

Speed & Memory

Speed / Lag.

Unlike most painting and drawing applications, ArtRage tracks more than just the color on your canvas. When you apply paint, the application tracks how much paint there is, how wet it is, and other properties that give it its textured, realistic look. While this gives a great, realistic result, it does mean that your iPad is working with anywhere up to five times as much information as simpler paint packages. This means there can be times when it will run slower.

If you find that you're experiencing speed problems, there are two simple things you can do that may help:

- 1. Close all 'Parked' Applications:** If you are using iOS4.2, other applications may be open in the background and some may be using memory or processor resources. To close them, double tap the Home button on your iPad. This brings up a list of all open applications. Tap and hold on one of them until a cross button appears. Tap each application's cross button to close it properly (close ArtRage this way too if it appears in the list).
- 2. Reboot Your iPad:** To clean out memory, you should reboot the iPad. Press and hold the Home and Power buttons until the iPad shuts down (ignore the Power Off slider when it appears, and keep holding the buttons down). Then press and hold the Power button until the iPad starts up again (you can stop holding the button when the Apple logo appears).

These two things can make a big difference to the speed of any app that is processor intensive. If you find there is still a speed problem, it could relate to some of the more complex tools such as watercolor and the size of the brush head. Smaller brushes will work faster. You can also check out our tech support forums at <http://forums.artrage.com>.

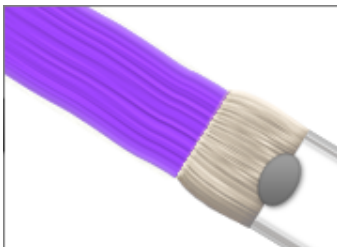
Stroke Gap.

You may have noticed that there is a gap between the end of the paint stroke and the position of your finger. Is this lag? Well in some cases this will happen when you move quickly while painting, and that is lag, but in cases where you're moving slowly the gap is required so that ArtRage can calculate what happens under your virtual brush.

So *why is that required?* Well, it's because ArtRage is simulating real paint, not just flat color.

Imagine a real brush: When you're painting, the look of any stroke you apply is the result of the paint on the canvas and the paint on the brush mixing *under* the brush head. Blending happens *under* the brush head, and the brush head covers this process. Because you can't see *through* the bristles, you can't see exactly how the process is happening and how the texture and color of the paint is constantly changing while the brush passes over it.

It's like that here: Your finger is the brush, but ArtRage doesn't know what's on the canvas until your finger has passed over a point and moved on! This is why you can't see the end of your stroke until you lift your finger up. In some cases your finger is smaller than the virtual brush head you're using, so you see a gap between the finger and the stroke end. It's not lag, it's because you're painting with real, virtual paint underneath a virtual brush.



The image to the left illustrates this: The grey oval is where your finger is. The brush head underneath has bristles that are trailing behind and leaving patterns in the paint.

There's a gap between the stroke and your finger while you move, but as soon as you lift your finger, the stroke will catch up to the oval.

Tip: What you'll notice is that as soon as you lift your finger up, ArtRage fills in the gap between the edge of the stroke and where your finger was. This means you don't need to worry about it while painting, just paint naturally with your finger and let go where you want the stroke to end.

Memory.

Because ArtRage is a memory intensive application, tracking lots of information about the paint you have placed on the canvas to allow you to smear and blend it realistically, it can sometimes use up large amounts of memory on your iPad. When ArtRage detects that your iPad's memory is getting full, a pair of buttons will pop up on the toolbar:

Save: Tap this to save your file.



Memory Warning: Indicates your iPad is low on Memory.

Because low memory situations can sometimes cause the iPad to close ArtRage prematurely, you should save your work if you see the memory warning pop up. Tap the button that appears on the left to save the file.

Tapping the memory warning brings up a reminder of what the icon means.

What To Do When Memory Is Low.

The Low Memory warning does not automatically mean that the application needs to be shut down immediately. Sometimes, when memory is low and the warning appears, the iPad may actually be able to free up some more memory to keep things going, so the warning is not always an indication of an impending problem.

However, the warning does indicate that there *may* be a problem, so there are some things you should do when the warning appears on your toolbar:

- 1. Save Your Work:** If something does go wrong when memory is low, ArtRage will not be able to save your painting, so you should tap the button that appears to the left and save your current work.
- 2. Dismiss the Memory Warning:** Tap the memory button and it will bring up a prompt, then hide the button.

If the warning does not appear again, then there shouldn't be a problem. This means that your iPad has been able to clean up memory and make space for your painting. But if the warning *does* appear again, there is a chance that memory is completely full and the iPad might terminate ArtRage if more memory is requested. At this point, you should follow these steps:

- 1. Quit ArtRage:** Exiting ArtRage saves your current painting for use next time you start it, but you can also save before quitting if you prefer.
- 2. Close all 'Parked' Applications:** If you are using iOS4.2, other applications may be open in the background and some may be using memory or processor resources. To close them, double tap the Home button on your iPad. This brings up a list of all open applications. Tap and hold on one of them until a cross button appears. Tap each application's cross button to close it properly (close ArtRage this way too if it appears in the list).
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This cleans out memory and gives any applications you launch more space to run. You can now start ArtRage again.

Reducing Memory Usage.

If you follow the steps above and memory is still low, or if you want to avoid using too much memory in general, you can try these steps:

- 1. Remove References:** Reference Images and Tracing Images take up memory. If you are not using them any more, close them and more memory will become available.
- 2. Merge Layers:** Each Layer uses memory. The more paint there is on a layer, the more memory it uses so if you have many layers that are completely filled with paint they will be using lots of memory. Delete layers you are not using (you can save a duplicate of your painting first, saving paintings does not use up memory), or merge layers you have finished with.

Please Note: Neither paintings stored in the gallery nor presets use memory, you do not need to delete those items to free up memory when it is running low.