Brattoo Propaganda Software®

Duplicate Annihilator – User Guide
rev 3.0.0 (2012-07-10)

Duplicate Annihilator – User Guide

Table of Contents

Overview

Duplicate Annihilator is the leading application for dealing with iPhoto duplicates.

The easy way to find duplicates in iPhoto

Duplicate Annihilator takes on the time consuming task comparing the images in your iPhoto library using effective algorithms to make sure that no duplicates escapes. When found the duplicate will either be marked with a description of your choice to make it searchable or simply moved to iPhotos trash can.

Key features

- Easily find and annihilate duplicates created internally by iPhoto or during import.
- Compare images using different algorithms to detect and understand differences.
- Detect duplicates using effective algorithms using electronic checksums like MD5 and CRC32.
- Detect duplicates by using file specific data like filename, dimensions, file size, Exif creation date or date of creation.
- Delete duplicates upon detection or mark them with a keyword to make them easily found using iPhoto features like search or smart folders.
- Makes your iPhoto slimmer and faster.
- Only uses standard Apple features and API's. No hacking nor tampering with iPhoto system files.
- Free updates!

Install Duplicate Annihilator

To install Duplicate Annihilator simply follow those steps:

1. Download Duplicate Annihilator from
   http://brattoo.com/propaganda
2. Unzip and mount the downloaded package. This is normally done automagically.
3. A finder window will appear where you can drag the application Duplicate Annihilator to your Applications folder.
4. Drag the applications to the Applications folder
5. Duplicate Annihilator now installed and you may run it from your Applications folder located on your hard drive.

? Updates?
You may always download the latest version of Duplicate Annihilator from http://brattoo.com/propaganda Duplicate Annihilator will automatically check for updates online and notify if there is an update available.

Registering/Purchasing

Duplicate Annihilator is shareware which means that to be able to fully utilize it you need to purchase a license (currently $7.95). If you decide to run Duplicate Annihilator in demo mode it will be limited to only scan through the first 500 images of your iPhoto library.

To purchase a license simply go to our home page at http://brattoo.com/propaganda and click on any of the *"buy"* or *"purchase now"* buttons and you will be taken to our online store. The purchase will be done through the secure servers provided by Esellerate. net. For further information regarding security and online purchasing please visit
http://shopper.esellerate.net/ics/support/default.asp?deptID=5620

When you have made your purchase you will receive an email containing your serial number. Please note that this is an automatic process so if you have a spam filter you will have to make sure that the email can get through to your mailbox.

To register/unlock Duplicate Annihilator with your serial number simply follow those steps:

1. Open Duplicate Annihilator
2. Click on the register tab
3. Fill out the form with your serial number
4. Click on the register button

5. Duplicate Annihilator is now unlocked and fully functional

When entering the serial number please note that there is a difference between the number "0" and the letter "O" and between the number "1" and the letter "I". The serial number will be verified by our online serial number verification servers.

If you encounter problems please contact us at
propaganda@brattoo.com

Annihilating duplicates

To locate and annihilate duplicates in iPhoto use the *Find duplicates* tab in Duplicate Annihilator. When you click on the *Find and annihilate duplicates* button the annihilation process will begin based on the settings in the *Preferences* tab. *See the preferences section of this document for a better understanding of the different settings and options.*

Basic annihilation

Duplicate Annihilator works it's way through your iPhoto library by calculating a digital "fingerprint" for each image; image by image. If two images results in the same "fingerprint" then the first found image will be considered the original and the following images with the same fingerprint are the duplicates. By default the found duplicates will have their description/comments field set to "duplicate". During the annihilation process there are a few indicators in Duplicate Annihilator that shows the progress and time left.

When finished, the found duplicates are easily located in iPhoto simply by using the iPhoto search field and search for "duplicate". The found images are the duplicates and you may delete them from iPhoto at will.

We appreciate the great value that our customers put in their precious images and therefor the default settings in Duplicate Annihilator is set to NOT delete any images, just in case there should be something wrong with the iPhoto library data base. It's better to be safe than sorry. This also gives the customer a chance to have a final look at the duplicate candidates before deleting them.

! **IMPORTANT!**
Do not interfere with iPhoto during the annihilation process. Interference may cause unexpected results and corrupt the iPhoto data base. Therefor, always wait for Duplicate Annihilator to finish or cancel before using iPhoto.

Annihilation using Magic mode

When running in Magic mode Duplicate Annihilator analyses the iPhoto images in iPhoto "on the fly" trying to use the most effective detection algorithms for your photos. When using Magic mode Duplicate Annihilator ignores the detection algorithms selected by the user. Magic mode is slightly slower than Resrictive mode.

Annihilation using Restrictive mode

When running in restrictive mode Duplicate Annihilator use digital checksums to only match exact duplicates. When using Restrictive mode Duplicate Annihilator ignores the detection algorithms selected by the user. Restrictive mode is slightly faster than Magic mode.

Annihilation using Custom mode

When running Duplicate Annihilator in Custom mode Duplicate Annihilator will process the images based on the detection algorithms selected in the Duplicate Annihilator preferences.

"On finish" actions

Since it can take quite some time to process large iPhoto libraries Duplicate Annihilator is equipped with a series of "on finish" actions. Those "on finish" actions can be used to either set the computer to sleep or shut it down when the duplicate annihilation process has finished. The "on finish" actions may be selected and/or changed by the user during a duplicate annihilation in progress.

> **!**
>
> **IMPORTANT!**
> **Magic Mode is not suitable for scanned photos and photos shot in burst mode. It may result in false duplicates.**

Hints to consider when annihilating duplicates

Sometimes the default settings in Duplicate Annihilator just isn't enough so here are a few hints on how to handle those situations.

The MD5 checksum simply wasn't enough, all duplicates wasn't found.

Even the slightest modification to an image will cause it to result in a completely different MD5 checksum so two images that might be identical to the eye might not be identical to Duplicate Annihilator. You will therefor have to try a different set of detection algorithms. A popular set of detection algorithms is the *Exif creation date* combined with the *first XX characters of the filename*. The Exif creation date is the date and time stored by your digital camera within the actual images file and this date and time is preserved when duplicating and/or modifying an image. *For more information see the Preferences section of this document.*

Looking for duplicates without going through the whole album.

Duplicate Annihilator can walk through a selection of images and compare only those. Simply select two or more images in iPhoto and Duplicate Annihilator will ask if you want to use the selection or all photos in your iPhoto library.

Some duplicates might be used in iPhoto albums and I don't want those duplicates to be deleted.

This is a problem with duplicates, you never know where you have used them. If you think that you might have duplicates that are being used in an album and you don't want them to be deleted then try this:

1. Open iPhoto
2. Create a smart album that does not match any albums and contains the description "duplicate". this album will show all images that have the description set to "duplicate" and is not used in an album.
3. Select the images in the smart album and hit the *option + command + backspace* keys to delete them.
4. Your duplicates that is not being used in any album have now been moved to the iPhoto trash can.

Using the Analyze Images tab

The *Analyze images* tab is not used to compare originals and duplicates. The *Analyze images* tab is a useful tool when trying to figure out which detection algorithms to use (if the defaults settings didn't detect all your duplicates). This is how it works:

1. Select two or more what seems to be duplicates in iPhoto
2. Click on the *Analyze images* tab in Duplicate Annihilator
3. Click on the *Analyze selected images* button

Duplicate Annihilator will now show you a text output that shows the output from the detection algorithms for each of the selected images as Duplicate Annihilator sees them. At the end of the output a line reads if the selected images are duplicates or not based on the selected detection algorithms.

By using the Analyze images tab you can safely experiment with different combinations of detection algorithms without having to actually apply them to your iPhoto library and its' images.
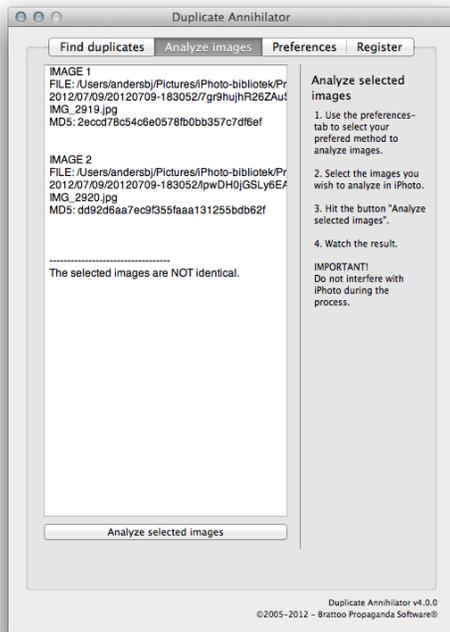
Preferences

The *Preferences* tab in Duplicate Annihilator allows you to change the behaviour of Duplicate Annihilator according to your needs.

Algorithms

Duplicate Annihilator features a series of detection algorithm, each with it's own benefits and drawbacks. The algorithms can be combined so that one or many of them have to match for two images to be considered duplicates.

MD5 checksum

This detection algorithm calculates a digital checksum (fingerprint) using the commonly used MD5 checksum algorithm. The checksum is calculated based on the content of the actual image file and two images will have to be identical down to the very bit for them to be considered duplicates. *This is the default and recommended detection algorithm.*

Creation date

The creation date and time of the image file. This is not always the same as the date and time when the picture was taken.
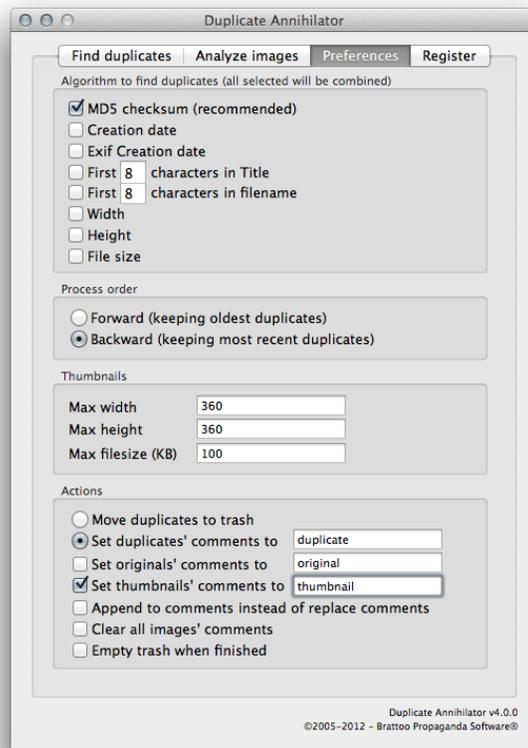
Exif creation date

This is the date and time stored by your digital camera within the meta data part of the actual image file. This date is usually preserved when making modifications and/or duplicates of an image and can therefor be a very useful algorithm when hunting down duplicates.

First XX characters in filename

This detection algorithm is used to compare the first characters of the filenames, how many of the first characters that should be compared is up to you.

Width

This is simply the pictures' width in pixels.

Height

This is simply the pictures' height in pixels.

File size

This is the size of the file in bytes.

Process Order

Duplicate consider the first encountered image with a unique detection algorithm value to be the original, all images that follows with the same detection algorithm value are the duplicates. Therefor Duplicate Annihilator has an option that let you decide if Duplicate Annihilator should start at the beginning and walk forward or from the end and walk backward through the iphoto library.

Forward

When walking from the start(forward) of the iPhoto library the oldest (occurs first in the iPhoto library) copy of a series of duplicates will be the original.

Backward

When walking from the end(backward) of the iPhoto library the newest(occurs last in the iPhoto library) copy of a series of duplicates will be the original.

Thumbnails

Duplicate Annihilator can be set to detect imported thumbnails. Thumbnails are low resolution photos used internally by iPhoto to speed up performance when growing the photos. However, sometimes when importing older libraries into new ones or when upgrading iPhoto those internal low resolution photos are imported as regular photos and all of a sudden your iPhoto Library is flooded with low resolution photos that looks like duplicates.

Actions

When a duplicate is found something has to be done and here are the options.

Move duplicates and thumbnails to trash

When this option is selected all the found duplicates and duplicates are moved to the iPhoto trash. *Please note that this is not the same trash can as the trash in your dock.*

Set duplicates' comments to *duplicate*

When using this option the comments/description field of each image is set to "duplicate". When using this action the images are left alone in your iPhoto library and you can easily locate them in iPhoto simply by using the iPhoto search field and search for "duplicate". The comments/description field is located in the lower left corner of the iPhoto interface after

you have selected an image and clicked on the -button (also located in the lower left corner of the iPhoto interface). *This is the default and recommended setting.*

Set originals' comment to *original*

When using this setting the comments/description field of the originals are set to "original" and are easily located in iPhoto. When using this option the duplicates will have their comments set to something like this "duplicate (123)" and the corresponding original will have it's comments set to something like this "original (123)". Notice that the number within the parentheses are the same. That way the original image is easily located when looking at a duplicate.

Set thumbnails' comment to *thumbnail*

Check this setting to also detect thumbnails. When using this setting the comments/description field of the detected thumbnails are set to "thumbnail" and are easily located in iPhoto. If the option "Move duplicates and thumbnails to trash" is selected then the detected thumbnails wil be moved to trash instead of marked.

Append to comment instead of replace comments
Sometimes you are utilizing the comments field and does not want
Duplicate Annihilator to overwrite it. When using this setting Duplicate
Annihilator appends "duplicate" to the existing comments instead of
replacing them.

Clear all images' comment
When using this setting all comments are cleared when running Du-
plicate Annihilator. This is useful if you have ran Duplicate Annihilator
several times and the comments fields are getting cluttered.

Empty trash when finished
When Duplicate Annihilator has walked through your iPhoto library it can
empty your iPhoto trash can. It's better to be safe than sorry so therefor
we recommend that you keep this box unchecked just in case something
didn't go as expected.

Frequently Asked Questions

Q: I've lost my serial number where can I get it?

A: To get your serial number simply go to http://brattoo.com/propaganda/support.php and use the online lost serial number form.

Q: I have entered my serial number but Duplicate Annihilator fails to register. Why?

A: By default Duplicate Annihilator tries to validate your serial number online so you need to have Internet access. If you do not have Internet access please contact us and we will help you to solve this.

Q: I have entered my serial number but Duplicate Annihilator says that it is invalid. Why?

A: Make sure that you don't mix up the characters I and O with the numbers 1 and 0 and vice versa.

Q: Duplicate Annihilator only says "calculating" but nothing seems to happen.

A: This is mostly caused by a defective iPhoto Library. Try to rebuild your iPhoto Library simply by holding down the option and command keys while starting iPhoto. Then try to run Duplicate Annihilator again.

Q: Which detection algorithm should I use?

A: By default Duplicate Annihilator uses the *MD5 digital checksum* algorithm which is a quick and effective method to detect duplicates. If a duplicate has been modified in any way the duplicate will render a different digital checksum and will there for not be detected as a duplicate.

Q: I have used the MD5 algorithm but Duplicate Annihilator failed to detect all the duplicates. What should I do?

A: Sometimes there are *what-seems-to-be-duplicates* left in your iPhoto Library. The most probably cause is that the images are slightly modified in some way. Try to use the *Compare images* tab in Duplicate Annihilator to try out new combinations of detection algorithms that suites your needs. A popular combination of detection algorithms is the *Exif creation date* combined with *First XX characters of filenames*.

Q: I have selected all the detection algorithms and Duplicate Annihilator does not find a single duplicate. What went wrong?

A: Don't select all the algorithms. Selecting multiple detection algorithms will cause those to be combined in to a single search for each image. Multiple algorithms will narrow the search result and will result in fewer found duplicates. Multiple algorithms will also cause the detection process to run much slower since more meta data has to be collected from each image.

Q: I have used the default preferences in Duplicate Annihilator and it says that it found XXXX duplicates but the iPhoto Library seems to be intact. Why?

A: That is correct, by default Duplicate Annihilator does NOT delete the found duplicates but sets the comments field of the found duplicates to "duplicate". You may then locate those duplicates in iPhoto simply by using the search field in iPhoto and search for the word "duplicate".

Q: Duplicate Annihilator says that it found 1000 duplicates but only 500 images were marked/deleted in iPhoto. Why?

A: This is mostly caused by iPhoto that sometimes makes a time out and throws away instructions. First of all, try to rebuild your iPhoto Library by holding down the option and command keys while starting iPhoto. This will cause iPhoto to run smoother and faster. If you are using the "move duplicates to trash" option you may try to use the "set duplicates' comments to duplicate" option instead since iPhoto seems to perform better when setting comments than when moving images to the iPhoto trash.

Q: Duplicate Annihilator gives me an error: NSReceiverEvaluation-ScriptError: 4 (1). Why?

There are a few applications that causes programs made in XCode (like Duplicate Annihilator) to crash with a NSReceiverEvaluation-

ScriptError: 4 (1). A few examples of those programs are SIMBL and Megazoomer, both those applications seems to affect the system in such a way that other applications crashes. Try to run Duplicate Annihilator on a fresh test account on you mac.

Duplicate Annihilator causes iPhoto to crash, why?

A. There are three known reasons:

1. Your iPhoto library data base might be damaged. Try to rebuild it by holding down the option and command keys while starting iPhoto.
2. If you are running iPhoto of a pre 6.0.6 version you should consider to upgrade it since iPhoto version prior to 6.0.6 could crash when encountering a damaged image containing for example bad or unusual EXIF-data. Read more about it here: http://docs.info.apple.com/article.html?artnum=304487
3. Sometimes when iPhoto is called upon by a third party application like Duplicate Annihilator it crashes. Meanwhile if you run the same version of iPhoto and Duplicate Annihilator on another user account on the very same computer the iPhoto does not crash. You may even copy the entire iPhoto library folder to the other users account and run Duplicate Annihilator with no problems. This leads to the conclusion that there is something wrong with some kind of user related iPhoto settings file but it is unknown which and in what way. There are however several

reports that users of iLife'06 solved their problems by upgrading to iLife'08. It's also possible to solve the problem by copying the iPhoto library to a fresh user account, run Duplicate Annihilator and copy the iPhoto library folder back to the original user account.

Q: I've tried to rebuild my iPhoto library but still experience strange problems, why?

According to this Apple support document http://support.apple.com/kb/HT2042 you will need free space on your startup disk (usually "Macintosh HD") equal to the size of the current iPhoto Library in order to successfully rebuild, or the rebuild will not complete. Most of the times the rebuild option seems to work anyway but if not, take this into consideration.

Do I have to pay for future updates of Duplicate Annihilator?

No, upgrades are free of charge, even for major upgrades.

We are an organization, school, workplace etc. and we would like to get a volume discount. Is that possible?

Yes, contact us at propaganda@brattoo.com and we'll work something out.

?
Need further assistance?
Check out our online support at http://brattoo.com/propaganda/support.php there you will find the latest version of this document and our online FAQ that updates frequently. Or contact us directly at propaganda@brattoo.com

LICENSE

This End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a single entity) and Brattoo Propaganda Software® for the Duplicate Annihilator accompanying this EULA, which includes computer software and may include associated media, printed materials, and "online" or electronic documentation ("SOFTWARE PRODUCT" or "SOFTWARE").

By exercising your rights to use the SOFTWARE PRODUCT, you agree to be bound by the terms of this EULA.

If you do not agree to the terms of this EULA, you may not use the SOFTWARE PRODUCT.

SOFTWARE PRODUCT LICENSE

The SOFTWARE PRODUCT is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE PRODUCT is licensed, not sold.

1. GRANT OF LICENSE.

This EULA grants you the following rights:

Installation and Use – You may install and use a single copy of the SOFTWARE PRODUCT.

Reproduction and Distribution – You may NOT reproduce or distribute copies of the SOFTWARE PRODUCT or its component parts, except and only to the extent that such activity is expressly permitted by applicable law notwithstanding this limitation.

2. DESCRIPTION OF OTHER RIGHTS AND LIMITATIONS.

a) Limitations on Reverse Engineering, Decompilation, and Disassembly – You may NOT reverse engineer, decompile, or disassemble the SOFTWARE PRODUCT, except and only to the extent that such activity is expressly permitted by applicable law notwithstanding this limitation.

b) Separation of Components – The SOFTWARE PRODUCT is licensed as a single product -- Its component parts may not be separated for use on more than one computer.

c) Software Transfer – You may permanently transfer all of your rights under this EULA, provided the recipient agrees to the terms of this EULA. Such transfer must include any and all copies of the SOFTWARE PRODUCT and its component parts.

d) Termination – Without prejudice to any other rights, Brattoo Propaganda Software, may terminate this EULA if you fail to comply with the terms and conditions of this EULA.

In such event, you must destroy all copies of the SOFTWARE PRODUCT and all of its component parts.

3. COPYRIGHT.

All title and copyrights in and to the SOFTWARE PRODUCT (including, but not limited to, any images, photographs, animations, video, audio, music, text, and "applets" incorporated into the SOFTWARE PRODUCT), the accompanying printed materials, and any copies of the SOFTWARE PRODUCT are owned by Brattoo Propaganda Software, or its suppliers.

The SOFTWARE PRODUCT is protected by copyright laws and international treaty provisions. Therefore, you must treat the SOFTWARE PRODUCT like any other copyrighted material.

4. U.S. GOVERNMENT RESTRICTED RIGHTS.

The SOFTWARE PRODUCT and documentation are provided with RESTRICTED RIGHTS.

Use, duplication, or disclosure by the Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 or subparagraphs (c)(1) and (2) of the Commercial Computer Software-Restricted Rights at 48 CFR 52.227-19, as applicable.

Manufacturer is: Brattoo Propaganda Software

5. LIMITED WARRANTY. NO WARRANTIES.

Brattoo Propaganda Software, expressly disclaims any warranty for the SOFTWARE PRODUCT.

The SOFTWARE PRODUCT and any related documentation is provided "as is" without warranty of any kind, either express or implied, including, without limitation, the implied warranties or merchantability, fitness for a particular purpose, or noninfringement.

The entire risk arising out of use or performance of the SOFTWARE PRODUCT remains with you.

6. NO LIABILITY FOR CONSEQUENTIAL DAMAGES.

In no event shall Brattoo Propaganda Software®, or its suppliers be liable for any damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information, or any other pecuniary loss) arising out of the use of or inability to use this Brattoo Propaganda Software®, product, even if Brattoo Propaganda Software®, has been advised of the possibility of such damages.

Because some states/jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damages, the above limitation may not apply to you.

7. MISCELLANEOUS.

If you acquired this product in the United States, this EULA is governed by the laws of the State of California.

If this product was acquired outside the United States, then local laws may apply.

As the user, I agree that I am responsible for my own actions using Duplicate Annihilator. I agree that I will not use Duplicate Annihilator to infringe on copyright laws. I also agree that Brattoo Propaganda Software® will not be responsible for anything I do with Duplicate Annihilator.