

# Avalanche Remote Control User Guide

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# Chapter 1: Introduction

This document contains information about Avalanche Remote Control, an Avalanche plug-in software package. It provides the following information:

- Remote Control Overview
- About This Document

#### Remote Control Overview

Remote Control gives you the ability to view and control your mobile devices remotely. Remote Control allows an administrator to remotely diagnose and remedy both applications and device settings, or provide guidance for an end-user. This reduces mobile device down-time and increases end-user productivity. Remote Control can also be used for presenting software to an audience, rapid data entry, or automated software testing.

Remote Control allows multiple instances of itself to run. Each instance can control a separate device. If using a LAN connection for more than one device, each copy of Remote Control must be started and connected to a device before another is started.

Remote Control also features Wireless Wide Area Network (WWAN) compatibility. This allows you to wake up your mobile device and connect to it via Remote Control using WWAN technology.

This section contains the following information:

- Remote Control Features
- Remote Control Components

#### Remote Control Features

The following list describes just some of the features available in Remote Control:

- Capture up to 18 frames per second (depending on the device and the method of communication).
- Capture session to a standard AVI file for distribution.
- Create your own scripts to control your device, including launching applications remotely.

One-click capture of a snapshot of the screen to the clipboard or a .bmp, .gif, or .jpg file.

- Auto-discovery of the target devices on a LAN.
- Support for custom skins.
- Support for ActiveSync, wireless LAN and WWAN.
- Connect to a remote device through either the Avalanche Java Console or the Avalanche Web Console.

#### Remote Control Components

Remote Control has the following components:

- Remote Control Server. The Remote Control Server facilitates network
  connections for Remote Control. You can configure server connection settings and
  set up the SMS e-mail gateway or GSM modem from the Remote Control Console.
- Remote Control Client. The client portion of Remote Control is deployed to a
  mobile device as an Avalanche package and runs automatically when you start-up
  or reboot the device. Remote Control can also be launched from the Start menu.
  Once you download the Remote Control package to the mobile device, you can
  configure a limited number of client-side settings.
- Remote Control Standard Viewer. The Standard Viewer allows you to interact with a remote device you are connected to. The Standard Viewer is accessed through the Avalanche Java Console or the Remote Control Console.
- Remote Control Web Viewer. The Remote Control Web Viewer allows you to interact with a remote device through a web browser. The Remote Control Web Viewer is accessed through the Avalanche Web Console.

NOTE You cannot connect to a device with both the Web Viewer and the Standard Viewer at the same time.

Remote Control Console. The Remote Control Console on the server-side allows
you to configure default settings, connection settings, client-side settings, and
client-run scenarios.

Keymap Editor. The Keymap Editor allows you to import device skin images you
download or create and then assign keymaps to the skins. When a skin is
associated with a connection, an image of the device is displayed along with the
screen, and you can click on device buttons to perform tasks.

# **About This Document**

This document makes the following assumptions:

- The user is comfortable in a Windows application environment.
- The user is familiar with the wireless hardware in use, specifically the mobile device.
- The user is familiar with Avalanche Site Edition (SE) or Avalanche Mobility Center (MC).

This document uses the following typographical conventions:

Courier New

Any time you type specific information into a text box (such as a file name), that information appears in the Courier New font. This text style is also used for any keyboard commands that you might need to press.

**Examples:** 

Navigate to C:\deploy.

Press CTRL+ALT+DELETE.

**Bold** Any time this document refers to an option, such as

descriptions of different options in a dialog box, that

option appears in the **Bold** text style.

Examples:

Click **Open** from the **File** menu.

Any time this document refers to another section within the document, that section appears in the *Italics* text style. This style is also used to refer to the

titles of dialog boxes.

Example:

See *Components of Avalanche MC* on page 13 for more information.

The *Infrastructure Profiles* dialog box appears.

**Italics** 

# Chapter 2: Installing Avalanche Remote Control

Remote Control comes as two separate files: the Remote Control Server installation file (.exe) and the Remote Control software package (.ava). The installation file installs the Remote Control server on a local machine. The Remote Control software package contains the client software that needs to be installed on the mobile device. The software package must be added to an Avalanche software profile before it can be configured and deployed to the device.

This chapter provides the following information:

- System Requirements
- Installing the Remote Control Server on Windows
- Installing the Remote Control Server on Linux
- Adding the Software Package to a Software Profile

In addition, if you are not installing Remote Control on the same machine as the Avalanche Enterprise Server database, or are using Oracle or Microsoft SQL Server as your database platform, you should review the following task:

Configuring the Database for Remote Access

NOTE Use of Remote Desktop or other terminal services in conjunction with Wavelink Avalanche Remote Control is not recommended.

# System Requirements

There are two sets of requirements necessary to install and run Avalanche Remote Control: for installing the Remote Control Server and for installing the Remote Control Client. You must have Avalanche Mobility Center OR Site Edition 4.8.1 or later installed in order to use Remote Control. Wavelink recommends installing Remote Control local to the Enterprise Server database.

- Server System Requirements for Windows
- Server System Requirements for Linux
- Client System Requirements

# Server System Requirements for Windows

- Windows XP, Vista or Server 2008
- 150 MB of disk space required; 200-250 MB recommended

## Server System Requirements for Linux

- Linux 2.6 kernel
- 50 MB of disk space required; 100-150 MB recommended
- JRE 1.6.x

## Client System Requirements

- Avalanche Enabler 3.50-12 or later versions
- Windows CE (4.2 or later), PocketPC 2003, Windows Mobile (5.0 or later), Windows XP, or Windows XP embedded devices
- 200 KB of disk space
- 200 KB of Flash memory

# Installing the Remote Control Server on Windows

The Remote Control Server installation file installs the Remote Control Server. The Remote Control software package and Client are installed separately.

**NOTE** To complete the installation, you will need to know the ports and addresses for the Avalanche Enterprise Server database and the License Server.

#### To install the Remote Control Server:

- 1 Obtain the Remote Control Server installation file and save it on the system where you want to install the Remote Control Server.
- 2 Double-click the Remote Control Server installation file.

A Welcome dialog box appears.

3 Click Next.

The *License Agreement* dialog box appears.

4 Agree to the terms of the license and click Next.

The Select Destination Location dialog box appears.

5 Click Next to accept the default installation folder, or click Browse to navigate to a folder of your choice. After you select an installation folder, click Next to continue the installation process.

The Select Start Menu Folder dialog box appears.

- 6 Click **Browse** to navigate to and select the folder where you want to create Remote Control shortcuts in the **Start** menu.
- 7 Click Next.

The *Ready to Install* dialog box appears.

8 Click **Install** to begin the installation.

The Remote Control Setup Wizard installs Remote Control.

- 9 Click **Finish** to close the wizard.
- 10 Remote Control will launch a web browser in order to present you with the database and license server configuration options. You can configure the following options on the Avalanche Database tab:

DB Type The type of the database. If you are using the built-in

database that came with Avalanche, this is Postgres.

DB Server The IP address or DNS name of the database.

Database The name of the Enterprise Server database. If you

are using Oracle, this is the SID. If you are using the built-in database that came with Avalanche, this is avalanchexx, where xx is a two-digit Avalanche version number. For example, If you are using

Avalanche 5.0.1, the database is named

avalanche50.

Port The port the database is listening on. If you are using

the built-in database, this is 5432.

User ID The username for the database. If you are using the

built-in database, this is postgres

Password The password for the database. If you are using the

built-in database, this is admin23

On the **License Server** tab, you can configure the IP address or DNS name of the license server and the port the license server is listening on.

**NOTE** If Remote Control is installed local to the Avalanche Enterprise Server, use localhost as the address.

11 Configure the database and license server information and click **Save**.

Remote Control is installed on your machine and you can now install the Remote Control software package.

# Installing the Remote Control Server on Linux

The Remote Control Server installation file installs the Remote Control Server. The Remote Control software package and Client are installed separately.

#### To install the Remote Control Server:

- 1 Create a directory where Remote Control will be installed.
- 2 Extract the Remote Control tar file to the directory with the following command:

```
-tar -xvf [filename].tar
```

where {filename} is the name of the Remote Control tar file.

- 3 Using a web browser, navigate to http://localhost:1900/app/setup.vm
- 4 Configure the database address, license server address, and the port for the license server.

You can configure the following options on the **Avalanche Database** tab:

DB Type The type of the database. If you are using the built-in

database that came with Avalanche, this is Postgres.

DB Server The IP address or DNS name of the database.

Database The name of the Enterprise Server database. If you

are using Oracle, this is the SID. If you are using the built-in database that came with Avalanche, this is avalanchexx, where xx is a two-digit Avalanche version number. For example, If you are using

Avalanche 5.0.1, the database is named

avalanche50.

Port The port the database is listening on. If you are using

the built-in database, this is 5432.

User ID The username for the database. If you are using the

built-in database, this is postgres

Password The password for the database. If you are using the

built-in database, this is admin23

On the **License Server** tab, you can configure the IP address or DNS name of the license server and the port the license server is listening on.

**NOTE** If Remote Control is installed local to the Avalanche Enterprise Server, use localhost as the address.

- 5 Configure the database and license server information and click **Save**.
- **6** From the command line, navigate to the Remote Control directory that was created in the installation directory.
- 7 To start the server, type ./wlrcserv.sh

The service will run as long as the window is open.

8 Modify the firewall to allow Remote Control traffic. Remote Control uses ports 1899 and 1900.

# Adding the Software Package to a Software Profile

The Remote Control software package must be added to a software profile in Avalanche in order to deploy it to your mobile devices. You can add the package to a new or existing software profile. After the package has been added to a profile, you can configure, enable, and deploy it to mobile devices.

For details about creating and deploying software profiles or adding and configuring software packages in Avalanche SE or MC, refer to the appropriate user guide.

# Configuring the Database for Remote Access

If the Remote Control Server is installed on the same computer as the Avalanche Enterprise database, you do not need to configure the database for remote access. However, if the Remote Control Server is not installed on the same machine as the Enterprise Server database, you need to configure the database so that Remote Control can access it. If you are using Microsoft SQL Server or Oracle, ask your database administrator for instructions. If you have a PostgreSQL database, you can use the following steps.

#### To configure a PostgreSQL database for remote access:

- 1 Stop the database server.
- 2 On the machine where the database is, navigate to the PostgreSQL data directory. If you used Avalanche to install PostgreSQL, it will be in the following location:

[installation directory]\Wavelink\AvalancheXX\db\data

- 3 Using a text editor, open pg\_hba.conf
- 4 Add the following line:

```
host all all 0.0.0.0/0 md5
```

Where 0.0.0.0/0 is the range of addresses you will accept a connection from. This should include the address of the machine where Remote Control is installed. For example, 10.10.29.0/24

- 5 Save your changes.
- 6 Restart the database server.

# Chapter 3: Licensing

Remote Control requires one license for each mobile device it manages. You can access and configure the Remote Control Console without a license, but you will not be able to communicate with a mobile device.

Licensing is handled through the License Server installed with Avalanche. The License Server is responsible for supplying licenses to Remote Control mobile devices. Before you can use Remote Control, you must activate your Remote Control licenses through Avalanche and provide Remote Control with the address of the License Server.

This chapter provides the following licensing information:

- Types of Licenses
- Activating Remote Control Licenses
- Setting the License Server Address
- Verifying Licensing

# Types of Licenses

Remote Control requires a license for each mobile device it manages. When a Mobile Device Server detects a new wireless device, a license request is sent to the License Server. The License Server then sends a license to the Mobile Device Server to be distributed. The license file is unique to the server and cannot be transferred to another server. Once the device receives the license, Remote Control can connect to that device. If a license expires or is released, the license returns to the pool of licenses at the License Server until it is requested by another server.

**NOTE** The License Server uses TCP port 7221. For the License Server to function properly, this port must be open and not blocked by a firewall.

There are two sets of licenses available with Remote Control: base and maintenance. Base licenses are required to manage devices when using any variety of Remote Control version 4 (4.x). You will also need maintenance licenses if you have upgraded beyond version 4.1. For example, if you upgraded to 4.5, you would need a 4.x base license and a maintenance license for each device you want to manage.

Base licenses do not expire. Maintenance licenses are valid through a specific date. For users' convenience, some licenses may come with a license start date. You can activate these licenses and they will appear in the *Licensing* dialog box, but the License Server will not be able to distribute them until the date specified.

**NOTE** To obtain Remote Control licenses, please contact Wavelink Customer Service.

# **Activating Remote Control Licenses**

After installing the Remote Control software package, you need to activate it with a valid license code. This section provides the following information about activating your Remote Control licenses:

- Activating Remote Control
- Activating Demo Mode

## **Activating Remote Control**

In order to use your licenses for Remote Control, you need to activate them through the Avalanche Console.

#### To activate Remote Control:

1 Obtain the Avalanche product licensing code from Wavelink.

**NOTE** You receive this information in an e-mail from Wavelink upon purchasing Remote Control.

2 From the Avalanche Console, click **Tools > Manage Licensing**.

The *Licensing* dialog box appears.

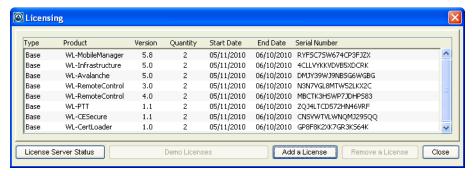


Figure 3-1. *Licensing dialog box* 

#### 3 Click Add a License.

The Add a License dialog box appears.

4 Click Activate a License.

The Activate a License dialog box appears.

5 Type the Product License in the text box and click **Activate**.

Avalanche connects with a secure Wavelink Web site and your license is verified. The licenses appear in the *Licensing* dialog box.

# **Activating Demo Mode**

If you are installing Remote Control for demonstration purposes, you can run the product in demo mode. When you activate Demo Mode in Avalanche, you activate all the demo licenses for that installation. Demo mode authorizes 2 base licenses for 30 days for the following products:

- Avalanche 5.0 (2 mobile device licenses and 2 infrastructure device licenses)
- Remote Control 4.0
- Remote Control 3.0
- Communicator 1.1
- CE Secure 1.1
- Certificate Manager 1.0

#### To activate demo mode:

1 Access the *Licensing* dialog box from the Avalanche Console by clicking **Tools** > **Manage Licensing**.

The *Licensing* dialog box appears.

2 Click Demo Licenses.

Avalanche and Remote Control will run in demo mode. Once demo mode has been activated on one Console, no other Console connecting to the Enterprise Server will be able to activate demo mode.

# Setting the License Server Address

The License Server address is set when you finish the installation process. You can change the License Server address and port number from the **Licenses** tab of the Remote Control Console. For details about launching the Remote Control Console, refer to *Launching the Remote Control Console* on page 19.

#### To set the License Server address:

- 1 Launch the Remote Control Console and select the **Licensing** tab.
- 2 In the License Server text box, enter the name or IP address of the computer on your network running the License Server.
- 3 In the **Port** text box, enter the port the License Server is using.
- 4 Click **Save** to save your changes.

# Verifying Licensing

From the **Licenses** tab of the Remote Control Console, you can verify that the License Server is running. You can also review the total number of licenses currently in use.

#### To verify licensing:

- 1 Launch the Remote Control Console and select the **Licensing** tab.
- 2 In the Verify Connection region, click Verify.

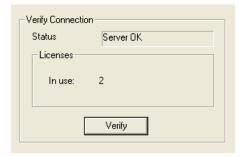


Figure 3-2. Verifying Connections

- If the License Server can be contacted, the **Status** field displays the message **Server OK**.
- If the License Server cannot be contacted, the **Status** field displays the message **Could not verify server**.

In the Licenses region, you can view the number of licenses that are currently in use.

# Chapter 4: Creating Remote Control Connection Profiles

Once Remote Control is installed and licensed, you can launch the Remote Control Console and configure connection profiles. Connection profiles are collections of settings used to connect to your mobile device. You apply profiles to devices depending on what method you want to use to connect to the device.

When you create profiles, you select one profile to use as a default profile. The default profile is used for any mobile device connections that do not have a specific profile assigned.

**NOTE** Connection profiles are specific to the Standard Viewer. The Web Viewer automatically uses a Server connection.

Configuring profile settings consists of the following tasks:

- Launching the Remote Control Console
- Creating a New Connection Profile
- Configuring Connection Profiles
- Configuring Auto-Discovery Settings

# Launching the Remote Control Console

Use the configuration options in the Remote Control Console to customize the way you connect to and view your mobile devices. The console is the same whether you launch it through Avalanche SE or MC.

In order to connect to or control devices with Remote Control, you must have a Remote Control license for each mobile device. You must also have Avalanche Remote Control Read/Write permissions. For information on setting user permissions from the Avalanche Console, see your Avalanche Java Console User Guide.

#### To launch the Remote Control Console:

1 From the Avalanche Java Console, select the software profile that contains the Remote Control package you want to configure and click the **Software Profile** tab.

**NOTE** You cannot launch the Remote Control Console from the Avalanche Web Console.

2 Select the Remote Control package and click **Configure**.

The Configure Software Package dialog box appears.

3 From the text box, select **Remote Control Console** and click **OK**.

If the Console can connect to the Remote Control Server, the Remote Control Console launches.

# Creating a New Connection Profile

A connection profile defines the settings for each connection established with the Remote Control Standard Viewer. The settings for each profile include the video mode, skin, refresh rate, scale, logging, and recording methods. You can create new connection profiles or modify the profiles that already exist in Remote Control.

NOTE The settings do not apply to connections established with the Web Viewer.

#### To create a new profile:

- 1 Open the Remote Control Console and click the **Profiles** tab.
- 2 Select Profile > New.

A new profile appears in the list box. You can now configure the profile's settings to connect to a mobile device.

**NOTE** If you want to modify an existing profile, select the profile you want to modify from the list on the **Profiles** tab and edit the settings. Click **Update** to save your changes.

# **Configuring Connection Profiles**

Connection profiles allow you to define how Remote Control connects to a mobile device. They are configured from the **Profiles** tab of the Remote Control Console.

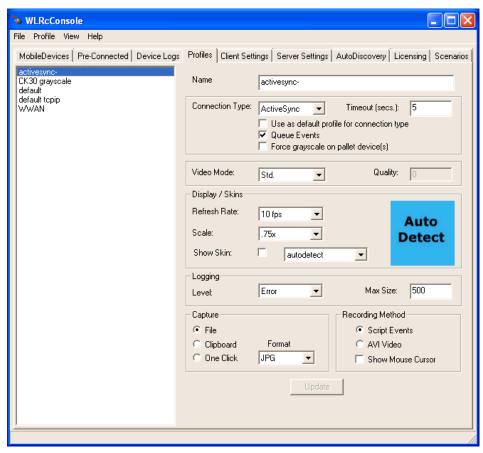


Figure 4-1. Remote Control Console - Profiles tab

The following options are available when configuring a connection profile:

Name

The name of the connection profile.

Connection Type

The method used to connect to the device. You can connect using:

- TCPIP. The client is accessed through a direct TCP/IP connection to the device.
- ActiveSync. The client is accessed through an ActiveSync connection.
- Server. Remote Control checks to see if the client is
  pre-connected to the Server. If not, Remote Control tries
  to contact the device. If the Try Network Connection
  First option is selected on the server tab, a UDP
  connection request will be sent to the device. If this fails to
  initiate a connection and the device has a valid phone
  number and carrier assigned, a SMS request is sent to the
  device.

Remote Control broadcasts a short message on the local network to find devices with Remote Control installed. All of the devices that respond are displayed in the Connections list. Once a connection is made, no more broadcast messages are sent. This method will not be able to get past routers, but it is convenient when using dynamic IP addresses.

The WWAN connection uses a provided IP address to connect to the target device even across the internet. Open port 1899 in the firewall for a WWAN connection.

It is preferable to use a direct communication method, if possible.

Timeout

The length of time in seconds before Remote Control stops attempting to connect.

connection type

Use as default profile for When this option is enabled, the current profile is used whenever you establish a connection using the current connection type.

> NOTE If you want to establish a connection using a profile other than the default profile, you must initiate the session from the **Mobile Devices** tab of the Remote Control Console.

Queue Events

When this option is enabled, Remote Control sends groups of requests to the mobile device rather than sending each request as a single packet.

pallet device(s)

Force grayscale on 8-bit When this option is enabled, Remote Control displays the device screen in grayscale.

> **NOTE** This option only applies to devices that have a video controller using an 8-bit-per-pixel palette display. This option does not affect any device using more than 256 colors.

Video mode

Sets the amount of data required for screen updates. There are three video modes:

- **Std.** (Standard). Uses the legacy video compression scheme.
- Image (JPEG-based). Uses JPEG-based image compression. The JPEG format is a lossy compression, where data may not appear exactly as it did on the mobile device. The amount of compression is expressed in the Quality text box.
- **Default**. The default mode.

You can also configure video mode from the Standard Viewer. For more information, refer to Standard Viewer Tasks on page 54.

Quality

Sets the image quality for the video mode, 1 being poor quality and 100 being high quality. The default is 30.

Refresh rate

How often the screen refreshes. The refresh rate can range from 1 to 17 frames per second. This depends on the speed of the mobile device and the communication method you are using. Choose a rate that does not impact the mobile device CPU too heavily and allows for reasonable screen updates.

Scale

Sets the scale at which the device image is displayed. You can magnify the screen display from .5X-4X or select **Auto** for the auto scale option. If you use the auto scale option, the display will be sized to fit in the window you have open.

Show skin

Displays a skin when you are connected to a device. When this option is enabled, select the skin you want to use from the drop-down menu. If you choose **Autodetect**, Remote Control will use device information to display the correct skin.

Logging Level

Sets the amount of logging information generated for the connection session. Logging levels include:

- Critical. Indicates errors that cause Remote Control to fail to start.
- Error. Indicates errors that are caused by configuration and/or communication problems.
- Warning. Indicates possible operational problems.
- Informational. Documents the flow of operation.
- Debug. Used to diagnose program malfunctions or communication problems.
- None. No information is logged.

Max Size

Sets the maximum size of the log file. When the log file reaches the determined size, Remote Control creates another log file.

#### Capture

Sets the method for capturing screen images from the mobile device. There are three methods:

- File. When this option is enabled, a dialog box will appear when you capture a screen image and allow you to specify where the image will be saved.
- **Clipboard**. When this option is enabled, a captured screen image will be placed on the clipboard.
- One Click. When this option is enabled, a captured screen image will be automatically saved in a specified file format. The file name is generated based on the current time and date.

#### Recording method

Sets the method for recording script events and AVI files. There are two options available:

 Script Events. When this option is enabled, you can record your actions from the Standard Viewer as a Remote Control script.

NOTE Recorded script events cannot be used or modified with Remote Control 4.0.

 AVI Video. When this option is enabled, you can record your actions from the Standard Viewer as an AVI file. The AVI file can be played on any program compatible with the AVI video file format, such as Windows Media Player.

#### **Show Mouse Cursor**

Indicates whether to show the mouse cursor during the video recording.

#### To configure the connection settings:

- 1 In the **Profiles** tab of the Remote Control Console, create a new profile or select the profile you want to configure.
- 2 Configure the options are desired.
- 3 Click **Update** to save your settings.

# **Configuring Auto-Discovery Settings**

If you are working with devices on a LAN, Remote Control can auto-discover which devices are in listening range. Once Remote Control discovers the devices on your LAN, you can connect to these devices. You can also configure Remote Control to discover mobile devices across subnets and update the Remote Control database with the results.

This section provides the following information:

- Customizing Auto-Discovery Settings
- Adding Networks

Device wait time

Removing Networks

# **Customizing Auto-Discovery Settings**

You can customize the way Remote Control automatically discovers mobile devices by configuring the discovery parameters, including the following options:

Enable Discovery	This option enables auto-discovery for Remote Control.
Enable Local Area Broadcasts	This option enables or disables the local UDP broadcast method of auto-discovery. UDP is a connectionless protocol used primarily for broadcasting messages over a network.
Discovery Interval	This option sets how often broadcasts are sent. If broadcasts are sent too frequently, it may appear that there is a large series of address resolution protocols (ARP storm) on the network. This can cause network traffic to be temporarily disrupted. If you have diagnostic tools running on the network, you should set this interval above the threshold for the ARP storm warning.
Use Fast Search	This option skips querying each device on the network. It sends out the discovery request to xxx.xxx.xxx.255. This works quickly but does not provide complete device detection. This option is not enabled by default.

attempting to contact the next device.

This option determines how long the Remote Control Console waits for a device to respond to a request before

Threads This option determines how many threads can be processed

during the broadcast.

Add Networks From this region, you can enter new networks where you can

search for devices. For detailed information about adding and removing networks, refer to *Adding Networks* on page 28.

#### To configure auto-discovery settings:

1 From the Remote Control Console, click the **AutoDiscovery** tab and select **Settings** > **Set Discovery Parameters**.

The *Autodiscovery Settings* dialog box appears.

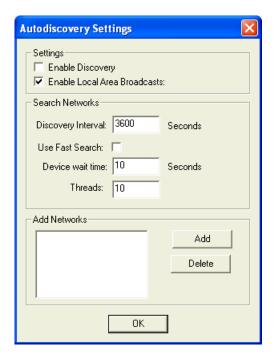


Figure 4-2. Autodiscovery Settings Dialog Box

- 2 Configure the settings as desired.
- 3 Click OK.

The discovery parameters are saved and the *Autodiscovery Settings* dialog box closes.

## **Adding Networks**

To allow discovery across subnets, you can add networks to the Add Networks region of the *Autodiscovery Settings* dialog box. When you add a network, you set the first three octets of the network address. Then Remote Control sends requests to addresses xxx.xxx.xxx.1 through xxx.xxx.xxx.254 attempting to contact mobile devices at each of those addresses.

The autodiscovery feature runs at a constant set interval. If you add a new network, the network is added to the network list and is searched when the next autodiscovery interval is reached.

#### To add a network:

- 1 From the Remote Control Console, click the **Autodiscovery** tab.
- 2 Select **Settings** > **Set Discovery Parameters**.
- 3 In the Add Networks region, click **Add**.

The Add Network dialog box appears.

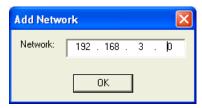


Figure 4-3. Add Network

- 4 Enter the first three octets of the network address.
- 5 Click OK.

The network address is added to the Add Networks region.

# **Removing Networks**

If you no longer want to search a network, you can remove it from the Add Networks region.

#### To remove a network address:

1 From the Remote Control Console, click the **Autodiscovery** tab.

- 2 Select Settings > Set Discovery Parameters.
- 3 In the Add Networks region, select the network address you want to remove and click **Delete**.
  - A Remote Control dialog box appears.
- 4 Click **Yes** to confirm that you want to delete the network.

# Chapter 5: Configuring Client Settings

The component of Remote Control that is deployed to a mobile device is called the client. You can configure settings for the client in the **Client Settings** tab of the Remote Control Console. Client settings are deployed to the mobile device when the package is downloaded or the device is updated by Avalanche. If enabled to do so, you can also configure a limited number of settings from the mobile device. Client settings include connection type, password, notification policy, and other connection options.

This chapter provides information about configuring client settings from both the Remote Control Console and from the mobile device and includes the following information:

- Configuring Client Settings from the Console
- Configuring Client Settings from the Mobile Device
- Clearing Client Settings
- Configuring Mobile Devices for Pre-Connect
- Configuring Cellular Carriers

# Configuring Client Settings from the Console

This section provides information about the Remote Control client configuration options available on the **Client Settings** tab. There are three regions on the **Client Settings** tab that you can configure: Connection, Settings, and Logging.

The **Client Settings** tab provides the following options:

Type Select to use either TCP/IP or ActiveSync to connect to

mobile devices.

Password Enter a password to require Remote Control users to provide

a password before connecting to a mobile device.

Policy

Select how Remote Control notifies the mobile device user that Remote Control is establishing a connection.

**Silent** indicates that the user will not be notified.

**Notify** indicates that the user will see a text window on his device letting him know that a connection has been established.

**Prompt-Allow** will provide the user with a prompt to allow or deny the connection. If the user does not respond, the connection will be allowed.

**Prompt-Deny** will provide the user with a prompt to allow or deny the connection. If the user does not respond, the connection will be denied.

Policy seconds Select how long the notification or prompt will be displayed.

> If you selected **Prompt-Allow** or **Prompt-Deny**, this is how long Remote Control will wait before establishing or

denying the connection.

Sleep While Connected Enable this option to allow the mobile device to enter sleep

> mode while connected to Remote Control. If you do not enable this option, Remote Control will not allow the mobile

device to enter sleep mode while connected.

Pre-Connect to Server Enable this option to configure the device to always pre-

connect to the Remote Control Server.

Connect on ActiveSync Enable this option to configure the device to connect to the

Remote Control Server when connected through ActiveSync.

Allow Client Configuration

Enable this option to grant client configuration control to the mobile device user. This allows the user to configure the Remote Control client from the mobile device. When the mobile device user has configuration control, any changes you make in the **Client Settings** tab from the Remote Control Console will not deploy to the device. To regain Client Configuration setting control from the Remote Control Console, you must disable this option and redeploy

the settings to the mobile device.

Disable Client Exit Enable this option to prohibit the mobile device user from

exiting the Remote Control application.

Log Level Logging levels include:

Critical. Indicates errors that cause Remote Control to fail to

start.

**Error.** Indicates errors that are caused by configuration and/

or communication problems.

**Informational**. Documents the flow of operation.

**Warning**. Indicates possible operational problems.

**Debug low**. Used to diagnose program malfunctions or

communication problems.

Max Size Configure the maximum size that the log file can reach

before creating a new log file. New log files do not override

previous log files.

Once you review the configuration options and determine the way you want to configure the Remote Control client settings, you assign the configurations in the **Client Settings** tab.

#### To configure client settings:

- 1 Launch the Remote Control Console.
- 2 Click the **Client Settings** tab.

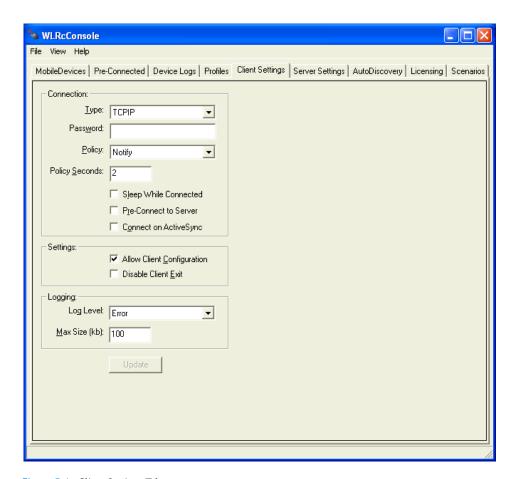


Figure 5-1. Client Settings Tab

- 3 Enable options based on how you want to configure your clients.
- 4 Click **Update**.
- 5 Deploy the settings to the mobile device.

For information about deploying Remote Control settings, refer to *Deploying the Remote Control Client to the Mobile Device* on page 47.

# Configuring Client Settings from the Mobile Device

Before you can configure client settings from the mobile device, you must enable the **Allow Client Configuration** option in the **Client Settings** tab of the Remote Control Console. This allows the mobile device user to configure the connection type, policy notification, password, and whether the device is allowed to sleep while connected. If you disable the **Allow Client Configuration** option, the mobile device user will not be allowed to access the client information on the mobile device.

For more information about enabling the **Allow Client Configuration** option and the configurations available, refer to *Configuring Client Settings from the Console* on page 30.

#### To configure client settings from the mobile device:

- 1 Launch the Remote Control application on the mobile device.
- 2 From the File menu, select Configure.

The Configure dialog box appears.

**NOTE** If the **Allow Client Configuration** option is not enabled, the *Not Available* dialog box appears. You will not be able to access client settings.

- 3 From the drop-down menu, select your connection type.
- 4 From the drop-down menu, select the notification policy for the device.
- 5 In the **Policy Seconds** text box, enter the number of seconds the notification should be displayed.
- 6 Enter a password in the available text box if you want to require the user to input a password before creating a Remote Control session.
- 7 Enable the **Allow Sleep while connected** option to allow the mobile device to enter sleep mode while connected to Remote Control.
- 8 Click OK.

The Remote Control client is updated with the new settings.

# Clearing Client Settings

You can clear all client configuration settings using the **Clear Client Settings** option in the Standard Viewer. When you select this option, all your client configurations are removed, including anything that was configured on the mobile device. This option is useful if you have enabled the **Allow Client Configuration** option.

#### To clear client settings:

• From the **Tools** menu in the Standard Viewer, select **Clear Client Settings**.

# Configuring Mobile Devices for Pre-Connect

You can assign mobile devices to pre-connect to the Remote Control Server. Pre-connected devices are devices that are connected to the Remote Control Server but have not begun a Remote Control session. This allows to you to connect to a mobile device that is behind a firewall. Normally mobile devices behind a firewall cannot be reached because the firewall blocks access to the mobile device.

Pre-connected devices remain in the **Pre-Connected** tab until a Remote Control session is initiated.

This section provides information about the following topics:

- Pre-Connected Tab Actions
- Pre-Connection Methods
- Excluding Devices From Pre-Connect

#### Pre-Connected Tab Actions

Pre-connected devices are listed in the **Pre-Connected** tab until a Remote Control session is initiated. From the **Pre-Connected** tab, you can perform the following actions:

- Connect. This option begins a Remote Control session with the selected device.
   Once a mobile device is in a Remote Control session, it is removed from the Pre-Connected tab.
- Disconnect. This option disconnects the mobile device from the Remote Control Server and removes the device from the Pre-Connected tab. However, if the mobile device is configured (through the Client Settings tab) to automatically

pre-connect, the mobile device will reconnect to the Remote Control Server immediately and again appear in the **Pre-Connected** tab.

 Refresh. This option updates the device list in the Pre-Connected tab with any new devices.

#### Pre-Connection Methods

There are two ways to pre-connect a mobile device to the Remote Control Server:

- From the mobile device. Use the Connect option on the Remote Control status screen of the mobile device. For this option to work, the mobile device user must be actively using the mobile device and have access to the Remote Control status screen. In some instances, this is not possible because the device can be locked into a single application program. The mobile device does not need to be configured for pre-connect to use this option.
- From the Remote Control Console. When you set pre-connect from the Remote Control Console, you configure the mobile device to always pre-connect. This forces the mobile device to pre-connect to the Remote Control Server upon startup. The mobile device will automatically reconnect to the Remote Control Server once a Remote Control session is disconnected or lost. For instructions on how to enable pre-connect option, refer to Configuring Client Settings from the Console on page 30.

# **Excluding Devices From Pre-Connect**

You can use an Avalanche custom property to exclude devices from the pre-connection configurations. This can be set on a single device or a group of devices.

### To exclude mobile devices from pre-connect configuration:

- 1 Enable the pre-connect option through the **Client Settings** tab.
- 2 Ensure your network address on the **Server Settings** tab is correct.
- 3 Exit the Remote Control Console.
- 4 From the Avalanche Console, create a mobile device group for all devices that you do not want to pre-connect.
- 5 Add the devices to the mobile device group.
- 6 Add the following property to the mobile device group properties:

RemoteControl.IgnorePreconnect = 1

7 Save your changes and deploy to the targeted devices.

NOTE For information about creating mobile device profiles, refer to your Wavelink Avalanche User Guide.

# Configuring Cellular Carriers

If you are using an e-mail gateway for SMS messages, you must select your cellular carrier. If your carrier is not in the drop-down list on the **Mobile Devices** tab, you will need to add your carrier.

- Adding Cellular Carriers
- Deleting Cellular Carriers

### Adding Cellular Carriers

If the cellular carrier you plan to use is not already in the drop-down list on the **Mobile Devices** tab, you need to add the carrier.

#### To add a carrier:

1 From the **Mobile Devices** tab of the Remote Control Console, click the [...] button next to the **Carrier** option.

The Edit Carriers dialog box appears.

- 2 In the **Carrier** text box, enter the name of the new carrier.
- 3 In the **Email** text box, enter the e-mail address of the carrier.
- 4 Click OK.
- 5 Return to the **Mobile Devices** tab and click **Update**.

Your cellular carrier is added to the list.

# **Deleting Cellular Carriers**

When you delete a cellular carrier, any mobile devices configured to use that carrier are set to <code>[default]</code>. This means that the mobile device will not be set to

use any carrier until you reconfigure that device. Use the following steps to remove a carrier from the list.

#### To delete a carrier:

1 From the **Mobile Devices** tab of the Remote Control Console, click the [...] button next to the **Carrier** option.

The *Edit Carriers* dialog box appears.

- 2 Use the **Previous** and **Next** buttons to find the carrier you want to delete.
- 3 Once you find the carrier, click **Delete**.

A message box appears.

4 If you are sure you want to delete, click **OK**.

The carrier is removed from the list.

# Chapter 6: Configuring Server Settings

The Remote Control Server facilitates connections with mobile devices. You can configure the settings for the server in the **Server Settings** tab. These settings are deployed to the mobile device when the package is downloaded. From the **Server Settings** tab, you can perform the following tasks:

- Configuring Server Connection Settings
- Configuring SMS Options
- Ports List
- Changing Server Information
- Configuring Database and License Server Access

# **Configuring Server Connection Settings**

You can configure the following settings from the **Server Settings** tab in the Remote Control Console:

- Server Address. This is the address of the Remote Control Server visible to your internal network.
- **Server Port**. Connections between Remote Control and your device use this port. If connections are made via port forwarding, your administrator must forward traffic for this port to the server. If this port changes, you must restart your server.
- **Server ID**. This is a pre-shared key that is used between the Remote Control Server and Remote Control client. When a wide area connection request is made, the key is sent to the client. Using this pre-shared key, the client can determine the correct IP address with which to connect.
- WAN Address. This address is dependent on the type of connection your clients use to connect to the server through a wide area connection.
  - If your clients connect through a VPN connection, this is the internal address of the server which is visible to VPN connections.
  - If your clients connect through port forwarding, this is the externally visible IP address.

- **Command Port**. Remote Control communicates with the Remote Control Server via this port. This port does not have to be forwarded.
- Corporate Connection. This determines if VPN or port forwarding will be used by the mobile device connecting to your server.
  - If this option is enabled, the mobile device uses a VPN connection to connect to the server.
  - If this option is disabled, the mobile device uses an internet connection to connect to the server.
- Try Network Connection First. If this option is enabled, the server attempts to connect to the mobile device before sending a wide area request. The server may be able to establish an 802.11 connection, resulting in a faster connection.
- **SMS Setup**. You can configure the SMS setup through an e-mail gateway or through a Local GSM modem. Once you select your method, click the **Configure** button to open the specific dialog box for that method. For information on configuring SMS, see *Configuring SMS Options* on page 41.

### To configure the server:

- 1 Open the Remote Control Console.
- 2 Click the **Server Settings** tab.

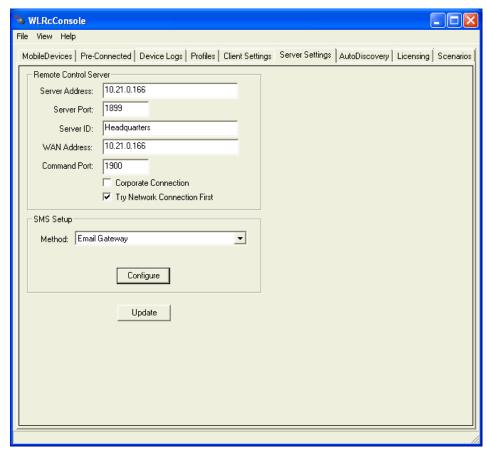


Figure 6-1. Server Settings Tab

- 3 Configure the options in the Remote Control Server region.
- 4 Click Update.

The settings are deployed to the mobile devices upon the next deployment.

# **Configuring SMS Options**

You can configure the SMS options through the SMS e-mail gateway or through a local GSM modem. You can select which method to use in the SMS Setup region of the **Server Settings** tab. Once you select your method, click the **Configure** button to open

the specific dialog box for that method. The following sections contain information on the options available:

- SMS Email Gateway Configuration
- GSM Modem Configuration

### SMS Email Gateway Configuration

The following options are available when configuring your SMS e-mail gateway:

Host name of the outgoing mail server.

Mail From The from field of the e-mail.

(Pop3) Host POP3 host to use.
(POP3) User ID POP3 user name.
(POP3) Password POP3 password.

(POP3) Pop Before SMTP Indicates whether to log into pop3 server before sending

mail.

(SMTP) User ID User name for the SMTP server.

(SMTP) Password Password for the SMTP server.

(SMTP) Port Port number of the outgoing mail server.

(SMTP) Use Auth Determines if authentication credentials are sent to the

outgoing mail server.

Debug Mail Session Enables the display of mail debugging information in the

Remote Control log file.

#### To configure the SMS e-mail gateway:

- 1 Click the **Server Settings** tab.
- 2 In the Setup SMS region, select **SMS Email Gateway** from the **Method** drop-down list.
- 3 Click Configure.

The SMS Email Gateway Config dialog box appears.

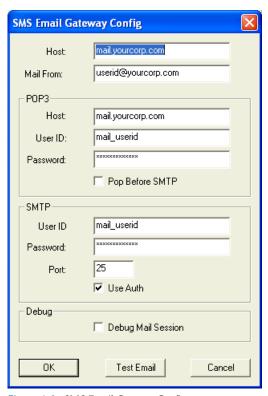


Figure 6-2. SMS Email Gateway Config

- 4 Configure the options as desired.
- 5 Click **Test Email** to test the e-mail information you entered. This uses the provided information to send an e-mail.
- 6 When you are finished, click **OK** to return to the **Server Settings** tab.

# **GSM Modem Configuration**

You can select the manufacture and mode of communications from the drop-down menus in the GSM Modem Config dialog box. If your manufacturer does not appear in the drop-down menus, you can enter a name and mode. This configuration is for GSM modems only.

#### To configure the GSM modem:

Click the Server Settings tab.

- 2 In the Setup SMS region, select **Local GSM Modem** from the **Method** drop-down list.
- 3 Click Configure.

The GSM Modem Config dialog box appears.

- 4 In the **Manufacturer** combo box, select the device manufacturer or type the name of the manufacturer.
- 5 From the **Mode** combo box, select the mode of the GSM modem.
- 6 Click **OK** to return to the **Server Settings** tab.

### Ports List

The following table provides information about the ports used with Remote Control.

Usage	Port	Туре	Configurable	Server	Console/ Viewer	Client
Device Connection <sup>1</sup>	1899	TCP	Yes	In/Out	Out	In/Out
Server Control	1900	TCP	Yes	In	Out	N/A
Device Discovery / Status Checks	1903	UDP	No	Out	Out	In

Table 0-1: Remote Control Ports

# **Changing Server Information**

You can change the Avalanche Enterprise Server address and port information for Remote Control from the Remote Control Console.

To change server information:

1 From the **File** menu of the Remote Control Console, select **Change Server**.

A Avalanche Remote Control dialog box appears.

<sup>1.</sup> For wide area device-to-server connections, this port must be forwarded from the public IP to the internal server

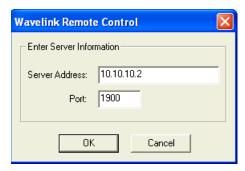


Figure 6-3. Enter Server Information

- 2 Change the **Server Address** and **Port**.
- 3 Click **OK** to save your changes.

The server information updates.

# Configuring Database and License Server Access

Remote Control default configurations are set to access a local PostgreSQL database. You will need to configure Remote Control to access the database if:

- You have installed the Remote Control Server on a different machine than where the database is installed.
- You are using a different database platform (such as Oracle or MS SQL Server).
- You have migrated to a newer version of Avalanche. This may change the name of the Avalanche database.

**NOTE** If you did not install the Remote Control Server on the same machine as the database, you will also need to configure the database to allow remote access. For more information on configuring the database, see *Configuring the Database for Remote Access* on page 13.

The following options can be modified to allow Remote Control to access the Avalanche Enterprise Server database.

DB Type The type of the database. Possible values for this

property are:

Postgres

SQLServer

Oracle

DB Server The IP address or DNS name of the database.

Database The name of the Enterprise Server database. If you

are using Oracle, this is the SID.

Port The port the database is listening on.

User ID The username for the database.

Password The password for the database.

**NOTE** From this utility, you also have the option to change the license server address and port.

#### To configure Remote Control to access the Avalanche database:

4 From the machine where Remote Control is installed, use a web browser to navigate to:

```
http://localhost:1900/app/setup.vm
```

- 5 Select the appropriate tab and modify the values of the settings as desired.
- 6 Save your changes.
- 7 Your changes will be applied immediately.

# Chapter 7: Connecting to Mobile Devices

After you configure connection profiles, client settings and server settings in the Remote Control Console, you can deploy the client portion of Remote Control to the mobile device. Once the mobile device has the client installed, you can create Remote Control connection sessions. A connection session is when the mobile device is connected to Remote Control, allowing you to view and control the mobile device.

When you have initiated a connection session, the device appears in the Remote Control Viewer. If you launch the viewer from the Avalanche Web Console, the connection session will appear in the Web Viewer. If you launch from the Avalanche Java Console or the Remote Control Console, the connection session will appear in the Standard Viewer.

**NOTE** Device skins are not supported in the Web Viewer.

This section provides information about the following Remote Control connection tasks:

- Deploying the Remote Control Client to the Mobile Device
- Connecting to a Mobile Device
- Closing Remote Control Sessions
- Sending SMS Messages to Mobile Devices

NOTE If you have not licensed Remote Control, you will not be able to connect to the mobile device.

# Deploying the Remote Control Client to the Mobile Device

Using Avalanche, you can deploy the client portion of Remote Control to mobile devices that are currently in range and running the Avalanche Enabler. You can perform universal updates or individual device updates.

For specific instructions about deploying software packages from the Avalanche Console, refer to your Wavelink Avalanche User Guide.

**NOTE** Using the Avalanche Web Console, you can install the Remote Control software package to a profile and deploy the profile. However, you can only access the Remote Control Console from the Avalanche Java Console.

# Connecting to a Mobile Device

You can open a Remote Control Viewer session over an ActiveSync or TCP/IP connection. If you are creating a session using a TCP/IP connection, ensure you know the IP address of the mobile device.

A connection session can be initiated from the Remote Control Console, the Avalanche Java Console, or the Avalanche Web Console. If you want to use a profile other than a default profile, you must use the Remote Control Console to begin the connection session.

#### To connect to a device from the Remote Control Console:

• From the **Pre-Connected** tab, select the mobile device to which you want to connect and click **Connect**.

-Or-

- 1 From the **Mobile Devices** tab, select the mobile device to which you want to connect from the list.
- 2 In the **Profile** list box, select the profile you want to use to connect to this device.
- 3 Click Connect.

The Standard Viewer appears. Clicking within the Standard Viewer sends the mouse click to the connected device. Typing on the physical keyboard sends the key commands to the mobile device.

#### To connect to a device from the Avalanche Java Console:

 From the Mobile Device Inventory tab, right-click the name of the device and select Remote Control.

-Or-

 From the Mobile Device Details dialog box, click the Device Control tab and then double-click Remote Control. The Standard Viewer appears. Clicking within the Standard Viewer sends the mouse click to the connected device. Typing on the physical keyboard sends the key commands to the mobile device.

#### To connect to a device from the Avalanche Web Console:

1 From the Inventory tab, click on the name of the device you want to connect to.

The Mobile Device Details page appears.

2 Click Remote Control.

The Web Viewer appears.

# Closing Remote Control Sessions

There are two methods to close a Remote Control session. You can close the Viewer or you can force a remote disconnect for the Standard Viewer.

#### To close the Remote Control Viewer:

• From the Standard Viewer, select **File** > **Exit**.

-Or-

Close the window in which the Viewer appeared.

#### To force the Standard viewer to disconnect:

- 1 From the Remote Control Console, select the **Mobile Devices** tab.
- 2 From the Mobile Device list, select the mobile device you want to close.
- 3 Click Status.

The *Device Status* dialog box appears. This dialog box provides device and connection information.

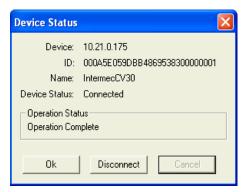


Figure 7-1. Device Status Dialog Box

If the mobile device is still connected to a Remote Control session, the **Device Status** line displays as **Connected**.

#### 4 Click **Disconnect**.

The mobile device is disconnected from the Remote Control session.

# Sending SMS Messages to Mobile Devices

When Remote Control is configured for SMS, you can send SMS messages to your mobile devices. This allows you to send notifications to the users, to wake a device in order to begin a Remote Control session, or direct a mobile device to connect to the Avalanche server and update. This section provides information for the following tasks:

- Sending an SMS Message
- Waking a Suspended Device Using SMS
- Using Avalanche Update Now (SMS)

NOTE SMS messages are only available if Remote Control has the SMS Setup configured. For more information on configuring the SMS Setup, see *Configuring SMS Options* on page 41.

### Sending an SMS Message

When Remote Control is configured for SMS, you can send SMS messages to your mobile devices from the Remote Control Console, the Avalanche Java Console or the Remote Control Web Viewer.

#### To send an SMS message from the Remote Control Console:

1 From the **Mobile Devices** tab, right-click the device you want to send a message to and click **Send Message (SMS)**.

The **Send Message** dialog box appears.

2 Enter the text of your message in the Message text box. When you are finished, click OK.

The message will be delivered to the mobile device.

#### To send an SMS message from the Avalanche Java Console:

1 From the **Mobile Device Inventory** tab, right-click the device you want to send a message to, and click **Remote Control SMS > SMS Text Message**.

The **Send Message** dialog box appears.

2 Enter the text of your message in the Message text box. When you are finished, click OK.

The message will be delivered to the mobile device.

#### To send an SMS message from the Remote Control Web Viewer:

1 From the **Device** tab, click **Text Message**.

The Send Text Message page appears.

2 Type the text of the message in the **Message** text box and then click **Send**.

The message will be delivered to the device.

### Waking a Suspended Device Using SMS

If a device is suspended and not in contact with the Remote Control server, you can contact the device using SMS and request that it contact the Remote Control server in order to create a Remote Control session.

#### To request a device contact the server:

- 1 Launch the Remote Control Console and select the **Mobile Devices** tab.
- 2 From the Mobile Device list, select the mobile device to which you want to connect.
- 3 In the **Profile** list box, select a profile that uses server as the connection type.
- 4 Ensure the phone number for the device is configured. If you are using an e-mail gateway, you must also have the carrier selected. If you make changes to these options, click **Update** to save the changes.
- 5 Click Connect to send the message.

If the device requires a password, the *Password Required* dialog box appears. Enter the **Password** and click **OK**.

Remote Control sends the message to the mobile device, waking it up and requesting it contact the Remote Control server. Once the mobile device connects to the server, you can begin a Remote Control session.

### Using Avalanche Update Now (SMS)

When Remote Control is configured for SMS, you can send SMS Update Now messages to your mobile devices from the Remote Control Console, the Avalanche Java Console, or the Remote Control Web Viewer. The Update Now message directs the device to connect to the Avalanche server and update.

#### To send an SMS Update Now message from the Remote Control Console:

- 1 From the Remote Control Console, click the **Mobile Devices** tab.
- 2 Right-click the device you want to update, and click **Avalanche Update Now** (SMS).

The message will be delivered to the mobile device, and the device will connect to the Avalanche server and update.

#### To send an SMS Update Now message from the Avalanche Java Console:

- 1 On the Avalanche Console, navigate to the **Mobile Device Inventory** tab.
- 2 Right-click the device you want to update, and click Remote Control SMS > SMS Update Now.

The message will be delivered to the mobile device, and the device will connect to the Avalanche server and update.

### To send an SMS Update Now message from the Web Viewer:

• From the **Device** tab, click **Device Sync**.

The message will be delivered to the mobile device, and the device will connect to the Avalanche server and update.

# Chapter 8: Standard Viewer Tasks

This chapter provides information about using Remote Control once you are connected to a mobile device. The tasks detailed in this chapter assume you are connected to a mobile device.

NOTE There are two different Viewer interfaces, depending on how you initiated the Remote Control connection. If you launched from the Avalanche Java Console or the Remote Control Console, Remote Control will use the Standard Viewer. If you launched from the Avalanche Web Console, Remote Control will use the Web Viewer. You cannot connect to a device with both the Standard Viewer and the Web Viewer at the same time.

This chapter contains tasks for working from the Standard Viewer. For information on working from the Web Viewer, see *Web Viewer Tasks* on page 80.

Once you connect to a mobile device, the Standard Viewer offers a variety of tools and configuration options. The Standard Viewer has the following tabs:

- Device. From this tab you can view the mobile device and perform operations on the mobile device. Clicking within the Standard Viewer sends the mouse click to the connected device. Typing on the keyboard sends the key commands to the mobile device.
- **File System.** From this tab you can access the file system on the mobile device. For detailed information about tasks you can perform in the File System tab, refer to *Using the File System* on page 56.
- Registry Viewer. The Registry Viewer allows you to view and edit the registry on the mobile device. For detailed information about the Registry Viewer, refer to Using the Registry Viewer on page 60.
- **Processes**. The Process Manager provides a view of the processes that are currently running on the mobile device. For detailed information, refer to *Using the Process Manager* on page 66.
- Access Log. The Remote Control logging feature stores information about the current connection session of Remote Control. For detailed information, refer to Accessing the Log File on page 67.

• **Device Info**. The **Device Info** tab provides information about the mobile device to which you are connected. For details about this tab, refer to *Viewing Device Information* on page 69.

The Standard Viewer has the following toolbar icons:

	<b>Record</b> . Begins to record a script or video.
	<b>Stop Record</b> . Stops a script or video recording.
	<b>Camera</b> . Takes a picture of the current mobile device screen.
	<b>Toggle Skin</b> . Toggles whether a skin for the device is displayed or not.
2	<b>Refresh</b> . Refreshes the mobile device screen.
	<b>Zoom in</b> . Zooms in on the mobile device display.
	<b>Zoom out</b> . Zooms out on the mobile device display.
	<b>Autoscale</b> . Automatically scales the mobile device display to fit the size of the window you have open.
	<b>Set Video Mode</b> . Allows you to set the video mode to <b>Standard</b> or <b>Image</b> .

This chapter also provides information about the following Standard Viewer tasks:

- Configuring the Display
- Using Device Tools

# Using the File System

You can access the File Explorer of the mobile device from your PC. This enables you to perform tasks and operations in the File Explorer on the mobile device from your Remote Control connection session.

This section provides information about the following tasks:

- Opening the File Explorer
- Creating New Folders
- Copying Files to the PC
- Copying Files to the Mobile Device
- Manipulating Files on the Device
- Pasting Text

### Opening the File Explorer

You can use the File Explorer to create new folders, rename folders, delete folders and move files from the mobile device to the PC.

### To open the File Explorer:

Click the File System tab.

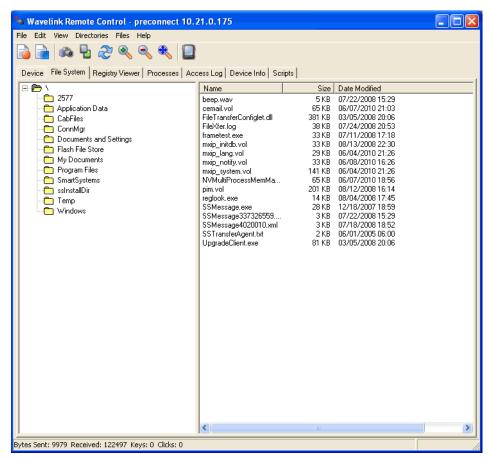


Figure 8-1. File System tab

**NOTE** You can also access the File System *Mobile Device Details* dialog box. Click the **Device Control** tab and then double-click the File System icon.

# **Creating New Folders**

You can create and name folders in the File Explorer.

### To create a new folder:

1 Click on the **File System** tab.

- 2 Navigate to the location where you want to create the new folder.
- 3 Right-click and select New.

The folder is created in the selected location.

- 4 Right-click the new folder and select **Rename Folder**.
- 5 Type the name of the folder.

### Copying Files to the PC

You can copy files from the mobile device to the PC.

#### To copy files to the PC:

- 1 Click on the **File System** tab.
- 2 Select the file or folder you want to copy to the PC. From the **Files** menu, select **Copy to PC**.

-Or-

Right-click the file you want to copy and select Copy to PC.

The Browse for Folder dialog box opens.

- 3 Navigate to the location where you want to save the file.
- 4 Click **OK**.

The folder is copied to the selected location.

# Copying Files to the Mobile Device

You can copy files from the machine running Remote Control and place them in the File Explorer of a connected mobile device.

#### To copy files to the mobile device:

- 1 Click on the **File System** tab.
- 2 Navigate to where you want to place the file.
- 3 From the **Files** menu, select **Copy to Remote**.

The *Open* dialog box appears.

4 Locate the file that you want to copy to the mobile device and click **Open**.

The *Sending Files Status* dialog box appears. The files are copied to the selected location.

5 Once the file transfer is complete, click **OK**.

**NOTE** You can also drag files directly from the PC and drop them into the File Explorer.

### Manipulating Files on the Device

From the File Explorer, you can run, open, view or delete files located on the mobile device. You can run any file with an .exe extension.

To run/open/view/delete a file on the mobile device:

- 1 Click on the **File System** tab.
- 2 Using the tree view, navigate to the location of the file.
- 3 Right-click the file and select the desired option.
  - If you are running a program, the program opens on the mobile device.
  - If you are opening a file, the file appears on the mobile device.
  - If you are viewing a file, the file appears on the PC.
  - If you are deleting a file, the file is removed from the list.
- 4 Click the **Device** tab to view the mobile device screen.

# **Pasting Text**

Remote Control allows you to copy and paste text from the PC to the mobile device. Only textual information can be copied and pasted. For example, you could copy text from a text editor on the PC to Pocket Word on the mobile device. Both text editors must be open.

Use the **Paste to device** command to paste information from the PC to the mobile device.

#### To copy and paste information:

- 1 Open a text editor on both PC and the mobile device.
- 2 From the text editor on your PC, select the text to be copied and pasted.
- 3 Right-click and select Copy.
- 4 In the Standard Viewer, select **Edit > Paste to device**.

The text appears in the text editor on the mobile device.

# Using the Registry Viewer

From the **Registry Viewer** tab, you can browse and view the registry of a connected mobile device. This section provides information about the following Registry Viewer tasks:

- Viewing the Registry
- Creating New Registry Keys
- Creating Key Values
- Viewing Binary Data
- Modifying Key Values
- Editing Binary Data
- Deleting Key Values
- Exporting Registries
- Comparing Registries

# Viewing the Registry

You can view the registry from Registry Viewer tab of the Standard Viewer.

### To view the registry of the device:

1 Click the **Registry Viewer** tab.

The Registry Viewer appears.

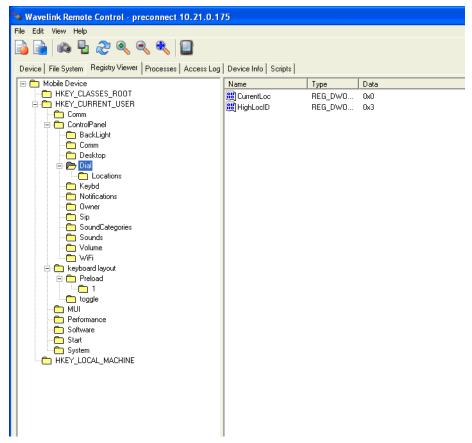


Figure 8-2. Viewing the Registry Viewer

2 Click the list items to expand the registry.

**NOTE** You can also access the Registry Viewer through the *Mobile Device Details* dialog box. Click the **Device Control** tab and then double-click the Registry Viewer icon.

# Creating New Registry Keys

From the Registry Viewer tab, you can create new registry keys on the mobile device.

To create a new registry key:

1 Open the Registry Viewer.

- 2 Navigate to where you want to create a new key.
- 3 Right-click and select New Key.
  - A New Key folder appears.
- 4 Right-click the **New Key** folder and select **Rename**.
- 5 Name the folder.

### Creating Key Values

You can create String, Binary, DWORD, and Multi-String values in the mobile device registry.

#### To create key values:

- 1 Open the Registry Viewer.
- 2 Navigate to where you want to create a new key.
- 3 Right-click and from the menu that appears, select the key value you want create.

  The value appears in the file list box.

# Viewing Binary Data

For any registry key, you can display the binary data for that key.

#### To view binary data:

- 1 Open the Registry Viewer.
- 2 Navigate to the location of the key you want to view.
- 3 Right-click the key and select **Display Binary Data**.

The Binary Data dialog box appears.

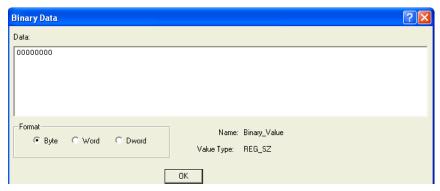


Figure 8-3. Binary Data

- 4 Use the options in the Format region to display the data in **Byte**, **Word** or **Dword** format.
- 5 Click **OK** when you are finished.

### Modifying Key Values

You can modify key values in the Registry Viewer.

#### To modify key values:

- 1 Open the Registry Viewer.
- 2 Navigate to the location of the key you want to edit.
- 3 Right-click the key and select **Modify**.

A dialog box appears according to what type of key you are modifying.

- If you are modifying a String or Binary value, the *Edit String* dialog box appears.
- If you are modifying a DWORD key value, the Edit DWORD Value dialog box appears.
- If you are modifying a Multi-String value, the Edit Multi-String dialog box appears.
- 4 Using the configuration options available in each dialog box, edit the key value.
- 5 Click **OK** when you are finished.

The key value is modified.

### **Editing Binary Data**

You have the ability to modify the binary data of each type of key value in the Registry Viewer.

### To modify binary data:

- Open the Registry Viewer.
- 2 Navigate to the location of the key you want to modify.
- 3 Right-click the key and select **Modify Binary Data**.

The *Edit Binary Value* dialog box appears.

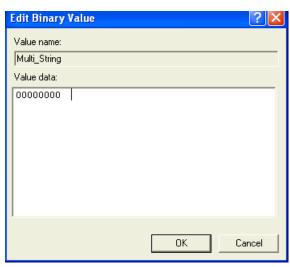


Figure 8-4. Edit Binary Value

- 4 In the Value data text box, edit the binary value as desired.
- 5 Click **OK** when you are finished.

# **Deleting Key Values**

You can delete key values that you no longer need.

#### To delete key values:

- Open the Registry Viewer.
- 2 Navigate to the location of the key you want to delete.
- 3 Right-click the key and select **Delete**.

A dialog box appears asking you to confirm that you want to delete this key value.

4 Click **Yes** if you want to permanently delete the value.

The key value is removed from the registry.

### **Exporting Registries**

You can export registries from the mobile device and save them as .xml files on your computer.

### To export a registry:

- 1 Open the Registry Viewer.
- 2 Navigate to the location of the registry you want to export.
- 3 From the **File** menu, select **Export**.

A standard Save As dialog box appears.

- 4 Navigate to the location where you want to save the registry.
- 5 Name the registry and click **Save**.

The registry is saved as an .xml file.

# **Comparing Registries**

There are two methods you can use to compare registries:

- You can compare the registry on a mobile device to a registry you have saved and exported.
- You can compare the registry of one device to another device after establishing a second connection session.

#### To compare registries:

- Open the Registry Viewer.
- 2 From the **File** menu, select **Compare**.

A dialog box appears.



Figure 8-5. Compare To

3 If you are comparing it to a saved registry, select the **Existing Registry** option and click **OK**. In the dialog box that appears, navigate to the location of the registry to which you want to compare and click **Open**.

-Or-

If you are comparing it to the registry of another device, select **Another Device** and click **OK**. In the dialog box that appears, specify the connection type and IP address for the second device and click **OK**.

A Registry Compare dialog box appears displaying the existing registry file.

4 When you are finished comparing registries, close the Registry Compare dialog box.

# Using the Process Manager

The **Processes** tab in the Standard Viewer allows you to view the processes that are currently running on the mobile device. You have the option to activate or kill (end) any of the processes. Activating a process brings that process to the foreground of the device screen. Killing a process stops the process.

#### To use the Process Manager:

1 Click the **Processes** tab.

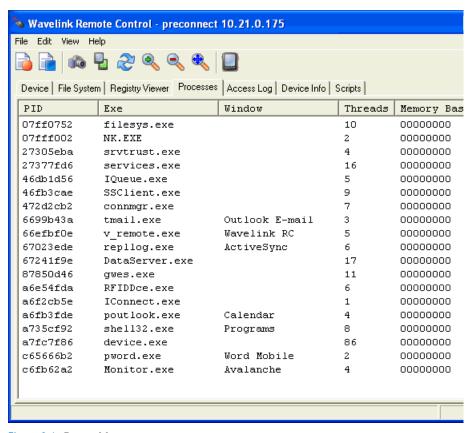


Figure 8-6. Process Manager

2 Select a process and right-click to **Activate** or **Kill** that process.

# Accessing the Log File

The Remote Control logging feature stores information about the current connection session of Remote Control.

This section provides information about the following logging options:

- Viewing the Log File
- Configuring Logging

• Clearing Log Files

### Viewing the Log File

You can view the log file for a current Remote Control session from the **Access Log** tab.

#### To view the log file:

• In the Standard Viewer, click the **Access Log** tab.

### Configuring Logging

Remote Control supports the following log levels:

- **Critical**. This level writes the least information to the log file, reporting only critical errors that cause a process to abort.
- Error. This level writes Error messages and Critical messages to the log file.
- Warning. This level writes Critical messages, Error messages, and Warning messages to the log file.
- **Info**. This level is the default logging level and the Wavelink-recommended setting. This logging level writes enough information to the log file to diagnose most problems.
- **Debug.** This logging level writes large amounts of information to the log file that can be used to diagnose more serious problems.

You can change the logging for a particular connection session through the *Configure* dialog box located in the Standard Viewer.

#### To change the logging configuration:

- 1 Click the **Access Log** tab.
- 2 From the File menu, select Configure.

The Configure dialog box appears.

- 3 In the Logging region, select the log level from the Level drop-down menu.
- 4 Enter the maximum size you want the log level to reach in the **Max Size** text box.
- 5 Click OK.

The *Configuration Data Change* dialog box appears. This dialog box indicates that you changed something from the original profile configuration.

- If you want to use your updated changes, but do not want to update the configuration file, select the Use New Configuration option.
- If you want to use your updated changes and update the configuration file to reflect those changes, select the Use New Configuration and Update config file option.

#### 6 Click OK.

The new logging information is applied.

**NOTE** You can also set up the logging configuration when you create a connection profile. For more information, refer to *Configuring Connection Profiles* on page 21.

### Clearing Log Files

If you need to delete the information that displays in the log file, you can clear the entire file. When you select to clear the log file, the entire log in the **Access Log** tab is removed. You cannot select individual items to clear.

#### To clear the log file:

- 1 Click the **Access Log** tab.
- 2 From the Edit menu, select Clear.

-Or-

Right-click within the log and select Clear.

The **Access Log** tab clears.

# Viewing Device Information

The **Device Info** tab in the Standard Viewer provides information about the mobile device to which you are connected. This information includes:

• Identification, including OEM information and the operating system versions.

- Memory, including the amount of free memory left on the device and storage space.
- Power, including information about the battery level and charging status of the mobile device.
- Screen, including information about the screen size and orientation.
- Security, including password information.

#### To view device information:

• From the Standard Viewer, click the **Device Info** tab.

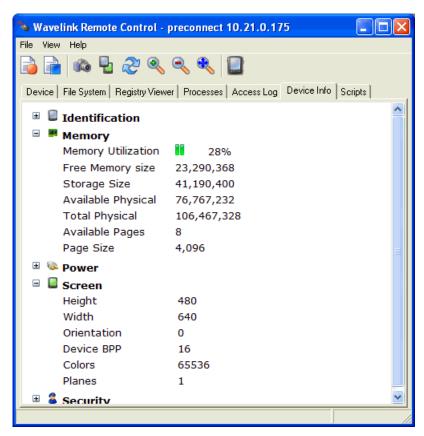


Figure 8-7. Device Info

## Configuring the Display

When you create a Remote Control connection session, you can configure the following display and capture options:

- Setting Video Mode
- Configuring Display Refresh Rates
- Sizing Mobile Device Display
- Toggling Statistics
- Enabling Device Skins
- Recording AVI Files
- Performing Screen Captures

## Setting Video Mode

You can set two types of video mode depending on how you want the mobile device screen to appear and how fast you want the program to run.

- **Standard Mode**. This mode provides the clearest, most accurate screen images. However the refresh rate is slower over wide area connections.
- **Image Mode**. This mode provides faster screen updates with reduced image quality. You can set the screen display quality from one 99 based on preference.

#### To set video mode:

1 Click the Video Mode icon.

The Set Video Mode dialog box appears.

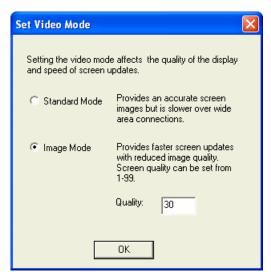


Figure 8-8. Set Video Mode

2 Select the video mode you want to use and click OK.

## Configuring Display Refresh Rates

You can configure the rate at which Remote Control refreshes the mobile device screen display. The refresh rate can range from 1 to 17 frames per second. Your selection is dependent on the speed of the mobile device and the communication method you are using. Select the best setting for your usage that does not impact the mobile device CPU too heavily and allows for reasonable screen updates.

**NOTE** You can also configure the refresh rate option when you create connection profiles. For more information, refer to *Creating Remote Control Connection Profiles* on page 19.

### To configure the refresh rate:

1 From the **File** menu, select **Configure**.

The Configure dialog box appears.

2 From the **Refresh Rate** drop-down list, select the rate at which you want the screen display to refresh.

#### 3 Click OK.

The *Configuration Data Change* dialog box appears. This dialog box indicates that you changed something from the original profile configuration.

- If you want to use your updated changes, but do not want to update the configuration file, select the **Use New Configuration** option.
- If you want to use your updated changes and would like to update the
  configuration file to reflect those changes, select the Use New Configuration
  and Update config file option.

#### 4 Click OK.

## Sizing Mobile Device Display

You can configure the size of the mobile device display to scale from .5x - 4x. There is also an auto scale option that will fit the display to the size of the window you have open. Once you connect to the mobile device, you can change the scale setting and magnify or shrink the display.

This section provides the following information:

- Configuring Scale Settings
- Changing the Display Size

## Configuring Scale Settings

If you did not configure the scale setting when you created your connection profile, you can configure it from the Standard Viewer.

**NOTE** You can also configure scale setting when you create connection profiles. For more information, refer to *Creating Remote Control Connection Profiles* on page 19.

#### To set the scale of the display:

1 From the **File** menu, select **Configure**.

The Configure dialog box appears.

- 2 From the **Scale** drop-down list, select the size of the mobile device display.
- 3 Click OK.

The *Configuration Data Change* dialog box appears. This dialog box indicates that you changed something from the original profile configuration.

- If you want to use your updated changes, but do not want to update the configuration file, select the Use New Configuration option.
- If you want to use your updated changes and update the configuration file to reflect those changes, select the Use New Configuration and Update config file option.

### 4 Click OK.

The device will appear as the size you selected.

### Changing the Display Size

You can change the size of the mobile device display while you are connected to a mobile device.

### To change the scale size:

- From the View Menu, select Scale and then the size you want the display to be.
  - -Or-
- Use the Zoom In, Zoom Out or Autoscale toolbar options to adjust the size of the display.

## **Toggling Statistics**

You can display connection statistics at the bottom of the Standard Viewer. The statistics include bytes sent, bytes received, the number of keys pressed during the session, and the number of mouse clicks during the session.

#### To toggle statistics:

- Click the **Device** tab.
- 2 From the View menu, select Toggle Statistics.

## **Enabling Device Skins**

From the Standard Viewer, you can toggle between a selected skin and the default view (no skin). To use skins, you must enable the **Show Skin** option when you are creating connection profiles or from the *Configure* dialog box in the Standard Viewer.

This section provides information about the following tasks:

- Enabling the Show Skin Option
- Toggling the Skin

## **Enabling the Show Skin Option**

If you did not enable the **Show Skin** option when you created your connection profile, you can configure the connection to display skins from the Standard Viewer.

**NOTE** You can also configure how you want your mobile device skins to display when you create connection profiles. For more information, refer to *Creating Remote Control Connection Profiles* on page 19.

### To enable the Show Skin option:

1 From the **File**, select **Configure**.

The *Configure* dialog box appears.

- 2 Enable the **Show Skin** option.
- 3 Select which skin to display from the **Skin** drop-down list.
- 4 Click OK.

The *Configuration Data Change* dialog box appears. This dialog box indicates that you changed something from the original profile configuration.

- If you want to use your updated changes, but do not want to update the configuration file, select the Use New Configuration option.
- If you want to use your updated changes and would like to update the
  configuration file to reflect those changes, select the Use New Configuration
  and Update config file option.
- 5 Click OK.

The skin image appears in the **Device** tab of the Standard Viewer.

### Toggling the Skin

Once the **Show Skin** option is enabled, you can toggle between the selected skin and the default view of Remote Control.

### To toggle the skin:

Click the Toggle Skin toolbar icon.

-Or-

Select View > Toggle Skin.

## Recording AVI Files

Avalanche Remote Control allows you to record AVI files. The AVI file is saved in the RECORDED\_DATA folder under the Remote Control installation directory. You can play the AVI file on any program compatible with the AVI video file format, such as Windows Media Player.

This section provides information about the following tasks:

- Enabling AVI Recording
- Recording AVI Files

### **Enabling AVI Recording**

Before you can record an AVI file, you must enable AVI as the recording method. You can select the AVI recording method from the *Configure* dialog box in the Standard Viewer. You can change the recording method configuration for a particular connection session through the *Configure* dialog box.

You can also configure the recording method when you create a connection profile. For more information, refer to *Creating Remote Control Connection Profiles* on page 19.

### To select the recording method:

1 From the **File** menu, select **Configure**.

The Configure dialog box appears.

- 2 In the Recording Method region, select the AVI video option as the recording method.
- 3 If you want the cursor to display in the AVI video, enable the **Show Cursor** option.
- 4 Click OK.

The *Configuration Data Change* dialog box appears. This dialog box indicates that you changed something from the original profile configuration.

- If you want to use your updated changes, but do not want to update the configuration file, select the **Use New Configuration** option.
- If you want to use your updated changes and update the configuration file to reflect those changes, select the Use New Configuration and Update config file option.

#### 5 Click **OK**.

The new recording method information is applied.

### Recording AVI Files

You can record actions and tasks and then save your actions as an AVI file from the Standard Viewer. You can use the recordings for demonstration purposes or training.

#### To record the AVI file:

1 In the Standard Viewer, click the Record toolbar icon.

The *Save As* dialog box appears.

2 Name the file and click Save.

The Video Compression dialog box opens.

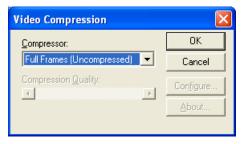


Figure 8-9. Video Compression

- 3 Configure the compression options and click **OK**.
- 4 From the **Device** tab in the Standard Viewer, perform the actions on the mobile device that you want to record.
- 5 Click the Stop Record toolbar icon when you are finished.

The AVI file is saved in the \RECORDED\_DATA folder in the Remote Control installation directory.

## Performing Screen Captures

When you are connected to a mobile device through a Remote Control session, you can capture screen images from the mobile device. This section provides information about the following tasks:

- Selecting Screen Capture Methods
- Performing Screen Captures

### Selecting Screen Capture Methods

Before you can take screen captures using Remote Control, you must select the method by which you want to capture the screen image. You can capture screen shots using three different methods:

- **File**. Use this option to save the image to a specified file. Once you capture the screen image, you can specify where you want to save the file.
- Clipboard. Use this option to place the image on the clipboard.
- One-click. Use this option to click once and send the screen capture to a previously specified file format. The file format must be chosen in the *Configure* dialog box. The file name will be automatically created based on the current time and date.

You can configure screen capture methods from the Standard Viewer. You can also configure screen capture methods when you create Remote Control connection profiles. For more information, refer to *Creating Remote Control Connection Profiles* on page 19.

#### To configure the screen capture method:

1 In the Standard Viewer, select File > Configure.

The Configure dialog box opens.

- 2 In the Screen Capture region, select the method you want to use when performing screen captures.
- 3 Click OK.

The *Configuration Data Change* dialog box appears. This dialog box indicates that you changed something from the original profile configuration.

 If you want to use your updated changes, but do not want to update the configuration file, select the Use New Configuration option. • If you want to use your updated changes and update the configuration file to reflect them, select the **Use New Configuration and Update config file** option.

#### 4 Click OK.

The screen capture method you configured is now enabled.

### **Performing Screen Captures**

Once you configure the screen capture method, you can use the camera toolbar icon to capture screen images.

## To perform a screen capture:

- 1 In the **Device** tab, navigate to the screen view of the device you want to capture.
- 2 Click the Camera toolbar icon.

The image is saved according to the screen capture method you configured in the *Configure* dialog box.

## **Using Device Tools**

When you are connected to a device, Remote Control has several tools to help you control the device. These tools include:

- **Soft Reset**. Forces a warm boot on the device. When you reset the device, the Remote Control connection is terminated.
- **Suspend**. Puts the mobile device in a suspended (sleep) state. When you suspend the device, the Remote Control connection is terminated.
- Clearing Client Settings. Clears changes to the Remote Control settings that the device user may have set.

### To use the device tools:

- 1 Click the **Device** tab.
- 2 From the **Tools** menu, select the tool you want to use.

If you select **Soft Reset** or **Suspend**, the connection session is terminated.

If you select **Clearing Client Settings**, any Remote Control settings changed by the device user are reset.

## Chapter 9: Web Viewer Tasks

This chapter provides information about using the Remote Control Web Viewer once you are connected to a mobile device. The tasks detailed in this chapter assume you are connected to a mobile device. For information about creating a connection session, refer to *Connecting to Mobile Devices* on page 47.

NOTE There are two different Viewer interfaces, depending on how you initiated the Remote Control connection. If you launched from the Avalanche Java Console or the Remote Control Console, Remote Control will use the Standard Viewer. If you launched from the Avalanche Web Console, Remote Control will use the Web Viewer. You cannot connect to a device with both the Standard Viewer and the Web Viewer at the same time.

This chapter contains tasks for working from the Web Viewer. For information on working from the Standard Viewer, see *Standard Viewer Tasks* on page 54.

Once you connect to a mobile device, Remote Control offers a variety of functionality, tools and configuration options. The Web Viewer has the following tabs:

- **Device**. For information on tasks performed from the **Device** tab, see *The Device Tab* on page 81.
- **Files**. The **Files** tab allows you to view and modify the files on the device. You can run, open, download, rename, or delete files. For information on tasks performed from the **Files** tab, see *Using the File Explorer* on page 83.
- Registry. The Registry tab allows you to view and modify the device registry. For
  information on tasks performed from the Registry tab, see *Using the Registry*Explorer on page 83.
- Processes. The Processes tab allows you to view, kill, and activate processes on the
  device. For information tasks performed from the Processes tab, see *Using the*Process Manager on page 84.
- **Device Info**. The **Device Info** tab provides information on the device ID, memory, power, screen, and security. You cannot change any of the information from this tab. For details on the information available on this tab, see *Viewing Device Information* on page 85.

• Scripts. The Scripts tab allows you to create scripts in JavaScript to run on your device using Remote Control. For more information on how to use the Script Editor, see the *Remote Control Scripting Reference Guide* on the Wavelink web site.

**NOTE** The Web Viewer does not support autodiscovery or WWAN connections. Some skins may be displayed, but they will not be functional. There is no list of pre-connected devices for the Web Viewer.

## The Device Tab

The **Device** tab allows you to interact with the device and view its access history and logs. You can also perform tasks such as a reboot or device sync. The tab has four panels:

- Device Description
- Available Commands
- Device Logs and Access History

## **Device Description**

The Device Description panel provides information about the device you are connected to, a thumbnail of the current display on the device, and buttons for editing device information and showing the current display in a larger window. Device information may include:

Status The connection status of the device.

OEM Info OEM info as reported by the device.

Server Address Address for the Avalanche Mobile Device Server.

Ava Term ID Terminal ID assigned to the device by Avalanche.

Last Seen Last time the device was autodiscovered or connected to.

Description Device description set in Remote Control Console.

IP Address IP address of the mobile device.

Phone Number Phone number for the device.

Carrier for the device's phone service.

The Device Information panel also gives you the option to edit the phone number and carrier for the device, and interact with the device.

### To edit the phone number and carrier:

1 From the **Device** tab, click **Edit**.

The Editing Device Information page appears.

2 Enter the new Phone Number and select the Carrier from the drop-down list, and click Save.

**NOTE** If the carrier is not listed, you must add the carrier from the Remote Control Console. For more information, see *Adding Cellular Carriers* on page 37.

#### To interact with the device screen:

From the Device tab, click Show Device.

The device screen appears full size in a separate browser window. Clicking on the displayed screen sends the mouse click to the connected device. Typing on the keyboard sends the key commands to the mobile device.

#### Available Commands

The following commands are performed from the Available Commands panel on the Web Viewer **Device** tab:

Disconnect Disconnects the device from the Remote Control session.

Reboot Performs a warm boot of the device. The connection

session is terminated.

Suspend Sends the device into a suspended (sleep) state. The

connection session is terminated.

Text Message Sends an SMS text message to the mobile device.

Device Sync Sends an SMS message to the device requesting it to

connect to the Avalanche Mobile Device Server.

## **Device Logs and Access History**

The Device Log and Access History panels are on the **Device** tab. They display information about device and Remote Control history. These panels can include large lists of information, so you can page through the lists as in Avalanche.

## Using the File Explorer

You can access the File Explorer of the mobile device from your PC during your Remote Control connection session. This enables you to view, copy, rename, or delete files and perform tasks on the mobile device.

## To use the File Explorer:

1 From the Avalanche Web Mobile Device Details page, click **File Explorer**.

-Or-

After you have established a connection, click the Files tab in the Web Viewer.

- 2 Use the folder icons to navigate to the desired file.
  - When you select the file, the file information appears in a panel above the File Explorer, and you have the options to Run, Open, Download the file from the mobile device, Rename, or Delete.
  - To copy a file to the device, navigate to the location you want the file stored and click **Upload File**. When the Uploading Files region appears, click **Browse** to find the file you want to copy to the device. After selecting the file, click **Upload**.
  - Use the Add Directory and Delete Directory options to change the file structure.

Remote Control will make the changes on the device as you perform the desired tasks.

## Using the Registry Explorer

From the **Registry** tab in the Web Viewer, you can view and edit the registry of a connected mobile device.

### To view and edit the registry:

1 From the Avalanche Web Mobile Device Details page, click **Registry Explorer**.

-Or-

After you have established a connection, click the **Registry** tab in the Web Viewer.

- 2 Use the tree view to navigate to the registry key you want to view or edit.
  - If you are adding or deleting a registry key, click **Add Key** or **Delete Key** at the top of the panel.
  - If you are editing a current value, select the name of the key and the Editing Registry Value panel appears. Make changes as desired and click **Save**.
  - If you are adding a value, click **Add New Value** and the Adding Registry Value panel appears. Make changes as desired and click **Save**.

Remote Control will make the changes on the device as you perform the desired tasks.

## Using the Process Manager

The **Processes** tab in the Standard Viewer allows you to view the processes that are currently running on the mobile device. You have the option to activate or kill (end) any of the processes. Activating a process brings that process to the front of any other programs running on the mobile device. Killing a process stops the process.

#### To use the Process Manager:

- 1 From the Avalanche Web Mobile Device Details page, click **Process Manager**.
  - -Or-
- 2 After you have established a connection, click the **Processes** tab in the Web Viewer.
  - To kill a process, select it from the list and click Kill.
  - To activate a process, select it from the list and click **Activate**.

Remote Control will make the changes on the device as you perform the desired tasks.

## Viewing Device Information

The **Device Info** tab in the Web Viewer provides information about the mobile device to which you are connected. This information includes:

- Identification, including OEM information and the operating system versions.
- Memory, including the amount of free memory left on the device and storage space.
- Power, including information about the battery level and charging status of the mobile device.
- Screen, including information about the screen size and orientation.
- Security, including password information.

#### To view device information:

 After you have established a connection, click the Device Info tab in the Web Viewer.

## Chapter 10: Managing Device Skins

Skins display an image of the mobile device in the Standard Viewer. To reduce the size of the software package, Remote Control is only packaged with a select number of device skins. However, a variety of device skins from major manufacturers is available from the Skin Download Manager on the Wavelink web site. You also have the option of creating a new skin.

Keymaps allow you to use the skin, or image of the mobile device, just as you would if you were pressing the buttons on the actual device. The keymaps assign specific functions to each key on the image of the mobile device. You have the ability to create custom keymaps for any of your mobile devices.

Using the Keymap Editor, you can import skin images you download or create and then assign keymaps to the skins. You can then configure Remote Control to detect what type of device you are connecting to and automatically display the associated skin.

NOTE Device skins and keymaps are only available with the Standard Viewer.

This chapter provides information about the following tasks:

- Accessing the Keymap Editor
- Downloading Skins
- Creating New Skins
- Editing Skins
- Packaging Skins
- Applying Skins
- Toggling Skins

## Accessing the Keymap Editor

You can access the Keymap Editor from the software package or from the Remote Control Console.

### To access the Keymap Editor from the Avalanche Console:

1 Select the Remote Control package in the **Software Profiles** tab and click **Configure**.

The *Configure Software* dialog box appears.

2 From the drop-down menu, select **Keyboard Map Editor**.

The Keymap Editor appears.

### To access the Keymap Editor from the Remote Control Console:

1 Access the Remote Control Console.

For more information about accessing the Remote Control Console, refer to *Launching the Remote Control Console* on page 19.

2 From the File menu, select Keymap Editor.

The Keymap Editor appears.

## **Downloading Skins**

The Skin Download Manager contains mobile device skins that you can download to the Keymap Editor and use in Remote Control. These skins may be created by Wavelink or other Remote Control users. Users can create skins and then upload them to the Web site for other people to download. For information about packaging a skin you created and uploading it to the Skin Download Manager, refer to *Packaging Skins* on page 97.

When you download a skin from the Skin Download Manager, the skins are stored on the Remote Control Server and also appear in the Skins List of the Keymap Editor.

#### To download skins:

1 From the **Skin** menu in the Keymap Editor, select **Download From Web**.

The *Skins Download* dialog box appears.

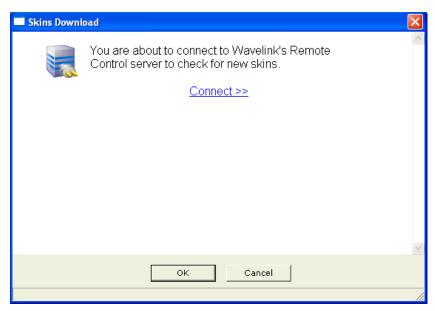


Figure 10-1. Skins Download

### 2 Click Connect.

You will connect to the Wavelink Skin Download Manager.

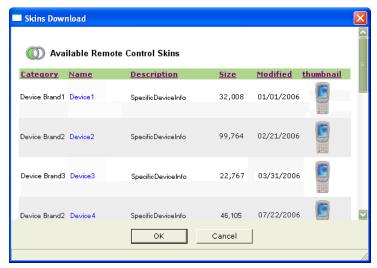


Figure 10-2. Skins Download

3 Click on the name of the skin you want to download.

**NOTE** For each skin, there may be a number of different keyboard configurations. Be sure to select the skin with the keyboard configuration matching your device.

The skin files are downloaded to the \Skins folder in the Remote Control installation directory. The skin will appear in the skin list of the Keymap Editor.

4 When you are done downloading skins, click **OK**.

Once you download a skin, it is immediately visible to Remote Control, the Remote Control Console and the Keymap Editor. You can open the skin from the list of skins.

## **Creating New Skins**

In order to create a new skin, you must complete the following tasks:

- 1 Create an image of the mobile device. Using a graphics design program, create an image of the mobile device. This will be the image that appears when you connect to the mobile device and display the skin.
- 2 **(Optional)** Create a down image of the mobile device. Using a graphics design program, create an image of the mobile device when a key is in a down state. The down image can be the same as the main image.
- 3 **Create a key map**. Using a graphics design program, create a keymap of the mobile device keys/buttons you want to configure in the Keymap Editor. You will use this map to configure the behavior and actions of key presses in the Standard Viewer. Each key/button must use a unique color.

NOTE All image files should be saved as .png or .bmp.

After creating the skin images, import each image into the Keymap Editor, configure the mobile device information associated with that skin, and then edit the button actions and behaviors.

This section provides information about the following related tasks:

• Configuring Skin Information

• Importing Images

## Configuring Skin Information

Create a new skin file before importing skin images. The skin file contains the device information for that specific skin. Remote Control uses this information to auto-detect device types.

You can configure the following types of skin information:

- **Extended Skin**. Extended skins are skins that have configured keymaps. If you are not going to configure a keymap for this skin, do not enable this option.
- Name. This is the name of the skin.
- OEM Info. This may be the complete OEM string returned by the device or a
  partial string. Remote Control will match the complete OEM string, returned by
  the device, with the data entered here. For example, if a device returns "My Device
  3100" and another device returns "My Device 3110", a skin with the OEM String
  "My Device 31" would match both. This is useful when similar devices can share
  the same keyboard information and slight display differences are not significant.
- Client Screen (X and Y coordinates). These coordinates reflect the height and width that the skin will display in the Standard Viewer.
- Screen Size (Width and Height). If two similar devices return the same OEM but have different screen sizes, you can specify the screen size for the skin so that Remote Control will auto detect the correct skin.

**NOTE** A GUID is automatically assigned to the skin. You cannot configure this information.

#### To configure skin information:

- 1 From the **Skins** menu, select **New**.
- 2 In the device information region, enable the **Extended Skin** option if you are creating an extended skin.
- 3 In the **Name** text box, enter the name of the skin.
- 4 In the **OEM Info** text box, enter device manufacturer information you want the Remote Control auto-detect feature to associate this skin with.

- 5 In the Client Screen text boxes, enter the pixel height and width for the skin image for the device.
- 6 In the **Screen Size** text boxes, enter the pixel height and width for the screen.
- 7 Click Apply Changes to save your changes.

Once you enter information for the mobile device, you are ready to import the images of the device that you have created.

## Importing Images

Import the images you created of the mobile device into the Keymap Editor. Imported images will be available to display in the Standard Viewer when you connect to a mobile device. You can import the following types of images:

- **Normal**. This image is the normal display of the mobile device when it is in a stand-by state. This image displays upon a Remote Control connection to the mobile device.
- Down. This image displays the mobile device when a key is in the down state. This
  image can be the same as the normal image.
- Map. This image is the keymap for the mobile device. The image should display all the buttons that you want to configure for the mobile device as a unique color button. You use this image to map an action for each key. For an example of a map image, see Figure 10-5 on page 97.

As you import each image, **Normal**, **Down** and **Map** tabs appear in the preview region. You can click each tab to display the specific image. When you are finished importing, an **Overlay** tab appears. Use this tab to compare the Map image to the Normal (actual) image of the mobile device. You can verify that the buttons on the map image match up with the buttons on the mobile device image.

#### To import images:

- 1 From the device list in the Keymap Editor, select the device for which you want to import images.
- 2 Click the [...] button to the right of the **Normal Image** text box.
- 3 Locate the image file you want to import and click Open.

The image displays in the **Normal** tab.

- 4 Click the [...] button next to the **Down** text box.
- 5 Locate the image file you want to import and click **Open**.

The image displays in the **Down** tab.

- 6 Click the [...] button next to the **Map** text box.
- 7 Locate the image file you want to import and click **Open**.

The image displays in the **Map** tab.

8 Click **Apply Changes** to save your changes.

## **Editing Skins**

You can edit existing skins or you can edit the newly imported skin images. This section provides the following information about editing skins:

- Editing Skin Information
- Configuring Keymaps
- Viewing Split Screen

## **Editing Skin Information**

The skin file contains the device information for a specific skin. Remote Control uses this information to detect the type of device it is connecting to and then displays the appropriate skin.

For details about the editable skin information options, refer to *Configuring Skin Information* on page 90.

#### To edit skin information:

- 1 Select a skin from the Skins list.
- 2 In the device information region, enable the **Extended Skin** option if you want the skin to be an extended skin.
- 3 In the **Name** text box, enter the name of the skin.
- 4 In the **OEM Info** text box, enter the device OEM information.

- 5 In the **Client Screen** text boxes, enter the pixel height and width for the skin.
- 6 In the **Screen Size** text boxes, enter the pixel height and width for the screen.
- 7 Click **Apply Changes** to save your changes.

## Configuring Keymaps

The Keymap Editor allows you to configure the actions and behavior of the mobile device keys that display in the Standard Viewer. Use the map image to configure the different keys. When you import a map image, the colors and buttons are automatically loaded into the Actions Editor region in the lower right corner of the Keymap Editor.

To configure keymaps, you complete two tasks:

- Creating Key States. Set different states that the keys may be in.
- Configuring Key Actions. Configure different behaviors for each key in the keymap.

### **Creating Key States**

Using key states, you can create many different actions for each mobile device key. For example, you can configure a key to perform one action in the normal state and a different action when the mobile device is in an ALT-SHIFT state. This allows multiple uses for the same keys. You also have the option of making each key a multi-click key. This means that in one state a key can perform up to four different actions depending on the number of times it is pressed.

### To create new device states:

1 In the Actions Editor region, click **New**.

The *New State* dialog box appears.



Figure 10-3. New State

- 2 Enter a name for the state.
- 3 Enable the **Default** option if you want this state to be the default state the keys are in when displayed in the Standard Viewer.
- 4 Enable the **Sticky** option if you want this state to be sticky.

A sticky state will persist until you manually exit the state by pressing the key again.

5 Click **OK** when you are finished.

The new state appears as a tab in the Actions Editor region.

### **Configuring Key Actions**

You can configure key behavior for each button you created in your keymap for the mobile device skin. You can configure a key to perform one action or you can configure multi-click keys. Multi-click keys can perform up to four different actions depending on the number of times the key is pressed. You can create toggle keys that will alternate the state of the mobile device keys.

### To configure key actions:

1 In the **Map** tab, click the key that you want to configure.

The Edit Key Detail dialog box appears.



Figure 10-4. Edit Key Detail

2 Enter a **Tooltip** for the key.

The information you enter into the **Tooltip** text box will display in the Standard Viewer when you move the mouse over that key.

- 3 Select the tab of the key state for which you are going to configure this key.
- 4 If you want the key to be a multi-click key, enable the **Multi Click** option.
- 5 From the **On Click** drop-down list, select the action you want this key to perform on the first click.

You can also enter the code for the action you want the key to perform in the **Code** text box.

6 If you enabled the **Multi Click** option, configure the **On Click 2**, **On Click 3** and **On Click 4** options using the drop-down lists.

You can also enter the code for the action you want the key to perform in the **Code** text boxes.

7 If you want this key to toggle the state of the mobile device (for example, act as the shift key), enable the **Toggle** option.

- 8 If you enable the **Toggle** option, enter the state that you want the device to switch to when the key is pressed.
- 9 Continue configuring each key in all the states.
- 10 When you are finished, click **OK**.

The keys are now assigned to perform the actions you configured.

11 Click **Apply Changes** to save the key configuration.

## Viewing Split Screen

The Keymap Editor allows you to split the preview screen. Using the split preview screen, you can view different images of the mobile device skin at the same time. For example, you can view the color map in one screen and the actual device buttons in another.

### To view split screen:

• From the View menu, select Split Device View.



Figure 10-5. Split Screen

## **Packaging Skins**

Only a certain number of skins are included with the Remote Control software package. However, you can access and import many other skins at the Wavelink web site Skins Download Manager. Additionally, if you create new skins for mobile devices, you can package the skins and upload them to the Wavelink Web site for other Remote Control users to access.

## To package skins:

- 1 In the Skins list, select the skin you want to send to Wavelink.
- 2 From the Skin menu, select Send to Wavelink.

The *Upload Skins Package to Wavelink* dialog box appears.



Figure 10-6. Upload Skins Package to Wavelink

- 3 Enter your name, company and e-mail in the appropriate text boxes.
- 4 Add any comments about the skin you are sending in the **Comments** text box.
- 5 Click OK.

Remote Control packages all the files used to create the selected skin and send the package to Wavelink. Wavelink then posts the skin on the Skins Download Manager, allowing other Remote Control users to download it.

## **Applying Skins**

You can apply or change a skin from the Standard Viewer when you are connected to a mobile device.

**NOTE** You can also apply skins when you create connection profiles. For more information, refer to *Chapter 4: Creating Remote Control Connection Profiles* on page 19.

To apply a skin while you are connected to a mobile device:

1 From the **File** menu in the Standard Viewer, select **Configure**.

The Configure dialog box opens.

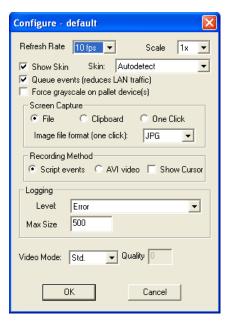


Figure 10-7. Configure dialog box

- 2 Enable the **Show Skin** option.
- 3 From the **Skin** drop-down list, select which skin you want to display.

If you select **Autodetect**, Remote Control attempts to detect the type of device you are using and apply that skin.

#### 4 Click OK.

The *Configuration Data Changed* dialog box appears. This dialog box indicates that you changed something from the original profile configuration.

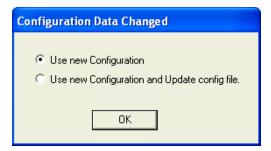


Figure 10-8. Configuration Data Changed

- If you want to use the updated changes, but do not want to update the configuration file, select the **Use New Configuration** option.
- If you want to use the updated changes and would like to update the configuration file to reflect those changes, select the **Use New Configuration** and **Update config file** option.
- 5 Click **OK**.

The selected skin displays in the Standard Viewer.

## Toggling Skins

Once you enable the **Show Skin** option, Remote Control displays the skin for the connected mobile device. You can toggle the skin to display or not display from the **Device** tab in the Standard Viewer.

### To toggle skins:

- 1 Select the **Device** tab in the Standard Viewer.
- 2 From the View menu, select Toggle Skin.

-Or-

• Click the **Toggle Skin** icon in the Standard Viewer toolbar.

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