Yocto quick reference card

Introduction	
Get Yocto sources	`$ git clone -b <branch> git://git.yoctoproject.org/poky`

Create and test a minimal image	`$ cd poky`
	`$ source oe-init-build-env <target>-build`
	`$ bitbake core-image-minimal`
	`$ runqemu qemux86-64`

Layers	

Layer structure	```meta-<layer-name>```
	```├── conf```
	```│ └── layer.conf```
	```├── recipes-core```
	```│ └── recipe_1```
	```│ └── recipe_1.bb```
	```└── recipes-*```

Add layer to build environment	`$ cd <target>-build` `$ bitbake-layers add-layer <layer-path>`
Remove layer from build environment	`$ cd <target>-build` `$ bitbake-layers remove-layer <layer-name>`
List layers for build environment	`$ cd <target>-build` `$ bitbake-layers show-layers`
Create a new layer	`$ cd <layer-dir-path>` `$ bitbake-layers create-layer <layer-name>`
Building recipes	
Build binary package from recipe	`$ bitbake <recipe-name>`
Remove binary package	`$ bitbake -c cleansstate <recipe-name>`
Remove binary package AND sources	`$ bitbake -c cleanall <recipe-name>`
Get sources for recipe	`$ bitbake -c fetchall <recipe-name>`
List availables recipes (`.bb`)	`$ bitbake-layers show-recipes`
List appended recipes (`.bbappend`)	`$ bitbake-layers show-appends`
Produce package index for package management	`$ bitbake package-index`
Build default Linux kernel recipe	`$ bitbake virtual/kernel`
Configure default Linux kernel recipe	`$ bitbake -c menuconfig virtual/kernel`
Create a *fragment* from modified configuration	`$ bitbake -c diffconfig virtual/kernel`
Build SDK for <image-name>	`$ bitbake -c populate_sdk <image-name>`
Options (local.conf)	

Set target to `<machine-name>`	`MACHINE = "<machine-name>"`
Reduce `tmp/work` size	`INHERIT += "rm_work"`
Exclude some recipes from having tmp files deleted by rm_work	`RM_WORK_EXCLUDE += "busybox glibc"`
Add `<value>` Kb to image	`IMAGE_ROOTFS_EXTRA_SPACE = "<value>"`
Use IPK format instead of RPM for package management	`PACKAGE_CLASSES = "package_ipk"`
Add packages to image	`IMAGE_INSTALL:append = " pkg_1 pkg_2 ..."`
Add / remove features to distribution	`DISTRO_FEATURES:append[remove] = " feature_1 feature_2 ..."`
Force provider for a recipe	`PREFERRED_PROVIDER_<recipe-name> = "<preferred-recipe-name>"`
Force version for a recipe	`PREFERRED_VERSION_<recipe-name> = "<preferred-version-value>"`
Recipes syntax (BitBake)	
Inherit a class	`inherit <class-name>`
Add a local component to recipe	`SRC_URI += "file://<name> http://<address>;name=<name> git://<address>;name=<name>"`
Add MD5/SHA256 checksum	`SRC_URI[<name>.md5sum] = "value"  SRC_URI[<name>.sha256sum] = "value"`
Add packages to image	`IMAGE_INSTALL += "pkg_1 pkg_2 ..."`
Add features to image	`IMAGE_FEATURES += "feature_1 feature_2 ..."`
Add (static) dependencies	`DEPENDS += "pkg_1 pkg_2 ..."`
Add (runtime) dependencies	`RDEPENDS:${PN} += "pkg_1 pkg_2 ..."`
Set value if not already set (softer assigment)	`VARIABLE ?= "value"`
Set value if not already set (weaker assigment)	`VARIABLE ??= "value"`
OPKG(IPK)	
Add a package directory to `/etc/opkg/opkg.conf`	`src/gz <pkg-dir> <server-url>/<pkg-dir>`
Install a package	`# opkg install <package>`
Remove a package	`# opkg remove <package>`
List package files	`# opkg files`
Update package list	`# opkg update`
Upgrade packages	`# opkg upgrade`
List installed packages	`# opkg list-installed`