

Rainpad 101

SXPanda



Version 0.1

Contents

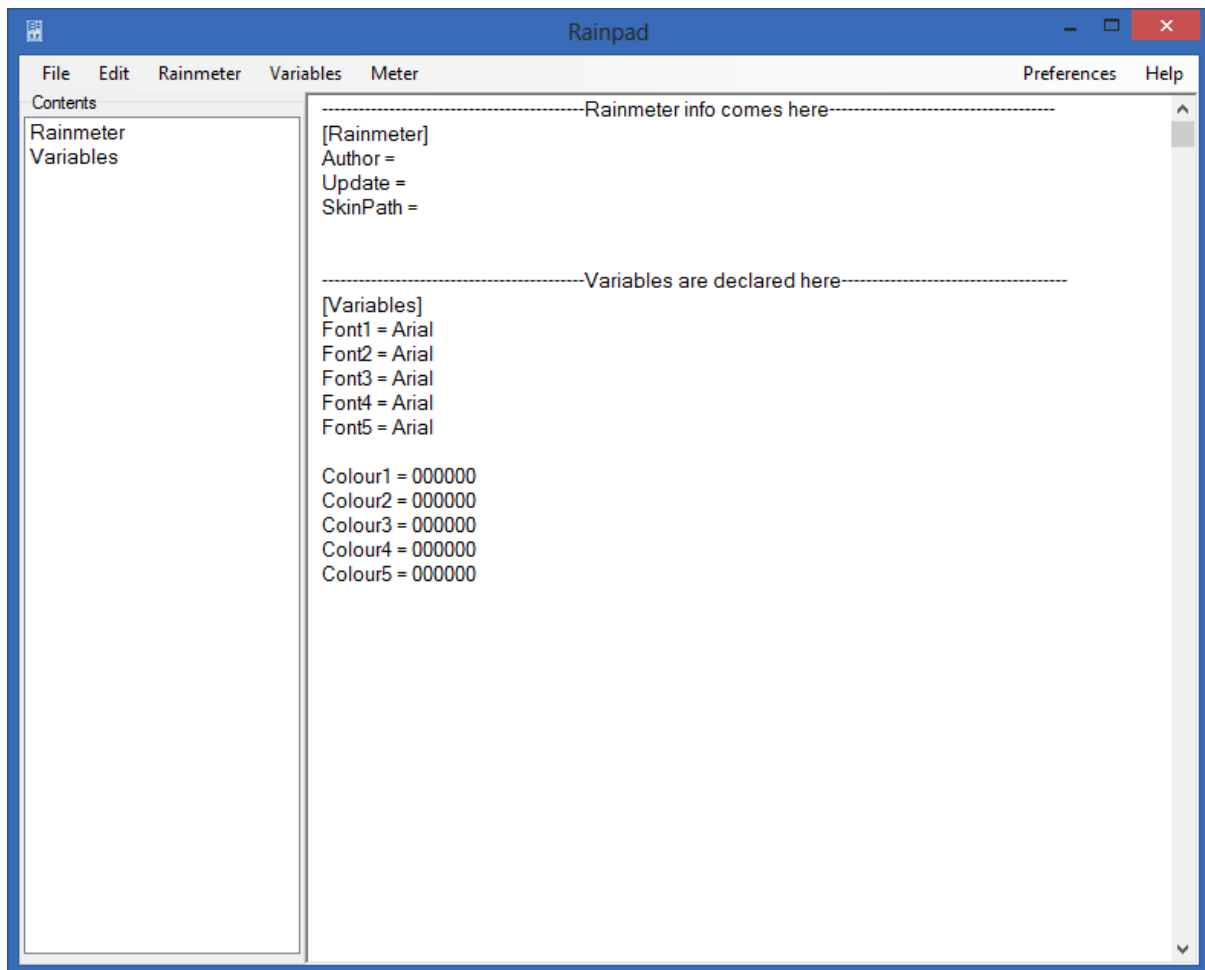
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Prerequisites

You will need to have downloaded both Rainpad and [Rainmeter](#) for this tutorial. No programming experience or previous use of Rainmeter is needed.

The Interface

Once you open up Rainpad you should see a window that looks something like the image below. Let me walk you through what all this means.



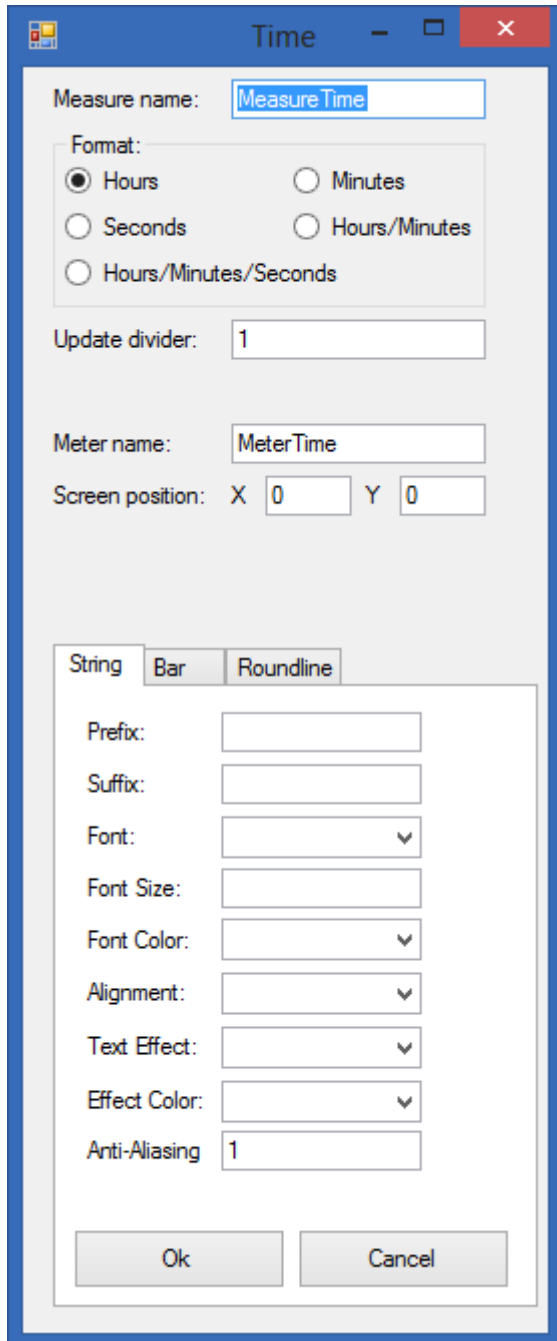
You should already be familiar with the 'File' and 'Edit' drop down menus found in just about every program out there, so I won't bother explaining those, but 'Rainmeter', 'Variables' and 'Meter' are the drop down menus we are interested in.

The Rainmeter button allows you to edit Rainmeter information, that is the Author name, the rate of updates, version and skin path. The Variables button allows you to edit which global fonts and colours will be used throughout your Rainmeter application. The Meter menu is perhaps the most important of these, and this menu is what you will be using to customise your rainmeter. The Preferences option is found on the right, and this gives a few customisation options for Rainpad itself, including colour schemes and font. Play around with it if you don't like the default style, but if not then let's move on.

The other two sections of Rainpad are the contents box on the left and the editor on the right. The contents box can be used for quick navigation around the editor panel, and the editor panel displays the raw code for your rainmeter.

The Meters Window

If you were to go to the meters panel and click on 'Time' then this new window opens up.



The image shows a Windows-style dialog box titled "Time". It contains several configuration options for a time meter. At the top, there's a "Measure name:" field with "MeasureTime" entered. Below it is a "Format:" section with five radio button options: "Hours" (selected), "Minutes", "Seconds", "Hours/Minutes", and "Hours/Minutes/Seconds". An "Update divider:" field has the value "1". Further down, a "Meter name:" field contains "MeterTime", and a "Screen position:" section has "X" and "Y" fields both set to "0". At the bottom, there are three tabs: "String" (selected), "Bar", and "Roundline". The "String" tab is active, showing fields for "Prefix:", "Suffix:", "Font:", "Font Size:", "Font Color:", "Alignment:", "Text Effect:", "Effect Color:", and "Anti-Aliasing" (set to "1"). "Ok" and "Cancel" buttons are at the very bottom.

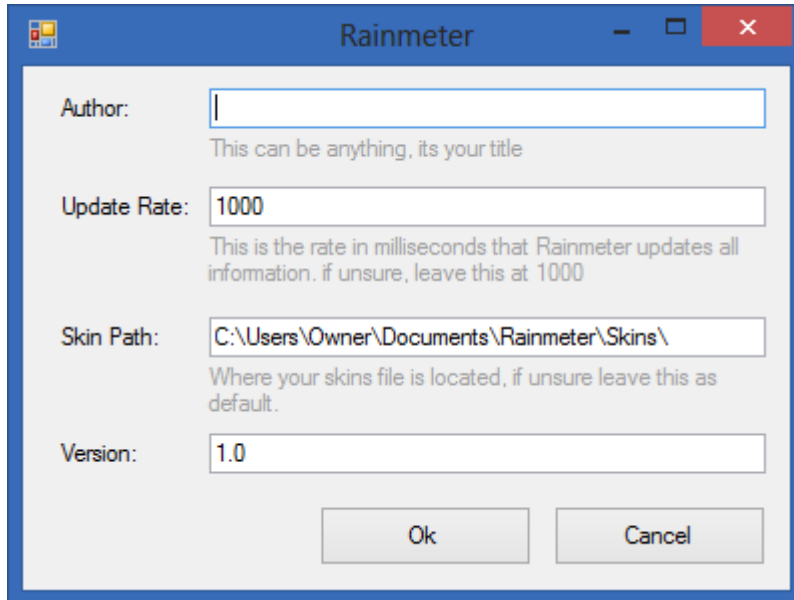
This window is where the magic happens, and you can use these buttons and text boxes to add displays to your rainmeter. The purpose of each of these boxes will be explained later on, so I won't go into any more detail just yet.

That's all you really need to know about the interface for now, next up is creating your first Rainpad Rainmeter.

Your First Rainmeter

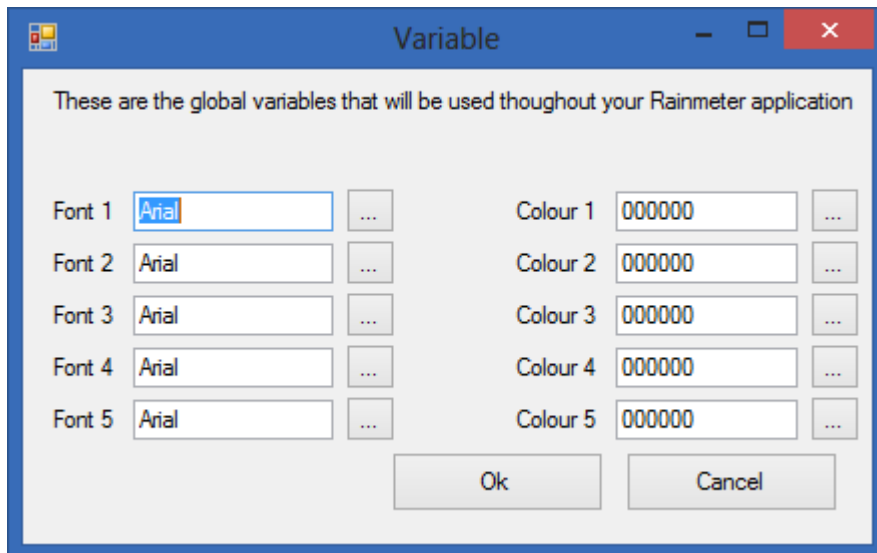
For our first Rainmeter we only need to create something very simple, so make sure Rainpad is open and we can get started.

The first thing you should do is update the Rainmeter information, so click on 'Rainmeter', and then select 'Add Rainmeter Information' to open a new window.

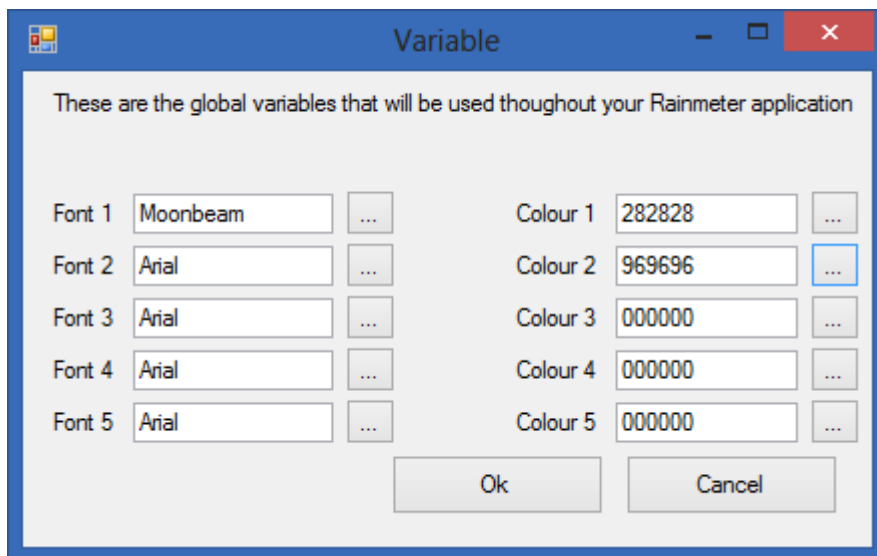
A screenshot of a Windows-style dialog box titled "Rainmeter". It contains four input fields with labels and explanatory text below them. The "Author:" field is empty, with the text "This can be anything, its your title" below it. The "Update Rate:" field contains "1000", with the text "This is the rate in milliseconds that Rainmeter updates all information. if unsure, leave this at 1000" below it. The "Skin Path:" field contains "C:\Users\Owner\Documents\Rainmeter\Skins\", with the text "Where your skins file is located, if unsure leave this as default." below it. The "Version:" field contains "1.0". At the bottom are "Ok" and "Cancel" buttons.

The Author name can be anything you want, your name, handle or whatever you want. If you don't intend to ever release your Rainmeter then you needn't bother filling it in. The update rate is the time in between each update, in milliseconds, i.e. if you were using a Rainmeter that displayed CPU usage then every 1000 milliseconds (one second) Rainmeter will check what the CPU usage is. If you intend to display time then it's a good idea to leave this at 1000, otherwise seconds won't update frequently enough. The Skin Path is where your skin file is located, this isn't particularly important so you can leave it as is if for now. The final part is version, which is a numerical value depicting what version the Rainmeter is, you can leave this at 1.0.

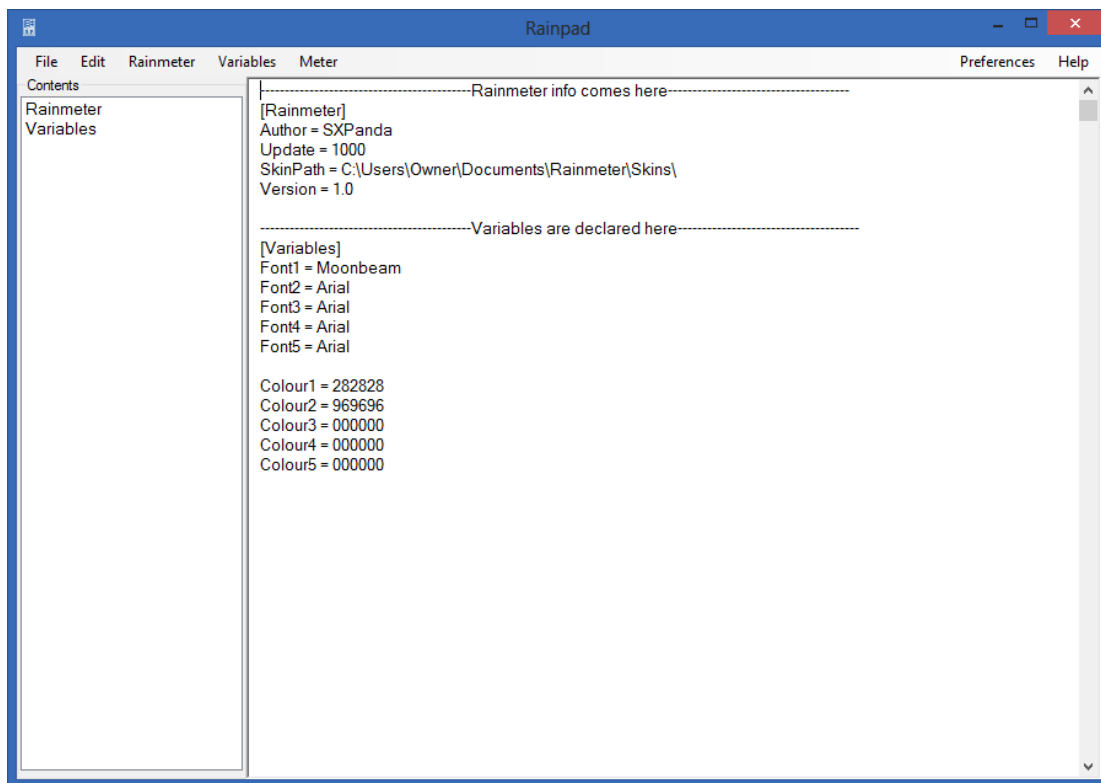
Moving on, the next thing to do is to update the variables so select 'Variables' and then select 'Add Variable Information' from the drop down menu to open up another window.



For this Rainmeter we only need one font and two colours so click the '...' buttons next to Font 1, and select a font, then do the same for Colour 1 and Colour 2 (except you will obviously be choosing a colour instead of a font). I'm going to use 'Moonbeam' as my font and a dark grey for my Colour 1, and a lighter grey for Colour 2, and my window now looks like this:



Hit Ok and check the editor window, it should look like this.



You can see that it now contains your Rainmeter and Variable information. You can go back and change these values whenever you please, so don't worry if you want to change your font later on or add more colours.

Now go to the top menu and select 'Meter', then click on the 'Time' option to open yet another window. We will now be adding a simple text based clock.

Adding a Simple Text Clock

The screenshot shows a Windows-style dialog box titled "Time". It contains the following fields and options:

- Measure name:** A text box containing "MeasureTime".
- Format:** A group box containing five radio buttons: "Hours" (selected), "Minutes", "Seconds", "Hours/Minutes", and "Hours/Minutes/Seconds".
- Update divider:** A text box containing "1".
- Meter name:** A text box containing "MeterTime".
- Screen position:** Two text boxes labeled "X" and "Y", both containing "0".
- String tab:** A sub-dialog box with the "String" tab selected. It contains:
 - Prefix:** An empty text box.
 - Suffix:** An empty text box.
 - Font:** A dropdown menu.
 - Font Size:** A text box.
 - Font Color:** A dropdown menu.
 - Alignment:** A dropdown menu.
 - Text Effect:** A dropdown menu.
 - Effect Color:** A dropdown menu.
 - Anti-Aliasing:** A text box containing "1".
- Buttons:** "Ok" and "Cancel" buttons at the bottom.

This window might seem a bit overwhelming and confusing to anyone new to Rainmeter, but thankfully I am here to walk you through it. Before I can explain what these mean I need to explain how Rainmeter works. Rainmeter uses two main functions named measures and meters. Measures collect information, while meters display that information, each meter typically uses one measure, but some will use none while other could use multiple. Unfortunately Rainpad only supports either one or none at this point in time, but that's all we will be needing.

The first textbox you see is the measure name, and this is the title that Rainpad uses to identify the measure. These can be titled anything provided that they fit two criteria: they must not contain any spaces, and they must be unique. There can be no other measure or meter that shares the same

name, nor can they named Rainmeter or Variable, as these are used for other purposes. As this is our first measure you can leave it as 'MeasureTime'.

The second option is a series of radio buttons used to select the format that we will be measuring. If you select 'Hours' it will measure hours, if you select 'Minutes' it will measure minutes, etc. Select 'Hours/Minutes' and move on, we will be using a separate measure to record seconds later on. The update divider is a multiplication of the Rainmeter Update value. If you leave it at 1 then it uses Rainmeters default Update value (1000 in this case), and changing it to 2 will multiply it by 2 (2000), we want to leave it at 1.

The next option is the meter name. This follows the same rules as the measure name, and we can leave it as MeterTime. The Screen position values indicate where on the screen we want to position the measure, with the values being in pixels. Setting it to 0, 0 means it will be in the top left corner by default. We want to set this to 100, 0 (I'll explain later).

Below this are three tabs named 'String', 'Bar' and 'Roundline'. A string is literally a string of characters, so in layman's terms it's a word or a sentence. Bars and roundlines are more complex and they are covered in a later chapter, so make sure that 'String' is the selected tab.

Prefix and suffix are the first two options, and these will come before and after your measured value, we don't need to use these but an example of when you would use them is if you wanted them to say 'The time is ' (time) ' O'clock'. Remember to add a space at the end of a prefix and another at the beginning of a suffix, otherwise there will be no separation between them and the measure.

The Font drop-down menu gives you 5 options, each one representing the 5 fonts you can determine as variables. Set this to Font1. Font size should be pretty self-explanatory, set this to 18. The font colour drop-down menu is very similar to the Font menu. Choose whichever colour you set as light grey (I used colour2). Alignment is also self-explanatory, and we want to set this to right so that we can have our seconds meter displayed next to it, this is why we set our X value to 100.

Text effect has 3 options, those are 'None', 'Border' and 'Shadow', these add simple effects to our string and we will be using 'Shadow'. Effect colour defines the colour of the effect, and we want this to be our darker grey, which should be Colour1. Finally we have Anti-Aliasing which basically makes text look pretty, we can leave this as 1.

Double check all your values, which should look like the image below, and then hit 'Ok' to close the window and add more code to the editor panel.

Time

Measure name:

Format:

☒ Hours ☐ Minutes

☐ Seconds ☐ Hours/Minutes

☐ Hours/Minutes/Seconds

Update divider:

Meter name:

Screen position: X Y

String Bar Roundline

Prefix:

Suffix:

Font:

Font Size:

Font Color:

Alignment:

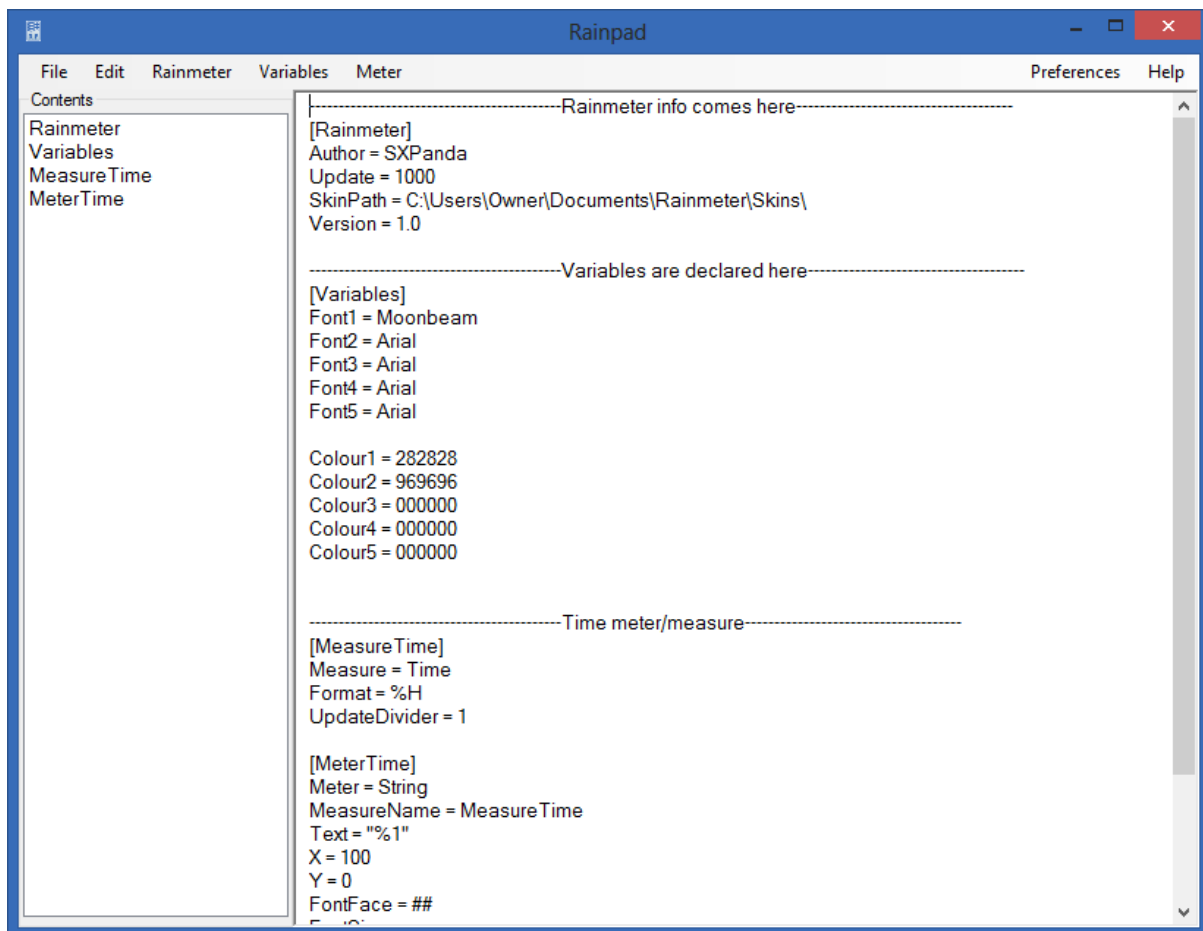
Text Effect:

Effect Color:

Anti-Aliasing

Ok Cancel

You should notice two differences to the main Rainpad window, the first is that new code has been added, and the second is that two new items have been added to the contents panel on the left.



If you click on either of these two new items then it will highlight them in the code editor, which is handy if you want to make any changes later on.

Adding Seconds to your Clock

Before we test out our Rainmeter we have one more thing to do, and that is to add seconds to our clock, so open up a new Time window.

Remember that our measure name and meter name have to be unique, so our first priority should be to change these to 'MeasureNameSeconds' and 'MeterNameSeconds'. Next up change the format to seconds, and set screen position to 100, 0, if it is not already set as such. We want a prefix of ':' so that it appears to be a part of the rest of the clock, but we don't need a suffix so leave these blank, and our Font should be Font 1 again. Font size is where things change, our minutes and hours are set to 18, and making our seconds smaller provides a nice visual touch, so set font to 14. Now that we've changed our font size, we also have to change our screen position, otherwise the seconds will appear to be floating above the hours and minutes. We decreased font size by 4, so we should also decrease our y position by 4. $0+4$ is 4, so set y to 4. This will make sure that the entire clock is sitting along the same line.

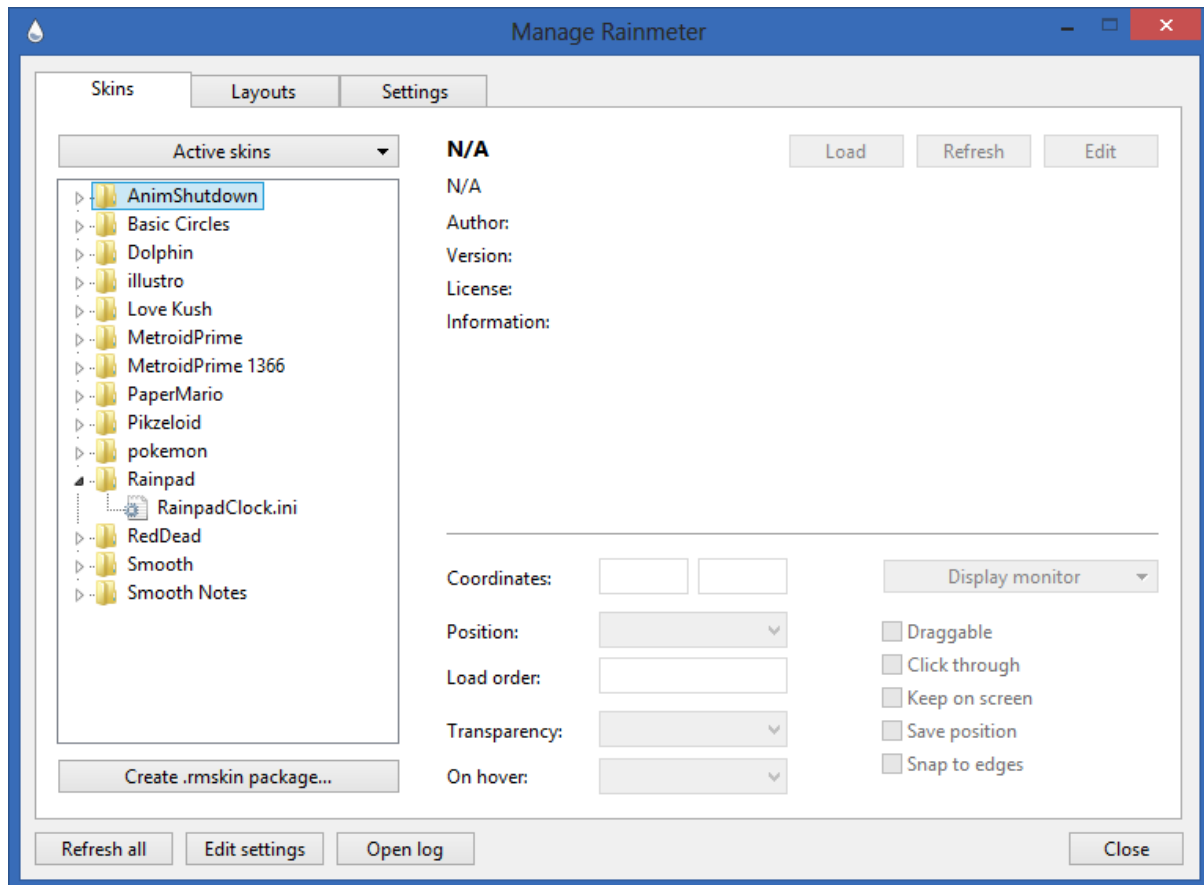
Set font colour to the same colour you used for our other meter, set alignment to 'Left' and text effect to shadow, effect colour to the same effect colour as before and leave Anti-Aliasing as is. Hit Ok to add another segment to our code.

Now we are ready to test out our Rainmeter app.

Testing

Go to File=>Save to open up the save dialog, and navigate to your Rainmeter skins folder, this should be under 'My Documents\Rainmeter\Skins'. Once there create a new folder and name 'Rainpad101', then go into this folder and save your file as 'RainpadClock.ini'.

Now open up Rainmeter and you should see your new file listed in the left hand skins menu.



If it is not in the list then hit the 'Refresh all' button and it should now appear.

If you double click on this file then the clock will now appear in the top left corner of your screen. Congratulations, you just created your first Rainpad Rainmeter.

Bars and Roundlines

Bars and roundlines are two different ways of displaying information using visual effects rather than plaintext. In a bar, a value is displayed in a similar way you would see a health bar in a video game, where a block is stretched between two points, depicting its value as a percentage. A roundline is the same thing, except instead of being a straight line like in a bar, it is a curved or circular line.

You should be familiar with the Rainpad interface by now, so this section will be less descriptive than before.

Bars

Start a new Rainpad file (Ctrl+N) and update your Rainmeter and Variables sections, again use a dark grey for colour 1 and a light grey for colour 2. Now go to the Meters menu and look to the bottom three options. These are meters that used fixed values, i.e. string uses fixed strings, bar is a non-moving bar. We will be using a blank bar as the background for our first bar, so click bar. Leave the measure name, meter name and screen position as is. Set width to 20 and height to 200, set orientation to vertical and then select 'flat color'. If you were to choose image then you could use an image as your bar, but we want a flat colour. Set your bar colour to whichever colour you set as dark grey, then hit Ok.

Now go to the Meter menu again and select CPU. The only box here that we haven't used before is the 'Core' box. You can use this to record CPU usage across individual cores by setting the number to that value (1 measures the first core, 2 measures the second etc.) leaving this at 0 measures the average across all cores, so leave it at 0.

Make sure you have selected the 'Bar' tab and then set width to 20, height to 200 and orientation to vertical. Again, select flat color and set the color to the lighter grey and hit Ok. Save up and load your Rainmeter application in Rainmeter, you will now have a bar that shows your CPU load. Huzzah!

Roundlines

Now we will create a roundline that measure RAM usage. The process is very much the same.

Go to the Meter drop down menu again and select Roundline, leave the measure name and meter name as they are, then set x to 50 so that we don't overlap with our bar.

Width is not important unless we are using a non-solid roundline, but Rainpad doesn't currently support non-solid blank round lines, so ignore width. Inner radius and outer radius define the shape of the roundline itself, so set inner radius to 40 and outer radius to 48. Change line colour to your darker grey. Start rotation is where the '0' value is on your roundline, we want 0 to be at the top which means that we need a start rotation of -90. Rotation angle is the angle between the start of the roundline and the end of it, we want a full circle so set this to 360 and then hit Ok.

Now go to the Meter drop down menu once more and select Memory. Leave measure name, update divider and meter name as they are and again set x to 50 and remember to select the Roundline tab. You want all of the values below to be the same as they are in the previous roundline, except for line colour which should be the lighter grey. The solid checkbox is a new option we haven't seen before, but we can leave this as checked. Hit Ok once you have filled in all of the boxes and then test your Rainmeter application to see the new roundline added.

You should now be an advanced Rainpad user, go forth and create exciting new Rainmeters! And stay tuned for Rainpad updates, more is to come.