TickApp

MODE {Predict, Download, Sync, Auto} *required*

1) PREDICT (source, path, write, year)

- Make predictions on images. These can be images in a box folder or a local disk folder. With the *write=True* option you can choose to send the results to the spreadsheet in which case any old results will be overwritten.

    a) source {'box', 'disk'}, *required*
        i) Box: get images from BOX folder via ftp download (requires log-in)
        ii) Disk: get images from disk folder
    b) path {string}, *required*
        i) String path to images
    c) write {True, False}, *default = false*
        i) True: Write results to spreadsheet. This will overwrite old results if they exist.
        ii) False: Do not write results to spreadsheet
    d) year {string}, *required if write = True*
    e) disk_transfer {True, False}, *default = false*
        i) Transfer matching images on disk to disk-transfer folder in output

- Returns: An output folder in cwd with the results and any error files such as images that could not be opened or image IDs that could not be found on the spreadsheet (if the write option is true).

2) DOWNLOAD (box_path, check_path, destination)

- Download images from Box. With the *check_path* option you can choose to download only the images that don't yet exist in the specified directory. This will raise a warning if you try to download directly to the WMEL drive as the SYNC mode is better suited for this. For large, bulk download, the ftp access is very slow and it is recommended to just download through the Box web browser. Note that this will also prompt the user for a secure username and password entry.

    a) path {string}, *required*
        i) String path to images
    b) check_path {string}, *optional*
        i) String path. If specified, the script will only download images that are not found in the check_path
    c) destination {string}, *default= make "box transfer" dir in output dir and use as dest.*
        i) String path to destination.

- Returns: An output folder with a list of the downloaded files. If destination is not specified, an additional folder 'Box transfer' folder will be made in the output folder where the images will be downloaded.

3) SYNC (source, path, WMEL_path, year) (requires WMEL external disk)

- Sync WMEL drive data with Tick_ID spreadsheet. Depending on the given source, this will move any new images into the "Raw" image folder on the WMEL drive associated with the specified year. Additionally, any raw images that are registered on the Tick_ID spreadsheet will be copied, renamed with the standard naming system, and copied to the "Renamed" folder. Note that this is only an option when the WMEL drive is connected.

    a) source {'box', 'disk'}, *required*
        i) Box: Get new images from Box
        ii) Disk: Get new images from disk
    b) path {string}, *required*
        i) String path to images
    c) year {string}, *required*
        i) Which year in WMEL drive to sync to and what sheet in Tick_ID

- Returns: An output folder with a csv table of the newly synced data, a csv table of ALL the synced data and an error file containing any images that could not be renamed (the images have not yet been labeled on Tick_ID spreadsheet).

4) AUTO (source, path, year, disk_transfer)

- Make predictions on images in the Tick_ID spreadsheet that do not have an existing prediction. This is the most likely application and can be used with the "tick-id-images" box folder to continuously fetch only the newest images. Depending on the source, the script will look for images that are registered on the Tick_ID spreadsheet but do not have an associated prediction. It will then make a prediction and write the results to the Tick_ID spreadsheet.

    a) source {'box', 'disk'}, *required*
        i) Box: Get new images from Box
        ii) Disk: Get new images from disk
    b) path {string}, *required*
        i) String path to images
    c) year {string}, *required*
        i) Year for sheet in Tick_ID
    d) disk_transfer {True, False}, *default = false*
        i) Transfer matching images on disk to disk-transfer folder in output

- Returns: An output folder with a csv table of the results and an error file for images that could not be opened.