Isar: System Builder for Debian-Based Products

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What is demonstrated

Inputs
- Debian apt
- hello.git

Steps
- Create build chroot
- Build custom packages
- Create target roots
- Install custom packages
- Create target image

Outputs
- buildchroot
- hello.deb
- roofs
- U-Boot
- kernel
- isar-image-base

What was improved
- Cross-compilation
- SDK generation
- Output to apt (as opposed to images)
- Easier custom U-Boot and kernel support
- Wic image support
- Package patching
- Package rebuild on dependency change
- Configurable machine settings
- Debian mirror support
- Buster support
- Improved docs
- App, lib, kernel module examples
- Test suite

Work in progress:
- Debian Build-Depends support
- Reproducibility tooling (formerly manual)
- Collaboration with Deby, ELBE (others welcome)

Hardware Information
- Terasic DE0 Nano SoC: ARMv7, U-Boot image
- LeMaker HiKey: ARMv8, UEFI
- Siemens SIMATIC IPC227E: AMD64, UEFI

Source code or detail technical information availability
https://github.com/ilbers/isar