Autobooting Linux from U-Boot

The Linux autoboot sequence in U-Boot is controlled by the two environment variables called `bootdelay` and `bootcmd`.

The `bootdelay` variable defines a delay, in seconds, before running the autoboot command defined by `bootcmd`. During the `bootdelay` countdown, you can interrupt the autobooting by pressing any key. This will let you enter the U-Boot command line interface.

The `bootcmd` variable defines a command executed by U-Boot automatically after the `bootdelay` countdown is over. Typically, this would be `run netboot` to boot Linux from TFTP during development or `run flashboot` to boot Linux from the NOR Flash on deployed units. The latter is how `bootcmd` is set on the modules at the factory.

In deployed configurations, where boot time to the service provided by your embedded device is critical, you will probably want to set `bootdelay` to 0:

STM32F769I-DISCO> **setenv bootdelay 0**
STM32F769I-DISCO> **saveenv**
Saving Environment to envm...
STM32F769I-DISCO>

This will make sure that on each power on / reset U-Boot immediately executes the command defined by `bootcmd`, typically booting Linux from the on-module Flash.

With `bootdelay` set to 0 the U-Boot countdown is disabled, so there is a question how you enter the U-Boot command monitor, should you need that for some reason. To do so, push the **Ctrl-C** keys down on the serial console and don't release them until you have hit the reset button on the baseboard. This will interrupt the U-Boot `bootcmd` sequence and let you enter the U-Boot command monitor:

U-Boot 2010.03-cortexm-2.3.2 (Mar 10 2017 - 11:18:48)
...
Hit any key to stop autoboot: 0
STM32F769I-DISCO> <INTERRUPT>

From the command monitor, you would be able to reset `bootdelay` to 3 or whatever value makes sense to you.

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