

Updating the Redpine driver for Digi Embedded Yocto 1.4

Both the Wi-i.MX51 and the Wi-i.MX53 use the **Redpine wireless driver**. This driver has been improved since the last DEY 1.4 release, so it's possible to upgrade it by modifying the appropriate Bitbake recipe.

Finding the Redpine recipe

The recipe can be found at [meta-digi/meta-digi-arm/recipes-kernel/kernel-module-redpine/kernel-module-redpine.bb](#). This is the file that needs to be modified in order to update the Redpine driver.

Identifying the elements that need to be changed

Here is a portion of the Redpine Yocto recipe as it appears in the latest DEY-1.4 release:

```
SRCREV = "b43b8f5e2d51b24bcc0bc167380cfd07baac81f0"
SRCREV_SHORT = "${@'${SRCREV}'[:7]}"

# Checksums for 'redpine-${MACHINE}-${SRCREV_SHORT}.tar.gz' tarballs
TARBALL_MD5_ccimx51js = "1a5d7d7b0a41c5dc4e8b9ea44e731264"
TARBALL_SHA256_ccimx51js = "3f855614573da0bc250cfc021f69a1aaba1d7c7c3a6347488604785662d79124"
TARBALL_MD5_ccimx53js = "4a84d4da7479a20db5ee76f81c33f7b1"
TARBALL_SHA256_ccimx53js = "6e8d35f735172621b5b6c40aafd754aec8371c6cc1589f9502c8f3098b3a90a"
```

There are five variables that need to be changed:

- **SRCREV**: this is the SHA-1 of the code revision used to build the driver. In this case, a shortened version of this SHA-1 (SRCREV_SHORT) is used to identify the tarball (compressed folder) from which the sources are obtained from in Digi's FTP server.
- **TARBALL_MD5_ccimx51js**: the MD5 checksum of the Wi-i.MX51's tarball, used to check its integrity.
- **TARBALL_SHA256_ccimx51js**: the SHA-256 checksum of the Wi-i.MX51's tarball, used to check its integrity.
- **TARBALL_MD5_ccimx53js**: the MD5 checksum of the Wi-i.MX53's tarball, used to check its integrity.
- **TARBALL_SHA256_ccimx53js**: the SHA-256 checksum of the Wi-i.MX53's tarball, used to check its integrity.

Updating the variables' values

Replace the portion of the Redpine recipe detailed in the previous section with this new one:

```
SRCREV = "08c371ab31ccfdc689f39d7093199df2305f92bb"
SRCREV_SHORT = "${@'${SRCREV}'[:7]}"

# Checksums for 'redpine-${MACHINE}-${SRCREV_SHORT}.tar.gz' tarballs
TARBALL_MD5_ccimx51js = "1ce383a9fef23a83bf35a2aecf84f006"
TARBALL_SHA256_ccimx51js = "7499bed6b3aed98db7958e79c89068cf72d1566b63c57786fd9271c3f302d285"
```

```
TARBALL_MD5_ccimx53js = "efb468075924f287bb7e47ae0cc9c685"  
TARBALL_SHA256_ccimx53js = "74a7ac0b6dad27a50ed909377460e5933435b2249f19ca3e09ef9dda0182e32e"
```

Rebuilding the Redpine driver from scratch

In order to have Bitbake rebuild the Redpine driver from scratch, you need to run the following commands from your project. Please note that if you have made any changes in the Yocto working directory, they will be discarded:

```
bitbake -c cleanall kernel-module-redpine  
bitbake kernel-module-redpine
```