

THE GRAPHICS INTERFACE IN RTW3

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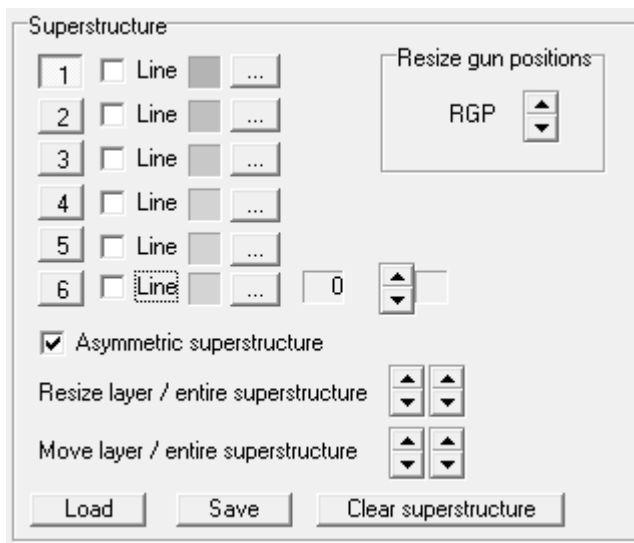
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THE GRAPHICS TAB

THE SHIP'S VISUAL SUPERSTRUCTURE

A ship's superstructure can be drawn using the tools in the superstructure section. The superstructure can be composed of up to 6 layers numbered from 1 to 6. Higher numbered layers will be drawn on top lower numbered layers and will obscure the lower layer where the two layers overlap.

THE SUPERSTRUCTURE INTERFACE



The superstructure interface allows you to draw and edit superstructure layers and provides tools that allow you to manipulate these layers in various ways or save and reuse layers.

THE LAYER BUTTONS

There are 6 rows of buttons that correspond to the six available superstructure layers. All of the buttons within a row affect the same layer. Let's look at what each one does.

THE LAYERSELECTION BUTTONS

Clicking on one of the six numbered layer buttons will allow you to activate that layer for editing. The layer button will remain depressed while the layer is open for editing. When opened for editing you can draw or redraw the shape of the superstructure. If there is already a drawing in the activated layer, its lines will turn red in the display window, indicating that it is active for editing. You can close a layer for editing by clicking on its depressed layer button.

THE FILLED/LINE CHECKBOXES

The Filled/Line checkbox will toggle the layer between displaying as a filled polygon or as a transparent polygon, showing only the line. When this box is unchecked, the layer will obscure lower numbered layers and will be filled with the selected layer color. When the box is checked the layer will not obscure lower numbered layers and will not display the fill color, instead it will display as a black outline of the layer.

The Filled/Line checkbox operates slightly differently for layer 1. For layer 1 only, if this checkbox is

Designer's note: Filling layer 1 with the national hull color allows layer 1 to be used to create a visual extension of the hull, as for instance, a main deck that extends past the bow.

checked the layer will display the national hull color, rather than being displayed unfilled. If the box is unchecked layer 1 will use its assigned color for the fill color. That means that layer 1 will never be transparent.

LAYER FILL COLOR

The next small square object is a color swatch showing the color that will be used if the layer is filled.

SELECT LAYER COLOR BUTTON

The far-right layer button, an ellipse, will open a dialog allowing you to set the fill color for the layer.

THE ASYMMETRIC CHECKBOX

This checkbox is used to allow you to draw on both sides of the center line. Normally, the drawing tool operates in mirrored mode in which you draw on the left side and every line you draw is duplicated on the right side when you deselect the layer. This makes it far easier to draw most superstructure elements because most naval ship superstructures are quite symmetrical, however it presents a problem when attempting to draw aircraft carriers, which tend to be quite asymmetrical. Checking this box will allow you to draw on freely both the right and left side of the centerline and create layers that are not symmetrical.

MAXIMUM POINTS BOX

Next to the layer controls is a box that displays the current number of points that have been used in the activated layer. This is important to keep an eye on because the default maximum number of editable points allowed per layer is 12. If you have checked the Asymmetric box, you are allowed to use 24 points (but none of these points will be mirrored).

POINT EDITING CONTROLS

Next to this box is a set of controls that allow you to scroll through the points of a layer and edit the currently selected point. These controls are activated by selecting a layer and then using the arrow buttons to select a point. The currently selected point is displayed next to the slider controls. Once a point is selected you can freely change its position by clicking in the drawing window.

These controls can be activated on an already finalized layer simply by activating the layer and then using the arrow keys to select a point. The controls can also be used while actively drawing the layer, allowing you to go back and correct an error and then continue drawing the remainder of the layer.

RESIZE LAYER / ENTIRE SUPERSTRUCTURE

These controls allow you to incrementally increase or decrease the size of the currently selected layer, by using the left set of arrow buttons, or all the superstructure layers together by using the right set of controls. Note that only the superstructure layers are affected. Other components such as the ship's hull, weapons and visual equipment are not affected by these controls.

MOVE LAYER / ENTIRE SUPERSTRUCTURE

These controls allow you to move the currently selected superstructure layer, by using the left side arrow controls, or move all of the layers together by using the right side controls. Layers may be moved vertically but not horizontally.

LOAD / SAVE BUTTONS

These buttons allow you to save and reload the currently selected layer. Alternately, if no layer is selected, clicking on the save button will save all six layers. The save file dialog will open to the "RTW3/Save/Custom graphics" directory, where you can assign the layer a name and save it. A single layer file will be saved as an *.slf file. If you save the entire superstructure, it will be saved as an *.ssf file.

To reload a saved .slf file, first select the layer into which you want to load the file. It does not need to be the same layer that it was in when it was saved. When you click OK, any drawing in that layer will be replaced with the saved layer. Reloading an .ssf file will replace all of the superstructure layers in your design.

CLEAR SUPERSTRUCTURE BUTTON

This button will delete all of the superstructure layers in the design and will also remove all smokestacks. It does not remove visual equipment or weapons.

"RGP" OR RESIZE GUN POSITIONS

This control allows you to adjust the positions of all of the weapons and the visual equipment as a unit. It essentially pushes all of these components away from the center of the ship or alternately pulls them closer to the center of the ship. Note that it affects both weapons and visual equipment but does not affect the hull or superstructure layers.

WORKING WITH SUPERSTRUCTURE LAYERS

HOW TO OPEN A LAYER FOR EDITING

To open a layer for editing click on the corresponding numbered layer button.

HOW TO CLOSE A LAYER

Click on the depressed button of an active layer to finalize and deactivate the layer, locking in any changes to the shape of the layer that you have made. You can also deactivate a layer by right clicking anywhere in the drawing field. You can reactivate the layer for editing at any time by clicking on the layer's numbered button.

THE LAYER FINALIZATION PROCESS

When a layer is closed it goes through a finalization process in which it completes the drawing. If you have used the default symmetric process, the game will mirror all of the points you placed on the left

side, duplicating them on the right side. During this process the game will automatically connect the first point placed with its mirror on the right side, using a single straight horizontal line. The same thing will happen with the last point that you placed. The game does this to create a complete connected polygon that can be filled with a color. You might want to practice with a few simple shapes to see how this works before committing to a complex shape.

Further note that this process differs slightly if you have told the game to display the layer as a line rather than as a filled polygon. In this case the game will not connect the first point placed on the left with its mirror point on the right. A layer drawn as a line will still have the last point drawn connected to

Designer's note: If you want a complete connected transparent polygon drawn as a line you will have to place point 1 on the X:0 centerline.

its mirror point on the right.

HOW TO DELETE A LAYER

You can delete a drawing in a layer by first selecting the layer for editing and then by moving your cursor over the drawing field. The first time you do this the game will ask if you would like to delete the layer. If you answer yes, the layer will be completely removed. If you answer no, the layer will be activated for editing and you will be able to pass your cursor over the drawing field without being prompted until you deactivate the layer.

HOW TO DRAW A SUPERSTRUCTURE LAYER

THE DRAWING FIELD

The drawing field is where you will actually draw by placing point and creating lines. The drawing field is 574 pixels high and 214 pixels wide. Generally, when drawing in the field it is possible to move your cursor outside of the drawing field and use other parts of the game interface (such as changing the layer from filled to line) and then return to the drawing field to complete your drawing.

ZOOM LEVELS

The zoom level of the drawing field can be quickly changed in large increments by scrolling with your middle mouse button While your cursor is within the drawing field. For more precise changes in zoom level, you can use the + or - buttons above the drawing field to increase or decrease by one zoom level at a time.

THE COORDINATE DISPLAYS

The field at the bottom right of the drawing field displays the current location of the cursor within the drawing field. The width of the drawing field is 214 pixels, its height is 574 pixels. X:0 Y:0 is at the center of the drawing field. The extreme left edge is X:-107, while the right edge is at X:107. The top edge of the drawing field is at Y:287 and the bottom is at Y:-287.

The field at the bottom left converts the location of the cursor into feet measured from the drawing field's center point. The feet values provided will be adjusted based on the zoom level set for the panel.

DRAWING A LAYER

After activating a layer, you can draw in the drawing field by left clicking on the left side of the drawing field. Each time you left click anywhere in the drawing field a point will be placed and a line will be drawn connecting the last point to the point you just placed. Left clicking again will place the next point. A right click anywhere inside the drawing field will deselect and finalize the layer (you can also do this by deselecting the layer number button). You can continue clicking and placing points and lines until you have placed a total of 12 points. Keep an eye on the maximum points box for a running total of points placed. You will be warned, after you have placed the 12th point, that you have no more points to place.

DRAWING THE DEFAULT WAY - USING SYMMETRY

If you are drawing using the default symmetric method, you will be able to place up to 12 points. When the drawing is finalized, the game will then mirror these 12 points to create a symmetrical drawing. You do not need to use all 12 points; you can finalize the drawing even with a single point placed. You will be restricted to drawing on the left side of the drawing field, however you can place a point at X:0. This is the easiest way to draw ship superstructure layers.

DRAWING USING ASYMMETRY

If you check the “Asymmetric superstructure” box, the game will allow you to use 24 points when drawing a layer and allows you to freely place points on the right side of the drawing field, however the game will not mirror those additional points. This makes it quite difficult to draw the symmetrical superstructure decks found on most warships but does allow you to draw the very asymmetric decks and

Designer’s note: You can turn asymmetric drawing on and off while you are drawing, allowing you to draw freely on the right side of the drawing field even if you are planning to mirror the drawing. If the asymmetry box is unchecked before finalizing the layer, mirroring will occur. In this case, the game will mirror all points from 1 to 12, while any points that you have placed above twelve will be deleted and replaced with mirrored points.

structures typical in aircraft carriers.

KEYBOARD SHORTCUTS WHEN DRAWING

The “D” key

If you press the “D” key while drawing a layer the last point that has been placed will be deleted. This will occur even if your cursor is not currently over the drawing field.

The “S” key

If you hold down the “S” key while placing a point the point will be placed either at a 45-degree angle from the previous point, or directly horizontal or directly vertical from the previous point, depending on where you have placed your cursor when you click.

Holding down the “S” key while clicking will also allow you to place a point on the right side of the drawing field even if you don’t have asymmetry checked. This point placement on the right side will always conform to the 45- or 90-degree restriction. This is the only way to draw a point on the right side of the drawing field if the asymmetry box is unchecked.

The Ctrl key

Holding down the Ctrl key when the cursor is over the drawing field will cause vertical and horizontal locating lines to be drawn relative to the cursor, making it easier to align points.

HOW LAYERING WORKS IN RTW3

RTW3 uses a layering system when drawing ships. Each visual component will visually obscure some other components and will itself be hidden by other components. The following list shows where each visual element lays in the layered system. Each class of components in the list will obscure any components below it in the list.

Tertiary gun mounts (guns lower in the gun list are drawn on top)
Secondary gun mounts (guns lower in the gun list are drawn on top)
Main gun mounts (guns lower in the gun list are drawn on top)
Smokestacks
Missile mounts
Visual equipment (items lower in the visuals list are drawn on top)
Torpedo tubes
Catapults
Superstructure Layer 6
Superstructure Layer 5
Superstructure Layer 4
Superstructure Layer 3
Superstructure Layer 2
Superstructure Layer 1
Casemate guns
Hull

FUNNELS

Funnels representing smoke stacks are black ovals that draw on top of almost all other ship components. The game adjusts the size of the funnels based on the class and displacement of the ship. If the Oval checkbox is checked the funnel will be drawn with an oval shape, if unchecked the funnel will be circular. Clicking the X for any placed funnel will delete the funnel. By default, funnels will be placed on the centerline, however if the “Asymmetric funnels” box is checked you will be allowed to place funnels anywhere on the ship. There are also a number of funnels and smokestacks provided as visual equipment if you would like a different look for your ship’s funnels.

VISUAL EQUIPMENT

RTW3 provides a number of visual equipment pieces that can be added to a design to improve its appearance. Some examples include simple geometric shapes like circles and rectangles that are typically used to enhance the appearance of superstructure layers. Visual equipment can also appear to be discreet objects such as anchor chains, captain’s walks, parabolic antennas or floatplanes. Visuals can also be quite large, such as a visual representing the stripes delineating a carrier’s landing area.

Visual equipment has no impact on any function in the game other than to improve the appearance of the ships.

THE VISUAL EQUIPMENT INTERFACE



THE VISUALS LIST

This field lists every visual equipment piece that has been placed on the design. It is the primary way to interface with the visuals that have already been placed, by using either a left or right click on any item in the list.

VISUALS LIMIT

You may place no more than 25 pieces of visual equipment on any one design. You will normally get a warning when you attempt to exceed this limit.

VISUAL EQUIPMENT LAYERING

Visual equipment in the visuals list is layered depending on their position in the list. Lower objects in the list are considered to be in a higher layer than objects that are above it in the list. If two visuals overlap, the object that is lower in the list will obscure the other visual. See the section titled [“How layering works in RTW3”](#) for a better understanding of how visual equipment interacts with other elements in a design.

ADDING A VISUAL

You can add a visual by clicking on the “Add visual” button. This will open the Graphics directory (RTW3/data/Graphics) that will let you pick a visual to add.

The easiest way to select a visual pieces to consult the catalog of visual equipment. This will provide an image of the object,allow you to gauge its size, and provides the exact file name to select. After the object is selected it will be placed at X:0 Y:0, in the center of the ship and will be ready to be positioned.

COPYING A VISUAL

You can create a duplicate of any visual that is currently in the visuals list. To do this, right-click on the visual in the list that you want to copy and select “Copy” from the list. The new object will be a duplicate of the copied object including its current rotation, but will be placed at X:0 Y:0 upon creation. The new object will be placed at the bottom of the visuals list, at the highest visual’s layer.

MIRRORING A VISUAL

You can create a mirrored duplicate of any visual that is currently in the visuals list. To do this, right-click on the visual in the list that you want to copy and select “Mirror” from the list. The new object will be a duplicate of the copied object but will have a reverse rotation and will be automatically placed at the

same position as the mirrored visual but on the opposite side of the design. The new object will appear at the bottom of the visuals list.

POSITIONING A VISUAL

When you first select a visual for placement it will be placed by the game at position X:0 Y:0 and marked with a small red circle. It will also be selected for positioning. A left-click anywhere inside the drawing field will center the selected visual at that position. You can continue to left-click to reposition the visual until you are satisfied. A right-click inside the drawing field will lock the visual to its last position.

You can select an already placed visual piece for repositioning in two ways. You can double-left-click on a visual piece in the list to select the piece. This will activate the piece to be repositioned and mark it with a small red circle. You can also right-click on a visual in the list to bring up its context-menu and then select “Set position”. This will select the visual and activate it for repositioning. A right-click inside the drawing field will lock the visual to its last position.

SETTING THE REST ANGLE OF A VISUAL

To set the rest angle of a visual right-click on a visual in the list and select “Set rest angle”. This will open a small control that allows you to set the angle. The visual will be rotated to the selected angle and will remain at that angle in all visual presentations of the design. The exception is that main and secondary guns will be rotated by the game during tactical battles. You can also use the “Set angle to 180 degrees” to quickly set a visual to facing the opposite of its default orientation.

HOW TO REMOVE A VISUAL

To remove a visual piece, highlight the visual’s name in the visuals list. The visual does not have to have a red circle showing. With the visual highlighted, click the “Remove visual” button. You can also delete a visual by right-clicking on the visual’s name in the visual’s list and selecting “Remove” from the context menu.

ADVANCED GRAPHICS

You are allowed to create new versions of gun turrets, aircraft, visual equipment and ship design templates. This process for doing this is covered elsewhere.

ALLOWED TURRET POSITIONS

This feature is a function of the template design process. It is not used when playing the game.

TURRET NATION STYLE

This control allows you to set the style of turret that will be used on your ship. Not every nation has its own unique set of turrets. If a nation does not have a unique turret for a particular type of gun it will use one of the default turret styles.

PICTURE NAME

This field allows you to assign a side view image of your ship. The process used to create these pictures is described elsewhere.