# WP2 – Testing, data acquisition and integration

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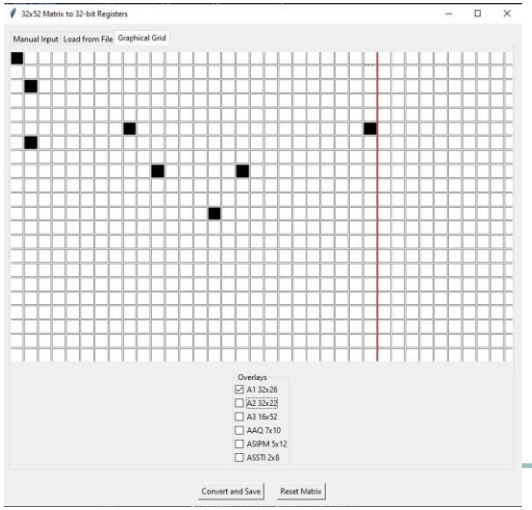
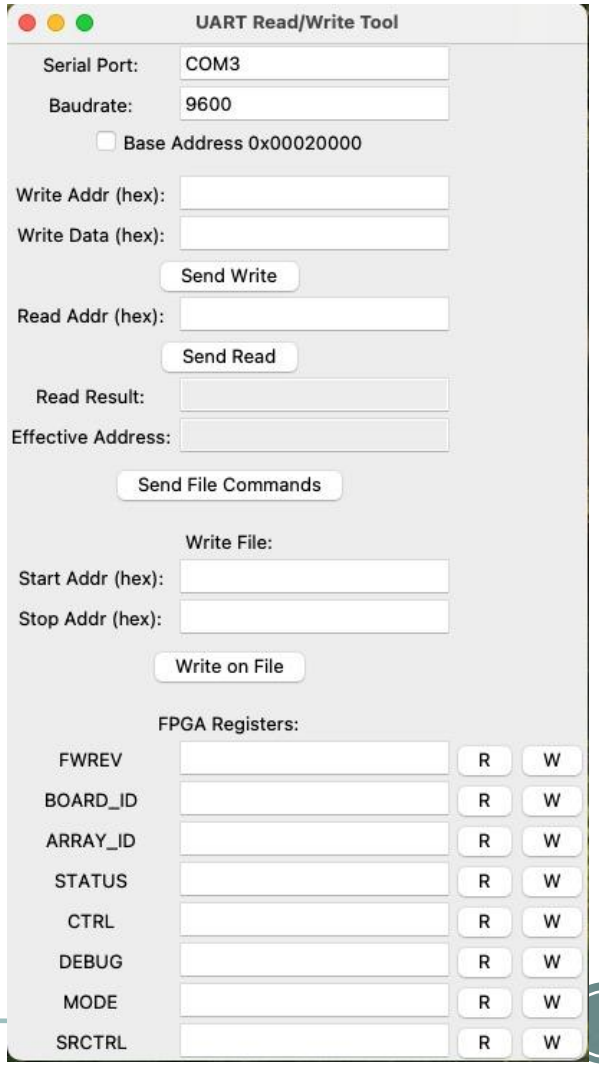
# Hardware for compact setup

- Cryogenic measurements:
  - An excel file to associate contacts with chip-structures has been prepared
  - Colleagues in Naples are defining how to bring out the signals: readout of all chip-structures VS a single chip-structure
- Irradiation measurements: planned for the1st week of July at INFN-TO (200kRad, 300kRad, 1Mrad …)
  - Daughter and mother board (inside) connected with a long cable to the FPGA (outside)
    - Irradiation with LV and HV (ON – below break-down voltage) to monitor DCR trend during irradiation and to compare it with stable condition
  - Discussion will start soon to define a set of relevant measurements

# Firmware activities

- A series of activities on going to distribute a more versatile firmware plus a simple GUI
  - Registers in firmware (well advanced)
  - Possibility to operate all chip structures: on-going
    - Debug performed on A1
  - GUI under development
    - Read write register (ok)
    - enable/disable SPADs to test (on going)
  - Data structure definition under discussion
    - Ideally we want to have the same structure for all tests and chip-structure (A1, A2, A3, AAQ)



# Demonstrator for Calorimetry

- The SPADs arrangement is almost completed
- Readout schema is under discussion
  - Qualification in the lab
  - Operation in TB scenarios