Dragon Professional

FAST TRACK TO PROLIFIC WRITING ON WINDOWS

JOSE JOHN

Fast Track to Prolific Writing: Dragon Professional Individual 15 for Windows

Jose John

This book is for sale at http://leanpub.com/dragon-professional-for-windows-book

This version was published on 2019-05-28

Contents

Introduction

Writing is a very important skill to have and it can further your career significantly. Writing is clearly a core skill for students, academicians, and professional authors. But even in business, having good writing skills can be a huge boost to your career. Imagine your confidence if you could clearly communicate your ideas at work. For example, if you were able to write up a two-pager that explained how an important business problem can be solved in an innovative way. That two-pager may circulate up the corporate ladder and give you valuable exposure among bosses at the company. Writing is also important for thought leadership, in addition to your ability to conceptualize and develop an idea. In all these cases it's not beautiful prose that's needed, rather it's simple and accurate prose. Prolific writing based on good analysis is the key to unlocking your career, to a large extent.

How can you be prolific? The only way to be prolific is if you can reduce the "hurdles" you face when you get down to writing and publishing. What are the hurdles? Well you may not be confident of crafting the right sentence or may even have doubts whether you can write well at all. Remember though that it's more important to get your ideas out rather than worry about the many ways in which your prose doesn't live up to the mark. Thus, what you need is a workflow that allows you to produce content quickly, that allows you to write iteratively which is the ability to write in multiple passes so that you can improve your work. You need a tool that does not sap your energy, but instead makes you feel good about the writing process itself. That is how you can achieve high output - by enjoying the process of writing.
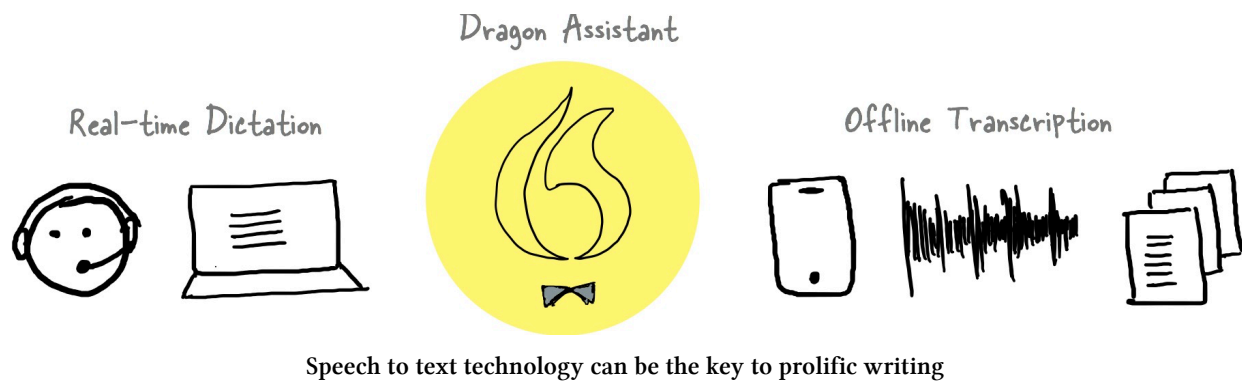
One way to reduce fatigue involved in the writing process is to write the way you speak i.e. without laboring over every word or sentence. When we speak we tend to focus on the thoughts we want to convey, and we do not get bogged down by choice of word. We need to write in a similar manner by not focusing on words but rather on thoughts and ideas. We need a tool that allows us to write like we speak, and helps us focus on the broader topic, not the specific words.

For most people, speaking is far easier than writing. And this is because we accept that how we speak doesn't have to be perfect. But, what we write is subject to a much higher bar. We can seek a middle ground though. What if we write the way we speak but add more structure & clarity than usually invested in speech? Thus, what we need is a technique that allows us to speak with structure and precision. For example, many people use a whiteboard or an outline that allows them to present ideas in a cohesive manner. Other people build index cards or cue cards which allows them to deliver a presentation. Others prefer to create a slide deck which sequences the talking points. Whatever is the tool that allows us to speak well, can also become the tool that allows us to write well. That is the promise of speech to text technology.

Speech to text technology covers both real-time dictation and offline transcription, and as we see later in this book, both of these technologies can be leveraged to help you become a prolific writer. When you use speech to text technology to write out your ideas with confidence, it indeed feels like magic – to paraphrase Sir Arthur C. Clarke.

Dragon Professional Individual version 15 for Windows, as of this writing, is the most advanced speech recognition technology available to the public. You will be amazed at what it can do for you, converting what you speak into text on the screen. However, it does require investment on your part to train it and to fit it into your writing workflow. That's where this book comes in. The aim of this book is to help you get the most out of this versatile software by training it effectively and deploying it for your daily use. Moreover, we will build a robust workflow that fills the gaps in how this software operates.

It's very important to have a complete end to end workflow, because wherever there is a hurdle, that is an excuse to abandon or postpone writing. Towards that end, we take great care in this book to make sure that each phase of this writing workflow is simple and straightforward. However, you're encouraged to modify the workflow as you see fit. Because the fast track to becoming a prolific writer is built on a workflow that makes you glad to write.

Speech to text technology can be the key to prolific writing

Key Concepts

This book is about using Dragon Professional Individual version 15 for Windows in an effective manner in order to become a prolific writer. To do so, we need to understand a few key concepts about the Dragon software.
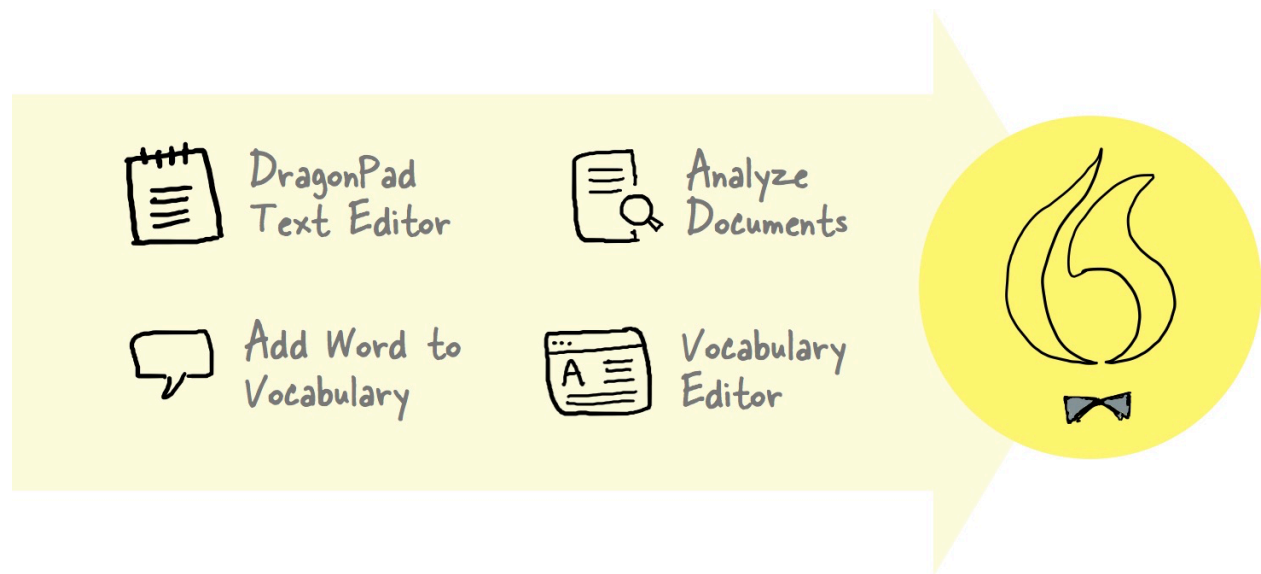
Boost Performance

Dragon is a sophisticated application that requires significant computing resources. You should get the fastest PC that you can with lots of RAM, a speedy hard disk, and close out any other non-essential applications. Also, tweak Windows to minimize the OS memory and computing usage. Let the Dragon application have the full power of the system available to it. You don't need to do this for very long, since you will be writing and dictating for only short periods of time anyway. However, for the best response while you dictate, it is important to provide as much computing power as you can to the Dragon application.

Train Correctly

Think of the Dragon application as an Assistant, which needs to be trained to your specific way of speech and writing. Out-of-the-box, the latest version of Dragon dictation does an impressive job in terms of understanding your speech and makes only a few mistakes. However, that is not enough because you don't want the application to repeat the mistakes frequently. Indeed, it will be as annoying as having a real-world Assistant who doesn't learn from his mistakes. Therefore, we should invest the time required to train the application properly.

What does training mean? We have to teach the Dragon Assistant how we like to speak and write. That means we have to teach it the vocabulary that we use and give examples of how we tend to speak and write so it can figure out what we're likely to say and the words and phrases we're likely to use. Without this training, the Dragon Assistant is interpreting our voice based on a generic model of the English language that it ships with. The more it knows about you, the better will be the performance. Therefore, you should budget to spend 5 to 10 minutes regularly training Dragon, doing the dictation with care and helping Dragon to correct mistakes as it makes them. It's not a big investment in terms of time but it is essential for training the Assistant to work your way. And, an excellent Assistant will help you get your work done effectively.

Training diligently is important. Train the Dragon Assistant to your speech patterns. You will only trust dictation software to handle your work if it demonstrates high accuracy.

Produce Steadily

Once we have the Dragon Assistant trained to work with our voice and speech patterns, we will be in a good position to use Dragon to produce text. We can do this through both dictation in real time, and transcription of a previously recorded audio memo. Both approaches have their merits and unique strengths. We will cover both in this book.
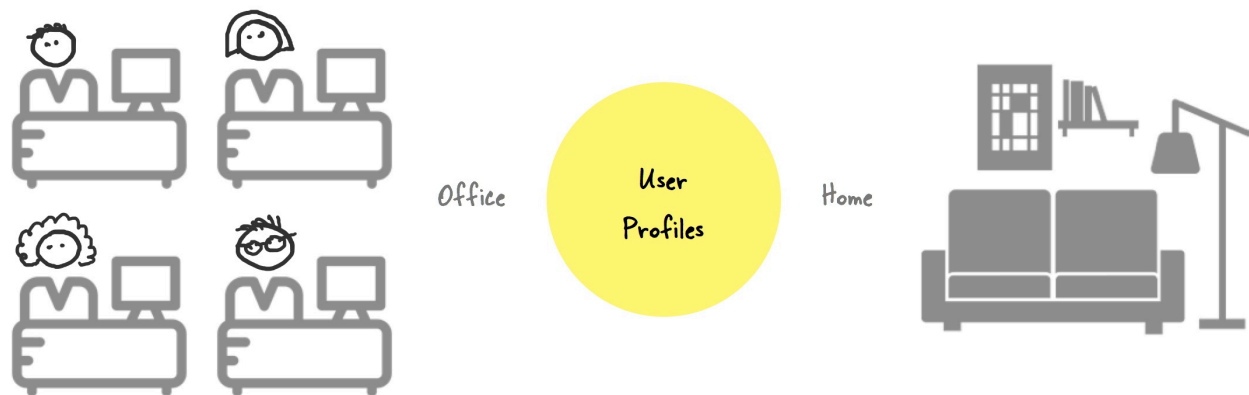
In addition to generating text, Dragon can help you automate your workflow, in that you can use voice commands to do batch operations. For example, you may want an image in a Microsoft Word document to be resized, centered, have a border, and a caption. Or you may like to have periodic backup and versioning of your documents. Or you may want to set up an export workflow where you generate a PDF and upload it to a shared folder. Any such sets of actions can be executed with a simple voice command to prompt Dragon to take control of Microsoft Word and Windows OS, as required.

These are minor improvements to the workflow, essentially automating repetitive tasks. While Dragon can do these tasks, in the broader pursuit of becoming a prolific writer, this functionality is not that important, to the extent that other automation utilities may do a better job anyway. Because what the Dragon Assistant does really well and uniquely is the ability to convert speech into text. And we need to get that part working great before we venture into Dragon's role in the broader writing workflow.

Identical Environment

Dragon's speech to text engine is designed to replicate what it has been trained to do in a real production scenario. What this means is that the Assistant will perform only as well as it has been trained to perform. And if you ask it to perform in a new scenario, it will do so on a best effort basis, which may not yield a good performance. In practical terms, you should train Dragon in an identical environment to the one where you'll be using it for real. For instance, you may want to train Dragon to recognize your speech in an office environment with its ambient sounds if you intend to dictate primarily at the office. Alternatively, if you intend to use Dragon late at night, dictating in your favorite armchair, then that is the environment in which you should train it. Ensuring the training environment is identical to the production environment will make it easier for the Assistant to follow its training.

What if you intend to dictate in more than one location? If the audio environments are significantly different, then you should isolate the training for each location into its own User Profile. And you will have to duplicate part of the training, since the training applies to one User Profile at a time. Thankfully, Dragon does provide tools to export some parts of a trained User Profile and import it into another User Profile.

Ensure that you train in an environment that matches the environment where you will dictate.
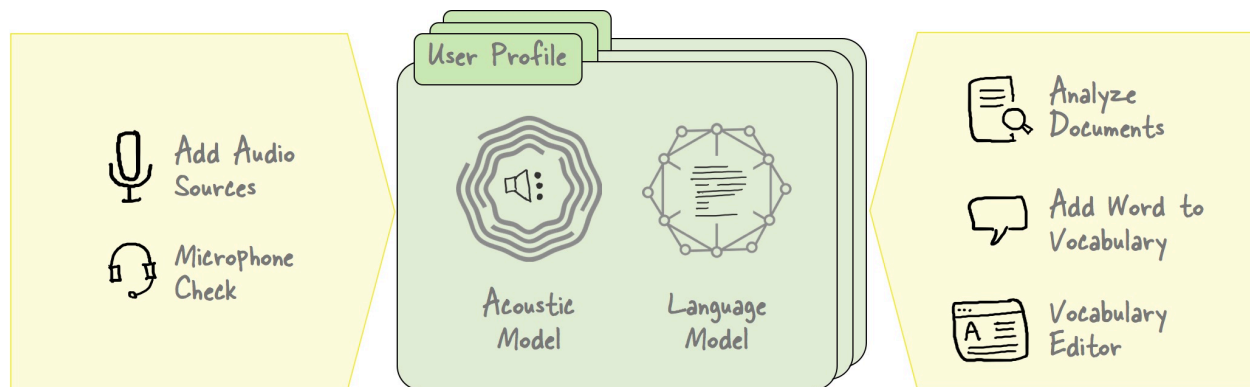
The User Profile

The User Profile represents the entirety of what Dragon knows about you. It is the "document" that Dragon reads and writes on the disk as it interacts with you, formulating an understanding of how you speak and what your voice sounds like. In order to do this, internally Dragon uses an acoustic model and a language model, and these are processed together to understand what you said.

The acoustic model captures what you sound like and is dependent on the source of the audio because microphones differ in audio characteristics. Accordingly, the acoustic model allows you to add additional sources of audio, and it will build an understanding of your voice specific to the source that you use. That is why a headset microphone for dictation is treated as a separate source

from an audio recording made on a smartphone mic intended for use as a transcription source. By building a model of what you sound like and knowing the differences in how your voice sounds across the sources, Dragon can interpret your speech better.

The language model is about what you say, i.e. the content. It has to capture both your vocabulary as well as your speaking style, where style is the sequence of phrases that you are likely to use. In this way it builds a text-based representation of how you speak.

In sum, the acoustic model and the language model are used together to understand what you say, and thus to transcribe your speech into words.

When you train Dragon, you're improving both the acoustic model and the language model of the current User Profile. Each User Profile is trained separately.

In an ideal situation, you needn't be aware of your User Profile other than when you set up a new profile in the Dragon application. The official documents usually recommend starting with a new profile for each new audio environment. For every new profile, you have to train Dragon again to build up the acoustic model and language model.

In practice however, you may have other situations, such as data corruption, where you need to manage your user profiles. Thankfully, Dragon automatically backs up your User Profile, by default every fifth time that you save your User Profile. Therefore, you do have a backup that you can revert to, if dictation accuracy goes completely off. However, you may also want to export your User Profile to a folder on disk if you need to troubleshoot by tinkering with the individual files that comprise the profile. Editing the User Profile is an advanced topic, and you would not bother with it unless absolutely necessary for troubleshooting.

One scenario where you may want to manage your user profiles is when you want to branch it. For example, you may have developed a User Profile with high accuracy through extensive training. Then, you may want to use the same profile for transcription. You can do it by duplicating the dictation profile and add a transcription source to the duplicate profile. This way you have two distinct profiles, one for dictation and the other for transcription. I recommend doing this because of a bug in Dragon 15.3 where my primary User Profile got locked into the transcription source. I was unable to revert to the dictation source included in the same User Profile. There is a fix, which involves editing the settings inside the User Profile folder manually. However, it is inconvenient enough that I prefer to avoid the situation again, and thus use a separate User Profile
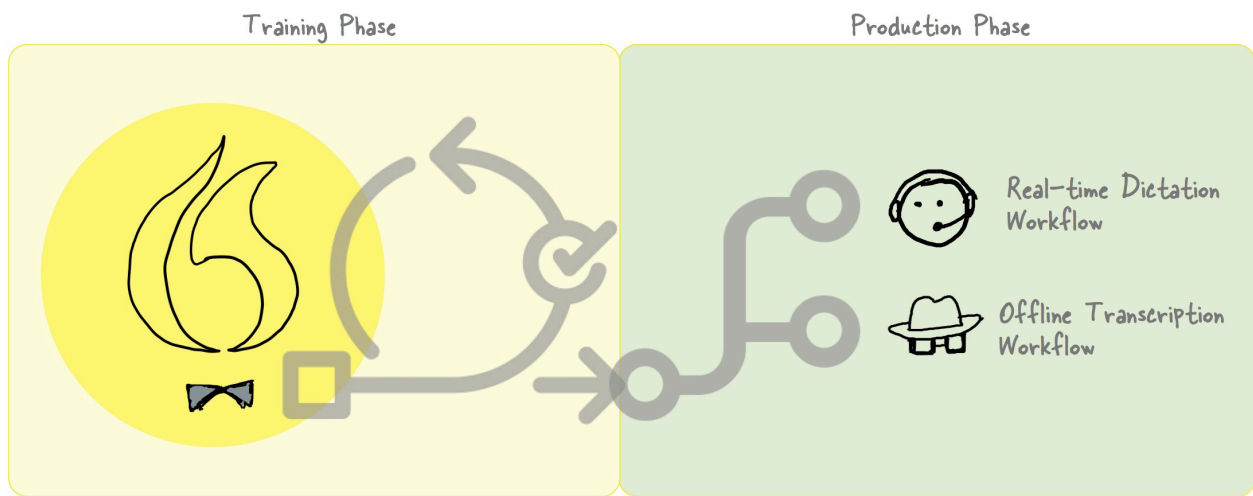
for transcription.

Dragon Toolkit

Dragon provides several tools to train and work with your Dragon Assistant. These tools can be accessed from the DragonBar, which is the primary visual interface for the Dragon Professional Individual software on your PC. You can also invoke many of these tools using a voice command.

Locate the important tools on the DragonBar

The Training Phase and the Production Phase

This book presents the training and the production use of the Dragon software separately. The objective of the training phase is to make the Dragon Assistant capable, to accurately interpret your speech. Then, you can leverage the Assistant to set up two parallel workflows to boost your writing output: a real-time dictation workflow, and an offline transcription workflow.

Training Phase   Production Phase

Real-time Dictation Workflow

Offline Transcription Workflow

This book separates out the training from the production use. Both phases together, when executed well, will yield a streamlined workflow for prolific writing.
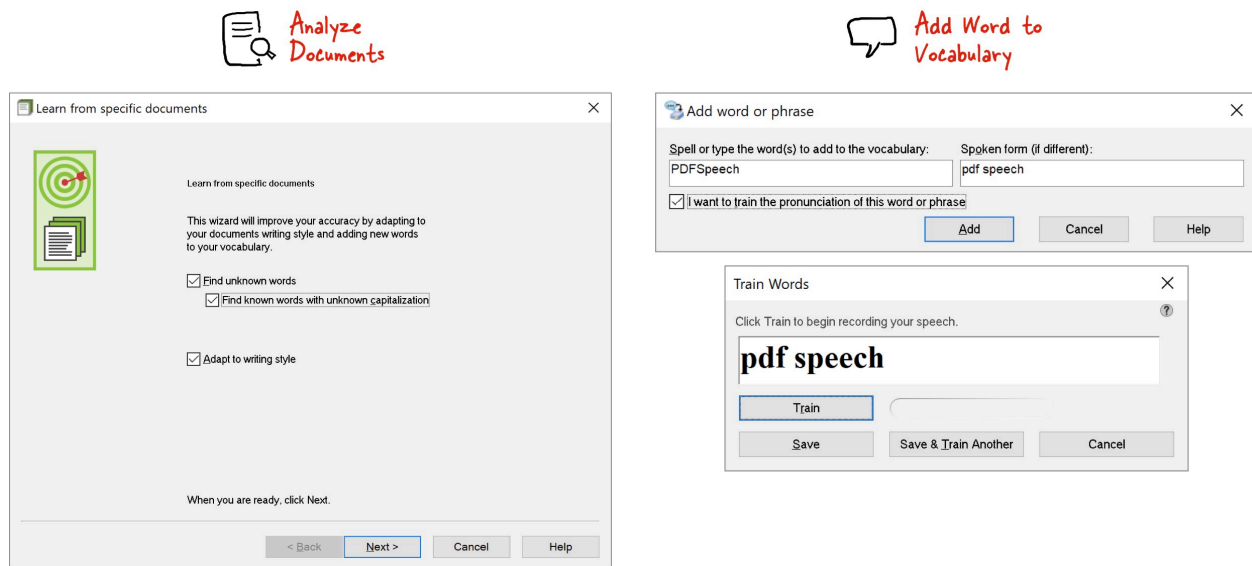
Training Phase

In this section we cover how to train Dragon so that it does an excellent job of converting your speech into text. As far as Dragon is concerned, there is technically no distinction between training and production. Dragon will still be producing text to its best ability in the training phase. You should think of the training phase as your behavior where you pay more attention to how Dragon produces text and slow down to make corrections to Dragon's interpretation of your speech. In the training phase, you fix mistakes using a specific approach that allows Dragon to learn from its mistakes.

The User's Vocabulary

Dragon ships with a general vocabulary for English speakers. By training Dragon, you customize this vocabulary to reflect your particular speech patterns. Your customized vocabulary is saved in your User Profile.

As is commonly understood, your Vocabulary should contain the specific words you use, for example, the technical terms in your subject. You can feed documents into Dragon for text analysis, which not picks up new words for the vocabulary but also helps fine tune the language model in your User Profile based on your writing style.

You can also add words (or phrases) one-at-a-time to the Vocabulary. You may do this to ensure that Dragon understands how a phrase must be spelled, capitalized, spaced or otherwise punctuated. For complex words and phrases, you can provide an approximate spoken form equivalent that Dragon should listen for, or hand-hold Dragon all the way by providing a voice sample of you saying the phrase. In this manner, you can ensure that Dragon is fully aware of the terms you're likely to use in production.
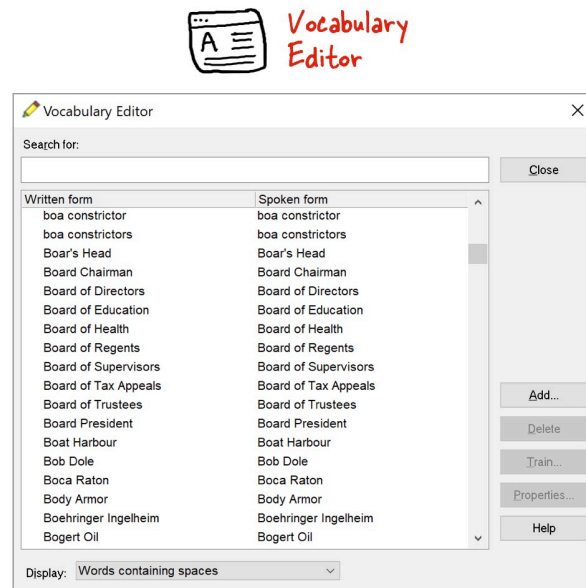
Add your subject-specific words and phrases to build up the Vocabulary that Dragon understands and relies on for speech recognition.

You can see all the words and phrases that Dragon understands in the Vocabulary Editor. This is also where you can train Dragon to recognize specific phrases. For example, if Dragon misunderstands how you say a word, then train your voice for that particular word. Or, if Dragon keeps confusing a built-in word with your custom word, delete the built-in word from the Vocabulary Editor. While micro-management of how Dragon recognizes words & phrases sounds very tedious, it is the guaranteed way to fix recognition errors. Think of the Vocabulary Editor as the override mechanism for Dragon's speech recognition engine.

Though the Vocabulary Editor is powerful, it is also quite tedious. The recommended way to train Dragon is using voice training, where you use Dragon as you naturally would for real-time dictation but with an emphasis on correcting Dragon when it makes mistakes. And then, you only have to tap the Vocabulary Editor for fixing persistent mistakes.

Next, we look at how to conduct real-time voice training.

In the Vocabulary Editor, you can tune any word or phrase to ensure that Dragon will recognize how you say it. It's the precision tool for fixing persistent mistakes.

Before You Begin Real-time Voice Training

The first decision is to choose a topic on which you will speak, to train Dragon. Ideally, choose a topic broadly related to your real work. For example, you could speak about the resources to consult and what you expect to learn. You could talk about what is important in the topic and what is not. The idea is to talk about the topic generally, and thus use the specific vocabulary and phrases that you're likely to use in producing real work.
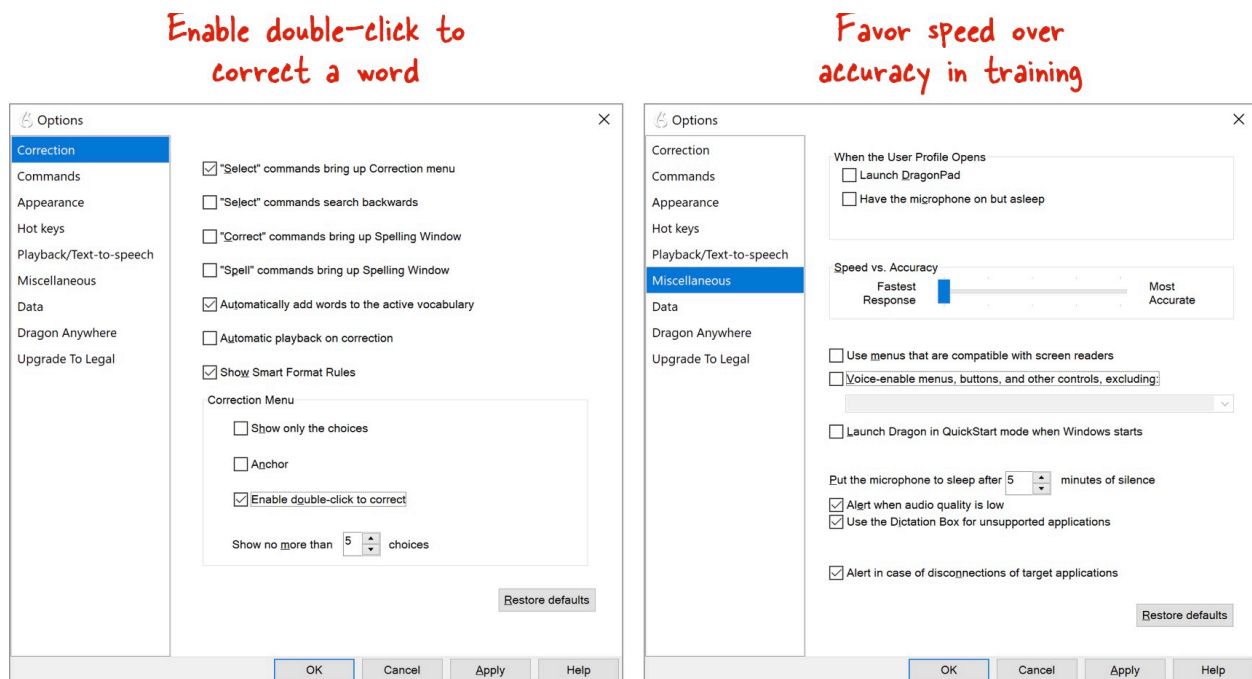
The most important guideline for voice training is to minimize use of the keyboard to fix mistakes. Instead, you should correct the Dragon Assistant using specific voice commands. You may use the mouse to select text quickly but must use voice commands to make edits. We will call up a Corrections Panel to make edits on the selected text, and within this panel, we can use the keyboard to correct the text where required.

To get started with voice training, we will be using the DragonPad tool, which is a simple text editor available from the DragonBar. This text editor (among others) is fully compatible with the Dragon Assistant. We will use this text editor to issue voice commands to edit the text content, and Dragon will be able to follow along.

Here are the important options to configure in Dragon preferences (DragonBar → Tools → Options) to gear up for the training phase:

- First, in the Appearance tab, make sure the DragonBar is NOT set to auto-collapse to a minimal state. We will be using many of the menu commands and they are easier to access from the expanded DragonBar.

- Second, in the Correction tab, ensure that when you double-click on a word, the Correction Panel will automatically pop-up, ready for you to edit the word. This will allow you to fix any mistakes that Dragon makes by double-clicking on the incorrect word, one word at a time.
- Third, in the Miscellaneous tab, change the Speed vs. Accuracy slider to favor speed. This may make Dragon less accurate in how it interprets what you said, which is ok because this is training – you do want an interpretation mistake to reveal itself, so you can fix it in training.

Dragon app preferences are accessed via Tools → Options

At this point, before we begin training, let's recap the rules: we won't use the keyboard much, and we will use the mouse to select phrases and words that need to be corrected. Further, we have a handy shortcut where if a single word is interpreted incorrectly, then we can double-click on that word and provide the correct interpretation in the Corrections Panel that pops up.
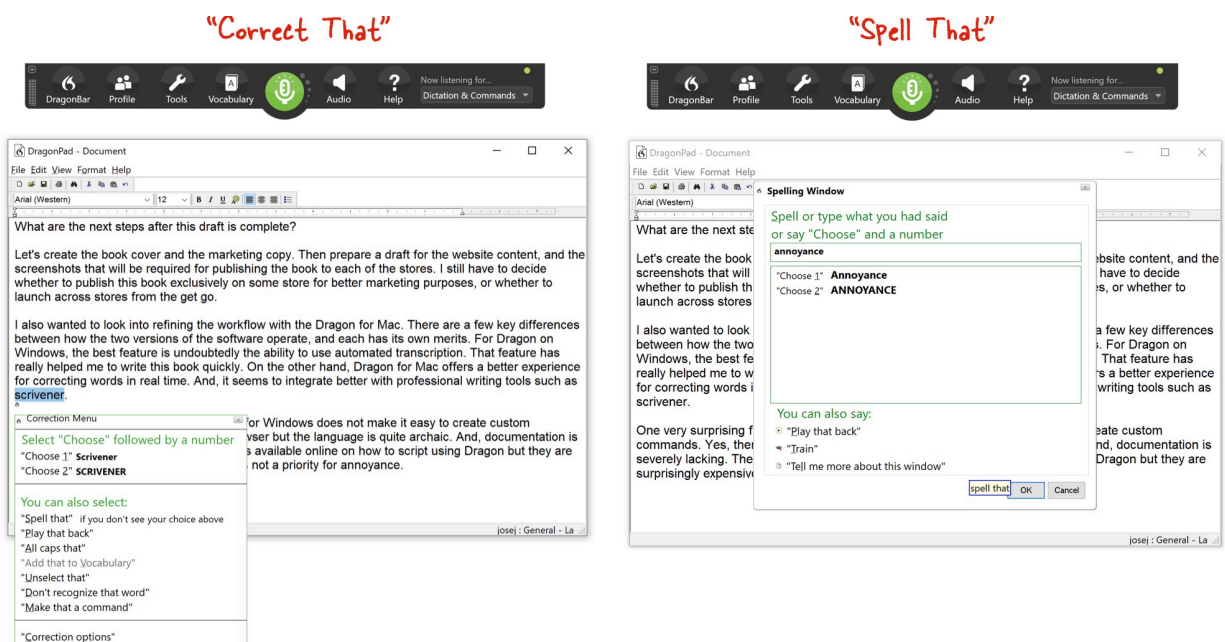
While You Do Voice Training

To start voice training, create a new document in the DragonPad application and turn on the microphone in the DragonBar. While you dictate, you will be using a few essential commands. You will see the interpretation as it happens. However, don't stop as soon as you see a mistake. Instead finish the phrase, even the whole sentence and then go back to fix the mistakes. Keep your focus on speaking smoothly and continuously. The way we speak, including the pauses we take, should match how we are likely to dictate in the real world. This will allow Dragon to build up an accurate model for when it has to perform in production.

After you have finished a sentence or a paragraph, use the mouse to select the words or phrases that were interpreted incorrectly. Then say the command "Correct That" to bring up either the Correction Panel or say "Play That Back" to listen to what you uttered that Dragon misinterpreted. Use the "Play That Back" command for an immediate play back of what you said which you can then compare to how Dragon interpreted it. Since you have a playback facility on call, you don't need to stop immediately when Dragon makes a mistake for fear that you may forget exactly how you had chosen to phrase it.

When you open the Corrections Panel with the "Correct That" command, you have two options: either select the correct interpretation from the list provided (say "Choose 3") or provide the correct interpretation by typing it out using the keyboard (say "Spell That"). The important point to remember is to type the correction within the Corrections Panel, not directly into the DragonPad text editor.

In this way, word by word and phrase by phrase, in a realistic dictation scenario, you teach the Dragon Assistant how to correctly interpret what you said.
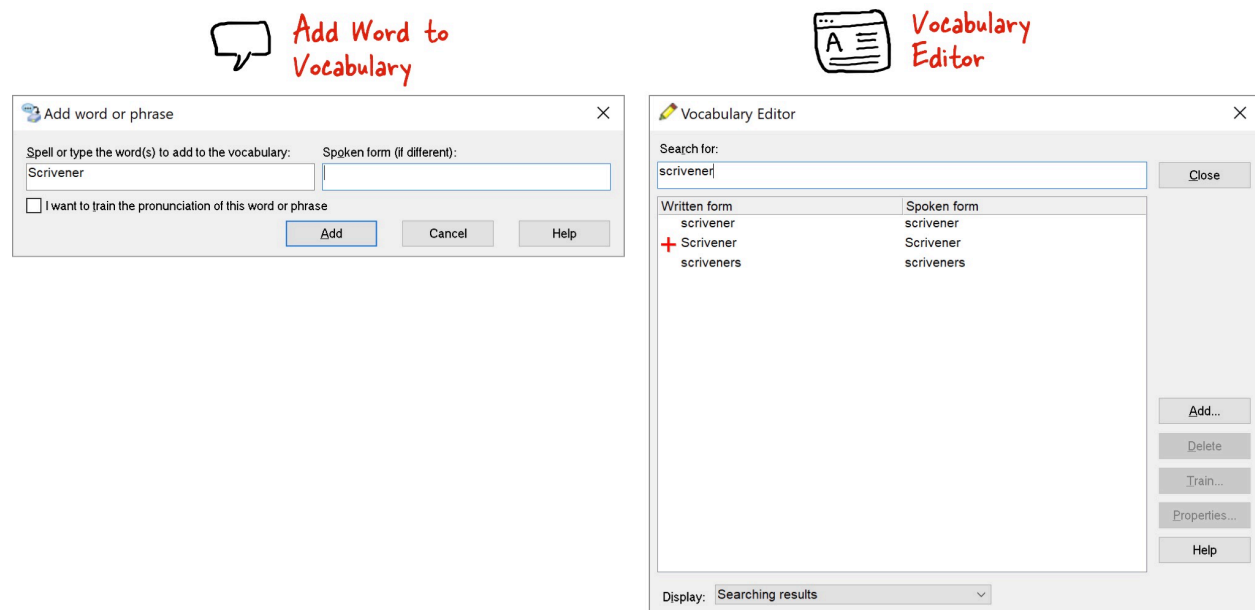

Correcting Dragon during Voice Training. Select the incorrectly interpreted phrase, then say "Correct That." If the correct choice is shown in the list, say "Choose X" or double-click on the item in the list. If none of the choices are correct, say "Spell That" and type out the correct phrase in the Spelling Window.

You will surely be impressed with the overall accuracy of the Dragon Assistant out-of-the-box. In prior versions of Dragon, you were expected to spend a few minutes reading out pre-defined texts to set up your profile. Now that's not necessary thanks to the "deep learning engine". However, out-of-the-box Dragon doesn't know the many specific words that you use in your speech, and further, there will be differences in how you speak compared to what Dragon expects. Therefore, training is extremely important. It doesn't take very long to train Dragon. Moreover, you can do this in bursts of 5 to 10 minutes a day, where you can opt to talk about topics that are interesting and important for

you. Let Dragon Assistant learn by taking the time to make the corrections in the Corrections Panel. The purpose of training then is for Dragon Assistant to learn the idiosyncrasies of your speech.

Furthermore, when you come across new terms in your vocabulary that Dragon is not able to understand, as reflected in the phrases not being present as one of the choices provided in the Correction Panel, you should take the time to add that term to Dragon's Vocabulary. This is done through the DragonBar menu. Do this incrementally, and you won't have to wait to do it in bulk. Furthermore, if the next time you use that phrase, Dragon is not able to understand it, then you should go back to the Vocabulary Editor, locate the phrase and provide a voice training sample, so that Dragon is better able to understand how you speak the phrase. Indeed, even the first time you add a new vocabulary word, it may be helpful to provide a spoken form for the word or a voice sample. In this way, you build up Dragon's vocabulary to include your phrases.

Add a new word or phrase to the Vocabulary. Make sure the spelling, capitalization, spacing, and punctuation is correct. In this case, my new word with a specific capitalization will likely conflict with "scrivener" and "scriveners" already in the Vocabulary. To fix this, I can open up the Vocabulary Editor, and delete the two variants I don't need.

Post the Voice Training

What should you do after 10 minutes of training? First, save your document in DragonPad as an RTF (rich text) file. Then, go to DragonBar → Profile and save your User Profile so that all the corrections that you made will be saved into the profile. Next go back through the content and see if there are any more phrases you want to add to the vocabulary saved within your profile. For each new term, you may want to include a spoken form equivalent or provide a voice sample. With an updated vocabulary, your training session qualifies as a success.
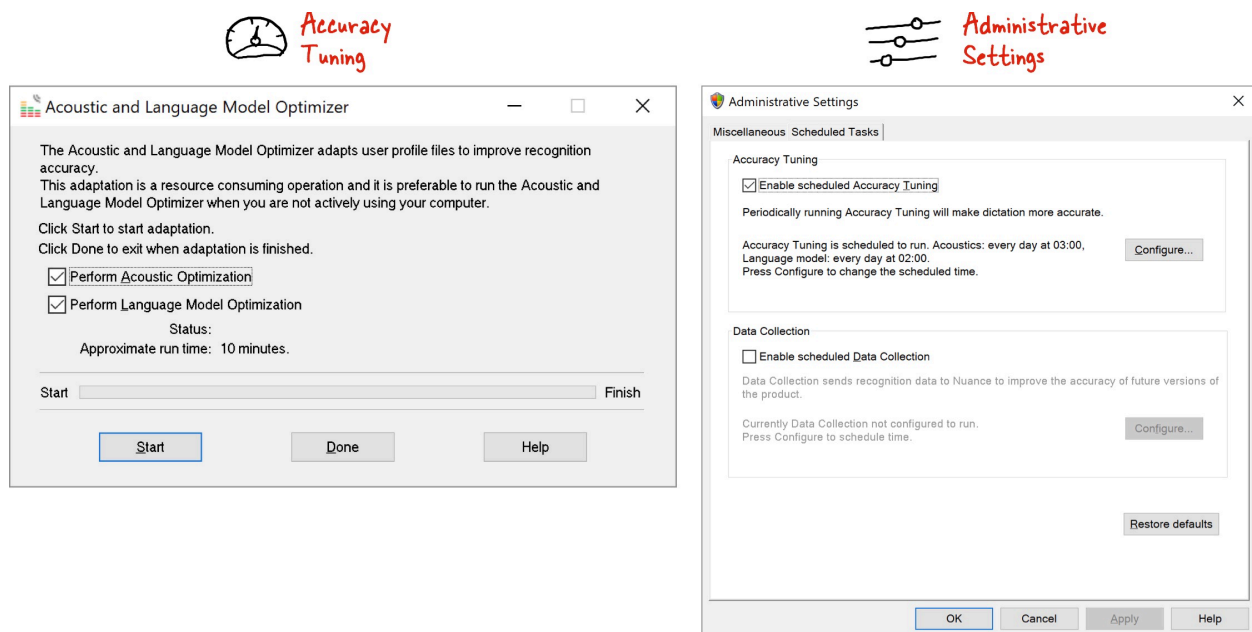
The license for Dragon Professional Individual allows you to install the software on two PCs. If you have another PC which you also intend to use for dictation, then you may want to export the

vocabulary from this PC to the other PC. Additionally, the rich text document that you saved from DragonPad can be fed for training into the other PC's copy of Dragon so that it can learn the way you order your words while you speak.

In general, Dragon allows you to feed it any document from which it can learn either your vocabulary, or your writing style, or both. However, most of our final documents are already heavily edited, and thus are not ideal for feeding into Dragon because such documents don't reflect the way we speak. Instead, the training documents that you create using the above approach in DragonPad are a great fit for feeding into Dragon on another PC because they do accurately reflect the way you spoke. That's also the reason to avoid making edits using the keyboard while training - to ensure the training text is identical to the way you speak.

Note that the voice corrections you made during training i.e. the changes in interpretation that you specified that allow Dragon to re-map your spoken audio to the correct text phrase, are part of the User Profile. However, when you export the vocabulary for import into another PC, these corrections to the speech model are not transferred over. Instead, you can export and copy over the entire User Profile from one PC to another. Thus, you can designate one PC as the master on which you perform training, and then when needed, copy over the User Profile to your other PC for use.

After sufficient training data has been accumulated, Dragon will offer to run Accuracy Tuning. This tool analyzes the training data to improve the acoustic and language models and updates your User Profile accordingly. You can also schedule this tuning to run automatically in Administrative Settings, at a time when you're not likely to use the PC. You can also turn off sending automatic collection and upload of your data to Dragon in Administrative Settings.

Dragon will prompt you to run Accuracy Tuning after sufficient new data has been collected. It's the process by which your User Profile improves in accuracy over time.

Recall that the training should ideally be related to the topic of your writing project. Use the training

to jumpstart your thinking on a problem you're trying to solve. Use it to plan your week ahead. Use it to capture notes on what transpired in meetings over the last week. The effort that you put into training Dragon doesn't have to be wasted. As long as you think about the topic, it's not a waste. In my view, training Dragon is similar to the free writing technique used by writers to help them get going on any topic. Free writing is an exercise where you write continuously for say 5 to 15 minutes on any topic that pops in your head. It allows you to get your creative juices flowing by pursuing any train of thought. Training Dragon should similarly be a low pressure activity. Don't worry too much about it. Speak about what is important to you, and make sure to direct Dragon to fix any mistakes in interpreting your words.

Production Phase

This content is not available in the sample book. The book can be purchased on Leanpub at http://leanpub.com/dragon-professional-for-windows-book.

Before You Begin Dictating

This content is not available in the sample book. The book can be purchased on Leanpub at http://leanpub.com/dragon-professional-for-windows-book.

While You Dictate

This content is not available in the sample book. The book can be purchased on Leanpub at http://leanpub.com/dragon-professional-for-windows-book.

Proofing in Post

This content is not available in the sample book. The book can be purchased on Leanpub at http://leanpub.com/dragon-professional-for-windows-book.

Terrific Transcriptions

This content is not available in the sample book. The book can be purchased on Leanpub at http://leanpub.com/dragon-professional-for-windows-book.

My Writing Workflow

This content is not available in the sample book. The book can be purchased on Leanpub at http://leanpub.com/dragon-professional-for-windows-book.

Conclusion

Speech recognition technology has been around for over 15 years but only recently has it made great strides. Dictation really does make writing fun, and having fun at what you do is great for your productivity.

Personally, I was determined to make dictation work for me. The benefits are substantial. Therefore, I was committed to find a way around the glitches in the software, whatever they may be, and make sure I was using the software to its potential. Now, I have a well-trained Dragon Assistant, which can handle a lot of the writing workload. If you follow the recommendations in this book, you too will be able to use Dragon Professional Individual 15 to meet your writing goals.

In particular, my "eureka" moment was when I realized I could beat writer's block if I used the transcription service. I could completely sidestep the paralysis and procrastination when facing a blank page. The whole idea of recording audio away from the blank page, and then having a very good transcription ready for me to work with, was frankly, mind blowing! And with a few experiments and tweaks, this approach works out great on real projects.

I encourage you to find your own workflow, to try out the application in combination with your favorite text editing application and craft a workflow that makes you happy to write.

Thank you for reading this book, and I hope it helps you to make the most of Dragon dictation for your work.

If you enjoyed reading this book and found it useful, kindly leave a review at the store so that others may also find this book.