

*Hint: Use Ubuntu installation*

## Set up and Run xilinx zynq7 emulation in provided qemu version

Pre Info & Required packages for qemu emulation:

<https://www.yoctoproject.org/downloads>

-> git clone -b pyro git://git.yoctoproject.org/poky.git

/ clone pyro version of YP Core

*Implies checking out the pyro version of poky.*

<https://layers.openembedded.org/layerindex/branch/master/layers/>

-> git clone git://git.yoctoproject.org/meta-xilinx

/ clone xilinx meta layer for yocto

*The meta-xilinx layer provides additional support for Yocto/OE, adding recipes for various components, refer to their README for additional details.*

Consider Yocto Documentation Site: <https://www.yoctoproject.org/documentation>

Especially <http://www.yoctoproject.org/docs/2.3.1/mega-manual/mega-manual.html>

-> Required build host packages vary depending on your build machine and what you want to do with the Yocto Project.

The following list shows the required packages needed to build an image that runs on QEMU in graphical mode

<pre>sudo apt-get install gawk wget git-core diffstat unzip texinfo gcc-multilib \   build-essential chrpath socat cpio python python3 python3-pip python3-pexpect \   xz-utils debianutils iputils-ping libssl1.2-dev xterm</pre>	<p>build host packages needed for yocto</p>
--	---

## Building an Image for Emulation

-> cd ~/poky

-> checkout correct branch (already done)

-> (git checkout -b pyro origin/pyro)

-> source oe-init-build-env /path/to/buildfolder

/ Initialize build environment with script

It showed that you better not use the home directory. I also recommend to have 50GB+ on your partition.

My build folder is: /working/build\_yocto\_pyro

(don't forget to grant permission to your user sudo chown username: /myfolder)

From path/meta-xilinx(master) » vim README.building.md:

<p>Build Instructions =====</p> <p>The following instructions require OE-Core meta and BitBake. Poky provides these components, however they can be acquired separately.</p> <p>Initialize a build using the `oe-init-build-env` script. Once initialized configure `bblayers.conf` by adding the `meta-xilinx` layer. e.g.:</p> <pre>BBLAYERS ?= "\ (&lt;path to layer&gt;/oe-core/meta) -&gt; not used &lt;path to layer&gt;/meta-xilinx \ "</pre> <p>To build a specific target BSP configure the associated machine in `local.conf`:</p> <pre>MACHINE ?= "qemu-zynq7"</pre>	<p><b>! bitbake sanity error because of initial block of Domain: "example.com"</b>  <b>! this results in not building the kernel via bitbake.</b></p> <p>-&gt; switch to poky build folder and create empty sanity config file:  -&gt; <code>touch sanity.conf</code></p> <p>Build the target file system image using `bitbake`:  \$ bitbake core-image-minimal</p> <p>-&gt; Needs a few hours to build.</p> <p>Once complete the images for the target machine will be available in the output directory `tmp/deploy/images/&lt;machine name&gt;`.</p> <p>Additional Information  -----</p> <p>For more complete details on setting up and using Yocto/OE refer to the Yocto Project Quick Start guide available at:  <a href="http://www.yoctoproject.org/docs/current/yocto-project-qs/yocto-project-qs.html">http://www.yoctoproject.org/docs/current/yocto-project-qs/yocto-project-qs.html</a></p>
---	--

<http://www.wiki.xilinx.com/QEMU+Yocto+Flow>

/ Xilinx QEMU Yocto Flow

#### First Test:

-> `runqemu qemu-zynq7`