

DELTA CONTROL

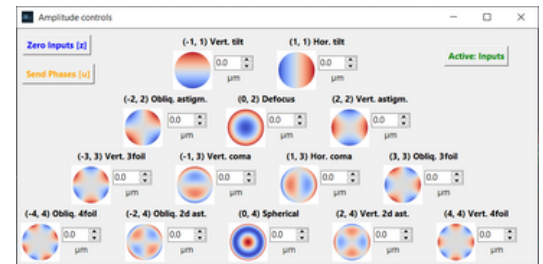
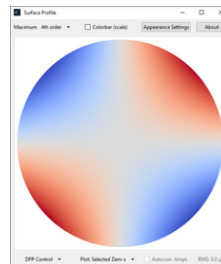
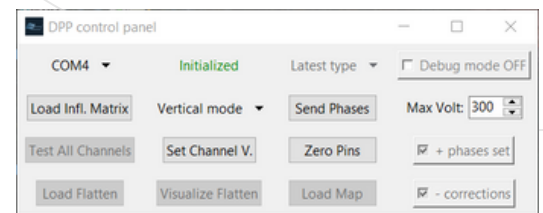
PHASEFORM CONTROL SOFTWARE FOR REFRACTIVE WAVEFRONT MODULATORS

APPLICATION

Allowing direct applying phase profiles described in terms of Zernike polynomials on Delta 7 devices. It is developed in Python and uses serial communication protocol for sending commands to a device. This serial protocol can be reused in any other preferred environment (other than Python).

FEATURES

- Intuitive User Interface and available API with scripting controlling handles
- Direct (manual) device control through specifying phase profile
- Easy-to-integrate in an own controlling software
- Reference implementation of the serial communication protocol



API & SCRIPTING

API Documentation

```
initialize()
class PyCtrlDPP
    PyCtrlDPP()
    get_serial_ports()
    connect_device()
    load_infl_matrix()
    load_flat_field()
    load_map_file()
```

```
def main():
    # run initialization and load calibration
    dpp, opened = init()

    if opened:

        # set amplitude of target modes
        phases = {(2, 2): 0.5,
                  (-2, 2): -0.5} # m,n: amplitude
        dpp.apply_phases(phases)

        time.sleep(5) # 5 sec delay

        # set amplitude of target modes
        phases = {(2, 0): 0.5,
                  (-2, 4): -0.5}
        dpp.apply_phases(phases)
```

SYSTEM REQUIREMENTS

- Python: Minimum version 3.8, recommended - 3.11
- MATLAB: Minimum version R2020b (Wrapper)
- Windows, Linux, macOS.

CONTACT US

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