

# Make your own Hacker Gadget

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# Firmware Extraction with Binwalk

# Binwalk Firmware Auto Analysis

```
root@debian:/home/pentester/temp# binwalk -t -vv mr3020nv1_en_3_17_2_up_boot\140610\bin
```

```
Scan Time:      2014-11-29 01:57:32
Target File:    mr3020nv1_en_3_17_2_up_boot(140610).bin
MD5 Checksum:  4e44ca7cdabf7286228b8b4324e3d51a
Signatures:    285
```

DECIMAL	HEXADECIMAL	DESCRIPTION
0	0x0	TP-Link firmware header, firmware version: 3.17.2, image version: "ver. 1.0", product ID: 0x30200001, product version: 1, kernel load address: 0x80002000, kernel entry point: 0x801D58B0, kernel offset: 512, kernel length: 892221, rootfs offset: 1048576, rootfs length: 2883584, bootloader offset: 0, bootloader length: 48393
14144	0x3740	U-Boot version string, "U-Boot 1.1.4-ge28c8345 (Jun 10 2014 - 17:57:47)"
15488	0x3C80	uImage header, header size: 64 bytes, header CRC: 0xC21F81, created: Tue Jun 10 05:57:48 2014, image size: 33353 bytes, Data Address: 0x80010000, Entry Point: 0x80010000, data CRC: 0x2DF367A0, OS: Linux, CPU: MIPS, image type: Firmware Image, compression type: lzma, image name: "u-boot image"
15552	0x3CC0	LZMA compressed data, properties: 0x5D, dictionary size: 33554432 bytes, uncompressed size: 95584 bytes
131584	0x20200	TP-Link firmware header, firmware version: 3.17.2, image version: "ver. 1.0", product ID: 0x30200001, product version: 1, kernel load address: 0x80002000, kernel entry point: 0x801D58B0, kernel offset: 512, kernel length: 892221, rootfs offset: 1048576, rootfs length: 2883584, bootloader offset: 0, bootloader length: 0
132096	0x20400	LZMA compressed data, properties: 0x5D, dictionary size: 33554432 bytes, uncompressed size: 2581428 bytes
1180160	0x120200	Squashfs filesystem, little endian, version 4.0, compression: lzma, size: 2594041 bytes, 624 inodes, blocksize: 131072 bytes, created: Tue Jun 10 06:04:31 2014



# Viewing the Filesystem

```
PentesterAcademy# ls _mr3020nv1_en_3_17_2_up_boot\140610\bin.extracted/
120200.squashfs 20400 20400.7z 3CC0 3CC0.7z squashfs-root
PentesterAcademy#
PentesterAcademy# ls _mr3020nv1_en_3_17_2_up_boot\140610\bin.extracted/squashfs-root/
bin dev etc lib linuxrc mnt proc root sbin tmp usr var web
PentesterAcademy#
PentesterAcademy# █
```

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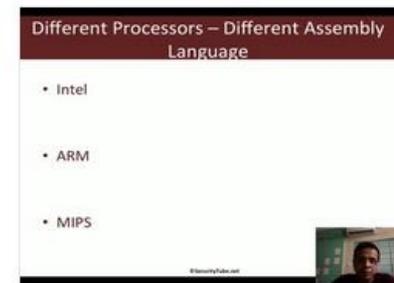
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