Magentus

CRIS Augnito

User Guide

Table of Contents

Copyright

© Magentus 2023

Registered Office: 3rd Floor i2 Mansfield, Hamilton Court, Oakham Business Park, Mansfield, NG18 5FB

These materials are or comprise restricted and proprietary confidential information of Magentus. Disclosure to or use by the recipient shall not convey any intellectual property rights in these materials. The right to use these materials by the recipient is subject to restrictions and limitations contained in the Provision of Integrated Care Record System and Associated Services Agreement and related agreements.

Confidentiality

All information in this document is provided in confidence for the sole purpose of adjudication of the document and shall not be used for any other purpose and shall not be published or disclosed wholly or in part to any other party without Magentus prior permission in writing and shall be held in safe custody. These obligations shall not apply to information which is published or becomes known legitimately from some source other than Magentus. Many of the product, service and company names referred to in this document are trademarks or registered trademarks. They are all hereby acknowledged.

Introduction

Purpose

The purpose of this document is to describe the configuration and functionality associated with using the Augnito Speech recognition with CORE CRIS 2.12.12 and above.

Audience

This document is intended to be used by IT departments, RIS / PACS Manager and Reporting Clinicians implementing or using Augnito Speech recognition.

Document Control

Title	Configuration and use of Augnito in Core CRIS		
Owner	Magentus Training Manager	Date Created	29/09/2022
File Reference	CRIS_CRIB_VR_410_Augnito_User_Guide_MAG_D4.0.docx		
Product Version	2.12.12		
Change History			
Issue	Date	Author	Details of Change
D1.0	29/09/2022	Emma Brown	Draft Issue
D2.0	03/10/2022	Emma Savage-Mady	D2.0 with comments for review
V1.0	21/11/2022	Emma Savage-Mady	1st release
V2.0	23/01/2023	Emma Savage-Mady	2nd release to incorporate Microphone Best Practice.
D2.2	03/03/2023	Emma Brown	New functionality.
V3.0	13/03/2023	Emma Savage-Mady	3rd release based on new functionality released via 2.12.12
D3.1	20/03/2023	Emma Brown	New images for interrupted text.
V3.1	24/03/2023	Emma Savage-Mady	3.1 release.
V4.0	10/11/2023	Christine Anthony	Rebranded to Magentus.
Reviewed by		Date	
Authorised by		Date	
Review Date			

Setting Up Augnito

Key Facts

Augnito Speech recognition from Scribetech, is a cloud-based AI speech recognition engine with integrated medical vocabularies to enable you to start dictating instantly with minimal set-up and eliminating the need to train and maintain a user profile.

Augnito works differently to Dragon in that speech is passed via the central, cloud-based AI recognition engine for better recognition in context to the words dictated. In real terms this means that complete sentences do not appear until you reach a natural break in speech – i.e. Pause in speech, dictate a comma, dictate a full stop, dictate stop dictation or click the dictation button.

This is different to Dragon where words appear in real time as the processing is done on your local PC, but often then requires more correction and training.

This takes a little getting used to but once you have adapted to a slightly different way of working, most users report much higher levels of accuracy in comparison to Dragon.
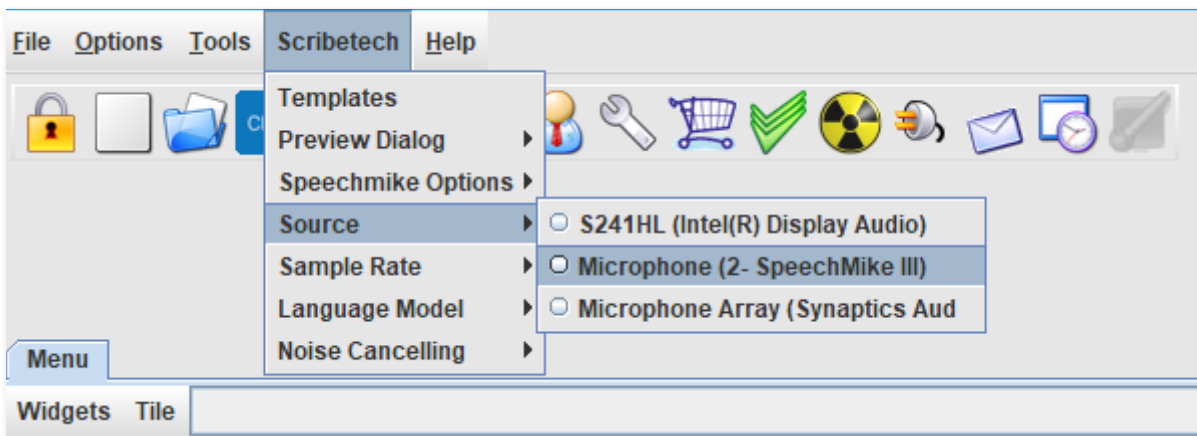
Getting Started

Selecting a Dictation Source (Microphone)

1. Begin by choosing your Dictation Source (Microphone). You may use a headset, SpeechMike, or internal mic.

   Please note: If you charge your phone via USB on your workstation this will also be seen as an available mic.

2. Click **Scribetech** > **Source** and select the required microphone from the list of connected devices.
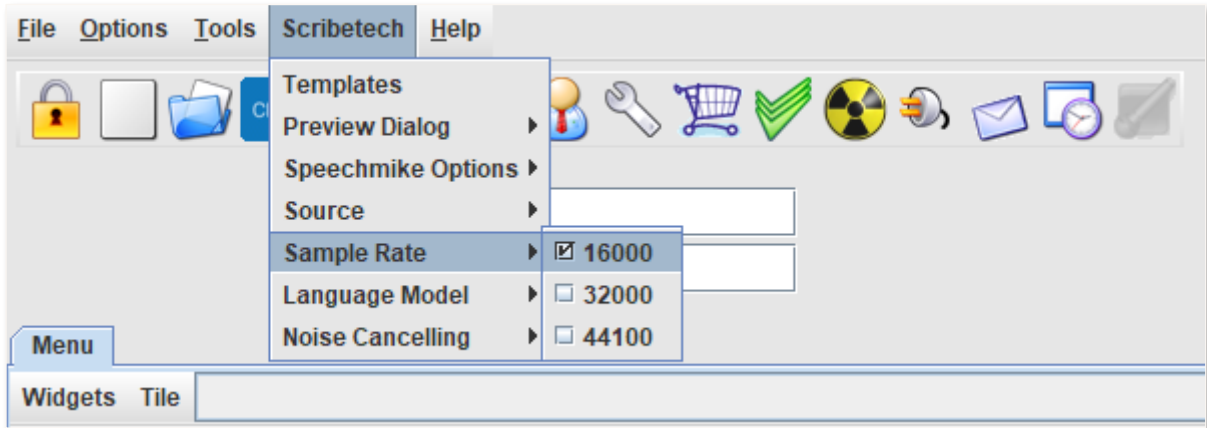
Heading Choose a Sample Rate

Sample rate is the number of sound samples recorded per second. A higher sample rate provides better quality samples for Augnito to process but requires more bandwidth to transmit. The default of 16,000 should be sufficient for speech recognition.

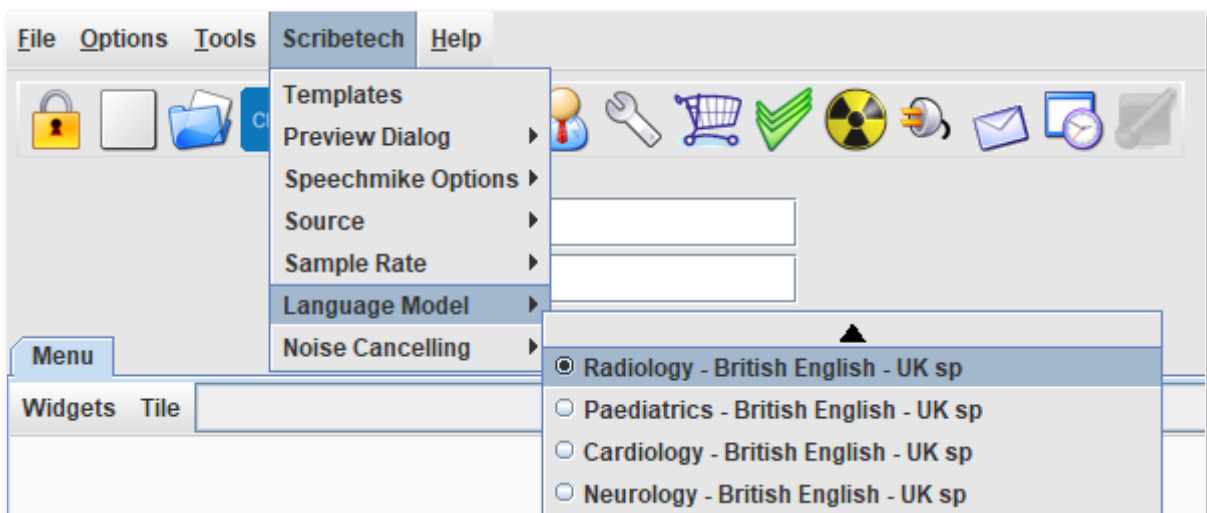1. Click **Scribetech** > **Sample Rate** and select the required rate – i.e. 16000.

Please note: The higher the number the more network / internet bandwidth is required.

Choose a Language Model (Vocabulary)

Choose a language model (dictionary) to help Augnito recognise words you are likely to use.

1. Click **Scribetech** > **Language Model**.

2. Select your required Language Model – please note there are a number of **Radiology** variants to allow for UK or US Language Models as well as dialect.
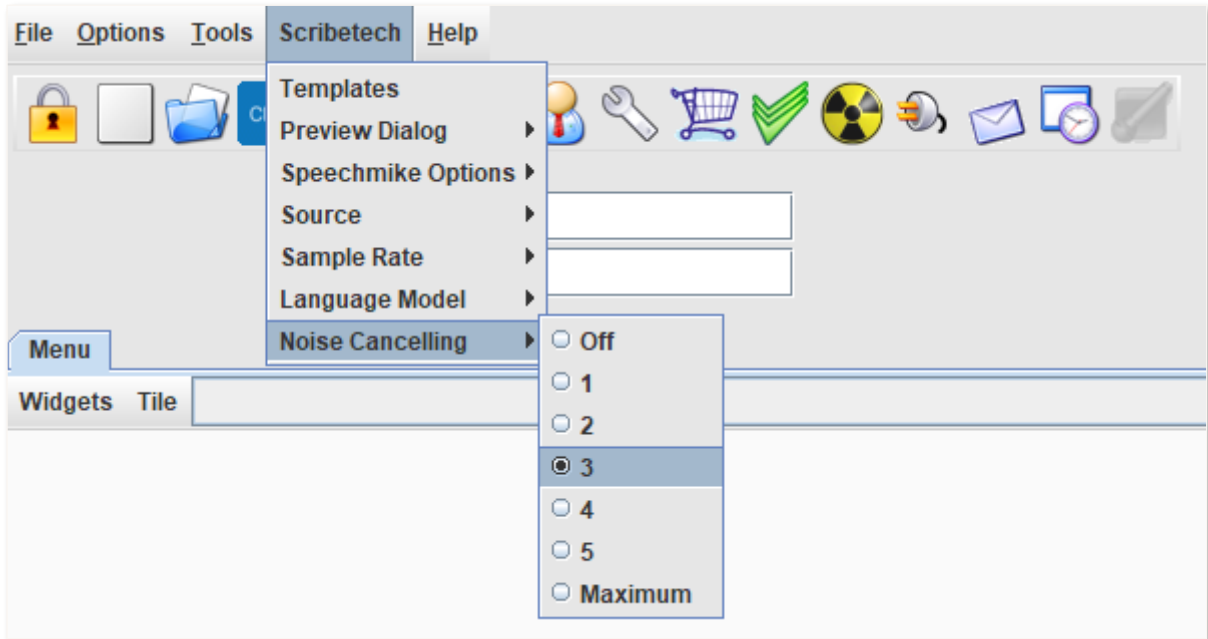
Apply Noise Cancelling

Noise cancelling reduces the microphone's sensitivity to background noise. Most users will not need to use noise cancelling. Some microphones have in-built noise reduction. Apply noise cancelling when using Augnito in a noisy environment - a room with people; printers; or other background noise.

Select **Scribetech** > **Noise Cancelling** and select a number.

Speechmike Options

Speechmike options have been developed to enable the user to choose how they want the record button on the Speechmike to function.
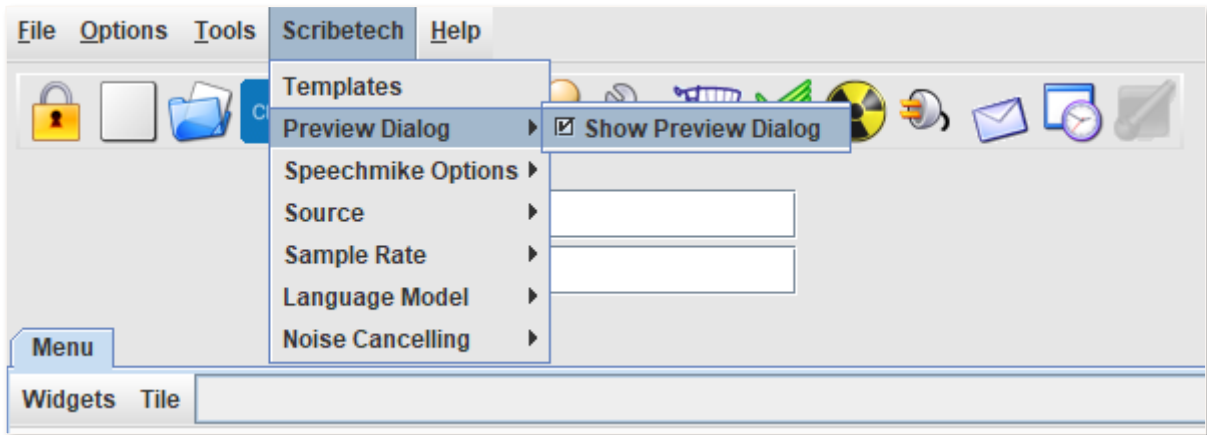
Record Toggles Mic	**RECOMMENDED** - Use this option to press the record button once to start dictating and again to stop dictating.
Push to Record	**NOT RECOMMENDED** - Use this option to the press and hold the record button to start dictating and let go of the button to stop dictating.

Please note: If using the 'Push to Record' option, you must wait until all text has appeared on the screen before letting go of the record button.
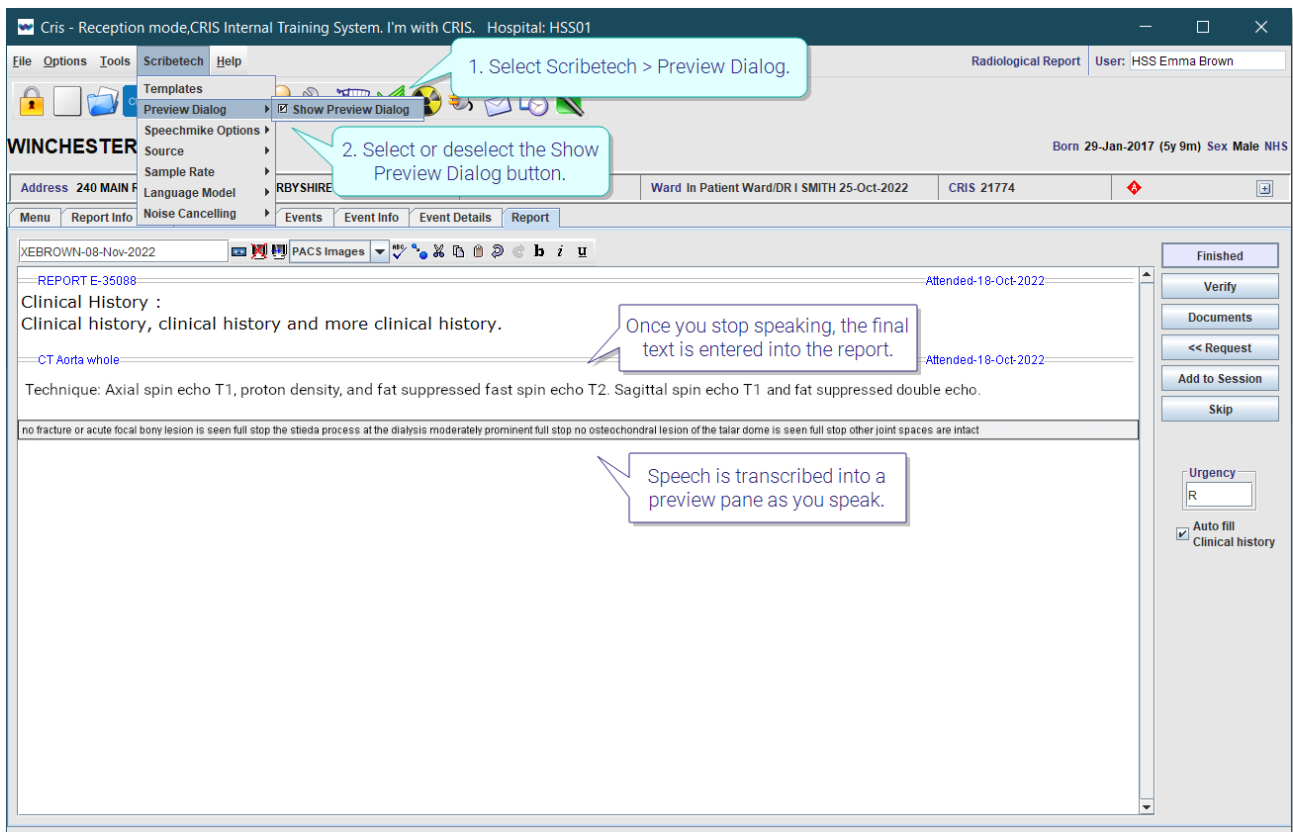
Preview Dialog

We recommend enabling speech preview via the **Show Preview Dialog** option.

Speech is transcribed into a preview pane in the report editor. The transcription is dynamic because Augnito gains context and adjusts as you speak. Once you stop speaking, the final text is entered into the report.

Reporting with Augnito

Augnito works differently to Dragon in how speech is processed into text. In Dragon speech appears as text in real time as the processing is done on your local PC.

In Augnito speech is passed via the Augnito AI recognition engine which is cloud-based meaning that text appears when you reach a natural break in speech – i.e. Pause in speech, dictate a *comma*, dictate a *full stop*, dictate *stop dictation* or click the dictation button.

Dictation Tips for an Improved Experience

- Augnito provides 99% accuracy out-of-the-box and is constantly learning from you to further improve dictation accuracy. Please take a moment to review the following recommendations on best practices to improve audio quality and dictation accuracy:

- Dictate at a natural pace and volume.

- Make sure to dictate all punctuation (full stop, comma, hyphen, etc.)

- Briefly pause before and after saying a voice command.

- Create Templates to facilitate faster reporting turnarounds.
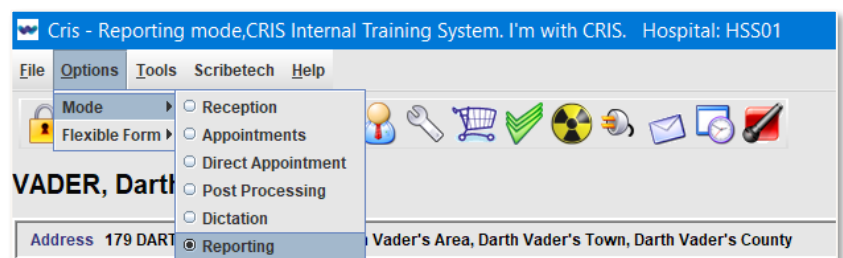
Microphone Best Practices

Please take a moment to review the following recommendations on best practices to improve audio quality and dictation accuracy:

- If using a handheld microphone: please toggle and do not push and hold to dictate.

- Simply push the record button once to start the mic, dictate and then push the button once again to switch the mic off.

- Make sure to place the cursor in the field where you want to dictate text.

- Do not switch off the mic or navigate to a new field or section before the output gets populated into the text field.

- Enable background noise suppression only if you are in a noisy environment where background voices can be picked up.

- Keep your microphone 3 - 5 inches away from your mouth for best results.

- Switch your microphone off when you are done dictating. If left on, your microphone will automatically switch off after 5 mins of inactivity.

Select Reporting Mode

Your user account settings, applied by your system administrator, allow you to view; edit; and save reports, and to use speech recognition. Modes customise CRIS so you see the right buttons and screens for your role. You can switch mode to perform different tasks.

1. Close any open patient record.

2. On the Menu bar, click **Options**.

3. Click **Mode**.

4. Click **Reporting**.

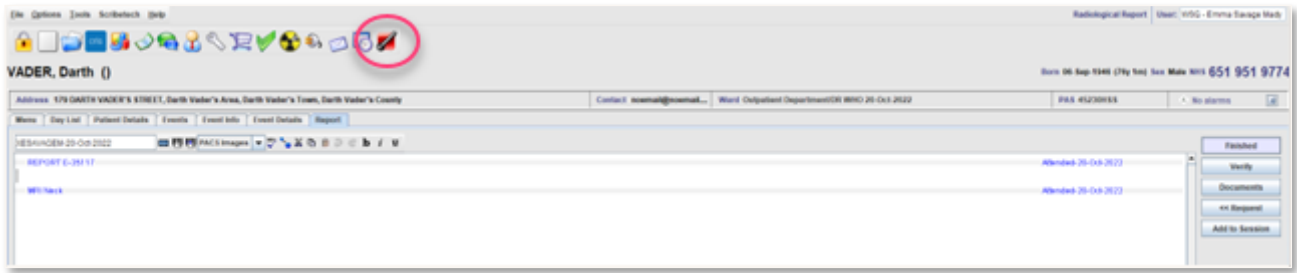Your choice of mode is saved as a user preference.

Check Augnito is available

The presence of a microphone button on the Toolbar when a patient is loaded in the CRIS Report Editor indicates that Augnito is enabled for the logged-in user. The button's colour indicates its listening state.
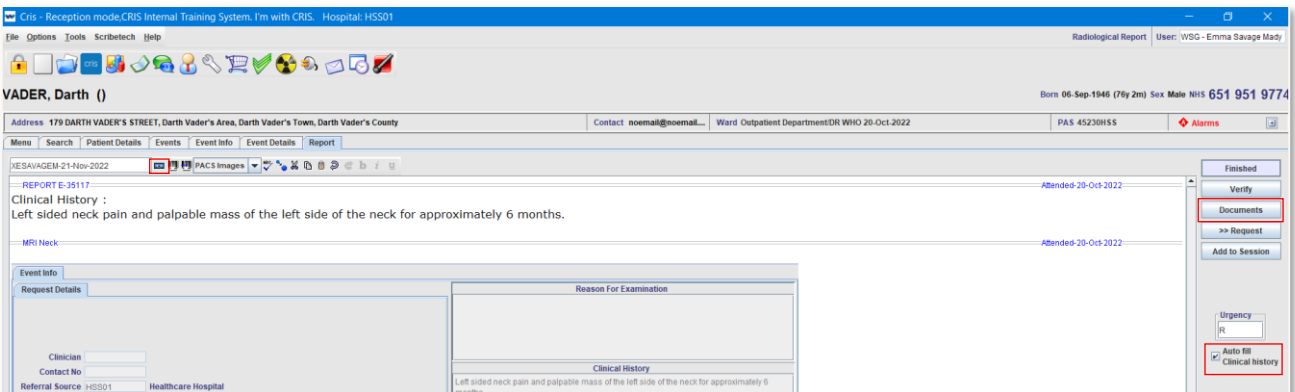
Mic button	State		Action
	Grey	Speech recognition is enabled but is not available on this screen.	Open a report.
	Red	Mic is switched off.	Click the button to switch on.
	Green	Mic is switched on and listening.	Click the button to switch off.

For example:

Set Tape Details, clinical history, and request card

1. Click the [**Tape**] button to set the **Reported By** and **Report Date** for the current session, click the icon again to confirm details.
2. If required tick the [**Auto fill Clinical history**] button.
3. If required, click the [**<<Request**] button.

Please note:

Tape Details record details of this reporting session. Add a second person.

Clinical History is entered automatically for an electronic order, manually for a paper request.

Request card - click [**<<Request**] to show either an image of the Event Details screen for an order or the scanned request card for a paper request.
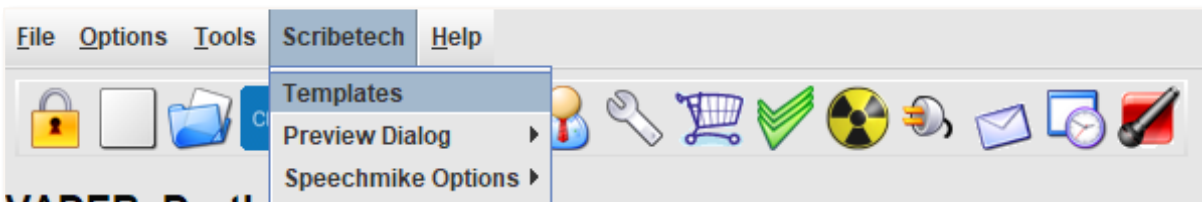
To Dictate a Report

1. Click the [**Mic**] button or use your SpeechMike based on your preference (i.e. Push to record or pressing record toggles mike on to record and off to stop recording)

2. Click to place your cursor in the '**Clinical History**' or '**Exam**' field.

3. You can use voice commands to insert the Exam title and begin reporting using the Start Report command which inserts the exam title and moves your cursor to the line below.

4. Start dictating remembering the correct text will appear after each natural pause in language.

5. Enter the report for each procedure in the appropriate exam section. It will then be sent to the corresponding image folder on PACS.

6. If you wish to write one report for all exams, put everything in the Clinical History section. This will be sent to all images folders for this event on PACS.

7. Once you have completed your report use the voice command **Verify Report** to authorise the report and send to downstream systems (i.e. PACS / PAS / OCS).
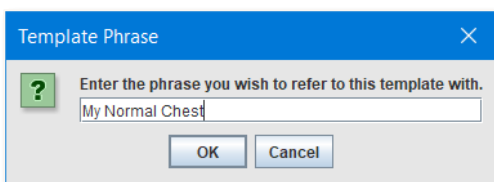
Creating Standard Report Templates

To create a report template for a standard phrase that you use frequently:

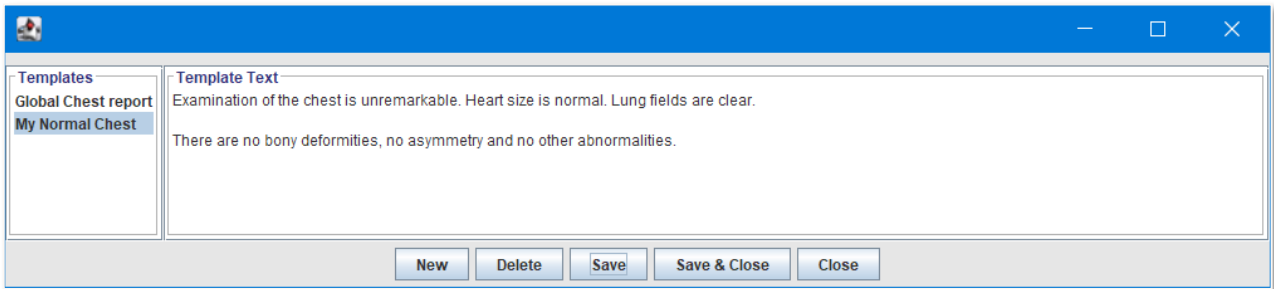1. Select **Scribetech** > **Templates**.

2. The **Templates** window opens.

3. Click the [**New**] button.

4. The **Template Phrase** window opens.

5. Enter a name that you will say to insert the phrase in future – for example: My Normal Chest

Please note: We recommend you give your commands a unique prefix to help Augnito identify them from normal speech. For example: Use My Normal Chest to distinguish a template from standard dictated report text. Alternatively, prefix Global or General Templates in the same way to improve recognition – i.e., Global Chest Report

6. Click the [**OK**] button.

7. Enter text in the '**Template Text**' field - this is what will appear in the report.

8. Click the [**Save**] button.

Create a Structured Report

You can also create structured reports using square brackets to denote variable fields in reports where much of the text is the same, but certain values differ each time. Use the voice commands NEXT FIELD and PREVIOUS field to move through the report.

Example:

Ultrasound Urinary Tract and Bladder.

The bladder is [].

Left kidney measures [] cm.

Right kidney measures [] cm.

Create a Summary Template

You can also create a summary report called **My Summary** using square brackets to create a standard output. Use the voice commands NEXT FIELD and PREVIOUS field to move through the report.

Example:

Summary:

[]

[]

[]

[]

Create a Bullet List

Another variant could be to create a template to insert bullets called **My Bullet List** using square brackets to create a standard output. Use the voice commands NEXT FIELD and PREVIOUS field to move through the report.

Example:

- []
- []
- []
- []

Create a Numbered List

Another variant could be to create a template to insert bullets called **My Numbered List** using square brackets to create a standard output. Use the voice commands NEXT FIELD and PREVIOUS field to move through the report.

Example:

1. []
2. []
3. []
4. []

Create a Signature

Use Templates to create a signature to add to the end of your reports in line with RCR guidelines called My Signature
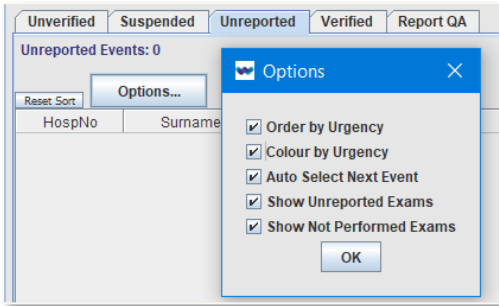
Example:

Reported by Dr J Watson

C123456

Ultrasound Department

Tel: 555 1234

Please note: It is good practice to insert a blank line at the beginning of Templates which will be used within the body of text, or at the end of a report to create space between text.

Report Info List

Auto Select Next Event in the '**Report Info List**' options menu is specifically for reporting with speech recognition. Select this option to automatically load the next event in your worklist after saving a report, without returning to the Report Info Lists screen.

CRIS will open events in the order they appear on your worklist so you may also wish to select **Order by Urgency**. Urgent events will appear at the top of the list, to be reported first.

System Administration

Augnito is a cloud-based service. No software has to be installed locally. CRIS just needs to be configured to enable access to the service. There are no user profiles or individual dictionaries, therefore no ongoing maintenance.

System Requirements

Augnito should only be used in conjunction with CORE CRIS versions 2.12.12 or above.

Hardware

Hardware	Recommended
Internet connection	Essential. A minimum of 256 kbps bandwidth is required for the audio stream. The Augnito speech recognition service is a SaaS cloud-based voice-AI technology. It requires an externally facing internet connection to this service. A minimum sampling rate of 16 kHz for streaming audio is required. Automatic internet bandwidth monitoring, and notification, to ensure the connection quality required is maintained. A raw audio stream at 16 kHz needs a minimum 256 Kbps connection speed. The maximum supported sampling rate is currently 44.1kHz for streaming audio.
Sound card	Philips SpeechMike has an integrated sound card.
RAM	Minimum requirements to run Windows 10 and Chrome.
CPU	Minimum requirements to run Windows 10 and Chrome.
DVD-ROM drive	Not required.
Audio device	Augnito supports any speech recognition quality microphone, SpeechMike or headset. Our current integration is based on Philips Speechmike LFH3200. If your device is an earlier version, update to the latest version of firmware.

Software

Software	Supported
Operating systems	Windows 10
Web browser	Chrome
CRIS	CORE CRIS 2.12.10 and above
Other Software	Philips SpeechMike Device Control Software

Storage Space

Storage space is not required unless you want to install Philips Speech Control which is 12.5 MB.

System Configuration

Augnito does not require any client installation but will require the following configuration via the CRIS system.

XR Settings

1. Click **Tables Setup** 🔧
2. Select **System** > **XR Settings**.
3. Filter the list by entering *Augnito* in the '**Filter**' field.
4. Click to select a setting.
5. Enter the following values to configure Augnito integration with CORE CRIS:

Level	Setting	Value
XRTR.YOURTRUSTCODE	VOICE.AugnitoAccessKey	Wellbeing Software will provide values.
	VOICE.AugnitoAccountCode	Wellbeing Software will provide values.
	VOICE.AugnitoManageURL	https://uk.apis.augnito.ai/manage/v2
	VOICE.AugnitoStreamingURL	wss://uk.apis.augnito.ai/v2/speechapi

6. Click the [**Save Changes**] button.
7. Close and reload CRIS for the system for the changes to take effect.

User Preferences

1. Click **Tables Setup**
2. Select **People** > **Staff**.
3. Search for the required user by entering text in the '**Search**' field and press [**Enter**].
4. Click to select the required user account.
5. Click to select the Preferences tab.
6. Right-click on the **Preference** column header.
7. Click **Add preference**.
8. Click the blank preference and enter **VOICE.AUGNITO** in the **Preference** column.
9. Click the blank value column and enter the **user's email address** in the **Value** column.
10. Click the [**Save**] button.

General	Preferences	IButtons	Roles	
Preference			Value	
VOIVE.AUGNITO			emma.savage-mady@magentus.com	

Please note: You cannot configure Augnito for your own account – i.e., Logged-in user. Ensure any changes are made using a different account.