

Disable C-States on LibreELEC x86 to resolve intermittent crashes

Version 1.0 – Released 28 April 2018

Background

There is a known bug with Intel Bay Trail CPUs causing intermittent crashes in some (ALL?) Linux distributions. This is very disruptive when attempting to watch a video on LibreELEC. I believe the below fix may be included out of the box in an upcoming version of LibreELEC. Until then, you'll need to make the changes manually.

I became aware of this issue when experiencing intermittent crashes during video playback on my [Intel Compute Stick BOXSTCK1A8LFCL](#) running LibreELEC¹. I had difficulty finding a concise set of steps to follow to make the required changes. Therefore, after some reading, I decided to document the steps to save other people the time it took to put this information together. References are listed below.

Instructions

1. Enable SSH in your LibreELEC config (done in the LibreELEC Menu, which can be often be found under Program Add-Ons if you are using a non-standard skin)
2. Connect to your LibreELEC via SSH (default credentials are **U: root P: librelec**)
3. Temporarily mount the /flash file system as R/W (**mount -o remount,rw /flash**)
4. Edit the boot cmdline (**nano /flash/EFI/BOOT/syslinux.cfg**)²
5. Add `intel_idle.max_cstate=1` to the end of the APPEND command:
 - a. Before editing, the command will look something like:
`'APPEND boot=LABEL=System disk=LABEL=Storage quiet'`
 - b. After editing, the command will look something like:
`'APPEND boot=LABEL=System disk=LABEL=Storage quiet intel_idle.max_cstate=1'`
6. Press **CTRL-X** to exit nano, choosing **'Y'** to save, ensuring the file name is /flash/EFI/BOOT/syslinux.cfg
7. Remount the /flash file system as R/O (**mount -o remount,ro /flash**)
8. Reboot the system by typing **reboot** [ENTER]
9. You are finished – CONGRATULATIONS!!

References:

https://bugzilla.kernel.org/show_bug.cgi?id=109051

<https://forum.kodi.tv/showthread.php?tid=326703>

<https://openelec.tv/documentation/configuration/boot-arguments>

<https://forum.libreelec.tv/thread/10268-how-to-add-intel-idle-max-cstate-1-to-libreelec/>

<https://forum.libreelec.tv/thread/7740-intel-compute-stick-boxstck1a8lfc/>

¹ You can find a build of LibreELEC compatible with your [Intel Compute Stick model BOXSTCK1A8LFCL](#) at <https://forum.libreelec.tv/thread/7740-intel-compute-stick-boxstck1a8lfc/>

² I believe the location on OpenELEC x86 is '/flash/extlinux.conf', however I have not tried nor tested this. See references above for OpenELEC instructions.