

SHOEBOX



AUDIOMETRY

Data Management,
Data Management PLUS
User Guide

Table of Contents

Introduction	3
SHOEBOX Data Management and Data Management PLUS (DM+) for Individual Users	4
Portal Login	4
Working With Your Data	5
Manually Importing Audiograms	6
Managing Patients	7
Adding New Patients	7
Editing Patient Information	7
Sorting and Filtering Patients	8
Search	9
SHOEBOX Data Management PLUS for Administrators	10
Managing Users	10
Working With Your Data	10
Sharing Data	10
Projects	11
Adding Users	11
Importing Existing Data	12
Closing Projects	12
Deleting Projects	12
Exporting Data	13
Project Data	13
Test Result Reports	13
Generating Reports	14
Project Reports	14
Patient Reports	15
Symbols Legend	16

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Introduction

Thank you for choosing SHOEBBOX Audiometry. SHOEBBOX Data Management is a secure cloud-based web portal for data storage and analysis. It offers a quick and convenient way to back-up, and archive information—including the patient and audiogram information captured on the iPad. Log in to the web portal to access and manage the data from your browser.

SHOEBBOX Data Management and Data Management PLUS (DM+) allow for complete management of data collected across one or a multitude of SHOEBBOX devices. A summary of the functionality available with each solution is found in the table below:

Data Management	Data Management Plus (DM+)
Web portal accessible from browser	Web portal accessible from browser
Automatic back-up from the iPad(s)	Automatic back-up from the iPad(s)
Secure, HIPAA-compliant storage services	Secure, HIPAA-compliant storage services
Centrally view the patient/employee data & results synced from the SHOEBBOX iPad device in one complete list	Centrally view the patient / employee data & results synced from the SHOEBBOX iPad device(s) in logical groupings (geographies, organizations)
Flexible search and filter capabilities for viewing data	Flexible search and filter capabilities for viewing data
	Easy import of patient lists from external sources for download to single or multiple SHOEBBOX iPad devices
	Easy import of historical audiograms, including baselines
	Organize data on the portal into projects then synchronize patient lists to the iPads
	Electronic data transfer/export of patient test results
	Define and maintain audiometric baselines for each patient
	Monitoring for threshold shifts for a variety of different regulations/standards
	Comprehensive reports including: <ul style="list-style-type: none"> • Individual patient summary reports • Clinical hearing threshold shift reports (CTCAE) • Employee/patient roster reports • Hearing conservation shift reports • BROCK classification grade reports
	Administrative control for assigning user access across projects.

SHOEBOX Data Management and Data Management PLUS (DM+) for Individual Users

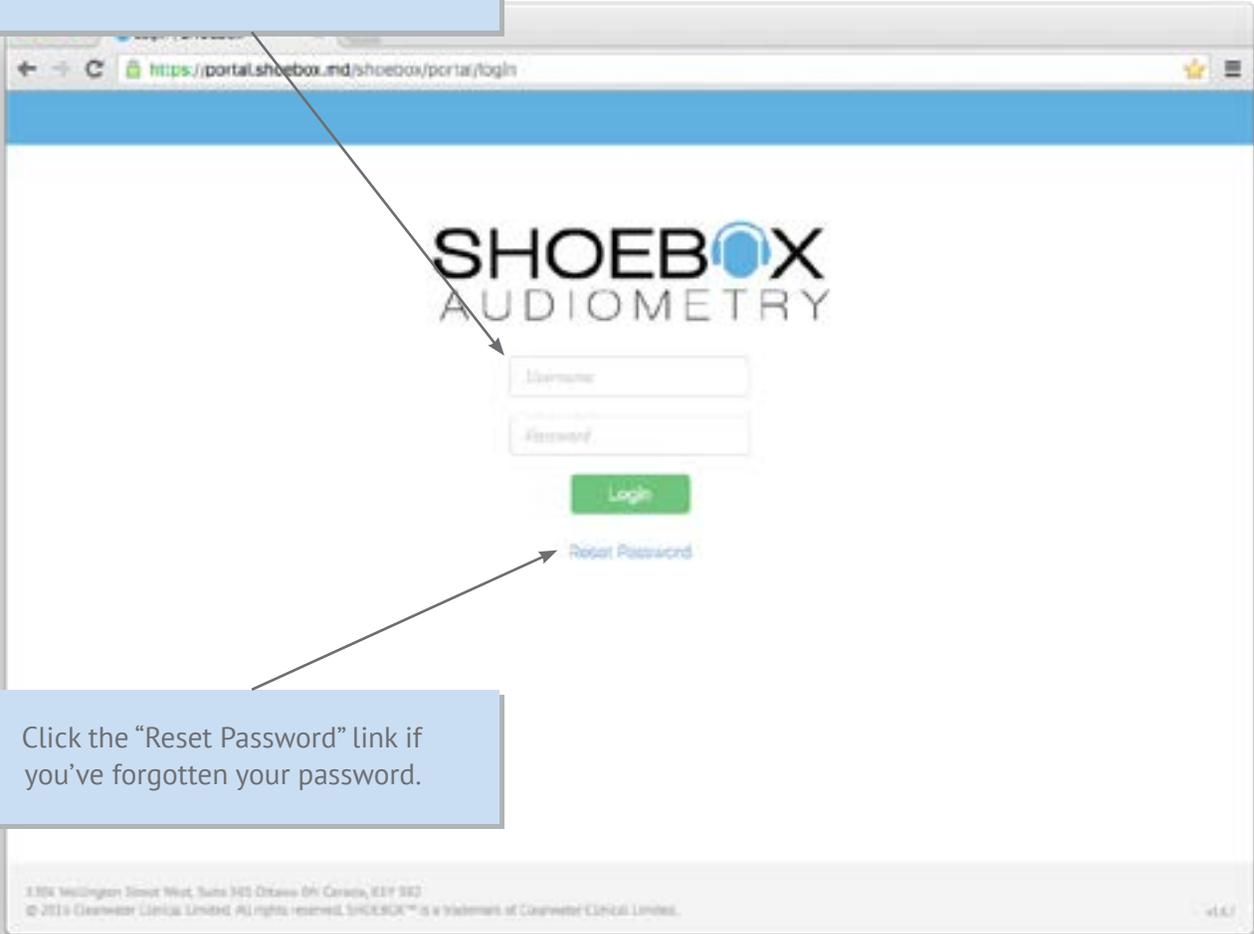
Portal Login

You can access your data online using the SHOEBOX Data Management web portal at <https://portal.shoebox.md>. Simply enter your credentials when prompted and that's it!

Missing Credentials?

You will have been given login credentials by a SHOEBOX Audiometry team member in an email and asked to create your own password. If you've forgotten your password, select the "Reset Password" link on the login screen and you'll receive an email with directions on how to reset your password. Doing this will change your SHOEBOX iPad software login password as well.

Enter username and password then click "Login" to get started!



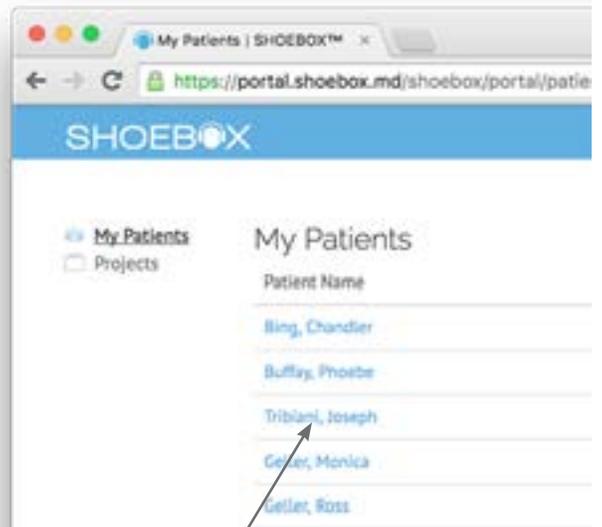
Click the "Reset Password" link if you've forgotten your password.

Working With Your Data

From the SHOEBBOX Data Management web portal, you can view and download patient test results that have been uploaded from the SHOEBBOX iPad. The 'My Patients' section will list all patients that you have created from your SHOEBBOX iPad device. With DM+, administrators will also see "All Patients" which lists all patients that have been created by members of your organization, and base users will see the "Projects" section which will list all of the projects for which they have been granted access by the administrator.

To view a patient's data, click the patient's name in the list. The Audiogram History will display in a grid under the patient demographics. With DM+, you can set the baseline in the audiogram summary by selecting the box in the LB or RB column of the test you wish to set as baseline. The documents section contains all test results in reverse chronological order. View any test result by clicking on the item. Audiogram test results will be downloaded as a PDF, and all others will be displayed as web-only viewing.

To return to the patient list, click the 'My Patients' or 'All Patients' option in the left side menu.



1 Click to select patient you'd like to view data for.

Did You Know?
You can also view an audiogram by clicking on the respective row in the Audiogram History table.

2 Click to mark audiogram as a baseline (DM+)

3 Click to view, download, or delete audiogram

Date	Time	LB	Left Thresholds (dB HL)								RB	Right Thresholds (dB HL)								AHL (2K, 3K, 4K)		...
			500	1K	2K	3K	4K	6K	8K	500		1K	2K	3K	4K	6K	8K	Left	Right			
2017-12-11	05:00	<input type="checkbox"/>	15	20	25	25	30	35	40	<input type="checkbox"/>	10	15	20	30	35	40	45	26.6	28.3	...		
2002-09-20	04:00	<input type="checkbox"/>	10	10	10	10	15	15	20	<input type="checkbox"/>	10	15	20	25	30	35	40	11.6	25.0	...		
1992-06-18	04:00	<input checked="" type="checkbox"/>	10	10	10	10	10	10	10	<input checked="" type="checkbox"/>	10	10	10	15	20	25	30	10.0	15.0	...		

Manually Importing Audiograms

With DM+, you can manually import historical patient audiograms from an individual patient page. Click the “New Audiogram” button in the “Audiogram Summary” section to manually add an audiogram. A dialog window will appear with all necessary fields for adding historical audiogram data.

For each frequency, you can input a number to indicate a threshold (e.g. 70) or a number+ to indicate a no response (e.g. 90+). Simply leave any untested frequencies blank.

When you’re done adding patient audiogram data, click “Save.”

The audiogram will now display in the “Audiogram Summary” section and appear in the “Documents” section, labeled as “Audiogram: Imported.”

A number indicates a threshold, while a number+ indicates no response

The screenshot shows the 'New Audiogram' form. At the top, there are input fields for Test Date (2017-09-21), Test Time (12:30 pm), Examiner, Transducer Model, Transducer Serial, Audiometer Model, Audiometer Serial, and Calibration Date (2017-09-20). Below these is a section for 'Air' with a checkbox for 'Include Extended High Frequencies'. The 'Right Ear' section has a table of frequencies and thresholds: 250Hz (20), 500Hz (35), 750Hz (50), 1000Hz (25), 1500Hz (40), 2000Hz (45), 3000Hz (60), 4000Hz (55), 6000Hz (70+), and 8000Hz (70+). Below the table is a 'Notes' field and a 'Mark as Baseline' checkbox. The 'Left Ear' section has a similar table: 250Hz (20), 500Hz (30), 750Hz (40), 1000Hz (30), 1500Hz (40), 2000Hz (35), 3000Hz (55), 4000Hz (50), 6000Hz (60), and 8000Hz (70+). Below the table is a 'Notes' field and a 'Mark as Baseline' checkbox. Two arrows point from the text box above to the 1500Hz and 8000Hz threshold values in the 'Right Ear' section.

Managing Patients

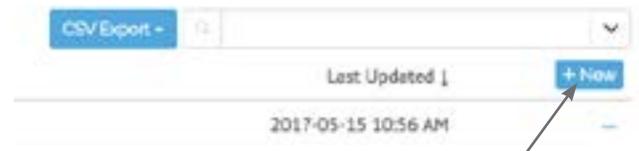
Editing Patient Information

To edit patient information, click on the patient name to go to the individual patient page. Click the “Edit” icon in the top right corner of the “Patient Demographics” section to edit patient information.

When you’re done editing patient information, click the “Save” button to save your changes.

Adding New Patients (DM+)

With DM+, you can add a new patient, by clicking the “New” button on the My Patients or All Patients page. A pop up dialog will appear with inputs for all available patient demographics. Required fields are marked with an “*”.

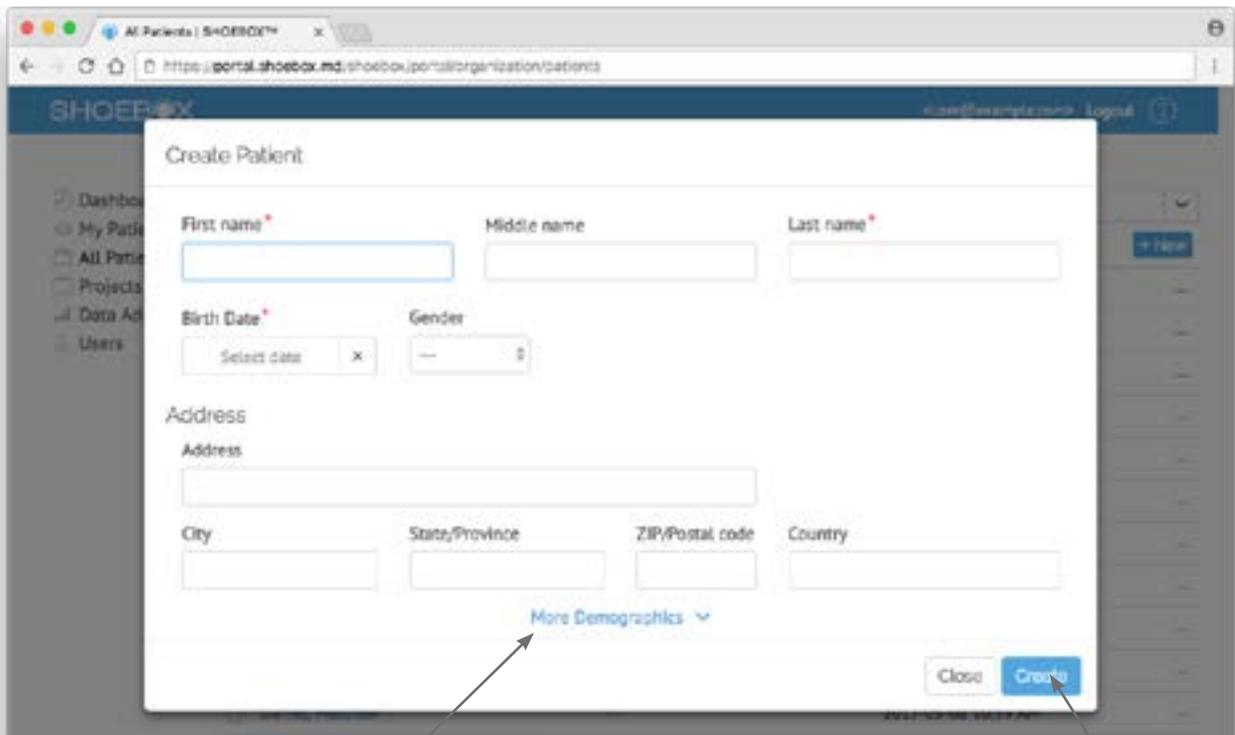


Click the “New” button to create a new patient

Did You Know?

You can synchronize patients lists or updated demographics back to the SHOEBOX device(s) by organizing your patients into projects, available with DM+.

When you are done adding patient information, click “Create” to create your patient.



Access more input fields by clicking “More Demographics”

After adding patient information in the pop up dialog, click “Create” to save the information

Sorting and Filtering Patients

To change what information you see on the “My Patients” or “All Patients” pages, click the “Settings” icon next to the “New” button. You can display up to four columns of data.

“Patient Name” will always be displayed, but the remaining three columns are configurable. Click the drop down menu to choose what patient data you want to display in the corresponding column. When you’ve finished configuring the displayed patient data, click the “Settings” icon to close the settings.

You can choose to sort the patient list by any of the four columns. Patients will be sorted alphabetically by last name by default. Simply click on the column you wish to sort by and a blue arrow will appear indicating the sort order. You can sort by either ascending or descending order.

Select from the drop down to configure a column

Click the “Settings” icon to open or close the column configuration

The screenshot shows the 'My Patients' interface. At the top left, there are navigation tabs for 'My Patients' (selected) and 'Projects'. The main heading is 'My Patients'. Below this is a search bar and a settings menu. The settings menu has four columns: 'Patient Name', 'Documents', 'Last Updated', and 'Birth Date'. Each column has a dropdown arrow. A blue '+ New' button is at the bottom right of the settings menu. Below the settings menu is a table of patients. The table has four columns: 'Patient Name', 'Documents', 'Last Updated', and 'Birth Date'. The 'Last Updated' column has a blue arrow pointing down, indicating it is sorted in descending order. The table contains 15 rows of patient data. At the bottom of the table, there is a pagination control showing '1 2 Next >>'.

Patient Name	Documents	Last Updated ↓	Birth Date
Baum, Adam A	2	2017-07-27 9:07 PM	1994-03-03
Boast, Bill	2	2017-07-27 9:07 PM	1994-03-03
Bacon, Chris P	2	2017-07-27 9:07 PM	1994-03-03
Druff, Dan	2	2017-07-27 9:07 PM	1994-03-03
Pickles, Dilbert	2	2017-07-27 9:07 PM	1994-03-03
Riser, Earl Lee	2	2017-07-27 9:07 PM	1994-03-03
Vader, Ella	2	2017-07-27 9:07 PM	1994-03-03
Green, Forrest	2	2017-07-27 9:07 PM	1994-03-03
Morris, Hugh	2	2017-07-27 9:07 PM	1994-03-03
Pond, Lily	2	2017-07-27 9:07 PM	1994-03-03
Power, Max	2	2017-07-27 9:07 PM	1994-03-03
Yew, Olive	2	2017-07-27 9:07 PM	1994-03-03
Banks, Robin	2	2017-07-27 9:07 PM	1994-03-03
Bellum, Sarah	2	2017-07-27 9:07 PM	1994-03-03
Cupp, Stanley	2	2017-07-27 9:07 PM	1994-03-03

Search

If you need to find a specific patient quickly, you can type their name in the search box on the upper right hand side of the My Patients or All Patients page. You can also use this search box to view only patients within a particular project. To do this, click the down arrow beside the search bar and select a project.

Did You Know?

You can clear this search criteria by clicking the search criteria item located at the top of the patient list screen.

Logout

When you're finished, use the "Logout" button on the top right side of the screen.

The screenshot shows the SHOEBOX interface. On the left is a navigation menu with items: Dashboard, My Patients, All Patients, Projects, Data Admin, Users, and QuickTest. The main content area is titled 'All Patients' and features a search bar with the text 'Chris'. Below the search bar is a table with columns: Patient Name, Documents, and Last Updated. The table contains two rows: 'Chris Neil' with 1 document, last updated 2017-04-10 4:49 PM, and 'Russell, Chris' with 2 documents, last updated 2016-12-19 2:02 PM. A '+ New' button is in the top right of the table. A callout box at the top right says 'Enter patient name or use dropdown to select a project.' with an arrow pointing to the search bar. A callout box at the bottom left says 'Click to remove patient name search criteria.' with an arrow pointing to the 'Chris' text in the search bar.

Patient Name	Documents	Last Updated
Chris Neil	1	2017-04-10 4:49 PM
Russell, Chris	2	2016-12-19 2:02 PM

SHOEBOX Data Management PLUS for Administrators

With Data Management PLUS, the capabilities listed in this section are available for the administrator user. Administrators also have access to the features described in the 'Individual Users' section of this manual.

Need New Users?

In order for a member of your organization to log in and use their SHOEBOX Audiometer they must first have a user account.

To add new users to your organization, click the "New" button on the Users page. The number of users you can add to your organization depends on your number of SHOEBOX licenses. Contact support@shoebox.md if you need to add more users.

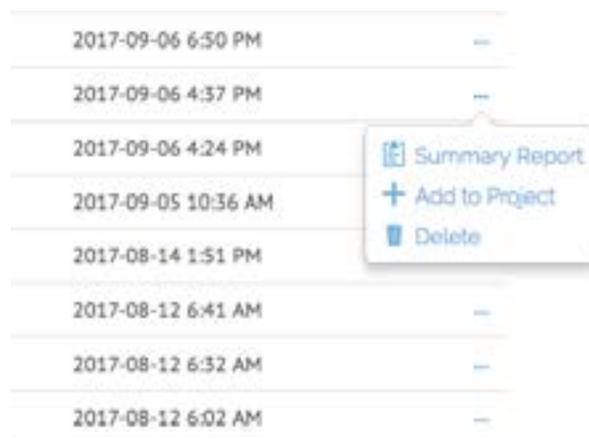
Managing Users

All users in your organization will be listed in the "Users" section. From here, you can create new users by clicking the "New" button, and view existing users by clicking on their user name.

From the individual user page, you can perform various actions relating to user status: disabling a user, sending a password reset email, resending a verification email, unlocking a user, and enabling a disabled user. You can also edit a user's first and last name.

Working With Your Data

In addition to the standard data management functionality available to all users (see 'Individual Users' section), administrative users are able to delete patients and change their associated project. Open the action menu at the right of the patient item to access these options. To complete these actions for a group of patients, simply use the checkbox beside the patient name to select multiple patients before selecting the action from the action menu.



Sharing Data

By default, all non-admin users are only able to view patients and test results that they have created. If you would like to provide users with the ability to view test results and patients created by other members of your organization, contact support@shoebox.md for configuration assistance.

Projects

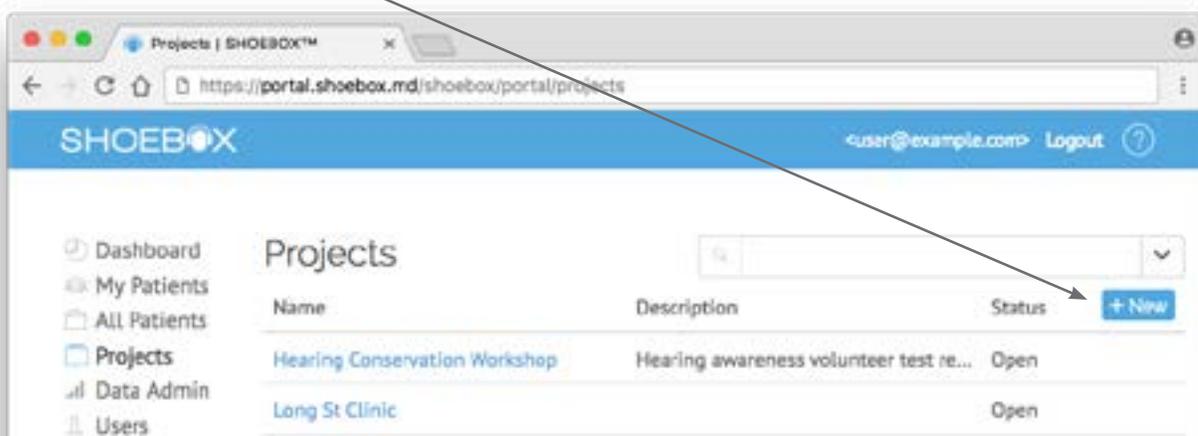
The “Projects” section gives you the ability to organize your patients and data into relevant groups. To create a new project, select the “+ New” button at the top of the screen and fill in the information requested. The start and end dates can be estimates and are not enforced.

Click the “+ New” button to create a new project

Tips For Creating Projects

Projects can help you organize your patients and test results into logical groups. How you choose to group your data will depend on your organization’s needs, but some suggestions include:

Clinic Locations
Patient Demographics
Patient Referral Status
Special Events



Adding Users

When you create a new project, you will automatically be added to the project as the first user. You will then be prompted to add additional users. Users who are part of a project are able to access the project patients on the SHOEBBOX iPad. These users are also able to add data to the project from the SHOEBBOX iPad by creating and uploading additional patients and test results.

To add new users, simply select those you wish to add from the list of users in your organization, and click “Add” when you’re done.



Importing Existing Data

If you would like to import patients or audiograms from an existing system, you can do so by clicking the + icon to open the upload window or dragging a properly formatted CSV file onto the project import box. Files must be less than 10MB and conform to the SHOEBBOX CSV formatting guidelines (visit www.shoebox.md/support to download a template csv file).



If the default date format doesn't match your CSV, you can change the import date format by clicking the "Change Date Format" link prior to selecting your CSV file.

Patients or audiograms added this way will automatically be added to the corresponding project, and patients will be transferred to the iPads of any user you have added to the project. At any point, you can add or remove patients from the project and these changes will once again be transferred to the iPads when connected to WiFi.

Closing Projects

Closing a project you are no longer using is a good way to declutter your main projects view. To close a project, click on the project name to go to the individual project page. Click the "Edit" icon in the top right corner of the "Project Details" section, and change the project status to "Closed." Click the "Save" button to save your changes.

By default, only open projects are shown in the main projects view, but you can still access a closed project. If you need to view or re-open a closed project, click the drop down in the search bar and select the "Closed" status option. On the SHOEBBOX iPad, users are still able to access and upload data to closed projects.

Deleting Projects

Only closed projects can be deleted. To delete a closed project, go to the individual project page and click the "Edit" icon in the top right corner of the "Project Details" section to access the "Delete" button. If your project is still open, you will need to close it before the "Delete" button becomes visible. In the SHOEBBOX program, users are no longer able to access and upload data to deleted projects.

Long St Clinic

Project Details

Name*
Long St Clinic

Description

Start Date: Select date
End Date: Select date

Status: Closed

Buttons: Delete, Cancel, Save, Export

Exporting Data

Test Result Data

Test results in the user portal can be exported as a single .csv file containing all results of the selected test type. Test results can be exported from the All Patients, and My Patients sections, as well as from an individual Project page. The export action is for the entire collection of patients or project and is not affected by search criteria or patient selection.

Export Speech Results CSV

This option generates a CSV file containing all patient speech results in the portal.

Export Surveys CSV (Currently Hearing Handicap Inventory)

This option generates a CSV file containing all patient questionnaire results in the portal.

Export Audiograms CSV

This option generates a CSV file containing all patient audiogram results in the portal.

Export Patients List CSV

This option generates a CSV file containing all patient and demographic data in the portal.

Project Data

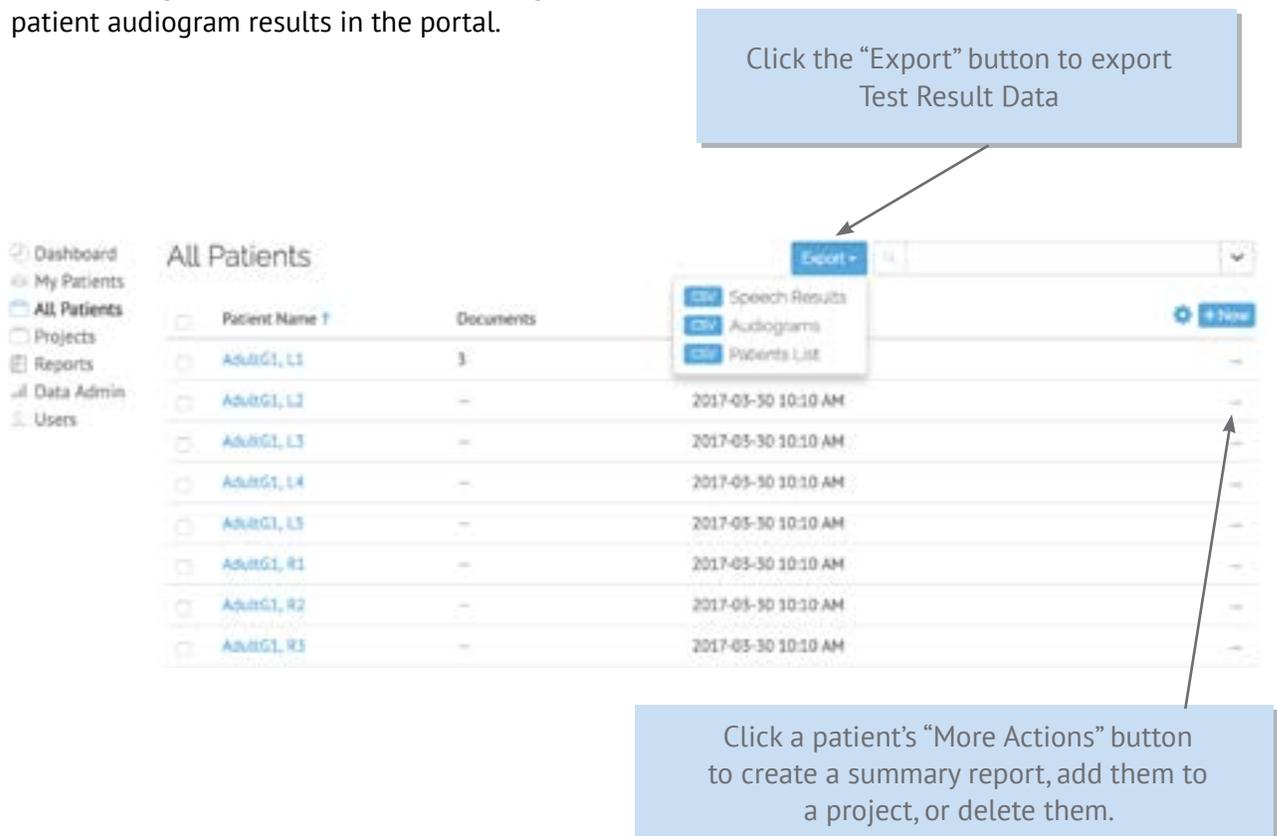
Once you've selected a project, you can quickly and easily export project data by selecting the "Export" button at the top of the screen. From here you'll be able to select from the Test Result Data export options, as well as:

Export Audiograms (ZIP)

This option allows you to export all patient audiograms that are associated with the selected project as individual PDF files.

Export QuickTest Data CSV

This option generates a CSV file containing all QuickTest results in the portal. This is only visible if you have a QuickTest license.



Generating Reports

Project Reports

From the “Reports” page, you can build a PDF report based on project data.

Customizing Your Report

You can configure your report header logo and text in the “Report Header” section. The report header will appear on every page of your report.

Select your report type

Roster Report

This report generates a listing of *all people in the selected project(s)*, and includes data such as their name, date of birth, last test date and an indication of whether or not a significant shift occurred, or their Brock classification grade (if applicable).

Shift Report

This report generates a listing of only the people with shifts or non-zero classification grades. The report lists data such as their name, date of birth, last test date, and their shift/classification grade. In addition, this report provides a summary of the number of people tested and the number of people who experienced a shift, or have a non-zero classification grade.

Select the filter data

In this section of the report builder you can select filter criteria including the project, date range of the tests to include in the analysis, and shift type (such as OSHA, MSHA, CTCAE, Brock)

You can preview the report, by selecting the preview icon, and once reviewed, you can subsequently select the “Report PDF” button to download a PDF of the report.

The screenshot shows the 'Reports' section of a software interface. On the left is a navigation menu with items like 'Dashboard', 'My Patients', 'All Patients', 'Projects', 'Reports', 'Data Admin', 'Users', and 'QuickTest'. The main area is titled 'Reports' and contains a 'Report Builder' form. The form has two main sections: '1. Select Report Type' and '2. Filter Data'. In the 'Select Report Type' section, there are two buttons: 'Roster Report' and 'Shift Report'. In the 'Filter Data' section, there are fields for 'Project' (set to 'Project 11'), 'Date' (set to 'Custom' with a date range from '2017-07-01' to '2017-11-01'), and 'Shift Type' (set to 'OSHA' with a checked 'Age Correction' option). At the bottom of the form is a 'Report Header' section with a logo placeholder that says 'YOUR LOGO' and an 'Edit' icon. Callout boxes with arrows point to these elements: one points to the 'Roster Report' button, another points to the 'Project' and 'Date' fields, and a third points to the 'Edit' icon in the 'Report Header' section.

Patient Reports

To generate a summary report for a single patient, navigate to a single patient page and click the “Summary Report PDF” button, or select the “Summary Report PDF” option from the overflow menu in the patient lists.

The individual patient summary report includes the following information:

- Patient demographics
- Analysis, which includes questionnaire scores as well as any applicable shift calculations
- The most recent audiogram
- Audiogram history table
- The most recent speech results
- The most recent questionnaires/inventories completed within 1 week of the most recent audiogram

The screenshot shows the SHOEBOX interface for a patient named Monica Gellar. The top navigation bar includes the SHOEBOX logo, a user email (email@example.com), and a Logout button. A sidebar on the left contains navigation links: Dashboard, My Patients, All Patients, Projects, Reports, Data Admin, and Users. The main content area is titled "Gellar, Monica" and features a "Summary Report PDF" button. Below the title is a "Patient Demographics" section with fields for Last name (Gellar), First name (Monica), Birth Date (1973-06-13), and External ID. A "More Demographics" link is also present. The "Analysis" section contains a table with the following data:

	Left	Right
OSHA Standard Threshold Shift (with Age Correction)	8.6	5.5
OSHA Standard Threshold Shift (without Age Correction)	16.6 Recordable	13.3 Recordable
Possible MSHA Reportable Shift (with Age Correction)	8.6	5.5
Possible MSHA Reportable Shift (without Age Correction)	16.6	13.3
Current MSHA STS Trend (2, 3, 4K Avg)	Insufficient data	Insufficient data
Speech Frequency Average (0.5, 1, 2, 3K Avg)	21.2 Normal	18.7 Normal
High Frequency Average (4, 6, 8K Avg)	55.0 Mild	40.0 Mild

The "Audiogram: 2017-12-11" section displays two graphs. The "Right Ear Results" graph shows a red line with circular markers, and the "Left Ear Results" graph shows a blue line with 'x' markers. Both graphs plot Hearing Level (HL) in dB on the y-axis (ranging from 0 to 80) against Frequency (Hz) on the x-axis (logarithmic scale from 125 to 8000 Hz).

Symbols Legend

Audiogram Threshold Symbols:

Symbol	Meaning	Symbol	Meaning	Symbol	Meaning
✕	Left air conduction	○	Right air conduction		Air
✕↙	No response to upper limits air conduction, left	○↙	No response to upper limits air conduction, right		Masked air
□	Left masked air conduction	△	Right masked air conduction		Bone
□↙	No response to upper limits masked air conduction, left	△↙	No response to upper limits masked air conduction, right		Too Noisy
>	Unmasked bone, left side	<	Unmasked bone, right side		Unreliable
>↙	No response to upper limits unmasked bone, left side	<↙	No response to upper limits unmasked bone, right side		Needs Masking
⌋	Masked bone conduction left side	⌋	Masked bone conduction right side		Threshold should be re-tested
⌋↙	No response masked bone left side	⌋↙	No response masked bone right side		No Response

Tabular View Abbreviations:

Symbol	Meaning	Symbol	Meaning	Symbol	Meaning
NR	No response	M	Threshold was obtained using masking	TN	Result too noisy
+B	Bone testing suggested	+M	Masking suggested	?	Unreliable

Other Software Symbols:

Symbol	Meaning	Symbol	Meaning	Symbol	Meaning
	Heard a sound		Did not hear a sound		New Patient
	Patient Information		Upload to web portal		Notes
	Add Item / Create New		Reorder Item		Warning