



## **REALPLAYER ENTERPRISE 2.1 DEPLOYMENT GUIDE**

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# CONTENTS

INTRODUCTION	1
How This Manual Is Organized .....	1
Conventions Used in This Manual .....	1
1 REALPLAYER ENTERPRISE CONFIGURATION TOOL	3
RealPlayer Enterprise Configuration Tool Overview.....	3
Changes from the Previous Release.....	4
RealPlayer Enterprise Configuration Tool Requirements .....	4
Media Player Support .....	5
2 SETTING PLAYER PREFERENCES	6
Running RealPlayer Enterprise Configuration Tool .....	6
Specifying the Installer File .....	6
Choosing Preferences.....	7
Locking and Unlocking Preferences.....	8
Setting RealPlayer Enterprise 2.1 Preferences.....	9
Player Preferences.....	9
Internet/Privacy.....	9
Privacy Settings .....	9
Registered Location.....	11
Playback .....	11
Live Pause .....	12
On-demand Internet Clips .....	12
Buffered Play.....	13
Instant Playback.....	13
TurboPlay .....	13
Hardware.....	14
Playback Performance .....	14
Sound Card Compatibility .....	15
Video Card Compatibility .....	16
Network Transports.....	16
Network Transport.....	16
RTSP Transport.....	17
PNA Transport.....	18
Transport Timeouts.....	19

UDP Ports.....	19
Proxy .....	20
PNA and RTSP Proxies .....	20
HTTP Proxy.....	21
Proxy Auto-Configuration .....	22
Proxy Exceptions .....	22
Connection .....	22
Bandwidth .....	22
Network Time-out.....	23
Online Status .....	24
Updating Windows Media Player Preferences .....	24
Windows Media Preferences .....	24
Streaming Protocol.....	25
Streaming Protocols .....	25
UDP Ports.....	26
Streaming Proxy .....	26
HTTP Proxy.....	26
MMS Proxy .....	27
RTSP Proxy .....	28
Performance .....	29
Bandwidth .....	29
Network Buffering .....	30
Modifying QuickTime Player Preferences .....	30
<b>3 GENERATING INSTALLERS .....</b>	<b>32</b>
Setting RealPlayer Enterprise 2.1 Installation Options.....	32
Player Setup .....	32
Home Page .....	32
Favorites Menu.....	33
Help Menu.....	33
Installation Options .....	33
Installation Directory.....	33
Installation Mode.....	33
Startup Mode .....	34
Desktop.....	34
Uninstallation Options .....	34
Data Types.....	35
Universal Media Player.....	35
Individual Media Types.....	35
Generating the RealPlayer Enterprise 2.1 Installer .....	37

# INTRODUCTION

This guide is intended for system administrators who will use RealPlayer Enterprise Configuration Tool 2.1 to customize preferences for RealPlayer Enterprise 2.1, Windows Media Player, and QuickTime Player.

## How This Manual Is Organized

The manual contains the following chapters:

### Chapter 1: RealPlayer Enterprise Configuration Tool

This chapter covers the basics of RealPlayer Enterprise Configuration Tool 2.1.

### Chapter 2: Setting Player Preferences

This chapter explains how to specify preferences used by RealPlayer Enterprise 2.1, Windows Media Player, and QuickTime Player.

### Chapter 3: Generating Installers

This chapter shows how to generate the RealPlayer Enterprise 2.1 installation program.

## Conventions Used in This Manual

The following table explains the typographic conventions used in this manual.

### Notational Conventions

Convention	Meaning
<b>emphasis</b>	Bold text is used for in-line headings, user-interface elements, URLs, and e-mail addresses.
<i>terminology</i>	Italic text is used for technical terms being introduced in a given manual or other document, and to lend emphasis to generic English words or phrases.

(Table Page 1 of 2)

**Notational Conventions (continued)**

Convention	Meaning
syntax	This font is used for fragments or complete lines of programming syntax (code or markup languages)—whether within text or set off—and for command-line instructions.
<b>syntax emphasis</b>	Bold syntax character formatting is used for program names and to emphasize specific syntax elements.
<i>variables</i>	Italic syntax character formatting denotes variables within fragments or complete lines of syntax.
[options]	Square brackets indicate values you may or may not need to use. As a rule, when you use these optional values, you do not include the brackets themselves.
choice 1  choice 2	Vertical lines, or “pipes,” separate values you can choose between.
...	Ellipses indicate nonessential information omitted from code or markup language examples.

(Table Page 2 of 2)

## REALPLAYER ENTERPRISE CONFIGURATION TOOL

This chapter provides an overview of RealPlayer Enterprise Configuration Tool 2.1. It also explains the differences between the current and the previous version of RealPlayer Enterprise Manager.

### RealPlayer Enterprise Configuration Tool Overview

RealPlayer Enterprise Configuration Tool 2.1 is a Windows-based tool that allows you to customize RealPlayer Enterprise 2.1, Windows Media Player, and QuickTime Player with specific preference settings. You can, for example, configure players always to use a specific HTTP, RTSP, or MMS proxy server.

RealPlayer Enterprise Configuration Tool creates one or more customized installation programs for Windows. When users within your organization run one of these installers on their computers, it does the following:

- Installs a customized version of RealPlayer 10.5, called *RealPlayer Enterprise 2.1*. As described in Chapter 2, you can set and lock many of the preferences used by RealPlayer Enterprise 2.1.

**Tip:** RealPlayer Enterprise 2.1 does not prevent users from downloading and installing the free, standard version of RealPlayer. Your organization must have its own policies and practices to prevent these actions from happening.

- Updates the user's Windows Registry with selected Windows Media Player preferences. These preferences are not locked, however, and the user may change them manually.

**For More Information:** The section "Updating Windows Media Player Preferences" on page 24 explains the preferences that you can set.

- Overwrites the user's QuickTime Player preference file with a new file containing preferences that you have chosen. These preferences are not locked, however, and the user may change them manually.

**For More Information:** The section “Modifying QuickTime Player Preferences” on page 30 explains how to set QuickTime preferences.

## Changes from the Previous Release

RealPlayer Enterprise Configuration Tool 2.1 differs significantly from previous versions. It is designed to create RealPlayer Enterprise 2.1 installation programs only. Once you have generated your installers, you no longer need to run RealPlayer Enterprise Configuration Tool. In contrast, the previous version of RealPlayer Enterprise Manager ran as a service that RealPlayer periodically contacted for updates. That functionality has been removed.

## RealPlayer Enterprise Configuration Tool Requirements

You will need the following components to run RealPlayer Enterprise Configuration Tool 2.1 and generate your RealPlayer Enterprise 2.1 installers.

- Windows 2000, XP, Vista Enterprise, or Vista Ultimate
- Internet Explorer browser

The Web-based interface for RealPlayer Enterprise Configuration Tool requires Internet Explorer version 5.0 or higher, with support for Javascript.

- RealPlayer Enterprise Configuration Tool 2.1 executable file

RealPlayer Enterprise Configuration Tool is a single executable that you can copy to your computer. You do not have to run an installation program to set up RealPlayer Enterprise Configuration Tool. Using RealPlayer Enterprise Configuration Tool does not affect Windows components such as the registry or system tray.

- RealPlayer Executable Programs

You create the customized version of RealPlayer Enterprise 2.1 by modifying the RealPlayer product installer file that comes with RealPlayer Enterprise Configuration Tool.

## Media Player Support

The following table lists the media players that you can install or update on various Windows operating systems. Note that only the Windows Vista Enterprise and Windows Vista Ultimate editions are supported.

Media Player	Media Player Installation or Update		
	Windows 2000	Windows XP	Windows Vista Enterprise or Ultimate
RealPlayer Enterprise 2.1 installation	Yes	Yes	Yes
Windows Media Player update	No	player version 10 only	player version 11 only
QuickTime Player update	No	player version 7.0 (minimum)	player version 7.2 (minimum)

Note the following about media player support:

- RealPlayer Enterprise 2.1

You can use a single installer on all Windows versions even if the installer affects another media player. For example, suppose that an installer updates preferences for Windows Media Player. If you run the installer on Windows 2000, for example, the Windows Media preference changes are ignored. The preferences are updated only when you run the installer on Windows XP or Vista.

- Windows Media Player

If a computer has a version of Windows Media Player other than the supported version (such as Windows Media Player 11 on Windows XP), the player's preference settings are not affected.

- QuickTime Player

If a computer has a version of QuickTime Player other than the supported version (such as QuickTime Player 6), the player's preference settings are not affected.

## SETTING PLAYER PREFERENCES

This chapter explains how to use RealPlayer Enterprise Configuration Tool 2.1 to specify the preferences for RealPlayer Enterprise 2.1, Windows Media Player, and QuickTime Player. You can then create an installer that installs RealPlayer Enterprise 2.1, as well as updates the preferences for Windows Media Player and QuickTime Player.

### Running RealPlayer Enterprise Configuration Tool

To run RealPlayer Enterprise Configuration Tool 2.1, double-click the program executable, RP-Config-Tool.exe. The program launches an HTML-based interface that utilizes Internet Explorer.

#### Specifying the Installer File

RealPlayer Enterprise Configuration Tool requests an existing RealPlayer installer file when it starts up. RealPlayer Enterprise Configuration Tool uses this installer file to create your customized RealPlayer Enterprise 2.1 installation program. You can enter the full path to this file, or click the **Browse** button to locate this file on your computer. Choose one of the following installer files:

- The first time you run RealPlayer Enterprise Configuration Tool, choose the version of the RealPlayer installer, `playinst_en-enterprise2_1.exe`, that is included with RealPlayer Enterprise Configuration Tool 2.1. This installer is preconfigured with the same default preferences used by the standard version of RealPlayer.

**Warning!** Do **not** use a publicly available RealPlayer installer downloaded from the Internet.

- Once you have created a RealPlayer Enterprise 2.1 installation file according to the instructions in Chapter 3, you can specify that file at start-up. This loads into RealPlayer Enterprise Configuration Tool the preference settings that you saved into that installation program.

## Choosing Preferences

Using the left-hand navigation pane in RealPlayer Enterprise Configuration Tool, you can set media player preferences:

- The settings on the **Player Preferences** pages affect RealPlayer Enterprise 2.1. The section “Setting RealPlayer Enterprise 2.1 Preferences” on page 9 explains how to set these preferences.
- The preferences on the **Windows Media** pages affect Windows Media Player. The section “Updating Windows Media Player Preferences” on page 24 explains how to use these pages.
- The settings on the **QuickTime Preferences** page affect QuickTime Player. The section “Modifying QuickTime Player Preferences” on page 30 explains how to modify the QuickTime Player preferences file.
- The **Player Setup** pages allow you to customize additional options for RealPlayer Enterprise 2.1, as described in Chapter 3.

When you click a preferences page, such as **Internet/Privacy**, the preferences for that category appear to the right, as shown in the following figure.




## RealPlayer Enterprise Configuration Tool Preferences Page



**Tip:** Closing the RealPlayer Enterprise Configuration Tool browser window resets the preferences you have chosen. After you select preferences, be sure to generate a player installer as described in Chapter 3 before closing the RealPlayer Enterprise Configuration Tool window.

## Locking and Unlocking Preferences

You set a preference by entering a value in a text field or selecting an option from a pull-down menu. Each preference setting has one of three values:

-  Preference value is unlocked. The user can change this value in the media player's preference dialog. Click the icon to lock the preference.
-  Preference value is locked. The user cannot change this value in the media player's preference dialog. Click the icon to unlock the preference.
-  Preference value cannot be locked. The user can change this value in the media player's preference dialog.

For preference values that can be locked or unlocked, you can set each lock individually, or click one of the following options:

- **Apply Product Defaults**—Reset all values to the default settings used by the standard versions of RealPlayer or Windows Media Player.
- **Reset Preferences**—Reset all values to the settings used in the installation program you selected at start-up.
- **Lock Section Settings**—Lock all options on the current page.
- **Unlock Section Settings**—Unlock all options on the current page.

## Setting RealPlayer Enterprise 2.1 Preferences

The **Player Preferences** pages set the preference values that will be used by RealPlayer Enterprise 2.1.

### Player Preferences

The single option on this page globally applies preference settings.

#### Allow RealPlayer Preferences

For this option, choose one of the following:

- **Yes (default)**—Include the selected RealPlayer Enterprise 2.1 preferences in the RealPlayer Enterprise 2.1 installer.
- **No**—Do not include the RealPlayer Enterprise 2.1 preferences in the installer. In this case, the installer installs the default RealPlayer Enterprise 2.1, but also updates the user's Windows Media Player and QuickTime Player preferences, if those options are selected.

### Internet/Privacy

Select **Yes** or **No** for the options on the **Internet/Privacy** page to set the basic Internet and privacy preferences.

#### Privacy Settings

The following options affect the kinds of information that RealPlayer Enterprise 2.1 exchanges with streaming servers.

### Send connection quality data to RealServers

This preference, which is set on by default in the standard RealPlayer, allows RealPlayer Enterprise 2.1 to monitor the user's internet connection during data transfer. RealPlayer Enterprise 2.1 can then send connection information about bit rates, error rates, and so on back to Helix Server or its proxy server. The server stores this information in its access log. If you do not want this information to be transmitted, turn this preference off by selecting the No value.

**For More Information:** For information about RealPlayer statistics reporting, refer to the section on client statistics in the basic logging chapter of *Helix Server Administration Guide*.

### Send RealPlayer GUID to RealServers

Each RealPlayer Enterprise 2.1 includes a globally unique ID string, such as the following:

```
3ab16eb2-9f30-4c1f-acb6-25dfba5ba0da
```

In the standard RealPlayer, GUID reporting is turned off by default, but the user may turn it on. If GUID reporting is turned off, RealPlayer sends an all-zero GUID to Helix Server:

```
00000000-0000-0000-0000-000000000000
```

You may want to set GUID reporting on if you intend to authenticate user access to certain clips on an intranet. Helix Server can use the GUID to validate access to secure content, rather than requiring the user to enter a user name and password on each access. To turn on GUID reporting, select the Yes value.

**For More Information:** For more about using GUIDs to authenticate access to secure content, refer to the authentication chapter in *Helix Server Administration Guide*.

### Send configuration info when connecting to technical support

This preference is set on by default in the standard RealPlayer. It allows RealPlayer Enterprise 2.1 to send configuration information to RealNetworks technical support if the user contacts support personnel using the **Help>Customer Support** command. This information is **not** required to process error messages the user has received.

**Enable cookies**

In the standard RealPlayer, this preference is set on by default to enable RealPlayer to store cookies containing information about streaming media sessions. If you want to disable cookies in RealPlayer Enterprise 2.1, select the No value.

**Enable HTML clip info**

Set on by default in the standard RealPlayer, this preference allows RealPlayer Enterprise 2.1 to store HTML-formatted information as clip information (**File>Clip Properties>View Clip Info**). If you choose No for this option, clip information is stored as simple text.

**Allow websites to add items to Now Playing**

Set on by default in the standard RealPlayer, this preference allows properly-programmed Web sites to place clips directly into the “Now Playing” queue (**View>Now Playing**). To turn off this capability for RealPlayer Enterprise 2.1, select the No value.

The “Now Playing” pane shows which clips are currently queued to play, and which clips have most recently been played. The user can also use it to create playlists by dragging and dropping files, links, or clips from the computer's file folders or a browser window.

**Registered Location**

The following options set location information.

**Postal Code**

For this preference, enter the Zip code where each RealPlayer Enterprise 2.1 is located.

**Country/Region**

For this preference, choose from the pull-down menu the country or region where each RealPlayer Enterprise 2.1 is located

**Playback**

The **Playback** page contains preference settings that affect clip caching and bandwidth use.

## Live Pause

The live pause feature allows RealPlayer Enterprise 2.1 to write live broadcast streams to a temporary disk cache.

### Enable pausing and seeking within live Internet clips

This preference allows RealPlayer Enterprise 2.1 to cache live broadcast streams. This lets the user pause the stream, as well as seek through the presentation. You can choose one of the following values from the pull-down menu to set the amount of data, in minutes, that RealPlayer Enterprise 2.1 can cache:

- 0 minutes (pausing and caching disabled)
- 5 minutes
- 10 minutes
- 30 minutes (default value for the standard RealPlayer)
- 1 hour
- 2 hours
- 3 hours
- 6 hours
- 12 hours

Playback resumes if the user pauses the stream longer than the allowed time. All of the stream's cached data is deleted once the user begins to play a new stream.

**Tip:** Keep in mind that longer pauses require more disk space on the user's computer. The amount of data that can be cached is also limited by available disk space.

### Temporarily increase this duration if paused for longer

This option, set on by default in the standard RealPlayer, increases the cache size if necessary to provide extended buffering of a paused, live stream.

## On-demand Internet Clips

RealPlayer Enterprise 2.1 can write on-demand clips to a temporary disk cache. This allows the user to search through the clip without RealPlayer Enterprise 2.1 having to re-request portions of the stream from the server.

**Cache on-demand streams for faster seeking and smoother playback**

Setting this preference to **Yes** enables RealPlayer Enterprise 2.1 to cache the stream for the currently playing clip. The cached data is deleted when the user chooses the next clip. The amount of data cached is limited by available disk space. This option is set on by default in the standard RealPlayer.

**Note:** Cached items can be accessed only by the RealPlayer Enterprise 2.1 that handles the cache. Items copied out of the cache are unusable.

**Pause clip at start**

Setting this option to **Yes** is useful for dial-up connections. It causes RealPlayer Enterprise 2.1 to pause the clip until the user manually clicks the **Play** button. This allows RealPlayer Enterprise 2.1 to buffer as much of the clip as possible until the viewer is ready to watch it. For broadband connections, the default **No** setting is typically preferred.

**Buffered Play****Select the amount of clip time to buffer before playback**

This preference specifies the amount of time, in seconds, that RealPlayer Enterprise 2.1 may buffer data before playing a clip. Increase this amount from the default of 30 seconds to improve playback quality over slower connections. This extra buffering occurs only if needed to help ensure smoother playback.

**Instant Playback****Enable instant playback instead of downloading whenever possible**

Set to **Yes**, this preference enables instant playback for clips that would normally be downloaded instead of streamed, such as media clips delivered over HTTP. If you keep the default value of **No**, the entire clip must be downloaded before RealPlayer Enterprise 2.1 can play it.

**TurboPlay****Enable TurboPlay to reduce loading time for certain streamed connections**

Setting this preference to **Yes** enables the RealPlayer Enterprise 2.1 TurboPlay feature. TurboPlay allows RealPlayer Enterprise 2.1 to begin to play an on-demand clip quickly after the user clicks the link to the clip. This feature

should be used only with high-speed, broadband connections. It does not function with live broadcasts.

TurboPlay makes use of extra network bandwidth to deliver streams faster. For example, if a clip is encoded at 256 Kbps per second, RealPlayer Enterprise 2.1 may initially receive the stream at 512 Kbps to fill its buffer faster. After the clip begins to play, the bandwidth use returns to the requested stream speed.

**Note:** Enabling this feature may cause spikes in network bandwidth use. However, the spikes tend to be spread out over time.

## Hardware

The hardware options determine how RealPlayer Enterprise 2.1 uses computer resources when decoding and playing media.

**Tip:** Hardware preferences can be left to their default values for machines capable of running Windows XP. If your enterprise also uses older hardware, leave the preferences unlocked. This allows you to change preferences on a case-by-case basis to troubleshoot playback problems on older computers.

## Playback Performance

The playback performance option primarily affects how RealPlayer Enterprise 2.1 decodes complex video.

**Select the amount of CPU power that RealPlayer can use to affect playback quality**

This preference influences the amount of CPU that RealPlayer Enterprise 2.1 utilizes to render media. The setting primarily affects large, high-speed videos, which can require significant processing power to decode. You can select one of the following choices:

- Lowest CPU usage
- Slightly more CPU
- Medium quality
- Better quality
- Best quality (default)

For any machine running Windows XP or later, you can leave the preference set to the default. For older machines with slower processors, you may want to choose a lower value. In this case, RealPlayer Enterprise 2.1 sacrifices some video quality to limit its CPU use. The less CPU used to render video, however, the more likely the playback will appear choppy and will contain visual artifacts.

#### **Enable full-screen video controls**

Set to its RealPlayer default value of Yes, this preference allows the user to play a video at the screen's full size. This is not recommended for older machines that have slow processors and low amounts of memory for use with graphics.

### **Sound Card Compatibility**

Several preferences affect how RealPlayer Enterprise 2.1 plays audio.

#### **Disable 16-bit sound**

If set to Yes (the standard RealPlayer default is No), this preference disables 16-bit sound (its standard audio output) and causes RealPlayer Enterprise 2.1 to use only 8-bit sound. You may want to disable 16-bit sound for computers that use older sound cards.

#### **Disable custom sampling rates**

The default of No is the preferred setting for computers running Windows XP or later. In this case, RealPlayer Enterprise 2.1 upsamples or downsamples all audio as necessary to create 16-bit audio output at 44 kHz.

Resampling audio requires a floating point co-processor, which may not be present on older computers. If an older machine produces audio at very poor quality, set this preference to Yes on that machine. RealPlayer Enterprise 2.1 then produces sound at the audio file's native sampling rate.

#### **Disable Direct Sound**

Direct Sound is a feature of Windows Direct X. It improves sound quality, but uses additional CPU processing power. You may want to set this preference to Yes for older computers. The standard RealPlayer default is No.

#### **Playback quality**

For audio playback quality, you can choose one of the following options from the pull-down menu:

- Content natural rate—RealPlayer Enterprise 2.1 plays all audio at its recorded sampling rate. This is recommended for computers with older sound cards.
- Automatic upsampling (default)—RealPlayer Enterprise 2.1 upsamples audio to 44.1 kHz, which is the sampling rate for audio recorded on CDs. This is recommended for newer computers.
- High quality playback—This setting provides highest-quality sound but also consumes more CPU than the other options. It requires a sound card capable of producing professional-quality audio at 48 kHz.

### Video Card Compatibility

The following preference affects video playback.

#### Use optimized video

For video playback quality, you can choose one of the following options from the pull-down menu:

- Disable optimized video and overlays—Lowest-quality video. Choose only if video does not display using the optimized video mode.
- Enable optimized video and disable overlays—Lower-quality video. Choose only if video does not display using the optimized video and overlays mode.
- Enable optimized video and overlays (default)—Highest-quality video. Use on any Windows XP-capable machine.

### Network Transports

The network transports affect the use of streaming protocols by RealPlayer Enterprise 2.1.

#### Network Transport

The following preference enables or disables the other network preferences.

#### Manually configure connections setting

Set this preference to Yes if you want to specify values for the subsequent network preferences listed on the **Network Transports** page. Setting the value to No applies the default network transport values.

## RTSP Transport

RTSP is the standard control protocol used by Helix Server when streaming RealMedia clips and broadcasts to RealPlayer Enterprise 2.1. The **RTSP Transport** options affect stream delivery for RTSP connections. In most cases, all of these values can be left to their default settings of Yes.

**Note:** The order of the preferences indicates the order in which RealPlayer Enterprise 2.1 attempts to receive the stream. For an on-demand clip, for example, RealPlayer Enterprise 2.1 requests RTSP over UDP. If UDP is not available from the server, RealPlayer Enterprise 2.1 attempts RTSP over TCP. If that option is not available, it tries RTSP cloaked as HTTP, using TCP as the transport.

### Allow Multicast for live content

If you have a multicast-enabled intranet, you can enable automatic, back-channel multicasting for live streams from Helix Server. This makes a single, multicast stream available to all RealPlayer Enterprise 2.1s, conserving network bandwidth. If automatic multicasting is not enabled on Helix Server, or this preference is set to No, each RealPlayer Enterprise 2.1 receives a separate stream for each live broadcast.

**For More Information:** For more on back-channel multicasting, refer to the multicasting chapter in *Helix Server Administration Guide*.

### Allow UDP for live and on-demand content

User Data Protocol (UDP) is the preferred transport for streaming media. It does not incur as much network overhead as TCP, thus allowing for more efficient delivery of streaming media. Keep this option set to Yes to indicate a preference for UDP for on-demand and non-multicast, live streams.

**Warning!** Set this preference to No only if you have a specific reason for not using UDP on your network. Doing so may significantly raise bandwidth use.

### Allow TCP for live and on-demand content

Transmission Control Protocol allows for more reliable delivery of IP packets across a network. Because TCP incurs more network overhead than UDP, it is less desirable for streaming media than UDP. Leave this preference set to Yes to

allow RealPlayer Enterprise 2.1 to use TCP if UDP is not allowed on the network or not available from a certain server.

**Tip:** You may want to set this preference to No to disallow TCP-only streams and control bandwidth use more tightly.

#### Allow HTTP for live and on-demand content

Helix Server uses a feature called *HTTP cloaking* to deliver RTSP-based streams as HTTP. This enables RealPlayer Enterprise 2.1 to circumvent firewalls that restrict RTSP communications. The Yes value for this preference allows RealPlayer Enterprise 2.1 to receive RTSP content cloaked as HTTP.

**Tip:** If your network uses HTTP only, set the other options to No.

#### PNA Transport

Progressive Networks Audio (PNA) is a proprietary streaming media protocol that has been discontinued. RealPlayer Enterprise 2.1 maintains PNA compatibility to access content on older servers. In most cases, all of these values can be left to their default settings of Yes.

**Tip:** Set all PNA preferences to No to disallow PNA-based content.

#### Allow Multicast for live content

Choose Yes to allow automatic multicasting for live content. See the preceding RTSP section for details.

#### Allow UDP for live and on-demand content

Choose Yes to allow RealPlayer Enterprise 2.1 to use UDP for content. See the preceding RTSP section for details.

#### Allow TCP for live and on-demand content

Choose Yes to allow RealPlayer Enterprise 2.1 to use TCP for content. See the preceding RTSP section for details.

#### Allow HTTP for live and on-demand content

Choose Yes to allow RealPlayer Enterprise 2.1 to use HTTP cloaking for content. See the preceding RTSP section for details.

## Transport Timeouts

The transport timeout settings specify the amount of time, in milliseconds, that RealPlayer Enterprise 2.1 waits for data before attempting the next transport. The timeouts apply to both RTSP and PNA streams.

### **Specify time to wait for Multicast data before attempting the next transport**

If RealPlayer Enterprise 2.1 and an origin Helix Server are both enabled for multicasting, the player first requests a live broadcast as a back-channel multicast. If the specified timeout elapses without a response from the server, RealPlayer Enterprise 2.1 requests the broadcast to be delivered in the next available transport, which is typically a UDP unicast. The standard timeout value used with RealPlayer is 3000 milliseconds.

### **Specify time to wait for UDP data before attempting the next transport**

If RealPlayer Enterprise 2.1 is UDP-enabled, it requests on-demand and non-multicast content to be delivered using the UDP transport. If the specified timeout elapses without a response from the server, RealPlayer Enterprise 2.1 requests the content to be delivered in the next available transport, which is typically TCP. The standard timeout value used with RealPlayer is 4000 milliseconds.

### **Specify time to wait for TCP data before attempting the next transport**

If RealPlayer Enterprise 2.1 is TCP-enabled, and it requests content to be delivered over the TCP transport, it waits the specified timeout time for a response from the server. If this time elapses, RealPlayer Enterprise 2.1 requests the broadcast to be delivered using the next available transport (cloaked HTTP). The standard timeout value used with RealPlayer is 4000 milliseconds.

## UDP Ports

RealPlayer Enterprise 2.1 utilizes ports 6970 through 32000 on the user's machine to receive UDP data. The actual data ports used are negotiated with the server during stream initialization.

### **Specify the port(s) RealPlayer will use to receive data**

Enter values in this field if you want to set a smaller range of UDP ports for RealPlayer Enterprise 2.1. Separate continuous port numbers with a dash, and non-continuous port numbers with a comma. For example:

7070,7072,3030-3096

## Proxy

The settings on the **Proxy** page allow you to set RealPlayer Enterprise 2.1 to request content through proxy servers. You can leave this page blank if you are not using proxy servers.

### PNA and RTSP Proxies

You have several possibilities for specifying RTSP and PNA proxies for use with RealPlayer Enterprise 2.1.

#### Choose the appropriate PNA and RTSP proxy

This preference instructs RealPlayer Enterprise 2.1 on how to connect to PNA-based or RTSP-based content. Select one of the following options from the pull-down menu:

- No proxy—Do not use a PNA or RTSP proxy. If you choose this option, you do not need to enter any other information for RTSP and PNA proxies.
- Use automatic configuration—Do one of the following:
  - Use the WPAD protocol rules to search for PAC files on your network. These files allow RealPlayer Enterprise 2.1 to connect to one or more proxies when requesting content. In this case, you do not need to enter any other proxy values.
 

**Note:** RealPlayer Enterprise 2.1 uses PAC files that adhere to Network PAC file standards. It does not need a customized PAC file format.
  - Use a custom script to connect to one or more proxies when requesting content. In this case, you must specify the URL to the script in the **Proxy auto-configuration** field. You can leave the other proxy values blank.
- Use custom proxies—Use the proxy server values entered in the following fields.

#### Specify a PNA proxy

In this field, enter the DNS name or the IP address of the PNA proxy server. If using only an RTSP proxy, you can leave this field blank.

**Specify a PNA port**

For the port, enter the PNA port number on the proxy server. This is typically port 1090.

**Specify an RTSP proxy**

In this field, enter the DNS name or the IP address of the RTSP proxy server. If using only a PNA proxy, you can leave this field blank.

**Specify an RTSP port**

For the port, enter the RTSP port number on the RTSP proxy server. This is typically port 554.

**HTTP Proxy**

RealPlayer Enterprise 2.1 can use an HTTP proxy for any content delivered by HTTP servers.

**Choose the appropriate HTTP proxy**

This preference determines how RealPlayer Enterprise 2.1 requests HTTP-based content. Select one of the following options from the pull-down menu:

- No HTTP proxy—Do not use an HTTP proxy. If you choose this option, you do not need to enter any other information for an HTTP proxy.
- Use system proxy settings—Use the proxy settings of the user's default browser.
- Use automatic configuration—Do one of the following:
  - Use the WPAD protocol rules to search for PAC files on your network. These files allow RealPlayer Enterprise 2.1 to connect to one or more proxies when requesting content. In this case, you do not need to enter any other proxy values.
  - Use a custom script to connect to one or more proxies when requesting content. In this case, you must specify the URL to the script in the **Proxy auto-configuration** field. You can leave the other proxy values blank.
- Use custom proxies—Use the proxy server values entered in the following fields.

**Specify an HTTP proxy**

In this field, enter the DNS name or the IP address of the HTTP proxy server.

### Specify an HTTP port

For the port, enter the HTTP port number on the proxy server. This is typically port 80.

### Proxy Auto-Configuration

If you chose to use a custom script to set any proxy values, enter the full URL to the script or scripts in this field. For multiple scripts, separate the values with commas or carriage returns. For example:

```
http://www.example.com/utilities/http_proxies.cgi  
http://www.example.com/utilities/rtsp_proxies.cgi
```

### Proxy Exceptions

In this field, you exclude requests to certain host names or IP addresses from going through your designated proxy servers. This is useful for eliminating the need for a proxy server when RealPlayer Enterprise 2.1 requests content from a server inside your firewall. For multiple server exceptions, separate the values with commas or carriage returns. For example:

```
intranet.example.com/  
intranetmedia.example.com/
```

## Connection

The **Connection** page holds bandwidth and timeout preferences.

### Bandwidth

Each pull-down menu for the two bandwidth preferences allows you to choose one of the following preferred speeds. The default is T1/LAN:

- 28.8 Kbps modem
- 33.6 Kbps modem
- 56.6 Kbps modem
- 64 Kbps ISDN
- 128 Kbps Dual ISDN
- 256 Kbps DSL/Cable
- 384 Kbps DSL/Cable
- 512 Kbps DSL/Cable

- 768 Kbps DSL/Cable
- T1/LAN
- 10 Mbps LAN

**Specify the normal bandwidth for accessing presentations.**

The normal bandwidth setting indicates the network bandwidth that RealPlayer Enterprise 2.1 normally has available for streaming media. When requesting a SureStream clip encoded at multiple bit rates, RealPlayer Enterprise 2.1 chooses the encoding that most closely matches, without exceeding, its normal bandwidth setting.

**Tip:** RealProducer encodes high-bandwidth clips for broadband connections at 256 Kbps, 384 Kbps, 512 Kbps, or 768 Kbps. Surestream clips can contain the same stream encoded at many different bit rates.

**Specify the maximum bandwidth for accessing presentations.**

The maximum bandwidth sets the upper limit at which RealPlayer Enterprise 2.1 can receive a streaming clip. For example, suppose that RealPlayer Enterprise 2.1 has its normal bandwidth set to 256 Kbps and its maximum bandwidth set to 512 Kbps. If a SureStream clip is encoded at both 256 Kbps and 512 Kbps, RealPlayer Enterprise 2.1 receives the 256 Kbps encoding. If the clip is encoded only at 512 Kbps and 768 Kbps, however, it can still receive the 512 Kbps stream, which does not exceed its maximum bandwidth.

### Network Time-out

The timeout values set the number of seconds that RealPlayer Enterprise 2.1 waits for media delivery.

**Specify the amount of time RealPlayer waits before reporting an error when connecting to the server**

This field sets the number of seconds that RealPlayer Enterprise 2.1 waits for a response when requesting a new stream from a server. After this time elapses, RealPlayer Enterprise 2.1 reports an error and terminates the request. The default value used with RealPlayer is 20 seconds.

**Specify the amount of time RealPlayer waits before reporting an error when receiving data from the server**

This preference sets the number of seconds that RealPlayer Enterprise 2.1 waits for data after the stream has begun. If this time elapses and RealPlayer Enterprise 2.1 has received no new data packets, RealPlayer Enterprise 2.1 reports an error and terminates the stream. The default value used with RealPlayer is 90 seconds.

### Online Status

The online status setting determines how RealPlayer Enterprise 2.1 detects the user's network status.

**Choose whether RealPlayer should determine the user's online status**

From the drop-down menu, choose one of the following values:

- Automatically detect online status

Choose this option if viewers connect through dial-up connections. This option allows RealPlayer Enterprise 2.1 to dial the network host number automatically when needed.

- Assume the user is online

Use this value for viewers who have broadband connections. If the user is not online, the user will have to connect to the network host manually. This is the RealPlayer default.

## Updating Windows Media Player Preferences

Optionally, you can use the RealPlayer Enterprise 2.1 installer to update the user's preference settings for Windows Media Player. The installer does this by modifying the preference settings stored in the Windows Registry. Note, however, that Windows Media Player preferences are not lockable, and the user may reset them using the Windows Media Player options dialog.

**For More Information:** Refer to the section “Media Player Support” on page 5 for information about supported player versions and operating systems.

### Windows Media Preferences

The single option on this page allows you to enable or disable the setting of Windows Media Player preferences.

### Apply Windows Media Preferences

For this option, choose one of the following:

- **Yes**—Allow the RealPlayer Enterprise 2.1 installer to update the user's Windows Media Player preferences with the values on the **Windows Media Preferences** pages.
- **No (default)**—Do not allow the RealPlayer Enterprise 2.1 installer to update the user's Windows Media Player preferences. All values on the **Windows Media Preferences** pages are ignored.

## Streaming Protocol

The options on the **Streaming Protocol** page affect how Windows Media Player uses network transports and computer ports.

### Streaming Protocols

The following options affect the use of network transports. In most cases, you can leave these set to their default values of Yes.

#### Use Multicast protocol to receive streaming media

When set to Yes, this option enables Windows Media Player to receive multicasts of live content. If this preference is set to No, each Windows Media Player receives a separate stream for each live broadcast.

#### Use TCP protocol to receive streaming media

When set to Yes, this option enables Windows Media Player to receive streaming content using the TCP transport. You may want to set this option to No to disallow TCP streams and control bandwidth use more tightly.

#### Use HTTP protocol to receive streaming media

When set to Yes, this option enables Windows Media Player to receive content over HTTP if other streaming transports are not available.

#### Use UDP protocol to receive streaming media

When set to Yes, this option enables Windows Media Player to receive streaming content using the UDP transport. This is the preferred transport for streaming media content.

**Warning!** Set this preference to No only if you have a specific reason for not using UDP on your network. Doing so may significantly raise bandwidth use.

### UDP Ports

Here, you can specify a UDP port range. The actual data ports used are negotiated with the server during stream initialization.

#### Specify the port(s) Windows Media Player will use to receive data

Enter values in this field if you want to set a specific range of UDP ports on the user's machine for use by Windows Media Player. You must indicate a range of at least eight ports, or nine ports if starting with an odd port number. Separate the numbers with a dash. For example:

4020-4040

### Streaming Proxy

The Streaming Proxy page allows you to define how Windows Media Player uses proxy servers for content delivered using HTTP, MMS, and RTSP.

### HTTP Proxy

Windows Media Player can use an HTTP proxy for any content delivered by HTTP servers.

#### Choose the appropriate HTTP proxy

This preference determines how Windows Media Player requests HTTP-based content. Select one of the following options from the pull-down menu:

- No HTTP proxy—Do not use an HTTP proxy. If you choose this option, you do not need to enter any other information for an HTTP proxy.
- Use browser's proxy settings—Use the proxy settings of the user's default browser.
- Use the following proxy server—Use the proxy server values entered in the following fields.
- Autodetect proxy settings—Use the WPAD protocol rules to search for PAC files on your network. These files allow Windows Media Player to connect

to one or more proxies when requesting content. In this case, you do not need to enter any other proxy values.

**Specify an HTTP proxy**

In this field, enter the DNS name or the IP address of the HTTP proxy server.

**Specify an HTTP port**

For the port, enter the HTTP port number on the proxy server. This is typically port 80.

**Bypass proxy server for local addresses**

Set this option to Yes to eliminate the need for a proxy server when Windows Media Player requests content from a server inside your firewall.

**Do not use proxies for the following hosts**

In this field, you can exclude requests to certain host names or IP addresses from going through your designated proxy server. For multiple server exceptions, separate the values with semi-colons or carriage returns. For example:

```
http://www.example.com/  
http://www.company.com/
```

**MMS Proxy**

Here, you can specify proxies for MMS-based content.

**Choose the appropriate MMS proxy**

This preference determines how Windows Media Player requests MMS-based content. Select one of the following options from the pull-down menu:

- Do not use a proxy server—Do not use an MMS proxy. If you choose this option, you do not need to enter any other information for an MMS proxy.
- Use the following proxy server—Use the proxy server values entered in the following fields.
- Autodetect proxy settings—Use the WPAD protocol rules to search for PAC files on your network. These files allow Windows Media Player to connect

to one or more proxies when requesting content. In this case, you do not need to enter any other proxy values.

**Specify an MMS proxy**

In this field, enter the DNS name or the IP address of the MMS proxy server.

**Specify an MMS port**

For the port, enter the MMS port number on the proxy server. This is typically port 1755.

**Bypass proxy server for local addresses**

Set this option to Yes to eliminate the need for a proxy server when Windows media Player requests content from a server inside your firewall.

**Do not use proxies for the following hosts**

In this field, you can exclude requests to certain host names or IP addresses from going through your designated proxy server. For multiple server exceptions, separate the values with semi-colons or carriage returns. For example:

www.example.com/  
www.company.com/

**RTSP Proxy**

The following fields define proxies used for RTSP-based content.

**Choose the appropriate RTSP proxy**

This preference determines how Windows Media Player requests RTSP-based content. Select one of the following options from the pull-down menu:

- Do not use a proxy server—Do not use an RTSP proxy. If you choose this option, you do not need to enter any other information for an RTSP proxy.
- Use the following proxy server—Use the proxy server values entered in the following fields.
- Autodetect proxy settings—Use the WPAD protocol rules to search for PAC files on your network. These files allow Windows Media Player to connect

to one or more proxies when requesting content. In this case, you do not need to enter any other proxy values.

#### Specify an RTSP proxy

In this field, enter the DNS name or the IP address of the RTSP proxy server.

#### Specify an RTSP port

For the port, enter the RTSP port number on the proxy server. This is typically port 554.

#### Bypass proxy server for local addresses

Set this option to Yes to eliminate the need for a proxy server when Windows media Player requests content from a server inside your firewall.

#### Do not use proxies for the following hosts

In this field, you can exclude requests to certain host names or IP addresses from going through your designated proxy server. For multiple server exceptions, separate the values with semi-colons or carriage returns. For example:

```
www.example.com/  
www.company.com/
```

## Performance

The **Performance** page options affect bandwidth use and buffering for Windows Media Player.

### Bandwidth

Here you can set Windows Media Player's upper bandwidth use. When requesting a clip encoded at multiple bit rates, Windows Media Player chooses the encoding that most closely matches, without exceeding, its bandwidth setting.

#### Specify the maximum bandwidth for accessing presentations

For this option, you can set the bandwidth that Windows Media player considers when requesting content. The recommended setting for Windows Media Player is Detect Connection Speed, which allows the player to determine the network speed automatically. You can choose one of the following from the pull-down menu:

- Detect Connection Speed
- 28.8 Kbps modem
- 33.6 Kbps modem
- 56.6 Kbps modem
- 64 Kbps ISDN
- 128 Kbps Dual ISDN
- 256 Kbps DSL/Cable
- 384 Kbps DSL/Cable
- 512 Kbps DSL/Cable
- 768 Kbps DSL/Cable
- T1/LAN

### Network Buffering

This option affects how long Windows Media Player buffers content.

#### Specify the amount of time

Set the amount of time, in seconds, that Windows Media Player buffers for each piece of content.

## Modifying QuickTime Player Preferences

You can bundle a modified QuickTime preference file into the RealPlayer Enterprise 2.1 installer. When the user runs the installer, the installer overwrites the user's existing QuickTime preferences file. Because the installer does not install the player itself, QuickTime Player 7 must exist on the user's machine when the user runs the RealPlayer Enterprise 2.1 installer.

**Note:** The QuickTime preference changes are not locked, and the user can later modify them by using the QuickTime Player's preferences dialog.

**For More Information:** Refer to the section "Media Player Support" on page 5 for information about supported player versions and operating systems.

► To include a QuickTime preference file with the RealPlayer Enterprise 2.1 installer:

1. Launch QuickTime Player.
2. Open the QuickTime Player preferences dialog using the command **Edit>Preferences>QuickTime Preferences**.
3. Change the preferences to the values you want to set on each user's machine.

**For More Information:** Refer to the QuickTime Player online help for details about the QuickTime preferences.

4. Close the preferences dialog and the QuickTime Player.
5. Determine the full path to the binary preferences file, QuickTime.qtp. The following registry key holds the path information on the local computer:

```
HKEY_LOCAL_MACHINE
SOFTWARE
  Apple Computer, Inc.
    QuickTime
      LocalUserPreferences
        FolderPath
```

6. In RealPlayer Enterprise Configuration Tool, click **QuickTime Preferences**.
7. For **Apply QuickTime Preferences**, choose Yes from the pull-down menu.
8. In the field for **QT Preference file location**, enter the full path and file name of the QuickTime preferences file. For example:  
C:\Documents and Settings\All Users\Application Data\QuickTime\QuickTime.qtp

## GENERATING INSTALLERS

After specifying the preferences for RealPlayer Enterprise 2.1, Windows Media Player, and QuickTime Player, you can create the RealPlayer Enterprise 2.1 installer. Users run this program to install RealPlayer Enterprise 2.1, as well as update their existing Windows Media and QuickTime preferences.

**Tip:** You can generate any number of RealPlayer Enterprise 2.1 installers with different preference settings to meet the various needs of your users.

### Setting RealPlayer Enterprise 2.1 Installation Options

The following sections explain how to generate a RealPlayer Enterprise 2.1 installation program. To start this process, click **Player Setup** in RealPlayer Enterprise Configuration Tool.

#### Player Setup

The first set-up field allows you to set the RealPlayer Enterprise 2.1 home page.

#### Home Page

Here, enter an HTTP URL that opens automatically in the RealPlayer Enterprise 2.1 browser when RealPlayer Enterprise 2.1 starts up. Leave the field blank to specify a blank start-up page. For example:

`http://intranet.example.com/index.html`

## Favorites Menu

In the fields under **Favorites Menu**, you can specify the text and URLs for up to three media clips that the installer adds to the RealPlayer Enterprise 2.1 **Favorites** list. For example:

<b>Favorites Menu Text 1</b>	Orientation Video
<b>Favorites URL 1</b>	rtsp://helixserver.example.com/orientation.rm

## Help Menu

In the fields under **Help Menu**, you can specify the text and URLs for three HTML pages or media clips that the installer adds to the RealPlayer Enterprise 2.1 **Help** menu.

## Installation Options

The **Installation Options** page contains options that affect how RealPlayer Enterprise 2.1 is installed, as well as how it starts up.

### Installation Directory

For **Installation Directory**, specify the folder under the Program Files folder where RealPlayer Enterprise 2.1 will be installed. For example, the following entry:

Our Enterprise\Media Player

installs RealPlayer Enterprise 2.1 in the following path:

C:\Program Files\Our Enterprise\Media Player

### Installation Mode

Under **Installation Mode**, select one of the following options from the pull-down menu to set the mode for installation and uninstallation:

- **Minimal**—A graph shows the progress of the installation or uninstallation. The user can abort the process.
- **Silent**—The user cannot interact with, or abort, the installation or uninstallation.

## Startup Mode

For **Startup Mode**, select one of the following options from the pull-down menu:

- **Compact**—RealPlayer Enterprise 2.1 displays only its media playback pane at startup. The browser pane appears when the user chooses to display it, or if a requested clip contains a link to an HTML page.
- **Full**—RealPlayer Enterprise 2.1 displays its media playback pane and browser pane at start-up. The home page URL displays in the browser.

## Desktop

Under **Desktop**, select Yes or No for each of the following installation options:

- Shortcut icon for launching RealPlayer Enterprise 2.1 added to the users' desktop.
- RealPlayer Enterprise 2.1 icon added to the Windows Quick Launch Toolbar.
- RealPlayer Enterprise 2.1 icon added to the top of the Windows **Start** menu.

## Uninstallation Options

The options on the **Uninstallation Options** page affect the components that are removed if the user uninstalls RealPlayer Enterprise 2.1. The user does not have the ability to change the options during the uninstallation process.

If you choose not to remove a certain component, it remains installed on the user's computer and will continue to function if the user reinstalls RealPlayer or RealPlayer Enterprise 2.1 in the same folder.

### Uninstall database used by RealPlayer to manage your media

This option deletes all data from **My Library**. The library holds information about media clips that the user has acquired and organized. The actual clips are **not** deleted, however.

### Uninstall clip and Web Page Favorites

Favorites are media clips or pages that the user has bookmarked using the **Favorites** menu. Choose this option to delete clip and Web page favorites during the uninstallation process.

### Uninstall downloaded Skins files

Skins customize the appearance of the RealPlayer Enterprise 2.1 user interface. The user can download new skins using the command **View>Choose Skin>Get More Skins**. Select this option to remove the downloaded skins during the uninstallation process.

### Uninstall downloaded Visualizations files

Visualizations are animated graphics that display when the user plays an audio-only clip. The user can download new visualizations using the command **View>Choose Visualization>Get More Visualizations**. Select this option to remove the downloaded visualizations during the uninstallation process.

## Data Types

On the **DataTypes** page, you can select which media types RealPlayer Enterprise 2.1 plays by default. All media type selections are optional.

### Universal Media Player

If you select Yes for **Enable Universal Media Player**, RealPlayer Enterprise 2.1 becomes the default application for all media types listed in the following table.

### Individual Media Types

If you want RealPlayer Enterprise 2.1 to handle only specific media types, select No for **Enable Universal Media Player**. Then enable or disable the handling of each media type using the remaining pull-down menus on the **DataTypes** page.

The following table describes the media types that you can choose, and provides either a description of the media type, or a listing of the file extensions associated with that media type.

**Datatype Options**

Media Type	File Extension or Description
MP3 Audio	.mp3
MP3 Audio Playlist	.mpu
RealPlayer Legacy Audio CD	audio CDs
CD Audio	audio CD tracks

(Table Page 1 of 3)

**Datatype Options (continued)**

Media Type	File Extension or Description
RealPlayer Legacy DVD	DVDs
WAV Audio	.wav
MPEG Video	.mpg, .mpeg, .mpv
MPEG Media	.mps, .m2v, .m1v, .mvs
MPA Media	.mpa
AVI Video	.avi
RealText	.rt
RealAudio	.ra
RealAudio/RealVideo	.rm
RealAudio/RealVideo VBR	.rmvbr
RealPix	.rp
RealVideo	.rv
Windows Media Audio Track	.wma
Windows Media Video File	.wmv
Windows Media Audio Shortcut	.wax
Windows Media Audio File	.asx, .asf
Windows Media Audio/Video File	.wm
Windows Media Audio/Video Shortcut	.wmx
Windows Media Video Shortcut	.wvx
Microsoft Media Server Protocol	MMS streaming protocol
QuickTime Movie	.mov, .qt
AAC Audio	.aac
AAC Audio	.m4a
AAC Purchased Audio	.m4p
MP2 Audio	.mp2
MP1 Audio	.mp1
MPEG Audio	.mpga
Audio Playlist	.pls, .pl
SMIL Multimedia Presentation	.smil, .smi
Real-Time Streaming Protocol	RTSP streaming protocol
Streaming Media Metafile	.ssm

(Table Page 2 of 3)

**Datatype Options (continued)**

Media Type	File Extension or Description
Scalable Multicast	.sdp
AU Audio	.au
AIFF Audio	.aif, .aiff
MIDI Audio	.mid, .midi, rmi.
AAC for SD	.acp
Liquid Music Track	.lqt
Liquid Audio Secure Download	.lavs
Liquid Audio File	.la
3GPP Content	.3gp
AMR Narrow-Band Content	.amr
AMR Wide-Band Content	.awb
3GPP2 Content	.3g2
DivX Video	.divx

(Table Page 3 of 3)

**Generating the RealPlayer Enterprise 2.1 Installer**

When you have set all preferences and installation options, click the **Generate Player** button at the top of the page to create the installation program. RealPlayer Enterprise Configuration Tool prompts you to specify a name for the RealPlayer Enterprise 2.1 installer, using a .exe extension. For example:

RealPlayerEnterpriseInstaller1.exe

The installation program is created in the same directory where you started RealPlayer Enterprise Configuration Tool. You can then distribute the installation program or programs to your users. Close RealPlayer Enterprise Configuration Tool by clicking the upper-right close button.

**Note:** Before installing RealPlayer Enterprise 2.1, users should uninstall any versions of RealPlayer or RealPlayer Enterprise using **Start>Settings>Control Panel>Add or Remove Programs**.

**Tip:** Quitting RealPlayer Enterprise Configuration Tool resets the preferences you have chosen. You can load preferences from an installation program you have created by selecting that program when starting RealPlayer Enterprise Configuration

Tool. For details, refer to “Specifying the Installer File” on page 6.