

# AirZip Accelerator™ for WebSphere

# Installation and Configuration Guide

# Version 2.1

Revision 11/03

# On AIX

#### **Document Information**

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This edition applies to AirZip Accelerator for WebSphere and to any subsequent releases and modifications until otherwise indicated in new editions.

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Unisys Corporation Welch Licensing Department - E8-1 14 Township Line & Union Meeting Roads P.O. Box 500 Blue Bell, PA 19424.

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### **1** Introduction

AirZip Accelerator for WebSphere provides high performance, real-time web image optimization, reducing the time to download image content by as much 400% over limited bandwidth dialup and wireless connections without the need to modify web content. AirZip Accelerator automatically recognizes the different capabilities of the various browsers and user quality settings to instantly provide the best possible combination of quality and speed.



#### **1.1 System Requirements**

AirZip Accelerator for WebSphere is designed for use with IBM HTTP Server 2.0.42. The installation CD provides install files and programs for AIX.

#### 1.2 Note on GIF Licensing

In compliance with the requirements of Unisys Corporation, the holder of US Patent 4,558,302, AirZip Accelerator for WebSphere is provided with GIF LZW acceleration initially disabled. To enable this feature, you must first contact Unisys for written permission to use LZW technology on your server(s) (see contact information in the preface); you should expect to pay a license or other fee for that privilege. Once you have a valid license from Unisys for LZW usage on your server(s) please provide a copy to your Willow Technology, Inc. We will then provide to you a version or license file update to enable GIF acceleration.

#### **Other options**

Aside from becoming a Unisys licensee, there are ways to accelerate performance of the web sites you host without significant cost.

The primary option is to ask those who prepare your web content to convert GIF images to PNG format for graphical images or JPEG format for natural images such as photographs or to prepare new content in these formats. Standard low cost graphics tools can be used for this purpose.

Modern browsers including Microsoft Internet Explorer for Mac OS and for Windows and Unix Netscape Navigator (and Mozilla) support both PNG and JPEG images.

# 2 Capabilities

AirZip Accelerator for WebSphere is an advanced Apache filter plug-in designed to speed the delivery of web pages from web servers to web clients over dialup or wireless connections primarily through image optimization. Image information constitutes two-thirds of the data that must be downloaded to display typical web pages. When installed on an IBM HTTP Server powered by Apache 2.0.42, AirZip Accelerator intercepts incoming http image requests from web clients, retrieves the requested images, and returns an optimized image to the web client. Optimized images are normally much smaller than the originals. They arrive quicker and on AirZip-enabled web clients they render much faster.

### 2.1 Image Optimization

AirZip Accelerator incorporates AirZip Image Compression software that leverages AirZip's patent-pending image processing software to produce superior image delivery speed. AirZip Compression provides rapid conversion of GIF, PNG, JPEG, and BMP files to the smallest representation possible at any given quality setting.

AirZip Compression uses several techniques to optimize image size and delivery speed including:

- Converting GIF, PNG, JPEG, and BMP images to AirZip formats where browsers such as Microsoft Internet Explorer are able to present AirZip images.
- Converting GIF, PNG and BMP images to PNG format.
- Reducing the quality of JPEG images for clients.
- Reducing image color content to levels that match specific types of devices.
- Presenting animated images as static images (as a selectable option).
- Optimizing image quality based on user quality settings.

AirZip Compression generally results in more vibrantly colored images than other compression techniques.

AirZip image optimization is determined by the capability of the browser requesting the image and the quality of images requested by the user. Image filtering is table driven and can be tailored to a specific quality level and with a specific output file format restriction.

AirZip Compression returns the smallest representation of an image to reduce the download time. If the client is not capable of displaying AirZip's AZV file format, then standard image formats will be returned.

Unless the user settings specify perfect reproduction, image optimization results in image quality reduction. More or less information is removed from the original images depending on the quality selections set by the user.

#### 2.2 Dynamic Control of Quality and Performance

AirZip Accelerator for WebSphere enables user control over image quality and delivery performance using standard Internet cookies, which are supported by most browsers. The web site home page can easily present options for the user to select or change quality/performance settings for their browsing session. The user can also easily access a virtual page for selecting quality settings. AirZip Accelerator provides five quality/performance settings:

**Pass-through:** Images are not optimized to avoid delays when using high-speed connections.

**Basic acceleration (Perfect Quality)**: Images are optimized for download and rendering speed but match original image quality

**More acceleration:** Images are optimized for download and rendering speed with an emphasis on nearly matching original image quality.

**Still more acceleration:** Images are optimized for download and rendering speed and good image quality.

**Maximum acceleration:** Images are optimized in favor of download and rendering speed over image quality.

If the user selected good quality images (greatest compression) they would receive the most compressed images so their session would work reasonably fast over say narrowband wireless connections. If a user were connecting over an ISP with Ethernet speeds, they would select "no optimization" when there was no need for compression at all.

#### 2.3 Optimization with Standard Browsers (Clientless operation)

Image optimization is determined by the capability of the browser requesting the image and the quality of images requested by the user. AirZip Accelerator rapidly converts GIF, PNG, JPEG, and BMP files to deliver image information as much as five times faster to any standard browser. AirZip Accelerator recognizes image requests and quality settings, retrieves the requested images, automatically converts the image to the smallest representation, then sends the optimized image to the user.

#### 2.4 Enhanced Optimization with AirZip Internet Explorer Plug-in

To achieve even greater download performance, Windows Internet Explorer users can download the AirZip Internet Explorer Plug-in in only a few seconds. Where the user has the AirZip Internet Explorer Plug-in, AirZip Accelerator for WebSphere automatically takes advantage of AirZip patent pending, compression technology to produce the world's best image optimization for a AirZip Accelerator 2.1 for WebSphere larger portion of web images. With the AirZip IE Plug-in, image delivery can be as much as ten times faster for Windows 2000, Windows ME, Windows 98 SE, Windows 98, and Windows NT users.

# 2.5 Selectable Accelerator Options by Image Source

AirZip Accelerator Release 2.1 for WebSphere introduces a new capability to specify Accelerator Options based on the directory in which images are located. With this feature, certain images will always be converted to graphical formats such as PNG or AZV while other images will always remain in their original format – say JPEG.

### 2.6 Interoperability with HTTP Compression

Installation of AirZip Accelerator for WebSphere automatically activates Apache compression of HTML data using GZIP. GZIP compression dynamically compresses text content to any browser or user-agent that is capable of receiving it.

While not impacting image information, GZIP-based HTTP compression is affective at compressing HTML text data and Java Script as well as optimizing overall page download time.

### **3** Software Installation

Installing AirZip Accelerator for WebSphere consists of three steps:

The first step is to install the software libraries. Procedures for installation are in section 3.1.

The second step is to obtain and install a license key from Willow Technology, Inc. To do so, follow the steps outlined in section 3.2.

The third step is to modify the IBM HTTP Server httpd.conf file to configure AirZip Accelerator to run with IBM HTTP Server. Procedures for modifying this file are in Section 3.3.

#### 3.1 Installing on AIX

The AirZip Accelerator for WebSphere filter on AIX is a single shared object (mod\_airzip.so). As part of the installation, this file will be installed in the IBM\_HTTP\_Server\_Home/modules directory.

To install the AIX version of AirZip Accelerator for WebSphere:

- 1. Verify that you are using IBM HTTP Server 2.0.42 on AIX platform.
- Locate the airzipacc2.1.tar.Z file and transfer it to /tmp on your machine.
- 3. First, uncompress this file by typing the following command:

uncompress airzipacc2.1.tar.Z

This will result in airzipacc2.1.tar

4. Next, untar airzipacc2.1.tar by typing the following command:

```
tar -xvf airzipacc2.1.tar
```

This will result in a newly created directory named  ${\tt airzipacc2.1}$ 

5. Type the following command to change directories to this newly created directory:

cd airzipacc2.1

- 6. This directory contains the following:
  - a. LICENSE (file)
  - b. README (file)
  - c. conf (directory)
  - d. install\_airzipacc (install script)
  - e. modules (directory)
  - f. optionPages (directory)

AirZip Accelerator 2.1 for WebSphere

- g. uninstall\_airzipacc (uninstall script)
- h. hostinfo (script)
- 7. Run the install script by typing the following command:

./install airzipacc

- Read the license agreement. If you accept the license, enter 'yes'. If you do not accept, enter 'no' and you will be exited from the installation.
- 9. The installation prompts you to enter the home directory for IBM HTTP Server 2.0. The default home directory is /usr/IBMIHS. This may be different on your machine, so be sure to verify this before proceeding.

The following files will be installed in the indicated locations:

File	Directory
mod_airzip.so	IBM_HTTP_SERVER_HOME/modules directory, which is usually found in the following directory:
	/usr/IBMIHS/modules
Accelerator.properties	IBM_HTTP_SERVER_HOME /conf
"optionPages"	IBM_HTTP_SERVER_HOME
General.ini; GIFPNGJPGtoAZV.ini; GIFPNGJPGtoPNG.ini; GIFPNGToPng.ini; PassJPGThru.ini; Passthru.ini	IBM_HTTP_SERVER_HOME/conf
LICENSE; README; ihshome; uninstall_airzipacc; hostinfo	/opt/airzipacc

### 3.2 Obtaining and Installing the License Key

#### 3.2.1 License Management

AirZip Accelerator for WebSphere is nodelocked to a specific machine using licensing software. Before you can run AirZip Accelerator, you must first obtain and install a license key.

#### 3.2.2 Licensing Procedures

Once you have installed the software, please contact Willow Technology for a license key.

To receive a license key, you must send us the following information:

- 1. Your name
- 2. Company name

- 3. Company mailing address
- 4. Your telephone number
- 5. Your email address
- 6. Your Proof of Entitlement ID that came with your software (not required for evaluation licenses)
- The output from the hostinfo program. This script was installed in the directory /opt/airzipacc. To run this program, type the following commands:
  - cd /opt/airzipacc

./hostinfo

You will receive a binary license key file. The key file, airzipacc.key, must be placed in the AirZip Accelerator install directory (i.e. /opt/airzipacc) before you can use AirZip Accelerator. If you are installing on more than one machine, you will receive a license key file for each machine. In a situation such as this, each license key file will have a different name. After transferring each license to their respective machines, you must rename each file to "airzipacc.key".

If your license expires, you will no longer be able to run AirZip Accelerator for WebSphere. Contact Willow Technology for a new license. As soon as a valid license is installed, AirZip Accelerator will again be fully operational. You do not have to reinstall the software.

**NOTE:** After completely installing AirZip Accelerator and the license key, and after making changes to the httpd.conf file as listed in section 3.3, please check /opt/airzipacc for the presence of a log file named license.log. This log file provides useful information in determining installation problems. If the software and license key were installed and configured properly, this file will not be created.

# 3.2.3 EVALUATION, TEMPORARY and PERMANENT Licenses:

**Evaluation Licenses** are issued to allow customers to evaluate the product. These licenses allow full use of the product until they expire. They are valid for 60 days from date of issue, and may be renewed upon special request.

**Temporary Licenses** are issued to customers who have ordered the product but have not yet paid for it (unless our companies have established credit arrangements). These licenses are valid for 60 days from the date of issue.

**Permanent Licenses** do not expire, and are issued once the software has been paid for.

#### 3.3 Enabling AirZip Accelerator as an IBM HTTP **Server Module**

After you install the libraries and the license key, you will need to complete two tasks. The first is to modify the httpd.conf file to configure AirZip Accelerator for IBM HTTP Server, and the second is to modify the Accelerator properties file to change the default image compression and optimization settings.

Modifying the httpd.conf file informs the web server that it should load the native AirZip Accelerator library as an IBM HTTP Server module, and also describes exactly which requests will be handled by the module. The file, httpd.conf, will be located in the directory IBM HTTP SERVER HOME /conf.

To enable AirZip Accelerator:

- 1. Locate and open the httpd.conf file with a suitable text editor.
- 2. Add the following to the end of httpd.conf:

### Load AirZip Accelerator Module LoadModule airzip\_filter\_module modules/mod\_airzip.so

### Add AirZip Image Type AddType image/azv .azv

### Create AirZip Alias for Quality Options and Test Pages Alias /airzip "IBM\_HTTP\_SERVER\_HOME/optionPages"

### Create AirZipFilter Content Source Directories

<Directory "IBM\_HTTP\_SERVER\_HOME/optionPages"> Options Indexes FollowSymLinks MultiViews IncludesNoExec SetOutputFilter AirzipFilter AddOutputFilter Includes; AirzipFilter html AllowOverride None Order allow, denv Allow from all </Directory>

**NOTE:** In the above text, lines beginning with `###' are comments. Also, be sure to replace 'IBM\_HTTP\_SERVER\_HOME' with the appropriate directory for your IBM HTTP Server home directory.

Next, you will modify the Accelerator.properties file. With AirZip Accelerator you can control which images you would like optimized and which images you would like to leave as is. For now, we will just modify one setting in the Accelerator properties file to enable this feature so that you can test your installation with the performance options pages which were shipped with your installation. A more detailed explanation of this properties file is given later in section 6.1

To enable this feature, do the following:

- 1. Locate Accelerator.properties under IBM\_HTTP\_SERVER\_HOME/conf.
- 2. Open this file in a suitable text editor.
- 3. Scroll down to the end of the document and locate the line:

PAIR\_OF\_TABLE\_DIR=GIFPNGJPGtoPNG.ini;IBM\_HTTP\_SERVER\_HOME /optionPages/Testpageimages;

4. Replace `IBM\_HTTP\_SERVER\_HOME' with your IBM HTTP Server home directory, but leave everything else as it appears.

You can now start the IBM HTTP Server and test your installation. If the server is already running, you must stop and restart it. Follow the steps below to stop and start your http server:

1. Change directories to IBM\_HTTP\_SERVER\_HOME/bin. For example:

cd /usr/IBMIHS/bin

2. Type the following command to stop the server:

./apachectl stop

3. Type the following command to start the server:

./apachectl start

Open a browser and enter the name of your server or the ip address (or simply enter 'localhost') along with the alias you specified in the httpd.conf configuration file. For example if you chose **airzip** as your alias, you could type <a href="http://localhost/airzip/index.html.en">http://localhost/airzip/index.html.en</a> to access the performance options pages. The following section provides detailed information pertaining to these option pages.

**NOTE:** If you wish, you may now remove the tar file airzipacc2.1.tar as well as the directory it produced, airzipacc2.1, from /tmp on your machine.

## 4 Using Built-in Performance Selection Options

AirZip Accelerator for WebSphere enables users to select a performance option by visiting the **Accelerator Performance Options** pages.

AirZip Accelerator for WebSphere provides web site users five performance options to optimize performance in order to match connection needs as well as user quality preferences:

**Pass-thru:** Images are not optimized to avoid delays when using high-speed connections. This option is an appropriate choice for users of a high performance internet connection.

**Basic acceleration:** Images are optimized for download and rendering speed but matching original image quality. This option is an appropriate choice for users of DSL or cable modems. It provides acceleration without altering the appearance of web pages in any way.

**More acceleration:** Images are optimized for download and rendering speed with an emphasis on matching original image quality. This option is an appropriate choice for users of quality dial up modems. It provides acceleration with minor change to some images.

**Still more acceleration:** Images are optimized for download and rendering speed and image quality. This option is an appropriate choice for users of a medium speed modem (More compression).

**Maximum acceleration:** Images are optimized in favor of download and rendering speed over image quality. This option is an appropriate choice for users of limited speed wireless modems (provides the most acceleration).

Users can change their performance option at any time. Independent of the way a user selects a particular performance option, a cookie is written to that user's computer so that each time the user returns to the web site they experience the same performance option.

AirZip Accelerator for WebSphere provides integrated **Accelerator Performance Options** pages that allow users to change their preference settings at any time.

Users access this web page by appending "/AirZip" or "/airzip" to the URL of the page that they are accessing on the AirZip Accelerator for WebSphereenabled web site. For example, if the user were accessing the <u>www.AirZip.com</u> web site, users could access the Quality Selection Web Page by entering:

http://www.airzip.com/airzip

The integrated Accelerator Performance Options page is shown below:



If the user is using Internet Explorer and has yet to install the AirZip Plug-in for Internet Explorer, they can do so by selecting the "Plug-in" menu item from the "Accelerator" menu as shown below.



Whenever the user selects a new performance option, the following page will confirm the new settings. The user must either press Ctrl + F5 or use their browser's Back button for the change in image optimization to take affect.



If the user selects, the "FAQs" menu item from the "Accelerator" menu, they are taken to the frequently asked questions page shown below:



You may modify the Performance Options and Frequently Asked Questions pages as required by your use of AirZip Accelerator for WebSphere.

## 5 Customizing your Web Site to Get the Most from AirZip

There are a number of ways to provide even more benefits to your website users. They include:

- 1. Automatically downloading the AirZip Internet Explorer Plug-in.
- 2. Providing an icon on your home page that invites website users to visit a "Performance Options" page.
- 3. Customizing download and performance options pages tailored for your particular website.
- 4. Providing performance links on key web pages.

Procedures for each are provided here. Sample web pages and related images are automatically installed in the "optionPages" directory under IBM\_HTTP\_Server home directory.

#### 5.1 Automatically Downloading the AirZip Plug-in

Your home page can be configured to automatically download the AirZip Internet Explorer Plug-in to Microsoft Windows users of Internet Explorer. This is accomplished by simply serving an AirZip image using a special html OBJECT tag. Below is sample HTML that serves two images to the user. One is an AZV "Experience this site up to 400% faster" image served with an OBJECT tag and the other is the standard non-animated performance option image with a link to the options page. The image served with the OBJECT tag causes the AirZip IE Plug-in to be automatically offered to web site users and actually appears only after the plug-in has downloaded and installed. It will not appear if the user accesses the web site using other types of browsers. The link associated with the "Accelerated" image takes the user to the normal Performance pages described above.



In the HTML sample below, the images must be in the /optionPages/images/ folder on the site that the src tag references.

```
style="border-collapse: collapse" bordercolor="#FFFFF">
<OBJECT id=AirZip
```

### 5.2 Simplifying Access to Performance Options Pages

AirZip recommends the inclusion of an icon on your home page that invites web site users to visit a "Performance Options" page to select options appropriate to their connections.

AirZip provides two custom icons for this purpose:



Animated Version

Below is a sample that illustrates how the icon might appear on a typical home page.



The idea behind this example is that clicking on the icon on this sample page would link the user to the sample Accelerator Performance Options page to adjust acceleration settings.

Below is a test page that can be used to view the images at different optimization levels. Remember you must press Ctrl + F5 to refresh the page and display the new performance setting.



This page can be found by selecting the "Test Page" menu item from the "Accelerator" menu as shown in the image below:



### 5.3 Customizing Download and Performance Options Pages Tailored to Your Particular Web Site

The performance options page described in the previous section can be customized to your particular environment. These options and FAQ pages can be found in the IBM\_HTTP\_Server\_Home directory.

#### 5.4 Using Performance Option Links

Performance options can be added to any page by simply adding links in the following form:

<a href="/airzip/original.html ">Pass-thru</a>

<a href="/airzip/basic.html ">Basic</a>

<a href="/airzip/more.html ">More </a>

<a href="/airzip/stillMore.html ">Still More </a>

<a href="/airzip/maximum.html "> Maximum </a>

The performance option is set when the user selects the link but does not have an effect unless the user refreshes the current page with Control-F5 with Internet Explorer or surfs to a different page.

This can be as simple as adding the following types of links to key web pages:

Change your AirZip Settings Pass-thru Basic More Still More Maximum

**Note:** Whenever the user selects a new performance option, the Performance Option Setting Page will confirm the new settings. The user must press Ctrl + F5 or the browser Back button to initialize the new performance setting.

# 6 Altering Default Settings and Controlling Output Format

### 6.1 Changing the Default Performance Option

AirZip Accelerator for WebSphere installs with a default setting of **D** for Client Preference and **Basic** for Image Quality Preference. **Please see Section 4 for descriptions of these performance options.** In special circumstances – for example, where a specific web server is serving only wireless users – default settings can be changed by manipulating property settings following these steps:

- 1. Go to directory IBM\_HTTP\_Server\_Home/conf
- 2. Locate the file Accelerator.properties (an example of which is shown below in **Section 6.4**)
- Edit the default properties under each of the different keys. For example, you can change default quality from 1 to 2 under the key DEFAULT\_QUALITY. For the **Performance Codes**, see the following table.
- 4. Restart the IBM HTTP Server.

**Performance Codes Table** (there are five choices for Image Quality):

0	<b>Basic acceleration:</b> Images are optimized for download and rendering speed but matching original image quality. This option is an appropriate choice for users of DSL or cable modems. It provides acceleration without altering the appearance of web pages in any way.
1	<b>More acceleration:</b> Images are optimized for download and rendering speed with an emphasis on matching original image quality. This option is an appropriate choice for users of quality dial up modems. It provides acceleration with minor change to some images.
2	<b>Still more acceleration:</b> Images are optimized for download and rendering speed and image quality. This option is an appropriate choice for users of a medium speed modem (More compression).
3	<b>Maximum acceleration:</b> Images are optimized in favor of download and rendering speed over image quality. This option is an appropriate choice for users of limited speed wireless modems. It provides the most acceleration.
x	<b>Pass-thru:</b> Images are not optimized to avoid delays when using high-speed connections. This option is an appropriate choice for users of a high performance internet connection.

### 6.2 Changing the Default Accelerator Option

AirZip Accelerator Option is a set of parameters that determine how AirZip Accelerator processes different images at different quality settings. These parameters are contained in an .ini file (or table). When AirZip Accelerator is installed, the default Accelerator Option is General.ini. To alter the default Accelerator Option, modify the file Accelerator.properties under the key "FORMAT\_TABLE\_NAMES" to the desired option .ini (or table) to the first position. For example, in the following line

<sup>\*</sup>FORMAT\_TABLE\_NAMES=GIFPNGJPGtoAZV.ini;General.ini;GIFPNGJPGtoPNG.in i;GIFPNGToPng.ini;PassJPGThru.ini;Passthru.ini;" the desired option .ini file is GIFPNGJPGtoAZV.ini.

Please note that the new Accelerator Option will not take affect until IBM HTTP Server is restarted.

General.ini	Recommended Accelerator Option. Works well with a large variety of images.
GIFPNGJPGtoAZV.ini	Converts all images to AirZip's AZV images at the same Performance Option settings as General.ini.
GIFPNGJPGtoPNG.ini	Converts all images to PNG images at the same Performance Option settings as General.ini
GIFPNGtoPNG.ini	Converts all images to GIF and PNG to PNG images at the same Performance Option settings as General.ini
Passthru.ini	Applies no image processing whatsoever at any quality setting. Useful where only select images will be accelerated using custom Accelerator Options for specific Directory. See following sections.
PassJPEGThru.ini	Same as General.ini except JPEG images are not optimized at any Performance Option setting.

The following Accelerator Option files are provided with the AirZip Accelerator for WebSphere:

# 6.3 Applying an Accelerator Option to a Specific Image Directory

To override the default Accelerator Option and apply a specific AirZip Accelerator Option to specify a type of image, follow these steps:

1. Append the directory where those images are located to the Accelerator Option to be applied under the key "PAIR\_OF\_TABLE\_DIR" in file Accelerator.properties. For example, "PAIR\_OF\_TABLE\_DIR=GIFPNGJPGtoPNG.ini;/usr/IBMIHS/optionPages/Testpag

eimages;" means that all images in that directory will be changed to PNG format. See example below.

2. Restart IBM HTTP Server (Changes will not take affect until the server is restarted).

Example "Accelerator.properties" file.

```
#Accelerator properties
#
# You can redefine the following default values
#
\ensuremath{\texttt{\#}} All possible values for QUALITY:
#
   Pass-thru: X
  Basic: 0;
#
 More: 1;
#
# Still More: 2;
# Maximum: 3.
DEFAULT QUALITY=1
# All possible values for DO ANIMATION:
  Use animation: 0
#
# Use first frame in AZV: 1
DEFAULT DO ANIMATION=1
#
# All possible values for DO DENOISE:
# Do not do denoise: 0
# Do denoise: 1
DEFAULT DO DENOISE=0
# All possible values for DO TRANSPARENT:
  No no conversion: 0
Convert to azv replace transparency to a color: 1
#
#
# Convert to azv, leave the transparency: 2
DEFAULT_DO_TRANSPARENT=2
#
# All possible values for AZV_SUPPORT_TYPE:
# Not support AZV: 0
DEFAULT AZV SUPPORT TYPE=0
# All possible values for MAX COLOR OUTPUT:
# non-negative numbers, i.e., >=0
# Note: if this value is zero, all output image keep original
quality
DEFAULT MAX COLOR OUTPUT=256
```

```
#
# All possible values for initInfo:
# Print out init info (start with AirzipFilter) in the file
error.log: 1
# Not print out init info in the file error.log: 0
initInfo=0
# put all .ini files (tables) in one line and use ";" to separate
them.
# Append ";" for the last .ini file (table). For example,
# FORMAT TABLE NAMES=General.ini;GIFPNGJPGtoAZV.ini;
# Note: the first .ini table is the default table.
FORMAT TABLE NAMES=General.ini;GIFPNGJPGtoAZV.ini;GIFPNGJPGtoPNG.i
ni;
\ensuremath{\texttt{\#}} Append all directories to the table which you want the output
format.
# Use ";" to separate them,
# even for the last directory. For example,
#
#PAIR OF TABLE DIR=GIFPNGJPGtoPNG.ini;/usr/IBMIHS/optionPage#s/ima
ges;
# Note: must use forward slash "/"
PAIR_OF_TABLE_DIR=General.ini;
PAIR_OF_TABLE_DIR=GIFPNGJPGtoAZV.ini;
PAIR OF TABLE DIR=GIFPNGJPGtoPNG.ini;/usr/IBMIHS/optionPages/Testp
ageimages;
PAIR OF TABLE DIR=GIFPNGToPng.ini;
PAIR_OF_TABLE_DIR=PassJPGThru.ini;
PAIR OF TABLE DIR=Passthru.ini;
```

# 7 Uninstall AirZip Accelerator for WebSphere

To uninstall AirZip Accelerator for WebSphere, follow the steps outlined below:

- 1. Stop the IBM HTTP Server.
- 2. Change directories to /opt/airzipacc.
- 3. Type the command: ./uninstall airzipacc
- 4. The uninstall script will ask if you would like to proceed with uninstallation. Enter 'y' for yes, or 'n' for no.
- 5. The uninstall script removes everything except for the license key and, if one was ever created, the license.log file. These two files are located in /opt/airzipacc. You should also modify the IBM HTTP Server httpd.conf configuration file by removing all references to the AirZip Accelerator filter and performance options pages.

# 8 Contact Information

To report problems and/or provide feedback, please contact Willow Technology, Inc.

Additional help resources or updates may be available by emailing info@willowtech.com