

FastSum

**This is one of a series of reviews of available programs for computing and verifying checksums. The information documented below is an account of my experience and contains my own comments and opinions. Your experience may be different depending on your needs and use of the program.*

To begin, this program was downloaded from FastSum home page and installed by our company IT department onto my computer.

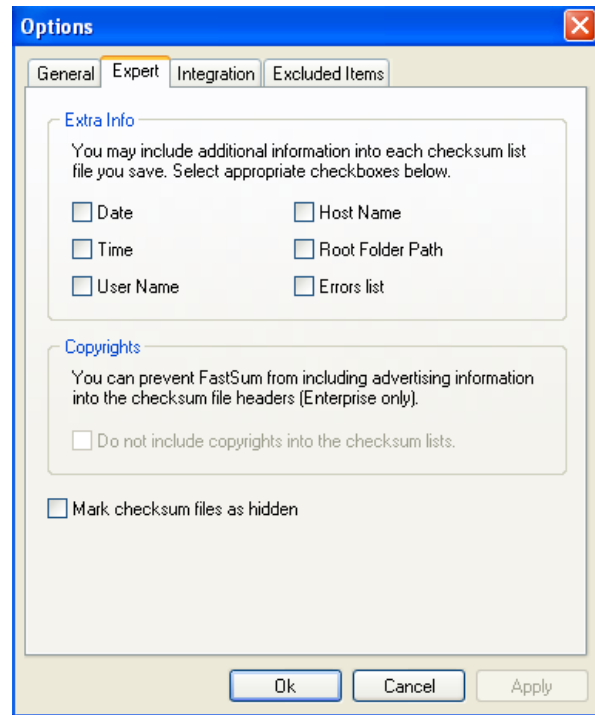
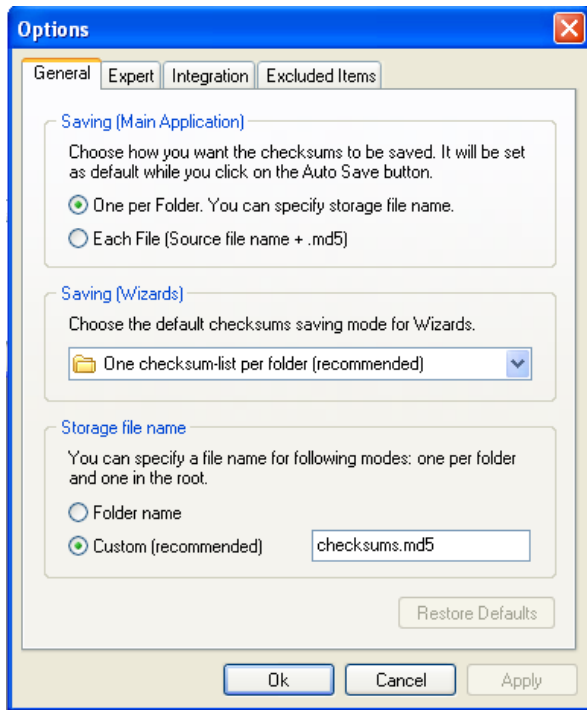
I began by briefly reviewing the materials available on FastSum's website which provides general information about checksums, MD5, and the on the different ways to compute and verify checksum values.

There are two main ways of computing and verifying checksums; using wizards or using the application window. MD5 is the only hash method used. Before calculating the checksum values it is useful to choose the settings for the checksum lists that are generated from the program.

Checksum List Settings

A Checksum List is a file that at the minimum includes the name of the file and its MD5 checksum value. Checksum lists are generated and can be saved in multiple ways. The name of this file can be generic such as "checksum.md5" for a folder or group of folders, or the file name can be customized such as "May2012checksum.md5". The file name can also be set up to include the name of the file or folder of which the checksum is being run on such as "EAD2002DataEntry.md5".

These settings must be set up before the checksums are run from the Tools window; on the General Settings tab, while the Expert tab allows you to select what information you would like captured in the generated reports:



Using Wizards

Calculating Checksums

You can start the checksum calculating wizard by clicking the fingerprint icon, or selecting the ‘Calculation Wizard’ from the File menu.

After the Wizard is open, to calculate checksum values browse to a location/folder that contains files that you would like to calculate checksum values for. If this folder contains subfolders, and you would also like to run checksums on these folders, click the box to “Include subfolders”.

You are then asked to select how you would like the values stored. You can store one checksum list per folder, one list in the root folder, or one per file. What you select is up to you and your needs. For example, are you more interested in verifying individual files, or will you be working with files in batches in which case a single list in the root folder might serve you better?

After making these selections, the hash methods are run and a file recording the checksum values is saved (based on your naming preferences previously chosen from the Tools menu).

If you would like to see the checksums themselves, before closing the wizard, click the “Move results into the application” box. This will show the checksum values for each file in the application itself.

Validating Checksums

You can start the checksum validation wizard by clicking the magnifying glass icon, or selecting the ‘Verification Wizard’ from the File menu.

After the Wizard is open, to verify checksum values browse to the file or the folder that contains the files you wish to verify. (You can add multiple files or multiple locations.)

Clicking next will re-run the checksum algorithm and verify against the source checksum values (the checksum lists) and display the verification results. (The files/folders being verified must have source checksums, a checksum list associated with them.) If all the files match, the wizard will say “Congratulations” and let you know that all the source checksums match the actual and that the files have not changed. You are also given a chance to see what was verified.

If the file, or one of the files within a folder does not come back with an identical checksum value, the message of “congratulations” will also be displayed, and it will tell you that you were successful in running a verification of a file/folder, but that the source checksums do not match the actual checksums and that the files have changed. Clicking the details button will list the file/s of which the values do not match.

If the files do not match their source checksums, you are given the option of saving the changes – which overwrites the source checksum value with the newly created checksum value. ****Do NOT do this if you are concerned about the integrity of the file. If however, you know that the file changed (you made edits to the file), and you would like the new value to become the correct value, you can click the save changes box. Remember, this overwrites the original checksum value.**

If a file has changed, you can create a report by clicking “Save Report”. This report is a text file (.txt) that lists the date and time the file report was generated as well as a list of the changed files.



Using the Application

Note: When viewing files in the application, you can toggle between the full path name or just the file name.

Note: Checksum values are color coded based on if they are loaded, actual, or changed.

Calculating Checksums

Using the application to calculate checksums can be done on individual files, or files within a single folder (calculating on sub-folders can't be done here).

Use the File or Folder button to browse and select the items you wish to calculate checksum values for. (If a checksum value has already been generated, it will show up on the screen.)

To begin the calculation, click the Run (green arrow) or F9.

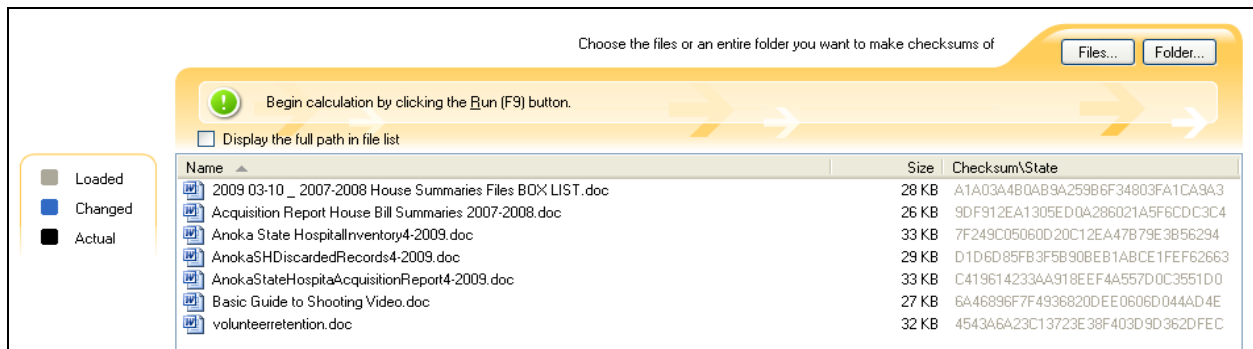
Values will be calculated and displayed in the checksum column on the page. Details about the number of files and calculation time will be shown at the bottom of the screen.

If you would like to save a checksum list report (.md5 file), you will have to press the Save button (disk) or Control S. [This is the same as the reports generated by the Wizard.] If you don't save the file, the checksum values will not be saved and there will be nothing to validate against in the future.

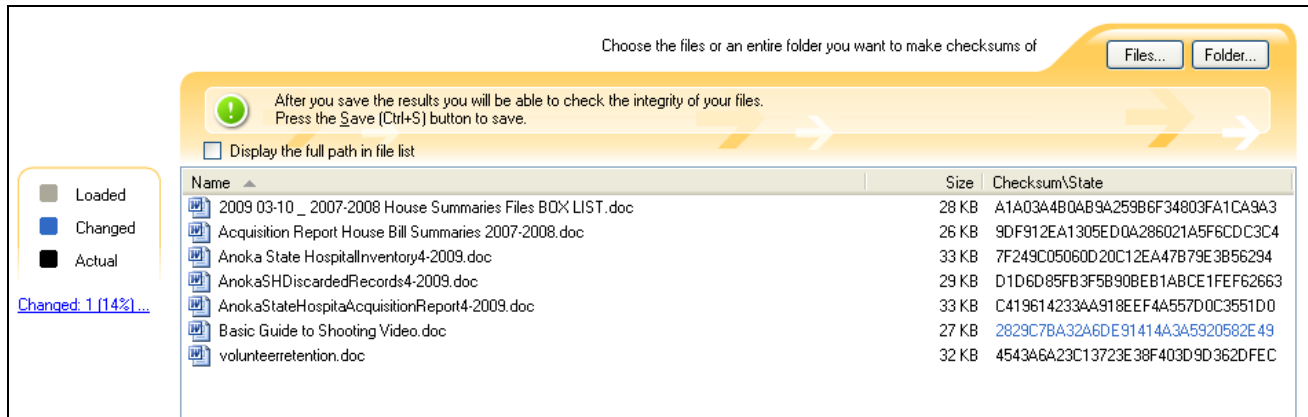
Validating Checksums

To verify checksum values using the application, you use the File or Folder button to browse and select the items you wish to validate checksum values for.

If a checksum value has already been generated, it will show up on the screen in gray. Gray is the code for checksum being loaded (meaning that the file has a checksum value to validate against).



After all of the files you want to verify are in the application window, click the Run button.



The results are displayed and show identical checksums values as black (successful validation) and differing checksum values in blue.

If you do have files whose values did not match, and you would like to save the new values, you can click the save icon to do so. *Remember, this overwrites the original checksum value.*

If you want to save information on what file changed, you need to click on the “changed” link on the left hand side of the page. This opens a window that will show you name and path of the file/s that changed. To save this information (as a text file - .txt) you need to click the save button. You can also copy the information and post it elsewhere.

Viewing Checksum Lists

The files that are created that contain the checksum values have .md5 as the file extension.

These files can be opened with programs designed to verify checksums, such as FastSum and ExactFile. Opening the .md5 files with these programs runs the actual program – which verifies the checksum values. (In order for this to work, the .md5 files must be stored in the same location as the files they relate to.)

These files can also be opened with various text editors. This allows you to actually see the checksum values of each individual file and any other information that you had created (date, time, user name, host name, root folder path, and errors list).

Other Notes

- Calculates MD5 checksums only.
- When you choose to run the program on nested folders (save a md5 file in each folder), the md5 algorithm is only run on files, not folders. For example, if a folder has 4 files in it and 10 folders, the md5 file only holds information about the 4 files, not the 10 folders. There is another md5 file within each of the 10 folders with information about the files contained in that folder.

- The report like information at the bottom of the application does not seem to clear itself out for each new test. It seems to store location specific information. For example, if I create checksum values for 50 files in 5 folders after running another test, it seems to add these to a running total indicating that it processed 345 files in 8 folders, rather than 50 files in 5 folders as I would expect. (I have not done enough experimenting with this to see why it is doing this, or what exactly it is doing.)
- This program has a 25 day trial period, after that licensed copies start at \$14.95/\$25.95 per user.