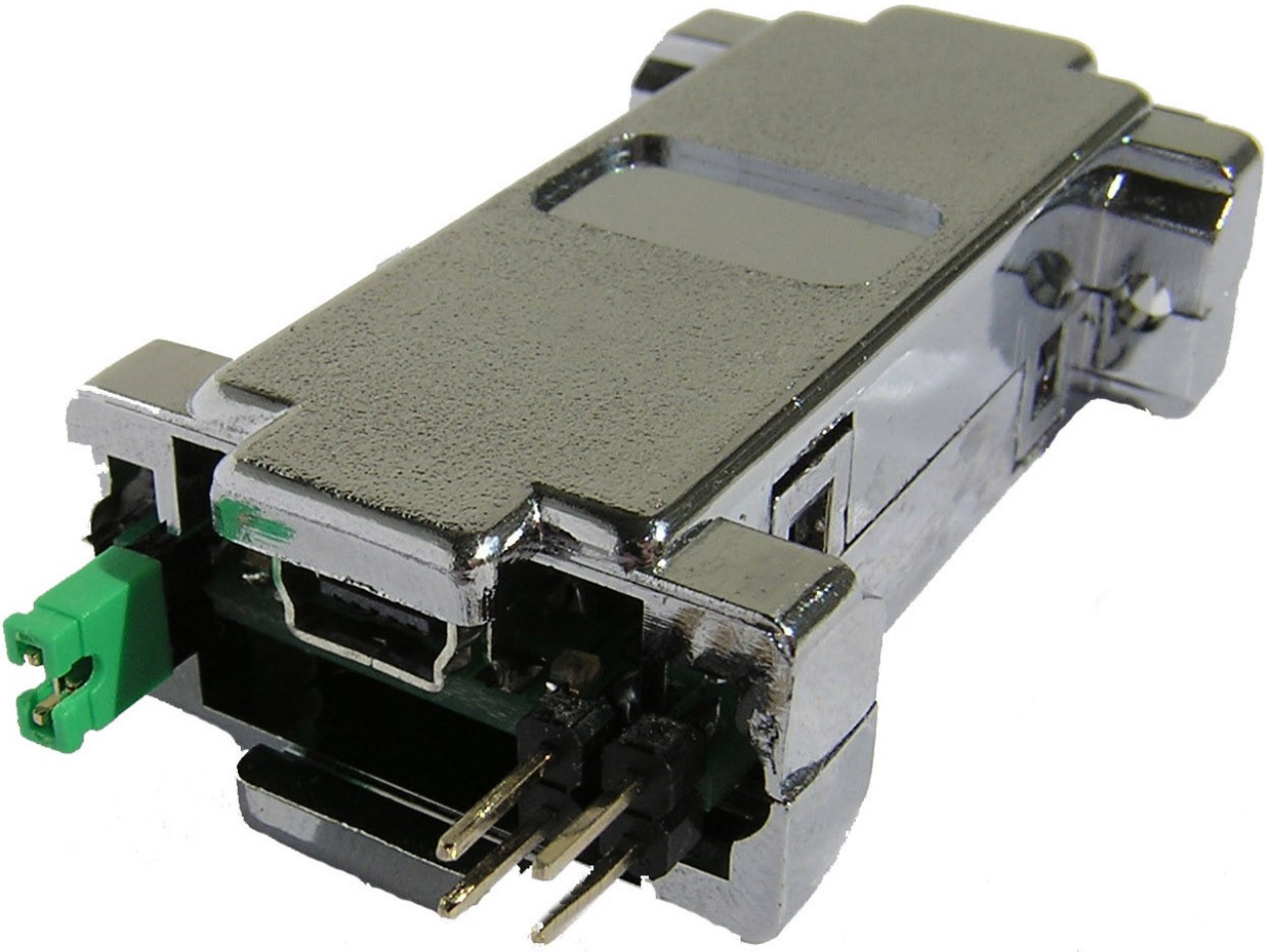
Programming Device
Manual Booklet
AVR Prog USB v2



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1. Installation

The programmer is connected to a computer using a USB A-B mini connection (most frequently used with digital cameras). It is advised to use a cord not longer than 1.8m.
A connection with the programmed set is conducted by a IDC-10 data tape. A connection with a programmed device performed by IDC-10 connectors on both ends. Programmer uses a set of pins Atmela standard compatible – to use it, take a one-one –one, non interlaced cable.

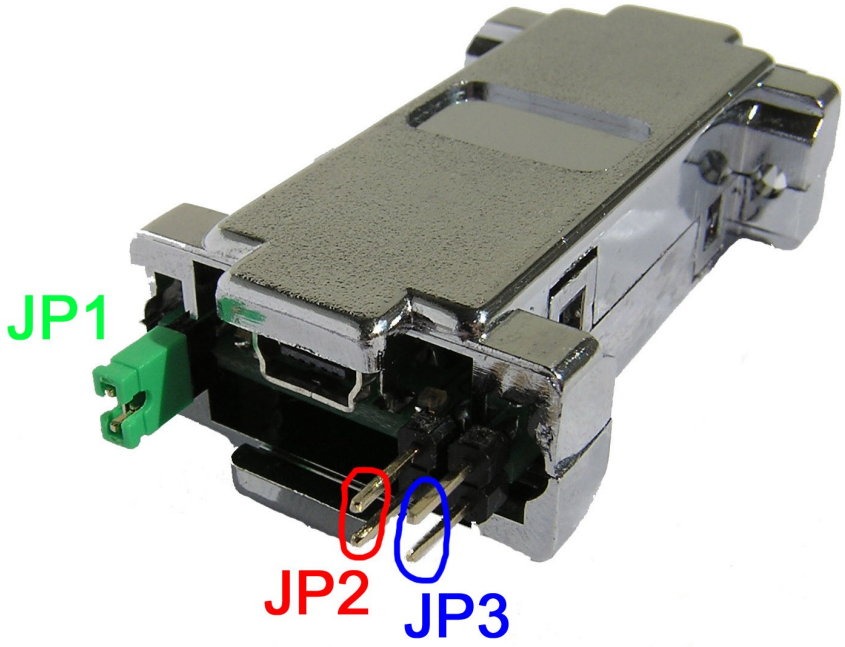
ATTENTION !!

If, after a successful installation, a programmer is detected by Windows and lits a green LED, but does not operate, connect the programmer to a PC/laptop excluding HUBs and docking station. In some specific situations, programmer's functions may be interrupted by these devices.

2. HID mode drivers installation.

To install a programmer as a HID device, place a jumper presented at the picture as JP3. Afterwards connect the programmer with a computer. The programmer will install its self automatically. It will take a few seconds.

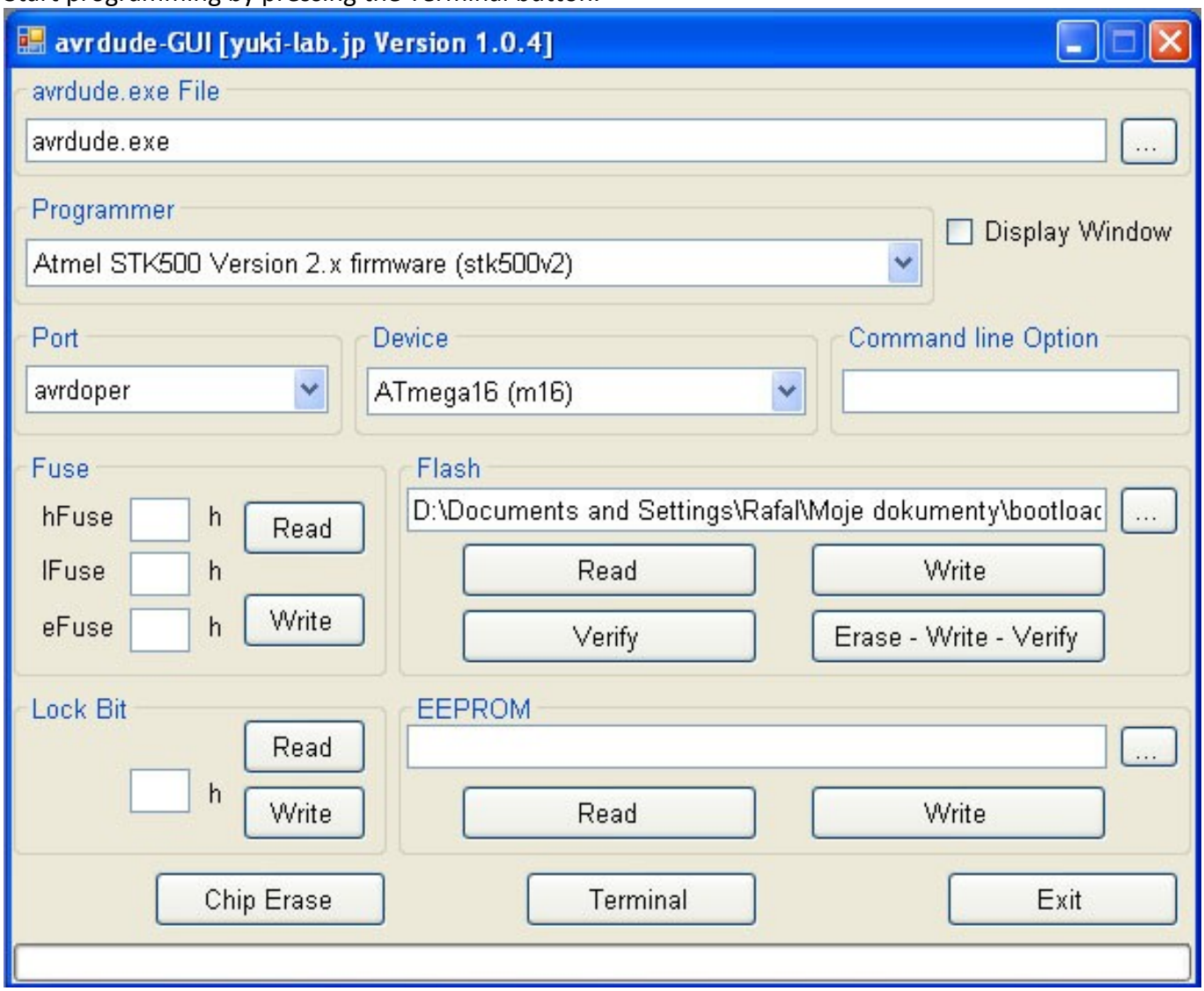
WARNING! Programmer installed as HID is commanded by a avrdude software.



3. HID mode programming

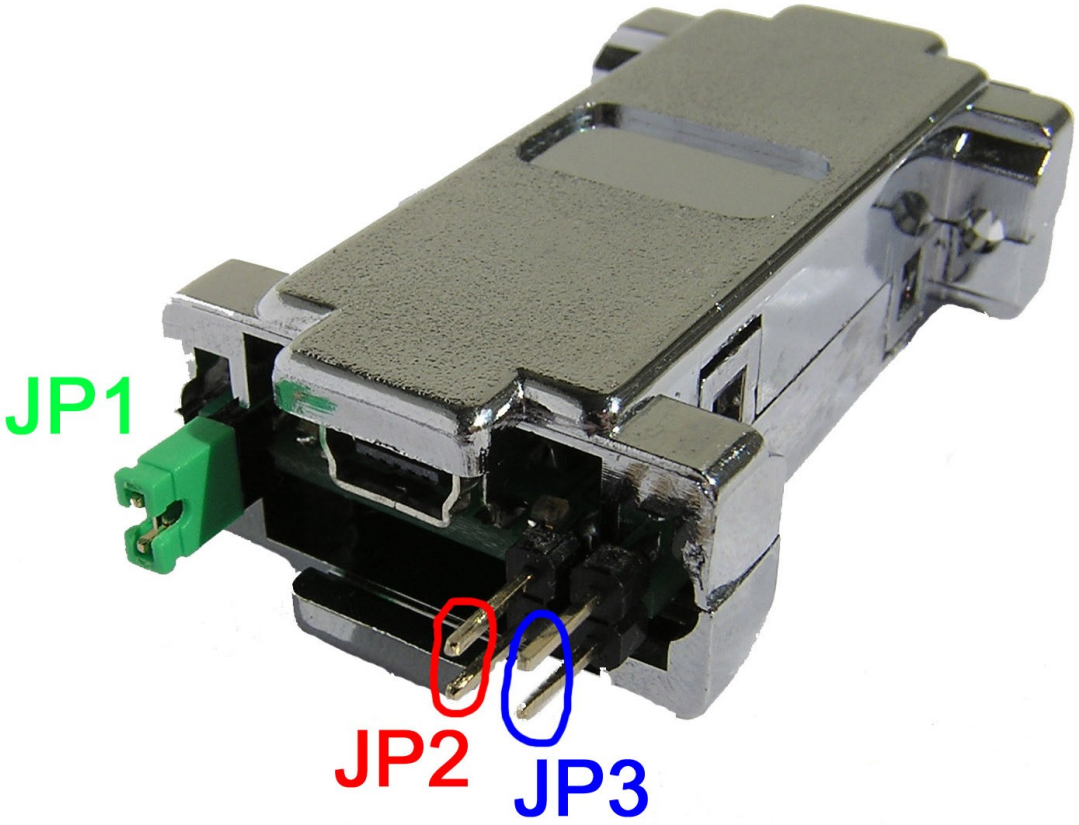
A programmer in the HID mode uses the Avrdude software. In order to obtain a better comfort of work is suggested to install a graphic Avrdude interface named GUI. Download GUI from our websit: http://www.and-tech.pl/avr-prog-usb-v2

In order to programme a processor, set the following fileds: Programmer and Port (see picture below). Choose a processor type in the Device field and a file to programme the processor in the Flash field. Start programming by pressing the Terminal button.



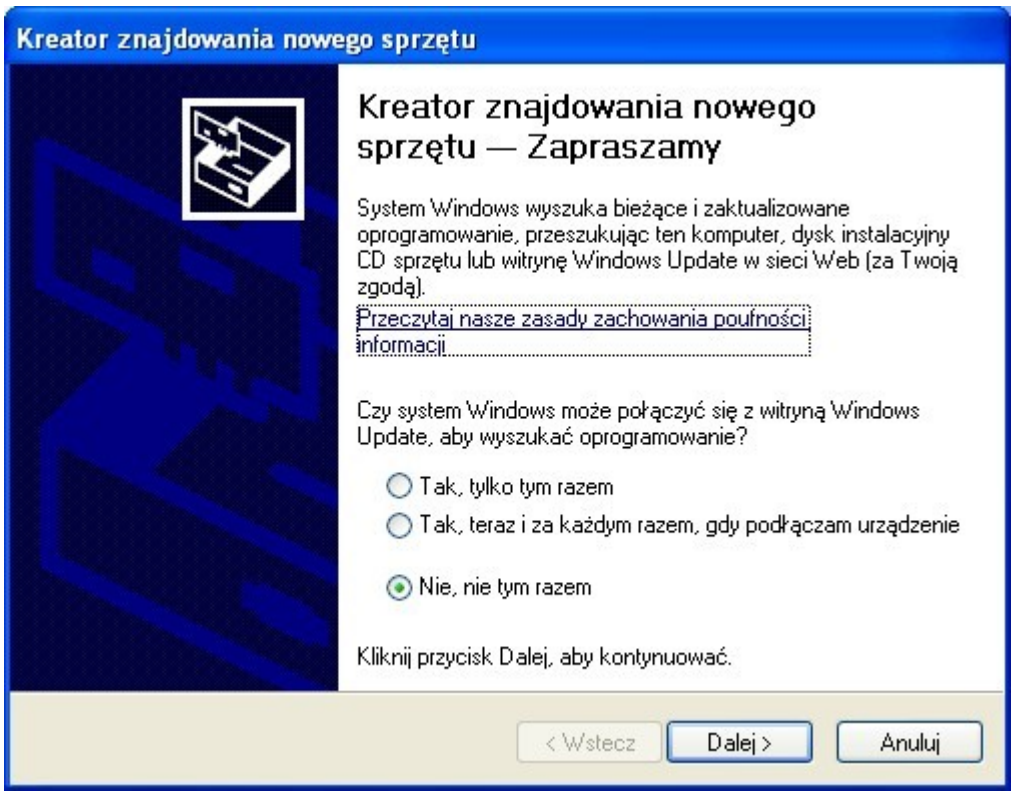
4. COM mode installation.

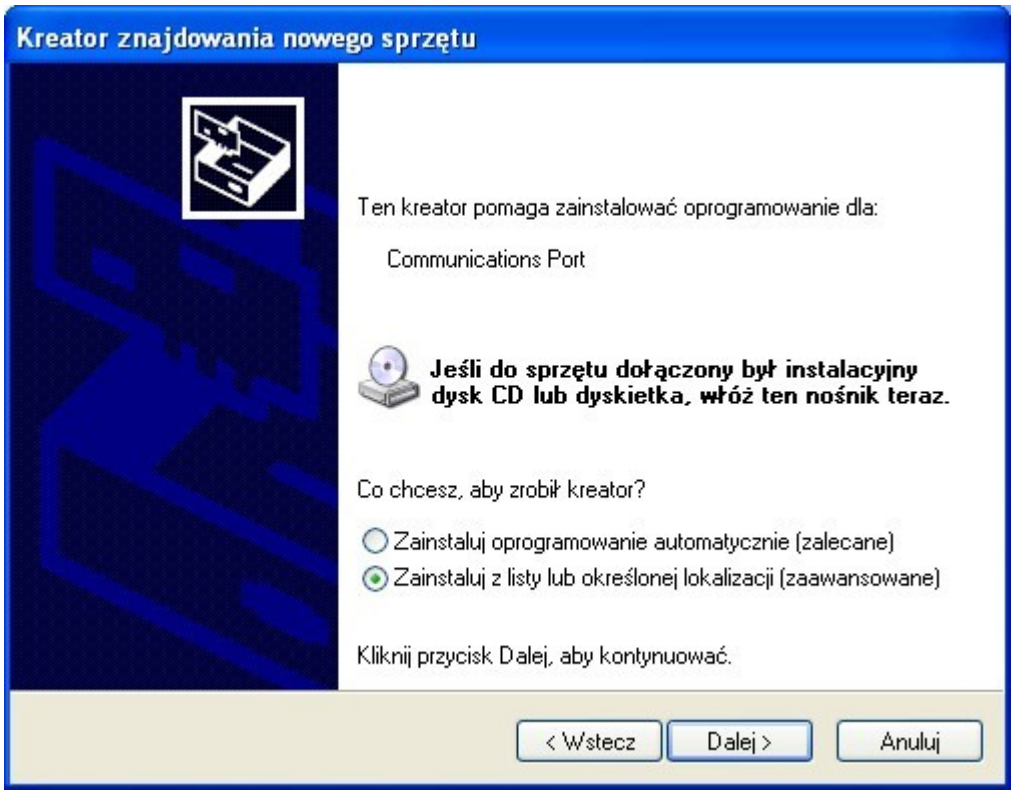
To install a programmer as a COM port, remove the jumper marked as JP3 (see picture below). Than connect the programmer with a computer and follow the below instructions.

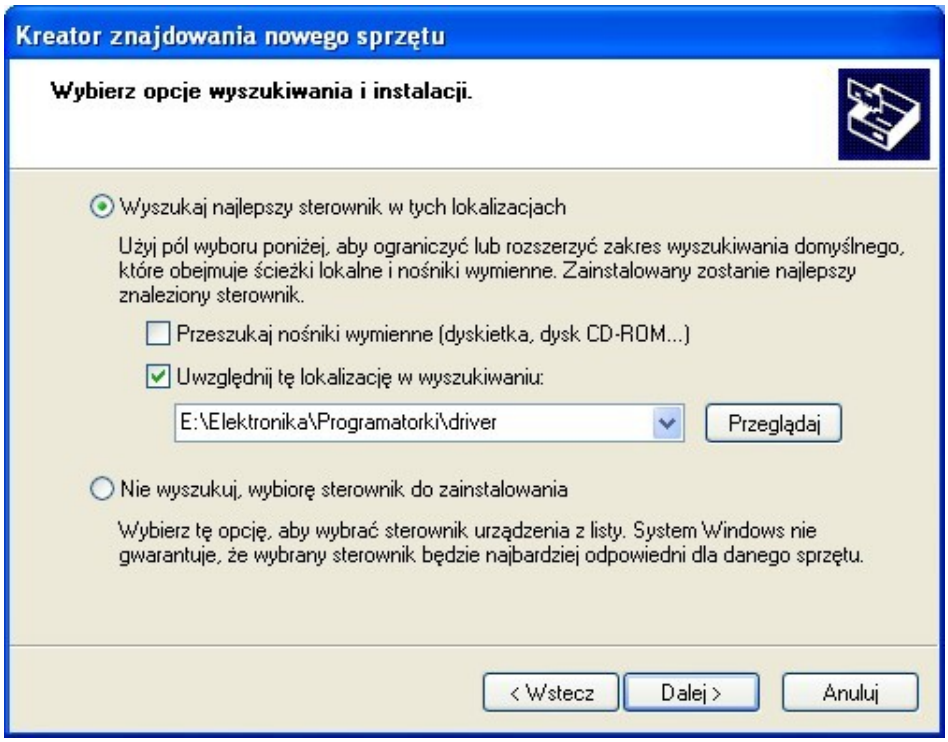


At your first application of a programmer, it will be detected by a computer as a new device. It will require a path leading to the driver.

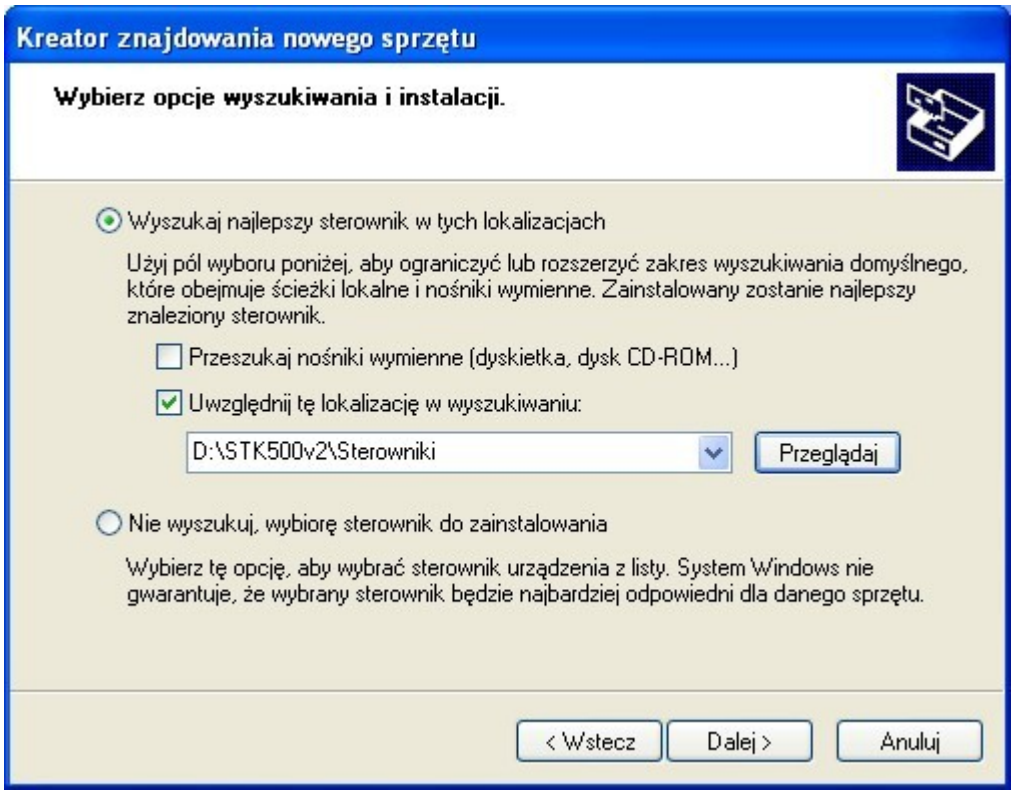
Drivers are avaliable at:
http://www.and-tech.pl/avr-prog-usb-v2

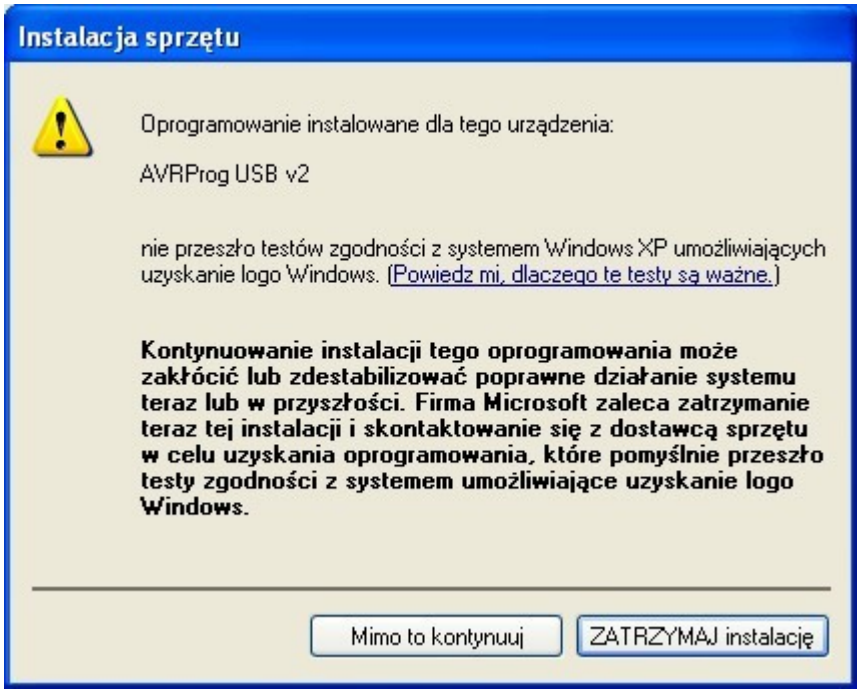





Kreator znajdowania nowego sprzętu
Wybierz opcje wyszukiwania i instalacji.
Wyszukaj najlepszy sterownik w tych lokalizacjach
Użyj pól wyboru poniżej, aby ograniczyć lub rozszerzyć zakres wyszukiwania domyślnego, które obejmuje ścieżki lokalne i nośniki wymienne. Zainstalowany zostanie najlepszy znaleziony sterownik.
Przeszukaj nośniki wymienne (dyskietka, dysk CD-ROM...)
Uwzględnij tę lokalizację w wyszukiwaniu:
E:\Elektronika\Programatorki\driver
Przeglądaj
Nie wyszukuj, wybiorę sterownik do zainstalowania
Wybierz tę opcję, aby wybrać sterownik urządzenia z listy. System Windows nie gwarantuje, że wybrany sterownik będzie najbardziej odpowiedni dla danego sprzętu.
< Wstecz
Dalej >
Anuluj

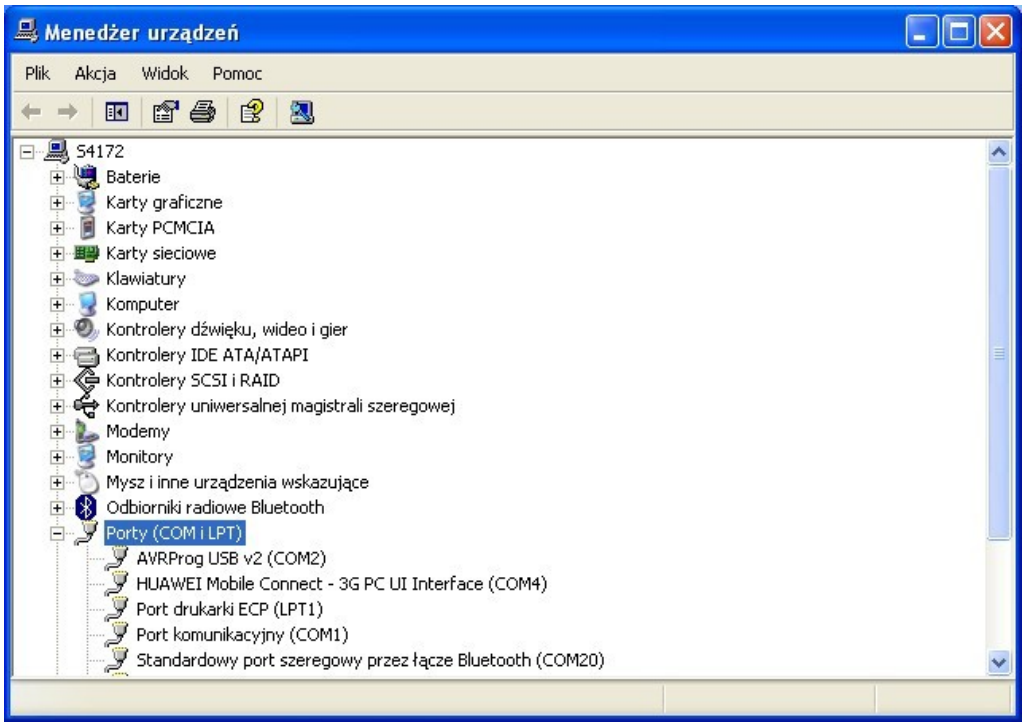
Przeglądanie w poszukiwaniu folderu
Wybierz folder, który zawiera sterowniki dla sprzętu.
System (D:)
88afbdb0f15c4cca07
Documents and Settings
Dodatki
eclipse
Program Files
STK500v2
Sterowniki
Wiring bootloader V1 (STK500 com
Temp
Aby wyświetlić podfoldery, kliknij powyżej znak plus.
OK
Anuluj



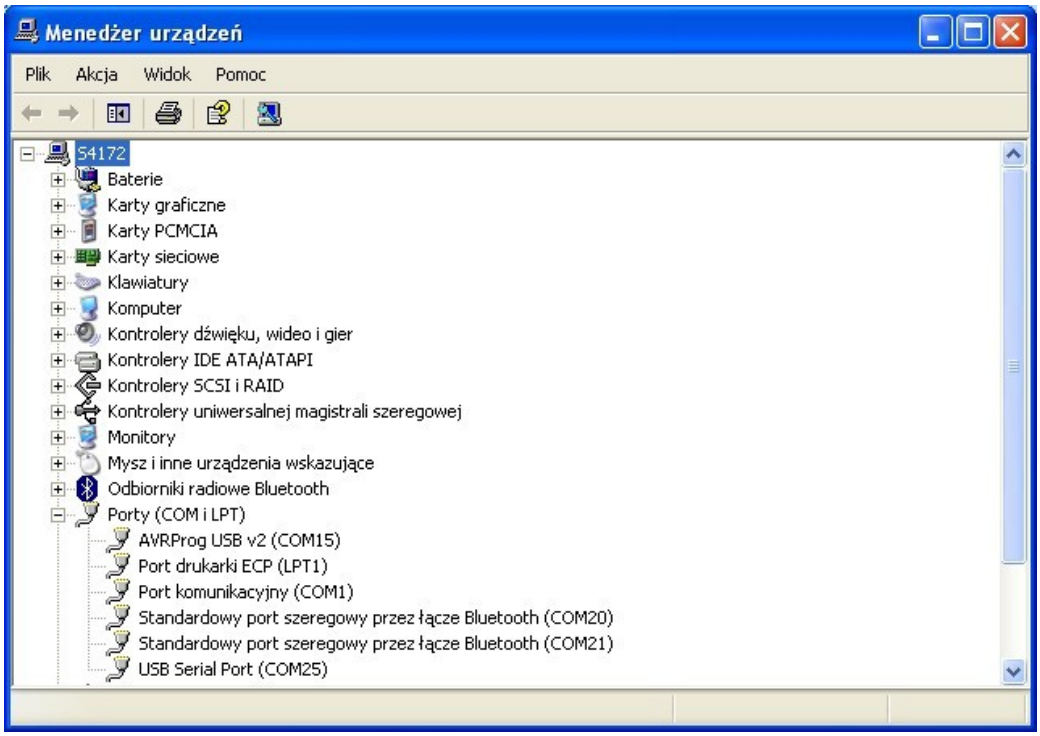


After installing a driver, the programming device should be visible at your system device manager under the name: AVRProg USB v2. Installing it at any other USB port will effect in another installation.

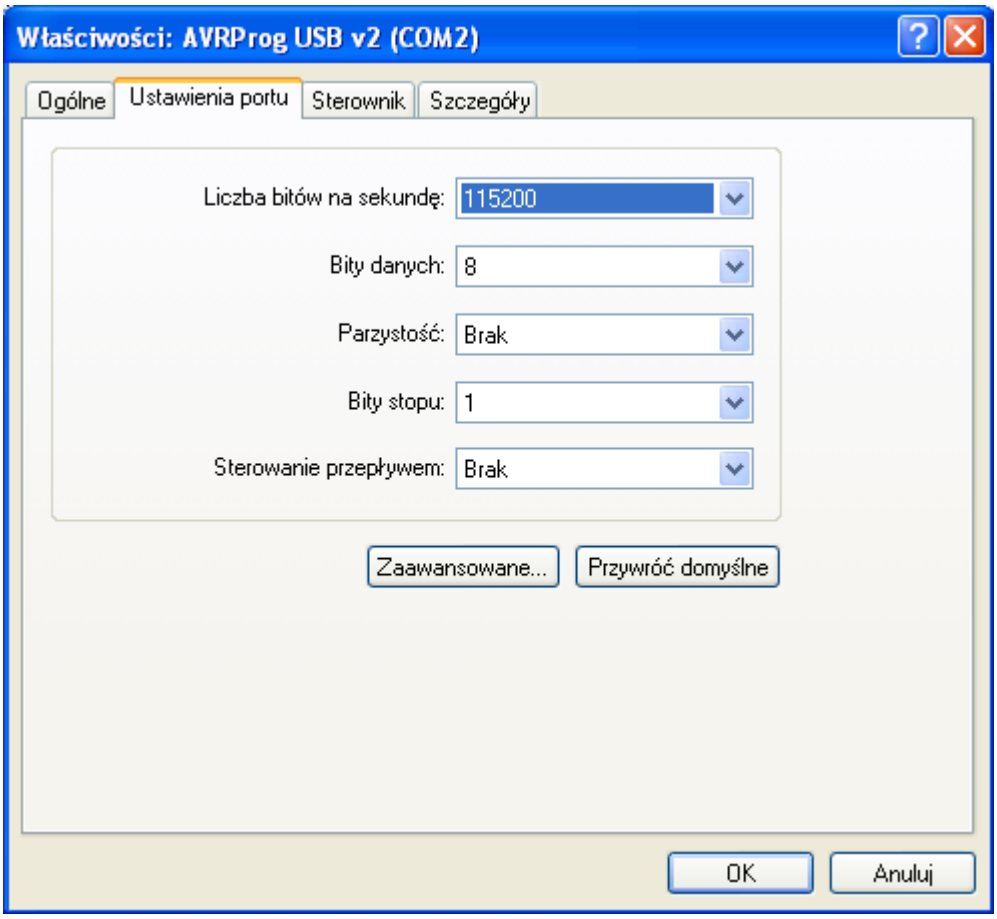
After installing the programmer, change PORTU COM settings at your system device manager, where the programmer is installed as follows:

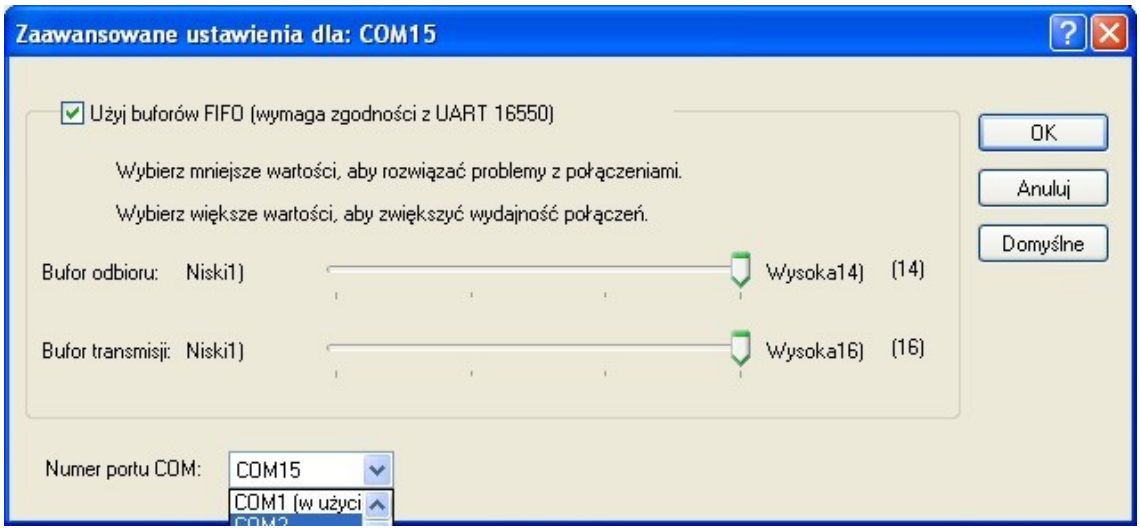


If the programmer installs at a distant COM port (it is advised to install it between COM1 and COM9). See the below picture for more details.



In order to change the COM port, enter programmer's advanced settings to choose a port between COM1 and COM9 (if these are already in use, try to relieve one and than check programmer's correct operation).

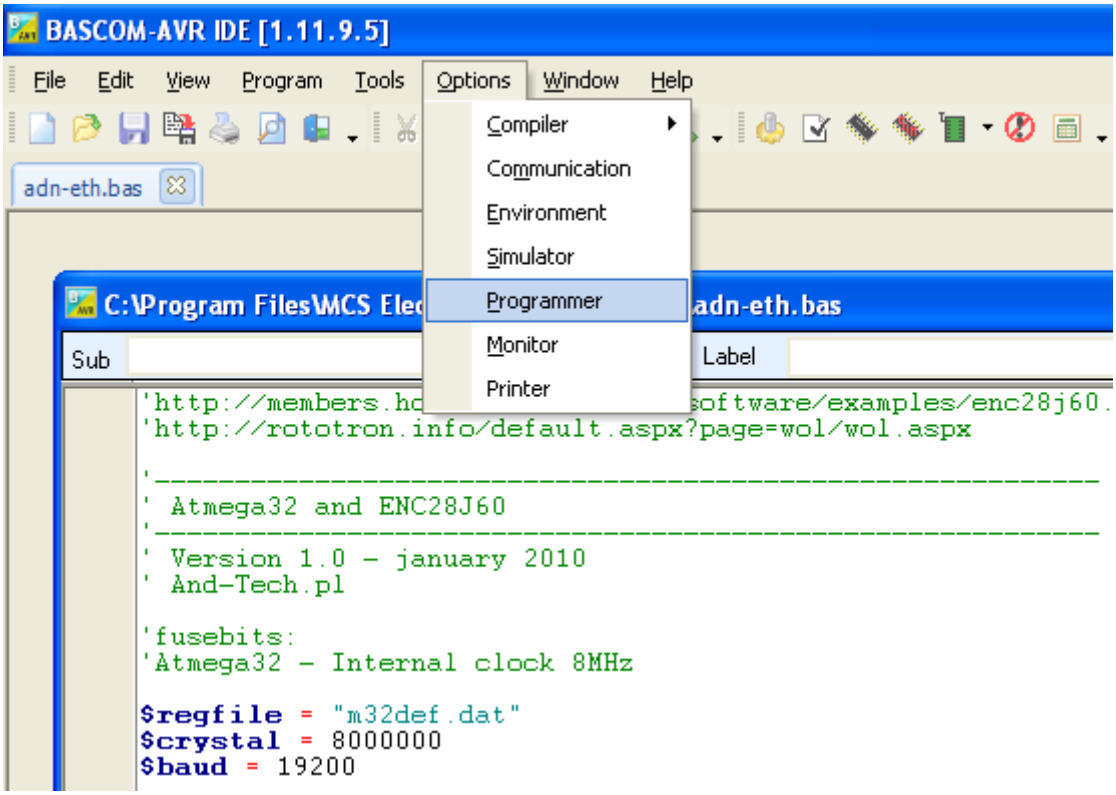

Właściwości: AVRProg USB v2 (COM2)
Ogólne
Ustawienia portu
Sterownik
Szczegóły
Liczba bitów na sekundę:
115200
Bity danych:
8
Parzystość:
Brak
Bity stopu:
1
Sterowanie przepływem:
Brak
Zaawansowane...
Przywróć domyślne
OK
Anuluj


Zaawansowane ustawienia dla: COM15
Użyj buforów FIFO (wymaga zgodności z UART 16550)
Wybierz mniejsze wartości, aby rozwiązać problemy z połączeniami.
Wybierz większe wartości, aby zwiększyć wydajność połączeń.
Bufor odbioru:
Niski1)
Wysoka14)
(14)
Bufor transmisji:
Niski1)
Wysoka16)
(16)
OK
Anuluj
Domyślne
Numer portu COM:
COM15
COM1 (w użyci

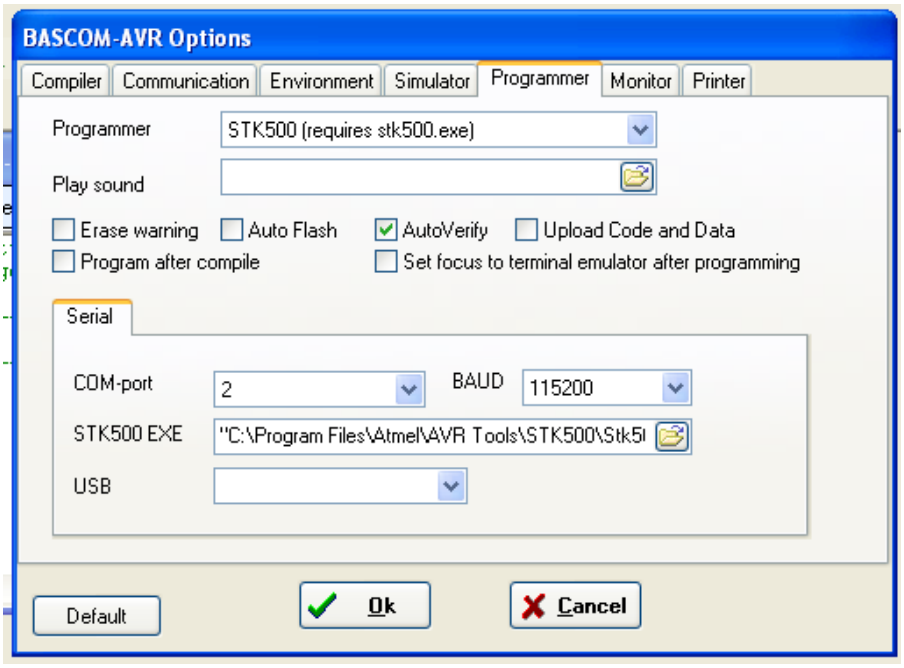
5. BASCOM environment programming

BASCOM's configuration preparing for AVR Prog USB v2 supporting:

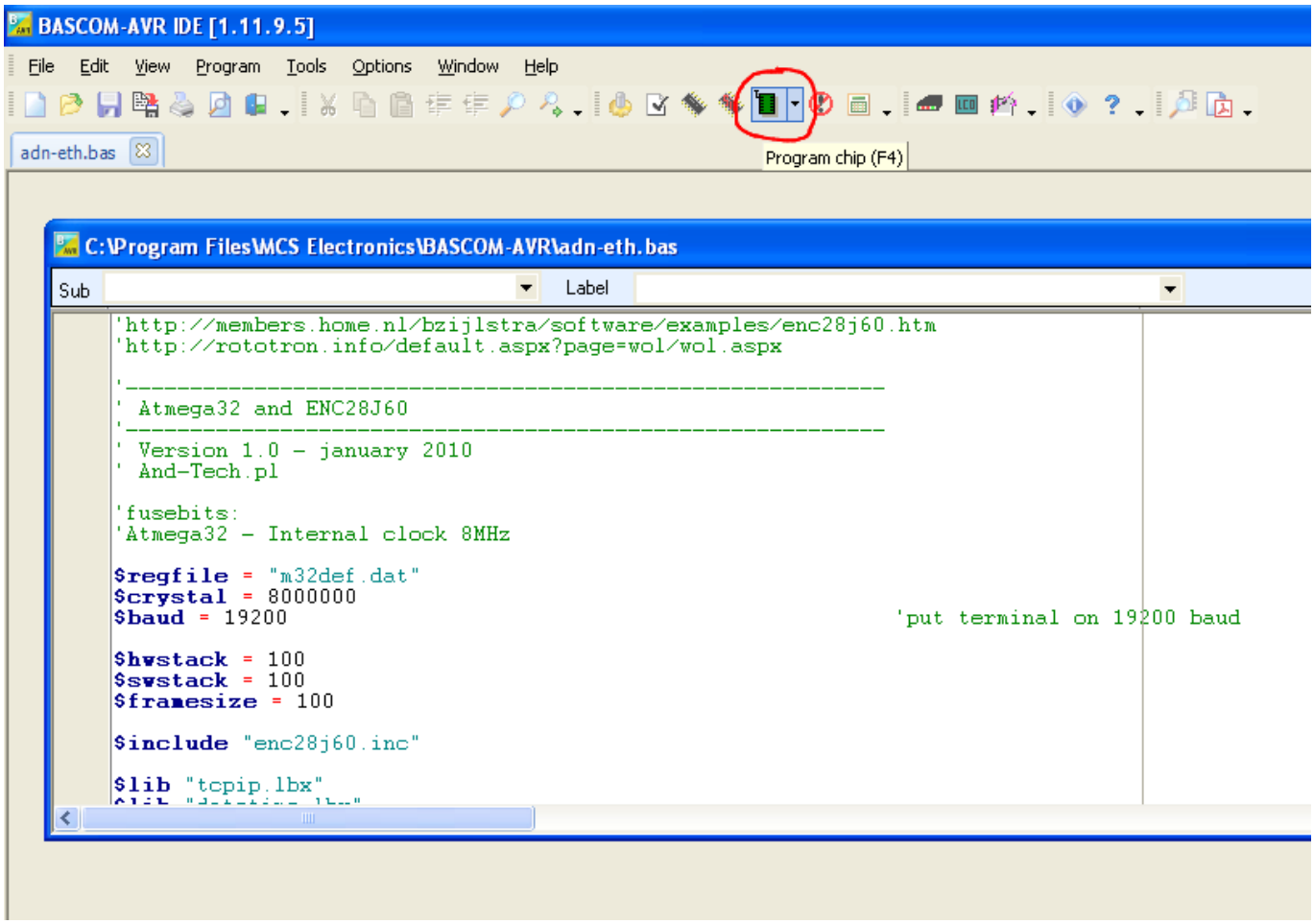
Choose a Programmer tab at Options menu:



Choose STK500 programmer and set it according to below orders:
COM-port: serial COM with installed AVR Prog USB v2 (check Control Panel ->devices System-Manager -> COM i LPT ports), STK500 EXE: destination path to STK500 programmer (included in the set) Other settings – according to needs.

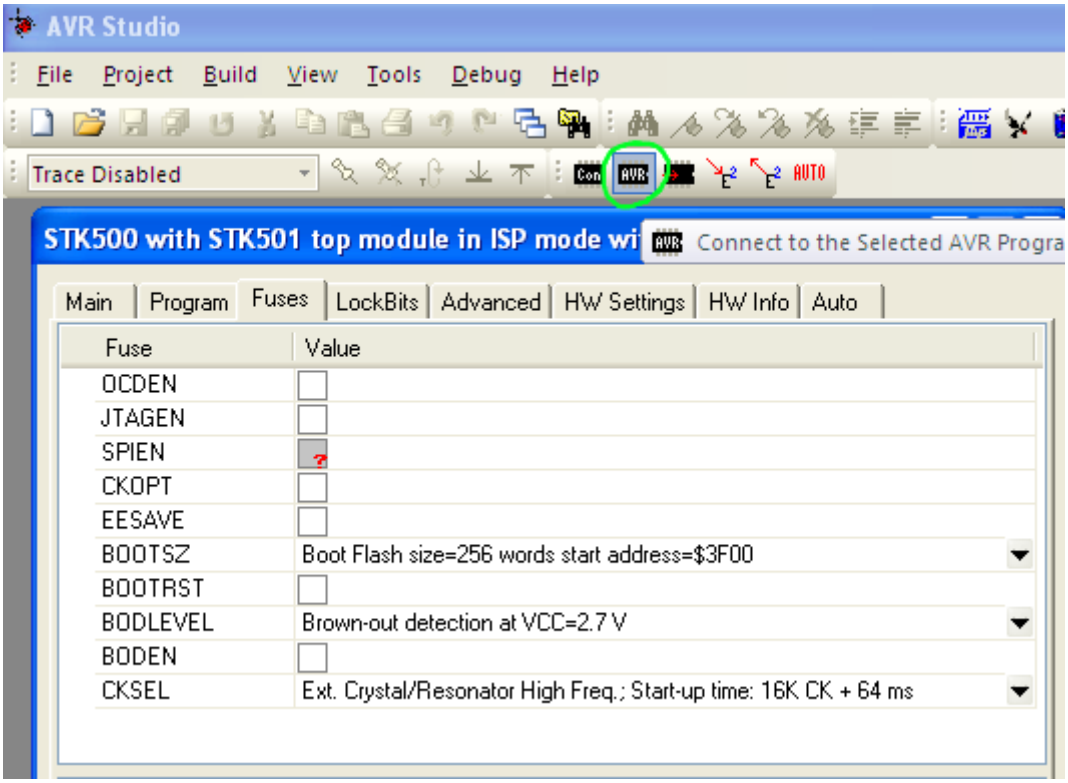


Now you can program microprocessor by click “Program chip” icon.

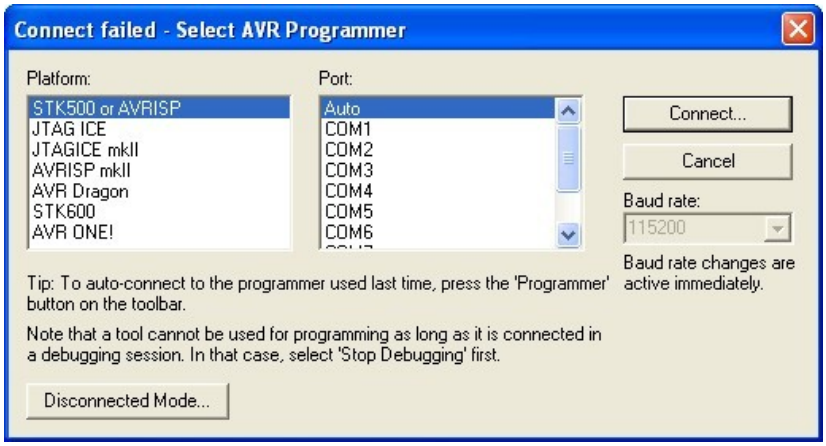


6. AVR Studio environment programming

If there are no other programmers connected to the computer, click AVR icon (marked green). AVR Studio should detect the programmer its self automatically. If not, choose programmer type: STK500 and the port name where it is installed.

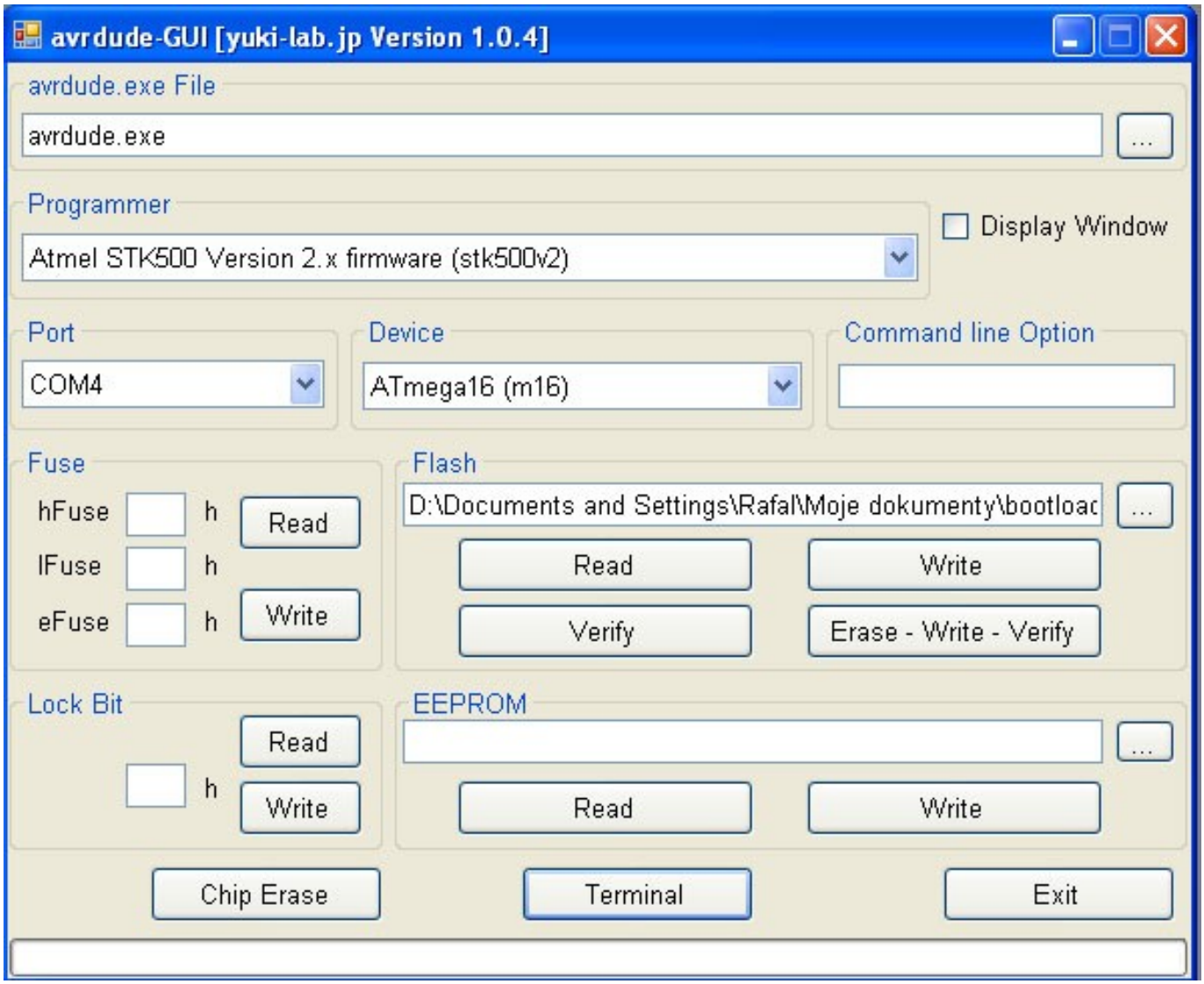


When a programmer is not detected by the software, the below window will appear on the screen, and the programmer has to be disconnected from a USB port and reconnected again, pressing the AVR icon. If this action will not provide programmer detection, check if the programmer type STK500 and AUTO have been chosen.

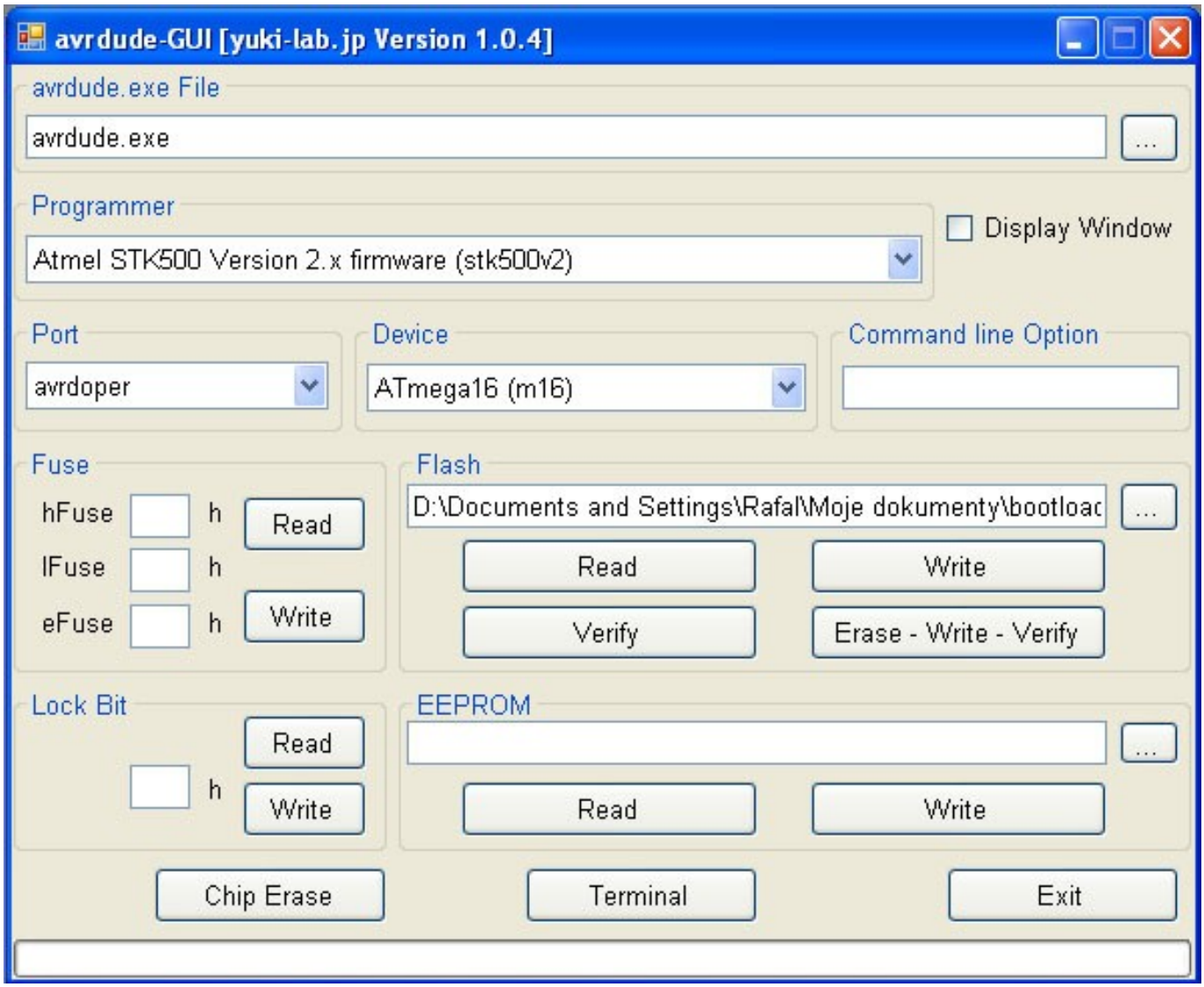


7. Programming with AVR Dude software

In order to programme a processor, set the Programmer field as on the below illustration. At the Port field, choose COM port where the programmer was installed (see page 8 of this booklet) and at the Device field choose the processor type you are using. Afterwards choose the file which will programme the microprocessor at the Flash field Start the programming by pressing Terminal button.



8. AVR Dude – HID mode

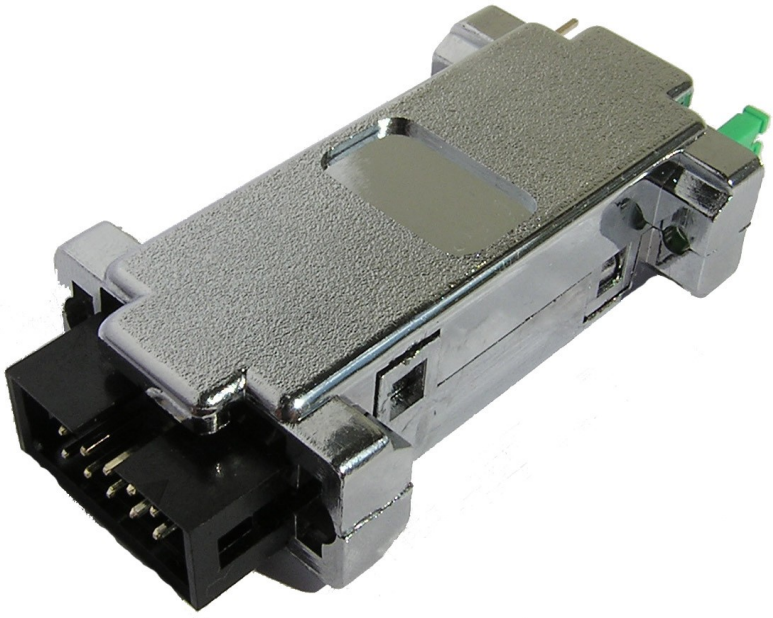


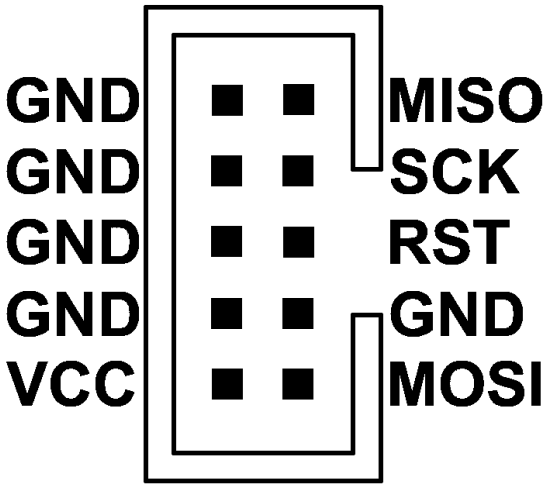
9. Other software

AVR Prog USB v2 programmer is able to use any software capable of choosing STK500v2 programmer.

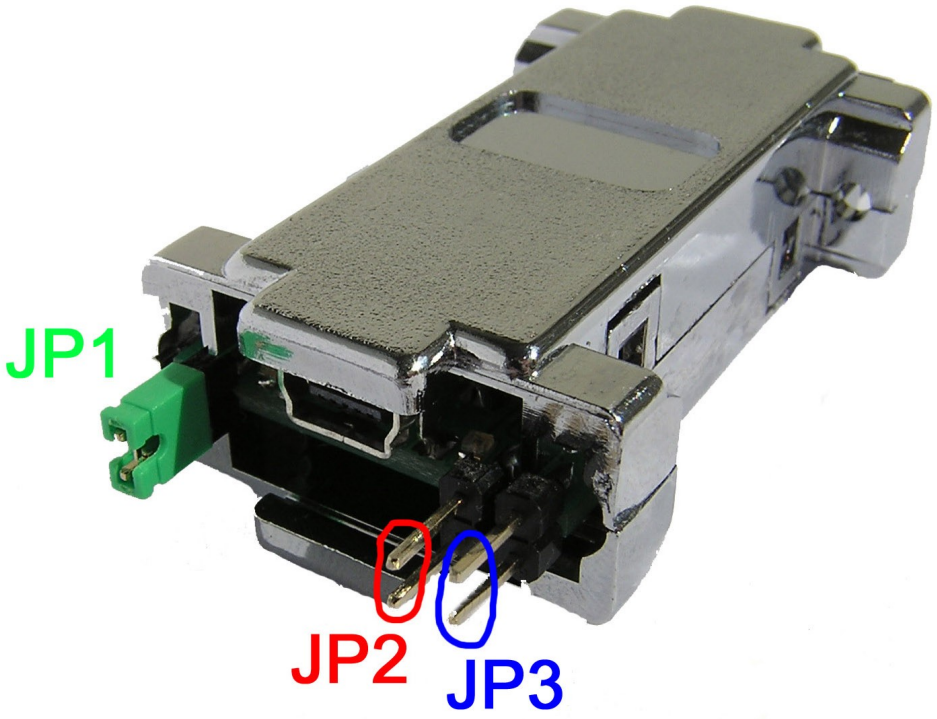
10. ISP connector

Programmer equipped with a 10-pin ISP connection with KANADA standard. (see below for detailed signals description.





11. Jumpers and LEDs description



Programmer's jumpers functions:
JP1 – programmer's programmed circuit power source (approx. 4.8V)

JP2 – Lowering work frequency of ISP, useful when a programmed microcontroller is clocked with 1MHz.

JP3 – HID mode

LED colours:
Green – programmer connected to power source
Red – programming

If a software error occurs after a zero signature is read by avrdude (Device signature = 0x000000), the reason might be the under-clocking or the programmed microcontroller large delay Install a jumper no.2 on the programmer to lower SPI speed when programming.
The problem may concern unused microcontrollers (fusebits SUT set for Atmega8 provides major starting delay. The source of under-clocking is a 1MHz generator).