# **The Embedded Muse 69**

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#### **Editor's Notes**

Thanks to everyone for the thoughts about how best to become an embedded person. I was flooded with replies. So many it's taking quite a bit of time to sort through them all. It's clearly something a lot of you have thought about, and I appreciate the feedback.

Over the years I've written a number of reviews and commentary on various embedded books. Since a parallel question to the "How do I become an embedded person" is "what books are available?", I've put links to all of the reviews at http://ganssle.com/bkreviews.htm.

#### **Sources for Free/Cheap Compilers & Tools**

Tom Taylor, via Bob Landman, send over some links for free and cheap compilers and other tools. This is great stuff. Here's his letter:

You can get the free GNU C/C++ compiler from RedHat and other sources. It runs on a variety of platforms (Sun, Linux, HP, Windows) and generates code for a large number of targets.

Assuming you want the compiler to run on Windows and generate code for Windows, you can download and install a complete toolset including Unix-like utilities from CygWin.

Simply go to <u>http://sources.redhat.com/cygwin</u> and click on one of the icons that read "Install Cygwin now". Answer a few questions that come up and select a mirror to FTP from, and you will be presented with a list of packages to install. Be sure that you select the package named "Devel", which will download a full set of development tools including a C/C++ compiler, Fortran compiler, debugger, and many other utilities. The Setup program works pretty well to create all the necessary directories and install the programs and documentation.

All of the tools run in a Unix-like shell under Windows. Preferably you should use WinNT, Win2K, or WinXP although I have had some success running under Win98SE (but there are some restrictions).

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One caveat is that you should be somewhat familiar with Unix command line conventions and utilities like 'make'.

Perhaps the smallest and most useful toolset that was ever released was the old Borland Turbo C/C++2.01 package. Borland has decided to make it available for free at <u>http://community.borland.com/museum</u>.

You'll need to register first, however.

There are links to other free compilers for C and other languages at <u>http://www.jensendata.com.na/programming/</u>, pascal, c, java, forth, fortran, perl, others, target is pc

You can pick up some older used development toolsets for reasonable prices at <u>http://www.emsps.com/</u>

Thanks Tom!

There are some other sites Tom didn't mention: <u>http://www.idiom.com/free-compilers/</u> - a huge list of all sorts of language products for just about any language. This is a set of links with descriptions.

<u>http://ee.cleversoul.com/compilers.html</u> - a very nice list of cross compilers for microcontrollers, both free and otherwise.

## Thought for the Week

Scientists decode the first confirmed alien transmission from outer space...

"This really works! Just send  $5*10^{20}$  H atoms to each of the five star systems listed below. Then, add your own system to the top of the list, delete the system at the bottom, and send out copies of this message to 100 other solar systems. If you follow these instructions, within 0.25 of a galactic rotation you are guaranteed to receive enough hydrogen in return to power your civilization until entropy reaches its maximum!"

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## About The Embedded Muse

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