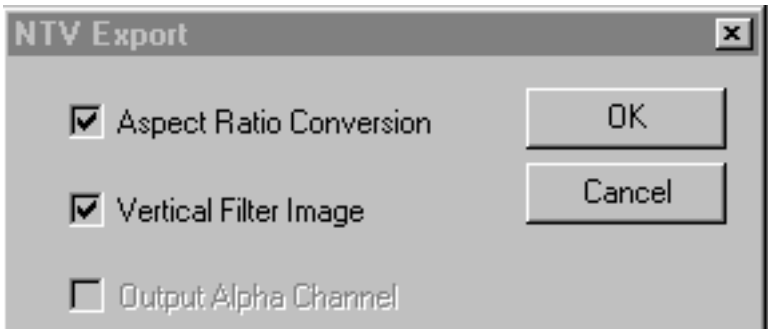
User's Guide for Photoshop 4.0 NTVExport Plug-in

Export Plug-in

The Export plug-in is responsible for exporting the current photoshop image to the NTV board for serial digital output. The export function from photoshop is activated via the File->Export->NTVExport menu selection. The plug-in currently only exports RGB Mode 8 bit images. The export dialog is shown in Figure 1, "Windows NT Photoshop 4.0 Export Dialog," on page 1. The Plug-in dialogs for the Macinstosh and SGI platforms are identical.

FIGURE 1. Windows NT Photoshop 4.0 Export Dialog



The photoshop export plug-in for all platforms contain the following controls:

- Aspect Ratio Conversion.

  When the Aspect Ratio Conversion box is checked this control converts square pixels to rectangular pixels. For example, a 648x486 square pixel graphic needs to be converted to a 720x486 video image in 525 mode to maintain geometry. Cubic interpolation is used to perform this conversion.

- Vertical Filtering.

  When the Vertical Filtering box is checked, the photoshop image is filtered in the vertical direction before exporting to the NTV card. This control is often necessary to decrease flicker caused by computer graphics non-interlace conversion to interlaced video. To perform vertical filtering, a three line kernel is used whereby half of the current line's pixel values are combined with a quarter of each of the previous and next line's pixel values. The boundary conditions(first and last line) use black for the boundary values.

- Output Alpha Channel.

  This control will only be available if two NTV boards are installed in the current system. If so, and alpha export is enabled, then the plug-in will download the current still to one NTV board and the current alpha channel to the other board. If the current photoshop image doesn't have an associated alpha channel one will be created to match the size of the exported video.

Usage Notes:

1. The exported image will be output based on the standard(525 or 625) set in the NTV Control Panel. In other words if you want to export graphics to 625 mode, you need to set the standard in the NTV Control Panel Board Settings Dialog. On the Macintosh, this Control Panel is called NTVControlPanel and is found in the Control Panel folder. On Windows NT, the same functionality is achieved via a tray application(NTVControlPanel.exe).
2. If there is a selection via the Marquee tool the plug-in will export only the selected part of the image. If a non-rectangular selection is made however, the entire bounding rectangle is exported.
3. If the image or selected part of the image to be exported is not full size(648x486 in 525 mode or 768x576 in 625 mode) with aspect conversion or 720x480 without aspect conversion) the image will be centered on the output. If Output Alpha is chosen(if you have 2 boards), a rectangular matching key will be made and exported.
4. If the image or selected part of the image to be exported is larger than full size then only the upper-left most of the image will be exported
5. It is useful to use the Actions palette to avoid having the dialog come up for each export. It can also be useful to assign the action to a function key if the export function is used often