Honeywell

Release Notes
Honeywell Development Kit 2.1

February 25 2025

Verifying Download Files

The release files for Honeywell Development Kit (DevKit) 2.1 are zip files signed with a certificate. This allows a user to verify the files they download have not been modified. After downloading the files, use the process below to verify authenticity before unzipping the files.

1. Java JDK (version 1.8 or newer) must be installed.

2. Execute the jarsigner executable against the file to verify. Example:
   jarsigner –verify Honeywell-DevKit–2.1–signed.zip

Code Changes

Changes to code, including breaking API changes, can be found in the CHANGELOG.md file in the devkit directory, included in the DevKit zip file. Some of these changes are also included later in this document.

New Features in Honeywell DevKit

Development Environment

Microsoft Visual Studio for Mac is no longer supported, as Microsoft has retired this product.

All development must be done using Visual Studio on a Microsoft Windows machine. Mac users may remote into a Windows machine to support Visual Studio.

.NET 8.0 Support

A700x devices now support vads created using .Net 8.0. The A700x must have VoiceCatalyst 4.7.1 ECS0012 or greater.

> **NOTE**
> If a vad is built with .NET 8.0 and loaded to an A700x without a supported version of VoiceCatalyst, a error message is is played to the user and written in the log: "Application is incompatible with runtime".

VoiceConsole Feature Compatibility

The following features have been added for Android devices to support features currently available on the A700x.

Call Home

A VoiceConsole Call Home feature has been implemented so Android devices can check for action items, such as a request to start or stop logging, display dialog, and operator messages. The implementation of this feature depends on the VoiceConsole deployment used.

VoiceConsole SaaS Deployment

Added a call home feature for VoiceConsole SaaS deployment where the device calls the VoiceConsole instance periodically to check for any action items. The interval can be configured via the VoiceConsoleCloudPeriodicPollingInterval parameter. The default is 120 seconds. The range is 60 to 120 seconds

VoiceConsole On Prem Deployment

Added a call home feature so the device can listen to VoiceConsole on a given port (9447) for an action item and respond accordingly.

Display Dialog

The VoiceConsole Display Dialog feature has been implemented for Android devices.

A700x Beep Interval

When using the original pattern, the A700x beep interval can be configured in a vad using latencyFeedbackInterval.

Config Changes

Revised *ConfigurationDataService* to update *ConfigRepository* instances automatically using the *SaveConfigs* method rather than one item at a time using the *SaveConfig* method. If an event is added

for a added an event handler for a *ConfigRepository* subclass *ConfigChangedEvent*, be aware that in a single call with many changed items may replace one call per changed item.

Phonetic Substitution

When creating a task package in VoiceConsole, the list is displayed with the longer phrases first.

Toggle Voice Overflow Menu Items

Voice overflow menu items Report Problem, Noise Sample, Faster and Slower can be toggled between enabled or disabled in the VoiceAndAudioConfig repository.

TTS Updates

- The EN-GB embedded TTS now uses the same female voice as VoiceCatalyst.
- Other TTS NuGets are updated to match the latest version of embedded TTS NuGet.

Log Files

- For A700x a new setting is added to log error codes when an error occurs during the application execution. The "ShowErrorCodes" setting in the associated *WorkflowDTO* class controls this behavior. For example, see the *LAppVoiceCatalystWorkflowDTO* class.
- For Android devices, a Delay Comma feature is added to print the speech-to-speech delay number in logs.

    Example output in log file:

    ```
    Delay,900,EndCodeEntry1,EndCodeEntry2,tasks,{Tasks,Tasks}
    ```

    Interpreting log message:
    - **900**: Time in milliseconds from the end of the user speaking the last word of the utterance until the beginning of the resulting prompt is output.
    - **EndCodeEntry1**: Name of the dialogue where the last word was recognized.
    - **EndCodeEntry2**: Name of the node where the message originated.
    - **tasks**: Recognized word or vocabulary.
    - **{Tasks,Tasks}**: Spoken message in response to the user's previous input.

Additional Changes

- Android 13 adds a permission check for PostNotifications when the foreground service creates a communication channel. Denying this permission displays the *Text_DeniedPermissionsRationale* RESX key and a list of the denied privileges. The RESX key has been changed to the following:

  - **Old Value**: Please grant the requested permissions to use this application.

  - **New Value**: Please grant the requested permissions to use this application. Press "Ok" to advance to the next screen. On this screen, hit "Next" to reprompt permissions. If the permissions do not reprompt after hitting "Next", you must uninstall and reinstall the application. The following permissions were denied:

- The *Text_PermissionsRationale* RESX key has been changed to include that notification access is required:

  - **Old Value**: Microphone, camera, and storage access are required to use this application.

  - **New Value**: Microphone, camera, notifications, and storage access are required to use this application.

- There is a new splash screen for devices running on Android 12 or above. This splash screen contains a light gray background with a red H mark logo. Devices running on Android 11 or lower will still see the original splash screen with the Honeywell text logo.

- Added log message "App is in restricted standby mode" when app is put into Restricted Standby Mode for devices running Android 13 or newer.

- Beginning with DevKit 2.0, a new standby screen is displayed when the Bluetooth headset is disconnected at any point in the workflow and Speech Recognition is enabled. The screen disappears when the Bluetooth headset reconnects successfully. The following localization keys were added with this feature:

  - AudioInputInitializerWorkflowActivity_Abortable_CompletedHeaderMsg

  - AudioInputInitializerWorkflowActivity_Abortable_StartedHeaderMsg

  - AudioInputInitializerWorkflowActivity_Abortable_ExceptionHeaderMsg

  - AudioInputInitializerWorkflowActivity_Abortable_CompletedSubHeaderMsg

  - AudioInputInitializerWorkflowActivity_Abortable_StartedSubHeaderMsg

  - AudioInputInitializeWorkflowActivity_NextButtonText

  - AudioInputInitializeWorkflowActivity_Header

  - AudioInputInitializeWorkflowActivity_SubHeader

  - AudioInputInitializeWorkflowActivity_Content

  - AudioInputInitializeWorkflowActivity_InitialPrompt

Localization key changes are also reflected in the localization worksheet. See Localizing the Application.

Developing with DevKit 2.0 and Later

.Net Core 3.1 supports weaker ciphers that are not supported with .NET 6 and later. This can result in SSL errors if a vad is created with DevKit 2.0 or later because .NET Core 3.1 is no longer supported.

These cipher support changes are detailed in Microsoft's .NET documentation. See https://learn.microsoft.com/en-us/dotnet/core/compatibility/breaking-changes.

Honeywell recommends upgrading the server to support the stronger ciphers. If this is not possible contact customer support for assistant.

See additional information on developing with DevKit 2.x in the DevKit help.

Issues Fixed in this Release

> **NOTE**
> Resolved issues are included in the CHANGELOG.md file in the devkit directory, included in the DevKit zip file.

Issue Description	Issue ID
Android Emulators Some Android emulators were unable to use the computer's microphone.	
PromptOnlyIntent Initializing PromptOnlyIntent with a null string caused the intent to crash rather than move on to the next state.	VOSMB-12107
Display Redrawing An intermittent issue occurred when redrawing the display when the app was restored from the background.	VOSMB-11679
A700x Mixed Language Prompts If operators with different voices or languages have been switched on the device, the resulting dialog could contain a mix of those language vocabs in the prompts.	VOSMB-11676
Pick Up & Go Not Available on 64-bit Devices The Pick Up & Go recognizer was not available on 64-bit only Android devices. This issue did not affect hybrid 32/64-bit mode. > **NOTE** > There are currently no 64-bit only devices on the supported device list for DevKit.	VOSMB-9381
VoiceNoteIntent Creating a VoiceNoteIntent without setting the Subgroup ID in the AudioCaptureProperties led to a NullReference error.	VOSMB-8947

System Requirements

The following devices and software were tested for this release of DevKit.

Minimum Android Device Specifications

- **Processor**: Qualcomm Snapdragon 410 MSM8916 1.2 GHz quad-core

- **Memory**: 2GB RAM

- **Storage**: 8GB/16GB Flash

- **WLAN**: EEE 802.11 a/b/g/n radio

- **Bluetooth**: Bluetooth Class 4.0, Bluetooth HFP (Hands-Free Profile) version 1.6

- **Operating System**: Android O (8.0)

The above are the minimum recommended device specifications. If the device does not meet or exceed these specifications, the following symptoms may occur:

- Poor audio quality

- Slow application screen responsiveness

- Delayed input entry

Hardware

The following devices were tested for this release.

Honeywell Devices

- Honeywell CT30 XP
- Honeywell CT40
- Honeywell CT40 XP
- Honeywell CT45
- Honeywell CT47
- Honeywell CT60
- Honeywell CT60 XP
- Honeywell CN80
- Honeywell CN80G
- Honeywell CK65
- Honeywell CW45
- Honeywell ScanPal EDA51
- Honeywell ScanPal EDA71
- Honeywell A700x

Third-Party Devices

- Zebra WT6000
- Zebra TC5x
- Zebra TC7x

Headsets

- Honeywell SRX-SL Light Industrial Use Headset
- Honeywell SRX2 Wireless Headset (with Hands-Free Profile support)
- Honeywell SRX3 Wireless Headset

Scanners

- Honeywell CT30 XP On-board Scanner
- Honeywell CT40 On-board Scanner
- Honeywell CT40 XP On-board Scanner

- Honeywell CT45 On-board Scanner
- Honeywell CT60 On-board Scanner
- Honeywell CT60 XP On-board Scanner
- Honeywell CN80 On-board Scanner
- Honeywell CN80G On-board Scanner
- Honeywell CK65 On-board Scanner
- Honeywell CW45 On-board Scanner
- Honeywell EDA51 On-board Scanner
- Honeywell EDA71 On-board Scanner
- Honeywell A730x On-board Scanner
- Honeywell 8670 Ring Scanner

Android Device Operating System Support

- Android O (8.1.0)
  - Honeywell CT40
  - Honeywell CT60
  - Honeywell CK65
  - Honeywell ScanPal EDA51
  - Honeywell ScanPal EDA71
- Android P (9)
  - Honeywell CT40
  - Honeywell CT40 XP
  - Honeywell CT60
  - Honeywell CT60 XP
  - Honeywell CK65
- Android 10
  - Honeywell CT40
  - Honeywell CT40XP
  - Honeywell CT60
  - Honeywell CT60XP
  - Honeywell CK65

- Android 11
  - Honeywell CT30 XP
  - Honeywell CT40
  - Honeywell CT40XP
  - Honeywell CT45
  - Honeywell CT60
  - Honeywell CT60XP
  - Honeywell CK65
- Android 12
  - Honeywell CW45
  - Honeywell CT47

Honeywell A700x Software Support

- A700x devices must support .NET 6.0. This requires VoiceCatalyst 4.6 ECS001 minimum, however VoiceCatalyst 4.7.1 ECS005 or later is recommended.

> **NOTE**
> Honeywell A700 series and A500 devices are not supported.

Management Server Support

- VoiceConsole 5.5 or later for A700x
- VoiceConsole 6.1 or later for Android device support

Issues Reported in this Release

Issue Description	Issue ID
REST Error When Switching Licensing If switching licensing from VoiceConsole to Microservices, the following REST error may be displayed in the logs: Requests cannot be sent while RESTService is disabled. **Workaround**: None needed. The application works as expected despite the error logged.	**VOSMB-12356**
Vocab Training in Wrong Language If training is started and interrupted, and a different operator signs onto the device with a different language, the new operator may be asked to train words in the original language.	**VOSMB-12318**
SSL Connection Errors .NET 6 and later do not support weaker ciphers that were supported in .NET Core 3.1. This is an item that was omitted from the breaking changes list in DevKit 2.0.	**VOSMB-12144**
VoiceConsole Site ID Android devices do not support a Site ID. If using a VoiceConsole config file from a VoiceConsole SaaS deployment, the Android devices are always imported into the default site. **Workaround**: An admin with appropriate access can move the Android devices into the desired site.	**VOSMB-11775**

Previously Reported Limitations

Issue Description	Issue ID

"Control", "Standby", "Update Train" Missing from Vocabulary

Applications using Bluestreak speech recognition without a tsi NuGet are missing "Control", "Standby", and "Update Train" from the vocabulary. The user is not asked to train these words and the user does not have access to the "Control" menu overflow items through voice.

Workaround: Add the following code to the Workflow's Module Vocab class (for example SimpleAppModuleVocab in SimpleAppBusinessLogic.cs):

VOSMB-11844

```
public override VocabWordInfo[] AndroidVocab => new[]
                                {
                                    VocabControl, VocabStandBy, VocabUp-
dateTrain
                                };
```

iOS App not Supported in Background

DevKit 2.0 does not support running the application on iOS in the background or while the screen is off. When the app is in the background, prompts and commands are not processed.

VOSMB-11147

> **NOTE**
> This defect was first found in an earlier version of DevKit. Honeywell has confirmed the issue exists at least as far back as DevKit 1.9.1.

Workaround: Running the app in the foreground is the only supported mode for iOS.

HVMA Language Not Switching Properly

In Honeywell Voice for Manhattan Active (HVMA), when a new operator is loaded using a different voice than the previous operator, the new operator may hear a mix of both languages.

VOSMB-11078

Workaround: Remove the battery and reboot the device.

Sign Off not in Overflow Menu

When Sign Off is disabled as a Vocab Word it is also removed from the overflow menu.

VOSMB-10898

Issue Description	Issue ID
Voice Input Disabled When a vocab word is disabled by pushing an ApllicationSettings.config file voice input is disabled in all workflows.	**VOSMB-10897**
Disable Vocab and Alphas English Only Disabling vocab words or Alpha by pushing an ApplicationSettings.config file is only working for English	**VOSMB-10896**
Application Scheme Labels When an ExternalResources RESX file is pushed to the device, the application scheme lists "Microservices" instead of "Enterprise Voice". **Workaround**: If "Enterprise Voice" is not present in the list, select "Microservices".	**VOSMB-10778**
Hints Hints/response instructions are expected to work reliably for digits and alphabetic characters on Android and iOS. Other vocabulary words are not expected to work as part of hints.	**VOSMB-8168**
Scanning Data Can Override Priority Prompts Priority prompts can be overridden by scanning data at a screen where scanning is a valid input.	**VOSMB-1415**
Voice Dialogue Continues to Run During Background Activity When waiting for background spinner activity to complete, speech recognition may allow the operator to use some menu items through voice, e.g., Say Again and Help.	**VOSMB-1406**
Do Not Press + and – Buttons on SRX3 Headset to Unpair When unpairing your SRX3 headset from an Android device, do not press the + and – buttons simultaneously. This procedure causes known issues with TTS and speech recognition. **Proper Procedure**: To unpair your SRX3 headset from an Android device, go to your device Bluetooth settings, display the Paired devices screen, select the headset, and tap FORGET to unpair the headset and the Android device.	**VOSMB-1448**
Pressing Power Button on SRX-SL or SRX2 Headset Causes Unpairing If you press the Power button on your SRX-SL or SRX2 headset, the headset unpairs from the device. **Workaround**: Power off the headset and re-pair your device and headset.	**VOSMB-1252**

Issue Description	Issue ID
"GatewayTimeout" error message from Microservices If the mobile application has trouble reaching the Microservices host ("GatewayTimeout") while attempting to retrieve templates it may force the user to retrain all words for that workflow. **Workaround**: If you experience this behavior close and restart the app and log in again	VOSMB-971
Do Not Press Next Button Quickly If you have untrained words and get to the template training instructions screen, if you tap the Next button in rapid succession, it can cause the application to shut down unexpectedly.	VOSMB-230
Audio to the Bluetooth Headset Can Fail In some situations, the audio no longer comes through a Bluetooth headset even though it is still paired to the device. **Workaround**: Unpair and re-pair the headset.	VOSMB-28
Errors while Transmitting Files to VoiceConsole A number of errors may appear in the device logs when transmitting logs to VoiceConsole. In spite of these errors, all log files are eventually transmitted successfully.	VOSMB-570
State Machine Recommendation Do not create a state machine where the first state goes directly into a secondary state machine and sets the next trigger for return. The app becomes unresponsive when returning from the secondary state machine and the second state never runs.	VOSMB-465