

E2 ISP Quick Start Guide

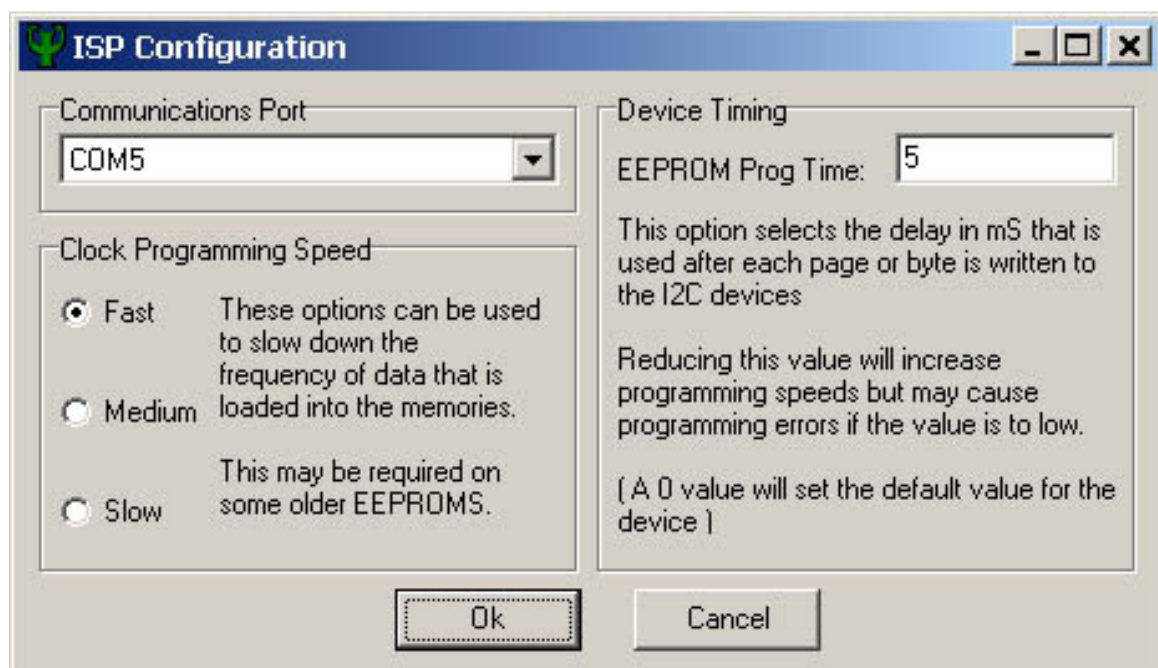
Installing Software

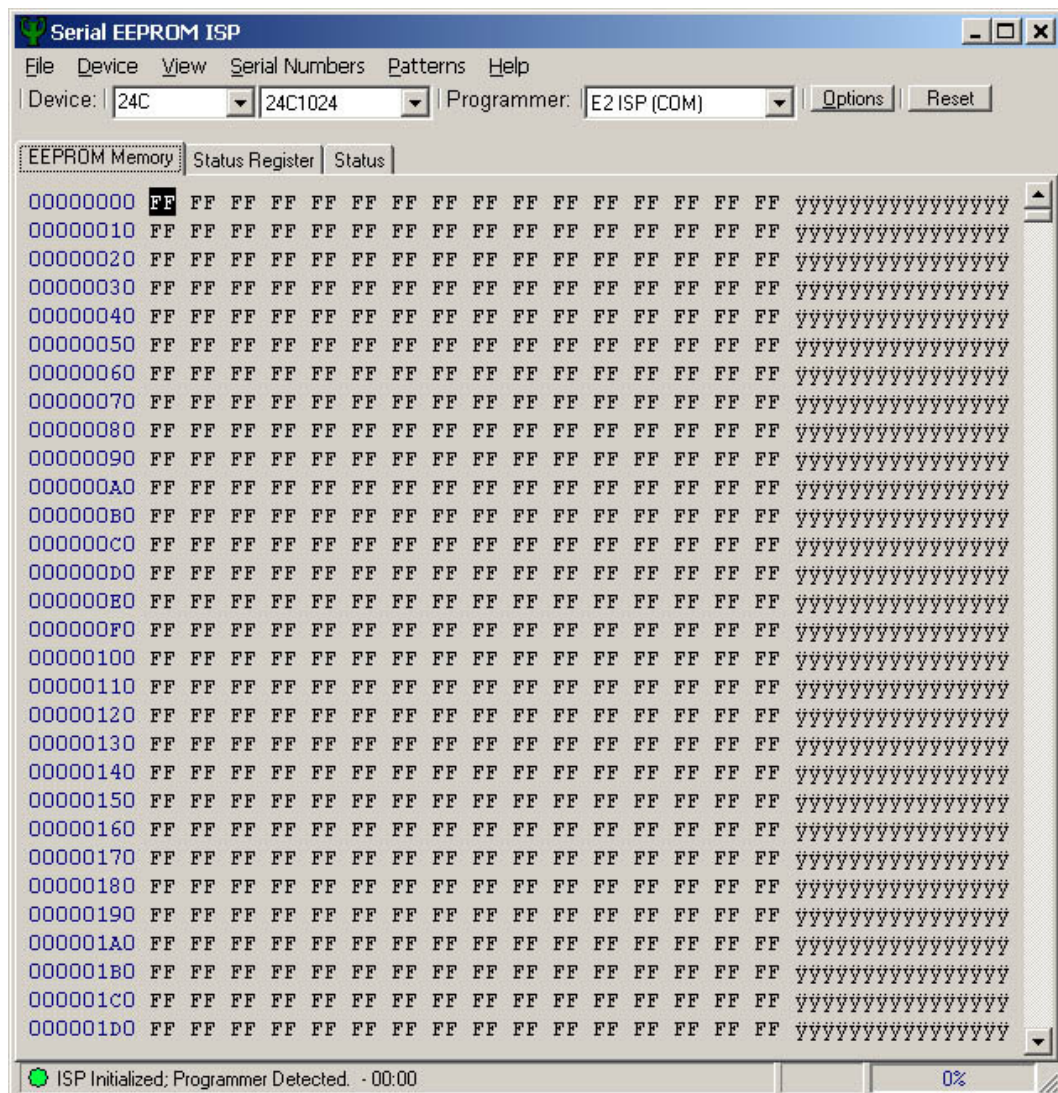
1. Run the executable file on the CD. This will install software and pre-install USB drivers using FTDI driver installer.
2. Plugin PC dongle to a USB port. The drivers should install automatically. If they do not, see Troubleshooting section
3. Connect the 10-way ISP to your target. Power target.
4. Run E2 ISP software from desktop icon or its default location, C:\Program Files\Kanda

First Run

The first time the program is run, you are prompted for which COM port to use. The software detects available COM ports. The software will remember your COM port. If you need to change this, click Options button to bring up this screen again.

The other options on this screen are for old, slower, EEPROMs.





The bottom of this screen shows the status. A green light means that an EEPROM has been found..

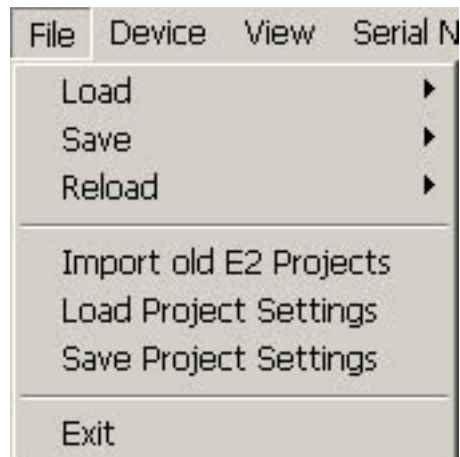
This screen is the memory buffer. You can load a file from File menu, or type Hex or ASCII characters directly in to the buffer. Right click on buffer for options. There are three tabs to display EPROM buffer, Status Register and Status of programmer. The tabs are described in other sections.

Connection Errors

If you get a warning about **No Voltage Detected** when you try and read the device, check your target is powered, connections are correct and the device is inserted properly.

If **no device is detected**, check that the family selected at top left (24C, 25C or 93C) matches the device in your board. Again, also check connections.

File Menu



Click **Load > EEPROM** to load EEPROM (data) buffer. The program can open different file formats, such as binary, Intel Hex and Motorols S Record.

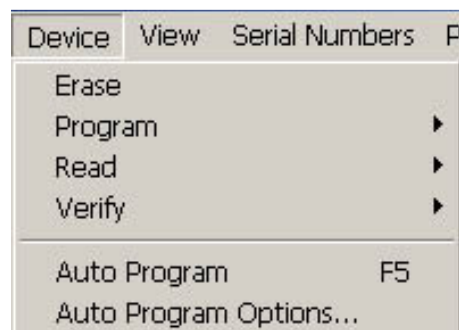
Reload will update the file in the EEPROM buffer. This is also an option in Auto-program Settings.

Project Settings are used to save all the programmer settings for later use or to send to someone else. Device type, filenames, status register, serial numbers and Auto-program settings are saved and can then be loaded again later.

Device Menu

This is the most important menu, where all the important operations are carried out.

Erase device will erase the EEPROM. *The device does not need to be erased before it is programmed.* This operation can be included in Auto-program.



Program device has two options for each part of the device, EEPROM and Status Register, on some devices. You can program both together with verify using Auto-Program.

Read and **Verify** have the same choices as Program, EEPROM and Status Register. Verify operations can be added to Auto-Program. Verify reads the device and compares it with the buffer and any errors are shown in red. Successful Verify is shown in green. Read updates the buffer with the contents of the EEPROM and original buffer contents are lost.

Auto Program carries out a whole sequence of operations that are set in Auto Program Options. **Shortcut key is F5.**

Auto Program Options

The **Auto Program Options** dialog appears and you check operations you want to include in Auto Program sequence.

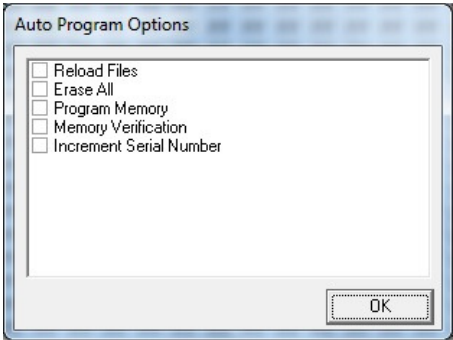
Reload Files updates the EEPROM from the file already loaded. This is useful after a read.

Erase All will clear the device memory. On most devices, erase is automatically done during programming.

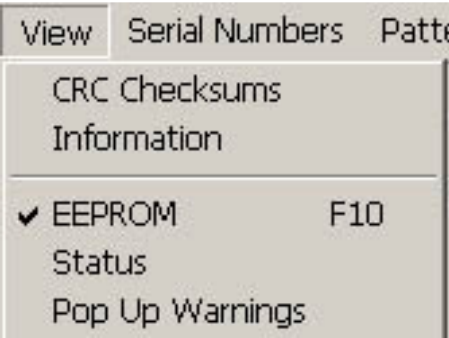
Program Memory will program the device with the current buffer contents.

Memory Verification will read the device and compare it with the buffer. Any errors are shown in red, success in green.

Increment Serial Number will add 1 to current serial number and program it as part of the EEPROM as set in Serial Numbers dialog – see below.



View Menu



CRC Checksums launches a dialog box where calculations of the checksum of the Flash and EPROM buffers can be chosen and displayed.

Information shows current connection information.

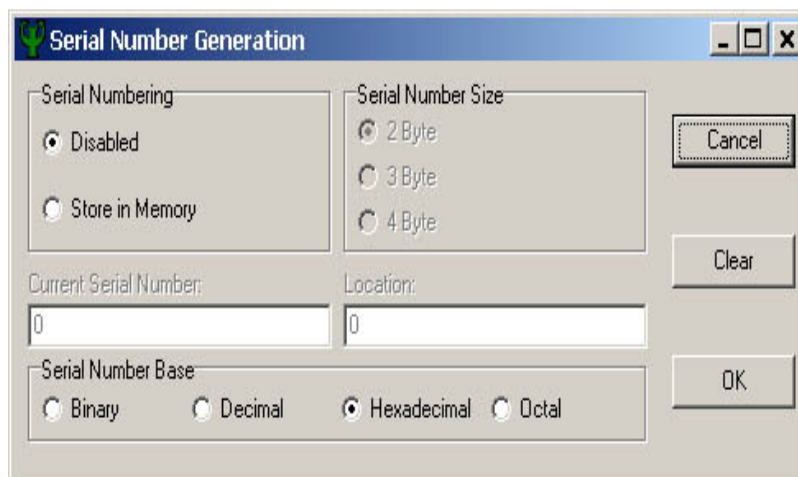
For the rest of this menu, a tick indicates that a feature is ON. Click on it to change its state

EEPROM selects the EEPROM tab. Clicking on the tab does the same thing.

Switching **Pop up Warnings** off will stop warning dialogs from being displayed.

Serial Numbers

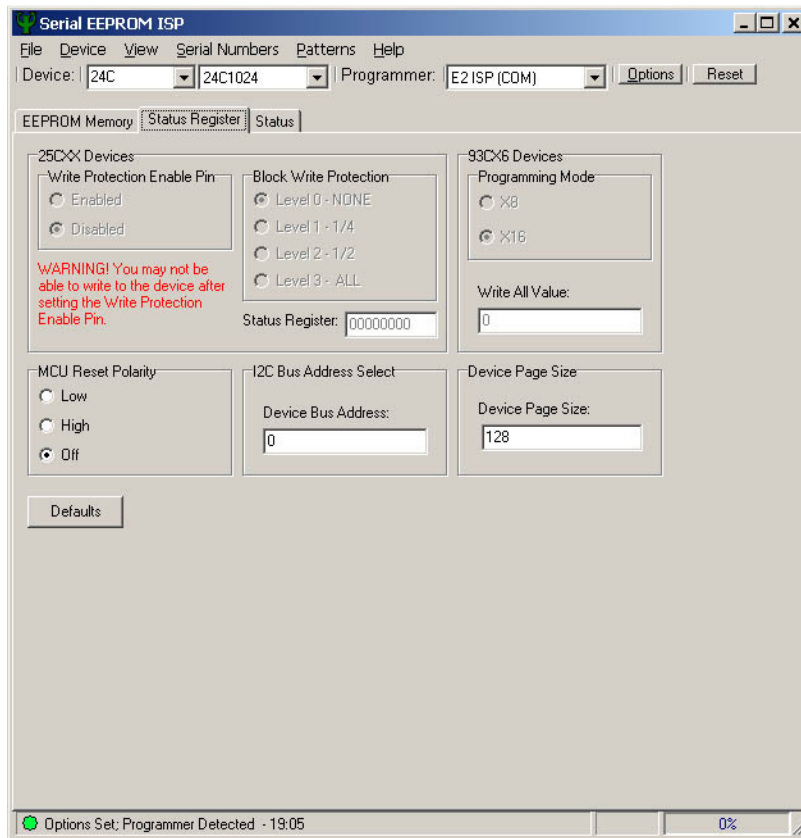
Select this menu to bring up Serial Number dialog box.



Serial Numbers are disabled by default. Set serial numbering to be stored in EEPROM memory. Once this is set, the number base and size (2, 3 or 4 bytes) can be selected. The start serial number can be selected and so can the address in EEPROM where it will be stored.

Once serial numbering is enabled, set **Increment Serial Number in Auto Program Options** (Device menu) to write the next serial number to chosen location every time a device is Auto Programmed.

Status Register Tab



25Cxx Devices

This device family (SPI) have extra features that are set on this page. These include Write Protect PIN and Block Protect bits. These features stop further read/writes of the device.

25C devices have a Status register that can be read, see device datasheet.

93Cxx Devices

This family (Microwire) have either 8 or 16-bit memory organization and setting this wrong will give incorrect data on read. Some devices are fixed to either 8 or 16-bit, depending on part number eg 93C66B is 16-bit only.

Others have an ORG pin that sets the device to 8 or 16-bit mode. This setting much match the device mode or state of its ORG pin – see device datasheet.

24Cxx Devices

24C or I2C EEPROMs have external bus pins that enable devices to have different addresses on the bus. This means that up to 8 24C devices can be used on the same bus, along with other I2C devices.

This pins are grounded or connected to Vcc to match the Device Bus Address selected here.

MCU Reset Polarity

In systems with a microcontroller (especially SPI or MicroWire EEPROMs) it can be useful to hold the microcontroller in reset whilst communicating with the device. This setting sets the Reset output pin to tristate (off), high or low to match your microcontroller reset state.

FURTHER INFORMATION

Please contact support@kanda.com for technical support or go to our website support pages for latest software.

See www.kanda.com/support

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