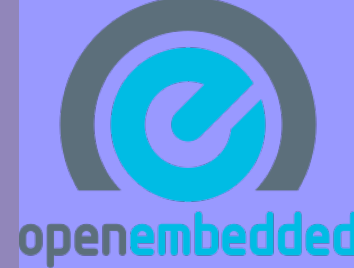




Yocto Crash Course



Welcome to the SCaLE 13x Yocto Crash Course – Build Your Own Embedded Linux OS for Fun and Profit

Prepared / Presented by

Donald Burr, Senior Software Engineer VCT Labs

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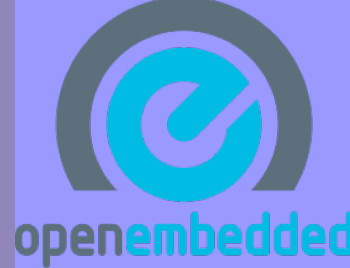
Nick Lockwood, Senior Software Engineer VCT Labs





Introduction to Yocto

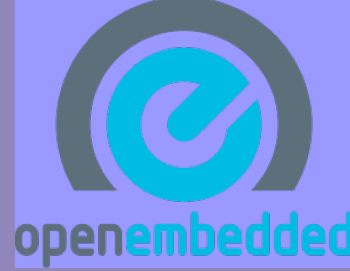
What is Yocto



- Why Yocto came into being
 - Early embedded Linux distributions monolithic, inflexible, hard to port to new platforms
 - Early embedded developers created OpenEmbedded, Opie, GPE in response to vendor distros
 - OpenEmbedded (classic) => OE-Core => Yocto
 - EmDebian => Angstrom => Poky
- OE Classic still around (Angstrom, Linaro)
- Yocto “official” umbrella project for Poky and OE-Core



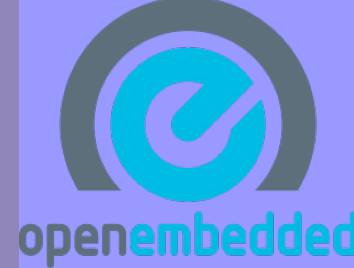
Yocto Capsule History



- Poky – Umbrella organization under Linux Foundation
 - Corporate sponsorship
- OpenEmbedded and OE-Core
 - (almost) synonymous
 - meta-openembedded (used inside poky) and oe-core (stand-alone) are one and the same (one syncs to the other)
- Other Yocto Organizations and Users
 - Mentor Graphics, Linaro, Intel, TI
 - udoo.org, raspberrypi.org, beagleboard.org
- Sites and Documentation



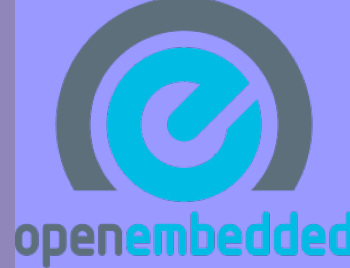
Getting Yocto Going



- Build Host Requirements
- Obtaining the Source
- Preparing the Build Environment
- Supported Targets



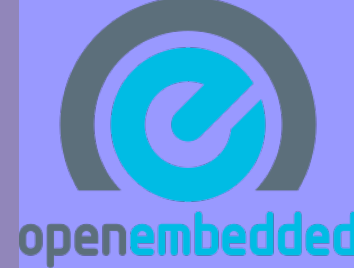
Build Overview



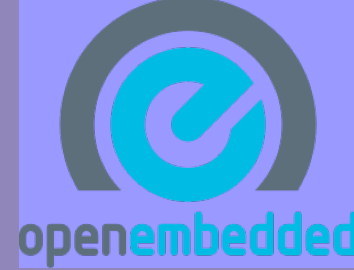
- Recipes
- Layers
- Core Images
- Building an image
- Configuration Options



Yocto Customization



- Custom Recipes
 - A .bbappend is your friend
 - And so is prepend and append
 - See meta-skeleton in poky
- Custom Layers
 - <http://layers.openembedded.org>
 - Machine BSPs, distributions, software, miscellaneous
 - Make your own and put it on github
- New Platform
 - Core recipe examples in meta-skeleton
 - <http://www.yoctoproject.org/docs/1.7.1/bsp-guide/bsp-guide.html>



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<<http://www.vctlabs.com>>

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