

projectQ에서는 기본적으로 circuit depth를 제공하지 않는다. 해당 옵션이 나오도록 하기 위해서는 projectQ 안의 backends인 _resource.py를 수정해야 한다. 아래 그림에서와 같이 Depth 부분을 가장 마지막 영역에 추가해 주도록 한다.

```
GNU nano 2.9.3

    gate_class_name = ctrl_cnt * "C" + gate_class.__name__
    gate_class_list.append(gate_class_name + " : " + str(num))

gate_list = []
for gate_description, num in self.gate_counts.items():
    gate, ctrl_cnt = gate_description
    gate_name = ctrl_cnt * "C" + str(gate)
    gate_list.append(gate_name + " : " + str(num))

    return ("Gate class counts:\n" +
            "\n".join(list(sorted(gate_class_list))) +
            "\n\nGate counts:\n" +
            "\n".join(list(sorted(gate_list))) +
            "\n\nMax. width (number of qubits) : " +
            str(self.max_width) +
            "\n\nDepth : " + str(self._previous_max_depth)+".")
return "(No quantum resources used)"

def receive(self, command_list):
    """
    Receive a list of commands from the previous engine, increases the
    counters of the received commands, and then send them on to the next
    engine.

    Args:
        command_list (list<Command>): List of commands to receive (and
            count).
    """
    for cmd in command_list:
        if not cmd.gate == FlushGate():
            self._add_cmd(cmd)

        # (try to) send on
        if not self.is_last_engine:
            self.send([cmd])
```

python3 패키지의 위치를 확인하기 위해서는 "pip3 show projectq" 명령어를 수행하도록 한다.

```
root@ubuntu:/home/info/Desktop# pip3 show projectq
Name: projectq
Version: 0.5.1
Summary: ProjectQ - An open source software framework for quantum computing
Home-page: http://www.projectq.ch
Author: ProjectQ
Author-email: info@projectq.ch
License: Apache 2
Location: /usr/local/lib/python3.6/dist-packages
Requires: future, matplotlib, networkx, numpy, pybind11, pytest, requests, scipy
```

수정이 모두 끝나고 난 이후에는 circuit depth를 기본적으로 확인하는 것이 가능하다.