

DELFTship Version 13.10 Background Images Feature

Part 2 Image Editing Controls

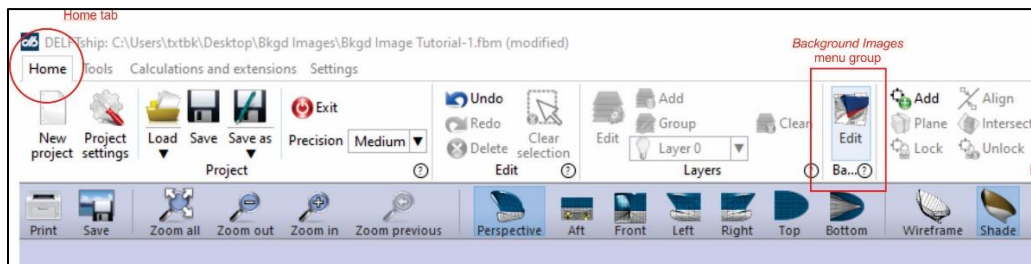
Researching a model may involve simply validating an existing set of plans for accuracy and hull fairness. Even this can be difficult using 2D drafting practices or programs. You may want to develop a set of construction plans from incomplete or inaccurate information. Using historical images or admiralty plans can make this process difficult and laborious. The ability to create a 3D model allows integration of all three standard plan views into a dynamic environment that quickly assists identifying problems and solutions in shape, fairness, and structure. Furthermore, the modeler gets the satisfaction of viewing the resulting hull from any angle in three dimensions before ever picking up a tool!

For continuity, the following conventions will be used in this guide:

- The names of ribbon Tabs are underlined.
- The names of *M*enu *g*roups within a ribbon are italicized. The names are located at the bottom of the menu groups in ribbons.
- The names of clickable **B**uttons are bold-faced.
- Names of other labels are in “quotation marks.”
- *Left-click* is assumed for all button clicking operations unless otherwise stated.

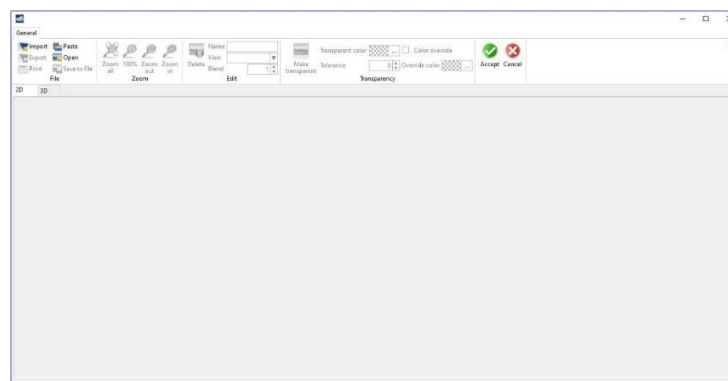
1. Accessing the Background Image Editor Window

- After launching the program, or whenever you intend to add or edit a Background Image, check that the Home tab all the way to the left is selected in the ribbon.



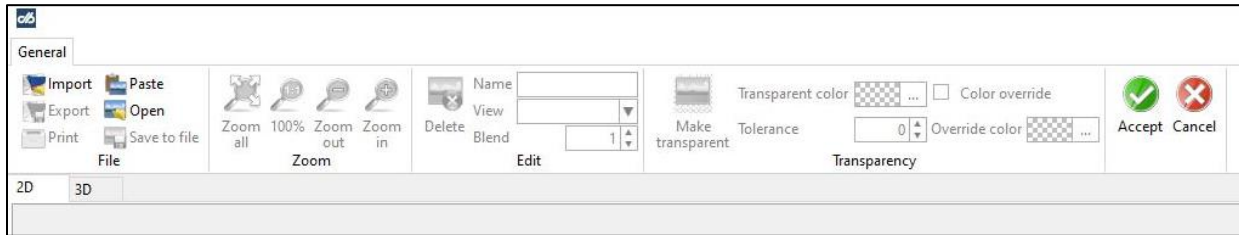
Home ribbon showing the Background Images menu group. The tool tip shows its name.

- In the Home tab, *B*ackground *I*mage*s* menu group, click on the **E**dit button to open the Background Images Editor window:

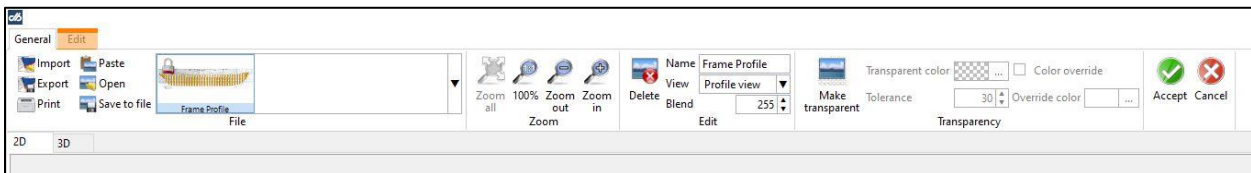


This figure shows the DELFTship Background Images Editor with no images loaded.

DELFTship Version 13.10 Background Images Feature



Editor window ribbon before any images are loaded.



Editor window ribbon after an image is loaded.

c. Editor Window Tabs

The only ribbon tab available (as of Version 13.10) *before* loading images is the General tab. After loading an image, the window also displays the orange Edit tab.

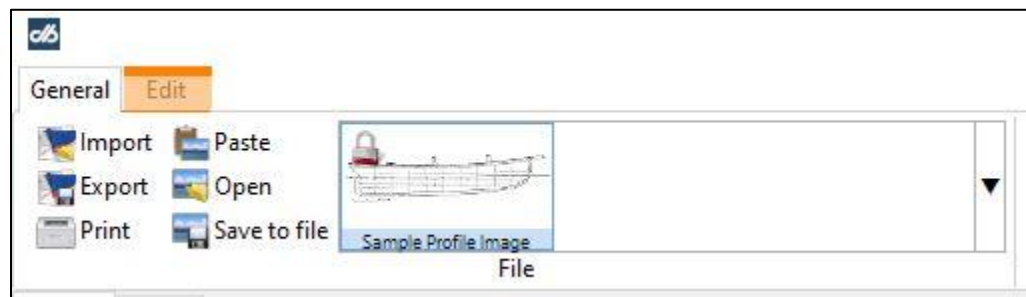
d. Editor Window: The General Tab

The General tab ribbon contains the following menu groups:

- The *File* menu group provides controls for handling image files (importing, saving, printing, etc.)
- The *Zoom* menu group provides options for zooming the selected image. A wheel mouse can also provide zoom-in and –out operations.
- The *Edit* menu group is where images are assigned to particular plan viewpoints as well as deleting unwanted images.
- The *Transparency* menu group controls how the colors and lines of the background of an image are displayed, such as making the background transparent.
- The Editor window **Accept** and **Cancel** buttons are used to accept or reject changes.

Following are more specific descriptions of the controls in these menu groups.

(1) Editor General Tab: The *File* Menu Group



The File gallery showing an image file has been loaded.

To insert an image for a background for the first time, use one of the three available options in the *File* menu group:

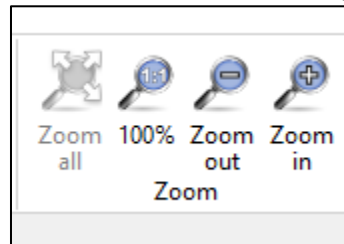
DELFTship Version 13.10 Background Images Feature

- **Import** inserts already-formatted background images obtained from other DELFTship projects via a previous **Export** command (file type: .Dbi).
- **Paste** inserts an image from a dynamic screenshot or “copy image” operation. For example, one could use the Windows Snipping Tool or its successor to obtain a lines plan from a Web source to use as a Background Image. After grabbing the “New” image, click Edit|Copy in the Tool’s header to prepare to paste it into the DELFTship Editor.
- **Open** will be probably the usual method for inserting a new saved image from your computer (allowed file types: .jpg, .jpeg, .bmp, .png).
- **Export** exports the selected image as a DELFTship-readable image in the .Dbi file format. Valuable for sharing between DELFTship files without having to resize, adjust, or edit the image in the new file.
- **Print** commands the image to be printed by your default printer.
- **Save to file** brings up a “Save file as” dialog for saving the selected image as a .jpg to a location on the your computer.

After inserting an image file, the *File* menu group will also include a dropdown “gallery” containing images, their file names, and to which plan viewpoint they are assigned. This will be discussed in more detail in Part 5.

(2) Editor General Tab: The **Zoom** Menu Group

The *Zoom* menu group controls the zoom view of the image in the Editor window.



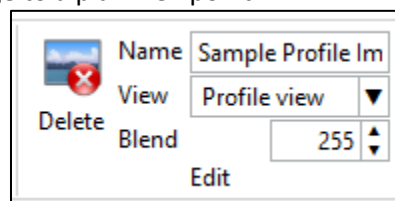
It contains the following buttons:

- **Zoom all**—the viewport zooms to include the entire image.
- **100%**—the viewport zooms to the image’s true size.
- **Zoom out**—the view zooms outward in built-in, preselected steps.
- **Zoom in**—the view zooms inward in built-in, preselected steps.

Note that a wheel mouse can zoom in or out in a continuous motion with the scroll wheel. *Right-click and hold* the button on the image or viewport permits panning the view. Very useful.

(3) Editor General Tab: The **Edit** Menu Group

The *Edit* menu group contains the key controls for deleting loaded background images and assigning the image to a plan viewpoint.



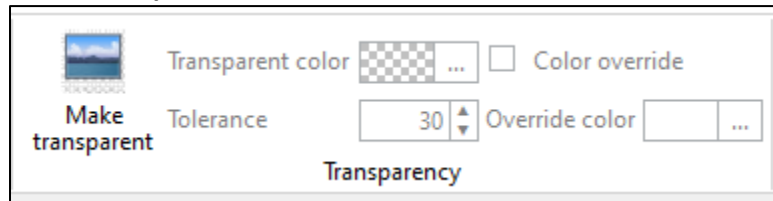
DELFTship Version 13.10 Background Images Feature

After image files are loaded into the DELFTship model file, the following *Edit* menu group buttons and controls become active:

- **Delete** button—permanently deletes the selected background image.
- The “Name” field displays the file name of the selected image (without file extension).
- The “View” dropdown list permits assigning the selected image to one of the three principle plan viewpoints.
- The “Blend” field includes a control for changing the opacity of the entire image (including pattern lines). The value “255” is opaque; “0” is totally transparent.

(4) Editor General Tab: The *Transparency* Menu Group

Click on the **Make transparent** button to activate this feature.



Transparency provides a means for removing the (standard white) background color of the image and replacing it with either no color—simply making it transparent while retaining the plan line art—or with a color of the user’s choice. Also, selected colors in the image can be replaced or made transparent. This can reduce the clutter or distraction of colored areas in the image.

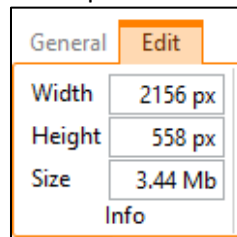
This feature might be useful if using a colored blueprint as a background image, for example. See the DELFTship program manual for more information on using this feature.

e. Editor Edit Tab

The Editor window’s orange Edit tab provides controls for editing the image size, orientation, color, and appearance. Only the 2D viewport (discussed next) is active when the *Edit* tab is selected. The Edit tab ribbon includes the following menu groups:

(1) Editor Edit Tab: The *Info* Menu Group

This menu group simply displays the physical dimensions and the digital size of the selected image. No values can be manipulated in this menu group.



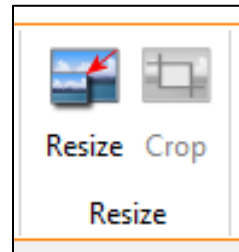
(2) Editor Edit Tab: The *Zoom* Menu Group

This menu group is identical to the *Zoom* menu group in the General tab, discussed above.

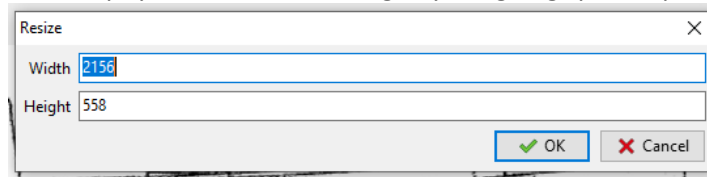
DELFTship Version 13.10 Background Images Feature

(3) Editor Edit Tab: The *Resize* Menu Group

The *Resize* menu group has two buttons: **Resize** and **Crop**.



- (a) Clicking on the **Resize** button displays a two-line dialog box that permits the user to alter the physical size of the image by assigning specific pixel values:



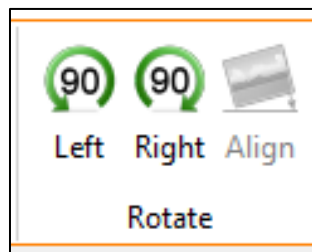
If you change one dimension, the other changes in proportion, maintaining the existing aspect ratio.

- (b) The **Crop** button doesn't become active until the user bandboxes a section of the selected image for cropping. Clicking on the **Crop** button then discards any of the image outside of the bandbox, cropping the image.

Caution: Resize/Crop operations cannot be undone (e.g., Ctrl-Z)! If the user makes a mistake, the selected image must be discarded and a copy of the original reloaded into the active DELFTship file. Source images on your computer are not affected by these operations.

(4) Editor Edit Tab: The *Rotate* Menu Group

The controls in this menu group permit gross and fine adjustments of the orientation of the image.

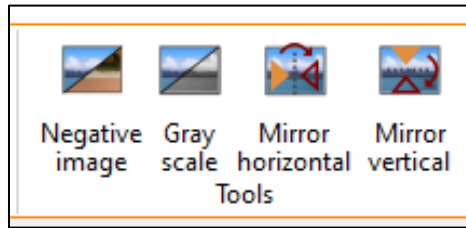


- (a) The **Left** and **Right** buttons rotate the image 90° in the indicated direction.
- (b) The **Align** button becomes active when an adjustment to the Baseline Control—used in the 2D viewport tab—indicates the image is not level. The use of this feature will be discussed in detail in Part 5 of this guide.

DELFTship Version 13.10 Background Images Feature

(5) Editor Edit Tab: The *Tools* Menu Group

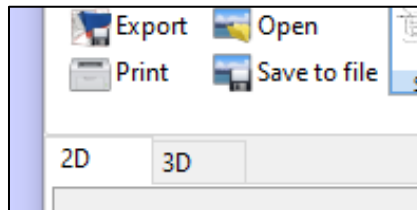
This menu group includes some cool features that will help alter the image to your viewing and working preferences.



- (a) The **Negative Image** button simply reverses the colors in the image. For example, a white image background with black lines displays as a black image background with white lines.
- (b) The **Gray scale** button has no effect on a black-and-white image, but will convert a colored image to relative shades of gray.
- (c) The **Mirror Horizontal** button does what it says. If you discover that the selected body plan image, for example, does not display correctly in the program's Front and Aft viewports, the image can be flipped to fix this problem. Note that the program does a reasonable job figuring out the right orientation for profile and plan view background images without resorting to this feature.
- (d) The **Mirror Vertical** button would normally be used to flip a plan-view image vertically so that the upper or lower half of the image is placed where desired. Often, one half of the plan view shows the moulded hull lines, while the other half shows the topside/deck arrangement.

f. Editor Window 2D/3D Tabs

The last two sections of the Editor window will be briefly introduced here, but their use will be discussed in more detail in Part 5. The 2D and 3D tabs are located at the top left corner of the Editor viewport itself.



(1) The Editor Window 2D Tab Viewport

This tab presents the default view when the Background Image Editor opens. The image displayed in the viewport is the one selected in the Background Image gallery of the *File* menu group in the Editor ribbon. Simply click on an image in the gallery to display it.

This viewport contains the control that sets the Origin for the entire model, relative to the selected image. The Origin control's function and its significance will be discussed in Part 5.

(2) The Editor Window 3D Tab Viewport

The 3D tab displays the editing window that aids in positioning and sizing the background image relative to the model's 3D environment. In previous versions of this program, this work had to be done in one of the program's associated orthogonal viewports. Now that function is conveniently placed within the Editor window.

DELFTship Version 13.10 Background Images Feature

In the 3D tab viewport, the image can be stretched and positioned relative to the model's Origin selected in the 2D tab. It also can be moved in any direction in the plane of the viewport for fine-tuning its position. The use of this viewport will be discussed in Part 5.