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## 1.Functions

SMBSync2 is a tool for synchronizing files via wireless LAN using SMB1,SMB2 or SMB3 protocol between the internal storage of Android terminal, SDCARD and PC/NAS. Synchronization is a one-way from the master to the target. Mirror, Move, Copy and Archive modes are supported. Many storage combinations are supported (Internal storage, SDCARD, OTG-USB, SMB, ZIP)

Sync can be automatically started by external applications (Tasker, AutoMagic etc) or SMBSync2 schedule.

Sync occurs between two folder pairs called the Master (source folder) and the Target (destination folder). It is a one direction Sync, from the Master to the Target.

The supported Sync modes are:

* Mirror

The target folder is kept as an exact copy of the master. If a file is different between the master and the target, the file on the master overwrites the file on the target. Folder and files not present on the target are copied from the master. Files and folders that do not exist on the master are also deleted from the target. Only modified files (by size and/or date/time) are updated on the target.

* Move

If a file is different between the master and the target, the file on the master overwrites the file on the target. Once copied to the target, files and folders are deleted from the master (like move command).

Only modified files (by size and/or date/time) are copied to the target. Identical files, based on the selected compare criteria, are deleted from the master without being copied. Files and folders on the target, not present on the master, are obviously preserved.

* Copy

Same as Move, but files are not deleted from the master after being copied.

If a file is different between the master and the target, the file on the master overwrites the file on the target. Once copied to the target, files and folders are kept on the master (like a copy command).

Only modified files (by size and/or date/time) are copied to the target. Identical files, based on the selected compare criteria, are ignored and not copied again.

* Archive

Archive photos and videos by Moving them from the master to the target folder. Specific medias criteria can be specified for archiving: shooting date/time, date and time of last archive execution (such as 7 days or earlier or 30 days or earlier).

ZIP cannot be specified as a target for Archive operations.

**Compare criteria:**

Files are considered different based on these criteria:

1. File/folder name exists only on master or target, not on both sides
2. Files have different sizes
3. Files have a different time stamp (last modification date and time)

In Advanced Options, many compare settings can be adjusted: time tolerance interval can be set to ignore difference if less than 1, 3, 5 or 10 sec for compatibility with FAT/exFAT medias. Ignore Daylight Saving time is supported. Option to not overwrite target file if it is newer than the master or if it is larger in size…

When target is on Internal Storage or on the SD Card, most Android systems do not permit setting the last modified time of the target file to match the time of the source file. When target is SMB (PC/NAS), or OTG-USB storage, this is usually not an issue. SMSync2 detects if the time/date can be set on the target to match the source file. If not, the last update time of the file is recorded in the application database files. It is then used to compare the files and check if they differ by time. In that case, if you try to synchronize the master/target pair with a third-party application or if SMBSync2 data files are erased, the source files will be copied again to the target. You can set the option to “Not overwrite destination file if it is newer than the master” in addition to comparing by size to overcome this issue.

## 2. Permissions

The app uses the following permissions.

2.1 Location

-approximate location (network-based)

Required to obtain the WiFi SSID name on Android 8.1 and higher.

2.2 Photos/Media/Files

-read the contents of your External SD Card, Internal Storage and USB medias.

-modify or delete the contents of your storage

Required for file synchronization to internal/external/USB storage and to read/write operations on application data files.

2.3 Storage

-read the contents of your External SD Card, Internal Storage and USB medias.

-modify or delete the contents of your storage

Required for file synchronization to internal/external/USB storage and to read/write operations on application data files.

2.4 Wi-Fi Connection infomation

- view Wi-Fi connections

Required to check the status of Wi-Fi (on/off) at the start of synchronization.

2.5 Other

### 2.5.1 view network connections

Required to confirm that device is connected to the network at the start of synchronization.

### 2.5.2 connect and disconnect from Wi-Fi

Required to turn on / off Wi-Fi before and after a scheduled synchronization.

### 2.5.3 full network access

Required to perform network synchronization using the SMB protocol.

### 2.5.4 run at startup

Required to perform scheduled synchronization.

### 2.5.5 control vibration

Required to notify the user by vibration at the end of synchronization.

### 2.5.6 prevent device from sleeping

Required to start synchronization from a scheduled or external application.

### 2.5.7 install shortcuts

Required to add a synchronization task shortcut on the home screen.

## 3. Data recorded by the app

No data will be sent outside of the app unless the user operates it.

### 3.1.Synchronization task list

The app records the necessary data to perform the synchronization.

* Directory name, file name, SMB server host name, IP address, port number, account name, password (\*1)
* Wi-Fi SSID name
* App password (\*1) to protect app launch and setting change
* App settings

\*1- password is encrypted with a system generated password and stored in the Android Keystore.

### 3.2.App activity record

The app needs to record the following data to check the synchronization results and for troubleshooting.

* Android version, terminal maker, terminal name, terminal model, application version
* Directory name, file name, file size, file last modified time
* SMB server host name, IP address, port number, account name
* Network interface name, IP address, Wi-Fi SSID name
* System settings
* App settings

### 3.3. Exported settings and Sync task list

The app can export "[3.1 Synchronization task list](#_Synchronization_task_list)" to a file. You can password protect the file before exporting it.

* Directory name, file name
* SMB server host name, IP address, port number, account name, password
* Wi-Fi SSID name
* App settings

## 4.FAQs

Please refer to the PDF link below.

<https://drive.google.com/file/d/1a8CTRu9xoCD74Qn0YZxzry-LHxQ8j7dE/view?usp=sharing>

## 5.Library

* [jcifs-ng ClientLibrary](https://github.com/AgNO3/jcifs-ng)
* [jcifs-1.3.17](https://jcifs.samba.org/)
* Zip4J 1.3.2
* [Xmpcore-5.1.3](https://www.adobe.com/devnet/xmp.html)
* [Metadata-extractor](https://github.com/drewnoakes/metadata-extractor)

## 6.Documents

Link to Google :

<https://drive.google.com/file/d/0B77t0XpnNT7OYzZ0U01rR0VRMlk/view?usp=sharing>