

svn UPDATE

by Steven Kreuzer

Now that FreeBSD 11 has been released, we've seen quite a bit of activity in src, which I can only imagine is because developers had changes they wanted to make but didn't want to commit during a release cycle. Now that it's "business as usual," we've seen a flurry of activity across all subsystems. One of the most interesting changes is that both cron and syslog have gained functionality, which makes it easier to roll out changes to these programs using your favorite configuration management system. As the size of infrastructures grows and we move toward the philosophy of cattle, not pets, when talking about the servers we manage, not having to write complex logic to quickly push out changes is something I am sure any system administrator will welcome with open arms. Hopefully this is the start of a trend that other programs in the base system will start to follow as well.

cron (8): add support for `/etc/cron.d` and `/usr/local/etc/cron.d` (<https://svnweb.freebsd.org/changeset/base/308139>).

Cron jobs can now be broken up into individual files, which makes deploying and managing these jobs using various automation tools significantly easier than having to modify `/etc/crontab`.

syslogd (8): add an 'include' keyword (<https://svnweb.freebsd.org/changeset/base/308160>).

All the `.conf` files not beginning with a `'.'` contained in the directory following the include keyword will be included. The default `syslogd.conf` has been updated to `'include' /etc/syslog.d` and `/usr/local/etc/syslog.d`.

daemon (8): Allow logging daemon stdout/stderr to file or syslog (<https://svnweb.freebsd.org/changeset/base/307769>).

The daemon utility detaches itself from the controlling terminal and executes the program specified by its arguments. In the past, any output created by the process would have been written to a file on local disk. This change will allow centralization of the output to a standard location and even shipping it off to a remote syslog server.

Support for the Raspberry Pi 3 (<https://svnweb.freebsd.org/changeset/base/307257>).

Initial support for the Raspberry Pi 3 has been committed. While SMP, VCHIQ, and the RNG driver are not currently supported, multiple FreeBSD developers continue to hack on at this very popular platform, so keep an eye on the `freebsd-arm` mailing list to track the progress.

Allow an SMP kernel to boot on Cortex-A8 (<https://svnweb.freebsd.org/changeset/base/308213>).

This change allows FreeBSD to boot on all ARMv7+ Cortex-A cores with 32-bit support.

Support for Allwinner H3 audio codec (<https://svnweb.freebsd.org/changeset/base/308269>).

The audio controller in the H3 is more or less the same as A10/A20—except some registers are shuffled around. The mixer interface, however, is completely different between SoCs. Separate `a10_mixer_class` and `h3_mixer_class` implementations have been made available, which makes adding support for other SoCs much easier.

virtio-console support to bhyve (<https://svnweb.freebsd.org/changeset/base/305898>).

A new device driver has been added to bhyve, which allows the creation of up to 16 bidirectional character streams between host and guest.

zfsbootcfg(8) provides the ability to set one-time next boot options for **zfsboot** (<https://svnweb.freebsd.org/changeset/base/308089>).

(gpt)zfsboot, will read one-time boot directives from a special ZFS pool area. The area, previously described as "Boot Block Header", but currently known as Pad2, is marked as reserved and zeroed out on pool creation. The new code interprets data in this area, if any, using the same format as `boot.config`.

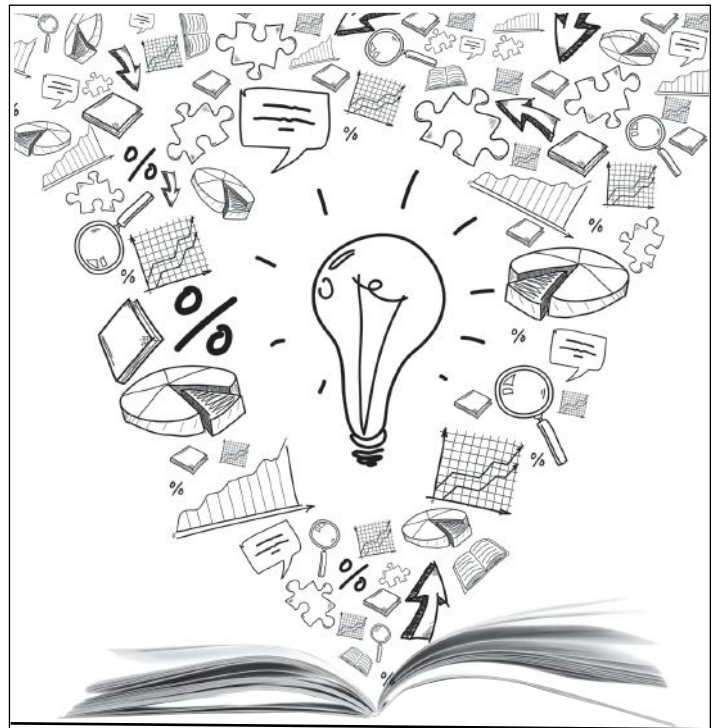
Manipulate EFI variables from userland. (<https://svnweb.freebsd.org/changeset/base/307072>).

efivar(1) is a new utility to manipulate Extensible Firmware Interface variables. It has a similar command line interface as the Linux equivalent, as well as adding a number of useful features to make it easier to use in shell scripts.

A new MACHINE_ARCH has been introduced for Freescale PowerPC e500v2 cores (<https://svnweb.freebsd.org/changeset/base/307761>).

The Freescale e500v2 PowerPC core does not use a standard FPU. Instead, it uses a Signal Processing Engine (SPE)—a DSP-style vector processor unit, which doubles as an FPU. The PowerPC SPE ABI is incompatible with the stock powerpc ABI, so a new MACHINE_ARCH was created to deal with this.

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