Version 2.2

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Programming in Vista: fit software

This guide will lead you through the steps of fitting hearing instruments using Vista:fit fitting software. Some screens or features described in this software instruction guide may not be available with all products. Prior to detecting the hearing instrument(s), choose your desired programming interface:

- If using iCube, insert batteries into the hearing instruments and close the batterydoor. Place hearing instruments on your client's ears and place the iCube around your client's neck or place the hearing instruments inside the iCube neck loop.
- If using NOAHlink or HI-PRO with BTE or RIC hearing instruments, open thebattery door and insert the programming cable into the programming port.

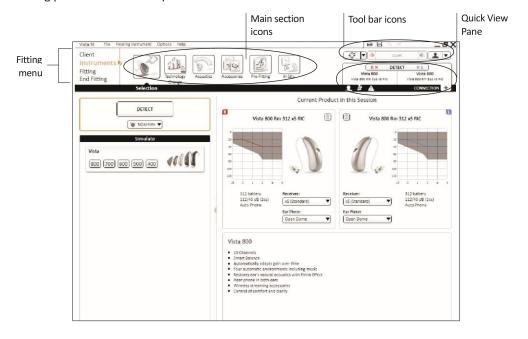
 Connect the other end of the cable to the NOAHlink or HI-PRO.
- If using NOAHlink or HI-PRO with ITE hearing instruments, remove the batterydoor and insert the programming cable. Connect the other end of the cable to the NOAHlink or HI-PRO.

Note: Hearing instrument controls, accessories, Auto Phone, Auto DAI, audio streaming, and automatic microphone options are deactivated during programming.

Note: BTE and RIC hearing instruments are initially quick fit to a 40 dB HL flat hearing loss configured for the left ear upon shipping. ITE hearing instruments are quick fit to the client's audiogram if supplied; otherwise, the devices are quick fit to a 40 dB HL flat hearing loss.

Note: For IIC products or 10A custom products, ensure you are using the white programming cable to avoid damaging the hearing instrument.

When you are ready to program your hearing instruments in Vista:fit, certain sections of the screen (Main Menu, Tool Bar, Quick View Pane) will remain constant during the fitting process. Brief descriptions of these sections are found below.



Main menu

The main menu is available at the top of each screen and consists of these options:

File

- Import client: imports previously exported Vista: fit client data. After selecting
 this option, the fitter must select the source file location from the provided
 window.
- Export client: exports Vista:fit client data from the software. After selecting this option, the fitter must choose the destination and name of the exported file. Export options include:
- Export all clients: exports all client files from the Vista: fit database
- Export anonymously: removes client name from the exported file and assigns an 'anonymous' file name identifier.
- Export to NOAH: exports client file in a format that can be imported into NOAH.
- Print: opens a window that shows the documents available such as the Fitting
 Reports and the Getting Started Guides (hearing instruments and accessories, if
 applicable). The client's language for the Getting Started Guides can be selected.
 The selected documents can be previewed, printed or saved from this window.
- Save: saves the current fitting information. Choose from Save to hearing
 instrument, Save to database, or Save to accessories (if accessory added to
 fitting).
- Close Vista:fit: exits the software application. You will be prompted to save your fitting information if you have not done so before closing Vista:fit.

Hearing Instrument

- Save: saves the current fitting information. Choose from Save to hearing
 instrument, Save to database, or Save to accessories (if accessory added to
 fitting).
- Test Mode: sets the hearing instrument into a test mode so you can compare the
 electroacoustic performance of the device to the published ANSI / IEC specification
 data sheets.
- **Verification Mode**: sets the hearing instrument into a verification mode to allow testing without the interference of adaptive features. There are 3 options:
- Adaptive features active: default state.
- Real Ear Verification: all adaptive features are disabled except for Natural Sound and input selection.
- 2cc Coupler Verification: all adaptive features and input selection are disabled.
- HI Update: checks if newer functionality is available for the connected hearing
 instrument. If an update is available, the instrument maintains its fine tuning and
 new features become enabled.
 - Note: It is recommended to use NOAHlink or HI-PRO when running HI Update.
- HI Repair / Reset: opens a wizard to reset the firmware of a hearing instrument.
 Only use this when directed by an error message. If this was not successful, please try again before sending the hearing instrument back to your distributor. The client record stored in the database will not be affected.

Note: It is recommended to use NOAHlink or HI-PRO when running HI Repair / Reset.

• **Transfer Fitting**: provides instructions on how to transfer a fitting to or from another hearing instrument.

Options

 Preferences: generates the user preferences dialog box with the following options:

General:

- Language: select the preferred language for text and sound files.
- Presentation: select your preferred level of animations.
- Support: generate Vista:fit logging information for support.
- Activate Select: enter code here to enable Activate Select functionality. Choose the appropriate trial period defaults.

Fitting Session:

- Diagnostics: choose the preferred bone conduction symbol and view/adjust the DSL v5 ABR nHL to eHL correction values.
- Fitting: indicate if the speech verification graph option will be available from the
 curve display options on the Pre Fitting screen. Choose whether to enable
 password protection to keep fitting information confidential. Following
 activation of this option, the fitter can insert their desired password into the
 software. If the Vista:fit software version being used by the fitter does not have
 the same password as the one saved to the hearing instrument, the fitter will be
 required to enter the correct code to proceed with the fitting.
 Note: Password protection prevents reading of information from a hearing instrument
 - Note: Password protection prevents reading of information from a hearing instrument but does not prevent a fitter from creating a new fitting on that same device.
- Presentation: select the preferred tuning values display (absolute or relative); select visibility options for CR values; hide or show preparation instructions for the feedback wizard and the in situ test wizard; select whether or not the pediatric fitting mode recommendation pop-up box is displayed; and choose whether or not to maintain the aspect ratio of graphs.
- Pediatric Modes: View and / or edit the fitting mode defaults for various
 pediatric age ranges using the provided tables. Modify aspects related to fitting
 formula, global parameters, hearing instrument options, program settings, and
 program options.
- Standard Mode: View and / or edit the fitting mode defaults for standard mode (adults) using the provided tables. Modify aspects related to fitting formula, global parameters, hearing instrument options, program settings, and program options.

Reports:

• **Graphs**: select the preferred graph type: Output or Gain. For the Output graph type, choose from: HL, SPL Real Ear, SPL 2cc, SPL Ear Simulator. For the Gain graph type, choose from: 2cc, Ear Simulator, Real Ear, Insertion Gain.

Fitting Device:

- **Communication**: fitting device management selects whether the fitting device is accessible by other programs while using Vista:fit.
- NOAHlink: enable/disable the NOAHlink, perform a system check, configure properties, or start the pairing wizard.

- HI-PRO: enable/disable the HI-PRO, perform a system check or configure.
- iCube: enable/disable the iCube, perform a system check via USB or wireless connection, upgrade iCube firmware, or start the iCube pairing wizard.

Sound System:

- Sound Output: select either stereo speaker or Aurical.
- Calibration: calibrate to ensure media player sound files are presented at the
 correct level. Manual calibration uses a sound level meter. Play the calibration
 noise and adjust the Vista:fit volume slider and/or Windows volume slider until
 you measure 80 dB (A) at the listening position (where the client will sit). For
 Automatic calibration start the calibration wizard. This process uses the hearing
 instrument to measure and adjust the sound level.
- iCube Configuration: opens the iCube configuration section in Preferences. The screen provides ability to enable/disable the iCube, perform a system check via USB or wireless connection, upgrade iCube firmware or start the iCube pairing wizard (i.e., add an iCube).
- Accessory Firmware Update: opens a dialog box used to update uDirect[™] devices and remote controls. The accessory must be connected to the computer using an USB cable. After detecting the device, Vista:fit will offer available firmware updates.

Help

- Support:
- **Generate Support Package**: produces a .zip file with relevant support information that can be sent to customer support, for troubleshooting purposes.
- **Homologation Settings**: sets the hearing instrument into a test mode used for certification of product parameters.
- Export Client for Support: exports client data from the software for support/troubleshooting purposes.
- **Register with NOAH**: registers Vista: fit with NOAH if it did not automatically get registered.
- Unregister from NOAH: unregisters Vista:fit from NOAH.
- About DSL v5: generates a dialog box displaying notices related to the DSL v5 formula.
- About Vista:fit: generates a dialog box displaying the software version and copyright notices.

Tool bar icons

There are tool bar icons available at the top of each screen.

The tool bar icons beside the Main Menu are:



Print icon: opens a window that shows the documents available such as the Fitting Reports and the Getting Started Guides (hearing instruments and accessories, if applicable). The client's language for the Getting Started Guides can be selected. The selected documents can be previewed, printed or saved from this window.



Save icon: saves the current fitting information. Choose from Save to hearing instrument, Save to database, Save to accessories (if accessory added to fitting).

 $lack ext{ Undo:} ext{ Undo:}$ undoes an action that was made in the fitting software. Undo is available within some tasks but the list of items to be undone will not carry over across tasks.



Redo: redoes an action that was just undone.

The tool bar icons above the Quick View Pane are:



Quick Fit: quick fits the hearing instrument parameters based on the option selected in the Recalculate menu. The Recalculate menu is accessed with the drop-down arrow beside the Quick Fit icon. It provides the following options for the right, left or both hearing instruments:

- Use Audiological and Acoustic Data: adjusts the hearing instrument response to account for change made on the Audiogram, RECD, REUG, Selection or Acoustics screens
- Reset frequency response
- · Reset adaptive features
- · Reset tinnitus masker fine tuning

Note: Only available if the product has the tinnitus masker feature.

• Discard current fitting and start over: resets hearing instrument(s) to default settings

Note: Quick Fit icon will highlight when a quick fit is recommended during the fitting.



Mute / unmute icons: indicates the current state of the hearing instrument(s): muted or unmuted. Mute / unmute can be selected individually for each device or binaurally by clicking the centre of the button. The centre of the button also lists the currently active environment for the hearing instrument(s).



Fitting Mode icons: Fitting mode is designed to efficiently provide ageappropriate hearing aid settings based on the unique fitting needs of children versus adults. When client information is entered and the age is 18 years or less, Vista:fit will automatically prompt the fitter to select the appropriate fitting mode option via a pop-up window. The recommended fitting mode will be the one that corresponds to the client's age. Age ranges are:

- 0 to 4 years
- 5 to 8 years
- 9 to 18 years

• Standard fitting mode (default for 18+ years)

The current fitting mode is indicated on the button above the Quick View Pane at the top right hand side of the screen at all times. The fitting mode can be changed by clicking on the button and selecting the desired setting from the drop-down box (In the main menu, see Options > Preferences > Fitting Session > Pediatric Modes table to view and / or edit fitting mode defaults.)

Ouick View Pane

The Quick View Pane is a multi-tab panel in the upper right of the Vista: fit screen that provides useful information on the current status of the hearing instrument fitting. Each tab can be expanded by clicking on the plus sign to view additional details relating to that section.

The various tabs serve different purposes:



Provides the client's name, number, last audiogram date, hearing instrument type and accessories. Clicking on the plus sign also provides access to more information on the hearing instruments, date of birth, and an area for note entry.

Connection tab



Lists current hearing instrument(s) along with the current connection status for each ear. An X icon next to the associated side (R or L) indicates the device is not connected, while a checkmark indicates the device is connected. If the connection is lost at any point, click the Detect bar on the Connection tab to reconnect. Click the plus sign to expand the Connection tab where you can see more options such as:

- Selecting the desired programming interface (NOAHlink, iCube or HI-PRO)
- Viewing the serial numbers
- Quick access to print Getting Started Guides
- Status of the Automatic Adaptation Manager including progress since the last fitting session, with a link to jump to the Adaptation Manager task
- Summary of data logging from the hearing instrument, with a link to jump to the Data Logging screen
- A link to jump to the Soft / Mod / Loud Controls

The Connection tab will automatically open after detecting hearing aids for a follow-up fitting. If you would prefer not to have the Connection tab open automatically, you can uncheck this option at the bottom of the expanded Connection tab.

Note: HI-PRO refers to the original HI-PRO, USB HI-PRO and HI-PRO 2. The HI-PRO that is actually used is configured using the HI-PRO configuration tool.

Alerts tab



Provides fitting help and alert messages during the fitting. A yellow-highlighted alerts tab appears momentarily to inform you of items that could impact your fitting should a fitter action result in the need to modify the hearing instrument (e.g., quick fit) or affect another software screen (e.g., program removal changes program toggle on remote control). Clicking the plus sign provides a list of all help and alert messages that have occurred during the current fitting. The alert messages are tally removed

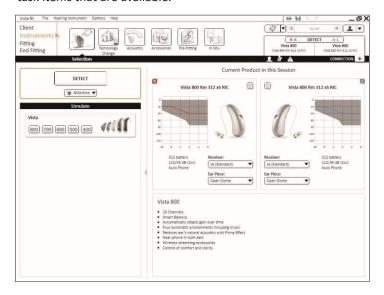
after being addressed during the fitting, after closing a session or via the remove icon on the alert tab.

Fitting menu overview

Contains the main categories of a fitting: Client, Instruments, Fitting and End Fitting. The main section icons beside the fitting menu will change based on which fitting menu category is selected. For example, under Client, the main section icons are: Information, Experience Level, Audiogram, RECD, REUG. Details of each of these different sections are included in this software instruction guide.

Task navigation

Once you have opened a task (e.g., Phase Canceller, Pulse Protector) by clicking the icon, you can move to your next task by either clicking the \mathbf{x} icon on the header of that box, or by clicking directly on a different task. On some screen resolutions, you may need to use the navigation arrows along the bottom of the screen to scroll along and view the various task items that are available.



Curve display options

On any screen displaying a graph, you can change the items shown by clicking the **curve display** icon above the upper right graph. Adjustments made here are applied to both the left and right graphs.

Depending on the section of the software, the fitter will have the option of choosing:

- Gain: insertion gain, real-ear, 2cc or ear simulator. Also, option of showing feedback threshold obtained during the feedback test.
- Output: HL real-ear, SPL real-ear, SPL 2cc or SPL ear simulator. Also, option of showing HTL (hearing threshold) and UCL (uncomfortable loudness) data.
- Input / Output: SPL real ear, SPL 2cc or SPL ear simulator, each available at .5, 1, 2, 4, 6, 8 kHz
- · Audiogram: displays current audiogram used in software
- Show target: displays the target curve for the current view
- Show calculated response: displays the original quick fitted hearing instrument response for the current view
- Verification graph: (available in Pre-Fitting screen only if selected under Options > Preferences > Fitting Session > Fitting) displays hearing instrument response and target curves based on speech inputs at 50 / 65 / 80 dB SPL.
 Fitter has option of showing curves in gain (insertion gain; 2cc coupler) or output (SPL real-ear)

Note: When the mouse cursor is positioned over items on the graph, a legend appears providing further details related to that item.

Client menu





Information

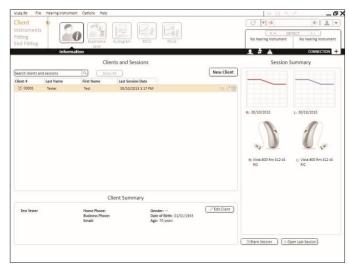
When running Vista: fit under NOAH, the Information screen is primarily for reference.

When running the Vista: fit standalone version, the Client > Information screen is the interface with the client database.

To enter a new client in standalone:

- 1. Click on the New Client button.
- 2. Enter the client information in the appropriate fields. The minimum required information is indicated with an asterisk (*).

Note: The client's gender will impact the prescription aenerated by NAL-NL2; client's date of birth will impact the Automatic Adaptation Manager setting, the recommended fitting mode, and the default values assumed for acoustic transforms (e.g., RECDs).



- Click Save. A Client Summary table at the bottom of the screen will be populated with the client information and the client will be visible in the Clients and Sessions table.
- 4. Click on the **Blank Session** icon or button to start a new session for the client.

To edit client information in the future, click on the **Edit Client** button in the summary area, or click on the edit icon in the Clients and Sessions table.

To find client information in the database:

- 1. Type the client name and/or session information into the search field.
- 2. Click the **Search** icon. A list of client records matching the search criteria is displayed in the table. The list may be sorted by clicking the column headings.

To create a fresh session for the client containing no previous audiometric or fitting information, click on the **Blank Session** icon.

In the Clients and Sessions table:

- Double clicking on a client will open the last session for that client or if the client does not have any sessions it will open a blank session.
- You can delete a specific client by clicking on the client and then clicking the Delete Client icon. m
- For each client you can view all of their session information by clicking on the chevrons to the left of the client number.
- You can open a specific session by clicking on that session and then clicking the **Open Session**button or icon.
- You can delete a specific session by clicking on the session and then clicking the **Delete Session**icon.

• You can create a blank session for a client by clicking on the client information and then clicking **Blank Session** icon.

Experience Level

Select the client's experience level with hearing instruments. Choose from:

i. First Time ii. Short Term / Part Time iii.

Long Term

Note: The selected experience level with hearing instruments will impact the Quick Fit for the Automatic Adaptation Manager.

Note: Be sure to Quick Fit after changing the Experience Level.

Audiogram

When running Vista:fit under NOAH, the audiogram screen is primarily for reference. The transducer used for audiometry and the tinnitus match sections are used as described below. To enter or change all other audiometric information, use the NOAH audiogram module.

When running the Vista:fit standalone version, the audiogram screen provides the ability to enter the client's audiometric test results.

Select the transducer used for audiometry from the dropdown menu. Choose from:
Headphones, Insert earphones, Custom earpiece (earmold); Loudspeaker
(0, 45, or 90 degrees azimuth); ABR insert earphones (eHL or nHL); ABR custom earmold (eHL or nHL).

Note: ABR eHL and ABR nHL data is only used with the DSL v5 fitting formula.

To complete the audiogram, enter the data for the appropriate ear by clicking on the graph. Right clicking the graph provides the option to: Set point, Remove point, Remove all points or Copy (all curves) or Copy selected curve to the other ear. In addition, right clicking provides the option of specifying the measurement type for each data point; choose from: Unmasked, No response, Unmeasurable, Masked, Masked and no response or Masked and unmeasurable.

To enter air conduction data, click on the AC button.

To enter bone conduction data, click on the BC button.

To enter uncomfortable loudness level data, click on the UCL button.

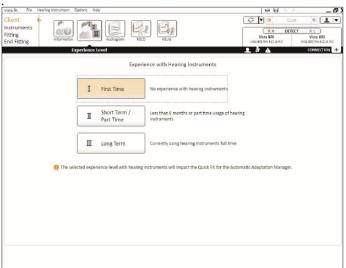
Note: NAL-NL1 and NAL-NL2 do not use UCL data for target generation.

To copy the entered curve from one ear to the next, click on the arrow icons above the graph for the respective ear.

To delete all of the curves on the audiogram, click on the Remove (**Delete**) will icon.

Click on Use Audiogram to use the Audiogram for fitting formula targets.

Click on Use In Situ to use the measured In Situ data for fitting formula targets.





Note: In cases where an In Situ measurement was previously conducted, you will see this information faded in the background behind the standard audiogram data when *Use Audiogram* is selected.

If desired, speech sounds and common sound icons can be displayed on the audiogram for counseling purposes by selecting the check box for the desired information.

Measured Tinnitus Match information can be entered at the bottom of the Audiogram screen.

To enter tinnitus pitch match frequency, type in the value directly or choose a desired frequency via the dropdown box.

Note: The entered frequency must be between 125 Hz and 16000 Hz.

To enter the corresponding tinnitus loudness level (in dB Sensation Level i.e., number of dB above threshold at the pitch match frequency), type in the value directly or choose a desired dB SL value via the dropdown box. *Note:* The entered level must be between 0 and 20 dB SL.

Note: Tinnitus match information is only used in the pre-calculation of the tinnitus masker noise.

RECD

This screen provides the option to enter real-earto-coupler difference (RECD) values. If RECD values have not been measured, age-appropriate average values generated by the selected fitting formula will be used for the quick fit calculation.

To complete the RECD screen, enter the data for the appropriate ear by clicking on the graph. Right clicking on the graph also provides the option to: **Set Point, Remove Point, Remove all points** or **Copy** to the other ear.

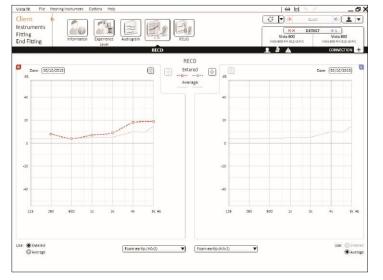
To copy the entered curve from one ear to the other, click on the arrow icons above the graph for the respective ear. To remove the curve, click on the Remove (**Delete**) icon.

Select the earpiece used during the measurement from the drop-down menu; choose from: **Custom earmold vented**, **Custom earmold occluded** or **Foam eartip**. Vista:fit will default to the appropriate 2cc coupler reference.

Click on **Use Entered** to use the RECD data entered into the graph as the basis of fitting formula targets.

Click on $Use\ Average\ to\ use\ age\ appropriate\ average\ RECD\ values\ as\ the\ basis\ of\ fitting\ formula\ targets.$

Note: If a hearing instrument is already selected a grey curve will appear on the RECD graph. This grey curve represents the average data for the client's age and earpiece condition.



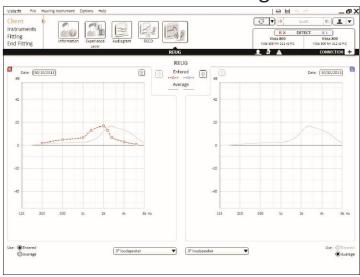
REUG

This screen provides the option to enter real-ear unaided gain (REUG) values. If REUG values have not been measured, age-appropriate average values generated by the selected fitting formula will be used for the quick fit calculation.

To complete the REUG screen, enter the data for the appropriate ear by clicking on the graph. Right clicking on the graph also provides the option to:

Set Point, Remove Point, Remove all points or Copy to the other ear.

To copy the entered curve from one ear to the other, click on the arrow icons above the graph for the respective ear. To remove the current curve, click on the Remove (**Delete**) is icon.



Select the sound field speaker location used during the measurement from the drop-down menu, choose from: 0 degrees, 45 degrees or 90 degrees azimuth.

Click on **Use Entered** to use the REUG data entered into the graph as the basis of fitting formula targets. Click on **Use Average** to use age appropriate average REUG values as the basis of fitting formula targets.

Note: If a hearing instrument is already selected a grey curve will appear on the REUG graph. This grey curve represents the average data for the client's age and speaker location.

Instruments menu





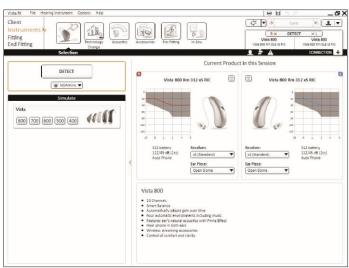
Selection

The Selection screen provides the option to either detect or simulate a hearing instrument fitting.

Detect hearing instrument(s):

- 1. Choose the desired programming interface from the drop-down menu. Choose iCube, NOAHlink or HI-PRO. Note: If usina iCube for the first time, vou will need to configure the iCube. From the top menu, select Options > iCube Configuration and follow the on-screen instructions. Note: HI-PRO refers to the original HI-PRO, USB HI-PRO and HI-PRO 2. The HI-PRO that is actually used is configured using the HI-PRO configuration tool.
- 2. Click the **Detect** button to perform a binaural detection.

Note: BTE and RIC fittings using iCube may need to be assigned to a side (right or left). Select the **Play beep** button in the Detection dialog window to confirm the side assigned to each instrument.



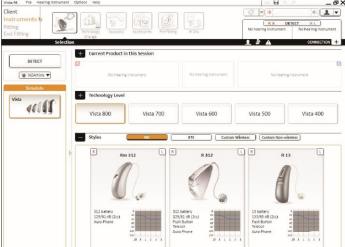
- 3. In cases where the data in the hearing instrument differs from that stored in the software:
 - Click Use fitting from hearing instrument to use data stored in the hearing instrument (including any data logging / learning information).
 - Click **Use fitting from this session** to use data stored in the software.
 - Click Create new fitting to setup the hearing instrument using software defaults.

The hearing instrument model, style, matrix and serial number are displayed after detection along with the audiogram and fitting range for each side. In addition, the communication status is updated on the Connection tab of the Quick View Pane (upper right corner of screen). For most product styles, you will also have a couple of acoustic options that you can select here or you can go to the full list under Instruments > Acoustics. Any changes made here will also be updated on the Instruments > Acoustics screen.

Simulate hearing instrument(s):

- 1. Click the button for your desired product line in the hearing instrument simulation section on the left hand side of the screen. If you know what technology level you want, you can also click directly on the technology level button within the product line button to skip step 2.
- Click on the desired technology level. To see more information about the different technology levels, click on the + sign beside the Technology Level title to view a feature comparison.
- 3. Select the desired style for that product line and technology level. To see more information about each style, click on the + sign beside the Styles title. Note: When selecting a product style for simulation, clicking the centre of the button performs a binaural selection, while clicking the **R** or **L** buttons performs a monaural selection.

At the top of the screen, under Current Product in this Session, you can see a summary of the products you have selected. For most product styles, you will also have a couple of acoustic options that you can select here or you can go to the full list under Instruments > Acoustics. Any changes made here will also be updated on the Instruments > Acoustics screen. Furthermore, if you wish to detect a product while on the simulation screen, select the desired programming interface from the drop-down menu in the upper left column of the screen, and then click **Detect**. The process will follow the steps outlined above in the *Detect hearing instruments* section of this guide.





Technology Change

Select the **Technology Change** screen to access the buttons used to change the technology level of a hearing instrument. With trial devices, the fitter can select from one of the displayed technology levels. Clicking on one of the technology level buttons will launch the Change Technology Level wizard. Follow the on-screen instructions to change the technology level of the connected hearing instruments.

One of the steps in the wizard will provide the following options: • Transfer fitting

Create new fitting

If you select Transfer fitting, then the program structure, frequency response, acoustics,

Automatic Adaptation Manager status and accessories in the current client session will be transferred to the hearing instruments after the technology level change is complete. If you select Create new fitting, then after the technology level change is completed, the HIs will be set to the recommended defaults. Select your desired option and continue through the steps in the wizard.

Following completion of the technology change, proceed to **End Fitting** > **Beeps** > **Trial Duration** to configure the duration of the client's trial period with the hearing instruments. When the trial period expires, the 'End of trial.' beeps will play. See the End Fitting menu section for more details.

Note: The transfer fitting process will reset all adaptive features to the recommended defaults for the new technology level.

Note: Create new fitting will reset all hearing instrument settings including the acoustic options. The fitter should confirm that the hearing instrument parameters are set as desired following this process.

Note: The data logging in the hearing instrument will be lost during this process.

Note: The current technology level contained within the hearing instrument is indicated by the shaded blue button and also is displayed in the Quick View Pane connection tab.





Acoustics

Select the Acoustics screen to configure items such

as:

coupling, venting, earhook, tubing, earpiece and receiver unit.

BTE and RIC instruments

- If you have ordered your earmold, cShell, Power Shell, or sleeve molds with IntelliVent, enter the code and the software will automatically use the optimal venting.
- For BTE's select Regular Tube, Slim Tube or Power Slim Tube (options depend on product style).
- For BTEs with Slim Tube, select your Ear Piece and Tubing Length (optional).
- For BTEs with Power Slim Tube, select your Ear Piece, Vent and Tubing Length.

Note: The tubing length parameter is for record keeping with slim tubes and has no impact on the

output of the system. In contrast, tubing length will impact products with power slim tubes and should be set appropriately as this parameter will influence the quick fit.

- For BTEs with an earhook, select Vent size, Earhook type and Tubing type.
- For RICs, select your Receiver, Ear Piece and Wire Length (optional).

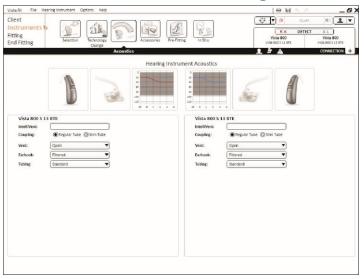
Note: The wire length parameter is for record keeping only and has no impact on the output of the system.

Note: Select the **Quick Fit** icon after configuring the acoustic parameters to ensure the product fitting considers these aspects.

Custom instruments

• For custom instruments, you can configure the vent. If you have ordered the custom products with IntelliVent, the software will automatically read the code and use the optimal venting.

Note: With simulated fittings, you can also select the shell and receiver type using the provided drop-down menus on the Acoustics screen (if applicable). In contrast, these parameters are read from the detected hearing instrument and cannot be changed through the software.





Use the Accessories screen to add the Smart Control, Remote Control and/or uDirect2 accessories to your fitting. When the **Accessories** button is clicked, all accessories that are possible to add to this fitting will be displayed. If an accessory button has a check mark in the corner, then at least one of these accessories has been added to the fitting. You will also see the serial number of an activated accessory or the word

Simulated if the accessory has just been simulated.

To pair Smart Control 1. Click the **Smart Control** button.

- 2. Click the Activate button.
- 3. The Pair new Smart Control pairing wizard appears. Follow the onscreen instructions to pair the remote with the hearing instrument(s).
- 4. After pairing, you will be provided with a graphic of the remote, along with check boxes and drop-down menus to configure the remote.
- 5. If desired, you can also enter the serial number of the paired remote in the provided serial number box for record keeping purposes.

Note: You can select the **Delete** $\overline{\mathbb{W}}$ icon to remove any paired accessory from the fitting. You can add up to a total of 2 Smart Controls to the hearing instrument fitting.

To simulate Smart Control:

- 1. Click the Smart Control button.
- 2. Click the Simulate button.
- 3. The serial number box will say **Simulated Smart Control** and a graphic will appear with various configuration options.

Note: You can select the **Delete** in icon to remove any simulated accessory from the fitting. You can add up to a total of 2 Smart Controls to the hearing instrument fitting. Any simulated remote can later be added to the fitting by clicking the **Activate** button directly beside the row assigned to the simulated accessory.

To pair Remote Control:

- 1. Click the Remote Control button.
- 2. Click the Activate button.
- A Detect new accessories pairing wizard appears. Connect a USB cable to the remote control and your computer, and follow the on-screen instructions.
- 4. After pairing, the serial number of the paired remote control is automatically shown in the serial number box. Various check boxes and a drop-down menu appear to configure the remote control.

Note: You can select the **Delete** is icon to remove any paired accessory from the fitting. You can add up to 4 remote controls to the hearing instrument fitting.

Note: To modify the configuration of a paired remote control, click on the serial number of the device you would like to modify.



To simulate Remote Control:

- 1. Click the Remote Control button.
- 2. Click the Simulate button.
- 3. The serial number box will say Simulated Remote Control and a graphic with various configuration options appears.

Note: You can select the **Delete** $\overline{\mathbf{w}}$ icon to remove any simulated accessory from the fitting. You can add up to 4 remote controls to the hearing instrument fitting. Any simulated remote control can be added later to the fitting by clicking the Activate button beside the row assigned to the simulated accessory.

To pair uDirect 2:

- 1. Click the uDirect 2 button.
- 2. Click the Activate button.
- 3. A Detect new accessories pairing wizard appears. Connect a USB cable to the uDirect 2 and your computer, and follow the on-screen instructions.
- 4. After pairing, the serial number of the paired uDirect 2 is automatically shown in the serial number box. Various check boxes and a dropdown menu appear to configure uDirect 2. These controls include:

Notification Options

- Warnings only low uDirect 2 battery;
 Bluetooth pairing process
- 2) Standard Warnings only notifications
 - + uDirect 2 on/off; starting/ending charging during streaming; input channel confirmation; FM announcements
- 3) **Detailed** Standard notifications + starting/ending charging without active streaming; external microphone connection;

Bluetooth device connect/disconnect; transfer call; hold call In addition, you can select whether the notifications above are provided via 'Beeps' or 'Spoken' words. Should you select 'Spoken', you have the option of selecting:

Language – used for the notifications, selected via the provided dropdown menu.

Caller ID – select to enable / disable the use of spoken caller ID notification for incoming call on phones supporting this feature.

• Phone Streaming Functions

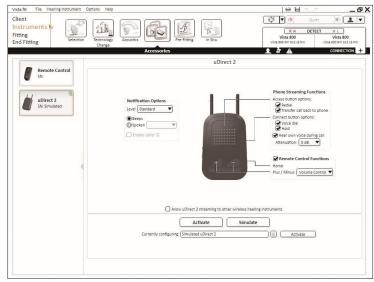
Access button options:

Redial – select to enable redialing of the last number called on phones supporting this feature.

Transfer call back to phone – select to enable the client to transfer a streamed phone call back to their paired phone.

Connect button options:

Voice dial – select to enable voice dialing for phones supporting this feature.



Hold – select to enable access to the functionality to put a phone call on hold.

Hear own voice during call – select to allow user to hear their own voice during a call which is more natural sounding, especially for closed fittings. Select the desired attenuation for the client's own voice.

- Remote Control Functions: check this to allow the uDirect 2 to function as a remote control when the hearing instrument is not in streaming mode. Configure the 'Plus/Minus' buttons as either: Smart Balance / Smart Balance 2 or Volume Control.
- Allow uDirect 2 streaming to other wireless hearing instruments: uncheck to prevent uDirect 2 from working with hearing instruments it has not been paired with.

Note: To perform remote control functions, the uDirect 2 must be paired to the hearing instrument. You can use the uDirect 2 without pairing it with the hearing instruments, but for streaming only.

Note: You can select the **Delete** $\overline{\mathbf{w}}$ icon to remove any paired accessory from the fitting. You can add up to 4 uDirect 2s to the hearing instrument fitting.

Note: To modify the configuration of a paired uDirect 2, click on the serial number of the device you would like to modify.

Note: The input volume correction is not required with this accessory given the user can configure the volume level of streamed signals via the +/- buttons on the front of uDirect 2 and the accessory will maintain the user's adjustments for future streamed signals.

To simulate uDirect 2:

- 1. Click the uDirect 2 button.
- 2. Click the Simulate button.
- 3. The serial number box will say **Simulated uDirect 2** and a graphic with various configuration options appears.

Note: You can select the **Delete** $\widehat{\mathbf{m}}$ icon to remove any simulated accessory from the fitting. You can add up to 4 uDirect 2s to the hearing instrument fitting. Any simulated uDirect 2 can be added later to the fitting by clicking the Activate button beside the row assigned to the simulated accessory.

Note: uDirect 2 does not need to be paired to work with Vista hearing instruments.



Pre-Fitting screen

Use the Pre-Fitting screen to change the fitting formula, processing strategy, and tinnitus masker strategy (only used by products supporting this feature) used in the current fitting by clicking on the desired icon at the bottom of the screen.



Fitting Formula

- 1. Click the **Fitting Formula** task at the bottom of the screen.
- Select your desired fitting formula from the provided drop-down menu: DSL v5 Adult, DSL v5 Pediatric, NAL-NL1 or NAL-NL2.





Processing Strategy

- 1. Click the **Processing Strategy** task at the bottom of the screen.
- 2. With DSLv5 adult or DSLv5 pediatric, select your desired processing strategy from the drop-down menu: WDRC or Linear.

Note: Selecting NAL-NL2 or NAL-NL1 provides a WDRC processing option only.



Tinnitus Masker Strategy

- 1. Click the **Tinnitus Masker Strategy** task at the bottom of the screen.
- 2. Select your desired tinnitus masker signal strategy from the drop-down menu: Audiogram-based, White Noise, or Pink Noise

Note: The tinnitus masker strategy impacts the quick fit calculation for the frequency shape of the tinnitus masker noise. The tinnitus masker noise can be viewed and fine tuned in the Fitting > Configure Features > Tinnitus Masker task box.



In Situ

Use the In Situ screen to assess hearing sensitivity and uncomfortable loudness levels via signals generated by the hearing instruments. The In Situ measurement results can be used to define the fitting formula targets.

- Click on the Start In Situ button for the device / ear you would like to assess.
- 2. An In Situ wizard will appear. Preparation information is provided to assist with the test.
- Select the coupling option to be used for the In Situ test. The options available will depend on the form factor being fitted and can include: a. Vented (current vent value).

Note: Ensure the product venting is configured correctly in the acoustics screen as it will impact the signal level generated by the device. b.

Temporarily occluded earpiece.

- 4. After the coupling option is selected, click **Continue** to get to the In Situ measurement step.
- 5. Select the desired measurement type (AC: air conduction or UCL: uncomfortable loudness level) via the appropriate button.
- 6. Select the desired frequency /presentation level by clicking on the graph.
- Present the tone by using the space bar or by clicking the Present Tone button.
- 8. To present tones automatically when you click on the graph, select the **Enable Autoplay** option.
- 9. If you desire to present tones at a loudness level beyond the safety limit of 100 dB HL, select the **Enable HL** > 100 dB HL option.
- 10. To speak with the client during the test, the hearing instrumentmicrophones must be enabled by clicking on the Talk to Client button. The volume level of the device can be adjusted as required using the up/down volume arrow keys.

If you would like to use the In Situ data as the basis for the hearing instrument quick fit, check the **Use In Situ data to recalculate hearing instrument settings** check box.

Following completion of the test, the In Situ data will be displayed on the graph, along with any previous standard audiometric data if it is available.

Note: If a previously entered audiogram is available in the session, it will be shown faded into the background for reference purposes on the In Situ and Audiogram screens.

Click on **Use Audiogram** to use the entered standard audiometric data for fitting formula targets.

Click on **Use In Situ** to use the measured In Situ data for fitting formula targets.

Note: The In Situ data can be deleted using the Remove (Delete) $\overline{\mathbf{m}}$ icon above the graph.

If desired, speech sounds and common sound icons can be displayed on the audiogram for counseling purposes by selecting the check box for the desired information.

Fitting menu





Feedback Optimization

Select the Feedback Optimization screen to run the feedback test.

- Click the Start feedback test button for the device/ear you would like to assess.
- 2. Follow the on-screen instructions to perform feedback optimization.

The status of the test appears above the graph (complete, incomplete, not run). In cases where the environment may have impacted the test (e.g., excess noise present), the final results include a combination of measured values and predicted feedback threshold values. The status then indicates *Incomplete*. Repeating the test will replace any predicted values with measured values if they can be reliably obtained in the current test environment.

Once the feedback test is completed, the hearing instrument's gain is limited as shown on the graph where:

- Black line = feedback threshold
- Grey line = hearing instrument gain limit
- Green line = target gain for 50 dB pure tone input
- Red or Blue line = aided gain for 50 dB pure tone input

Note: If desired, the feedback test can be deleted using the **Delete** $\widehat{\mathbf{m}}$ icon above the graph for the device / ear in question.

Note: The phase canceller is enabled prior to running the feedback optimization test and the quick fit will be limited to the predicted maximum stable gain. Following the feedback test, the device is automatically quick

fitted up to the desired adaptation manager level setting, but not beyond the measured maximum stable gain curve.



Program Manager screen

Select the Program Manager screen to add or remove additional manual programs, copy programs, rename programs, change program order, and assign Auto Phone / Auto DAI access (when applicable).

To add programs to the manual program list:

- Select the program name under the
 Available Programs list or click the arrow next to the program name OR

 Click the Copy icon beside the program
- Click the Copy icon beside the program that you would like to copy from the Selected Programs list.

To remove manual programs:

• Click on the **Delete** $\widehat{\mathbb{I}}$ icon next to the program in question.

To rename programs:

• Click the program name under the Selected Programs header.

To assign Auto Phone to a program in devices supporting this feature:

 Add a telephone program that has Auto Phone capability and select the Auto Phone check box beside that program in the column list.

Note: Auto Phone can only be assigned to one telephone program

To assign Auto DAI to a program in devices supporting this feature:

 Add a DAI program and select the Auto DAI check box beside that program in the column list.

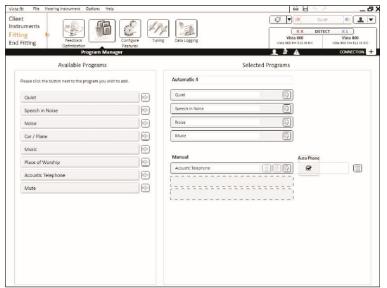
Note: Auto DAI can only be assigned to one DAI program.

To reorder manual programs:

• Click on the Move Program Up or Move Program Down icon next to the program in question.

Note: To select which program is the start-up program, go to the End Fitting > HI Setup > Startup Settings task box. By default, the Auto Program is the start-up program when it is included in the program toggle sequence. To remove the Auto Program, Auto Phone and/or Auto DAI from the program toggle sequence, go to the End Fitting > HI Setup > Program Toggle Exceptions task box.

Note: Mute program is only available for some products. If the mute program is not available, then create a Quiet program and then change the Input strategy under Fitting > Configure Features.

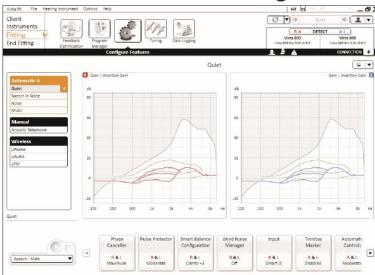




Configure Features

Select the Configure Features screen to adjust various adaptive parameters in the hearing instrument by clicking the desired task item at the bottom of the screen. These options include: Phase Canceller, Pulse Protector,

Smart Balance / Smart Balance 2, Wind Noise Manager, Input, Tinnitus Masker (when a product supports this feature), Automatic Controls, Music Equalizer (when a music program or environment is selected), and Binaural Phone (when telephone program is selected in a binaural wireless fitting). The adaptive feature settings for each program will automatically default to suggested values.



Prior to adjusting any adaptive feature, select the program you would like to manipulate from the program selector list on the left side of the screen. The active program is highlighted and its name is also listed above the graphs and in between the mute buttons.

Note: Within the configuration boxes for the various adaptive features, both ears are linked by default. To unlink both ears, click the *link / unlink* icon within each feature's task box.



Phase Canceller

- Click the Phase Canceller task item at the bottom of the screen.
- 2. Select your desired phase canceller strength using the provided slider.

Note: This feature is global for all Auto Program environments.



Pulse Protector

- 1. Click the **Pulse Protector** task item at the bottom of the screen.
- 2. Select your desired Pulse Protector strength using the provided slider.

Note: This feature is global for all Auto Program environments.



Smart Balance / Smart Balance 2 Configuration

- 1. Click the **Smart Balance** / **Smart Balance 2** Configuration task item at the bottom of the screen.
- 2. Select your desired position using the provided slider.

Note: If desired, click on the icon to view the frequency response.



Wind Noise Manager

- 1. Click the **Wind Noise Manager** task item at the bottom of the screen.
- 2. Select your desired wind noise manager strength using the provided slider.



Input

- 1. Click the **Input** task item at the bottom of the screen.
- 2. The available input options depend on the product and program being adjusted:
 - Auto Program environments Smart Directional (input is dependent on Smart Balance position), Omni (some products only).
 - Acoustic manual programs Omni (Mic), Fixed Directional, Adaptive Directional, Smart Directional, Mute

- Wireless streaming programs Audio Streaming + Mic, Audio Streaming
- Telephone programs Telecoil, Telecoil + Microphone, Omni (Mic), Mute
- DAI programs Direct Audio Input + Mic, Direct Audio Input, Mute

Note: For environments that offer mixed inputs (e.g., Telecoil + Microphone, Audio Streaming + Mic, Direct Audio Input + Mic), the microphone level can be adjusted using the mic attenuation slider in 3 dB steps from 0 to -30 dB with the exception of Auto DAI.

Note: When Binaural Phone is activated, the input selection task box offers the ability to configure phone ear inputs (Telecoil + Microphone with 0 to -30 dB mic attenuation; or Omni) and non-phone ear inputs (Audio Streaming + Mic with optional 6 dB mic attenuation available with some products).



Tinnitus Masker

Note: This option is available when the product supports this feature.

1. Click the **Tinnitus Masker** task item at the bottom of the screen.

Note: The graph view will automatically change to 'output' upon selection of the tinnitus masker task box to allow you to view the tinnitus masker output level relative to the hearing aid output settings.

2. Click the **Enable Tinnitus Masker** check box to activate the masker noise. *Note:* The tinnitus masker noise is disabled by default. When it is enabled, the quick fit level should be at a soft but audible level.

Note: The calculated masker noise level with the current settings will be displayed in dB(A) in the task box.

3. Click the checkbox beside Use client control to adjust noise level to allow patient to adjust the noise level using any volume or Smart Balance control on the hearing instruments or accessories. Selecting this option will prevent the client from adjusting the gain or the Smart Balance setting for this program.

Note: This setting is binaural and cannot differ across hearing instruments in the same fitting, even if the tinnitus masker is disabled or not available in one hearing instrument.

- 4. Select the frequency resolution you require for your modification using the provided tabs. *Note: The frequency resolution depends on the technology level of the product you are fitting.*
- 5. Select the frequency region(s) to be modified in the table.
 - To select an individual frequency region, select the desired value in the table.
 - An entire frequency range of fitting values can be selected by choosing the 'Noise' label.
 - To select multiple frequency regions for adjustment, you can also click and drag across the table. The slider bar along the bottom of the table allows you to view frequency regions that are outside the visible table area.
 - To view all frequency regions for a particular ear, and/or increase the size of the
 selectable boxes in the table, click on the View right ear only or View left ear
 only text as appropriate. To change the table view back to a binaural view, click
 on the text View both ears.
 - Once you have selected your desired frequency region for adjustment, click the dB drop-down menu to alter the step size of any change. Choose from 1, 2 or 3 dB.
 - Click the + or buttons to apply the desired change.

Note: When a fitting handle has reached its maximum setting, the + button will grey out (disable). Conversely, if a fitting handle is at its minimum setting, the - button will grey out (disable).

Note: The alerts tab will highlight once the generated masker noise setting reaches a value of 80 dB(A) or greater to indicate that care should be taken when exposing the client to continued noise at this level to avoid an adverse impact on hearing. A recommended daily usage time based on NIOSH standards

(http://www.cdc.gov/niosh/docs/98-126/) will also be indicated considering the current masker noise level and updated as the noise level is adjusted. The noise level settings will be limited such that the generated noise never exceeds a level of 85 dB(A), assuming at least 8 hours of use / day to address concerns regarding the impact of continued noise exposure on hearing sensitivity from NIOSH guidelines.

Note: The tinnitus masker settings are global for the Auto Program, so they will be the same in all Auto Program environments, but the settings can vary across manual programs.



Automatic Controls

Note: This option is available when the Auto Program or one of its environments are selected.

- 1. Click the **Automatic Controls** task item at the bottom of the screen.
- 2. If desired, select the client's **Highest Priority** and **Lowest Priority** environments from the provided drop-down menus.
- 3. If desired, adjust the **Sensitivity** control using the provided drop down menu to impact how quickly the Auto Program responds to changes in the environment.

Note: The automatic controls should be left in their default positions for the initial fitting and reviewed later if the client has concerns regarding the instruments' switching behaviour.

Note: This feature is global for all Auto Program environments.



Binaural Phone

Note: This feature is available when a telephone program is selected in a binaural fitting with some wireless products.

- 1. Click the Binaural Phone task item at the bottom of the screen.
- 2. Click the **Enable Binaural Phone** check box to activate this feature.

Note: This feature is active by default.

- 3. Select the client's **Preferred Phone Ear** from the provided drop-down menu. This choice impacts the streaming direction when Binaural Phone is activated using the remote control phone button.
- 4. Click the *Push button selects phone ear* check box to have the system stream the phone signal in either direction based on which push button was used to toggle into the Binaural Phone program. That is, the phone ear is identified as the side which had its push button activated.

Note: When accessing Binaural Phone streaming using Auto Phone, the phone ear is automatically identified as the side that triggered Auto Phone (ie., the ear where the phone receiver is located).

Note: When Binaural Phone is activated, the Input selection task box offers the ability to configure phone ear inputs (Telecoil + Microphone with 0 to -30 dB mic attenuation;

or Omni) and non-phone ear inputs (Audio Streaming + Mic with optional 6 dB mic attenuation available with some products).



Music Equalizer

Note: This option is available when a music environment or program is selected.

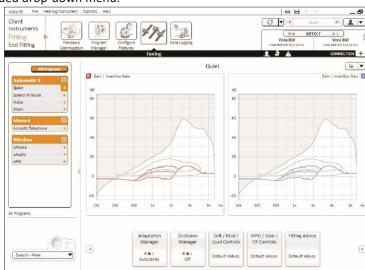
- 1. Click the Music Equalizer task item at the bottom of the screen.
- 2. Choose one of the default offsets from the provided drop-down menu.



Tuning

Select the Tuning screen to adjust various parameters in the hearing instrument by clicking the desired item at the bottom of the screen. These options include: Adaptation Manager, Occlusion Manager, Bass Enhancer (some products only), Soft/Mod/Loud Controls, MPO/Gain/CR Controls, Frequency Compression (some products only) and Fitting Advice. The settings for each program automatically default to suggested values.

Prior to adjusting any of the parameters listed above, select the program you would like to tune from the program selector list on the left side of the screen. The active program is highlighted and



its name is listed above the graphs and in between the mute buttons.

Note: **All Programs** is selected by default in the Tuning section. This ensures that the relative differences across all programs are maintained when making changes and helps to maintain seamless transitions in the Auto Program.

To fine tune the hearing instrument:

- 1. Select the desired program from the program selector list on the left side of the screen.
 - To select **all programs** for modification, click the **All Programs** button at the top of the program selector list.
 - To select all Auto Program environments, click the Automatic program header above the individual environments.
 - To select all manual programs, click the Manual program header above the individual manual programs.
 - To select **all wireless programs**, click the **Wireless** program header above the wireless programs.
 - To select an individual program or environment, click the program name or environment in the program selector list.

Note: To simplify the view, you can click the chevron icon beside the program header to collapse or expand the program list for that category.

Note: To simplify the view and expand the size of the graphs, you can click the side arrow to the immediate right of the program selector list to hide and reveal the program selector list.



Adaptation Manager

- Click on the Adaptation Manager task item at the bottom of the screen.
- 2. Select the Automatic check box to activate the Automatic Adaptation Manager (AAM). With some products, select the Automatic / Power check box to activate the Automatic Adaptation Manager or the Power Adaptation Manager (PAM). The software will use a proprietary calculation that considers the client's hearing loss, age, and hearing instrument experience level (as indicated on the client information screen) to determine the starting adaptation manager setting and the adaptation rate for the fitting.
- 3. If desired, select the speed of adaptation for the current fitting using the provided dropdown box. Choose from the following adaptation rates:
 - 5% per week
 - 5% per 2 weeks
 - 5% per 3 weeks
 - 5% per 1 month
 - 5% per 2 months
 - 5% per 3 months
 - 5% per 4 months
 - 5% per 5 months
 - 5% per 6 months

Note: For products with Automatic / Power, when the *Current* value is above the *End Value*, the above choices represent the approximate time for a 5% decrease in the current value of PAM.

Note: For calculation purposes, the adaptation rate assumes one week of use = 70 hours (i.e., 10 hours / day). Thus at the follow-up appointment, the **Current** position may differ from what is expected based on calendar days depending on the client's actual usage time per week.

4. If desired, the fitter can adjust the **Current** position (% of target) and the desired **End Value** (% of target) for the chosen fitting formula using the provided sliders. If this is a follow-up fitting, and the Automatic Adaptation Manager is enabled, then you will see a grey bar representing the adaptation progress that has been made so far.

Note: The predicted Time remaining to reach the end value will be updated automatically depending on the relative position of the *Current* and *End Value* sliders.

Note: If desired, the AAM or PAM can be disabled by de-selecting the check box. The fitter can then select their desired adaptation manager setting using the *Current* slider.

Note: This feature is global and will impact all programs.

Note: For products with Automatic / Power, adaptation manager settings above 100% affect both the '% of target gain' provided and the MPO setting of the hearing instrument. Adaptation manager settings below 100% impact only % of target gain.



Occlusion Manager

1. Click the Occlusion Manager task item at the bottom of the screen.

2. Select your desired occlusion manager setting using the provided slider to address any occlusion related complaints.

Note: This feature is global and will impact all programs.



Bass Enhancer

Note: This option is only available with some products.

- 1. Click the Bass Enhancer task item at the bottom of the screen.
- 2. Select your desired bass enhancer setting using the provided slider to increase low frequency gain and MPO (emphasis below ~ 1 kHz).

Note: This feature is global and will impact all programs.



Soft / Mod / Loud Controls

- Click the Soft / Mod / Loud Controls task item at the bottom of the screen.
- 2. Select the **program(s)** you wish to modify using the program selector list as described above.
- 3. Select the frequency resolution using the provided tabs.

Note: The frequency resolution depends on the technology level of the product you are fitting.

- 4. Select the frequency region(s) and input level(s) to be modified in the provided table:
- To select an individual frequency region, select the desired value in the table
- A range of fitting values can be selected by either choosing a specific input label (loud, mod, soft), channel grouping label (low, mid, high or specific frequency columns) or the All table label. The selected frequency region(s) are highlighted in the table and shaded in the fitting graph.
- To select multiple frequency regions for adjustment, you can also click
 and drag across the table. The slider bar along the bottom of the table
 allows you to view frequency regions that are outside the visible table
 area.
- To view all frequency regions for a particular ear, and/or increase the size
 of the selectable boxes in the table, click on the View right ear only or
 View left ear only text as appropriate. To change the table view back to a
 binaural view, click on the text View both ears.
- Once you have selected your desired region for adjustment, click the dB dropdown menu to alter the step size of any change. Choose from 1, 2 or 3 dB.
- Click the + or buttons to apply the desired change.

Note: When a fitting handle has reached its maximum setting, the + button will grey out (disable). Conversely, if a fitting handle is at its minimum setting, the - button will grey out (disable).

Note: The table will also display the calculated compression ratios. The compression ratios are calculated based on the slope of the I/O curve between the TK soft and TK loud inputs.



MPO / Gain / CR / TK

1. Click the MPO / Gain / CR / TK task item at the bottom of the screen.

- 2. Select the **program(s)** you wish to modify using the program selector list as described above.
- Select the frequency resolution you require for your modification using the provided tabs.

Note: The frequency resolution depends on the technology level of the product you are fitting.

- 4. Select the frequency region(s) and parameter type (MPO, Gain, CR or TK) to be modified.
- To select an individual frequency region, select the desired value in the table.
- A range of fitting values can be selected by choosing a specific parameter label (MPO, Gain, CR or TK). The selected frequency region(s) is highlighted in the table and shaded in the fitting graph.
- TK soft speech can be used to adjust the gain for low level sounds. Impact of the adjustments is opposite to the other controls: increasing TK soft speech will decrease gain for low level sounds and vice versa.
- To select multiple frequency regions for adjustment, you can also click
 and drag across the table. The slider bar along the bottom of the table
 allows you to view frequency regions that are outside the visible table
 area.
- To view all frequency regions for a particular ear, and/or increase the size
 of the selectable boxes in the table, click on the View right ear only or
 View left ear only text as appropriate. To change the table view back to a
 binaural view, click on the text View both ears.
- Once you have selected your desired region and parameter type for adjustment, click the dB drop-down menu to alter the step size of any change. Choose from 1, 2 or 3 dB.
- Click the + or buttons to apply the desired change.

Note: When a fitting handle has reached its maximum setting, the + button will grey out (disable). Conversely, if a fitting handle is at its minimum setting, the button will grey out (disable)

Note: The compression ratios are calculated based on the slope of the I/O curve between the TK soft and TK loud inputs.

Note: The TK soft speech control is only available if you have selected to show it under Options > Preferences > Fitting Session > Fitting.



Frequency Compression

Note: This option is only available with some products.

- 1. Click the **Frequency Compression** task item at the bottom of the screen.
- 2. Select the program you wish to modify using the program selector list described above.

Note: This feature is global within the Auto Program and can be set independently for each of the manual and wireless programs.

3. Click the **Enable Frequency Compression** check box to activate / deactivate this feature.

Note: This feature is activated by default for some products.

4. Adjust the Frequency Compression to the desired setting using the More or Less buttons. Adjusting the frequency compression impacts:

- The frequency at which the compression will begin. Below this specified cut-off, no frequency compression will be applied.
- The compression ratio or the amount of compression that will be applied in the frequency domain above the cut-off frequency.

Note: The software will automatically calculate the starting default position of the frequency compression based on the client's better ear audiogram and the fitting formula. With the DSL v5 pediatric fitting formula, frequency compression default settings are more aggressive (i.e. lower cut-off frequency, higher compression ratio) to emphasize audibility of high frequency speech cues for children.

Note: For clients with asymmetrical hearing loss, the frequency compression settings will be based on the audiometric thresholds from the better ear and applied to both devices in binaural fittings.

Note: The shaded region on the slider reflects the frequency compression region which is also displayed on the frequency response graphs.

Fitting Advice

Default Values

Fitting Advice

- 1. Click the **Fitting Advice** task item at the bottom of the screen.
- 2. Select the program(s) you wish to modify using the program selector list as described above.
- Select the situation (type of sound environment) that is problematic for the client using the Select Situation dropdown box.
- 4. Select the concern that best describes the client's complaints for that sound type using the **Select Concern** dropdown box.
- 5. A description of the proposed change appears on the screen and an associated sound file is automatically selected by the media player.
- If desired, play the associated sound file and/or apply the suggested change using the **Apply** button. Any previously applied undesirable changes can be removed using the **Undo** button.



Data logging

Select the Data logging screen to observe clients' usage patterns at follow-up appointments. At the initial fitting, no data logging information will be available.

Note: If you want to enable or disable data logging, self learning and Teach in the product, navigate to the End Fitting Section > HI Setup > Data logging task icon box. The availability of self learning and Teach will depend on the product.

Note: Saving to the hearing instrument will overwrite any data logging information stored on the hearing instruments. You should read from the hearing instruments at the follow-up appointment to view the data logging details before saving any changes to the hearing instruments.

The navigation tab along the left side of the data logging screen allows you to select from various summary screens. Choose from:

• All Programs: Overview

• Auto Programs: Summary

• Manual Programs: Summary

Wireless Programs: Summary

All Programs: Overview

The *All Programs Overview* screen provides a summary of the total usage patterns of all programs in the hearing instrument. A histogram chart shows a breakdown of total percentage of use in each of the available program categories (Auto, Manual and Wireless programs).

A table below the chart also identifies:

- Hours / Day
- Total Days
- Program usage breakdown by category
- Further details regarding the individual programs/destinations within each category can be found by clicking the chevron icon to expand and collapse the table.

Note: Expanding/collapsing the table will also impact the information displayed in the summary histogram chart.

Auto Programs: Summary

The Auto Programs Summary screen provides an overview of the learned (or logged) user adjustments for Smart Balance, volume control and tinnitus masker (if applicable) in each of the automatic environments. A histogram chart shows a breakdown of percentage of use of each automatic environment relative to the total Auto Program usage time.

A table below the chart also identifies:

- Average usage for each environment in percent
- Learned user adjustments for volume control for each environment
- Learned user adjustments for Smart Balance for each environment (if available)
- Logged user adjustments for tinnitus masker for each environment (if active in product and enabled on user control)

Note: If learning is inactive or unavailable in the product, the data logging table will reflect logged adjustments as labeled in the table header.

Note: Tinnitus masker changes (if applicable to product and activated on user controls) are only logged even if learning is activated in the hearing instruments.

- In the case of learned data, you can remove learning from all automatic environments for both VC and Smart Balance binaurally with the Remove button.
- In the case of logged data, you can apply logged data to all automatic environments for both VC and Smart Balance binaurally with the Apply button.

Note: If you would like to apply tinnitus masker noise level adjustments, you must go to the Tinnitus Masker task under Fitting > Configure Features and adjust the tinnitus masker noise level for each program.

Manual Programs: Summary

The Manual Programs Summary screen provides an overview of the learned (or logged) user adjustments for Smart Balance, volume control and tinnitus masker (if applicable) in each of the manual programs. A histogram chart shows a breakdown of percentage of use of each manual program relative

to the total Manual Program usage time. A table below the chart also identifies:

- Average usage for each manual program in percent
- Learned user adjustments for volume control for each manual program
- Learned user adjustments for Smart Balance for each manual program (if available)
- Logged user adjustments for tinnitus masker for each manual program (if active in product and enabled on user control)

Note: If learning is inactive or unavailable in the product, the data logging table will reflect logged adjustments as labeled in the table header.

Note: Tinnitus masker changes (if applicable to product and activated on user controls) are only logged even if learning is activated in the hearing instruments.

- In the case of learned data, you can remove learning from all manual programs for both VC and Smart Balance binaurally with the Remove button.
- In the case of logged data, you can apply logged data to all manual programs for both VC and Smart Balance binaurally with the Apply button.

Note: If you would like to apply tinnitus masker noise level adjustments, you must go to the Tinnitus Masker task under Fitting > Configure Features and adjust the tinnitus masker noise level for each program.

Wireless Programs: Summary

The Wireless Programs Summary screen provides an overview of the learned (or logged) user adjustments for Smart Balance, volume control and tinnitus masker (if applicable) in each of the wireless programs. A histogram chart shows a breakdown of percentage of use of each wireless program relative to the total wireless program usage time.

A table below the chart also identifies:

- Average usage for each wireless program in percent
- Learned user adjustments for volume control for each wireless program
- Learned user adjustments for Smart Balance for each wireless program (if available)
- Logged user adjustments for tinnitus masker for each wireless program (if active in product and enabled on user control)

Note: If learning is inactive or unavailable in the product, the data logging table will reflect logged adjustments as labeled in the table header.

Note: Tinnitus masker changes (if applicable to product and activated on user controls) are only logged even if learning is activated in the hearing instruments.

 In the case of learned data, you can remove learning from all wireless programs for both VC and Smart Balance binaurally with the Remove button.

 In the case of logged data, you can apply logged data to all wireless programs for both VC and Smart Balance binaurally with the Apply button.

Note: If you would like to apply tinnitus masker noise level adjustments, you must go to the Tinnitus Masker task under Fitting > Configure Features and adjust the tinnitus masker noise level for each program.

Note: For all summary screens with volume control and/or tinnitus masker data, '-' values represent dB decrease relative to previous default position, while '+' values represent dB increase relative to default position.

Note: For all summary screens with Smart Balance data, * steps represents movement of Smart Balance towards max clarity direction from previous setting, while * steps represents movement of Smart Balance toward max comfort direction from previous setting.

End Fitting menu





HI Setup

Select the HI Setup screen to configure the function of the user controls on the hearing instrument (e.g., push button and lever / dial) along with the activation of wireless synchronization (binaural control of the feature) for each of these controls. In addition, HI setup allows you to adjust other hearing instrument parameters by clicking on the desired task item at the bottom of the screen. These options include volume settings, start up settings, data logging and program toggle.

To configure the function of the push button on the hearing instrument(s) (if available):

- Click the drop-down menu under the push button label on the primary screen. Choose from:
 - **Program change** press the push button to toggle through the various listening programs.

Note: Wireless synchronization is on by default in binaural wireless product fittings to ensure the program setting in both devices is synchronized when the program toggle on one device is activated.

 Volume Control: Right up, Left down - pressing the push button on the right device increases the volume for both hearing instruments. Pressing the push button on the left device decreases the volume for both hearing instruments.

Note: Wireless synchronization must be on for this setting to function.



 Smart Balance: R clarity, L comfort - pressing the push button on the right device moves the Smart Balance setting towards clarity for both hearing instruments. Pressing the push button on the left device moves the Smart Balance setting towards comfort for both hearing instruments.

Note: Wireless synchronization must be on for this setting to function.

• Off: the push button is disabled on the hearing instruments.

Note: The program toggle on a remote control is not impacted by the setting of this control.

To configure the function of the lever / dial on the hearing instrument(s) (if available):

- 1. Click the drop-down menu under the lever / dial label on the primary screen. Choose from:
 - **Volume Control**: the lever / dial adjusts the volume level of the hearing instruments.

Note: Wireless synchronization is disabled by default to allow independent adjustment of this control on each ear.

 Smart Balance: the lever / dial adjusts the Smart Balance setting in the hearing instrument.

Note: Wireless synchronization is disabled by default to allow independent adjustment of this control on each ear.

• No function (Off): the lever / dial is disabled on the hearing instrument.

Note: A remote control is not impacted by the setting of this control.

Note: Only one user control on the hearing instrument can be assigned to perform a particular function. While both the push button and lever/dial can be configured as either a volume control or a Smart Balance control, both controls cannot perform the same function.

To configure the function of the Micro CIC remote (if available):

- 1. Click the drop-down menu under the Micro CIC remote function label on the primary screen. Choose from:
 - Off: the micro CIC remote is disabled.
 - **Program change**: bring the remote up to each hearing instrument to toggle through the various listening programs.
 - Volume up: bring the remote up to each hearing instrument to increase the
 volume in steps. Once the hearing instrument reaches the maximum volume,
 the next step will bring it back to the default volume level.
 - **Volume down**: bring the remote up to each hearing instrument to decrease the volume in steps. Once the hearing instrument reaches the minimum volume, the next step will bring it back to the default volume level.



Volume Settings

- 1. Click the **Volume Settings** task item at the bottom of the screen.
- 2. Select the desired amount of increase in volume using the Volume Control Up drop-down menu.
- 3. Select the desired amount of decrease in volume using the Volume Control Down drop-down menu.

Note: The value selected in the volume control up and down boxes determines the volume control range provided to the client (as displayed in the volume settings task box). Each adjustment of the volume control using a remote control or on the hearing instruments is 2 dB.



Start up Settings

- 1. Click the **Start up Settings** task item at the bottom of the screen.
- 2. Select the desired Start up Program from the drop-down menu.
- Select the desired Start up Delay from the drop-down menu. Choose Minimum, 10 second delay or 15 second delay.



Data Logging

- 1. Click the **Data Logging** task item at the bottom of the screen.
- Select the desired data logging and learning parameters (if applicable)
 from the drop-down menu. Choose from Logging & Self Learning &
 Teach, Logging & Self Learning, Data logging on or Data logging off.

Note: The presence or absence of Teach in the selected drop-box menu on this screen changes the configuration of the Teach button on the Smart Control remote. Similarly, the configuration of the Teach checkbox on the Smart Control Accessories screen changes the selection in the Data Logging task box.



Program Toggle Exceptions

- 1. Click the **Program Toggle Exceptions** task item at the bottom of the screen.
- 2. Uncheck the boxes to indicate which of the following you would like to exclude from the program toggle sequence:
 - The Auto Program
 - The Auto Phone program (if applicable to the product being fitted)
 - The Auto DAI program (if applicable to the product being fitted)



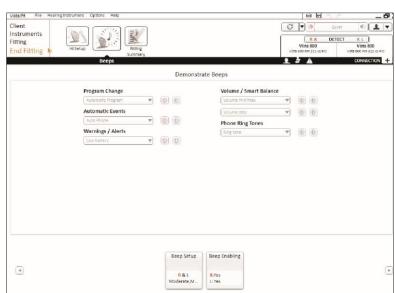
Beeps

Select the Beeps screen to demonstrate and configure the various user notification beeps in the hearing instrument. These options include beep setup, beep enabling, and trial duration (if applicable).

To demonstrate beens:

There are a number of play buttons of the product being fitted, you have the option of playing beeps associated with:

- Program Change: choose the desired program todemousing the drop-downmenu.
- Automatic Events: choose from Auto Phone, uPhone activation, uAudio Bluetooth activation, uAudio audio iack input activation, uFM activation, or Smart Control telephone button activation.



- Warnings / Alerts: choose from low battery and Teach (if applicable).
- Trial Duration: play the 'End of trial period' beeps that will be generated in trial devices once the trial period has expired.
- Volume / Smart Balance: choose from: volume min/max, volume ideal (default), Smart Balance min/max, Smart Balance ideal (default), volume step change, Smart Balance step change.
- Phone Ring Tones: play provided ring tone.

Note: The phone ring tone notification is generated during uPhone activation with phones supporting this feature.

To play the selected notification through the hearing instrument, click the right or left play buttons beside the chosen drop-down menu.

R & L Soft,Medium

Beep Setup

- 1. Click the **Beep Setup** task item at the bottom of the screen.
- 2. Select the **intensity level** from the drop-down menu. Choose from: **Very Soft, Soft, Moderate, Loud,** or **Very Loud**.
- Select the frequency from the drop-down menu. Choose from: Low, Medium or High.



Beep Enabling

- 1. Click the **Beep Enabling** task item at the bottom of the screen.
- 2. Select the beep notification types you would like active for the client. Choose from: Program Change, Start Up Sound (initial sound which occurs upon the powering up of the hearing instruments), Automatic Events (events listed under the demo drop-down menu for this category), VC & Smart Balance Min/Max (end of range), VC & Smart Balance steps (beeps that occur each time these user controls are changed), and Warning / Alerts (events listed under the demo dropdown menu for this category).

Note: The beeps that play at the end of the trial period with Trial hearing instruments cannot be disabled. When the end of trial period beeps start to sound, fitters can turn off the repeated beeps by resetting the trial period, i.e. by detecting and then saving to the hearing instruments.



Trial Duration

Note: This option is available with Trial devices.

- 1. Click the **Trial Duration** task item at the bottom of the screen.
- Select the desired trial duration before the 'End of trial period' beeps are generated in the hearing instruments.

Note: Once the trial duration has been exceeded, repeated beeps (End of trial period beeps) will be generated. Initially, these beeps will occur every hour for \sim 3 days of use, after which the instruments will repeatedly generate the beeps every minute.

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Fitting Summary

The Fitting Summary screen provides a succinct overview of primary fitting-related items in an easy-to-read table for each hearing instrument. The table provides an opportunity for a final check of the fitting settings and general status prior to printing, saving and closing the session.

The default table information is dependent on the product being fitted and can include: Program List, Client Controls, General Status, Accessories, and Indicators. If desired, additional details can be obtained by clicking the **More Info** button which then displays Fitting Settings and Acoustics. Items outside the primary viewing area can be observed by adjusting the vertical scrolling slider.

Vista fit. File Haring instruments Cottons: Hold Vista fit. File Haring instruments Fitting Summary Fitting

To end the fitting:

- Select the check boxes for the items you would like to print (e.g., Fitting reports, Getting Started Guides for hearing instruments and accessories, if applicable). The client's language for the Getting Started Guides can be selected. Click the **Print & Save** button. If you do not desire to print any materials, remove the check marks and click the relabeled **Save** button.
- Select the check boxes for the items that you would like to save (e.g., Save to hearing instruments, Save to database, Save to accessories) on the save dialog pop-up window. Click Save and then Close in the save confirmation window.
 - Note: Clicking the **Save** \blacksquare icon on the primary tool bar or accessing the File > Save function in the main menu also provides the ability to save to the hearing instruments and save to the database.
- 3. To close the session, click the **Close Session** button. If you have not yet saved the fitting, the save dialog pop-up window will appear. When running Vista:fit under NOAH click the **Exit Vista:fit** button.
- 4. After closing the session:
 - If using iCube, restart your hearing instrument(s) by opening and closing the battery door(s).
 - If using NOAHlink or HI-PRO, remove the programming cable, insert the batteries and close the battery door.