

# builder.py

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## AUTHORS

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## DATES

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## INFORMATION

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### Brief

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parse yaml file to execute build tools

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# commandCompiler

---

commandCompiler

Parse yaml files into commands for command executor

## FUNCTIONS

---

### \_\_init\_\_

---

```
def __init__(
    self,
    yaml_projects
    =
    None,
```

```
yaml_commands
=
None,
target
=
None
)
```

Setup class

## listCommands

---

```
def listCommands(
self
)
```

Print a list of all the commands available

## listProjects

---

```
def listProjects(
self
)
```

Print a list of all the

## clear

---

```
def clear(
self
)
```

Clear results of create and current yaml file pointer.

## setProjects

---

```
def setProjects(
self,
yaml_projects
)
```

Set a yaml file for project commands

## setCommands

---

```
def setCommands(
self,
yaml_commands
)
```

Set a yaml file for commands available

## setProjectsWithYamlData

---

```
def setProjectsWithYamlData(  
    self,  
    yaml_data  
)
```

Set internal variable with yaml data directly.

## setCommandsWithYamlData

---

```
def setCommandsWithYamlData(  
    self,  
    yaml_data  
)
```

Set internal variable with yaml data directly.

## create

---

```
def create(  
    self,  
    yaml_projects  
    =  
    None,  
    yaml_commands  
    =  
    None,  
    target  
    =  
    None  
)
```

Pass a yaml file to use for processing into format for commandExecutor.

## getResult

---

```
def getResult(  
    self  
)
```

Return dict of dicts that contains lists with lists of lists to execute with subprocess {project: { 'concurrent':  
[[["make", "def\_config"], ["make"]], [{"fusesoc", "run", "--build", "--target", "zed\_blinky", "::blinky:1.0.0"}]],  
'sequential': []}}

## \_checkTarget

---

```
def _checkTarget(  
    self  
)
```

## \_process

---

```
def _process(
    self
)
```

Create dict of dicts that contains lists with lists of lists to execute with subprocess {project': { 'concurrent':  
[[["make", "def\_config"], ["make"]], [{"fusesoc", "run", "--build", "--target", "zed\_blinky", "::blinky:1.0.0"}]],  
'sequential': []]]}

## **\_load\_yaml**

---

```
def _load_yaml(
    self,
    yaml_file
)
```

Internal function that will load the yaml file that contains project commands or commands.

# **commandExecutor**

---

**commandExecutor**

Execute commands create from commandCompileris not a valid selection

## **FUNCTIONS**

---

### **clear**

---

```
def clear(
    self
)
```

Clear state of commandExecutor to init with no values passed

### **completed**

---

```
def completed(
    self
)
```

return a bool if all items have been completed.

### **failed**

---

```
def failed(
    self
)
```

return a bool indicating failure

## stop

---

```
def stop(  
    self  
)
```

Kill and current processes in build threads

## setDryrun

---

```
def setDryrun(  
    dryrun  
    =  
    False  
)
```

Setting to True sets the project run everything up to the subprocess.Popen call, which is skipped.

## setProjects

---

```
def setProjects(  
    self,  
    projects  
)
```

Set the projects for the executor to build

## runProject

---

```
def runProject(  
    self,  
    projects  
    =  
    None  
)
```

Call the internal execute method to start calling up each of the projects to build.

## \_execute

---

```
def _execute(  
    self  
)
```

Call subprocess as a thread an\_gen\_build\_cmds add it to a list of threads for wait to check on. iterate over projects available and execute commands per project

## \_subprocess

---

```
def _subprocess(  
    self,  
    list_of_commands
```

```
)
```

Responsible for taking a list of commands and launching threads concurrently or singurely.

---

## **`_project_cmd_count`**

```
def _project_cmd_count(  
    self,  
    run_types  
)
```

Number of commands in a project.

---

## **`_thread_exception`**

```
def _thread_exception(  
    self,  
    args  
)
```

Used to kill all threads once one has failed.

---

## **`_bar_thread`**

```
def _bar_thread(  
    self  
)
```

Creates progress bar display in terminal for end user display.