**5.14. Creating Your Own Distribution[¶](http://www.yoctoproject.org/docs/2.3.1/mega-manual/mega-manual.html" \l "creating-your-own-distribution" \o "Permalink)**

When you build an image using the Yocto Project and do not alter any distribution [Metadata](http://www.yoctoproject.org/docs/2.3.1/mega-manual/mega-manual.html#metadata), you are creating a Poky distribution. If you wish to gain more control over package alternative selections, compile-time options, and other low-level configurations, you can create your own distribution.

To create your own distribution, the basic steps consist of creating your own distribution layer, creating your own distribution configuration file, and then adding any needed code and Metadata to the layer. The following steps provide some more detail:

* ***Create a layer for your new distro:*** Create your distribution layer so that you can keep your Metadata and code for the distribution separate. It is strongly recommended that you create and use your own layer for configuration and code. Using your own layer as compared to just placing configurations in a local.conf configuration file makes it easier to reproduce the same build configuration when using multiple build machines. See the "[Creating a General Layer Using the yocto-layer Script](http://www.yoctoproject.org/docs/2.3.1/mega-manual/mega-manual.html#creating-a-general-layer-using-the-yocto-layer-script)" section for information on how to quickly set up a layer.
* ***Create the distribution configuration file:*** The distribution configuration file needs to be created in the conf/distro directory of your layer. You need to name it using your distribution name (e.g. mydistro.conf).

**Note**

The [DISTRO](http://www.yoctoproject.org/docs/2.3.1/mega-manual/mega-manual.html#var-DISTRO) variable in your local.conf file determines the name of your distribution.

You can split out parts of your configuration file into include files and then "require" them from within your distribution configuration file. Be sure to place the include files in the conf/distro/include directory of your layer. A common example usage of include files would be to separate out the selection of desired version and revisions for individual recipes.

Your configuration file needs to set the following required variables:

[DISTRO\_NAME](http://www.yoctoproject.org/docs/2.3.1/mega-manual/mega-manual.html#var-DISTRO_NAME)

[DISTRO\_VERSION](http://www.yoctoproject.org/docs/2.3.1/mega-manual/mega-manual.html#var-DISTRO_VERSION)

These following variables are optional and you typically set them from the distribution configuration file:

[DISTRO\_FEATURES](http://www.yoctoproject.org/docs/2.3.1/mega-manual/mega-manual.html#var-DISTRO_FEATURES)

[DISTRO\_EXTRA\_RDEPENDS](http://www.yoctoproject.org/docs/2.3.1/mega-manual/mega-manual.html#var-DISTRO_EXTRA_RDEPENDS)

[DISTRO\_EXTRA\_RRECOMMENDS](http://www.yoctoproject.org/docs/2.3.1/mega-manual/mega-manual.html#var-DISTRO_EXTRA_RRECOMMENDS)

[TCLIBC](http://www.yoctoproject.org/docs/2.3.1/mega-manual/mega-manual.html#var-TCLIBC)

**Tip**

If you want to base your distribution configuration file on the very basic configuration from OE-Core, you can use conf/distro/defaultsetup.conf as a reference and just include variables that differ as compared todefaultsetup.conf. Alternatively, you can create a distribution configuration file from scratch using thedefaultsetup.conf file or configuration files from other distributions such as Poky or Angstrom as references.

* ***Provide miscellaneous variables:*** Be sure to define any other variables for which you want to create a default or enforce as part of the distribution configuration. You can include nearly any variable from the local.conf file. The variables you use are not limited to the list in the previous bulleted item.
* ***Point to Your distribution configuration file:*** In your local.conf file in the [Build Directory](http://www.yoctoproject.org/docs/2.3.1/mega-manual/mega-manual.html#build-directory), set your [DISTRO](http://www.yoctoproject.org/docs/2.3.1/mega-manual/mega-manual.html#var-DISTRO) variable to point to your distribution's configuration file. For example, if your distribution's configuration file is named mydistro.conf, then you point to it as follows:
* DISTRO = "mydistro"

* ***Add more to the layer if necessary:*** Use your layer to hold other information needed for the distribution:
  + Add recipes for installing distro-specific configuration files that are not already installed by another recipe. If you have distro-specific configuration files that are included by an existing recipe, you should add an append file (.bbappend) for those. For general information and recommendations on how to add recipes to your layer, see the "[Creating Your Own Layer](http://www.yoctoproject.org/docs/2.3.1/mega-manual/mega-manual.html#creating-your-own-layer)" and "[Best Practices to Follow When Creating Layers](http://www.yoctoproject.org/docs/2.3.1/mega-manual/mega-manual.html#best-practices-to-follow-when-creating-layers)" sections.
  + Add any image recipes that are specific to your distribution.
  + Add a psplash append file for a branded splash screen. For information on append files, see the "[Using .bbappend Files in Your Layer](http://www.yoctoproject.org/docs/2.3.1/mega-manual/mega-manual.html#using-bbappend-files)" section.
  + Add any other append files to make custom changes that are specific to individual recipes.