

These notes relate to the use of a Kobo mini ebook reader modified to run XCSoar. They are my best shot at the time of writing. I cannot guarantee they are correct or represent ideal solutions but will correct and update them as and when I can. Please inform me of any errors or better solutions you may find. The index for other Kobo/XCSoar notes can be found at:

http://www.50k-or-bust.com/Kobo_XCSoar/Kobo_XCSoar.htm

Many of the notes below about image copying and XCSoar installation are adapted from notes by David Bell who has kindly helped me with this part.

Update Your Kobo eReader Software

Some misbehaviour of XCSoar in Kobos is associated with the Kobo software so before installing XCSoar update the Kobo eReader software by using the Kobo desktop as the Kobo instructions.

Saving A Backup Image Of Your Kobo Program

The Kobo eReader software lives on a micro SD card on which XCSoar will be installed. Before installing XCSoar it is a very good idea to back up the Kobo software in case the micro SD card gets damaged or its data is corrupted.

From: <https://www.vconsole.com/download> download "Flash Drive Image Creator" and "Flash Drive Image Writer"

With the Kobo powered off, open up the Kobo as described in the hardware notes. Remove the micro SD card and mark it to make sure you do not confuse it with any other you may have. Tippex is good for this. I destroyed one card by attempting to scratch a number on it.

Kobos come with two sizes of micro SD card. 4Gb and 2Gb. The 4Gb card is formatted to only 2Gb but will still make a 4Gb image file. You can copy a 4Gb image file to a 2Gb card and it will work in the Kobo but you will have to select the option to "truncate" it when writing the image. Note these data sizes are approximate. Data from the 2GB card appears as 1.84GB in the image creator software and 1,931,264 KB in Windows Explorer.

Insert the micro SD card in your card reader and plug it into the USB port on your computer. Prompts may come up suggesting that you format the card. Do not do so! Dismiss or cancel the prompts.

Start the "Flash Drive Image Creator". It should identify the card to be copied. In "Image Destination" choose a location on your computer to store

the image file and start the copying process with “Create Image”. On my computer it sometimes takes several attempts to make the copy without an error message coming up. Closing all other programs including background programs (like Google Drive which can be “paused” instead) seems to help.

When you have an successfully made an image eject the card reader from your computer and remove the micro SD card from it.

Copying The Kobo Image To A Micro SD Card

1) Re-format the card

Formatting SD cards using Windows facilities does not seem to work very well for our purposes. A formatter is available from the SD Association which works much better:

<https://www.sdcard.org/downloads/formatter/>

Plug the micro SD drive into a USB using an adaptor.

Open the SD Card Formatter program.

Select the card.

Select “Quick Format”

Put a name in the Volume label.

Click “Format”.

2) Copy the image file to the micro SD card using the “Flash Drive Image Writer” program

Start the “Flash Drive Image Writer” program. It should automatically identify the micro SD card.

Select the SD card by ticking a box.

Select the image file you wish to write to the SD card and click “Write Image” to start the copying process.

When you have copied the image successfully, eject the card reader from your computer and remove the micro SD card from it. Again make sure you mark the card so you can easily identify it. You can now install it in the Kobo.

Installing XCSoar Onto Your Kobo

Go to the XCSoar website www.xcsoar.org and identify the latest stable version of XC Soar. Go to the download page and download the file for the Kobo Mini to your computer. The file should be called KoboRoot.tgz.

Start the Kobo ereader program and connect the Kobo to your computer using the USB cable supplied.

Either

If the Kobo ereader has been set up a window “Computer Detected” will come up on the Kobo. Select “Connect” and a window should come up on the computer “KoboReader“. Select option “ Open window to view files”

Or

If the Kobo ereader has not been set up a window “Welcome to Kobo!” will come up on the Kobo. - Select - “Don't have a Wi Fi network?” and a window should come up on the computer “KoboReader“. Select option “ Open window to view files” .

You should be able to find a drive on your computer called KOBOeReader and there will be a sub-folder called “.kobo” (note the dot before the file name). Copy the koboroot.tgz file to this folder.

Eject the Kobo from the PC and unplug it. If it doesn't reboot immediately, turn on the Kobo and it will automatically install XCSoar and boot to show the XCSoar start window.

From now on whenever you power up the Kobo it will boot into this screen. To access the Kobo ereader program select “Nickel” in the bottom left corner.

Installation of mapping, waypoint and other files is described in the “Setup and Operation” notes.

Updating XCSoar

From the XCSoar opening screen select “Nickel” and follow the instructions for XCSoar installation above.

Troubleshooting

If the Kobo appears to lock up or will not start after making software changes there are couple of things which can be tried:

- 1) Press the reset button accessible through a small hole in the back using a piece of wire (an opened paperclip is good). On the Kobo mini the outer

back cover has to be removed first and the hole is in the inner back cover.

- 2) Plug the Kobo into a USB charger. This sometimes does a sort of re-boot and usually works if the screen appears to have “frozen”.

Time Setting Issues

N.B. If the battery has been disconnected the Kobo onboard clock/calendar will be wrong. This can cause odd things to happen in XCSoar and dates to be incorrect on log files. The Kobo onboard clock is independent of the GPS time and is set by going into ebook reader mode (select “Nickel” in opening screen of XCSoar) and either using “settings” or connecting the Kobo to a computer with the Kobo “Desktop” program on it.

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