What's New









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1 Introduction

The purpose of this document is to give you an overview of the new features in Primus 3.2.0.0.

Please note this is NOT a mandatory update from the previous version, 3.2.0.0.

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, look at the <u>Release Notes</u> section.

2 License Information

The *License Information* dialog window has been reformatted to contain three tabs:

- Location Information (address details of the office)
- Licenses (available licenses that can either be grouped by Module or by Serial Number)
- **Connected Devices** (all connected transducers, fitting units, HIT unit)

Also, the name of the Audiometry without high-frequency license has been changed to Audiometry STD.

License Information	-		×
Location Info Licenses Connected Devices			
Grouping by Module			
Serial Number Module			
Analytics			
▼ AUD			
▼ REM			
 Comfort Optimizer 			
▼ Kiosk			
Print Import Ent	er Code	Clos	e



3 Audiometry

3.1 Audiometry Reports

High Frequency included in Audiometry Reports

The *Print* option allows printing and saving Audiometry reports for High Frequency Pure Tone Audiograms. You can access this option by clicking the corresponding icon (
) in the Toolbar.

Reports	×
Audiometry Client report SISI report	Audiometry report
 Audiometry report REM REM report Speech Mapping Speech Mapping report 	 Show Social Security Number Show Client ID Show Client name and address Header Image: Weader on top of the report
 HIT HIT report PDF Forms Primus PDF Sample Cloud Forms Muster_15 Form Primus PDF Sample - Copy Primus PDF Sample Hörgeräteversorgung 	Report Data Pure Tone Audiogram Pure Tone Audiogram Range High Frequency Speech Audiogram Graph Tymp Do not show Use for Noah fast data view Comment Save as default
	Preview Print Close

Hide Articulation Index in Audiometry Reports

When not in use, the *Articulation Index (AI)* figures can be hidden from display in Audiometry Reports.

Having called the *Reports window* from the Toolbar, navigate to *Audiometry > Audiometry Report > Report Data*.

From the AI dropdown, select the Hide option.



Reports	×
 Audiometry Client report SISI report Audiometry report REM REM report Speech Mapping Speech Mapping report HIT HIT report PDF Forms Primus PDF Sample Cloud Forms Muster_15 Form Primus PDF Sample - Copy Primus PDF Sample Hörgeräteversorgung 	Audiometry report Client Data Show Social Security Number Show Client ID Show Client name and address Header Image: Comparison of the report Report Data Pure Tone Audiogram Pure Tone Audiogram Speech Audiogram Graph Tymp Do not show v Al Show Use for Noah fast data vie Hide Save as default
	Preview Print Close

3.2 Pure Tone Audiograms

Compare more than TWO older audiograms

Users can compare the current *Pure Tone audiogram* with more than 2 older audiograms that are available from earlier sessions.





Overlays in Pure Tone

The *Overlays* option in *Pure Tone Audiometry* allows selecting **Speech Letters** for different languages.

The Overlay letters that will be displayed on the Audiogram depend on the language settings of the application.



3.3 Measurements and Test Definitions

All Freiburger wordlists are now available for the UCL measurements

When conducting Freiburger tests, it is possible to use all Freiburger wordlists for the UCL measurements.



Image: Second Solution So	
Workflow Audiometry Start + ITL BCL Speech S0T Speech S0D Quick SHI bits • Test Types O × SRT M.M. MCL UCL O × SRT M.M. MCL Image: Control Family	
test Types O × SRT M.M. MocL Ucc. O × S0 So(2) VU	
O × SRT M M. NCL U UCL O × S0(2) O × S0(3) M M indic Binanal - dB HL Level Media Control Panel UCL Score Score Level Microphone Score Score Score Level Microphone Score Score Level Masking	
M M. INCL L _ UCL O × 50 O × 50(3) V0 -20 O × 50(3) V0 SoDA SoDA SoDA SoDA SoDA Binaral - dB HL Level Masking Cottor Danel UCL Score Level Masking Score Level Masking Score Level Masking	
L UCL O × S0 S0 O × S0(3) VU S0(3) -40 Binsoral - dB HL Left - dB HL Level Masking Level Masking McL	
○ × S0(3) × -10 0 10 ◇ × S0(3) -40 -30 -20 -10 0 10 ◇ × S0(3) -40 -30 -20 -10 0 10 ◇ × S0(3) -40 -30 -20 -10 0 10 ◇ × S0(3) -40 -30 -20 -10 0 10 ◇ × S0(3) -40 -30 -20 -10 0 10 ◇ × S0(3) -40 -30 -20 -10 0 10 ◇ × S0(4)	
○ × 50(s) ∨ ∨ -30 -20 -10 0 10 ◇ ⊗ 50.A -30 -20 -10 0 10 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20	
♦ SDA -40 -30 -20 -10 0 10 ♦ SDA > SDA Binaural - dB HL Binaural - dB HL Left - dB HL ♦ SDA Level Masking Level Masking Level Masking Level Masking ♦ Media Control Panel UCL	
O X SDN Right - dB HL Binaural - dB HL Left - dB HL	
♦ SON-A Level Masking Level Masking QS OS Quick SIN SRT	
SOS Quick SIN SST MCL Mclis Control Panel UCL Score Level Masking Score Level Score Level Masking Score Level Masking	
MCL McL UL UL Score Level Masking Score Level Masking Score Level Masking	
Microphone UCL Image: Color Score Level Masking Score Level Masking CD Sound Library SO Sound Library SO Sound Library Soun	
Microphone Score Level Masking Score Level Score Level Masking CD Sound Library SD	
CD Sound Library SD SD	
Disk O Freiburger [1:] - SD(2)	
Word List Gruppe 1 (Zs 0:30 - sc)	
98 Gruppe 1 (Zahlen) 0.30 A	
Gruppe 2 (Zahlen) 0:52 SD-A SD-A	
Gruppe 3 (Zahlen) 0:34 54 Gruppe 4 (Zahlen) 0:34 Score Level S/N Score Level S/N Score Level S/N Score Level S/N	
19 Grupp 5 (Zahlen) 0.35 SDN	
86 Gruppe 6 (Zahlen) 0:34 SDN-A SDN-A	
Gruppe 7 (Zahlen) 0.36 71 Gruppe 8 (Zahlen) 0.35	
Stroppe 9 (Zahleh) 0:35 35 Gruppe 9 (Zahleh) 0:37	
47 Gruppe 10 (Zahlen) 0:37	
Gruppe 1 (Worter) 1:01	
of Gruppe 3 (Works) 1:00	
Gruppe 4 (Worter) 1:03	
Gruppe 5 (Worker) 1.02	
Gruppe (Worker) 1.01 Gruppe 7 (Worker) 1.02	
Gruppe 8 (Worter) 1.02	
Gruppe 9 (Wörter) 1:01 Notes:	
Gruppe LU (Worter) 1:02 * Shurt Blaht TDH-30	
Stop 50 dBHL _ 0% 0/0	
Store Gruppe 1 (Zahlen) 0:30 * V X 3	M

Define minimum level for Automated Tests

In order to speed up the Automated Pure Tone testing, Users can employ the **Minimum Level** (dB) setting in the *Test Definition Editor*. With the Minimum Loudness level defined, the test will stop as soon as the set level is reached.

Editor For Test Definition	×
General Frequencies Curve S	ityles Auto Test
Threshold determination	2 out of 3 ascents v
Initial descending step, dB	15
Initial ascending step, dB	20
Descending step, dB	10
Ascending step, dB	5
Minimum level, dB	20
Fixed-length tone, ms	1000
Randomize tone length between, ms	1000 - 3000
Interval between tone, ms	3000
	OK Cancel



3.4 Speakers and Transducers

Pure Tone measurements with one speaker

It is possible to use ONE speaker to conduct Pure Tone Measurements. This way Masking and Stimuli can be played by the same output device.

Settings						_		×
🗖 General	^	Loudspeak	er selection					_
Network						Worksta	tion Sett	ngs
Common		Pure tone	Free Field Loudspeakers	Ŧ	Right Speaker			Ŧ
Database		Speech	Free Field Loudspeakers	-	Right Speaker			Ŧ
Language		REM	Free Field Loudspeakers	*	Right Speaker			Ŧ
Client Information		SM	Free Field Loudspeakers	~	Right Speaker			Ŧ
Workflow		Percentile	Free Field Loudspeakers		Right Speaker			Ŧ
Measurement		🗌 Play Wir	ndows sounds through speake	rs				
Reporting		Room Ed	qualization in REM					
CD and Media Files Folders								
Key Mapping Manager								
Loudspeaker selection								
Audiometry								
Default Views								
Controls								
Measurement Standard								
PTA/CPT								
Talk Over								
Monitoring								
Speech Measurement								
Normative Curves								
Client Response								
T REM								
Display Settings								
Target Calculation	¥							
						ave	Can	icel

Disable masking in Monitoring

Masking can optionally be disabled in the Monitoring headset via the *Audiometry Monitoring Settings*.



Settings			-		×
🗖 General	^	Audiometry - Monitoring Settings			
Network		Q Disable Maching In Menitoring	Worksta	tion Setti	ings
Common		Usable Masking in Monitoring			
Database					
Language					
Client Information					
Workflow					
Measurement					
Reporting					
CD and Media Files Folders					
Key Mapping Manager					
Loudspeaker selection					
Audiometry					
Default Views					
Controls					
Measurement Standard					
PTA/CPT					
Talk Over					
Monitoring					
Speech Measurement					
Normative Curves					
Client Response					
E REM					
Display Settings					
Target Calculation	~				
			Save	Can	cel

4 REM/SM

4.1 Target Settings

Show target values on REM/SM Audiograms

It is possible to display the Target measurement values on REM/SM Audiograms.

In the *Target window*, the Input Level can be configured to use ONE or THREE target curves built against a chosen value (or values) in dB.

The specified Target value (or values) are now displayed on the Audiogram.



Classic REM Measurement - Current client: John Doe, 1	Measurement Settings X
Test Types All REUG RECD Insert RECD Freefield 90 N	General Fitting Settings Age 69 • Years Months Client Type Adult * Bilateral * Use BCL * Hearing Instrument Description
Occubed Messurement Occubed Messurement Occubed Messurement Reig 65 dB Occubed Messurement Pacific So dB Occubed Messurement Pacific So dB Occubed Messurement Occubed Messurement	August Use the same setup for both ears Right Left HI Name HI S/N HI S/N Stele Vent Size Vent None Compression Speed Fast Compression Speed Fast Target Rule Selection Compression Speed If Use the same setup for both ears Both Default (INAL-NL1) Setup Peak target offset, dB O
Notes:	
► • • • • • • • • • • • • • • • • • • •	Insural OK Cancel
	History Data Clear History Copy to New Create New Print Close Show/Hide Client View

1/2 and 1/3 Gain Targets are now available

Measurement settings in the REM/SM modules have been extended to include 1/2 and 1/3 gain options. To access:

- 1. Go to the **REM/SM module**
- 2. Open the Measurement window
- 3. Click the Target button
- 4. From the dropdown in the Target Rule Selection, choose the corresponding gain rule

Measurement Settings	×
General Fitting Settings Age 14 Vears (a) Months Client Type Paediatric (*) Bilateral (*) Use BCL (*)	Input Level Use one target curve v Input Level 65 - +
Hearing Instrument Description Use the same setup for both ears Right HI Name HI S/N HI Style BTE Vent Size Vent None Compression Speed Fast	Left HI Name HI S/N HI Style Vent Size Compression Speed Fast *
Target Rule Selection Use the same setup for both ears Right Default (1/2 Gain) Default (DSL v5) Default (NAL-NL1) Default (NAL-NL2) Default (1/2 Gain) Default (1/3 Gain) Manual	Left Default (1/3 Gain) - Setup Peak target offset, dB 0 OK Cancel



4.2 On-Top Mode

Switch between Test Types

In the "On Top" mode, it has become possible to switch to a different Test Type.

The **Top** icon (^{IIII}) in the Measurement window in REM/SM modules activates the "On Top" mode where another **Test Type** can be selected.



5 Tympanometry

A new shortcut tab for Tympanometry

The *Key Mapping Manager* in the main Settings has been modified to include the Tympanometry shortcut tab, containing the following quick access options:

- Help (to access the Help manual from the Tympanometry module)
- Print (to print out tympanograms)



ings							- 0
General	^	Key Mapping M	anager				
Network		Pure tor	ne	Speech	Ri	EM	SM
Common		HIT	Ma	in Window	Navigation		Counselling
Database		Otoscop	y	HL/MHA Si	imulation	Ту	mpanometry
Language		Help			F1]
Client Information		Print			Ctrl+P]
Workflow							1
Measurement							
Reporting							
CD and Media Files Folders							
Key Mapping Manager							
Loudspeaker selection							
Audiometry							
Default Views							
Controls							
Measurement Standard							
PTA/CPT							
Talk Over							
Monitoring							
Speech Measurement							
Normative Curves							
Client Response							
REM							
Display Settings							
Target Calculation	~						

Tympanometry graph is shown on the Dashboard

When the Tympanometry Module is enabled, the last available Tympanometry graph is displayed on the dashboard.

File Vie	w Tools Help									
B 🌲	♣ 🖻 ♣ 🖶 💽									
	mp Tymp (23/11/2018) 00088	 Session List 								
23,	/11/2018	23/11/2018	21/03/2019 Sa 9.	22/03/2019 Sa	22/04/2019 Sa	11/10 Sa lu	/2019			
No	t specified	_	~0 %	~0	~0	3 G				
	First visit									
	Otoscopy	Client Data					Audiometry			11/10/2019
1		Client Nun	nber 0000088						Test Type	S I M
		First N	ame Tymp				0-000-0-0	× • • • • •		
	Tympanometry	Last N Date of I	ame Tymp 3irth 23/11/201	1/2018						
			Age 1							
	O Dura Tara	Gel	nder Not specifi	ea			Right	Left	Speech	
	Speech		City				2 Real Far Moar	uramont		11/10/2010
		Post C Phone H	ode ome				32 Real Car Weas	urement		11/10/2019
	Hearing Loss Simulat									
	Master Hearing Aid	Otoscope					29			
	REUG						Right	Left	Ba	ase Audiogram
51	REIG 80 dB						ing it.	Len		Se Madrogram
	O Course Manualiza						lill Speech Mappi	ng		11/10/2019
lu	Noise Reduction	Disht	1-4							
	Speech in noise	*	Leit						9 999 9 1	+
	OSPL90						~			
	Full-on Gain Fraguency Perponse									
	 Frequency Response 	*					Right	Left	Base Audiogra	am
							🖳 Tympanometr	y		
									7	
							Right	Left		



6 Integration with Auditbase

Auditbase panel supports Primus Automated testing

Users can run Automated Audiometry tests with the Auditbase panel without the need to start the Primus module.

To do a hearing test in Auditbase, call the *Primus Control Panel* by clicking the **Measure button** and select the **Automated test type** from the respective dropdown.

)) A	uditbase - (AB Audio	gram - new	Device co	nnected]														-		×
File	View	Func	tions																		
Detail	ed Quick	New	Open	Open la	test Sa	Ne Prop	erties	Print	Print	small) lata l	Export data	Export	to Noah	Log off	Exit A	uditbase			
Search Audiogram Print Import/Export Client data Exit																					
🗳 CI	ient <x></x>	FIRST EX	CTRA MORE	ELAST			• 8	Σ 🖻 ι	Jser	Yan	a Byalkiv	ska		All locati	ons	-	All dep	artments	5	- 0	0
Naviga	ntion vourites []] Medica E] Journa	l history	* *	125 0 10 20	250 5	00 1000	2000	4000	8000	SRT	DS C	SN 100 90 80		Measur L Symbo		• -10 t 0 0 10 20	25 250	500	1000	2000	4000
Primus Control Panel X OPure Tone Speech Test Types HTL Change																					
Indi	Step Level 5 dB Extend Range	- ed	Stimul Store No Resp	lus e onse	HTL MCL UCL BCL FF FF-A	D	dBH	L	Right Ti + - -	DH-39	(NC) 1	000) Hz		-	? ¥	?	2	Mask	ting	
Status 🔿 Automated AUD PFU+ HW: Connected 🍁																					

Functional Level Preselection

The Primus integration with Auditbase features fully functional *Level Preselection* functionality for **Pure Tone measurements** in the **Audiogram module**.

Relative Reset mode now works as expected, enabling Users to configure relative points on the Audiogram depending on the Client's response to stimuli.





7 Further Improvements

Export new Test Parameters

When exporting Speech and Audiometry tests parameters to an XML file, it is now possible to include **Test Type Name** and **Description** for each exported measurement.

HF output supports standard Transducer

The standard AC (air conductor) transducer can be plugged into the High Frequency output. When connected so, it works as a standard (not a high-frequency) transducer.

Straightforward configuration of network settings

In the current Release, it has become easier to configure network settings. The need to create a separate Network Profile has been eliminated. Users can just export their current settings to an XML file and share it via the network.

Setting Profiles							
Management of User Setting Profiles							
Present Profiles							
adm	Create New Profile						
admin	Copy profile						
BY	Delete profile						
DI							
NETWORK PROFILE							
SYSADM							
(current)							
	Import Settings						
	Export Settings						
	Close						

Primus Cloud CD Schemas/Files

Speech materials (*wav files*) and CD schemas (*XML files defining the structure of the CD*) can now be managed from the Auditdata cloud. When activating the *Cloud CD Folder* option in the General Settings, users obtain access to the custom media files stored in a central location.



Settings			_	\Box \times					
General	^ (D and Media Files Folders							
Network		Workst							
Common	0								
Database		Name Path							
Language		Swedish HINT C:\ProgramData\Real Ear\Primus\Cloud CD File	2s\Swedish	Edit					
Client Information				Remove					
Workflow	Cust	om Media Files Folder X							
Measurement	Na	DP Swedish HINT							
Reporting		Cloud CD Folder							
CD and Media Files Folders	Fol	er Path C:\ProgramData\Real Ear\Primus\C							
Key Mapping Manager	CD	Scheme Swedish HINT cd CLOUD	>						
Loudspeaker selection		Calibrate							
audiometry									
Default Views		OK Cancel							
Controls									
Measurement Standard									
PTA/CPT									
Talk Over									
Monitoring									
Speech Measurement									
Normative Curves									
Client Response									
REM									
Display Settings									
Target Calculation	~								
			Save	Cancel					
			Save	Cancel					

Hardware Self-Test in Primus Cloud

Asset Management functionality in Primus Cloud now allows storing Hardware Diagnostic Test files.

With the activated Analytics license, users are able to access the results of their hardware testing via *Asset Management > Units > Details*.

Auditdata Cloud		Asset Managemen	t Analytics	Primus Admini	stration	Screener	୍ବ ହ	Administrator
Asset Management > Units > PFU+								
Hardware Self Test Results								
Date ~	Serial Number	~	Hardware Type	~	Status	Ý	Details	
27 Jan 2020 13:08	21000551		PFU+		ОК		đ	
		Hardware Self Test Result Dar: 27 Jan 2020 1308 Hedware: PPU Souther: 07 Daries Montanie: 18 Montanie: 18 Al Conductor 1 Al Conductor 1 Al Conductor 2 Al Conductor 2 Al Conductor 3 Line 0.1 Line 0.1 Line 0.2 Line 0.3 Pre: Field Infl. Pre: Field Infl.	OK OK OK Net Tested Net Tested Net Tested Net Tested Net Tested Net Tested OK	Inputs REM Probe Option Microphone Left Operator Microphone Table Back Microphone Table Back Microphone	Not Te hot Te hot Te	C C C C C C C C C C C C C C C C C C C		
								Cookies Policy



Open External Files in the Workflow

The "Open external link" option has been added to the Workflow settings. This enables users to include links to files, websites or presentations that can become easily accessible during a conversation with a Client.

Editor For Work	flow Step	×
Name	Presentation	
External link	https://www.asha.org/uploadedFiles/Understanding-Hearing-Loss-Presentation.pdf	
Duration	0 Minutes	
Step Type	Open external link	Ŧ
	ОК	Cancel

8 Release Notes 3.2.0.0

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

License Information

- The license information menu has been reformatted
- "Audiometry without high-frequency" license has been renamed to "Audiometry STD"

Audiometry

- High Frequency Pure Tone Audiograms can be included in Audiometry Reports
- Articulation Index can be hidden in Audiometry Reports
- More than TWO older audiograms can be compared in Pure Tone
- Overlay Speech Letters are supported for different languages
- All Freiburger wordlists are now available for the UCL measurements
- Minimum level can be defined for Automated Tests
- Pure Tone measurements can be done with one speaker
- Masking in the Monitory Headsets can be disabled

REM/SM

• Target level can be shown in REM/SM Audiograms



• 1/2 and 1/3 gain targets are now available

Tympanometry

- A shortcut tab has been added for Tympanometry in the Key Mapping Manager
- The last Tympanometry graph is shown on the Dashboard

Auditbase Integration

- Auditbase panel supports Primus Automated testing
- Level Preselection for Pure Tone measurements in the Audiogram module is now fully functional

Further Improvements

- Straightforward configuration of network settings
- New Test Parameters (Name and Description) can be exported to XML
- HF output can be used for standard AC Transducers
- Speech materials (wav files and CD schemas) can be managed from the Cloud
- Hardware Self-Test results are now accessible from Primus Cloud
- External files can be added to Workflows by configuring the "Open External Link" step type

Supported Languages

• English, German, French, Polish, Turkish, Danish, Finnish, Spanish, Italian, Hungarian, Chinese, Korean and Japanese.

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 3.2:

- 1. Run the set-up file: Setup_Primus_3_2_0_0.exe.
- 2. Follow the instructions on the screen and your system will be updated.

9 Support

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