# Preparing Drone Images from DJI Mavic 3 Multispectral

After taking the photos with the DJI M3M we need to do some postprocessing to be able to use them in ODM. Therefore it is necessary to split the multispectral from the plain RGB images. Also, the timestamps of the photos need to be matched just in case and the names need to be slightly modified as there were some hick ups in ODM from time to time. We already prepared a script for that:

correct_filenames.sh

```
#!/bin/bash

# Process images in the specified directory
process_images() {
    local target_dir="$1"

    mkdir "${target_dir}/RGB"
    mkdir "${target_dir}/MS"

    echo "Processing images in: $target_dir"

    for first_image in $(ls "$target_dir" | grep -E
'DJI_[0-9]{14}_[0-9]{4}_D\.JPG'); do
        echo "Found first image: $first_image"

        timestamp=$(echo "$first_image" | sed -E
's/DJI_([0-9]{14})_[0-9]{4}_D\.JPG/\1/')
        echo "Extracted timestamp: $timestamp"

        # Extract the number (XXXX) from the first image filename
        number=$(echo "$first_image" | sed -E
's/DJI_[0-9]{14}_([0-9]{4})_D\.JPG/\1/')
        echo "Extracted number: $number"

    mv "$target_dir/$first_image" "$target_dir/RGB/DJI-${timestamp}-
${number}_D.JPG"

        for ext in "MS_G" "MS_NIR" "MS_R" "MS_RE"; do
            echo "Searching for matching ${ext}.TIF files with number:
$number"

            image_to_rename=$(ls "$target_dir" | grep -E
"DJI_[0-9]{14}_${number}_${ext}\.TIF" | head -n 1)

            if [ -n "$image_to_rename" ]; then
        new_ext=$(echo "${ext}" | sed 's/_//')
                new_name="DJI-${timestamp}-${number}_${new_ext}.TIF"
                echo "Renaming $target_dir/$image_to_rename to
```

```
$target_dir/$new_name"
                mv "$target_dir/$image_to_rename"
"$target_dir/MS/$new_name"
            else
                echo "No matching ${ext}.TIF files found for number:
$number"
            fi
        done
    done
}

# Check if an argument is provided
if [ $# -ne 1 ]; then
    echo "Usage: $0 <folder_path>"
    exit 1
fi

# Call the function to process images
process_images "$1"
```

Just save this file somewhere you will be able to find it later as well.

We are running this script on Ubuntu. To make it executable don´t forget to:

```
sudo chmod +x ./correct_filenames.sh
```

You can then execute the script by giving the folder with pictures inside as an argument. Example:

```
./correct_filenames.sh ./pictures
```

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