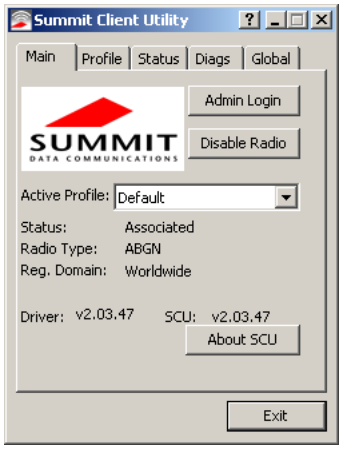
Main

Start > All Programs > Summit > Summit Client Utility > Main tab

Factory Default Settings

Admin Login	SUMMIT
Radio	Enabled
Active Config/Profile	Default
Regulatory Domain	FCC, ETSI or Worldwide



The Main tab displays information about the wireless client device including:

- SCU (Summit Client Utility) version
- Driver version
- Radio Type (ABGN is an 802.11 a/b/g/n radio).
- Regulatory Domain
- Copyright Information can be accessed by tapping the About SCU button
- Active Config profile / Active Profile name
- Status of the client (Down, Associated, Authenticated, etc.).

The **Active Profile** can be switched without logging in to Admin mode. Selecting a different profile from the drop down list does not require logging in to Administrator mode. The profile must already exist. Profiles can be created or edited after the Admin login password has been entered and accepted.

When the profile named “ThirdPartyConfig” is chosen as the active profile, the Summit Client Utility passes control to Wireless Manager for configuration of all client and security settings for the network module.

The **Disable Radio** button can be used to disable the network card. Once disabled, the button label changes to Enable Radio. By default the radio is enabled.

The **Admin Login** button provides access to editing wireless parameters. Profile and Global may only be edited after entering the Admin Login password.

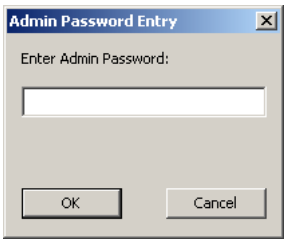
The password is case-sensitive.

Once logged in, the button label changes to Admin Logout. To logout, either tap the **Admin Logout** button or exit the SCU without tapping the **Admin Logout** button.

Admin Login

To login to Administrator mode, tap the **Admin Login** button.

Once logged in, the button label changes to Admin Logout. The admin is automatically logged out when the SCU is exited. The Admin can either tap the **Admin Logout** button, or the **OK** button to logout.



Enter the Admin password (the default password is SUMMIT and is case sensitive) and tap **OK**. If the password is incorrect, an error message is displayed.

The Administrator default password can be changed on the tab.

The end-user can:

- Turn the radio on or off on the **Main** tab.
- Select an active Profile on the **Main** tab.
- View the current parameter settings for the profiles on the **Profile** tab.
- View the global parameter settings on the **Global** tab.
- View the current connection details on the **Status** tab.
- View radio status, software versions and regulatory domain on the **Main** tab.
- Access additional troubleshooting features on the **Diags** tab.

After Admin Login, the end-user can also:

- Create, edit, rename and delete profiles on the **Profile** tab.
- Edit global parameters on the **Global** tab.
- Enable/disable the Summit tray icon in the taskbar.

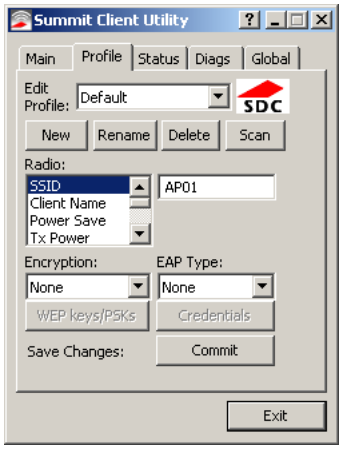
Profile

Start > All Programs > Summit > Summit Client Utility > Profile tab

Note: Tap the Commit button to save changes before leaving this panel or the SCU. If the panel is exited before tapping the Commit button, changes are not saved!

Factory Default Settings

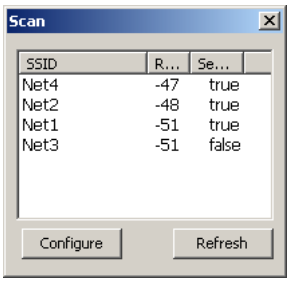
Profile	Default
SSID	Blank
Client Name	Blank
Power Save	CAM
Tx Power	Maximum
Bit Rate	Auto
Radio Mode	BGA rates full
Auth Type	Open
EAP Type	None
Encryption	None



When logged in as an Admin use the Profile tab to manage profiles. When not logged in as an Admin, the parameters can be viewed, and cannot be changed. The buttons on this tab are dimmed if the user is not logged in as Admin. The Profile tab was previously labeled Config.

Buttons

Button	Function
Commit	Saves the profile settings made on this screen. Settings are saved in the profile.
Credentials	Allows entry of a username and password, certificate names, and other information required to authenticate with the access point. The information required depends on the EAP type.
Delete	Deletes the profile. The current active profile cannot be deleted and an error message is displayed if a delete is attempted.
New	Creates a new profile with the default settings (see Profile Parameters) and prompts for a unique name. If the name is not unique, an error message is displayed and the new profile is not created.
Rename	Assigns a new, unique name. If the new name is not unique, an error message is displayed and the profile is not renamed.

Button	Function
Scan	Opens a window that lists access points that are broadcasting their SSIDs. Tap the Refresh button to view an updated list of APs. Each AP's SSID, its received signal strength indication (RSSI) and whether or not data encryption is in use (true or false). Sort the list by tapping on the column headers. If the scan finds more than one AP with the same SSID, the list displays the AP with the strongest RSSI and the least security.  If you are logged in as an Admin, tap an SSID in the list and tap the Configure button, you return to the Profile window to recreate a profile for that SSID, with the profile name being the same as the SSID (or the SSID with a suffix such as "_1" if a profile with the SSID as its name exists already).
WEP Keys / PSK Keys	Allows entry of WEP keys or pass phrase as required by the type of encryption.

Note: Unsaved Changes – The SCU will display a reminder if the Commit button is not clicked before an attempt is made to close or browse away from this tab.

Important – The settings for Auth Type, EAP Type and Encryption depend on the security type chosen.

Profile Parameters

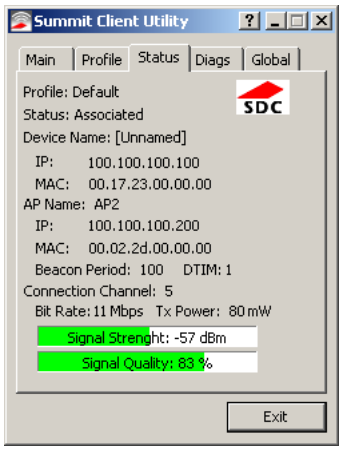
Parameter	Default	Explanation
Edit Profile	Default	A string of 1 to 32 alphanumeric characters, establishes the name of the Profile. Options are Default or ThirdPartyConfig.
SSID	Blank	A string of up to 32 alphanumeric characters. Establishes the Service Set Identifier (SSID) of the WLAN to which the client connects.
Client Name	Blank	A string of up to 16 characters. The client name is assigned to the network card and the device using the network card. The client name may be passed to networking wireless devices, e.g. Access Points.
Power Save	CAM	Power save mode. Options are: Constantly Awake Mode (CAM) power save off, Maximum (power saving mode) and Fast (power saving mode). When using power management, use FAST for best throughput results.
Tx Power	Maximum	Maximum setting regulates Tx power to the Max power setting for the current regulatory domain. Options are: Maximum, 50mW, 30mW, 20mW, 10mW, 5mW, or 1mW.
Bit Rate	Auto	Setting the rate to Auto will allow the Access Point to automatically negotiate the bit rate with the client device. Options are: Auto, 1 Mbit, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 or 54 Mbit.
Auth Type	Open	802.11 authentication type used when associating with the Access Point. Options are: Open, LEAP, or Shared key.
EAP Type	None	Extensible Authentication Protocol (EAP) type used for 802.1x authentication to the Access Point. Options are: None, LEAP, EAP-FAST, PEAP-MSCHAP, PEAP-GTC, PEAP-TLS, EAP-TTLS, or EAP-TLS. EAP Type chosen determines whether the Credentials button is active and also determines the available entries in the Credentials pop-up window.

Parameter	Default	Explanation
Encryption	None	Type of encryption to be used to protect transmitted data. Available options may vary by SCU version. Options are: None, WEP (or Manual WEP), WEP EAP (or Auto WEP), WPA PSK, WPA TKIP, WPA CCKM, WPA2 PSK, WPA2 AES, or WPA2 CCKM. CKIP is not supported in the Thor VM3. *Note: The Encryption type chosen determines if the WEP Keys / PSK Keys button is active and also determines the available entries in the WEP or PSK pop-up window.*
Radio Mode	BGA Rates Full	Specify 802.11a, 802.11b and/or 802.11g rates when communicating with the AP. The options displayed for this parameter depend on the type of radio installed in the mobile device. Options: B rates only (1, 2, 5.5 and 11 Mbps) BG Rates Full (All B and G rates) G rates only (6, 9, 12, 18, 24, 36, 48 and 54 Mbps) BG optimized or BG subset (1, 2, 5.5, 6, 11, 24, 36 and 54 Mbps) A rates only (6, 9, 12, 18, 24, 36, 48 and 54 Mbps) ABG Rates Full (All A rates and all B and G rates with A rates preferred) BGA Rates Full (All B and G rates and all A rates with B and G rates preferred) Ad Hoc (when connecting to another client device instead of an AP) Default: BGA Rates Full

It is important the **Radio Mode** parameter correspond to the AP to which the device is to connect. For example, if this parameter is set to G rates only, the Thor VM3 may only connect to APs set for G rates and not those set for B and G rates.

Status

Start > All Programs > Summit > Summit Client Utility > Status tab



This screen provides information on the radio:

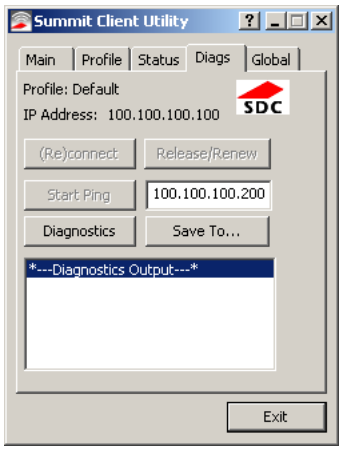
- The profile being used.
- The status of the radio card (down, associated, authenticated, etc.).
- Client information including device name, IP address and MAC address.
- Information about the Access Point (AP) maintaining the connection to the network including AP name, IP address and MAC address.
- Channel currently being used for wireless traffic.
- Bit rate in Mbit.
- Current transmit power in mW.
- Beacon period – the time between AP beacons in kilomicroseconds. (one kilomicrosecond = 1,024 microseconds).
- DTIM interval – A multiple of the beacon period that specifies how often the beacon contains a delivery traffic indication message (DTIM). The DTIM tells power saving devices a packet is waiting for them. For example, if DTIM = 3, then every third beacon contains a DTIM.
- Signal strength (RSSI) displayed in dBm and graphically.
- Signal quality, a measure of the clarity of the signal displayed in percentage and graphically.

There are no user entries on this screen.

Note: After completing radio configuration, it is a good idea to review this screen to verify the radio has associated (no encryption, WEP) or authenticated (LEAP, any WPA), as indicated above.

Diags

Start > All Programs > Summit > Summit Client Utility > Diags tab



The Diags screen can be used for troubleshooting network traffic and radio connectivity issues.

- **(Re)connect** – Use this button to apply (or reapply) the current profile and attempt to associate or authenticate to the wireless LAN. All activity is logged in the Diagnostic Output box on the lower part of the screen.
- **Release/Renew** – Obtain a new IP address through release and renew. All activity is logged in the Diagnostic Output box. If a fixed IP address has been assigned to the radio, this is also noted in the Diagnostic Output box. Note that the current IP address is displayed above this button.
- **Start Ping** – Start a continuous ping to the IP address specified in the text box to the right of this button. Once the button is clicked, the ping begins and the button label changes to **Stop Ping**. Clicking the button ends the ping. The ping also ends when any other button on this screen is clicked or the user browses away from the Diags tab. The results of the ping are displayed in the Diagnostic Output box.
- **Diagnostics** – Also attempts to (re)connect to the wireless LAN. However, this option provides more data in the Diagnostic Output box than the (Re)connect option. This data dump includes radio state, profile settings, global settings, and a list of broadcast SSID APs.
- **Save To…** – Use this to save the results of the diagnostics to a text file. Use the explorer window to specify the name and location for the diagnostic file. The text file can viewed using an application such as WordPad.

Global

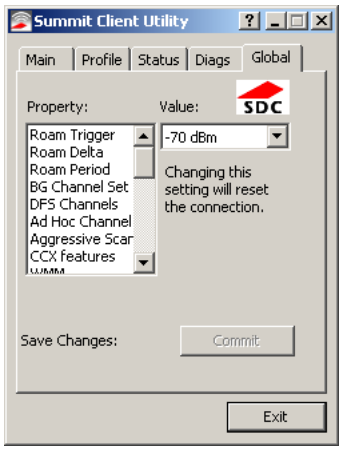
Start > All Programs > Summit > Summit Client Utility > Global tab

The parameters on this panel can only be changed when an with a password. The current values for the parameters can be viewed by the general user without requiring a password.

Note: Tap the Commit button to save changes. If the panel is exited before tapping the Commit button, changes are not saved!

Factory Default Settings

Roam Trigger	-65 dBm
Roam Delta	5 dBm
Roam Period	10 sec.
BG Channel Set	Full
DFS Channels	Off
DFS Scan Time	120 ms.
Ad Hoc Channel	1
Aggressive Scan	On
CCX Features	Optimized
WMM	On
Auth Server	Type 1
TTLS Inner Method	Auto-EAP
PMK Caching	Standard
WAPI	Off (dimmed)
TX Diversity	On
RX Diversity	On Start on Main
Frag Threshold	2346
RTS Threshold	2347
LED	Off
Tray Icon	On
Hide Passwords	On
Admin Password	SUMMIT (or blank)
Auth Timeout	8 seconds
Certs Path	C:\Program Files\Summit\certs
Ping Payload	32 bytes
Ping Timeout	5000 ms
Ping Delay ms	1000 ms
Logon Options	Use SCU credentials



Custom Parameter Option

The parameter value is displayed as “Custom” when the operating system registry has been edited to set the Summit parameter to a value that is not available from the parameter’s drop down list. Selecting Custom from the drop down list has no effect. Selecting any other value from the drop down list will overwrite the “custom” value in the registry.

Global Parameters

Parameter	Default	Function
Roam Trigger	-65 dBm	If signal strength is less than this trigger value, the client looks for a different Access Point with a stronger signal. Options are: -50 dBm, -55, -60, -65, -70, -75, -80, -85, -90 dBm or .
Roam Delta	5 dBm	The amount by which a different Access Point signal strength must exceed the current Access Point signal strength before roaming to the different Access Point is attempted. Options are: 5 dBm, 10, 15, 20, 25, 30, 35 dBm or Custom.
Roam Period	10 sec.	The amount of time, after association or a roam scan with no roam, that the radio collects Received Signal Strength Indication (RSSI) scan data before a roaming decision is made. Options are: 5 sec, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60 seconds or Custom.
BG Channel Set	Full	Defines the 2.4GHz channels to be scanned for an AP when the radio is contemplating roaming. By specifying the channels to search, roaming time may be reduced over scanning all channels. Options are: Full (all channels) 1,6,11 (the most commonly used channels) 1,7,13 (for ETSI and TELEC radios only) or Custom.
DFS Channels	Off	Support for 5GHZ 802.11a channels where support for DFS is required. Options are: On, Off, Optimized. Not supported (always off) in some releases.
DFS Scan Time	120 ms.	ABG radio only. The amount of time the radio will passively scan each DFS channel to see if it will receive a beacon. Recommended value is 1.5 times that of the AP's beacon period.
Ad Hoc Channel	1	Use this parameter when the Radio Mode profile parameter is set to Ad Hoc. Specifies the channel to be used for an Ad Hoc connection to another client device. If a channel is selected that is not supported by the by the radio, the default value is used. Options are: 1 through 14 (the 2.4GHz channels) 36, 40, 44, 48 (the UNII-1 channels)

Parameter	Default	Function
Aggressive Scan	On	When set to On and the current connection to an AP weakens, the radio aggressively scans for available APs. Aggressive scanning works with standard scanning (set through Roam Trigger, Roam Delta and Roam Period). Aggressive scanning should be set to On unless there is significant co-channel interference due to overlapping APs on the same channel. Options are: On, Off
CCX or CCX Features	Optimized	Use of Cisco Compatible Extensions (CCX) radio management and AP specified maximum transmit power features. Options are: Full - Use Cisco IE and CCX version number, support all CCX features. The option known as “On” in previous versions. Optimized –Use Cisco IE and CCX version number, support all CCX features except AP assisted roaming, AP specified maximum transmit power and radio management. Off - Do not use Cisco IE and CCX version number. Cisco IE = Cisco Information Element.
WMM	On	Use of Wi-Fi Multimedia extensions. Devices running Windows XP can change the default value. Devices running all other OS cannot change the default value.
Auth Server	Type 1	Specifies the type of authentication server. Options are: Type 1 (ACS server) and Type 2 (non-ACS server)
TTLS Inner Method	Auto-EAP	Authentication method used within the secure tunnel created by EAP-TTLS. Options are: AUTO-EAP (Any available EAP method), MSCHAPV2, MSCHAP, PAP CHAP, EAP-MSCHAPV2
PMK Caching	Standard	Type of Pairwise Master Key (PMK) caching to use when WPA2 is in use. PMK caching is designed to speed up roaming between APs by allowing the client and the AP to cache the results of 802.1X authentications, eliminating the need to communicate with the ACS server. Standard PMK is used when there are no controllers. The reauthentication information is cached on the original AP. The client and the AP use the cached information to perform the four-way handshake to exchange keys. Opportunistic PMK (OPMK) is used when there are controllers. The reauthentication information cached on the controllers. The client and the controller behind the AP use the cached information to perform the four-way handshake to exchange keys. If the selected PMK caching method is not supported by the network infrastructure, every roam requires full 802.11X authentication, including interaction with the ACS server. If the active profile is using WPA2 CCKM, the global PMK Caching setting is ignored and the client attempts to use CCKM. Options are: Standard, OPMK
WAPI	Off	Default is Off and dimmed (cannot be changed).
TX Diversity	On	How to handle antenna diversity when transmitting packets to the Access Point. Options are: Main only, and On.
RX Diversity	On Start on Main	How to handle antenna diversity when receiving packets from the Access Point. Option is: On-start on Main This parameter cannot be changed for some Summit radios.
Frag Thresh	2346	If the packet size (in bytes) exceeds the specified number of bytes set in the fragment threshold, the packet is fragmented (sent as several pieces instead of as one block). Use a low setting in areas where communication is poor or where there is a great deal of wireless interference. Options are: Any number between 256 bytes and 2346 bytes.

Parameter	Default	Function
RTS Thresh	2347	If the packet size exceeds the specified number of bytes set in the Request to Send (RTS) threshold, an RTS is sent before sending the packet. A low RTS threshold setting can be useful in areas where many client devices are associating with the Access Point. This parameter cannot be changed.
LED	Off	The LED on the wireless card is not visible to the user when the wireless card is installed in a sealed mobile device. Options are: On, Off.
Tray Icon	On	Determines if the Summit icon is displayed in the System tray. Options are: On, Off The tray icon is not displayed when the Thor VM3 is running a Windows Embedded Standard 2009 operating system.
Hide Password	On	When On, the Summit Config Utility masks passwords (characters on the screen are displayed as an *) as they are typed and when they are viewed. When Off, password characters are not masked. Options are: On, Off.
Admin Password	SUMMIT (or Blank)	A string of up to 64 alphanumeric characters that must be entered when the Admin Login button is tapped. If Hide Password is On, the password is masked when typed in the Admin Password Entry dialog box. The password is case sensitive. This value is masked when the Admin is logged out. Options are: none.
Auth Timeout	8 seconds	Specifies the number of seconds the Summit software waits for an EAP authentication request to succeed or fail. If the authentication credentials are stored in the active profile and the authentication times out, the association fails. No error message or prompting for corrected credentials is displayed. If the authentication credentials are not stored in the active profile and the authentication times out, the user is again prompted to enter the credentials. Options are: An integer from 3 to 60.
Certs Path	certificates	A valid directory path, of up to 64 characters, where WPA Certificate Authority and User Certificates are stored on the mobile device when not using the Windows certificates store. Ensure the Windows folder path exists before assigning the path in this parameter. See Certificates (page 3-32) for instructions on obtaining CA and User Certificates. This value is masked when the Admin is logged out. Options are: none. The complete path is C:\Program Files\Summit\certs
Ping Payload	32 bytes	Maximum amount of data to be transmitted on a ping. Options are: 32 bytes, 64, 128, 256, 512, or 1024 bytes.
Ping Timeout ms	5000	The amount of time, in milliseconds, that a device will be continuously pinged. The Stop Ping button can be tapped to end the ping process ahead of the ping timeout. Options are: Any number between 0 and 30000 ms.
Ping Delay ms	1000	The amount of time, in milliseconds, between each ping after a Start Ping button tap. Options are: Any number between 0 and 30000 ms.
Logon Options	SCU	Use SCU or Windows login credentials.

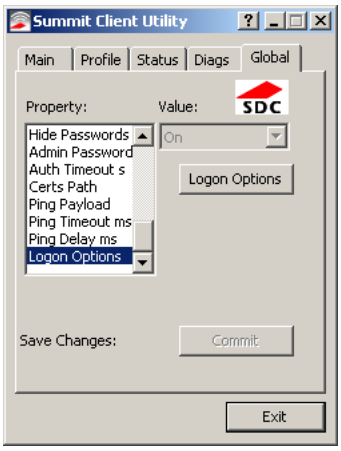
Note: Tap the Commit button to save changes. If this panel is closed before tapping the Commit button, changes are not saved!

Logon Options

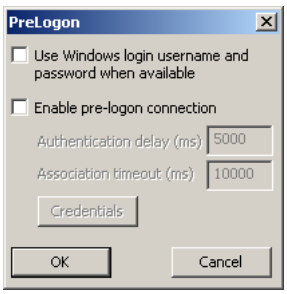
There are two options available, a Single Signon (page 3-14) option which uses the Windows username and password as the credentials for 802.1x authentication and a Pre-Logon Connection (page 3-14) option which uses saved credentials for 802.1x authentication before Windows logon.

If either option is enabled, the credentials entered here take precedence over any credentials entered on the profile tab.

To use either option, select **Logon Options** from the **Property** list which activates the **Logon Options** button.



Click the **Logon Options** button.



Single Signon

To use the Single Signon option, select the checkbox for **Use the Windows username and password when available**. When the active profile is using LEAP, PEAP-MSCHAP, PEAP-GTC or EAP-FAST, the SCU ignores the username and password, if any, saved in the profile. Instead, the username and password used for Windows logon is used. Any certificates needed for authentication must still be specified in the profile.

Click **OK** then click **Commit**.

Pre-Logon Connection

To use the Pre_logon connection, select the checkbox for Enable pre-logon connection. This option is designed to be used when:

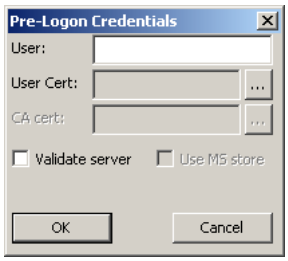
- EAP authentication is required for a WLAN connection
- Single Signon is configured, so the Windows username and password are used as credentials for EAP authentication
- The WLAN connection needs to be established before the Windows login.

Once this option is enabled, the **Authentication delay** and **Association timeout** values can be adjusted as necessary. Both values are specified in milliseconds (ms).

The default authentication delay is 5000 ms and the valid range is 0 - 600,000 ms.

The default association timeout is 10,000 ms and the valid range is 10,000 to 600,000 ms.

Click on the **Credentials** button to enter the logon credentials.



If using the Windows certificate store:

1. Check the **Use MS store** checkbox. The default is to use the Full Trusted Store.
2. To select an individual certificate, click on the **Browse** button.
3. Uncheck the **Use full trusted store** checkbox.
4. Select the desired certificate and click **Select**. You are returned to the Credentials screen.
5. Click **OK** then click **Commit**.

If using the Certs Path option:

1. Leave the Use MS store box unchecked.
2. Enter the certificate filename in the CA Cert text box.
3. Click **OK** then click **Commit**.

Sign-On vs. Stored Credentials

When using wireless security that requires a user name and password to be entered, the Summit Client Utility offers these choices:

- The Username and Password may be entered on the Credentials screen. If this method is selected, anyone using the device can access the network.
- The Username and Password are left blank on the Credentials screen. When the device attempts to connect to the network, a sign on screen is displayed. The user must enter the Username and Password at that time to authenticate.
- When using Summit with the Thor VM3, there is an option on the Global tab to use the Windows user name and password to log on instead of any username and password stored in the profile.

To Use Stored Credentials

1. After completing the other entries in the profile, click on the **Credentials** button.
2. Enter the Username and Password on the Credentials screen and click the **OK** button.
3. Click the **Commit** button.
4. For LEAP and WPA/LEAP, configuration is complete.
5. For PEAP-MSCHAP and PEAP-GTC, importing the CA certificate into the Windows certificate store is optional.
6. For EAP-TLS, import the CA certificate into the Windows certificate store. Also import the User Certificate into the Windows certificate store.
7. Access the Credentials screen again. Make sure the **Validate server** and **Use MS store** checkboxes are checked.
8. The default is to use the entire certificate store for the CA certificate. Alternatively, use the **Browse** button next to the CA Cert (CA Certificate Filename) on the Credentials screen to select an individual certificate.
9. For EAP-TLS, also enter the User Cert (User Certificate filename) on the credentials screen by using the **Browse** button.
10. If using EAP FAST and manual PAC provisioning, input the PAC filename and password.
11. Click the **OK** button then the **Commit** button.

12. If changes are made to the stored credentials, click **Commit** to save those changes before making any additional changes to the profile or global parameters.

13. Verify the device is authenticated by reviewing the Status tab. When the device is property configured, the Status tab indicates the device is Authenticated and the method used.

Note: See Configuring the Profile (page 3-18) *for more details.*

Note: If invalid credentials are entered into the stored credentials, the authentication will fail. No error message is displayed. The user may or may not be prompted to enter valid credentials.

To Use Sign On Screen

1. After completing the other entries in the profile, click on the **Credentials** button. Leave the Username and Password blank. No entries are necessary on the Credentials screen for LEAP or LEAP/WPA.

2. For PEAP-MSCHAP and PEAP-GTC, importing the CA certificate into the Windows certificate store is optional.

3. For EAP-TLS, import the CA certificate into the Windows certificate store. Also import the User Certificate into the Windows certificate store.

4. Access the Credentials screen again. Make sure the **Validate server** and **Use MS store** checkboxes are checked.

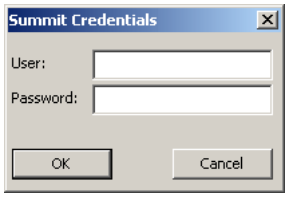
5. The default is to use the entire certificate store for the CA certificate. Alternatively, use the Browse button next to the CA Cert (CA Certificate Filename) on the Credentials screen to select an individual certificate.

6. For EAP-TLS, also enter the User Cert (User Certificate filename) on the credentials screen by using the **Browse** button.

7. Click the **OK** button then the **Commit** button.

8. When the device attempts to connect to the network, a sign-on screen is displayed.

9. Enter the Username and Password. Click the **OK** button.



10. Verify the device is authenticated by reviewing the Status tab. When the device is property configured, the indicates the device is Authenticated and the method used.

11. The sign-on screen is displayed after a reboot.

Note: See Configuring the Profile (page 3-18) *for more details.*

If a user enters invalid credentials and clicks **OK**, the device associates but does not authenticate. The user is again prompted to enter credentials.

If the user clicks the **Cancel** button, the device does not associate. The user is not prompted again for credentials until:

- the device is rebooted,
- the radio is disabled then enabled,
- the **Reconnect** button on the is clicked or
- the profile is modified and the **Commit** button is clicked.

To Use Windows Username and Password

Please see Logon Options (page 3-13) for information.

Windows Certificate Store vs. Certs Path

Note: It is important that all dates are correct on the Thor VM3 and host computers when using any type of certificate. Certificates are date sensitive and if the date is not correct authentication will fail.

If using the Windows Certificate Store, the Windows Account must have a password. The password cannot be left blank. The Summit Client Utility uses the Windows user account credentials to access the Certificate Store. The Windows user account credentials need not be the same as the credentials entered in the Summit Client Utility.

User Certificates

EAP-TLS authentication requires a user certificate. The user certificate must be stored in the Windows certificate store.

- To generate the user certificate, see Generate a User Certificate (page 3-35).
- To import the user certificate into the Windows certificate store, see Install a User Certificate (page 3-37).
- A Root CA certificate is also needed. Refer to the section below.

Root CA Certificates

Root CA certificates are required for EAP/TLS, PEAP/GTC and PEAP/MSCHAP. Two options are offered for storing these certificates. They may be imported into the Windows certificate store or copied into the Certs Path directory.

Certs Path

1. See Generate a Root CA Certificate (page 3-32) and follow the instructions to download the Root Certificate to a PC.
2. Copy the certificate to specified directory on the mobile device. The default location for Certs Path is C:\Program Files\Summit\certs. A different location may be specified by using the Certs Path global variable.
3. When completing the Credentials screen for the desired authentication, do not check the **Use MS store** checkbox after checking the **Validate server** checkbox.
4. Enter the certificate name in the CA Cert text box.
5. Click **OK** to exit the Credentials screen and then **Commit** to save the profile changes.

Windows Certificate Store

1. See Generate a Root CA Certificate (page 3-32) and follow the instructions to download the Root Certificate to a PC.
2. To import the certificate into the Windows store, See Install a Root CA Certificate (page 3-34).
3. When completing the Credentials screen for the desired authentication, be sure to check the **Use MS store** check-box after checking the **Validate server** checkbox.
4. The default is to use all certificates in the store. If this is OK, skip to the last step.
5. Otherwise, to select a specific certificate click on the **Browse (…)** button.

6. Uncheck the **Use full trusted store** checkbox.
7. Select the desired certificate and click the **Select** button to return the selected certificate to the CA Cert text box.
8. Click **OK** to exit the Credentials screen and then **Commit** to save the profile changes.

Configuring the Profile

Use the instructions in this section to complete the entries on the Profile tab according to the type of wireless security used by your network. The instructions that follow are the minimum required to successfully connect to a network. Your system may require more parameters than are listed in these instructions. Please see your system administrator for complete information about your network and its wireless security requirements.

To begin the configuration process:

- On the **Main** click the **Admin Login** button and enter the password.
- If using a single profile, edit the default profile with the parameters for your network. Select the Default profile from the pull-down menu.
- Make any desired parameter changes as described in the applicable following section determined by network security type and click the **Commit** button to save the changes.

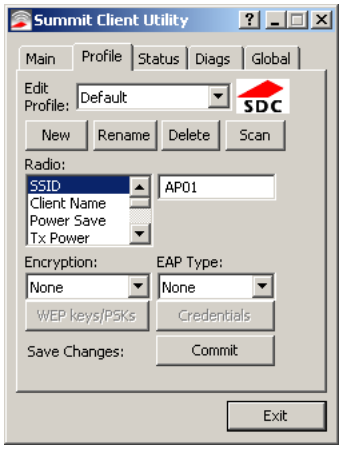
IMPORTANT – Remember to click the Commit button after making changes to ensure the changes are saved. Many versions of the SCU display a reminder if the Commit button is not clicked before an attempt is made to close or browse away from the tab in focus if there are unsaved changes.

If changes are made to the *stored credentials*, click Commit to save those changes first before making any additional changes.

No Security

To connect to a wireless network with no security, make sure the following profile options are used.

1. Enter the **SSID** of the Access Point assigned to this profile
2. Set **EAP Type** to **None**
3. Set **Encryption** to **None**
4. Set **Auth Type** to **Open**



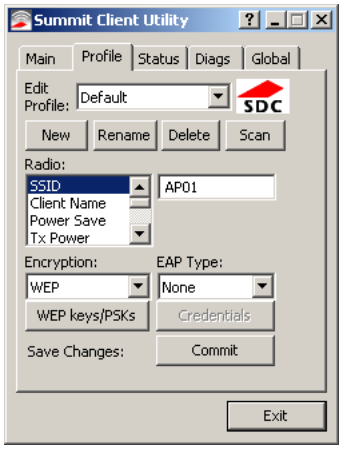
Once configured, click the **Commit** button.

Ensure the correct Active Profile is selected on the **Main** tab and restart. The SCU Main tab shows the device is associated after the radio connects to the network.

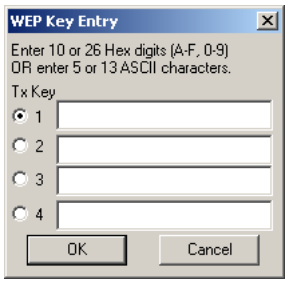
WEP

To connect using WEP, make sure the following profile options are used.

1. Enter the **SSID** of the Access Point assigned to this profile
2. Set **EAP Type t**o **None**
3. Set **Encryption** to **WEP** or **Manual WEP** (depending on SCU version)
4. Set **Auth Type** to **Open**



Click the **WEP keys/PSKs** button.



Valid keys are 10 hexadecimal or 5 ASCII characters (for 40-bit encryption) or 26 hexadecimal or 13 ASCII characters (for 128-bit encryption). Enter the key(s) and click **OK**.

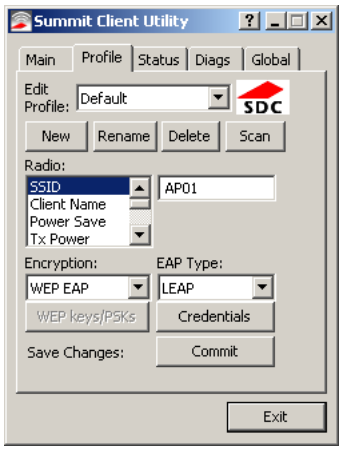
Once configured, click the **Commit** button.

Ensure the correct Active Profile is selected on the **Main** tab and restart. The SCU Main tab shows the device is associated after the radio connects to the network.

LEAP

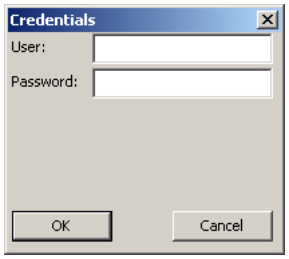
To use LEAP (without WPA, also called WEP-LEAP), make sure the following profile options are used.

1. Enter the **SSID** of the Access Point assigned to this profile
2. Set **EAP Type** to LEAP
3. Set **Encryption** to **WEP EAP** or **Auto WEP** (depending on SCU version)
4. Set **Auth Type** as follows:
5. If the Cisco/CCX certified AP is configured for open authentication, set the **Auth Type** radio parameter to **Open**.
6. If the AP is configured to use shared key or passphrase, set the Auth Type radio parameter to **Shared**.
7. If the AP is configured for network EAP only, set the **Auth Type** radio parameter to **LEAP**.



See Sign-On vs. Stored Credentials (page 3-15) for information on entering credentials.

To use Stored Credentials, click on the **Credentials** button. No entries are necessary for Sign-On Credentials as the user will be prompted for the Username and Password when connecting to the network.



Enter the Domain\Username (if the Domain is required), otherwise enter the Username.

Enter the password. Click **OK** then click **Commit.**

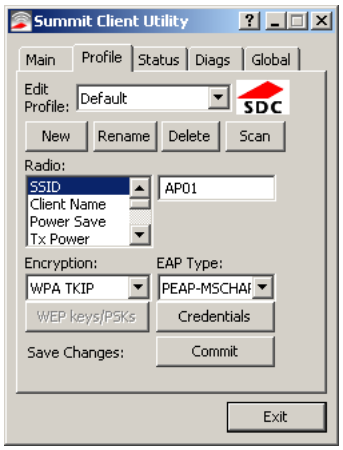
Ensure the correct Active Profile is selected on the **Main** tab and restart. The SCU Main tab shows the device is associated after the radio connects to the network.

PEAP/MSCHAP

To use PEAP/MSCHAP, make sure the following profile options are used.

1. Enter the **SSID** of the Access Point assigned to this profile
2. Set **EAP Type** to **PEAP-MSCHAP**
3. Set **Encryption** to **WPA TKIP**
4. Set **Auth Type** to **Open**

To use another encryption type, select WPA CCKM, WPA2 AES or WPA2 CCKM for encryption and complete other entries as detailed in this section.

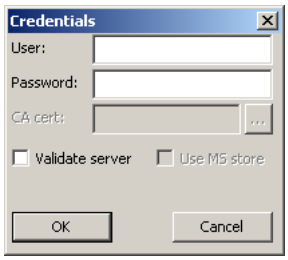


See Sign-On vs. Stored Credentials (page 3-15) for information on entering credentials.

Click the **Credentials** button.

- No entries except the CA Certificate Filename are necessary for Sign-On Credentials as the user will be prompted for the User Name and Password when connecting to the network.
- For Stored Credentials, User, Password and the CA Certificate Filename must be entered.

Enter these items as directed below.



Enter the Domain\Username (if the Domain is required), otherwise enter the Username.

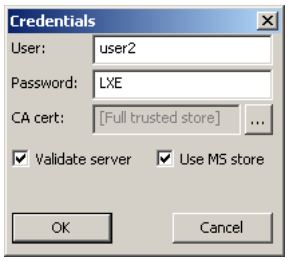
Enter the password.

Leave the CA Certificate File Name blank for now.

Click **OK** then click **Commit**. Ensure the correct Active profile is selected on the **Main** tab.

See Windows Certificate Store vs. Certs Path (page 3-17) for more information on certificate storage.

Once successfully authenticated, import the CA certificate into the Windows certificate store. Return to the Credentials screen and check the **Validate server** checkbox.



If using the Windows certificate store:

1. Check the **Use MS store** checkbox. The default is to use the Full Trusted Store.
2. To select an individual certificate, click on the **Browse** button.
3. Uncheck the **Use full trusted store** checkbox.
4. Select the desired certificate and click Select. You are returned to the Credentials screen.
5. Click **OK** then click **Commit**.

If using the Certs Path option:

1. Leave the **Use MS store** box unchecked.
2. Enter the certificate filename in the CA Cert text box.
3. Click **OK** then click **Commit**.

The device should be authenticating the server certificate and using PEAP/MSCHAP for the user authentication.

Ensure the correct Active Profile is selected on the **Main** tab and restart. The SCU Main tab shows the device is associated after the radio connects to the network.

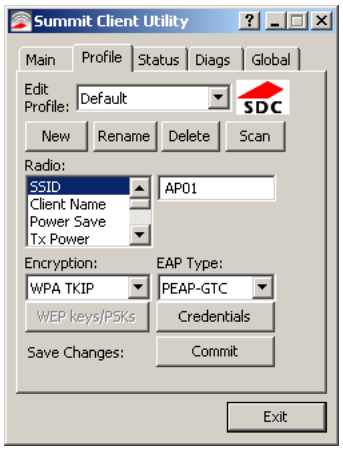
Note: The date must be properly set on the device to authenticate a certificate.

PEAP/GTC

To use PEAP/GTC, make sure the following profile options are used.

1. Enter the **SSID** of the Access Point assigned to this profile
2. Set **EAP Type** to **PEAP-GTC**
3. Set **Encryption** to **WPA TKIP**
4. Set **Auth Type** to **Open**

To use another encryption type, select WPA CCKM, WPA2 AES or WPA2 CCKM for encryption and complete other entries as detailed in this section.

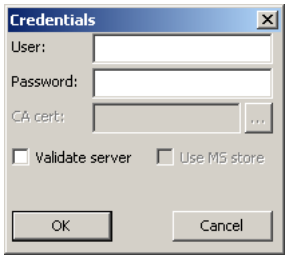


See Sign-On vs. Stored Credentials (page 3-15) for information on entering credentials.

Click the **Credentials** button.

- No entries except the CA Certificate Filename are necessary for Sign-On Credentials as the user will be prompted for the User Name and Password when connecting to the network.

Enter these items as directed below.



Enter the Domain\Username (if the Domain is required), otherwise enter the Username.

Enter the password.

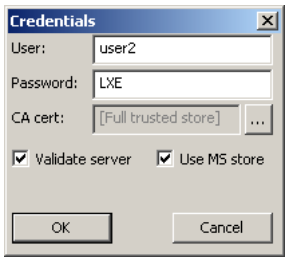
Leave the CA Certificate File Name blank for now.

Click **OK** then click **Commit**. Ensure the correct Active Profile is selected on the **Main** tab.

See Windows Certificate Store vs. Certs Path (page 3-17) for more information on certificate storage.

Once successfully authenticated, import the CA certificate into the Windows certificate store. Return to the Credentials screen and check the **Validate server** checkbox.

Note: Some servers may be configured to allow only a single use of the password for PEAP/GTC. In this case, wait for the token to update with a new password before attempting to validate the server. Then enter the new password, check the Validate Server checkbox and proceed with the certificate process below.



If using the Windows certificate store:

1. Check the **Use MS store** checkbox. The default is to use the Full Trusted Store.
2. To select an individual certificate, click on the **Browse** button.
3. Uncheck the **Use full trusted store** checkbox.
4. Select the desired certificate and click **Select**. You are returned to the Credentials screen.
5. Click **OK** then click **Commit**.

If using the Certs Path option:

1. Leave the **Use MS store box** unchecked.
2. Enter the certificate filename in the CA Cert text box.
3. Click **OK** then click **Commit**.

The device should be authenticating the server certificate and using PEAP/GTC for the user authentication.

Ensure the correct Active Profile is selected on the **Main** tab and restart. The SCU Main tab shows the device is associated after the radio connects to the network.

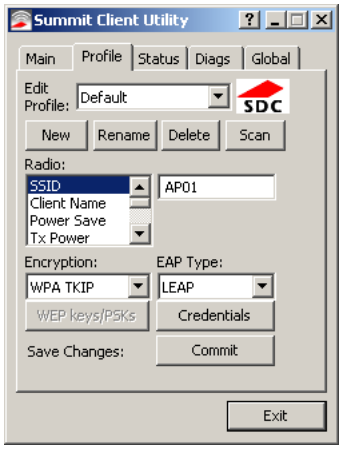
Note: The date must be properly set on the device to authenticate a certificate.

WPA/LEAP

To use WPA/LEAP, make sure the following profile options are used.

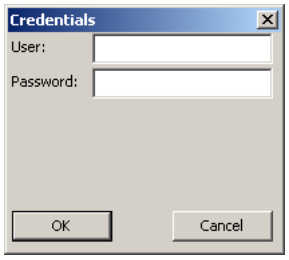
1. Enter the **SSID** of the Access Point assigned to this profile
2. Set **EAP Type** to **LEAP**
3. Set **Encryption** to **WPA TKIP**
4. Set **Auth Type** as follows:
5. If the Cisco/CCX certified AP is configured for open authentication, set the **Auth Type** radio parameter to **Open**.
6. If the AP is configured to use shared key or passphrase, set the Auth Type radio parameter to **Shared**.
7. If the AP is configured for network EAP only, set the **Auth Type** radio parameter to **LEAP**.

To use another encryption type, select WPA CCKM, WPA2 AES or WPA2 CCKM for encryption and complete other entries as detailed in this section.



See Sign-On vs. Stored Credentials (page 3-15) for information on entering credentials.

To use Stored Credentials, click on the **Credentials** button. No entries are necessary for Sign-On Credentials as the user will be prompted for the Username and Password when connecting to the network.



Enter the Domain\Username (if the Domain is required), otherwise enter the Username.

Enter the password.

Click **OK** then click the **Commit** button.

Ensure the correct Active Profile is selected on the **Main** tab and restart. The SCU Main tab shows the device is associated after the radio connects to the network.

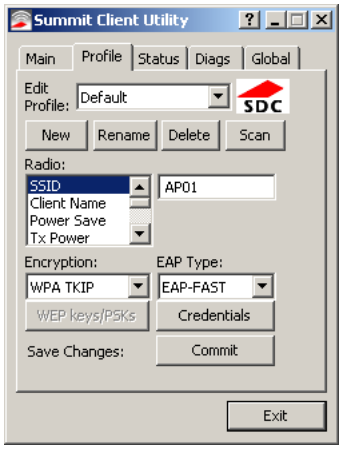
EAP-FAST

To use EAP-FAST, make sure the following profile options are used.

1. Enter the **SSID** of the Access Point assigned to this profile
2. Set **EAP Type** to **EAP-FAST**
3. Set **Encryption** to **WPA TKIP**
4. Set **Auth Type** to **Open**

To use another encryption type, select WPA CCKM, WPA2 AES or WPA2 CCKM for encryption and complete other entries as detailed in this section.

The SCU supports EAP-FAST with automatic or manual PAC provisioning. With automatic PAC provisioning, the user credentials, whether entered on the saved credentials screen or the sign on screen, are sent to the RADIUS server. The RADIUS server must have auto provisioning enabled to send the PAC provisioning credentials to the Thor VM3.



For automatic PAC provisioning, once a username/password is authenticated, the PAC information is stored on the Thor VM3. The same username/password must be used to authenticate each time. See the note below for more details.

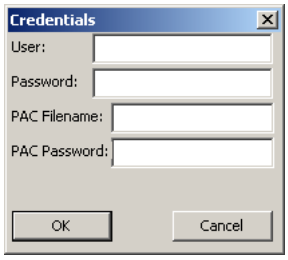
For manual PAC provisioning, the PAC filename and Password must be entered.

See Sign-On vs. Stored Credentials (page 3-15) for information on entering credentials.

The entries on the Credentials screen are determined by the type of credentials (stored or sign on) and the type of PAC provisioning (automatic or manual).

Click on the **Credentials** button.

To use Stored Credentials, click on the **Credentials** button. No entries are necessary for Sign-On Credentials with automatic PAC provisioning as the user will be prompted for the Username and Password when connecting to the network.



To use Sign-On credentials:

- Do not enter a User and Password as the user will be prompted for the Username and Password when connecting to the network.

To use Stored Credentials:

- Enter the Domain\Username (if the Domain is required), otherwise enter the Username.
- Enter the password.

To use Automatic PAC Provisioning:

- No additional entries are required.

To use manual PAC Provisioning:

- Enter the PAC Filename and PAC Password.
- The PAC file must be copied to the directory specified in the Certs Path global variable. The PAC file must not be read only.

Ensure the correct Active Profile is selected on the **Main** tab and restart. The SCU Main tab shows the device is associated after the radio connects to the network.

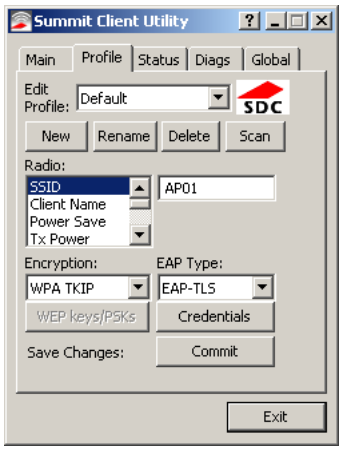
Note: When using Automatic PAC Provisioning, once authenticated, there is a file stored in the C:\Program Files\Summit\certs directory with the PAC credentials. If the username is changed, that file must be deleted. The filename is autoP.00.pac.

EAP-TLS

To use EAP-TLS, make sure the following profile options are used.

1. Enter the **SSID** of the Access Point assigned to this profile
2. Set **EAP Type** to **EAP-TLS**
3. Set **Encryption** to **WPA TKIP**
4. Set **Auth Type** to **Open**

To use another encryption type, select WPA CCKM, WPA2 AES or WPA2 CCKM for encryption and complete other entries as detailed in this section.

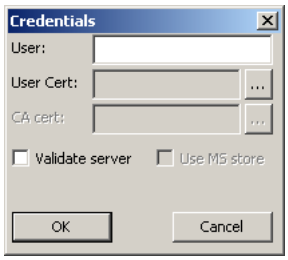


See Sign-On vs. Stored Credentials (page 3-15) for information on entering credentials.

Click the **Credentials** button.

- No entries except the User Certificate Filename and the CA Certificate Filename are necessary for Sign-On Credentials as the user will be prompted for the User Name when connecting to the network.
- For Stored Credentials, User Certificate Filename and the CA Certificate Filename must be entered.

Enter these items as directed below.



Enter the Domain\Username (if the Domain is required), otherwise enter the Username.

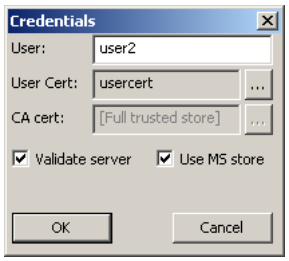
Select a user certificate from the Windows certificate store. Use the **Browse** button to locate the User Cert from the certificate store. Highlight the desired certificate and press the **Select** button. The name of the certificate is displayed in the User Cert box.

Some versions of the SCU require a User Cert password. If this entry field is present, enter the password for the user certificate in the User Cert pwd box.

If there are no user certificates in the Windows certificate store, follow these instructions for Generate a User Certificate (page 3-35) and Install a User Certificate (page 3-37).

See Windows Certificate Store vs. Certs Path (page 3-17) for more information on CA certificate storage.

Check the **Validate server** checkbox.



If using the Windows certificate store:

1. Check the **Use MS store** checkbox. The default is to use the Full Trusted Store.
2. To select an individual certificate, click on the Browse button.
3. Uncheck the **Use full trusted store** checkbox.
4. Select the desired certificate and click **Select**. You are returned to the Credentials screen.
5. Click **OK** then click **Commit**.

If using the Certs Path option:

1. Leave the Use MS store box unchecked.
2. Enter the certificate filename in the CA Cert text box.
3. Click **OK** then click **Commit**.

The Thor VM3 should be authenticating the server certificate and using EAP-TLS for the user authentication.

Ensure the correct Active Profile is selected on the **Main** tab and restart. The SCU Main tab shows the device is associated after the radio connects to the network.

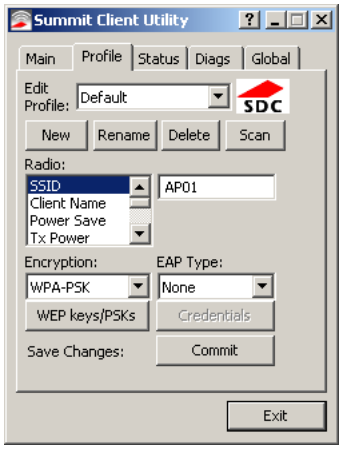
See Certificates (page 3-32) for information on generating a Root CA certificate or a User certificate.

Note: The date must be properly set on the device to authenticate a certificate.

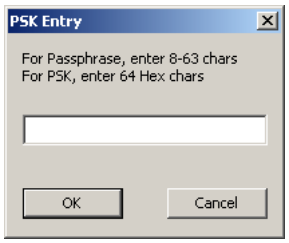
WPA PSK

To connect using WPA/PSK, make sure the following profile options are used:

1. Enter the **SSID** of the Access Point assigned to this profile
2. Set **EAP Type** to **None**
3. Set **Encryption** to **WPA PSK** or **WPA2 PSK**
4. Set **Auth Type** to **Open**



Click the **WEP keys/PSKs** button.



This value can be 64 hex characters or an 8 to 63 byte ASCII value. Enter the key and click **OK**.

Once configured, click the **Commit** button.

Ensure the correct Active Profile is selected on the **Main** tab and restart. The SCU Main tab shows the device is associated after the radio connects to the network.

Certificates

Note: Please refer to the Security Primer to prepare the Authentication Server and Access Point for communication.

Note: It is important that all dates are correct on the Thor VM3 and host computers when using any type of certificate. Certificates are date sensitive and if the date is not correct authentication will fail.

If using the Windows Certificate Store, the Windows Account must have a password. The password cannot be left blank. The Summit Client Utility uses the Windows user account credentials to access the Certificate Store. The Windows user account credentials need not be the same as the entered in the Summit Client Utility.

Quick Start

Root Certificates are necessary for EAP-TLS, PEAP/GTC and PEAP/MSCHAP.

1. Generate a Root CA Certificate (page 3-32) either from the Thor VM3 or using a PC.
2. If a PC was used to request the certificate, copy the certificate to the Thor VM3.
3. Install a Root CA Certificate (page 3-34).

User Certificates are necessary for EAP-TLS

1. Generate a User Certificate (page 3-35)either from the Thor VM3 or using a PC.
2. If a PC was used to request the certificate, copy the certificate to the Thor VM3.
3. Install a User Certificate (page 3-37).

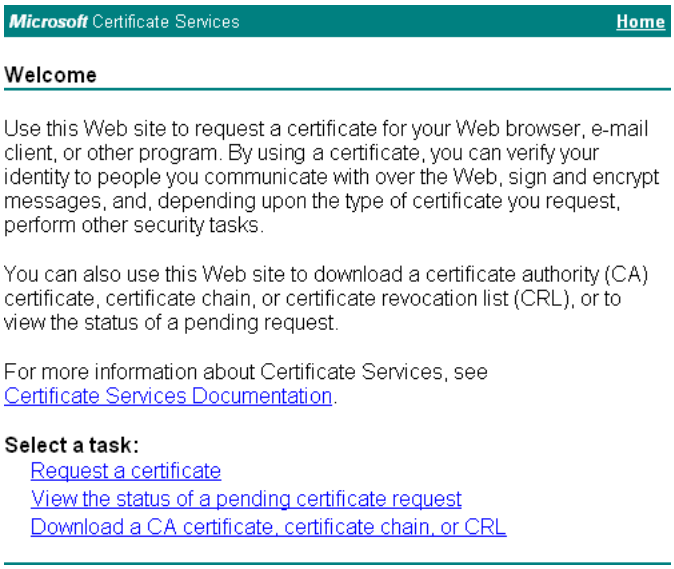
Generate a Root CA Certificate

Note: It is important that all dates are correct on the Thor VM3 and host computers when using any type of certificate. Certificates are date sensitive and if the date is not correct authentication will fail.

The easiest way to get the root CA certificate is to use a browser on a PC or the Thor VM3 to navigate to the Certificate Authority. To request the root CA certificate, open a browser to

http://<CA IP address>/certsrv.

Sign into the CA with any valid username and password.

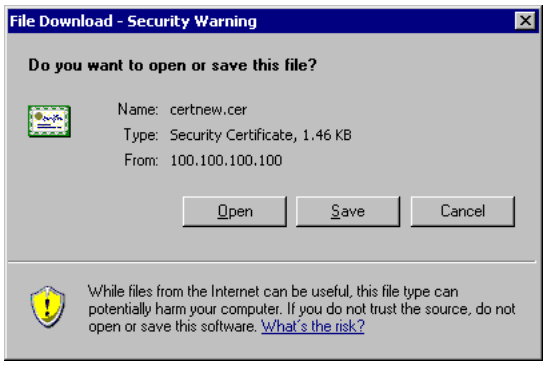


Click the **Download a CA certificate, certificate chain or CRL** link.

Make sure the correct root CA certificate is selected in the list box.

Click the **DER** button.

To download the CA certificate, click on the **Download CA certificate** link.



Click the **Save** button and save the certificate. Make sure to keep track of the name and location of the certificate.

Next install the certificate on the Thor VM3.

Install a Root CA Certificate

Note: This section is only if the Windows certificate store is used. If the certificate store is not used, copy the certificate to the C:\Program Files\Summit\certs folder or other path specified in the Summit Certs global parameter.

Copy the certificate file to theThor VM3. The certificate file has a .CER extension. Locate the file and double-tap on it. If presented with a security warning, confirm that you want to open the file.

If the Certificate Wizard does not start automatically when you double-tap the certificate .CER file:

1. Select **Start > Run** and type **certmgr.msc** in the text box and tap **OK** (*Windows Embedded Standard 2009 only*).
2. In the left pane, right-click **Trusted Root Certificate Authorities** and select **All Tasks > Import**.
3. The Certificate Import Wizard starts.
4. Tap **Next** and use the **Browse..** button to locate the Root certificate copied to the Thor VM3 then tap **Open**.
5. The certificate filename and path are displayed. Tap **Next**.

Tap the **Install Certificate** button.

The certificate import wizard starts. Tap **Next**.

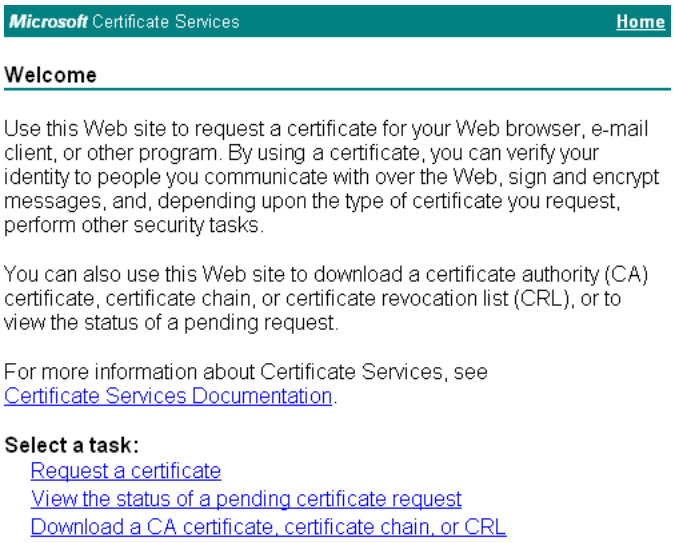
Generate a User Certificate

The easiest way to get the user certificate is to use the browser on the Thor VM3 or a PC to navigate to the Certificate Authority. To request the user certificate, open a browser to

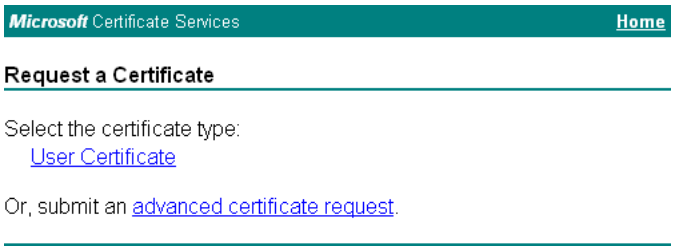
http://<CA IP address>/certsrv.

Sign into the CA with the username and password of the person who will be logging into the mobile device.

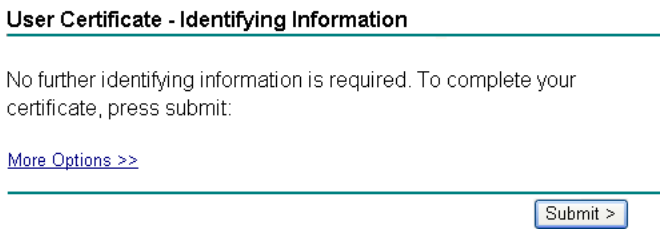
This process saves a user certificate file. There is no separate private key file as used on Windows CE devices.



Click the **Request a certificate** link.

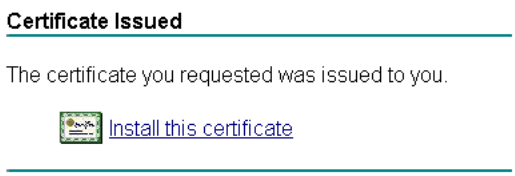


Click on the **User Certificate** link.



Click on the **Submit** button. if there is a message box asking if you want to confirm the request, click **Yes**.

The User Certificate is issued.

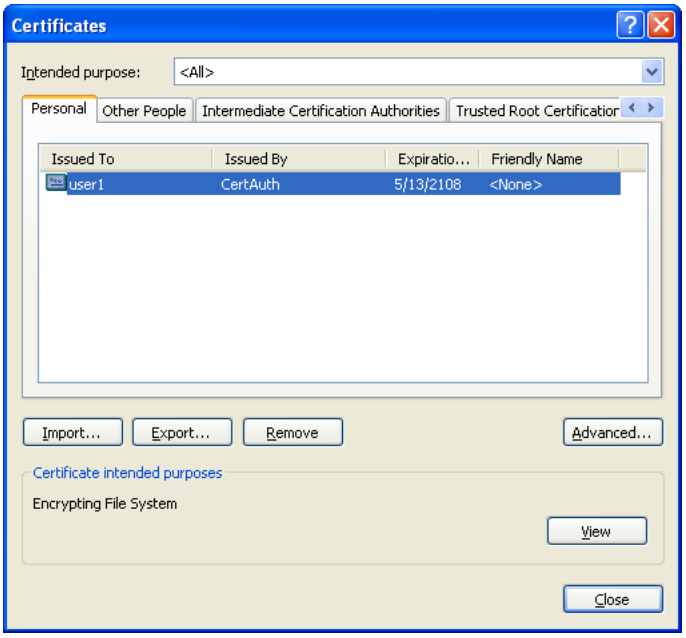


Install the user certificate on the requesting computer by clicking the **Install this certificate** link.

If the requesting computer is the Thor VM3, then the process is finished. otherwise, export the certificate as described below.

Exporting a User Certificate

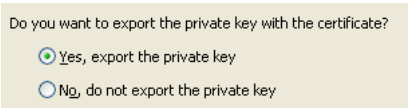
Select **Tools > Internet Options > Content** and click the **Certificates** button.



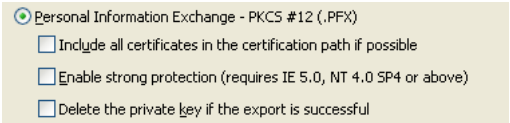
Make sure the **Personal** tab is selected. Highlight the certificate and click the **Export** button.

The Certificate Export Wizard is started

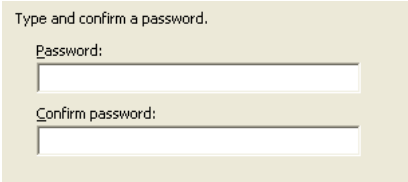
Select **Yes, export the private key** and click Next.



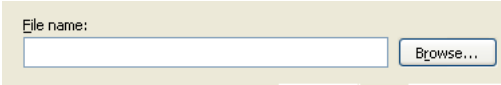
Uncheck **Enable strong protection** and check **Next**. The certificate type must be PKCS #12 (.PFX).



When the private key is exported, you must enter the password, confirm the password and click **Next**. Be sure to remember the password as it is needed when installing the certificate.



Supply the file name for the certificate. Use the **Browse** button to select the folder where you wish to store the certificate. The certificate is saved with a .PFX extension.



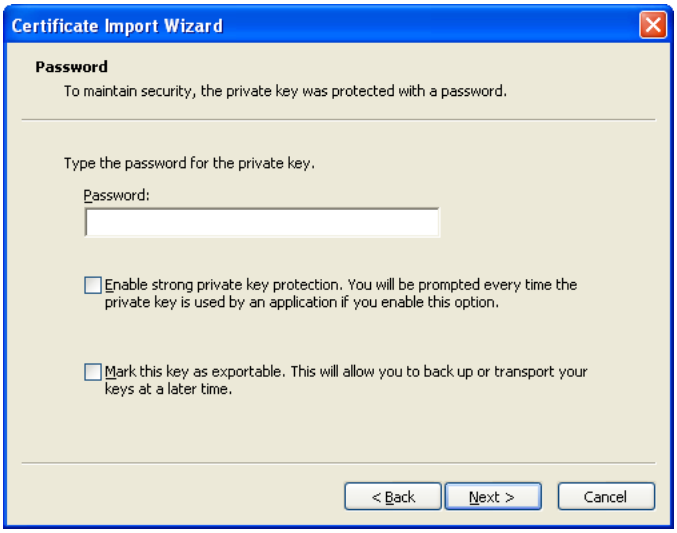
Click Finish. and OK to close the Successful Export message.

Locate the User Certificate in the specified location. Copy to the Thor VM3. Install the User certificate.

Install a User Certificate

After generating and exporting the user certificate, install the user certificate.

1. Copy the certificate from the PC to the Thor VM3.
2. Locate the certificate file (it has a .PFX extension) and double-click on it. If clicking on the certificate file does not launch the certificate import wizard, follow the Manually Initiate Certificate Installation (page 3-38) before continuing the instructions below.
3. The certificate import wizard starts. Tap **Next**.
4. Confirm the certificate file name and location.
5. Tap **Next**.
6. You are prompted for the password that was assigned when the certificate was exported.



7. It is not necessary to select either of the checkboxes displayed above.
8. Enter the password and tap **Next**.
9. On the next screen, allow Windows to automatically select the certificate store, then click **Next** and **Finish**. An import successful message is displayed.

Manually Initiate Certificate Installation

If the Certificate Wizard does not start automatically when you double-tap the certificate .PFX file:

1. Select **Start > Run** and type **certmgr.msc** in the text box and tap **OK**.
2. In the left pane, right-click **Personal** and select **All Tasks > Import**.
3. The Certificate Import Wizard starts.
4. Tap **Next** and use the **Browse..** button to locate the User certificate copied to the Thor VM3. If necessary, change the file type drop down list at the bottom of the explorer window from **.cer* to **.pfx*. After selecting the .PFX file, tap **Open**.
5. The certificate filename and path are displayed. Tap **Next**.
6. Return to the installation instructions above.

OneClick Internet

This section contains the User Manual for the customized version of WebToGo's OneClick Internet for the Honeywell Thor VM3.

OneClick Internet is installed by Honeywell on all Thor VM3s equipped with a WWAN radio. Available carriers and OneClick features may vary by device.

OneClick Internet provides:

- Internet connection management
- Email download
- SMS Management
- Contact management for SIM and Microsoft Outlook
- GPS Management

Since WebToGo OneClick Internet is preinstalled, it is present on the Windows Start Menu. A desktop icon is also provided.

Honeywell does not recommend using standby on the Thor VM3 while the WWAN connection is active. When exiting standby, a delay of one minute or more may occur as the WWAN radio reads firmware files and initializes before reconnecting. If this delay is acceptable to the user, standby may be enabled.
When the One Click Internet utility is displayed on screen and the Thor VM3 enters standby, the touch screen may remain inactive for 10-15 seconds after the Thor VM3 resumes from standby.

Preparing for Initial Use on the Thor VM3

Install SIM Card

If using a CDMA carrier such as Verizon, skip this step because a SIM card is not used.

Install SIM Card (page 1-57) in the Thor VM3.

Load Firmware

While the OneClick Internet utility is preinstalled, it is necessary to load the GOBI radio firmware for your selected carrier such as AT&T, T-Mobile or Verizon.

Note: For carriers requiring a SIM card, the firmware may automatically be selected when a SIM card is installed in the Thor VM3.

Double-tap the OneClick Internet icon on the Thor VM3 desktop.

Tap the **Settings** button and select the **Firmware** tab. Select the firmware for your carrier from the list and tap **Change**.

For more details, see OneClick Internet Connection Manager (page 3-56) and the Firmware (page 3-48) tab.

Activation

This step is only necessary for Verizon.

You need the IMEI number for the Thor VM3 when you contact Verizon prior to activating service on the Thor VM3. The IMEI number can be found on the Info (page 3-48) tab.

The activation screen is displayed automatically after the Verizon firmware is selected. If the activation screen is not automatically displayed, double-tap the **OneClick Internet** icon on the desktop. Select **Settings > General** tab and tap the **Activate** button.

Make sure **Automated Activation** is selected and tap **Next**.

Tap **Next** to complete the activation.

Once the activation is completed, OneClick Internet may be minimized to the tray.

To verify your settings, tap on the OneClick Internet icon in the system tray.

Tap **Settings**.

Tap the **Network** tab.

This screen contains the settings including the telephone number from the provider, in this case Verizon.

Using OneClick Internet

If OneClick Internet is not loaded, double-tap the desktop icon to load it. If OneClick Internet is loaded but minimized to the system tray, tap the OneClick Internet icon in the system tray to maximize it.

Connection Management

1. Launch the OneClick Internet Connection Manager and wait until the status icon is blue indicating ready.
2. If there is a problem, verify the SIM card is installed (AT&T, T-Mobile only), the proper firmware has been loaded, etc.
3. If PIN security is used, a popup window prompts for the SIM PIN.
4. Create a connection profile on the **Settings** menu.
5. Tap the **Connect** button.

The signal strength is indicated as well as the name of the mobile network you are using and the status of the WWAN device. Tap the **Disconnect** button to end the session.

Menu Buttons

Radio Button

The Radio button allows you to switch the WWAN radio on and off to save power or to disable the radio in instances where it is not desired (such as during airplane travel).

When the radio is switched off, the button is red. When on, it is green. If the radio is disabled by a hardware switch or if the device is not available, the button is disabled and is light gray/white.

Statistics Button

The Statistics area provides advanced information about the connection. Values displayed are approximate.

Tap the **Statistics** button to enable the statistics viewing area, which is below the main area. When the statistics are displayed, tapping the **Statistics** button again hides the statistics viewing area.

Data In:	The amount of data received during the current connection.
Data Out:	The amount of data sent during the current connection.
Total:	The total amount of data transferred during the current connection.
Speed:	The current data transfer rate.
Max. Speed:	The maximum data transfer rate during this connection.
Time:	The duration of the current connection.

Update Button

OneClick Internet provides a built-in online update functionality that allows for an automatic update of OneClick Internet application, device drivers, and APN database.

Honeywell **DOES NOT** recommend using this option. Contact *Technical Assistance* (page 6-1) or information on upgrading to another version of OneClick Internet.

The update is triggered by pressing the update button. The application will check the WebToGo server, if updates are available, and offer them for download if suitable.

In order to start the update, select a file from the list of available updates and tap **OK**.

Help Button

OneClick Internet includes online help that can be accessed by tapping the Help button.

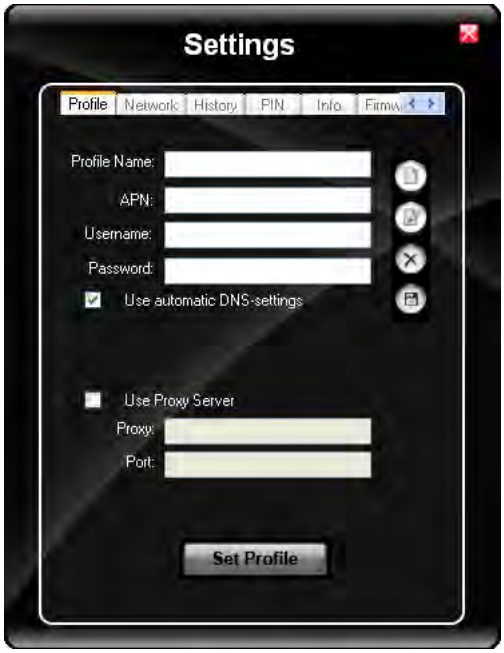
Settings Button

Access the Settings menu by tapping the Settings button on the main window.

The following tabs are available:

- Profile
- Network
- History
- PIN
- Info
- Firmware
- General

Profile



Create a connection profile to store connection information. Once a profile has been created, its name appears in the drop down Profiles list, which replaces the Profile Name text box in the illustration above.

Buttons

Button	Description
	Create a new profile. When this option is selected, the Profile Name is a text box. Enter a name for the profile as well as other connection specific configuration. When finished, tap the Save button to save the new profile.
	Edit a current profile. Select a profile from the Profiles list and tap this button to edit the profile parameters. When finished, tap the Save button to save the profile changes.
	Delete a profile. Select a profile from the Profiles list and tap this button to delete the profile
	Save a profile. Save a new profile or save changes made when editing a profile.
Set Profile	**Set** Profile. Select a profile from the Profiles list and tap this button to make it the active profile used for connection.

Parameters

Label	Description
Profile Name	Profile name - Assign a unique name for each profile.
APN	Access Point Name of the network operator. Contact your network operator for more information When you are using a CDMA network, the APN field does not appear.
Username	Username. Contact your network operator for more information
Password	Password. Contact your network operator for more information
DNS	Domain Name Server. Contact your network operator for more information. When **Use Automatic DNS-settings** is selected, no additional DNS entries are required. Otherwise, enter the DNS addresses.
Proxy Settings	Proxy Settings for your network. Contact your network operator for more information. When **Use Proxy Server** is selected, no additional proxy entries are required. Otherwise, enter the Proxy and the Port.

Network

The appearance of the network tab depends on the type of firmware selected.

Network with SIM Card

Select Connection

Label	Description
Select automatically	Selects the best suited network automatically
Use GPRS/EDGE only	Use only GPRS/EDGE for a connection
Use UMTS/HSPA only	Use only UMTS/HSPA for a connection.

Select and tap **Apply**. A “Network changed successfully” message is displayed.

Close the tab and view the signal strength icon in the main window. Once the signal strength is displayed, you can establish a connection.

Select Network

Use this option to select from available networks.

Note: When you are registered to a CDMA network, you cannot select the network. “All CDMA network” is shown instead.

*Note: The network list only appears if the connection setting is **Only use GPRS** or **Only use UMTS/HSPA**.*

Select the network and tap on the register button. If the change is successful you will see the message “Network changed successfully”.

This item is useful when traveling . Automatic mode selects the preferred network of your network operator.

If enabled, Network Selection displays a list of network options.

1. Automatic Selection
2. Retrieving Networks..

The currently registered network is marked.

CDMA Network

Information on the CDMA network is displayed. There are no editable parameters on this screen.

History

The history shows the data volume transferred in a specified time frame. Select the **From** and **To** dates to see the data volume sent/received in the specified period. Tap **Reset** to reset the counter.

PIN

You can Activate/Deactivate the PIN or Change the PIN.

Activate/Deactivate PIN

This tab is only displayed when a firmware is loaded that requires a SIM card (such as AT&T or T-Mobile).

By default, you have to enter the PIN each time you start WebToGo OneClick Internet using a modem card. Deactivate the PIN to avoid entering the PIN each time.

Change PIN

This dialog lets you change your PIN.

Label	Description
Current PIN	Enter the current PIN.
New PIN	Enter the new PIN.
Verify PIN	Verify the new PIN by entering it again.

Info

This tab displays SIM card, modem and system Information.

Firmware

OneClick Internet selects the correct Firmware matching your operator automatically, if a special firmware for your operator is available and a SIM card is inserted. If no specific firmware for your operator is available, generic firmware is selected. After a firmware has been selected, it appears as the **Current Profile**.

You can manually load your desired firmware. Select a new firmware manually by clicking the **Select New Profile** dropdown menu, selecting a firmware from the menu and tapping the **Change** button to load. To return to automatic firmware selection, choose **Automatic(UMTS)** in the dropdown menu.

Note: Switching between CDMA and UMTS firmware is not done automatically. You must select CDMA firmware manually to connect to CDMA networks. If you want to return to UMTS networks, you must manually select UMTS firmware.

Activation on CDMA

When CDMA Firmware is selected, the activation of the modem on the CDMA network starts automatically. During the process of loading CDMA firmware, an activation window pop up allowing a choice between **Manual Activation** and **Automated Activation**.

Label	Description
Manual Activation	Enter the requested items as direct by a representative from your carrier.
Automatic Activation	Use your modem to start an automated activation session

If you cancel the activation or if it fails, you can also start the activation manually by pressing the **Activate** button on the **General** tab.

General

Label	Description
Auto Launch	When selected OneClick Internet launches automatically when the user starts the Thor VM3 and logs in.
Connect Automatically	When selected OneClick Internet automatically connects on start-up.
Reconnect Automatically	When selected OneClick Internet reconnects automatically when the Thor VM3 returns from standby or hibernate.
Allow roaming	When selected OneClick Internet allows connections in foreign networks. Use care when enabling roaming to avoid roaming charges.
Roaming Alert	When selected OneClick Internet displays an alert when roaming.

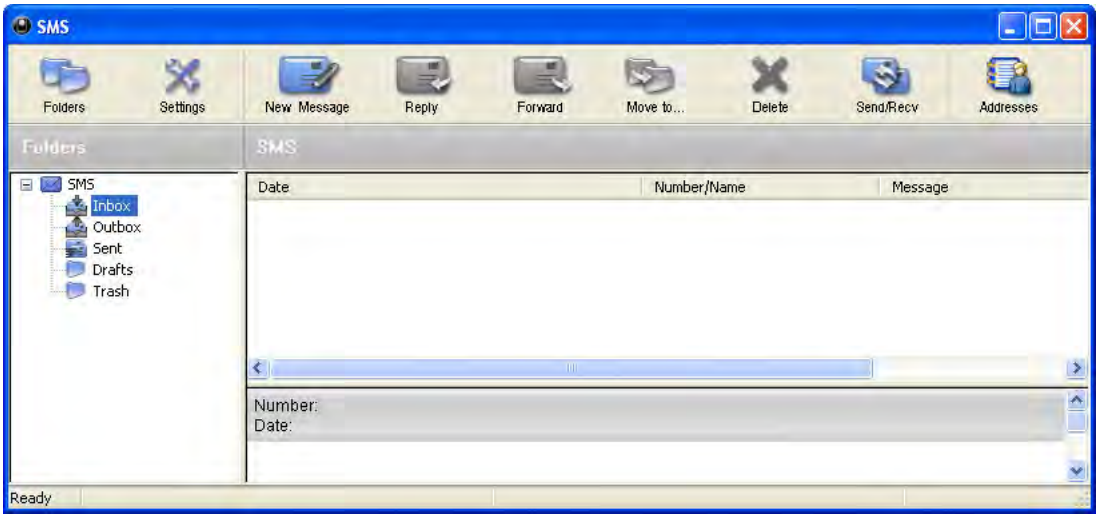
Label	Description
Gobi NDIS Auto Connect	When selected OneClick Internet connects automatically after powering up the operating system and before the user logs in.

Application

Use the **Application** tab to specify any application to launch automatically once the Internet connection is established. Use the Browse button to locate the desired application.

Application Buttons

SMS

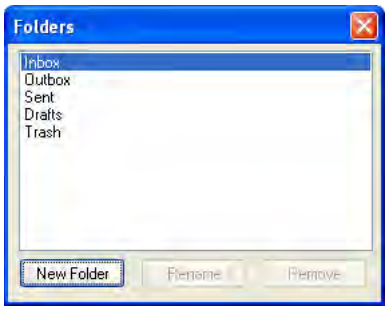


The SMS Center window is split into menu bar, folder view, folder content and preview window. To manage your short messages you may:

Button	Description
Folders	Manage SMS folders
Settings	Change SMS settings
New Message	Create new SMS/MMS messages
Reply	Reply to SMS
Forward	Forward SMS
Move to...	Move SMS to a folder
Delete	Delete SMS
Send/Recv	Send and receive SMS/MMS (if supported)
Addresses	Manage phone book contacts on SIM and in Email client.

Folder

By using this menu, you may change the folder structure of the SMS Center:



Button	Description
New Folder	Creates a new folder, name has to be unique
Rename	Renames an existing folder
Remove	Removes an existing folder (including the messages)

Note: Predefined folders can't be deleted or modified.

Settings

The settings window lets you change the deletion mode. You may choose whether to delete an SMS from the SMS Center, from the SIM or decide whether this should be asked at all. You may also activate an alarm signal when a new SMS arrives.

New SMS

The “New Message” window is used to enter the SMS text. You may also enter texts by copy & paste from other applications. The status bar at the lower right corner indicates the length of the SMS for your convenience: the first number tells you how many parts the SMS consists of (one part has max. 160 characters/unicode70), the second number counts down from 160/70 characters. The number in parenthesis () counts the total number of characters. The recipient for your SMS has to be entered in the “To” field. This can be either entered by typing digits or by clicking the “To” button to select a recipient from the address book. Recipient addresses may be taken from the SIM address book or from your Email client's contact folder. Just select an address and click OK. To send the message click “Send/Receive”.

Reply

Highlight a message to which you want to reply, e.g. in the inbox folder, then click the “Reply” button. The “New Message” window opens and the recipient address is already filled in the “To” field. Continue as before when sending a new message.

Forward

Highlight a SMS, which you want to forward. Click the “Forward” button. The “New Message” window opens, however the message text is already copied. Continue as before when sending a new message.

Move SMS..

Highlight the SMS to be moved and click the “Move SMS” button. A small window opens that lets you select the destination folder. Select the folder to which the message should be moved, then click “Move”.

Delete

Highlight the SMS which you want to delete. Click “Delete” to remove the message.

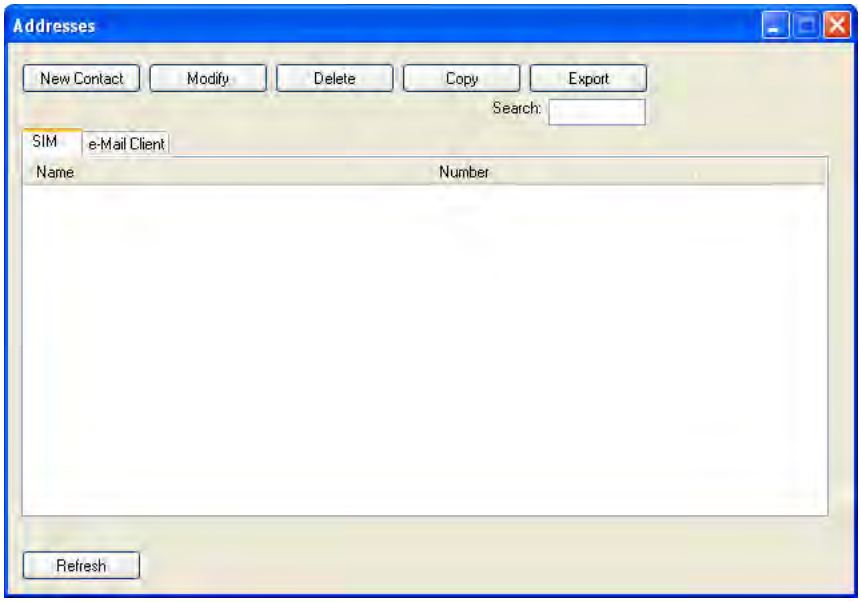
Send/Receive

Messages will be sent and/or received by clicking on this button.

Addresses

Clicking this button opens the address book. You may add new contacts to your personal address book or you may change existing addresses, delete addresses or exchange them with your SIM card and your Email client application, or export the data set.

Buttons	Description
New Contact	Create new contact.
Modify	Modify a contact.
Delete	Delete contacts, mark one or more and press the button.
Copy	Synchronization with MS Outlook.
Export	To export addresses you may select between two export formats: • CSV (comma separated text format, usually read by spread sheet applications) • VCard (business card format, used by MS Outlook and other applications)



Web Browser

Clicking this button opens the Web Browser and allows the user to surf the Internet once the connection is established. The default browser is used, which is Internet Explorer by default on the Thor VM3.

Email

Clicking this button opens the Email application after the connection is established. The Email application is the default Email client set in the Control Panel (**Start > Control Panel > Internet Options > Programs** tab).

GPS

Tap the GPS button to open the GPS window. Press **Get GPS** to start the GPS. The rotating GPS button indicates the GPS is active.

After Latitude and Longitude Data are displayed, the user can tap **Track Me** to open Google Maps, showing their current location on a map.

Lat - Latitude - The location north or south of the equator in degrees.

Lon - Longitude: The angular distance from the Prime Meridian in degrees.

After Latitude and Longitude Data are displayed, the user can tap **Clipboard** and the latitude and longitude are copied to the clipboard cache. The data can be pasted into an email, document or other electronic media.

About

OneClick Internet allows the user to configure the WWAN connection by entering basic setup information. The network connection (service carrier) can be chosen based on the firmware loaded, GPS tracking can be enabled and SMS messaging can be configured.

Once configured, OneClick Internet allows the user to connect or disconnect from the mobile network.

System Requirements

OneClick Internet requires:

- Gobi 000 3G Module (preinstalled by Honeywell)
- Gobi 000 Driver package (loaded by Honeywell)

OneClick Internet for Gobi 000is compatible with the following operating system on the Thor VM3:

- Windows Embedded Standard 2009

Supported Languages

OneClick Internet supports the following languages:

German, English, Spanish, French, Polish, Russian, Italian, Simplified Chinese and Traditional Chinese.

Note: This does not mean that the Thor VM3 has been localized for these languages.

Installing or Upgrading OneClick Internet

Note: You must use the Honeywell supplied version of OneClick Internet. Do not change versions unless instructed by your Honeywell representative.

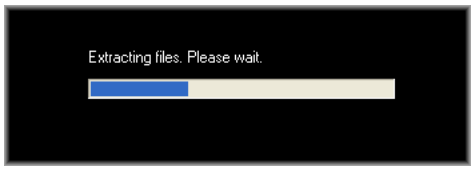
One Click Internet is pre-installed before the Thor VM3 is shipped.

If you have an installed version of OneClick Internet and need to update to a newer version, you must uninstall the previous version first by selecting **Start > Control Panel** and select **Add or Remove Programs**. Select **OneClick Internet** and tap **Remove**. Follow the on screen instructions.

Note: OneClick Internet does not install the drivers for the Gobi 000 devices. Device drivers are preloaded.

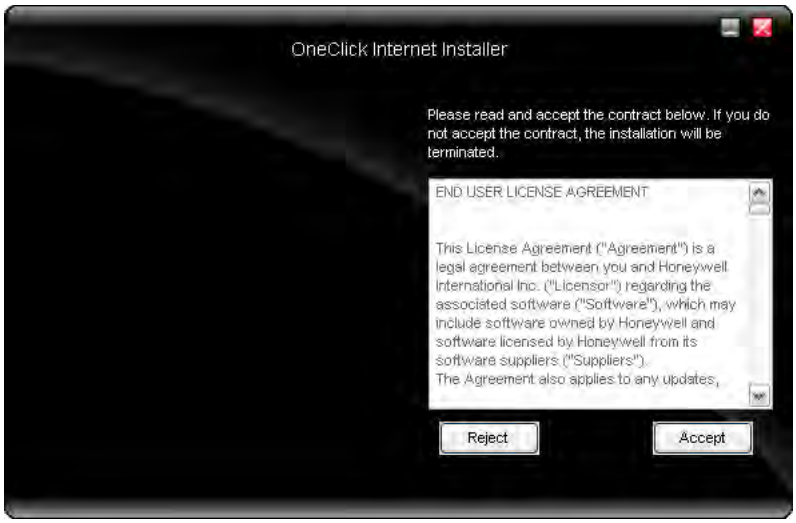
Installation

When you double-click the Installer file for OneClick Internet, it extracts the files to install.



Next, select the application language. By default, the language of the OS is used (if available).

Review and accept the license agreement. Click **Accept**, if you agree. Otherwise please click **Reject** to cancel installation.



Next the installer asks for the installation directory. Use the **Browse** button to specify a location other than the default.

Installation process is indicated on screen. When completed. click the **Finish** button to exit the installer.

Start OneClick Internet from the Windows Program Menu or double-tap the desktop icon.

OneClick Internet Connection Manager

Launch OneClick Internet from the desktop icon or Windows Start Menu.

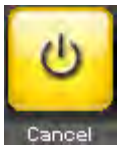
When OneClick Internet is active, a status icon appears in the system tray.

The main screen for OneClick Internet opens when the application is started. This screen displays basic information on the connection as well as access to more advanced features and details. From this screen you can connect to the Internet, send Emails, send short messages (SMS) and access the GPS.

General Windows controls for minimize and exit are located at the upper right of the screen.

Connection Management

Refer to the table below for descriptions of the items in the connection management area.

Icon	Description
	Network signal strength Additionally the network name is displayed to the right of the icon. The more green bars, the stronger the signal.
	Connect / Cancel / Disconnect Tap this button to connect or disconnect. The color of this button also indicates the status of the connection: The radio is disconnected. Tap the button to connect.  The radio is currently connecting. The radio is connected. Tap the button to disconnect.
	SMS The SMS button is enabled if no Internet connection is active. When this button is active, tapping it accesses the integrated SMS application.
	Web Tap this button to launch the default browser.
	Email Tap this button to launch the default Email application.
	GPS Tap this button access the integrated GPS tool.

Information Buttons

Icon	Description
	Radio On/Off Tap this button to switch the radio state. The color of this button also indicates the state of the radio: The radio is On. Tap the button to turn the radio Off. The radio is Off. Tap the button to turn the radio On. The radio is Connecting or the radio has been disabled. The button is inactive at this time.
	Statistics Show/Hide Tap the button to expand the screen to include connection statistics. See Statistics Button (page 3-42) for details. Tap the button to hide the connection statistics.
	Settings Tap this button to access One Clink Internet settings. Select from several tabs to configure the connection settings. See Settings Button (page 3-43) for details.
	Update Tap this button to access OneClick Internet update tab. See Update Button (page 3-42).
	Help Click this button to view the online help.
Status	Ready. Tap the Connect button to establish a connection. Connecting. Tap the Cancel button to cancel the connection in process. Connected. Tap the Disconnect button to end the connection. Failure. Review the screen for messages such as “No Network”, etc.

4

Key Maps

Integrated Keypad

There are seven integrated programmable keys located on the Thor VM3 below the display. Each programmable key can be modified by the Orange key for a total of 14 programmable keys.

See Programmable Key (page 5-41) to remap these keys.

The default values for these keys are:

To get this Programmable Key	Press These Keys in this Order		Default Key Value
P1 (Programmable key 1)	P1		F1
P2 (Programmable key 2)	P2		F2
P3 (Programmable key 3)	P3		F3
P4 (Programmable key 4)	P4		Open/Close Soft Keyboard
P5 (Programmable key 5)	P5		Enter
P6 (Programmable key 6)	P6		<none>
P7 (Programmable key 7)	P7		<none>
P8 (Programmable key 8)	Orange	P1	<none>
P9 (Programmable key 9)	Orange	P2	<none>
P10 (Programmable key 10)	Orange	P3	<none>
P10 (Programmable key 11)	Orange	P4	<none>
P10 (Programmable key 12)	Orange	P5	<none>
P10 (Programmable key 13)	Orange	P6	<none>
P10 (Programmable key 14)	Orange	P7	<none>

The following key press sequences are not programmable:

To get this function	Press These Keys in this Order	
Increase speaker volume	Blue	P1
Decrease speaker volume	Blue	P2
Increase display brightness	Blue	P5
Decrease display brightness	Blue	P6

The Blue plus P3, P4 or P7 key press sequences cause no action.

External 21-Key Keyboard

The table below shows the results of the keypress combinations. Each key has an unshifted mode, a Yellow shifted mode and a Green shifted mode.

- To enter Yellow shifted mode, press the Yellow key. The keypad remains in Yellow shifted mode until any other key is pressed or the Yellow key is pressed again.
- To enter Green shifted mode, press the Green key. The keypad remains in Green shifted mode until any other key is pressed or the Green key is pressed again.
- Pressing the Yellow key then the Green key cancels Yellow mode and the keypad is in Green shifted mode.
- Pressing the Green key then the Yellow key cancels Green mode and the keypad is in Yellow shifted mode.
- Arrow keys are unaffected by Yellow or Green shifted mode.
- Keypress combinations marked as N/A do nothing.
- Pressing the backlight key (alone or after the Green or Yellow keys) cycles the keypad backlight through Low, Medium, High, Off then repeats.

5	5	F5	F15
6	6	F6	F16
7	7	F7	F17
8	8	F8	F18
9	9	F9	F19
0	0	F10	F20
Left Arrow	Left	Left	Left
Right Arrow	Right	Right	Right
Up Arrow	Up	Up	Up
Down Arrow	Down	Down	Down
Delete	Delete	Backspace	N/A
Tab	Tab	Backtab	N/A
PF	P15	P16	N/A
Backlight	Backlight cycles	Backlight cycles	Backlight cycles

External 95-Key Keyboard

5

Specifications and Reference Material

Technical Specifications

Thor VM3

Processor	Intel Atom Dual Core CPU operating at 1.46GHz
Memory	1 GB DDR3 RAM
Memory	2 or 4 GB DDR3 RAM
Mass Storage	16, 32 or 64 GB mSATA (Window Embedded Standard 7) 32 or 64 GB mSATA (Window 7 Professional)
Mass Storage	32 or 64 GB mSATA
Storage Expansion	4 GB or larger mSATA
Operating System	Microsoft Windows 8.1 Professional No operating system
Operating System	Microsoft Windows Embedded Standard 7 (32-bit) Microsoft Windows 7 Professional (64-bit) No operating system
Radio Modules	802.11 a/b/g/n radio / Bluetooth Optional GPS / WWAN
Scanner Options	No integrated scanner, Optional serial, USB or Bluetooth scanners
Display Technology	Intel GMA 500 graphics processor, XGA compatible Active matrix TFT Resolution: 1024 x 468 pixels 400 NIT (indoor) or 900 NIT (outdoor) brightness 12.1” (measured horizontally) display Transmissive with LED backlight Automatic brightness control on outdoor display Vehicle motion screen blanking available
Keyboard	Integrated 7-key keypad Optional 95-key USB keyboard Optional numeric-only keyboard
Touch Screen	Impact resistive, standard hardened or premium Signature capture capability Optional defroster Field replaceable front panel including standard or premium touch screen and optional defroster
External Connectors	Optional external 802.11 / GPS / WWAN antenna connectors Additional connectors on Smart Dock, see below
Beeper	Minimum loudness greater than 95dBm at 10 cm in front of unit
Power Supply	10 to 60 VDC isolated
Uninterruptible Power Supply	Internal UPS battery, 30-minute life at -20°C (-4°F)
Backup Battery (RCT)	Internal lithium battery maintains Real Time Clock

Smart Dock

Power Connector	6-pin connector: Direct10-60V DC input power Optional external converters for AC (90-240 VAC) and extended range DC (60-150 VDC)
COM1Connector	9-pin male, RS-232 serial port, COM1 with switchable power on pin 9
COM2 Connector	9-pin male, RS-232 serial port, COM2 with switchable power on pin 9
CANBUS/AUDIO Connector	15-pin male, CANbus/Audio connector supports either audio/microphone via adapter cable or J1939 Female and J1939 Male connectors via CANbus cable
USB Connector	9-pin female, USB connector supports USB host port via adapter cable
Power Switch	Sealed power switch
External Power Supply	AC Adapter, 120-240VAC to 12VDC
Input Power	DC Input Voltage: 10- 60 VDC, Input Current: 4.6 Amps Input Fuse: 8A Time Delay. Replace with same size, rating and type of fuse: • Littelfuse 0215008.MXP • Cooper Bussmann BK1/S506-8-R • Bel Fuse 5HT 8-R or equivalent.

Enhanced Smart Dock

Power Connector	6-pin connector: Direct10-60V DC input power Optional external converters for AC (90-240 VAC) and extended range DC (60-150 VDC)
COM1Connector	9-pin male, RS-232 serial port, COM1 with switchable power on pin 9
COM2 Connector	9-pin male, RS-232 serial port, COM2 with switchable power on pin 9
CANBUS/AUDIO Connector	15-pin male, CANbus/Audio connector supports either audio/microphone via adapter cable or J1939 Female and J1939 Male connectors via CANbus cable
USB1 Connector	9-pin female, USB connector supports USB host port via adapter cable
USB 2 Connector	15-pin female, USB connector supports 2 USB host ports via adapter cable
USB Host Connector	One USB Host connector behind waterproof cap
Ethernet Connector	One RJ45 Ethernet connector behind waterproof cap
Power Switch	Sealed power switch
External Power Supply	AC Adapter, 120-240VAC to 12VDC
Input Power	DC Input Voltage: 10- 60 VDC, Input Current: 4.6 Amps Input Fuse: 8A Time Delay. Replace with same size, rating and type of fuse: • Littelfuse 0215008.MXP • Cooper Bussmann BK1/S506-8-R • Bel Fuse 5HT 8-R or equivalent.

Dimensions

Thor VM3

Width	12.6” (31.9 cm)
Height	10.3” (26.1 cm)
Depth	2.4” (6.2 cm)
Weight	6.75 lb. (3.1 kg)??

Smart Dock

Note: The RAM ball is not included in the following measurements.

Length	7.1” (18.0 cm)
Width	6.1” (15.5 cm)
Height	2.5” (6.4 cm), measurement includes strain relief cable clamps
Weight	3.2 lb. (1.5 kg)

Environmental Specifications

Thor VM1 and Smart Dock

Operating Temperature	-22º to 122º F (-30ºC to 50ºC) [non-condensing]
Storage Temperature	-22°F to 140°F (-30°C to 60°C) [non-condensing]
ESD	8 KV air, 4kV direct contact
Operating Humidity	Up to 95% non-condensing ??
Water and Dust	IEC 60529 compliant to IP66
ESD	15 kV
Vibration	MIL-STD-810F, composite wheeled vehicles.
Crash	SAE-J 1455

Network Card Specifications

?? 802.11a/b/g/n

Bus Interface	SDIO (Secure Digital I/O)
Wireless Frequencies (varies by regulatory domain)	2.4 to 2.4895 GHz IEEE 802.11b / 802.11g DSSS OFDM 5.15 to 5.82 GHz IEEE 802.11a DSSS OFDM
RF Data Rates	802.11a (OFDM) 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11b (DSSS) 1, 2, 5.5, 11 Mbps 802.11g (OFDM) 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n (OFDM 20 MHz chs) 13, 26, 39, 52, 78, 104, 117, 130 Mbps 802.11n (OFDM 40 MHz chs) 27, 54, 81, 108, 162, 216, 243, 270 Mbps
RF Power Level	50 mW max.
Channels	FCC: 1-11, 36, 40 ,44, 48, 149, 153, 157, 161 ETSI: 1-13, 36, 40, 44 ,48
Connectivity	TCP/IP, Ethernet, ODI
Diversity	Yes

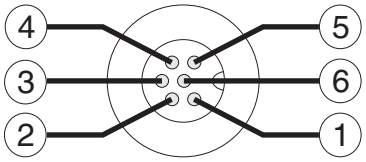
Bluetooth

Bus Interface	USB
Enhanced Data Rate	Up to 3.0 Mbit/s over the air
Connection	No less than 32.80 feet (10 meters) line of sight
Bluetooth Version	2.0 + EDR
Operating Frequency	2.402 - 2.480 GHz
QDID	B013455

WWAN

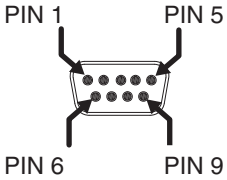
Port and Connector Pinouts

Power Supply Connector



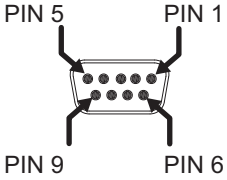
Pin	Signal	Description
1	V In+	10-60V DC input +
2	V In+	10-60V DC input +
3	V In-	input -
4	V In-	input -
5	GND	Chassis ground
6	Ignition	+0V to 60V to start terminal

COM1 and COM2 Connector



Pin	Signal	Description
1	DCD	Data Carrier Detect – Input
2	RXD	Receive Data – Input
3	TXD	Transmit Data – Output
4	DTR	Data Terminal Ready – Output
5	GND	Signal/Power Ground
6	DSR	Data Set Ready – Input
7	RTS	Request to Send – Output
8	CTS	Clear to Send – Input
9	+5VDC	Bar Code Scanner Power - 500mA max
Shell	CGND	Chassis Ground

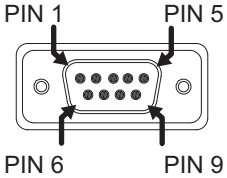
USB Connector



Pin	Signal	Description
1	GND	Common ground
2	USBC_D+	USB client data signal
3	USBC_D-	USB client data signal
4	USB_H1_PWR	USB host 1; 5V output power
5	GND	Common ground
6	GND	Common ground
7	USB_H1_D+	USB host 1 data signal
8	USB_H1_D-	USB host 1 data signal
9	USBC_VBUS	USB client 5V detect from attached host

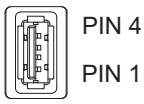
USB Y Cable

D9 Male Connector



Pin	Signal	Description
1	GND	Common ground
2	USBC_D+	USB client data signal
3	USBC_D-	USB client data signal
4	USB_H1_PWR	USB host 5V output power
5	GND	Common ground
6	GND	Common ground
7	USB_H1_D+	USB host 1 data signal
8	USB_H1_D-	USB host 1 data signal
9	USBC_VBUS	USB client 5V detect from attached host

USB Host Connector

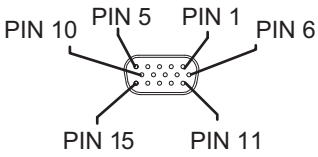


Pin	Signal	Description
1	5V_USB	USB Power, Current Limited
2	USB_H1_D-	USB D-
3	USB_H1_D+	USB D+
4	GND	USB Power Return
Shell	CGND	Chassis Ground

USB Client Connector

The USB client connection is not supported on the Thor VM3.

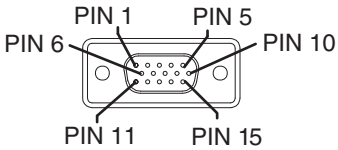
USB Connector2



Pin	Signal	Description
1	Not Used	
2	Not Used	
3	Not Used	
4	Not Used	
5	Not Used	
6	USB_H2_PWR	USB host 2 5V output power
7	USB_H2_D+	USB host 2 data signal
8	USB_H2_D-	USB host 2 data signal
9	GND	Common ground
10	GND	Common ground
11	USB_H3_PWR	USB host 3 5V output power
12	USB_H3_D+	USB host 3 data signal
13	USB_H3_D-	USB host 3 data signal
14	GND	Common ground
15	GND	Common ground

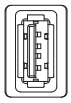
USB Y Cable

D15 Male Connector



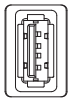
Pin	Signal	Description
1	Not Used	
2	Not Used	
3	Not Used	
4	Not Used	
5	Not Used	
6	USB_H2_PWR	USB host 2 5V output power
7	USB_H2_D+	USB host 2 data signal
8	USB_H2_D-	USB host 2 data signal
9	GND	Common ground
	GND	Common ground
	USB_H3_PWR	USB host 3 5V output power
	USB_H3_D+	USB host 3 data signal
	USB_H3_D-	USB host 3 data signal
	GND	Common ground
	GND	Common ground

USB Host Connector



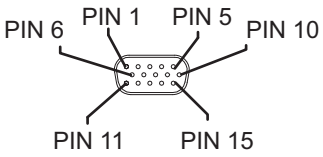
Pin	Signal	Description
1	5V_USB	USB Power, Current Limited
2	USB_H2_D-	USB D-
3	USB_H2_D+	USB D+
4	GND	USB Power Return
Shell	CGND	Chassis Ground

USB Host Connector



Pin	Signal	Description
1	5V_USB	USB Power, Current Limited
2	USB_H3_D-	USB D-
3	USB_H3_D+	USB D+
4	GND	USB Power Return
Shell	CGND	Chassis Ground

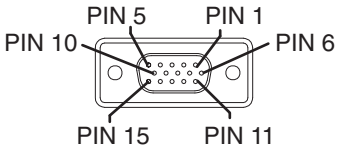
CANbus / Audio Connector



Pin	Signal Name	Description
1	-	CAN reserved
2	CAN_L	CAN_L bus line dominant low
3	CAN_GND	CAN Ground
4	-	CAN reserved
5	GND	Optional ground
6	Audio return	Headset return
7	Audio output	Headset output
8	Mic input	Microphone input
9	Mic return	Microphone return
10	Audio Return	
11	GND	Optional ground
12	CAN_SHLD	
13	CAN_H	CAN_H bus line dominant high
14	-	CAN reserved
15	CAN_V+	Option CAN external Power Supply

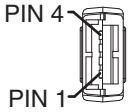
Headset Adapter Cable

D15 Female Connector



Pin	Signal	Description
1	Not used	
2	Not used	
3	Not used	
4	Not used	
5	Not used	
6	Audio return	Headset return
7	Audio output	Headset output
8	Mic input	Microphone input
9	Mic return	Microphone return
10	Not used	
11	Not used	
12	Not used	
13	Not used	
14	Not used	
15	Not used	

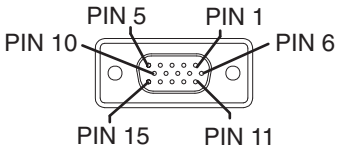
Quick Connect Headset Connector



Pin	Signal	Description
1	Mic input	Microphone input
2	Mic return	Microphone return
3	Audio output	Headset output
4	Audio return	Headset return

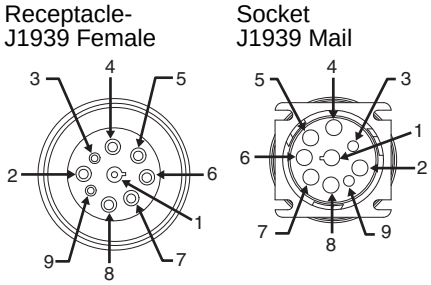
CANbus Y Cable

D15 Female Connector



Pin	Signal	Description
1	Not Used	
2	CAN_L	CAN_L bus line dominant low
3	CAN_GND	CAN ground
4	Not Used	CAN reserved
5	GND	Ground
6	Not used	
7	Not used	
8	Not used	
9	Not used	
10	Not used	
11	GND	Optional ground
12	CAN_SHLD	
13	CAN_H	CAN_H bus line dominant high
14	Not Used	CAN reserved
15	CAN_V+	CAN external power supply

9-Pin J1939 (Deutsch) Connectors



Pin	Signal	Description
1	CAN_GND	CAN Ground
2	CAN_V+	Option CAN external Power Supply
3	CAN_H	CAN_H bus line dominant high
4	CAN_L	CAN_L bus line dominant low
5	CAN_SHLD	
6	Not used	
7	Not used	
8	Not used	
9	Not used	

Hat Encoding

Desired ASCII	Hex Value	Hat Encoded
NUL	0X00	^@
SOH	0X01	^A
STX	0X02	^B
ETX	0X03	^C
EOT	0X04	^D
ENQ	0X05	^E
ACK	0X06	^F
BEL	0X07	^G
BS	0X08	^H
HT	0X09	^I
LF	0X0A	^J
VT	0X0B	^K
FF	0X0C	^L
CR	0X0D	^M
SO	0X0E	^N
SI	0X0F	^O
DLE	0X10	^P
DC1 (XON)	0X11	^Q
DC2	0X12	^R
DC3 (XOFF)	0X13	^S
DC4	0X14	^T
NAK	0X15	^U
SYN	0X16	^V
ETB	0X17	^W
CAN	0X18	^X
EM	0X19	^Y
SUB	0X1A	^Z
ESC	0X1B	^[
FS	0X1C	^\\
GS	0X1D	^]
RS	0X1E	^^
US	0X1F	^ (Underscore)
	0X7F	^?
	80	~^@
	81	~^A
	82	~^B
	83	~^C
IND	84	~^D
NEL	85	~^E
SSA	86	~^F
®	AE	~. (Period)
¯	AF	~/
°	B0	~0 (Zero)
±	B1	~1

Desired ASCII	Hex Value	Hat Encoded
ESA	87	~^G
HTS	88	~^H
HTJ	89	~^I
VTS	8A	~^J
PLD	8B	~^K
PLU	8C	~^L
RI	8D	~^M
SS2	8E	~^N
SS3	8F	~^O
DCS	90	~^P
PU1	91	~^Q
PU2	92	~^R
STS	93	~^S
CCH	94	~^T
MW	95	~^U
SPA	96	~^V
EPA	97	~^W
	98	~^X
	99	~^Y
	9A	~^Z
CSI	9B	~^[
ST	9C	~^\\
OSC	9D	~^]
PM	9E	~^^
APC	9F	~^_ (Underscore)
(no-break space)	A0	~ (Tilde and Space)
¡	A1	~!
¢	A2	~"
£	A3	~#
¤	A4	~$
¥	A5	~%
¦	A6	~&
§	A7	~'
¨	A8	~(
©	A9	~)
ª	AA	~*
«	AB	~+
¬	AC	~,
(soft hyphen)	AD	~- (Dash)
×	D7	~W
Ø	D8	~X
Ù	D9	~Y
Ú	DA	~Z

Desired ASCII	Hex Value	Hat Encoded
²	B2	~2
³	B3	~3
´	B4	~4
µ	B5	~5
¶	B6	~6
·	B7	~7
¸	B8	~8
¹	B9	~9
º	BA	~:
»	BB	~;
¼	BC	~<
½	BD	~=
¾	BE	~>
¿	BF	~?
À	C0	~@
Á	C1	~A
Â	C2	~B
Ã	C3	~C
Ä	C4	~D
Å	C5	~E
Æ	C6	~F
Ç	C7	~G
È	C8	~H
É	C9	~I
Ê	CA	~J
Ë	CB	~K
Ì	CC	~L
Í	CD	~M
Î	CE	~N
Ï	CF	~O
Ð	D0	~P
Ñ	D1	~Q
Ò	D2	~R
Ó	D3	~S
Ô	D4	~T
Õ	D5	~U
Ö	D6	~V

Desired ASCII	Hex Value	Hat Encoded
Û	DB	~[
Ü	DC	~\\
Ý	DD	~]
Þ	DE	~\^
ß	DF	~_ (Underscore)
à	E0	~`
á	E1	~a
â	E2	~b
ã	E3	~c
ä	E4	~d
å	E5	~e
æ	E6	~f
ç	E7	~g
è	E8	~h
é	E9	~i
ê	EA	~j
ë	EB	~k
ì	EC	~l
í	ED	~m
î	EE	~n
ï	EF	~o
ð	F0	~p
ñ	F1	~q
ò	F2	~r
ó	F3	~s
ô	F4	~t
õ	F5	~u
ö	F6	~v
÷	F7	~w
ø	F8	~x
ù	F9	~y
ú	FA	~z
û	FB	~{
ü	FC	~|
ý	FD	~}
þ	FE	~~
ÿ	FF	~^?

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Customer Support

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, please visit www.honeywellaidc.com and select **Support > Contact Service and Repair** to see your region's instructions on how to obtain a Return Material Authorization number (RMA #). You should do this prior to returning the product.

Technical Assistance

If you need assistance installing or troubleshooting your device, please contact us by using one of the methods below:

Knowledge Base: www.hsmknowledgebase.com

Our Knowledge Base provides thousands of immediate solutions. If the Knowledge Base cannot help, our Technical Support Portal (see below) provides an easy way to report your problem or ask your question.

Technical Support Portal: www.hsmsupportportal.com

The Technical Support Portal not only allows you to report your problem, but it also provides immediate solutions to your technical issues by searching our Knowledge Base. With the Portal, you can submit and track your questions online and send and receive attachments.

Web form: www.hsmcontactsupport.com

You can contact our technical support team directly by filling out our online support form. Enter your contact details and the description of the question/problem.

Telephone: www.honeywellaidc.com/locations

For our latest contact information, please check our website at the link above.

Limited Warranty

Honeywell International Inc. ("HII") warrants its products to be free from defects in materials and workmanship and to conform to HII's published specifications applicable to the products purchased at the time of shipment. This warranty does not cover any HII product which is (i) improperly installed or used; (ii) damaged by accident or negligence, including failure to follow the proper maintenance, service, and cleaning schedule; or (iii) damaged as a result of (A) modification or alteration by the purchaser or other party, (B) excessive voltage or current supplied to or drawn from the interface connections, (C) static electricity or electrostatic discharge, (D) operation under conditions beyond the specified operating parameters, or (E) repair or service of the product by anyone other than HII or its authorized representatives.

This warranty shall extend from the time of shipment for the duration published by HII for the product at the time of purchase ("Warranty Period"). Any defective product must be returned (at purchaser's expense) during the Warranty Period to HII factory or authorized service center for inspection. No product will be accepted by HII without a Return Materials Authorization, which may be obtained by contacting HII. In the event that the product is returned to HII or its authorized service center within the Warranty Period and HII determines to its satisfaction that the product is defective due to defects in materials or workmanship, HII, at its sole option, will either repair or replace the product without charge, except for return shipping to HII.

EXCEPT AS MAY BE OTHERWISE PROVIDED BY APPLICABLE LAW, THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER COVENANTS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, ORAL OR WRITTEN, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT.

HII'S RESPONSIBILITY AND PURCHASER'S EXCLUSIVE REMEDY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT WITH NEW OR REFURBISHED PARTS. IN NO EVENT SHALL HII BE LIABLE FOR INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, AND, IN NO EVENT, SHALL ANY LIABILITY OF HII ARISING IN CONNECTION WITH ANY PRODUCT SOLD HEREUNDER (WHETHER SUCH LIABILITY ARISES FROM A CLAIM BASED ON CONTRACT, WARRANTY, TORT, OR OTHERWISE) EXCEED THE ACTUAL AMOUNT PAID TO HII FOR THE PRODUCT. THESE LIMITATIONS ON LIABILITY SHALL REMAIN IN FULL FORCE AND EFFECT EVEN WHEN HII MAY HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH INJURIES, LOSSES, OR DAMAGES. SOME STATES, PROVINCES, OR COUNTRIES DO NOT ALLOW THE EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

All provisions of this Limited Warranty are separate and severable, which means that if any provision is held invalid and unenforceable, such determination shall not affect the validity of enforceability of the other provisions hereof. Use of any peripherals not provided by the manufacturer may result in damage not covered by this warranty. This includes but is not limited to: cables, power supplies, cradles, and docking stations. HII extends these warranties only to the first end-users of the products. These warranties are non-transferable.

The duration of the limited warranty for the Thor VM3 is 1 year.

The duration of the limited warranty for the Thor VM3 Quick Mount Smart Dock is 1 year.

The duration of the limited warranty for the Thor VM3 Vehicle Mount Assembly is 1 year.

The duration of the limited warranty for the Thor VM3 internal UPS battery is 1 year.

The duration of the limited warranty for the Thor VM3 AC power supply and cables is 1 year.

The duration of the limited warranty for the Thor VM3 DC/DC power supply is 1 year.

The duration of the limited warranty for the Thor VM3 cables (USB, Serial, Communication, Power) is 1 year.

The duration of the limited warranty for the Thor VM3 headset is 1 year.

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