

Folder Sync Users Guide

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Introduction

The Folder Sync utility is a small program to allow synchronizing files between a two accessible folders. This utility is a simplified version of a program that achieved the same goal but through an FTP site. The purpose of this program is to allow controlled documents from a master document directory to be automatically transferred to a secondary location. The transfer process creates a record of all files and those which were actually updated when synchronized. The copy process does not remove files or folders that are not part of the controlled file list; only the files from the source controlled list are affected.

The Folder Sync program is cross platform and can be run on OSX, Linux, and Windows.

Program Details

The Folder Sync program has very few options and was written only for the purpose of handling distributed controlled documents.

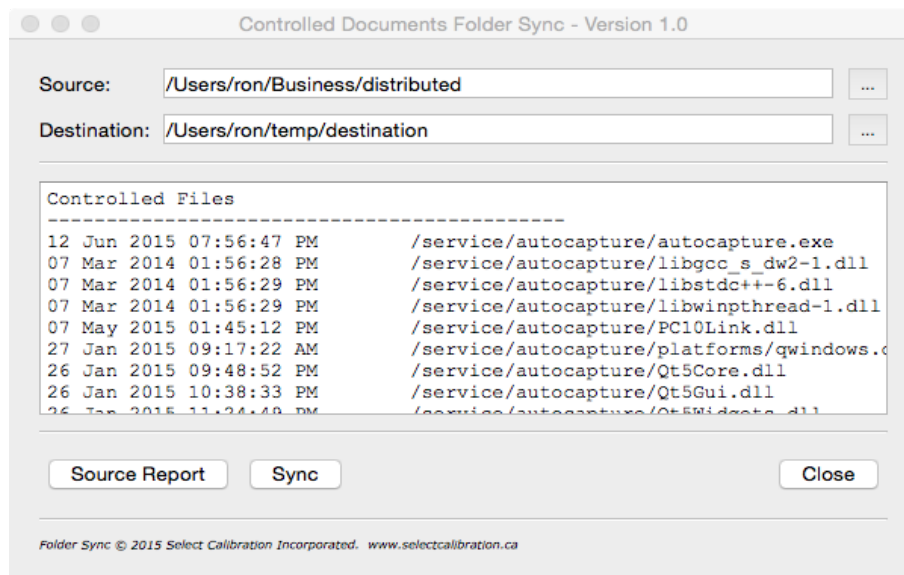


Illustration 1: Folder Sync main window

When activated the program will initially perform a scan of all the files listed in the source directory creating a detailed list showing date, time, relative path, and file name. An output file called 'reference_list.xml' is generated automatically showing a list of all files and details in the subfolder '.FolderSync' located in the users home directory.

Upon completion of the scan a comparison of the files found at the destination directory with those from the source directory is performed. All files that are different or missing are automatically identified and queued to be copied to the destination folder.

When the comparison is complete all identified files are copied to the destination folder. A text file called 'controlled document information.txt' is automatically generated in the destination

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directory showing a list of all source files and those files which were actually updated from the source directory.

The directory structure is updated automatically in the destination directory if it is different than that of the source directory. There is no restriction of the number of folders or folder levels used aside from those of the operating system.

<i>Option</i>	<i>Description</i>
Source	Folder where the master 'controlled' documents are located.
Destination	Folder where the controlled documents are placed or distributed to.
<log>	Text log showing a list of all source documents that will be transferred to the destination folder. The list includes the date and time of all the source file documents.
Source Report	Updates the log window with the list of all source files. This does not update the destination folder but only provides a list of what files will be checked.
Sync	Updates the contents of the destination directory to match those of the source directory. <i>Files in the destination directory that are newer or older than that of the source directory will be replaced. Only files that are an exact match to the source file will be skipped.</i>
Close	Close the program.

Reference List File

The reference list file 'reference_list.xml' is created and updated automatically each time the source directory is scanned. An example of this file is shown below:

```
<?xml version="1.0" encoding="utf-8"?>
<File_Sync_Data File_Version="1">
  <File_List>
    <File Modified="1434153407">service/autocapture/autocapture.exe</File>
    <File Modified="1394218588">service/autocapture/libgcc_s_dw2-1.dll</File>
    <File Modified="1394218589">service/autocapture/libstdc++-6.dll</File>
    <File Modified="1394218589">service/autocapture/libwinpthread-1.dll</File>
    ...
    <File Modified="1430965020">shared/SCI-030.pdf</File>
  </File_List>
</File_Sync_Data>
```

Each entry contains a file name with a relative path to the source folder (not shown). The attribute 'Modified' is the date and time in integer format.

Log Output File

The output file 'controlled document information.txt' is a file copy of the information stored in the programs log window. The file contains two sections; the upper showing a list of all source files, and the lower showing a list of all files that were replaced or added. Due to the method used to

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create the update file list the order the files are transferred may not be the same as the order shown in the controlled files list. The date and time that the update was performed is recorded in the log file. This file is automatically created in the directory of the output folder.

An example of the log file is shown below:

```
Controlled Files
-----
12 Jun 2015 07:56:47 PM /service/autocapture/autocapture.exe
07 Mar 2014 01:56:28 PM /service/autocapture/libgcc_s_dw2-1.dll
07 Mar 2014 01:56:29 PM /service/autocapture/libstdc++-6.dll
07 Mar 2014 01:56:29 PM /service/autocapture/libwinpthread-1.dll
07 May 2015 01:45:12 PM /service/autocapture/PC10Link.dll
...
06 Mar 2015 05:21:30 PM /shared/SCI-029.pdf
06 May 2015 10:17:00 PM /shared/SCI-030.pdf

Updated Files on 25 Jun 2015 02:04:52 PM
-----
26 Jan 2015 09:48:52 PM /service/pmove/Qt5Core.dll
07 Mar 2014 01:56:29 PM /service/autocapture/libwinpthread-1.dll
06 Mar 2015 05:22:50 PM /shared/SCI-010.pdf
04 Mar 2015 12:56:00 PM /service/part programs/tutor for windows/REPEAT.TEC
26 Jan 2015 09:59:59 PM /service/calibration workspace/Qt5Xml.dll
...
```

Settings

Program settings are stored in the subfolder '.FolderSync' located in the users home directory.

```
[General]
Destination=/Users/ron/temp/destination
Program_Touch=/usr/bin/touch
Program_Touch_DateTime=yyyyMMddhhmm.ss
Source=/Users/ron/temp/source
```

Options

Option	Description
Source	Location of last used directory for the source files
Destination	Location of last used directory for the destination of the files
Program_Touch	For GNU/Linux or Unix this is the full path of the touch executable utility (typically /usr/bin). For Windows this is the relative path from the executable where the touch.exe program can be found (default is 'touch.exe' for windows).
Program_Touch_DateTime	Depending on the version of the touch program the expected format from the option '-t' can be either yyyyMMddhhmm.ss or MMddhhmmyyyy.ss. The format was found to change between different systems so this option was provided.

In the event the date and time of the duplicated files are not corrected to match those of the source files then either the date-time format is incorrect or the name of the program itself is not set properly in the settings.ini file. Default settings are automatically created on first launch of the program.

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Revision History

Date	Version	Changes
June 25,2015	1.0	New Program
July 15, 2015	1.1	Revised program to allow up to 1 second of difference between files. Added option to allow synchronizing of hidden files.
Feb 2, 2016	1.2	Fixed problem with default name for 'touch.exe' program.
Mar 18, 2017	1.3	Changed to UTC for date comparison. Added tests to look for changes due to daylight savings time which might cause all files to have a different date from the original.