Logic PD Reduces the Boot Time for Battery-Powered Devices

Logic PD

Product development experts make advances toward achieving instant-on devices; Team of engineers cut time to 'power on' from 50 seconds to less than one second

Logic PD has made a significant advancement toward meeting the demand for instant-on devices. The company announced today that it has developed proprietary software that enables Logic PD's System on Module (SOM) customers to power on devices faster than ever before. Now, Logic PD's SOM customers can reduce the boot time required for battery-powered devices to less than 1 second.

Logic PD's fast boot technology is highly attractive to companies that develop life-critical battlefield and medical devices (e.g. reconnaissance robots, portable defibrillators) as it makes new technical developments possible. These types of devices are prime candidates for Logic PD's fast boot technology as they often need to be off for long periods of time, but need to be on and fully operational in a very short amount of time.

Furthermore, many smartphone users, for example, allow their phones to convert to sleep mode but they rarely power off their devices to save battery power because the boot time is thought to be an inconvenience. By dramatically reducing the boot time, smartphone users, telehealth patients, military personnel, and the like may be more apt to power off their devices and save battery power knowing it only takes a few seconds to power on.

"This breakthrough has the potential to substantially extend the life of battery-powered devices, and change the behavior of how end users interact with their battery-powered devices," said Dr. Scott Nelson, executive vice president and CTO, Logic PD. "It also demonstrates the caliber of professionals we have on our team and the level of innovation we can accomplish. This is the epitome of what Logic PD is all about."

Logic PD's software engineers reduced the boot time on the DM3730 Torpedo SOM – which is based on the DM3730 DaVinci™ video processor and WiLink™ 7.0 combo connectivity solution from Texas Instruments Incorporated (TI) – from about 50 seconds to 500 milliseconds. This fast boot technology was realized by reducing the size of the boot image, optimizing NAND load algorithms and dozens of other advanced optimizations to achieve a much faster boot into Linux. This advancement enables Logic PD SOM customers to develop battery-powered devices that power on significantly faster than competing end user products, and give end users the ability to use their devices faster and for longer periods of time.

In addition to making new technical developments possible, this fast boot

technology also signals growth opportunities for Logic PD. For example, the portable defibrillator market alone is expected to grow 8.6 percent annually to $10.5 billion in 2015, according to Research and Markets. With its fast boot technology, Logic PD is well positioned to support these high growth markets.

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