Example on compiling busybox with the toolchain of WP module

# Procedure

1. download and install the toolchain in /opt/swi according to your module's FW:

<https://source.sierrawireless.com/resources/airprime/software/wp76xx/wp76xx-firmware-latest-release-components/>



1. Go to the following link and download "busybox-1.32.1.tar.bz2" in your linux PC

<https://busybox.net/downloads/>

1. extract it
2. type “make menuconfig”
3. In the menuconfig,
	1. Settings --->Cross Compiler prefix ---> arm-poky-linux-gnueabi-
	2. Settings --->Path to sysroot ---> --->/opt/swi/SWI9X07Y\_02.37.07.00/sysroots/armv7a-neon-poky-linux-gnueabi



1. compile the source code of busybox by the following command:

owner@CNHKG-EX-001367:~/Yocto/sample\_c\_application/busybox\_cross\_compile/busybox-1.32.1$ make CROSS\_COMPILE=/opt/swi/SWI9X07Y\_02.37.07.00/sysroots/x86\_64-pokysdk-linux/usr/bin/arm-poky-linux-gnueabi/arm-poky-linux-gnueabi-

1. A new binary "./busybox " will be generated.
2. Pass this busybox binary to your WP module /tmp folder by SCP and type:

root@swi-mdm9x28-wp:~# chmod 777 /tmp/busybox

root@swi-mdm9x28-wp:~# /tmp/busybox

BusyBox v1.32.1 (2023-04-06 13:46:39 HKT) multi-call binary.

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Usage: busybox [function [arguments]...]

 or: busybox --list[-full]

 or: busybox --show SCRIPT

 or: busybox --install [-s] [DIR]

 or: function [arguments]...

 BusyBox is a multi-call binary that combines many common Unix

 utilities into a single executable. Most people will create a

 link to busybox for each function they wish to use and BusyBox

 will act like whatever it was invoked as.

Currently defined functions:

 [, [[, acpid, add-shell, addgroup, adduser, adjtimex, arch, arp,

 arping, ash, awk, base64, basename, bc, beep, blkdiscard, blkid,

 blockdev, bootchartd, brctl, bunzip2, bzcat, bzip2, cal, cat, chat,

 chattr, chgrp, chmod, chown, chpasswd, chpst, chroot, chrt, chvt,

 cksum, clear, cmp, comm, conspy, cp, cpio, crond, crontab, cryptpw,

 cttyhack, cut, date, dc, dd, deallocvt, delgroup, deluser, depmod,

 devmem, df, dhcprelay, diff, dirname, dmesg, dnsd, dnsdomainname,

 dos2unix, dpkg, dpkg-deb, du, dumpkmap, dumpleases, echo, ed, egrep,

 eject, env, envdir, envuidgid, ether-wake, expand, expr, factor,

 fakeidentd, fallocate, false, fatattr, fbset, fbsplash, fdflush,

 fdformat, fdisk, fgconsole, fgrep, find, findfs, flock, fold, free,

 freeramdisk, fsck, fsck.minix, fsfreeze, fstrim, fsync, ftpd, ftpget,

 ftpput, fuser, getopt, getty, grep, groups, gunzip, gzip, halt, hd,

 hdparm, head, hexdump, hexedit, hostid, hostname, httpd, hush, hwclock,

 i2cdetect, i2cdump, i2cget, i2cset, i2ctransfer, id, ifconfig, ifdown,

 ifenslave, ifplugd, ifup, inetd, init, insmod, install, ionice, iostat,

 ip, ipaddr, ipcalc, ipcrm, ipcs, iplink, ipneigh, iproute, iprule,

 iptunnel, kbd\_mode, kill, killall, killall5, klogd, last, less, link,

 linux32, linux64, linuxrc, ln, loadfont, loadkmap, logger, login,

 logname, logread, losetup, lpd, lpq, lpr, ls, lsattr, lsmod, lsof,

 lspci, lsscsi, lsusb, lzcat, lzma, lzop, makedevs, makemime, man,

 md5sum, mdev, mesg, microcom, mim, mkdir, mkdosfs, mke2fs, mkfifo,

 mkfs.ext2, mkfs.minix, mkfs.vfat, mknod, mkpasswd, mkswap, mktemp,

 modinfo, modprobe, more, mount, mountpoint, mpstat, mt, mv, nameif,

 nanddump, nandwrite, nbd-client, nc, netstat, nice, nl, nmeter, nohup,

 nologin, nproc, nsenter, nslookup, ntpd, nuke, od, openvt, partprobe,

 passwd, paste, patch, pgrep, pidof, ping, ping6, pipe\_progress,

 pivot\_root, pkill, pmap, popmaildir, poweroff, powertop, printenv,

 printf, ps, pscan, pstree, pwd, pwdx, raidautorun, rdate, rdev,

 readahead, readlink, readprofile, realpath, reboot, reformime,

 remove-shell, renice, reset, resize, resume, rev, rm, rmdir, rmmod,

 route, rpm, rpm2cpio, rtcwake, run-init, run-parts, runlevel, runsv,

 runsvdir, rx, script, scriptreplay, sed, sendmail, seq, setarch,

 setconsole, setfattr, setfont, setkeycodes, setlogcons, setpriv,

 setserial, setsid, setuidgid, sh, sha1sum, sha256sum, sha3sum,

 sha512sum, showkey, shred, shuf, slattach, sleep, smemcap, softlimit,

 sort, split, ssl\_client, start-stop-daemon, stat, strings, stty, su,

 sulogin, sum, sv, svc, svlogd, svok, swapoff, swapon, switch\_root,

 sync, sysctl, syslogd, tac, tail, tar, taskset, tc, tcpsvd, tee,

 telnet, telnetd, test, tftp, tftpd, time, timeout, top, touch, tr,

 traceroute, traceroute6, true, truncate, ts, tty, ttysize, tunctl,

 ubiattach, ubidetach, ubimkvol, ubirename, ubirmvol, ubirsvol,

 ubiupdatevol, udhcpc, udhcpc6, udhcpd, udpsvd, uevent, umount, uname,

 unexpand, uniq, unix2dos, unlink, unlzma, unshare, unxz, unzip, uptime,

 users, usleep, uudecode, uuencode, vconfig, vi, vlock, volname, w,

 wall, watch, watchdog, wc, wget, which, who, whoami, whois, xargs, xxd,

 xz, xzcat, yes, zcat, zcip