

Microphone Set-up and Troubleshooting Guide

Jon Wahrenberger, MD
Speech Recognition Solutions

Contents:

- Setting Up a New Microphone
- Troubleshooting a microphone associated with poor accuracy
- Troubleshooting a Microphone not working at all

Setting up a New Microphone:

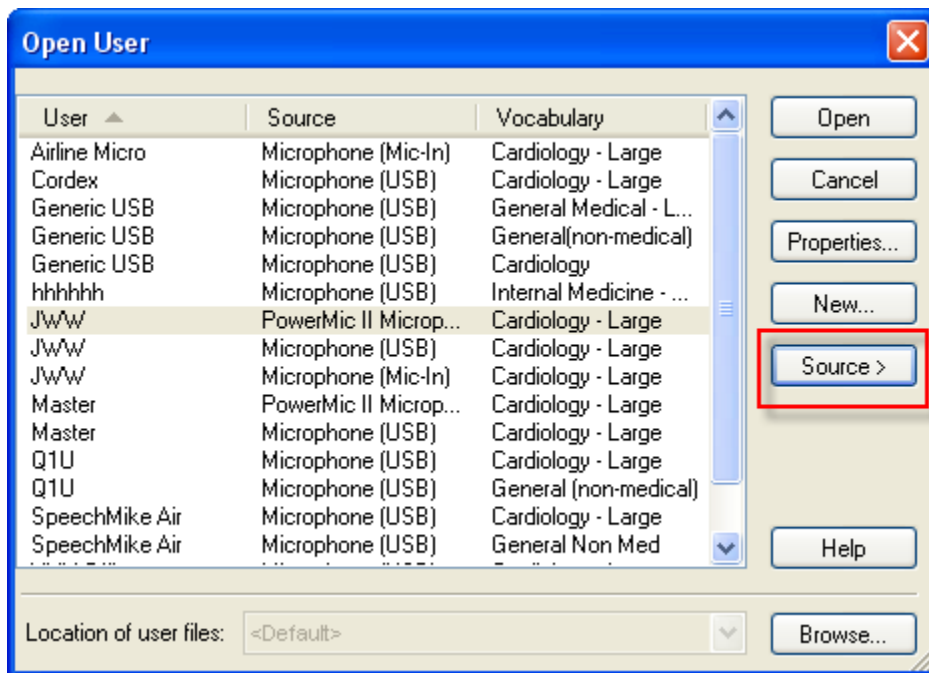
Overview: There are three basic options when switching to a new microphone:

1. Add the new microphone as a new “Source” to your existing profile – RECOMMENDED
2. Connect the new microphone, run the audio setup wizard to set volume and assess accuracy, and use it without making any additional modifications to Dragon
3. Create an entirely new user profile with the new microphone - NOT RECOMMENDED UNLESS YOU HAVE OTHER REASONS TO CREATE A NEW USER PROFILE

Method One (PREFERRED METHOD) - CREATING A NEW SOURCE FOR YOUR EXISTING USER: Adding a new “source” to an existing user profile has the effect of making a complete copy of your old profile, including all of your customized training, acoustic information, customized words and commands, and yet tailoring it to the new microphone. In order to complete this process you must do the mandatory 5-6 minutes of reading. In essence it simply spends some time listening to how you sound with the new microphone source. After creating this added source, you will have the choice of which source to use each time you open Dragon.

How do you add a new source? Simply follow this procedure from the Dragon toolbar:

1. Select Dragon > Open User ...
2. On the far right of the Open User dialog, click on “Source” and then “New”
3. Select the new source from those listed and following the usual steps to complete the training for the new source.
4. If you want to delete your old source (doing so will prevent it from showing up for potential selection each time you open Dragon), simply go to Dragon > Open User and select the old profile. Then click on “Source” and then Delete.

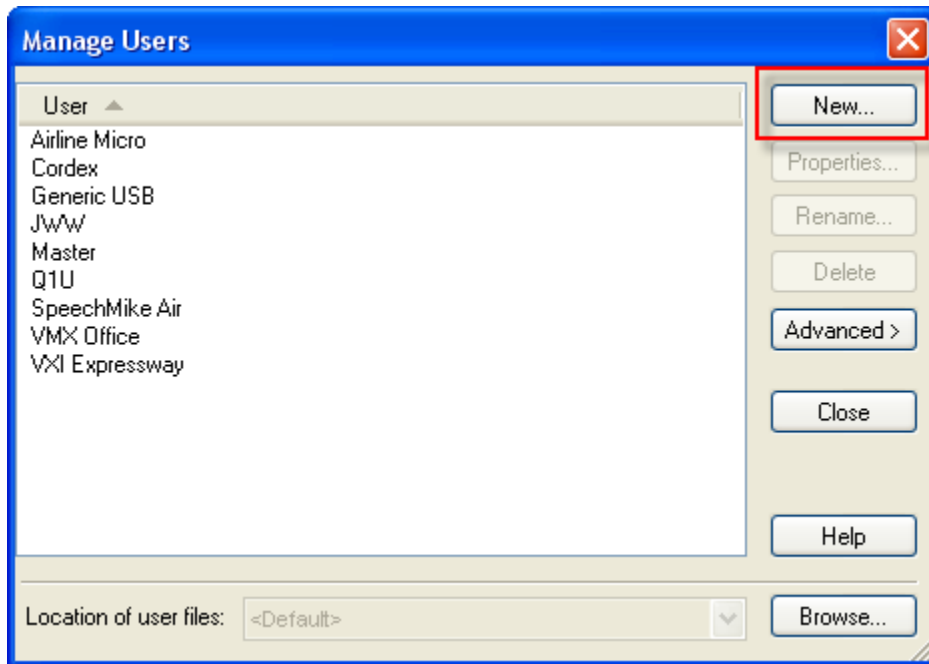


Method Two – SIMPLE SUBSTITUTION OF ONE MIC FOR ANOTHER: The simplest way to switch to a new microphone is simply to plug it in, run the audio set-up wizard to set the microphone volume and confirm basic accuracy, and to use it. How do you run the audio set-up wizard? On the Dragon toolbar, go to Tools > Accuracy Center > Check My Audio Settings and follow the instructions. The advantage of this is simplicity. When moving from one wired microphone to another (especially when moving to a more accurate microphone) this is often adequate. If you are changing the type of microphone (i.e. moving from a wired to a wireless microphone or visa versa, switching from a simple microphone [3.5 mm plugs] to a USB microphone, or switching to or from a Bluetooth microphone) this simple method is not advisable.

Method Three (RARELY NECESSARY): This is the least preferred method, it that it requires you create an entirely new profile from scratch, using the new microphone. We recommend this only if you have an existing profile which is either extremely new (you haven't invested much into it) or extremely old (AND suspected to be somewhat corrupted). Here are instructions for creating a new user profile from scratch.

1. Export any words and commands from your old profile so you can import them into your new profile once created.
 - a. Export your old words from the Dragon toolbar by going to Words > Export. Save your words to a location that you will remember.
 - b. Export you commands by opening the Command Browser (Tools > Command Browser). Under the Mode menu, select "Manage". Click the box next to the command category you want to export and then click on Export on the left menu

2. From the Dragon toolbar select Dragon and Manage User.
3. Select New




4. Follow the subsequent steps, being sure to select the new microphone or device as your audio source.

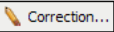
Dealing with a Microphone which is working but with Poor Accuracy

Less than ideal results is a common scenario and may or may not be the result of a dysfunctional microphone. Keep in mind that accuracy is dependent upon many factors and the most important of these is your dictation style. In this situation we recommend a sequential approach, as follows:

1. First, rule out obvious audio issues by listening to a recording of your speech. There are many ways to do this but simplest method is simply to dictate some text and then use Dragon's playback functionality to hear your speech. This is done by expanding the Dragon toolbar to show the "Extras Bar", selecting the text you dictated, and then clicking on the play button.

Extras **toolbar icon** 

Click the icon to display the Extras **toolbar**, which contains the following features:

Display Correction menu 

Click the [Correction](#) button to stop playback and correct a mistake.

Playback toolbar 

Contains the following controls that control the [playback](#) of dictation:

- Begin playback
- Begin Fast Playback
- Stop playback
- Skip backward a few words
- Skip forward a few words

Listen to the recording to be sure it sounds clear and that there are no word cut-outs, static or other interfering sounds. If so, you likely have a mechanical problem related to the microphone or sound card. If the sound seems to be clean, then proceed to the next step.

2. Run the audio set-up wizard. This takes just a couple of minutes and resets your microphone gain and also provides a crude check of your system integrity by means of providing a speech to noise ratio. The audio set-up wizard can be access either by saying “check audio” or manually by going to Tools > Accuracy Center > Check My Audio Settings. As long as you get a speech to noise ration between 15 and 25, your system is probably OK. Don’t get hung up on the exact number as this is a very crude test and the exact number does not necessarily correlate with your actual accuracy.
3. If you are using a laptop computer, it likely has an on-board microphone. If you are using a microphone plugged into the sound/microphone jacks, it is possible that Dragon is using the on-board microphone and not the one you have plugged in. You should manually disable the on-board microphone and this will likely resolve your issue. Alternatively, use a USB interface for your microphone (external USB sound adapter). These are inexpensive devices that substitute for your on-board sound card.
4. If the above did not help, we suggest that you devote extra attention to your dictation style. Keys to optimal dictation are the following:
 - Enunciate clearly
 - Speak in a smooth manner, neither overly slowly or excessively rapidly. Speak in either sentences or phrases. Recognition is worst when speaking one word at a time.
 - Maintain a relatively consistent pitch and tone when dictating
5. Consider switching to a USB microphone or use your current microphone with an external USB adapter. This may be particularly helpful if you are using a laptop computer. The external USB adapter substitutes for your internal sound card and offers the possibility of removing internal electrical interference which may be negatively impacting your accuracy.

6. Consider upgrading to a higher quality microphone. Be aware that the microphone that came with your version of Dragon cost Nuance about \$10 or less. There are many better microphones that offer better accuracy and rejection of external noise.

Microphone isn't working at all

This is a rare situation, but one which leads to great frustration. Keep in mind that Dragon will only use a microphone that is being recognized by the operating system. So after visually inspecting the microphone to rule out obvious mechanical issues, you should take steps to assure that the operating system is recognizing the microphone.

Here is our basic protocol:

1. Visually inspect the microphone and cord (and external sound device if being used) to be sure there is no evidence of damage to the wire.
2. Be sure your microphone doesn't have a mute switch. If so, be sure that the muting function is not activated
3. If possible, use the microphone with another application, either on your current computer or another to assess its integrity in another environment. For instance, try your microphone with Skype or another audio application which uses a microphone.
4. Confirm that your operating system is sensing the microphone:
 - a. Windows 7 & Vista: Go to your control panel > Hardware and Sound > Sound, and click on the recording tab. You should see your microphone. When talking, you should see deflections in the green sound magnitude scale.
 - b. Windows XP: Confirming a microphone is more difficult in XP than in 7. Often, the simplest method is to try a sample sound recording. This is done as follows:
 - i. Click on Start > All Programs > Accessories > Entertainment > Sound Recorder
 - ii. On the sound recorder Edit menu, select Audio Properties



- iii. Under the Sound Recording section, be sure your sound device is correctly chosen (select your on-board sound card if using a microphone plugged into the mic and sound jacks; if using a USB microphone or device, select the name corresponding to the device – many USB sound adapters show up as AK5370 in windows XP)

- iv. Make a sample recording by clicking on the record button. If audio is being recorded you will see deviations in the green signal line in the center of the recording.
 - v. Hit the rewind button to bring you back to the beginning of the recording
 - vi. Hit the play button and listen to the recording
5. If you are using a laptop and have a microphone plugged into the sound-out and microphone jacks, it should be disabling the on-board microphone, but there are many examples of this not being the case. It is possible that Dragon is taking the sound signal from the on-board microphone and not the microphone you have plugged in. In this case you should attempt manually disable the on-board microphone. This method varies from machine to machine and may not be possible. As a last resort (but nonetheless an excellent solution), get yourself an external USB sound adapter and do away with the problem. Dragon will be directed to take it sound signal from the USB device into which you microphone is plugged and the on-board microphone will no longer harass you!
6. If you are plugging your microphone into the sound and microphone jacks on your computer, confirm that you have these properly selected. In general the sound jack is marked in green and the microphone jack in pink or red. If you have more than one set of jacks (front and rear), try plugging the microphone into the other set. If you know your microphone is otherwise working but not with your PC, consider the route of using an external USB sound adapter.