

Buildroot Tips part 2

Advanced Embedded Linux Development with Dan Walkes



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Learning objectives:

General buildroot debug strategies for
Assignment 4

Buildroot issues

- Don't check binaries into your repo

- Use .gitignore to keep them out

/.gitignore

2 lines (2 sloc) | 11 Bytes

```
1 *.o
2 writer
```

- Don't hard-code gcc references in your makefile (use `$(CC) $(CFLAGS) $(INCLUDES) $(OBJS) -o $(TARGET) $(LDFLAGS)` in your writer compile step.)
- Pay attention to configuration changes, output of `save_config.sh`

General Buildroot Debug Strategies

- Create errors in files (.mk, Config.in)
 - Determines whether the file is actually being included in the build
- Try incremental builds first
 - from buildroot subdirectory: make
AESD_ASSIGNMENTS_OVERRIDE_SRCDIR=
path/to/local/sourcedir aesd-assignments-
rebuild
- Use clean build as a last resort

General Buildroot Debug Strategies



- Specify DL_DIR to avoid download steps
 - You can share your DL_DIR with others.
- Examine every character (including spaces/tabs)
 - Look at working example side by side
- Think of other ways to test implementation
 - Native compile is one option

General Buildroot Debug Strategies



- Don't wait until the last minute to start
 - Prioritize long delay tasks like build system setup over programming tasks.
 - Think about things you can do in parallel
 - Step away from the problem for a few hours and come back to it