

# TagTool Documentation

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## 1 Overview

**Description** TagTool is a program designed to preform searches on a custom filename based tagging system. The po

**Files** In order to utilize this program any applicable files must be named with the following format: “[Tag\_1]...[Tag\_n]name.ext” in order to be processed. Special characters inside tag brackets, such as spaces, are valid.

## 2 Usage

### Options

- -f <directory>:  
Sets the directory to preform search/list on. Defaults to present working directory.
- -l:  
Lists all searchable tags within the directory.
- -s <name|date|time>:  
Sorts matches by the desired criteria. name: Ascending alphanumeric filename. date: Ascending creation date. time: Ascending video run-time. Defaults to search by name.
- -r:  
Reverse search results.

**Searching** Search queries support full boolean search with the additional search parameters of date of creation and, if the file is a video, length of video. Search operations may be chained and grouped to create a more precise search.

**Executing Match** After running a valid search, any matches found may be opened by its default program by entering the index number of the desired match.

### Fomattting

- **Filename:** To create a file capable of being searched for all applicable tags must be put in the filename, each surrounded by brackets.

Example File: [tag\_a][tag\_b]...[tag\_z]filename.ext

- **Date:** To search for a date range, input the full year, month, and day, with no characters inbetween. Place the ‘>’ character to search for maximum.

Minimum Date: YYYYMMDD

Maximum Date: >YYYYMMDD

Date Range: YYYYMMDD>YYYY-MM-DD

- **Time:** To search for a time range, input the hours, minutes, and seconds, with colons. Place the ‘>’ character to search for maximum.

Minimum Time: H...H:MM:SS

Maximum Time: >H...H:MM:SS

Time Range: H...H:MM:SS>H...H:MM:SS

## 3 Examples

**List Tags** All tags present within a folder can be listed with the -l option.

- TagTool -fl folder

**And Operation** The and operation matches all files with the specified tags.

- TagTool -f folder “tag\_a and tag\_b”
- TagTool -f folder “tag\_a & tag\_b”
- TagTool -f folder “tag\_a tag\_b”

**Or Operation** The or operation matches all files with either of the specified tags.

- TagTool -f folder “tag\_a or tag\_b”
- TagTool -f folder “tag\_a | tag\_b”

**Exclude Operation** The exclude operation matches all files without the specified tags.

- TagTool -f folder “tag\_a not tag\_b”
- TagTool -f folder “tag\_a -tag\_b”

**Date Operation** The date operation will match all file within the specified date range.

- TagTool -f folder “date 19700101”
- TagTool -f folder “@ 19700101”
- TagTool -f folder “date >20380119”
- TagTool -f folder “date 19700101>20380119”

**Time Operation** The time operation matches all files within the specified time range.

- TagTool -f folder “time 00:00:59”
- TagTool -f folder “# 00:00:59”
- TagTool -f folder “time >01:00:00”
- TagTool -f folder time 00:00:59>01:00:00”

**Groupings** Search operations may be grouped together to further filter matches.

- TagTool -f folder “tag\_a ( tag\_b tag\_c)”

**Complex Queries** All search operations can be used together to limit matches by a very specific criteria.

- Tagtool -f folder “tag\_a -tag\_b &(tag\_c | #00:30:00) @ 20000101>20200101”

## 4 Errors

Exit Code 1: No arguments specified. At a minimum the program must be run with either the -l option or a search query.

Exit Code 2: -f option may not be specified more than once.

Exit Code 3: Invalid option entered. Valid options include: -f, -l, -s.

Exit Code 4: Cannot access folder. Either the directory does not exist, or required permissions are not met.

Exit Code 5: Format for date query is invalid. Valid format: YYYYMMDD>YYYYMMDD

Exit Code 6: Format for time query is invalid. Valid format: H...H:MM:SS>H...H:MM:SS

Exit Code 7: Format for tags in filename is invalid. Valid format: [tag\_1][tag\_2]...[tag\_n]filename

Exit Code 8: Format for search query is invalid. See Usage(Searching) for help.

Exit Code 9: Format for grouped query is invalid. See Usage(Searching)

## 5 Known Bugs

- Undefined behavior if -f flag is excluded.
- Creation date of a file may be incorrect, cause unknown.

## 6 Needs Implementation

- Sort matches by user defined criteria.
- Execute match from list via default action.
- Add option to execute generate folder script
- Create a script to sort tags within a filename and append numeration on both files if conflict occurs.