

AVENUE

Avenue™ signal integration system

Avenue Logo Application Data Pack

ENSEMBLE

D E S I G N S

Revision 4.0 SW v1.0.3

This data pack provides detailed installation and operation information for the **Avenue Logo** application for use with the Avenue **5420 Digital Logo Inserter** module as part of the Avenue Signal Integration System.

The Avenue Logo information in this data pack is organized into the following sections:

- Avenue Logo Overview
- Installation
- Using Avenue Logo
 - Main Screen Overview
 - Creating Logos
 - Adjusting Crop Settings
 - Adjusting Key Settings
 - Creating, Saving and Loading Projects
- Downloading to the 5420 Module
- Help Menu

AVENUE LOGO OVERVIEW

The Avenue Logo application accompanies the 5420 Digital Logo Inserter module. It allows you to collect and configure graphic images created with any graphic program, save them as a project file, then download them to the 5420 module for use as graphic and animation sequence logos. The 5420 Digital Logo Inserter module allows the keying (insertion) of a graphic image or animation sequence over a serial digital program background in either DSK or Fill/Key mode.

Graphic stills, logos and animation sequences can be authored in targa format with a graphics application. The stills, logos and animation sequences are then collected and named with the Avenue Logo application. They can be saved in groups as a project file in Avenue Logo. The project files can then be downloaded to flash memory on the 5420 module using Avenue Logo and a serial or Ethernet connection.

Each image is stored in flash memory, which can store up to 5 full frame images or many smaller images, depending on their size. Total available storage is about 2 M pixels or 8 MB. An average corner logo is approximately 100 x 100 pixels in size for a total area of about 10,000 pixels, allowing the 5420 to store up to 200 average size logos. Each frame in an animation sequences is considered one logo. Animation sequences can be up to 200 frames long (approximately 6.5 seconds in 525 mode).

Each logo can be defined by number, name, type and can be positioned horizontally and vertically on an image-by-image basis using Avenue Logo or the Avenue remote control system. A density control allows changing the transparency of the key. These values are then stored in memory on the module for each logo. In and out transition times can also be programmed for each image in the remote control menus.

Images can be defined as events with the Avenue remote control menus then cut or mixed on manually or triggered to come on by GPI control from an external control device, including the Avenue 5815 GPI Control Panel. Up to eight events can be defined to correspond to the eight GPI inputs available on the **Control** connector on the rear of the module.

INSTALLATION

To install Avenue Logo, insert the CD included with your 5420 module into the CD-ROM drive of a PC connected to the Avenue network. Double-click the Avenue Logo setup icon to run the installer.

Note the following cautions before using Avenue Logo:

- Do not upload to the 5420 module while the module is on-air.
- Uploading a new project file to the 5420 module will erase the currently loaded project file loaded in flash memory.

USING AVENUE LOGO

Double-click the Avenue Logo icon to open the application. The main screen appears.

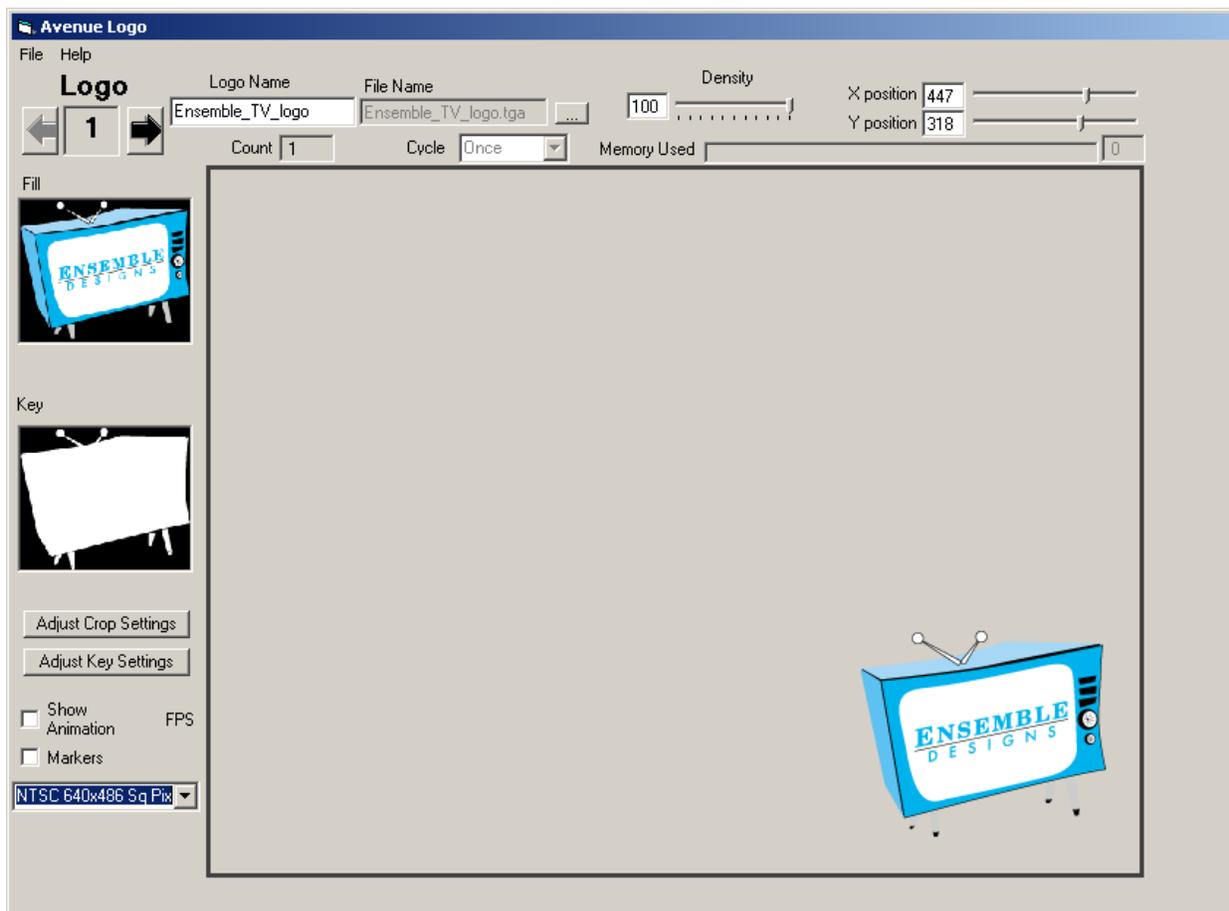
Main Screen Overview

The main screen allows you to view and adjust a single targa image or an animation sequence. If the graphic is composed of a key and fill, the separate components can be viewed to the left of the screen in the **Fill** and **Key** windows. Key parameters can be adjusted and previewed using the **Adjust Crop Settings** and **Adjust Key Settings** controls.

Animation sequences can be viewed in real time by selecting the **Show Animation** box. The type of animation sequence can be defined with the **Cycle** control and the number of files in the animation sequence is shown in the **Count** box.

The graphic or animation can be defined as a logo by **Logo** number (1-999) and named by typing in a unique name in the **Logo Name** box. This logo name will then appear in the 5420 menus.

As you define logos as part of a project, the **Memory Used** bar indicator will show the percentage of memory space available in the 5420 module flash memory where the logos are stored.



Avenue Logo Main Screen

Avenue Logo Application

You can adjust the density of the image and its position on the screen using the slider controls provided or by entering a value into the boxes next to the slider with the following controls:

- **Density** – adjusts the amount of transparency of the image from 0-100% (this must be viewed on the 5420 module output).
- **X Position** – adjusts the horizontal positioning of the image.
- **Y Position** – adjusts the vertical position of the image.

You can also use the mouse to drag the image to change its position on the screen.

The main screen will display the image at 640 x 486 square pixels. The image can be scaled for a 525 or a 625 line rate during the download or set for no scaling as explained in the **Downloading Images To The 5420 Module** section later in this data pack. The boxes to the right of the **X** and **Y Position** will show the actual position of the image when the image is scaled to the selected standard (525 or 625).

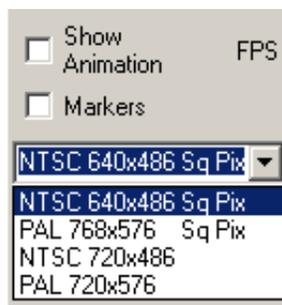
You can display a safe title guide for positioning the graphic by enabling the **Markers** option at the lower left of the main screen. This will show markers that indicate the safe areas of the screen where images will appear on a broadcast signal.

Pixel Scaling In Television Graphics Versus Computer Graphics

It's commonly known that graphics created and displayed on personal computers use a square pixel format. In contrast, the television world uses a rectangular pixel format. For this reason, graphics created on computer must be scaled in order to retain their proper appearance when output to video.

The **Pixel Scaling** pulldown in the main screen provides you with either automatic pixel scaling, or non-pixel scaling options, depending on your needs:

- **NTSC 640 x 486 Sq Pix** – choose this to automatically scale computer-generated graphics for 525 NTSC output. This is the most common choice for NTSC applications.
- **PAL 786 x 576 Sq Pix** – choose this to automatically scale computer-generated graphics for 625 PAL output. This is the most common choice for PAL applications.
- **NTSC 720 x 486** – choose this if your graphics do not need automatic scaling or are already scaled for 720 x 486 NTSC (4:3) output.
- **PAL 720 x 576** – choose this if your graphics do not need automatic scaling or are already scaled for 720 x 576 PAL (4:3) output.



Creating Logos

To gather graphics or animation graphics for collection as logos in a project file, begin by defining each logo (**1 – 999**). The application will start with **Logo 1** as shown in the main screen.

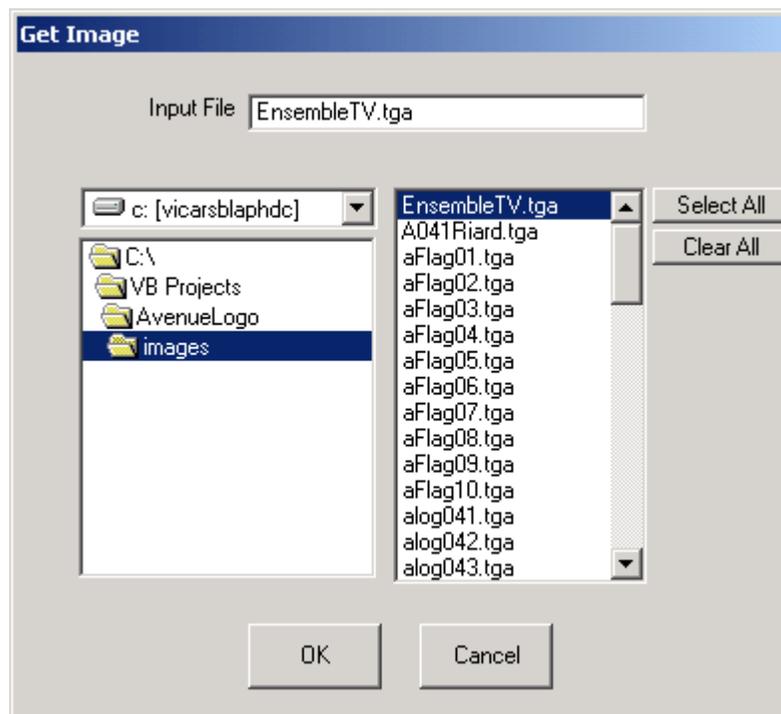
On the main screen, click the **...** button next to the **File Name** box or select **Load TGA Image** from the **File** pulldown menu in the upper left corner to bring up the **Get Image** screen shown below.



To load a single .tga (targa) file as Logo 1, browse to the stored image folder and select the file so it appears in the **Input File** box and click **OK**. The logo file name will appear in the **File Name** box on the main screen. Create an identifying name for this logo by typing a name in the **Logo Name** box.

The logo image will appear in the main screen display and will also display fill and key information on the left of the screen. If the image includes a key (alpha) channel, both images will appear in the Fill and Key boxes as shown in the example on the main screen. You may also create a key channel if none exists by enabling the **Self-Key** function using the **Adjust Key Settings** function explained later.

To delete a logo, select the logo number and select the **File** pulldown menu in the upper left corner of the main screen. Choose **Delete Current Logo** from the pulldown list. The current logo will be deleted.



Get Image Screen

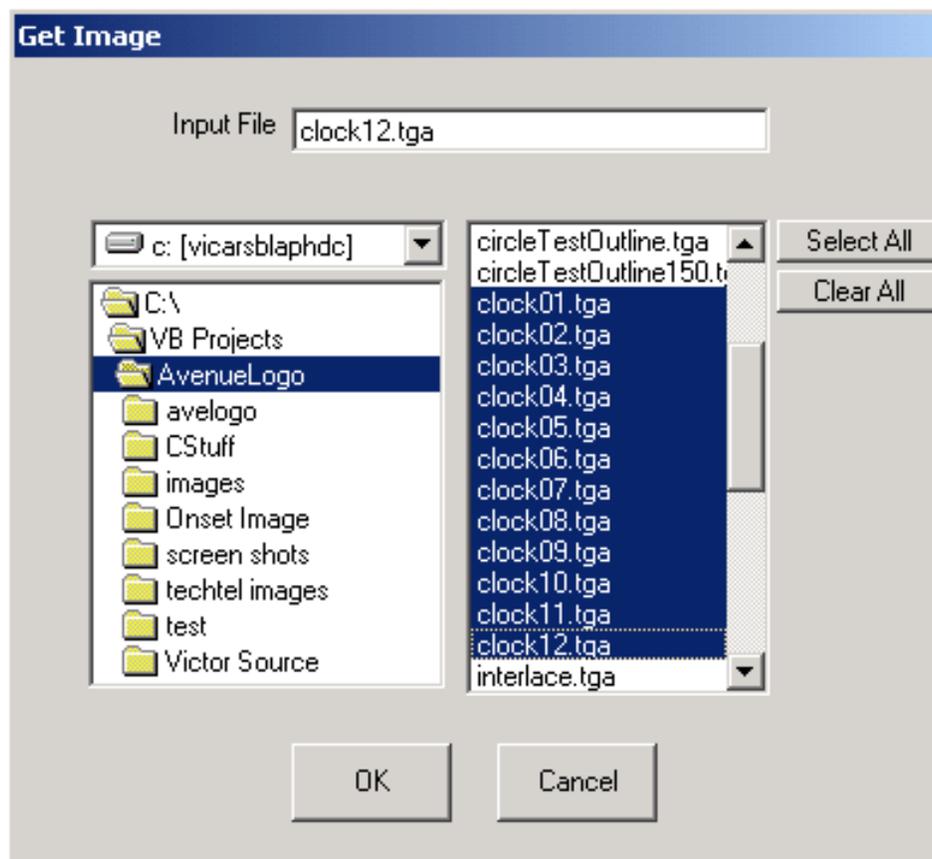
Avenue Logo Application

If the image to be loaded is an animation sequence, select all of the animation files in the group at once (select the top file, hold down the **Shift** key and select the last file in the sequence) from the **Get Image** screen. Refer to the **Get Image** screen shown below. Note that each file in a sequence must be the same size, named the same, and numbered in sequence. The last file selected will appear in the **Input File** window. Select **OK** to load the sequence to the main screen.

In the main screen, the **Count** box will show the number of files in the sequence and the **Cycle** control will be enabled. Set the animation to cycle as follows:

- **Once** – the animation will play once and stop at its end.
- **Loop** – the animation will play continuously from beginning to end in a loop.
- **Ping Pong** – the animation will play from beginning to end, then from end to beginning continuously.

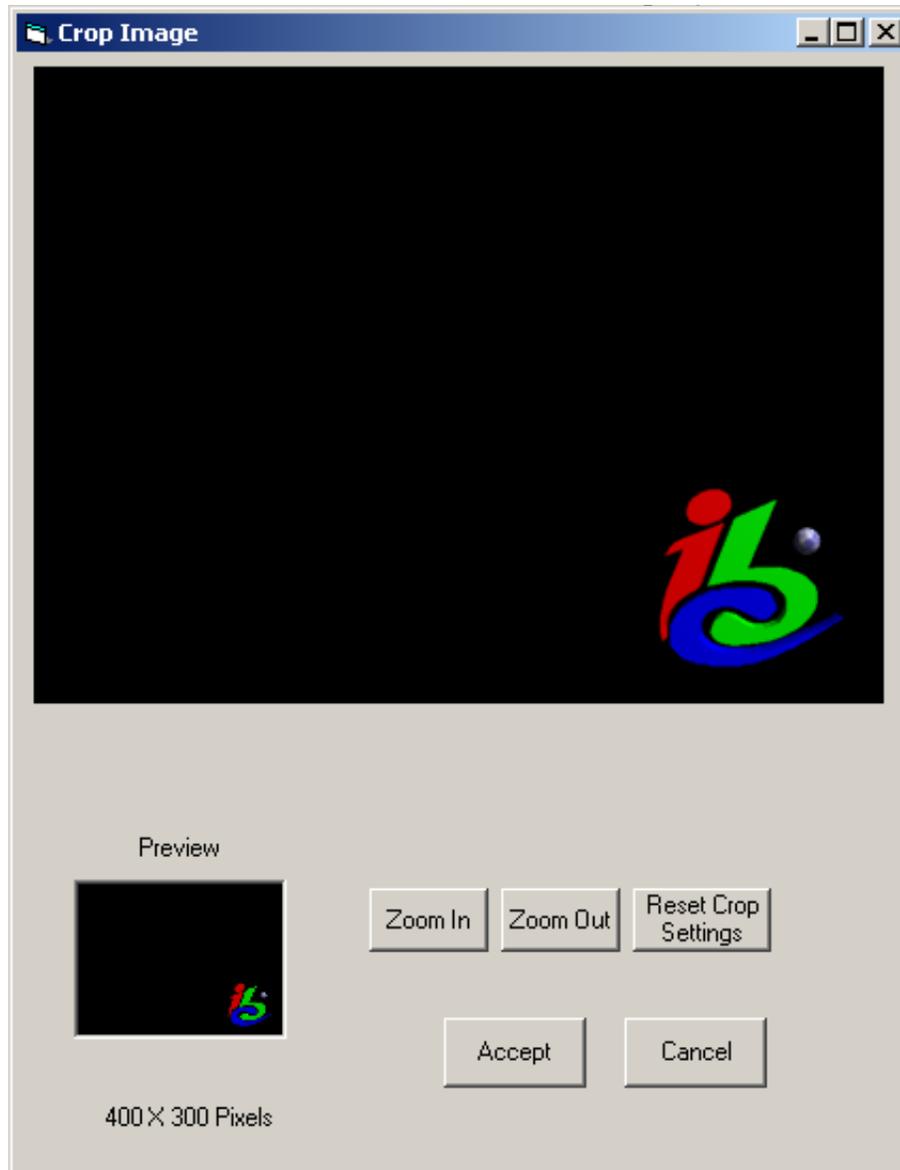
You can view the animation sequence in real time by selecting **Show Animation** on the main screen. The sequence will play in whatever format you have chosen with the **Cycle** control. The frames per second (FPS) of the animation will be reported next to the **Show Animation** box.



Get Animation Sequence Images

Adjusting Crop Settings

A logo can be cropped to eliminate an unwanted portion of the graphic or to select a specific part for downloading. To crop a logo, load the image into the main screen and click the **Adjust Crop Setting** button to display the **Crop Image** screen shown below.

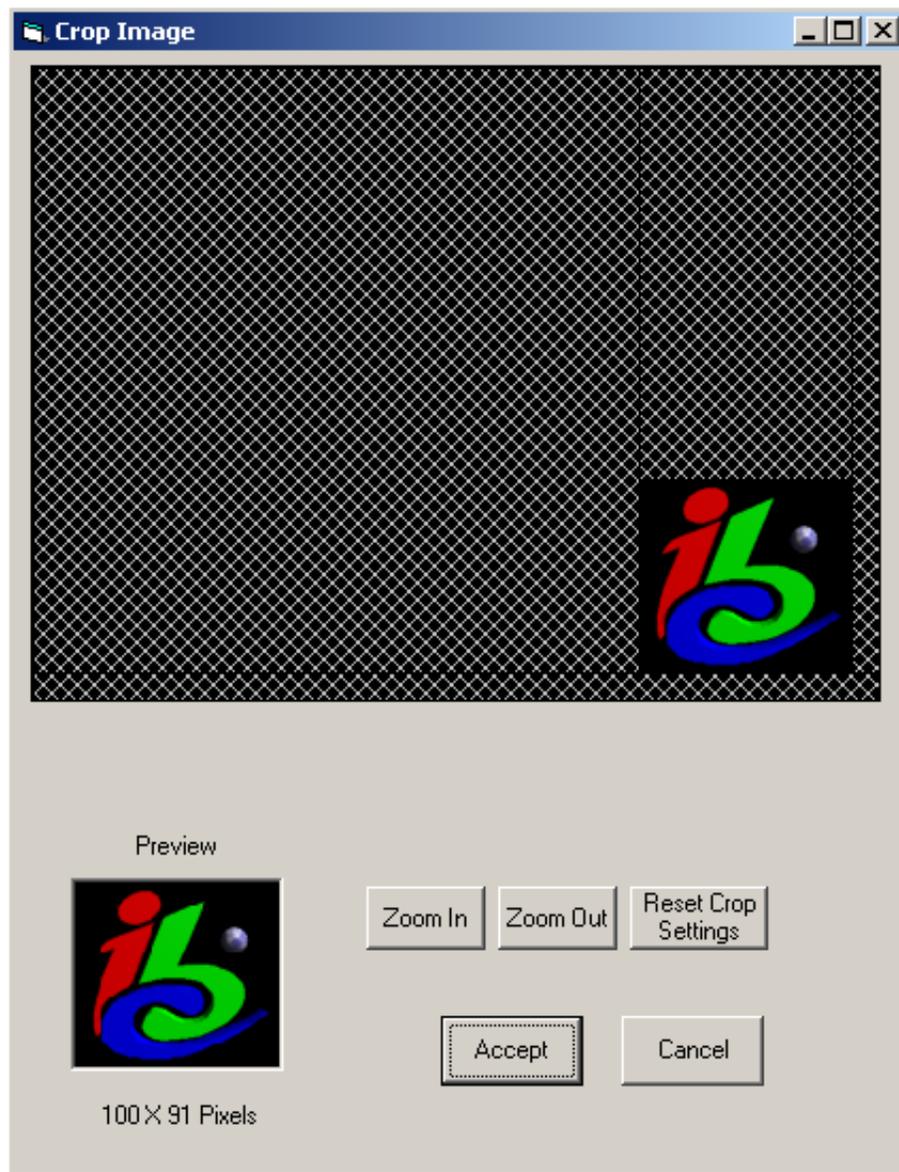


Crop Image Screen

Avenue Logo Application

Use the cursor to select the portion of the graphic to crop as shown below. The cropped portion of the graphic will be grayed out. The portion of the graphic that will be downloaded appears in the Preview box (lower left) along with its size in pixels. You can use the **Zoom In** and **Zoom Out** controls to change the viewing size of the graphic. To return to the original graphic, select **Reset Crop Settings**.

When you have the image you want, select **Accept** to save the settings. Note that the original graphic file will not change. Only the portion you have selected that is displayed in the Preview box will be downloaded for this logo.



Cropped Graphic Example

Adjusting Key Settings

You can also make key setting adjustments to an image or create a key (alpha) channel if none exists. To adjust the key settings of an image loaded in the main screen or to create a key channel, click the **Adjust Key Settings** button in the main screen.

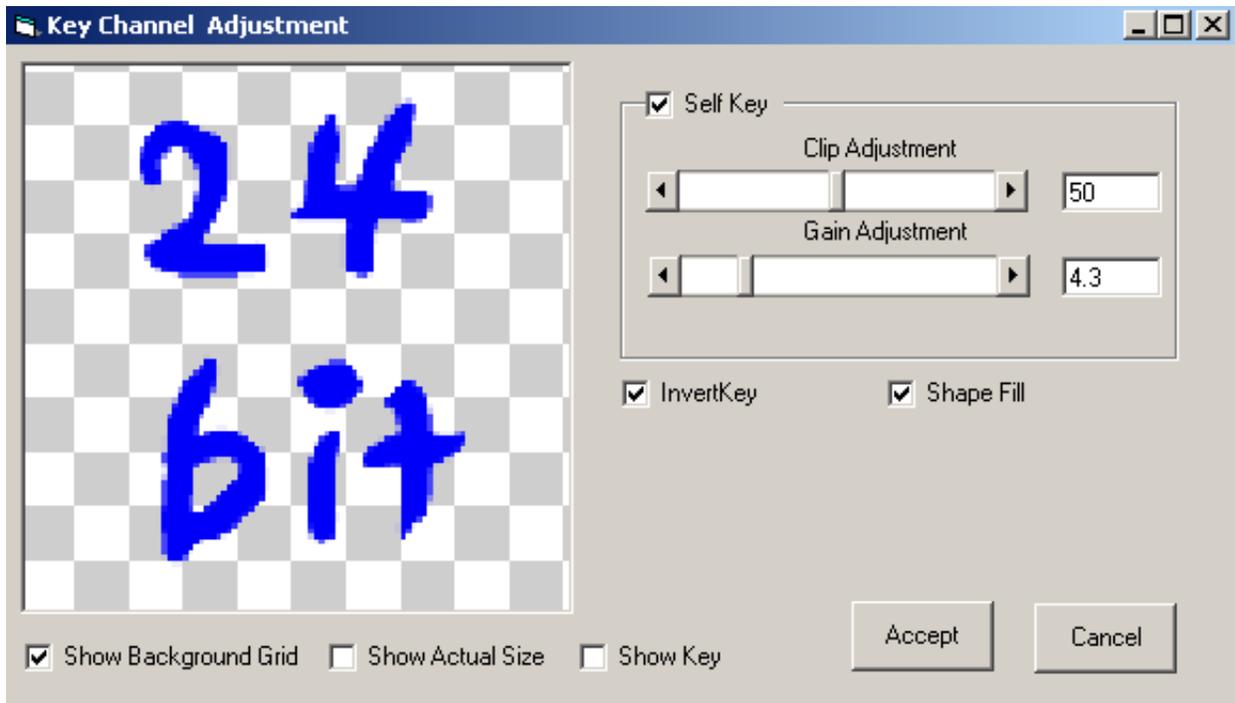
In the example below, a foreground signal is self-keyed to create a key channel from the graphic foreground. To create a key channel, select the **Self-Key** box. Adjust the **Clip** and **Gain Adjustment** sliders, or enter a value in the boxes to the right for the desired key. You can invert the key by selecting **Invert Key**. A key and fill signal will now be present with the fill matching the key signal exactly.

The **Shape Fill** box can be selected when separate key and fill signals are part of an image and need to be adjusted. The 5420 module uses a linear additive keyer and requires that key and fill match exactly for a correct key. When **Shape Fill** is selected, the key fill in a selected image will be shaped to match the key signal.

Preview the key by selecting **Show Key**. The graphic can be displayed with a background grid by selecting **Show Background Grid**. To see the graphic at full size, select **Show Actual Size**.

To save the adjustments for download, select **Accept** or **Cancel** to close without changes. The original graphic file will not change and only the changes in the **Preview** view will be downloaded.

You can also use this screen to adjust a graphic with both key and fill for the desired key effect.



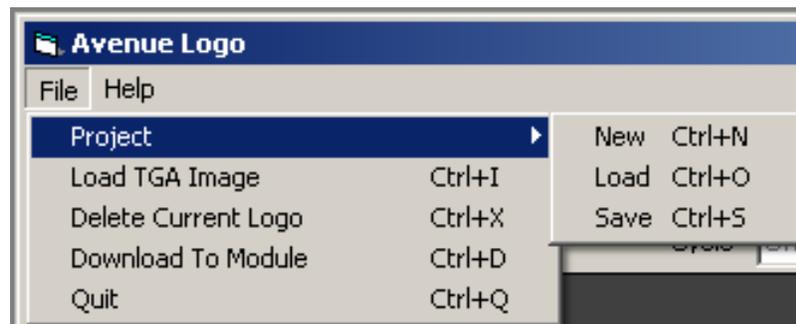
Key Channel Adjust Screen

Creating, Saving, and Loading Projects

Once you have defined all the logos for a particular project, save the group to a project file. Open the **File** pulldown menu on the main screen as shown below and select **Project**. Select **Save**. When the **Save As** dialog appears, name and save the project file (.LCF) to the Avenue Logo folder or browse to another location if desired.

To delete the current project or create a new one, select **New**.

To load a project for download to the 5420 module, select **Project** from the **File** pulldown and select **Load**. When the **Open** dialog appears, locate the file you wish to download and click **Open**. This will bring the project to the main screen where you can view or change any logos if needed.



File Pulldown Menu on Main Screen

DOWNLOADING IMAGES TO THE 5420 MODULE

Once a project is selected for downloading and loaded to the main screen, use the **Pixel Scaling** pulldown to select the desired graphic scaling option. (See page 4 for an explanation of pixel scaling.)

Next, select **Download to Module** from the **File** pulldown. A **Status** popup will indicate the project being loaded. When complete, the **Download** screen will appear.

In the **Frame Com** box, select the type of connection you will be using to connect the PC to the Avenue frame or Touch Screen. Choices are:

- **Network** – for a network connection, enter the IP address of the Avenue frame that contains the 5420 module you wish to download to. (This is the recommended option.)
- **Serial** – for a serial connection, select the **Serial Port (COM 1–4)** you will be using on the PC.

When the connection is made, the **Frame Com** and **Network LED** indicators on the bottom of the **Download** screen will illuminate green.

The screenshot shows the 'Download' application window. It has a title bar 'Download' and a light gray background. On the left, there's a 'Frame Comm' section with two radio buttons: 'Serial' (unselected) and 'Network' (selected). To the right of this is a 'Serial Port' dropdown menu showing 'COM 2' and a 'Re-Open Comm Port' button. Below that is an 'Ip Address' text box containing '192.168.000.144' and a 'Re-Open Net Connection' button. Further down, there are two dropdown menus: 'Frame Select' with 'Ensemble test' and 'Module Select' with 'Logo Inserter', followed by a 'Get Module List' button. Below these are two progress bars: 'Download' (with 2 bars) and 'Status' (with 7 bars). Underneath are 'Sent' (247) and 'Ack' (246) text boxes. At the bottom are three buttons: 'Download Now', 'Abort', and 'Done'. In the bottom right corner, there are two green circular LEDs labeled 'Frame Com' and 'Network', both of which are lit.

Avenue Logo Download Screen

Avenue Logo Application

Next, click the **Get Module List** button to search for all the Avenue frames and modules on the network and load them into the **Frame Select** and **Module Select** pulldown menus. From the **Frame Select** pulldown, locate the Avenue frame on the network that contains the 5420 module you wish to download to. Then, from the **Module Select** pulldown, select the 5420 module in the chosen frame.

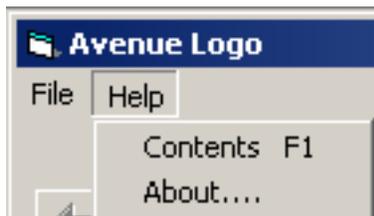
Note: Downloading this project will erase the current project in the selected 5420 module. Make sure the 5420 you have selected is off-air before downloading.

Once the frame and module are selected and frame communication is active, click the **Download Now** button. The download will begin by first erasing the current project loaded in the selected 5420 module. This process will take about 40 seconds and erase time remaining will appear in the lower left corner.

When the download begins, the progress boxes below the frame and slot pulldowns will show the overall download progress and the progress of each file as it downloads. The **Sent** and **ACK** boxes will also indicate download progress and the remaining download time will appear in the lower left corner of the window.

Once the download is complete, click the **Done** button. If you wish to stop the download, click the **Abort** button.

HELP MENU



The **Help** pulldown menu on the main screen shown above displays a **Contents** selection to open this manual in pdf format and an **About...** popup indicating the current software version and the serial number of the Avenue Logo application.

WARRANTY AND FACTORY SERVICE

Warranty

Ensemble Designs, Inc. warrants this product to be free from defect in material and workmanship for a period of two years from the date of delivery. During this two year warranty period, Ensemble Designs, Inc. will repair any defective units at Ensemble's expense if the unit should be determined to be defective after consultation with a factory technician.

This warranty is not transferable. Any implied warranties expire at the expiration date of this warranty.

This warranty does not cover a defect that has resulted from improper or unreasonable use or maintenance as determined by us. This warranty is void if there is any attempt to disassemble or adjust factory set presets without factory authorization.

Factory Service

If you require service (under warranty or not), please contact Ensemble Designs and ask for Customer Service before you return the unit. This will allow the service technician to provide any other suggestions for identifying the problem and recommend possible solutions.

You may also refer to the technical support section of the Ensemble web site for the latest information on your equipment at the URL below:

<http://www.ensembledesigns.com/support>

If you return equipment for repair, please get a Return Material Authorization Number (RMA) from the factory first.

Ship the product and a written description of the problem to:

Ensemble Designs, Inc.
Attention: Customer Service RMA #####
870 Gold Flat Rd.
Nevada City, CA 95959 USA
(530) 478-1830
Fax: (530) 478-1832
service@ensembledesigns.com
<http://www.ensembledesigns.com>

Be sure to put your RMA number on the outside of the box.