
HOWTO: Installing AVRStudio in Ubuntu 8.10

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I guess the title of this (wannabe) HOWTO is self-explaining. But why would you install AVRStudio in Ubuntu?

- You don't like using Window\$ and the only thing that kept you from switching to Linux was AVRStudio.
- Your main development platform is in Linux but you're missing a handy tool such as AVRStudio.
- You decided to build all your new projects in Linux but you need a way to access your previous (AVRStudio-created) ones without porting them.
- You think that avrdude and gdb are nice tools but you would prefer to use AVRStudio for MCU burning and debugging.

These are just a few reasons why someone would like to have AVRStudio available in a Linux platform. Well, [wine](#) is here and with a few tricks and tweaks it can host an almost flawless installation of AVRStudio.

This HOWTO is targeted in installing AVRStudio 4.15b623 in Ubuntu 8.10, since the previous HOWTO (the Ubuntu 8.04 one) will fail to install it. Finally, this HOWTO was based in various AVRFreaks members' suggestions through the forum as well as my personal experience. More info can be found in www.avrfreaks.net

Installing Wine

Wine is available through the Ubuntu repositories, but it's never up-to-date, so I use the repositories from WineHQ to install it. Just point your web browser to <http://www.winehq.org/download/deb> and follow the instructions in order to add the Wine repository in your configuration and install the latest version.

NOTE: *The Wine updates provided by the WineHQ are quite frequent and due to the fact that most of them are beta, a Wine update may result in broken functionality. If you're not feeling brave enough to risk your AVRStudio setup you may disable the WineHQ repository after the latest Wine installation, or try to configure AVRStudio based on the latest wine package available from the Ubuntu official repositories.*

Winetricks

Winetricks is a script file written by Dan Kegel which is used to download and install some important Windows components not available in wine.

Winetricks is available at <http://www.kegel.com/wine/winetricks>

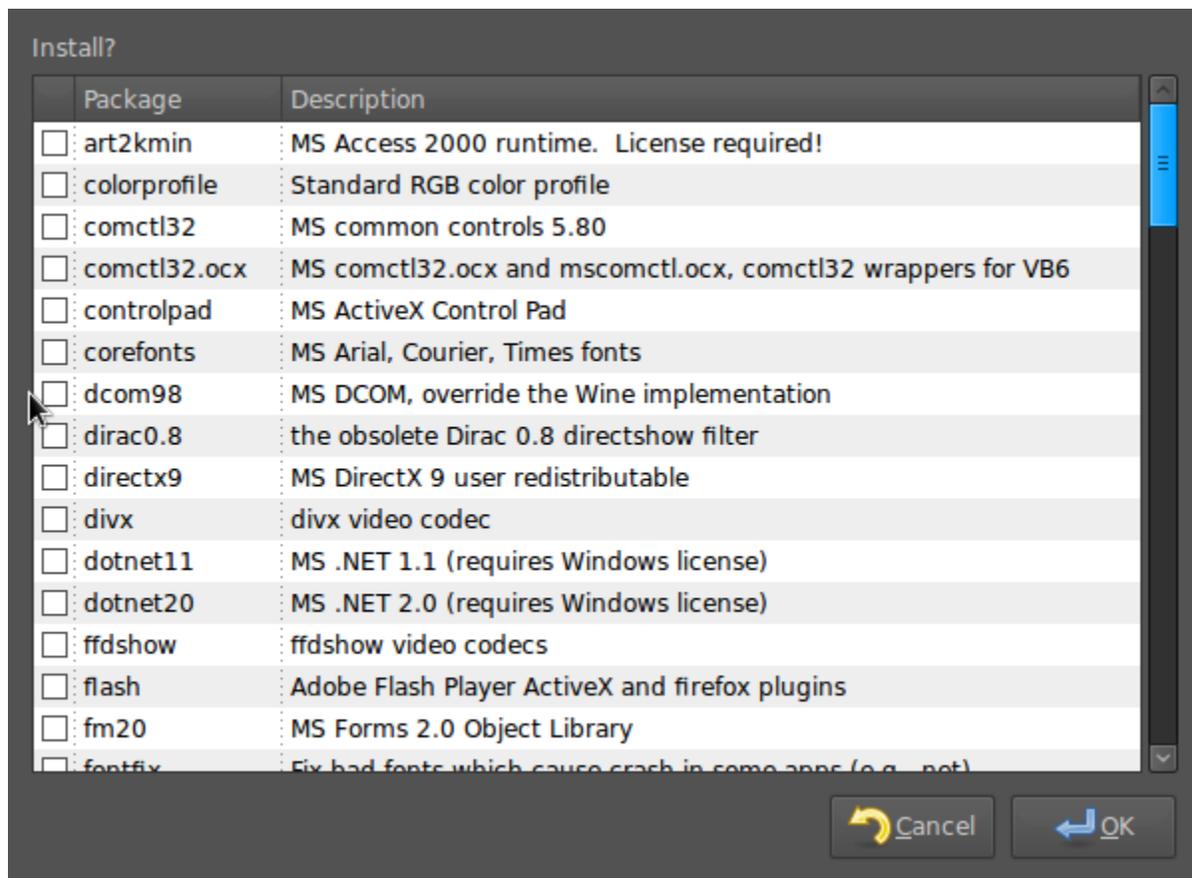
Save the file in your home folder under the name winetricks.

Installing components using winetricks

Open a terminal window and run the following command:

```
→ $bash winetricks
```

A pop-up window will appear:



Select the following packages:

- corefonts
- dcom98
- fontfix
- gdiplus
- gecko
- mdac28
- msxml3
- fakeie6
- native_mdac
- native_oleaut32

and press the OK button. The above packages will be downloaded and installed using the standard “OK->Next” procedure.

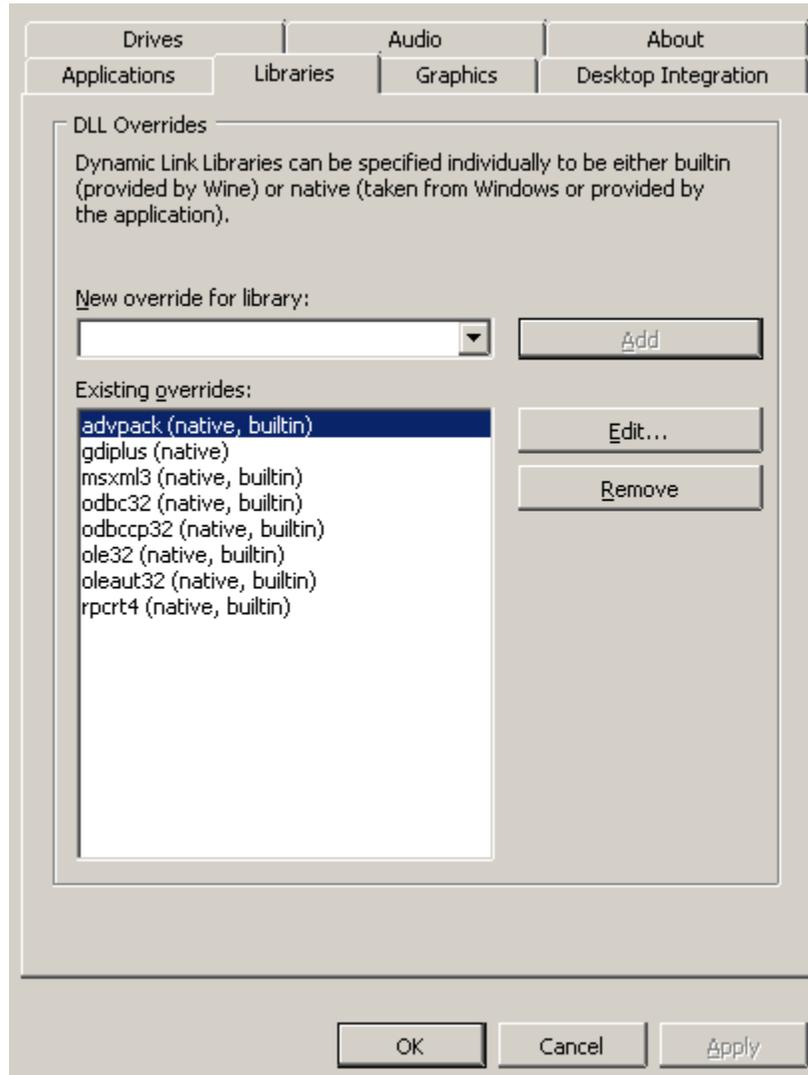
Tweaking the Wine configuration

Start the wine configuration manager under “Applications->Wine->Configure Wine” and select the 'Libraries' tab. Alternatively, use the command line and run it by typing `winecfg`.

Most of the required libraries are already set correctly, we need to add one more in native mode. Use the drop – down menu and find the following library:

→ advpack

Press the “Add” button and make sure it's in “native, builtin” mode, or edit it accordingly (using the Edit button). Your libraries should now look like this:



Press the “Apply” button and exit the configuration.

Back to winetricks

There's one more package left to install, (well, two actually) and that's the M\$ Visual C++ 2005 libraries. Fire up winetricks again and select the following packages:

- vcrun2005
- vcrun2005sp1

NOTE: This step *MUST* be executed after tweaking the wine libraries or else the vcrun installation will probably fail. At least that's what happened with my configuration so please do not select these packages at the initial winetricks package installation. If you've already done so, scroll down to the Troubleshooting section of this HOWTO in order to fix it.

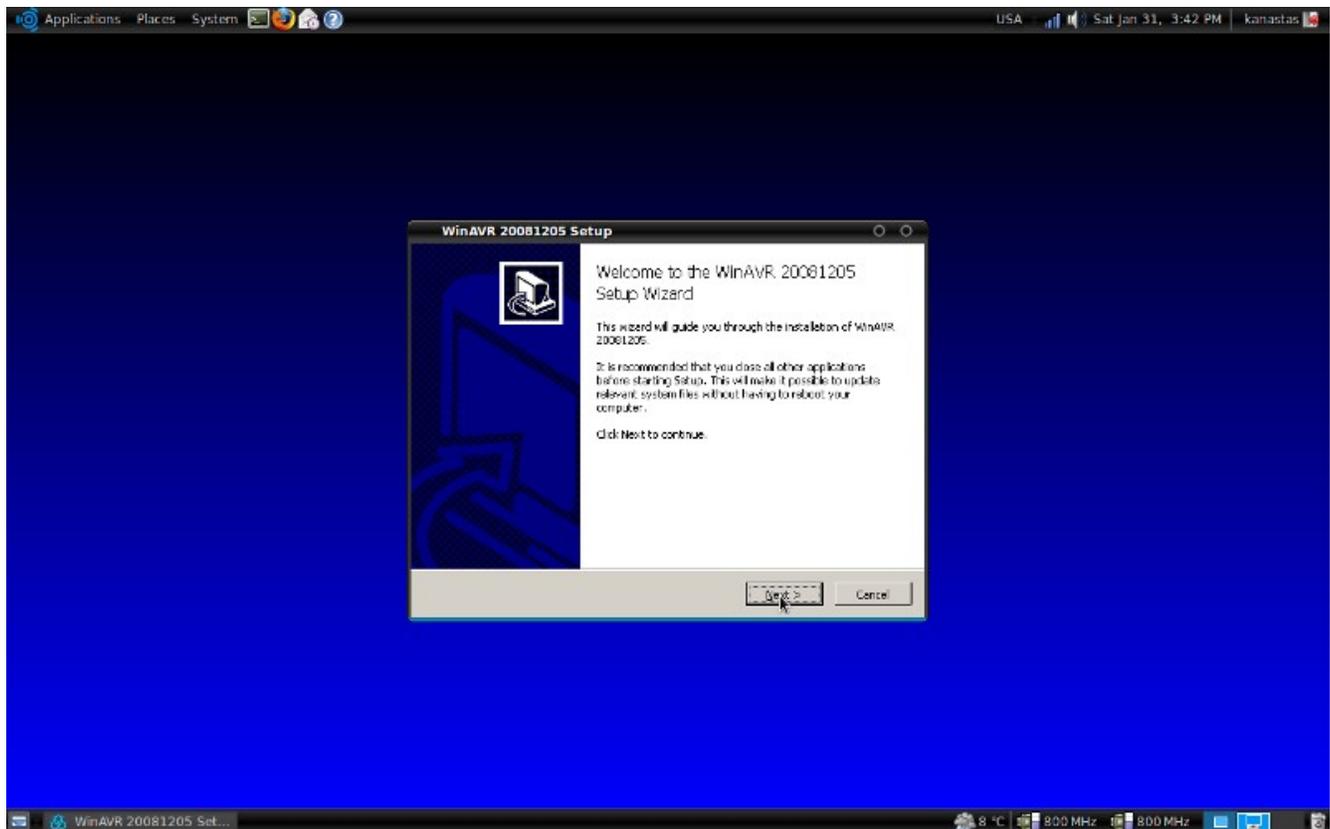
Now we are ready to install AVRStudio.

Hey, what about WinAVR?

If you need to install WinAVR, now is a good time to do it. Download the latest version of WinAVR from <http://winavr.sourceforge.net/download.html> . Open a console window and run:

```
→ $wine WinAVR-xxxxxxx-install.exe
```

Just follow the standard “OK->Next” procedure like in a Windows platform in order to install it.



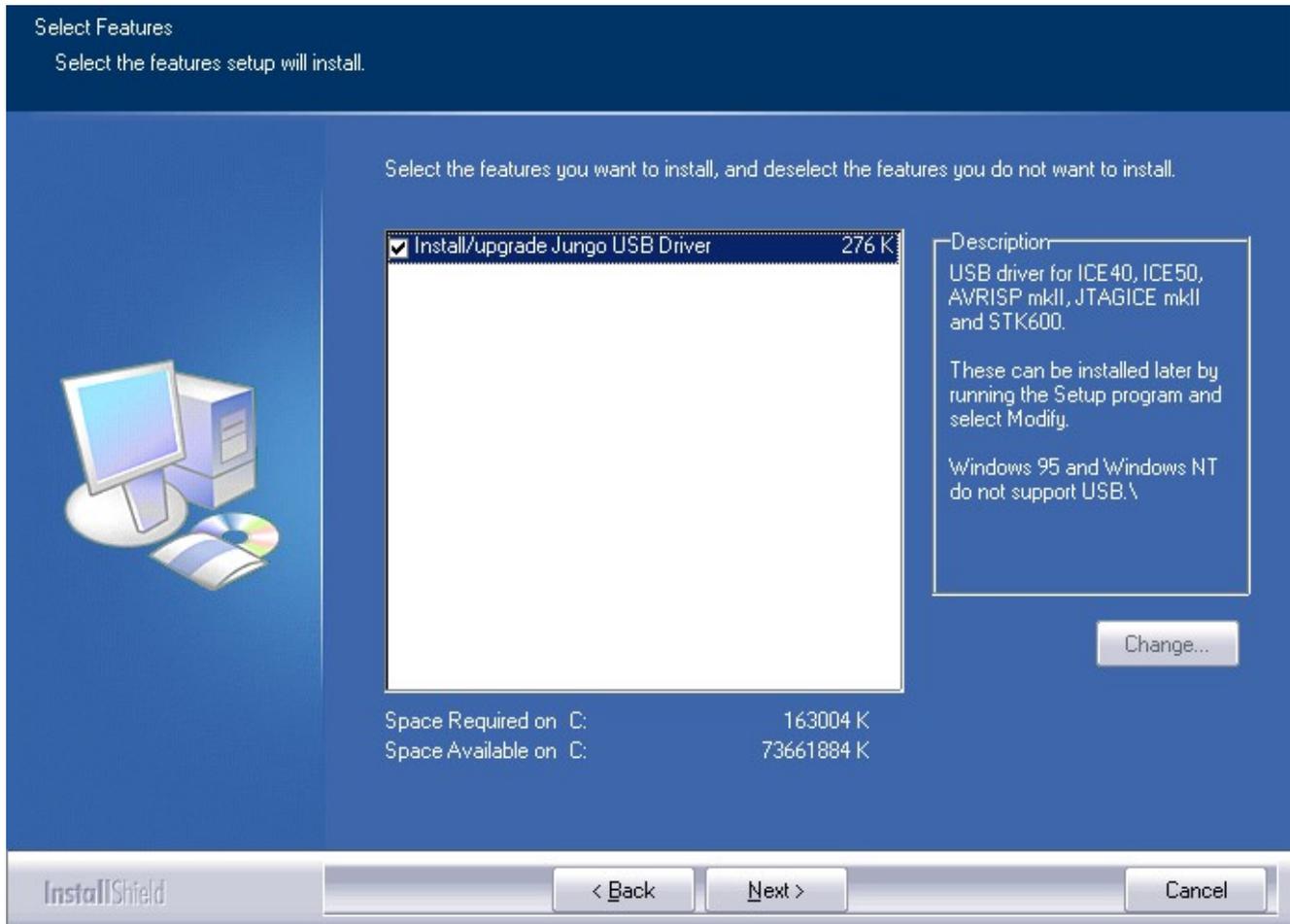
Installing AVRStudio4

Download the latest AVRStudio from Atmel and save it in your home folder. Open a terminal window and type the following:

```
→ $wineboot -r  
→ $wine aStudioxxxxx.exe
```

The AVRStudio installation will start, proceed without changing the installation path. In case you're

installing AVRStudio 4.15b623, make sure that the Jungo driver installation is checked, although it's useless under Wine. Probably there's a bug in AVRStudio which fails to start if the driver is not installed (the WDAPI811.dll bug).



Now AVRStudio is installed!

After finishing the installation make a wine reboot:

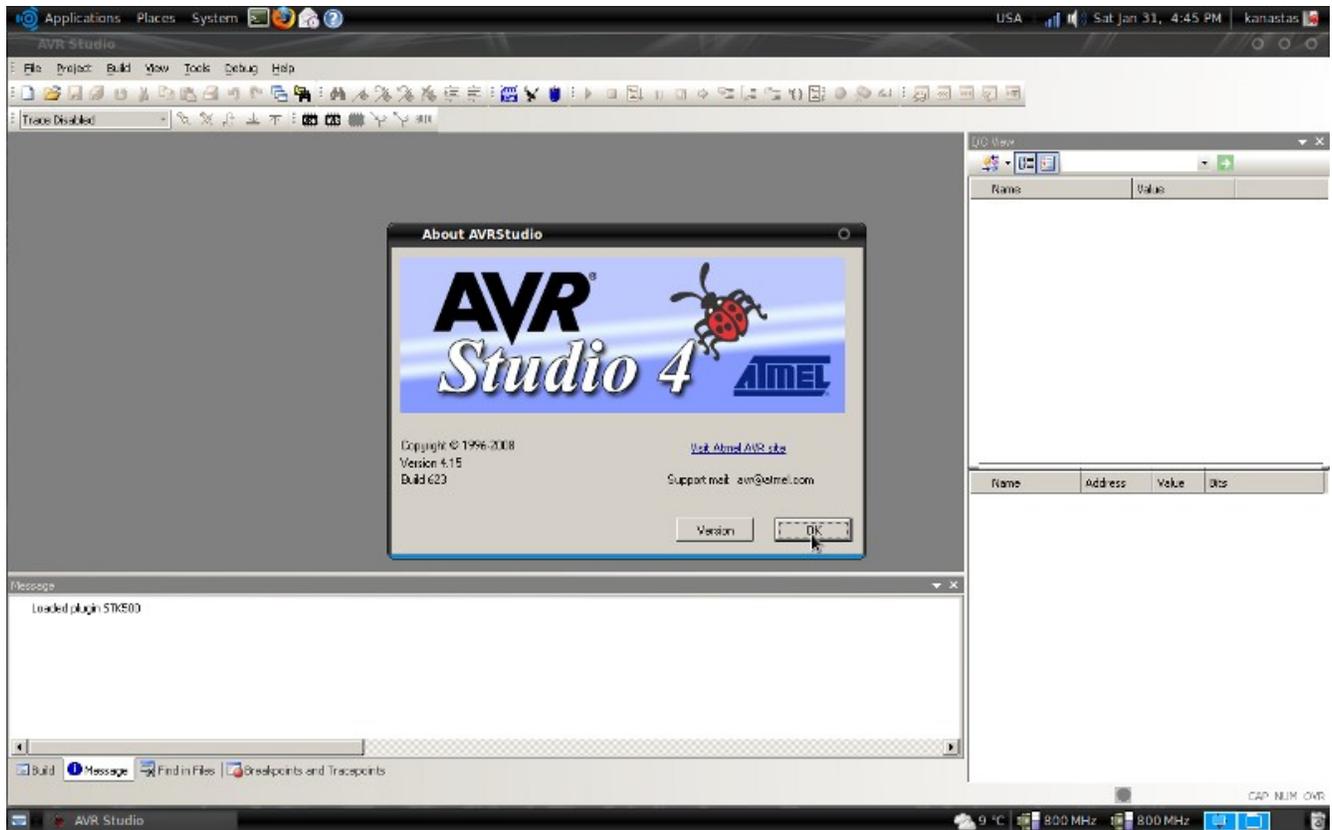
```
→ $wineboot -r
```

Probably you'll find the AVRStudio menu shortcuts under Applications->Wine->Programs but it would be better to run AVRStudio using a terminal for the first time for debugging purposes. Open a terminal window and enter the following:

```
→ $cd .wine/drive_c/Program\ Files/Atmel/AVR\ Tools/AvrStudio4  
→ $wine AVRStudio.exe
```

Voila! AVRStudio is up and running! In case it fails to run for the first time make another wine reboot and try again.

Happy debugging!



NOTE: The above steps were tested using:

- wine-1.1-14
- AVRStudio 4.15b623
- Ubuntu 8.10 32-bit

Troubleshooting

- In case you just updated your Wine version and AVRStudio failed to launch, well, you may try some things like reinstalling AVRStudio or some winetricks packages but unfortunately the most common way to restore it is by deleting your \$HOME/.wine folder and reinstalling everything from scratch. This will delete every Windows program you've installed using Wine so make sure you've made a backup before deleting it.
- The same procedure must be followed when a winetricks package fails during installation. The steps described above are tested with the exact order provided, and led to a successful AVRStudio installation without errors. However, if something goes wrong, delete your .wine folder and install a winetricks package at a time making backups of your .wine folder between them. Try installing the packages in a different order until everything is installed correctly. Finally, try changing the overridden libraries to native only mode.
- The AVRStudio menus and tooltips may not appear correctly if you're using compiz, try turning it off if it's a problem.

- After launching AVRStudio for the first time, if you close it from the “x” button of the window then you may experience problems launching it again. The work around is to exit AVRStudio from the File->exit menu. However, if you run the Plugin Manager of the AVRStudio you will be able to launch it again. This applies when WinAVR is NOT installed. If WinAVR is installed, closing AVRStudio from the “x” window button does not lead to a failed re-launch. It seems that when quitting AVRStudio from the “x” button something in the plugins configuration is not saved correctly so when AVRStudio launches again and tries to find if WinAVR is installed leads to an error if the latter is not installed. Well, to cut a long story short, just install the bloody WinAVR package and you won't have to cope with this bug again, hopefully.