

# UEFI and TianoCore update

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# Agenda

Well, this is a 20 minute talk, but to set the scene:

- Something we nearly managed to tie together to publish in time for this talk.
- A bunch of stuff that had already happened by previous Plumbers, but no one gave a talk on and I figured I might at least put them on a slide.
- I'll even throw in something new (that has actually happened!) at the end.

Or in less abstract terms:

- UEFI Forum “code first” process - or UEFI \*and\* ACPI (and PI if anyone cares).
- EDK2 stable tags, UEFI SCT open source, U-Boot UEFI support.
- Dropping the CLA, SPDX, license change.

# What is “Code First”?

My guess is everyone in this room knows “code first”, just not that it needed its own name.

What is meant by “code first” in this context is perhaps most easily explained by explaining how the UEFI Forum has worked on specification changes/additions up to this point.

# “Code last”

The UEFI Forum was set up as a collaborative environment between on the one side a bunch of competing hardware manufacturers (AMD/Intel/ARM as well as system and card vendors), and on the other side a bunch of competing firmware houses (“BIOS vendors”).

Peace was maintained in this wild frontier town by the UEFI bylaws. Which as in many industry standards organisations (for reasons well known) focus strongly on protections against submarine patents.

## “Code last” 2

The ultimate guarantee of this is the process through which specification changes happen - the “Engineering Change Request” or ECR.

ECRs are bandied about in NDA-covered meetings, then companies get a say on whether they think there’s anything in there that they consider an infringement on their patents, and in the end, as part of the specification publication process they’re given a 30-day deadline of speaking up or the bylaws say they have given up their right to pursue infringement claims (on code implementing what’s described in the specification).

Only after spec release has happened will anyone’s code be protected by the bylaws.

# Getting support for a new feature into Linux

Yeah, so...

Say you missed the window for one specification release, just.

Wait another year or so for next specification release.

Aw shucks, just around the time of that release, one (or more) of your key target distros released an LTS.

You may have just missed your target for mass adoption levels by 6 years.

# Let's try that again

So, what is “code first”?

Code first isn't actually even code first. But it is a change through which we can gain early formal approval of ECRs and hence retaining the protections given by the forum bylaws.

The original process is not being actively retired, but in practice expect updates from architecture/silicon vendors to overwhelmingly switch over to this.

# Well, obviously it isn't just about legal status!

There is also the factor of whether or not anyone is interested in integrating code claiming to implement a specification that has not been ratified yet.

Ideally, the ECR will be published already as first draft, such that people can give early feedback.

So the process also involves committing to the feature not changing between the ECR being approved and the next version of the specification being released.



# TL;DR

We are going to start publishing ECRs and reference code under <https://github.com/tianocore/>

It will not mean a compromise on patent protections, and we won't randomly change the feature between publishing the ECR and releasing the next specification.



# EDK2 Stable Tags

Since August 2018, EDK2 produces not-quite-releases in the form of “stable tags”.

An intermediate step between firehose and not-quite-yearly **UDK** releases.

A period of soft/hard freeze of `master` intended to give distributions and external projects, as well as EDK2 developers, a natural starting point for packaging/integration/new development.

`edk2-stable201808`

`edk2-stable201811`

`edk2-stable201903`

`edk2-stable201905`

`edk2-stable201908`

So basically every 3 months with some wobble around Christmas.

# UEFI SCT open sourced (finally)

The Self-Certification Testsuite was finally published on 9 October 2018.

<https://github.com/tianocore/edk2-test/tree/master/uefi-sct>

Has its own section for submitting bugs (in the testsuite) at

<https://bugzilla.tianocore.org/describecomponents.cgi?product=EDK2%20Test>

# U-Boot UEFI support

Implemented by Alex Graf, helped along by Rob Clark, given a solid boost by Heinrich Schuchardt.

Initially aimed to be “just enough to run GRUB”, now runs iPXE as well as (with some additional help from Takahiro Akashi) the UEFI SCT.

# TianoCore license changes

We are in the process of migrating TianoCore from BSD-2-Clause + custom CLA to BSD-2-Clause Plus Patent License (SPDX: BSD+Patent[0]).

As part of this we are also migrating to use of SPDX tags instead of full license regurgitation per file.

The main edk2 repository as well as edk2-platforms have migrated already.

[0] No, not *that* BSD+Patent, it's a 2-clause BSD with an explicit patent grant.





# Thank you

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