Building custom Linux kernel with own layer

Bryan Evenson   13 years ago

I have an Atmel AT91SAM9G25 based board and have been using the Classic OpenEmbedded development tree for my device. I am working on switching to using the Poky distribution. I found a Yocto layer that someone else had started here: https://github.com/baseapp/meta-atmel/tree/yocto. I would like to use this layer as a starting point and go from there. The layer looks to be setup to build kernel 2.6.39 (as that is the kernel I am currently using), but that's not what's happening on my system. I would like some help in figuring out what needs to change with the layer or my setup to build the 2.6.39 kernel.

I am using the stable poky-danny-8.0 release (downloaded tarball). Under the poky-danny-8.0 folder, I cloned the meta-atmel layer that I referred to above. I changed my bblayers.conf to include the meta-atmel layer. When I bitbake linux-yocto, here's what I see for my build configuration:

Build Configuration:
BB_VERSION = "1.16.0"
TARGET_ARCH = "arm"
TARGET_OS = "linux-gnueabi"
MACHINE = "qemuarm"
DISTRO = "poky"
DISTRO_VERSION = "1.3"
TUNE_FEATURES = "armv5 dsp thumb arm926ejs"
TARGET_FPU = "soft"
meta
meta-yocto
meta-yocto-bsp = "<unknown>:<unknown>"
meta-atmel = "yocto:80336b72180283bfd5cf5f674e8c1081deede72a"

and it builds 3.4.11+git1+a201268353c030d9fafe00f2041976f7437d9386_1+8ee53c3b82ada3cdfd7d25f07d3975834ac9a9 r4.3. From looking at the meta-atmel layer, I think it should be overriding the linux-yocto settings from the other layers. What am I missing?

Thanks,
Bryan

Bruce Ashfield   13 years ago

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You need to set the preferred provider for your BSP to be your linux-custom
recipe (or whatever you call it, you don't need to leave it called
'linux-yocto-custom').
If you've done that, and are still seeing 3.4.x in the version number,
chances are
the recipe simply isn't overriding the right variables .. and a peek
at the recipe would
figure that out quickly.

Bruce

> *Post by Bryan Evenson*
> Thanks,
> Bryan
>
> _____
> poky mailing list
> https://lists.yoctoproject.org/listinfo/poky

--
"Thou shalt not follow the NULL pointer, for chaos and madness await
thee at its end"

Bryan Evenson   13 years ago

...

Bruce,

The preferred provider was setup for the BSP already. But, with the pointers I tracked down the problems. First, with the way everything was named in the layer I needed to call "bitbake linux-yocto-custom", not "bitbake linux-yocto". Then I'd made a mistake in specifying the MACHINE in my local.conf file. The machine I'm using from the meta-atmel layer is the at91sam9g25ek machine. I'd correctly put the line "MACHINE ?= at91sam9g25ek" in my local.conf file. However, I forgot to comment out the line earlier in the file that was setting the machine to qemuarm. Once I got those two fixes sorted out, it's now building a 2.6.39 kernel like I wanted.

Thanks,
Bryan

> *Post by Bryan Evenson*
> Thanks,
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> "Thou shalt not follow the NULL pointer, for chaos and madness await
> thee at its end"

Bruce Ashfield   13 years ago

...

Good news. Glad to hear it is up and running.

Cheers,

Bruce

> *Post by Bryan Evenson*
> Thanks,
> Bryan
>
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