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Release Notes for Honeywell VoiceCatalyst 4.0.2

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What's in this Release

This software release includes support for the A700x series, including the A710x, A720x, and A730x. This software is only for the A700x devices.

This release addresses several issues that exist in the previous release and includes additional functionality for the A700x.

Help documentation is now available to customers online at https://help.honeywellaidc.com.

> **IMPORTANT**
> It is not recommended to downgrade from 4.0.2 to an earlier version.
> If a downgrade is performed:
>
> - If using DNS names with 4.0.2, the DNS names must be changed back to IP addresses before initiating the downgrade profile load.
> - If the downgrade process fails, reapply 4.0.2 before trying the downgrade again. This will not work in all cases.

The following issues have been resolved in this release:

- **DST:** Issues switching to Daylight Saving Time have been resolved.

  > **IMPORTANT**
  > Any customer running VoiceCatalyst 4.0.1 without an ECS installed must install this version prior to the DST change date.
  > A VoiceConsole patch must be installed to support the to change to Summer (Daylight Saving) Time at the correct hour in time zones that switch at times other than 2:00 AM (i.e.: British Summer Time which starts at 1:00 AM). See the Version Information table below.

- **Time Zones:** All time zones are supported including those offset from GMT/UTC by less than a full hour increment (i.e.: India Standard Time, which is GMT +5:30).
- **Wired Headsets:** Improvements have been made for the wired headsets. The speech-to-speech latency should be improved. If stuttering occurs, set the TTS speed to a lower level. If a portion of the last prompt is repeated continuously, the user should put the device to sleep and wake it up to recover.
- **DNS:** DNS names are now supported in the VoiceConsole URL.

- **Web Server:** Several updates have been made around the web server functionality. These updates will help with issues some are experiencing. Note that at least one issue requires a VoiceArtisan change. This VoiceArtisan update is coming at a later date.
- **Device Load:** The size of the executable files has been reduced. Changes have been made to improve profile load performance.
- **Logging:** Changes have been made to the logging component to reduce the occurrence of messages being lost when VoiceConsole logging is enabled. Log files may have shown an incorrect value for flash used in earlier versions.
- **Battery Status:** When first started, the A700x was ignoring battery status requests. The battery status is now reported in those situations.
- **ODRs:** If ODRs were not transmitted successfully prior to an A700x shutdown, those ODRs were not being transmitted in the correct order after a reboot. ODRs are now transmitted in the proper sequence.

Out of the Box

You will need the VoiceCatalyst 4.0.2 DVD as it contains these items:

- A700x VOS file
- VoiceConsole 5.0 and 5.1 patches
- Talkman Startup Tool

> **NOTE**
> Product documentation is now hosted online at https://help.honeywellaidc.com rather than being included on the DVD.

Upgrading VoiceConsole

- VoiceConsole must be version 5.0 or greater. See Version Information for details on necessary VoiceConsole patches to support the A700x. The patches are required to support licensing for the A700x series devices and to add the additional functionality required to support multiple default profiles (one per device type, i.e.: a default profile for the A700 and another for the A700x) in a site.
  - The VoiceCatalyst 4.0.2 DVD contains the necessary patches for VoiceConsole.
  - A text file is included with each patch containing installation instructions.
- An updated license file is needed to support the A700x.
  - The updated license file should be provided from customer service when an order is placed for A700x devices. If the updated license file is not available, customer support can assist.

Serial Loading Configuration to an A700x

1. Create a profile in VoiceConsole with appropriate network settings and the VOS file for the A700x included on the DVD.
2. Insert a charged battery into the A700x. It is not necessary to turn the A700x on at this time.
3. Use the Talkman Startup Tool to configure the new A700x. Details on using the tool are included later in this document.
4. A standard off-the-shelf Micro-USB cable (not provided) is required to connect the A700x to a computer.

Customer Experience

- Use the Talkman Startup Tool to load profiles. This tool's functionality replaces the **Load selected profile with cable** option in VoiceConsole. The old functionality within VoiceConsole may still work, but the new tool is the mechanism moving forward. The old functionality may be removed in future releases of VoiceConsole.
- Customers can use the same device configuration files on both A700 and A700x series devices.
- If the LED turns solid red during a profile load, remove and reinstall the battery and place the A700x back in the charger. This should allow the profile load to recover.
- The A700x series devices run with a newer version of Python which in some cases will require VAD updates. It is recommended that customers verify functionality of their VADs on A700x series devices prior to putting the devices into production.
- Client tasks that use FTP will require updates as the A700x does not support FTP.
- Not all Bluetooth peripherals are supported at this time. Please see the list of tested peripherals.
- Partners and Customers who develop their own tasks will not find a VCE specifically for this series of devices. They should continue to use their current version as used with the A700 series devices.
- Customers using SR20 (or other wired headsets) may experience output audio stuttering or stammering. This is more common if the TTS speed is set to near or at the highest speed possible. If stuttering occurs, set the TTS speed to a lower level.
- Support for applications that require the use of UNICODE characters is limited. It is suggested that customers that require this functionality test their application prior to putting the A700x series device into production.
- Customers that use the Automatic Voice Load By Operator feature must be aware of the following limitation:
  - If the operator switches between similar devices (for example, only between A700x series devices), the operator's preferred voice loads when the operator's headset is connected to the device.
  - If the operator switches between device types (from an A700 to an A700x, or vice versa), the voice associated with the loaded operator fails to load. No notification is provided to the operator that the voice load has failed after the headset is attached. The device continues to use the original voice that was loaded upon boot up. In this case, the operator can manually load their correct voice to continue normal operation.
- TouchConnect pairing is recommended for the SRX2 and SRX-SL headsets as it is faster and reduces shift start-up time.
- The following A700 functionality is not yet available for the A700x series devices:
  - EAP/LEAP
  - Sidetone
  - Supervisor Audio
- The following A700 functionality has been deprecated for the A700x series devices:
  - FTP
  - Wireless Printing
  - Pideon (display) - Honeywell recommends using a standard browser in a tablet such as an iPad®.
  - Voice Artisan's VoiceCatalyst on device.

Known Issues

- Rapid scanning may stop unexpectedly. There is no workaround for this issue. Updated software will be released to address this issue.
- The A730x scanner may not turn on when a task contains voice prompts to enable auto scan. The workaround is to restart the task.
- When using phonetic substantiation for non-English languages, multibyte characters (accented characters such as å, ä and ö , Asian font characters, etc.) can corrupt the UTF-8 files. The result may be words dropped from prompts or words spoken as if a space was inserted (dividing the single word into two words).
- Bootup time when out of network range may be longer than expected when compared to an A700 device. There may be up to a 45 second period from boot-up until the device speaks when out of range.
- Operators may encounter situations where the device will lose connectivity if they remain in a low coverage area for an extended period of time. The solution to this is to power the device off (may need to pull the battery) and then move into an area of known good coverage to reboot the device. This is planned functionality to avoid overloading networks with authentication retries.
- Rarely the SRX2 headset may disconnect and reconnect in quick succession when the headset is pairing with the A700x. Once reconnected, the SRX2 works normally.
- The A700x may restart on a graceful shutdown rather than powering off.
- The A700x may hang during shutdown in some specific scenarios. If this occurs, the workaround is to pull the battery.
- Customers should not enable/disable Bluetooth from VoiceConsole as this may cause Bluetooth on the device to go into an inconsistent state. If this happens, power cycle the A700x.
- When switching from Catalyst mode to Client mode with a wired headset connected, the A720x may stop responding. Recovery from this is to disconnect the headset and reboot the terminal.

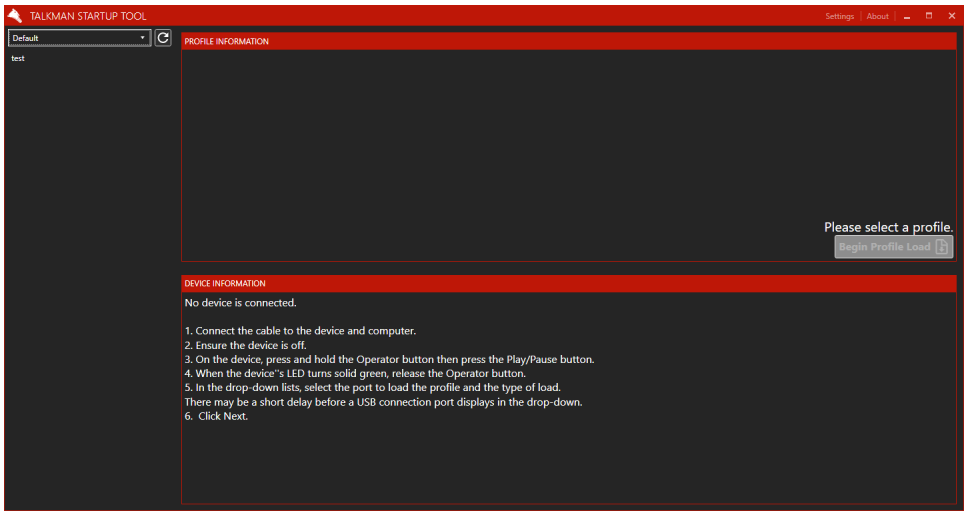
Version Information

Component	Minimum / Required Version
Platform	HLP-15.0 or later
Platform SDK	HLP-12.0 or later
VoiceConsole	Version 5.0 or later, with a license file supporting the A700x. In addition, there are patches that must be applied to VoiceConsole. • For VoiceConsole 5.0 ECS018 and ECS019 are required • For VoiceConsole 5.1 SP1 is required (ECS016 and ECS018) • For VoiceConsole 5.2 no patches are required **NOTE** A VoiceConsole patch must be installed to support the to change to Summer (Daylight Saving) Time at the correct hour in time zones that switch at times other than 2:00 AM (i.e.: British Summer Time which starts at 1:00 AM): • For VoiceConsole 5.0 ECS021 • For VoiceConsole 5.1 ECS022 • For VoiceConsole 5.2 ECS001
Client Tasks	All versions are supported
Catalyst Tasks	Some tasks may require modification due to changes in Python from 3.1.4 to 3.6.6
Customer Agent	1.5.1 or later
VoiceArtisan / VCE	All Versions / 1.2 or later - see section below for possible modifications to current tasks (Voice Catalyst Applications)
SRX2 Firmware	Tested with firmware version 3.12
SRX-SL Firmware	Tested with firmware version 5.13
Peripherals Supported	See below for a list of peripherals tested with the A700x.

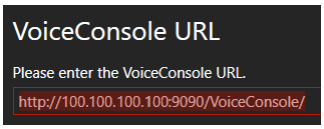
Talkman Startup Tool

Use the Talkman Startup Tool to load profiles to new devices. This section assumes:

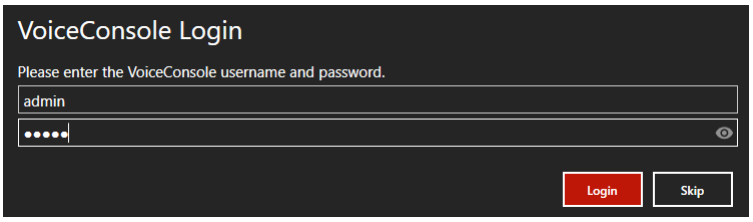
- The user has applied the specified patches to VoiceConsole.
- The user has created an appropriate profile for the A700x in VoiceConsole.



1. Copy the Talkman Startup Tool ZIP file from the DVD to your computer.
2. Extract the ZIP file.
3. Click on the EXE file to launch the Talkman Startup Tool.
4. Enter the server address of the VoiceConsole server.



5. Enter the username and password for the VoiceConsole server.



The Talkman Startup Tool reads the sites and profiles from VoiceConsole.

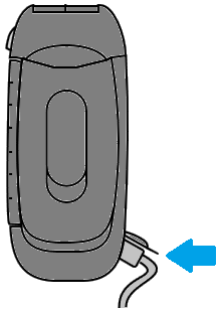
> **NOTE**
> The Talkman Startup Tool does not store the VoiceConsole password.

6. Ensure the correct site is selected from the list in the upper left of the screen.



7. The A700x must be off. Connect the device to the computer using a standard Micro-USB cable. The USB cable connects to the A700x maintenance port. This port is located under the flap on

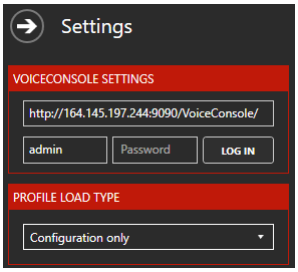
the side of the A700x next to the Play/Pause button as shown below.



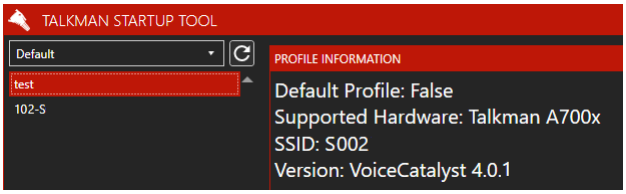
8. Press and hold the **Operator** button on the device.
9. Press and release the **Play/Pause** button .
10. When the device's LED turns solid green, release the **Operator** button.
11. When the device is recognized, the device serial number and device image are displayed.



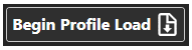
12. Open the **Settings** menu and select the profile load type. The VoiceConsole Settings will be populated with what was entered when opening the utility.



13. Select the profile to load. Information about the selected profile is displayed.

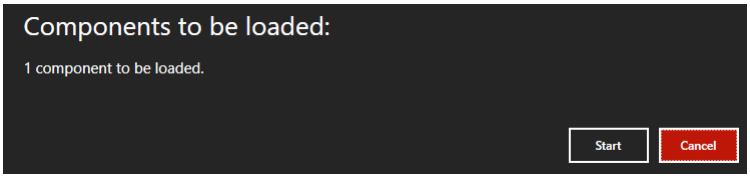


14. Click **Begin Profile Load**.



If the device type does not match the profile an error message is displayed and the **Begin Profile Load** button is not active.

15. The number of voice components to load will be displayed.



16. Click **Start**.
    The progress of the component loading is displayed.
17. When complete, the device reboots.

Operating System

The A700x features a Linux operating system.

When viewing the device config file, the parameters are formatted like this example:

```
[HKEY_CURRENT_USER\Comm\WZCTOOL]
"SSID"="network123"
"key"="Abcdef1234567890aBcdeF"
"encryption"=dword:4
"authentication"=dword:4
```

The config file format is unchanged from the A700 devices. While the entry appears in the same format as a Windows registry entry, the config file is parsed to apply the parameters to the Linux-based A700x.

VoiceCatalyst Applications

The A700x can run task packages created with any version of VoiceArtisan 1.1 or above and VCE.

Python

Since we have upgraded the Python version in A700x to 3.6, it is possible that the VAD may have been created using a Python construct that may not be compatible with the A700x and will require rework. The following are some examples that may require rework prior to a VAD being able to be run on an A700x device. Note that when making changes, it is desirable to make the changes such that the VAD would be compatible with both the A700x and A700 devices for mixed site deployments.

- Use of windows specific constructs, such as file system path separators (using "\" instead of join) when specifying system paths. The change required for this is to rework the task such that instead of using a hard-coded path separator ("\") use the Python join API. This issue exists in Vocollect core libraries and can be resolved by updating the core library. Contact customer support for update information.
- Python 3.6 will throw an error if a task defines the same LUT more than one time whereas with Python 3.1 this was not enforced. The resolution for this is to remove the duplicate LUT from the task. This issue exists in the Vocollect core library and can be resolved by updating the core library. Contact customer support for update information.

- *ElementTree.Element.getiterator*: (in _elementtree._element_iterator as _elementtree.pyd) - deprecated, iter no longer supports len
  1. Not proper usage in Python 3.1.2 either - can use list(response.iter("record")) or list (response.getiterator("record"))
  2. Used in LUT/ODR MockServer.load_server_response
     a. not used in LUT/ODR unit tests, but included in VoiceLink's test.py
- *urllib.request*: previously supported bytes and string, now only bytes (or file-like objects, or iterables) but, 3.2+ urllib.request now supports HTTPS so pycurl-only SSL is not necessary but have both urllib.request and pycurl anyway
- *zipfile.ZipFile.open*: removed support of mode='U' (used in mock_catalyst._open_vad_file (from load_task_configuration_from_vad))

Forward moving considerations

- *time.clock()*: Deprecated since 3.3, and will be removed in Python 3.8
- *array.array*: typecode 'u' for Unicode Strings will be removed in Python 4.0
  - tostring / fromstring are deprecated with no announced removal
- pycache__ directory with interpreter name vs. littering curdir with .pyc files (source control, not functional)
  - Note: Project Context Menu > Pydev > Remove *.pyc, *.pyo and *$py.class Files will not remove __pycache__ directory (it does remove the contents)

Peripherals

Bluetooth Peripherals

Pairing Bluetooth peripherals is most reliable when pairing via VoiceConsole. In addition, authentication between the device and the peripheral is required. Manual pairing of peripherals is possible in some instances (more likely if the device and peripheral are close together), but may take several attempts. Workaround is to configure peripherals to use authentication and pair them using VoiceConsole. Peripheral-specific information is included below.

Peripherals Tested with A700x

Headset Firmware

During A700x testing, the following headset firmware versions were used. All headsets should be upgraded to these versions.

- SRX2: firmware version 3.12
- SRX-SL: firmware version 5.13

Obtain the latest headset software from Honeywell or your Honeywell reseller and use the Honeywell Accessory Update Utility to upgrade your headsets.

SRX2 Headset

To pair an SRX2 headset with an A700x using TouchConnect:

1. Turn on the SRX2 headset.
2. If the headset's LED is blinking blue, it is currently paired to a device. Clear the pairing by pressing the + and - buttons simultaneously on the headset.
3. If you are sharing headsets at your site, you must first obtain the operator ID by reading the headband:
   a. Touch area of the SRX2 t-bar (headband) with the ◎ symbol to center of the raised oval on the side of the A700x with the ◎ symbol, until the device state (ring) indicator blinks green. This associates the operator's headband to the device enabling VoiceConsole to recognize the operator.
   b. Touch the side of the A700x device that has the ◎ symbol and the oval area of the SRX2's keypad section together, aligning the ovals on each and holding them together steadily, until the device state (ring) indicator blinks green. Note that there is a 30-second timeout after a headband is recognized in step one. You must pair the electronics module within 30 seconds from associating the headband for full functionality.
4. If you are not sharing headsets at your site, you only need to pair the device to the SRX2 electronics module:
   a. Touch the side of the A700x device that has the ◎ symbol and the oval area of the SRX2's keypad section together, aligning the ovals on each and holding them together steadily, until the device state (ring) indicator blinks green.

When the device starts the task, VoiceConsole recognizes the pairing.

> **NOTE**
> If TouchConnect pairing fails (the A700x device state LED blinks red), the workaround is to power off the headset and attempt to re-pair the device.

SRX-SL Headset

To pair an SRX-SL headset with an A700x using TouchConnect:

1. Turn on the SRX-SL headset.
2. If the headset's LED is blinking blue, it is currently paired to a device. Clear the pairing by pressing the **Volume Up** and **Volume Down** buttons simultaneously on the headset.
3. Touch the side of the A700x device that has the ◎ symbol and area of the SRX-SL eModule between the power button and LED together, holding them together steadily, until the device state (ring) indicator blinks green.

When the device starts the task, VoiceConsole recognizes the pairing.

> **NOTE**
> If TouchConnect pairing fails (the A700x device state LED blinks red), the workaround is to power off the headset and attempt to re-pair the device.

Serial Printers

To use a serial printer with the A720x:

1. Set the following advanced parameters in Task config
   barcodebaud = 9600

Printerport = red
2. Connect the serial printer.

Serial Scanners

To use a serial scanner with the A720x:

1. Set the following advanced parameter in Task config
barcodeport = blue
2. Connect the serial scanner.

Bluetooth Scanners

The only Bluetooth scanners tested and working with this release are the Intermec SF51 and SR61B scanners.

To use either of these scanners with an A700x:

1. Set the following advanced parameter in Task config
barcodeport = bt_scan
2. Turn on Bluetooth on the A700x.
3. Use the EasySet tool to generate a restore factory settings bar code.
4. Scan the bar code (either from onscreen or print the barcode).
If you do not have EasySet installed, instructions are included later in this document.
5. Use the EasySet tool to generate a security enabled bar code.
6. Scan the bar code.
7. View the properties of the A700x and ensure Bluetooth is enabled. If it is not enabled, click **Edit this device** and set **Bluetooth Enabled** to "enabled".
8. Select **Pair this device with a peripheral**.
9. For **Pairing type** select "Bluetooth Scanner".
10. For **Connection Mode** select "Device initiates connection with peripheral".
11. In the **Bluetooth Address** field enter the Bluetooth MAC address of the scanner. This 12-character ID is labeled "MAC ID" and is found on the side of the battery unit of the scanner.
12. For **Security** select "Enabled."
13. For **Security Key** enter four zeros "0000" or the key entered when generating the security bar code.
14. Click Pair with peripheral to initiate pairing.

EasySet Tool for Creating Pairing Barcodes for SF51 and SR61B Scanners

To download the EasySet tool:

1. Navigate to the Honeywell Technical Support Downloads portal: https://hsmftp.honeywell.com.
2. You must have an account to download software. Create an account if you don't already have one.
3. If you have not previously installed the Honeywell Download Manager, you must download and install this tool.
4. Navigate to **Software** > **Barcode Scanners** > **Software** > **Tools and Utilities** > **EasySet** > **Current**.
5. Download EasySet and install.

QTERM-G55 Training Device

The QTERM-G55 training device can be used with the A700x. Configuration is the same as with the A700. Refer to the online instructions for using the QTERM-G55.

Language Support

All languages are adjustable pitch.

Language	Voice Name	Gender
American English	American English (United States) 12	Male/Female
Arabic	Arabic (WW) 12	Male/Female
Australian English	English (Australia) 12	Male/Female
Belgian Dutch	Dutch (Belgium) 12	Female
Brazilian Portuguese	Portuguese (Brazil) 12	Male/Female
British English	English (United Kingdom) 12	Male/Female
Bulgarian	Bulgarian (Bulgaria) 12	Female
Canadian French	French (Canada) 12	Male/Female
Chinese (China)	Chinese (China) 12	Male/Female
Chinese (Hong Kong)	Chinese (Hong Kong) 12	Female
Chinese (Taiwan)	Chinese (Taiwan) 12	Female
Croatian	Croatian (Croatia) 12	Female
Czech	Czech (Czech Republic) 12	Female
Danish	Danish (Denmark) 12	Male/Female
Indian English	English (India) 12	Female
Finnish	Finnish (Finland) 12	Male/Female
French	French (France) 12	Male/Female
German	German (Germany) 12	Male/Female
Greek	Greek (Greece) 12	Male/Female
Hebrew	Hebrew (Israel) 12	Female
Hindi	Hindi (India) 12	Male/Female

Language	Voice Name	Gender
Hungarian	Hungarian (Hungary) 12	Female
Indonesian	Indonesian (Indonesia) 12	Female
Italian	Italian (Italy) 12	Male/Female
Korean	Korean (South Korean) 12	Female
Latin American Spanish	Spanish (Mexico) 12	Male/Female
Malay	Malay (Malaysia) 12	Female
Netherlands Dutch	Dutch (Netherlands) 12	Male/Female
Norwegian	Norwegian (Norway) 12	Male/Female
Polish	Polish (Poland) 12	Male/Female
Portuguese	Portuguese (Portugal) 12	Male/Female
Romanian	Romanian (Romania) 12	Female
Russian	Russian (Russia) 12	Male/Female
Slovak	Slovak (Slovakia) 12	Female
Spanish	Spanish (Spain) 12	Female
Swedish	Swedish (Sweden) 12	Male/Female
Thai	Thai (Thailand) 12	Female
Turkish	Turkish (Turkey) 12	Male/Female

Getting Help

Product documentation is available at https://help.honeywellaidc.com.

> **NOTE**
> If you purchased Vocollect equipment from a reseller, please contact the reseller.

For order placement or customer service inquiries, contact Honeywell – Vocollect Customer Service at:

Customer Service Email: acshsmvocollectrequests@vocollect.com
Customer Service Phone (US): +1-866-862-6553
Customer Service Phone (Outside the US): +1 412-829-8145

For returns or to check the status of an RMA, contact Honeywell – Vocollect Customer Service at:

Email (US): acshsmvocollectrma@honeywell.com

To report Vocollect system support incidents or related technical issues, contact the Honeywell – Technical Support Center at:

Technical Support Email: workflowsolutionsupport@honeywell.com
Technical Support Phone (US): +1 866-862-7877
Technical Support Phone (Outside the US): +1 412-829-8145

To contact Vocollect Europe, Middle East, and Africa:

Customer Service Email: acshsmvocollectcustomerservicesemea@honeywell.com
Customer Service Phone: +44(0) 1628.55.2903
Technical Support Email: workflowsolutionsupport@honeywell.com
Technical Support Phone: +44 (0) 1628.55.2902

For sales or any other inquiry, please contact Vocollect at ACSHSMVocollectInfo@honeywell.com or 412.829.8145.

Honeywell
Vocollect Solutions
703 Rodi Road
Pittsburgh, PA 15235-4558 USA
Phone +1 412-829-8145
Fax +1 412-829-0972
ACSHSMVocollectInfo@honeywell.com
www.vocollect.com
info@vocollect.com

Honeywell
Vocollect Solutions Europe
Gemini House
Mercury Park
Woodburn Green
High Wycombe
United Kingdom

HP10 0HH UK
Phone: +44 (0)870-600-8255
Email: ACSHSMVocollectEMEA@honeywell.com

Honeywell
Vocollect Solutions Japan
New Pier Takeshiba South Tower 20F
1-16-1 Kaigan, Minato-ku,
Tokyo 105-0022, Japan
Phone: +813 6730-7234
Fax: +810 3769-5608
Email: vocollect.japan@honeywell.com

Honeywell
Vocollect Solutions Asia-Pacific
2903 Sino Plaza, 255-257 Gloucester Road
Causeway Bay
Hong Kong
Phone: + 852 3915-7000
Fax: + 852 3051-8209
Email: ACSHSMVocollectAsiaPacific@honeywell.com

Honeywell
Vocollect Solutions Latin America
North: +52 55-5241-4800 ext. 4915
South: +1 412-349-2477
Email: ACSHSMVocollectLatin_America@honeywell.com

Honeywell
Vocollect Solutions Singapore
151 Lorong Chuan
#05-02A/03 (Lobby C)
New Tech Park
Singapore 556741
Main Phone: +65 6303-2100
DID: +65 6305-2369
Email: ACSHSMVocollectsingapore@honeywell.com

Third Party Software

The information for software packages included in this version of VoiceCatalyst are located at https://help.honeywellaidc.com/Content/ThirdPartyLicenseAgreements.htm.

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Patents

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