WDT3250 RF
Setup Guide

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Overview

Thank you for choosing one of the following products:
- SDC-CF10G compact flash radio module with antenna connectors
- SDC-CF20G compact flash radio card with integrated antennas
- SDC-PC10G PCMCIA radio module with antenna connectors
- SDC-PC20G PCMCIA radio card with integrated antennas

(If you are using the SDC-MCF10G miniature compact flash radio module with antenna connectors, contact Wasp for hardware installation information and assistance. The software is the same as for other Summit products.)

When you install and use your Summit radio module or card in a computing device, that device can communicate to a computing network using the IEEE 802.11g and IEEE 802.11b protocols.

The software provided for these radio modules runs on the computing device (your PC, for example)that houses the module. That software includes:
- A device driver
- An integrated IEEE 802.1X supplicant, which supports the highest level of standards-based WLAN
  security with a broad range of options
- The Summit Client Utility (SCU), a configuration, monitoring, and management application designed for Summit radio modules
- On Windows CE/Mobile, a service that displays a Windows System Tray icon that provides a visual status for the Summit radio and enables the user to launch SCU by tapping the icon

SDC-PC10G   SDC-PC20G

SDC-CF10G   SDC-CF20G

This software runs on the following operating systems:
- Windows CE .NET 4.2 and Windows Mobile (or Pocket PC) 2003
- Windows CE .NET 5.0 and Windows Mobile 5.0 and 6.0
- Windows XP and Windows XP Embedded (XPe)

Your Summit radio module is Wi-Fi CERTIFIED$^{®}$ and certified for Cisco Compatible Extensions (CCX):

- **Wi-Fi:** The Wi-Fi Alliance certifies that Summit radio modules support 802.11b and 802.11g with WPA and WPA2, both Personal and Enterprise. The tested EAP type was PEAP-MSCHAPv2. For details, visit the Wi-Fi Alliance Web site at http://www.wi-fi.com, click on the "Wi-Fi CERTIFIED$^{®}$ Products" link, and search for Summit Data Communications.
- **CCX:** Summit radio modules are certified to Version 3 of the CCX specification for application-specific devices (ASDs). For an overview of CCX, go to http://www.cisco.com/web/partners/pr46/pr147/partners_pgm_concept_home.html. For details on the features in CCX V3 for ASDs, go to http://www.cisco.com/warp/public/765/ccx/versions_and_features.shtml.

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Using the Summit Client Utility Software

Summit Client Utility (SCU) provides a graphical user interface (GUI) for access to all of its functions. Access to these functions also is available through an application programming interface (API). The API allows an application programmer to enable another utility to manage the radio.

To open the SCU:
- From the **Start** menu, select **Programs**
- Select the directory called **Summit**
- Inside the **Summit** directory are two items: a directory for the storage of security certificates and an SCU icon. To run SCU, double-click the SCU icon

SCU has five windows: **Main**, **Profile**, **Status**, **Diags** (or Troubleshooting), and **Global**. Tabs enable easy navigation between windows. Each window is described in more detail in this section. Simply click on a tab name to view that window.

Main Window

Figure 1 below is an example of the **Main** window:
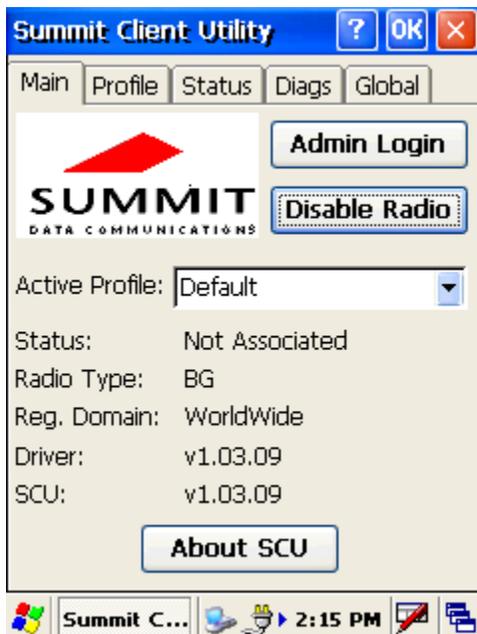
Figure1: Main Window

The features on the **Main** screen are:

- **Admin Login/Logout:** To login to SCU as an administrator, you select this button when "Admin Login" is displayed and supply the correct admin password on the dialog box. The default password is "SUMMIT" in all capital letters. (The password can be changed through the Admin Password function on the Global Settings window.) Once you are logged in as an administrator, clicking the button again logs you out as an administrator, leaving you with access only to end-user functions.
- **Enable/Disable Radio:** When the radio is enabled, selecting this button disables it; when the radio is disabled, selecting this button enables it.
- **Active Profile:** This field displays the name of the Active Profile. You can change this to a different profile by clicking the down arrow and making a selection from the list of available profiles. If you select "ThirdPartyConfig", after the device goes through a power cycle, WZC is used for configuration of the

radio.
- **Status:** Indicates the radio's status.
- **Radio Type:** Indicates the type of radio in the device. "BG" means a Summit radio that supports 802.11b and 802.11g.
- **Regulatory Domain:** Indicates the regulatory domain or domains for which the radio is configured. "Worldwide" means that the radio can be used in any domain. The domain cannot be configured by an administrator or user.
- **Driver:** Indicates the version of the device driver that is running on the device.
- **SCU:** Indicates the version of SCU that is running on the device.
- **About SCU:** When tapped, supplies information on SCU that, on a Windows application, normally would appear under Help | About.

Profile Window

Profile settings are radio and security settings that are stored in the registry as part of a configuration profile. When a profile is selected as the active profile on the **Main** window, the settings for that profile become active. An administrator can define up to 20 profiles, edit them, and delete them on the **Profile** window in SCU. *Profile changes made on this screen are saved to the profile only when the Commit button is pressed.*

Unless it is modified, the default profile does not specify an SSID, EAP type, or method of encryption. If the default profile is the active profile, then the radio will associate only to an access point that broadcasts its SSID and requires no EAP type and no encryption.

Figure 2 below is an example of a **Profile** window:
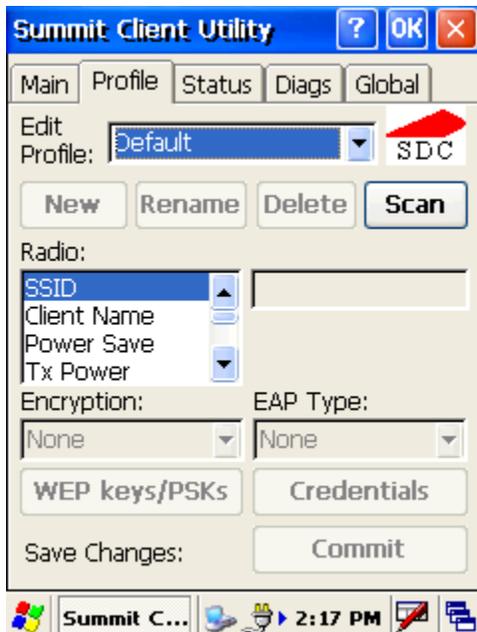
Figure 2: Profile window

The features on the **Profile** screen are:
- **Edit Profile:** This is used to select the profile to be viewed or, if you are an administrator, edited.
- **Actions:** Four actions are available, with the first three available only to an administrator:
    - *New:* Create a new profile with default settings and give it a unique name (and then change settings using other selections on the window).
    - *Rename:* Give the profile a new name. This name cannot be assigned to another profile.

- *Delete:* Delete the profile, provided that it is not the active profile.
- *Scan:* Open a window that lists access points that are broadcasting their SSIDs. Each time you tap the **Refresh** button, you view an updated list of APs, with each row showing an AP's SSID, its received signal strength indication (RSSI), and whether or not data encryption is in use (true or false). You can sort the list by clicking on the column headers. If you are authorized as an administrator, you can create a profile for one of the listed SSIDs by highlighting it and tapping **Commit**. You will be returned to the Profile window where you can create a profile for that SSID.

- **Radio:** Radio attributes in the list box can be selected individually. When an attribute is selected, the current setting or an appropriate selection box with the current setting highlighted appears on the right side of the screen.

- **Security:** Values for the two primary security attributes, EAP type and encryption type, are displayed in separate dropdown lists, with the current values highlighted. When you as an administrator select an EAP type, the **Credentials** button appears. When you tap **Credentials,** a dialog box appears that enables you to define authentication credentials for that EAP type. When you as an administrator select an encryption type that requires the definition of WEP keys or a pre-shared key, the **PSKs/WEP Keys** button appears. When you tap this button, a dialog box appears that enables you to define WEP keys or a PSK.

- **Commit:** To ensure that changes to profile settings made on the window are saved in the profile, you must tap the **Commit** button.

- **Scan:** To view available wireless networks

To cause a Summit radio to connect to a typical business WLAN, you must select a profile that specifies the SSID, EAP type, and encryption type supported by the WLAN:

- **SSID**: This is the name or identification of the WLAN.

- **EAP type**: This is the protocol used to authenticate the device and its user if the WLAN uses the Enterprise version of Wi-Fi Protected Access (WPA) and WPA2. SCU supports five EAP types: PEAP with EAP-MSCHAP (PEAP-MSCHAP), PEAP with EAP-GTC (PEAP-GTC), EAP-TLS, LEAP, and EAP-FAST

- **Encryption:** This specifies the type of key used to encrypt and decrypt transmitted data and how that key is specified or derived. Encryption options include:
  - WPA2 or WPA with dynamic keys (derived from the EAP authentication process)
  - WPA2 or WPA with pre-shared keys
  - Static WEP keys

Status Window

The **Status** window provides status information on the radio. A sample **Status** window is shown in Figure 3.
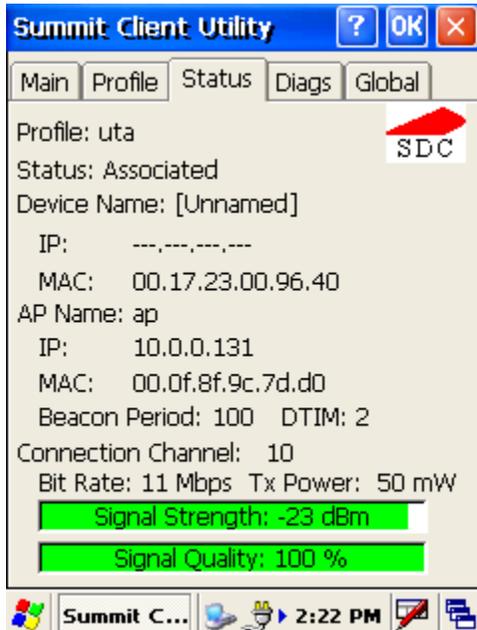
Figure 3: Status window

The information available on the **Profile** screen is listed below:

- **Profile:** This field lists the active profile.
- **Status:** This field indicates the radio's current status. Possible statuses are: **Down** (not recognized), **Disabled**, **Not Associated**, **Associated**, or [EAP type] **Authenticated**
- **Device Name:** This section lists the following client info: Name, IP address, and MAC address
- **AP Name:** This section lists the following AP info: Name, IP address, MAC address, beacon period, and DTIM interval
- **Connection Channel:** This section lists the following channel info: Channel, data rate, transmit power, signal strength, and signal quality

Diags Window

A sample Diags, or troubleshooting, window is shown in Figure 4 below:
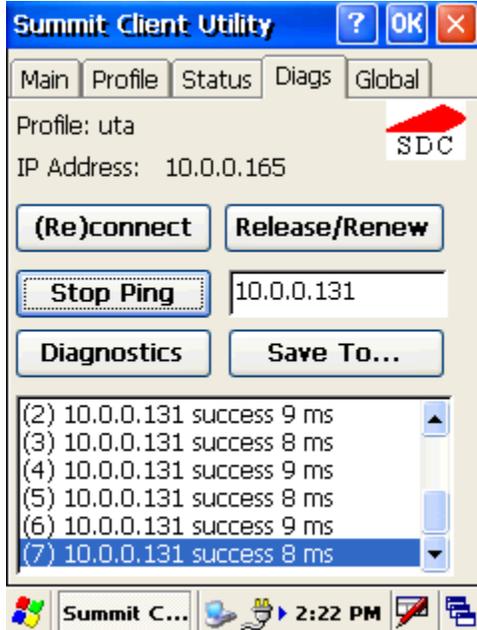
Figure 4: Diags window, with ping active

The functions available on the Diags window are listed below:

- **(Re)connect:** Disable and enable the radio, apply or reapply the current profile, and attempt to associate and authenticate to the wireless LAN. All activity is logged in the window at the bottom of the screen.

- **Release/Renew:** Obtain a new IP address through DHCP release/renew. All activity is logged in the window at the bottom of the screen.

- **Start/Stop Ping:** Start a continuous ping to the address in the edit box next to it. Once the button is clicked, its name and function will change to **Stop Ping**. Moving to an SCU window other than **Status** or **Diags** also will stop the ping. Pings will continue until you tap the **Stop Ping** button, move to an SCU window other than **Diags** or **Status**, exit **SCU**, or remove the radio.

- **Diagnostics:** Attempt to (re)connect to an AP, and provide a more thorough dump of data than is obtained with (Re)connect. The dump will include radio state, profile settings, global settings, and a BSSID list of APs in the area.

- **Save To...:** Save the diagnostics output to a file.

Global Window

Global settings include:
- Radio and security settings that apply to all profiles
- Settings that apply to SCU itself

An administrator can define and change most global settings on the Global Settings window in SCU. A sample Global Settings window is shown in Figure 5 on the next page:
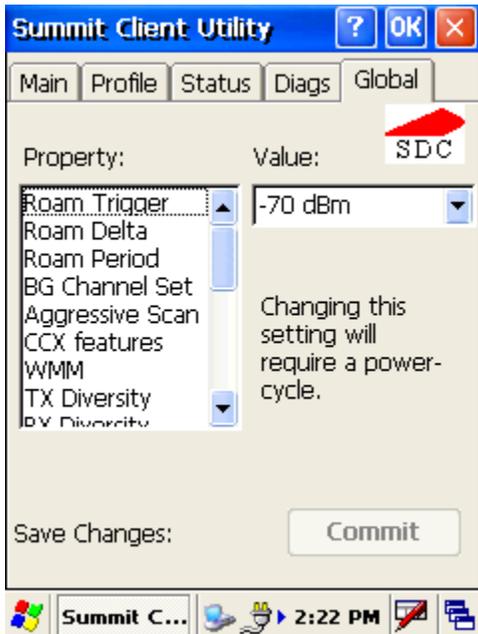
Figure 5: Global window

The default setting for each global setting ensures reliable operation in most environments. Consult the user's guide for details on all global settings.