Nuance® Dragon Medical One



Installation and Administration Guide



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Getting started

Welcome to the Dragon Medical One Desktop Application Installation and Administration Guide.

Setting up a working system

The following steps are required to set up a working Dragon Medical One system:

- 1. Make sure you fulfill all software and hardware requirements. For more information, see: Software and hardware requirements and Deploying in a virtual environment.
- 2. Dragon Medical One requires access to Dragon Medical Server (nsa.nuancehdp.com) via port 443; make sure your firewall does not block this port.
- 3. Dragon Medical One requires access to the Nuance Management Server (nms.nuancehdp.com) via port 443; make sure your firewall does not block this port.
- 4. If your system is set up to use the PowerMic Mobile feature, Dragon Medical One requires access to the PowerMic Mobile Server (https://pmm.nuancehdp.com) via port 443; make sure your firewall does not block this port.
- 5. If you are deploying Dragon Medical Advisor or QRA, make sure Dragon Medical One has access to the Advisor Service (https://<organization-specific prefix>.nuanceunderstanding.com) via port 443; your firewall must not block this port.
- 6. Deploy Dragon Medical One. The following options are available:

Deploy Dragon Medical One using the Windows Installer (MSI package).

Deploy Dragon Medical One via XCOPY deployment (manually copy the package to the destination path).

7. Configure the organization token in the SoD.exe.config file.

Setting up Dragon Medical Advisor

Dragon Medical Advisor is accessed via Dragon Medical One; a speech recognition license is not required. To set up Dragon Medical One with Dragon Medical Advisor, follow the steps for setting up a working system, then import the required Dragon Medical Advisor and content pack licenses and configure your organization via the Nuance Management Center (NMC).

For more information, see: Dragon Medical Advisor - overview

Customizing the system to your needs

Dragon Medical One offers a wide range of options to customize the system to your users' needs. The following customization options are available:

Customizing the application (all users)

- Providing different configurations for a single stand-alone deployment
- Disabling the crash dump notification to end users
- Configuring the user authentication

- Customizing the splash screen
- Starting Dragon Medical One from the command line
- Configuring logging

Customizing the system for speech recognition users

- Configuring the speech recognition topic
- Configuring microphones
- Disabling registration of the Microsoft Word add-in
- Disabling PowerMic Mobile support
- Defining auto-texts and configuring auto-text filters
- Configuring step-by-step commands

Customizing the system for Dragon Medical Advisor users

- Application settings for Dragon Medical Advisor and QRA
- Configuring Dragon Medical Advisor
- Configuring advice filters
- HCC Guidance only: Configuring HCC filters

Software and hardware requirements

Dragon Medical One supports the following hardware and software.

Be aware that not all configurations have been tested. For more information, contact Nuance Healthcare technical support or your Nuance account executive.

Operating systems

- 32-bit: Microsoft Windows 7, Windows 8.1 and Windows 10. Make sure that the latest service pack is always applied.
- 64-bit: Microsoft Windows 7, Windows 8.1, Windows 10, Windows Server 2012 R2 and Windows Server 2016. Make sure that the latest service pack is always applied.

Microsoft .NET Framework 4.5 (or higher) is required.

In Microsoft Windows 8.1 and 10, you can only use Dragon Medical One in the desktop environment, the Microsoft design language-based user interface (Start screen) is not supported.

Processor speed

- Minimum: 1.7 Ghz
- Recommended: 2.8 Ghz

RAM

- Minimum: 512 MB
- Recommended: 2 GB

Display

If you are deploying Dragon Medical Advisor or QRA we recommend a minimum of 1280 x 1024 pixels; Dragon Medical One does not otherwise have a minimum display resolution requirement.

Microphones

Any microphone that can record audio data in 16 kHz, 16 bit mono format.

To work with Dragon Medical One in hands-free mode, using a foot pedal in combination with a microphone, you must make changes to the Registry on your workstation. If you are working in a virtual environment, you must modify the registry settings on the virtual server for every Windows user that will be used to run Dragon Medical One. For more information, contact Nuance Technical Support.

Web browsers

For access to Nuance Management Center (NMC):

Microsoft Internet Explorer, Microsoft Edge, Google Chrome, Apple Safari

For the ClickOnce installer:

Microsoft Internet Explorer

For the personalization and help window:

• Microsoft Internet Explorer 11. In the Internet Options, make sure that cookies are enabled.

Text editors

The following text editors are supported for speech recognition and for basic Dragon Medical Advisor/Nuance Quality and Risk Adjustment (QRA) functionality without patient context:

- TX Text Control 12 to 25, .NET
- Microsoft Word 2007, 2010, 2013 and 2016
- Microsoft Rich Text controls (including .NET Forms)
- Ter32, Ter13-Ter17 and Ter21-Ter23
- TEdit (for 32-bit applications), TMemo (for 32-bit applications) and TRichEdit (for 32-bit and 64-bit applications)
- Dragon Medical One Dictation Box
- WPF standard text controls

Restrictions: Speech focus anchoring is not supported.

TX Text Control .NET for WPF 25 supported via Microsoft UI Automation

Restrictions: Speech focus anchoring is not supported; text formatting can only be applied via standard keyboard shortcuts (for example, **Ctrl + B**).

Dragon Medical Advisor and QRA - supported EHR systems

Dragon Medical Advisor and QRA provide patient context support for the following EHRs:

- Epic HyperSpace
- Cerner EHRs
- Allscripts TouchWorks
- athenahealth

Patient context support is required for the full Dragon Medical Advisor/QRA feature set. Dragon Medical Advisor and QRA work with other supported text editors and the Dictation Box, but with a reduced feature set.

Virtualized environments

For information on supported virtualized environments, see: Deploying Dragon Medical One Desktop Application in a virtualized environment.

End-of-life: Third-party environments

Support for third-party environments is only valid as long as they are supported by the corresponding vendor and might be subject to other restrictions. Contact Nuance Technical Support for details. For more information, see the documentation delivered with the third-party product and supporting Nuance documentation.

When standard support by the vendor has stopped, Nuance will continue support if an issue is specific to the Nuance solution, within the limitations of the vendor's standard end-of-life and Nuance's policy. This means that issues that are a combination of the vendor's component and the Nuance solution cannot be supported.

Deploying Dragon Medical One

The following options are available to deploy Dragon Medical One:

- Deploy Dragon Medical One using the Windows Installer (MSI package).
- Deploy Dragon Medical One via XCOPY deployment (manually copy the package to the destination path).

We recommend deploying Dragon Medical One to a local folder. During runtime, Dragon Medical One frequently accesses files that are part of the deployment; loading those files from a network share would have a severe impact on performance.

For information on how to deploy Dragon Medical One in a virtual desktop/application environment, see: Deploying in a virtual environment.

The Windows Installer

The MSI package provided is command line-only; no installation wizard is available.

To customize the installation, set all mandatory parameters and any optional parameters you want, or use the CONFIGTEMPLATE parameter to deploy a configuration file containing all relevant settings (this is the recommended option). Values for parameters must be in double quotes.

Application binaries are by default installed to the following location: C:\Program Files (x86)\Nuance\Dragon Medical One

To support uninstallation, an entry is created in the **Control Panel**, **Programs and Features** window.

Mandatory parameters

SERVERURL

The full URL of the Nuance-hosted Dragon Medical Server: "https://nsa.nuancehdp.com/basic"

ORGANIZATIONTOKEN

The organization token assigned to the organization you are deploying to.

SUPPORTEDLANGUAGES

Currently only English (IETF language tag: en-US) is supported. For more information, see: Supported languages.

SUPPORTEDTOPICS

A list of speech recognition topics that the end user can select from on the startup screen. Separate values with the pipe character:

For more information, see: Configuring the speech recognition topic.

Optional parameters

CONFIGTEMPLATE

The full path to the configuration file containing all relevant settings. If this parameter is specified, all other command line parameters provided by Dragon Medical One are ignored (you can still use OEMSPLASHSCREEN and INSTALLDIR).

For more information, see Configuring Dragon Medical One.

INSTALLDIR

The deployment location. If this parameter is not set, the default location is used.

OEMSPLASHSCREEN

The custom splash screen overlay. The specified file is copied to the deployment location. Required size: 320x130 pixels; required format: PNG.

AUTHENTICATION

The user authentication type; for more information, see: User authentication.

LOGFILEPATH

The location of the log file. To prevent environment variables from being expanded when the setup is executed, the percent sign must be escaped by the ^ character and no quotes must be used; for example, ^%APPDATA^%.

For more information, see: Logging.

LOGLEVEL

The log level; for more information, see: Logging.

ALLOWEDMICS

A list of microphones the end user is allowed to use. Separate values with the pipe character: | For more information, see: Configuring Dragon Medical One.

POWERMICMOBILE

Enables/disables the PowerMic Mobile feature. Possible values: Yes, No. If this parameter is not set, the feature is enabled by default.

WPFSUPPORT

Enables/disables support for standard WPF text controls. Possible values: Yes, No. If this parameter is not set, the feature is disabled by default.

For more information, see: Enabling and disabling WPF support from the command line.

Examples

msiexec /i Standalone.msi SERVERURL="https://nsa.nuancehdp.com/basic" ORGANIZATIONTOKEN="your_organization_token" SUPPORTEDLANGUAGES="en-US" SUPPORTEDTOPICS="GeneralMedicine|ClinicalAdministration|Cardiology|Emergency|InternalMedi cine|MentalHealth|Neurology|Orthopaedics|ObstetricsAndGynecology|Oncology|Pathology|Pedia trics|Surgery"

msiexec /i Standalone.msi CONFIGTEMPLATE="C:\<path>\SoD.exe.config"
OEMSPLASHSCREEN=".\SoD.OEM.png"

XCOPY deployment

To deploy Dragon Medical One using XCOPY, do the following:

- 1. Download the installation package.
- Depending on your Group Policy security settings, Microsoft Windows marks downloaded files as unsafe. Unblock the downloaded ZIP file, if necessary, to allow .NET to execute properly when the application is started: Right-click the ZIP file and select **Properties**; on the **General** tab, click **Unblock** and **Apply**.
- 3. Extract all files.

- 4. Customize the SoD.exe.config file template to configure the Dragon Medical One application. For more information, see: Configuring Dragon Medical One.
- 5. Make the **Standalone** folder available to your end users.

Upgrading using XCOPY

When an upgrade package is available, be sure to make it available to your end users.

Make sure you save the existing application configuration file before the upgrade to keep your customized settings.

Deploying Dragon Medical One in a virtualized environment

Dragon Medical One can be deployed as a virtualized application or on a virtual desktop. The speech recognition is performed in secure Nuance data centers; Dragon Medical One has a small resource footprint on the application/desktop virtualization server.



Supported virtualized environments

Citrix XenApp/XenDesktop

Citrix server

- One of the following operating systems: Microsoft Windows Server 2012 R2 Microsoft Windows Server 2016
- One of the following Citrix virtualization environments: Citrix XenApp 6.5 and 7.x Citrix XenDesktop 7.x (latest version tested: Citrix XenDesktop 7.15)

Client PC

- One of the following operating systems:
 - Microsoft Windows 7
 - Microsoft Windows Embedded Standard 7
 - Microsoft Windows 8.1
 - Microsoft Windows 10
 - For information on supported Linux operating systems, see: Thin clients.
- Citrix Receiver 4.3 or higher (latest version tested: Citrix Receiver 4.9)

Microsoft Remote Desktop Services (RDS)

Terminal Server

 One of the following operating systems: Microsoft Windows Server 2012 R2 Microsoft Windows Server 2016

Client PC

- One of the following operating systems:
 - Microsoft Windows 7 Microsoft Windows Embedded Standard 7 Microsoft Windows 8.1 Microsoft Windows 10
- Microsoft Remote Desktop Client using Remote Desktop Protocol (RDP) 7.x or higher

For Nuance RDS Audio Extension and Nuance PowerMic RDS Client Extension the User Datagram Protocol (UDP) transport must be disabled on RDP 8.1 and RDP 10 clients. RDP 8.1 is preinstalled on Windows 8.1 and installed by Microsoft Update on Windows 7 and 8. RDP 10 is preinstalled on Windows 10.

To disable UDP transport, add the following registry keys and value to the Microsoft Remote Desktop Client, then restart the PC:

Keys:

```
HKEY_LOCAL_MACHINE\Software\Microsoft\Terminal Server Client
HKEY_LOCAL_MACHINE\Software\Wow6432Node\Microsoft\Terminal Server Client
DWORD Value:
```

```
DisableUDPTransport = 1
```

VMware Horizon View/RDSH

VMware Horizon View/RDSH server

VMware Horizon View 7.6 or higher

Client PC

- One of the following operating systems: Microsoft Windows 7 Microsoft Windows Embedded Standard 7 Microsoft Windows 8.1 Microsoft Windows 10
- VMware Horizon View Client 4.9 or higher

Edit control visibility

To write recognized text directly in the target application (instead of the Dictation Box) or for Dragon Medical Advisor/QRA to provide advice based on the user's documentation, Dragon Medical One must be able to directly access the application's edit controls. To enable this, Dragon Medical One must be co-installed and published with the target application.

This means the following:

 If you are using a virtual desktop solution, where all target applications are installed and run locally in the virtual desktop, Dragon Medical One must be installed in the virtual desktop image. If you are virtualizing applications that are accessed by a viewer or remote desktop application on a local workstation, make sure that Dragon Medical One and the virtualized applications will be launched in the same remote session.

Nuance virtual extensions

High quality audio is required for accurate speech recognition. Regardless of the virtualization technology and architecture, you must be able to deliver audio from the client workstation/terminal to the Dragon Medical One application in the virtual environment.

The Nuance virtual extensions package provides custom audio channels to reduce the audio bandwidth requirements between the client end point and the virtualized application. The custom audio channels require 28 kbit/s for each user while they are dictating (native audio channels often require up to 1.4 Mbit/s).

VMware environments: Dragon Medical One already integrates the server/virtual desktop component of the VMware audio channel. Install only the Nuance VMware Client Audio Extension on the client PC.

Microsoft RDS environments: Dragon Medical One already integrates the server/virtual desktop component of the RDS audio channel. Install only the Nuance RDS Client Audio Extension on the client PC.

Citrix environments: Dragon Medical One already integrates the server/virtual desktop component of the Citrix audio channel. Install only the Nuance Citrix Client Audio Extension on the client PC.

Note: If the Nuance VMware Server & Virtual Desktop Audio Extension or the Nuance RDS Server & Virtual Desktop Audio Extension is installed, we recommend you uninstall it unless it is still used by another product.

For more information, see the Docs & Guidelines folder of the Nuance virtual extensions package.

Thin clients

Virtualization Model/manufacturer **Operating system/firmware requirements** infrastructure Citrix Various Microsoft Windows Embedded Standard 7 Citrix IGEL UD2 LX IX 5.08.100 Citrix IGEL UD3 LX LX 5.08.100 Citrix IGEL UD5 LX LX 5.08.100 Citrix eLux RP 4.9.0 Fujitsu Futro S450 eLux RP 5.1.x (Philips SpeechMike button controls have not been Citrix Fujitsu Futro S520/S700/S720 tested - Philips Speech Drivers for Citrix are not included in this firmware version.)

To use the custom audio channel in a thin client environment, the client component of the corresponding Nuance virtual extension must be installed on the thin client. The following thin clients are supported:

Backward compatibility

HP t610

Citrix

The server/virtual desktop components of the Nuance virtual extensions are integrated in Dragon Medical One. The Nuance virtual extensions are designed to be backward compatible from Dragon Medical One to the client

eLux RP 4.4.0

end point. This means that you can run newer versions of Dragon Medical One in your virtual environment and they will work with older versions of the corresponding client end point extension with the following restrictions:

- New versions of Dragon Medical One are backward compatible with the corresponding end point virtual extensions for up to one year.
- It is recommended to upgrade the client end point extension to the latest version.

Microphone controls

The Nuance virtual extensions package provides custom PowerMic control channels to redirect PowerMic button presses to the virtualized Dragon Medical One instance.

Citrix environments: Install the server/virtual desktop component of the Nuance PowerMic Citrix Extension on the server/virtual desktop hosting the application. Install the client component on the client PC.

RDS and VMware environments: Dragon Medical One already integrates the server/virtual desktop component of the PowerMic button channel. Install the corresponding client component on the client PC.

Redistributable packages for Philips, Grundig and Olympus devices are also available.

For more information, see the Docs & Guidelines folder of the Nuance virtual extensions package.

Server runtime requirements

Bandwidth

Audio transmission between the end point and the virtualized application/virtual desktop: If the Nuance custom audio channel is used, expect 28 kbit/s per active user; if the native virtual audio channel is used, expect up to 1.4 Mbit/s per active user.

Audio transmission between the virtualized application/virtual desktop and the Dragon Medical system: Expect 80 kbit/s per active user.

Latency

Network latency between the client PC and the virtualized application/virtual desktop must not exceed 50 ms.

Network latency between the virtualized application/virtual desktop and the Dragon Medical system must not exceed 200 ms.

Network latency requirements



Memory

The Dragon application's memory usage, when in use, will fluctuate (increase and decrease based on user behavior and Microsoft Windows memory management behavior). For sizing and planning purposes we estimate memory utilization of 220 MB (full working set), of which approximately 70 MB (shared working set) are shared between all instances of the SoD.exe process on the same machine - the real physical memory impact therefore is approximately 150 MB per instance.

CPU

Due to the many factors that can have an impact on CPU usage (processor speed, number of cores assigned to a given virtual instance, etc.), exact guidelines cannot be given. In general, the CPU requirements for the virtualized sod.exe executable are very low. As Dragon Medical One leverages Nuance's cloud-based speech recognition services, the local client performs very light-weight duties such as streaming speech and inserting recognition results.

With modern multi-core CPU architecture and provided that a given virtual session has been assigned at least one core, Dragon Medical One consumes between 1% and 3% of the available CPU per user session while the user is dictating.

Deployment options

The following options are available to deploy Dragon Medical One in a virtual desktop/application environment:

- Deploy Dragon Medical One using the Windows Installer (MSI package).
- Deploy Dragon Medical One via XCOPY deployment (manually copy the package to the destination path).

Logging

In a virtual desktop/application environment, we recommend configuring a user-specific folder as the log file location; for example, %APPDATA%.

If you deploy Dragon Medical One using the Windows Installer, you can specify the location of the log file via the LOGFILEPATH parameter. For more information, see: Windows Installer.

If you deploy Dragon Medical One via XCOPY deployment, you can specify the location of the log file in the log4net section of the SoD.exe.config file (use the following syntax to specify environment variables: \${APPDATA}):

For more information, see: Logging.

Coherence mode

Dragon Medical One Desktop Application is designed to work in a virtualized environment; which significantly lowers administration overhead for installation and maintenance. Additionally, virtual deployments increase the availability of the application as users can access Dragon Medical One from any secure end point (office, clinic or home).

Dragon Medical One can also be installed locally on a Windows desktop using either an XCOPY installer or a traditional MSI. This is necessary when users need to record into locally installed applications such as Microsoft Word, Microsoft Outlook or an EMR that is deployed as a "fat" client.

Occasionally, users want to work both locally and virtually. They use a published version of Dragon Medical One to record into a published EMR and a local version of Dragon Medical One to dictate into local applications.

This chapter describes how to set up this workflow.

Note: Coherence mode is only supported in Citrix virtualization environments.

Scenario

The user wants to record into the primary virtual EMR application and into applications that are published locally.

Prerequisites

- The primary EMR is hosted as a virtual application or published as a virtual application.
- Dragon Medical One is published in the same way as the primary EMR (as a virtual application or as part of the virtual desktop image).
- The end point used to access the virtual applications is a desktop machine running a supported Microsoft Windows operating system (for information on supported operating systems, see: Software and hardware requirements).

Procedure

- 1. Install Dragon Medical One on the server.
- 2. Install the technology-specific custom audio and microphone channels on the server.
- 3. Install the corresponding technology-specific custom audio and microphone channels on all client end points.
- 4. Install Dragon Medical One on the local workstation, using either the XCOPY or MSI installation package.

Remarks

- We do not recommend using the ClickOnce package; it could result in the local installation being newer than the virtual instance. Using the XCOPY or MSI installation method enables you to keep both versions of the application synchronized.
- Local installations do not use the custom audio or microphone drivers, therefore there is no conflict.

Results

Dragon Medical Connect ensures users have an identical speech experience, regardless of whether they are using the local application or the published instance. All the auto-texts, commands, custom words and application configuration parameters will be consistent across both instances.

Note: For performance reasons, each instance of Dragon Medical One maintains a cache of auto-texts, custom words and commands. If a user adds a word, auto-text or command in one instance, it will be available in the second instance when that cache is refreshed (by closing and running that instance).

When a user only has one instance of Dragon Medical One running at a particular moment, a local instance or a virtual instance, but not both at the same time, there are no usability concerns.

Running both instances

If a user is running both the local and published instances concurrently and wants to dictate into local and published applications, consider the following good practice:

- To visually differentiate the local and virtual instances of Dragon Medical One, we recommend setting a different color theme for each instance.
- To switch the audio and device button focus between instances, users must click the non-icon on the

corresponding DragonBar. Once an instance has the audio focus, users can continue to use their hardware microphone to control the application as normal.

Note: When using Nuance PowerMic II or PowerMic III as an input device, users can automatically switch the audio and device button focus from a local instance to a published one by placing the cursor in the corresponding local or published application.

PowerMic Mobile

When using PowerMic Mobile as an input device, users need to switch audio focus by pairing the mobile app with their preferred instance of Dragon Medical One.

We recommend enabling the following PowerMic Mobile features:

- Targets: The user can browse a list of available targets and switch the pairing from one instance to another without exiting the mobile app or logging out of Dragon Medical One.
- Favorites: The user can save a personal list of pairing targets that they use regularly.

Note: These features are disabled by default in PowerMic Mobile; contact Nuance support if you would like these features enabled.

Using Dragon Medical One with Mac

Dragon Medical One Desktop Application is a native Windows application; it cannot be installed and used directly on a macOS-based computer. Dragon Medical One can be configured for use with macOS.

Accessing Dragon Medical One as a published virtual application

Dragon Medical One can be published as a server-based virtual application using virtualization technology such as Citrix XenApp. A macOS-based computer can be used as an end point to access the published virtual instance of Dragon Medical One. A virtualization client such as Citrix Receiver must be installed on the macOSbased computer to view and interact with Dragon Medical One and other published applications.

Audio input devices

- Supported: PowerMic Mobile. For more information, see the documentation delivered with the product.
- Not supported: Nuance PowerMic II, Nuance PowerMic III and third-party microphones and headsets.

Running Windows on macOS

A user can run a full instance of a Windows operating system on a macOS-based computer via virtual machine solutions such as Parallels Desktops for Mac or VMware Fusion. These solutions allow using Windows and macOS applications side-by-side.

Dragon Medical One must be installed on a Windows virtual machine. This configuration is identical to Dragon Medical One installed on a native Windows machine and provides full functionality with the following conditions:

- Dictation at the cursor is not supported in native macOS applications. To fully support this functionality, Dragon Medical One requires a deep integration with target applications; this level of integration is not possible with native macOS applications. Dictating into the Dictation Box and then transferring text in target macOS applications might be possible; however, this configuration is not officially supported by Nuance.
- Hardware microphone "pass-through" must be supported by the virtualization solution. This allows the hardware device to be recognized by the Windows operating system and made available to Dragon Medical One.
- Nuance will officially test and support PowerMic II and PowerMic III hardware microphones. For issues specific to third-party microphones, contact the device vendor.
- PowerMic Mobile is fully supported. For more information, see the documentation delivered with the product.

Running Windows in native mode on Mac hardware

A user can run a Windows operating system on a macOS-based computer via Boot Camp. Boot Camp eliminates the virtual machine layer introduced by virtual machine solutions such as Parallels. If a user is running Windows in native mode on a macOS-based computer, there are no additional requirements or restrictions in using PowerMic Mobile with this configuration.

Google Chrome

Dragon Medical One supports dictation at the cursor in standard text controls (these include text input, text area and standard content-editable controls) hosted in the Google Chrome browser.

To support text controls and dictation at the cursor, in Google Chrome-based applications, you must install the Dragon Medical One Web Extension.

Architecture

Dragon Medical One and the Dragon Medical One Web Extension use a dedicated process (sodria_ nmhost.exe) for communication between Dragon Medical One and Google Chrome. This process is delivered with Dragon Medical One and is started by Google Chrome. Google Chrome and Dragon Medical One rely on a registry key (HKEY_CURRENT_

USER\Software\Google\Chrome\NativeMesssagingHosts\com.nuance.sodria) to connect the two applications. Dragon Medical One automatically creates and updates the registry key to connect the two processes while starting; this is usually only needed once per deployment and operating system user.



Installation

Dragon Medical One Web Extension must be installed for each machine and operating system user using Google Chrome. Once the extension is installed, the browser must be restarted (or tabs reloaded). The user is informed if the browser needs to be restarted.

Installing Dragon Medical One Web Extension via Google Chrome web store

To install manually, do the following:

- Browse for the Dragon Medical One Web Extension web store link: https://chrome.google.com/webstore/detail/dragon-medical-one-webex/feolagkacappiaieohahjkeaikhjjcfa
- 2. Click Add to Chrome.
- 3. In Google Chrome settings, make sure that the Dragon Medical One Web Extension is enabled.
- 4. Restart the Google Chrome browser.

Installing Dragon Medical One Web Extension via Google Chrome policies

To install automatically, do the following:

- 1. Open the LOCAL_MACHINE registry hive.
- Add the following to the registry: Key: HKEY_LOCAL_MACHINE\SOFTWARE\Policies\Google\Chrome\ExtensionInstallForcelist\1 Value: feolagkacappiaieohahjkeaikhjjcfa;https://clients2.google.com/service/update2/crx
- 3. Restart the Google Chrome browser.

For more information on automatic installation, see Google Chrome policy documentation.

Enabling dictation at the cursor in local HTML pages

To enable dictation at the cursor in HTML pages stored in the local file system, do the following:

- 1. In the Google Chrome menu, expand More tools and click Extensions.
- 2. Search for Dragon Medical One Web Extension and select Allow access to file URLs.

Configuring Dragon Medical One

Configuring the organization token

To set the organization token for Dragon Medical One, do the following:

- 1. Open the SoD.exe.config file.
- 2. In the **SoD.Settings**, **OrganizationToken** setting, specify the organization token.

Providing different configurations for a single stand-alone deployment

To provide a single stand-alone package of Dragon Medical One to different user groups using different configuration settings, do the following:

- 1. Deploy Dragon Medical One using the Windows Installer (MSI package) or via XCOPY deployment.
- 2. Create a new XML file containing only the configuration settings that are different from the settings in the SoD.exe.config file.
- 3. Start Dragon Medical One from the command line and use the config parameter to specify the path to this XML file. The settings in this file will override the settings specified in the SoD.exe.config file.

Remarks

• For a list of **setting** elements you can specify, see the **SoD.Settings** section in the SoD.exe.config file. The elements must be stated exactly as they are in the SoD.exe.config file.

The setting elements that you add to the SoD.DefaultOptions section will override the default settings.

For example (mandatory XML elements and structure in bold):

 Dragon Medical One will access the XML file during startup; hosting the file on a network share can impact startup performance.

Configuring the default settings

Dragon Medical One enables you to configure the default settings that the user logs on with. By default, the user can change all settings in the **Options** dialog box; you can lock specific settings to prevent the user from

changing them.

Proceed as follows:

- 1. Open the SoD.exe.config file.
- 2. In the SoD.DefaultOptions section, configure the default options:

Specify the **setting** elements that you want to customize. For a list of setting identifiers and their corresponding values, see the table below.

In the **setting** elements that you want to lock, add the isLocked attribute and set the value to True.

Example:

The following table lists the setting identifiers, their descriptions, possible values and the default values the application is delivered with (the setting identifier has the following format: OptionCategory.IdentifierName):

Setting identifier	Setting description
General.AnchorSpeechFocusRecStarted	Decides if the speech focus should be anchored when recording is started.
	Values: True, False (default)
General.VisualFeedbackVoiceCommandsRecognized	Decides if visual feedback should be provided when a voice command is recognized and specifies where the voice command bubble should be anchored.
	Values : None, DragonBar (default) , Mouse, Text, SystemTray
General.AudioFeedbackVoiceCommandsRecognized	Decides if audio feedback should be provided when a voice command is recognized.
	Values: True, False (default)
General.LeftFieldDelimiters	Configures the left embedded field delimiter.
	Values: [(default)
General.RightFieldDelimiters	Configures the right embedded field delimiter.
	Values:] (default)
General.OptimizeForRapidNavigation	Decides if the text should be inserted at the current cursor position when the position of the cursor is changed manually during recording.
	Values: True, False (default)
DictationBox.TransferMethod	Configures the text transfer method.
	Values: ShiftInsert (default), CtrlV, WindowsPaste, SimulateKeystrokes
DictationBox.TransferRecStopped	Decides if the text should be transferred from the Dictation Box when recording is stopped.
	Values: True, False (default)
DictationBox.ClearAfterTransfer	Decides if the transferred text should be cleared from the Dictation Box.
	Values: True (default), False
DictationBox.KeepTextClipboardAfterTransfer	Decides if the transferred text should be kept on the clipboard.
	Values: True, False (default)
DictationBox.AddTextFromTargetApp	Decides if the text selected in the target application should be added to the Dictation Box.
	Values: True, False (default)

Setting identifier	Setting description
DictationBox.ShowWhenDragonMinimized	Decides if the Dictation Box should be shown when the DragonBar is minimized.
	Values: True (default), False
DictationBox.AudioAlertWhenOpens	Decides if an audio alert should be played when the Dictation Box opens automatically.
	Values: True, False (default)
DictationBox.TextAppearance	Configures the text appearance.
	Values: Plain (default), Formatted
DictationBox.FontType	Configures the font type.
	Default value: Arial
DictationBox.FontSize	Configures the font size.
	Default value: 10
Hotkeys.ShowHideDragonBar	Configures the hotkeys used to show/hide the DragonBar.
	Default value: CtrlALTH
Hotkeys.StartStopRecording	Configures the hotkeys used to start/stop recording.
	Default value: NUM-Add
Hotkeys.AnchorReleaseSpeechFocus	Configures the hotkeys used to anchor/release the speech focus.
	Default value: CtrlALTA
Hotkeys.ShowHideDictationBox	Configures the hotkeys used to show/hide the Dictation Box.
	Default value: CtrlALTD
Hotkeys.TransferText	Configures the hotkeys used to transfer the text from the Dictation Box.
	Default value: CtrlALTT
Hotkeys.ClearDictationBox	Configures the hotkeys used to clear the Dictation Box.
	Default value: none
Hotkeys.RecallText	Configures the hotkeys used to recall the text.
	Default value: none
Hotkeys.PreviousField	Configures the hotkeys used to navigate to the previous field in an auto-text.
	Default value: none

Setting identifier	Setting description
Hotkeys.NextField	Configures the hotkeys used to navigate to the next field in an auto-text.
	Default value: none
Hotkeys.FieldComplete	Configures the hotkeys used to accept a field's default text.
	Default value: none
Hotkeys.AcceptDefaults	Configures the hotkeys used to accept the default text in all fields.
	Default value: none
Hotkeys.OpenDMA	Configures the hotkeys used to open Dragon Medical Advisor.
	Default value: none
Hotkeys.CloseDMA	Configures the hotkeys used to close Dragon Medical Advisor.
	Default value: none
Microphone.Record	Configures the Record button's behavior.
	Values: Toggle, PressAndHold (default)
Microphone.Transcribe	Configures the Transcribe button's behavior.
	Values: none, ClearDictationBox, RecallText, TransferText (default), AnchorReleaseSpeechFocus, ShowHideDragonBar, ShowHideDictationBox, NextField, PreviousField, AcceptDefaults, FieldComplete, PressHotkey, OpenDMAWindow, CloseDMAWindow
Microphone.EnterSelect	Configures the Enter/Select button's behavior.
	Values: none, ClearDictationBox, RecallText, TransferText, AnchorReleaseSpeechFocus, ShowHideDragonBar, ShowHideDictationBox, NextField, PreviousField, AcceptDefaults (default), FieldComplete, PressHotkey, OpenDMAWindow, CloseDMAWindow
Microphone.CustomRight	Configures the Custom Right button's behavior.
	Values: none, ClearDictationBox, RecallText, TransferText, AnchorReleaseSpeechFocus, ShowHideDragonBar, ShowHideDictationBox (default), NextField, PreviousField, AcceptDefaults, FieldComplete, PressHotkey, OpenDMAWindow, CloseDMAWindow

Setting identifier	Setting description
Microphone.CustomLeft	Configures the Custom Left button's behavior.
	Values: none (default), ClearDictationBox, RecallText, TransferText, AnchorReleaseSpeechFocus, ShowHideDragonBar, ShowHideDictationBox, NextField, PreviousField, AcceptDefaults, FieldComplete, PressHotkey, OpenDMAWindow, CloseDMAWindow
Microphone.TabBackward	Configures the Tab Backward button's behavior.
	Values: none, ClearDictationBox, RecallText, TransferText, AnchorReleaseSpeechFocus, ShowHideDragonBar, ShowHideDictationBox, NextField, PreviousField (default), AcceptDefaults, FieldComplete, PressHotkey, OpenDMAWindow, CloseDMAWindow
Microphone.TabForward	Configures the Tab Forward button's behavior.
	Values: none, ClearDictationBox, RecallText, TransferText, AnchorReleaseSpeechFocus, ShowHideDragonBar, ShowHideDictationBox, NextField (default), PreviousField, AcceptDefaults, FieldComplete, PressHotkey, OpenDMAWindow, CloseDMAWindow
Microphone.PlayStop	Configures the Play/Stop button's behavior.
	Values: none (default), ClearDictationBox, RecallText, TransferText, AnchorReleaseSpeechFocus, ShowHideDragonBar, ShowHideDictationBox, NextField, PreviousField, AcceptDefaults, FieldComplete, PressHotkey, OpenDMAWindow, CloseDMAWindow
Microphone.FastForward	Configures the Fast Forward button's behavior.
	Values: none, ClearDictationBox, RecallText, TransferText, AnchorReleaseSpeechFocus, ShowHideDragonBar, ShowHideDictationBox, NextField (default), PreviousField, AcceptDefaults, FieldComplete, PressHotkey, OpenDMAWindow, CloseDMAWindow

Setting identifier	Setting description
Microphone.FastRewind	Configures the Fast Rewind button's behavior.
	Values: none, ClearDictationBox, RecallText,
	TransferText, AnchorReleaseSpeechFocus,
	ShowHideDragonBar, ShowHideDictationBox,
	NextField, PreviousField (default),
	AcceptDefaults, FieldComplete, PressHotkey,
	OpenDMAWindow, CloseDMAWindow

Remarks

- A hotkey value can be specified as a sequence of keys, either separated by spaces and/or plus signs or joined; for example, Ctrl + ALT + H, Ctrl ALT H or CtrlALTH.
- To define a hotkey as the default value of a microphone button, specify the corresponding setting element and set the value to PressHotKey (KeySequence).

Example:

Enabling basic text controls

Basic text controls are applications and text editors which are not fully supported by Dragon Medical One. By default, if a user is working with a text control that Dragon Medical One cannot directly write the text in, the Dictation Box opens automatically and the text is written there. To enable dictation at the cursor in basic text controls, do the following:

- 1. Open the SoD.exe.config file.
- 2. In the SoD.Settings, BasicTextControls setting, specify all basic text controls the user can work with.

A basic text control is defined as a **WindowClass** element specific to a process. If you don't define **WindowClass** elements for a process, all window classes of that process are used as basic text controls. If you define a wildcard character (*) for a process, all specified **WindowClass** elements are used as basic text controls, independent of the process.

Example (by default, the BasicTextControls setting is empty):

```
<WindowClass>Sample_class_3</WindowClass>
   </ProcessName>
   </BasicTextControls>
</value>
```

</setting>

Configuring the text transfer method for basic text controls

By default, the text is inserted in the basic text controls via SimulateKeystrokes; other possible text transfer methods are ShiftInsert, CtrlV and WindowsPaste. Dragon Medical One enables you to configure the text transfer method for all the basic text controls of a process or for specific basic text controls.

Proceed as follows:

- 1. Open the SoD.exe.config file.
- 2. In the SoD.Settings, BasicTextControls setting, configure the text transfer method:

To apply the setting to all window classes of the process, add the textTransferMethod attribute in the **ProcessName** element and set the value.

To apply the setting on a window class level, add the textTransferMethod attribute in the **WindowClass** element and set the value. The attribute that you set in the **WindowClass** element will override the **ProcessName** text transfer method.

Example:

Configuring timeout for end users

You can configure Dragon Medical One to automatically log a user off, if they have not worked with the application for the specified period of time. When a user is logged off automatically any unsaved changes are lost.

By default, this setting is empty and a user is never logged off automatically, no matter how long they do not use Dragon Medical One.

Proceed as follows:

- 1. Open the SoD.exe.config file.
- 2. In the SoD.Settings, AutoLogOffTimeout setting, set the time period in minutes. Range: 5-120 minutes.

Example:

If the user does not work with Dragon Medical One for more than 10 minutes, they are logged off.

Configuring Dragon Medical Advisor

Dragon Medical Advisor analyzes clinicians' documentation in real time and display additional information to help make the documentation more complete and accurate. Although users access the advisor window via Dragon Medical One, a speech recognition license is not needed.

For more information on Dragon Medical Advisor, see: Dragon Medical Advisor - overview.

Make sure Dragon Medical One has access to the server running the Advisor Service (https://<organizationspecific prefix>.nuanceunderstanding.com) via port 443; your firewall must not block this port.

Disabling Dragon Medical Advisor

To disable Dragon Medical Advisor completely, do the following:

- 1. Open the SoD.exe.config file.
- 2. In the SoD.Settings, add the setting EnableAdvisor and specify as follows:

<setting name="EnableAdvisor" serializeAs="String"> <value>False</value> </setting>

Configuring the advisor window to open automatically

You can configure Dragon Medical One to automatically open the advisor window once per day or once per session, the first time advice is generated via auto-processing. Auto-processing must be enabled and Dragon Medical One must be able to capture the patient context from the EHR. You can also specify the number of days this behavior is applied for.

Note: If Dragon Medical One is not configured to open the advisor window automatically or the number of days set via **DMA.AutoOpenDays** is reached, the user can open it via the advice icon or via the **run advisor** voice command.

Proceed as follows:

- 1. Open the SoD.exe.config file.
- 2. In the SoD.DefaultOptions section, configure the behavior of the advisor window:

Add the setting **DMA.AutoOpen** and specify if the advisor window will automatically open once per day (value: 1) or once per logon session (value: 2). To disable the automatic opening of the advisor window, set the value to 0.

Add the setting **DMA.AutoOpenDays** and specify for how many days the advisor window will automatically open.

Example:

```
<SoD.DefaultOptions>
   <setting name="DMA.AutoOpen" serializeAs="String" isLocked="True">
        <value>1</value>
        </setting>
        <setting name="DMA.AutoOpenDays" serializeAs="String" isLocked="True">
        <value>3</value>
        </setting>
        </setting</setting>
        </setting>
        </setting>
        </setting>
        </setting>
        </setting>
        </setting>
        </setting>
        </setting
        </s
```

Disabling PowerMic Mobile support

The PowerMic Mobile feature enables users to use their mobile devices as a microphone. If your system is set up to use this feature, users can select PowerMic Mobile from the list of available microphones during logon. To hide PowerMic Mobile from the list, do the following:

- 1. Open the SoD.exe.config file.
- 2. In the **SoD.Settings**, **EnablePowerMicMobile** setting, set the value to False.

Note: This setting will only disable the installation-free PowerMic Mobile feature. If a user has installed the corresponding components of PowerMic Mobile on their mobile device and on the desktop, their device will still be available in the list.

Configuring the speech recognition topic/specialty

To configure the speech recognition topic for Dragon Medical One, do the following:

- 1. Open the SoD.exe.config file.
- 2. In the SoD.Settings, SupportedTopics setting, specify the speech recognition topic.

If you want to present a list of available speech recognition topics to the end user, specify all supported speech recognition topics in the setting and separate them with the pipe (|) character (for example, GeneralMedicine|Surgery). The end user is then able to choose a topic when they start the application.

Supported speech recognition topics

GeneralMedicine, ClinicalAdministration, Cardiology, Emergency, InternalMedicine, MentalHealth, Neurology, ObstetricsAndGynecology, Oncology, Orthopaedics, Pathology, Pediatrics, Surgery.

Configuring microphones

To configure the microphones the end user is allowed to use in Dragon Medical One, do the following:

- 1. Open the SoD.exe.config file.
- 2. In the **SoD.Settings**, **AllowedMicrophones** setting, specify all microphones the end user is allowed to use and separate them with the pipe (|) character.

When the end user starts the application, the list of connected microphones is filtered based on this setting. If you do not configure this setting, the end user can choose from all connected microphones.

Note: Unless PowerMic Mobile support has been disabled, PowerMic Mobile devices are always available regardless of this setting.

Disabling the crash dump notification to end users

When Dragon Medical One shuts down unexpectedly, crash dump information is saved. The next time the user starts the application, they are informed that log files containing information about the crash are available and can be sent to their system administrator for analysis.

We recommend that you ask your users to send crash dump files to you; send the files, along with an error report if possible, to Nuance Technical Support for further analysis.

If you do not want your users to receive this crash dump notification, do the following:

- 1. Open the SoD.exe.config file.
- 2. In the SoD.Settings, EnableCrashNotification setting, set the value to False.

Note: The crash dump notification interacts with the troubleshooting data collection feature. For more information, see Interaction with crash dump notification.

Enabling the troubleshooting data collection for end users

You can enable Dragon Medical One to automatically collect and send troubleshooting data (minidump and log files containing information about a crash) to Nuance for further analysis.

If you want to enable the troubleshooting data collection for your users, do the following:

- 1. Open the SoD.exe.config file.
- 2. In the SoD.Settings, EnableTroubleshootingDataCollection setting, set the value to True.

When the troubleshooting data is available, the user will be asked if they want to send it to Nuance; the user can change this setting via the **Data Collection** pane in the **Options** dialog box.

Interaction with crash dump notification

- If the EnableTroubleshootingDataCollection and EnableCrashNotification settings are set to True, a message asking the user if they want to send the troubleshooting data to Nuance will be displayed.
- If the EnableTroubleshootingDataCollection setting is set to True and the EnableCrashNotification setting is set to False, no message will be displayed to the user and the troubleshooting data will be automatically sent to Nuance.
- If the EnableTroubleshootingDataCollection setting is set to False and the EnableCrashNotification setting is set to True, a crash dump notification will be displayed to the user and the troubleshooting data will not be sent to Nuance.
- If the EnableTroubleshootingDataCollection and EnableCrashNotification settings are set to False, no message will be displayed to the user and the troubleshooting data will not be sent to Nuance.

Disabling registration of the Microsoft Word add-in

When starting Dragon Medical One calls the regsvr32.exe executable to register the Microsoft Word add-in. To disable registration of the Microsoft Word add-in, do the following:

- 1. Open the SoD.exe.config file.
- 2. In the SoD.Settings, add the setting RegisterWordAddIn and specify as follows:

Note: This configuration setting is optional.

Registering the Microsoft Word add-in for individual users

If registration of the Microsoft Word add-in is disabled, you can enable it for an individual user. Log on to the corresponding user account and run the following command:

regsvr32.exe /s SoD.WordAddin.dll

If a user works with a 64-bit version of Microsoft Word, run the following command:

regsvr32.exe /s SoD.WordAddin_x64.dll

Note: If you update Dragon Medical One, you must run the corresponding command again.

Customizing the splash screen

You can lay a custom image over the Dragon Medical One splash screen; the overlay image will be placed in the lower left corner of the splash screen.

Requirements: Size: 320x130 pixels Format: PNG File name: SoD.OEM.png Location: ClickOnce: The deployment location (same location as the application package) Stand-alone: The application directory (same location as the configuration file)

Configuring the user interface color theme

By default this setting is empty and the Blue (default theme) is used. To configure the color theme for Dragon Medical One, do the following:

- 1. Open the SoD.exe.config file.
- 2. In the SoD.Settings, DefaultTheme setting, specify the theme identifier (Blue, Light, Dark):

Dragon Medical One command line

Starting Dragon Medical One from the command line

You can configure the stand-alone Dragon Medical One package so that your users do not need to log on separately to the application. By starting Dragon Medical One with the mandatory parameters specified, the logon dialog box will not be shown and any logged on user will be automatically logged off.

Note: Make sure you specify the full path to the application; using the short 8.3 form of the path will cause problems.

Example

Dr. Chris Smith speaks with an American English accent, works in the field of general medicine and records using a SpeechMike III.

SoD.exe -user "chrissmith" -lang "en-US" -topic "GeneralMedicine" -mic "SpeechMike III"

When Dr. Smith logs on to a PC, Dragon Medical One is available, in the notification area, with their preferred settings applied.

Parameters

user

The speech recognition user profile name.

This parameter is mandatory; you must specify the user before any of the other parameters are applied. If trusted authentication is enabled, Dragon Medical One will ignore this parameter.

lang

The speech recognition language.

This parameter is mandatory; you must specify the language as an IETF language tag. For more information, see: Supported languages. Currently only English (IETF language tag: en-US) is supported.

topic

The speech recognition topic (medical specialty). For a list of available topic names, see: Configuring the speech recognition topic.

If only one topic is specified in the configuration file and this parameter is not set, this topic will be selected automatically and Dragon Medical One will start without displaying the logon dialog box.

If more than one topic is specified in the configuration file and this parameter is not set, Dragon Medical One will start without displaying the logon dialog box and will use the topic the user last logged on with. If the user has not logged on successfully before, or if the topic the user last logged on with is no longer available, the logon dialog box is opened and the user must select a topic manually.

mic

The microphone identifier.

This parameter is mandatory. If you do not know the exact microphone identifier, you can specify part of the name, for example, "SpeechMike". If only one connected microphone contains the specified string in its name, this microphone will be used. If no connected microphone or more than one connected microphone contains the specified string in its name, the logon dialog box is opened and the user must select a microphone.

If you have configured a list of allowed microphones, the mic parameter is optional. Dragon Medical One will go through the allowed microphones, in the order that you listed them, and use the first specified microphone it finds that is connected. If you specify the mic parameter, this microphone must be included in the list of allowed microphones.

password

The user's password.

If trusted authentication is enabled, Dragon Medical One will ignore this parameter.

nologo

Disables the splash screen.

config

The path to the XML file containing custom configuration settings. For more information, see: Configuring Dragon Medical One.

Logging off and closing Dragon Medical One from the command line

You can configure the stand-alone Dragon Medical One package so that your users do not need to log off or close the application manually.

Parameters

logoff

Logs off the currently logged on user. This parameter is exclusive and cannot be used together with other parameters.

If trusted authentication is enabled, this parameter is ignored by Dragon Medical One.

shutdown

Shuts down the currently running instance of Dragon Medical One. This parameter is exclusive and cannot be used together with other parameters.

Enabling and disabling WPF support from the command line

Dragon Medical One provides built-in support for applications based on Windows Presentation Foundation (WPF) TextBox class text controls. You need to enable WPF only if your users cannot dictate at the cursor in these applications.

You can enable/disable WPF support, for a specific machine, in the stand-alone Dragon Medical One package. By enabling/disabling WPF support, you will register/deregister a Microsoft Text Services Framework plugin on the machine that you have deployed to. This operation requires administration rights on that machine. To perform the registration, Dragon Medical One will attempt to elevate rights; if the rights cannot be elevated you cannot proceed.

Note: regsvr32.exe will be invoked for this operation.

These parameters are mutually exclusive and will override any other parameters passed to the SoD.exe process during start-up. For example, passing the parameters during standard logon procedure is not supported and will cause Dragon Medical One to shut down after registration/deregistration.

Parameters

enableWPF

Registers the Text Services Framework (TSF) plugin. To perform the registration, the SoD.exe process will be started, and once this operation is performed, it will shut down.

You only need to enable WPF support once per deployment or if you change the deployment location.

disableWPF

Deregisters the Text Services Framework (TSF) plugin. To perform the deregistration, the SoD.exe process will be started, and once this operation is performed, it will shut down.

User authentication

There are four options for user authentication when Dragon Medical One is started:

- No authentication: The user enters a unique user name to log on and must always use this name.
- Native authentication: The user must enter a user name and password provided by the administrator when logging on. The credentials are checked via the Nuance Management Server (NMS).
- LDAP authentication: The user must enter a user name and password to log on. The credentials are checked via an LDAP server.
- Trusted authentication: The user, logged on to Microsoft Windows with the Active Directory user name and password, is automatically logged on to the application. The credentials are checked via the Nuance Management Server (NMS).

No authentication

This is the default configuration for authentication. When this type is used, the application prompts the user to enter a new user name when logging on. A password is not required and it is not possible to use one. NMS loads the user settings associated with the user name or automatically creates a user profile if a profile for the user name does not yet exist. The user is granted access to Dragon Medical One and a license is assigned.

Procedure

In the SoD.exe.config file, SoD.Settings, Authentication setting, specify: <value>none</value>.

When a user logs on to Dragon Medical One, they must enter a new user name and always use this name.

Native authentication

Native authentication sends the user credentials to NMS to authenticate and grant or deny access to Dragon Medical One. You must create a user account in NMC before the user can log on to Dragon Medical One. This means that users cannot specify their own user names and passwords.

Procedure

In the SoD.exe.config file, SoD.Settings, Authentication setting, specify: <value>native</value>.

When a user logs on to Dragon Medical One, they must enter a user name and password that correspond to an existing user account in NMS.

Configuring password settings

You can define password expiration and complexity criteria via NMC for users of an organization logging on to Dragon Medical One via native authentication.

Proceed as follows:

- 1. Search for the organization, right-click it and select **Organization details**.
- 2. On the **Products** tab, open the **General** tab and expand **Password Settings**.
- 3. Define the criteria.
- 4. Select Password must meet complexity requirements and click Save.

LDAP authentication

LDAP authentication sends the user credentials to NMS to authenticate the user against an LDAP server hosted in your organization and grant or deny access to Dragon Medical One. To successfully authenticate against an LDAP server, NMS must be hosted in the same organization domain. You can host a full NMS instance or facilitate an NMS call forwarder or local authenticator to connect Dragon Medical One to NMS.

Using the local authenticator instead of the call forwarder improves performance. All calls from Dragon Medical One to NMS go through the call forwarder; the local authenticator enables local clients to authenticate against an LDAP server while all other calls go directly to NMS.

NMS call forwarder/local authenticator

Deploying an NMS call forwarder/local authenticator

To deploy the NMS call forwarder/local authenticator, you must create an organization token connecting the call forwarder/local authenticator to your NMS organization. Proceed as follows:

- 1. Browse for the organization details of your organization.
- 2. Open the Organization Tokens tab and add a new token.

To deploy the on-premise NMS call forwarder/local authenticator (providing this organization token), do the following:

- 1. Install the call forwarder/local authenticator using the organization token generated above.
- 2. In the SoD.exe.config file, check that the NMS organization token and the NMS URL are correct.

Configuring Dragon Medical One

In the SoD.exe.config file, **SoD.Settings**, **Authentication** setting, specify <value>ldap</value> if you use the NMS call forwarder, or <value>ldaplocal</value> if you use the NMS local authenticator.

Configuring your NMS organization (in the Nuance-hosted NMC)

To connect Dragon Medical One with your on-premise call forwarder/local authenticator, do the following:

- 1. Browse for the organization details of your organization.
- 2. Open the Products tab and expand Dragon Medical Server.
- 3. In the **NMS on-premise server URL** field, enter the URL of the on-premise NMS call forwarder/local authenticator including the port that hosts the authentication interface on the call forwarder/local authenticator: http://nms.organization.com:8731>, and click **Save**.
- 4. Open the **Domains** tab, click **Add** and enter the name and the LDAP Active Directory connection string, and click **Save**.

To configure a user account, do the following:

- 1. Search for the user account, right-click it and select User Account Details.
- 2. Open the Credentials tab.
- 3. On the NTLM tab, click Add; the User name and Organization Name already filled out.
- 4. From the **Domain** list, select the domain added above.

- 5. In the **Login** field, enter the LDAP login ID.
- 6. Click Save.

Note: If users already exist in NMS with a different NMS login ID, the Active Directory login ID and NMS login ID need to be connected: **User Account Details**, **Credentials** tab, **Token** tab, **Add** button - enter the Active Directory login ID.

On-premise NMS

This procedure assumes that you have set up a full NMS instance in your organization. It guides you through connecting the NMS instance to your LDAP server.

Configuring your NMS organization (in your on-premise NMC)

To connect your on-premise NMS instance to the LDAP server, do the following:

- 1. Search for the organization, right-click it and select **Organization details**.
- 2. Open the **Domains** tab and click Add.
- 3. Enter the domain name and the Active Directory connection string.
- 4. Click Save.

To configure a user account, do the following:

- 1. Search for the user account, right-click it and select User Account Details.
- 2. Open the Credentials tab.
- 3. On the NTLM tab, click Add; the User name and Organization Name already filled out.
- 4. From the Domain list, select the user's domain.
- 5. In the Login field, enter the LDAP login ID.
- 6. Click Save.

Note: If users already exist in NMS with a different NMS login ID, the Active Directory login ID and NMS login ID need to be connected: **User Account Details**, **Credentials** tab, **Token** tab, **Add** button- enter the Active Directory login ID.

Configuring your Nuance organization (in the Nuance-hosted NMC)

To connect Dragon Medical One with your on-premise NMS instance, do the following:

- 1. Browse for the organization details of your organization.
- 2. Open the Products tab and expand Dragon Medical Server.
- Enter the URL of the on-premise NMS instance including the port that hosts the authentication interface, for example, http://nms.organization.com and click OK.

Configuring Dragon Medical One

In the SoD.exe.config file, SoD.Settings, Authentication setting, specify: <value>ldap</value>.

Trusted authentication

Trusted authentication sends the Active Directory credentials of the currently logged on user to NMS to authenticate and grant/deny access to Dragon Medical One. The user can work with Dragon Medical One without entering a user name and password; the logon dialog box is not displayed.

The local authenticator is required to enable local clients to authenticate against an LDAP server. The authentication calls from Dragon Medical One to NMS go through the local authenticator. For information on how to deploy the NMS local authenticator and configure your NMS organization, see LDAP authentication.

Configuring Dragon Medical One

In the SoD.exe.config file, SoD.Settings, Authentication setting, specify: <value>trusted</value>.

NMC

You must configure the user account in NMC to authenticate the user in the Active Directory.

Proceed as follows:

- 1. Search for the user account, right-click it and select User Account Details.
- 2. Open the Credentials tab.
- 3. On the NTLM tab, click Add; the User name and Organization Name already filled out.
- 4. From the Domain list, select the user's domain.
- 5. In the **Login** field, enter the Active Directory login ID.
- 6. Click Save.

Logging

Dragon Medical One creates log files that can help Nuance to analyze issues reported by end users or administrators. Log files are uploaded to Dragon Medical Server, and a limited amount of information is written to the local file system of the client PC. The information written to the local file system does not contain any sensitive data; the amount of data kept on the local PC can be configured and usually spans data for the last few days.

Log file location

Dragon Medical Server

Dragon Medical Server log file: \\<server_name>\<share>\Logs\<year_month>\<day>\

Dragon Medical SpeechKit log file: \\<server_name>\<share>\Logs\<year_month>\<day>\

Local PC

Local log file (does not contain sensitive data):

```
Dragon Medical One ClickOnce directory (C:\Users\<User_Name>\AppData\Local\Apps\...)
or
```

Dragon Medical One stand-alone directory

Crash dump: %APPDATA%\Nuance\SoD\

Virtual desktop/application environment

For information on logging in a virtual desktop/application environment, see: Logging in a virtual environment.

Setting the logging level

The log level is set in the log4net section of the SoD.exe.config file. The log level should be set for both logger names specified in the configuration section:

```
<logger name="Nuance.SoD.Generic">
<logger name="Nuance.SoD.Text">
```

The default log level is ERROR which creates the least amount of data. You can change the logging level to one of the following (amount of data collected in descending order):

DEBUG INFO WARN ERROR

Nuance Management Center - overview

The Nuance Management Center (NMC) is the central administration component for Dragon Medical One. NMC enables you to perform a variety of administration tasks, such as licensing and managing auto-texts, users, groups and organizations.

For information on how to define auto-texts and set auto-text filters in NMC, see: Auto-texts.

For more information on NMC, see the documentation delivered with the product and the Dragon Medical Server documentation.

Note: NMC requires HTTPS access to https://nmc-hc-prod-us.nuancehdp.com (port 443); make sure your firewall does not block this port. This port must be accessible from the workstations used to access NMC.

Prerequisites for running NMC

Microsoft Internet Explorer, Microsoft Edge, Google Chrome, Apple Safari

Launching NMC

- 1. To access NMC, browse to: https://nmc-hc-prod-us.nuancehdp.com.
- 2. To log on for the first time, use the credentials in your welcome kit.

Note: To change your password, click = and select Change password.

Licensing

To monitor licenses, open the **Licensing** ribbon, click **View Licenses** and search for the license type. You can see a summary of license information.

If you need to free licenses, select a row, click Revoke and select user accounts.

Groups

When you first log on to NMC the following groups are available:

- NMC Administration: For users performing administration tasks in NMC.
- Speech Recognition: For users accessing speech recognition.

Note: The **Speech Recognition** group does not exist until the first end user connects via a Dragon Medical One client; the group is then automatically created.

Groups are useful for the following:

- Groups can be used to assign the rights to create auto-texts and custom commands to specific users.
- Groups can be used to make certain auto-texts and custom commands available to specific users. To assign
 an auto-text or custom command to a group make sure that the Group level is selected when you create an
 auto-text or create a custom command.

Working with groups

To group users who have rights to create auto-texts/custom commands, do the following:

- 1. Log on to NMC with your administration credentials.
- 2. Open the **Groups** ribbon and click **Add**.
- 3. Select the new group's organization.
- 4. In the Role field, select NMC Administrator.
- 5. Base the new group on the existing NMC Administration group and click OK.
- 6. Enter a Group name and make sure the correct Site is selected.
- 7. In the Privileges list, select Product Manage Dragon Medical Server.
- 8. Click Save.
- 9. Open the Groups ribbon and click Search.
- 10. Enter the name of the group you just created and select it in the list of search results.
- 11. Click Add User Account to Group in the Membership ribbon.
- 12. To add a user account to the group, enable the check box in the **Member** column in the corresponding row.
- 13. Click Save.
- To group users of auto-texts/custom commands, do the following:
- 1. Log on to NMC with your administration credentials.
- 2. Open the **Groups** ribbon and click **Add**.
- 3. Select the new group's organization.
- 4. In the Role field, select Speech Recognition User and click OK.
- 5. Enter a Group name and make sure the correct Site is selected.
- 6. Click Save.
- 7. Open the **Groups** ribbon and click **Search**.
- 8. Enter the name of the group you just created and select it in the list of search results.
- 9. Click Add User Account to Group in the Membership ribbon.
- 10. To add a user account to the group, enable the check box in the **Member** column in the corresponding row.
- 11. Click Save.

Speech recognition settings: Auto-texts

The auto-text feature enables you to define standard blocks of text (also called 'normals' or 'canned text') that Dragon Medical One users can insert into their document with a short voice command. Using auto-texts reduces the time the user needs to dictate and improves the consistency of documentation. Available auto-texts are displayed to end users on the **What You Can Say** page. You define auto-texts in the Nuance Management Center (NMC). Users can create their own auto-texts in Dragon Medical One in the **Manage Auto-texts** dialog box.

Defining an auto-text in NMC

Scenario

- Your users often speak to their patients about the dangers of smoking. In the report, they will say The patient was advised to quit smoking and counseled on effective smoking cessation strategies.
- You define an auto-text called *Quit smoking* that contains this information.
- A doctor says the voice command insert quit smoking to insert the information.

Procedure

- 1. Open the Speech Recognition tab on the ribbon.
- 2. Click Manage.
- 3. Select your Organization.
- 4. In the Auto-texts tree view, select the level you want to create the auto-text for (site, group or user).
- 5. In the Auto-text group on the ribbon, click Add.
- 6. Enter a Name (Quit smoking), a Description (optional) and select a Language.
- 7. Optional: change the **Spoken Phrase**.
- 8. In the contents section, enter:

The patient was advised to quit smoking and counseled on effective smoking cessation strategies.

9. Click Save.

Remarks

- To make the auto-text available for all users, make sure to select the corresponding site or group in the tree view.
- A keyword is what the user says to tell the system that an auto-text is to be processed. The default keyword is insert; you can change it in NMC. For more information, see the *Dragon Medical Server Administration Guide*.
- The Name field contains the title of the auto-text (this is generally what users must say to insert the auto-text); make sure it is unambiguous and easy to pronounce. It is strongly recommended that you give the auto-text a distinctive name that cannot be misinterpreted as speech to be recognized. This helps to ensure that it is correctly inserted.
- By default, the Spoken Phrase is the same as the Name. If how the auto-text name is written and how it is pronounced are very different, change the Spoken Phrase (how it is pronounced). You can only use

alphabetic characters in spoken phrases. For acronyms that are spelled out use capital letters, separated by spaces.

For spoken phrases do not use:

Very short phrases (such as one syllable only) Capital letters (except for acronyms, for example, C I A) Abbreviations Digits (use 'twelve' and not '12') Punctuation marks (for example, ", !, ?, etc.) Symbols (for example, +, -, &, \$, etc.)

- If you want to give your users more than one way to insert an auto-text, click + and enter another Spoken Phrase.
- Activate **Display all levels** to list the auto-texts for the level selected in the tree view and its higher levels.
- Auto-texts can contain fields. Fields are gaps in the auto-text where users can enter specific text, for example, patient data. To add a field to an auto-text, enter [] in the relevant place of the auto-text's contents; you can enter any text between the field delimiters as default content, for example, CBC results [within normal limits], vital signs [within normal limits]. When users insert the auto-text, they can decide whether they want to replace the default values with specific text or use the default values.
- By default, fields are indicated by square brackets. Users can change the characters used as field delimiters in Dragon Medical One on the General pane of the Options dialog box; any previously defined fields using different delimiters will then no longer work.

Configuring the auto-text filter

A system with many auto-texts can be complex for users; they might have difficulty remembering all the names and which ones are relevant for them.

Filtering is set up in the SoD.exe.config file and then set in NMC.

In the configuration file, enter the filter key/value pairs you need. For example:

```
<filterSettings>
<filter>
<add key="department" value="radiology" />
<add key="modality" value="X-ray|CT|MRI" />
</filter>
```

</filterSettings>

Remarks

- You can configure as many key/value filter pairs as you want.
- Use the character to separate multiple values for a key.

Setting an auto-text filter in NMC

You can filter specific auto-texts to be active for specific forms.

Scenario

- Dragon Medical One supports an auto-text filter with the key 'modality' and values 'X-ray', 'CT' and 'MRI' and it will set this filter for all radiology reports.
- You want to set the 'normal chest' auto-text to be active for x-rays only.

Procedure

- 1. Search for the 'Normal chest' auto-text.
- 2. Open the Meta Data tab.
- 3. In the **Name** field enter *modality* and in the **Value** field enter *X-ray*.
- 4. Click OK and then Save.

Remarks

By default, auto-texts are always active. Be aware that:

If no auto-text filter has been set for a document or form, all auto-texts that have been defined in the system will be active.

All auto-texts that you do not define meta data entries for will always be active.

If an auto-text filter with a specific name has been set for a document or form but no corresponding meta data entry with this name has been applied to an auto-text, then this auto-text will always be active.

An auto-text is deactivated (filtered out) for a specific document or form only if:

The application has defined an auto-text filter with a specific name and value for the document or form.

You have set a meta data entry for the auto-text with this name but with a different value.

Speech recognition settings: Voice commands

Voice commands enable Dragon Medical One users to say a word or phrase that initiates an action and control the application without using the mouse or the keyboard. This reduces the time the user needs to complete their work.

The custom command feature in Dragon Medical One was extended to enable users to create more feature-rich commands and are now called step-by-step commands. Users define step-by-step commands in the **Manage Step-by-step Commands** dialog box and they are displayed on the **What You Can Say** page; for more information, see the end user help.

Existing user-level custom commands created in the Nuance Management Center will be automatically migrated to step-by-step commands.

Speech recognition settings: Managing the vocabulary

Managing the vocabulary your users are using enables you to improve speech recognition by explicitly tailoring the system to your requirements. This might be necessary if words or phrases are repeatedly misrecognized.

In the Nuance Management Center (NMC), you can add words and phrases to the vocabulary and delete words from it.

Adding a word in NMC

Scenario

Your users frequently prescribe the drug Xanax and recognition has been problematic.

Procedure

- 1. Open the Speech Recognition tab on the ribbon.
- 2. In the Word group, click Manage.
- 3. In the Words tree view, select the level you want to associate the word with (site, group or user).
- 4. In the **Word** group on the ribbon, click **Add**.
- 5. Enter a Written form (Xanax) and, if necessary, a Spoken form (zanacks).
- 6. Select the Language you want to associate the word with.
- 7. Click Save.

Remarks

- To make the word available for all Dragon Medical One users, make sure to select the corresponding site or group in the tree view.
- The spoken form is optional. If how the word is written and how it is pronounced are very different, enter a spoken form (how it is pronounced) and define a Written form (how it is inserted into the document). You can only use alphabetic characters in spoken form; special characters are not allowed. For acronyms that are spelled out use capital letters, separated by spaces.

For spoken phrases do not use:

- Very short phrases (such as one syllable only) Capital letters (except for acronyms, for example, C I A) Abbreviations Digits (use 'twelve' and not '12') Punctuation marks (for example, ", !, ?, etc.) Symbols (for example, +, -, &, \$, etc.)
- Activate Display all levels to list the words that have been added for the level selected in the tree view and its higher levels.

Speech recognition settings: Dragon Medical Connect

Dragon Medical Connect is a powerful feature that allows all speech-enabled, cloud-based applications - (Nuance-branded and third-party partner applications) - to share a single cloud-based user profile. The single-profile architecture means that any changes a user makes to custom words, auto-texts or commands are immediately available, to that user, in any application, on any device - anytime and anywhere. From a user's perspective, this feature provides a consistently superior experience when using Dragon Medical One Desktop Application, Dragon Medical Network Edition or any one of the speech-enabled, third-party applications that leverage Nuance's cloud-based platform.

Dragon Medical Connect is built into all Nuance and partner cloud-enabled products and does not require additional licensing or configuration. However, given the breadth and depth of the Nuance partner ecosystem, it is important to understand how this feature works in the context of the applications you use.

Dragon Medical One Desktop Application

When using Dragon Medical One the following profile sharing features and functions are available:

- Dragon Medical One: Users can add their own custom words, auto-texts and commands via the application menu. Words and auto-texts are shared with any other cloud connected product including third-party applications. Step-by-step commands are proprietary to and can only be shared with the Nuance products Dragon Medical One and Dragon Medical Network Edition.
- Dragon Medical Network Edition (with Nuance-hosted Nuance Management Server): Users can add their own custom words, auto-texts and commands via Dragon command and vocabulary editors. Words and auto-texts are shared with any other cloud-connected products including third-party applications. Step-bystep commands are proprietary to and can only be shared with the Nuance products Dragon Medical One and Dragon Medical Network Edition.
- Third-party applications: Users can add their own custom words and auto-texts via the Nuance personalization and help window. To create auto-texts in mobile applications the user must have a Dragon Medical One license. Words and auto-texts are shared with any cloud-connected product including other third-party applications.
- Nuance Management Center (NMC): Administrators can add words or auto-texts at the site, group or user level. Words and auto-texts defined in NMC are shared with any cloud-connected product, including thirdparty applications.

Dragon Medical Network Edition

Nuance-hosted Nuance Management Server

If your facility is using Dragon Medical Network Edition with a Nuance-hosted NMS, and Dragon Medical One is not yet licensed, the following profile sharing features and functions are available:

 Dragon Medical Network Edition: Users can add their own custom words, auto-texts and commands via Dragon command and vocabulary editors. Words and auto-texts are shared with other cloud-connected products including third-party applications. Step-by-step commands are proprietary to and can only be shared with the Nuance products Dragon Medical One and Dragon Medical Network Edition.

- Third-party applications: Users can add their own custom words and auto-texts via the Nuance personalization and help window. To create auto-texts in mobile applications the user must have a Dragon Medical One license. Words and auto-texts are shared with any cloud-connected product including other third-party applications.
- Nuance Management Center (NMC): Administrators can add words or auto-texts at the site, group or user level. Words and auto-texts defined in NMC are shared with any cloud-connected product include third-party applications.

On-premise Nuance Management Server

All cloud enabled offerings, including third-party applications, use a Nuance-hosted instance of NMS for a transparent single profile experience. If you are using Dragon Medical Network Edition but have not yet migrated your NMS instance to the Nuance cloud, your profile sharing options are limited. The only option available is to periodically export custom words and auto-texts from your on-premise NMS instance and import them into the Nuance-hosted NMS instance. Be aware that this approach is labor intensive and does not deliver a true single user profile experience.

You are strongly encouraged to migrate your on-premise NMS instance to the Nuance cloud or consider moving to Dragon Medical One.

Third-party applications only

If you are using one or more cloud-enabled third-party applications, but not a Nuance solution, you can still benefit from a single user profile.

- Third-party applications: Users can add their own custom words and auto-texts via the Nuance personalization and help window. To create auto-texts in mobile applications the user must have a Dragon Medical One license. Words and auto-texts are shared with any cloud-connected product including other third-party applications.
- NMC: Administrators can add words or auto-texts at the site, group or user level. Words and auto-texts
 defined in NMC are shared with any cloud-connected product.

Nuance Healthcare ID

The Nuance Healthcare ID is a unique identifier that enables clinicians to personalize their Dragon Medical One experience and access their personal speech profile and speech-enabled products in a selection of mobile apps.

Registering the Nuance Healthcare ID

Your users can register their Nuance Healthcare ID when they first log on to Dragon Medical One Desktop Application or later via the **Nuance Healthcare ID** option on the DragonBar menu.

Procedure for the end user

- 1. Start Dragon Medical One Desktop Application.
- 2. On the DragonBar menu, select Nuance Healthcare ID.
- 3. Complete the registration form and click Submit.
- 4. You will receive a confirmation email; click the link in this email to complete the registration.

Remarks

- Nuance Healthcare ID registration is optional. Users register once.
- Registration can only be done individually by each Dragon Medical One Desktop Application user; batch registration is not possible.
- During registration, the user specifies their Nuance Healthcare ID user name (a personal email address) and password; these are needed to activate it.
- After registration, the user activates the Nuance Healthcare ID separately for each app to speech-enable that app.
- The *My Nuance Healthcare ID* website lists all available mobile apps where users can activate their Dragon Medical speech recognition profile and access speech-enabled products.
- There is no additional cost for Dragon Medical in the mobile apps listed on the *My Nuance Healthcare ID* website but you must have an app installed on your mobile device, and have a license/rights to access it, before you activate your Nuance Healthcare ID.

Activating the Nuance Healthcare ID for an app

Once a user has registered for their Nuance Healthcare ID, they can access the *My Nuance Healthcare ID* website via Dragon Medical One Desktop Application or via a web browser.

Procedure for the end user

Via Dragon Medical One Desktop Application

- 1. On your desktop/laptop, start Dragon Medical One Desktop Application.
- 2. On the DragonBar menu, select Nuance Healthcare ID; the My Nuance Healthcare ID website opens.
- 3. Browse for the available mobile apps.
- 4. For the app you want, click Activate NHID; you will receive an activation link via email.
- 5. On your mobile device, make sure the app is installed.

6. On your mobile device, open the email you received and click the activation link; Dragon Medical is activated for this app.

Via web browser on your mobile device

- 1. Open your web browser and go to healthcareid.nuance.com.
- 2. Log on using your Nuance Healthcare ID user name and password.
- 3. Browse for the available mobile apps.
- 4. On your mobile device, make sure the app is installed.
- 5. On the *My Nuance Healthcare ID* website, select the app and tap **Activate NHID**; Dragon Medical is activated for this app.

Via web browser on your desktop/laptop

- 1. Open your web browser and go to healthcareid.nuance.com.
- 2. Log on using your Nuance Healthcare ID user name and password.
- 3. Browse for the available mobile apps.
- 4. For the app you want, click Activate NHID; you will receive an activation link via email.
- 5. On your mobile device, make sure the app is installed.
- 6. On your mobile device, open the email you received and click the activation link; Dragon Medical is activated for this app.

Remarks

- When users access the My Nuance Healthcare ID website via Dragon Medical One Desktop Application they do not need to log on.
- When users access the *My Nuance Healthcare ID* website via healthcareid.nuance.com, they must log on with their Nuance Healthcare ID user name and password.

Dragon Medical Advisor overview

Dragon Medical Advisoranalyzes clinicians' documentation in real time and displays additional information to help make the documentation more complete and accurate. Clinicians access Dragon Medical Advisor via Dragon Medical One; a speech recognition license is not needed.

Use NMC to manage licenses and configure organization-level settings.

For more information on settings configured via the Dragon Medical One configuration file (sod.exe.config), see: Configuring Dragon Medical Advisor and QRA.

For more information on filtering advice for specific conditions at the user and group level, see: Advice filters for Dragon Medical Advisor and QRA.

Make sure Dragon Medical One has access to the Advisor Service (https://<organization-specific prefix>.nuanceunderstanding.com) via port 443; your firewall must not block this port.

Content packs

Dragon Medical Advisor functionality is delivered via content packs. Each content pack is separately licensed. To enable a content pack for an organization, install the corresponding license in NMC and grant the license to users.

Base Content Pack

The core set of conditions and specifiers for which Dragon Medical Advisor provides recommendations.

HCC Content Pack

Specificity recommendations for Hierarchical Condition Category diagnoses.

Note: The **Nuance Quality and Risk Adjustment** license enables Dragon Medical Advisor with the HCC Guidance feature set and includes the Base Content Pack and HCC Content Pack out of the box.

HCC Guidance

When HCC Guidance is enabled, the advisor window displays an additional **Coding Assistant** screen, which displays ICD-10 diagnosis codes from the physician documentation. The code short descriptions can be copied into the EHR or charge capture system. Additionally, codes can be refined and new codes found via the Intelligent Medical Objects natural language search capabilities.

Users can also search for CPT procedure codes and their corresponding IMO descriptions.

To enable the coding assistant, install the **Nuance Quality and Risk Adjustment** in NMC and grant the license to users.

Licensing Dragon Medical Advisor

To import a Dragon Medical Advisor license, content pack license, or HCC Guidance license for your organization, do the following:

- 1. In NMC, open the Licensing ribbon and click Import License Key.
- 2. Paste in a valid license key for your organization and click Show Information.

- 3. Click Import.
- 4. Log out of NMC and log in again.

Remarks

- Each content pack has a separate license, including the base content pack. To enable Dragon Medical Advisor, import the Dragon Medical Advisor license and one or more content pack licenses.
- The Nuance Quality and Risk Adjustment license enables the Dragon Medical Advisor base content, the HCC content pack and the coding assistant.

Configuring the healthcare setting for a site

In large organizations it can be useful to identify sites by healthcare setting; this helps with analyzing Dragon Medical Advisor usage.

To define a site's healthcare setting, do the following:

- 1. In NMC, open the Sites ribbon and click Organization Overview.
- 2. In the left pane, right-click a site and select **Details**. The **Site Details** screen opens.
- 3. Open the Dragon Medical Advisor tab.
- 4. Select the site Healthcare type; for example: Acute Inpatient Care or Long-term Care Center.

Note: Leave the EHR location identifiers list empty; this is for a future release.

Granting licenses to users

An organization-level Dragon Medical Advisor license enables 5000 user licenses.

Note: If the user has Dragon Medical Advisor and content pack licenses (or an HCC Guidance license) but no speech recognition license, they can log into Dragon Medical One to use only Dragon Medical Advisor functionality. Speech recognition and voice commands will not be available, but Dragon Medical One can read the text and patient context from supported EHRs and the user can click the advice icon on the Dragon bar to open the advisor window.

Granting and revoking licenses

Manage licenses via the Licenses Summary screen; proceed as follows:

- 1. Open the Licensing ribbon and click View Licenses.
- 2. Select Dragon Medical Advisor or Quality and Risk Adjustment from the License type list and click Search.

Your Dragon Medical Advisor license should be in **Account** mode and the total number of licenses should be **5000**.

- 3. Right-click the license and select **Grant Licenses** or **Revoke Licenses**.
- 4. Click > to move users from Available Users to Selected Users and click OK.
- 5. Repeat steps 2 to 4 for your content pack licenses.

Configuring Dragon Medical Advisor in NMC

To display Dragon Medical Advisor configuration settings, do the following:

- 1. Open the Organizations ribbon and click Search.
- 2. Enter search criteria. If you do not enter any search criteria, all of your organizations will be listed.
- 3. Right-click the organization and select Organization details.
- 4. Open the Products tab and select Dragon Medical Advisor from the left panel.

Connecting to the Advisor Service

Enter the Advisor token and the Advisor Service URL. These values are unique to each organization. If you do not know your Advisor token or your Advisor Service URL, contact Nuance technical support or your Nuance account executive.

Configuring the patient context

Dragon Medical Advisor captures patient and visit information from the EHR (patient name, MRN, visit ID, encounter ID). This enables the following:

- The Advisor Service should not repeat the same advice multiple times in one document, even if the documentation is divided between multiple text controls. If the user enters ICD-10-complete information into one form field, when the user then refers to the same condition in another form field, The Advisor Service can suppress the duplicate advice.
- The Advisor Service should not repeat the same advice multiple times in one patient encounter (from admission to discharge), even if the documentation was recorded by several providers.
- Auto-processing can take place as soon as the EHR has the focus; the user does not need to open the Dragon Medical Advisor window.
- Dragon Medical One can open the Dragon Medical Advisor window automatically when the EHR has the focus. To enable this, update your Dragon Medical One configuration file, sod.exe.config.

Configuring patient context via an EHR interface (Epic HyperSpace only)

Enter the EHR interface adapter, EDServiceDescriptor and EnvironmentID. These settings depend on the specific Epic HyperSpace system used by the organization.

Configuring patient context via screen capture

For Epic, Cerner, Allscripts TouchWorks and athenahealth, upload a Patient context configuration JSON file.

Epic: If an EHR interface is available, the required settings can be encoded in the file.

Cerner EHRs, Allscripts TouchWorks, athenahealth: The file contains screen capture rules to find the patient and visit information in the application window.

For more information on the required Epic HyperSpace parameters or JSON file structure, contact Nuance Healthcare technical support or your Nuance account executive.

Group-level EHR interface settings

You can also configure the EHR interface parameters for Epic HyperSpace at the group level. Proceed as follows:

- 1. Open the Groups ribbon and click Search.
- 2. Select your organization from the drop-down list and click **Search**.
- 3. Right-click the group and select Group Details.
- 4. Open the **Dragon Medical Advisor** tab and enter the **EHR interface adapter**, **EDServiceDescriptor** and **EnvironmentID** values.
- 5. Click Save.

Remarks:

- The EHR interface adapter, EDServiceDescriptor and EnvironmentID settings have priority over the patient context configuration file if any settings overlap.
- Group-level settings for EHR interface adapter, EDServiceDescriptor and EnvironmentID have priority over organization-level settings.
- If Dragon Medical Advisor cannot retrieve a valid patient context configuration from NMS, it will display advice based on individual text controls and not based on the patient encounter.

Dragon Medical Advisor: Advice filters

Overview

Use the **Manage Advice Filters** screen in NMC to control how much advice Dragon Medical One displays to your users. This can be useful if users find the large amount of advice they receive distracting, or if users find that not all the advice they receive is relevant to their documentation.

When you introduce Dragon Medical Advisor to your organization it is recommended to configure advice filters so that only the most relevant conditions and specifiers are enabled. You can enable more conditions and specifiers subsequently, based on user feedback and observed usage patterns in your organization.

Note: Although some of the NMC user interface elements refer to speech recognition, advice filters do not require a speech recognition license.

Enabling and disabling advice

Example 1: Enabling advice for asthma at the organization level

Proceed as follows:

- 1. Open the Speech Recognition ribbon and click Manage Advice Filters.
- 2. In the left panel (tree view) select your organization. The right panel lists all diagnoses and specifiers included in the organization's content pack licenses.
- 3. Scroll down to **Asthma** in the **Advice** column. In the base content pack, asthma is listed with two specifiers: **Severity** and **Smoking status**.
- 4. Activate the **Display** check box for both specifiers.
- 5. Click Save.

Advice is now enabled for asthma (severity) and asthma (smoking status) for all sites, groups and users in the organization, and the corresponding **Display** check boxes are activated at those levels.

Example 2: Disabling advice for asthma at the group level

Prerequisite: Asthma (severity) and asthma (smoking status) have been enabled at the organization level, following example 1.

Proceed as follows

- 1. Open the Speech Recognition ribbon and click Manage Advice Filters.
- 2. In the left panel (tree view) expand your organization and site and select a group. The right panel lists all diagnoses and specifiers included in the content pack licenses assigned to any users in that group.
- 3. Scroll down to **Asthma** in the **Advice** column. Because asthma advice was enabled at the organization level for example 1, the **Display** check box is also activated for **Severity** and **Smoking status** at the group level.
- 4. Clear the **Display** check box for both specifiers.
- 5. Click Save.

Advice is now disabled for asthma (severity) and asthma (smoking status) for this group and for all users in this group. At the user level, the cleared state of the **Display** check box for the two asthma specifiers is now inherited

from this group and not from the organization level. The asthma advice is still enabled for users that are not assigned to this group.

Remarks

- Activating the Mandatory check box for a diagnosis/specifier at the organization, site or group level means the corresponding Display check box cannot be cleared at lower levels (site, group or user).
- By default, all check boxes are cleared for new organizations.
- To activate the **Display** check box for all diagnoses and specifiers, click **Select All**.
- To clear the **Display** check box for all diagnoses and specifiers, click **Clear All**, then click **OK**.

Working with advice filter groups

An efficient way to manage advice filters for a large number of users is to create groups corresponding to their specialties and enable/disable advice at the group level.

To enable/disable advice at the user level, assign users to these groups.

Creating an advice filter group

To create an advice filter group (for example, for cardiologists), do the following:

- 1. Open the Groups ribbon and click Add.
- 2. Select the new group's organization from the drop-down list.
- 3. In the Role field, select Speech recognition user and click OK.
- 4. In the Sites field, select the new group's site from the drop-down list.
- 5. Enter a group name; for example: Cardiology advice filters
- 6. Click Save.
- 7. Open the Speech Recognition ribbon and click Manage Advice Filters.
- 8. In the left panel (tree view) expand your organization and site and select the new **Cardiology advice filters** group.
- 9. Activate the **Display** check box for each diagnosis and specifier relevant to your cardiologists and clear the **Display** check box for each diagnosis and specifier that they are less likely to document.
- 10. Click Save.

Assigning multiple users to a group

Proceed as follows:

- 1. Open the Groups ribbon and click Search.
- 2. Enter search criteria. If you do not enter search criteria, all your groups are listed.
- Select a group and click Add User Account to Group (on the Membership ribbon). All users in the group's site are listed.
- 4. To add user accounts to the group, activate the corresponding Member check boxes.
- 5. Click Save.

Assigning a user to multiple groups

Proceed as follows:

- 1. Open the Sites ribbon and click Organization Overview.
- 2. In the left panel (tree view) select your organization; all the organization's users are listed.
- 3. Right-click the user whose group assignments you want to edit and select Details.
- 4. Open the Group Memberships tab.
- 5. Select one or more of the available groups and click > to move it to the **Selected Groups** list.
- 6. In the **Selected Groups** list, select a group and click \land or \lor to make its priority higher or lower.
- 7. Click Save.

Remarks

• When a user is assigned to multiple groups, groups higher up the **Selected Groups** list have higher priority.

For example:

Asthma (severity) advice has been enabled for *Group A* but disabled for *Group B*. The user *Chis Smith* has been assigned to both groups. In Chris Smith's **Selected Groups** list, Group B is higher than Group A. When asthma appears in Chris Smith's documentation, Dragon Medical Advisor will not prompt Chris Smith for the severity specifier.

Dragon Medical Advisor: HCC filters

Overview

Use the **Manage HCC Filters** screen in NMC to control which HCC categories Dragon Medical One displays to your users. This can be useful in scenarios where the HCCs that have been flagged for a patient are not relevant to a site, group or specific provider's specialty.

Remarks

- The Centers for Medicare and Medicaid Services group thousands of HCC codes into 79 HCC categories.
 NMC enables filtering by HCC category but not by the specific HCC codes.
- By default, all HCC categories are enabled for all users.
- Although some of the NMC user interface elements refer to speech recognition, HCC filters do not require a speech recognition license.

Enabling and disabling HCC categories

Example 1: Hiding HCCs for hypertension at the organization level

Proceed as follows:

- 1. Open the **Speech Recognition** ribbon and click **Manage HCC Filters**.
- 2. In the left panel (tree view) select your organization. The right panel lists all available HCC categories.
- 3. Click the HCC Name column heading to sort the list alphabetically.
- 4. Scroll down to Hypertension and clear the corresponding check box.
- 5. Click Save.

Hypertension HCCs are no longer listed in Dragon Medical One's Advisor window for any users in your organization.

Example 2: Enabling HCCs for hypertension at the group level

Prerequisite: Hypertension has been disabled at the organization level, following example 1.

Proceed as follows:

- 1. Open the Speech Recognition ribbon and click Manage Advice Filters.
- 2. In the left panel (tree view) expand your organization and site and select a group. The right panel lists all available HCC categories.
- 3. Click the HCC Name column heading to sort the list alphabetically.
- 4. Scroll down to **Hypertension**; because hypertension was disabled at the organization level for example 1, the **Display** check box is also cleared at the group level.
- 5. Activate the **Display** check box.
- 6. Click Save.

Where hypertension HCCs have been flagged for review, they will now be listed in Dragon Medical One's Advisor window for all users in this group. At the user level, the activated state of the **Display** check box for hypertension

is now inherited from this group and not from the organization level. Hypertension HCCs are still hidden for users who are not assigned to this group.

Remarks

- Activating the Mandatory check box for an HCC category at the organization, site or group level means the corresponding Display check box cannot be cleared at lower levels (site, group or user).
- To activate the **Display** check box for all HCC categories, click **Select All**.
- To clear the **Display** check box for all HCC categories, click **Clear All**, then click **OK**.
- The Source column indicates the level from which the current display setting is inherited (organization, site, group).
- The Average RAF Score column indicates the average Risk Adjustment Factor of the diagnoses within an HCC category.

Working with HCC filter groups

An efficient way to manage HCC filters for a large number of users is to create groups corresponding to their specialties and enable/disable HCC categories at the group level.

To enable/disable HCC categories at the user level, assign users to these groups.

Creating an HCC filter group

To create an advice filter group (for example, for cardiologists), do the following:

- 1. Open the Groups ribbon and click Add.
- 2. Select the new group's organization from the drop-down list.
- 3. In the Role field, select Speech recognition user and click OK.
- 4. In the Sites field, select the new group's site from the drop-down list.
- 5. Enter a group name; for example: Cardiology HCC filters
- 6. Click Save.
- 7. Open the Speech Recognition ribbon and click Manage HCC Filters.
- 8. In the left panel (tree view) expand your organization and site and select the new **Cardiology HCC filters** group.
- 9. Activate the **Display** check box for each HCC category that your cardiologists would review and clear the **Display** check box for each HCC category that they do not need listed.
- 10. Click Save.

Assigning multiple users to a group

Proceed as follows:

- 1. Open the **Groups** ribbon and click **Search**.
- 2. Enter search criteria. If you do not enter search criteria, all your groups are listed.
- 3. Select a group and click Add User Account to Group (on the Membership ribbon). All users in the group's site are listed.

- 4. To add user accounts to the group, activate the corresponding Member check boxes.
- 5. Click Save.

Assigning a user to multiple groups

Proceed as follows:

- 1. Open the Sites ribbon and click Organization Overview.
- 2. In the left panel (tree view) select your organization; all the organization's users are listed.
- 3. Right-click the user whose group assignments you want to edit and select **Details**.
- 4. Open the Group Memberships tab.
- 5. Select one or more of the available groups and click > to move it to the **Selected Groups** list.
- 6. In the **Selected Groups** list, select a group and click \land or \lor to make its priority higher or lower.
- 7. Click Save.

Remarks

• When a user is assigned to multiple groups, groups higher up the **Selected Groups** list have higher priority.

For example:

Hypertension has been enabled for *Group A* but disabled for *Group B*. The user *Chis Smith* has been assigned to both groups. In Chris Smith's **Selected Groups** list, Group B is higher than Group A. When Chris Smith's patient has been flagged for a hypertension HCC, the Advisor window will not list this HCC.

Documentation

Dragon Medical One is delivered with documentation for system administrators and end users.

System administrators

The *Dragon Medical One Installation and Administration Guide* describes the installation and system configuration procedures. This guide also covers information on the Nuance Management Center.

End users

Users access the end user help by saying **launch help** or by clicking **Help** on the DragonBar menu. The **Dragon Help** tab of the personalization and help window contains information on how to use the application features (for example, anchoring the speech focus); the **Speech Recognition Help** tab contains information on speech recognition features and how to use them.

The What You Can Say page contains a list of all available voice commands and auto-texts. Users can open it by saying what can I say or clicking What You Can Say on the DragonBar menu.

Supported languages

The speech recognition language is the language the user records in and that Dragon Medical One recognizes. Currently only English (IETF language tag: en-US) is supported.

The user interface language is the language in which Dragon Medical One displays menus, help files, error messages and dialog boxes. Currently only English (IETF language tag: en-US) is supported.

Troubleshooting

• A client cache error is displayed after installing the ClickOnce package, and the application won't run.

Delete the ClickOnce application cache in the user's **AppData** directory (Windows 7: "C:\Users\<user name>\AppData\Local\Apps\2.0").

After Dragon Medical One has been deployed via XCOPY deployment, the application does not start and an exception is thrown: "System.Configuration.ConfigurationErrorsException: Insufficient permissions for setting the configuration section 'defaultProxy'. ---> System.Security.SecurityException: Request for the permission of type 'System.Net.WebPermission, System, Version=4.0.0.0, Culture=neutral, PublicKeyToken=b77a5c561934e089' failed."

Depending on your Group Policy security settings, Microsoft Windows marks downloaded files as unsafe. This prevents .NET from executing properly, which causes the exception. Unblock the downloaded ZIP file before you extract it; for more information, see: XCOPY deployment.

Dragon Medical One crashes when the application is started.

Check the configuration file and the log file for configuration-related issues. Make sure that your system conforms to the software and hardware requirements. Make sure you followed all steps required to set up a working system.

An error occurs when Dragon Medical One is started: An error has occurred, it is not possible to use the application. Please contact your administrator. The specified server URL cannot be reached, check your network connection.

Check the network connection to Dragon Medical Server.

The automatic gain control (AGC) of the recording device or the device driver/sound card driver interferes with the automatic audio adjustment feature of Dragon Medical One.

Disable the interfering AGC.

• An error occurs when the user starts recording: Speech recognition is temporarily not available in this application because there are no licenses available.

If auto-provisioning of users is not enabled for your organization in NMC, make sure that the user exists in NMC and the user name is spelled correctly (user names are case sensitive), and that the user's token credentials (**User Account Details** dialog box, **Credentials** tab, **Token** tab) are the same as the user name or empty.

In NMC, check if your organization has run out of licenses. For more information, see Licensing.

Dragon Medical One inserts text in the wrong place in a Microsoft Word document.

This might be caused by a version incompatibility. Make sure you use a Microsoft Word version officially supported by Dragon Medical One. For more information, see: Software and hardware requirements.

 The text cursor and/or elements of the document flicker when the user dictates in a Microsoft Word 2013 document.

Follow the instructions in the Microsoft Knowledge Base article: https://support.microsoft.com/enus/kb/2768648.

• The user changed their settings in the **Options** dialog box, but the changes are not saved.

Make sure that Dragon Medical One can communicate with the Nuance Management Server; for information on the ports Dragon Medical One requires access to, see: Setting up a working system.

 An error occurs when Dragon Medical One is started: No supported audio device is available. To start Dragon, connect a device and click Refresh.

Connect a microphone the end user is allowed to use, and click **Refresh**.

In a virtual desktop/application environment, make sure the connected microphone is set as the default device in Microsoft Windows on the end point.

In a virtual desktop/application environment, make sure the Nuance custom audio channel has been deployed on the client end point and on the virtual server hosting the application.

Dragon Medical One shuts down unexpectedly; no error message is displayed.

Collect the crash dump (location: %APPDATA%\Nuance\SoD\) and send it, along with an error report if possible, to Nuance Technical Support for analysis.

 The ClickOnce deployment of Dragon Medical One does not update automatically when pinned to and launched from the task bar.

Launch the ClickOnce Dragon Medical One application from the Windows **Start** menu. Make sure you do not start the ClickOnce Dragon Medical One application by running SoD.exe.

• A message is displayed when the user opens the personalization and help window: The help needs to be refreshed. Please close and open it again.

In the **Internet Options**, make sure that cookies are enabled for the corresponding users/machines. If your organization works in virtualized environments, this setting must be applied to the virtual server.

 The user cannot dictate at the cursor in applications based on Windows Presentation Foundation (WPF) TextBox class text controls.

Make sure to enable WPF support from the command line. For more information, see: Enabling and disabling WPF support from the command line.

• The user cannot switch the speech focus between applications running at the same time in a Citrix environment.

Launch the FarmTWIHelper - Seamless Configuration Helper Tool on the Citrix server where the issue occurs and make sure to deselect all the settings (do not change the **Disable Active Accessibility Hook (0x4)** setting). Restart the server before starting Dragon Medical One. For more information on how to use the helper tool, see https://support.citrix.com/article/CTX115146