AVR-JTAG Emulator User's Guide

1. It is replaceable for the original emulator, truly realizing the in-circuit update.
2. The chips it can emulate: all the AVR series that can be JTAG emulated
3. The chips it can download : all the AVR and the AT98 series
4. The software it supports: AVR Studio and program download software such as pnoyprog
5. The most popular compilers for AVR such as WinAVR and program download software
6. Emulation functions using JTAG:

   suitable for AVR STUDIO (above v3.56);

   Emulates Digital and Analog On-Chip Functions

   support the interruptions while the program is continually running

   support the breakpoints of the data and the program memory

   support C and assemble language

   connected through RS 232 and PC

   support the in-circuit program through JTAG interface

   power from the target board ,with voltage of 2.7-5.5v
7. ISP download functions

   suitable for many kinds of software

   power from the target board ,with voltage of 2.0-5.5v

8. If no power supply for the target board, DC9Vcan be supplied for this device, and then DC5V 50mA from this device is available for the target board

LIST:

USER'S GUIDE

AVR-JTAG emulator

AVR STUDIO PROGRAM EMULATOR SOFTWARE

INSTRUCTIONS:

1. The chips it can emulate:

   AT90 that can be JTAG emulated

   ATMEGA that can be JTAG emulated

2. Software it supports: AVR Studio (http://www.atmel.com)

3. Functions

   suitable for AVR STUDIO (above v3.56);

   emulate the in-chip functions including digits and imitations

   support the interruptions while the program is continually running

   support the breakpoints of the data and the program memory

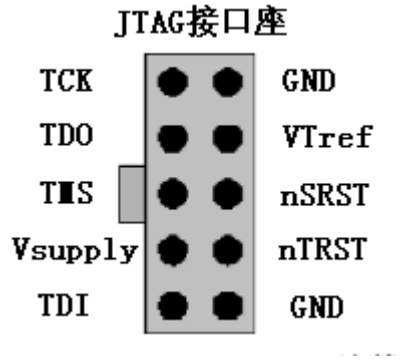
   support C and assemble language

   connected through RS 232 and PC

support the in-circuit program through JTAG interface

power from the target board ,with voltage of 2.7-5.5v

4. Interface for the emulator

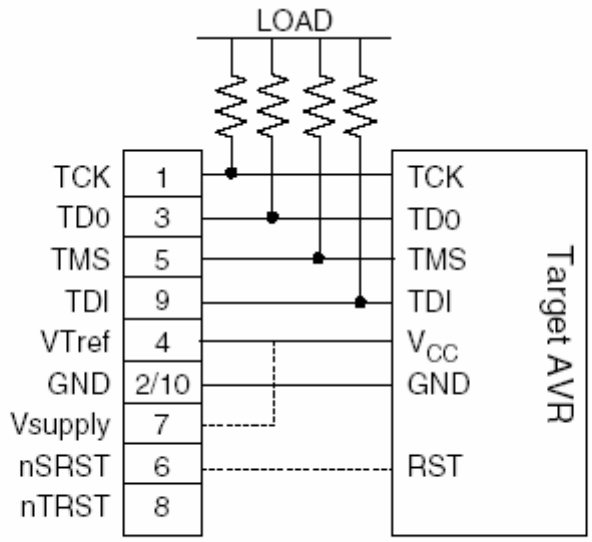


Circuit for standard AVR-JTAG emulator socket

5. Instructions

(1) Connection

Directly connect the interfaces of JTAG and the target microcontrollers TCK TDO TMS TDI VCC GND. Do not connect NSRST , nTRST, Vsupply . As the following:



Circuit for standard AVR-JTAG emulator and the target board

Note: the target board with a JTAG socket is recommended for convenience.

(2)Supply power for the microcontroller after JTAG and the serial interface of the computer are connected.

(3)Click “start→program files →AVR Studio”

(4)Create a new project or open your finished projects, and then choose the JTAG ICE device.

AVR-ISP PROGRAM DOWNLOAD SOFTWARE USER’S GUIDE

LIST:

INSTRUCTIONS:

(1) Supported series

AT89S series

AT90 series

ATMEGA series

(2) Program software

PONYPROG(http://www.LancOS.com)

ISP(http://www.atmel.com）

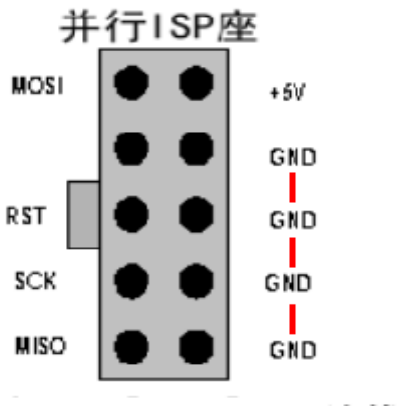
SL-ISP(http://www.sl.com.cn）

(3) SETUP (PONYPRO as an example)

Run the setup.exe

Click “yes→next→install→finish”.

(4) ISP cable as the following



Standard AVR-ISP cable socket circuit

(5) Guide

a. connection

Directly connect the ISP cable and the interface of the microcontroller VCC, RST, MOSI,SCK,MISO.

Note: the target board with a JTAG socket is recommended for convenience.

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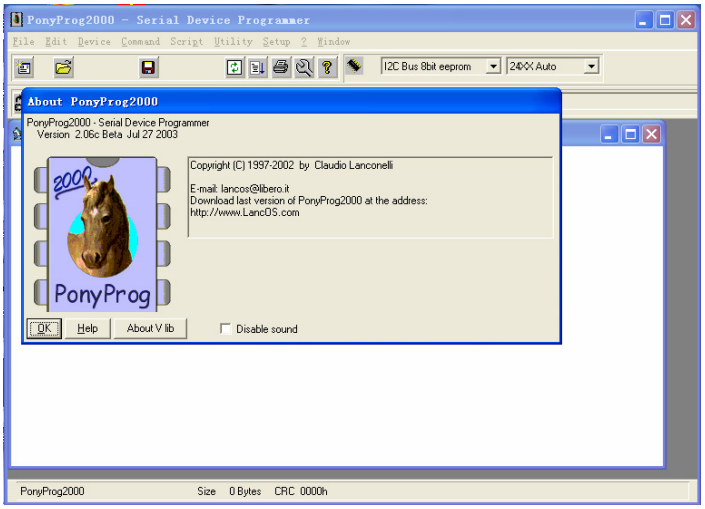
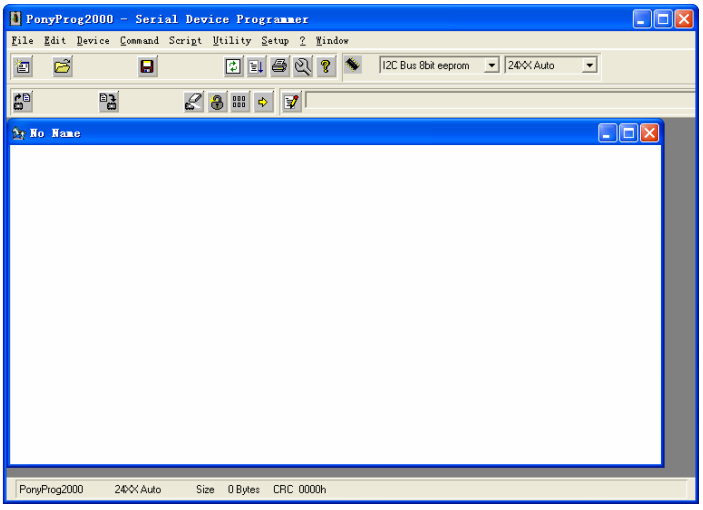
b. Supply power for the microcontroller after the ISP cable and

the parallele interface of the computer are connected.

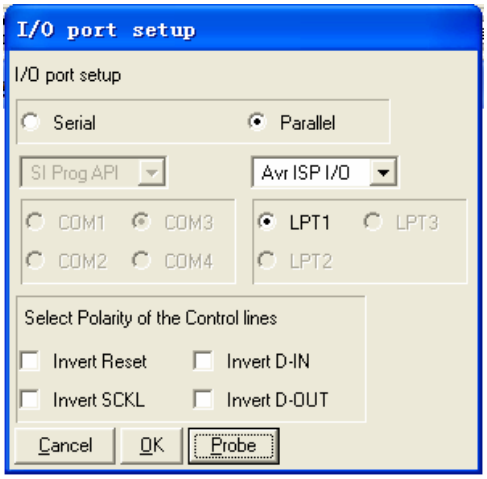
c. Click “ start→PonyProg2000”,then the following logo appeares



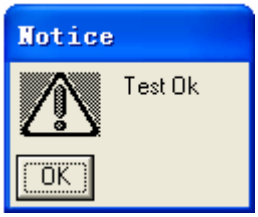
d. click “OK”, until the following logo appears



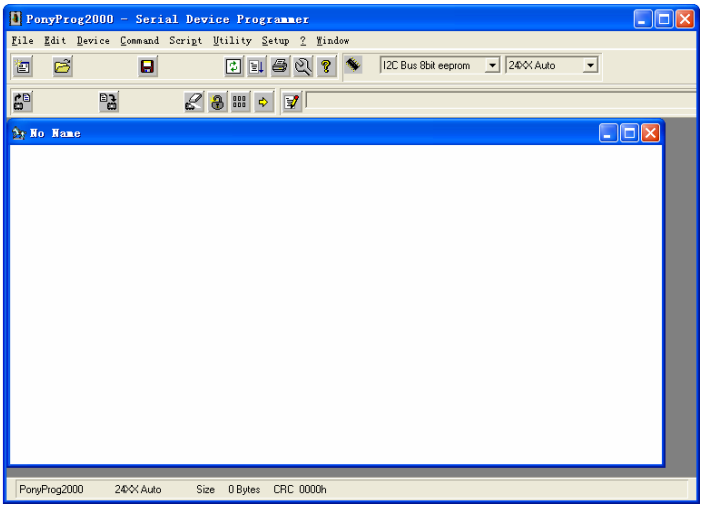
e. click “setup→Interface Setup”, and then click the choices as the following logo



f. Click “probe”, the following logo means OK, otherwise check it.



g. Click “OK”, then back to following logo , now the ISP cable connection is OK, then program download can be done.



h. Click “Device”, choose the correct device

i. Click “File→Open Device File”, open the files to be input

j. Click “Command→Security and Configuration Bits”

k. Click “Command→Program Options”, and set the correct mode

l. Click “Command→Program”,then OK.

m. If further program is wanted ,repeat the step i.

Note: when setting the configuration .do not close the chip’s download function otherwise further program download can not be done. Further use of ISP cable for program can be done after the chips are configurated by the professional parallel programmer.