

Enterprise Browser

for Honeywell Computers powered by Android™

User Guide

Disclaimer

Honeywell International Inc. ("HII") reserves the right to make changes in specifications and other information contained in this document without prior notice, and the reader should in all cases consult HII to determine whether any such changes have been made. The information in this publication does not represent a commitment on the part of HII.

HII shall not be liable for technical or editorial errors or omissions contained herein; nor for incidental or consequential damages resulting from the furnishing, performance, or use of this material.

This document contains proprietary information that is protected by copyright. All rights are reserved. No part of this document may be photocopied, reproduced, or translated into another language without the prior written consent of HII.

Android is a trademark of Google Inc.

©2017-2019 Honeywell International Inc. All rights reserved.

Other product names or marks mentioned in this document may be trademarks or registered trademarks of other companies and are the property of their respective owners.

Web Address: www.honeywellaidc.com

Other product names or marks mentioned in this document may be trademarks or registered trademarks of other companies and are the property of their respective owners.

Patents

For patent information, please refer to www.hsmpats.com.

TABLE OF CONTENTS

Chapter 1 - Customer Support	
Technical Assistance	1
Product Service and Repair	
Limited Warranty	
	····· 4
Chapter 2 - Get Started	
About Enterprise Browser for Android	4
Supported Computers	
Limitations	
About Enterprise Browser Licensing	4
About Upgrades	
About Demo Licenses	
How to Identify the Active License Type	
About Intermec License Manager	
Install Enterprise Browser on Your Computer	
Start Enterprise Browser	
About the Action Bar	
Action Bar Features	
	9
About the Advanced Action Bar	9
About Multiple Windows	
Show Whitelisted URL to End User	9
How to Exit Enterprise Browser	
Exit Enterprise Browser from Multiple User Mode	
Exit Enterprise Browser from Single User Mode	
View the About Screen	
Chapter 3 - Set Up User Profiles	
Set Up User Profiles for Enterprise Browser	
Start Honeywell Launcher for Android	
Configure the User Profile	
Configure the Whitelist	13

Configure Enterprise Browser to AutoRun	14
Reboot the Mobile Computer	14
Chapter 4 - Configure Enterprise Browser	
How to Scan Bar Codes from Enterprise Browser	16
How to Control the SIP in Your Application	
How to Configure Enterprise Browser	
Configuration	
App Cache Path	
Geolocation Database Path	
Enable Exit Password	
Exit Password	
Function Keyboard	
Auto-hide Function Keys	
Block Pop-ups	
Load Network Images	
Pull to Refresh	
Media	
Back Button Remap	
Back Long Press Remap	
Text Encoding	
Enable Geolocation	
Location Access	
Location Mode	
Security	
Enable JavaScript	20
Do Not Track	
Handle SSL Errors	20
Accept Cookies	
Accept File Scheme Cookies	
Clear Cache	21
Clear All	21
Appearance	
Desktop View	21
Auto-fit Pages	21
Action Bar Mode	22
Hide System Bar	22
Select System Bar	
Portals	
Enable (Portal)	
Display Name	
Homepage	23

Enable Zoom	23
Zoom Controls	24
Initial Scale	24
Use Wide View Port	24
Min ViewPort Width	24
Text Scaling	24
Minimum Font Size	24
Default Font Size	24
Advanced	25
Enable Enhancement	25
Search Engine	25
Whitelist URLs/ Domain	25
Homepage	26
Rule Set	
Switch Portal	
Enable Zoom	
Zoom Controls	
Text Scaling	
Minimum Font Size	
Default Font Size	
Reload Webpage	
Restore Default Settings	
How to Configure Multiple Mobile Computers	
Copy the HoneywellLauncher.xml File to Your PC	
Copy the EnterpriseBrowser.xml File to Your PC	
Configure Multiple Mobile Computers	
Chapter 5 Troublachest Enterprise Provest	31
Chapter 5 - Troubleshoot Enterprise Browser	
Problems and Possible Solutions	32
License Errors	
License Error Messages	
Appendix A - Miscellaneous Information	
AutoRun via HoneywellLauncher.XML File	
Enterprise Browser and Older Operating Systems	
Requirements	
Install Enterprise Browser for Android on a CT50	
Install Enterprise Browser for Android on a Dolphin 75e	37
Purchasing Licenses	
Licenses of Third Party Software	

CHAPTER

CUSTOMER SUPPORT

Technical Assistance

To search our knowledge base for a solution or to log in to the Technical Support portal and report a problem, go to www.hsmcontactsupport.com.

For our latest contact information, see www.honeywellaidc.com/locations.

Product Service and Repair

Honeywell International Inc. provides service for all of its products through service centers throughout the world. To obtain warranty or non-warranty service, return your product to Honeywell (postage paid) with a copy of the dated purchase record. To learn more, go to <u>www.honeywellaidc.com</u> and select **Service & Repair** at the bottom of the page.

Limited Warranty

For warranty information, go to <u>www.honeywellaidc.com</u> and click **Get Resources > Product Warranty**.

GET STARTED

This chapter introduces the Enterprise Browser for Android application and includes these sections:

About Enterprise Browser for Android

Start Enterprise Browser

View the About Screen

About Enterprise Browser for Android

Enterprise Browser for Android is a locked-down enterprise Web client application designed for Honeywell Android computers. It provides a controlled Web application environment that helps enterprises increase productivity and reduce IT management expense. You can Configure Enterprise Browser for your specific application requirements, and you can design your own Web applications to run through Enterprise Browser to provide your users with an easy-to-use experience.

To restrict access to a limited set of applications, use Enterprise Browser in conjunction with Honeywell Launcher for Android. Use Launcher for Android to Set Up User Profiles. For more information on Launcher for Android, see the Launcher for Android User Guide available at www.honeywellaidc.com.

For samples and tips on how to program bar code readers or how to print labels and receipts, see the Honeywell SDK for Web available from www.honeywellaidc.com.

Supported Computers

The following computers support Enterprise Browser as part of Enterprise Client Pack (ECP):

- Dolphin 75e Handheld Computers powered by Android 6.0
- Dolphin CT50 Handheld Computers powered by Android 6.0
- CN75/CN75e Handheld Computers powered by Android 6.0
- CK75 Handheld Computers powered by Android 6.0
- CN51 Handheld Computers powered by Android 6.0
- CT60 Handheld Computers powered by Android 7 or higher
- CN80 Handheld Computers powered by Android 7 or higher

The following computers support earlier versions of Enterprise Browser for Android. For information on installing previous versions of Enterprise Browser for Android on the computers listed below, see Enterprise Browser and Older Operating Systems:

- Dolphin 75e Handheld Computers powered by Android 4.4
- Dolphin CT50 Mobile Computers powered by Android 4.4

Limitations

For the Dolphin 75e, Enterprise Browser permits limited, locked-down functionality, but does not lock down other applications.

About Enterprise Browser Licensing

Using Enterprise Browser requires an application license.

If a demo version of the Enterprise Browserapplication was preinstalled on your Honeywell computer, you need to purchase an application license to use Enterprise Browser once the demo period (60 days) has expired.

If a licensed version of the Enterprise Browser application was preinstalled on your Honeywell computer, you do not need to purchase an application license to use Enterprise Browser.

If Enterprise Browser was not preinstalled on the computer, you need to install the application and purchase an application license to use Enterprise Browser once the demo period (60 days) has expired. See Purchasing Licenses for details.

If you are upgrading your system from Android 4.4 to Android 6.0, you do not need to re-install the license. The license installed for Android 4.4 will work for Android 6.0.

About Upgrades

To upgrade Enterprise Browseron the computer, you must have a valid application license and an active maintenance license installed. Application licenses include one year of maintenance upgrades starting from the time the license is activated. Maintenance must be renewed before the end of the first year or before the current maintenance license expires, failing which a new application license must be purchased for utilizing any application upgrades.

About Demo Licenses

After you install Enterprise Browser, the application runs in demo mode for 60 days, or until you purchase an application license.

After 60 days, a license expired message box appears informing you the free trial period has come to an end. Select OK to dismiss the message and close the application.

For information on purchasing and installing licenses, see Purchasing Licenses.

How to Identify the Active License Type

If a license is active on the Honeywell computer, you can identify the license type from the About screen in Enterprise Browser.

To View License Information

- 1. Open the Enterprise Browser app.
- 2. Touch the three dots in the upper right corner.
- 3. Select **About**. The license type is identified in the Type field and in the extension of the Feature name.
 - a. Clientpack.d.demo The ".d.demo" extension indicates a demo license.
 - b. Clientpack.d The ".d" extension indicates a permanent application license.
 - c. Clientpack.maint.d The ".maint.d" extension indicates a maintenance license.

About Intermec License Manager

You can use the Intermec License Manager (ILM) to download and distribute your Enterprise Browser licenses.

To Download Intermec License Manager

- 1. Go to www.honeywellaidc.com.
- 2. Select Get Resources > Downloads> Software.
- 3. Click on the Technical Support Downloads Portal link, https://hsmftp.honeywell.com.
- 4. Create an account if you have not already created one. You must login to download the software.
- 5. Install the *Honeywell Download Manager* tool on your PC prior to trying to download any files. The link for the Honeywell Download Manager is located in the Note above the software tree.
- Locate the Intermec License Manager in the Software directory: Software > Software and Tools > Emulator Browsers and Tools > License Manager > Current
- 7. Select **Download**. Follow the prompts to download the application.

Install Enterprise Browser on Your Computer

The Enterprise Browser application is part of the Enterprise Client Pack (ECP) software bundle. The ECP bundle installs three applications on the computer: Enterprise Browser, the Enterprise TE application, and Launcher for Android. If ECP did not come preinstalled on the computer, you can download the software bundle from www.honeywellaidc.com. . ECP is supported for Android 6.0 and later. For computers running an earlier version of the Android operating system, see Enterprise Browser and Older Operating Systems.

For a list of prerequisites for each device, refer to the software release notes.

- **Note:** Before attempting to download and install software, see Supported Computers and About Enterprise Browser Licensing
- **Note:** If you are installing Launcher on a Dolphin CT50 or Dolphin 75e running Android 6.0, use the Enterprise Client Pack (ECP) package instead of the Honeywell Launcher single installation. The ECP package installs Launcher, Browser, and TE on your computer.
- **Note:** If you are upgrading or downgrading Launcher from a previously installed version with a .zip file, the Launcher installation file must have a different name than the previously installed version. If the file does not have a different name, the installation will fail.
- **Note:** The computer must have power for the entire length of the installation process or it could become unstable. Do not attempt to remove the battery during the process.

To Download ECP

- 1. Go to www.honeywellaidc.com.
- 2. Select Get Resources > Downloads > Software.
- 3. Click on the *Technical Support Downloads Portal* link, https://hsmftp.honeywell.com.
- 4. Create an account if you do not already have one. You must login to download the software.
- 5. Install the *Honeywell Download Manager* tool on your PC prior to trying to download any files. The link for the Honeywell Download Manager is located in the Note above the software tree.
- 6. Navigate to Software > Software and Tools > Emulators Browswers and Tools
 > Enterprise Client Pack.
- 7. Select the Enterprise Client Pack (ECP) software bundle for your device.
- 8. Select **Download**. Follow the prompts to download the application.

To Install ECP

- 1. Copy the .zip file from your PC to the \IPSM card\honeywell\autoinstall folder on the computer.
- 2. Touch All Apps > AutoInstall.
 - Verify Enable AutoInstall has a check mark in the box.
- 3. Press and hold the **Power** button until the options menu appears.
- 4. Select Reboot.
- 5. When the Honeywell splash screen appears, simultaneously press and hold the **Power** and **Volume Down** buttons until the *Recovery* screen appears.
 - If necessary, press the up or down **Volume** button to scroll through the options until Recovery mode appears at the top of the screen.
- 6. Press the **Power** button to enter the advanced options screen.
- 7. Use the up or down Volume buttons to sleect (highlight) Apply update from IPSM.
- 8. Press the **Power** button.
- 9. Use the **Volume** buttons to highlight the .zip file.
- 10. Press the **Power** button toinitiate the installation.
- 11. Once the "Install from Ipsm complete" message appears, select **Reboot system now**, and press the **Power** button.

Optional Installation Method

- 1. Copy the .zip file from your PC to the \Internal storage\honeywell\autoinstall folder on the computer.
- 2. Touch All Apps > AutoInstall.

- Verify Enable AutoInstall has a check mark in the box.
- 3. Touch **Packages update**. The computer automatically initiates a reboot and installs the software.

Start Enterprise Browser

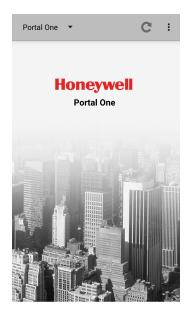
Note: You must connect your mobile computer to a wireless network before you can use Enterprise Browser.

To AutoRun Enterprise Browser for Android

To run Enterprise Browser for Android traditionally (AutoRun on launch), see AutoRun via HoneywellLauncher.XML File.

To launch Enterprise Browser for Android manually

From the Start screen, tap the Enterprise Browser icon 🖳



About the Action Bar

Use the action bar to choose a portal, refresh the application, and change the Enterprise Browser settings.



Action Bar Features

lcon	Feature	Description
N/A	Portal Display	The name of the portal currently open.

lcon	Feature	Description
	Name	
~	Portal Selection	Lets you choose which portal you want to view if more than one portal is enabled.
С	Refresh	Refreshes the URL of the current active portal. You can also swipe from top to bottom (pull down) if Pull to Refresh is enabled.
	Main Menu	Configures Enterprise Browser settings.

About the Advanced Action Bar

If EB enhancement is enabled, use the advanced action bar to type URL in the search box, portal dropdown to switch between portals to browser or vice versa, multi-tab option to open multiple sessions, get list of URL which is whitelisted, refresh the application, and change the Enterprise Browser settings.



About Multiple Windows

When surfing, the user can open a maximum of four (4) browser sessions. Sessions should be tiled from longest running session to newest running session with the newest session at the bottom of the tile screen. User can select the session to run in the forefront by touching the corresponding tile. User can delete corresponding tile by click on (X) icon on right top corner of each tile. Default homepage will not be added into browser sessions.

Show Whitelisted URL to End User

End User will have an URL whitelisted icon on Action bar so that he/she will come to know which are the URL's/Domain are whitelisted. When user clicks, it will pop-up all Whitelisted URL/domain list. When user selects an individual URL from the above list, it will be loaded on portal. Loaded URL will also be added to multi-tab as well.

How to Exit Enterprise Browser

To exit Enterprise Browser, you need to log out of the application. Honeywell Launcher for Android continues to run.

The method you use depends on the user mode you want to exit from:

- Exit Enterprise Browser from Multiple User Mode
- Exit Enterprise Browser from Single User Mode

Exit Enterprise Browser from Multiple User Mode

- 1. From the Main Menu, select Log Out.
- 2. When you are prompted to log out, tap **OK**. Enterprise Browser closes and the Honeywell Launcher for Android Login screen appears.

Exit Enterprise Browser from Single User Mode

- 1. From the Main Menu, select **Switch User**. The Switch User screen appears.
- 2. Type administrator credentials to sign in to the administrator account, or tap **Cancel** to return to Enterprise Browser.

View the About Screen

Tap and select About.



SET UP USER PROFILES

This chapter discusses the user profiles and configuration of Enterprise Browser: Set Up User Profiles for Enterprise Browser Configure the User Profile Configure the Whitelist Configure Enterprise Browser to AutoRun

Set Up User Profiles for Enterprise Browser

Create user profiles to restrict access to a limited set of applications. You need to use Honeywell Launcher for Android to set up the user profiles for Enterprise Browser for Android.

- **Note:** Before you set up user profiles, make sure you do not have any applications set to AutoRun in Power Tools.
 - 1. Start Honeywell Launcher for Android.
 - 2. Configure the User Profile:
 - Single user, single application
 - Single user, multiple application
 - Multiple user, single application
 - Multiple user, multiple application
 - 3. Configure the Whitelist
 - 4. (Optional) Configure Enterprise Browser to AutoRun.
 - 5. Configure Enterprise Browser
 - 6. Reboot the Mobile Computer if you are done configuring both Honeywell Launcher and Enterprise Browser.

Start Honeywell Launcher for Android

When you start Honeywell Launcher for Android for the first time, you can log in as an administrator. As an administrator, you can create user profiles.

- **Note:** See the *Launcher for Android User Guide* for more information on Launcher for Android.
 - 1. Tap All Apps > Honeywell Launcher.
 - 2. To enable Honeywell Launcher for Android, tap Status.
 - 3. When you are prompted to enable Honeywell Launcher for Android, tap OK.
 - 4. In the User Name field, type admin.
 - 5. In the **Password** field, type admin.
 - 6. Tap **Login**. You are logged in to Honeywell Launcher for Android as an administrator.

Configure the User Profile

You can configure a user profile for a single user or multiple users. This procedure assumes you have already created your users in Honeywell Launcher for Android.

- 1. Start Honeywell Launcher for Android.
- 2. Tap and select **Settings**.

- 3. From the admin Settings, tap **Application Mode** and select **Single Application Mode** or **Multiple Application Mode**.
- 4. Tap User Mode and select Single User or Multiple User.
- 5. Tap Manage Users:
- 6. If you selected Single User, the Default profile automatically opens.
- 7. If you selected Multiple User, you need to select a user from the list to configure.
- 8. Set the **Permissions** you want the enable.
- 9. (Optional) To configure Enterprise Browser for Android to automatically run when you reboot the mobile computer, select **Configure AutoRun**.

Configure the Whitelist

Add applications to the whitelist to enable access to only specific applications on the computer. This feature prevents users from accidentally changing system settings, and helps ensure that users stay focused and as productive as possible.

- 1. From the user profile **Permissions** screen, tap **Manage Application Whitelist**. The Configure White List screen appears.
- Select the applications you want to add to the white list.
 If you are configuring the profile for a single application, only select Enterprise Browser.
- 3. To save your changes, tap Finish.
- Tap Back (←) until you exit the Settings menu in Honeywell Launcher for Android. You should see this screen:



Configure Enterprise Browser to AutoRun

You can configure Enterprise Browser to automatically start when the mobile computer starts in single application mode.

- **Note:** You can also open follow the instructions to enable AutoRun via HoneywellLauncher.XML File.
 - 1. Configure the User Profile and select the Configure AutoRun option.
 - 2. To log out of Honeywell Launcher for Android, tap = and select Log Out.
 - 3. When you are prompted to log out, tap OK.
 - 4. Log in to Honeywell Launcher for Android as the user you just configured.
 - 5. Tap and select **Settings**.
 - 6. From the Settings screen, tap Auto Run Apps.
 - 7. From the AutoRun Configure screen, select Enterprise Browser.
 - 8. Exit the configuration screens.

Reboot the Mobile Computer

After you configure Honeywell Launcher for Android and Enterprise Browser Android, reboot the mobile computer to make sure it works as expected.

- 1. Press and hold the **Power** button and then select **Reboot** from the menu.
- 2. When prompted, tap **OK**. The mobile computer reboots and opens Enterprise Browser for Android.

CONFIGURE ENTERPRISE BROWSER

This chapter discusses the configuration of Enterprise Browser: How to Scan Bar Codes from Enterprise Browser How to Control the SIP in Your Application How to Configure Enterprise Browser How to Configure Multiple Mobile Computers

How to Scan Bar Codes from Enterprise Browser

Enterprise Browser supports integrated scanners and imagers, as well as Bluetooth scanners and imagers. There are two methods for scanning from Enterprise Browser. The method you use may affect how you design your web pages:

- Wedge: Press the scan button or pull the trigger to read a bar code. If a valid bar code is successfully decoded, the data returned is wedged into the keyboard buffer. The control with the current focus receives the data. You do not need to add unique tags or code to the HTML page.
- Honeywell Mobility SDK: Use a set of JavaScript interfaces to create applications. You can download the SDK from the Software tab on the mobile computer product page.

How to Control the SIP in Your Application

Enterprise Browser includes two JavaScript methods that let you control the behavior of the Soft Input Panel (SIP) from your application:

- sip.show(): shows the SIP
- sip.hide(): hides the SIP

Use these methods to show or hide the SIP depending on which field in your application has focus. For example, if your application requires typed data for an input field, use the sip.show() method in the onfocus event for that field so the SIP appears when that field has focus.

How to Configure Enterprise Browser

If Enterprise Browser is used with Launcher for Android, use the submenus below to configure Enterprise Browser.

Enterprise Browser Menus	Description
Configuration	Configures the storage, options, and location information.
Security	Configures the web security settings.
Appearance	Configures the appearance of the web pages.
Portals	Configures the settings for up to four portals.
Restore Default Settings	Restores Enterprise Browser to the original default set- tings.

If Enterprise Browser is used in standalone mode (Launcher for Android is either not installed or not enabled) the Settings menu is not available. Enterprise Browser must be customized via the EnterpriseBrowser.xml file.

Configuration

Configures information such as the storage paths, and how information appears in Enterprise Browser. The Configuration section in Enterprise Settings includes these commands:

App Cache Path Geolocation Database Path Enable Exit Password Exit Password Function Keyboard Auto-hide Function Keys Block Pop-ups Load Network Images Pull to Refresh Media Back Button Remap Back Long Press Remap Text Encoding Enable Geolocation

Location Access

Location Mode

App Cache Path

Sets the path to the Application Cache files. Options for this setting are Internal or External. The internal location is predetermined and the external location is a microSD card (if installed).

Default Setting

Internal

Geolocation Database Path

Sets the path for where to save the Geolocation Databases. Options for this setting are Internal or External. The internal location is predetermined and the external location is a microSD card (if installed).

Default Setting

Internal

Enable Exit Password

Users must enter an exit password to exit the Enterprise Browser. Clicking on the exit option shows the exit popup. The user must enter the correct exit password to exit.

If the back key to the exit option is enabled, pressing the back key for a long time will show the exit popup.

Default Setting

False

Exit Password

Use this option to set the exit password when using the Enable Exit Password option.

Default Setting

12345678

Function Keyboard

This option shows the function button in the action bar. The user can show/hide the function keyboard by clicking on this button.

Default Setting

False

Auto-hide Function Keys

Clicking on a function key in in the function keyboard will automatically hide the function keyboard.

Default Setting

False

Block Pop-ups

Blocks whether Javascript can open windows automatically. Options for this setting are enabled or disabled.

Default Setting

Disabled

Load Network Images

Determines if images appear on the web pages. Options for this setting are enabled or disabled.

Default Setting

Enabled

Pull to Refresh

Determines whether swiping the screen from top to bottom refreshes the page. Options for this setting are enabled or disabled.

Default Setting

Enabled

Media

Determines whether Browser automatically plays audio in the web page. Options for this setting are enabled and disabled.

Default Setting

Enabled

Back Button Remap

When you run Enterprise Browser without Launcher, clicking the Back button exits the Browser. Use the Back Button Remap setting to remap the Back button to go back by one page instead of exiting Browser. Options for this setting are enabled **(goes back one page)** or disabled **(exits Browser)**. This setting takes effect even when Browser works with Launcher.

Default Setting

Disabled

Back Long Press Remap

Remaps the Back button long press to exit the browser. This setting is only available when Back Button Remap is enabled. Options for this setting are enabled and disabled.

Default Setting

Disabled

Text Encoding

Sets the default text encoding to use when decoding html pages. Options for this setting are UTF-8, ISO-8859-1, GBK, Big5, and ISO-2022-JP.

Default Setting

UTF-8

Enable Geolocation

Enables or disables Geolocation.

Default Setting

Enabled

Location Access

Sets the permissions for how an application accesses the device location. Options for this setting are Deny Forever, Allow Forever, and Prompt User.

Default Setting

Prompt User

Location Mode

Turns Google's location service on or off. You may want to turn off location services to reduce battery usage.

Default Setting

On

Security

Configures the Webview security settings. The Security section in Enterprise Settings includes these settings:

Enable JavaScript

Do Not Track

Handle SSL Errors

Accept Cookies

Accept File Scheme Cookies

Clear Cache

Clear All

Enable JavaScript

Enables or disables support for JavaScript.

Default Setting

Enabled

Do Not Track

Enable or disable the Do Not Track setting. When enabled, web sites and advertisers are not supposed to track and store any information without permission.

Default Setting

Disabled

Handle SSL Errors

Sets how SSL certificate errors are handled on a web page. Options for this setting are Deny Forever, Allow Forever, and Prompt User.

Default Settings

Prompt User

Accept Cookies

Sets whether or not to accept cookies. Options for this setting are enabled or disabled.

Default Setting

Enabled

Accept File Scheme Cookies

Sets whether or not to accept cookies for the file scheme URLs. Options for this setting are enabled or disabled.

Default Setting

Enabled

Clear Cache

Clears the cache on start of Enterprise Browser.

Default Setting

False

Clear All

Clears all of the browser's cookies and history. Options are OK and Cancel.

Appearance

Configures the appearance of the web pages.

Desktop View

Auto-fit Pages

Action Bar Mode

Hide System Bar

Select System Bar

Desktop View

Enables or disables the ability to view the desktop version of web pages. Mobile versions of the web pages are requested by default.

Default Setting

Disabled

Auto-fit Pages

Enables or disables whether the web pages automatically scale to fit the width of the display screen.

Default Setting

Enabled

Action Bar Mode

Configures the action bar (Dolphin 75e only) so that it is hidden, visible, or only visible when you swipe the screen.

Action Bar Modes

State	Description	
Show	The action bar is visible.	
Hide	The action bar is hidden. The operator cannot make the action bar visible.	
Swipe	The action bar is hidden. Swipe the action bar icon () in the upper left to show the action bar. Swipe the action bar to hide it.	

Default Setting

Show

See Also

About the Action Bar

Hide System Bar

By setting this option to True, Enterprise Browser can hide the navigation bar, system bar, or both.

Default Setting

False

Select System Bar

Enterprise Browser hides the navigation bar, system bar, or both by configuring values 1, 2 and 3.

- 1. Navigation bar
- 2. Status bar

3. Both

Default Setting

1

Portals

A portal is comparable to a tab in a desktop browser. Portals provide independent views of web pages and allow a user to have multiple web applications open simultaneously. You can define up four portals. Use these settings to configure each portal you want to use:

Enable (Portal)

Display Name

Homepage Enable Zoom Zoom Controls Initial Scale Use Wide View Port Min ViewPort Width Text Scaling Minimum Font Size Default Font Size

Enable (Portal)

Enable or disable portal two through four. You cannot disable portal one.

Default Setting

Enabled

Display Name

A user friendly name to identify the web portal.

Default Setting

Portal (#)

Homepage

Sets the start page for the portal.

Default Setting

file:///android_asset/portalOneHome.html

file:///android_asset/portalTwoHome.html

file:///android_asset/portalThreeHome.html

file:///android_asset/portalFourHome.html

Enable Zoom

Enables or disables the ability to zoom in or out in the portal.

Default Setting

Enabled

Zoom Controls

Zoom Control enables on-screen zoom controls for a particular portal in Enterprise Browser. Zoom Controls work only if the Enable Zoom option is enabled.

Default Setting

True

Initial Scale

Initial scaling helps desktop pages fit into the Enterprise Browser screen.

Default Setting

False

Use Wide View Port

By setting this value to True, Enterprise Browser takes the width from the web page meta-tags. If the value is set to False, the webpage width will be equal to the screen width. If this option is disabled, then Initial Scale will be also disabled.

Default Setting

True

Min ViewPort Width

This option helps to set the web page to a constant zoom level in a portal. This option can only be used when Use Wide View Port is disabled.

Default Setting

220

Text Scaling

Sets the text size scaling while still retaining the formatting of the rest of the webpage. Values for this setting range from 50 to 200 percent.

Default Setting

100

Minimum Font Size

Sets the minimum font size. Values for this setting range from 1 to 24 points.

Default Setting

1

Default Font Size

Sets the default font size. Values for this setting range from 1 to 72 points.

Default Setting

16

Advanced

Advanced Settings help the user access the URL, Domain, and Wildcard for enhanced surfing and added search engine functionality.

The following can be used to configured the Advanced Settings:

Enable Enhancement Search Engine Whitelist URLs/ Domain Homepage

Rule Set

Switch Portal

Enable Zoom

Zoom Controls

Text Scaling

Minimum Font Size

Default Font Size

Reload Webpage

Enable Enhancement

The ability in the configuration stage to select to enable or disable surfing. When enabled, other attributes (Search Engine, Search Engine, Whitelist URLs/ Domain, Homepage, Switch portal, allow internet access) will also be enabled. If this option is disabled, then only user will get access for surfing.

Default setting

Disabled

Search Engine

Provides three search engines (Google, Yahoo, and Bing) for surfing.

Default setting

Google

Whitelist URLs/ Domain

An Administrator can add URL as whitelisted in three ways:

• Whole URL: need to add whole URL (example: https://www.honeywellaidc.com) as a rule to get access.

• Domain: need to add domain (example: honeywellaidc.com) as a rule so that all URLs related to that domain will get access.

• Wildcard: a symbol such as '%' can be placed at the end of a rule to allow for all characters after the last letter in the rule to be allowed.

For example: a rule indicated as "https://honeywellsps.my.salesforce.com/a%" would allow all URLs starting with "https://honeywellsps.my.salesforce.com/a" to be accessible. Enforcement of this rule would allow for users to access:

1. https://honeywellsps.my.salesforce.com/a2mA000000Ujuy

2. https://honeywellsps.my.salesforce.com/a2mA000000Ujuy

3. https://honeywellsps.my.salesforce.com/a5mX0000002jun

4. https://honeywellsps.my.salesforce.com/a7mV00002390Xjuf

5. https://honeywellsps.my.salesforce.com/a7mV00002390Xjuf

Whereas the following URLs would be blocked:

1. https://honeywellsps.my.salesforce.com/b2mA000000Ujuy

2. https://honeywellsps.my.salesforce.com/v2mA000000Ujuy

3. https://honeywellsps.my.salesforce.com/L5mX0000002jun

Delete or modify URL:

URL rule implemented first then domain rule applied. If URL is not allowed but the domain is, then the domain rule is applied and access is allowed.

Homepage

Set homepage URL already whitelisted.

Default setting

file:///android_asset/enhancementHome.html

Rule Set

The Rule Set contains all the possible rules that the customer defines related to Whitelisting URLs and Domain Names.

Note: Rule Name is a unique identifier and once an administrator creates a Rule Set, the user cannot update the Rule Name.

One rule (Whitelisted URLs) comes under only one Rule Set. An administrator can Create, Modify, and Delete Rule Set.

Creating a Rule Set options:

Features	Description
Rule Name	Set Rule Name (requires unique identifier)
Mobile Data	Enable/Disable WiFi (default: Enable)
Select URLs (whitelisted)	Selection of URLs as a rule whitelisted
Days	Selection of Days (default: all days selected)
Timing	Selection of Timing. An Administrator can select mul- tiple time ranges (default: no time range selected)

Example: If https://www.honeywellaidc.com comes under a certain Rule Set, it will check the following parameter:

1. WiFi: If WiFi network is active and "WiFi" option is enabled then it will allow access to that URL, otherwise blocked.

2. Mobile Data: If Mobile data network is active and "Mobile Data" option is enabled then it will allow access to that URL, otherwise blocked.

3. Days: URL will be accessible on selected days only.

4. Time: URL will be accessible during the selected time range, otherwise blocked.

Note: If no time range selected, the URL will be accessible at any time.

With Edit Rule Set, the user can edit all fields except Rule Name as it is unique identifier.

The user can delete Rule Set as well. If there is no Rule Set created, "Edit Rule" and "Delete Rule" will be disabled.

If there is no leftover Whitelisted URL, then "Create Rule" will be disabled.

If there is no Whitelisted URL present, then "Rule" will be disabled in state and vice-versa.

If Default Homepage comes under a certain Rule Set, then it follows all Rule Set conditions loads. If a URL is restricted because of Rule Set, it will show (file:///android_asset/enhancementHome.html) as homepage.

Switch Portal

If the user wants Portal options with URL whitelisting, the user has to enable.

Default setting

Disabled

Enable Zoom

Enables or disables the ability to zoom in or out.

Default setting

Enabled

Zoom Controls

Accessibility to use standard android zoom control to zoom in or out.

Default setting

Enabled

Text Scaling

Sets the text size scaling while still running the formatting of the rest of the webpage. Values for the setting range from 50 to 200 percent.

Default setting

100

Minimum Font Size

Sets the minimum font size. Values for this setting range from 1 to 24 points.

Default setting

1

Default Font Size

Sets the default font size. Values from this setting range from 1 to 72 points

Default setting

16

Reload Webpage

Webpage will reload when internet connectivity is available and provides three options (Never, Network Connected, Internet Connected)

Default setting

Never

Restore Default Settings

Reverts the settings of Enterprise Browser back to the default values. Options for this setting are **OK** and **Cancel**.

How to Configure Multiple Mobile Computers

After you configure all users for a device (as an administrator), you can export the configuration file to configure other devices.

To use the configuration file to configure other mobile computers, you need to:

Copy the HoneywellLauncher.xml File to Your PC.

Copy the EnterpriseBrowser.xml File to Your PC.

Configure Multiple Mobile Computers.

Copy the HoneywellLauncher.xml File to Your PC

- 1. Configure Honeywell Launcher for Android on your mobile computer.
- 2. Start Enterprise Browser.
- 3. To save the .xml file to your compute, tap and tap **Export Configuration**. The .xml file is saved to the /sdcard/HoneywellLauncher folder.
- 4. Disable Honeywell Launcher for Android.
- 5. Connect the mobile computer to your PC with a USB cable.
- 6. On your mobile computer, turn on USB storage.
- 7. On your PC, browse to \internal storage\HoneywellLauncher\ and copy HoneywellLauncher.xml to your PC.

Copy the EnterpriseBrowser.xml File to Your PC

Use Power Tools to generate the EnterpriseBrowser.xml file.

- 1. On the mobile computer, run Power Tools > EZConfig.
- 2. Click the menu on the top left corner and select Generator menu.
 - If an older version of the xml file exists, this option replaces it with a new file. The new file contains the default settings. Any customization is lost.
 - If this is the first time Enterprise Browser has been launched, the xml file is automatically created and there is no need to generate the xml file.
- 3. Configure Enterprise Browser on your mobile computer
- 4. Connect the mobile computer to your PC with a USB cable.
- 5. On your mobile computer, turn on USB storage.
- 6. On your PC, browse to IPSM card/Honeywell/ezconfig/generated/ and copy EnterpriseBrowser.xml to your PC.

Configure Multiple Mobile Computers

You can create bar codes with the EZConfig Editor or copy the HoneywellLauncher.xml and EnterpriseBrowser.xml files to other mobile computers to configure multiple computers.

If you are copying the HoneywellLauncher.xml and EnterpriseBrowser.xml file to a mobile computer, you need to copy it to the persist folder. If you have not scanned an EZConfig bar code with your mobile computer, you need to manually create the persist folder. The persist folder does not appear until you scan an EZConfig bar code.

- 1. Connect the mobile computer to your PC with a USB cable.
- 2. On your mobile computer, turn on USB storage.
- 3. Copy the HoneywellLauncher.xml and EnterpriseBrowser.xml files to your PC.
- 4. Open the .xml files in the EZConfig Editor.
- 5. Edit the files and save them or generate EZConfig bar codes.
- 6. Use one of these methods to configure other mobile computers that have Honeywell Launcher for Android installed:
 - Scan the EZConfig bar codes generated from the EZConfig Editor.

Settings scanned from an EZConfig bar code are persistent. You can update the settings by scanning a new bar code or by deleting the EnterpriseBrowser.xml file from these two locations:

- Mobile computer (CT50 or 75E)\IPSM card\honeywell\persist\
- Mobile computer (CT50 or 75E)\Internal storage\honeywell\persist\
 - For ADB, copy the HoneywellLauncher.xml and EnterpriseBrowser.xml file to /sdcard/Honeywell/persist. If the persist folder does not exist, you need to create it.
 - For File Explorer, copy the HoneywellLauncher.xml and EnterpriseBrowser.xml file to /internal storage/Honeywell/persist.
 - 7. Restart the mobile computer.

CHAPTER

TROUBLESHOOT ENTERPRISE BROWSER

Use these tables to try to resolve issues you may encounter while using Enterprise Browser:

Problems and Possible Solutions

License Errors

For futher help contact Customer Support.

Problems and Possible Solutions

Use the next table to find possible solutions for problems you may encounter while using Enterprise Browser.

Problem	Possible Solution
When I start Enterprise Browser, the "wait" cursor appears and a web page never appears.	Make sure that the mobile computer is properly configured to connect to the network. For help, see the computer user manual.
My web pages do not look the same on Enterprise Browser as they do on my desktop PC.	Make sure that you have designed your Web con- tent for use with mobile devices, particularly the smaller screen size.
Without proper configuration, it is possible for the user to escape dur- ing the reboot sequence.	To prevent the user from being able to escape the application during the reboot sequence, make sure to configure these two settings:
	 AutoInstall Settings > Disable (clear the check- box)
	 Settings > Security > Screen lock > None
When I start Enterprise Browser, this error message appears:	Enterprise Browser checks to make sure that the Honeywell computer has network access before starting up.
A Wireless network is not currently available.	Try these possible solutions:
	 Make sure that the wireless radio has good sig- nal strength.
	 Make sure that the mobile computer is prop- erly configured to connect to the network. For help, see the computer user manual.
I cold booted the computer and Bluetooth does not seem to be set up correctly.	There was a problem with the installation. Please contact Customer Support.
Only one instance of Enterprise Browser can be started.	Enterprise Browser only supports one instance. However, you can access of to four web portals.
The postamble is set to \n\t, but focus does not move to the next field after scanning a bar code.	Some mobile computers may not support \n\t. Use \r\t instead.
The mobile computer stops func- tioning properly and this screen appears:	Tap User Mode , and then tap Always .

Problem
Select a home app
Launcher
User Mode
Always Just once

See Also

Contact Customer Support

License Errors

When a license error occurs, a license error message containing an error code appears on the Enterprise Browser screen.

This list contains all possible license errors for Enterprise Browser. Each error has a unique error code and a brief description. If an error occurs that is not included in this list, please contact Customer Support.

License Error Messages

Error Message	Description
SUCCESS = 0	Request was successful.
ERROR_LICENSE_NOT_FOUND = -1	Requested license not found.
ERROR_LICENSE_EXPIRED = -2	License found, but expired.
ERROR_OLD_LICENSE_VERSION = -3	License exists, but is older than the software requesting the license.
ERROR_NO_SERVICE = -100	Communication with the LicenseService failed.
ERROR_LICENSE_MANAGER_ UNAVAILABLE = -101	LicenseManager could not be created.
ERROR_UNKNOWN = -1000	An unspecified internal error occurred.

See Also

About Enterprise Browser Licensing



MISCELLANEOUS INFORMATION

This appendix contains miscellaneous information for Enterprise Browser: AutoRun via HoneywellLauncher.XML File Enterprise Browser and Older Operating Systems Purchasing Licenses Licenses of Third Party Software

AutoRun via HoneywellLauncher.XML File

You can save the .xml file attached to this document to your PC and then copy it to your mobile computer to configure Enterprise Browser to AutoRun.

- 1. View this document in Adobe Acrobat. It may be necessary to save the document to your computer and open it outside of a web browser with Adobe Acrobat.
- 2. One the left side, look for the paper clip (\mathscr{P}) icon. Click on the paper clip icon to see the list of attached files.
- 3. There is one file attached, HoneywellLauncher.xml.
- 4. Right-click on the file name and select Save Attachment.
- 5. Browse to a location on your PC where you wish to save the file.
- 6. Copy the file to your mobile computer to enable AutoRun.

Enterprise Browser and Older Operating Systems

The instructions earlier in this document are for installing Enterprise Browser for Android on an Android 6.0 computer as part of Enterprise Client Pack (ECP).

To install Enterprise Browser for Android on an older operating system, follow the instructions below. For these older operating systems, Enterprise Browser for Android is installed from a separate zip file rather part of ECP.

Once installed, follow the instructions earlier in this document to configure Enterprise Browser for Android.

Requirements

For CT50:

- Running platform version 59.02.01.0009 (GMS) / 60.02.01.0009 (Non-GMS) or later
- Include Common ES version 3.05.2688 or later

For Dolphin 75e:

- Running platform version 56.01.10.0113 (GMS) / 54.01.10.0114 (Non-GMS) or later
- Include Common ES version 3.14.3145 or later

Limitations:

permits only limited, locked-down functionality, but does not lock down other applications.

Install Enterprise Browser for Android on a CT50

- **Note:** If you are upgrading or downgrading Launcher from a previously installed version with a .zip file, the Launcher installation file must have a different name than the previously installed version. If the file does not have a different name, the installation will fail.
 - 1. Download the Honeywell Launcher for Android distribution file (.zip file):
 - a. Navigate your browser to www.aidc.honeywell.com and select Products > Hand-Held Mobile Computer.
 - b. Select Dolphin CT50.
 - c. Select the **Software** tab and download the Enterprise Browser for Android .zip file.
 - 2. Save the Enterprise Browser for Android .zip to a convenient location on your PC.
 - 3. Using the method of your choice, copy the Enterprise Browser for Android .zip file from your PC to sdcard\honeywell\autoinstall.
 - 4. Verify that auto-install functionality is enabled:
 - a. From the Android launcher screen select AutoInstall Settings.
 - b. Check the Enable AutoInstall check box if it is not already selected.
 - 5. Reboot your device.

Install Enterprise Browser for Android on a Dolphin 75e

- **Note:** If you are upgrading or downgrading Launcher from a previously installed version with a .zip file, the Launcher installation file must have a different name than the previously installed version. If the file does not have a different name, the installation will fail.
 - 1. Download the Enterprise Browser for Android distribution file (.zip file):
 - a. Navigate your browser to www.aidc.honeywell.com and select Products > Hand-Held Mobile Computer.
 - b. Select Dolphin 75e.
 - c. Select the **Software** tab and download the Enterprise Browser for Android .zip file.
 - 2. Save the Enterprise Browser for Android .zip to a convenient location on your PC.
 - 3. If a previous version of Launcher is installed on the device, we recommend that you remove old Browser .apk or .zip file from the AutoInstall folder before installing the new version:
 - a. Go to sdcard\honeywell\autoinstall and delete the file HoneywellLauncher_xxxx.apk (where xxxx is a version number) if it exists.

- b. Go to Settings > Apps and uninstall Honeywell Launcher.
- c. Reboot your device.
- 4. Using the method of your choice, copy the Honeywell Launcher for Android .apk file from your PC to sdcard\honeywell\autoinstall.
- 5. Verify that auto-install functionality is enabled:
 - a. From the Android launcher screen select AutoInstall Settings.
 - b. Check the Enable AutoInstall check box if it is not already checked.
- 6. Reboot your device.

Purchasing Licenses

You can obtain licenses for Enterprise Browser through normal Honeywell sales channels. Once the appropriate license has been ordered, the person named on the purchase order will receive an entitlement email from ACSHSMLicense@Honeywell.com. You need the Activation ID from this email to download your licenses.

To download licenses and add them to your devices:

- 1. If you have not installed the Honeywell License Manager application, download and install it on your PC:
- 2. In a browser, go to <u>aidc.honeywell.com</u> and select **Products > Handheld Mobile Computer**.
- 3. Select Dolphin CT50 or Dolphin 75e.
- 4. Select the **Software** tab and download the Honeywell License Manager application.
- 5. Run the License Manager download and install it on your PC.
- 6. Start License Manager on your PC.
- 7. Use License Manager to download the licenses to your PC. For help, use the online License Manager Help to guide you through this process for the first time.
- 8. Register your devices with License Manager. For help, use the online License Manager Help to guide you through this process for the first time.
- 9. Use License Manager to assign licenses to individual devices in a License Bundle. For help, use the online License Manager Help to guide you through this process for the first time.
- 10. Use License Manager to export the License Bundle to an .xml file. A single license bundle .xml file can contain multiple device/license pairs.

11. Use any method of your choice to copy the license bundle .xml file to the \sdcard folder on your mobile computers. The licensing utility on the computer consumes the license bundle .xml file (the file disappears).

Once the license bundle .xml file has been read, the license has been installed, and you are ready to run Enterprise Browser.

Licenses of Third Party Software

This product contains software provided by third parties, which may include the below listed components. The Honeywell product that includes this file does not necessarily use all of the third party software components referred to below.

.. contents::

Package(s) using Apache v2.0 license

* Android Support Library

Copyright (C) 2014 The Android Open Source Project

License Text Apache v2.0 license

Apache License

Version 2.0, January 2004

http://www.apache.org/licenses/

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

You must give any other recipients of the Work or Derivative Works a copy of this License; and

You must cause any modified files to carry prominent notices stating that You changed the files and

You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at:

http://www.apache.org/licenses/LICENSE-2.0

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License. Honeywell 9680 Old Bailes Road Fort Mill, SC 29707

www.honeywellaidc.com

935-098-006 Rev B 08-19