

Paint.NET for New Users

Downloading Paint.Net

1. Go to www.getpaint.net
2. On far right, click on [paint.net 4.0.21](#)
3. Click on [Download Now dotpdn box](#)
4. Click on [Free Download Now paint.net.4.0.21](#)
5. Look on bottom left corner; should be installing zipped file. When finished downloading, click on arrow and then click [Show in Folder](#)
6. Look for [paint.net 4.0.21.install](#) (with zipper). Right click and then click on [Extract All](#)
7. Extract Compressed (Zipped) Folders – (Leave all defaults) - click on [Extract](#)
8. Double click on [paint.net 4.0.21.install](#). You may now have a “shield” icon on your task bar.
9. Do you want to allow this app to make changes to your device? Click [yes](#)
10. Click on [Next](#)
11. License agreement – click on [I agree](#), then click [Next](#)
12. Click [Finish](#)

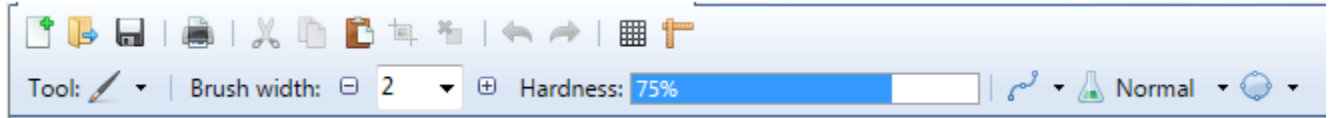


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Tool Bar

The Tool Bar contains buttons for accessing many common actions, view options, and controls for configuring how many of the tools interact with the image.



Tool Bar

Common Actions



These buttons allow quick access to many common actions.

From left to right, they are New Image, Open (existing image), Save, Print, Cut, Copy, Paste, Crop, Deselect, Undo, and Redo. These actions can also be found in the File and Edit menus.

View Controls

The next two buttons toggle the visibility of the Pixel Grid and the Rulers, respectively.

Pixel Grid

The Pixel Grid overlays the current image with a grid where each cell is exactly one pixel in size. The Pixel Grid is particularly useful when zoomed-in on an image and precise per-pixel editing is required.

The same icon can be used to toggle the grid off again. There is a corresponding menu command to enable or disable the grid in the View menu.



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Note

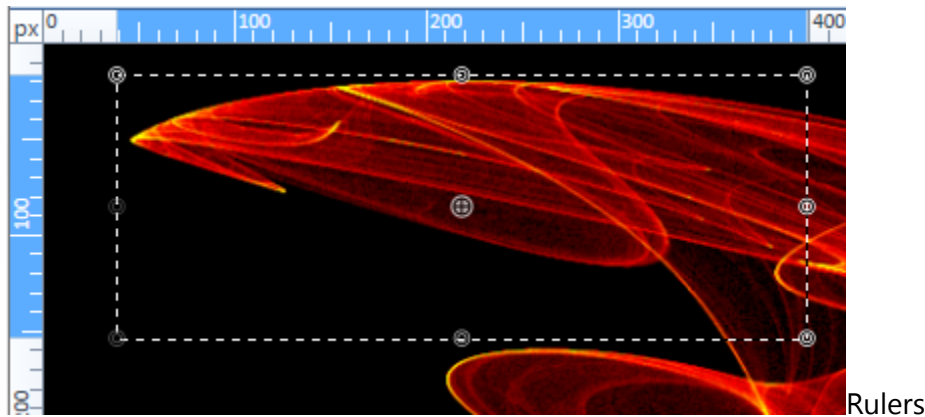
The Pixel Grid is not visible below 200% magnification.

Rulers

This icon shows or hides rulers along the top and left edges of the image canvas.

The Rulers can help when aligning image elements, making measurements or adjusting an image to a specific size. The rulers are always set to the current Units of Measurement. These units are able to be changed via the View menu or the Status Bar.

When a selection is active, its bounding rectangle will be highlighted in the rulers, making it easier to measure. The cursor position is also shown in the rulers making it easier to accurately apply other tools.

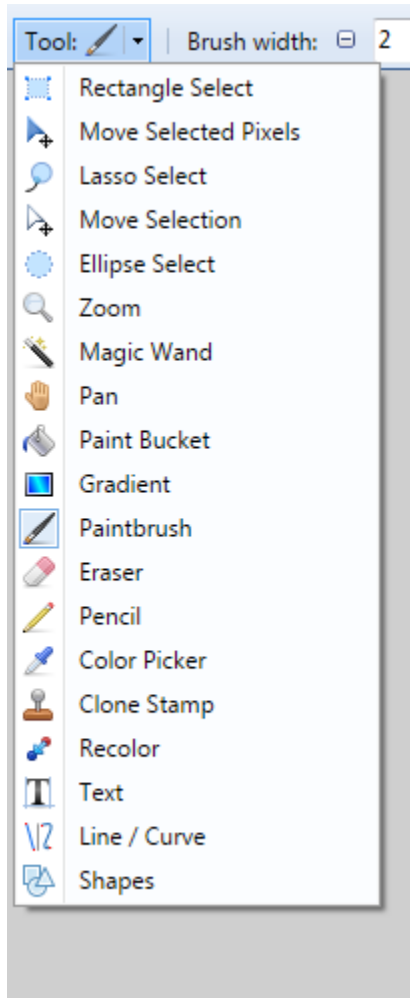


There is a corresponding menu command in the View menu.

Tool Choice

The second row of the Tool Bar starts with a drop-down list where tools can be selected. Clicking on the menu opens a vertical list of possible tools. This control is provided to augment the Tools Window in the case that the window is closed or obscured.

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Tool drop-down List

Tool Configuration

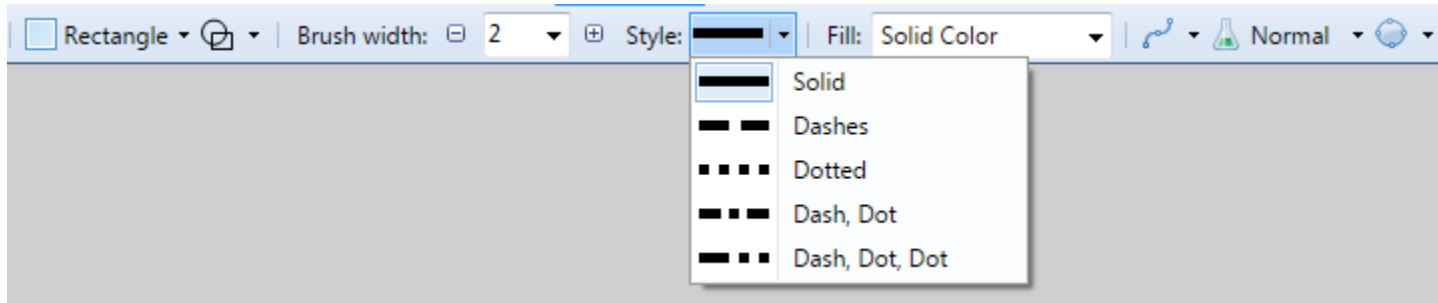
After the Tool button, the rest of the second row contains controls that configure the current tool.

Note

Some tool options in the Tool Bar can be altered by hovering the mouse over the control and using the Mouse Wheel (not the Tolerance). Generally these controls will have a white background. The Brush Width has additional icons to increment and decrement the value and keyboard shortcuts are also assigned; [and].

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Shapes, Brush, Style, and Fill

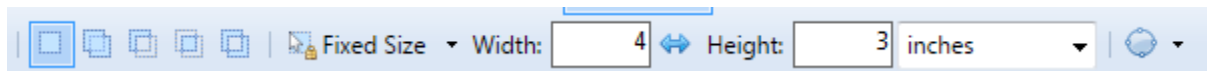


Shapes, Brush, Style and Fill

The first two options shown are specific to the new Shapes Tool. These are covered in the [Shapes Tool](#) section.

Several tools use Brush Width, Style and Fill options. Here the width of the brush and line style can be selected. If a fill is also selected, both the Primary and Secondary colors will be used to render the pattern.

Selection Tools



Selection Tools

The "Selection Mode" section of the Tool Bar allows quick access to the different ways that selections can be combined. These controls are common to all the Selection tools.

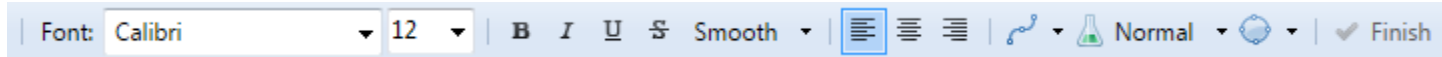
When a selection is created with one of the Selection tools any existing selection will be replaced if the Replace mode is used. If Add mode is used, new selections will be added to the original region. Subtract removes new selections from the original region. The Intersect mode keeps those areas common to multiple selections while the Invert mode excludes common areas from multiple selections.

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The next option in this section of the is Tool Bar sets the style of the selection shape. The options are Normal (freehand), Fixed Size and Fixed Ratio selection drawing for the Rectangle Select tool.

The latter two styles are useful when cropping to a specific size (e.g. 4" x 3") area or to a fixed ratio (e.g. 16x10).

Text



Text Options

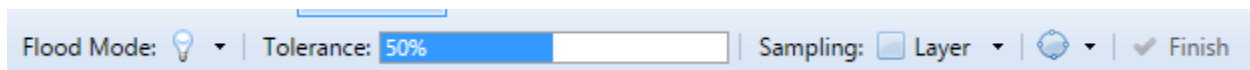
This section of the Tool Bar is used only by the Text Tool. Options found here configure the font family, size, style, and alignment of text.

Gradient



The Gradient Tool has seven different gradient types. It also has options to operate in either color mode (gradients will be rendered as a blend from the Primary to the Secondary colors), or a special transparency mode (gradients will be rendered in the Alpha channel). This mode allows images to be blended or faded together.

Magic Wand, Paint Bucket, and Recolor



Magic Wand, Paint Bucket, and Recolor Options

The Flood Mode affects only the Magic Wand Tool and Paint Bucket Tools. See the sections on these tools for a description of how the Flood Mode works.

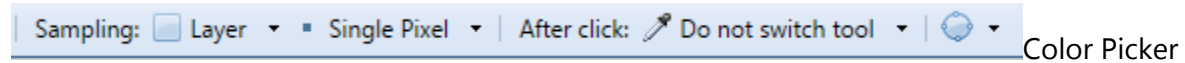


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The Tolerance setting affects how many other pixels the Magic Wand Tool, Paint Bucket and the Recolor Tools affect in their operation. See the sections on these tools for a description of how the Tolerance works.

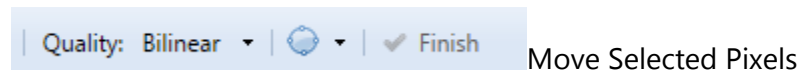
Color Picker



The Color Picker can be configured to examine either the layer or image (Sampling Mode). In addition, the Sampling size can also be set to one of six preset sizes via the Tool Bar.

There is a setting to automatically switch to another tool following use of the Color Picker. There are three options: Do Not Switch tool (default - the Color Picker tool will remain active), Switch to Previous tool and Switch to Pencil Tool. The selected behavior occurs following a click on the canvas with the Color Picker.

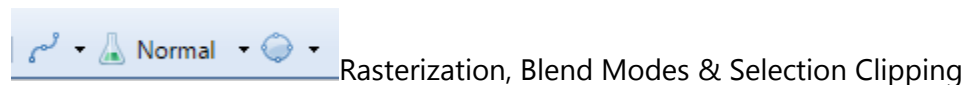
Move Selected Pixels



The Move Selected Pixels tool can be configured to use either Bilinear (smooth) or Nearest Neighbor (pixelated) (nearest neighbor) resampling. The Bilinear/Smooth quality is usually preferable unless there is a specific need for pixelated quality.

Rasterization, Blend Modes & Selection Clipping

Many tools are affected by these options.



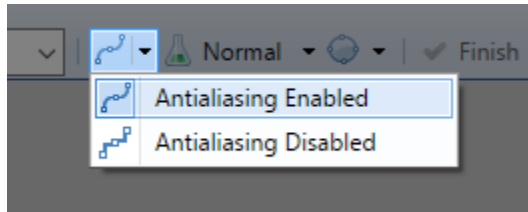
To use these split-buttons, either click on the icon to toggle its state or click on the down arrow to open a submenu where the options can be selected.



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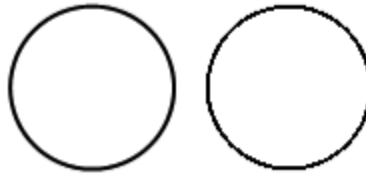
Rasterization



Enable or disable tool antialiasing.

Rasterization affects how drawing is performed on a per-pixel basis with regard to the edge of the tool. In other words, it determines if the drawing will have antialiasing enabled or disabled. If enabled, the edges of the tool path will be smoothed. If disabled, the edges of the path of the tool will be snapped to the nearest pixel. A jagged or stepped appearance will result.

Example - Antialiasing

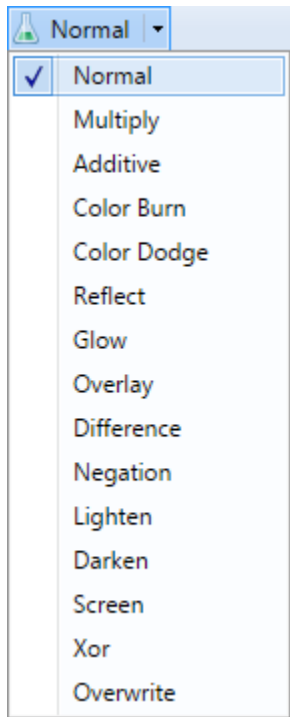


The circle on the left was drawn with antialiasing enabled. The one on the right was drawn with antialiasing disabled. The right circle is noticeably more "jagged" in its appearance:

Tool Blend Modes

The next control (also a split-button) controls the type of blending the tool will use.

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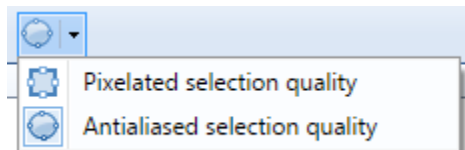


Tool Bar Blend Modes

When in use, a Blend Mode will mimic the tool being applied to a layer immediately above the active layer and the result immediately merged into the active layer.

For more information on the Blend Modes, see the [Blend Modes](#) section.

Selection Clipping Mode

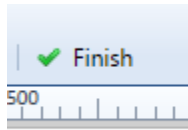


Selection Clipping

New to paint.net is the Selection Clipping Mode split button. This determines if the active selection should be aliased (pixelated) or antialiased (smoothed). If Pixelated selection quality is chosen the selection boundary will be snapped to the nearest pixel, resulting in a jagged or stepped appearance. If Antialiased selection quality is chosen the selection boundary will be antialiased so the boundary is smoother.

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Finish button



Finish Button

Many tools and editing options remain "active" until the Finish control is clicked. The Finish button commits the shape, text, tool or operation to the canvas and relinquishes the editing mode that enables many tools and operations to be adjusted "live".

Tip

The keyboard shortcut for the Finish button is the `Enter` key.

Tools Window contents

The Tools Window contains an icon for each of the tools. To activate a tool, click on the icon. The icon will show a border and highlighting indicating that it is the active tool. The Paintbrush is highlighted in the image below.

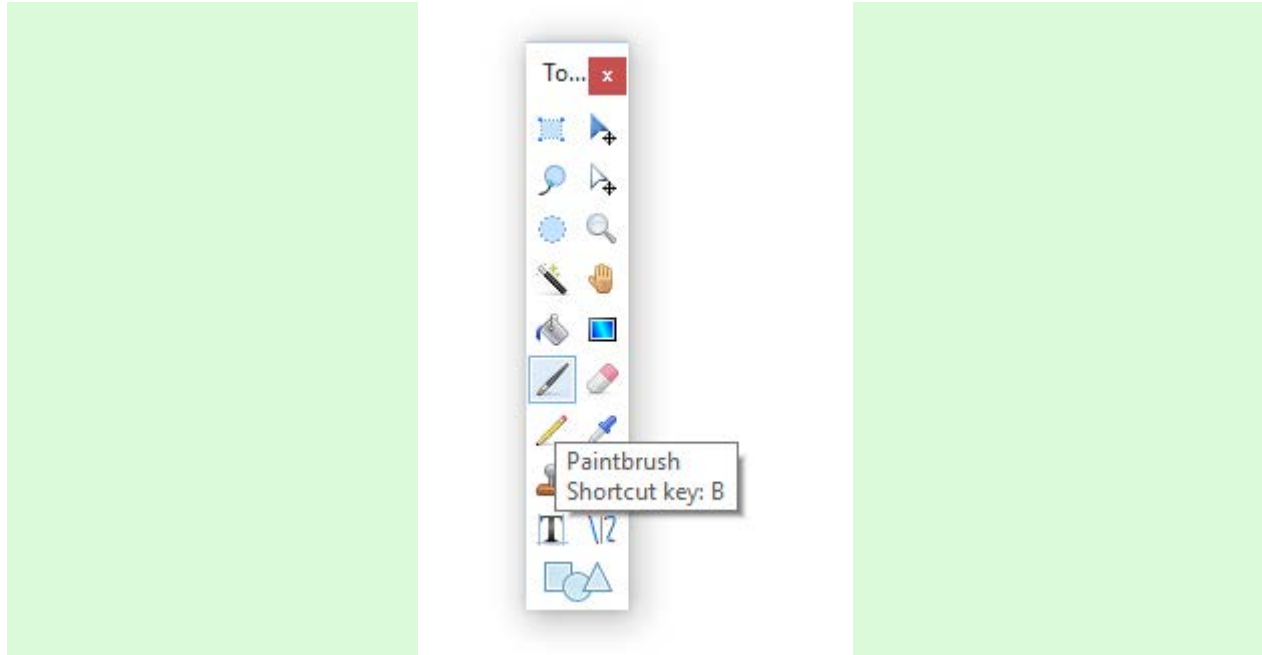
Tip

Hovering the mouse pointer over a tool icon shows a tool tip with the keyboard shortcut.



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Selection Tools

Rectangle Select

Use this tool to define a rectangular or square selection region. This tool is covered in detail in the [Rectangle Selection Tool](#) section.

Lasso Select

This tool is used to create a freeform selection region. For information on how this tool works, see the [Lasso Selection Tool](#) section.

Ellipse Select

This tool makes elliptical or circular selections. To find out how to use this tool, see the [Ellipse Selection Tool](#) section.

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Magic Wand

The Magic Wand Tool is used to select areas of the active layer that are similar in color. This tool is covered in detail in the [Magic Wand Tool](#) section.

[Move Tools](#)

Move Selected Pixels

This is used to move pixels that are in the layer or current selection.

Move Selection

You may use this to move or modify the selection outline without affecting any pixels in the image.

Both these Move Tools are covered in detail in the [Move Tools](#) section.

[View Tools](#)

Zoom

This tool is used to zoom in, zoom out, or expand the canvas around a particular region.

Pan

This tool scrolls, or pans the image. This functionality is also usable from any other tool at any time: hold down the spacebar and then click and drag with the mouse.

Both these View Tools are covered in detail in the [View Tools](#) section.

[Fill Tools](#)

Paint Bucket



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This tool fills areas of similar color with a different color. For more information on this tool, visit the [Paint Bucket Tool](#) section.

Gradient

The Gradient Tool allows the drawing of gradients (a gradual blend of one color to another). Several formats and shapes are supported. The Gradient Tool also has a transparency mode, which is useful to "fade" or "blend" two images together. The Gradient Tool is covered in detail in the [Gradient Tool](#) section.

[Drawing Tools](#)

Paintbrush

This tool is selected by default when paint.net starts. It is used to create stripes of color just like a paint filled brush would do, hence the name. This tool is covered in detail in the [Paintbrush Tool](#) section.

Eraser

As the name suggests, this tool erases or removes areas of the image by setting the opacity, or alpha, of the pixels to 0. This tool is discussed in detail in the [Eraser Tool](#) section.

Pencil

This tool allows editing of the active layer on a pixel-by-pixel basis. See the [Pencil Tool](#) section for more information on this tool.



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[Photo Tools](#)

Color Picker

Use this tool to "pick up" a color from the active layer and set it as the current Primary or Secondary colors. See the [Color Picker Tool](#) section for more information on how this tool works.

Clone Stamp

This tool is used to copy regions of pixels between different layers, or within the same layer. For a detailed discussion on how to use this tool, visit the [Clone Stamp Tool](#) section.

Recolor Tool

The Recolor Tool replaces one color with another. More information can be found in the [Recolor Tool](#) section.

[Text and Shape Tools](#)

Text Tool

This tool places text on the active layer. Find out how to use the Text Tool in the [Text Tool](#) section.

Line/Curve Tool

Draw straight or curved lines on the active layer with this tool. More can be found on this tool in the [Line/Curve Tool](#) section.

Shapes Tool

This is used to draw a number of predefined shapes. This tool is covered in detail in the [Geometric Shape Tools](#) section.

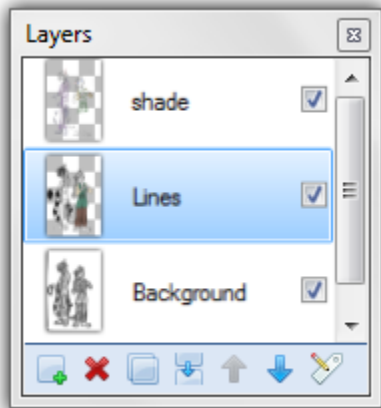


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Layers Window

The Layers Window provides shortcuts to the layers which make up an image.



Layers Window

Think of layers in a multi-layered image as representing a stack of transparent sheets placed one on top of the other. Image elements on lower layers will be obscured by elements contained in layers higher in the stack if the element is in the corresponding area. For an in-depth discussion on this concept, please visit the [Working with Layers](#) section.

A new image is always created with a single layer named "Background". All images *must* have at least one layer.

Show/Hide the Layers Window

The Layers Window can be hidden by pressing the $F7$ key or clicking the Layers icon.



Layers Window icon

Clicking the Layers icon or pressing $F7$ key again toggles the visibility of the window back on.

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Resetting the Layers Window

The window can be reset to its original position (including docking) by pressing `Ctrl + Shift + F7` or by holding down `Ctrl + Shift` and clicking the Layers icon.

Relocating the Layers Window

The Layers Window can be relocated by clicking and dragging it by the title bar.

The Active Layer

There is always one active layer. It can be identified by the highlighting in the Layers Window (the layer named "Lines" in the image above is the active layer). Drawing operations are only applied to the active layer. No other layer will be affected.

Note

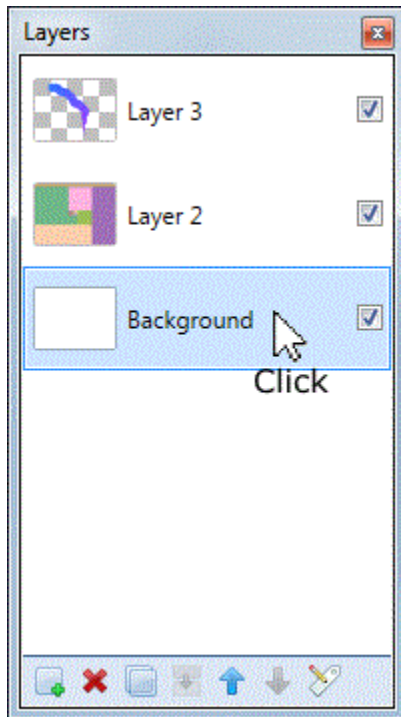
It is vitally important to understand that drawing operations **only** affect the **active layer**. The active layer is highlighted in the Layers Window.

It is easy to shift the active layer status from one layer to another. Simply click on any layer's name in the Layers Window to apply the active layer status to that layer. The active layer will be shown highlighted in the Layers Window (blue highlighting in the image below).



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Changing the active layer

Only one layer may have the active layer status at any time.

Note

Assign any layer the active status by clicking on the layer in the Layers Window.

Layers can have their own blending mode and opacity settings. These are applied to every pixel in the layer.

Other layer options include whether a layer is currently visible or invisible (hidden).

Layer Window Icons

 **Add New Layer**



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This adds a new, completely transparent layer to the image immediately above the active layer. The new layer will be given a generic name "Layer X" by default. X denotes the layer number - hence it is always a unique identifier.

It is possible (and highly recommended) to change the default name to accurately reflect the contents of the layer (see Layer Properties below).

Delete Layer

This deletes the active layer from the image. As all images must have at least one layer, the last remaining layer cannot be deleted.

Duplicate Layer

This duplicates the active layer, including its contents and attributes. The new layer will be named uniquely following the pattern described above (Add New Layer).

Merge Layer Down

Takes the active layer and combines or merges it into the layer immediately below it in the Layers Window list.

Move Layer Up

Moves the active layer one place higher in the layer order with each click.

Move Layer Down

Moves the active layer one position lower in the layer order with each click.

Tip



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New to paint.net is the ability to change the order of the layers using drag-and-drop. Click and "drag" any layer in the Layers Window to relocate the layer in the list. Releasing the mouse button "drops" the layer in new location.

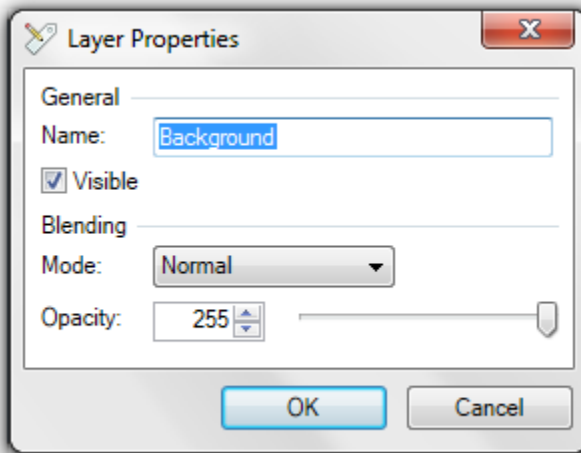
Tip

Quickly move a layer to the top or bottom of the layer stack using the `Ctrl` key. Hold `Ctrl` and Click and on the Move Layer Up (or Move Layer Down) icon to send the active layer to the top (or bottom) of the list.

Layer Properties

This icon opens the Properties Dialog for the active layer.

In this dialog the layer name, visibility, blend mode and opacity can all be set. The same dialog can be opened by pressing the `F4` key.



Layer Properties Window

Tip

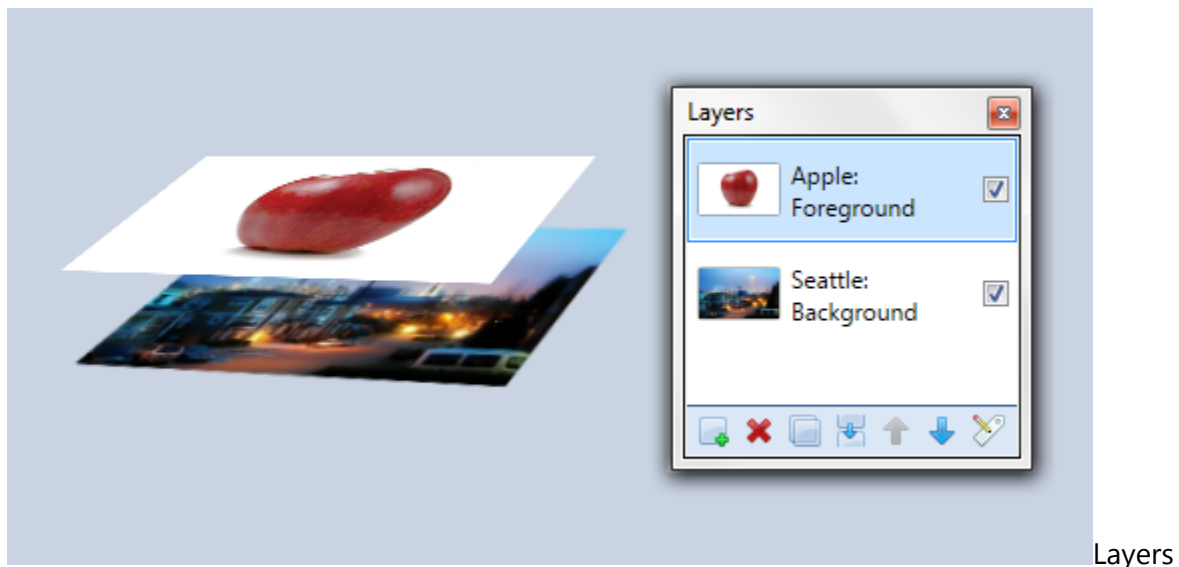
Open the Properties Dialog for the active layer by pressing the `F4` key or double-clicking on the layer name in the Layers Window.

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Working with Layers

paint.net uses "layers" to form a composite image. Imagine layers as a stack of transparent slides. Each slide can contain a separate element which forms part of the overall image.

paint.net displays the stack of layers as if it was viewed from above. Thus, the order of the layers as shown in the Layers Window is important. Opaque pixels on a layer higher up the stack will obscure pixels contained in layers lower in the stack.



Visualized

The Active Layer

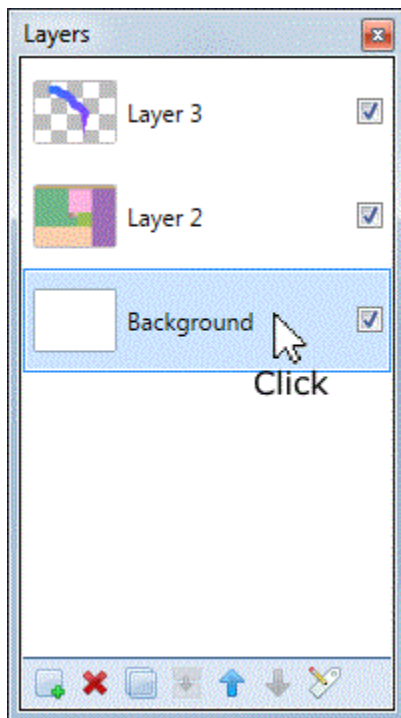
There is always one active layer. It can be identified by the highlighting in the Layers Window (the layer named "Apple: Foreground" in the image above is the active layer). Drawing operations are only applied to the active layer. No other layer will be affected.

Note

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It is important to understand that drawing operations **only** affect the **active layer**. The active layer is always highlighted in the Layers Window.

It is easy to shift the active layer status from one layer to another. Simply click on any layer's name in the Layers Window to apply the active layer status to that layer. The active layer will be shown highlighted in the Layers Window (blue highlighting in the image below).



Changing the active layer

Only one layer may have the active layer status at any time.

Note

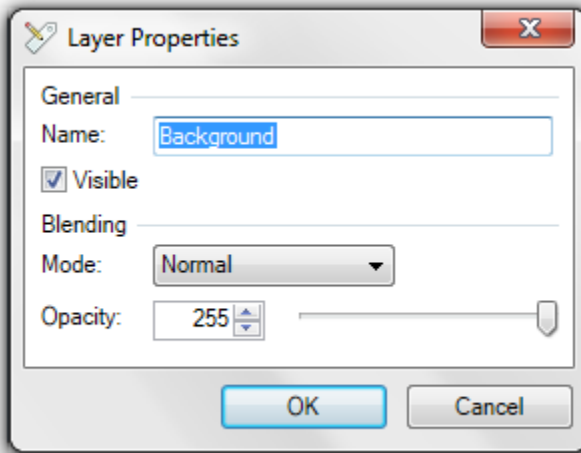
Assign any layer the active status by clicking on the layer in the Layers Window.

The Active Layer + Opacity

Layers can have their own opacity setting. Opacity is applied to every pixel in the layer, so it acts like layer-wide transparency setting.

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To adjust a layer's Opacity setting, highlight the layer in the Layers Window (see above - the Active Layer) and press the F4 key. The layer Properties dialog will open.



Layer Properties Window

Opacity or Alpha values range from 0 (completely transparent) to 255 (completely opaque). To change the value, click and drag the slider control or type a new value into the numerical value box.

A demonstration of layer opacity can be seen below (Layers and Opacity).

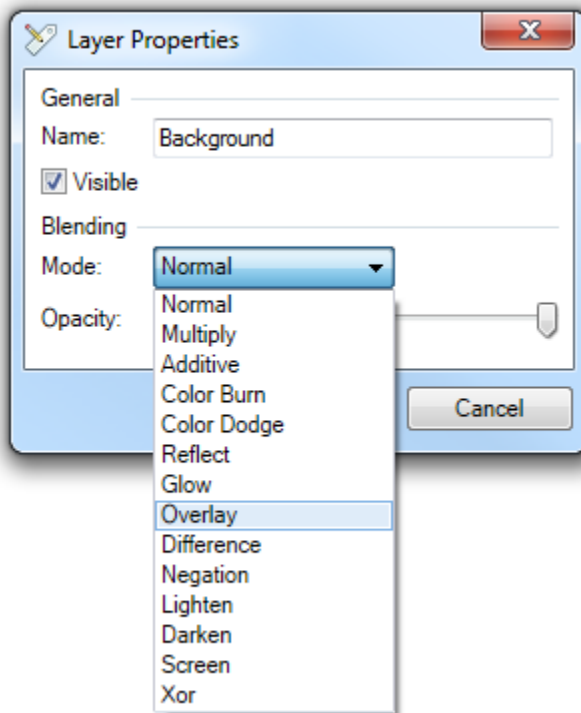
The Active Layer + Blend Modes

Layers can have their own blend mode. The blend mode dictates how the layer is merged with lower layers when the image is composed.

Like Opacity, Blend Modes are applied to every pixel in the layer.

To change a layer's Blend Mode, highlight the layer in the Layers Window (see above - the Active Layer) and press F4. The layer Properties dialog will open.

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Layer Blend Modes

A new Blend Mode can be selected from the drop-down list. Click on a new Blend Mode to apply it to the layer.

The Active Layer + Visibility

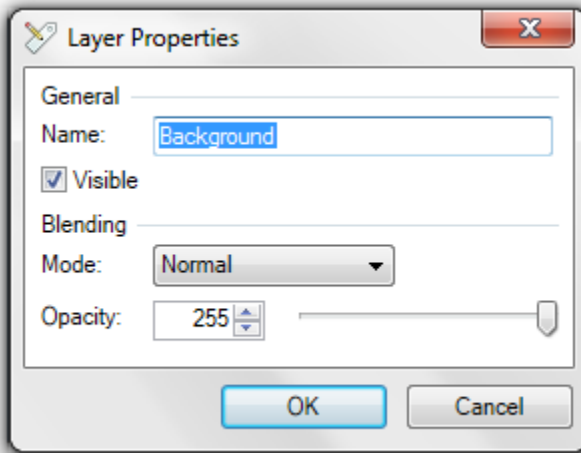
Layers can have their visibility toggled on and off. There is a checkbox beside each layer in the Layers Window which controls the layer visibility.

If the checkbox is ticked , the layer is visible and will be included in the composite image when it is assembled. If checkbox is unticked , the layer will not be visible and will be excluded from the composite image.

A layer which is not visible still forms a part of the image when it is saved in the *.PDN format.

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To change a layer's visibility, click the checkbox beside the layer in the Layers Window. This checkbox is also available in the Layer Properties dialog (press **F4** to show the active layer's properties).



Layer Properties Window

Tip

Access the active layer's properties (name, visibility, blend mode and opacity) via the properties dialog. Open the dialog by pressing **F4**, double-clicking the layer in the Layers Window, clicking the right most icon at the foot of the Layers Window, or accessing it via the Layers menu.

Layer Order

The order which layers appear in the Layers Window is important. Layers higher in the list or stack will obscure layers lower in the stack (unless the higher layer has some transparent regions when the lower layer(s) will show through).

Layers can be moved by highlighting them in the Layers Window and using the up or down icons at the foot of the Layers Window. Alternatively, click and drag the layer to a new position in the Layers Window.

Tip



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New to paint.net is the ability to reorder layers in the Layers Window using drag-and-drop. Click, hold and drag the layer to a new position in the Layers Window to relocate it.

Pixels and Transparency

Each layer in a paint.net image is composed of pixels. Pixels contain both a color and an alpha, or *opacity*, value. paint.net uses a technique called alpha compositing to display a layered image on a standard computer monitor.

In paint.net, Alpha values range from 0 (completely transparent) to 255 (completely opaque). Other software may refer to this range using 0% through to 100% but the idea is the same.

If a pixel is transparent or partially transparent, then pixels from layers lower in the stack will show through to some degree.

As transparent pixels cannot be displayed on a computer monitor, paint.net uses a gray and white checkerboard pattern to give a visual clue to transparency.



Transparency Pattern

When this pattern is seen, it indicates that this part of the image is transparent.

Tip

The checkerboard pattern denoting transparency is not a part of an image and will not be seen outside of the paint.net editing environment.

For the following discussion, these two images will be used.



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Background Layer - Seattle



Top Layer - Apple
Example - Layering

Here the white background has been removed from the apple image.



The checkerboard pattern shows the transparent areas surrounding the apple.
If the apple is placed above the Seattle photo in the layer stack, parts of the second image show through.

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Layers and Opacity

In addition to the transparency information (Alpha value) associated with each pixel, each layer also has an associated opacity value. Consider a layer's opacity setting as an additional Alpha amount applied to all the pixels in the layer.

Example - Layers and Opacity

If the top layer in the previous example has its opacity progressively diminished from 255 down to 0, we get the following set images:



Top layer at opacity:255 (aka 100% or completely opaque): The apple picture obscures the cityscape.

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Top layer at opacity:128 (about 50%, partially transparent): The picture of Seattle is partially visible, even through the apple itself.



Top layer at opacity:0 (0% or completely transparent): The picture of the apple is not visible at all. Consequentially the cityscape shows through as if the apple layer was not present.

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