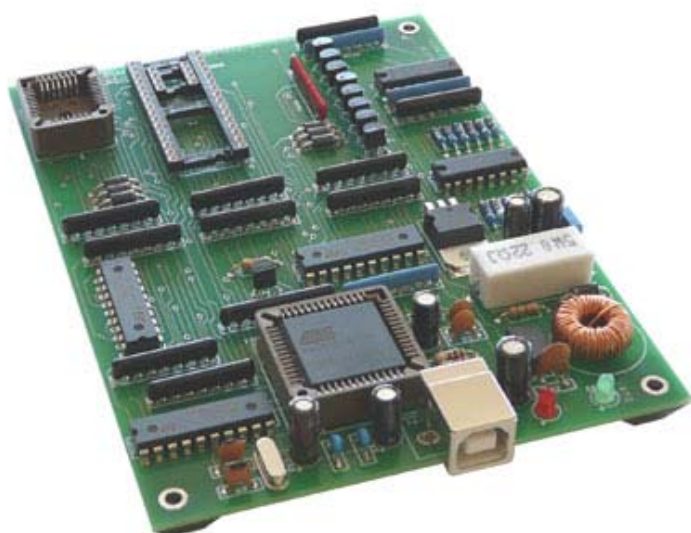


FlashBios / FlashBiosBox

Device programmer for EPROMs, parallel EEPROMs, serial EEPROMs
FLASHs memories and serial FLASHs on USB port

USER MANUAL

(Software version 2.10)



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Recycling of electronic products:

That equipment and its accessories shall be subject to a separate collection and correct disposal. This product has been made in agreement with the standard RoHS to regulate the use of lead in electronic devices. When this product will be obsolete, please, do not throw it to the household waste. According to the standard DEEE, Please, throw it in a collecting point, at a waste reception centre. He can also be head back to the supplier for the purchasing of a similar size and functions product. Please, do not throw the worn pile to the household waste.

Item includes:

- Programmer
- USB cable A-B type.
- Software on CD-ROM in French / English / German / Dutch.
- User manual in English and French.

Introduction :

The FlashBios and FlashBiosBox are devices reader/programmer/copier supporting Eproms (2716 to 27C801 family) of 16Kb to 8Mb, parallel EEPROMs (28C16 to 28C040 family) up to 4Mb, parallel FLASH memory (28xxx, 29xxx, 37xxx, 39xxx, 49xxx, etc) of 512Kb to 8Mb, i2c/spi EEPROMs memory and spi FLASHs memory (24Cxxx / 25xxx / 25Cxxx / 25Lxxx / 95xxx) until 64Mb. It is equipped with a LED indicating the different status of the programmer, a USB port, a high quality DIP32 socket supporting devices in DIP packages of 8, 24, 28 or 32 pins and a PLCC32 socket supporting any 32-pin FLASH memory. The FlashBios and FlashBiosBox connects to the USB port of any compatible PC and does not require any external power supply which makes it very practical to use at the office or on a business trip. Its integrated supply runs all the devices requiring a supply of 2.5V / 3.3V / 5.0V / 12.0V / 12.5V / 13V / 21V and 25V. The software works with Windows 98/ME/2000/XP/VISTA/Windows7/Windows8 /Windows10 (32bit and 64 bit).

Devices family supported list by FlashBios and FlashBiosBox (Version 2.10) :

EPROMS :

2516 / 2532 / 2564
2716 / 2732 / 2764 / 27128 / 27256 / 27512
27C16 / 27C32 / 27C64 / 27C128 / 27C256 / 27C512 / 27C1001 / 27C2001 / 27C4001 / 27C801

Parallel EEPROM :

2816 / 2817 / 2864 / 28256 / 28512
28C16 / 28C17 / 28C64 / 28C256 / 28C512 / 28C010 / 28C040
29C256 / 29C512 / 29C010 / 29C040

Serials EEPROMS :

24Cxx / 24LCxx / 24AAxx
95xxx / 95Pxxx

FLASHS memories :

28F256 / 28F512 / 28F010 / 28F020 / 28F101 / 28F201
29F512 / 29F010 / 29F020 / 29F040 / 29F001 / 29F002
39F512 / 39F010 / 39F020 / 39F040 / 39VFxxx / 39SFxxx / 39Vxxx / 39LVxxx / 39Lxxx / 39LFxxx
49F010 / 49F001 / 49F020 / 49F002 / 49F040 / 449Vxxx / 9LVxxx / 49BVxxx / 49LFxxx

Serials FLASH :

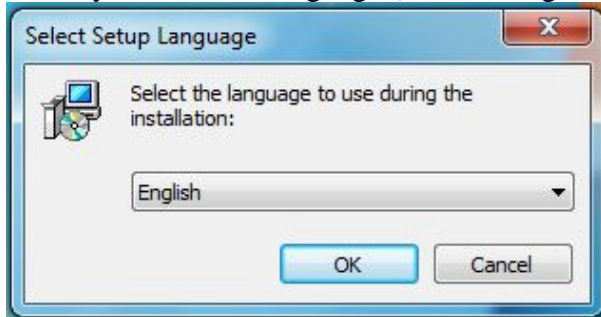
25xxx / 25Cxxx / 25AAxxx / 25LCxxx / 25Lxxx / SDAxxx

To set up FlashBios software on your computer (Windows XP / 7 / 8.1 / 10):

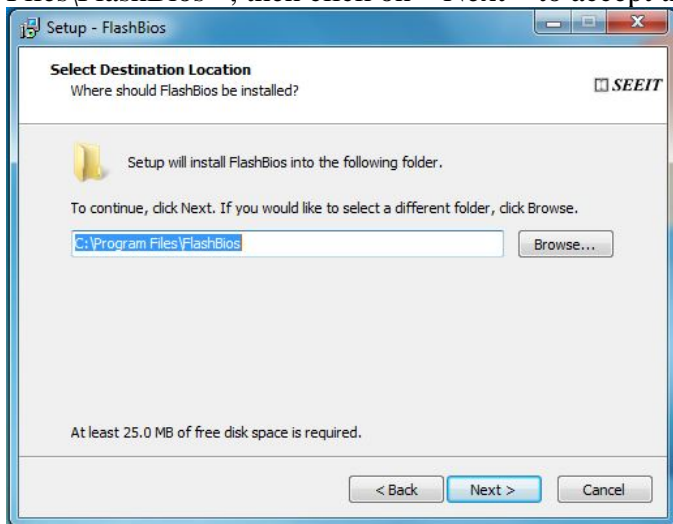
The software FlashBios for programmers FlashBios and FlashBiosBox is provided on the CD-ROM. If you don't have a CD-ROM reader on your computer, you can download this software on our Website at the following address : <http://www.seeit.fr>, menu « Download ». On Internet the software is compressed in ZIP file. Please unzip the files in a directory on your computer before to run the software files.

Then, open the file « setup.exe » to install FlashBios 2.10 on your computer. If you get a message « Do you want to allow the following program to make changes to this computer ? », click on « Yes » button. FlashBios install begins.

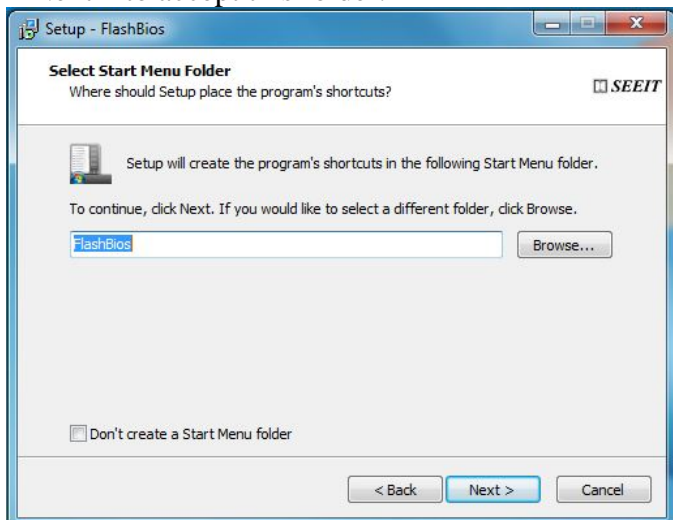
Select your favorite language (French, English, German, Dutch), and click on « OK », then click on « Next ».



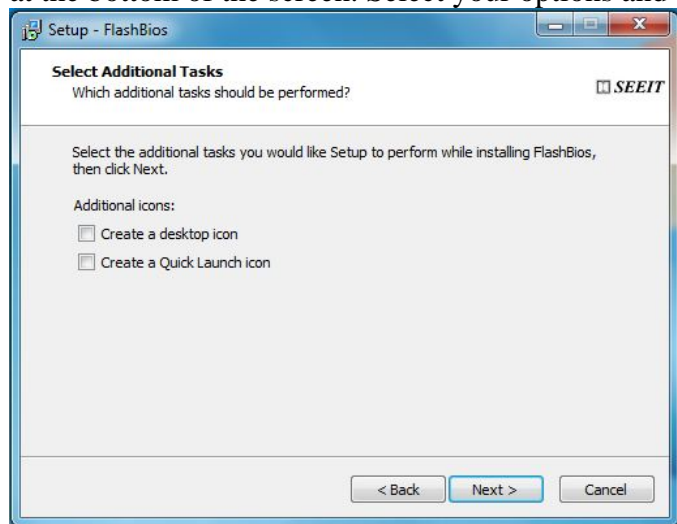
Choose the folder where you want FlashBios to be installed. The default folder is « C:\Program Files\FlashBios », then click on « Next » to accept this folder.



Choose the name of the folder for the start menu shortcuts. The default name is « FlashBios ». Click on « Next » to accept this folder.



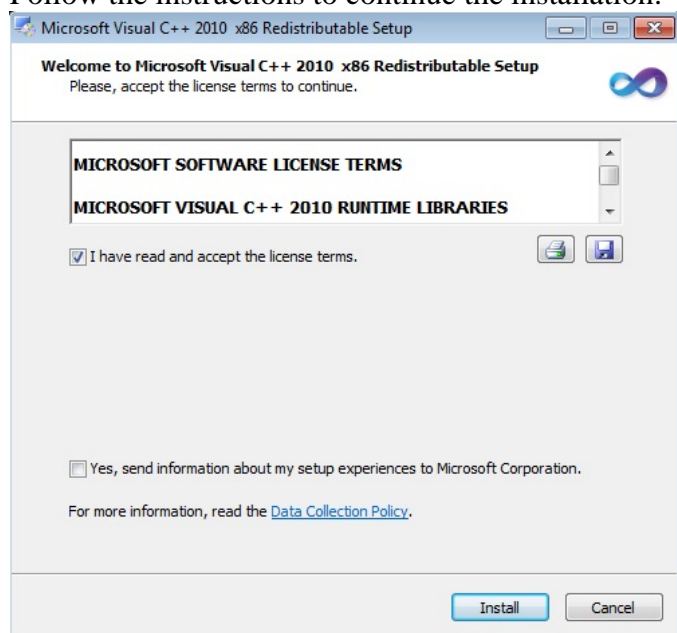
You can add additional shortcuts, « Create a desktop icon » on the desktop and « Create a Quick Launch icon » at the bottom of the screen. Select your options and click on « Next ».



You can now start the install by clicking on « Install ».

FlashBios software version 2.10 needs the module Microsoft visual C++ Runtime libraries to run. This module is already installed on most of computers under Windows. If it is not already installed on your computer, the software will install it automatically. If you get a message « Do you want to allow the following program to make changes to this computer? », click on « Yes » button. Then click on « Install » and « Microsoft Visual C++ Runtime libraries » install begins.

Follow the instructions to continue the installation:



FlashBios software version 2.10 needs JAVA system to run. JAVA system is already installed on most of computers under Windows. If it is not already installed on your computer, the software will install automatically JAVA. If you get a message « Do you want to allow the following program to make changes to this computer? », click on « Yes » button. Click on « Install » button to start the install of Java.

Follow the instructions to continue the installation. It can last for a few minutes.



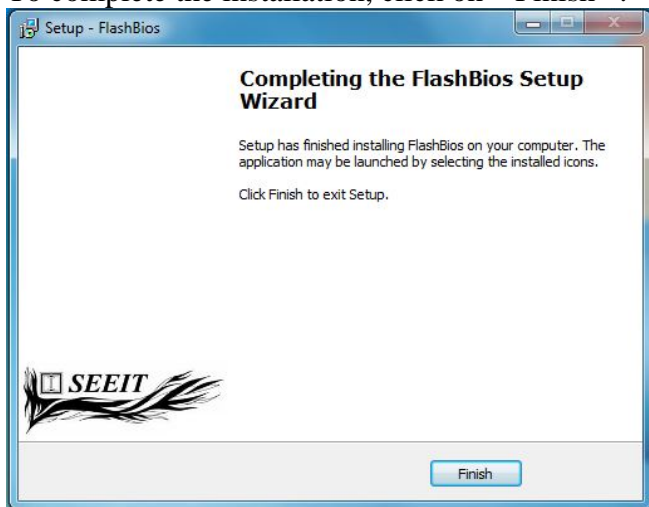
To finish, FlashBios install the 2 USB drivers. The installation can be different following the Windows system:

- Under Windows XP, drivers must be installed manually after the end of the installation of the software and when you plug the programmer to USB computer port, (see details at the next section).
- Under Windows 7, the following windows appear twice on the screen: click on « Install ».



- Under Windows 8.1 and 10, there is no message, drivers are installed directly.

To complete the installation, click on « Finish ».



How to set up USB drivers for Windows XP - 32bits: (This operation is twice asked)

After installing the software, plug the programmer on USB port of your computer.

Windows open automatically a new Windows for USB driver: « New hardware detected ».

Note : If Windows doesn't open automatically this new window, go to « Control panel\System and security\Devices manager », clic-right on «USB Device » with « ? » in yellow, and select « Update driver... ».

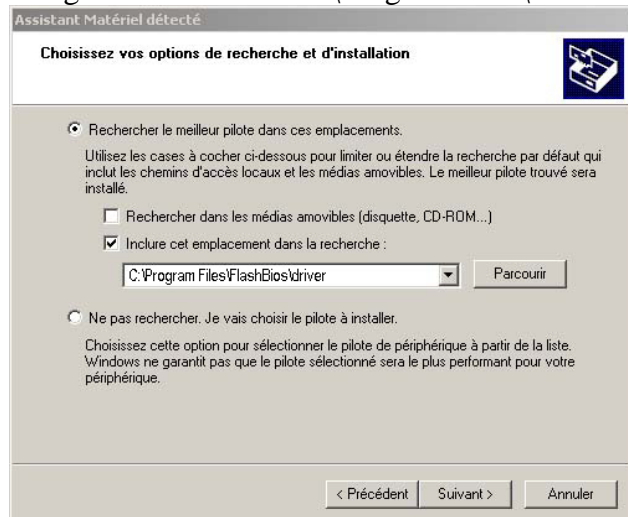
Windows ask you if you want to connect you at Windows Update to find an update. Select the button « No, not this time », then click on « Next ».



Windows ask you what do you want to do. Click on the button « Install from a list or specific location (Advanced) », then click on « Next ».



Windows ask you to choose some options to search and install the driver. Click on the button « Search for driver software in this location: ». In order to indicate the access path of the file FlashBios, click on « Browse », and go to the folder: « C:\Program Files\FlashBios\driver », then click on « Next ».



After installing the driver, click on « Finish ».

FlashBios software procedure:

About the green LED:

When the green LED is switch off, the programmer is waiting.

When the green LED is switch on, the programmer is running.

The time to program a component can be 15 seconds to 10 minutes, it depends the size of the memory.

Insertion and extraction of a component:

It is preferable to insert the component on its support only after starting the software and selecting a component from the list. Similarly, you must extract your component before quitting the software or changing the component reference in the list.

The components have an insertion direction, although the programmer is protected against short circuits and insertions errors, you could damage your components if you do not use it the right way. On the FlashBios, Pin 1 is marked with a "1" marked on the printed circuit board, either for socket DIP32 or PLCC32.

On the FlashBiosBox, pin 1 is marked with a design on the box for the socket ZIF32 and an up arrow for socket PLCC32. On the component, the pin « 1 » is marked either by a point on the PLCC32 components, or by a notch on top of the component.

To extract a component from the DIP32 socket without damaging it, it is best to use a flat screwdriver of 3mm width. Slide the flat of the screwdriver under the top of the component and lever slightly. Place the screwdriver in the same way under the bottom and lever slightly. The component must be extracted gently. (If you use the FlashBiosBox, simply raise the lever of the ZIF32 socket to extract the component).

To extract a component from the PLCC32 without damaging it, it is best to use a small flat screwdriver of 1 mm width. Slide the flat of the screwdriver under the square component from one of the corners of the support and apply a slight leverage. Place the screwdriver in the same way under the opposite corner and apply a slight leverage. The component must be extracted gently.

Selecting a component in the list:

Use the "Component \ Select" menu.

Open the different sub menus, (the components are sorted by brand and by type).

Then highlight a component and click on "Select this component."

The programming algorithm of this type of component is then loaded into the programmer.

Then insert the component on the support.

Loading a file:

The menu « File\Load » allows loading a source file in the window of the tab « Program0 » before going ahead with a programming. This window is called the « Buffer Program ». It serves as the intermediary between the loading of the file's source code into the software, and from the software to the component that has to be programmed.

Note: you cannot upload a file if you have not previously selected a component using the "Component \ Select" menu (to configure the interface depending of the selected component).

When you use the « File\Load », if the file that you wish to load does not appear in the window « Load », select « All files » in the menu « File Type » in the bottom of the window. After selecting the file, click on « Open ». If the file loaded into the buffer is of a size that does not correspond to the type of component selected, a warning message will be displayed on the screen. If the file loaded is of a larger size, it will be truncated. If the file is of a smaller size, the remaining space of the buffer shall be loaded with the value 0xFF. Normally, the size of the file loaded must correspond to the size of the component.

The two buffers « Program0 » and « Program1 »:

You can use indifferently one or other of the two tabs for loading a file on the screen. These two tabs « Program0 » and « Program1 » are provided so that one may compare if required two files side by side through the menu « Edit\Compare ». For example, you can select the buffer « Program0 » for loading your source code on the screen. You may then program your component. Then you load the buffer « Program1 » for reading your component. You can then compare the two buffers.

Reading a component:

The menu «Component \ Read" allows you to transfer the contents of the memory set on the programmer socket in the buffer (or Programme0 or program1). Once scanning is complete, it is then possible to view the entire device memory using the vertical slider to the right of the screen.

If after this reading you see only "FF" on the screen, either your component is blank, or you did not correctly insert the component on the socket (lower the lever on the FlashBiosBox).

If after this reading you see only "00" on the screen either your component is faulty or inserted the wrong way, or there is a problem with the programmer.

Virginité test:

If you are not sure that your component is devoid of any program, first use the "Component \ Virginité test" menu. A blank memory will show "FF" when reading the screen.

Programming a component:

This menu will transfer the contents of the selected Buffer "Program0" or "Program1" in the component. Start programming a component using the "Component \ Program" menu. The "Component \ Tester - Programmer" menu adds a virginity test of the component before launching the programming. In this case, if the component is not blank, the program will not occur.

Verification of the correct programming of a component:

Check the programming of your component using the menu "Component \ Verify".

This function will compare the contents of the memory set on the programmer socket and the contents of Buffer Programme0 or Buffer program1.

Erasing a component:

The menu « Component\Erase » is sometimes unavailable. This signifies that the component cannot be erased.

The EPROMs of type 27Cxxx can be erased only by using an LER-121A eraser based on UV.

The parallel EEPROMs of type 28Cxxx and 29Cxxx are reprogrammable directly without first erasing them.

The FLASHs of type 28Fxxx, 29Fxxx, 39Fxxx, 49Fxxx can be erased electrically using the menu « Component\Erase ».

Note: the menu « Erase » is not available for EPROMs 27Cxxx, you need an Eprom-Eraser like LER-121A.

Comparisons of two components or two files:

You can compare two files from your hard drive or two memories (same references) or a hard disk file with a memory on the socket. For that you need to use the two tabs "Program0" and "Program1".

To compare two components:

- Put the first component on the socket.
- Select the "Program0" tab.
- Read using the "Component \ Read» menu
- Put the second component on the socket.
- Select the "Program1" tab.
- Read using the "Component \ Read" menu.
- Select the "Edit \ Compare" to see if there are different bytes between buffers "Program0" and "Program1".

If the software finds a difference, the cursor will stop at the byte which is different between the two buffers.

Play around with the "Program0" and "Program1" tab to see this difference. To continue the comparison, press the "F6" to go to the next difference.

Other functions in the Edit menu:

This menu allows you to perform Cut, Copy, Paste and uses your buffers "Program0" and "Program1" as if it were a word processing software. This allows changing your program Hex (center screen) or ASCII (right screen).

It is also possible to search a hex code from the "Edit \ Search" menu. Press the "F3" key to switch to the next. It is also possible to fill an area of the buffer with a precise value using the "Edit \ Fill" menu.

How to use the connector HE10 (SPI/I2C):

The Spi and I2C connector allows you to program the components of the 24Cxxx / 25Cxxx 93Cxxx and M95xxx series welded on board using a specific cable (not included). You will find below the pinout of the connector according to the different families of components to be programmed.



