



The Radiology Information Solution

CRIS / Dragon Integrated Voice Recognition System Manual – Medical Version 12

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1. Introduction

Purpose and Scope

This document is aimed at sites that are in the process of implementing, or have already implemented the CRIS Radiology Information System with integrated Dragon 12 Practice Edition Voice Recognition (VR) software.

It aims to introduce the main features of the Dragon 12 software and to deploy this functionality to improve efficiency and enhance reporting workflows in a modern RIS / PACS environment.

These areas are:

- Sections relevant to IT Personnel / PACS Engineers
- Overview of CRIS / Dragon Integration
- Dragon Medical 12 System Requirements
- Important Considerations
- Related User Documentation
- Installation and Setup
- Dragon Setup & Configuration
- Roaming Profiles
- Creating a Dragon User for Setup
- Creating Roaming Dragon Users
- Activating CRIS and Dragon Integration
- Creating User Specific Text Commands
- Best Practice, Correction and Troubleshooting
- General Housekeeping
- Frequently Asked Questions

To get the most out of the integration between CRIS and Dragon, it is essential that the configuration of Dragon should be undertaken as described within this document.

Audience

This document is aimed at HSS CRIS customers who have Dragon NaturallySpeaking 12.

It is designed to be used by RIS/PACS Administrators and/or IT support personnel. This document is also available for reference by PACS Workstation Engineers.

Sections relevant to IT Personnel / PACS Workstation Engineers

The installation process will require a local account with administration level rights, and it may be necessary to contact your PACS provider to install the Dragon Software on PACS workstations if you do not have workstation administrator rights.

Any IT Personnel or PACS Workstation Engineers who have been tasked to install the CRIS client and Dragon Software should refer to the following sections. This information should also be reviewed by RIS / PACS Managers tasked to support the Dragon product in the department.

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Upgrading to Dragon 12

See the following sections in this document for information on the upgrade process to Dragon version 12:

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TO UPGRADE VOICE PROFILES TO DRAGON 12	32

2. Overview of CRIS and Dragon Integration

Dragon NaturallySpeaking 12 Medical provides a powerful voice recognition system which has been fully integrated to the HSS CRIS system in order to facilitate the rapid transcription of comprehensive clinical reports.

Dragon NaturallySpeaking 12 software incorporates a comprehensive vocabulary of medical words and phrases including a Radiology dictionary that enables Dragon to recognise complex medical terms, and also develop and learn in context to the individual user's vocabulary, and dragon voice profile.

Please note: Dragon improves by recording data and storing all spoken words and phrases in context to the user, and by optimizing the data regularly when used in conjunction with the essential Dragon utility the 'Acoustic and Language Model Optimizer' which should be run weekly for the best result in terms of recognition and maximum productivity.

Dragon 12 System requirements

Minimum System Requirements:

- CPU: 1 GHz Intel Pentium or equivalent AMD processor, or 1.66 GHz Intel Atom processor.
- Note: SSE2 instruction set required.
- Processor Cache: 512 KB
- Memory (RAM): 1 GB for Windows XP and Windows Vista, 2 GB for Windows 7, Windows 8 and Windows Server 2008.
- Free hard disk space: 3.2 GB (4 GB for localized non-English versions)
- Supported Operating Systems:
 - Windows 8 (32-bit and 64-bit Editions) (Windows 8.1 w/ Dragon 12.5.1)
 - Windows 7 Service Pack 1 (32-bit and 64-bit Editions)
 - Windows Vista Service Pack 2 or higher (32-bit and 64-bit Editions)
 - Windows XP Service Pack 3 or higher (32-bit only Edition)
 - Windows Server 2008 Service Pack 1 or Service Pack 2 (32-bit and 64-bit Editions)
 - Windows Server 2008 R2 Service Pack 1 or higher (64-bit only Edition)
- DVD-ROM drive (required for installation).
- Microsoft Internet Explorer 7 or higher

Recommended Specifications:

- CPU: Intel Pentium 2.2 GHz (dual 1.8 GHz core processor) or equivalent AMD processor.
- Note: SSE2 instruction set required.
- Processor Cache: 2 MB
- Memory (RAM): 2 GB RAM or more for Windows XP Windows Vista, Windows 7 (32-bit), Windows 8 (32-bit) or Windows Server 2008 (32-bit). 4 GB or more for Windows 7 (64-bit), Windows 8 (64-bit) and Windows Server 2008 (64-bit).

Important Considerations

CRIS > DRAGON INTEGRATION

It is very important that you **DO NOT** open Dragon NaturallySpeaking independently on a workstation when CRIS is running with VR integration turned on. You must ensure CRIS is **not** running before you start Dragon NaturallySpeaking to perform any administrative tasks on profiles/users.

Within normal day to day use CRIS will be used to start and close the Dragon NaturallySpeaking software. Dragon should not be opened separately when CRIS is running.

You should be aware that this does mean the Dragon Bar will not, and should not be displayed. However all required Dragon Tools are still accessible by right-clicking the Dragon Bar Icon in the Windows System Tray.



Failure to allow the CRIS System to launch Dragon will result in a reduction in the quality of integration, or in some cases disable the features altogether. This is due to the fact that Dragon will attempt to work independently, in effect ignoring commands sent by CRIS and leading to inconsistent results when reporting.

CORRECTLY CONFIGURING DRAGON ROAMING

The most common cause of incidents reported to the HSS helpdesk relate to incorrect setup / configuration of Dragon roaming profiles. This is typically due to the following issues:

- When setting up the roaming profiles via Dragon Administrative Settings. The network path where the Roaming Dragon voice profiles are stored must be either a persistent mapped drive or a full network UNC "Universal Naming Convention" path to where the user Dragon roaming profiles are to be stored (i.e. \\servername\Dragonprofiles).
- An IP address in the roaming network path in the Dragon Administrative Settings is not supported by Dragon. Only a mapped drive or full UNC path can be used.
- When creating the folder for both the network location and the local directory for cache folder in the administration settings, it's recommended to use a short name with no spaces. For example \\username\vrprofiles and not \\servername\ Dragon users profiles folder.
- Dragon does not backup roaming profiles. The roaming profiles will need to be stored on a share that is backed up regularly.
- Dragon must be installed using a windows account with Administrator rights not the actual Local Administrator account which should be disabled.

- ☑ The roaming profiles must not be created using an Administrator account. They need to be created with the same user rights as the users who will use the profile and they must have the correct **modify** NTFS permissions to the profile folder. The administrator must not be the owner of the folder.
- ☑ For sizing HSS would recommend 2GB per user, although typically the profile size is between 500MB – 1GB.

Full details regarding setting up and configuring Dragon Roaming correctly is contained in section [4 - Roaming Profiles](#).

SETTING UP / SCHEDULING THE DRAGON ACOUSTIC LANGUAGE & MODEL OPTIMISER

As you make and train corrections, train new words, use commands, and perform additional training, Dragon stores the acoustic and language data in an archive and uses it to enhance recognition accuracy and 'learn' any changes you have made.

HSS strongly recommend that the Acoustic and Language Model Optimizer is scheduled to run weekly in order to ensure that users always have access to the most up-to-date and streamlined profiles. Failure to run the Acoustic and Language Model Optimizer will result in a degeneration of recognition, and the appearance that Dragon is not learning in spite of any training undertaken by the user.

HSS also suggest that the Acoustic and Language Model Optimizer is run from a server where the profiles are stored as this is the most time efficient in terms as it negates network speed issues, any loss of access to profiles and should also be subject to the standard system backup.

Consequently, it is essential that the Acoustic and Language Model Optimizer is set up and scheduled to run as soon as CRIS > Dragon Voice Recognition is in use in order to ensure that successful running of the modules throughout the life of the system.

Full details regarding setting up and configuring the Acoustic Optimizer and Language Model is contained in section [11 - Essential Housekeeping](#).

IGNORING / UNINSTALLING PHILIPS SPEECHMIKE DEVICE CONTROL SOFTWARE

If the Trust have opted to purchase or use existing Philips SpeechMike's as an alternative to the recommended VR Headset you should ensure that you do not install Philips SpeechMike Device Control Software. HSS have identified that CRIS > Dragon VR will not function as expected if Philips SpeechMike Device Control Software are installed.

This is particularly in relation to the behavior of the record button. You should not install any software supplied via media with the Philips SpeechMike. The device should only be installed using USB plug and play when in use with the CRIS > Dragon integration.

Alternatively, if you (or IT) have already installed the Philips SpeechMike Device Control Software, you should uninstall this completely, otherwise HSS cannot guarantee the correct operation of the Philips SpeechMike when used in conjunction with the CRIS > Dragon integration.

Related Documentation

CRIS > DRAGON DOCUMENTATION

The following additional CRIS > Dragon Documentation is designed to be used in conjunction with this document:

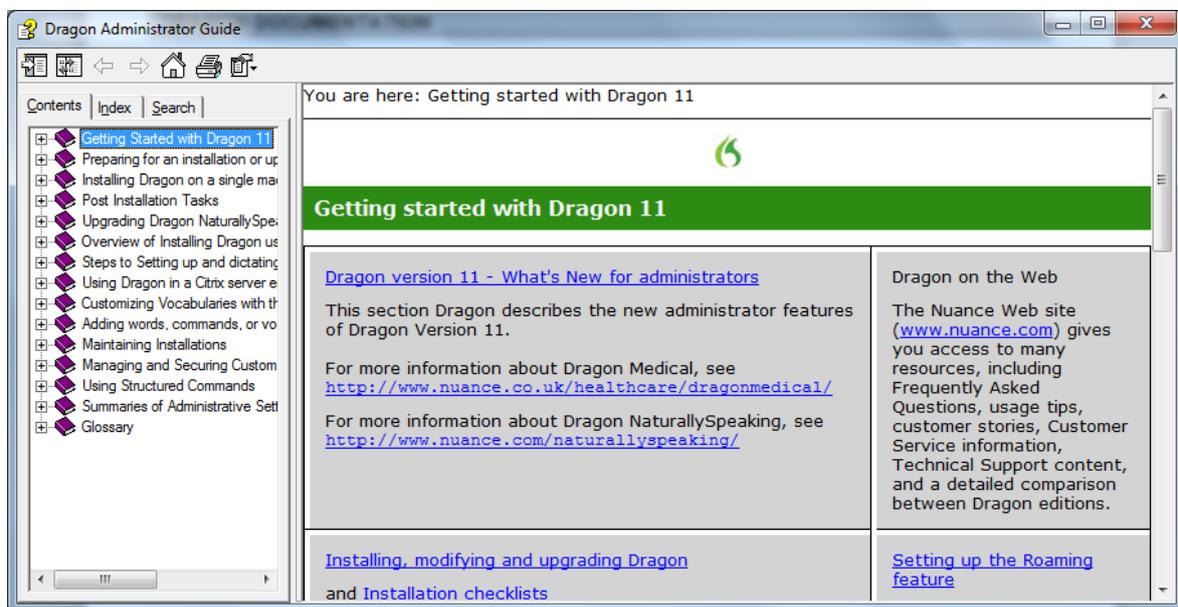
CRIS_CRIB_VR_292_Dragon_12_Using_Voice_Recognition.doc- Overview of using CRIS with the integrated Dragon Voice Recognition and in-built CRIS commands aimed primarily at End Users.

DRAGON DOCUMENTATION

HSS would also recommend that customers make use of the official Dragon documentation and knowledge bases as this is an invaluable source of information for IT and Dragon Users alike.

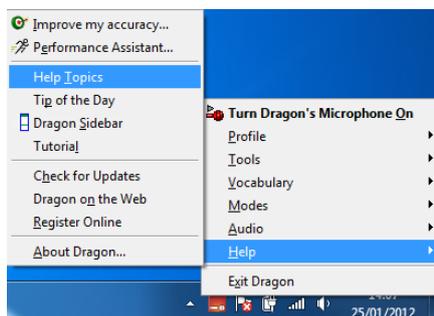
Dragon Medical IT Administrators Guide

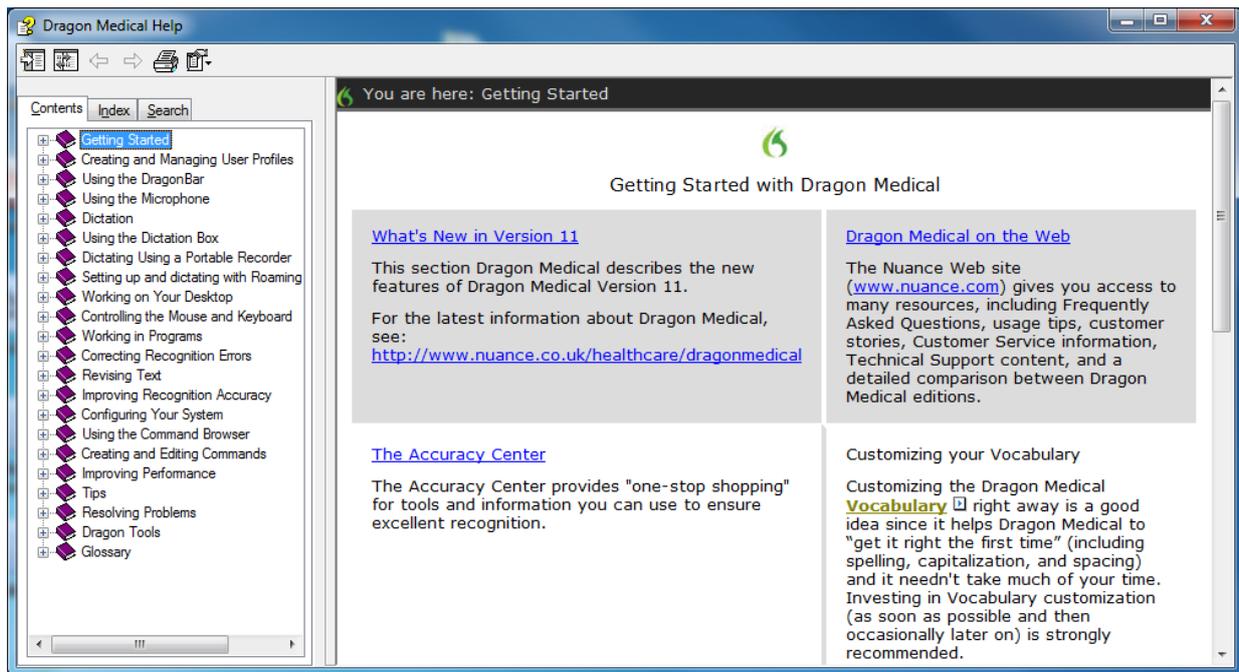
Accessed via Start Menu > Dragon Medical Tools > Dragon Medical IT Administrators Guide this section of the system provides technical details regarding Dragon Setup and Configuration.



Dragon NaturallySpeaking Help

Searchable Basic Help on all aspects of using Dragon NaturallySpeaking – accessed by right-clicking the Dragon Bar Icon in the Windows System Tray.





Please note: You should be advised that the Dragon Bar is not for use in conjunction with CRIS integration.

On-line Support and Knowledge Base

The 'Nuance' on-line Support and Knowledge base also provides a comprehensive, interactive source of information regarding usage, configuration, and troubleshooting in addition to known issues and future resolutions.

This can be accessed via http://nuance.custhelp.com/app/utils/login_form/redirect/account%252Foverview where it will be necessary to create an account using your product serial number.

3. Installation and Setup

Initial Setup and Installation (Applying Default settings to ALL Users)

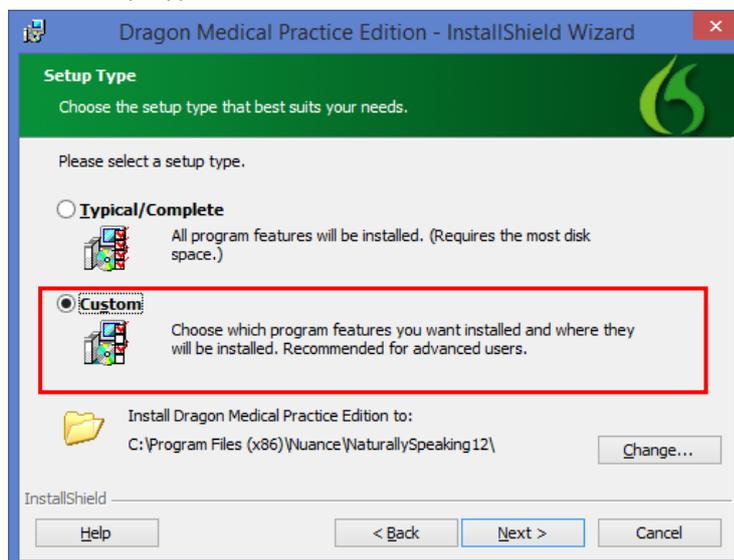
Dragon software can be configured per **Individual Profile** using the **'Typical'** Installation. However HSS strongly recommend that the **'Custom'** Installation is used as standard since this allows the Trust to configure default required settings for **ALL Users** ensuring Dragon is correctly configured and does not need to be configured per user.

Please note: If Dragon has already been installed at an earlier date, it is also possible to modify the installation of Dragon to set the default settings for **ALL** users retrospectively. [Please proceed to 2.2 – Modifying Existing Installations](#) for full details.

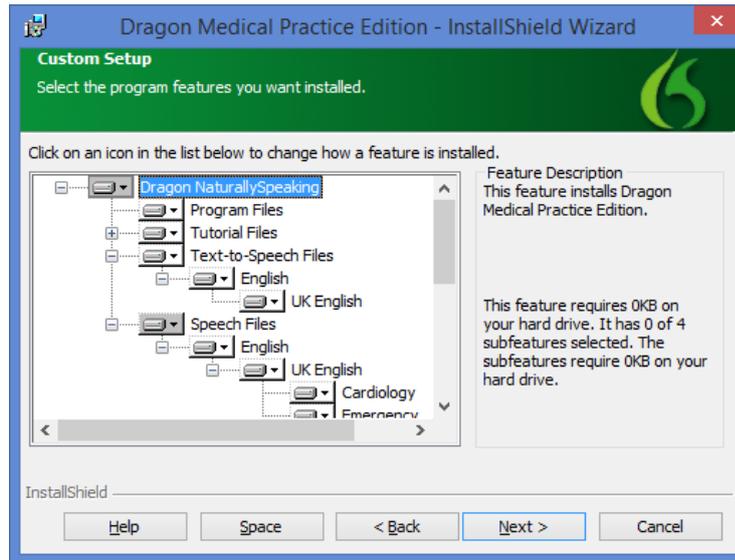
1. Insert the DVD for Dragon NaturallySpeaking, the following dialogue box will appear. Click [Next] to continue to Step Two. If the installation does not start automatically, use 'Windows Explorer' to find and double-click **setup.exe** on the DVD.



2. Select **Custom** from the Setup Type Menu and click [Next]



- Nothing needs to be changed on the screen below. Click [Next]



- Ensure that you have ticked 'Modify the application's settings for all users' and 'modify the administrative settings' via the Custom Setup menu before clicking [Next].



- Follow the on screen prompts to complete the installation.

Once the installation is completed the **Options** configuration menu will appear to enable you to set default options for **ALL Users**.

Proceed to [DRAGON SETUP & CONFIGURATION](#) for details of applying all recommended settings for Dragon within the CRIS Application.

Having undertaken all recommended configuration via the Options menu this will be followed by the **Administrative Settings** which enables you to configure **Roaming Profile Setup** for **ALL USERS**. It is therefore important to ensure that the shared volume where the dragon voice profiles are to be stored is correct

Proceed to [CONFIGURING ROAMING PROFILES IN DRAGON NATURALLYSPEAKING](#) for full details.

Modifying Existing Installations (Applying Default settings to ALL Users)

It is also possible to modify the default settings for **ALL USERS** even in the event that the Dragon Software has already been installed on a terminal / workstation.

HSS strongly recommend that this is undertaken on all terminals running Dragon in order to ensure that **ALL USERS** have the correct configuration to ensure optimum usage and dictionary adaptation in conjunction with the CRIS system.

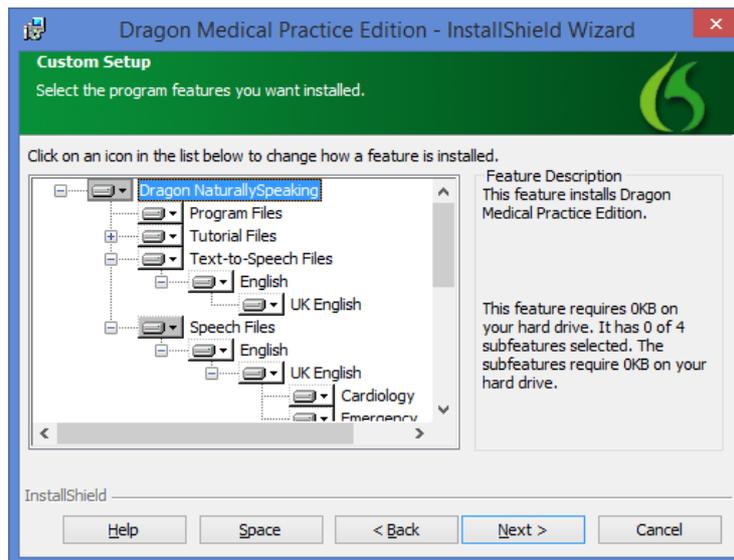
- Insert the Dragon NaturallySpeaking Installation DVD and use 'Windows Explorer' to find and double-click setup.exe on the DVD.
- The following dialogue box will appear. Click [Next] to continue:



- Select **Modify** from the following programme maintenance menu and click [Next]:



- Nothing needs to be changed on the screen below. Click [Next]:



- Ensure that you have ticked ‘Modify the application’s settings for all users’ and ‘Modify the administrative settings’ via the Custom Setup menu before clicking [Next]:



An additional configuration menu will briefly appear followed immediately by the **Options** configuration menu to enable you to set default options for **ALL Users**.

Proceed to [DRAGON SETUP & CONFIGURATION](#) for details of applying all recommended settings for Dragon within the CRIS Application.

Having undertaken all recommended configuration via the Options menu this will be followed by the **Administrative Settings** which enables you to configure **Roaming Profile Setup** for **ALL USERS**. It is therefore important to ensure that the shared volume where the dragon voice profiles are to be stored is correct

Proceed to [CONFIGURING ROAMING PROFILES IN DRAGON NATURALLYSPEAKING](#) for full details.

Upgrading to Dragon 12 from a Previous Version

If you are upgrading from a previous version of Dragon you should ensure that any existing roaming dragon voice profiles are upgraded before running the upgrade in order to use them in Dragon 12. See the 'To upgrade a Roaming profile from a previous Dragon version' section of this document.

Version 10.x or above of Dragon can be upgraded to Dragon 12. Upgrading from Dragon version 9.x or earlier is not supported. To upgrade from Dragon version 10 or above:

- Run the setup.exe for Dragon 12 and follow the install instructions. When the installation starts, you will receive the following message:

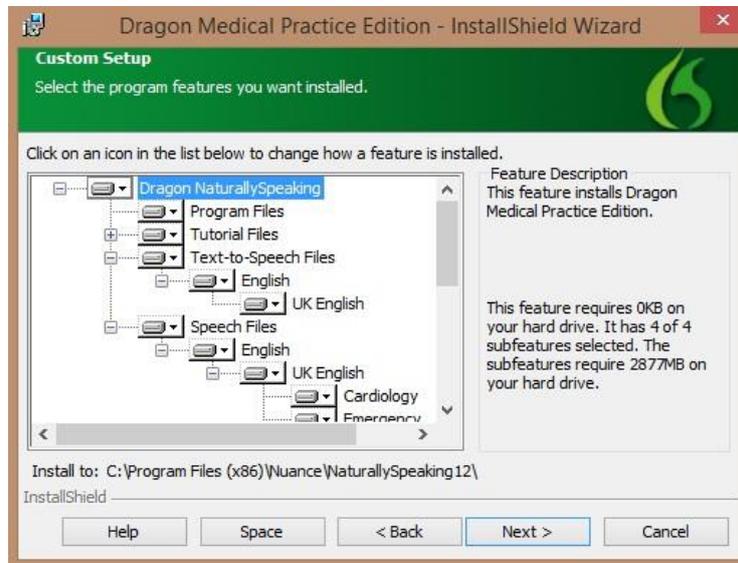


- Select the 'Remove all existing versions and continue the installation' check box and click the [Next] button.
- Select **Custom** from the 'Setup Type' Menu and click [Next].

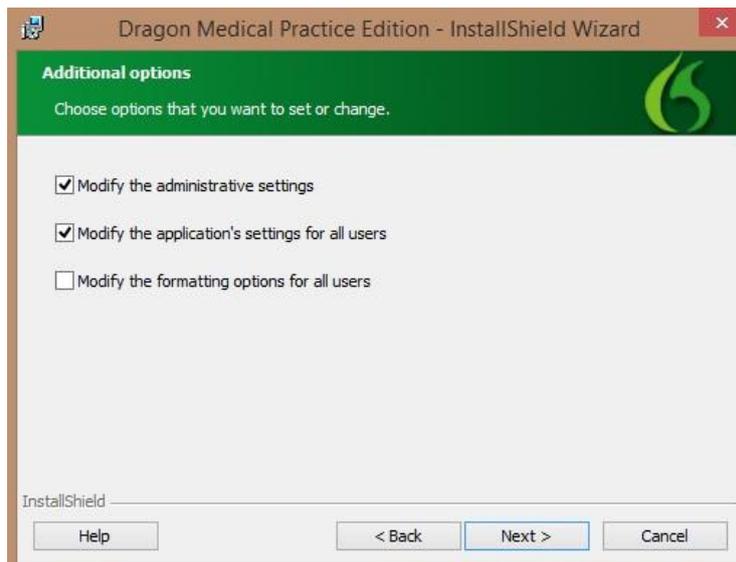


Please note: When upgrading, Dragon will automatically carry over the settings from the previous installation of Dragon, please still follow the steps in the 'Dragon Setup & Configuration' section of this document to ensure that your Dragon configuration settings are set to the recommended settings for Dragon to work correctly in CRIS.

- Nothing needs to be changed on the screen below. Click [Next]



- Ensure that you have ticked 'Modify the application's settings for all users' and 'modify the administrative settings' via the Custom Setup menu before clicking [Next].



Please follow the on screen prompts to complete the installation.

Upgrade considerations

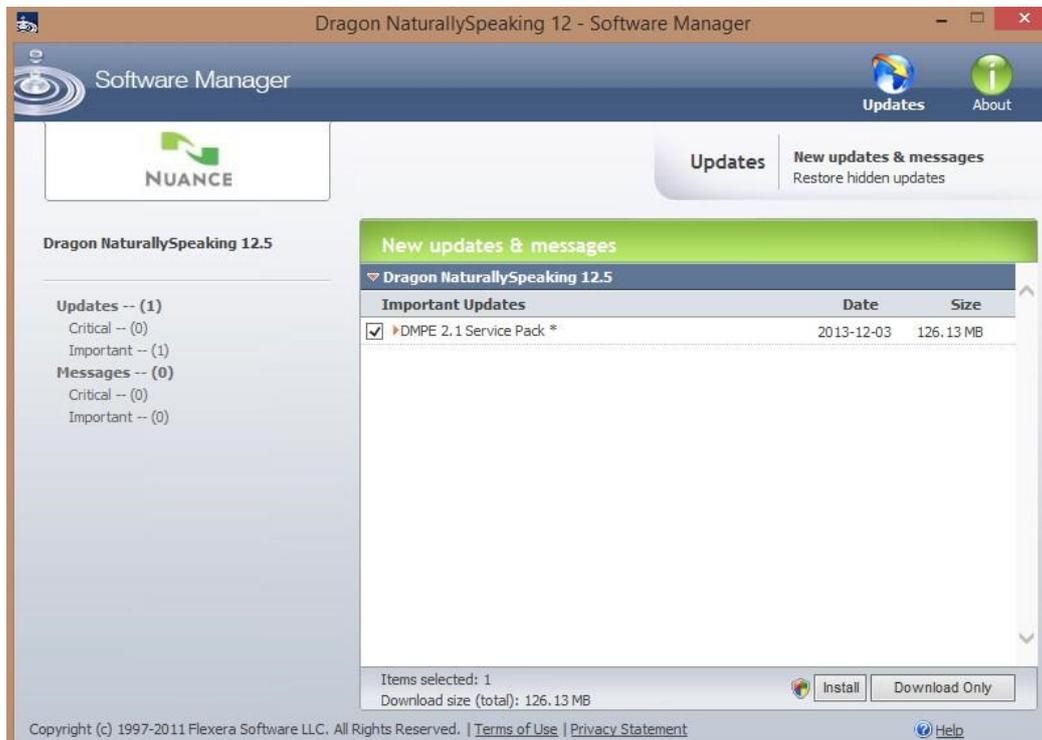
You cannot upgrade to Dragon Medical Practice Edition 2 if your current license is for any of the non-medical versions of Dragon Medical. If you upgrade a computer from a previous version of Windows to Windows Vista or Windows 7, and that computer has Version 8.x, 9.x, or 10.x of *Dragon* installed, that version of *Dragon* will not work after upgrading to Windows Vista or Windows 7. All your Dragon voice profiles from Dragon version 10+ will remain intact and can be upgraded after you have installed Dragon NaturallySpeaking 12.

Updating Dragon 12 Practice Edition

Once you have finished installing Dragon 12, the next task is to install the latest update.

- To install the update, open Dragon and close the (open user profile) box. Click help and (check for update) from the Dragon bar and the following box will appear. An internet connection is required.

Please note: The update can also be downloaded and installed later if required.

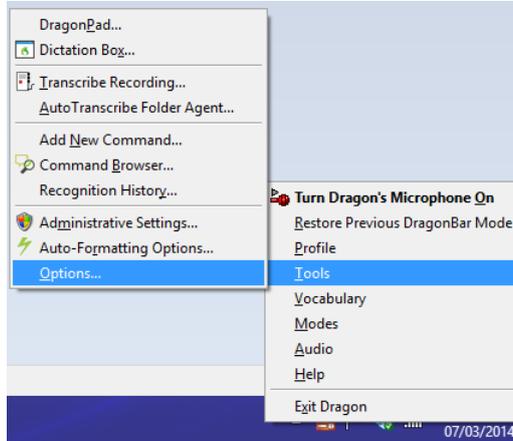


- Next click the tick box for the service pack and select the install button and the update will start to download. Once downloaded, click the next button and then the update button and the update will install.
- Click [Yes] to closing Dragon.



Dragon Setup and Configuration

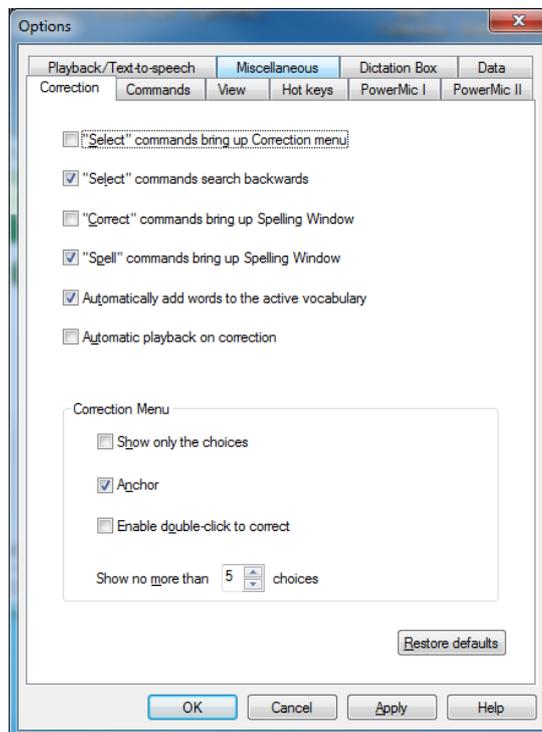
This section describes the 'Options' menu changes required for using Dragon with CRIS. The 'Options' menu will be displayed automatically when undertaking a **Custom installation**, or **Modifying an Existing installation**, or can be accessed via an **Existing User** by right-clicking on the Microphone icon located on the task bar and selecting **'Tools'** then **'Options'** via the Dragon Menu Bar.



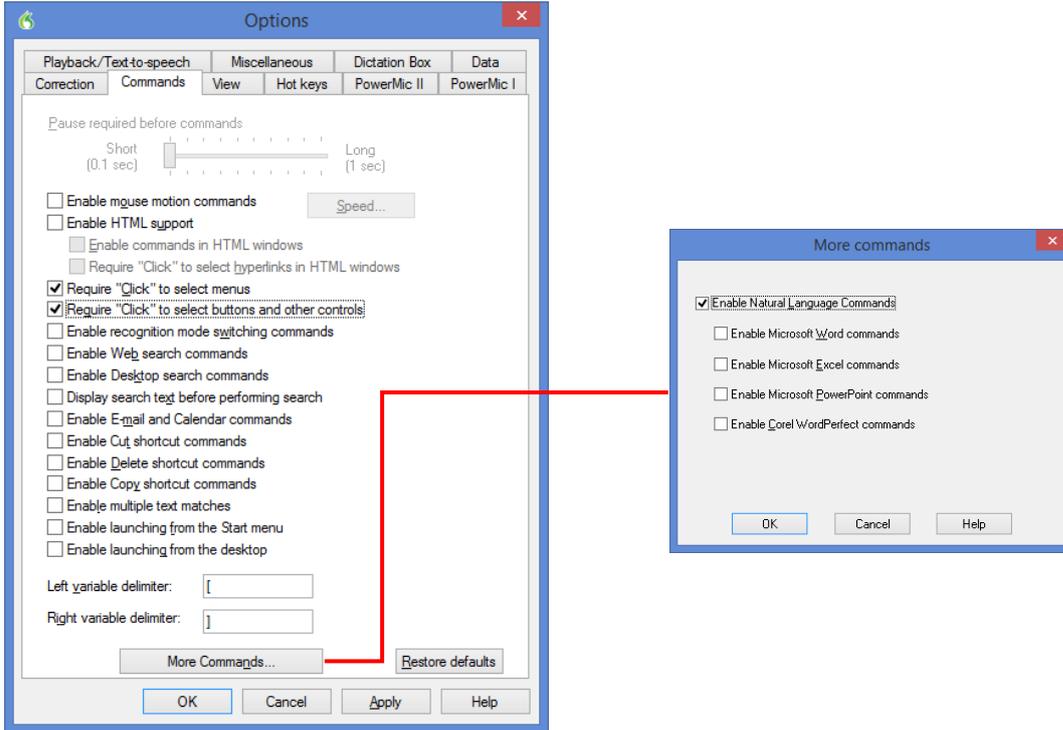
Essential Dragon Configuration Settings

The following screen-shots show the required Dragon Options Menu Configuration which must be applied correctly in order to ensure correct CRIS > Dragon Integration. Only Tabs / Screens which require modification are shown. Dragon **MUST BE** installed / configured using a **Custom installation** to ensure you can **'Modify the Applications Setting for All Users'** (See Section [Initial Setup / Installation](#), or [Modifying an Existing Installation](#)). HSS recommend you confirm that the setup is correct before proceeding to using Dragon VR on any workstation.

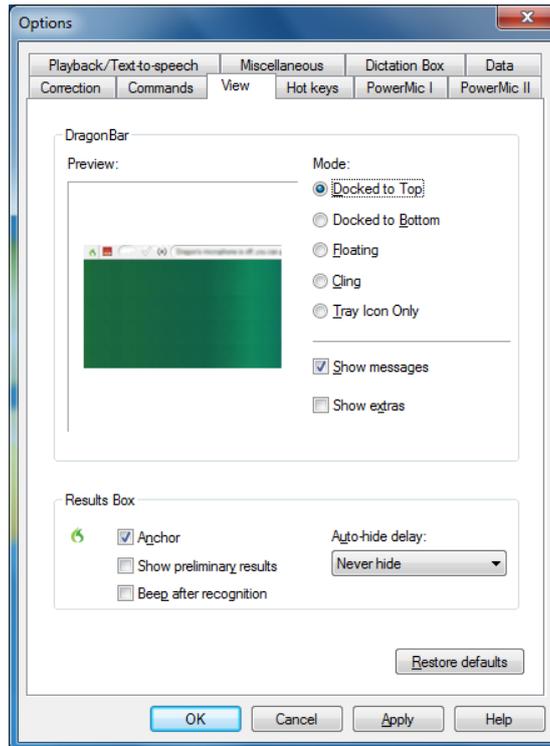
CORRECTION MENU



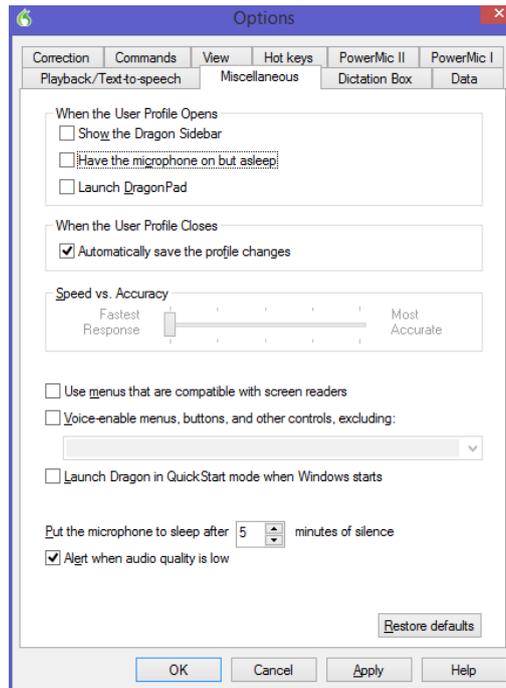
COMMANDS MENU



VIEW MENU

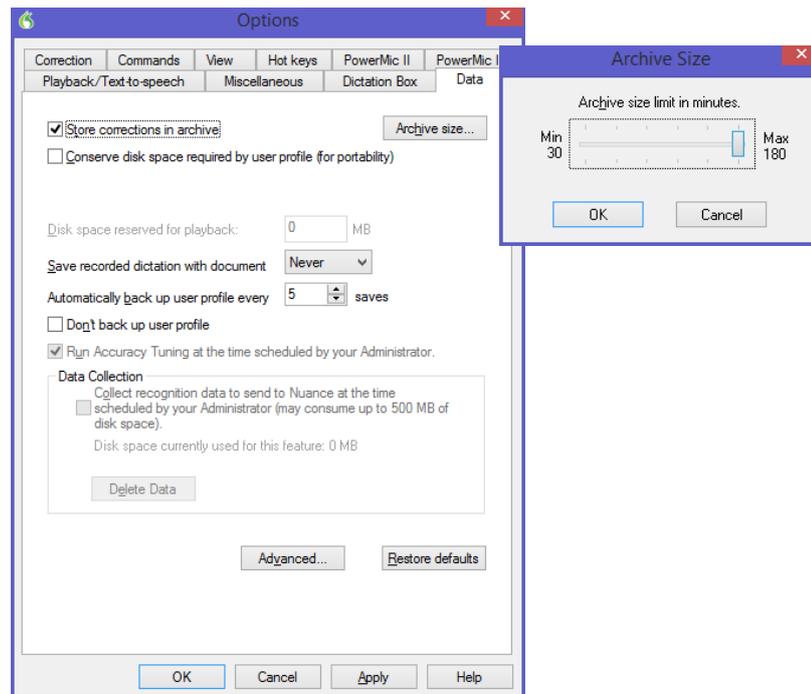


MISCELLANEOUS MENU



Please note: The 'Speed vs Accuracy' setting is greyed out as this setting is for individual profiles and not for all users.

DATA MENU



Please note: The option to 'Store corrections in archive' will determine whether or not a list of the user's corrections will be stored for later use by the Acoustic and Language Model Optimizer (Having this turned OFF does not stop Dragon doing its normal adaptation and correction for the user). Click the Archive Size button to check the archive size is set to the standard default of 180 minutes of stored corrections. If this option is not selected before you run the Acoustic and Language Model Optimizer, you may see a message that there is not enough data for the Acoustic and Language Model Optimizer to process. This option should be enabled whenever Dragon NaturallySpeaking is used for an extended period of time.

4. Roaming Profiles

How Roaming Profiles work

The Roaming User feature in Dragon NaturallySpeaking lets you dictate at different locations connected to your network, without having to create and train individual user files at each location. Dragon roaming is essential if the Radiologists use more than one terminal to allow users to access their personal files/dictionary at any workstation.

The ROAMING DIRECTORY is just a standard windows folder which HSS would recommend is named 'Dragon 12' on a local shared network location anywhere the Trust IT chooses to set it up. HSS strongly recommend that this location is covered by the standard backup processes undertaken on a routine basis at Trust. For sizing HSS would recommend 2GB per user, although the typical profile size is 500MB – 1GB.

Roaming Profiles are handled using either a networked UNC 'Universal Naming Convention' path or a shared network drive which all users can access. If using a mapped drive this drive needs to be mapped as a persistent connection to each end user machine. All users have their profile data saved centrally in this 'mapped' network drive so you will need to know the drive letter associated with this drive and any passwords needed to access it in order to configure this feature.

ESSENTIAL CONFIGURATION - DRAGON ROAMING PROFILES

The following guidelines should be followed when creating and configuration Dragon roaming profiles as failure to do will cause issues when the Dragon application, and is by far the most common cause of VR issues reported via the HSS Helpdesk.

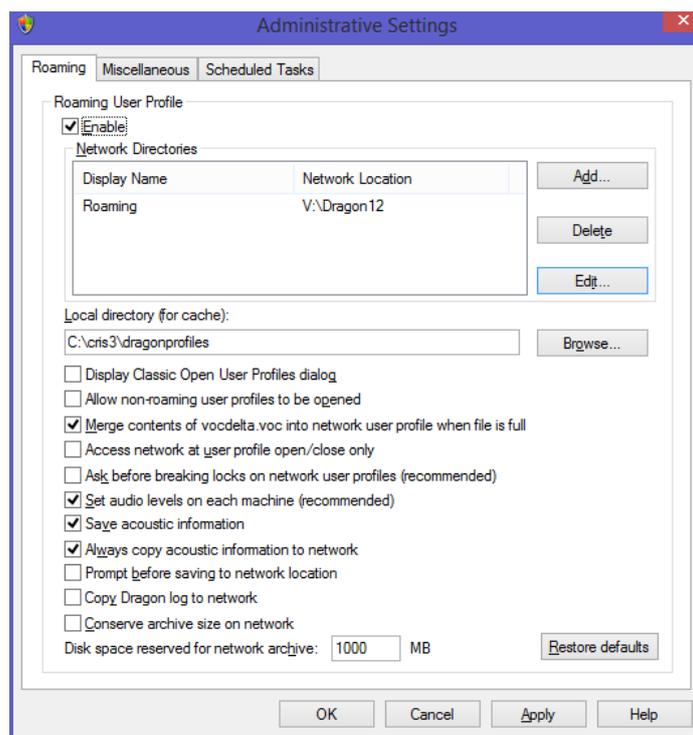
- When setting up the roaming profiles via Dragon Administrative Settings. The network path where the Roaming User profiles are stored must be either a persistent mapped drive or a full network UNC 'Universal Naming Convention' path to where the user Dragon roaming profiles are to be stored (i.e. \\servername\Dragonprofiles).
- An IP address in the roaming network path in the Dragon Administrative Settings is not supported by Dragon. Only a mapped drive or full UNC path can be used.
- When creating the folder for both the network location and the local directory for cache folder in the administration settings, it's recommended to use a short name with no spaces. For example \\servername\vrprofiles and not \\servername\Dragon users profiles folder.
- Dragon does not backup roaming profiles. The roaming profiles will need to be stored on a share that is backed up regularly.
- Dragon must be installed using a windows account with Administrator rights not the actual Local Administrator account which should be disabled.
- The roaming profiles must not be created using an Administrator account. They need to be created with the same user rights as the users who will use the profile and they must have the correct **modify** NTFS permissions to the profile folder. The administrator must not be the owner of the folder.
- For sizing HSS would recommend 2GB per user, although the typical profile size is 500MB – 1GB.

Configuring Roaming Profiles in Dragon NaturallySpeaking

The **'Administrative Settings'** menu will be displayed automatically when undertaking a **Custom Installation**, **Modifying an Existing Installation**, or can be subsequently accessed by right-clicking the Microphone icon located on the task bar and choosing the **'Tools'** menu followed by the **'Administrative Settings'** option via the Dragon Menu Bar.

You must close any active users in order to access this panel. You can close Users from the main 'NaturallySpeaking' menu or by right-clicking on the Microphone icon located on the task bar.

Please note: If upgrading from a previous version of Dragon uncheck the roaming 'Enable' tick box. The 'Enable' tick box should remain unchecked until all profiles have been upgraded to Dragon version 12 profiles. Once you have upgraded all your Dragon voice profiles, you can then re-tick the enable roaming profiles.



Please note: The above administrative settings must be set correctly on each terminal for .DRA (Acoustic Dragon files) to be created for each session. These DRA files are needed by the Acoustic and Language Model Optimizer. The Acoustic and Language Model Optimizer must be installed and configured as per the Essential Housekeeping Instructions to ensure that Dragon continues to work as effectively as possible.

Within the 'Administrative Settings' panel there are two main settings on the Roaming tab:

- Network directory
- Local directory

NETWORK DIRECTORY

This is the location(s) of the master Roaming User files. You should add either a full UNC 'Universal Naming Convention' path or a mapped drive followed by the directory in which you would like the profiles to go. (W:\Dragon12 is an example - If you do not have a directory created on your shared drive you will need to make one and ensure that it has **'modify'** permissions for all the required users.)

LOCAL DIRECTORY

This is the location where the roaming local profile will be created for each user while they are working which will synchronise to the roaming master profile on the server. The master profile on the server is always the most up to date version, so a user can logon to any Dragon workstation and their changes will always be the most current data.

This includes the following files:

- **.DRA files (Dragon Acoustic data)** - Dragon is an audio application and it creates many large audio files called .DRA files. These can become very large in size as Dragon records every word the user says for learning and accuracy and stores it in these .DRA files.
- **MyCommands.dat file** - All Dragon commands including custom commands.
- Any changes to the local profile including - Phrases, Training, Mic Configuration etc.

This is typically saved via C:\users\username\appdata\roaming\nuance\naturallyspeaking12.

New IMPORTANT CONFIGURATION REQUIREMENTS – AMENDING LOCAL CACHE DIRECTORY

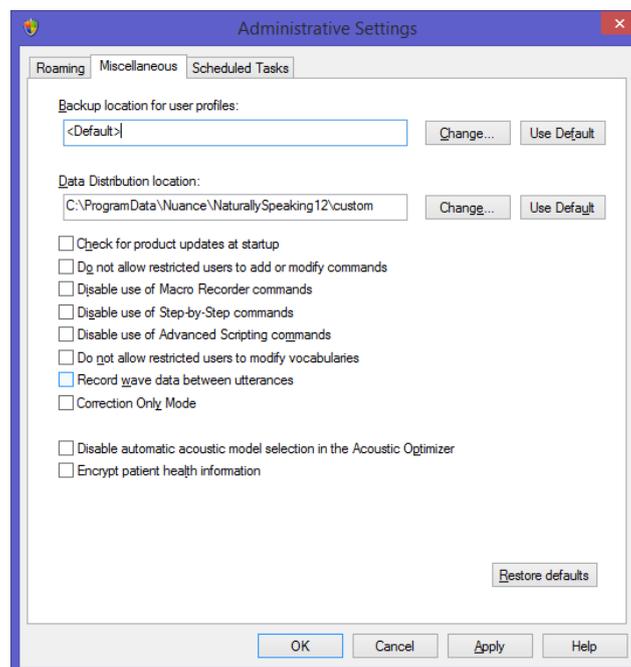
HSS recommend that you amend the default local directory for ease of administration and troubleshooting. You should therefore create a ‘Dragonprofiles’ directory via the C:\cris3 folder as this ensures that the user has the correct NTFS permissions to write to this folder as this is where all changes to roaming profiles will be stored before being transmitted to the roaming profile directory.

Local directory (for cache):

C:\cris3\dragonprofiles

MISCELLANEOUS TAB

The **Miscellaneous Tab** is where you will find settings for the Backup Location of User Files and will need to be amended as per the following screenshot:

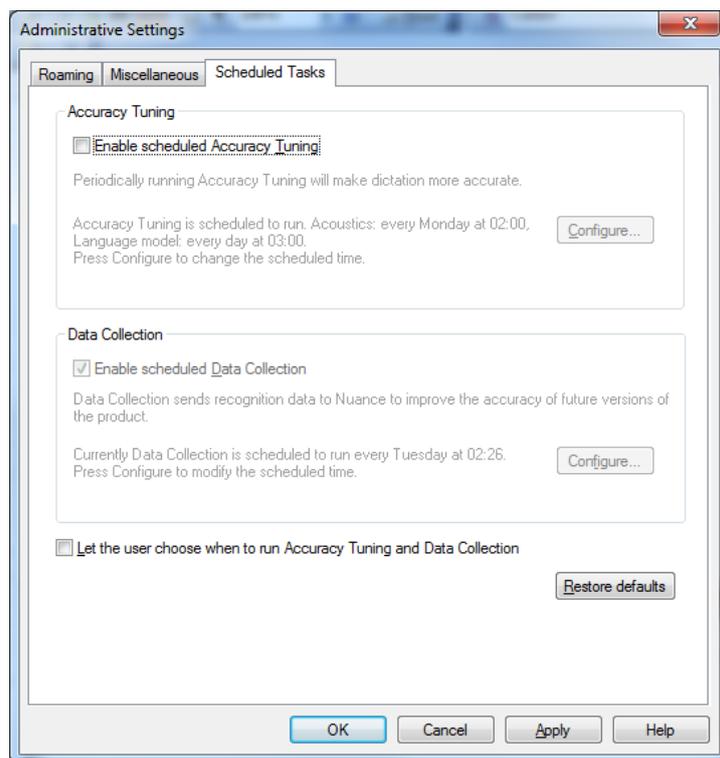


BACKUP LOCATION FOR USER FILES

This option can be left as the default as it is important to note that Dragon does not automatically backup any profiles when using roaming profiles. The backup settings are designed to specify where manual back-ups should be saved if invoked by the user themselves. You can choose to modify the default location but this will continue to be a manual task. HSS therefore strongly recommend that you ensure the Main Roaming Directory containing the master roaming profiles is covered by the standard backup processes undertaken on a routine basis at Trust.

SCHEDULED TASKS TAB

The **Scheduled Tasks** Tab is where you should ensure that the ‘Enable Scheduled Accuracy Tuning’ and ‘Let the User choose when to run the Accuracy Training and Data Collection’ should be **disabled** in favour of a centralised Acoustic and Language Model Optimizer which is scheduled to run weekly to maximise VR accuracy and productivity.



Please refer to the [‘Essential Housekeeping Section’](#) of this guide for more information on the Acoustic Optimizer.

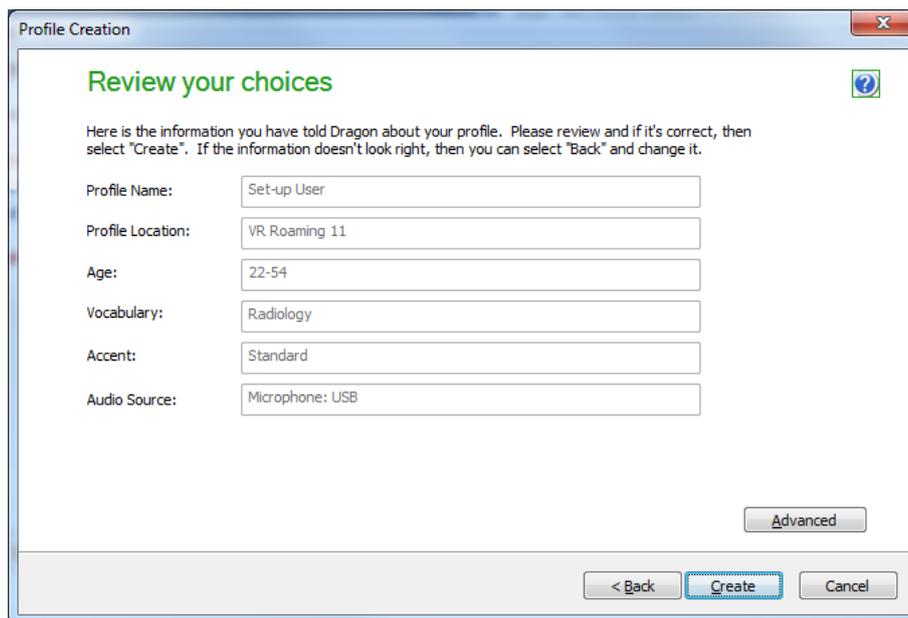
5. Creating a Dragon User for Setup

When installing Dragon for the first time it will be necessary to create a local 'Setup User' to test that the options and roaming profiles are correctly configured ahead of adding subsequent users.

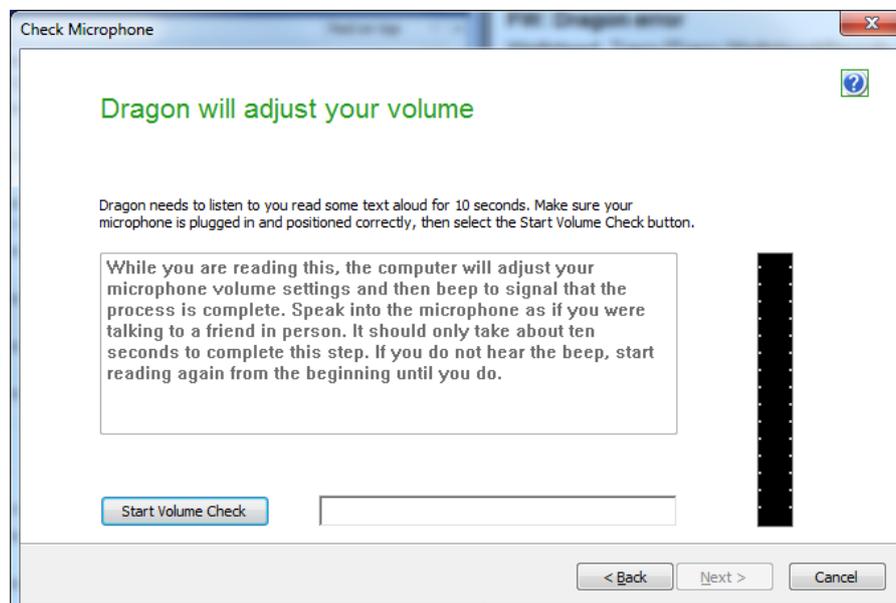
You should therefore install the Dragon software as directed via **Sections 2 and 3** and create a local 'Setup User' as directed below ensuring that you click 'Skip initial training of this user'.

It is possible to dictate using a Headset (supplied with Dragon License) or a Philips SpeechMike (not supplied with Dragon License). The screens below will show how to set up a user.

You will be asked to enter a range of information including a name for the profile, profile location (*this will default if roaming is enabled*) age, vocabulary (*Radiology*), accent and audio source. It will then give you chance to review your choices. (*Shown below*)

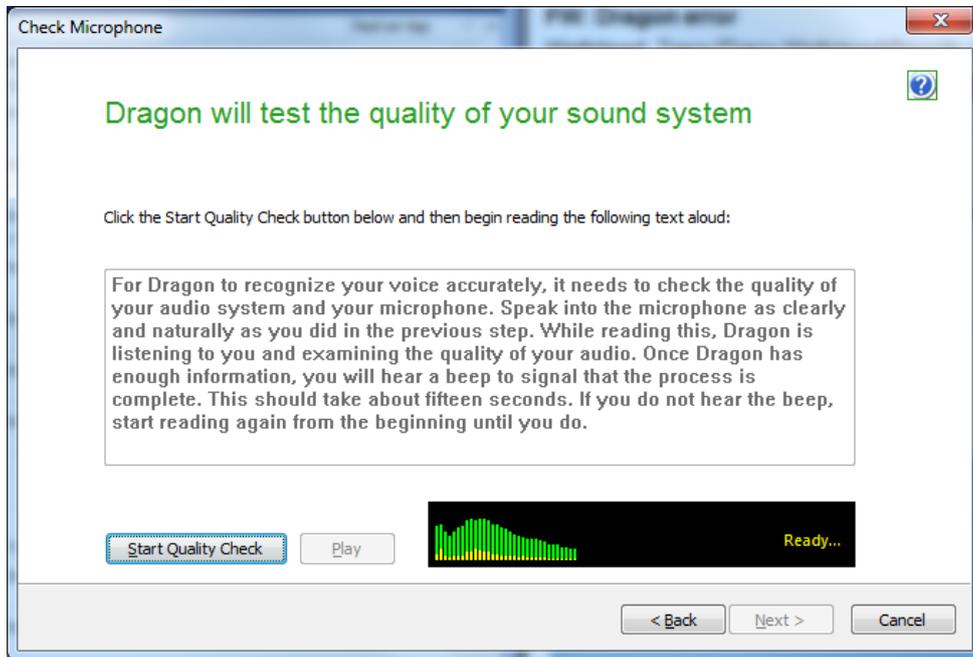


Please note: If you are using a Philips SpeechMike you should ensure 'Dictation Source = USB Microphone'.

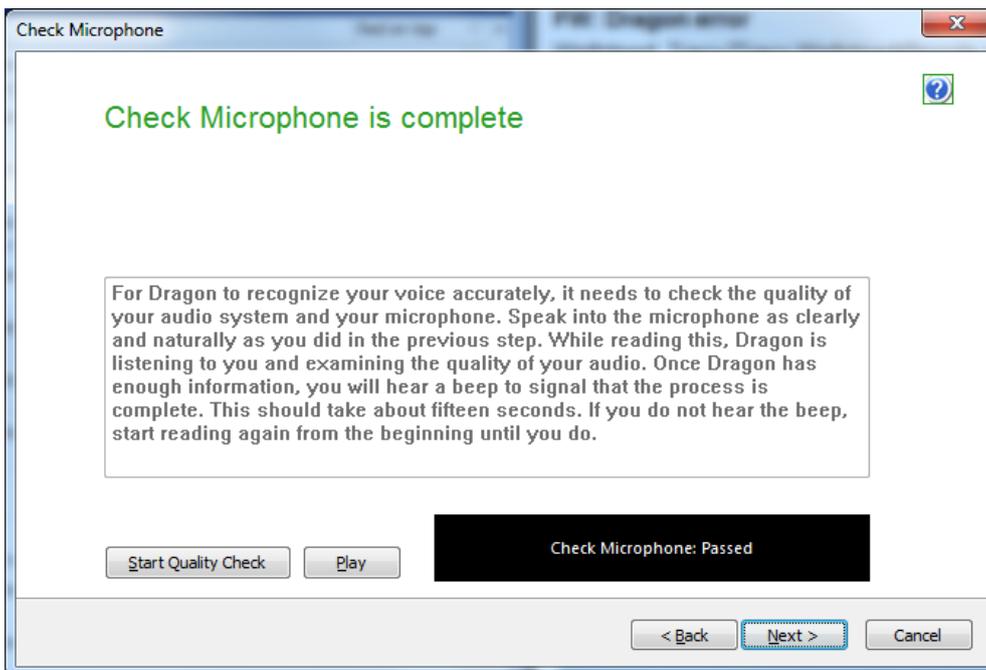


Please note: If the microphone is held too closely to the user’s mouth the voice sample may not be recognised (the bar on the right-hand side of the screen will not move when then text is being read) which may adversely affect the recording volume for voice recognition. When completing the volume check you should ensure the volume bar is active and is therefore recognising the voice sample.

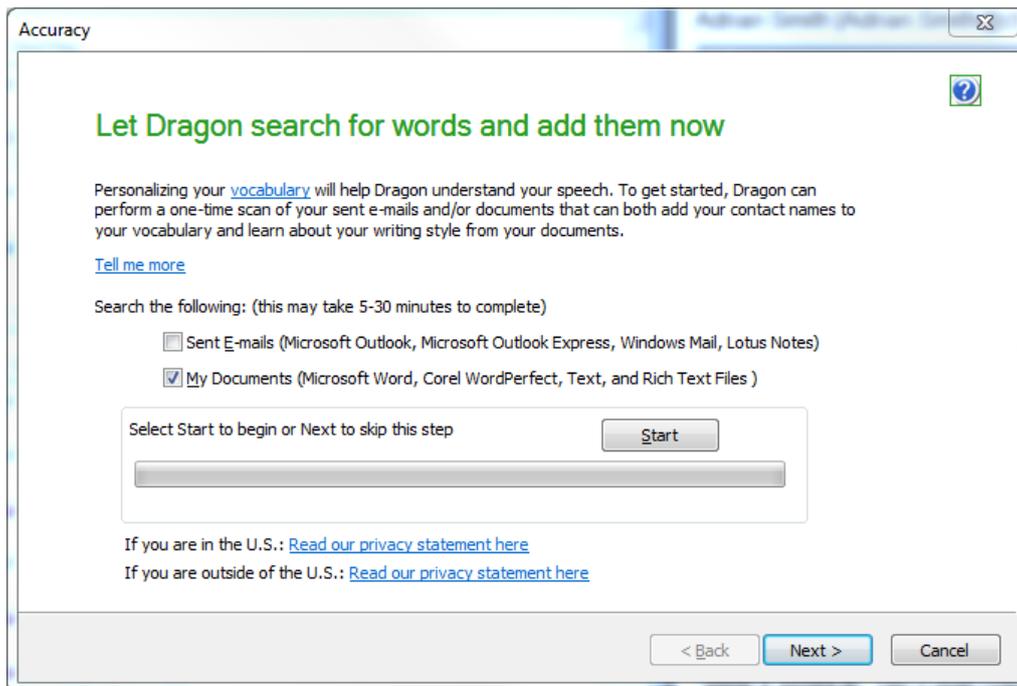
Adjust Microphone – Volume Check



Adjust Microphone – Quality Check



Please note: If the Quality Check fails you should check all connections of dictation kit, that no sound settings are on mute and if there is anything that can be done to minimise background noise – i.e. closing the office door. The volume and quality check will also need to be completed at least once at each workstation the user will use to report. This can be done at any time by right clicking on the bottom right Dragon icon then audio and check microphone.



Adapting to your writing style (shown above) - 'Skip this Step' as given that Radiology Reports are unlikely to be contained in either e-mails or word documents this does not add anything to your overall profile. Additionally neither e-mail nor Word is usually installed on CRIS > PACS Workstations.

Once you have completed the Setup Dragon User – Click Finish to skip the Tutorial as this can be undertaken later. You should then right-click on the Microphone icon located on the task bar, followed by and 'Tools' then 'Options' via the Dragon Menu Bar in order to confirm that all required Dragon > CRIS configuration is correct.

Refer to [Dragon Setup & Configuration](#) and [Configuring Roaming Profiles in Dragon](#) for full details of correct configuration settings.

6. Creating 'Roaming' Dragon Users

*****IMPORTANT PLEASE NOTE*****

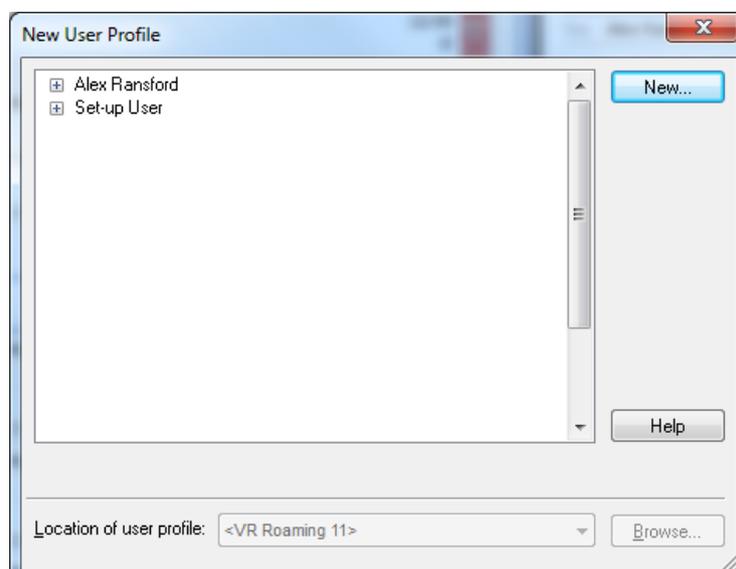
All Dragon users must be set up as **Roaming Users** to access their profiles in any location. If a user is set up as a Local User they will only be able to access their profile on one terminal / workstation, and should therefore be converted to a Roaming User.

There are **FOUR WAYS** to create a roaming user:

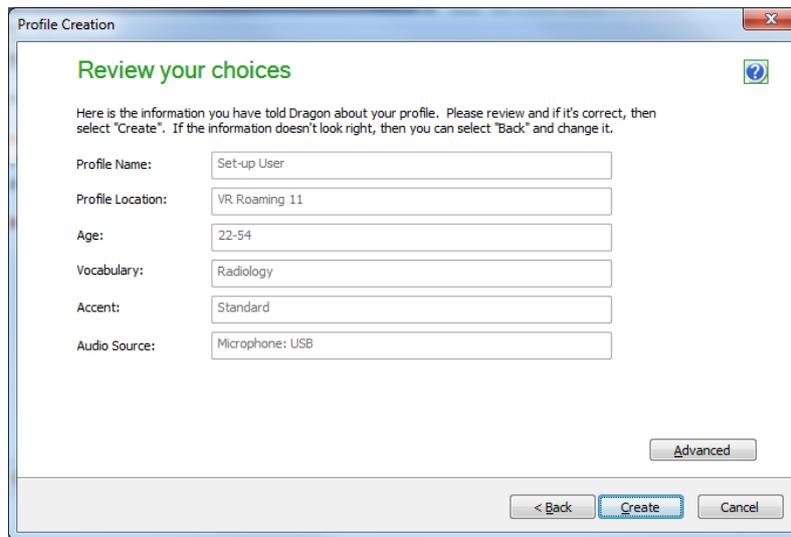
- Train a New Roaming User
- Convert an existing Local User
- Copy one or More Local Users
- Upgrade a Roaming profile from a previous Dragon version

TO TRAIN A 'NEW' ROAMING USER

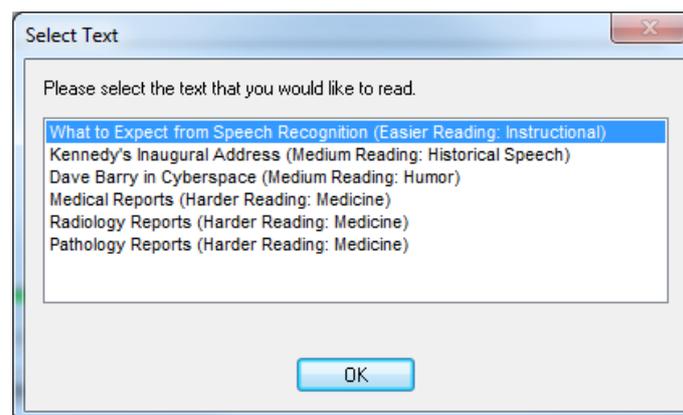
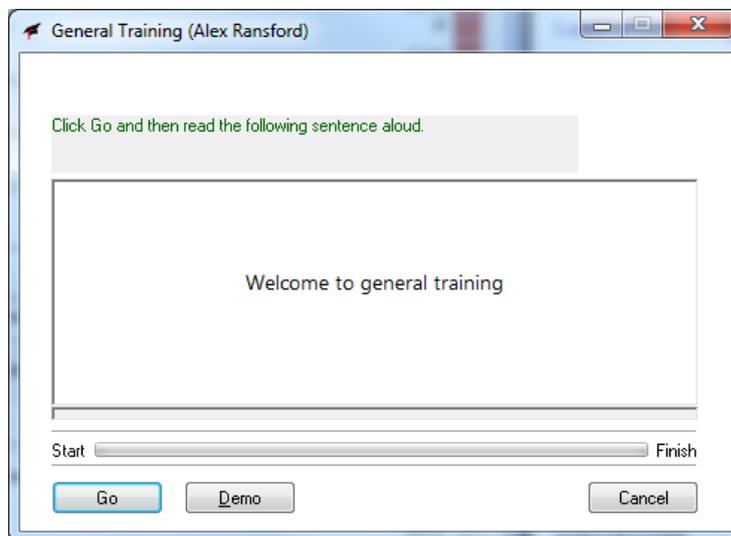
- Make sure that no Local User is open. Click Close User on the 'NaturallySpeaking' menu if one is open.
- Open the Administrative Settings dialog box by clicking Administrative Settings on the 'Tools' menu. If necessary select the Enable check box and make sure the network directory for the master Roaming User and the local directory for the local Roaming User are set. Click [OK].
- Open either the Open User dialog box or the Manage User dialog box and make sure that the Location of user files box points to the network directory location of the master roaming user. If it does not, click the arrow and select the correct location from the list, or click the Browse button to locate the directory using the browse for folder dialog box.
- Choose the 'File' menu via the Dragon Menu Bar or by right-clicking on the Microphone icon located on the task bar. Click 'New User Profile' and then [New]



- Then follow the on screen prompts to set up a new user in the same way mentioned in the above section ‘Setting up a Dragon user’.



Please note: If you are using a Philips SpeechMike you should ensure ‘Dictation Source = USB Microphone’



- It will then be necessary to carry out some short training. If the user is new to VR they should select ‘**What to expect from Speech Recognition**’ however, if the user has previous experience of using Dragon VR they can

select **'Radiology Reports'** instead. Users can also undertake additional Training via the **Audio > Read text to improve my accuracy**.

- This will usually take around 15 - 20 mins, so although not recommended it is possible to skip this step and repeat the tutorial later.

To Convert a Local User into a 'Roaming' User

You can convert an existing Local User to a Roaming User with the Manage Users dialog box.

- Make sure that the Roaming User feature is turned on. If a non-Roaming User is open, you must close it before you can open the Administrative Settings dialog box. (If necessary, click Close User on the 'NaturallySpeaking' menu.)
- Open the Manage User dialog box. (Click Manage Users on the 'NaturallySpeaking' menu.)
 - Use the list in the Location of user files box to select the location of the Local User you want to convert to a master roaming user.
- Select the user you want to convert.
- Click the Advanced button and then click 'Save' to Roaming. The program will save the user in the location specified as the Network directory in the Administrative Settings dialog box.
 - Repeat the process for any other Local Users you want to convert to master roaming users.

To Copy 'One or More' Local Users into the Roaming Directory

You can also copy one or more Local Users into the Roaming network directory, enabling you to convert a number of Local Users into roaming users within a single operation.

- Double-click the My Computer icon and navigate to the location of the Local User files you want to convert to roaming users.
- Select the files you want to copy, right click, and click Copy from the shortcut menu that appears.
- Navigate to the roaming network directory, right click, and click Paste from the shortcut menu that appears.

Please note: This is only usually possible if you have administrator level access on the workstation.

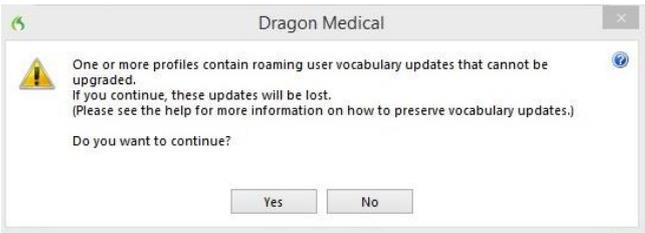
New - To Upgrade a Roaming Profile from a Previous Dragon Version – i.e. Dragon 11

Roaming dragon voice profiles from previous versions of Dragon will need to be ‘upgraded’ to be used in Dragon 12.

In order to upgrade existing roaming dragon voice profiles you will first need to run the Acoustic Optimizer for all the existing profiles prior to the installation of Dragon 12.

See the [‘Setting up and Running the Acoustic and Language Model Optimizer’](#) section of this document.

If the Acoustic Optimizer is not run the following error message will be displayed when trying to upgrade:



To upgrade the profiles:

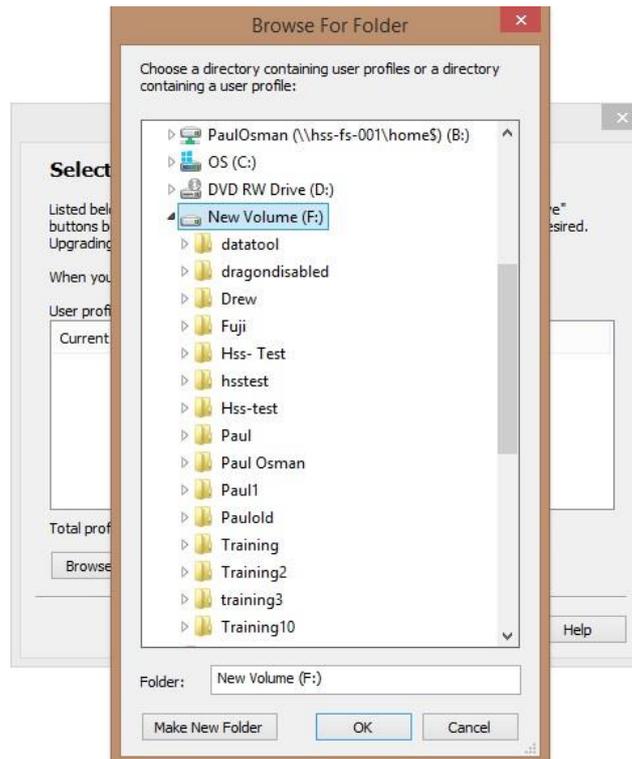
- Select the ‘Upgrade User Profiles’ from the Dragon tools menu and you will be presented with the following screen:



- Click the [Browse to add a profile...] button and the browse for folder box will appear.

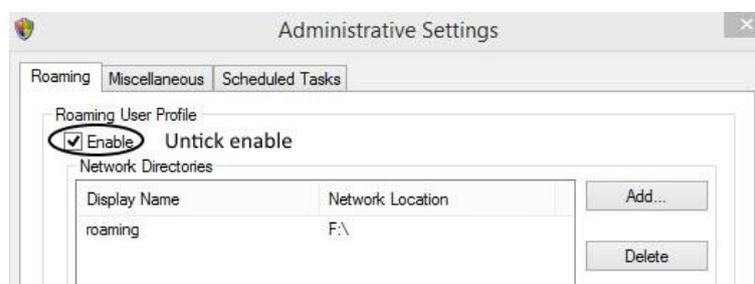


- Browse to the location of the roaming profiles. From here, you can select the entire directory or a single profile at a time:



Please note: Selecting the entire drive as shown above will select every profile. If you have a lot of profiles, please be aware it can take some time to perform the upgrade. All profiles must be closed (i.e. Not in use) at this time and the profile should have been already optimised by the Acoustic and Language Optimizer.

- Before upgrading any user profiles, you will need to make sure the roaming option from the Dragon administrative settings is unchecked from the Dragon tools menu on the workstation where you are upgrading the user profiles.



- If you do not uncheck the roaming profile option in the administrative setting, you will be presented with the following prompt and you will need to uncheck the roaming option before upgrading the profiles:



- Once you have selected your profiles, the next screen gives you a summary of your selections:



- Click the [Next] button. You will need to select the location where to store the new upgraded profiles:



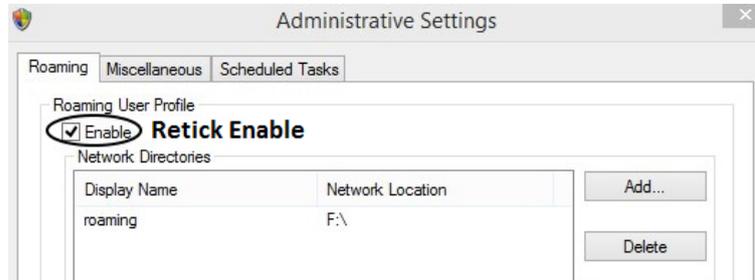
- You can select the existing location of your current dragon voice profiles (the upgraded profile names will display v12 at the end of the profile name) or you can select another location. This is useful where disk space is limited at the original location. The profiles can be moved later if required.
- Once you have selected the location to store the upgraded profiles click [Next]. The next screen shown below gives a summary of your selections:



- Once you are ready to perform the upgrade, click the [Begin upgrading] button.

Please note: The average time to upgrade a profile depends on the size of the profile, but you should allow about ten minutes for each profile that needs to be converted.

- When all profiles have been upgraded you should ensure that you re-check the roaming option in the administrative options if the option was previously ticked.



Run Accuracy Tuning after Upgrading User Profiles

To save time when it upgrades user profiles from earlier versions, Dragon initially processes only the most recent 30 minutes of acoustic data. All corrections and new words trained in upgraded profiles are migrated.

If you want Dragon to process all saved acoustic data from an upgraded profile, Nuance recommends that you run Accuracy Tuning after the upgrade to ensure that the maximum amount of data is migrated.

7. Activating CRIS and Dragon Integration

ACTIVATING XR SETTINGS

Please contact your system administrator to undertake the following tasks before using Voice Recognition.

ROAMING PROFILES - Before you can start using Dragon Voice Recognition within CRIS you must have set up a Roaming User profile and completed the Dragon Voice Training.

XR SETTINGS - The following XR Settings will also need to be activated at **XRT (Terminal)** level as this is the recommended level for VR. Unless otherwise advised - HSS do not recommend setting at XRS or XRTR level as only certain terminals are configured to use VR and any changes made to XR settings at Site or Trust level could adversely affect non VR users who have not disabled their VR profile.

GENERAL XR SETTINGS



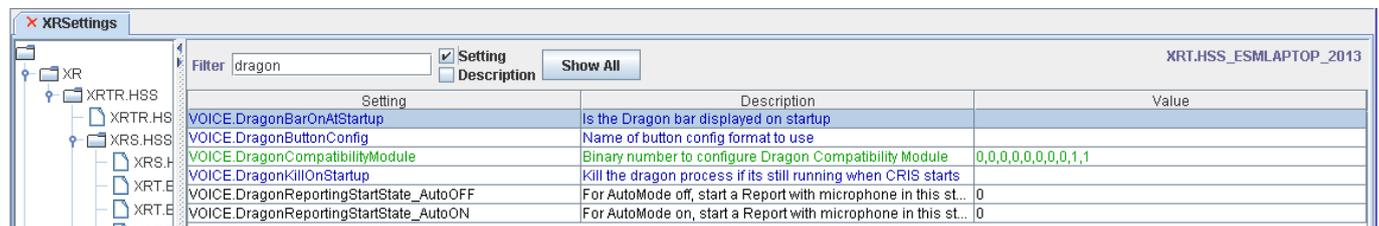
Setting	Description	Value
VOICE.RecognitionInstalled	Is Dragon Voice Recognition software installed?	Yes

VOICE.RecognitionInstalled = Yes

This setting is designed to activate CRIS and Dragon integration and to enable the associated functionality and imbedded CRIS / Dragon commands.

DRAGON XR SETTINGS

The remaining settings should be set at **XRS or XRTR** level to enable these to be inherited by all subsequent Terminals.



Setting	Description	Value
VOICE.DragonBarOnAtStartup	Is the Dragon bar displayed on startup	
VOICE.DragonButtonConfig	Name of button config format to use	
VOICE.DragonCompatibilityModule	Binary number to configure Dragon Compatibility Module	0,0,0,0,0,0,0,1
VOICE.DragonKillOnStartup	Kill the dragon process if its still running when CRIS starts	
VOICE.DragonReportingStartState_AutoOFF	For AutoMode off, start a Report with microphone in this st...	0
VOICE.DragonReportingStartState_AutoON	For AutoMode on, start a Report with microphone in this st...	0

New – From CRIS 2.09.10s2 it is possible to configure the microphone reporting state:

VOICE.DragonReportingStartState_AutoOFF = Sets the microphone recording state to 'Saved', 'Off', 'On', or 'Standby' when reporting on a single event.

VOICE.DragonReportingStartState_AutoON = Sets the microphone recording state to 'Saved', 'Off', 'On', or 'Standby' when reporting using 'Auto Select Next Exam' via the 'Report Info List'.

IMPORTANT PLEASE NOTE

It is essential to set an appropriate default value via XRTR or XRS in order for Dragon to be correctly enabled upon logging into CRIS. This can then be configured per workstation based on Radiologist requirements. If the 'Saved' mic configuration setting is set the recording state will be the same as when the mic was last used. To avoid unintended transcription HSS do not recommend the 'Saved' configuration option.

VOICE.DragonBarAtStartup = No. Setting this to No ensures that users cannot utilise the Dragon bar since its use will result in a reduction in the quality of integration, or in some cases disable the features altogether. This is due to the fact that Dragon will attempt to work independently and ignore commands sent by CRIS and leading to inconsistent results when reporting.

VOICE.DragonCompatibilityModule = 0,0,0,0,0,0,1,1 (Dragon 11). It will be necessary for existing VR users to amend this setting as above (i.e. 7 x 0, 2 x 1) when implementing Dragon 12.

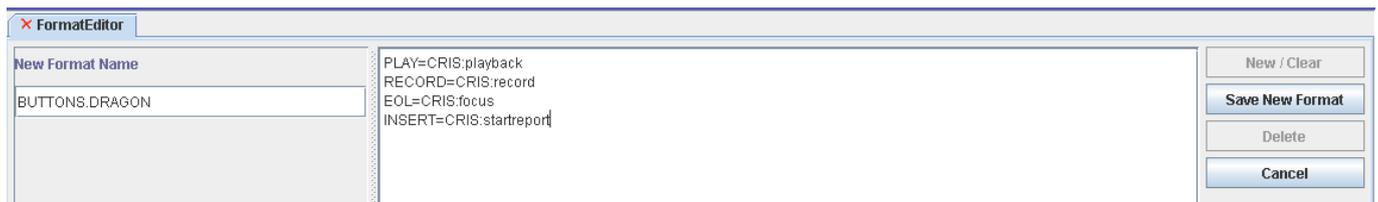
Voice.DragonKillOnStartup = No (initially). This setting ensures that any Dragon processes are killed off before CRIS correctly launches Dragon. CRIS must be opened before Dragon to function as required. HSS recommend that this setting is set to **'YES'** once all dragon voice profiles have been created, though this may not be required unless the Trust have an on-going issue with Users opening Dragon incorrectly ahead of CRIS.

CONFIGURING SPEECHMIKE BUTTONS

It is also possible to set the buttons on the SpeechMike to perform actions within CRIS.

To do this you will need to create a format called **'BUTTONS.DRAGON'** by clicking [New] via **CRIS Setup Tables > System > FormatEditor** and entering a New Format Name = **BUTTONS.DRAGON** and pasting the following text into the format editor as follows:

```
PLAY=CRIS:playback
RECORD=CRIS:record
EOL=CRIS:focus
INSERT=CRIS:startreport
```



The following SpeechMike buttons can be configured:

[PLAY], [RECORD], [REWIND], [FASTFOWARD], [EOL], [INSERT] with any of the following actions:

CRIS:focus	Returns the focus to the CRIS application.
CRIS:playback	Starts/stops audio playback.
CRIS:record	Starts and stops recording.
CRIS:startreport	Enters the examination title, starts the report text on the next line down.



VOICE.DragonButtonConfig = DRAGON. Once the BUTTONS.DRAGON format has been created you should enable this for use via CRIS via the XR Setting. Having appropriately configured the necessary XR Settings, you should close and restart the CRIS system.

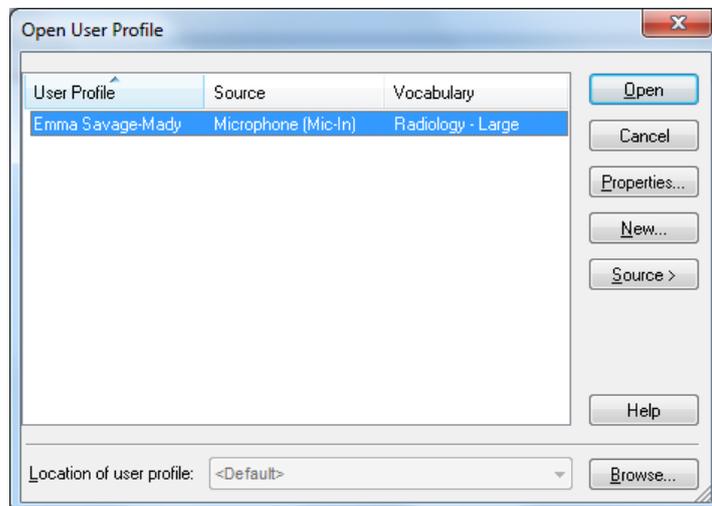
Setting	Description	Value
VOICE.DragonKillOnStartup	Kill the dragon process if its still running when CRIS starts	No
VOICE.DragonCompatibilityModule	Binary number to configure Dragon Compatibility Module	0,0,0,0,0,0,1,1
VOICE.DragonButtonConfig	Name of button config format to use	DRAGON
VOICE.DragonBarOnAtStartup	Is the Dragon bar displayed on startup	No

LINKING CRIS AND DRAGON VOICE PROFILES

Once VR is enabled the following message will appear upon logging to CRIS.

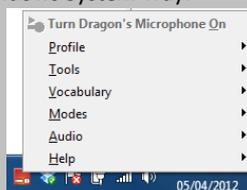


Clicking [Yes] will display the following 'Open User Profile' screen and you should highlight the correct profile via the and click [OPEN]



IMPORTANT PLEASE NOTE

To ensure CRIS and Dragon integration works correctly you should not load the Dragon Software independently. Consequently once all Dragon configuration and setup is complete you should close Dragon completely before launching the CRIS System. The CRIS application will launch Dragon Software automatically, to ensure that CRIS is able to fully control Dragon functionality and facilitate full integration. You should be aware that this does mean the Dragon Bar will not, and should not be displayed. However all required Dragon Tools are still accessible by right-clicking the Dragon Bar Icon in the Windows System Tray.



Failure to allow the CRIS System to launch Dragon will result in a reduction in the quality of integration, or in some cases disable the features altogether. This is due to the fact that Dragon will attempt to work independently, in effect ignoring commands sent by CRIS and leading to inconsistent results when reporting.

- MyCommand Name** This is the 'Command' you will say whilst reporting and you should therefore aim to use words which would not occur in everyday reporting.
- Description** A description of the reporting template.
- Group** Set as 'User-Defined'.
- [Train]** Click the [Train] button to train the Command Name and follow the on screen instructions. This step is essential for Dragon to accurately recognise your commands.
- Availability** This should be 'Global' to ensure it can be used in CRIS.
- Command Type** Text and Graphics will allow you to enter a block of text for this command.
- Content** Type the text you want this command to enter into CRIS.
- Once you have saved the new command it can be used immediately within the CRIS application.

9. Dragon Vocabulary

If you have purchased **Dragon NaturallySpeaking Medical** you should ensure that you select and use the Radiology vocabulary for maximum productivity and recognition.

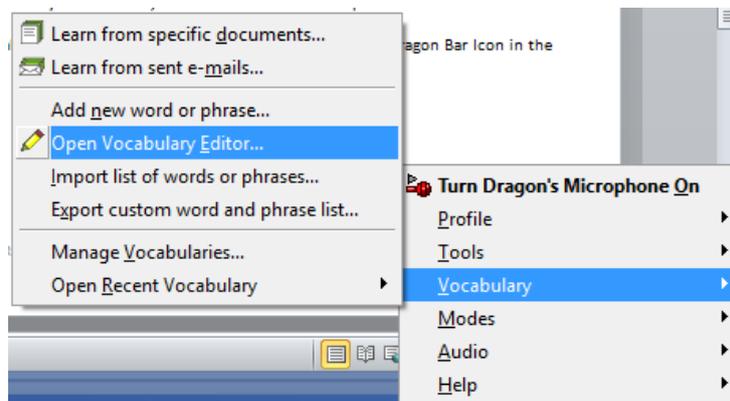
EDITING DRAGON VOCABULARY USING THE VOCABULARY EDITOR

The vocabulary editor can be used to add, edit and train individual words and phrases although this should typically be undertaken during the reporting process using 'SPELL THAT' and 'CORRECT THAT' functionality. If you do wish to access the Vocabulary Editor you will need to close CRIS and launch Dragon individually to make the require amendments to your vocabulary.

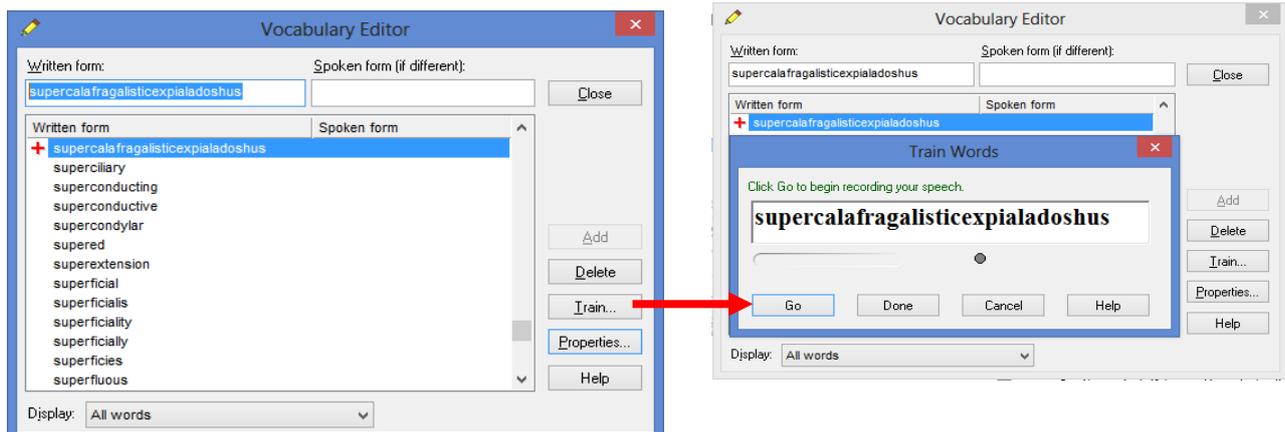
TRAINING OR ADDING AN UNRECOGNISED / UNKNOWN WORD

This is an example of how to 'TRAIN' OR ADD AN UNRECOGNISED / UNKNOWN WORD FUTURE USE. Training Dragon via CRIS is very accurate but does not take effect until the next time CRIS is accessed since the Dragon voice profile is only saved upon exiting the CRIS client. Consequently if you intend to use the same word or phrase more than once during the same reporting session it is advisable to use the Dragon Vocabulary Editor.

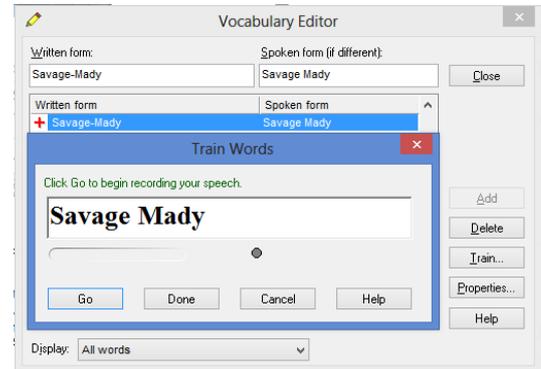
1. Right click the Dragon Menu and select the **VOCABULARY MENU** followed by **OPEN VOCABULARY EDITOR**.



2. **TYPE THE UNRECOGNISED / UNKNOWN WORD INTO THE [WRITTEN FORM] FIELD** – i.e. supercalafragalisticexpialadoshus or Savage-Mady in these examples. If the word is already in the dictionary it will appear in box below and you will simply need to **CLICK [TRAIN]** to continue

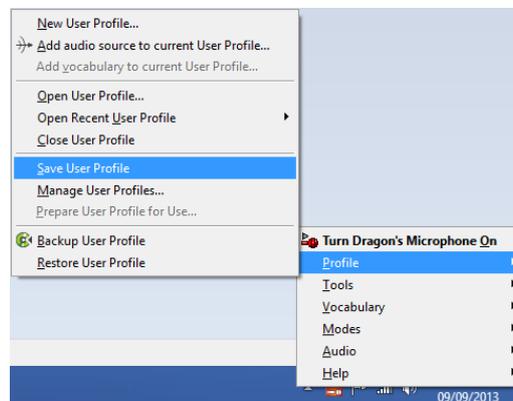


- Alternatively if the word is not in the dictionary already you should also **TYPE A [SPOKEN FORM] AND CLICK [ADD]** and acknowledge and additional messages (i.e. Guess Pronunciation). You should then **CLICK [TRAIN]** as normal.



Please note: Any personalised Vocabulary can be identified by a **RED +**

- Finally **CLICK [CLOSE]** and right click the Dragon Menu choosing the **PROFILE MENU** followed by **SAVE USER PROFILE**. Adding or Training words via the Dragon Vocabulary editor enables them to be used immediately via the CRIS reporting module.



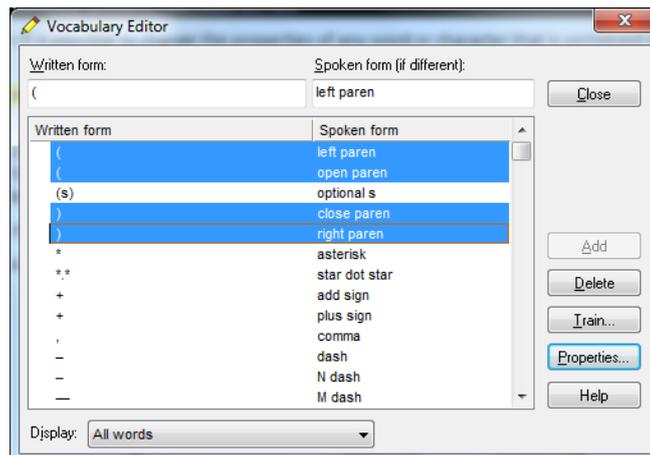
CHANGING WORDS / CHARACTER PROPERTIES

EXAMPLE 1: CHANGE THE PROPERTIES OF PARENTHESIS

This example looks at changing the properties of 'Parenthesis' to change to the more typical term of **BRACKETS**.

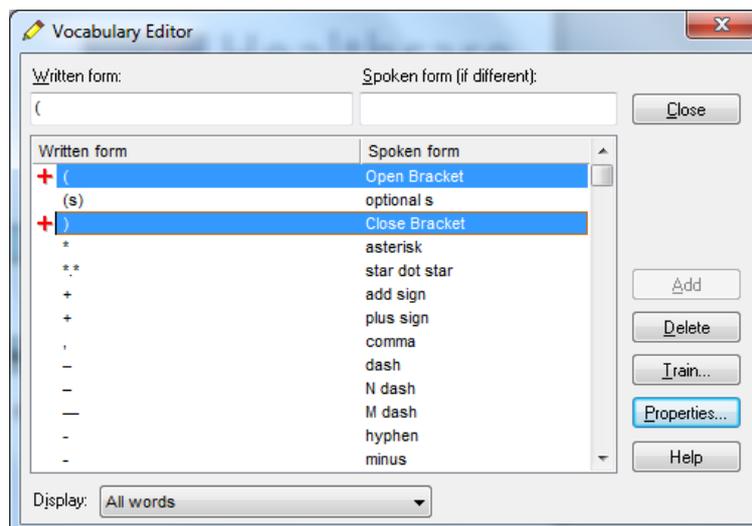
To make this modification:

- OPEN THE VOCABULARY EDITOR** via **VOCABULARY MENU** which is accessed via the Right Click Dragon Menu.
- Type a left bracket (into the written form box to locate the (**bracket** in the dictionary.



3. **USE [CTRL – CLICK]** to highlight the **LEFT AND OPEN PAREN, AND RIGHT AND OPEN PAREN** and **CLICK [DELETE]**.
4. **TYPE A (LEFT BRACKET INTO THE WRITTEN FORM BOX** and enter **‘OPEN BRACKET’ INTO THE SPOKEN FORM.**
5. **CLICK [ADD]** and then **CLICK [TRAIN]** and to amend the term used by Dragon for future use.
6. **Repeat this process for CLOSE BRACKET.** Explain the user can do this for LEFT and RIGHT BRACKET in future if required.

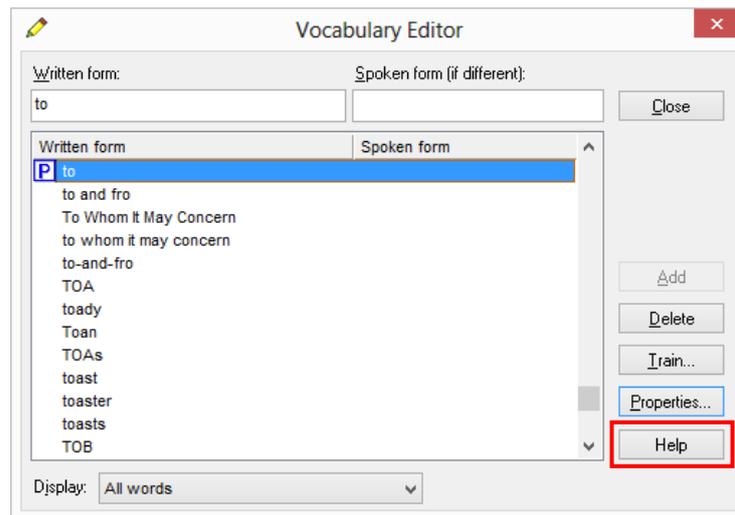
Please note: Any personalised Vocabulary can be identified by a RED +



EXAMPLE 2: CHANGING WORD PROPERTIES TO USE AN ALTERNATIVE WRITTEN FORM

This example looks at modifying the properties of the word **‘to’** to control how it appears when used between numbers – i.e. as the word **‘to’**, or as a - dash

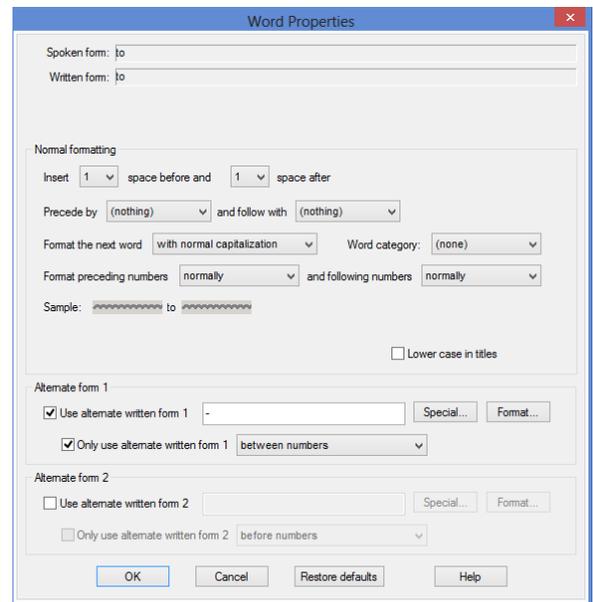
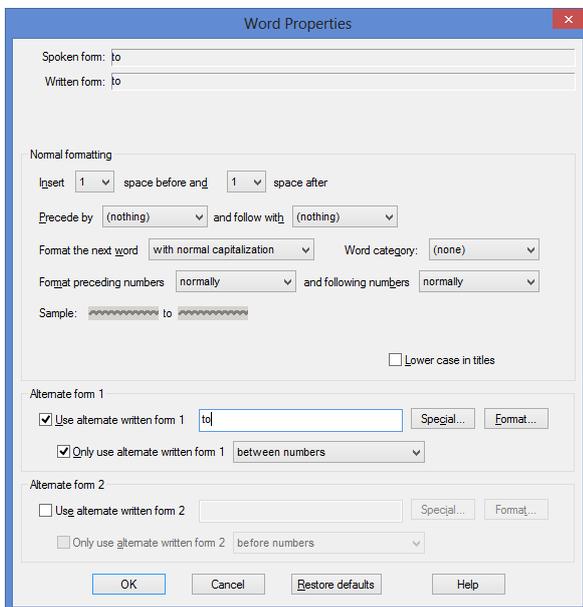
1. **OPEN THE VOCABULARY EDITOR** via **VOCABULARY MENU** which is accessed via the Right Click Dragon Menu.
2. Type **‘the’** into the **‘Written form’** box and **select [Properties]**



3. Tick 'Use alternate written form 1' and amend accordingly depending on your preference:

Alternative using 'to'

Alternative using '-'

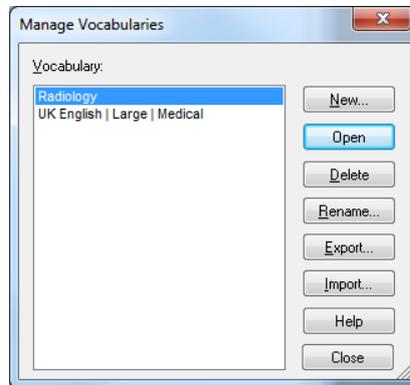


4. Ensure that 'Only use alternate written form 1' is ticked and select 'between numbers' before clicking [OK].
5. HSS would recommend that you also click [Train] to update your Dragon voice profile before saving the changes to your profile.

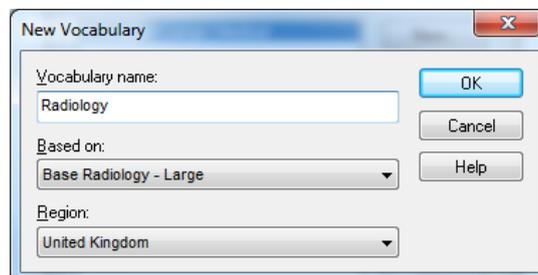
ADDING THE RADIOLOGY VOCABULARY TO A PROFILE

If the Radiology Vocabulary has not already been chosen, it can be added to the user profile.

1. To do this select 'Manage Vocabularies' from the File Menu by right-clicking the Dragon Bar Icon in the Windows System Tray.



2. When the Manage Vocabularies Dialogue box is displayed click [New] and type **Radiology** as the 'Vocabulary name' and select **Base Radiology – Large** as the 'Based on' Vocabulary. Click [OK] to save this new vocabulary.

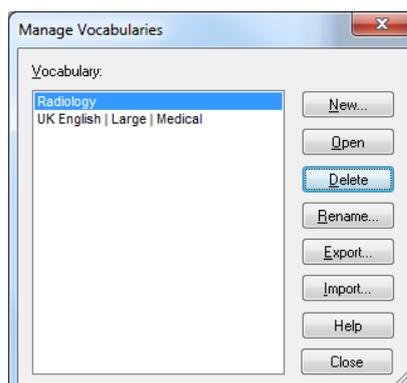


3. Having clicked [OK] the 'Vocabulary Optimizer' will appear. You do not need to undertake this step and should click [Cancel].

REMOVING VOCABULARIES FROM A USER PROFILE

You may also want to remove the existing vocabulary once you have proven that the Radiology specific dictionary works, as it is not recommended to have more than two vocabularies per profile.

You can remove vocabularies by selecting the Vocabulary you wish to delete and clicking [Delete].



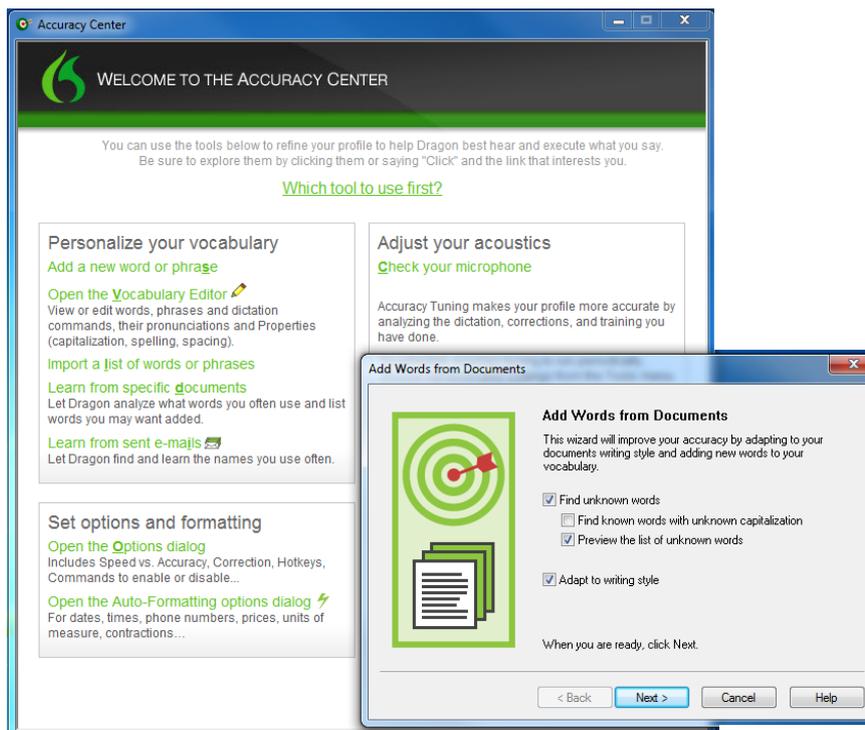
IMPORTING A USER SPECIFIC VOCABULARY INTO DRAGON

In the previous section you created a text document that is now ready to be imported into Dragon NaturallySpeaking as a user specific dictionary.

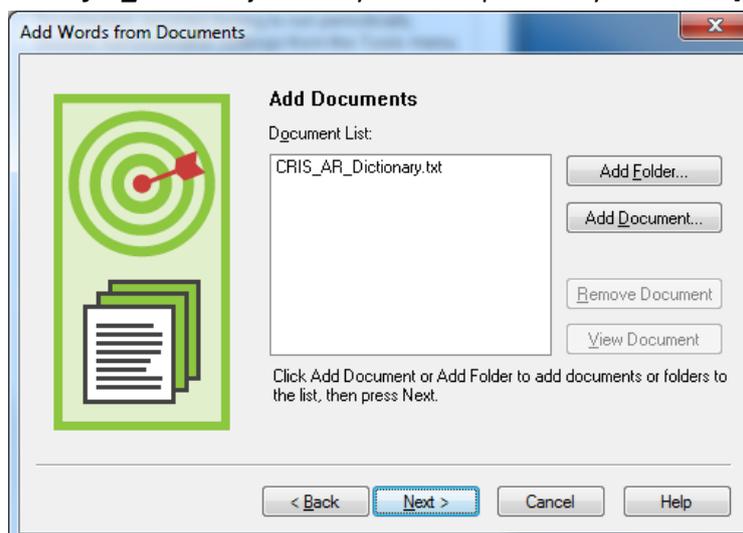
1. Open Dragon and choose the 'Tools' menu - select 'Accuracy Center'.

Please note: You must have a User 'Open' to be able to select 'Accuracy Center'. You can 'Open' a user from the 'NaturallySpeaking' menu. The user that is currently open will inherit the new dictionary when you import the text.

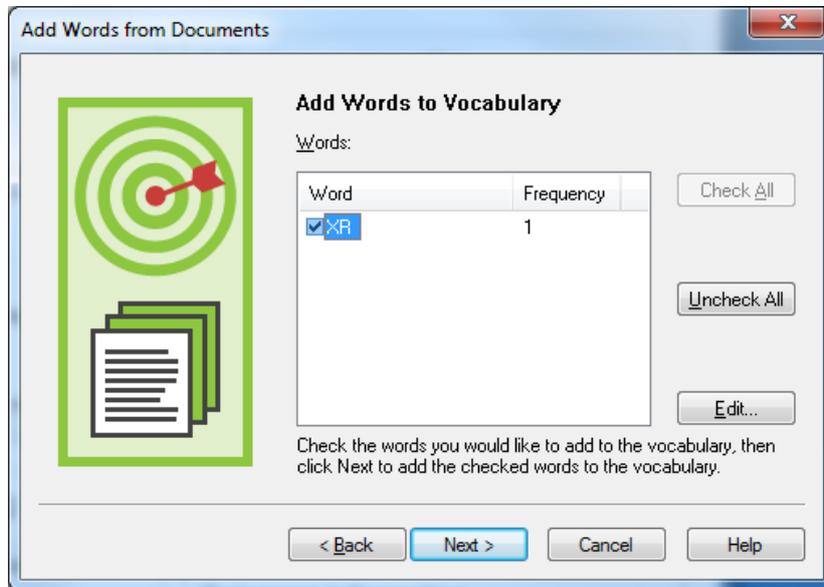
2. Click 'Add words from your documents to the vocabulary', a Add Words from Documents Dialogue box will be presented to you, click [Next] as follows:



3. The 'Add Words from Documents' dialogue box will remain on screen, choose [Add Document], Browse to and select the **CRIS_initialsofDr_dictionary.txt** file you saved previously then click [Next].



- Dragon will then carry out an analysis of the file (click [Next]) and will then display a dialogue box (as below) to enable you to decide if you would like to uncheck any words which are not frequently used. In this way you can choose to omit certain words in order to ensure that your own personal vocabulary is as up-to-date and context specific as possible.



- When you have selected the words you want to include in your dictionary click [Next] and continue to click [Next] on all subsequent screens until the process is completed.

Please note: You will be given the option to ‘train’ Dragon on the words you are adding; you can do this during this process or you can choose to train at a later date if necessary. You should be advised that this process can take some time – in some cases up to 15 minutes and HSS therefore recommend that you undertake this process at a suitable time when the workstation is not in constant use.

10. Best Practice, Correction and Troubleshooting

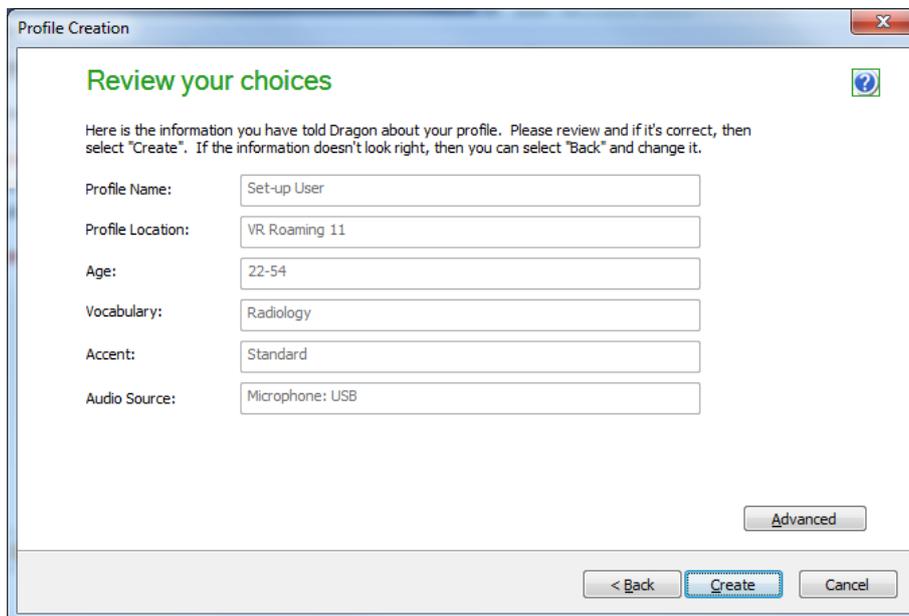
INPUT & DICTATION SOURCE

It is possible to dictate using a PC Headset (supplied with Dragon License) or a Philips SpeechMike (not supplied with Dragon License).

It is very important to choose the correct Dictation source via in the Dictation Source drop-down box when creating a new user.

If the **PC Headset has a USB connection**, or you are using a **USB microphone** such as the **Philips' SpeechMike** the dictation source should be set to **USB Microphone**.

If the **PC Headset does not have a USB connector** it should be plugged into the standard Microphone and Headset ports on the workstation /terminal and the dictation source should be set to **"Microphone Plugged into Mic Jack"**.



Profile Creation

Review your choices

Here is the information you have told Dragon about your profile. Please review and if it's correct, then select "Create". If the information doesn't look right, then you can select "Back" and change it.

Profile Name: Set-up User

Profile Location: VR Roaming 11

Age: 22-54

Vocabulary: Radiology

Accent: Standard

Audio Source: Microphone: USB

Advanced

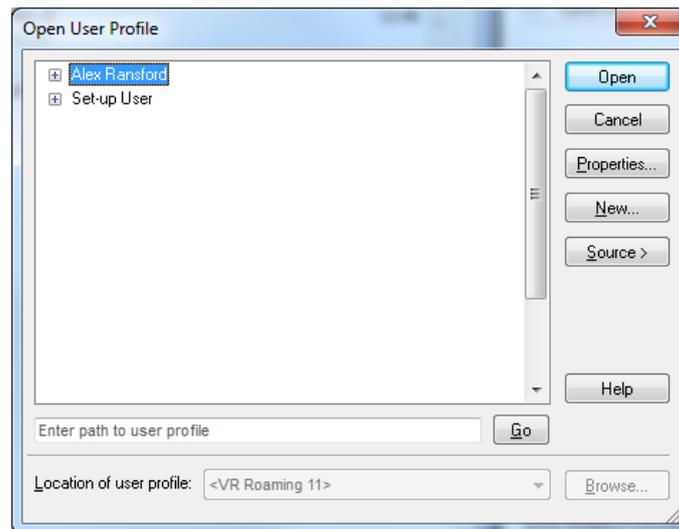
< Back Create Cancel

Please note: The 'Radiology Vocabulary is only available when using Dragon NaturallySpeaking Medical.

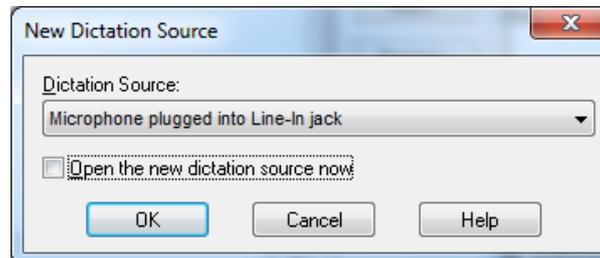
ADDING / CHANGING DICTATION SOURCE

Should you wish to add an alternative Dictation Source, or in the event that you have selected the wrong Dictation Source, and would like to change to a different type of Microphone you can add / change the dictation source for a user.

1. To do this select 'Open User' from the File Menu by right-clicking the Dragon Bar Icon in the Windows System Tray.
2. Highlight the relevant User and clicking on the [Source] button.



3. You should then click [New] and choose the new Dictation Source (either Line-In Jack or USB Microphone) and click [OK]

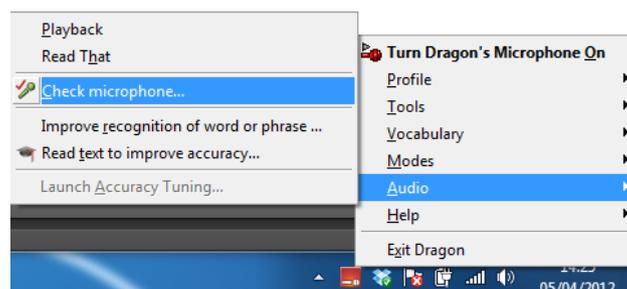


4. This will create an Additional Dragon User with the correct or alternative 'Source' and you may therefore wish to [Delete] the *Original* User with the original 'Source'. Alternatively it is possible to have multiple Dictation Sources in the event that you use different Microphone in different locations (i.e. USB on one Workstation, and Mic In Jack on an alternative Workstation).

CHECKING THE SOUND QUALITY OF YOUR DICTATION SOURCE

If the source used for dictating into Dragon NaturallySpeaking is changed or if recognition seems to be impaired, then it is important to update the audio settings for your dictation source.

1. To do this right click on the bottom right Dragon icon, then hover over 'Audio' and select 'Check microphone...'



2. This will invoke the **Audio Setting Wizard** where you should undertake all 3 steps to confirm / configure the sound quality of your dictation. Firstly, make sure the correct device is selected then precede through the steps.

NON DRAGON USERS IN CRIS

Any CRIS user(s) working on a VR enabled Reporting Workstation, who do not wish to use Voice Recognition, or have not yet been trained to use Voice Recognition should click 'No' when prompted to select a profile when the user logs into CRIS for the first time on a VR enabled workstation. (Shown below)



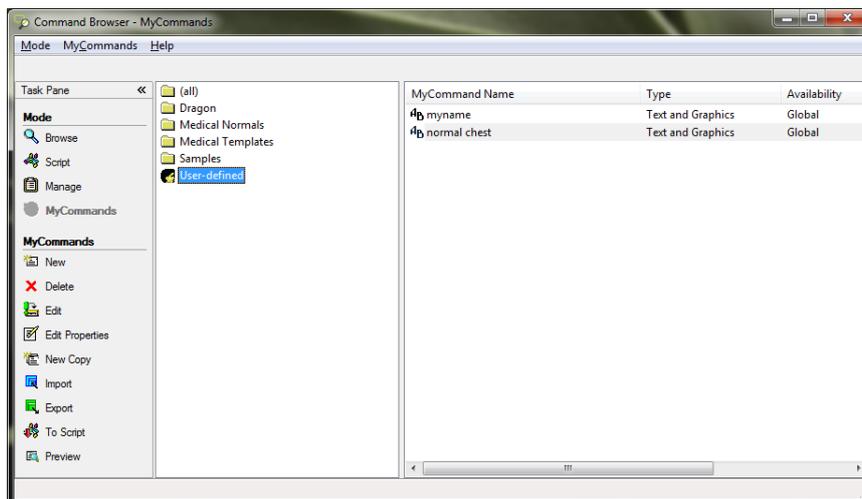
If at a later date the CRIS User wishes to begin using Voice Recognition, it is simply a case of removing the '**DragonUser=DRAGONDISABLED**' line from their STAFF > User Preferences to enable them to select their correct Dragon voice profile the next time they login to the system. Full instructions on '**Changing a CRIS User's Linked Dragon voice profile**' is highlighted below.

SHARING VR COMMANDS (IMPORTING / EXPORTING USER COMMANDS)

Dragon provides VR users with the ability to share commands either by importing, or exporting the files into specific user profiles, or by using the Data Distribution Tool in order to add and remove commands for all users.

EXPORTING SPECIFIC USERS COMMANDS

To **EXPORT COMMANDS** you should load the relevant user profile, and then open the command browser via Dragon > Tools > Command Browser



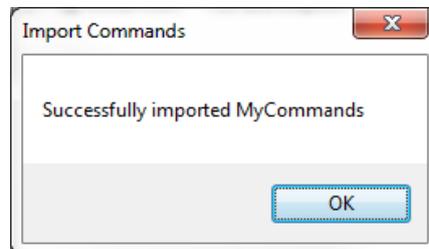
You should highlight the 'User Defined' folder which is where users specific commands are stored, and select any commands that you want to export via the right hand 'My Command' pane. Once selected choose 'Export' via the left hand 'Task Pane'.

Please note: You can select multiple commands using [Ctrl + Left Mouse Click]

When you click export you will be asked to choose a destination to save the exported commands before saving.

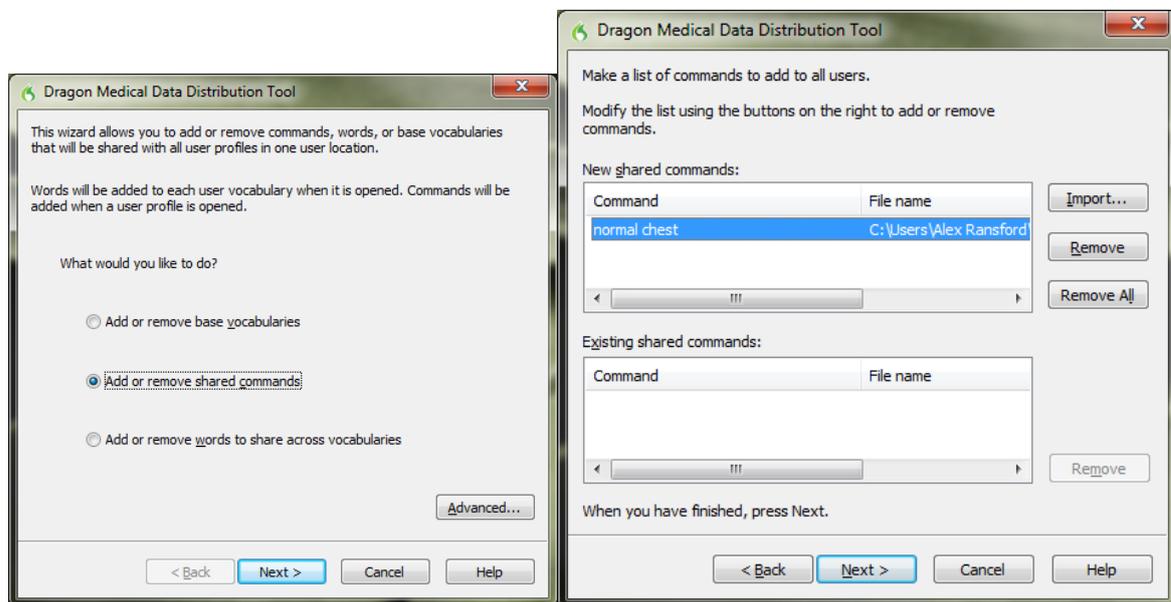
IMPORTING SPECIFIC USERS COMMANDS

This file can then be imported into a specific user profiles by loading the relevant user profile within Dragon, opening the command browser and selecting 'import'. You should then choose the relevant file containing the exported commands and once the commands have been successfully imported you will see the following message.



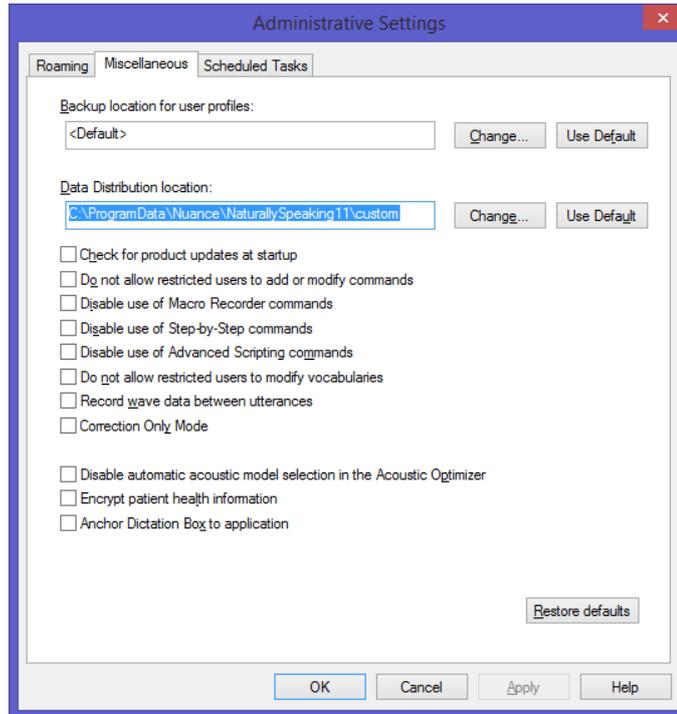
DRAGON DATA DISTRIBUTION TOOL - IMPORTING COMMANDS TO ALL USERS

You will need to begin by exporting the commands as per the 'Exporting Specific User Commands' instructions. You can then use the Data Distribution Tool located via Start > Dragon Medical 12 > Dragon Medical Tools > Data Distribution Tool. Select the 'Add or Remove shared commands' option and click [Next] before choosing the appropriate language. On the following screen click [Import] and choose the exported commands file previously created which will list the commands in the top section of this screen.



Having done this click [Next], this will then begin importing the commands. If roaming is enabled and is mapped on workstation the commands will be imported to all users on the roaming share. If roaming is not enabled then the commands will be passed to all users who are set up on the individual terminal.

Please note: Commands can be removed from all users using the 'existing shared commands section' and selecting remove.



Please note: The 'Data Distribution Location' should be set as a location to which all Dragon users have access to allow each user to import the available commands. A folder should be created at the location named 'SharedCommands', commands placed in the folder are available to all users. Commands will need to be trained by each Dragon user.

CORRECTING DRAGON VOICE PROFILES

Identifying which profile the user is linked to...

When the user is logged into CRIS place the mouse cursor over the microphone icon to display which Dragon profile is currently loaded.



Changing a CRIS User's Linked Dragon Voice Profile

In the event that a user wishes to change the Dragon voice profile that is linked to their CRIS User Account either due to a change in profile or due to error, the RIS System Manager should undertake the following course of action:

1. Open the CRIS Staff Table and highlight the User Account you wish to amend:

Preferences for user HSS.	
Preference	
DICTATIONLIST.Site	
DICTATIONLIST.StartDate	
DragonUser	SmithC
EVENT.EntryTabSelection	5
GENERAL.AutoSelectNextEvent	1
GENERAL.ColourUnreportedByUrgency	1
GENERAL.Mode	Dictation
GENERAL.OldPasswords	
GENERAL.OrderUnreportedByUrgency	1
GENERAL.ShowNotPerformedExams	1
GENERAL.ShowUnreportedExams	0

2. Click the Preferences Tab for the selected user
3. Locate the DragonUser setting
4. Delete this setting by Right clicking and selecting [Remove] before clicking [SAVE].
5. Close CRIS and Restart the application
6. When the user logs back in to CRIS again they will be prompted to select a Dragon voice profile to link to their CRIS User account.

Please note: You should not remove the value from the preference, the 'DragonUser' preference should be deleted in order for this to be reset.

Disabling Windows Ctfmon.Exe

The Nuance support and knowledge base highlights known issues where the Windows XP CTFMON.exe processes can interfere with Dragon often resulting in system lock up's, freezes or problems regarding Dragon 'Select and Say' features. It is therefore recommended that this process is disabled in the event of any similar problems, since the CTFMON.exe is not required.

Instructions on how to undertake this are available via the Nuance Support Knowledge base, and can be accessed directly via http://nuance.custhelp.com/app/answers/detail/a_id/2497.

Anti-Virus Software

When launching or using Dragon NaturallySpeaking, it is possible that third party Anti-Virus software may interfere with Dragon. These interferences may include dictation being blocked, or the Anti-Virus software may show an alert that the "natspeak.exe" process is possible malware.

Cause: Dragon NaturallySpeaking connects to applications for tracking windows, text fields and dialog boxes. This connection may be improperly detected as an intrusion by the Anti-Virus software.

Solution: To ensure that the Anti-Virus software does not interfere with Dragon NaturallySpeaking, add the Dragon installation directory to the Anti-Virus program's exception list.

Please note: The steps for adding an exception will vary with different Anti-Virus software. Please consult the Anti-Virus program's Help File for the exact steps on adding an exception.

The following Dragon NaturallySpeaking directories should be added as exceptions:

Windows XP...

All Files/Folders in C:\Program Files\Nuance

All Files/Folder in C:\Documents and Settings\All Users\Application Data\Nuance

All Files/Folders in C:\Documents and Settings\[windows login account]\Application Data\Nuance

Windows Vista / 7...

All Files/Folders in C:\Program Files\Nuance

All Files/Folders in C:\ProgramData\Nuance

All Files/Folders in C:\Users\Dragon\AppData\Roaming\Nuance\

The local cache location (if configured for a custom value and different from the above defaults).

Please note: If the Anti-Virus program asks whether to include all sub-folders and files to the exception list, select Yes.

11. Essential Housekeeping

What is the Acoustic and Language Model Optimizer?

As you make and train corrections, train new words, use commands, and perform additional training, Dragon stores the acoustic and language data in an archive and uses it to enhance recognition accuracy and 'learn' any changes you have made.

The Acoustic and Language Model Optimizer updates your *User Profile* with accumulated acoustic data from your corrections and any additional training you have performed as well as to add commonly used word sequences to the Language Model. Running the Acoustic and Language Model Optimization increases your overall accuracy.

The Language Model contains statistical information that predicts which words are most likely to occur in the context of your speech. Language Model Optimization uses text extracted from your User Profile's .DRA files to add commonly used word sequences to the Language Model.

HSS strongly recommend that the Acoustic and Language Model Optimizer is scheduled to run weekly in order to ensure that users always have access to the most up-to-date and streamlined profiles. Failure to run the Acoustic and Language Model Optimizer will result in a degeneration of recognition, and the appearance that Dragon is not learning in spite of any training undertaken by the user.

Please note: Dragon will only collect this data if the correct configuration settings have been selected as detailed in the above document. The windows scheduler is required to run the Acoustic and Language Model Optimizer

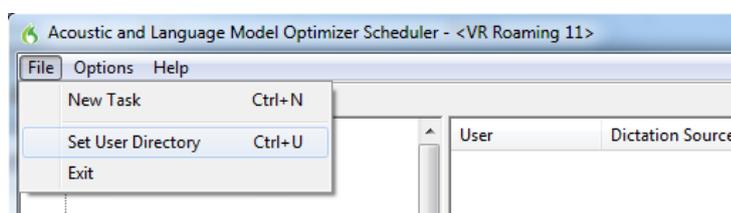
Setting up and Running the Acoustic and Language Model Optimizer

HSS also suggest that the Acoustic and Language Model Optimizer is run from server where the profiles are stored as this is the most time efficient in terms as it negates network speed issues, any loss of access to profiles and should also be subject to the standard system backup. Dragon will need to be installed on the Roaming profiles server using Remote Desktop Protocol (RDP) and can then be scheduled to run from there as per the following instructions.

Please note: The roaming option (via Dragon administrative Settings) will need to be disabled on the server/workstation you are running the acoustic Optimizer.

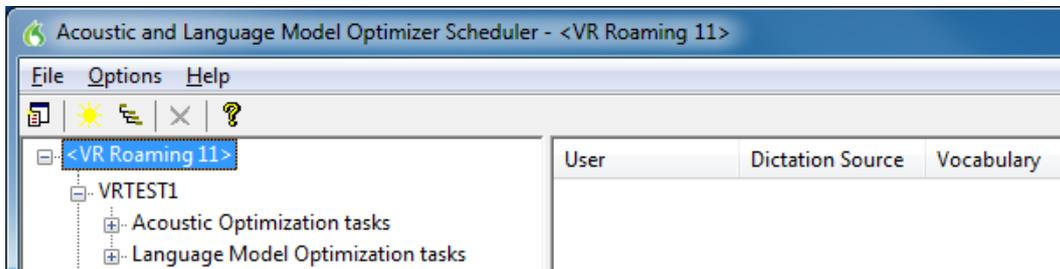
The system administrators' computer can also be used to run the Acoustic Optimizer, but it will take longer if not the same location as the profiles and will need Dragon installed and access to the roaming location.

The Acoustic and Language Model Optimizer is found via **Start > All Programs > Dragon 12 > Dragon Medical Tools > Acoustic and Language Model Optimizer Scheduler**. Once the 'Acoustic and Language Model Optimizer' has loaded you will need to set the Roaming directory. To do this click [File] then [Set User Directory] and then browse to the below location.

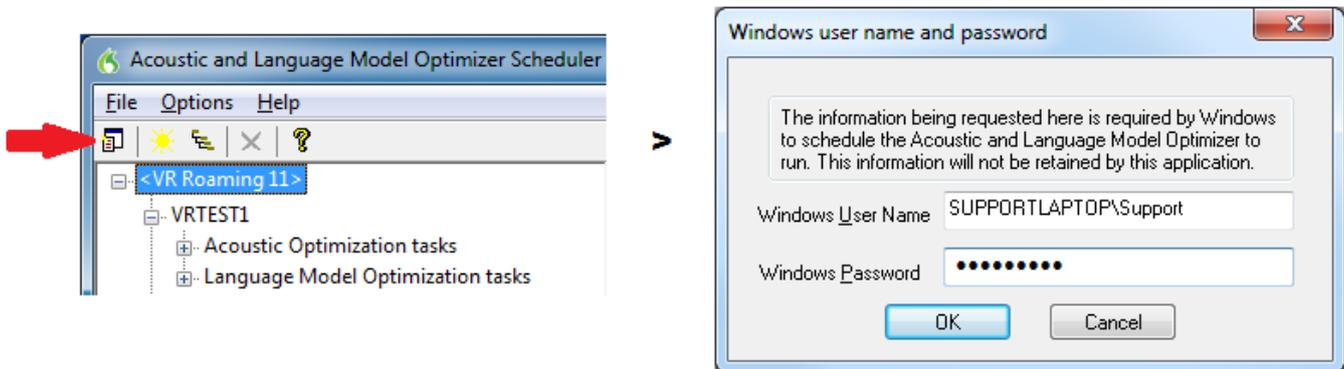


Once this location is set, you should see the users' profiles populate the left side pane as per the below screenshot.

Please note: This may take some time depending on the amount of profiles you have stored on the roaming location.



Next, you will need to schedule a task to optimize a user profile. To do this click the far left icon which is highlighted below or choose File > [New Task]. You will then be prompted to enter your windows password.



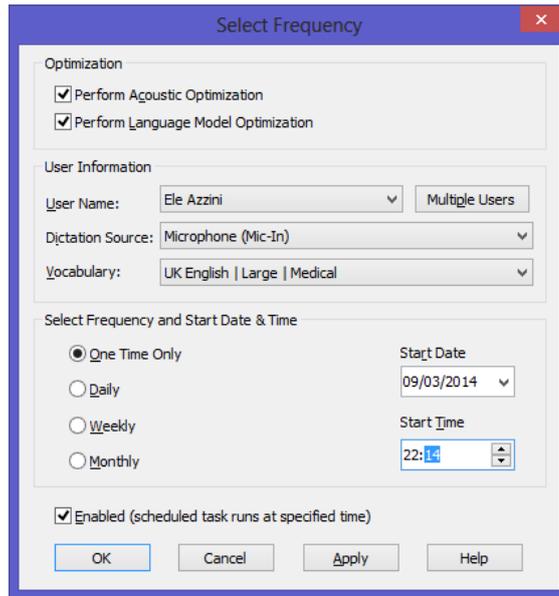
The next screen is where you select the profile(s) you would like to optimize and when you would like this to occur.

Please note: You will need to ensure that the user's profile is not in use when you intend to run the optimizer. We advise the Acoustic and Language Model Optimizer is set to run out of hours to avoid this issue.

RUNNING AN INITIAL TEST

HSS would recommend that you begin by setting up an initial test for one user to confirm that the process completes as expected, and test the speed of connection if not installed on the Roaming server.

Select a User Name from the drop down list of users, and ensure that the top two boxes ('Perform Acoustic Optimization' and 'Perform Language Model Optimization') are ticked so that the acoustic and language models are both optimised.

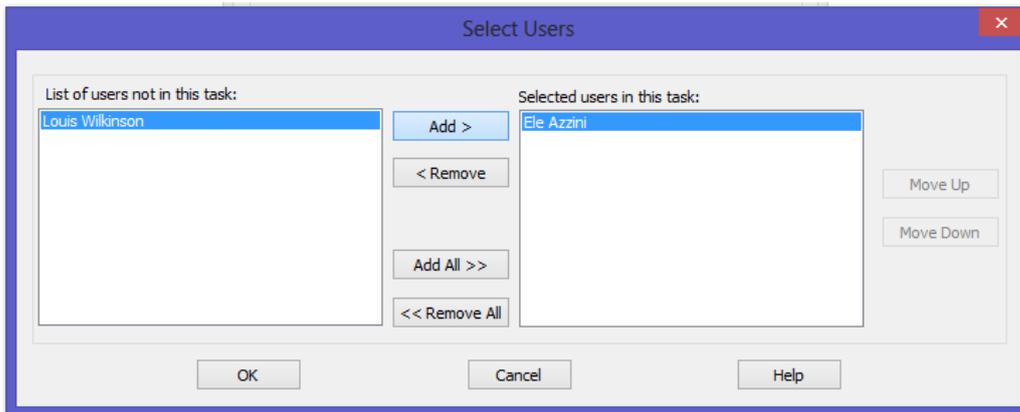


Having done this select the 'One Time Only' and ensure that the Start Date is today and Start Time is 2-3 mins from the current time and click [OK] to schedule the task.

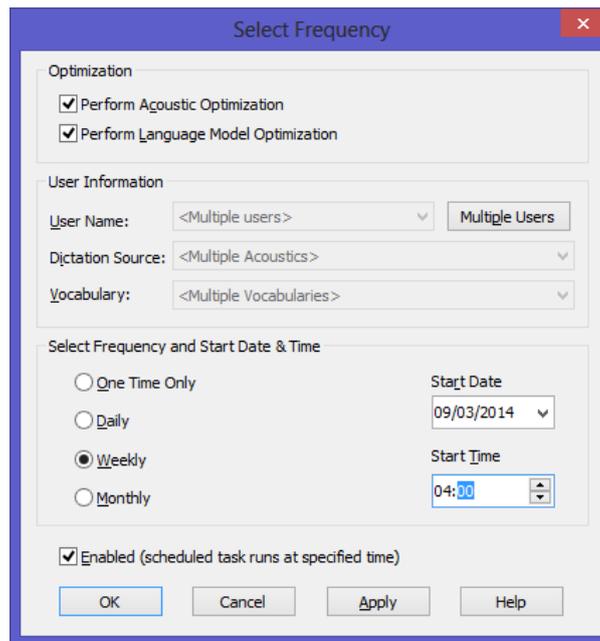
CONFIGURING THE ACOUSTIC AND LANGUAGE MODEL OPTIMISER FOR ALL USER PROFILES

Having tested the Acoustic and Language Model Optimizer on one user, you can now extend this to cover all ser profiles. You should again ensure that the top two boxes ('Perform Acoustic Optimization' and 'Perform Language Model Optimization') are ticked so that the acoustic and language models are both optimised.

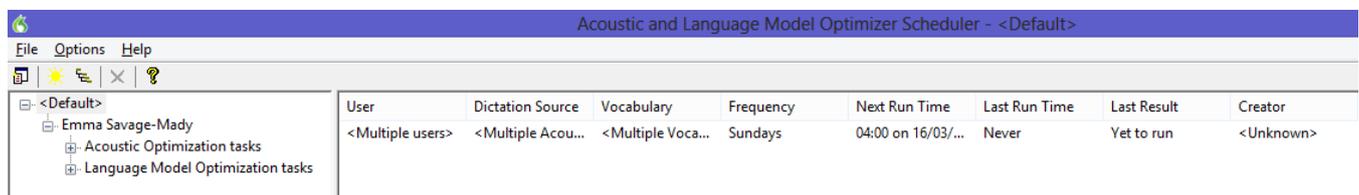
Then select the users you would like to run using the [Multiple Users] function button.



Add all relevant Users individually using [Add >] or [Add All >>] and click [OK] to exit this screen.



Once the above has been set, click [Apply] then [Ok]. This will then send you to the main screen shown below.



You should now be able to see the scheduled task in the right side panel. When you have scheduled the tasks close the scheduler and the Acoustic and Language Model Optimizer will start to run when the time reaches the one specified within the 'Next Run Time' column.

Once this has completed the 'Last Run Time' and 'Last Result' columns will be populated. The Acoustic and Language Model Optimizer can take time to complete, and does vary depending on the amount of data to process. However the more frequency the process is run the more efficient the process will be.

Please note: Sometimes it may be necessary to refresh the window yourself by clicking on the yellow sun icon to display the result.

The results the Acoustic and Language Model Optimizer can display are shown below with an explanation on each term:

Last Result	Explanation
Success	The Acoustic and Language Model Optimizer has run successfully for the user.
No New Data	There is not enough or no new data for the Acoustic and Language Model Optimizer to optimize.
Failed	The Acoustic and Language Model Optimizer has not completed. The error should then be visible within the Dragon.log

Please note: The 'no new data' result could be caused by a configuration issue, as incorrect setup can stop the required files from being saved. Please refer to [Configuring Roaming Profiles in Dragon NaturallySpeaking](#) to check roaming settings.

Optimizer Questions

I'm unable to schedule any task and keep encountering an error?

We have found that if there is a corrupt profile present on your network share then the Acoustic and Language Model Optimizer will prevent you scheduling a task for any user. We now have a small program which can be run to check for corrupt profiles.

How often should the Optimizer be run on each profile?

We recommend you run the Optimizer out of hours on a weekly basis. The more regularly you run the Optimizer more efficiently it will run. It has been established that monthly scheduling is not sufficient as the user profiles grow and degenerate over this period and the longer the gap the longer the Optimizer takes to run.

12. Frequently Asked Question

Q. How many workstations can I log into using CRIS and Dragon VR?

A. You can only be logged into one workstation at any one time when using Dragon roaming profiles.

Q. What should I do if the Dragon voice profile does not load when logged into CRIS?

A. Refer to section [Changing a CRIS User's Linked Dragon voice profile.](#)

Q. How do VR Profiles become corrupted?

A. Dragon profiles can become corrupted in a number of ways which are predominantly attributable to network failures or user error as follows:

- The disk where the profiles are stored becomes full which will corrupt all profiles.
- The profile did not save fully to the roaming profile folder – i.e. Due to network pauses or most commonly users turning off the PC without closing applications safely.
- The same user logged into more than one terminal, as Dragon voice profiles cannot be loaded in more than one location.
- Using someone else's windows network login as it can't sync with your own profile.

If you experience corrupted profiles corruptions you should contact the HSS Helpdesk for guidance on restoring profiles, which may involve providing the Dragon.log which is located in C:\Users\UserName\AppData\Roaming\Nuance\NaturallySpeaking11.

Q. Why can't I access the Command Browser from the Dragon right-click menu?

A. The Command Browser can now be found within CRIS under the Tools option. Refer to section [8 - Creating User Specific Text Commands.](#)

Q. Why does it sometimes appear that Dragon does not learn my new words and phrases correctly?

A. There are two potential reasons for this as follows:

- ☑ Training Dragon via CRIS is very accurate but does not take effect until the next time CRIS is accessed since the Dragon voice profile is only saved upon exiting the CRIS client. Consequently if you intend to use the same word or phrase more than once during the same reporting session it is advisable to use the Dragon Vocabulary Editor. [Refer to 'Editing Dragon Vocabulary using the Vocabulary Editor'](#).
- ☑ The acoustic and language model Optimizer needs to be routinely undertaken to optimise the user's vocabulary files. [Refer to 'What is the Acoustic and Language Model Optimizer?'](#)

Q. What if the microphone volume is too low while reporting?

A. This often occurs when the Workstation is used for both digital dictation and voice recognition. The microphone will need to be re-calibrated. This can be accessed from the right-click Dragon Menu via Audio and the 'Check Microphone'. [Refer to 'Checking the Sound Quality of your Dictation Source'](#).

Q. Why does Dragon keep prompting me to check the Mic, once it has already been configured on the workstation?

The first time a Roaming User logs on to a workstation Dragon will ask to configure the Mic settings. If you continue to be prompted to check the Mic on subsequent session using the same workstation, Dragon does not have the correct permissions to the local roaming folder and the changes are not being saved, which means customs commands will not be saved either.

The most likely scenario is they do not have inherited modify permission's to the local roaming folder so the microphone training is not being saved and for custom commands, Dragon cannot write to the mycmds.dat file where all the commands are kept. The folder could have *modify* permissions but if not set to inheritance all child folders and files (i.e. mycmds.dat) will only be read and execute – Refer to ['Configuring Roaming Profiles in Dragon NaturallySpeaking'](#).

Please note: This will occur if the SpeechMike is routinely unplugged and reinserted into different USB ports on the machine (i.e. A Laptop) as Dragon will validate the windows plug and play device on each occasion.

Why do some profiles corrupt when using Dragon roaming profiles across multiple sites?

If you are experiencing roaming profile corruption for users who are reporting across multiple sites (and the profile share is in a single location) you can tick the **'Access network at user profile open/close only'** via the Dragon **'Administrative Settings'** roaming tab. When this option is ticked Dragon will only connect and synchronise data only when it opens and closes, rather than synchronising regularly. If you are still experiencing profile corruptions after making this change. Please notify the HSS helpdesk for support.

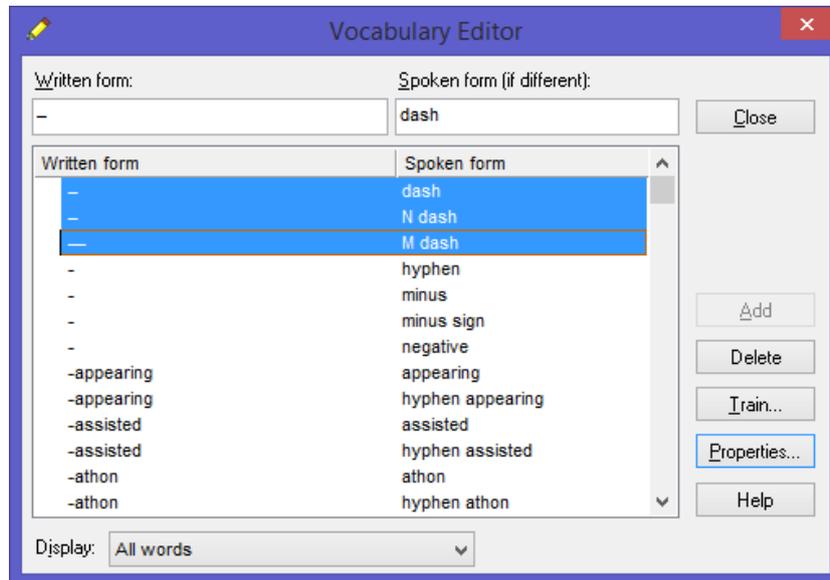
Q. Why do some radiology reports appear abridged when viewed in PACS / PACS / OCS?

HSS recommend that Clinical Reports should only include ASCII character sets and should not include any non-printable control characters outside of the standard A-Z, a-z, 0-9. Additionally, when dictating clinical reports please do not make use of either ~ Tilde or | Pipe/Vertical Bar symbols as these characters are used as Field

delimiters in HL7 interfaces. Field delimiters separate data fields – i.e. When PACS/PAS/OCS interfaces receive messages from CRIS they use HL7 Field delimiters to parse data into the correct fields

HSS has also established that the ‘-’ (extended dash) symbol is treated as an illegal character via HL7 interfaces (as it is classed as a Unicode Carriage Return) and this results any text after this character being rejected by the interface – (i.e. partial or abridged reports).

You should therefore ensure that dash, N Dash and M dash are deleted from the User Vocabulary. It is then possible to [Add] ‘-’ dash back into the vocabulary and [Train] if required or simply make use of the hyphen instead.



Q. Why don't my 'VR Command Browser' report templates work when looking at images in PACS?

In order to use templates which have been created in the 'VR Command Browser' the focus must be within the 'Report Editor' within the CRIS application. It is common for the application focus to be moved to PACS when images are viewed/manipulated, the focus needs to be returned to CRIS in order to use the template.

The focus can be returned to the CRIS application using the mouse to click back into the CRIS Report Editor or a button on the SpeechMike can be configured to return the focus to the CRIS application, see the section on [SpeechMike buttons configuration](#) within this document.

Document Control

Title	CRIS / Dragon Integrated Voice Recognition System Manual – Practice Edition 12		
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CRIS Version	2.09.10p onwards		
Change History			
Issue	Date	Author / Editor	Details of Change
3.1	16/12/2013	Emma Savage-Mady	Amendments to recommend shorter network folder names and introduce a new exercise to teach changing the properties of a word – in this case ‘the’ vs. ‘ – ’. Also removal of spurious reference to legacy documentation.
4.0	10/03/2014	Emma Savage-Mady	Amendments to emphasise the importance of setting up and running the acoustic Optimizer, changes to incorporate content from internal support FAQ’s, addition of recommended local cache for Roaming and change to Healthcare Software Solutions. Also added ‘Always save acoustic information to network’ via 4.2 – Roaming configuration.
4.1	28/07/2014	Emma Savage-Mady	Amendments to highlight that Philips SpeechMike Device Control Software should not be installed as it conflicts with CRIS > Dragon Integration in particularly regarding the record button on the SpeechMike.
5.0	09/09/2015	Louis Wilkinson	This version 5 is in respect of upgrading to or installing Dragon 12 and contains the VOICE.DragonButtonConfig
5.1	20/11/2015	Louis Wilkinson	Updated with CRIS-527 and updates from Paul Osman
6.0	30/03/2016	Emma Savage-Mady	Review and final edits for Dragon 12 release.
Review Date	30/03/2018		