



Managing the Kookaberry's memory

Contents

Overview.....	0
Organisation of Folders and Files in the USB Memory	0
The “app” Folder.....	1
The “lib” Folder.....	1
The “c3d3” folder.....	2
Kookapp.cfg file.....	2
Repairing the USB Memory	3
Windows PC.....	3
Mac.....	5

Overview

This memory on the Kookaberry is a serial memory chip capable of storing 4 Megabytes of information. The number of bits it is capable of storing is actually 32 Megabits as there are 8 bits in a byte. It is the little chip just above P4 on the back of the board.



It is organised and works exactly the same as a USB flash drive and is used for both storing the MicroPython source code files and the .csv files containing the data logged by the Kookaberry when in data logging mode.

MicroPython scripts (source code) are loaded as small Python text files (*name.py*) onto the memory by a simple drag and drop operation when the Kookaberry is mounted as a USB drive on a computer.





Organisation of Folders and Files in the USB Memory

The USB memory contains three folders which store various categories of files as described below. It also contains a text file that is used to store variables used in many Apps.



Managing the Kookaberry's memory







> KOOKABERRY (D:)

<input type="checkbox"/> Name	Date modified	Type
 app	23/03/2021 7:58 A...	File folder
 c3d3	10/03/2021 4:24 PM	File folder
 lib	10/03/2021 4:24 PM	File folder
 Kookapp.cfg	1/01/2080 1:00 PM	CFG File

The “app” Folder

This folder contains all the apps that are to appear in the menu on the screen when the Kookaberry is switched on. The “>” or “/” before a folder name shows that it is a file folder one level down from the general (root) level of the drive.







> KOOKABERRY (D:) > app

<input type="checkbox"/> Name	Date modified	Type
 _Config.py	12/02/2021 11:22 ...	PY File
 Alarm.py	1/12/2020 11:17 A...	PY File
 Analogue.py	5/12/2020 1:29 PM	PY File
 Angles.py	22/11/2020 2:29 PM	PY File
 BalanceMe.py	22/11/2020 2:34 PM	PY File
 BinaryNumbers.py	27/04/2019 6:16 PM	PY File

The “lib” Folder

This folder contains collections of routine, pre-coded, library programmes (scripts) that are accessed by many apps. *[Note: App programmes contain code that is particular to the app itself]*

> KOOKABERRY (D:) > lib

<input type="checkbox"/> Name	Date modified	Type
 bme280.mpy	17/04/2020 5:51 PM	MPY File
 CCS811.mpy	22/05/2020 5:47 PM	MPY File
 display_triangle.mpy	8/12/2020 10:51 PM	MPY File
 doomsday.mpy	19/01/2020 11:55 ...	MPY File
 ds18x20.mpy	19/01/2020 11:36 ...	MPY File
 ds3231_port.mpy	9/12/2020 4:24 PM	MPY File

Note that these files have the form *.mpy. They are still Python scripts but have been compressed to take up less memory space. Unlike *.py files (which are pure text files), they cannot be viewed in a normal text editor.



Managing the Kookaberry's memory

The “c3d3” folder

This folder contains the programmes which turn the Excel CSV files created during the data logging process into graphs which can be viewed in the web browser of a PC or Mac. Click on the link below to see a detailed description of this functionality and the graphs it can generate.

[Go to the GraphCSV App→](#)

> KOOKABERRY (D:) > c3d3

<input type="checkbox"/> Name	Date modified	Type
c3.css	25/02/2020 10:33 AM	Cascading Style Shee...
c3.min.js	25/02/2020 10:33 AM	JavaScript File
d3.min.js	25/02/2020 10:46 AM	JavaScript File

Kookapp.cfg file

This file is located in the general level of the drive - the Root Directory. This is also where where data and plain text files are located.

The Kookapp.cfg file stores very general data used across all functions such as ID, data logging interval and radio channel. These variables are set from the [config app](#) which is always at the top of the Menu.

Files created by Kookaberry apps will also be stored in the Root Directory. As well as the Kapconfig.txt file, these include

- CSV (Excel) files containing the data measured during data logging activities (eg, count data from the [CountMe app](#))
- Html files containing the information needed to plot CSV data onto graphs in a web browser

> KOOKABERRY (D:)

<input type="checkbox"/> Name	Date modified	Type
app	23/03/2021 7:58 A...	File folder
c3d3	10/03/2021 4:24 PM	File folder
lib	10/03/2021 4:24 PM	File folder
Kookapp.cfg	1/01/2080 1:00 PM	CFG File
SenseDHT.csv	1/01/2080 1:00 PM	Microsoft Excel Co...
SenseDHT.htm	1/01/2080 1:00 PM	Chrome HTML Do...

NOTE: Files generated by Kookaberry apps will not appear in the computer's USB drive file directory until after the Kookaberry receiving the data exits the app is unplugged from the computer and then reconnected to a battery or the computer.



Managing the Kookaberry's memory

Repairing the USB Memory

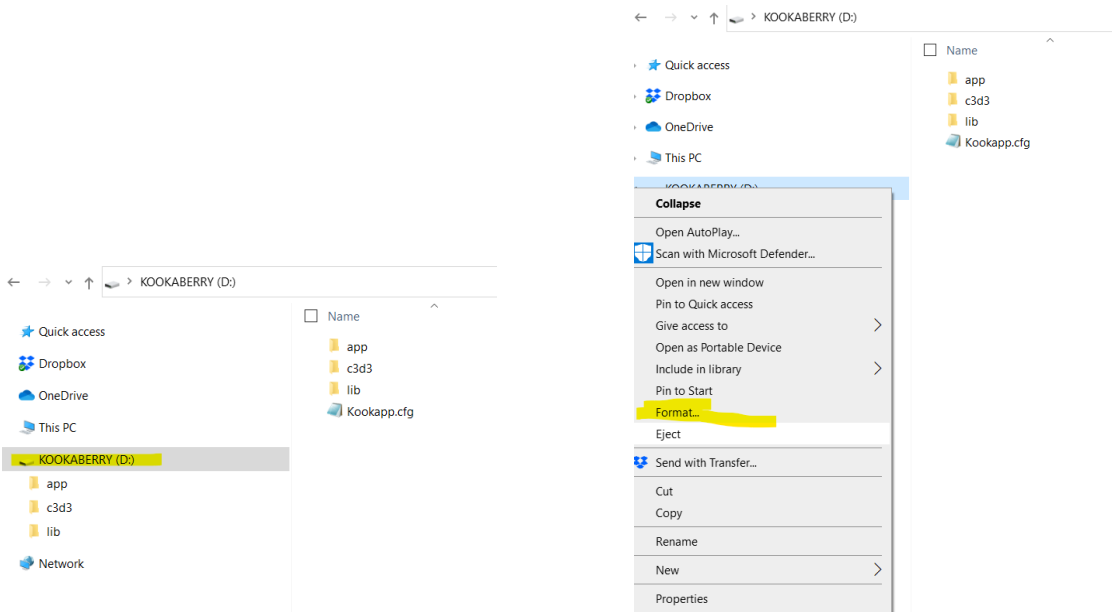
If the USB memory on a Kookaberry becomes corrupted for some reason (ie, the menu screen starts looking strange) then the drive should be formatted (ie cleaned out completely), and the folders and files copied and pasted back from a flash drive. See [Tutorial: Installing Apps on your Kookaberry](#)

Corruption of the USB memory - which is exceedingly rare - generally occurs because the USB cable is disconnected when data is being transferred.

This can be avoided by ejecting the Kookaberry using the following procedures for a Windows PC or Mac

Windows PC

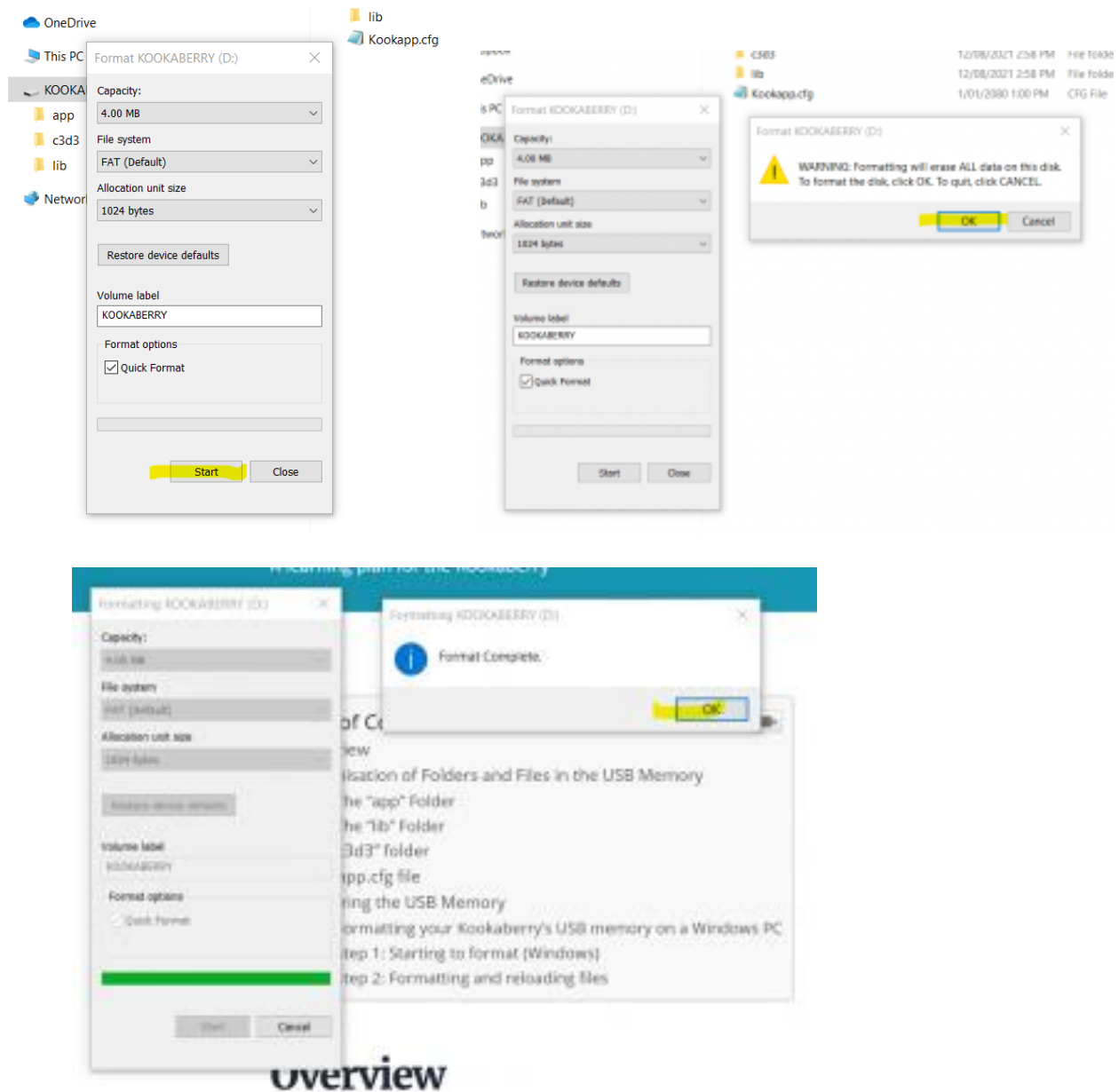
Right click on the Drive to which your Kookaberry is connected. A popup menu will appear - click on Format.





Managing the Kookaberry's memory

Follow the prompts as shown below. Close the Format window when complete.



The Kookaberry Drive will now be empty and is ready to be loaded with the Class Kit Preload App set as described in the [Tutorial: Installing Apps on your Kookaberry](#)



Managing the Kookaberry's memory

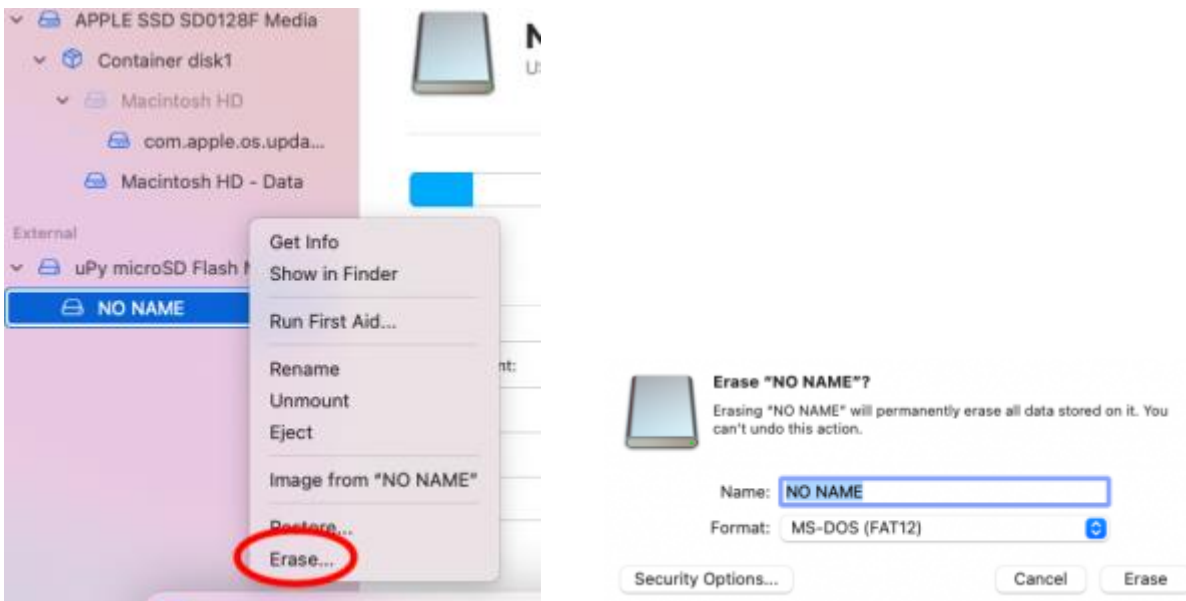
Mac

Connect the Kookaberry to a USB port on the Mac. An image of the Drive will appear on the desktop. It will probably be called NO NAME - this can be changed during the reformatting process.

Press Command+Spacebar and then search for, and run, the Disk Utility.

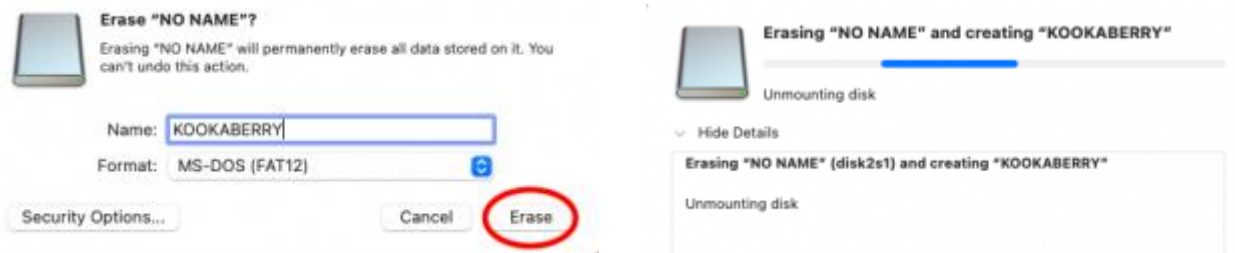


In the Disk Utility, right click on the USB drive to bring up the popup menu and click on Erase





Managing the Kookaberry's memory



When reformatting is complete, click Done and exit the Disk Utility



Using Finder, go to the Kookaberry drive and prepare to install the Class-Kit-Preload-Mac files downloaded from the [Tutorial: Installing Apps on your Kookaberry](#)