



# **Embedded System Architecture 2**

## **LAB 2**

**FALL 2019**

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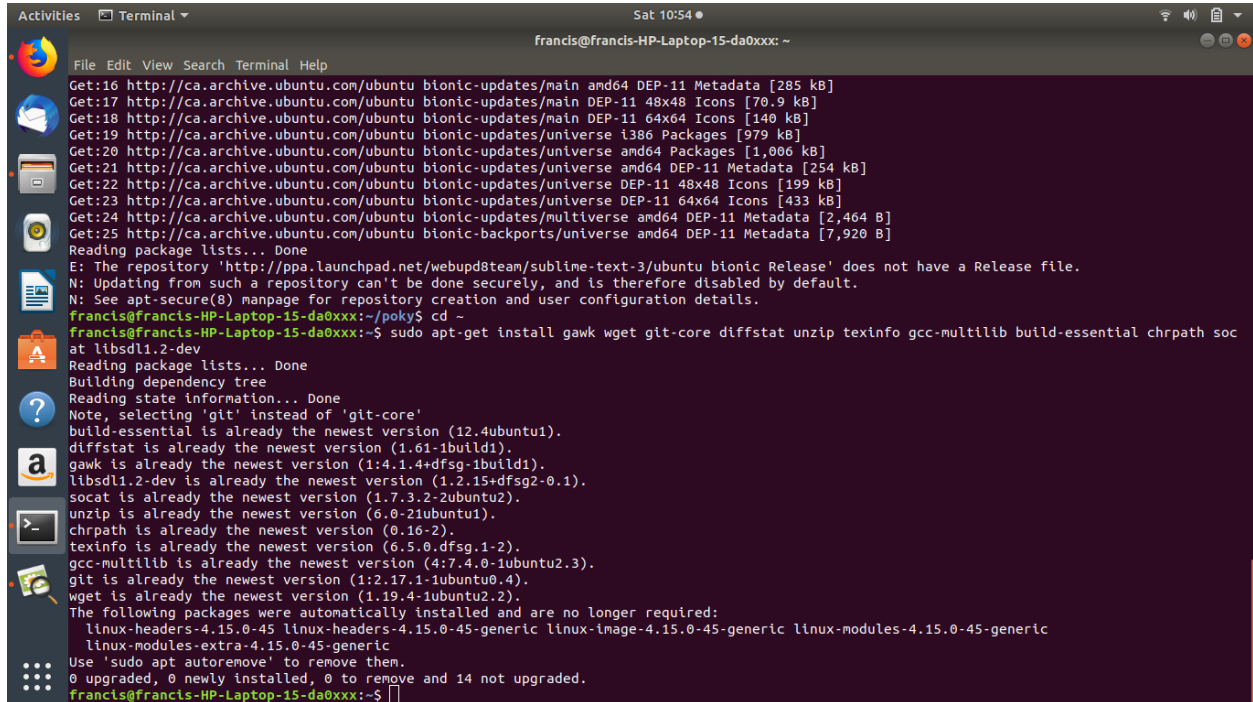
**CLASS:** ESE 3005

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- **Environment setup of Yocto in DART-MX6**

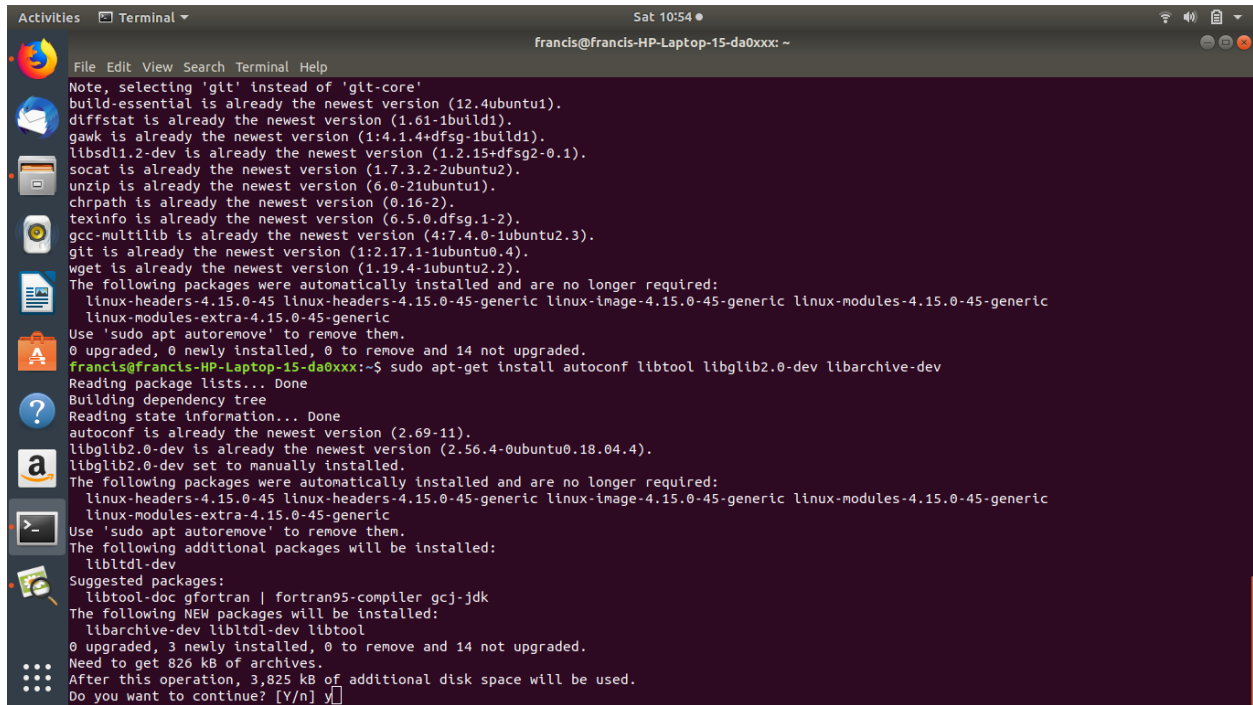
## 1) Downloading required packages



A terminal window titled 'francis@francis-HP-Laptop-15-da0xxx: ~' showing the output of an 'apt-get install' command. The terminal displays progress for downloading various Ubuntu packages from the archive. It lists several packages already installed, such as 'build-essential', 'diffstat', 'gawk', 'libstdc++6', 'socat', 'unzip', 'chrpath', 'texinfo', 'gcc-multilib', 'git', and 'wget'. It also lists packages that were automatically installed and are no longer required, including 'linux-headers-4.15.0-45-generic', 'linux-image-4.15.0-45-generic', and 'linux-modules-extra-4.15.0-45-generic'. The terminal ends with a summary: '0 upgraded, 0 newly installed, 0 to remove and 14 not upgraded.'

```
Get:16 http://ca.archive.ubuntu.com/ubuntu bionic-updates/main amd64 DEP-11 Metadata [285 kB]
Get:17 http://ca.archive.ubuntu.com/ubuntu bionic-updates/main DEP-11 48x48 Icons [70.9 kB]
Get:18 http://ca.archive.ubuntu.com/ubuntu bionic-updates/main DEP-11 64x64 Icons [140 kB]
Get:19 http://ca.archive.ubuntu.com/ubuntu bionic-updates/universe i386 Packages [979 kB]
Get:20 http://ca.archive.ubuntu.com/ubuntu bionic-updates/universe amd64 Packages [1,006 kB]
Get:21 http://ca.archive.ubuntu.com/ubuntu bionic-updates/universe amd64 DEP-11 Metadata [254 kB]
Get:22 http://ca.archive.ubuntu.com/ubuntu bionic-updates/universe DEP-11 48x48 Icons [199 kB]
Get:23 http://ca.archive.ubuntu.com/ubuntu bionic-updates/universe DEP-11 64x64 Icons [433 kB]
Get:24 http://ca.archive.ubuntu.com/ubuntu bionic-updates/multiverse amd64 DEP-11 Metadata [2,464 B]
Get:25 http://ca.archive.ubuntu.com/ubuntu bionic-backports/universe amd64 DEP-11 Metadata [7,920 B]
Reading package lists... Done
E: The repository 'http://ppa.launchpad.net/webupd8team/sublime-text-3/ubuntu bionic Release' does not have a Release file.
N: Updating from such a repository can't be done securely, and is therefore disabled by default.
N: See apt-get(8) manpage for repository creation and user configuration details.
francis@francis-HP-Laptop-15-da0xxx:~/poky$ cd ~
francis@francis-HP-Laptop-15-da0xxx:~$ sudo apt-get install gawk wget git-core diffstat unzip texinfo gcc-multilib build-essential chrpath soc
at libstdc++6
Reading package lists... Done
Building dependency tree
Reading state information... Done
Note, selecting 'git' instead of 'git-core'
build-essential is already the newest version (12.4ubuntu1).
diffstat is already the newest version (1.61-1build1).
gawk is already the newest version (1:4.1.4+dfsg-1build1).
libstdc++6 is already the newest version (1.2.15+dfsg2-0.1).
socat is already the newest version (1.7.3.2-2ubuntu2).
unzip is already the newest version (6.0-21ubuntu1).
chrpath is already the newest version (0.16-2).
texinfo is already the newest version (6.5.0.dfsg.1-2).
gcc-multilib is already the newest version (4:7.4.0-1ubuntu2.3).
git is already the newest version (1:2.17.1-1ubuntu0.4).
wget is already the newest version (1.19.4-1ubuntu2.2).
The following packages were automatically installed and are no longer required:
  linux-headers-4.15.0-45 linux-headers-4.15.0-45-generic linux-image-4.15.0-45-generic linux-modules-extra-4.15.0-45-generic
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 14 not upgraded.
francis@francis-HP-Laptop-15-da0xxx:~$
```

## 2) Cooking the image and running it using qemu emulator



```
Francis@Francis-HP-Laptop-15-da0xxx: ~  
File Edit View Search Terminal Help  
Note, selecting 'git' instead of 'git-core'.  
build-essential is already the newest version (12.4ubuntu1).  
diffstat is already the newest version (1.61-1build1).  
gawk is already the newest version (1:4.1.4+dfsg-1build1).  
libstdl1.2-dev is already the newest version (1.2.15+dfsg2-0.1).  
socat is already the newest version (1.7.3.2-2ubuntu2).  
unzip is already the newest version (6.0-21ubuntu1).  
chrpath is already the newest version (0.16-2).  
texinfo is already the newest version (6.5.0.dfsg.1-2).  
gcc-multilib is already the newest version (4:7.4.0-1ubuntu2.3).  
git is already the newest version (1:2.17.1-1ubuntu0.4).  
wget is already the newest version (1.19.4-1ubuntu2.2).  
The following packages were automatically installed and are no longer required:  
  linux-headers-4.15.0-45 linux-headers-4.15.0-45-generic linux-image-4.15.0-45-generic linux-modules-4.15.0-45-generic  
  linux-modules-extra-4.15.0-45-generic  
Use 'sudo apt autoremove' to remove them.  
0 upgraded, 0 newly installed, 0 to remove and 14 not upgraded.  
Francis@Francis-HP-Laptop-15-da0xxx:~$ sudo apt-get install autoconf libtool libglib2.0-dev libarchive-dev  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
autoconf is already the newest version (2.69-11).  
libglib2.0-dev is already the newest version (2.56.4-0ubuntu0.18.04.4).  
libglib2.0-dev set to manually installed.  
The following packages were automatically installed and are no longer required:  
  linux-headers-4.15.0-45 linux-headers-4.15.0-45-generic linux-image-4.15.0-45-generic linux-modules-4.15.0-45-generic  
  linux-modules-extra-4.15.0-45-generic  
Use 'sudo apt autoremove' to remove them.  
The following additional packages will be installed:  
  libltdl-dev  
Suggested packages:  
  libtool-doc gfortran | fortran95-compiler gcj-jdk  
The following NEW packages will be installed:  
  libarchive-dev libltdl-dev libtool  
0 upgraded, 3 newly installed, 0 to remove and 14 not upgraded.  
Need to get 826 kB of archives.  
After this operation, 3,825 kB of additional disk space will be used.  
Do you want to continue? [Y/n] Y
```

```
Activities Terminal Sat 10:56 francis@francis-HP-Laptop-15-da0xxx: ~
File Edit View Search Terminal Help
Preparing to unpack .../python-smmap_2.0.3-1_all.deb ...
Unpacking python-smmap (2.0.3-1) ...
Selecting previously unselected package python-gitdb.
Preparing to unpack .../python-gitdb_2.0.3-1_all.deb ...
Unpacking python-gitdb (2.0.3-1) ...
Selecting previously unselected package python-git.
Preparing to unpack .../python-git_2.1.8-1_all.deb ...
Unpacking python-git (2.1.8-1) ...
Setting up python-smmap (2.0.3-1) ...
Setting up python-gitdb (2.0.3-1) ...
Setting up python-git (2.1.8-1) ...
francis@francis-HP-Laptop-15-da0xxx:~$ sudo apt-get install docbook-utils python-pysqlite2 help2manmake gcc g++ desktop-file-utils libgl1-mesa-dev
Reading package lists... Done
Building dependency tree
Reading state information... Done
E: Unable to locate package help2manmake
francis@francis-HP-Laptop-15-da0xxx:~$ sudo apt-get install docbook-utils python-pysqlite2 help2man make gcc g++ desktop-file-utils libgl1-mesa-dev
Reading package lists... Done
Building dependency tree
Reading state information... Done
make is already the newest version (4.1-9.1ubuntu1).
docbook-utils is already the newest version (0.6.14-3.3).
help2man is already the newest version (1.47.6).
python-pysqlite2 is already the newest version (2.7.0-1).
desktop-file-utils is already the newest version (0.23-1ubuntu3.18.04.2).
g++ is already the newest version (4:7.4.0-1ubuntu2.3).
gcc is already the newest version (4:7.4.0-1ubuntu2.3).
libgl1-mesa-dev is already the newest version (19.0.8-0ubuntu0-18.04.1).
libgl1-mesa-dev set to manually installed.
The following packages were automatically installed and are no longer required:
  linux-headers-4.15.0-45 linux-headers-4.15.0-45-generic linux-image-4.15.0-45-generic linux-modules-4.15.0-45-generic
  linux-modules-extra-4.15.0-45-generic
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 14 not upgraded.
francis@francis-HP-Laptop-15-da0xxx:~$
```

```
Activities Terminal Sat 10:55 francis@francis-HP-Laptop-15-da0xxx: ~
File Edit View Search Terminal Help
francis@francis-HP-Laptop-15-da0xxx:~$ sudo apt-get install python-git xterm sed cvs subversion coreutils texi2html
Reading package lists... Done
Building dependency tree
Reading state information... Done
coreutils is already the newest version (8.28-1ubuntu1).
sed is already the newest version (4.4-2).
cvs is already the newest version (2:1.12.13+real-26).
subversion is already the newest version (1.9.7-4ubuntu1).
texi2html is already the newest version (1.82+dfsg1-5).
xterm is already the newest version (330-1ubuntu2).
The following packages were automatically installed and are no longer required:
  linux-headers-4.15.0-45 linux-headers-4.15.0-45-generic linux-image-4.15.0-45-generic linux-modules-4.15.0-45-generic
  linux-modules-extra-4.15.0-45-generic
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  python-gitdb python-smmap
Suggested packages:
  python-git-doc python-nose
The following NEW packages will be installed:
  python-git python-gitdb python-smmap
0 upgraded, 3 newly installed, 0 to remove and 14 not upgraded.
Need to get 368 kB of archives.
After this operation, 2,009 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ca.archive.ubuntu.com/ubuntu bionic/universe amd64 python-smmap all 2.0.3-1 [20.0 kB]
Get:2 http://ca.archive.ubuntu.com/ubuntu bionic/universe amd64 python-gitdb all 2.0.3-1 [46.6 kB]
Get:3 http://ca.archive.ubuntu.com/ubuntu bionic/universe amd64 python-git all 2.1.8-1 [301 kB]
Fetched 368 kB in 2s (230 kB/s)
Selecting previously unselected package python-smmap.
(Reading database ... 260789 files and directories currently installed.)
Preparing to unpack .../python-smmap_2.0.3-1_all.deb ...
Unpacking python-smmap (2.0.3-1) ...
Selecting previously unselected package python-gitdb.
Preparing to unpack .../python-gitdb_2.0.3-1_all.deb ...
Unpacking python-gitdb (2.0.3-1) ...
Selecting previously unselected package python-git.
Preparing to unpack .../python-git_2.1.8-1_all.deb ...
Unpacking python-git (2.1.8-1) ...
```

```
Activities Terminal Sat 10:58 francis@francis-HP-Laptop-15-da0xxx: ~
File Edit View Search Terminal Help
help2man is already the newest version (1.47.6).
python-pysqlite2 is already the newest version (2.7.0-1).
desktop-file-utils is already the newest version (0.23-1ubuntu3.18.04.2).
g++ is already the newest version (4:7.4.0-1ubuntu2.3).
g++ set to manually installed.
gcc is already the newest version (4:7.4.0-1ubuntu2.3).
libgl1-mesa-dev is already the newest version (19.0.8-0ubuntu0-18.04.1).
libgl1-mesa-dev set to manually installed.
The following packages were automatically installed and are no longer required:
  linux-headers-4.15.0-45 linux-headers-4.15.0-45-generic linux-image-4.15.0-45-generic linux-modules-4.15.0-45-generic
  linux-modules-extra-4.15.0-45-generic
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 14 not upgraded.
francis@francis-HP-Laptop-15-da0xxx:~$ sudo apt-get install libglu1-mesa-dev mercurial automake groff curl lzop asciidoc u-boot-tools dos2unix
  mtd-utils
Reading package lists... Done
Building dependency tree
Reading state information... Done
automake is already the newest version (1:1.15.1-3ubuntu2).
libglu1-mesa-dev is already the newest version (9.0.0-2.1build1).
libglu1-mesa-dev set to manually installed.
asciidoc is already the newest version (8.6.10-2).
lzop is already the newest version (1.03-4).
curl is already the newest version (7.58.0-2ubuntu3.8).
u-boot-tools is already the newest version (2018.07-rc3+dfsg1-0ubuntu3-18.04.1).
mercurial is already the newest version (4.5.3-1ubuntu2.1).
The following packages were automatically installed and are no longer required:
  linux-headers-4.15.0-45 linux-headers-4.15.0-45-generic linux-image-4.15.0-45-generic linux-modules-4.15.0-45-generic
  linux-modules-extra-4.15.0-45-generic
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  psutils
The following NEW packages will be installed:
  dos2unix groff mtd-utils psutils
0 upgraded, 4 newly installed, 0 to remove and 14 not upgraded.
Need to get 3,767 kB of archives.
After this operation, 12.2 MB of additional disk space will be used.
Do you want to continue? [Y/n]
```

## 2) Downloading the Yocto Fido





### 3) Downloading Yocto Fido i.MX6 with Meta Variscite VAR-SOM-MX6 support

```
francis@francis-HP-Laptop-15-da0xxx:~/var-som-mx6-yocto-fido$ cd ~/var-som-mx6-yocto-fido/sources
francis@francis-HP-Laptop-15-da0xxx:~/var-som-mx6-yocto-fido/sources$ git clone https://github.com/varigint/meta-variscite-imx.git -b imx_3.14.
38_6qp-var02 meta-variscite-mx6
Cloning into 'meta-variscite-mx6'...
remote: Enumerating objects: 387, done.
remote: Counting objects: 100% (387/387), done.
remote: Compressing objects: 100% (256/256), done.
remote: Total 3687 (delta 174), reused 306 (delta 110), pack-reused 3300
Receiving objects: 100% (3687/3687), 1.32 MiB | 2.42 MiB/s, done.
Resolving deltas: 100% (1887/1887), done.
francis@francis-HP-Laptop-15-da0xxx:~/var-som-mx6-yocto-fido/sources$ cp meta-variscite-mx6/scripts/var-setup-release.sh ../
francis@francis-HP-Laptop-15-da0xxx:~/var-som-mx6-yocto-fido/sources$ cd meta-fsl-bsp-release
francis@francis-HP-Laptop-15-da0xxx:~/var-som-mx6-yocto-fido/sources/meta-fsl-bsp-release$ patch -p1 < ../meta-variscite-mx6/patch/0001-Fix-FS
L-multi-patch-append-bug.patch
patching file imx/meta-bsp/recipes-multimedia/gstreamer/gstreamer1.0-plugins-bad_%.bbappend
Hunk #1 succeeded at 59 with fuzz 1 (offset 9 lines).
francis@francis-HP-Laptop-15-da0xxx:~/var-som-mx6-yocto-fido/sources/meta-fsl-bsp-release$ patch -p1 < ../meta-variscite-mx6/patch/0001-Fix-FS
SL-multi-platform-on-mesa-demos.patch
patching file imx/meta-bsp/recipes-graphics/mesa/mesa-demos_%.bbappend
francis@francis-HP-Laptop-15-da0xxx:~/var-som-mx6-yocto-fido/sources/meta-fsl-bsp-release$ patch -p1 < ../meta-variscite-mx6/patch/0001-Fix-FS
L-multi-patch-append-bug.patch
patching file imx/meta-bsp/recipes-multimedia/gstreamer/gstreamer1.0-plugins-bad_%.bbappend
Reversed (or previously applied) patch detected! Assume -R? [n]
Apply anyway? [n]
```

### 4) Building and setting up Yocto

```
Activities Terminal Sat 12:20 francis@francis-HP-Laptop-15-da0xxx: ~/var-som-mx6-yocto-fido
File Edit View Search Terminal Help
Apply anyway? [n]
Skipping patch.
1 out of 1 hunk ignored -- saving rejects to file imx/meta-bsp/recipes-graphics/mesa/mesa-demos_%.bbappend.rej
francis@francis-HP-Laptop-15-da0xxx:~/var-som-mx6-yocto-fido/sources/meta-fsl-bsp-release$ cd ~/var-som-mx6-yocto-fido
francis@francis-HP-Laptop-15-da0xxx:~/var-som-mx6-yocto-fido$ source var-setup-release.sh -b build_fb -e fb

Build directory is build_fb

Using FB backend with FB DIST_FEATURES to override poky X11 DIST FEATURES
setting to default machine
Configuring for var-som-mx6

Some BSPs depend on libraries and packages which are covered by Freescale's
End User License Agreement (EULA). To have the right to use these binaries in
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Freescale Semiconductor, Inc. ("Freescale") and its Affiliates. It concerns
your rights to use the software identified in the Software Content Register
and provided to you in binary or source code form and any accompanying written
materials (the "Licensed Software"). The Licensed Software may include any
updates or error corrections or documentation relating to the Licensed Software
provided to you by Freescale under this License. In consideration for Freescale
allowing you to access the Licensed Software, you are agreeing to be bound by
the terms of this Agreement. If you do not agree to all of the terms of this
Agreement, do not download or install the Licensed Software. If you change your
```

```
francis@francis-HP-Laptop-15-da0xxx: ~/var-som-mx6-yocto-fido/build_fb
File Edit View Search Terminal Help
francis@francis-HP-Laptop-15-da0xxx:~/var-som-mx6-yocto-fido/build_fb$ bitbake fsl-image-qt5
WARNING: Host distribution "Ubuntu-18.04" 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.
Parsing recipes: 100% |#####| Time: 00:00:54
Parsing of 2068 .bb files complete (0 cached, 2068 parsed). 2584 targets, 363 skipped, 3 masked, 0 errors.
NOTE: Resolving any missing task queue dependencies
NOTE: multiple providers are available for jpeg (jpeg, libjpeg-turbo)
NOTE: consider defining a PREFERRED_PROVIDER entry to match jpeg
NOTE: multiple providers are available for runtime libgl-mesa-dev (mesa, mesa-gl)
NOTE: consider defining a PREFERRED_PROVIDER entry to match libgl-mesa-dev
NOTE: multiple providers are available for runtime libglapi (mesa, mesa-gl)
NOTE: consider defining a PREFERRED_PROVIDER entry to match libglapi

Build Configuration:
BB_VERSION      = "1.26.0"
BUILD_SYS      = "x86_64-linux"
NATIVELSBSTRING = "Ubuntu-18.04"
TARGET_SYS     = "arm-poky-linux-gnueabi"
MACHINE        = "var-som-mx6"
DISTRO         = "poky"
DISTRO_VERSION = "1.8"
TUNE_FEATURES  = "arm armv7a vfp thumb neon callconvention-hard cortexa9"
TARGET_FPU     = "vfp-neon"
meta
meta-yocto     = "(nobranch):ee88b51cf2853ab075c9bd2ef7cf4d65d1c96674"
meta-oe
meta-multimedia = "(nobranch):10d3c8f85280a0bf867a8e4f84bcd81c290d28e"
meta-fsl-arm    = "(nobranch):92f95101da529f4b67ef8d1af50ce762f81f40ad"
meta-fsl-arm-extra = "(nobranch):0786aa76f4772ea7b83d4bab10567c4530b2d1bc"
meta-fsl-demos  = "(nobranch):836bdf5a9d500ed258f1ddc07d89eca74a704098"
meta-bsp
meta-sdk       = "(nobranch):1b5d466510723a4b3e4a841e6bf86915def65094"
meta-browser   = "(nobranch):30b8d6b3d0d6501c56ef6967a2fa73a3d4bf5fe9"
meta-gnome
meta-networking
meta-python
meta-ruby
metafilesystems = "(nobranch):10d3c8f85280a0bf867a8e4f84bcd81c290d28e"
```



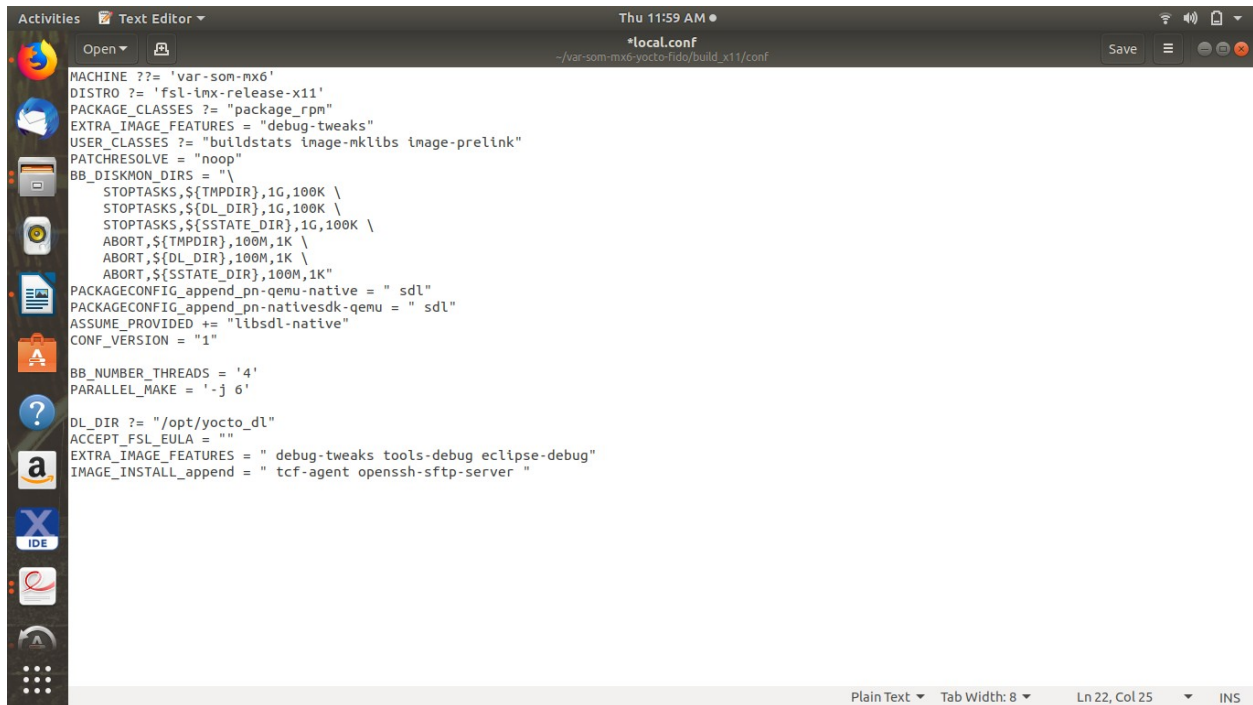
```
Activities Terminal Sat 1:19 PM francis@francis-HP-Laptop-15-da0xxx: ~
File Edit View Search Terminal Help
/tmp/sysroots/x86_64-linux/usr/share/aclocal-1.15.g' -e 's,[@]system_acdir[@],/home/francis/var-som-mx6-yocto-fido/build_x11/tmp/sysroots/x86_64-linux/usr/share/aclocal,g' -e 's,[@]am__isrc[@],!!@!am__isrc!!@!g' | /bin/bash ./config.status --file=- | sed -e 's,!@!am__isrc!!@!,@' 'am__isrc@g' ) </home/francis/var-som-mx6-yocto-fido/build_x11/tmp/work/x86_64-linux/automake-native/1.15-r0/automake-1.15/lib/Automake/Config.pm-t
| if LC_ALL=C grep '@[a-zA-Z0-9_]*@[a-zA-Z0-9_]*@' t/ax/shell-no-trail-bslash-t; then echo "t/ax/shell-no-trail-bslash contains unexpanded substitution (see lines above)"; exit 1; fi; chmod a-w t/ax/shell-no-trail-bslash-t && mv -f t/ax/shell-no-trail-bslash-t t/ax/shell-no-trail-bslash-t
| if LC_ALL=C grep '@[a-zA-Z0-9_]*@[a-zA-Z0-9_]*@' runtest-t; then echo "runtest contains unexpanded substitution (see lines above)"; exit 1; fi; chmod a-w runtest-t && mv -f runtest-t runtest
| if LC_ALL=C grep '@[a-zA-Z0-9_]*@[a-zA-Z0-9_]*@' t/ax/cc-no-c-o-t; then echo "t/ax/cc-no-c-o contains unexpanded substitution (see lines above)"; exit 1; fi; chmod a-w t/ax/cc-no-c-o-t && mv -f t/ax/cc-no-c-o-t t/ax/cc-no-c-o
| if LC_ALL=C grep '@[a-zA-Z0-9_]*@[a-zA-Z0-9_]*@' t/ax/test-defs.sh-t; then echo "t/ax/test-defs.sh contains unexpanded substitution (see lines above)"; exit 1; fi; chmod a-w t/ax/test-defs.sh-t && mv -f t/ax/test-defs.sh-t t/ax/test-defs.sh
| if LC_ALL=C grep '@[a-zA-Z0-9_]*@[a-zA-Z0-9_]*@' lib/Automake/Config.pm-t; then echo "lib/Automake/Config.pm contains unexpanded substitution (see lines above)"; exit 1; fi; chmod a-w lib/Automake/Config.pm-t && mv -f lib/Automake/Config.pm-t lib/Automake/Config.pm
| : && /bin/mkdir -p doc && { PATH="/home/francis/var-som-mx6-yocto-fido/build_x11/tmp/work/x86_64-linux/automake-native/1.15-r0/build/t/wrap:SPATH && export PATH; } && /usr/bin/perl /home/francis/var-som-mx6-yocto-fido/build_x11/tmp/work/x86_64-linux/automake-native/1.15-r0/automake-1.15/doc/help2man --output=doc/aclocal-1.15.1 aclocal-1.15
| : && /bin/mkdir -p doc && { PATH="/home/francis/var-som-mx6-yocto-fido/build_x11/tmp/work/x86_64-linux/automake-native/1.15-r0/build/t/wrap:SPATH && export PATH; } && /usr/bin/perl /home/francis/var-som-mx6-yocto-fido/build_x11/tmp/work/x86_64-linux/automake-native/1.15-r0/automake-1.15/doc/help2man --output=doc/automake-1.15.1 automake-1.15
| help2man: can't get '--help' info from automake-1.15
| Try '--no-discard-stderr' if option outputs to stderr
| Makefile:3687: recipe for target 'doc/automake-1.15.1' failed
| make: *** [doc/automake-1.15.1] Error 255
| ERROR: oe_runmake failed
| WARNING: exit code 1 from a shell command.
| ERROR: Function failed: do_compile (log file is located at /home/francis/var-som-mx6-yocto-fido/build_x11/tmp/work/x86_64-linux/automake-native/1.15-r0/temp/log.do_compile.5885)
ERROR: Task 782 (virtual:native:/home/francis/var-som-mx6-yocto-fido/sources/poky/meta/recipes-devtools/automake/automake_1.15.bb, do_compile) failed with exit code '1'
WARNING: Failed to fetch URL http://download.gna.org/cryptodev-linux/cryptodev-linux-1.6.tar.gz, attempting MIRRORS if available
NOTE: Tasks Summary: Attempted 106 tasks of which 0 didn't need to be rerun and 1 failed.
Waiting for 0 running tasks to finish:

Summary: 1 task failed:
virtual:native:/home/francis/var-som-mx6-yocto-fido/sources/poky/meta/recipes-devtools/automake/automake_1.15.bb, do_compile
Summary: There were 6 WARNING messages shown.
```

The bitbake process was showing an error (Task 782 (virtual:native:/home/francis/var-som-mx6-yocto-fido/sources/poky/meta/recipes-devtools/automake/automake\_1.15.bb,

do\_compile), where do\_compile is shell function, failed with exit code '1' which made the entire process to fail to bring back a non-zero exit code. The same process was repeated and the result was the same.

## 5 ) Customization of local.conf file



The screenshot shows a Linux desktop with a text editor window titled "Text Editor" displaying the contents of a file named "local.conf". The file path is shown as "/var-som-mx6-yocto-fido/build\_x11/conf". The text in the editor is as follows:

```
MACHINE ??= 'var-som-mx6'
DISTRO ?= 'fsl-imx-release-x11'
PACKAGE_CLASSES ?= 'package_rpm'
EXTRA_IMAGE_FEATURES = "debug-tweaks"
USER_CLASSES ?= "buildstats image-mklibs image-prelink"
PATCHRESOLVE = "noop"
BB_DISKMON_DIRS = "\
    STOPTASKS,${TMPDIR},1G,100K \
    STOPTASKS,${DL_DIR},1G,100K \
    STOPTASKS,${SSTATE_DIR},1G,100K \
    ABORT,${TMPDIR},100M,1K \
    ABORT,${DL_DIR},100M,1K \
    ABORT,${SSTATE_DIR},100M,1K"
PACKAGECONFIG_append_pn-qemu-native = " sdl"
PACKAGECONFIG_append_pn-nativesdk-qemu = " sdl"
ASSUME_PROVIDED += "libsdl-native"
CONF_VERSION = "1"

BB_NUMBER_THREADS = '4'
PARALLEL_MAKE = '-j 6'

DL_DIR ?= "/opt/yocto_dl"
ACCEPT_FSL_EULA = ""
EXTRA_IMAGE_FEATURES = " debug-tweaks tools-debug eclipse-debug "
IMAGE_INSTALL_append = " tcf-agent openssh-sftp-server "
```

The desktop environment includes a sidebar with various application icons (Firefox, Mail, Files, etc.) and a top bar showing the time as "Thu 11:59 AM". The text editor window has a status bar at the bottom indicating "Plain Text", "Tab Width: 8", "Ln 22, Col 25", and "INS".