
What's New



 **Primus**

auditdata
Your Partner in Audiology Solutions

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1. Introduction

The purpose of this document is to give you an overview of the new features in Primus 2.4.0.0.

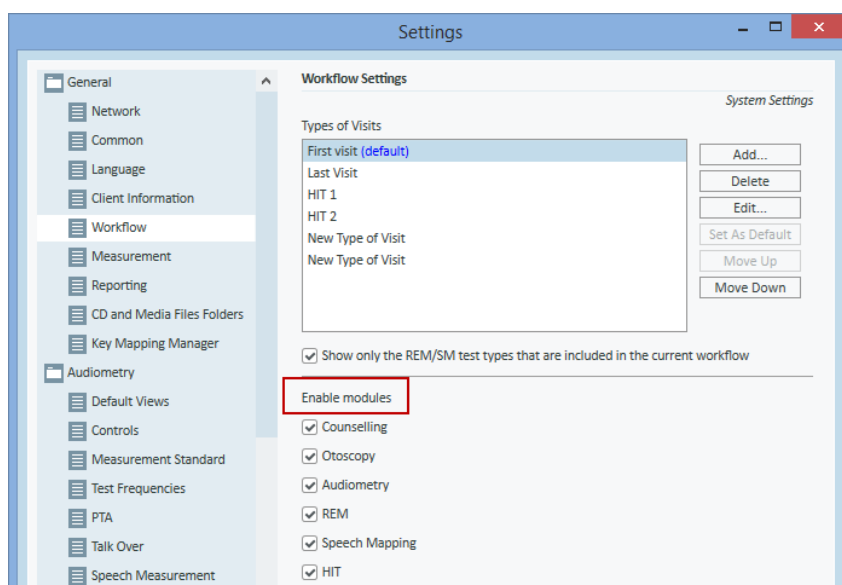
Please note this is a mandatory update from the previous version, 2.3.0.0.

The first few sections give you a brief description of the most important new features. To get a full list of the enhancements and fixes done in this release, take a look at the [Release Notes](#) section.

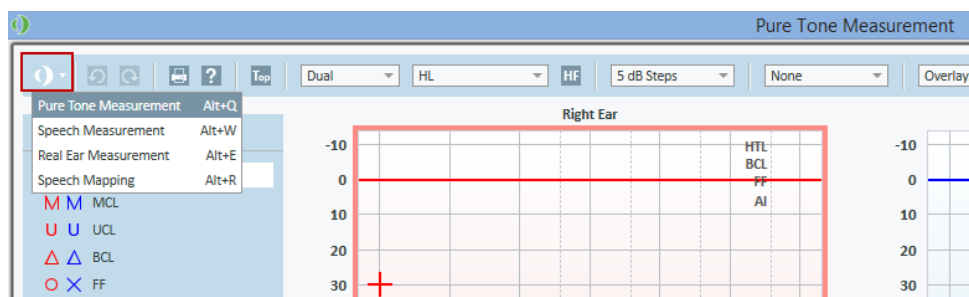
2. System Wide Enhancements

2.1 Editing Workflow Modules

You can now configure which modules to display in the Primus workflow. This is done through **Settings > General > Workflow**.



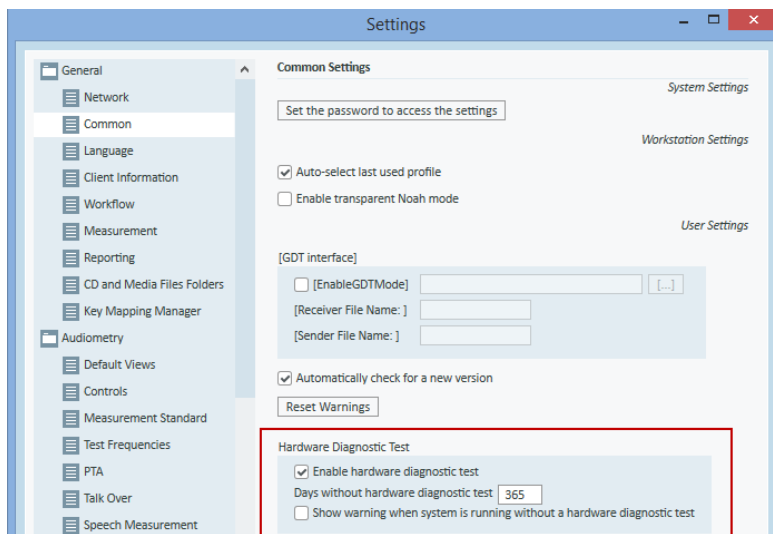
The modules that you have not selected in the Workflow Settings, will be removed from the Navigation pane and the Fast Switch button in every module.



2.2 Hardware Diagnostic Test

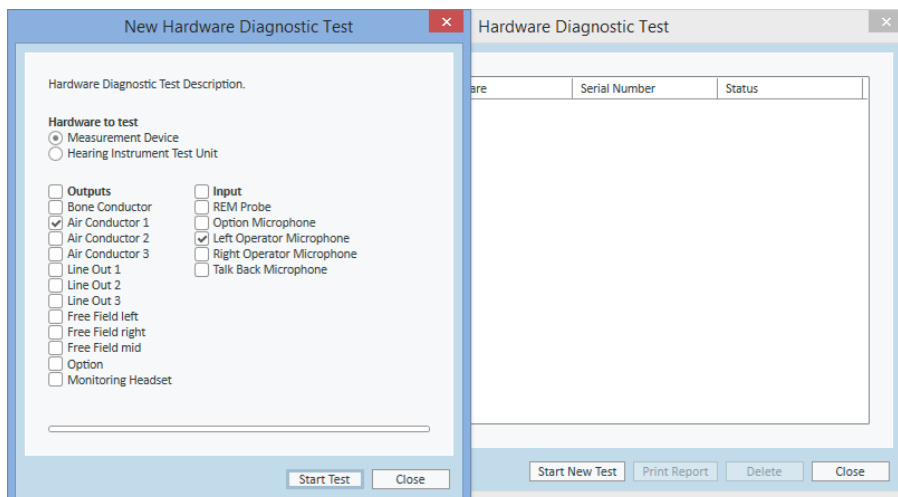
You can now diagnose your Fitting and HIT units for any malfunctions by running the Hardware Diagnostic Test directly from Primus.

To be able to use the test, you should first activate the test through the **Tools > Settings > General > Common**. You can also specify how often to run the test.



Once enabled, the test appears under the **Tools** menu. Click "Start New Test" and select the device and outputs/inputs you want to check.

Note: in order to run the test, you must unplug all transducers, otherwise you will receive an error message.



If the test result is ok, you will see the status Passed. If the test fails, you will see the status "Please check". For more information on the Diagnostic Test, please refer to the User Manual.

2.3 Check for New Primus Version

When the option “Automatically check for a new version” is enabled in the Common Settings, Primus will show the message about a new version in the status bar or via **Help > Check for new version** menu only if this is a mandatory update.

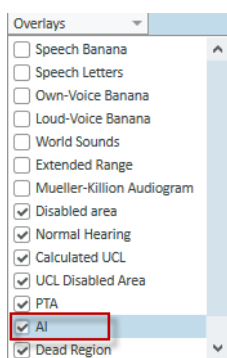
For non-mandatory updates, a message stating that you already have the latest version will be shown.

3. Audiometry

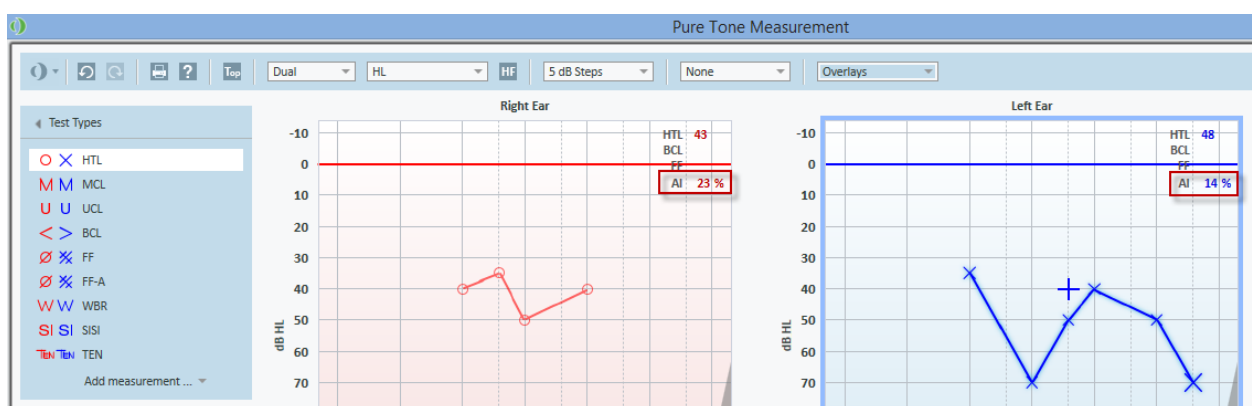
3.1 Articulation Index in PTA

The **AI (Articulation Index)** is used to predict speech intelligibility. An articulation index of 100% means that all speech can be understood and 0% means that no speech can be understood.

To make the **AI** visible on the PT audiogram, enable it through **Overlays**.




Next, create the HTL measurement of at least two points. The **AI** will automatically be calculated on the audiogram.

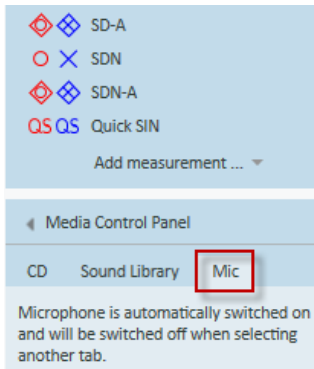


The AI values will be also displayed in the Pure tone audiometry, REM, and Speech Mapping reports.

4. Speech Audiometry

4.1 New tab for Microphone

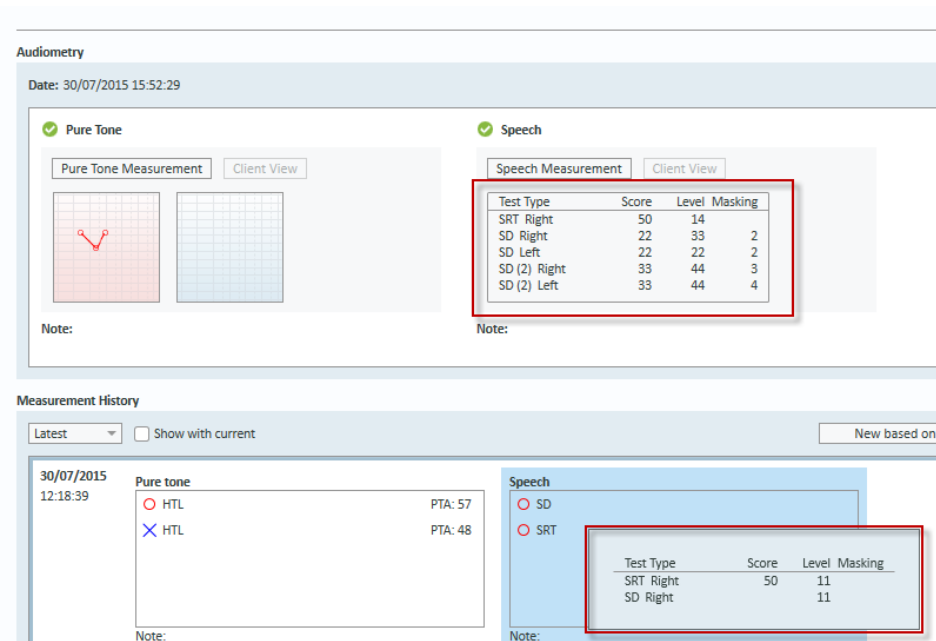
In addition to the microphone icon  (located in the top bar), a separate tab in the **Media Control Panel** appears for easier navigation.



When the **Mic** tab is selected, the sound source will automatically switch to the external microphone.

4.2 Speech Discrimination Tests Improvements

For Speech Discrimination (SD) tests in the numeric view 3 separate data entries – SD, SD (2), and SD (3) – have been added allowing to specify score, level, and masking for every measurement. These values will be shown as a table on the front Speech Measurement page and when the mouse is over a measurement in the Measurement History pane.



The screenshot displays the Audiometry interface. At the top, it shows the date "30/07/2015 15:52:29". There are two main sections: "Pure Tone" and "Speech".

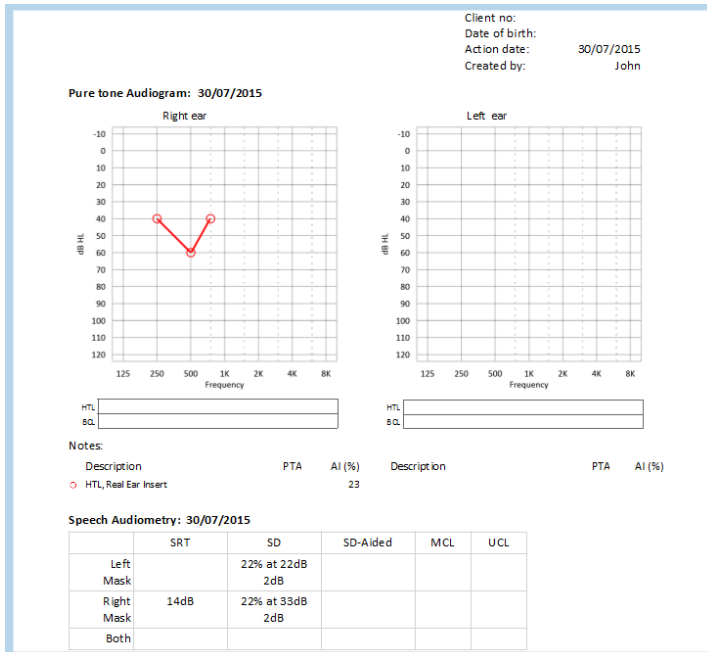
The "Speech" section is active and shows a "Speech Measurement" table with the following data:

Test Type	Score	Level	Masking
SRT Right	50	14	
SD Right	22	33	2
SD Left	22	22	2
SD (2) Right	33	44	3
SD (2) Left	33	44	4

Below the main interface is the "Measurement History" section. It shows a list of measurements for "30/07/2015 12:18:39". The "Speech" measurement is highlighted with a blue background and contains a table with the following data:

Test Type	Score	Level	Masking
SRT Right	50	11	
SD Right			11

The table with SD values will also be shown in the Audiometry numerical reports.

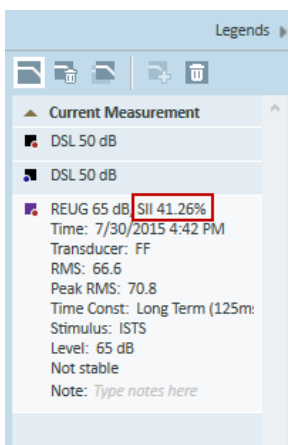


5. REM and Speech Mapping

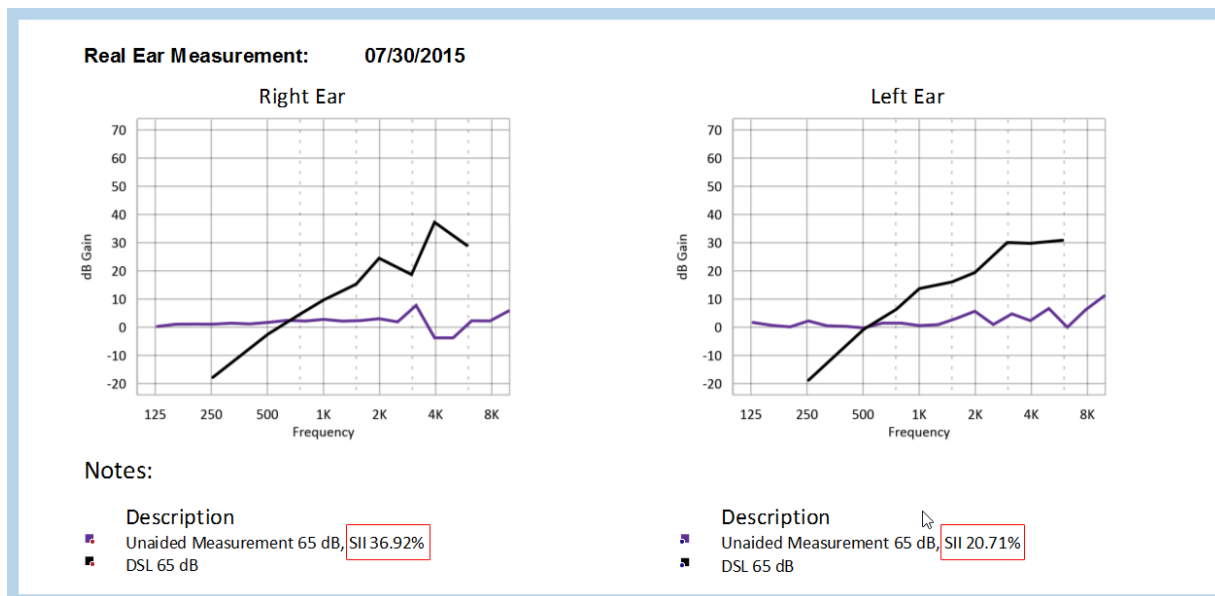
5.1 Speech Intelligibility Index

SII (Speech Intelligibility Index) has been added to the REM and Speech Mapping modules. SII measures and estimates the available and usable speech information for a specific hearing loss in the different frequency regions of an audiogram.

The SII is calculated only when HTL is available and is automatically calculated in the **Legends** panel.

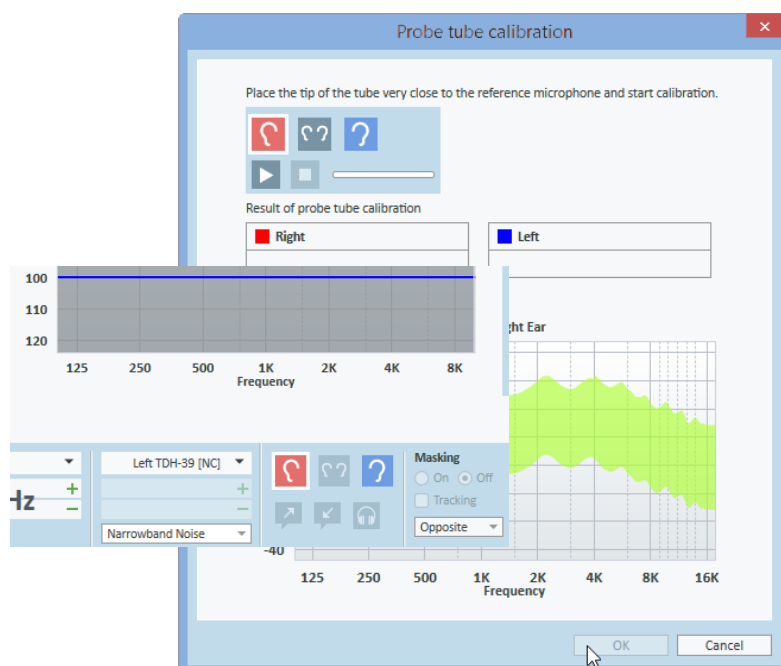


The SII values will be also displayed in the REM and SM reports.



5.2 Probe Tube Calibration Follows Ear Selection

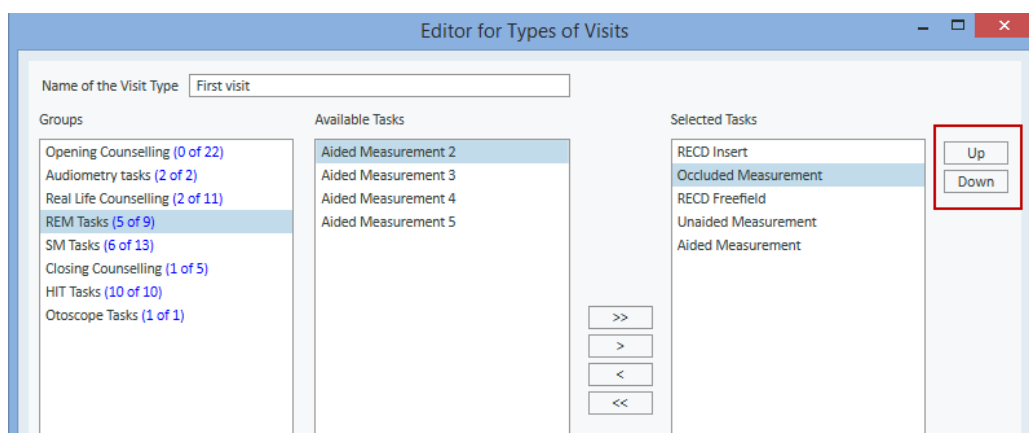
When opening the **Probe tube calibration** dialogue, Primus will automatically select the ear(s) you have chosen in the Measurement panel.



5.3 Changing Order of the Tasks in the Workflow

It is now possible to change the order in which test types will be shown in REM and SM windows and navigation panel for every type of visit. To use your own order, navigate to the **Tools > Settings > General > Workflow**, select the type of visit for editing and then choose REM or SM Tasks.

From the list of **Available Tasks**, add the tasks to the **Selected Tasks** and then use Up and Down arrows to set the test types in your own order.



5.4 DSL Frequency Compression Sounds Added to Sound Library

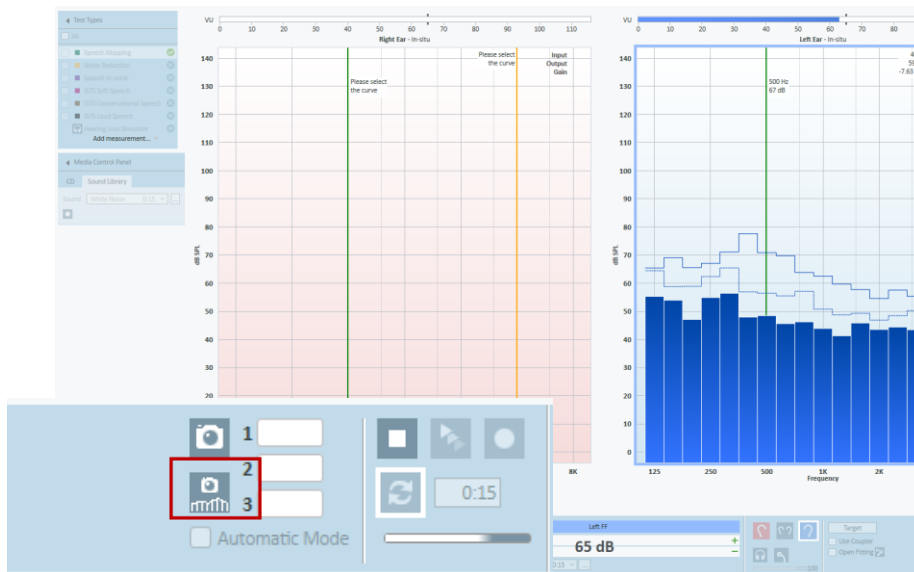
The DSL frequency compression sounds, 's' and 'sh', have been added to the Sound library.

Sound Library					
All Groups	Title	Type	Duration	Peak SPL, dB	Loudness (Mean), dB
Environment	ISTS	Speech	1:00		65
Music	ISTS-MPO	Speech	0:16		65
Noise	Dialog Male/Female in quiet	Speech	0:41		65
Situations	Dialog Male/Female in noise	Speech	0:38		65
Sounds	Dialog Female/Child in quiet	Speech	0:39		65
Speech	Dialog Female/Child in noise	Speech	0:40		65
Technical sound	Monolog Male in quiet	Speech	0:51		65
	Monolog Male in noise	Speech	2:00		65
	Monolog Female in quiet	Speech	1:07		65
	Monolog Female in noise	Speech	1:10		65
	Female "s"	Speech	0:16		65
	Female "sh"	Speech	0:16		65

6. Speech Mapping

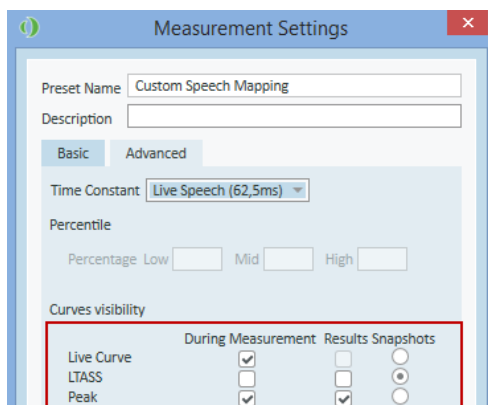
6.1 Disabling Auto-leveling during Measurement

A new option “Lock Stimulus” has been added to the SM Measurement allowing you to manually disable auto-leveling when you perform measurements. This option does not work for REUR, Percentile, Hearing Loss Simulator, and HI Simulator test types.



6.2 Preset the Curve Type for Snapshots

It is now possible to specify the default curve for which the snapshots will be done. A new column “Snapshots” has been added to **Measurement Settings > Advanced**.

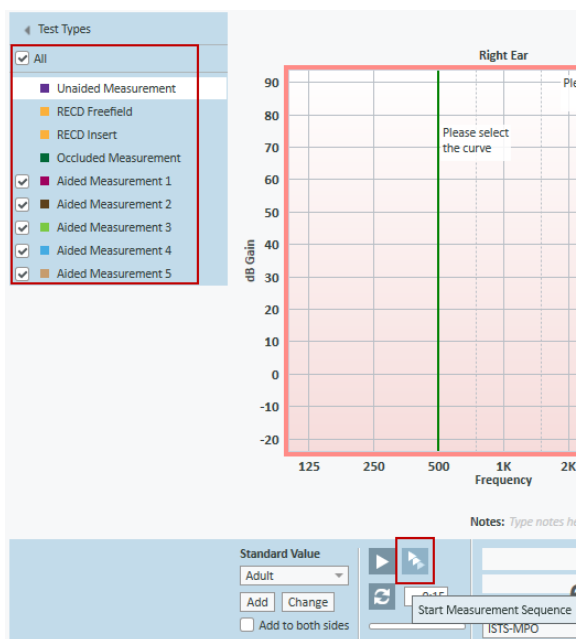


The curve type for snapshots will be also shown in the **Legends** panel.

7. REM/SM/HIT

7.1 Running Aided Tests in Sequence

Instead of running tests one by one, you can select to perform aided tests in sequence. Simply choose the tests and click the new play sequence button.



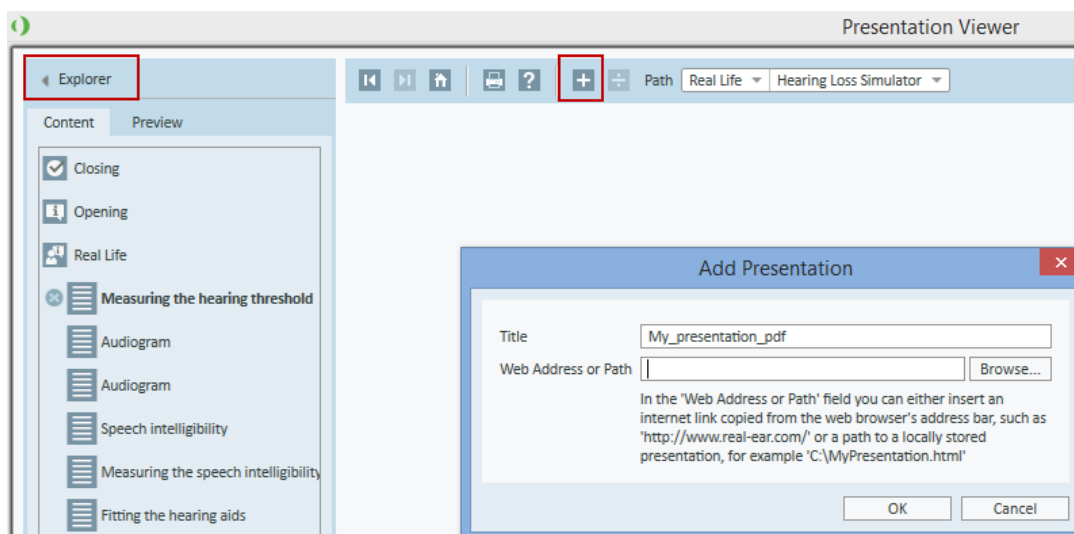
The sequence button has also been added to the On-Top Diagram mode.



8. Counselling

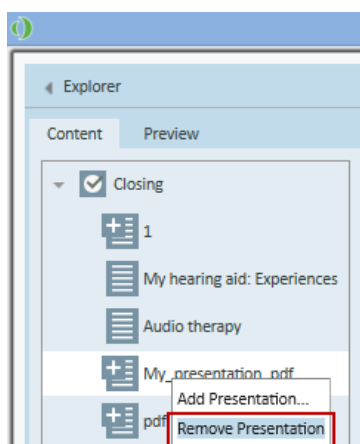
8.1 Add Own Presentations

You can now upload and open any file format (i.e pdf, ppt, doc, etc.) to the counselling module through the **Presentation Viewer** explorer. Click the plus icon in the top bar of the Presentation Viewer to get a pop-up window where you can add a title for your presentation and browse for the file you want to select.



The text and image files will be opened with the default program defined within your operating system, while html files will be opened with the default browser.

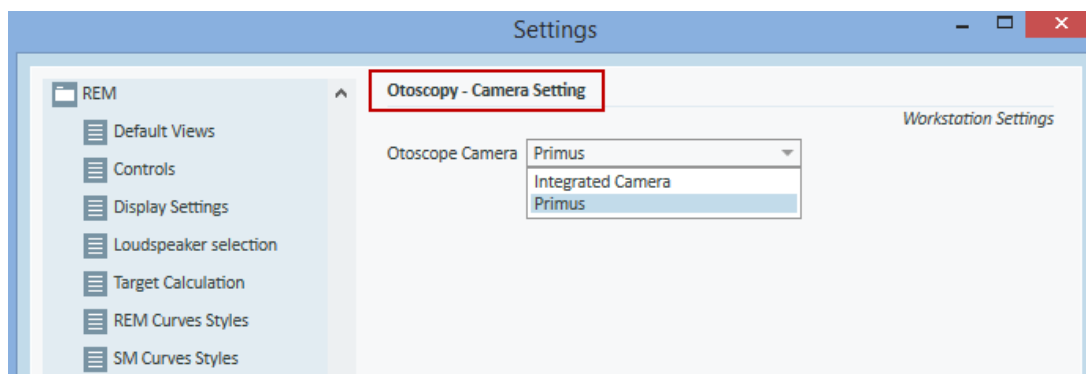
To remove your presentation, right-click the title in the Explorer tab with your mouse and choose **Remove Presentation**.



9. Otoscopy

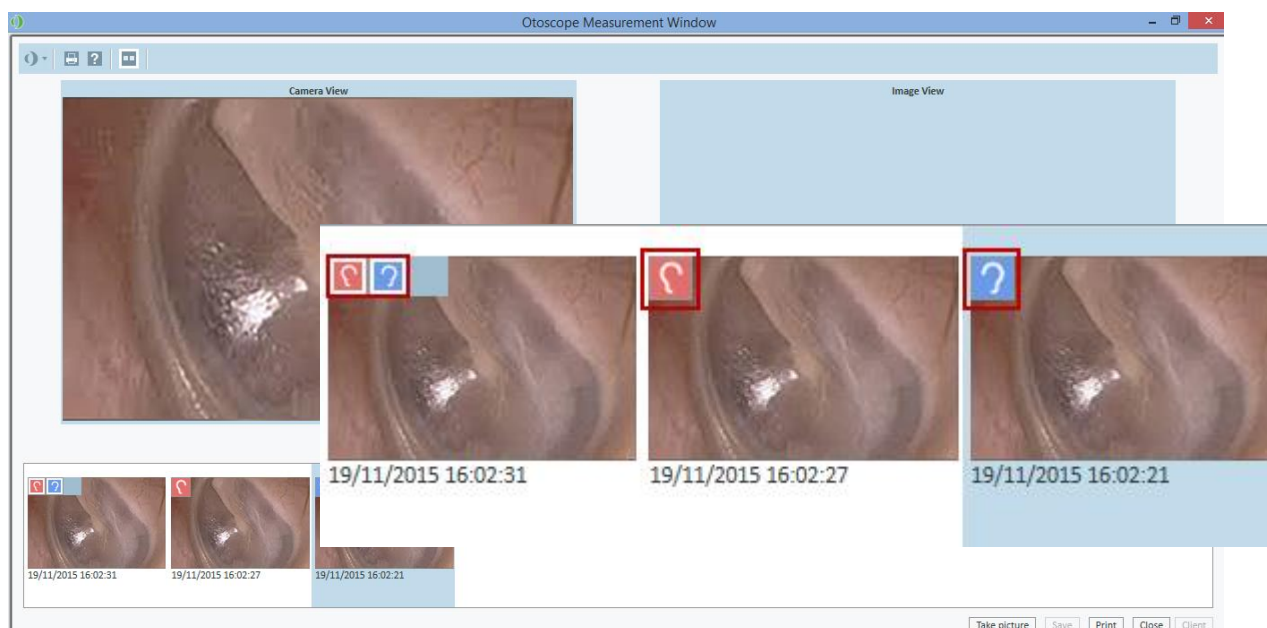
9.1 Supporting Standard Video Cameras

You can now use any standard Windows camera as an otoscope and set this camera to be default for the Otoscopy module. This is done through the **Tools > Settings > Otoscopy > Camera Settings**.



9.2 Mark Ear Side for an Image

After an image has been captured with the otoscope, you can specify the ear side by placing the cursor over the image and selecting the right or left ear icon. Once selected, the icon with the appropriate ear will appear on the image to indicate the ear side.



10. Release Notes 2.4.0.0

This is a mandatory update from the previous version, 2.3.0.0.

This version of the Primus software release contains the following enhancements:

System Wide Enhancements

- Support the Primus Ice audiometer.
- Show/hide modules within Primus.
- Hardware Diagnostic Test.
- **Automatically check for a new version** will work for mandatory updates only.
- **Front Free field line out** changed to **Line Out 1**.
- New transducer **DD65** added.
- New **REM Probe Flex** added.
- Selecting a curve or a point on a graph does not switch the ear sides.
- The number of characters in the Measurement notes have increased to 10000.
- Three new languages were added: Italian, Chinese, and Japanese.
- Fixed an issue on Windows 7 USB 3 to play sound files.
- Operator microphone's sensitivity increased.
- GDT interface added for synchronization of data between Primus and ENT system.

Pure Tone Audiometry

- Articulation Index added.
- The **Single/Dual** view setting is remembered after Primus restarts.
- A few additional fields added to the Audiometry reports.
- New Zealand symbols added (under **Tools > Settings > Audiometry > Pure Tone Curve Styles**).
- Extended range can be activated directly from the message dialog.
- Faster switching of frequency level when stimulus is played.

Speech Audiometry

- Microphone icon is duplicated as a **Mic** tab in the Media Control Panel.
- Conduct three Speech Discrimination Tests and other improvements.
- The last used CD and the Word list are remembered for every test type by default.
- Pressing the client response button lights up the control panel.

Speech Mapping

- The **Smoothing points** setting is automatically hidden when 3 pins per octave is selected.
- Ability to disable auto-leveling during measurement.
- Able to preset the curve type for snapshots.

REM and Speech Mapping

- Speech Intelligibility Index added.
- Probe Tube Calibration follows the selected ear in the Measurement panel.
- ISTS MPO signal is limited to 60 dB in Free Field.
- The ear selected in the Measurement panel is remembered in the Probe tube calibration dialog.
- Gain view range increased from 70 dB to 90 dB.
- Room Equalization is conducted only once if the level and stimulus level remains the same for a test type.
- Able to rearrange the test type order in modules.
- The DSL frequency compression sounds, 's' and 'sh', are added to the Sound library.

- If selected, the **Use Coupler** option is now remembered for every test type.

REM/SM/HIT

- Select and run tests in sequence.

HIT

- Possibility to perform up to 5 measurements per test type.

Counselling

- Add any file format for creating your own presentations.

Otoscopy

- Support of any standard video camera.
- Possibility to mark the ear side for a snapshot in the Otoscope Measurement window.

Supported Languages

- German, French, Polish, Turkish, Danish, Finnish, Spanish, Italian, Chinese, and Japanese.

Dependencies

This version supports NOAH versions 3.7, NOAH 4, or higher.

To use the Primus Panel under AuditBase System, AuditBase version 4.17.01 or higher is required.

Installation

To upgrade to Primus 2.4.0.0:

1. Run the set-up file: Setup_Primus_2_4_0_0.exe.
2. Follow the instructions on the screen and your system will be updated.

11. Support

For further information, please visit www.auditdata.com.