

SEOC3 – TP 02 – Installation de Yocto sur un Raspberry Pi

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17 décembre 2019

https://github.com/SlaynPool/CR_YOCTO/

1 Création d'une image minimale pour raspberry pi

Pour installer les paquets necessaire a mpa distribution :

```
# sudo pacman -S git diffstat unzip texinfo python chrpath wget xterm sdl rpcsvc-proto
socat cpio inetutils
avertissement: git-2.24.0-1 est jour -- reinstallation
avertissement: unzip-6.0-13 est jour -- reinstallation
5 avertissement: texinfo-6.7-1 est jour -- reinstallation
avertissement: python-3.7.4-2 est jour -- reinstallation
avertissement: wget-1.20.3-2 est jour -- reinstallation
avertissement: xterm-350-1 est jour -- reinstallation
avertissement: sdl-1.2.15-13 est jour -- reinstallation
10 avertissement: inetutils-1.9.4-7 est jour -- reinstallation
resolution des dependances?
recherche des conflits entre paquets?

Paquets (13) chrpath-0.16-2 cpio-2.13-1 diffstat-1.62-1 git-2.24.0-1 inetutils
-1.9.4-7 python-3.7.4-2 rpcsvc-proto-1.4-1 sdl-1.2.15-13 socat-1.7.3.3-1 texinfo
-6.7-1 unzip-6.0-13
15 wget-1.20.3-2 xterm-350-1

Taille totale du telechargement: 0,47 MiB
Taille totale installee: 198,12 MiB
Taille de mise jour nette: 1,85 MiB
20

:: Proceder l'installation ? [O/n]
:: Recuperation des paquets
rpcsvc-proto-1.4-1-x86_64
60,4 KiB 487 KiB/s 00:00
[-----] 100%
socat-1.7.3.3-1-x86_64
169,6 KiB 1238 KiB/s 00:00
[-----] 100%
25 cpio-2.13-1-x86_64
199,5 KiB 2,16 MiB/s 00:00
[-----] 100%
diffstat-1.62-1-x86_64
25,0 KiB 8,13 MiB/s 00:00
[-----] 100%
chrpath-0.16-2-x86_64
23,5 KiB 0,00 B/s 00:00
[-----] 100%
(13/13) verification des cles dans le trousseau
[-----] 100%
(13/13) verification de l'integrite des paquets
[-----] 100%
30 (13/13) chargement des fichiers des paquets
[-----] 100%
(13/13) analyse des conflits entre fichiers
[-----] 100%
(13/13) verification de l'espace disque disponible
[-----] 100%
```

```

35  :: Traitement des changements du paquet?
    ( 1/13) reinstallation git

    [-----] 100%
    ( 2/13) installation de diffstat

    [-----] 100%
    ( 3/13) reinstallation unzip

    [-----] 100%
    ( 4/13) reinstallation texinfo

    [-----] 100%
    ( 5/13) reinstallation python

    [-----] 100%
    ( 6/13) installation de chrpath

    [-----] 100%
40  ( 7/13) reinstallation wget

    [-----] 100%
    ( 8/13) reinstallation xterm

    [-----] 100%
    ( 9/13) reinstallation sdl

    [-----] 100%
    (10/13) installation de rpcsvc-proto

    [-----] 100%
    (11/13) installation de socat

    [-----] 100%
45  (12/13) installation de cpio

```

Listing 1 – Installation des paquets pour ma distribution

On verifie locale est en en_US.UTF8

```

[slaynpool@MiniZbeub]commande$ locale -a
C
en_US.utf8
fr_FR.utf8
5  POSIX

```

Listing 2 – Mes Locale

Puis on tape les commandes du TP

```

#~$ git clone git://git.yoctoproject.org/poky
Clonage dans 'poky'...
remote: Counting objects: 461422, done.
remote: Compressing objects: 100% (108855/108855), done.
5  remote: Total 461422 (delta 345364), reused 461219 (delta 345161)
Reception d'objets: 100% (461422/461422), 160.14 Mio | 264.00 Kio/s, fait.
Resolution des deltas: 100% (345364/345364), fait.
#~$ cd poky/
#poky$ mv ../meta-raspberrypi/ .
10 #poky$ source oe-init-build-env rpi-build
You had no conf/local.conf file. This configuration file has therefore been
created for you with some default values. You may wish to edit it to, for
example, select a different MACHINE (target hardware). See conf/local.conf
for more information as common configuration options are commented.
15
You had no conf/bblayers.conf file. This configuration file has therefore been
created for you with some default values. To add additional metadata layers
into your configuration please add entries to conf/bblayers.conf.

20 The Yocto Project has extensive documentation about OE including a reference
manual which can be found at:
    http://yoctoproject.org/documentation

For more information about OpenEmbedded see their website:
25    http://www.openembedded.org/

```

```

### Shell environment set up for builds. ###

30 You can now run 'bitbake <target>'

Common targets are:
    core-image-minimal
    core-image-sato
35    meta-toolchain
    meta-ide-support

You can also run generated qemu images with a command like 'runqemu qemu86'

40 Other commonly useful commands are:
    - 'devtool' and 'recipetool' handle common recipe tasks
    - 'bitbake-layers' handles common layer tasks
    - 'oe-pkgdata-util' handles common target package tasks
    #rpi-build$ bitbake-layers add-layer ../meta-raspberrypi
45 NOTE: Starting bitbake server...

#rpi-build$ echo 'MACHINE="raspberrypi3"' >> conf/local.conf
#time bitbake core-image-minimal
WARNING: Host distribution "manjaro" has not been validated with this version of the
        build system; you may possibly experience unexpected failures. It is recommended that
        you use a tested distribution.
50 Parsing recipes: 100% |#####| Time:
    0:00:31
Parsing of 798 .bb files complete (0 cached, 798 parsed). 1327 targets, 67 skipped, 0
    masked, 0 errors.
NOTE: Resolving any missing task queue dependencies

Build Configuration:
55 BB_VERSION      = "1.44.0"
   BUILD_SYS      = "x86_64-linux"
   NATIVESBSTRING = "manjaro"
   TARGET_SYS     = "arm-poky-linux-gnueabi"
   MACHINE        = "raspberrypi3"
60 DISTRO         = "poky"
   DISTRO_VERSION = "3.0"
   TUNE_FEATURES  = "arm vfp cortexa7 neon vfpv4 thumb callconvention-hard"
   TARGET_FPU     = "hard"
meta
65 meta-poky
meta-yocto-bsp      = "master:7e7b066085c2496a259b356c59acda32d444a261"
meta-raspberrypi   = "master:3ae288aa38e3a1609c6e861918a874416d3f0f13"

NOTE: Fetching uninative binary shim from http://downloads.yoctoproject.org/releases/
    uninative/2.7/x86_64-nativesdk-libc.tar.xz;sha256sum=9498
    d8bba047499999a7310ac2576d0796461184965351a56f6d32c888a1f216
70 Initialising tasks: 100% |#####| Time:
    0:00:01
Sstate summary: Wanted 1016 Found 0 Missed 1016 Current 0 (0% match, 0% complete)
NOTE: Executing Tasks
NOTE: Setscene tasks completed
Currently 8 running tasks (291 of 2777) 10% |####
75 Currently 8 running tasks (293 of 2777) 10% |####
    Currently 8 running tasks (296 of 2777) 10% |####
    Currently 8 running tasks (299 of 2777) 10% |####
    Currently 8 running tasks (303 of 2777) 10% |#####
    Currently 8 running tasks (306 of 2777) 10% |#####
80 0: binutils-cross-arm-2.33.1-r0 do_fetch (pid 3303) 4% |#
    106K/s
    Currently 8 running tasks (322 of 2777) 11% |#####
    0: binutils-cross-arm-2.33.1-r0 do_fetch (pid 3303) 5% |#
    94.8K/s
    Currently 8 running tasks (775 of 2777) 27% |#####
    0: binutils-cross-arm-2.33.1-r0 do_fetch (pid 3303) 14% |###
    42.4K/s

```

Listing 3 – On tape les commandes