User Manual - BackupBuddies - Release 1.0

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I : What is BackupBuddies?

BackupBuddies is a peer-peer file backup system where you and a group of individuals can store file backups on one another's devices. BackupBuddies is meant to be a powerful, easy to use, and most of all, free alternative to expensive cloud based backup services.

II : How to Join a Network:

When you first open to App, you'll see in the top left corner, _Join a Network:_. Below, you'll see two fields:

1) _network ip…_ : Enter the IP address of a device that is part of the network you'd like to connect to. The device you're connecting must be configured to allow incoming TCP connections on port 32168.
2) _network password…_ : Enter the password of the network you'd like to join.
3) Click _Join_.

-If your connection was a success, you'll see in the lower left hand corner, under _Event Log:_, the message: "connected: [_network ip..._]"

-If your connection was a failure, you'll instead see under _Event Log_, "conn. failed: [_network ip..._]". This means either that the network doesn't exist or that you've entered the network info incorrectly.

Note: You are unable to change your name, encryption key, and storage limit without first joining a network.

III : How to Create a Network:

To create a network, do the following:

1) Ensure you have a device that allows TCP connections on port 32168.
2) Boot up _BackupBuddies_.
3) Under _Join a Network:_, in the field below labelled, _network password…_, enter a password for the network you'd like to create. Leave _network ip…_ blank.
4) Click _Join_.

Congratulations! Your network is now created and ready for action! All you need to do now is give your IP address and network password to trusted peers that you'd like to connect to.

IV : How to Log into a Network:

Once you've joined a network, unless you log off, every time you reopen _BackupBuddies_, you should be automatically logged into the network you last logged into. You should see the IP address you last connected to and the password you connected with under _Join a Network:_. This is the network you're currently logged into.

V : How to Log off of a Network:

To logout of the network you've signed into, simply clear the password field under _Join a Network:_ (_network password…_), and click _Join_. Now you will have been successfully logged out of the network. Note that when creating or joining another network, whether successful or not, will log you out of the current network.

VI : Now that you're Logged in…:

You'll see two large windows on the right. The left window under, _Select Peer_, will display a list of all device names your device has seen in the network you've joined and whether they're online or not (Green Dot means online while Red Dot mean offline). The right window under, _Select File_, will list all files currently backed up on the network that your device has seen. The format for every file in the window is as such:

> _[The Device the File was Uploaded From] : [The Name of the File]_

You'll also find the following on the app's interface:

1) _Event Log_: Located at the bottom left of the window, this is useful for looking into the result of any actions your device has taken in the network such as uploading/downloading files, connection success or failures, device name changes, storage limit changes, etc.

2) *Enter Device Name*: Located at the bottom right of the window, this is used to change your device name on the current network you're joined to.
3) *Storage:* Bar: located right above the *Event Log*, this allows you to change the amount of space you'd like use for storing other people's backups on your device.
4) *Upload/Download*: Located to the left of the window, right above the *Storage* Bar, these are buttons that allow you to upload and download files respectively.
5) *Enter Encryption Key:* This is located right above the *Upload* & *Download* buttons, this allows you to change the key used for encrypting your data when uploading, or for changing the key used to decrypt a file you'd like to download.
6) *Select Peer: All/None* & *Select File: All/None* These are located right above the device list and file list respectively. These are shortcuts to selecting all or none of the devices or files respectively.
7) *Search:* This is used for searching for a specific file backed up in the network based on device uploaded from or by file name itself.

VII : How to Change Device Name:
1) In the *Enter Device Name:* field, enter a name you'd like your device to be seen as on the network you're currently logged into.
2) Click *set*.
3) Your device name is now set!

Note: Your device name is saved for the active network (persistent through closing the app), however if you log out or join a new network, the device name will be forgotten.

VIII : How to BackUp Your Files:
1) In the Device List, select 1 or more device's you'd like to store your backup on
2) Click the *upload* button.
3) Select the file(s) you'd like to backup
4) Click Open on the file selection window.
5) If your Files were backed up successfully, you'll see, "Sending File" followed by "Send Success" for every file sent to a device in the *Event Log*.

IX : How to Recover your Backed Up Files:
To recover files uploaded by a specific device to any other device:
1) Join/Log into the network that has your backed up files.
2) In the *Search:* Bar, enter the name of your device. You'll be left with a list of files uploaded only by you in the File List.
3) Click the *all* button next to the *Select File:* in order to select all files uploaded by you. Or Select which files you'd like to recover.
4) Click *download*.

Congratulations! You've just recovered your files.

Notes:
1) If your files are encrypted, you'll have to download files according to their Encryption key. You cannot download all files from a device at once if those files have different encryption keys.

X : How to Encrypt/Decrypt Your Files:

Encrypting your files will prevent the owners of the devices you backup your files to from reading through your files. It's for security purposes basically. Note that all files by default will be encrypted on upload. To Encrypt your file with a specific key:
1) Enter an Encryption key you'll remember into the *key…* field under *Enter Encryption Key:*.
2) Click *confirm key*.
3) If your key was set successfully, you'll see, "Set new encryption key" in the *Event Log*.
4) When you upload your files from here on, they will automatically be encrypted with the key you set.

To decrypt your files, you must first remember the encrypt key you encrypted your backed up file with. Once you know this key, enter it into the *key…* field under *Enter Encryption Key* and click *confirm key*. Then download your backed up file. Your file will automatically be decrypted in the download.

Note: We never store your key on disk! Once you close the program, the key will be forgotten and you will have to set it.

XI : How to Change Memory Amount for Storing Other's Backups on Your Device:

Look to the *Storage:* slider, slide it to the desired amount of space you'd like to be used for storing other peer's backups.

Note: If you slide the storage slider below what you're actually currently storing, no additional files will be stored on your device. If you'd like to free up space, see "How to Remove Other's Backups on your Device" in this user manual.

XII : How to Remove Other's Backups on your Device:

Unless otherwise specified by the user, all BackupBuddies Peer files are stored in the file location: [Current Drive]/Users/[UserName]/backupbuddies/files on Windows, or ~/backupbuddies/files on mac or linux.

Here you'll find folders representing different peers on your network that have backed up files to your device. You can delete whatever you'd like to free up memory Be respectful to your peers however and let them know you cleared out their backups.

XIII : FAQ:

I can't see everyone on the network! Why?!

Answer: A device name will only appear in your device list if your device has at some point, seen that device online on the network. This means that if a device exists in the network, but is currently offline when you first join the network, you won't see that device in your device list until you and that device are online at the same time in the network

I am trying to restore my files from an old device onto a new device and I can't see the files I backed up! Why?!

Answer: Your device only sees files that it has currently seen as online on the network. This means that if you stored your files on say, device A and that when you join the network with your new device, device A is offline, you won't be able to see the files that you backed up to device A until device A and you are all online at the same time in the network.

I'm trying to download a non-encrypted file and it's not letting me! It says "Decryption failed". Why?!

Answer: With BackupBuddies, every file backed up is encrypted. It is either encrypted with a key you set, or it is encrypted with the default key. If you think that your file wasn't encrypted with a key you set, then clear the *key…* field under *Enter Encryption Key:* Then click *confirm key*. This will reset your encryption key to the default key. If you still get, the "*Decryption failed*" message in the event log, this means that the file was encrypted with a key that wasn't the default key.