

```
alan@debian:~/poky$ ls -l
total 68
drwxr-xr-x  6 alan alan  4096 Jul  5 03:52 bitbake
drwxr-xr-x 14 alan alan  4096 Jul  5 03:52 documentation
-rw-r--r--  1 alan alan   515 Jul  5 03:52 LICENSE
drwxr-xr-x 20 alan alan  4096 Jul  5 03:52 meta
drwxr-xr-x  5 alan alan  4096 Jul  5 03:52 meta-poky
drwxr-xr-x  8 alan alan  4096 Jul  5 03:52 meta-selftest
drwxr-xr-x  7 alan alan  4096 Jul  5 03:52 meta-skeleton
drwxr-xr-x  3 alan alan  4096 Jul  5 03:52 meta-yocto
drwxr-xr-x  9 alan alan  4096 Jul  5 03:52 meta-yocto-bsp
-rwxr-xr-x  1 alan alan  2121 Jul  5 03:52 oe-init-build-env
-rwxr-xr-x  1 alan alan  2559 Jul  5 03:52 oe-init-build-env-memres
-rw-r--r--  1 alan alan  2467 Jul  5 03:52 README
-rw-r--r--  1 alan alan 14836 Jul  5 03:52 README.hardware
drwxr-xr-x  8 alan alan  4096 Jul  5 03:52 scripts
```

```
alan@debian:~/poky$ source oe-init-build-env
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.
```

```
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.
```

```
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:
```

```
http://www.openembedded.org/
```

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

```
You can now run 'bitbake <target>'
```

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

```
You can also run generated qemu images with a command like 'runqemu gemux86'
```

```
alan@debian:~/poky/build$ ls -l
total 4
drwxr-xr-x 2 alan alan 4096 Jul  5 03:55 conf
```

```
alan@debian:~/poky/build$ cd conf
```

```
alan@debian:~/poky/build/conf$ ls
bblayers.conf  local.conf  templateconf.cfg
```

```
alan@debian:~/poky/build/conf$ ls -l
total 20
-rw-r--r-- 1 alan alan   280 Jul  5 03:55 bblayers.conf
-rw-r--r-- 1 alan alan 10293 Jul  5 03:55 local.conf
-rw-r--r-- 1 alan alan   15 Jul  5 03:55 templateconf.cfg
```

```
alan@debian:~/poky/build$ bitbake core-image-sato
WARNING: /home/alan/poky/meta/recipes-core/images/core-image-tiny-initramfs.bb:
Exception during build_dependencies for create_shar
```

WARNING: /home/alan/poky/meta/recipes-core/images/core-image-tiny-initramfs.bb: Error during finalise of /home/alan/poky/meta/recipes-core/images/core-image-tiny-initramfs.bb

ERROR: ExpansionError during parsing /home/alan/poky/meta/recipes-core/images/core-image-tiny-initramfs.bb

Traceback (most recent call last):

bb.data_smart.ExpansionError: Failure expanding variable create_shar, expression was

```
# copy in the template shar extractor script
cp /home/alan/poky/meta/files/toolchain-shar-extract.sh
/home/alan/poky/build/tmp/work/qemux86-poky-linux/core-image-tiny-initramfs/1.0-r0/x86_64-deploy-core-image-tiny-initramfs-populate-sdk/poky-glibc-x86_64-core-image-tiny-initramfs-i586-toolchain-2.3.1.sh
```

```
rm -f /home/alan/poky/build/tmp/work/qemux86-poky-linux/core-image-tiny-initramfs/1.0-r0/temp/pre_install_command /home/alan/poky/build/tmp/work/qemux86-poky-linux/core-image-tiny-initramfs/1.0-r0/temp/post_install_command
```

```
if [ 1 -eq 1 ] ; then
    cp /home/alan/poky/meta/files/toolchain-shar-relocate.sh
/home/alan/poky/build/tmp/work/qemux86-poky-linux/core-image-tiny-initramfs/1.0-r0/temp/post_install_command
fi
cat << "EOF" >> /home/alan/poky/build/tmp/work/qemux86-poky-linux/core-image-tiny-initramfs/1.0-r0/temp/pre_install_command
```

EOF

```
cat << "EOF" >> /home/alan/poky/build/tmp/work/qemux86-poky-linux/core-image-tiny-initramfs/1.0-r0/temp/post_install_command
```

EOF

```
sed -i -e '/@SDK_PRE_INSTALL_COMMAND@/r /home/alan/poky/build/tmp/work/qemux86-poky-linux/core-image-tiny-initramfs/1.0-r0/temp/pre_install_command' \
-e '/@SDK_POST_INSTALL_COMMAND@/r /home/alan/poky/build/tmp/work/qemux86-poky-linux/core-image-tiny-initramfs/1.0-r0/temp/post_install_command' \
/home/alan/poky/build/tmp/work/qemux86-poky-linux/core-image-tiny-initramfs/1.0-r0/x86_64-deploy-core-image-tiny-initramfs-populate-sdk/poky-glibc-x86_64-core-image-tiny-initramfs-i586-toolchain-2.3.1.sh
```

```
# substitute variables
sed -i -e 's#@SDK_ARCH#@x86_64#g' \
-e 's#@SDKPATH@#/opt/poky/2.3.1#g' \
-e 's#@SDKEXTPATH@#~/poky_sdk#g' \
-e 's#@OLDEST_KERNEL@#2.6.32#g' \
-e 's#@REAL_MULTIMACH_TARGET_SYS#@i586-poky-linux#g' \
-e 's#@SDK_TITLE@#${@d.getVar("SDK_TITLE").replace('&', '\&')}#g' \
-e 's#@SDK_VERSION@#2.3.1#g' \
-e '/@SDK_PRE_INSTALL_COMMAND@/d' \
-e '/@SDK_POST_INSTALL_COMMAND@/d' \
-e 's#@SDK_GCC_VER@#${@oe.utils.host_gcc_version(d)}#g' \
/home/alan/poky/build/tmp/work/qemux86-poky-linux/core-image-tiny-initramfs/1.0-r0/x86_64-deploy-core-image-tiny-initramfs-populate-sdk/poky-glibc-x86_64-core-image-tiny-initramfs-i586-toolchain-2.3.1.sh
```

```
# add execution permission
chmod +x /home/alan/poky/build/tmp/work/qemux86-poky-linux/core-image-tiny-initramfs/1.0-r0/x86_64-deploy-core-image-tiny-initramfs-populate-sdk/poky-glibc-x86_64-core-image-tiny-initramfs-i586-toolchain-2.3.1.sh
```

```
# append the SDK tarball
cat /home/alan/poky/build/tmp/work/qemux86-poky-linux/core-image-tiny-initramfs/1.0-r0/x86_64-deploy-core-image-tiny-initramfs-populate-sdk/poky-glibc-x86_64-core-image-tiny-initramfs-i586-toolchain-2.3.1.tar.xz >>
/home/alan/poky/build/tmp/work/qemux86-poky-linux/core-image-tiny-initramfs/1.0-
```

```
r0/x86_64-deploy-core-image-tiny-initramfs-populate-sdk/poky-glibc-x86_64-core-image-tiny-initramfs-i586-toolchain-2.3.1.sh
```

```
# delete the old tarball, we don't need it anymore
rm /home/alan/poky/build/tmp/work/qemux86-poky-linux/core-image-tiny-initramfs/1.0-r0/x86_64-deploy-core-image-tiny-initramfs-populate-sdk/poky-glibc-x86_64-core-image-tiny-initramfs-i586-toolchain-2.3.1.tar.xz
which triggered exception OSError: [Errno 12] Cannot allocate memory
```

Summary: There were 2 WARNING messages shown.

Summary: There was 1 ERROR message shown, returning a non-zero exit code.

alan@debian:~/poky/build\$ bitbake core-image-sato

Loading cache: 100% |#####|

Time: 0:00:02

Loaded 922 entries from dependency cache.

Parsing recipes: 100% |#####|

Time: 0:01:36

Parsing of 830 .bb files complete (583 cached, 247 parsed). 1299 targets, 48 skipped, 0 masked, 0 errors.

NOTE: Resolving any missing task queue dependencies

Build Configuration:

```
BB_VERSION      = "1.34.0"
BUILD_SYS       = "x86_64-linux"
NATIVELSBSTRING = "debian-8"
TARGET_SYS     = "i586-poky-linux"
MACHINE        = "qemux86"
DISTRO         = "poky"
DISTRO_VERSION = "2.3.1"
TUNE_FEATURES  = "m32 i586"
TARGET_FPU     = ""
meta
meta-poky
meta-yocto-bsp  = "pyro:0920b28c93632ed53e1d50c24f260f9359fcc150"
```

NOTE: Fetching uninative binary shim from

```
http://downloads.yoctoproject.org/releases/uninative/1.6/x86_64-nativesdk-
libc.tar.bz2;sha256sum=2b4fffa308d9f19e0742ala404ff42495fb50c165e5ca0458cedca157372691
a
```

--2017-07-05 04:19:24-

```
- http://downloads.yoctoproject.org/releases/uninative/1.6/x86_64-nativesdk-
libc.tar.bz2
```

Resolving downloads.yoctoproject.org (downloads.yoctoproject.org)... 198.145.20.127

Connecting to downloads.yoctoproject.org

(downloads.yoctoproject.org)|198.145.20.127|:80... connected.

HTTP request sent, awaiting response... 200 OK

Length: 2535308 (2.4M) [application/octet-stream]

Saving to:

```
'/home/alan/poky/build/downloads/uninative/2b4fffa308d9f19e0742ala404ff42495fb50c165e5
ca0458cedca157372691a/x86_64-nativesdk-libc.tar.bz2'
```

2017-07-05 04:19:28 (584 KB/s) -

```
'/home/alan/poky/build/downloads/uninative/2b4fffa308d9f19e0742ala404ff42495fb50c165e5
ca0458cedca157372691a/x86_64-nativesdk-libc.tar.bz2' saved [2535308/2535308]
```

Initialising tasks: 100% |#####|

Time: 0:01:02

NOTE: Executing SetScene Tasks

NOTE: Executing RunQueue Tasks

WARNING: The free space of /home/alan/poky/build/ssstate-cache (rootfs) is running low (0.991GB left)

ERROR: No new tasks can be executed since the disk space monitor action is "STOPTASKS"!

```
WARNING: The free space of /home/alan/poky/build/downloads (rootfs) is running low
(0.990GB left)
ERROR: No new tasks can be executed since the disk space monitor action is
"STOPTASKS"!
WARNING: The free space of /home/alan/poky/build/tmp (rootfs) is running low (0.990GB
left)
ERROR: No new tasks can be executed since the disk space monitor action is
"STOPTASKS"!
NOTE: Tasks Summary: Attempted 102 tasks of which 0 didn't need to be rerun and all
succeeded.
```

```
Summary: There were 3 WARNING messages shown.
Summary: There were 3 ERROR messages shown, returning a non-zero exit code.
```

```
alan@debian:~/poky/build$ ls
bitbake.lock  cache  conf  downloads  sstate-cache  tmp
alan@debian:~/poky/build$ gedit local.conf
```

```
** (gedit:12624): WARNING **: Error when getting information for file
'/home/alan/poky/build/local.conf': No such file or directory
```

```
alan@debian:~/poky/build$ ls -l
total 20
-rw-r--r--  1 alan alan    0 Jul  5 04:17 bitbake.lock
drwxr-xr-x  2 alan alan 4096 Jul  5 04:20 cache
drwxr-xr-x  2 alan alan 4096 Jul  5 03:59 conf
drwxr-xr-x  4 alan alan 4096 Jul  5 04:57 downloads
drwxr-xr-x 43 alan alan 4096 Jul  5 04:58 sstate-cache
drwxr-xr-x 12 alan alan 4096 Jul  5 04:55 tmp
alan@debian:~/poky/build$ cd conf
alan@debian:~/poky/build/conf$ ls
bblayers.conf  local.conf  sanity_info  templateconf.cfg
alan@debian:~/poky/build/conf$ gedit local.conf
alan@debian:~/poky/build/conf$ cd ..
alan@debian:~/poky/build$ ls
bitbake.lock  cache  conf  downloads  sstate-cache  tmp
alan@debian:~/poky/build$ bitbake core-image-sato
WARNING: /home/alan/poky/meta/recipes-core/ovmf/ovmf-shell-image.bb: Exception during
build_dependencies for create_shar
WARNING: /home/alan/poky/meta/recipes-core/ovmf/ovmf-shell-image.bb: Error during
finalise of /home/alan/poky/meta/recipes-core/ovmf/ovmf-shell-image.bb
ERROR: ExpansionError during parsing /home/alan/poky/meta/recipes-core/ovmf/ovmf-
shell-image.bb
Traceback (most recent call last):
bb.data_smart.ExpansionError: Failure expanding variable create_shar, expression was
# copy in the template shar extractor script
cp /home/alan/poky/meta/files/toolchain-shar-extract.sh
/home/alan/poky/build/tmp/work/qemux86-poky-linux/ovmf-shell-image/1.0-r0/x86_64-
deploy-ovmf-shell-image-populate-sdk/poky-glibc-x86_64-ovmf-shell-image-i586-
toolchain-2.3.1.sh

rm -f /home/alan/poky/build/tmp/work/qemux86-poky-linux/ovmf-shell-image/1.0-
r0/temp/pre_install_command /home/alan/poky/build/tmp/work/qemux86-poky-linux/ovmf-
shell-image/1.0-r0/temp/post_install_command

if [ 1 -eq 1 ] ; then
cp /home/alan/poky/meta/files/toolchain-shar-relocate.sh
/home/alan/poky/build/tmp/work/qemux86-poky-linux/ovmf-shell-image/1.0-
r0/temp/post_install_command
fi
cat << "EOF" >> /home/alan/poky/build/tmp/work/qemux86-poky-linux/ovmf-shell-
image/1.0-r0/temp/pre_install_command

EOF

cat << "EOF" >> /home/alan/poky/build/tmp/work/qemux86-poky-linux/ovmf-shell-
image/1.0-r0/temp/post_install_command
```

EOF

```
sed -i -e '/@SDK_PRE_INSTALL_COMMAND@/r /home/alan/poky/build/tmp/work/qemux86-
poky-linux/ovmf-shell-image/1.0-r0/temp/pre_install_command' \
-e '/@SDK_POST_INSTALL_COMMAND@/r /home/alan/poky/build/tmp/work/qemux86-
poky-linux/ovmf-shell-image/1.0-r0/temp/post_install_command' \
/home/alan/poky/build/tmp/work/qemux86-poky-linux/ovmf-shell-image/1.0-
r0/x86_64-deploy-ovmf-shell-image-populate-sdk/poky-glibc-x86_64-ovmf-shell-image-
i586-toolchain-2.3.1.sh
```

```
# substitute variables
sed -i -e 's#@SDK_ARCH@#x86_64#g' \
-e 's#@SDKPATH@#/opt/poky/2.3.1#g' \
-e 's#@SDKEXTPATH@~/poky_sdk#g' \
-e 's#@OLDEST_KERNEL@#2.6.32#g' \
-e 's#@REAL_MULTIMACH_TARGET_SYS@#i586-poky-linux#g' \
-e 's#@SDK_TITLE@#${@d.getVar("SDK_TITLE").replace('&', '\&')}#g' \
-e 's#@SDK_VERSION@#2.3.1#g' \
-e '/@SDK_PRE_INSTALL_COMMAND@/d' \
-e '/@SDK_POST_INSTALL_COMMAND@/d' \
-e 's#@SDK_GCC_VER@#${@oe.utils.host_gcc_version(d)}#g' \
/home/alan/poky/build/tmp/work/qemux86-poky-linux/ovmf-shell-image/1.0-
r0/x86_64-deploy-ovmf-shell-image-populate-sdk/poky-glibc-x86_64-ovmf-shell-image-
i586-toolchain-2.3.1.sh
```

```
# add execution permission
chmod +x /home/alan/poky/build/tmp/work/qemux86-poky-linux/ovmf-shell-
image/1.0-r0/x86_64-deploy-ovmf-shell-image-populate-sdk/poky-glibc-x86_64-ovmf-shell-
image-i586-toolchain-2.3.1.sh
```

```
# append the SDK tarball
cat /home/alan/poky/build/tmp/work/qemux86-poky-linux/ovmf-shell-image/1.0-
r0/x86_64-deploy-ovmf-shell-image-populate-sdk/poky-glibc-x86_64-ovmf-shell-image-
i586-toolchain-2.3.1.tar.xz >> /home/alan/poky/build/tmp/work/qemux86-poky-linux/ovmf-
shell-image/1.0-r0/x86_64-deploy-ovmf-shell-image-populate-sdk/poky-glibc-x86_64-ovmf-
shell-image-i586-toolchain-2.3.1.sh
```

```
# delete the old tarball, we don't need it anymore
rm /home/alan/poky/build/tmp/work/qemux86-poky-linux/ovmf-shell-image/1.0-
r0/x86_64-deploy-ovmf-shell-image-populate-sdk/poky-glibc-x86_64-ovmf-shell-image-
i586-toolchain-2.3.1.tar.xz
which triggered exception OSError: [Errno 12] Cannot allocate memory
```

Summary: There were 2 WARNING messages shown.

Summary: There was 1 ERROR message shown, returning a non-zero exit code.