Working With Yocto Devtool

DigitalGate AMG S.A.
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A command-line utility by the name of devtool serves as the foundation of the extensible SDK. With the help of this tool, you may create, test, and package software using the extensible SDK and, if you choose, integrate it into an image created by the OpenEmbedded build system.

The devtool command line has a number of sub-commands for each function, similar to how Git is structured. Devtool -help can be used to view all available commands.

- **devtool add**: Assists in adding new software to be built.
- **devtool modify**: Sets up an environment to enable you to modify the source of an existing component.
- **devtool upgrade**: Updates an existing recipe so that you can build it for an updated set of source files.

The Yocto Framework produces a directory called tmp/work/architecture>/recipe>/version> when you use the command "bitbake <recipename>" to construct a specific recipe. Also known as "work" directory. Yocto completes all of its operations in this directory, including

obtaining the source code, configuring, building, and packaging, among others.

Yocto offers the "devtool" tool/utility, which enables us to edit a specific recipe's source code and generates a patch and bbappend file for us.

Without the devtool, adding customizations is more complicated and error prone as, we basically open a source file and add our customizations and then recompile it using bitbake <image_name> and this is not the best approach in Yocto for making customizations, as you can easily lose the changes.

How to use devtool for customization:

1. Run “devtool modify <recipename>” command, in our case it is “devtool modify wifi-test-suite”. This command will fetch the sources and unpack them in “build/workspace/sources/<recipename> "directory.

```
Initialising tasks: 100% |#########################
Sstate summary: Wanted 0 Found 0 Missed 0 Current 10
NOTE: Executing Tasks
NOTE: Setscene tasks completed
NOTE: Tasks Summary: Attempted 83 tasks of which 80
INFO: Source tree extracted to /home/emr/Work/buildc
INFO: Using source tree as build directory since tha
INFO: Recipe wifi-test-suite now set up to build frc
```

2. Make the changes to your source code

```
diff --git a/dut/wfa_dut.c b/dut/wfa_dut.
index ae5b9b1..bdb7ffe 100644
--- a/dut/wfa_dut.c
+++ b/dut/wfa_dut.c
@@ -25,7 +25,7 @@
  *       reference the architecture documents.
  *
  */
-
+//This is a test comment
 #include <pthread.h>
 #include <signal.h>
 #include <time.h>c
```

3. Build the recipe using “bitbake <recipename>” command to verify/test your changes.

```
Initialising tasks: 100% |#########################
Checking sstate mirror object availability: 100% |##
Sstate summary: Wanted 13 Found 0 Missed 13 Current
NOTE: Executing Tasks
NOTE: Setscene tasks completed
NOTE: wifi-test-suite: compiling from external sourc
NOTE: Tasks Summary: Attempted 1920 tasks of which 1


Summary: There were 4 WARNING messages shown.1
```

4. Test your changes on the target, if you like. There is a "devtool deploy-target" command that, providing the destination machine has network access and any required dependencies are already in the image, will copy the files installed at do install across to the target machine.

5. After your changes, go to the source folder and commit your changes.

```
git add -
git commit -m "Making a test comment"
[devtool 90db77a] Making a test comment
1 file changed, 1 insertion(+), 1 deletion(-)u
```

6. Now run “devtool update-recipe<recipename> -a <path to your layer>” command which will create a bbappend and patch of changes that you made.

```
devtool update-recipe wifi-test-suite -a /home/emr/W
NOTE: Starting bitbake server...
NOTE: Reconnecting to bitbake server...
NOTE: Retrying server connection (#1)...
NOTE: Reconnecting to bitbake server...
NOTE: Previous bitbake instance shutting down?, wait
NOTE: Retrying server connection (#2)...
Loading cache: 100% |##############################
Loaded 4545 entries from dependency cache.
Parsing recipes: 100% |############################
Parsing of 3139 .bb files complete (3128 cached, 11


Summary: There were 3 WARNING messages shown.
NOTE: Writing append file /home/emr/Work/sources/met
NOTE: Copying 0001-Making-a-test-comment.patch to /h
```

7. If you're finished working on the recipe, run devtool reset <recipename>

```
devtool reset wifi-test-suit
NOTE: Starting bitbake server...
INFO: Cleaning sysroot for recipe wifi-test-suite...
```

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Here is an article that will help you understand how to use Yocto devtool in your daily embedded Linux development and testing activities.
⬇️⬇️⬇️ **https://lnkd.in/dV9nmBFp #devtool #yocto #bitbake**

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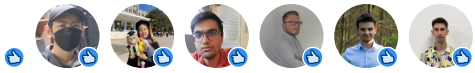

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I have an error while using devtool update-recipe. Can someone please help to resove.

Exception: bb.fetch2.FetchError: Fetcher failure: Recipe uses a floating tag/branch '5.15/linux' for repo '**github.com/intel/linux-inte** …see more

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