Naming:

SPARSE_IMG - .img file that you want to unpack
RAW_IMG – it is a unpacked .img file, it can be mount and modify on M_DIR
M_DIR – mount point directory, when RAW_IMG is mounted (default: /*mnt*/sat/loop)
F_SPARSE_IMG - final image file (repack output file)
(you can pass full path or just name to the above values)

Auto mode:

Unpack SPARSE_IMG, then repack (it makes sense when using some additional options)
Usage: ./sat.sh -a SPARSE_IMG F_SPARSE_IMG
or: ./sat.sh -a SPARSE_IMG
(F_SPARSE_IMG name will be generated automatically)

Unpack mode:

unpack SPARSE_IMG to RAW_IMG, then mount to not busy *M_DIR*
Usage: ./sat.sh -u SPARSE_IMG RAW_IMG
or: ./sat.sh -u SPARSE_IMG
(RAW_IMG name will be generated automatically)

Repack mode:

Usage: ./sat.sh -r RAW_IMG SPARSE_IMG
Repack RAW_IMG to SPARSE_IMG
or: ./sat.sh -r RAW_IMG
Repack RAW_IMG to SPARSE_IMG (automatically generated name)
or: ./sat.sh -r
will repack **last created** RAW_IMG to SPARSE_IMG (automatically generated name)

No-mode:

This mode is trigerred when none of previous modes is used. It can be uses with some additional options. It operates on **last created** RAW_IMG (can be changed by **-m** option)

Additional options:

-m M_DIR	change mountpoint directory to M_DIR
-o	overwrite all files (if you don't want overwrite files, program will create new names/dirs)
-dm	**(for unpack)** disable automatic RAW_IMG mounting
-c	**(for no-mode)** umount and delete all M_DIR's
-vndk X	where **X** is one of numbers: **26, 27, 28, 29** (you can pass how many numbers do you want). It will automatically delete corresponding vndk folders: */lib/vndk-**X**, /lib/vndk-sp-**X**, /lib64/vndk-**X**, /lib64/vndk-sp-**X***
-ab2a	converts system from **AB** architecture to **A-only.**
-debug	allow to display errors (by defualt some errors and messages are not displayed)
-ml	prints list of mounted M_DIR's
-dc	disable colorful UI
-resizeoff	disable resize2fs -M RAW_IMG command before repacking
-update	just update the script (your changes in default.conf will be kept)

Change default settings:

Some of default settings can be changed using „default.conf” text file. List of available values below:
enable_color=true/false – when set to **true**, the tool will turn on colorful UI
use_tool_binaries=true/false – when set to **true**, the tool uses tool's binaries. Otherwise it will use system packages. (see more information in „bin/binaries.info”)
do_resize=true/false – when set to **true,** resize2fs -M RAW_IMG command is always called before repacking
M_DIR=PATH – change default **M_DIR** directory to **PATH**
m_mount_dir=PATH – change directory, where tool creates new **M_DIR's** to **PATH**

Some example uses:

I. reduce size of Generic System Image (GSI)
You must know, which vndk folders you can delete. It depends of your device's vendor. If you don't know, then check which vndk version yours vendor has using Treble Info app (available in Google Play). To reduce size of .img file delete unnecessary vndk folders by running:

./sat.sh -a SPARSE_IMG -vndk 26 27 29
(in that case you will remove all folders related to 26, 27, 29 vndk version)

It will unpack SPARSE_IMG to RAW_DIR, then mount it in M_DIR, deleting vndk folders, resize RAW_DIR and repack to F_SPARSE_IMG.

II. converting system from AB architecture to A-only.
./sat.sh -a SPARSE_IMG -ab2a

Note : If u want you can do 1. and 2. operation by running:
./sat.sh -a SPARSE_IMG -vndk 26 27 29 -ab2a

Tip : When you using -a option, it is nice to use it with -o (if you sure that tool won't overwrite important files)

III. Unpack SPARSE_IMG and mount, do something with files, repack it
./sat.sh -u SPARSE_IMG
(do something with files in M_DIR)
./sat.sh -r