Upgrading Cleverscope

Important

If you already have Cleverscope installed, use Auto to acquire a signal (which gets the CS328 Cleverscope Acquisition Unit – CAU - information into the PC memory), and then use the menu Help/About Cleverscope to get the App Version Number and Firmware version number. Record these for use below.

If the App Version number starts with 3.2 or 3.3 please see the heading 'To update an old installation' below before starting.

To update an existing Cleverscope Installation

You can update an existing installation by downloading the Cscope Update v64xx.zip file from the download page of the Cleverscope website at http://www.cleverscope.com/download/. This file is considerably smaller than a full install.

An update is simply the process of replacing the Cleverscope.exe file with a new version. Sometimes other files may also need replacing – they are all in the C:\Program Files\Cleverscope directory. There is no need to un-install and re-install anything. No registry entries are changed.

To carry out the Update, download the zip file, and unzip the contents into the C:\Program Files\Cleverscope (or wherever you installed Cleverscope to), overwriting whatever is already there. That completes the update process.
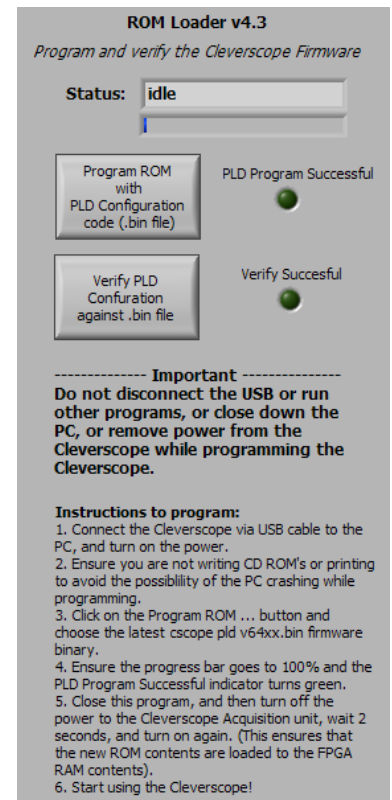
To update the firmware in your Cleverscope Acquisition Unit

When you did the update above, a firmware file of the form 'cscope_pld v53xx.bin' (for CS328/0) or 'cscope_pld v64xx.bin' (for CS328A/0A) will have been loaded into your Cleverscope directory. Look at the four digits 53xx/64xx. Are they the same as the Firmware version number currently in the CAU. If not you should update the CAU firmware.

To do this, carry out the following steps:

1. Connect the CAU, run the Cleverscope Application, and use Auto to acquire something – this verifies the connection before you start.
2. Close the Cleverscope Application.
3. Start Rom Loader.exe, a file that is included in the update, and will be in your Cleverscope directory. **Important**: do **not** run any other applications, write CD's or do printing while the update is in progress. If power is lost to the CAU during the update you may have to return the unit to the factory.
4. Click on 'Program ROM with Configuration code'. Navigate to the Cleverscope directory. Choose the newest cscope_pld v53xx.bin or v64xx file (the programmer will only let you choose the correct file). The programmer should now write the firmware to the CAU in 3% increments, and light the 'PLD Successful' light when complete.
5. Click on 'Verify PLD Configuration against .bin file', and wait for the upload, and then the file dialog to appear. Choose the cscope_pld file you just programmed. Verify that the 'Data Matches' light is lit. If not repeat (4-5).
6. Close Rom Loader.
7. **Important**: Turn off the power to the CAU. Wait 5 seconds. Turn the power to the CAU back on again. This forces the FPGA inside the CAU to reload the firmware from ROM. Verify that the green power light is on.

Your firmware update is now complete.

ROM Loader v4.3
Program and verify the Cleverscope Firmware

Status: idle

Program ROM with PLD Configuration code (.bin file)   PLD Program Successful

Verify PLD Confuration against .bin file   Verify Succesful

-------------- **Important** ---------------
Do not disconnect the USB or run other programs, or close down the PC, or remove power from the Cleverscope while programming the Cleverscope.

Instructions to program:
1. Connect the Cleverscope via USB cable to the PC, and turn on the power.
2. Ensure you are not writing CD ROM's or printing to avoid the possibility of the PC crashing while programming.
3. Click on the Program ROM … button and choose the latest cscope pld v64xx.bin firmware binary.
4. Ensure the progress bar goes to 100% and the PLD Program Successful indicator turns green.
5. Close this program, and then turn off the power to the Cleverscope Acquisition unit, wait 2 seconds, and turn on again. (This ensures that the new ROM contents are loaded to the FPGA RAM contents).
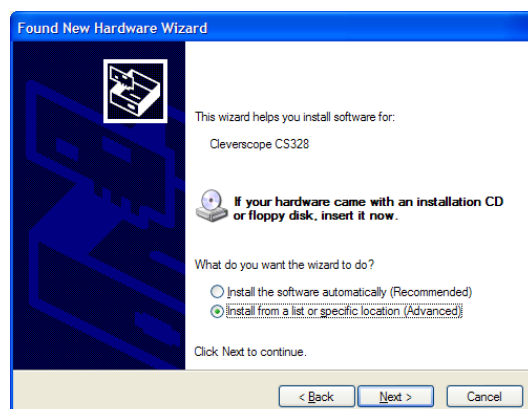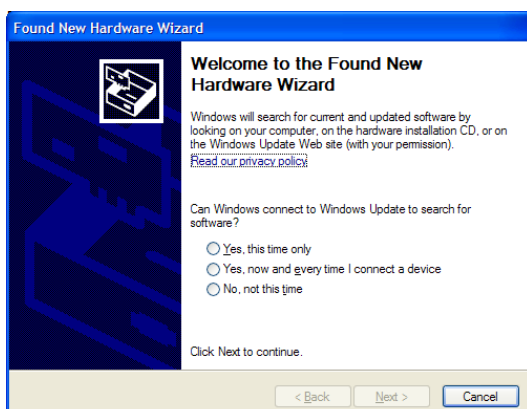6. Start using the Cleverscope!

To install Cleverscope for the first time
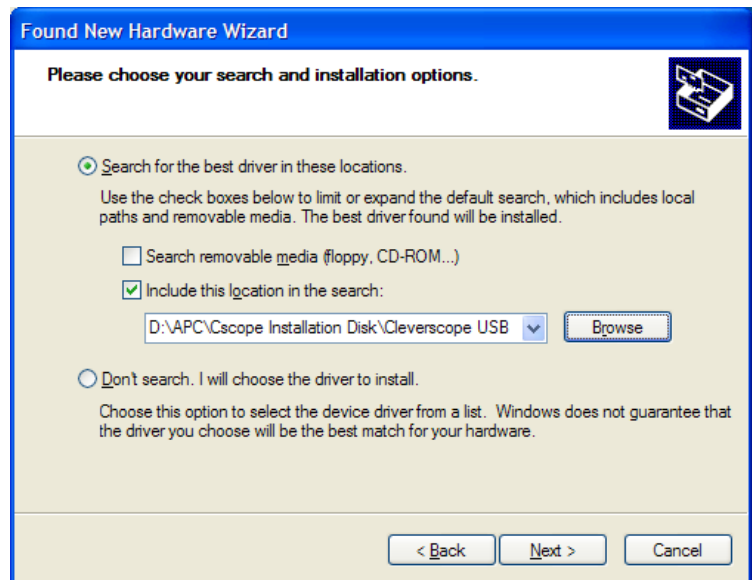
If you are installing Cleverscope for the first time on a new PC, you can get the latest installation from the website at http://www.cleverscope.com/resources/. Choose the installation suitable to your PC (XP or Win 2000 based machine, or machines running Win 98SE, ME or NT).

Steps are:
1. Download the installation zip.
2. Create a directory, C:\Program Files\Cleverscope
3. Unzip into Cleverscope directory.
4. Run setup.exe, Cleverscope will be installed.
5. Plug in the CS320/8 Cleverscope Acquisition Unit (CAU) and connect power. The PC will see the new USB device and announce that a 'Cleverscope CS328' has been plugged in.
6. The Welcome to the Found New Hardware Wizard should appear. Choose 'No, not at this time, and then Next.
7. Choose 'Install from a specific location', and choose next.

8. Click on 'Search for the best driver in these locations' and disable search removable media, and enable 'Include this location in your search'. Browse to the Cleverscope USB directory, in the Cleverscope folder. Click Next.
9. Answer 'Continue Anyway' to the Windows logo testing dialog.
10. Click Finish to complete. The driver is now installed.

To update an old installation

If your application begins with 3.2 or 3.3, you have an old run time library. You will need to do a new install to obtain the new run time library.

Please carry out the following steps:
1. Rename the 'program files\cleverscope' directory to 'program files\clevesrcope_old'. Do **not** un-install the old application.
2. Carry out the steps in 'To install Cleverscope for the first time', above.
3. Update the firmware in your CAU, by following the steps in 'To update the firmware in your Cleverscope Acquisition Unit'.

If you are one of the very few customers with a CAU with a serial number beginning with 'A00' please contact Cleverscope at support@cleverscope.com before attempting an upgrade.

Using Windows 98SE, ME and NT

If you use Windows 98SE, ME or NT you will need to download the correct installation or update from the Cleverscope website. You can find these at http://www.cleverscope.com/resources/.