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Integrated Speech Testing With GSI AudioStar Pro Recorded March 2, 2020

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- [Instructor] Hello and welcome. Thank you for choosing to watch this speech testing with AudioStar Pro hosted by audiology online. My name is Tony Lombardo. I am with Grayson Stadler. I am a clinical applications specialist and audiologists and I am going to be taking you through doing speech testing and we'll do some advanced testing and some basic testing and just some basic navigation of the speech functions that come with the AudioStar Pro. So the learner outcomes of this course, the participant will be able to explain how to organize the internal wav files into favorite word lists. And after this course, the participant will be able to explain how to set up the AudioStar Pro, to set up and score all kinds of speech tests, dichotic, speech-in-noise, test sentences, et cetera. And after this course, the participant will be able to discern the process for adding additional wav files into the audiometer. So here is our quick agenda. We'll do a real quick overview. There's been some changes with AudioStar Pro recently, so I want to just go over that stuff first. Then we'll go into navigating the speech screen then we'll do some basic testing and some advanced testing. And we'll of course go through the configuration application for AudioStar Pro as well.

I also put up on this slide, a little spot to remind me to talk about ADVANCE, which is our educational portal on our website. So we do a lot of work with audiology online and we also have additional educational materials on our website. Our marketing team is fantastic and they've put together a really nice, repository of stuff. So if you ever have questions, this can be a really good resource for you. Okay. So let's just start with a real quick overview of the AudioStar Pro, some of the-- This product was introduced to replace the GSI 61 in 2012. Some of the key features of the device are that it's a very fast and accurate audiometer. We really liked the color interactive display. It had integrated wave files, that have been with the AudioStar since we introduced it. And we'll go through what those are in a little bit, we also have integrated special tests. So we have integrated things like the TEN test, QuickSIN, the BKB-SIN which we'll talk about a little bit. And of course, legacy special tests are included as well. The thing that makes this a-- We feel like a really great pediatric audiometer is the assistant monitor

and all of the ways that we have developed this device to work in those types of testing scenarios. So we have two different AudioStar Pro versions. And in September of 2019 we introduced a new version of the AudioStar Pro, and we call it AudioStar Pro V2. So chances are you might have, if you're watching this and you're looking for some instruction with your audiometer, you might have an aAudioStar Pro V1. From all appearances, they look essentially the same. There are some differences with the operating system and also some hardware changes. I'll go over those just very briefly. But this little webinar will certainly apply to both versions of the product. So like I said, we did introduce AudioStar Pro V2 does have even a higher resolution display. There are some differences in the control panel. We added a centering VRA, we added an internal monitor speaker that can be independent of the mic monitor headset and we've also just rearranged a few things on the device. So if you're wondering which one you have, the best way to figure that out is just to take a look at the control panel.

And if you have a centering VRA, as you see over here on the right side, a monitor speaker and you'll notice that they're up here where this arrow, is there's no high hertz button. So if you have all of these features, you have a V2, if you don't, you have a V1. But again, like I said, most of everything that we'll talk about today will apply to both. So with regards to the V2, some of the little enhancements that we've made are listed here. So for example, with V1, you can only store up to six speech results for each year. We now have made that so you can store an unlimited number. We also have made the display a little bit bigger so that you can see eight results per year versus the six that were there previously. In V1 when you pull up a word list, there will be 42 words that will be displayed on the screen. We have reduced that down to the size of an average half list, which is 25, making it just a little bit easier or visually to keep track of where you're at during your testing. And then we've also added a little bit of routing capability with this. So channel two can be used for the primary channel for the internal word lists. On V1, the primary channel will always be channel one. And we've also added some ability for channel specific store buttons. But just in general, you'll find

that the version two is going to be a little bit faster. There is also a slightly different format for the new integrated wav files. And I'll talk about that towards the end of this discussion. So just to kind of briefly show you what that new speech screen looks like. It's very similar to what we have with AudioStar Pro version one, just a little bit larger right here you'll see in yellow, the page is highlighted and this is just so if you do score more than eight results for speech per year, you can just scroll through and review the results this way. And then down here, like I was saying, a smaller number of words being presented, just 25 versus the larger number that we have with V1. So one other feature that we have with V2 is like I was saying earlier, the ability to have internal A as your primary channel for the internal recordings. And then on channel one you would have the ability to do things like live microphone, speech noise. So it's just a little bit more routing capability that you have with the second version. Okay. So there are basic, there are two different options for viewing speech.

The speech capability in AudioStar Pro, you have a speech table, which is pretty-- Is the default and pretty much the traditional view. And like I said, you can on V1, you can store up to six results, V2 unlimited. But this gives you the results in a tabular format. The way that we're used to seeing it here in the United States. Other places in the world that we've traveled tend to use this speech audiogram a little bit more. And you can see the the tabular results are still there on the right side, but now you have this speech audiogram. It's a a graphic format that's got a rollover table index. It replaces the results from that tab into this speech audiogram. You can look for things like rollover, it'll become active when you score more than one WRS result on this test. So if you're doing some rollover testing, you can certainly use this view to kind of visualize your results a little bit easier. Another quick tip when you are in the speech screen is oftentimes we want to reference the audiogram. So if you look in the lower right hand corner of your menu bar, you'll see a little box that you can check, which will bring up the audiogram for whatever year is in your primary channel. So in this case, we've got channel one in the right side. When we click that little button, we can now see what the

audiogram was so that you don't have to switch back and forth between the tone screen and the speech screen while you're doing your testing. From a basic navigation point of view, when you're using AudioStar Pro and speech, as soon as you launch a wav file or you activate the interrupt and you have microphone on, you'll notice right in the channel display box, there'll be three little sound waves that will become active. So when you see that you know that you are either presenting a wav file or it is active for the microphone, depending on whatever you have selected. Direct from the factory, we have integrated a variety of tests. And what we've done is we've actually licensed these tests from the various places that sell them so that they are ready to be used as soon as you unbox it and start testing with it. And those tests include the AZ bio, AZ bio pediatric. We've got the autotech basic adult one and two as well as the child version. There is the Spanish auditory speech lists, and then we have three CDs that are from the DOD VA. And those include tests like the PBK with a female talker. You've got some tonal APD style testing in there.

The wipie is included as well. So there's already several hundred word list that are included with the device. Now there are ways to add more and we'll of course, discuss those as we move through this presentation. So let's go through some basic navigation. The first thing that you will want to do when you navigate to the speech screen is you'll want to select your test type from the menu on the lower left hand side. And you can see down here that you've got a couple of different options, SRT, SDT, WRS, SRS, MCL, and UCL. And this will do a couple of things. First of all when you bring up your word list dialogue, it will pull off the favorites that you may have organized with the config app into a nice easy drop down menu where you can get to them very easily. Of course, you can access any lists from any of the test types, but if you have your favorites put together, this is going to make things a little bit smoother and more convenient. You won't have to sift around as much, but the first thing you want to do is select whatever test type you're doing. And as far as test types go, the important thing to consider is not necessarily which test might fit in there, but how the

device is going to handle each of the different types of tests. So you have two different, basically two different types. You have your ones that end in T, which are threshold tests and the ones that end in S, which are your score tests. The way that we think of it is these are kind of like little buckets. So you can take an organize some speech tests in, say WRS maybe the common protocol that you use for evaluation, whereas you could in the SRS is organized tests for a more thorough, central auditory processing evaluation. So it's just a way for you to organize your tests, but it will also dictate how the device handles it when you store the result, whether it's a threshold, whether you're looking at that intensity or you're looking at an overall score. And then of course, with MCL and UCL that will just determine the test types so that you know what that was in reference to when you were doing it. So let's take a look at the word list dialog box. So right here you see it popped up and you have, first of all, your dropdown for your favorites. So all of the favorites that you have associated with the test type that you've selected will be listed here. Below that you've got your source. So you'll be using the internal A and B if you're using these word lists. And then the CD name will be displayed. And then the word list associated with that CD right below it. And each one of those dropdowns, you can move through and select and pull up whatever test that you want to do for the particular test you're doing.

So the next thing we want to talk about is how we navigate through and actually launch these different tests. So let's first start with word nav. You'll see a little word nav in the lower in the menu bar right down here, you'll see a little check box. And when you click that, this menu will show up and you'll see manual auto advance, auto advanced word list, auto play timeout, and then close. So let's start with auto advanced word list. What this does is if you've taken the time to organize your favorites, as soon as you get through that test in hit store, what it will do is it will move to the next word list in your favorites that is associated with that test type. So for example, say you're doing some SRT testing, you get through your first spawn D list and you have your next spawn D lists stored as your favorite. As soon as you finish with that year and hit store, it will

populate with the next test. The next thing I want to talk about is auto play and the timeout. So this time here refers to the time between word presentations when you're using some of the different autoplay features that the device has. And I'll explain a little bit more about those autoplay features when we get to the config app. But you do have a couple of options that are available for how the device is responding when you hit the interrupt button and start testing. So over here under manual, if you click manual, what this means is that you'll be using this navigation pad or you'll be using a mouse to point and click at the word to make the presentation. If you're using this word nav, if you're using this navigation control, you'll just use these arrow buttons to navigate to the different words on the list. And then you'll use your interrupt button or your channel bar button to present the word. So that is manual, So you can move them around. This is really handy for SRT testing if you're just popping around and doing a couple of familiar words using this word Nav, either the control with the Nav-pad or with a mouse is very convenient. So the next little box you'll see is auto advance and by default that box will come checked. And essentially what this does is when you move to a list, like say you're doing some WRS testing with NU6 and you hit interrupt, it will play the first word and then it will wait for you to score the word correct or incorrect on the counter.

And when that happens, it will automatically advance then and present the next word. So in this type of testing when you're using auto advance, essentially your making the presentation, waiting for the response and as you score it, that advances to the next word. Now just a real quick point worth mentioning here is that this feature should definitely be disabled if you are doing a test that has multiple target words because if you score the first word in say a presentation that's got two or three different targets as soon as you hit correct on one of them, it will launch to the next presentation. So you wanted to disable that and then the counter will work as a true counter so that every time you hit correct or incorrect, it will have an impact on the percentage score correct. just a couple of real quick pointers as well. Some quick tips. First of all, when you are

using the internal wav of files, there's only one way to stop them. If you say for example, start a test that's got some longer segments to and some longer wav files and all of a sudden your patient is not ready to go and you've already launched it. The only way stop it is to press talk forward. So talk forward will definitely be your friend when you're using the internal wav files. So at any point, if you need to stop testing you hit talk forward, but a quick note, it does not work as a pause button. You will need to restart whatever you were doing if you aboard testing with that talk forward button. And one other real quick note due to the way that some of these tests were recorded the primary channel will be channeled 2 and you will have to adjust you'll have to adjust with your channels and route it so that it's the way that you want it. So for example, the hint in there and some APD tests where that primary channel was just kind of recorded backwards in comparison to the way that the vast majority of of tests were recorded. So let's go into some advanced testing. And we get a question, this question quite a bit at Grayson Statler, which is how do I play different CDs that might have stimulus on both channels. So some competing sentences and a variety of different APD tests will have this. So on the screen here, you've got a a test that is commonly use the SSW. And so we want to know how to set up the audiometer to make it work for this particular test. So here's how you want to do it.

First thing that you want to do is you want to have channel one. You want to have selected internal A on channel two, you'll want internal B to be selected then you'll hit your interlock button. And then to launch the test, you will interrupt from channel one. And when you do that, after you've of course set the dials for the proper intensity for each year, that will launch the test and then both of the channels will launch at the same time and they will go however you have them routed. So understanding the way that this setup is done is going to be important for a lot of the different speech tests that are on there, that are already on the device. And of course, if you have additional tests put on there, a lot of them tend to have this particular setup as well. Okay, so let's talk about some of the other integrated tests that we have for speech on the device

that will navigate away from our basic speech screen. And those would be the QuickSIN and the BKB-SIN tests. There's been a lot of buzz around these speech and noise tests recently in audiology. We think it's fantastic and it's one of the reasons why from the very beginning we've decided to incorporate these tests. We wanted to make them easily accessible, easy to navigate and also very quick to get through score and then share the results with your patients. But we're really proud of the fact that we have these fully licensed and integrated on the device. Regardless of which version you have, you will have these tests on your device. So let's talk about how you we'll launch these tests and how they will work. So when you press the more button and you go down to QuickSIN, BKB-SIN, here's QuickSIN. We'll take a look at that screen first. So the first thing that you'll want to know is that the interrupt button will not work during this test. This is one of those tests that's got multiple target words. So we're going to be scoring each one of these presentations more than once. So the way that we will launch these is again, we'll either use our mouse or we'll use our Nav-pad here to manually move to the different presentations. And then we'll use the channel interrupt bar to channel 1 interrupt bar to launch them.

The device will set everything up from a routing point of view. One real quick note though, and I even left this up for this presentation, is that when you first moved to this test, if you have not done anything to change the preferences on the config app for your favorites, it will automatically default to a practice list. And you can go ahead and you can present all those practice list. You can score them down the column here for the different signal noise ratios. But when you get to the end and you hit store, it will not populate up here because it will not score one of those practice tests. So if you get new situation where you get through it, and it's not scoring up here, just make sure that you're not using one of these practice lists. So you will again use the mouse or your Nav-Pad to navigate to and then launch the test or launch the presentation. Then what you'll do is automatically after this one plays, it will automatically put a five over here which is the number of target words in this sentence and it will put a five for each one

of these as it moves down. And what you do is you use the correct and incorrect buttons to score. So say for example, you had a couple of fives up here. They got those to get down to 10. They maybe only got three words, so it'll automatically populate at five. You use the incorrect button twice to bring that down to three and then move on to your next presentation. And then when you get to the end, it will sum it for you and you hit store. It will populate the results up here. Then it's already done the math for the calculation. You can just easily move to the interpretation. A couple of quick notes about the navigation menu. The group right here will allow you to toggle between two different conditions. So you can say for example, group one could be unaided, group two could be aided, so you can go through and designate different conditions to that group. There is also this little research box here and this is designed for as it turns out, research and other special applications. But this is where you can also separate the tracks and do some testing and customize those signal noise ratios. BKB-SIN works from a functional point of view, in a very similar way. However, the difference between this and QuickSIN is that this was designed for children and cochlear implant users. It's also great for people that may have memory issues because it is written at a lower grade level and the sentences are shorter. One thing to keep in mind is that this test is very dependent on the age range for the norms. So you'll want to make sure every time that when you're doing this test, you are putting in the the age range. So that it will score the evaluation, but you'll see it's a very similar type of setup to what we have for QuickSIN.

And it's the same type of navigation. It will populate with the number of target words and your signal and noise line here. And then you will use the correct and incorrect to adjust as the patient moves through the test. So when we look at the navigation menu here is pretty much the same. You again have that group where you can toggle different conditions. Again, like I said, age must be filled in so you just click here and it'll give you the different ranges. And then again, with research, it will allow you to do a little bit more control over channel 1 and channel 2. And you can use all the different

split tracks that are included with the test in this section as well. And of course from a results and interpretation point of view, that signal noise loss ratio will be calculated automatically for both tests. Those can then be transferred to GSI suite. We have elements on our reports to report this stuff very easily. And there it is just for your reference, we like this because it's got some really good objective information about the results that you can share with your patient. And we feel like it's got a lot of real world application for your testing with your patients. One real quick note about testing. I just kind of threw this in at the end about monitored live voice testing. Just making sure that you select the test mic level and zero out your voice. You can use the internal speech lists, you can have them up while you're using mic as a stimulus so that you can say the words and have them on the screen.

But just as a general recommendation, we would have you consider using the internal files for consistency. One other real quick remark about using the external A and B. So if you have a CD player or a computer that you have hooked up to your device because the tests aren't integrated into the AudioStar Pro, you will definitely want to make sure that you using a stereo 3.5 millimeter jack in order to properly separate tracks. Sometimes we get calls for people that are using a CD player and it's all going into one channel. It's because they're not using the right type of jack. The other thing that you'll want to keep in mind, this is if you're using something like a computer, you may need to adjust the audio output from some of the more advanced audio output settings in order to be able to have those tracks separated. And then of course, using the external A and external B to zero out with the calibration track that's included with the test prior to testing. Okay. So let's talk a little bit about the configuration app and some of the different screens that you might use to set up your favorites for speech testing and to set the defaults for your speech screen. So the config app is a little software program that comes with most, all of our devices. So with the AudioStar Pro, you'll get this small computer application. So you just took a up to the AudioStar via USB cable, and then you launched this config app and you'll upload the settings from the audiometer

to this little companion application. And then when you're done making your changes, you just download it. So I'm just going to skip some of the different functions that this config app can do. I'm going to go right to the audiometry. And so you go down into the audiometry, then you have your speech tab. And what this allows you to do is it allows you to, first of all, default whether you want your audiogram for your speech audiogram or your table. It will allow you to check whether or not you want to have for your wordlist favorites on. It will also allow you to set where you want the different channels to be. So for example, your stimulus and channel 1 here is in channel A and defaults to speech noise. You can set those up however you'd like. But the most important thing here is the internal wav file auto play mode. This is a little dropdown menu and it's got a couple of different options that you can see over here. So the first is wait for score. So if you have this selected, when you hit interrupt and you have the autoplay on, it we'll wait for you to score it.

Same way that it will kind of by default with the auto advance. The other thing that you can do is you can have it automatically score it as correct after a certain amount of time. So this is in seconds here, you adjust this and it will after however many seconds you've determined after between presentations, it will just mark it as correct. This is probably the most popular way that people will set it up. simply because most people will get more than 50% of the words. So what you do then is you just, you have it set that way, you hit interrupt, you're listening to your patient as they're repeating the words, and then you will just hit incorrect when they make a mistake to override the correct that the devices is placing on each of them. You can look at it from-- You can have it do the opposite. If you want to have it automatically score them as incorrect, then you can just hit correct When they say a correct word, you get the idea. The next is time expire no store, it's no score. This would be pretty much just like you hooked up a CD player, hit play on the track and it just went through each presentation, one after the other without scoring it. So those are the different options that you have for autoplay. And this is where you will set those up. The last page I want to discuss is this

audiometry wordlist page. This is where you will go to organize things into favorites. So essentially you will pull in with this upload button, all of the tests that are on the device. You'll use this drop down menu to pull up the different CDs. And then it will give you a listing of all of the different lists on there. You'll assign them a different test type, and then it'll move it over into the favorites list. From there, you can organize them, move them up and down. But keeping in mind that the test type that you associate with them will be what you see when you open up your favorites. So for example, in SRT here, we've got our Spawn D, A and B. Those will be at the top of that list for SRT. And then of course for WRS, you've got this NU6 list that will be at the top for WRS. They won't all be in the same dropdown. It will all be dependent on this test type that you have. Okay. And then just lastly, if you have CDs that you would like to have uploaded onto your device, you can contact your distributor or you can reach out directly to Grayson Stadler. We'll have you fill out, there is one page form, which is what we call our letter of ownership, which just as a declaration that you do in fact own the CD. And that you are giving Grayson Stadler permission to change its format, in order to be uploaded to the device. So it just asks for some real basic information.

What tests are you including the AudioSstar Pro serial number and firmware versions. Chances are we've already converted the test that you want to have done. We've done hundreds of these. So generally what we have you do is fill this out, send in a picture of the original CD as well as additional validation. And then we will process it, it generally takes a couple of weeks. We send out a USB with instructions on how to upload them to your device. In very rare instances, there may be some obscure tests out there that we still haven't encountered. We may ask you to have the CD sentence so we can extract it and change its format. So that is it for today's presentation. I thank you so much for tuning in and keep your eyes and ears to the ground. We've got a lot more stuff coming with audiology online and we look forward to it. Thank you very much.