	20	40	349	40	60	569	60	80	705

To the right is a label which is for the above bag. As you can see the red "Update" number is **2306** while the black inventory location number is **3415**. You will put this label on the top left corner of the bag as shown in the bottom right of this page to **cover up the label** which is already in place. Since both numbers (2306 & 3415) are on this new label, you can still correlate the bag (which is **red** 2306) to the pair of glasses (**Upd** 2306). You will now place this bag in inventory location number 3415.

Follow this procedure until you have given out of labels. This will mean you would have filled most if not all of the openings in the inventory If you have glasses left, PLEASE save them and give them to the missionary in charge. They will be used by the next team to replace the inventory which your team has used.

Please do not discard or use any of the glasses left over from this box. The next team will use them to replenish the inventory that you use.

Appendix P: New Glasses Inventory & Reader Files Locations.

Kendall Optometry Ministry, Inc.

Glasses Reader (V3 to V4 Update) **and Glasses Inventory** (V6 to V7 Update)

New File Locations.

Glasses Inventory (V6 to V7 Update)

Program Version	Directory Location	Files within directory
6.x-x	C:\	Total_Inventory.txt JournalFile.txt
	Updated to:	
7.x-x	<Your documents space>\Glasses_Inventory	Total_Inventory.txt JournalFile.txt

Glasses Reader (V3 to V4 Update)

Program Version	Directory Location	File within directory
3.x-x	C:\My Documents\Glasses_Data	Total_Inventory.txt
	Updated to:	
4.x-x	<Your documents space>\Glasses_Data	Total_Inventory.txt

MHK,III 12/14/2009

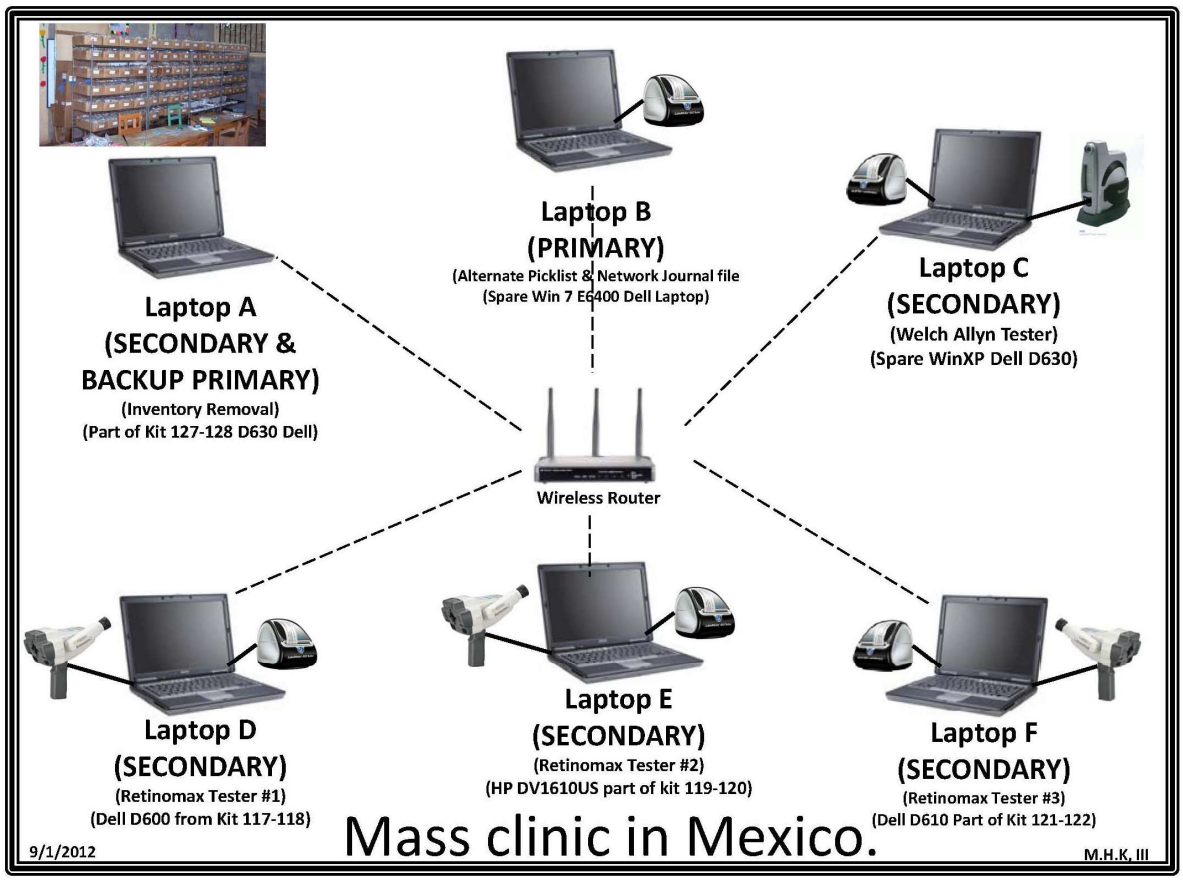
Appendix Q: Transferring Inventory file with GI 7.x.x & GR 4.x.x

How to load your inventory

When you are using Glasses Inventory 7.x.x and Glasses Reader 4.x.x

1) Place your **Total_Inventory.txt** file on a USB thumb drive. See Footnote [9]
2) Plug this thumb drive into the port on this PC normally used for the printer.
3) On this desktop open up **My Documents** and then folder **Glasses_Data**.
4) Using Windows Explorer copy your **Total_Inventory.txt** file into this folder.
5) Launch Glasses Reader using the icon on the desktop.
6) Click **File | Transfer Inventory to Glasses Inventory program** on the top left part of the Glasses Reader window.
7) A window will pop up. Click **CONTINUE** to that window.
8) The Status window on Glasses Reader should read **Inventory Copied. Journal Written**.
9) Exit Glasses Reader program.
10) Launch Glasses Inventory program and your inventory will be there. It is now located under the **My Documents** folder under a directory called **Glasses_Inventory**.

Appendix R: Network Drawing of a Wireless System.



[9] This file is located in <My Documents>\Glasses_Data for version 4.x.x of Glasses Reader. For version 3.x.x of Glasses Reader it is found in C:\My Documents\Glasses.

Appendix S: Resolving Windows 10 Virtual Store issue.

Windows 10 introduces a "feature" called Virtual Store. This "feature" causes grief for both Glasses Reader and Glasses Inventory in that when you make your initial options settings and wish to change them later the change will not happen as far as the program is concerned. To disable Virtual Store copy the lines below between the "==========" lines into note pad and save the file as a .REG file (not a .TXT (text) file).

==========

Windows Registry Editor Version 5.00

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System]
"EnableVirtualization"=dword:00000000

==========

Now double click the file and allow it to run. Virtual Store will be disabled.

Kendall Optometry Ministry, Inc.

http://kendall-optometry-ministry.org/
Phone: (502)-640-2227
Fax: (502)-416-0015