MERGETRAK USER's MANUAL
Version 1.4

Table of Contents
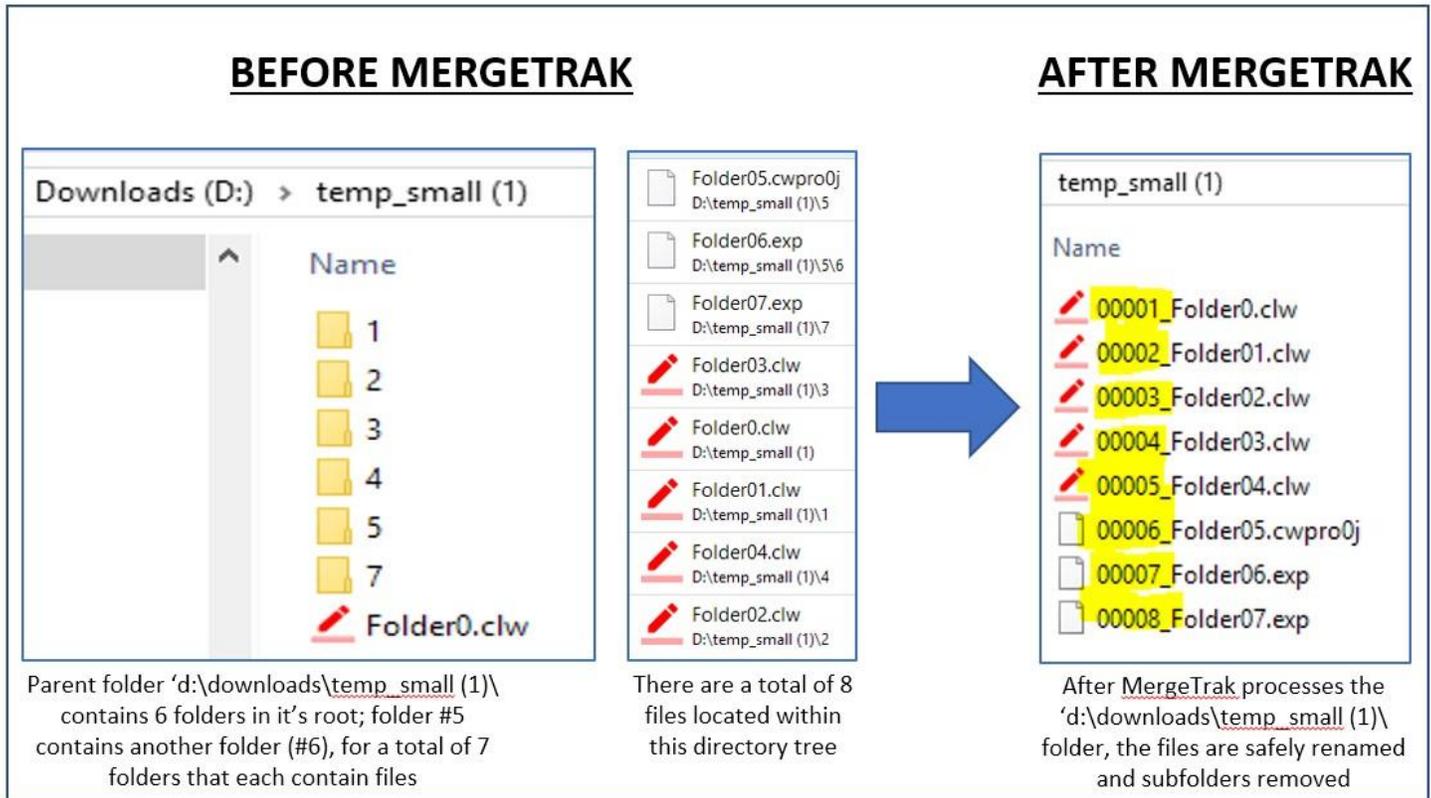
Purpose

MergeTrak safely merges files contained within nested subfolders into the parent folder. A graphical representation of MergeTrak's purpose is depicted below:

BEFORE MERGETRAK

Downloads (D:) > temp_small (1)

Name

1
2
3
4
5
7
Folder0.clw

Parent folder 'd:\downloads\temp_small (1)\ contains 6 folders in it's root; folder #5 contains another folder (#6), for a total of 7 folders that each contain files

Folder05.cwpro0j
D:\temp_small (1)\5

Folder06.exp
D:\temp_small (1)\5\6

Folder07.exp
D:\temp_small (1)\7

Folder03.clw
D:\temp_small (1)\3

Folder0.clw
D:\temp_small (1)

Folder01.clw
D:\temp_small (1)\1

Folder04.clw
D:\temp_small (1)\4

Folder02.clw
D:\temp_small (1)\2

There are a total of 8 files located within this directory tree

AFTER MERGETRAK

temp_small (1)

Name

00001_Folder0.clw
00002_Folder01.clw
00003_Folder02.clw
00004_Folder03.clw
00005_Folder04.clw
00006_Folder05.cwpro0j
00007_Folder06.exp
00008_Folder07.exp

After MergeTrak processes the 'd:\downloads\temp_small (1)\ folder, the files are safely renamed and subfolders removed

Safeguards

MergeTrak, unlike the handful of command line utilities/Powershell scripts that are floating on the Internet to merge (or 'collapse') subfolder content into the parent folder, has internal 'safety' features to protect users from making a folder merge operation that they will later regret:

a. Configuration option to display a Yes/No popup window to confirm that MergeTrak should move forward with the file merge process
b. Configuration option to display a Yes/No popup window if the total number of files contained within the parent folder and all of its nested subfolders exceeds a user-defined number. Odds are if that number exceeds more than a couple hundred files that the user has selected the wrong folder to merge (e.g. a root-level folder)
c. Each file in the parent folder and subfolder(s) are renamed with a standardized prefix of a six-digit number (starting at 000001) and an underscore character that is added to each file to ensure every filename is unique before being moved to the parent folder

d. If a file cannot be moved into the parent folder it is left in its original location and its subfolder is not deleted (e.g. a file contained within a subfolder is open by another application/network computer)

MergeTrak Modes

MergeTrak has two 'modes' of operation. When MergeTrak is **NOT** passed a folder name as parameter then the main MergeTrak window is displayed onscreen, which permits you to configure MergeTrak's safeguard settings. If a folder name parameter **IS** passed to MergeTrak the main window is **NOT** displayed onscreen – the merge window is displayed only. After MergeTrak has finished merging the subfolder's files into the parent folder MergeTrak is completely closed and control passed back to the calling File Manager application.

MergeTrak Files

MergeTrak is a lean Windows 32-bit application. These files comprise the total installation of MergeTrak:

1. MergeTrak.Exe   (Application file)
2. MergeTrak.Ini   (Application configuration file)
3. MergeTrak.Ico   (Icon file)
4. vuFT4.Dll   (Runtime library)
5. zlibwapi.dll   (Runtime library)

These files can be installed anywhere on your computer. The currently logged on Windows user must have **WRITE** security permissions to the installation folder make changes to the MergeTrak.ini file. MergeTrak requires about 2.5MB of disc space.

Configuring MergeTrak

MergeTrak is NOT a standalone operation – it is purposely designed to be integrated within a Windows file management application (e.g. Total Commander, FreeCommander). To configure the MergeTrak settings you run MergeTrak from the Windows Start Menu, which does not pass a parameter to MergeTrak (thus displaying the MergeTrak main window, which exposes the MergeTrak menu). Please reference this user manual (down below) to learn how to access the Configuration Window and File Manager Integration for your favorite Windows file management software tool.

MergeTrak Operation

When MergeTrak is started via a file manager program (e.g. Total Commander), the following actions occur: 1. Open the MergeTrak.ini file and load the configuration settings into memory

2. Scan the passed path name (e.g. D:\MusicDL\) and build a list of all subfolders and their content into dedicated memory queues

3. If MergeTrak is configured to display a popup Yes/No window before it starts merging data, it is displayed onscreen. If NO is clicked in the window, MergeTrak is terminated and no data is touched

4. If MergeTrak is configured to display a popup Yes/No window for a maximum number of files that is stored in the passed directory tree it is displayed onscreen. If ABORT MERGE PROCESS is clicked in the window, MergeTrak is terminated and no data is touched

5. Starting with the parent folder level and then alphabetically through every subfolder, each folder's contents are sorted alphabetically and then sequentially renamed in memory with the predefined prefix (nnnnnn_) to ensure every filename will be unique. The prefix number starts at 000001, then 000002, and so on. The number sequence continues incrementing by a value of one – it never 'resets' when a new subfolder is opened for processing

6. Each file is moved to the parent folder with its new filename.

7. The subfolders (which should now contain no data) are deleted. If the subfolder is NOT empty, the subfolder is NOT deleted. [Note: This could occur if another Windows application, or another network user, has that file open]

8. MergeTrak closes and control is passed back to the calling application

Main Window

The MergeTrak window is simple, with a standard Windows pulldown menu that can be executed with the mouse or keyboard:
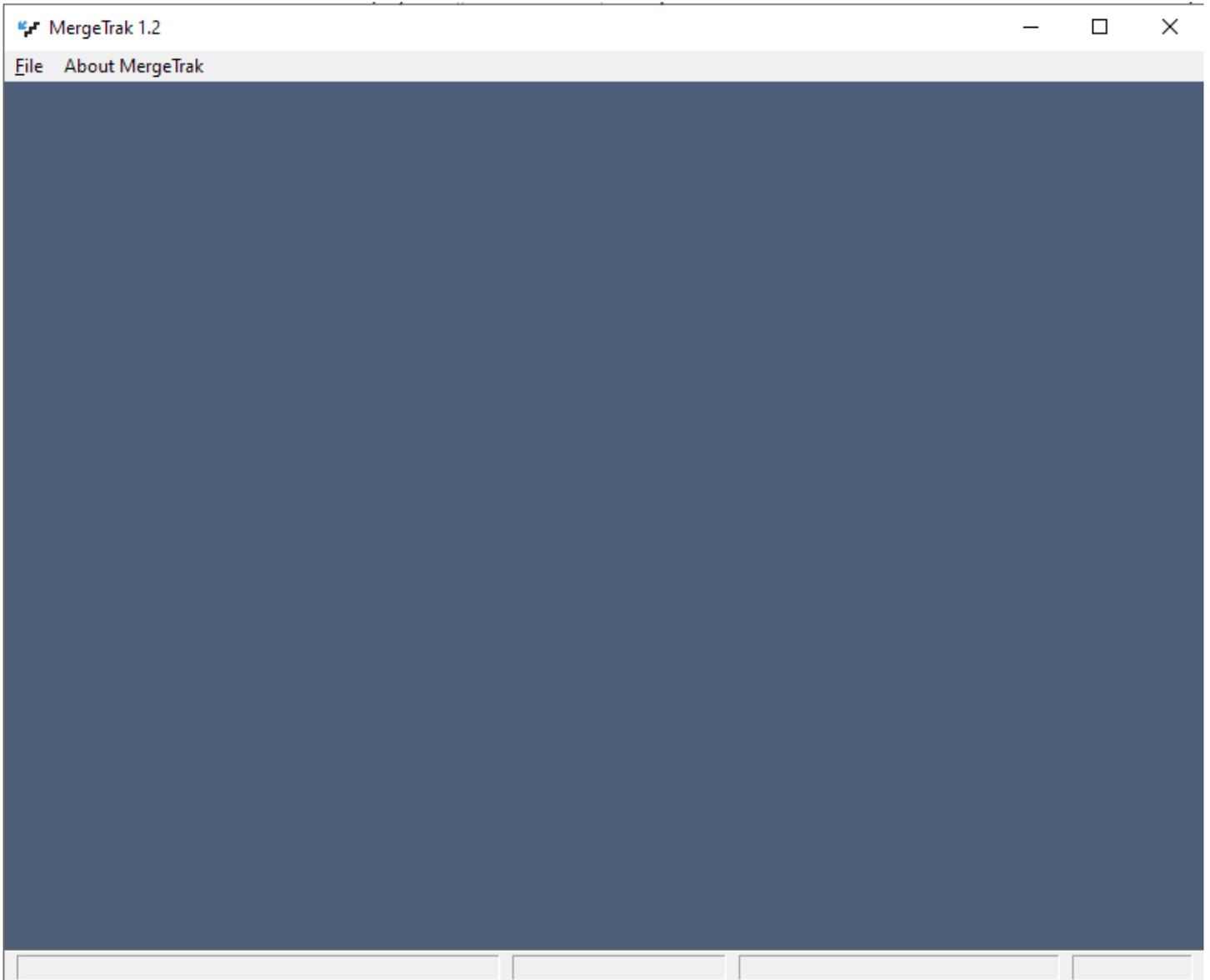
The main window's menu options are purposely small, with the two important menu options being File->Configuration and Help->About.
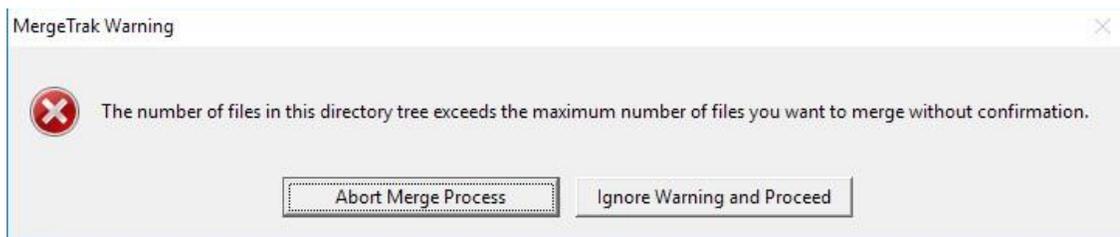
Configuration Window

This popup window is accessible only when MergeTrak is not passed a parameter (e.g. MergeTrak is started from the Windows Start Menu). This window is used to define safeguard settings to prevent users from merging a directory tree that they likely incorrectly selected):
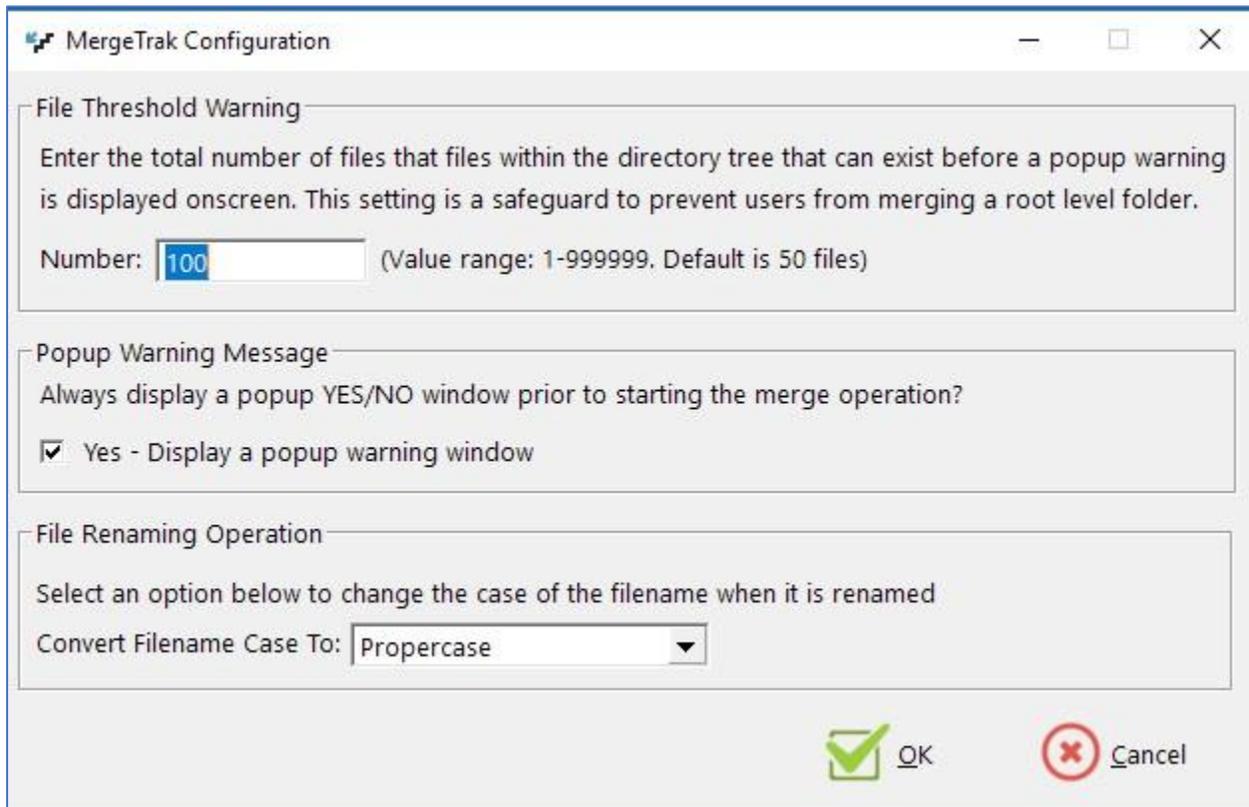
a. File Threshold Warning: a value between 1 and 999999 is entered here; this value represents the total number of files stored within a parent folder/subfolders before a popup Yes/No warning window is displayed onscreen:

b. Popup Warning Message: Before MergeTrak begins the file merge process a popup Yes/No warning window can be displayed onscreen if this checkbox is checked:
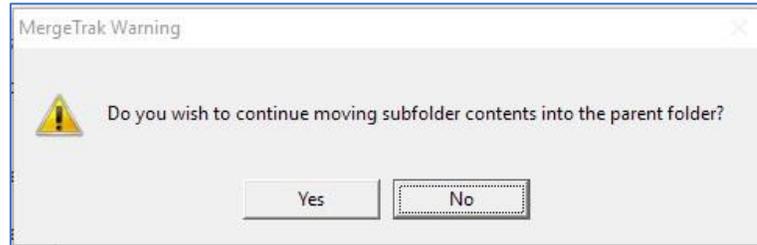
Both configuration settings are saved to the MergeTrak.ini file that is maintained in the same folder as MergeTrak.

Merge Window

If a parameter (e.g. D:\Music\) is passed to MergeTrak, the main MergeTrak window is bypassed and the main Merge window is displayed onscreen:
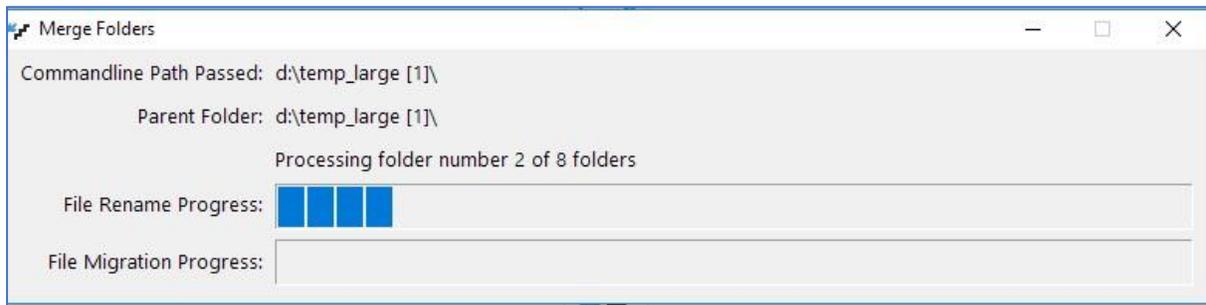
There are five lines of information displayed in this popup window:
1. Commandline Path Passed: display the parameter (e.g. D:\Music\) passed to MergeTrak. Error checking is performed to ensure a trailing slash character "\" is passed with the path – if missing, one is added, and parenthesis that are passed from the File Manager are removed (Directory Opus includes them with the passed path string)
2. Parent Folder: display the parent folder's name that it's subfolder content will be moved to
3. Processing folder number <n> of <n> folders: displays the current folder number being processed by MergeTrak
4. File Rename Progress: a progress bar that is updated as each file is renamed with a prefix
5. File Migration Progress: a progress bar that is updated as each renamed file is moved into the parent folder and the empty subfolder is deleted

File Manager Integration

MergeTrak is designed to be integrated into popular Windows-based File Management software applications (e.g. Total Commander, FreeCommander). The parameter passed from the file manager application to MergeTrak must be the parent folder's name with a trailing slash character (e.g. D:\Music\), with no quotation marks or apostrophe characters.

a. **Total Commander:** Add a button to its vertical button bar (right click inside of the button bar, select 'Change vertical button bar' from the popup menu, click the **ADD** button and then populate the button's configuration options as depicted in the screen capture (changing the Command and Start Path entries to where you've installed MergeTrak into):
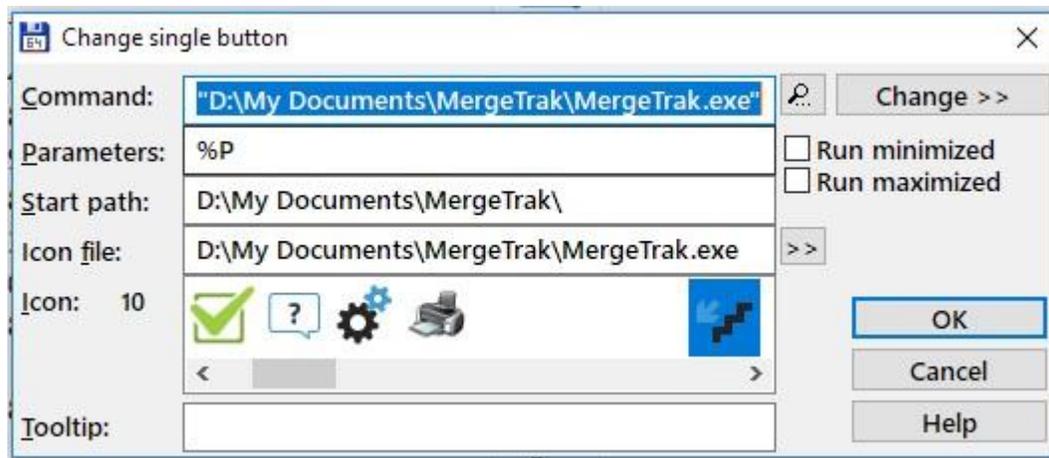
Click the **OK** button and the new button, when clicked, will execute MergeTrak against the currently open folder in the active Total Commander pane.
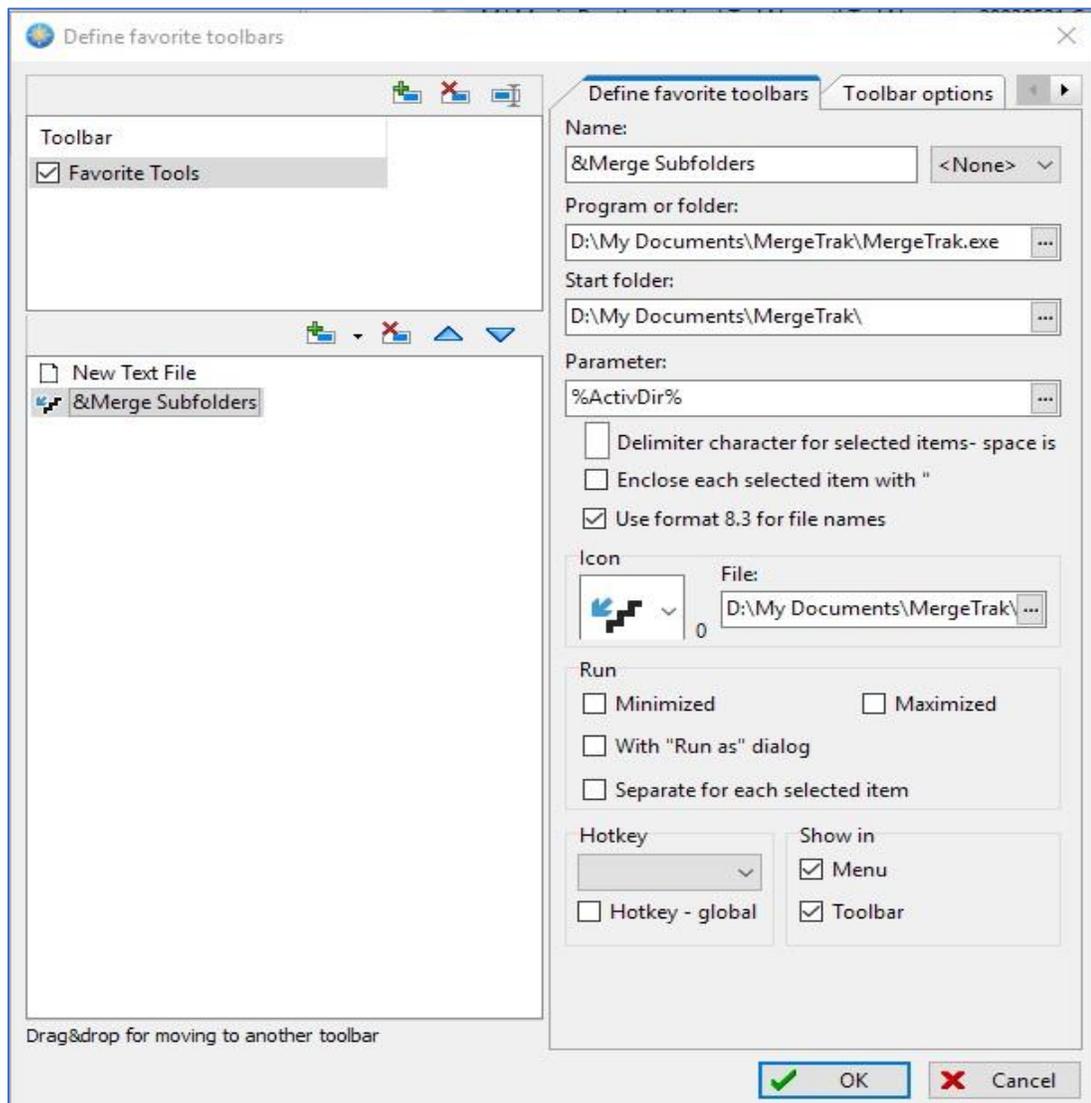
b. **Free Commander:** From the main menu, select **Tools**, then **Favorite Tools**, then **Favorite Tools Edit** to display the '**Define favorite toolbars**' window. Click the button with a green '**+**' symbol and select '**New Item**' from the droplist:
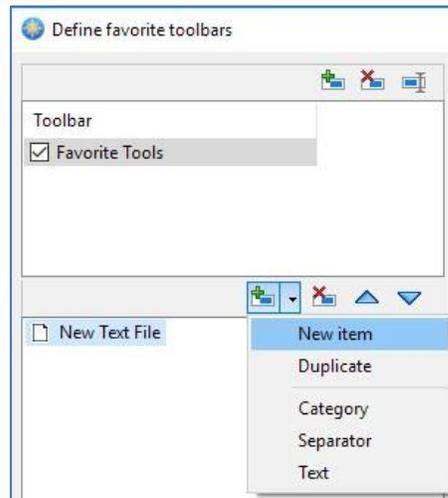
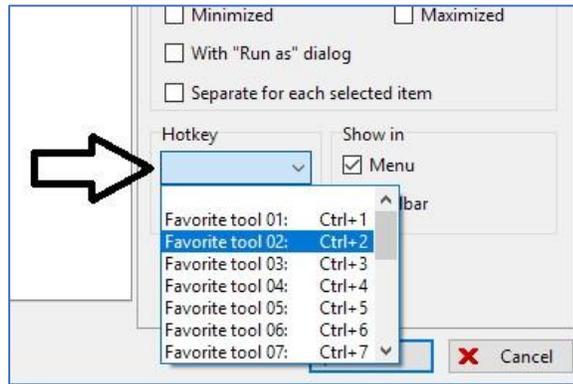After selecting the '**New Item**' menu item, populate the configuration settings like this:

Before clicking the **OK** button, click the **Hotkey** droplist and assign the new **Favorite Tool** to a hotkey so it can be assigned to the FreeCommander splitter bar (in this example, the 'Favorite Tool 02' was assigned to MergeTrak):

A new button named '**Merge Subfolders**' is added to the top of the FreeCommander window to execute MergeTrak when clicked:
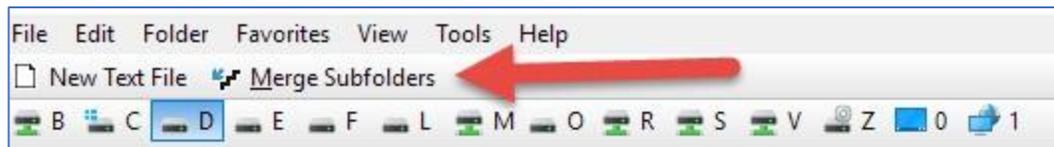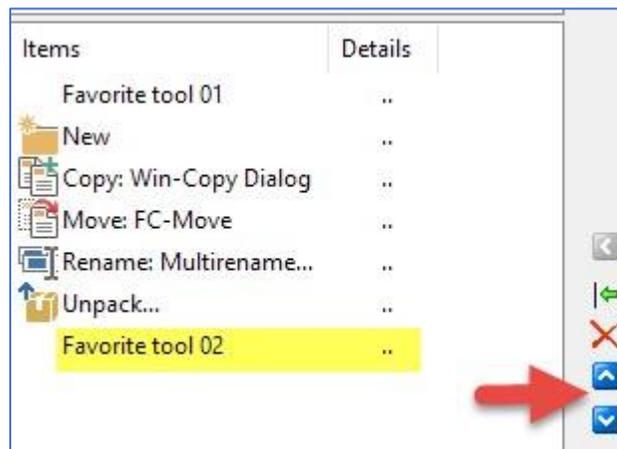

To add a MergeTrak button (i.e. '**Favorite Tool 02**') to the splitter bar, right click anywhere within the splitter bar that does not contain a button; from the popup menu select '**Define action toolbars**'. For my configuration (and as shown above in the screen capture), I assigned '**Favorite Tool 02**' to the MergeTrak favorite tool setting. Scroll down the list of commands in the bottom right window to find '**Favorite Tool 02**' in the list, and the drag it into the left listbox area:
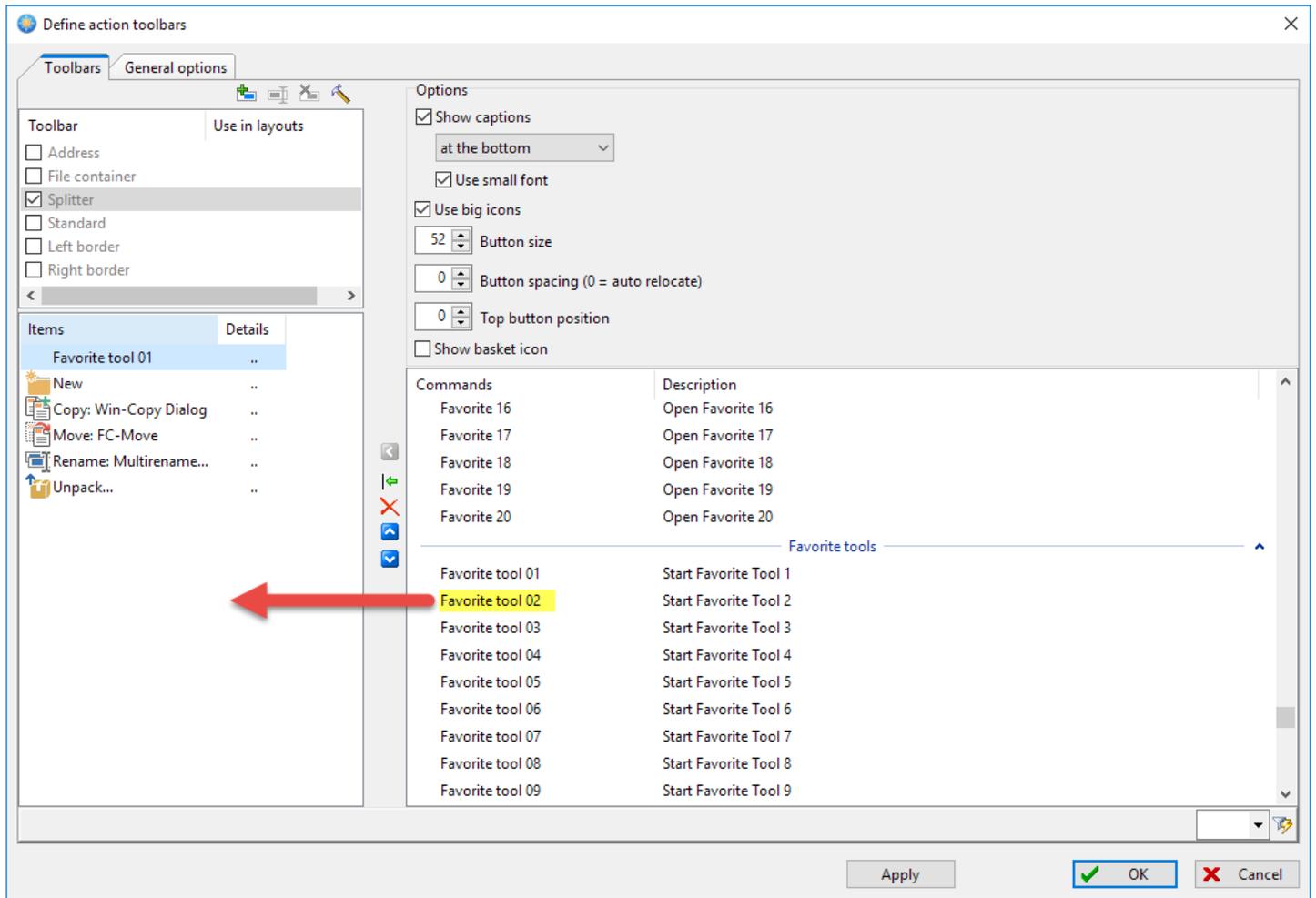
The screen is updated to now show the '**Favorite Tool 02**' listed of items to display in the splitter bar:

You can reposition the Favorite Tool 02 (i.e. MergeTrak) up/down within the splitter bar by clicking the up/down arrow buttons. Click the **OK** button to save the Action Toolbar configuration settings. The splitter bar now displays the Merge Subfolders (aka: MergeTrak) button:
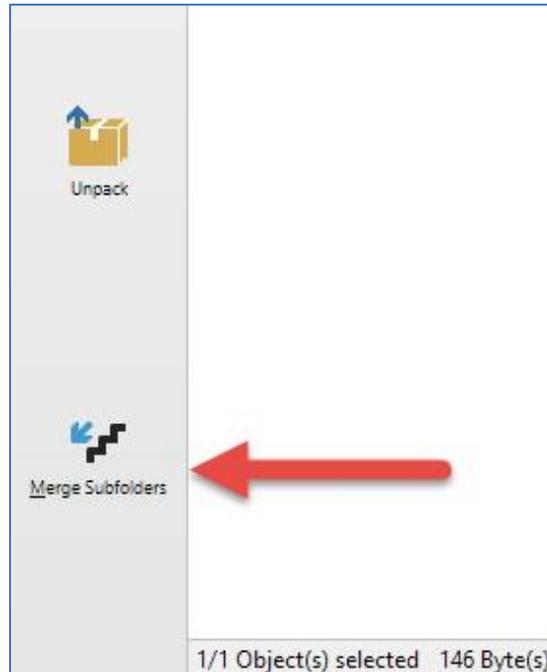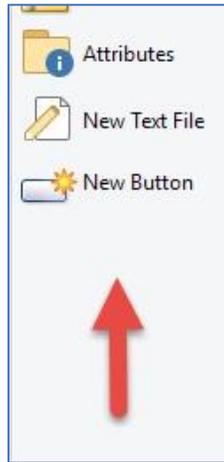

c. **Directory Opus:** Right click on the splitter bar; from the popup menu select '**Customize**'. Right click anywhere within the splitter bar that doesn't have a button already placed within it, select '**New**' from the popup menu and select '**New Button**' from the menu list:
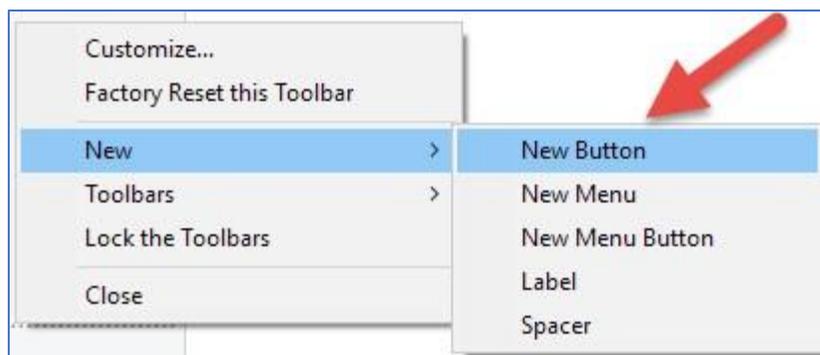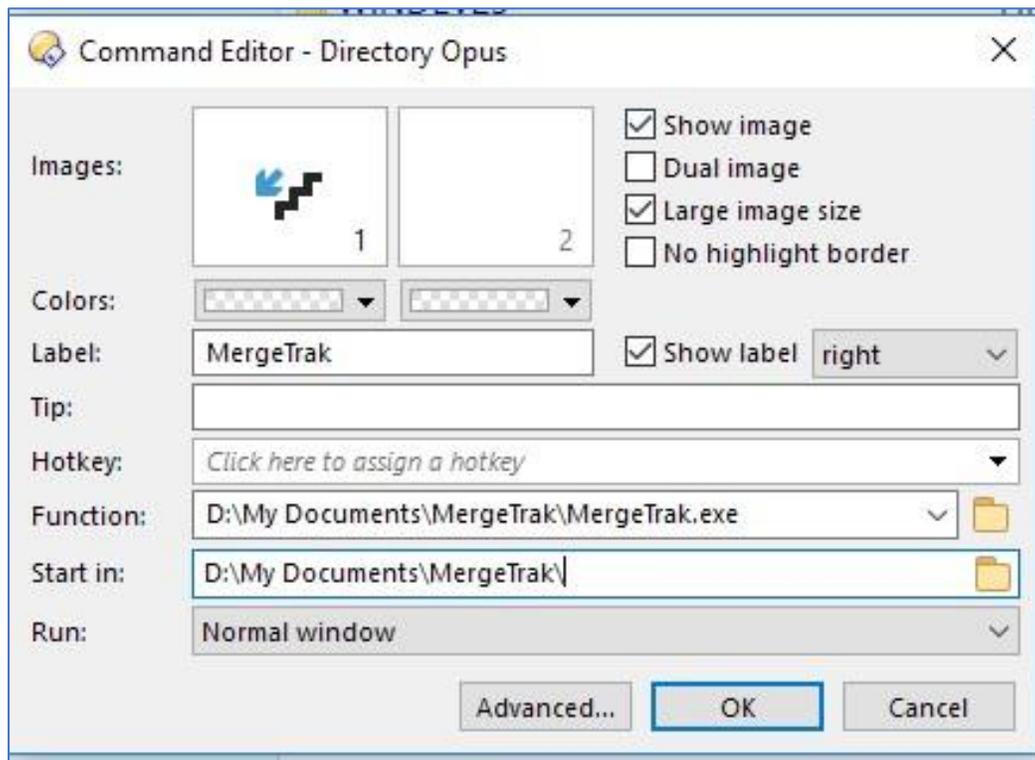
A new button is now placed within the splitter bar:

Right click on the '**New Button**' button, and from the popup menu select '**Edit**'. A popup window is displayed onscreen to configure the button when clicked; configure it as such (changing the path to MergeTrak for wherever you installed it into):
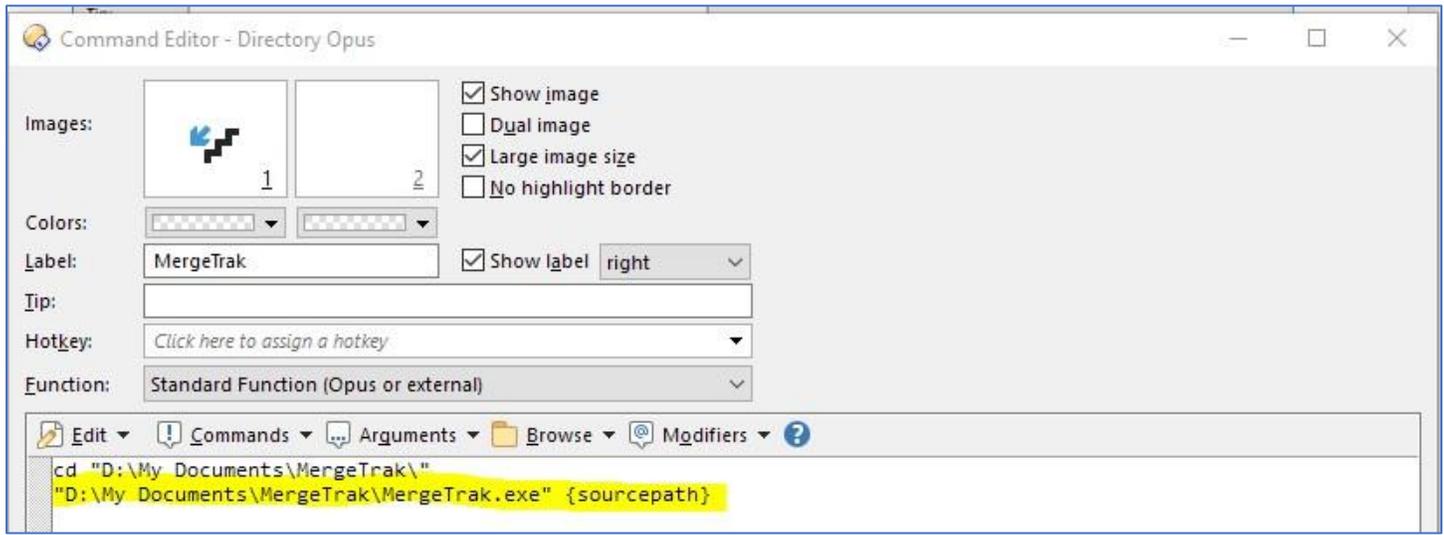
Click the '**Advanced**' button to enter the **Command Editor** mode, which will look like this:
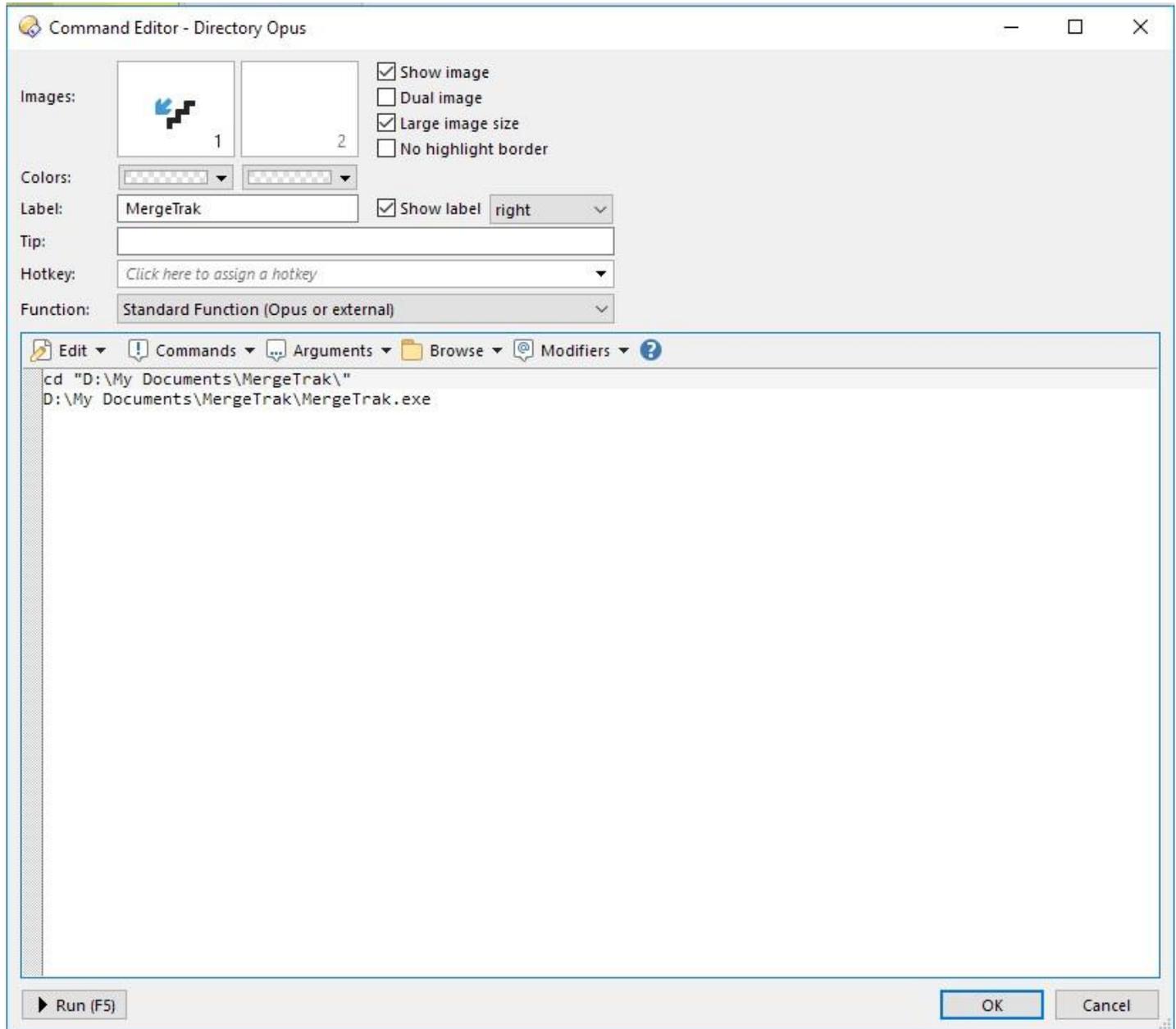
The two lines that appear within the window are extracted from what you previously entered. The second line within the editor window needs to be modified to resemble this:

The second line is changed to have **starting** and **ending quotation marks**; a space is then added and the text
"**{sourcepath}**" is added (without quotation marks). The **{sourcepath}** parameter is what passes the active
Directory Opus pane to an external program. Click **OK** to save the editor window changes and close that
window. Click '**OK**' to save the configuration settings. Click '**OK**' within the '**Customize – Directory Opus**'
window to close it. The MergeTrak button is now displayed within the Directory Opus splitter bar:
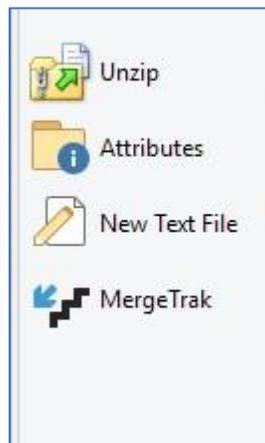
Payment

Software by Daughtry has released MergeTrak as "donorware" – primarily because we are a huge fan of FreeCommander (which is also donorware). It is not crippled in any way. We ask that if you found value in MergeTrak that you pay us what you think it is worth to you via the Software by Daughtry web page (www.sdaughtry.com) – a PayPal button will be displayed on our web page to contribute money for using MergeTrak.

History

- Version 1.4: Recompiled with Clarion 11.0.13630; company name changed from "Stealthware Software" to "Software by Daughtry"; minor configuration screen tweaks; minor changes to the About screen
- Version 1.3: Minor tweaks
- Version 1.2: Changed algorithym to change the filename during the move operation -vs- batch renaming each file in it's folder location and then moving each file.
- Version 1.1: swapped out the move() function to WinEvent – the previous function used a copy/delete approach to moving files, which was extremely slow for large files. WinEvent alters the Windows directory entry for the affected file being moved, so file movement is nearly instantaneous.
- Version 1.0: initial release

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Development Tools

MergeTrak was written in Clarion 11, using development add-on tools "Icetips Utilities" and "WinEvent".

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You can obtain additional information regarding software updates at the author's website: http://www.sdaughtry.com