

Scanning Manual

Scanning has been automated by a shell script called `run_scan.sh`, which is a fork of [nirda/UnixScanningManager](#). The script may be used with or without a configuration file, at the user's discretion. It is simplest to run the script without a configuration file, as the necessary parameters detailed below will be requested automatically. If these parameters do not change across runs, a configuration file containing set parameters may be modified and passed to the script. The required parameters are listed below.

Parameters

- Directory
 - Where the script will save the images. Must exist when specified.
- Parent
 - Where the script itself resides.
- Wait Time
 - The period for incubation before scanning starts, set in minutes.
- Interval
 - The period between two consecutive scans, set in minutes.
- Number of Scans
 - The total number of desired scans.
- File Prefix
 - Prepending to image filenames, as such: `prefix_scanner_YYYYMMDD_HH:MM.tif`
- Scanners
 - Specification of scanners to be used. May be set to 'ALL' to use all scanners or commented out by adding a '#' at the beginning of the line for manual specification when the script is run.

Usage

- Turn on the PC and the scanners that will be used
- Wipe down scanners and petri plates with ethanol
- Place a white petri plate frame, sample petri plates, and a black cover on each scanner to be used
 - Petri plate lids should be discarded, and the plates should be oriented bottom side up
- Close the scanner lids
- Navigate to the scanning software directory by using the Ubuntu file explorer
- Right click on the white background and select 'open in terminal'
- Edit the configuration file `scan.cfg`, an example of which may be found [here](#), changing the parameters presented above to suite your needs. Then start the scan run by typing the code below and pressing ENTER

```
sudo ./run_scan.sh scan.cfg
```

- Driver compatibility issues make the OS fail to recognize the attached scanners, at times. If the above command gets hung up, break out of execution with CTRL+C. Then run the below command, reattempt the above command, and repeat until the scanners are recognized

```
sudo ./scanner_reset.py
```