Published on EMAC Inc. (https://www.emacinc.com)
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Banner:
System on Module

EMAC provides a Free Eclipse IDE that is pre-integrated to provide everything the user needs for developing applications. All the compiling, converting, and downloading inherent to development can be done from one easy to use high level interface. The distribution provides an SDK which contains source examples for the LCD with Touchscreen, Digital I/O ports, SPI, SD/MMC, and Audio.

The EMAC Eclipse IDE is a powerful, yet flexible Integrated Development Environment and even features SVN version control support. For a screen shot of EMAC's Linux Eclipse based Development Environment click here.

EMAC products can use EMAC's standard Linux Modules including the Xenomai Real Time, Php, SQLite and Lighttpd web server modules. For a listing of optional modules see our Embedded Linux Operating Systems Page.

Xenomai is a real-time development framework cooperating with the Linux kernel, in order to provide a pervasive, interface-agnostic, hard real-time support to user-space applications, seamlessly integrated into the GNU/Linux environment.

EMAC will be incorporating Xenomai into it's mainstream distribution in the near future to create accurate periodic user space tasks with sub-ms periods. Linux users are provided with several examples of an easy to use interface, which communicates with the boards I/O through generalized hardware classes.

For more info on Xenomai go to:

http://www.xenomai.org/index.php/Main_Page.

EMAC OE Linux

Software and Tools

At EMAC, we use Linux for off-the-shelf products, custom applications, and major projects. EMAC has been offering our Linux

market since 1998, and has been thoroughly tested and tuned in various customer and internal applications. The EMAC OE Linux distribution with the Linux kernel is fully supported, and for use with virtually all of EMAC's Single Board Computers (SBCs).

Linux is an open source operating system kernel. The project was originally started by Linus Torvalds and now has a very large community of developers and users all around the world. Linux is used in an extremely wide variety of devices such as industrial embedded systems, appliances, cell phones, desktop systems, and mainframe servers. Unix-like operating systems utilizing the Linux kernel are loosely referred to as Linux systems. Most Linux systems are a combination of the Linux kernel, GNU Utilities (http://www.gnu.org) , and other software libraries and Open Source projects. These systems are also referred to as GNU/Linux.

When you purchase an EMAC SBC with EMAC OE Linux, the board comes ready to boot, and all of the drivers have been setup for any standard peripherals that you may have purchased from EMAC. This allows you to focus on your application, instead of on time consuming configuration and testing. And if you do encounter problems, you can talk to someone experienced with Linux, and familiar with our distribution.

When Optional Linux Packages are required, we assess a build fee for these optional packages once per build configuration per order.

Multiple identical SBCs with the same build on a single order are only charged one time. If the customer intends on purchasing the build on a ongoing basis, an image of the build can be archived under a unique part number (see Customized Builds) and ordered again and again with no additional build charges. Please contact us at info@emacinc.com for information on available packages.

EMAC provides free installation and one-year of basic operating system technical support for EMAC OE with the purchase of single board computers with suitable media. No operating system support will be given for EMAC OE without verification of purchase of SBC, media, and installation at the time of purchase.

If you are new to Linux or just want to hit the ground running EMAC can provide you with a Linux Development Computer (LDC). This

high performance, small footprint, desktop PC is loaded with Linux, the IDE/SDK and distribution sources so you can start developing right out of the box.

## Standard Operating System Builds

EMAC provides free of charge Standard Operating System Builds for our many of our products. However, there are times when a customer may need functionality that is not provided or changes to the Standard Build. In these cases the customer can add Packages for a One-Time Fee to the Standard Build in order to create a product specific Custom Build. EMAC has many Standard Packages available. If a Standard Package is not available EMAC can provide Custom Packages and Build Changes as well.

The One-Time Standard Package Fee includes the following:

- The Creation of the Custom Build with the specified Standard Package(s)
- Tech Support for the Package(s)
- First Year Build Archive Fee

EMAC Standard Builds are dynamic and change over time. Many customers want to make sure that they can purchase the same build over and over again without the risk of the Build being Revised. EMAC provides an Archiving Service that allows for this. EMAC can archive a Standard build for a Build Archive Fee of $50 per year. This Archive Provids the same features listed in The Build Archive Service for a Custom build

## Customized Builds

EMAC can configure all manner of custom Linux software packages. We are constantly adding additional support for new and different devices, including custom hardware. Our Linux packages are tested and pre-configured to provide functionality and utilities, quickly and easily. If you require any additional software packages, custom kernel or application development support, contact sales for a quote.

As we update our Linux builds and packages, there may be compatibility issues with older projects and newer kernel drivers or module versions. In order to provide for the most complete compatibility between equipment and software, we offer a Custom Build Subscription Service.

Once a custom software build has been created for you, EMAC can archive this custom build for a Build Archive Fee of $50 per year.

## The Build Archive Service

The Build Archive service includes the following:

- Unique Custom Part# for the Build (allows easy reordering of the Same Build)
- Build is archived on our server allowing the customer to purchase the same build for the life of the product
- Customer FTP Account for Customer Access to their Build(s) {login information is provided upon request}

## EMAC Custom Solutions

Besides Single Board Computers, EMAC can provide custom Linux solutions with:

- Custom Linux Kernel development
- Real-Time Linux Extensions
- Data Acquisition Modules
- Custom Application Programming
- Custom Hardware Modification and Design

From small device drivers to fully custom turnkey systems, EMAC is your Linux SBC Partner. Let us help you get your application/project off the ground!

EMAC products can use EMAC's standard Linux Modules including the Xenomai Real Time, Php, SQLite and Lighttpd web server modules.

Standard linux builds are aviliable for all products EMAC sells. Custom Linux builds, Customized Linux builds, and specialized drivers are also available upon request.

PC Compatible-Single Board Computers

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Our Linux installation is a second-generation embedded distribution, and has been thoroughly tested and tuned in various customer and internal applications. Linux is fully supported on virtually all of our PC-SBCs.

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Microsoft® Windows CE is compact, providing high performance in limited memory configurations, supporting a range of embedded, mobile or multimedia product lines.

Image not found file:///var/www/html/emacinc-com/sites/default/files/images/xpe_logo.jpg

XP Embedded is a version of the Microsoft® Windows XP operating system specifically designed to address the needs of dedicated and embedded systems OEMs.

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DOS continues to be designed into many applications. It is well known to programmers, and it's small, fast, reliable, and inexpensive.  Regardless of whether you have a new design or an existing design, EMAC offers both MS-DOS and ROM DOS versions.

MicroPac Single Board Computers

MicroPac 180

E311-21 ... *MT-BASIC EPROM and Manual call
E311-11 ... *E-FORTH EPROM and Manual call
E030-13 ... DK85 8085 DDS Micro-C Developer Kitcall
E030-07 ... ANSI Cross C Compiler & Assembler call
E030-06 ... Z180 Assembler and Linker call
E030-31 ... Z180 In-Circuit Emulator and Debugger call
* (Requires E311-09 Upgrade)

MicroPac 515C

E515-07 ... BASIC 52 Interpreter call
E030-10 ... DK51 8051 DDS Micro-C Developer Kitcall
E030-01 ... ANSI C Compiler (IDE) for 8051/80535 call
MicroPac 535

E331-07 ... BASIC 52 Interpreter call

E030-10 ... DK51 8051 DDS Micro-C Developer Kitcall
E030-01 ... ANSI C Compiler (IDE) for 8051/80535 call
MicroPac HC11

E341-07 ... BASIC 11 Interpreter call
E030-11 ... DK11 68HC11 DDS Micro-C Developer Kitcall
E030-08 ... ANSI C Compiler for 68HC11 call
MicroPac HC16

Assemply Language Option (DOS Based)

E400-02 ... CASM16 assembler call
E400-01 ... ICD16 debugging softwarecall
E400-00 ... Back door debug cable call
Low End C Language Option (DOS Based)

E030-12 ... DK16 68HC16 DDS Micro-C Developer Kitcall
E400-01 ... ICD16 debugging software call
E400-00 ... Back door debug cable call
High End C Language Options (Windows Based)

E030-09 ... Cosmic C, Compiler and debuggercall
E400-00 ... Back door debug cable call
MicroPac Common Tools

E020-08 ... EPROM Programmer Board call
E020-09 ... 32 Line Parallel I/O board call
E010-06 ... 10-pin to DB9 RS232 Adapter Cablecall
E010-08 ... RS-232 6-ft. Cable call
(needs finishing)

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