

# ECAA 2.5

## Client Installation & Configuration Configuration Guide

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## System Requirements

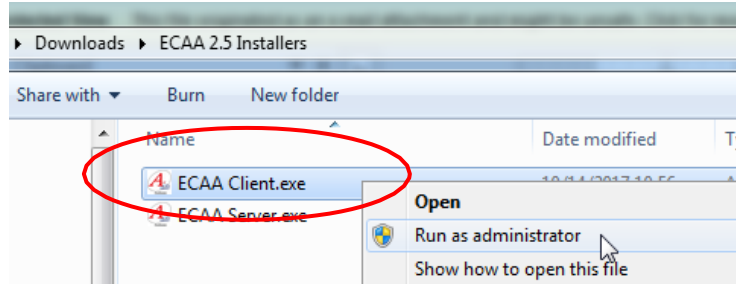
	Client	Server
<b>Processor</b>	Intel i5 or greater	4 CPU or greater
<b>Operating System</b>	Windows 7, Windows 8, Windows 10 (x86 and x64 supported)	Windows Server 2016
<b>Recommended System Memory</b>	4 GB	8 GB
<b>Hard Disk Dedicated Space</b>	1 GB	60 GB Primary Partition and 20 GB Secondary Partition
<b>Screen Resolution</b>	1920 x 1080 pixels minimum (1080 P)	
<b>I/O Ports</b>	Two (2) USB and/or Serial Ports [for clients with attached equipment only]	None Required
<b>Data Backup</b>	Flat file backup of installation directory/files and .4DD data file <b>OR</b> ECAA internal backup system to remote drive/media	
<b>Service Account</b>	--	Local Administrator rights
<b>Printer Driver</b>	--	Microsoft XPS Writer v4 installed

### In a Networked Environment (WAN/LAN):

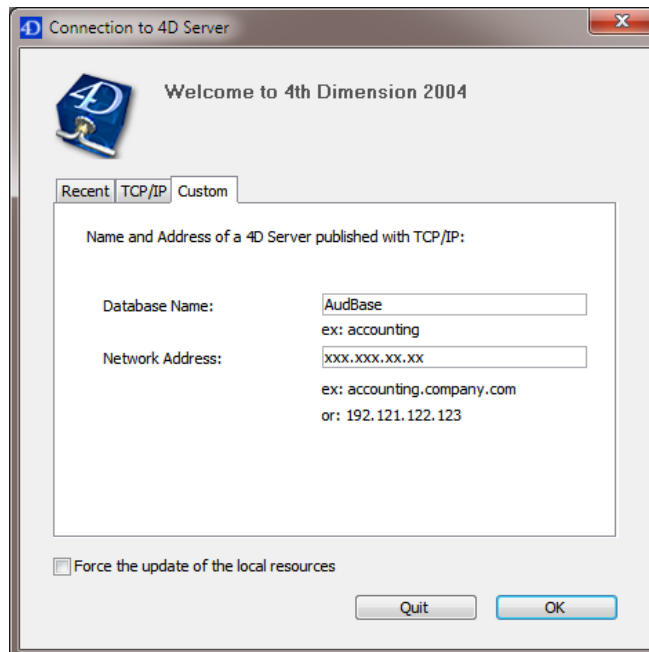
- All workstations must have open and reliable TCP/IP communication with server on ports 19812, 19813, 19814.
- Client workstation must have **reserved (static) IP address**
- Server/Client must have **Microsoft XPS Document Writer v4** printer driver installed to utilize Print to Doc/Interface features of ECAA.
- Storage Space: Each audiometric record is approximately 2KB; Average net transaction <1KB
- A Client application will be installed on each workstation that will access the database on the server.
- Client workstations require minimum of two **(2) available USB or Serial Ports** for audiometric equipment data transfer to PC (no personal ID info transmitted from device, only results)

## Installing ECAA: Client

1. Navigate to where you have the ECAA Client Installer saved.
  - a. <Right click> the appropriate application installation file and select “Run as administrator”



- b. Select “Next” in the Setup dialog window
  - c. Agree to the License Agreement, then select “Next” through the next six windows
  - d. Once prompted that “Client has been successfully installed”, click “Finish”
2. Launch the new ECAA Client Application
  - a. ECAA Client will try to find the Server, if it doesn’t you will need to point the Client to it
  - b. If it does not find the ECAA Server, you will get the “Connection to 4D Server” window
    1. Click on the “Custom” tab
    2. Enter “AudBase” as the Database Name
    3. Enter the IP or DNS of the server for Network AddressSelect “OK”



3. Once the ECAA Client launches, you will be asked for Username and Password at the login screen.

## User classes

The administrator has access to every function of the database including modifying forms and lists, deleting records, and assigning privileges. There is only one administrator and that is an account with the username “administrator” which cannot be altered.

### Provider

A provider can:

- Access subject records within their clinical group.
- Add subjects and related records, such as audiograms and tympanograms.
- Update equipment communication settings for the workstation. A

provider cannot:

- Delete a record.
- Assign any privileges to other users.

### Sub-administrator

A sub-administrator can:

- Grant access to all subject records to another user.
- Modify a group administrator’s privileges.
- Act as a group administrator for any group.
- Add Provider or Clinical Group records.
- Modify and customize lists used for data entry. A

sub-administrator cannot:

- Change a user’s login name.
- Assign a login password.

Depending on the privileges assigned by the administrator, a sub-administrator can also:

- Delete subjects and related records.

### The administrator

The administrator has all of the privileges assigned to a sub-administrator. The administrator can also:

- Grant login privileges.
- Modify a sub-administrator’s privileges.
- Delete any record.
- View all subjects.
- Manage provider signatures, filters, and lists.

## Adding/Managing Accounts

The Provider Information is used to store demographic and login information for all accounts. Access this by going to **File > Provider Info** from the Home Window or Subject List. Regular providers can update their personal information and enter an e-mail address and server information needed to use ECAA's email functions. Accounts can only be created by the administrator.

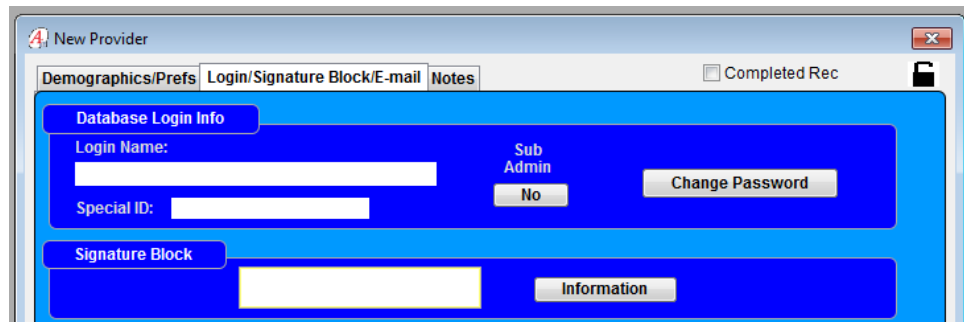
### Adding a Provider Account

1. Logged in as administrator, go to File > Provider info then click "New"
  - a. On the Demographics tab, fill in the **First Name, Last Name, NPI, City (base)** and any other known demographic information for this provider.

**"All Subject" Privileges button-** This button is only accessible to a sub-administrator or the administrator. Setting to "Yes" gives a provider the privilege to view every subject in the database, regardless of the clinical group/DMIS that a subject is assigned to. Set to **Yes**.

**“Anonymous” subjects-** This feature allows administrators to restrict Provider access to the personal information in the database. For instance, once this feature is activated, that user is denied identifying subject information such as name, telephone number, and address. Set to **No**.

2. Navigate to the second tab “Login/Signature Block”

The screenshot shows a web application window titled "New Provider". It has four tabs: "Demographics/Prefs", "Login/Signature Block/E-mail", "Notes", and "Completed Rec". The "Login/Signature Block/E-mail" tab is active. Inside this tab, there are two main sections. The first section, "Database Login Info", contains a "Login Name:" label followed by a text input field, a "Special ID:" label followed by a text input field, a "Sub Admin" label with a "No" button, and a "Change Password" button. The second section, "Signature Block", contains a text input field and an "Information" button.

**Login Name** – assign a username. Typical configuration is first initial + last name. For example “jdoe”

**Special ID-** this is the provider’s DoD ID number and is **required** for CAC authentication.

**Change password-** this function is not applicable using the DoD CAC system.

**Sub Admin button-** This reflects the provider’s current sub-administrator status by displaying “Yes” or “No.” The ability to set this is disabled for all users except the administrator.

## Navigating ECAA

### Subject List

The Subject List form displays subject names, identifiers and provider information, and features alphabetized navigation tabs to make a large subject list more manageable.

To reach the Subject List from the Home Window, click the Subject List button.

The list of subjects displayed depends on certain criteria you have set. Letter tabs appear only if a subject name on the current list starts with that letter. Selecting a letter tab will display only subjects with a last name beginning with that letter. Clicking on the list headings (Subject Name, Primary Identifier, and Primary Provider) will sort the list alphabetically A to Z and numerically 0-9 – clicking the header again will sort the subjects in reverse.

### Searching the Subject list

There are two ways to search for a patient. The first is by using the default search bar. The second is an advanced search feature that allows you to search by criteria other than the default.

*Note: You can use the “@” character as a wildcard in any ECAA search. You can also search for a portion of the text within a word by selecting the “Check for embedded text” option or by placing the wildcard character “@” at both ends of the string you are searching for.*

## Search Box

The search box in the top right corner of the Subject List is a quick way to search for a subject. By default, the criterion for the search is Last Name,First Name. You can also change to a different search criterion using the dropdown arrow on the search box. After the text is in, hit Enter or click on the black magnifying glass to execute the search.

The format of the search is specific. A comma is required after the Last Name if you also wish to add the First Name, but do not include a space before the First Name. The entire name is not required to yield results, but the more letters added to the search, the more accurate the results will be. For example, typing "Willi" into the box will yield patients with the Last name Williams, Williamson, Willis, etc. Once the search has been executed, the list will display only patients that match the criteria entered. To return to the full Subject list, click "Refresh List" in the top left corner of the Subject List.

## Limited Field Search

You can perform a quick search of several frequently used fields in the Subject table to create a selection of subjects for the Subject List form. This also allows you to do a secondary search to further narrow the search by a different criterion after you have used the search box.

1. From the top toolbar select **Subjects > Limited Field Search**  
-OR- with a blank search box, click the magnifying glass to the right of the search box.
2. On the right side of the form, select one of two options:
  - a. "Current List" to limit the search to the current subject list.
  - b. "Entire Database" to search the maximum number of subjects you have access to.
3. Select any or all of the four field names on the left side of the form (First Name, Last Name, Primary Provider, Primary ID).
4. Enter a text string you want to search for in the text box and click "OK"

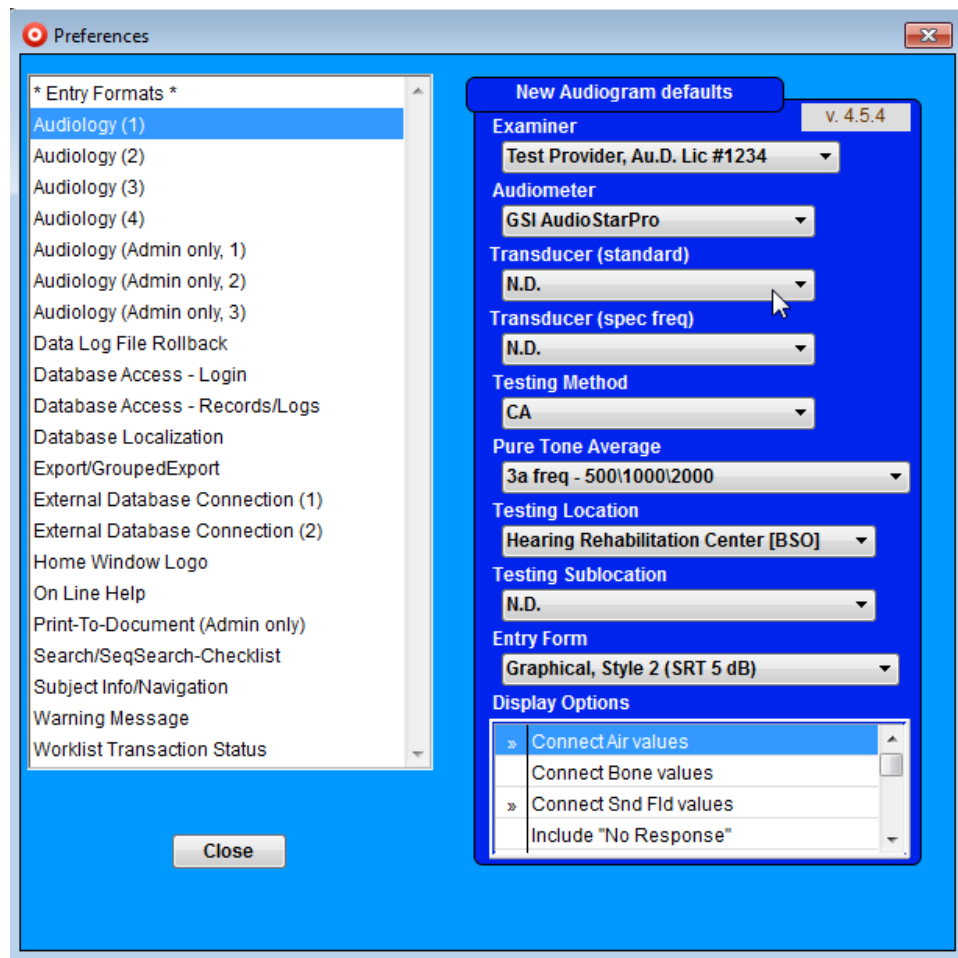
## User Defaults

User defaults are useful for pre-populating the Audiogram record with information pertinent to the examination. Each of these fields are modifiable once in the audiogram, but if an Audiologist uses the same equipment, testing method, or testing location for each exam, it would be appropriate to automatically assign this to a new record created in ECAA.

To assign user defaults:

- Log in to ECAA using the desired user account
- Select "File" from top Toolbar Menu
- Click "Preferences"
- Select "Audiology (1)"

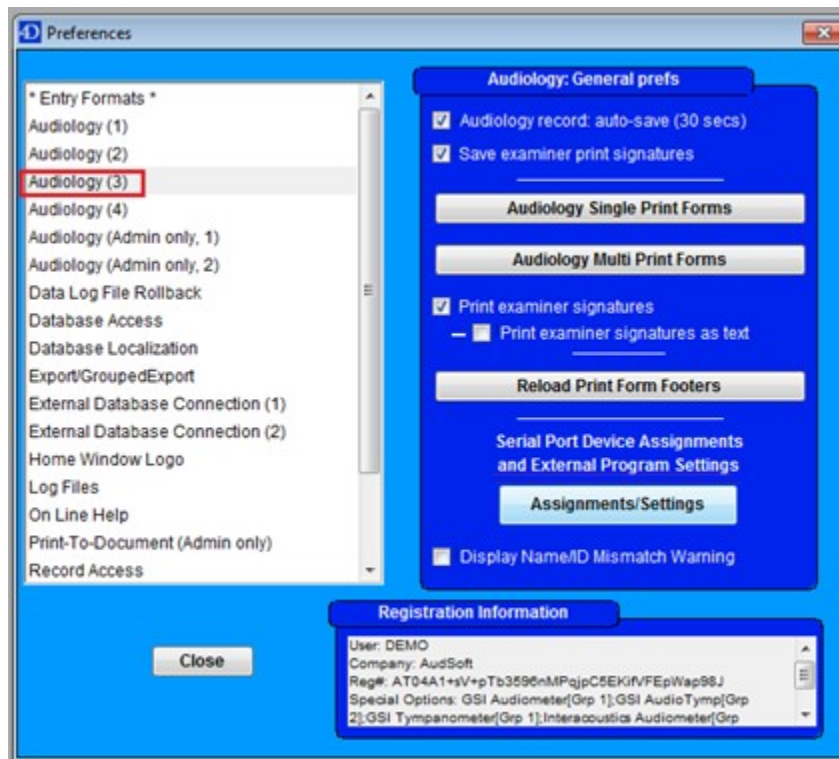
The selection in each box is what will populate any new audiogram created by this user. If there is an item that does NOT appear in the list to choose from, please see the document "Modify ECAA Lists" or call our helpdesk for assistance adding a new item.





### Additional configurations:

- From the left side menu, select “Audiology (3)”
- Make sure the check boxes are configured as shown below.



### To assign a default report to be printed:

- On the right side menu, click “Audiology Single Print Forms”
- In the Audiogram Print Style window, click the form(s) title you wish to have as your default from the left side list and drag them into the right side window
  - Audiogram, Std style #2 is the most popular graphical audiogram
  - Audiogram, Std style #DOD1- is the DOD tabular report
- Once you have set your default reports, click “Update” at the bottom of the window
- Click “Close” in the Preferences window

## Equipment Configuration

All workstations that will communicate with Audiology equipment must be configured in ECAA. Each manufactured device communicates with ECAA differently, depending on its data output method.

### Serial Equipment: GSI 61/Tympstar

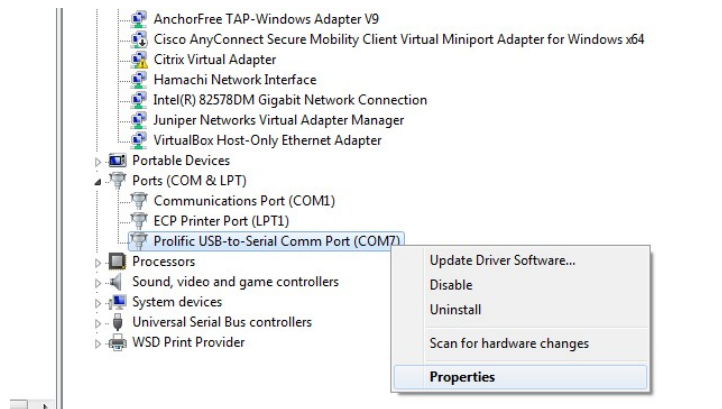
The GSI 61 and Tympstar are devices that utilize COM ports to stream serial data. ECAA needs to be configured to point to the appropriate COM port to receive the data stream. Drivers must also be installed for the serial-to-USB cable(s) that are used per device.

#### Drivers

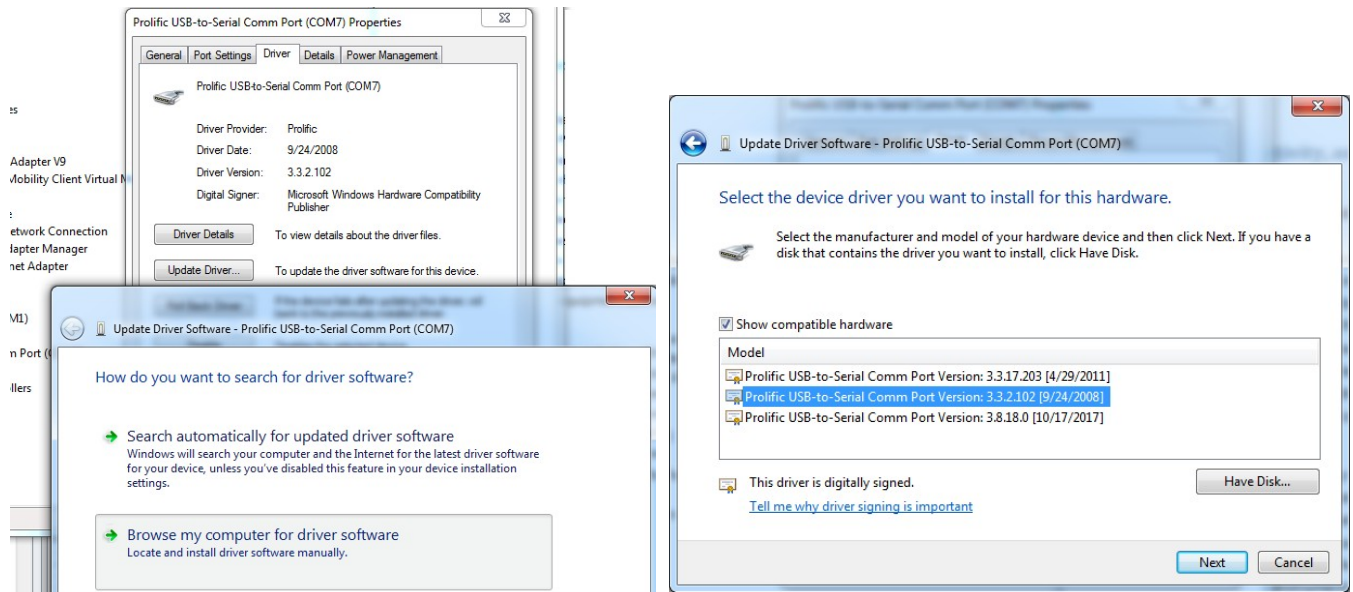
##### GSI 61: USB A-to-B Cable Driver

##### GSI 61 AND GSI TympStar: Serial cable with [Serial to USB Converter](#)

When installing this driver, Windows may attempt to install a newer version. Either force-stop this process, or point the driver by opening device manager, right click the Prolific COM port and select Properties.

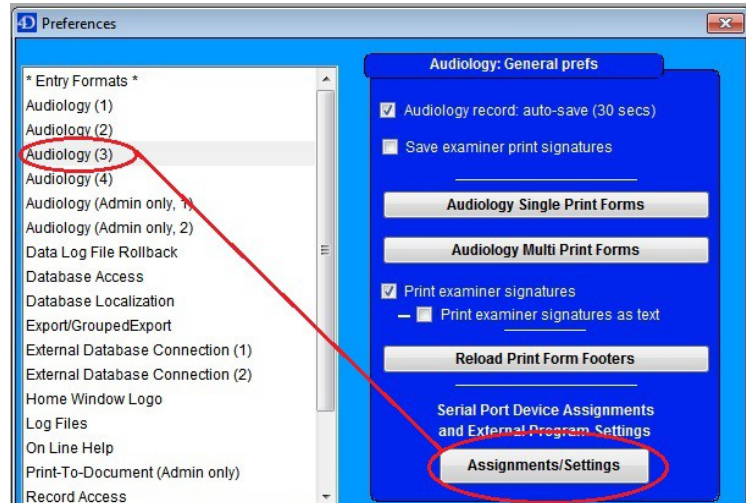


Then on the “Driver” tab, select Update Driver, and then “Browse my computer” and “Let me pick from a list of device drivers”.

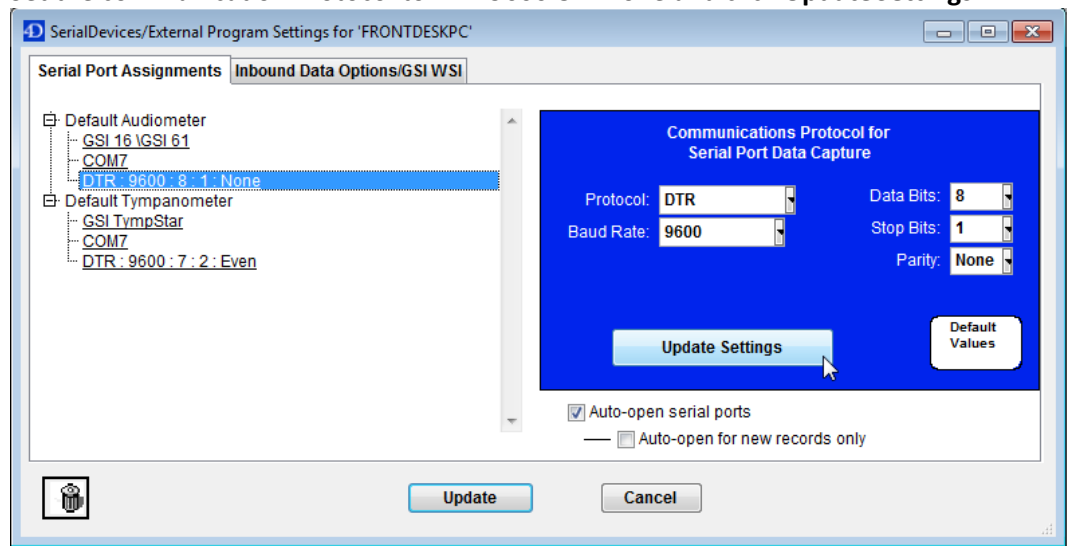


## Application Set-up

1. In ECAA, select “File” then “Preferences”
2. Select “Audiology (3)” then Click “Assignments/Settings” Button on right side of window



3. Click the “+” to the left of “Default Audiometer”
  - a. Set the Audiometer to GSI 16/61
  - b. Click “Select a Port” then choose the COM port from the dropdown on the right
  - c. Set the communication Protocol to DTR:9600:8:1:None and click **Update Settings**.



4. Click the “+” to the left of “**Default Tympanometer**”
  - a. Set the Audiometer to GSI Tympstar
  - b. Click “Select a Port” then choose the COM port from the dropdown on the right
  - c. Set the communication Protocol to DTR:9600:7:2:Even and click **Update Settings**.
5. Verify that there is check mark for “Auto-open serial ports”
6. “Auto-open for new records only” is **NOT** checked
3. Click “Update”

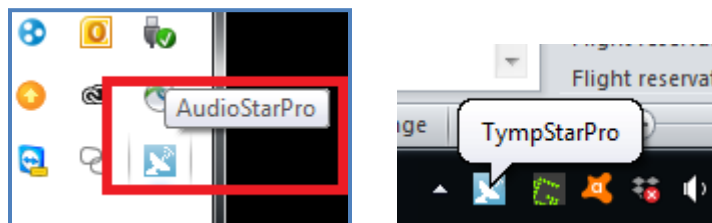
## GSI AudioStarPro and TympStarPro

### Set up

- The AudioStarPro and/or TympStarPro should come with a USB A-to-B cable that connects the unit to an open USB port on the PC.
- An appropriate party (equipment distributor, internal IT or BioMed technician, or AudSoft technician) should also install the GSI instrument service version that is compatible with the firmware on the AudioStarPro. (for example: 2.5.0 Build 152). Administrative level privileges are often needed to install the application.
- The ASP and/or TSP does not require additional ECAA configuration, but if you are replacing older serial devices, please call the AudSoft helpdesk to obtain instructions on how to disable COM ports, as they will no longer be needed for equipment connectivity.

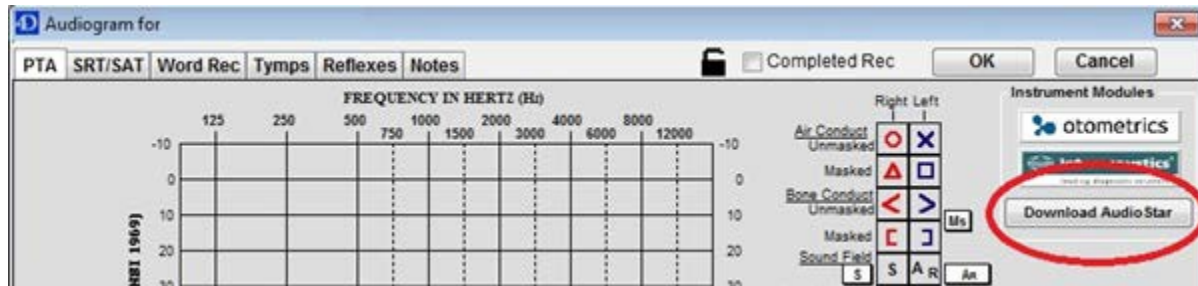
### Connectivity

- The ASP and TSP are plug and play with ECAA v 2.3.976 and greater. Only the compatible GSI instrument services needs to be installed. There is no need for GSI Suite for connectivity.
- To verify connectivity between the unit and the PC, find the instrument service icon in the task tray and hover the mouse over it. A bubble should appear that says “Device Connected: AudioStarPro” or just “AudioStarPro” depending on version.

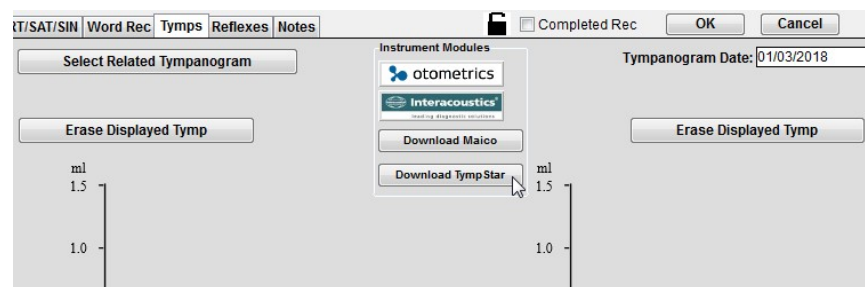


## Data Transfer

- AudioStarPro:
  - From the PTA, SRT/SAT/SIN, or Word Rec tab of a patient record in ECAA, click the “Download AudioStar Button”



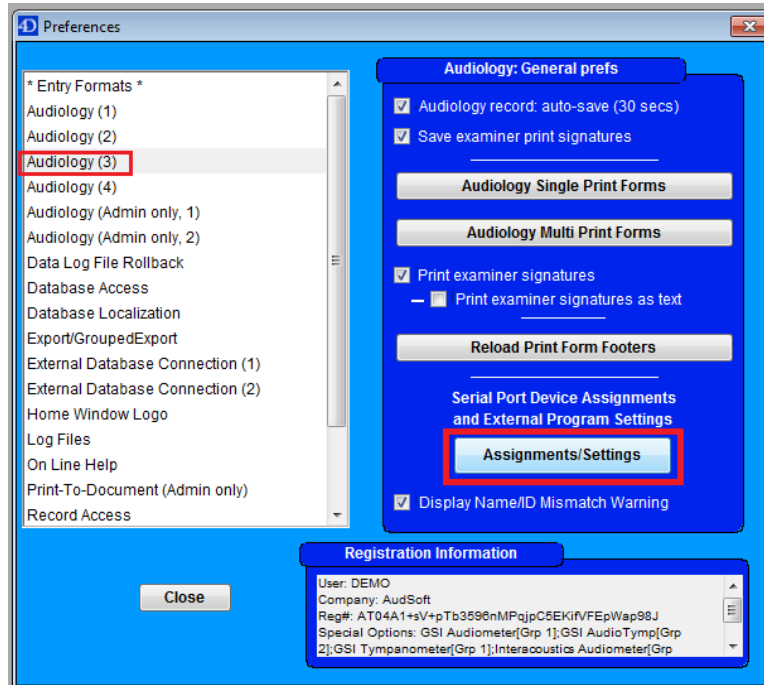
- The AudioStar should send the entire data set – audiogram and speech/WRS.
- TympStarPro:
  - From the Tymps tab of a patient record, click the “Download Tympstar Button”



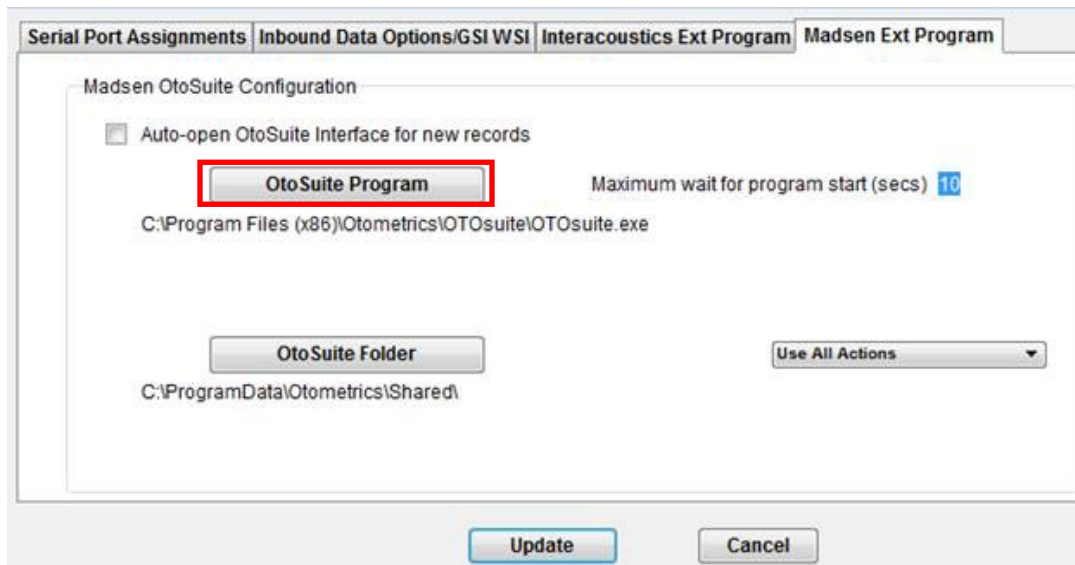
- The Tympstar should send the last data set for each ear – tymps and reflexes.

## Madsen: OtoSuite-Connected Products

1. Launch the ECAA Client application, and log in.
2. From the Home window, go to **File**, then **Preferences**.
3. Click **Audiology (3)**, then **Assignments/Settings**.



4. In the new window, choose the “**Madsen Ext Program**” tab.
5. Click the “**OtoSuite Program**” button to navigate to the OtoSuite application (this will be the path used for launching OtoSuite from an audiogram). Once selected, the file path should appear correctly below.



- Click the **OtoSuite Folder** button to open a new window that will allow you to navigate to the folder to which OtoSuite is set to save data (see step 4 of the OtoSuite configuration to confirm the OtoSuite setting).

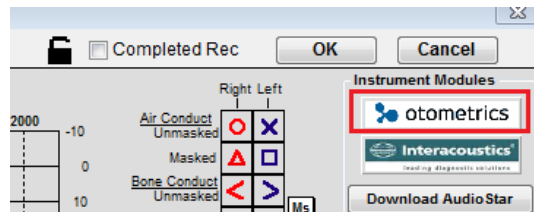
The default location is C:\ProgramData\Otometrics\Shared\

*\*Please note that the "Program Data" folder is a hidden folder - you may have to "show hidden files and folders" within Windows in order to navigate to the target folder.*

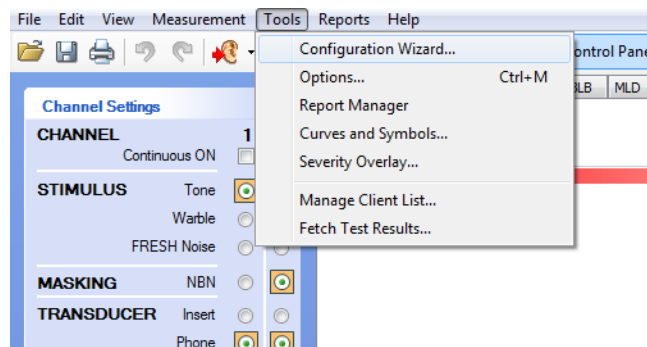
- Click **Update** to save these settings.

## OtoSuite Configuration Steps

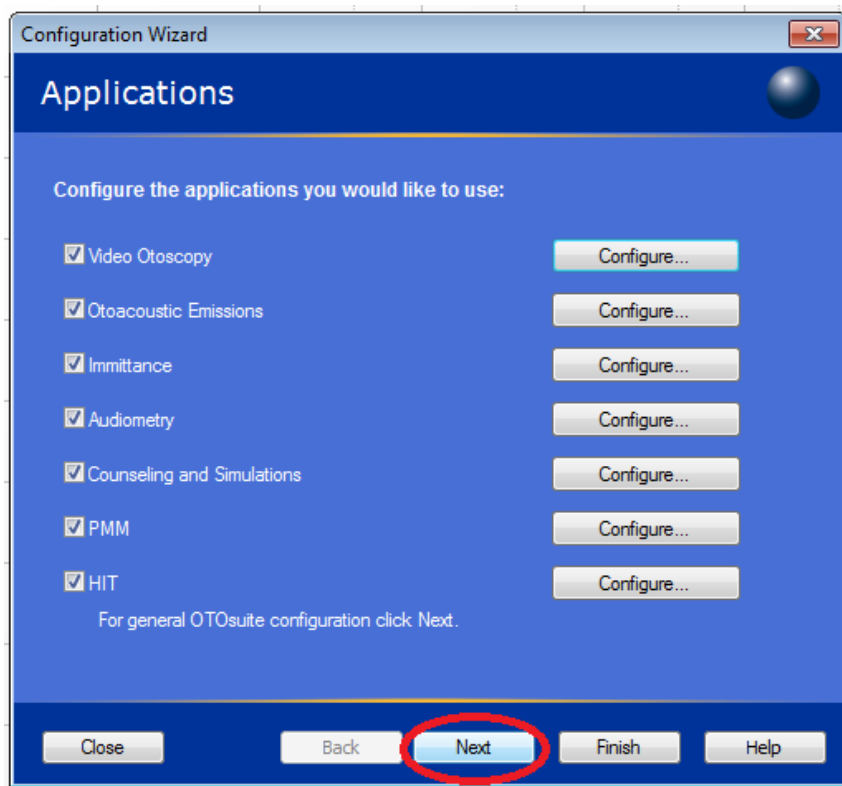
- Bring up a **test patient** in ECAA Client and start a **New Audiogram**.  
\*Note: the test patient must have a valid birthdate in the demographics tab\*
- To the right of the symbol palate of the Audiogram, click the **Otometrics** button to launch OtoSuite.



- In OtoSuite, click **Tools**, then **Configuration Wizard**

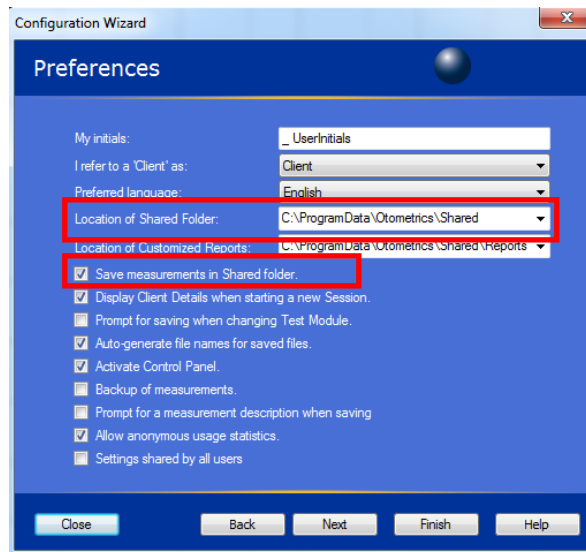


4. Click **“Next”**

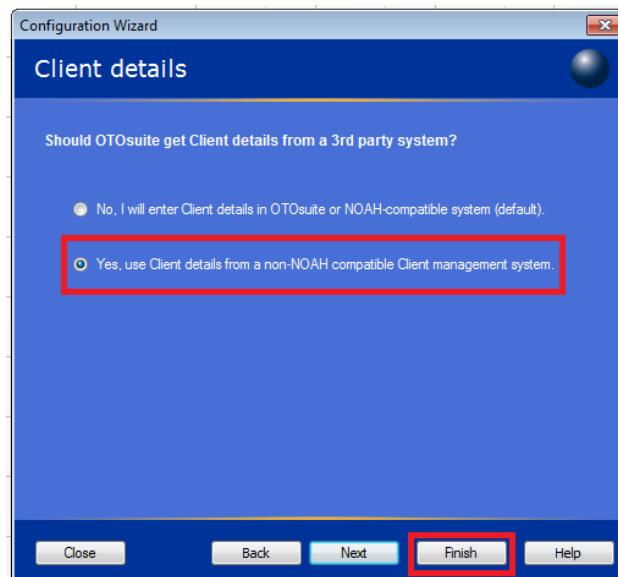




5. Note the **“Location of Shared Folder.”** This should match what is in ECAA under **“OtoSuite Folder”** (see step 6 of the ECAA Configuration)

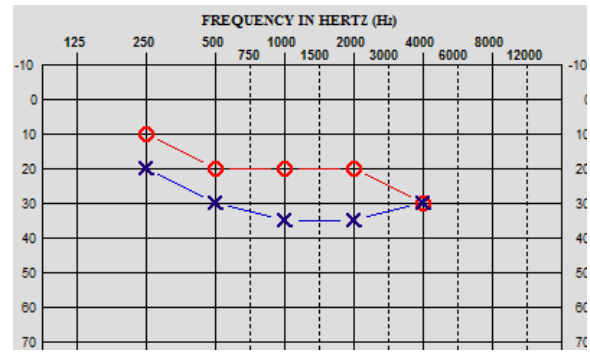
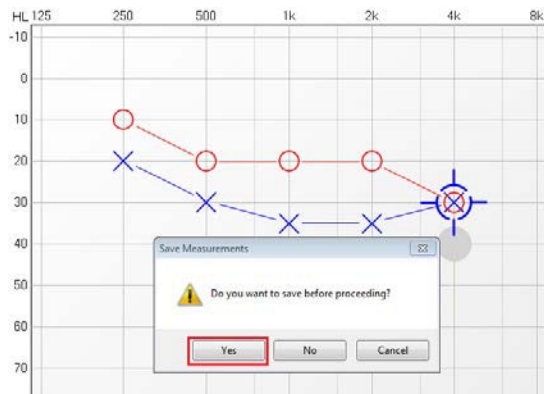


6. Be sure that **“Save measurements in Shared folder”** is checked. Then click **“Next”**
7. To **turn off** the feature that automatically launches NOAH when OtoSuite is started (or if you do not use NOAH on this PC), select the second item that says **“Yes, use Client details from a non-NOAH compatible Client management system.”** Then click **“Finished”**



8. To test the connection, plot thresholds in OtoSuite, then **close** OtoSuite. When prompted, click **“Yes”** to **Save**.

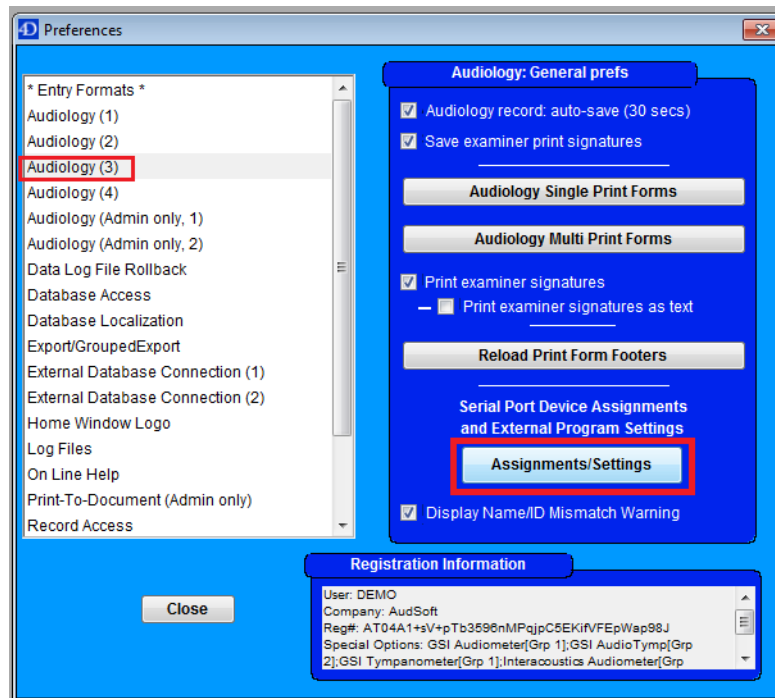
9. The data will then be displayed in ECAA.



## Interacoustics: Suite-connected Products

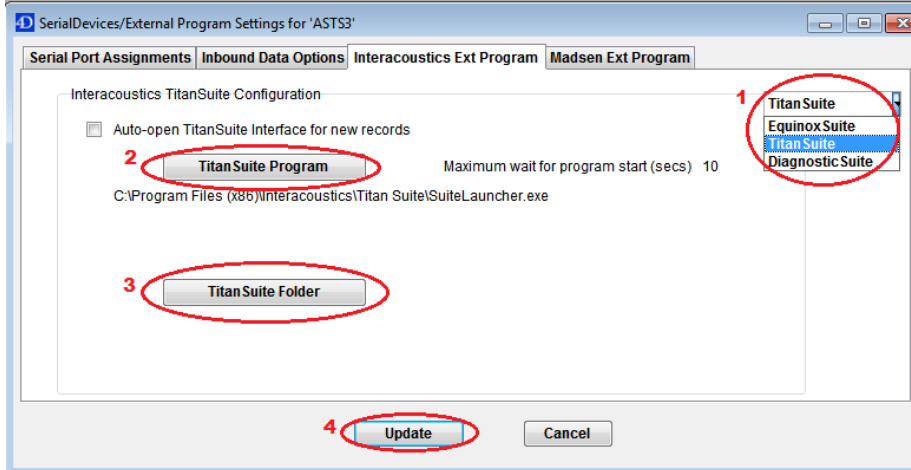
### ECAA Configuration Steps

1. Launch the ECAA Client application, and log in.
2. From the Home window, go to **File**, then **Preferences**.
3. Click **Audiology (3)**, then **Assignments/Settings**.



4. In the new window, choose the “**Interacoustics Ext Program**” tab.

- Following the sequence in the below diagram, first select the Suite to configure: Equinox, Titan, or Diagnostic



- Click the “\_\_\_\_\_Suite Program” button to navigate to the application for that Suite (this will be the path used for launching Suite from an audiogram). Once selected, the file path should appear correctly below.

- Click the “\_\_\_Suite Folder” button to open a new window that will allow you to navigate to the folder to which the data is saved.

**Titan:** C:\ProgramData\Interacoustics\Titan Suite\Data

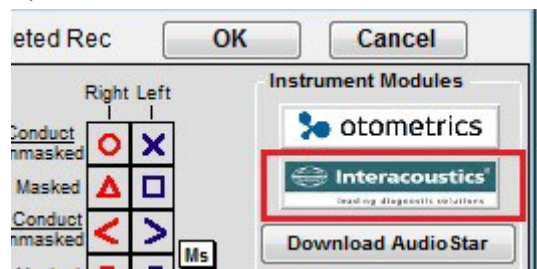
**Equinox:** C:\ProgramData\Interacoustics\Affinity Suite\Data

*\*Please note that the “Program Data” folder is a hidden folder - you may have to “show hidden files and folders” within Windows in order to navigate to the target folder.*

- Click “Update” to save these settings.

## Testing Steps

- Bring up a **test patient** in ECAA Client and start a **New Audiogram**.  
\*Note: the test patient must have a valid birthdate in the demographics tab\*
- To the right of the symbol palate of the Audiogram or tympanogram, click the **Interacoustics** button to launch the appropriate Suite.

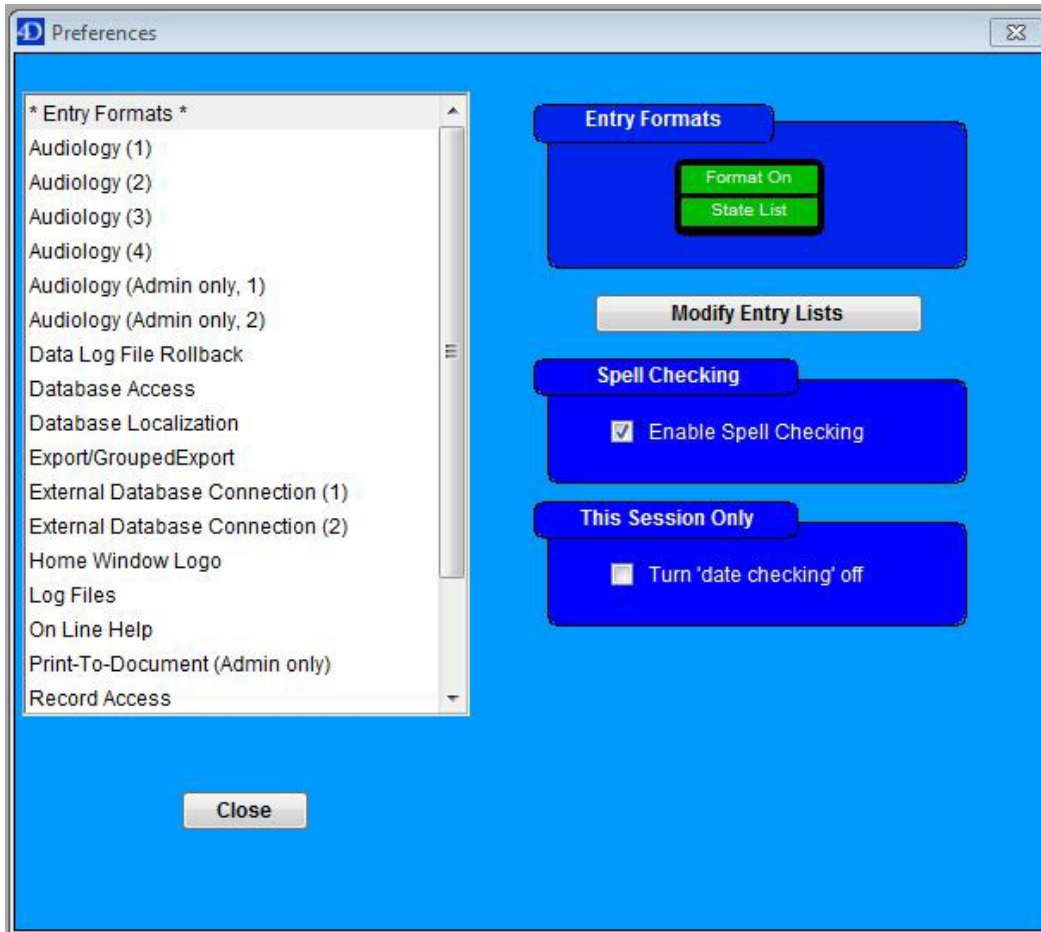


- To test the connection, plot thresholds in Suite, then **close** Suite. When prompted, click “Yes” to **Save**.
- The data will then be displayed in ECAA.

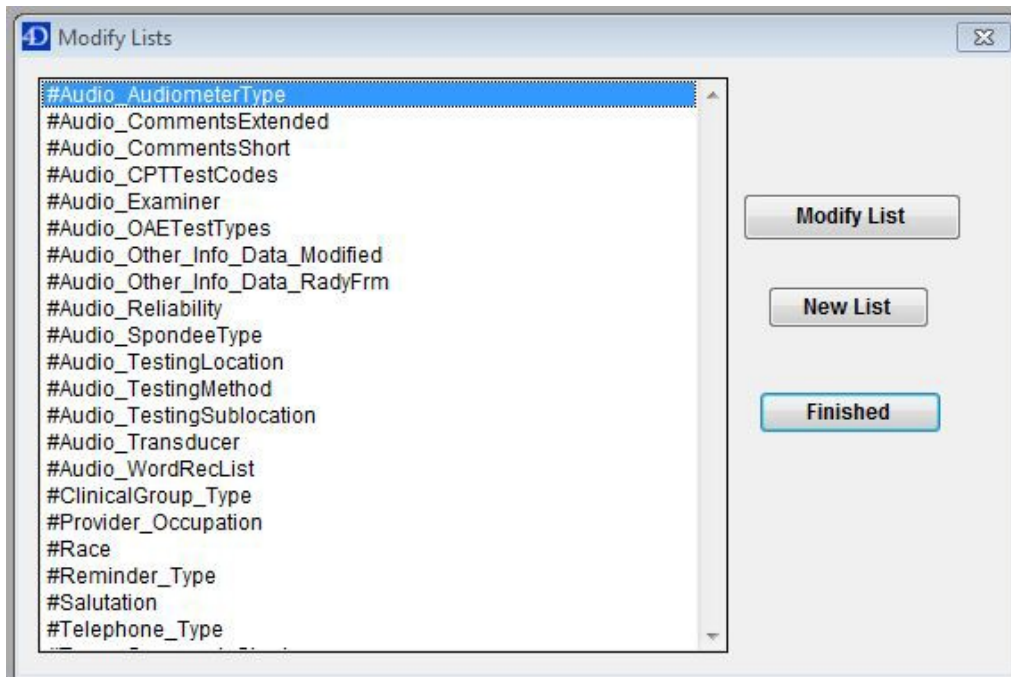
## Common Troubleshooting

### Adding Audiometer Information (model/SN/calibration date)

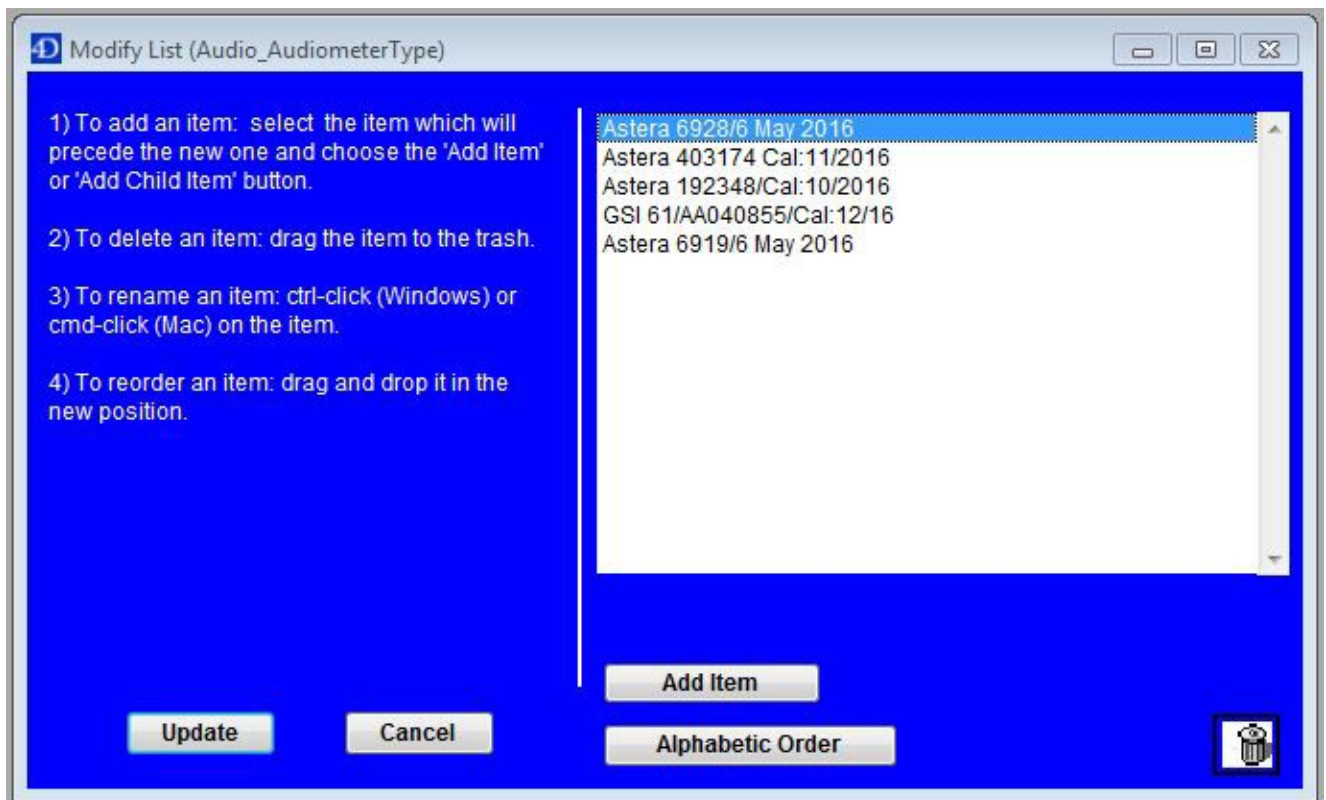
1. Login to AudBase and click on **File**, then select **Preferences** from the menu. You will see the window below:



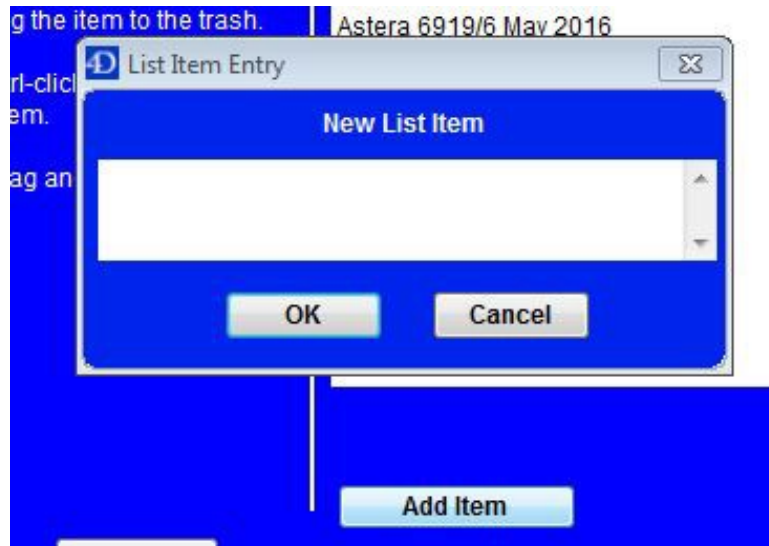
2. Next, click on the **Modify Entry Lists** (gray button). The window below will open:



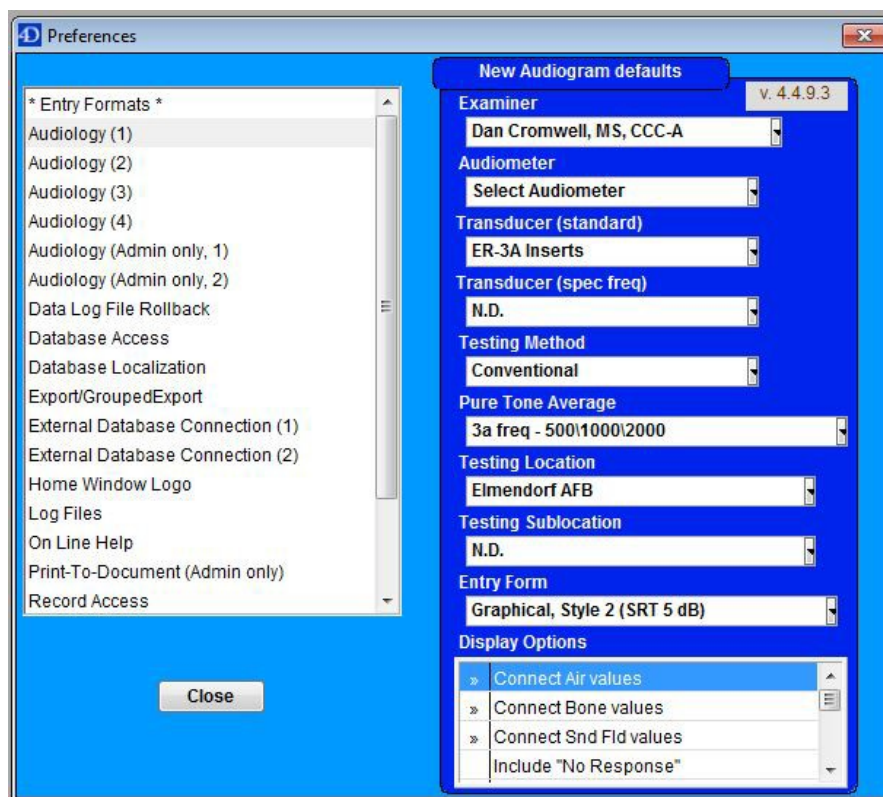
3. Make sure the **#Audio\_AudiometerType** is selected, then click on the **Modify List** button. The window below will appear:



- Click on the **Add Item** button. In the window below, you would type the model, serial number, and the calibration date in the box, then click **OK** to add the new item.

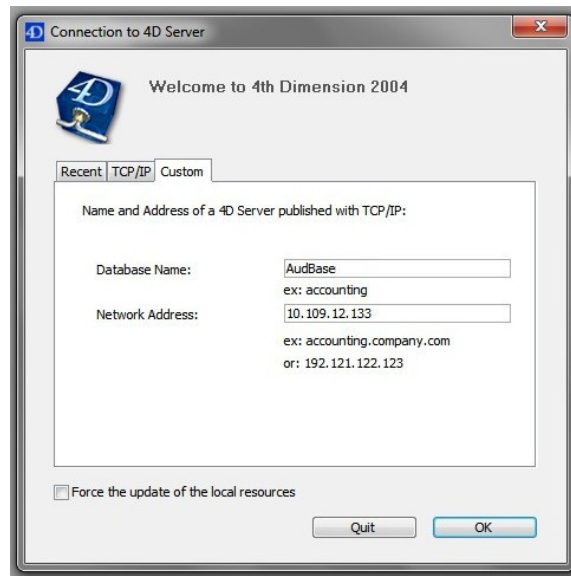


- Now return to the main **Preferences**:
- Click on **Audiology(1)** (top left side). You will now see the window below:



- Select the new entry you created from the **Audiometer** (top right) drop-down list and click **Close**.

## Error Code -50 Resolution



1. Click on the “Recent” Tab – allow 5-10 seconds to load
2. See if “AudBase” appears in the list. If so, double click. If you get the same error again, continue to step 3.

If nothing appears in the Recent tab:

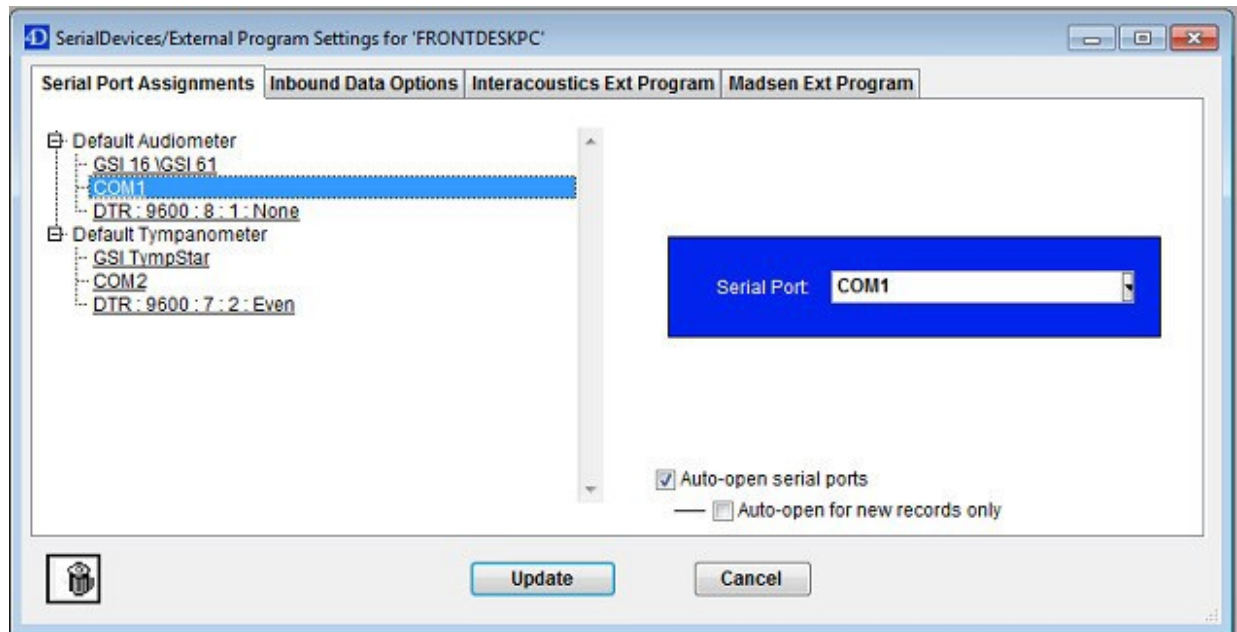
1. Click on the “Custom” Tab
2. Database Name: AudBase
3. Network Address: xx.xxx.xx.xxx (Enter the IP address of the Server)
4. Select “OK”

\*\*The network address of the last server this client app connected to can be found at  
C:\Program Files (x86)\AudBase\AudBase Client\4D Extensions\EnginedServer.xml



## Checking your COM Ports

1. In AudBase, select “File” then “Preferences”
2. Select “Audiology (3)” then Click “Assignments/Settings” Button on right side of window
3. Click the “+” to the left of “Default Audiometer”
  - Click to highlight the second option: “COM” or “Select a Port”
  - Choose the COM Port from the drop down on the right (See below to know which COM Port)

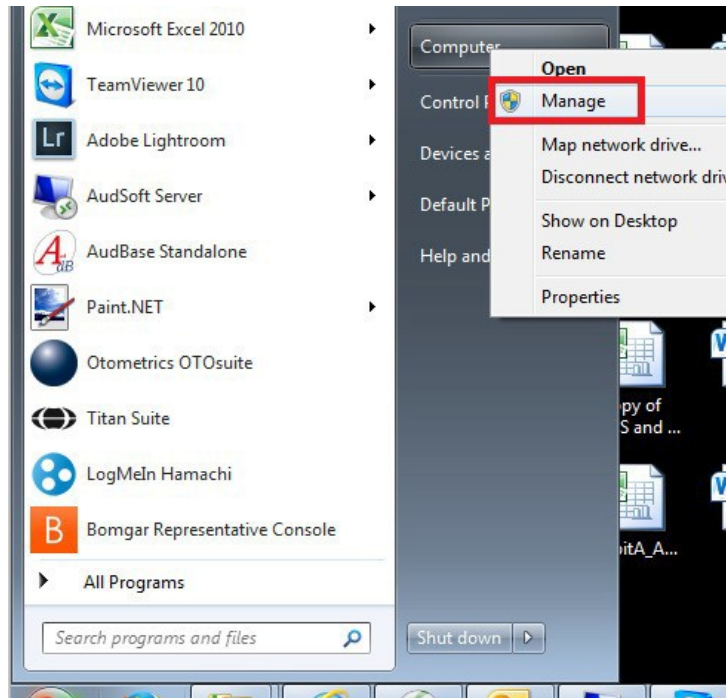


4. Click the “+” to the left of “Default Tympanometer”
  - Click to highlight the second option “COM” or “Select a Port”
  - Choose the COM Port from the drop down on the right (See below to know which COM Port)
5. Make sure Check mark is in box “Auto-open serial ports” & Click “Update”

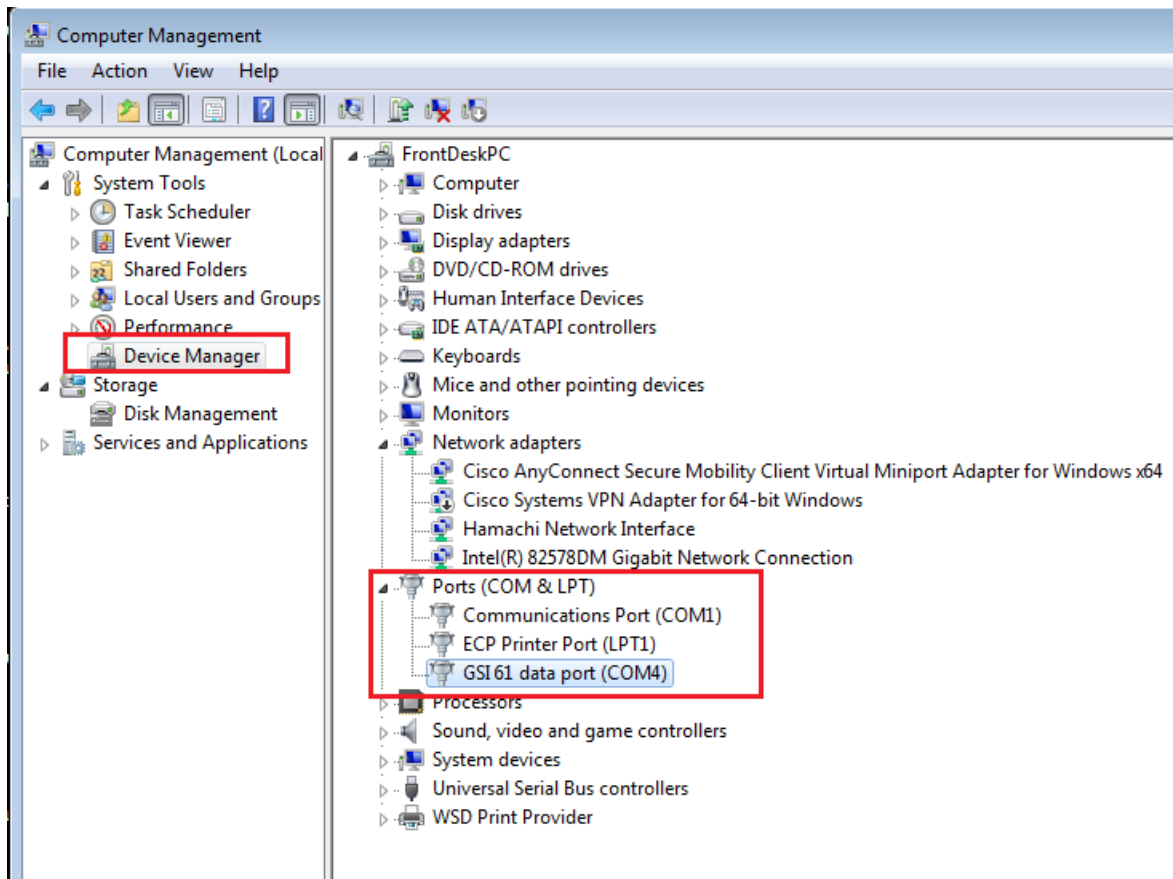


## How to know on which COM Port your device is connected

1. Click on your Start button and right click on “Computer” or the “Machine Name” (You should have the option to “Manage” in the drop down.)



2. Select “Device Manager” from the left window



- The connected devices will be displayed in the “Ports (COM & LPT)” list
- Your devices may have different names than what is displayed above, with the most common display reading: “Prolific USB to Serial”
- If you have both a GSI-61 and a GSI Tymptstar connected to the same PC, you will see a COM Port for each device. There may not be a way to tell a difference between the two, so you will have to set the COM ports in AudBase and open a test patient to see if the transfer is successful. If not, repeat the steps to switch the COM settings in AudBase and test again.
- If an exclamation triangle is next to one of the COM Ports, a new driver needs to be installed. An AudSoft representative can provide you or your IT staff with the appropriate driver.

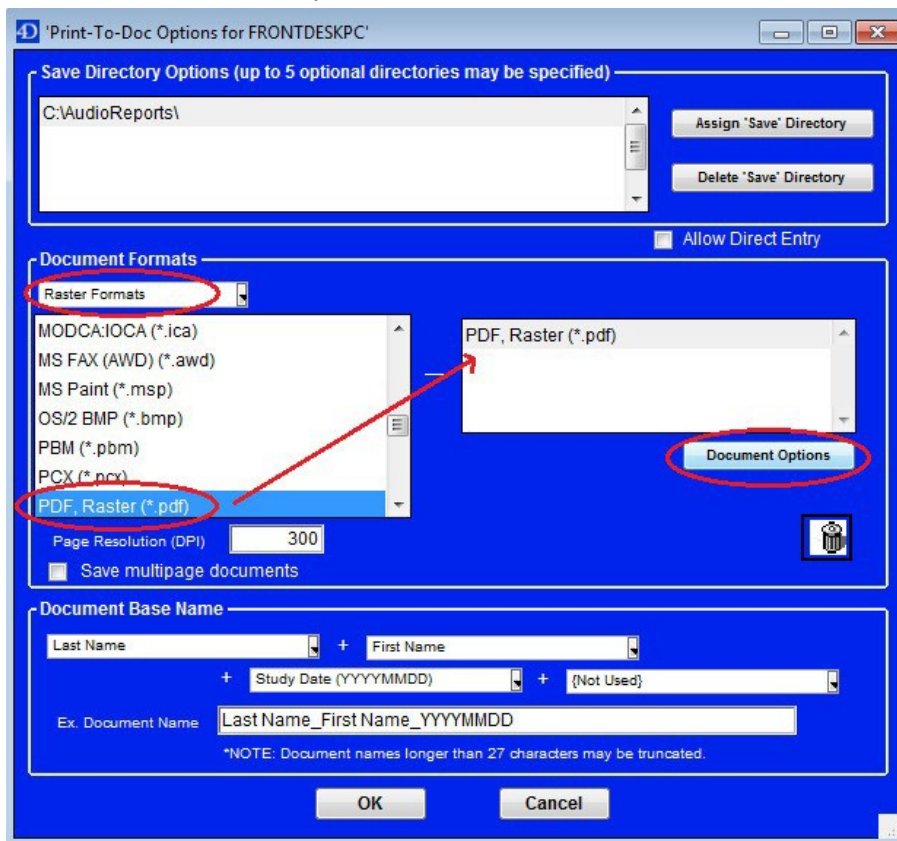
## Setting up and Managing Print to Doc

To create the C:\AudioReports folder (skip this step if this folder already exists)

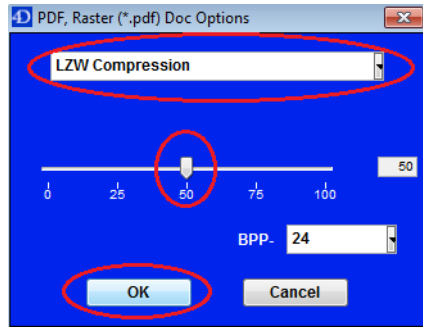
1. Go to your “Start” menu and select “Computer”
2. Double click “Local Disk (C:)”
3. Right mouse click in a blank space within that window, select “New” and “Folder”
4. Name the new folder “AudioReports”

Log into AudBase **using the Administrator Account.**

1. Click “File” from the top toolbar and then select “Preferences”.
2. From this menu, select “Print-To-Document (Admin Only)”
3. Click on the “Document Options (Local)”
4. Select “Assign ‘Save’ Directory”
  - Navigate to the folder to which you wish to save audiograms. It should now appear in the top box.
5. In Document Formats dropdown, select “Raster Format”



6. Scroll down the list until you find “PDF, Raster”
7. Click and drag “PDF, Raster” over from the left selection list to the box on the right
8. Select “Document Options” under the right window. A new window will appear.



- Click on Uncompressed to change the compression style to “LZW Compression”
  - Move slide bar to 50
  - Verify BPP is 24
  - Click OK
9. Mark the checkbox for “Save Multipage documents”
  10. Document Base Name should be
    - Last Name
    - First Name
    - Study Date (YYYYMMDD)
  11. Click “OK”
- These selections will now be set as default for all users of the system on this PC and all audiograms will be saved to (C:\Audio Reports\LastName\_FirstName\_YYYYMMDD)
  - To generate a PDF document, open the desired audiogram in AudBase, go to “Audiogram” then “Print to Doc Audiogram”
  - Occasionally you will want to delete the PDFs that are saved in the Audio Reports folder. You will always have the audiometric data saved within AudBase and can create these filed reports at any time. You can clear the folder daily, weekly, etc.