Programming: Visual Programming, GCC, Eclipse, Red Hat Developers, BASIC, Python, Bash, Pine64 and Raspi

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QuickDAQ.mikroBUS Development Board Leverages Visual Programming and MikroE Click Boards (Crowdfunding) [2]

mikroBUS is a socket interface that allows you to connect MikroElektronik (MikroE) Click add-on boards that can be buttons, sensors, a servo controller, a wireless module, and practically anything you may think of since there are over 700 Click boards to choose from.

GCC 10 Release Candidate Likely Hitting In The Next Few Weeks [3]

The month of April usually sees the new annual GNU Compiler Collection (GCC) feature releases and for GCC 10 in the form of GCC 10.1 as the first stable release in the series does stand chances of releasing this month.

SUSE's Richard Biener provided the latest GCC 10 status report on Wednesday. He notes there still are 21 bugs to fix (or demote to a lower priority regression) before they hit the milestone of no "P1" regressions.


The Eclipse Foundation just released version 1.0 of an open-source alternative to Visual Studio Code called Eclipse Theia. Theia is an extensible platform that allows developers to
create multi-language cloud and desktop IDEs, allowing them to create entirely new developer experiences.

According to the Eclipse Foundation, the differences between Theia and Visual Studio Code are that Theia has a more modular architecture, Theia was designed from the ground to run on desktop and cloud, and Theia was developed under community-driven and vendor-neutral governance of the Eclipse Foundation.

- **Red Hat Developers: How to write an ABI compliance checker using Libabigail** [5]

  I've previously written about the challenges of ensuring forward compatibility for application binary interfaces (ABIs) exposed by native shared libraries. This article introduces the other side of the equation: How to verify ABI backward compatibility for upstream projects.

  If you've read my previous article, you've already been introduced to Libabigail, a static-code analysis and instrumentation library for constructing, manipulating, serializing, and deserializing ABI-relevant artifacts.

  In this article, I'll show you how to build a Python-based checker that uses Libabigail to verify the backward compatibility of ABIs in a shared library. For this case, we'll focus on ABIs for shared libraries in the executable and linkable format (ELF) binary format that runs on Linux-based operating systems.

  Note: This tutorial assumes that you have Libabigail and its associated command-line tools, abidw and abidiff installed and set up in your development environment. See the Libabigail documentation for a guide to getting and installing Libabigail.

- **Excellent Free Tutorials to Learn BASIC** [6]

  BASIC (Beginner?'s All-purpose Symbolic Instruction Code) is a family of general-purpose, high-level programming languages whose design philosophy emphasizes ease of use. In 1964, John G. Kemeny and Thomas E. Kurtz designed the original BASIC language at Dartmouth College. They wanted to enable students in fields other than science and mathematics to use computers. At the time, nearly all use of computers required writing custom software, which was something only scientists and mathematicians tended to learn.

  The advent of the personal computer was crucial to the success of BASIC. The language was designed for hobbyists, and as personal computers became more accessible to this audience, books of BASIC programs and BASIC games surged in popularity.

  BASIC is generally not regarded as the easiest way to take the first steps in learning the art of programming. But it does not hinder beginners from learning how to program, or teach them bad habits. And it's the highest low-level language. Even today, there remains value in
learning BASIC.

Here’s our recommended tutorials to learn BASIC. If you’re looking for free BASIC programming books, check here.

- **The 20 Best Python Tips and Tricks You Must Know in 2020**[7]

  This well-crafted article will show how you can get good at Python. All these tips and tricks will make you a better Python Developer. If you are a beginner, you are in for a treat! Python is very easy to learn. Its syntax is very compact and clean. If you are up for it, you can master it within months. Python is truly ubiquitous. Software Development to Data Science, Machine Learning to Artificial Intelligence ? you can do everything. Let’s show you how to become a Pythonista!

- **Get started with Bash scripting for sysadmins**[8]

  The Bash shell is definitely not the only shell out there, but it's one of the most powerful. This makes it a popular choice for systems administrators needing to develop serious applications that go beyond a simple "laundry list" of commands to run on a system. There are lots of great uses for other shells (I default to Tcsh for Git hooks, for instance), but Bash is an easy choice for serious scripting, and here's why.

- **Pine64 is Giving Away 50,000 Face Masks to Makers**[9]

  It’s interesting how to see how different countries handle the COVID-19 pandemic response. In Asia, virtually everybody is now wearing a face mask, sometimes hand-made due to supply issues, but in Europe and North America at least, I’ve seen authorities tell healthy people not to wear a mask at all, and reserve them to health professionals. I’ve even seen some nasty comments on Twitter complaining about people wearing masks at the grocery store (in the US) as they took supply out of health professionals.

- **El Carrillon | The MagPi 92**[10]