GSI AudioStar Pro: New Features for FWv2.0

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Presenter: Tony Lombardo, MS

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Partner: GSI

- [Tony] Good morning, good afternoon, and welcome. Thank you so much for joining us, my name is Tony Lombardo, and I am an audiologist with Grason-Stadler, and today we are gonna be talking about the GSI AudioStar Pro version two. We have just released this, now Grason-Stadler released the original AudioStar Pro in 2012, so we're very excited to release this new product, and I'm very excited to tell you about all of the new features, so let's begin. So here is our agenda for today. What I'm gonna do is just go over some of the newer features, for those of you that have experience with AudioStar Pro, you'll recognize the device really quickly, but there are some subtle differences, so we'll go over what's new. We'll go over some device navigation, we'll go through basic testing, do some tone testing, speech testing, some of the special tests, and then we'll get into the configuration application, which is how we'll set our defaults, but before I get into that, I just wanted to put up a little side here, Advance. It is our new outreach for education, and I would encourage you all to visit grason-stadler.com and take a look at the resources that we have there. We are gonna be building a significant library, and it's one of our goals this year is to really add a lot more both long form things like we're doing today with Audiology Online, but also smaller little bits because you may be just interested in figuring one little thing out, so hopefully we will have that resource for you, definitely check it out.

Okay, so the learning outcomes for today, we're gonna explain how to load custom default test settings into the AudioStar Pro, that will be towards the end with the configuration app. We'll go through the ways to quickly transition between audiometric testing, it's just pure tone, your basic stuff, pure tone in speech, to things like special tests and things that are already loaded into the device. Then we'll explain how to perform an efficient comprehensive diagnostic evaluations using the AudioStar Pro. So let's begin. So just in general, and this covers both AudioStar Pro version one and two, the key features, the key things that we talk about when we talk about this audiometer is it's a fast and accurate device. If you are familiar with GSI's products in the past, having this nice color interactive display is a departure from we had with the 61 and

moving backwards. One thing that we're really happy with is the integrated wav files, we have speech tests that are included with the device as well as ones you can add to it, which we'll talk about. And then integrated special testS, having the QuickSIN and BKB-SIN built into it, as well as some of the legacy tests and the TEN test. Being able to calibrate this audiometer out to 20,000 cycles per second, and then beyond just the assistant monitor, but a whole grouping of features that really help with pediatric testing. So the AudioStar Pro is a two channel audiometer, and I've put up a little chart here that shows some of the differences between a one and a half channel audiometer, for example GSI Pello, and the AudioStar Pro, and the biggest difference is routing. And in all of these examples, it's basically taking stimulus from both channels and being able to route it into the same ear or route it however you want, that is really the key to having a two channel audiometer.

And if you're doing testing, especially with children, or central auditory processing, having those two channels is very important. So the AudioStar Pro has full routing capabilities, both version one and version two, although in version two, we have added a few extra little tricks that you can do with routing, which might make testing even easier. So with AudioStar Pro version one, if you have an AudioStar Pro, chances are unless it was delivered in the last few weeks, you have an AudioStar Pro version one. The current firmware version will be 1.5.something, and the thing is is we will no longer be doing functionality updates, we're not gonna add any more special tests or anything like that to it. If there are any releases to the firmware, it will be for things like addressing bugs or small issues, very maintenance types things, maybe some connectivity with future versions of GSI Suite, that type of thing.

And the features that we're gonna talk about today with AudioStar Pro version two are features that you can't get, you can't do a firmware upgrade for the previous devices and get some of the same functionality that I'll be talking about today. And lastly, this uses the AudioStar Pro version one, utilizes a format for loading additional wav files

that is not the same format they were using for V2, so if you have in the past, if you have an AudioStar Pro, and we've sent you a thumb drive or we've sent you a link to update your word lists, those will not be able to update with the new version, you'll have to get, contact either your distributor or Grason-Stadler and we can assist you in making sure you have the right file format.

Okay, so let's get into what is new with it. Like I said, it is a brand new device, it's sort of like getting this year's version of the iPhone, the firmware is new, it's got some hardware changes, it has a new operating system, a new config app that we use to set our defaults, and a new calibration app. But the first thing that you'll notice when you're going between AudioStar version one and version two is that version two is much faster, and I've bolded the first bullet point here, the startup time is less than one minute, and for all of you who have had to restart your audiometer or lost power, the two minutes and some odd seconds that it took for version one to start up probably felt like two plus hours, but this will be noticeably faster on startup, it'll be noticeably faster if you're updating your configuration, you'll notice it when you're transitioning between things like tone and speech, you'll notice that the words seem to present much faster, the auto play features are much faster.

So it just, because we have a new platform, it's a more advanced platform than the previous unit, you'll find that it just is a little bit more seamless in all those transitions. So we did make some hardware changes as well. When you look at these two devices side-by-side, V1 and V2, they look fairly similar, but right away, you'll notice that the display has been improved. We've got a new higher resolution display, it just looks nicer, it's easier on the eyes, and there have been some changes on the control panel of a couple of different button changes that we've made both to streamline and to add functionality to the device, and let's take a look at those right away. So first of all on the left-hand side there, you can see, it might be a little small on your screen, but it says test type, and there's a red arrow, and that arrow is kind of pointing between two

buttons. This is where we used to have the button for high hertz. So if you were gonna be doing some high frequency testing, you would press this button, and it would set your defaults for that and the screen would change to that high frequency screen. We no longer have that, we have a little bit of a different method of getting those different audio, getting that range up and I'll show you that in a little bit but right below that, at the very bottom it looks like, there's a red box and that is for a new button we've added for a monitor speaker. Now this allows you to when you press that, the internal speaker, you will have access to hearing everything from your monitor, so your channel one, your channel two inputs, your talk back now has its own independent speaker. We had this with version one, but if you plugged in the mic monitor headset, that would cut that speaker out, and the only way that you could use that internal speaker is if you were using the boom microphone.

So having this as an add-on, it was an enhancement request for places like universities so you can still wear the mic monitor headsets, do all of your communication with a patient, and have that speaker in the room, so if you're supervising students or in that type of situation, it's readily available for you. Then over on the right side of the device, we have added a center VRA button. Previously, we just had the right and the left, and if you had a centering tool, you had to press them both at the same time. So having that added there so you can bring the kids' attention back to the center very easily is another nice new addition to the device. And our system will trigger most commercially available systems, if you have questions about that, for sure talk to your regional sales manager.

Okay, so those are some of the hardware changes. Let's take a look at what's new in some of the, some of the new features when you're doing tone testing. So first of all, we've added a, when you're in the combined view, if you have tone and tone selected in each of your channels, so both right and left, it's gonna give you this color coded intensity line, so you can basically take a look at the audiogram and very quickly know

which set of crosshairs goes with which channel. So it's just a nice little visual tool that allows you to spend less time wondering where you're at and just by looking at the audiogram, you can see where you are for both channel one and channel two and how you're routed. We've also done a similar type of thing with you have tone selected in one channel but maybe you have your masking stimulus in the other channel, we've added a little level indicator. And it might be hard to see on your screen, but that red arrow is pointing to a line where that second channel is, and it's just kind of like two lines with a little missing line that's in between, and when you start moving the intensity dials and look at it on the high resolution screen, it will be obvious to you, but that is now there just again a really nice point of reference for when you're doing testing, you can see where you're at with both of your channels.

And if you are in a separated view, you get the exact same type of thing, it's just the opposite channel indicator showing you where if you have tone selected on each side, it shows you where the other channel is in comparison to the channel that you're looking at. Like I said, we got rid of the the high hertz, so now we've changed it. If you are familiar with the GSI Pello, this is the same method that we use for the Pello, we've got basically three views. So first view would be just your standard view, what you're seeing here, you would scroll to the bottom navigation menu and press that button then you have three choices. You've got your standard view here.

This is just looking at high frequencies individual, so you can just center it on the high frequencies if you're doing high frequency testing, but if you prefer, you can take a look at the entire range. Now all of these are in the combined view, but you have a couple of different options in any of the views, whether it's right left, left right, or combined, you can have the full range, the high frequency range, or just the standard range with just a real simple click on the bottom there. The other thing that we've done is we've added some more functionality to the table view. So if you're doing some really fine frequency work where you're getting down beyond octaves and mid octaves, you can get in and

have this tabular view that will keep track of air, bone, and sound field results as well, and the frequencies will actually appear when the thresholds are stored. So if you have two frequencies that have some distance between them, you're not gonna see a big gap, it'll just fill in the tabs for the different frequencies as you fill them in. And then I have highlighted there in yellow the different pages, and you can just scroll through, if you're collecting a lot of data, you can scroll through and see all those in this tabular view.

Another thing that we've done is we've added a couple of new symbols into AudioStar Pro, and most of these are through requests from customers. The first one is bone conduction unspecified. It doesn't have a spot, if you can see these three buttons, the correct, clear, and incorrect button that we use to score speech, on the new version, you'll see a little VT under correct, you'll see an NR under incorrect. There isn't a symbol under that middle, but that's what will be used for bone conduction unspecified so if you have bone conduction as your transducer selected and you hit the clear pause button, that will insert bone unspecified. If you wanted to have the no response added to it, you would simply hit clear and incorrect, clear, pause, incorrect, stop at the same time, and that would give you that no response.

We also have added a symbol for vibrotactile, that is not gonna be in the initial 2.0.0 release of AudioStar Pro version two firmware, but that will be in a release coming up soon, I can't tell you exactly when 'cause I don't know for sure myself, but it will be very shortly down the road here, we'll have that included. And just as review for both AudioStar Pro versions one and two, and this is a question that gets asked quite a bit is how do I insert a no response symbol if I don't want to bring my transducer all the way out to its maximum output and input a stimulus out there so I can put that in? Any transducer, anywhere you put the crosshairs on the audiogram, when you hit incorrect, that will give you the no response symbol. So keep that one in the back of your pocket, that could be very useful. All right, so the TEN test which is a test used to determine

cochlear dead regions is it has a new location. Previously, it was in our special tests, you hit more and you would navigate to it from there. We do have a different location for that under test type and tone, and I'll talk about this just a little bit later, but a couple of other things that have been requested that we've added is that you can now use the high frequency headphones for this test and any transducer can be used for doing this test, previously I believe it was just insert earphones.

Okay, a couple of other things that we've added with AudioStar Pro version two is the ability to have an external stimulus coming in in the second channel, and this is something that could be very, very useful for say testing with pediatrics. If you're trying to calm a kid down, you've got some children's music on your CD player and you want to have that going, you can easily pop over at channel two, get them listen to the music, get them to calm down a little bit, and then right back into channel one for doing ear testing. So having that as an option is something that a lot of pediatric places have asked for, so we've included it with 2.0. Another paradigm, another enhancement request, and this is one that we would have liked to have included in version one, but the hardware that we're, that we were working with was just not capable of allowing us to do this. With AudioStar Pro version two, we do have this capability, and that is to have inserts and phone selected in separate channels.

So now you can route channel one and channel two to both of these two different transducers simultaneously. That has definitely been something that people have requested. Another thing that all right-handed audiologists of the world will rejoice over is we do now have independent store buttons for each channel. Previously, if you had tone selected in both of the channels if you hit store either on the right or left side of the device, it would default to channel one. Now if both channels are set to tone, and so you have a stimulus for both selected, channel one will store channel one results and channel two will store channel two results. So being able to actually drive the audiometer from your right hand is now, it was possible before, but it's even more

convenient let's say now. So that kind of sums up what's happening with some of the newer interface with tone, let's talk about what's happening and how we've improved things with the speech tab. So first of all with AudioStar Pro version one, you are limited to saving up to six tests for each ear. We have now changed that so you can save an unlimited number of speech results for each ear. The display went from just six results to eight with a little spot where you can scroll down if you are collecting more than eight.

Previously, the words, when you would pull up like a CD from an internal file, I think it was 42 words would display on the screen, we've cut that down to 25 so that it makes it easier from a visual point of view to do like a half list. So that's just a little bit of a user interface change to make it a little more convenient. Channel two can be the primary channel for internal word lists, this was not possible with version one, again, with channel specific store buttons for both speech and tones, but the big thing here is it's faster. You'll notice that it just moves through the test faster and it moves through the wav files faster. And again, just as a reminder, and it's in bold and italicized, meaning there may or may not be a quiz question that will be related to this, but there is a new format for the integrated wav files, and we just wanted you to be aware of that so you're not trying to update a new AudioStar with the old AudioStar wav files.

So like I said, the speech screen here has been changed a little bit, you can see that you have a much larger area to view all of your speech results, and again, that speech list has been narrowed down to 25 for most lists depending on what type of a speech test it is but that just makes it again easier to visualize for doing those half lists. So like I said, channel two, now we can do internal wav files there, so that allows you to with channel one put the mic on, you could do a variety of different stimulus there while you're playing some sort of internal wav file, so bringing that capacity is I think it's gonna be something that will be very useful, especially for central auditory processing tests and even pediatrics. So let's go into some basic navigation, and this will, a lot of

this is gonna pertain to both version one and version two, I'll try to point out the differences where they come up. So, in both versions, let's just take a look at some of the important buttons for using the audiometer. So on the left-hand side, we have our monitor, this is everything that's coming in that you want to hear. Your stimulus for channel one and channel two, your auxiliary intercom for communicating with your assistant in the booth while you're doing some condition play, and of course talk back so you can hear what's happening in the booth. So you would just hit the select button until the right one lights up, and then you just turn the dial, a little volume bar will pop up very briefly so that you can monitor where you're at for everything coming into the device.

On the opposite side, on the right side, you see level, and this is where you'll select for a test mic if you're doing monitoring live voice and you're zeroing in your voice, or if you're using one of the external ports and you're bringing in like a CD player or an iPod or a computer as your stimulus, you want to be able to set the calibration tone to zero, so you'll select those and then use the knob to fine-tune until you get it right exactly where you want it. So those are some important buttons to be able to manage very quickly. And then there is the Nav Pad, which kind of looks like the old iPod navigation system, and if you're familiar with Grason-Stadler products, we have this type of design on several of our instruments. The Nav Pad actually will allow you to utilize the full function of the audiometer without hooking up a mouse to it.

Most people in most places that I've been will use a mouse just because it's available, it's easy to click on the screen, it's easy to get through all the different menus. Personally I've got about six audiometers, three tympanometers and several computers on my desk, so having mice for all them would be impractical, so I got really good at this Nav Pad, and I would encourage you to use it and get familiar with it, it really does allow you to navigate the device fairly quickly and efficiently. And in some cases, you use it to do things like trigger a speech file or a mouse click where interrupt won't

launch that, and we'll talk about that as well. Of course, the tone type buttons. When I'm out seeing, visiting with audiologists that have our products, a lot of times they'll just go and they'll hit like, if they're gonna go from tone to speech, they'll just hit mic, and that will bring them over to the speech screen, but you can also use these test type buttons, and what they're designed to do is when you press that, it brings you to whatever your default is for that particular test type.

So if I press speech, and I've already set up my speech preferences with the config app, I hit speech, it's gonna bring me over to speech the way that I want it laid out when I go into that test type. More, again, will allow you to get to a list, and then you can select the, either the special test, or the speech in noise test that you want to navigate to. And then we have the function buttons which are gonna be just below the buttons we just talked about. So first of all, data erase, and data erase, it has several different functions depending on when you press it. Most often, we use this to clear the session, but I want to be clear, it just clears session data, it doesn't actually erase the data from the device. The AudioStar Pro is designed to keep 100 sessions in its cache, and then if, once it hits 100, the oldest one is thrown out, the new one is added in, so you always have 100 sessions that are saved in it, and the only way to clear those out is to go into the patient's screen and delete the session completely, but you can use data erase to refresh your session, it brings you back to your defaults.

You can use it to erase a single point like on an audiogram or a single speech test, you can use it to delete the last curve, and when you press that button, it will give you the options that are available to you from the particular test type that you're at. Examiner is if you use the config app to set up a list of examiners, say you're sharing this audiometer with several co-workers, you want to have, and you're doing direct printing, you want to have your name on there, you can set this up so that when you press examiner, then you can select your name and do your testing. One enhancement that we made with this version is that previously if you were to say, clear the session, and

the other person was still signed in, you'd be kind of stuck there until you cleared the session and changed the examiner. We've made it now so that you can change the examiner with the version two at any time, and then your name will be associated with that test when you go to print your transfer. The patient screen, I'm gonna get into that in detail in a little bit here, but that just allows you to enter demographics, but there is some new features that we've added there that I want to talk about more in detail. And then there's that monitor speaker that I talked about at the beginning. And we also have, let's just do that right here, I think we go right into, yeah, the configure screen which I didn't really talk about, this is actually a really important screen for a variety of reasons.

First of all, when you press this button on your audiometer, regardless of whether you're in version one or version two, this is what it's gonna look like, and it'll have up there the app version which is the firmware version, your operating system version, serial numbers, dates calibrated, that type of information, and when transducers have been calibrated for it, but you can also update the device from here. So when your tech comes in or your regional sales manager comes in and they do an update, this is the screen they'll navigate to. This is also where, if we send you a USB drive with additional speech tests you'll navigate to in order to update the audiometer for that. The AudioStar Pro holds the calibration for bone conduction for both mastoid and forehead, and you can come here at any time and change that paradigm up if you want to do some testing on the forehead, say, from mastoid, so you can change that here.

There's, if you hit the gear icon, you can adjust things like the screen brightness. We've made this nice, big, beautiful screen, and then we did get some complaints that it was so bright that the patients were distracted when it was reflecting off the practitioner's glasses, so you can go in and you can dim that down a little bit if it's too bright for you out of the box. So this is an important screen and there's a lot of functionality associated with it, but the patient screen here is one that I wanted to draw your

attention to because it's certainly not a screen that, or has functions that is used very often, especially if you're using GSI Suite, you're just transferring your data over and managing it that way, or something like a log base. So the patient screen would be where you can add a new patient. With GSI Suite, you can even create a list of patients and download them to the audiometer, and then you can go through your list for the day. I don't know of too many places that are using that functionality, but this new feature that we have called Load Previous Session I think is gonna have some usefulness, especially if you're at a university or doing any type of mentoring.

So what this allows you to do is previously, like say that you did a session with a patient and somehow the transfer of data didn't go through, the printout got lost, the dog ate it, whatever, you would be able to still go in and find that session because it's date and time stamped, but then you would be forced to just either transfer it over to Suite, and then you'd have to go to Suite and see if you transferred the right one. What loading the previous session allows you to do is actually load that session live back onto the audiometer, so when you hit load, you go back to tone, and your results that you transferred or from that previous session are now live. So if you were working with a student and you wanted to review what they did for masking, you could bring it up on the audiometer and use this as an example. You can also transfer the sessions from here, save them to a USB, and this is where you can actually delete them permanently off the device.

So let's go through navigating the user interface and some of the menus on the AudioStar Pro that I think will be helpful for us all. All right, so like I said, we did make some changes for how you're viewing either standard, high frequency, or the full range, but you can also have a different screen orientation, so you have three different view options for looking at your audiogram. And you can look at it with the right on the right, left on the left, left on the right, right on left, or you can look at them combined. And an easy way to kind of see, to change this is if you go to the, and this is on either version

of AudioStar, if you just press and hold the tone button down for about three seconds, it'll change, it'll move to the next one, and then you can do that again and it'll just cycle through the three options that you have and then you just release it where you like it, and now you have the view that is most preferable to you when you're doing tone testing. Then we have, just wanted to, these next two slides, if anything is underlined on the user interface, you can click on it and a drop-down menu will come up, and it will behave like you pressed the button on the panel so you can click over your transducer, you can click over your routing, you can even click on reliability and add the reliability assessment at any time. So if you see something underlined, that means that you can click it and you'll get a drop-down menu. So let's start with the bottom menu, the navigation menu.

There's a lot of things happening here, but it's really pretty straightforward in tone testing. So the first thing that you're looking at on the left is signal, and this is where your signal modifications are, your FM, your pulsed, pediatric noise, and any combination of those. One thing that you can do with this is you can actually lock the menu so that it's up and you can scroll to them very, very quickly, so if you're working with a kid and you're changing up your signal modifications to keep their attention, you want to be able to do this very, very quickly by locking the menu, and I'll show you how you can do that in a second, it will stay up so you can easily navigate to where you need to be. dB step size, one, two and five are your increment options.

For test type, basically informing the audiometer what symbol set you want on the audiogram, but then I've bolded out TEN, that is where you will navigate to to set up the device for the TEN test. Aided is going to give you options for if you're doing a hearing aid assessment, or the CI, cochlear implant symbols are there as well, so you can navigate and scroll through those. Auto hertz has, when it comes from the factory, it's not active immediately, but we do have, you do have the ability through the config app to set up a sequence for tone testing. So if you always start at one, then you go to

two, then you go to three and four and so on, you can set that sequence up and when that box is checked, then when you hit store on the frequency that you've just established threshold for, it will automatically move to the next frequency in your list, and that's for both versions one two. And then range specific to version two, that's where you can just change your view one way or the other. Okay, so this is where an example of where you can lock that signal menu, and you can see how it looks in the screen though, so if you just click all the way over to the right, you can see, and I'll grab my pointer, you can move it down over to here to lock menu, and that will keep this menu up as you're doing your tone testing so you can easily click or navigate to these different signal modifications.

For those of you that noticed pediatric noise, and maybe had a question about that, pediatric noise is just another calibrated modulation for, it's a calibrated threshold, it's something that you can gain threshold with. A lot of people have used narrow band noise, although that's calibrated for masking and is, shouldn't be used to establish threshold, although sometimes if you're deaf over the kid and you're trying to get their attention, narrow band noise has worked in the past. Pediatric noise is just another alternative stimulus type to gain a threshold, but it is a calibrated threshold, so you can be confident that the threshold that you obtained is gonna be accurate. You'll notice also at the far right of the navigation or this bottom ribbon menu that you do have the ability to add comments.

You have to use an external keyboard for this, and this is gonna be primarily for if you're doing direct printing or printing to a PDF, but this is where you would add your comments, toggle the Stenger for both speech and tone on or off, and even set your liability if you so choose. I have a secondary picture of all the different ranges, because I wanted to add this note. You do have the ability, if you have the DD450, high frequency headphones, you can use those to test the entire frequency range. And the testing that we do here at GSI, both product testing and for things like May is Better

Hearing Month, we do the screenings for everybody here at Grason-Stadler, myself and another audiologist, I prefer using these high frequency headphones, they're very comfortable, they've got good noise reduction, and they're really great for testing the entire frequency range. Again, I added another slide on the fine hertz, and that was probably just because I wanted to emphasize how cool it is. All right, let's get back to speech testing. All right, so here is the general user interface for speech testing, and just very, very quickly, if anytime that you see these little sound waves up, that means that it's, something is happening, you're either presenting something, your voice is live, that is your indication, and then you also have your VU meter right below that.

So with speech, the very first thing that you're gonna want to do is assign a test type to what you're doing, and assigning the test type, if you set up your favorites for all of your speech lists, that will put them in a queue and bring up the ones that you use most often, but this is a way of basically just assigning your type to it so the audiometer not only, so that when you're reporting, you know exactly what you were doing, but also so the audiometer knows how to score it. And we basically come up with a couple of different tests types, so SRT, SDT, WRS, SRS, MCL and UCL. The key thing to remember is that you can organize your speech lists anyway you want, but if it ends in a T, it's a threshold test. So wherever you are on the intensity dial and you hit store, there's your result.

If it's an S like WRS or SRS, it's a score test, so you're gonna be using your correct and incorrect to gain a percentage and then that is what's transferred over and saved. A lot of times what clinics will do is they'll use WRS for their typical battery, so if someone's coming in just for a typical audiometric evaluation here, the speech list that I'm using for my speech discrimination, and then I might set aside SRS and put all, and associate that with maybe their central auditory processing battery. So you've got a way to organize what you use all the time versus what you use occasionally, and it's just a real convenient way to navigate because sometimes with these speech tests,

you can get a lot of different speech tests on the audiometer, so in those situations, you want to be able to get to what you want it to do very, very quickly. So you select your test type, and then from there, you can either use the internal wav files, you can use monitor by voice or external. If you're using the internal wav files and you hit word lists, this is the dialogue that pops up here and you'll see that the drop-down has, for favorites is pulled down, you can see what's in your favorite list, and then below that, you'll see a field for CD name, so all the different CDs, all the different word lists that have been loaded onto the device will pop up here, and when you select that, then below that where it says word lists, those are all the tracks for that individual CD that you've selected.

These are the tests that come licensed from Grason-Stadler onto every single AudioStar Pro, both versions. The AZ Bios, we have the Auditec Basic Adult I and II and Child, we've got Spanish auditory speech list, and CDs 1, 2 and 4 of the DOD/VA CDs, and that includes a variety of different types of tests. So we try to cover a fairly wide spectrum of what's done currently for speech testing. Again like I said, you can contact your tech, your regional sales manager, even contact GSI directly if you want to have other tests included on to it. So here is where I do want to spend just a little bit of time for word navigation. So when you click on word nav, it's gonna give you some different options.

When you click manual, basically that means that you're using you to the Nav Pad, that little iPod-like controller, or your mouse to control the word lists, and to control individual presentations. Right next to that, you'll see a box that says auto advance and basically what this does is it'll move to the next word in the list after you've scored it, and this is the way it comes from the device. So say you pull up a WRS list like the W22s, and you hit interrupt, it will present the first word, and then it's gonna wait for you, and once you score it either correct or incorrect, it'll move on to the next word, but it does require that you manually score each of those words, and you can't go back

and change it, it'll automatically advance to that next word based on, after you've scored it. There are other options, and we'll get to that in a second. Where it says auto advance word list, if you set up your favorites in the config app and you have this selected, that means that when you're done with the word list that you're on, it will automatically move to and populate your next word list, but only within that test type, it's not gonna move, like if you set up three lists in SRT, once you get to the end of those, it's not gonna automatically move over to WRS, you need to manually change the test type, and then it starts at the top and if you've got this selected, I'll just move to those word lists as you hit store. And then we get over to auto play.

Now, auto play is something that you need to set up with the config app, but it's worth the time to take a look at because it will help you be more efficient. Some people like to sit and hit incorrect and correct for every single word as they go through the word lists, that's fine, but you do have some other options. So with auto play, we basically got three different options that you have, you can set it up so that it plays just like a CD and doesn't score it, so it'll just do the first word, then it'll do this next word, and if you see right here, there is a little timer, and right now it's set at five, you can set the amount of buffer time between each presentation. So if it's at five seconds, after it presents the word, it'll wait five seconds, and then it'll present the next one.

By the way if you do set it to five seconds, that's gonna seem like an eternity, I would suggest something around one or two seconds, and that will seem a little bit more of a pace that they can keep up with without a problem. You can always change that on the fly, but so that would be called, we call it setting it up this way time expired no score, so it's basically after the time expires, it doesn't score it, it moves on, but you do have two other options as well, you have time expire correct, and time expire incorrect. And basically what that means is it's going to present the word after the amount of time that you've set expires, it will mark it either correct or incorrect and then move on to the next word. So what you can do is you, most people will, if you're a glass-half-full kind

of guy or gal, you put it at time expire correct, and then you'll have your finger hovering on the incorrect button, and while you're doing notes or doing something else and you're listening to what the patient is doing, every time they make a mistake, you just hit incorrect, it will override that correct, and it won't interrupt the presentation of the words. So this auto play feature, I think it's, when I go out and I'm visiting with universities and clinics and hospitals and I'm working with them with their audiometers, this is probably the one thing that everybody really, really likes when we turn it on and show them how to do this. It does save button presses, and it just makes testing a little bit more smooth for speech testing.

Another thing that's a little helpful hint is if you go to the lower right-hand corner, you can always check that little box right next to where that little audiogram is, and that will give you just a real quick reference of the audiogram that you've already taken, so when you're in speech, you can look back and forth very, very quickly, you don't have to switch back and forth between the different test types. I've added a very wordy slide here about speech audiograms, not used a whole lot in the United States, but basically if you're doing, if you're looking at PIPB and you're looking at rollover, and you're doing, the AudioStar will actually calculate in a rollover table and a rollover index, like I said, it's more common, we see this more commonly overseas in other markets outside the United States but if you are using this feature, I've added this slide, you can download the presentation and take a look more carefully at it.

We also have a lot of information in this in our user manual. This is another one of those tips that I've sprinkled into this presentation that I would consider extremely useful. And this is for if you're doing something with stimulus on both channel one and channel two, so like dichotic digits or competing sentences where you've got stuff on Channel A and stuff on Channel B, setting up the audiometer for that is channel one will always be External A, channel two, External B. Over here, whoops, yeah, here we go, over here, you'll hit interlock, and then you will hit interrupt, and that will launch

both of the tests, both channels simultaneously. So that's another one that might be good to download the presentation and print this out and stick it up right next to your audiometer because that's a very frequently asked question as well. Okay, so let's talk a little bit about special testing and then we'll try to wrap up with the config app. So for special tests, you'll see we've got the QuickSIN, the BKB-SIN, and some of our legacy tests. For the legacy tests, essentially what it's gonna do is set up the audiometer for each of the different types of tests that you want to do for ABLB, SISI, or tone decay. You set up the audiometer to do the test, but each one of these instances, there's this little warning that says we're not gonna print this on the direct printout, we're not gonna transfer this information to GSI Suite, you need to put all this in your comments, we're not gonna handle the data outside of setting the audiometer up for your preferences, that's as far as it's gonna go.

And then just as a reminder, the TEN test which used to be on AudioStar Pro version one in that same spot, we have it now set over here as a test type, so when you're in tones, that's where the special test is going to reside. So the other options that you would have would be for QuickSIN and BKB-SIN, so you'd hit more, click on the one that you want, it's all fully integrated. You are gonna score this by using the correct and incorrect button because as you will remember with QuickSIN, you're looking at five target words. So what happens is you'll trigger this either with your mouse, you'll trigger this with your mouse or with your Nav Pad, you don't want to interrupt here, and then as soon as that presentation is done, it will populate the score over here with the five and you'll use the correct and the incorrect to change it to whatever, to represent whatever they got right and wrong, and then when you're finished with that, it will calculate it and it will move the scores up into these different groupings. And these different groupings, you'll have two different group options, group one and group two, so that you can do things like different conditions, aided versus unaided, directional versus omni. And then if you really want to get deeper into QuickSIN, you can click the research, you can do the separated tracks, and then you can manually adjust exactly

where you want. When you're using the the stuff that's been normed, it kind of locks in the speech in noise levels, but with research, you can get in and you can do whatever you want with that. And with BKB-SIN, is just a simpler version of the QuickSIN, it's designed for children, it's designed for people that might have memory issues, it's written at a first grade level, so it might be a little bit of an easier test to take. Some of these sentences in QuickSIN are fairly strange, these are a little bit more common, but it's normed for children ages five and up. That is actually a key you need to make sure that if you're gonna get this to score, you need to make sure you have an age entered so that it can apply the proper normative data to it.

But it works functionally exactly the same way that QuickSIN does, you're gonna use your mouse or you're gonna use the Nav Pad to trigger those stimulus. And for results and interpretation, like I said, the signal to noise loss is automatically calculated by the audiometer, the results can then be transferred to GSI Suite if you are direct printing and you stored some QuickSIN or BKB-SIN data, it will also be included on that printout. And I just love it because the vast majority of people, this gives them a very quick and integrated way of doing some speech in noise testing and helps supply their patients with quick objective recommendations about what they need to do with their hearing and what can be done. So let's just skim through really quickly some of the pediatric testing features that I kind of skimmed over at the beginning. We've got our VRA trigger, the assistant monitor, the ability for remote keyboard, having the mic stimulus and the external stimulus in the tone screen as well as having an additional signal modification that you can use with pediatric noise.

So the VRA trigger, like I said it, we've added that new centering key, and it will trigger most commercial systems, and it just plugs in in the same way in both versions, in the back, just a one prong plug in. The assistant monitor, this is in both AudioStar Pro version one and two, this allows you to, when you press auxiliary intercom, it allows you to have that direct line of communication between the operator and the assistant,

including testing stimulus so that you can easily do condition play and your system is up to speed on everything that's going on for, in the booth and the test in the control room. The remote keyboard, this comes with every single AudioStar Pro as well. If you've use computerized audiometers before, the commands are the keys are very similar to what you would find from that type of a system, but we've seen it in universities where they will run an HDMI monitor out of the back of the AudioStar, mount that up into the the testing booth, and then use this remote keyboard to literally do condition play audiometry, run the audiometer, and do condition play, and that is some impressive multitasking, if I do say so myself. If you're doing that, all right, way to go.

All right, like I had mentioned before, having the mic or an external stimulus in a tone test type so you can bring the patient back to task quickly, you can have your voice or some music or something to distract them, very easily you can get to that stimulus and continue on with your testing as efficiently as possible. So with that, we're gonna spend the last few minutes here talking about the configuration application and how we can set our defaults. This comes with every single audiometer, it comes in our software package, it is, you don't need it to run the audiometer, you can literally take the audiometer out of the box and do everything that I've shown you today, but this just gives us our starting points.

So first thing is is we changed the interface up a little bit, if you're familiar with the config app before, we've made it look a little bit more like what we're doing with the TympStar Pro config app. It's got this hierarchical tree over here on the left-hand side and just makes navigating it that much easier. So the main menu here, and this is probably the most important part, is with upload and download. When you bring up the config app, you're bringing up the defaults, you're bringing up the factory settings. So the first thing that you want to do every single time once you get this hooked up, you got your audiometer hooked up to the computer, hit upload. That pulls the current

configuration from the AudioStar into the config app, so that's your starting point. You upload, and then when you're done, you'll hit download. These spots up here where it says save, that is if you want to save the configuration file and load it onto, say, a different device, the same configured setting. You don't have to save it to get it to save on the audiometer, that's what download is for. So when you hit download, it will send that to the audiometer, and you're done, you don't need to do anything else with saving unless you want to save the configuration. We do have 11 languages that are supported, and that is actually increasing all the time, we've got our audiometers all over the world.

Okay so for, I'll run through two different tabs, the instrument and audiometry tabs. So for instrument, we're basically setting up for things like here's where you would set your date and time if you wanted military time or you want to have, you can have two patient response buttons. The four speaker settings, this would be more for your tech, being able to set up like say a four-speaker array versus a two-speaker array. Instrument/facility, this is gonna be where you might want to put your name and your address and your logo, this is specifically if you're gonna be doing direct printing from the device. So if you're gonna use a printer or print to a PDF, this is where you'll fill out, if using GSI Suite, you don't need to do any of this 'cause you can do that through Suite.

If you're printing directly off the device, this is where you would set up your printer protocol which is the printer language, and then what, how you want to print, what print mode you want to use. Right now it's set up when it comes from the factory for version two it will have PDF as its selected protocol, which means that if you take a USB drive, you stick it anywhere in the device once you hit print, it's gonna send a PDF over to your USB drive, then you can move that to a different computer, print it, attach it to an electronic medical record or whatever you're gonna do with it. These are some of the printers that we have vetted, so if you're gonna be doing direct printing, chances

are you're gonna want to get one of these printers, and you can also talk to your distributor about that as well they'll have recommendations for you. This is what the report templates look like if you're doing direct printing, you can see this one's got the rollover table and the combined audiogram, and you can determine those behaviors both in the config app but also when you're printing with the new AudioStar version two, whatever orientation you choose, whether it's separated audiograms or combined is what will print, so that's a little bit different with the new version.

So here is where for instrument and security where you might want to set up different examiners and logins if you want to have that, those layers of security to them. The general information when we get into audiometry is going to give you your settings for a new session, so do you want to start off in the pure tone screen or do you want to start off in the speech screen? You can add in different euphemisms for reliability here, you can change your graph orientation here, or you can change it on the fly like I had previously described, you can change your pure tone average, which frequencies are used to calculate that. So there's just some basic settings here that you can set up in general. And tone is gonna give you your tone screen options, including auto hertz, and this is where you'll pick from these different frequencies here, move them over into your selected order, and then click on, and then when you start up your audiometer, it will be on, and you can always uncheck it if somebody, you want to do a different pattern with them or only do like a three or four tone screening, you can always uncheck it, but having this on just saves a little bit time and a little bit of button pressing.

For speech, we have our speech preferences, scoring preferences for the QuickSIN or BKB-SIN, whether you want to use the correct or incorrect button, but basic stuff for speech, but this is where you'll set up your auto play, so if you want to wait for score, if you want to do time expire correct, and the interval, so this is an important spot for setting that up, but here is where you'll probably want to spend a little bit of time. When you upload, it's gonna bring in a list of all the different CDs that are on your device, and

along with all the different word lists. so what you'll do is you click here to select the different CDs, once you do select a CD, it'll populate all the tracks right here, you would click on that, assign a test type to it, add favorite. Then once it's in the favorites, then you can organize them, you can move them up and down so that you can organize them in the order that you want them to appear. So this is definitely one spot where I've spent a lot of time with customers that has really helped with their efficiency. This is a spot for speech norm curves. Again, this is one of those things like the speech rollover, it's not used a whole lot in United States, but we do have support for it in the config app.

And then when you're done, all you'll do is you hit download and it used to be that you needed to restart the audiometer to have these settings saved, but with new version two, you just have to clear the session and these default will then take place. And like I said before, you can save a file of what you did, all the changes you made. Say you've got six or seven of these in a university facility, you can set this up once, save this to a USB, and then you can go to your configure screen on the audiometer, and just update them from the thumb drive so they're all mirror images of preferences.

And lastly, I just wanted to draw everything together because all of the, all of our devices except for the ones that are specifically for newborn hearing screening programs are gonna communicate with GSI Suite, and this is a really powerful report writer, it's really powerful for data management, and it's really easy to customize reports as it communicates with a lot of our different pieces of equipment, and it really does a nice job of making a nice, tidy little report for all the different types of needs that you might have fur different referral sources, for the different testing protocols that you're doing. So there's a lot of different things you can do with GSI Suite, and please take a look on Audiology Online for other webinars that go into that, as well as our our website, grason-stadler.com. So in conclusion, we are very committed to operational consistency with all of our products. When you take a look at the AudioStar Pro version

two, is not gonna look a whole lot different from version one, which really doesn't look a whole lot different from the 61 and going backwards, that operational consistency is something that we pride ourselves on, but at the same time, it is important to know what the differences are and important to know where we've built in spots where you can become more efficient with it. And knowing all that will definitely increase your confidence when you're testing. So with that, I'll open it up to any questions that you might have. I do want to thank all of you for taking some time out of your day today to join us, and we look forward to hopefully seeing you very soon like at a trade show, if you see us, please come over and say hello.