Primus

What's National States of the second second

Auditdata

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1 Introduction

The purpose of this document is to give you an overview of the new features in Primus 4.0.0.

This document gives you a brief description of the most important new features. To get a full list of the enhancements and fixes done in this release, refer to <u>Primus 4.0.0 Release Notes</u>.

2 Audiometry

2.1 Test Definitions

A number of enhancements were introduced to the Test Definition editor. To access it, go to **Tools** > **Test Definitions**.

2.1.1 Minimum point repetitions for threshold

For HTL and BCL test type, it is possible to define the number of point repetitions for identical thresholds. This means that a point can only be stored when the client hears the threshold minimum X times for the same frequency and level.

Editor For Tes	t Definition					>	
General	Frequencies	Curve Styles	Rules M	lasking assistant			
Name HTL Description							
Shortcut	Т	Ξ.					
Stimulus				Masking	Masking	Ŧ	
Sig	nal Type Pure T	one	*	Signal T	ype Narrowband Noise	•	
Tra	nsducer TDH-3	9 [NOT CONNECT	ED] 🔻	Transdu	Icer TDH-39 [NOT CONNECTE	D] 🔻	
Inte	errupter Stimul	i when pressed	Ŧ	Default Level,	, dB 50 - +		
Default	Ear Side Right		~	Masking S	Side Opposite	Ψ.	
Level Preselection Other Settings							
Start L	.evel 30 -	+		Step Level	5 dB	Ŧ	
Reset M	lode No Level F	reselection	~	UCL Limiter	None	•	
Reset Level - +							
Minimur	n point repetitio	ns for threshold]				
Repetitio	ons needed 2	- +					
dB Reset	10	- +					
			-				
					ОК	Cancel	

2.1.2 Rules

In the **Rules** section for all test types in Pure Tone, you can now configure *check of mandatory frequencies, interoctave frequencies* and *consistency*.

Editor For Te	st Definition					×	
General	Frequencies	Curve Styles	Rules	Masking assistant			
Enable mandatory frequencies check							
Check th	hat the following f	requencies are n	neasured: 500	750	✓ 1000		
✓ 1500✓ 8000	0 ✓ 20 0 □ 90] 3000] 10000	✓ 4000☐ 11200	6000 12500		
1400	00 🗌 16	5000					
Consistency check							
UCL	✓ UCL > MCL > HTL ≥ BCL						
Chec	Check that stimulus was played before store						
Enable interoctave frequencies check							
Check ti 💽 750	hat the following f	requencies are n	neasured: 3000	6000	Threshold value	20 dB HL	
					ОК	Cancel	

In the upper part of the window, you can **enable mandatory frequencies check** for a specific test type and select frequencies that must be measured during the test. If a required frequency is not measured, Primus will display a warning message on saving the measurement. Detailed information will also be displayed in the Assistant Panel on the right side.

In **Consistency check**, you can check whether the threshold levels comply with the following rule: UCL > MCL > HTL \geq BCL. Similar to mandatory frequencies check, a warning message in the Assistant Panel is displayed if the rule is not followed.

Check that stimulus was played before store will display a warning message if you store a result without having played a stimulus.

Enable interoctave frequencies check will turn on warnings that interoctave frequencies should be measured if the threshold difference between the 500, 1000, 2000, 4000 and 8000

Hz neighbor frequencies are higher than X (20 dB by default, modifiable in the field Threshold value).

In BCL test definition settings, **Check BC is required on the second ear** will recommend to make a BC measurement on the second ear when certain rule is fulfilled.

2.1.3 Masking Assistant

New automatic masking functionality will instruct you if the threshold level obtained would require masking for the contralateral ear. The new functionality is fully available for Pure Tone. In Speech module, this feature is limited to masking hints.

Editor For Test Definition	×
General Frequencies Curve Styles Rules Masking assistant	
Enable masking hints Enable masking assistant	
 □ Don't show masking assistant when storing ✓ Auto store 	
Minimum inter-aural attraution	
Single value AC 40 dB HL Insert 60 dB HL	
Masking method	
Initial Masking Level: AC(HTL) of non test ear + 10 dB HL	
Masking increment step 5 dB	
ОК Салс	el

Here you can configure the following settings:

- **Enable masking hints** (enabled by default): masking recommendation for a certain frequency will be shown on a diagram and the Masking Assistant panel on the right;

- **Enable masking assistant** (disabled by default): this will enable automatic masking functionality;

- **Don't show masking assistant when storing** (disabled by default): masking assistant will be disabled during measurements but users can start automatic masking for each hint separately

from the Assistant panel afterwards;

- **Auto store** (enabled by default): a point will be stored automatically after the masking algorithm was executed.

You can also configure *Minimum inter-aural attenuation*, *Initial masking level*, *Masking increment step* and (for BCL) Occlusion effect.

2.2 Pure Tone measurement

The measurement settings panel is updated with some new functions.

To access measurement settings, click Show measurement settings icon (\blacksquare) in the top panel.



Play sound in both ears will route single-sided signals to both sides of the monitor headset.

New **Monitoring equalizer** allows users to improve sound quality by fine-tuning specific frequencies. Drag the frequency sliders up or down to increase or decrease the volume of a frequency in dB.



4 Firmware Update

Please note that new transducers will only work with a Fitting unit that runs with a firmware version 3.2.0.0.0247 or higher.

To check your firmware version:

- 1. Start the Audiometer software with the Fitting Unit connected to the PC.
- 2. Go to the **Tool** menu at the top.
- 3. Select Update Firmware.
- 4. Under Audiometer hardware check that **Current firmware version is equal or** higher than 3.2.0.0.0247.
- 5. If your firmware is not up to date, install the newest Audiometer software that will prompt you to install the latest firmware.

NOTE: If you receive a "Sound Booth Cable Connection" dialog box in Audiometer software after connecting a new transducer, it means you are running with an older firmware version that the transducer does not support. Update the firmware following step 5 from the instruction above.

5 Release Notes 4.0.0

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

Supported operating systems

Starting with the version 4.0.0, Primus is fully compatible with Windows 11 OS. Primus is no longer supported on Windows 7.

Primus Cloud Settings

Users now can upload settings, workflows and test types to Primus Cloud from inside Primus. These settings can be used for distribution to other workstations.



Uploading files with settings to the Primus Cloud is easy:

- 1. Go to **Tools** > **Cloud Settings**.
- 2. Select the type(s) of settings you want to export and click **Export to cloud**.
- 3. Enter your login and password for Auditdata Cloud website and click Login.
- 4. The system will inform you that the export was successful.

Informative overlays in REM

New overlay *Threshold Area Shading* was implemented with the aim to improve descriptiveness of an audiogram. In Response view, the area above UCL and below threshold is highlighted in grey for better visibility of the dynamic area of hearing.

Quick SIN

Quick Speech-in-noise test is now available in Spanish.

Print options

There is a new configuration Action date which allows users to print older Pure Tone and Speech audiograms. Users can now print more than one audiogram as well as historical data.

Dependencies

This version supports NOAH versions 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 4.0.0:

- 1. Run the set-up file: Setup_Primus_4_0_0.exe.
- 2. Follow the instructions on the screen and your system will be updated.

6 Support

For further information, please visit <u>www.auditdata.com</u>.