Software

EMAC offers both Windows and Embedded Linux Operating Systems preinstalled. These Operating systems come with Board Support Packages (BSPs) allowing you to quickly start your application development. EMAC's BSPs can be provided for any Board Purchased from EMAC. Additionally, EMAC offers Free Linux Software Development Tools allowing for easy application development for your BSP. The following is a list of Standard I/O Interfaces typically supported on EMAC's installed Operating Systems Board Support Packages:

Distributed Board's Standard BSP Features (EMAC OE Linux or Windows):

Video (VGA/DVI/HDMI/DP/LCD*; *LCD only if LCD is included ie. PPCs)

Touchscreen* (only if Touchscreen is included ie. PPCs)

Ethernet(s)

Serial (RS232/RS422/RS485*; RS485 not supported standard on all builds)

USB (Host/Device/OTG*; OTG not supported standard on all builds)

Audio (Out/In*; In not supported standard on all builds)

Hard Drive (IDE*/SATA*; Supported if the interface is available)

Flash (mSATA*/CF*/SDIO*; Supported if the interface is available)

Wifi* (if wifi is supported natively on the board)

Keyboard & Mouse

Real Time Clock

SDK* (Packaged Software Distribution Kit available for EMAC OE Linux, or from Microsoft upon request)

EMAC OEM Board's Standard BSP Features (EMAC OE Linux):

Video (VGA/DVI/HDMI/DP/LCD*; LCD only if LCD is included ie. PPCs)

Touchscreen* (only if Touchscreen is included ie. PPCs)

Ethernet(s)

Serial (RS232/RS422/RS485)

USB (Host/Device/OTG*; OTG not supported standard on all builds)

Audio (Out/In)

Hard Drive (SATA*; Supported if the interface is available)

Flash (mSATA*/CF*/SDIO*; Supported if the interface is available)

Wifi* (Supported if wifi is supported natively on the board)

CAN (Supported if CAN is supported natively on the board)

GPIO

I2C

SPI

Keyboard & Mouse

Real Time Clock

SDK

EMAC Custom Boards Features (EMAC OE Linux, Windows, Linux or Android):

As with the nature of custom board design, software is customized to meet the needs of the project or customer’s requirements.

EMAC Custom Software options include, but are not limited to:

Boots screens and product branding

Drivers

User interface

Database Host or Connectivity

Remote viewing

Network Tools (File Sharing, management, connectivity)

Real-time environments

Lightweight Runtime environments (Java, Mono, Silverlight, .Net, etc.)

Advanced Serial communication (RS422, RS485, SPI, I2C, Microwire, 1-wire, Bitbang, etc.)

Advanced Wireless connectivity (Wifi, Bluetooth BLE, Mesh Networks, 6LoWPAN, Wireless M-Bus, ZigBee, etc.)

Advanced Communication protocols (ModBus, EtherCAT, CANOpen, DataHighway and other Grid Connect Industrial protocols)

Reduce footprint size

Software development and configuration

Test and Calibration software routines

Equipment Monitor And Control

While Board Support Packages (BSP) are typically the essential code for a given computer hardware device that will make that device function and load the Operating System (OS). EMAC's Operating system BSP considers this part of the firmware on the board which performs the following prior to the OS starting-

Initialize the processor.

Initialize the bus.

Initialize the interrupt controller.

Initialize the clock.

Initialize the RAM (random access memory) settings.

Configure the segments (if applicable).

Run the boot loader.

EMAC can work with this firmware as well, to better configure a board to fit a solution.

Source URL: https://www.emacinc.com/software