# CALVADOS Calibration Manual

**pmd**technologies ag – 2019-08-20

# Execute calibration

- In order to do a calibration, you need:
  - CALVADOS software installation (in this case the script Mycalib.py and its dependencies is used)
  - Different raw data files of 20 depth images each recorded in a Calibration Box (*.rds file format)
  - The calibration parameters and limits (*.ini file format) for the depth computation library built into the CALVADOS software which must be suitable for the recorded data (frequencies and number frequencies, type of data acquisition (iCW or fiber or LTS for wiggling calibration)

- The depth calibration is executed by running a command of the following structure (separated by whitespaces) in a command line interface:

python.exe | Mycalib.py | set of arguments

0000-0000-0000-0000: corresponding imager serial number

# Execute calibration cont'd

- Required arguments:
  - --inifile *path_to_ini_file\calibration.ini*
  - --dir *path_to_LED_box_folder\0000-0000-000-0000_LED*
  - Additional for Fiber box:
    - --fiber
    - Optional:
      - --fiber_folder *path_to_fiber_box_folder\0000-0000-000-0000_Fiber* (if not set, the software will look at: *path_to_LED_box_folder\0000-0000-000-0000_Fiber*)
  - Additional for linear translation stage (LTS):
    - --lts
    - Optional:
      - --lts_folder *path_to_lts_folder\0000-0000-000-0000_LTS* (if not set, the software will look at: *path_to_LED_box_folder\0000-0000-000-0000_LTS*)
  - Additional for internal chip wiggling (ICW):
    - --icw (data is expected in *path_to_LED_box_folder\0000-0000-000-0000_LED*)
  - Additional for adding product identifier string / module suffix
    - --product_identifier_string "PMDTOF_____"
- Optional arguments
  - --outdir *path_to_folder_to_store_calibration_file* (if not set, it will be stored in the outdir given in the inifile)
  - --logdir *path_to_folder_to_store_log_files* (if not set, it will be stored in the logdir given in the inifile)
- Comments:
  - If temperature drift calibration should be used, temperature drift data is expected in *path_to_LED_box_folder\0000-0000-000-0000_LED*
- Example call of the calibration tool in a command line interface (e.g. cmd):

```
"C:\Program Files\pmdtechnologies_ag\pmd_Calibration_and_Validation_Software\envs\python37\python.exe" "C:\Program Files\pmdtechnologies_ag\pmd_Calibration_and_Validation_Software\scripts\Mycalib.py" --inifile "D:\data\calib_config.ini" --dir "D:\data\0000-0000-0000-0000_LED" --icw --outdir "D:\data\outdir" --logdir "D:\data\logdir"
```

0000-0000-0000-0000: corresponding imager serial number

# Execute validation cont'd

- Mycalib.py can also be started with a batch file:
  - Open Mycalib_run.bat in a text editor
  - Enter the function and argument call like on previous slide
  - Save and close the file
  - Run Mycalib_run.bat by double clicking or by calling within a command line interface
  - Alternative: use the bat file created during installation in installation path and adapt arguments as needed

**File example:**

```
REM bat file for doing calibration with CALVADOS
@echo off
setlocal
"C:\Program Files\pmdtechnologies_ag\pmd_Calibration_and_Validation_Software\envs\python37\python.exe" "C:\Program Files\pmdtechnologies_ag\pmd_Calibration_and_Validation_Software\scripts\Mycalib.py" --inifile "D:\data\calib_config.ini" --dir "D:\data\0000-0000-0000-0000_LED" --icw --outdir "D:\data\outdir" --logdir "D:\data\logdir"
```