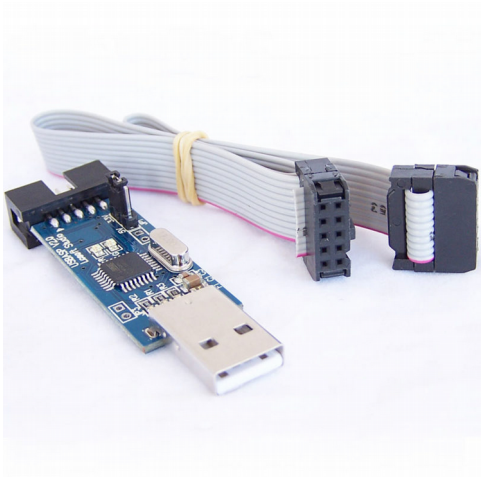
SYNTHI BISCUIT UPDATE

1. software and setup

The synthi biscuit firmware can be updated from a PC (although Linux based and Mac machine can also be used to program the module, this document deals with windows machines with Windows 7 running). More ressources and help links can be found at the end of the document.

To update the Synthi Biscuit you need to download 2 (free) softwares and use the provided programmer with the ribbon cable that came with the Synthi Biscuit.

-The programer with the 6pins header:

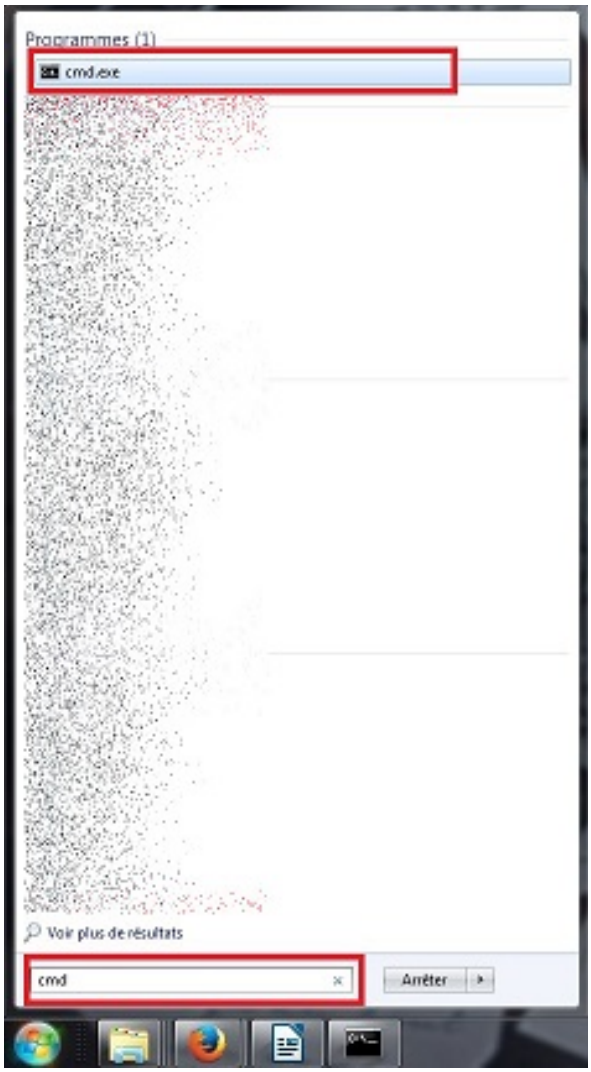


-Driver for the USB programmer :
https://protostack.com.au/2011/05/usbasp-driver-for-windows-7-and-windows-vista-x64/

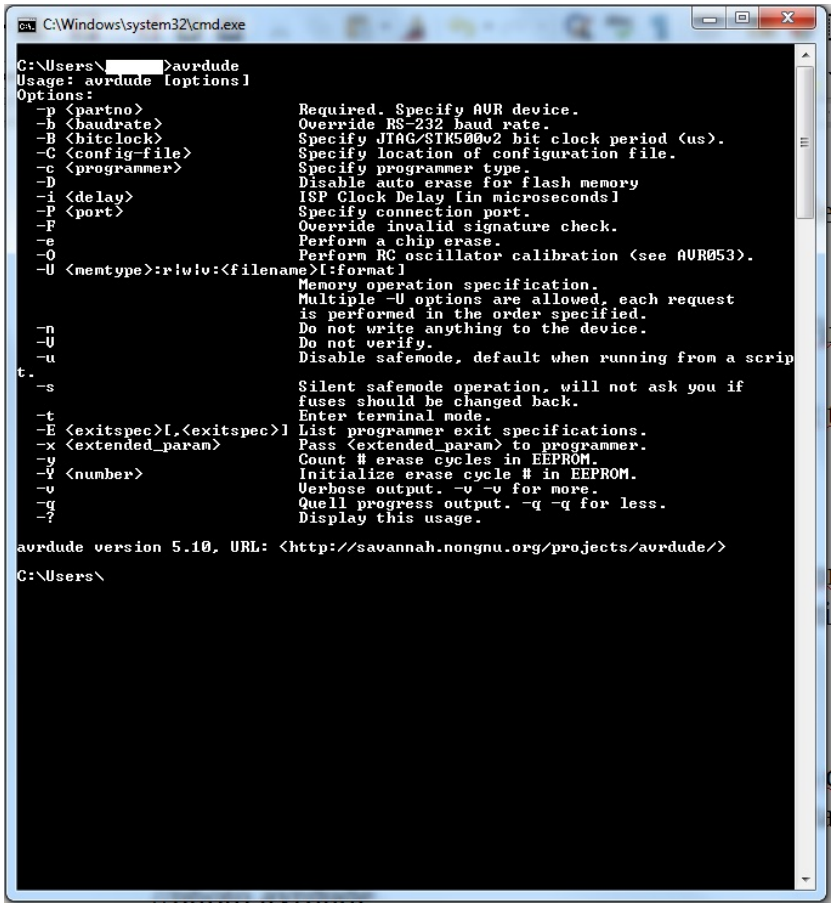
-AVRDUDE, to upload the firmware to the module :
https://sourceforge.net/projects/winavr/

AVRDUDE :

AVRdude doesn’t come with an user interface, it uses command lines to be excuted. To run it we need to call it from the « shell ». Type « cmd » into the search function of the start menu.



Once the cmd is opened, type « avrdude » to see if it is correctly installed on your machine. It should give back a list of options, if not, check your installation.



2. Programming the Synthi Biscuit

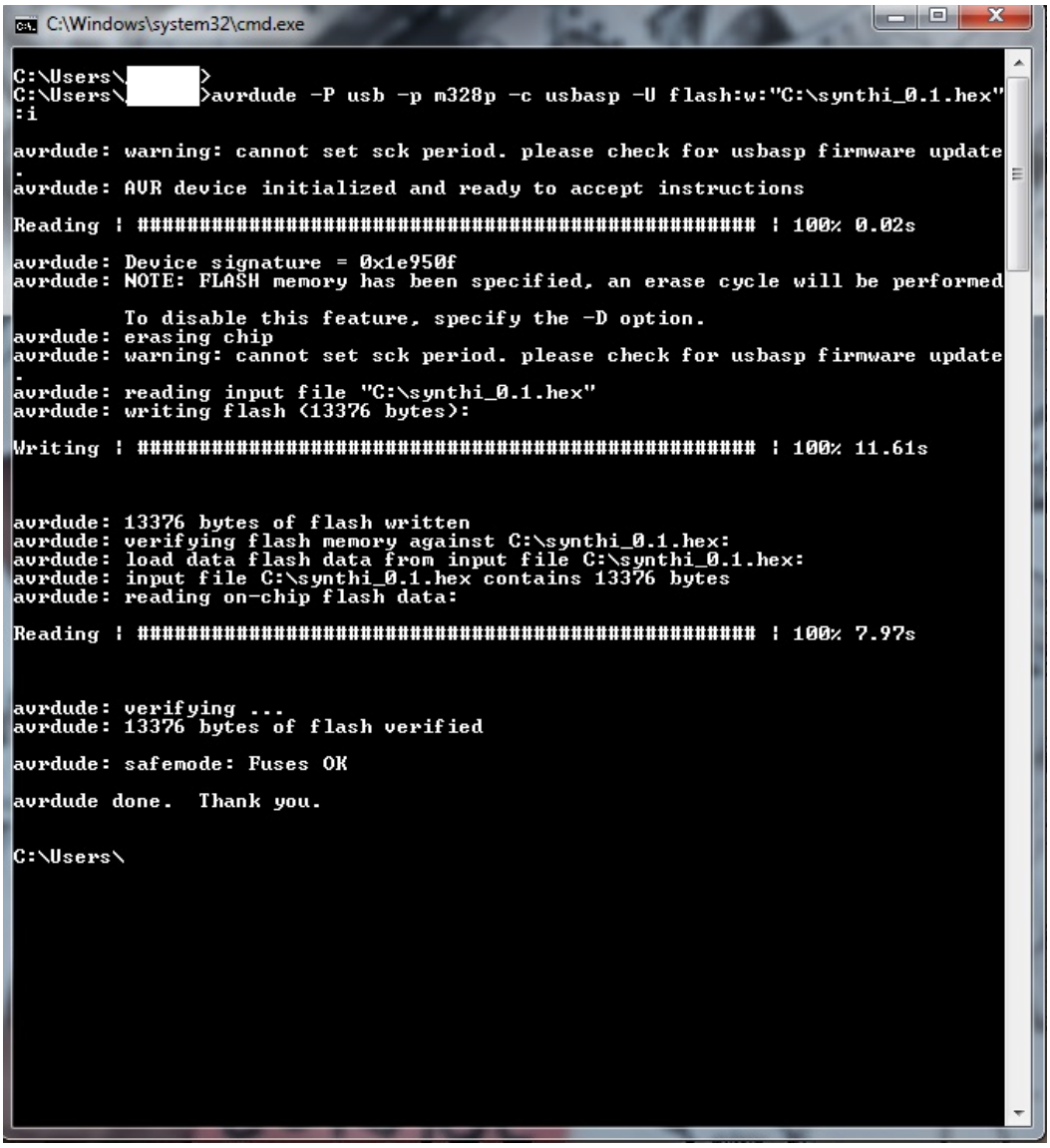
Place the downloaded firmware (.hex file) into a convient location, at the root of your hard-drive for instance. Although it can be anywhere on your hard-drive, you should enter the entire location of the file into avrdude. For this demonstration, it'll be located at the root, « C:\ ».

Plug the programmer to your computer, and plug the 6pins header to the Synthi Biscuit. Mind the orientation, the red line should be facing upward. The Synthi Biscuit should lid up.

Now it is time for some action, type this command (copy/paste also work) :

avrdude -P usb -p m328p -c usbasp -U flash:w:"C:\synthi_0.1.hex":i

Avrdude should give you status on the different phases of the programming.



Well, nothing more to do, click the button to see if the modes change. If so, you can unplug the ribbon cable and replace the module into your box.

Additional information and help

http://www.nongnu.org/avrdude/
http://www.ladyada.net/learn/avr/avrdude.html
http://www.fischl.de/usbasp/

Linux
http://innovelectronique.fr/2009/04/29/utilisation-davrdude-avec-usbasp/ (french)
http://fos.cmb.ac.lk/esl/programing-avr-ubuntu-14-04-usbasp/

Electric Tone
http://electrictonemusic.com/
contact@electrictonemusic.com

NOV 2017