Advantech Devices - DI and DO in MatDeck

In this example, we illustrate the use of Digital Input and Output channels with port based functions.

Using Advantech Device DI and DO

In the example, DO port 0 is connected to DI port 0. The first step is to open the Advantech device so that it can be used for the digital output and input. Advantech devices use separate open functions for AI, AO, DI, and DO. The open functions return the device handle which is used in later operations to access the appropriate devices.

```
1  dev1 := atdevice_do_open(1, false)
2  dev2 := atdevice_di_open(1, false)
```

The digital value outputted is set using the port based DO write function. The input value can be read using the standard port based DI read function. The results are shown in the canvas:

```
3  atdevice_do_write(dev1, 0, 255)
4  report := ""
5  divalue := atdevice_di_read(dev2, 0)
6  if(divalue == 255)
7    report = "Passed"
8  else
9    report = "Failed"
```

Once done, we finish by closing the device and releasing the handle.

```
10  atdevice_close(dev1)
11  atdevice_close(dev2)
```

$$divalue = 255$$
$$report = \text{"Passed"}$$