**Bob file management assistant**

**User manual**

The purpose of this application is to provide an integrated solution for backing up and maintaining personal data such as pictures, documents, and video files. This application aids user in creating a personal data store that is free of duplication and reused file names. Following is the steps to effectively use this application.

1. Remove duplication (Remove duplicates tab)

- Remove duplicates locally within each sub-directories in the target directory

- Remove duplicates globally across all sub-directories in the target directory

- Use compare checksum option to validate results (optional)

- Files that have the same names are not included in removal,

user can investigate to see if it’s a naming conflict or modified file,

and manually resolve the issue.

Reused file naming does not hinder backup operation or checksum record validation

2. Before backup operation, create a checksum record file (.CSV)

from the directory that is getting backed up (Checksum tab)

If program crashes during record generation process, user can continue from the unfinished

record file by specifying the CSV file for “Continue from”.

3. After successfully creating the checksum record, it can be validated and updated

against a previously created record of the same files,

and discover possible discrepancy and data corruption.

If the newly generated record only represent part of the original record,

then partial update should be used to prevent deletion of entries in original record.

This function cannot automatically resolve data corruption or modification issues,

it provides enough information so the user can investigate and manually resolve issues.

4. After all the issues are resolved, the files can now be backed up to the backup storage device.

(File Backup tab)

- The Checksum checkbox in “File Backup” tab is to validate the copied files

against the original files after the backup sync operation.

- The Checksum button in “File Backup” tab is to validate the “Backup from” directory

against the “Backup to” directory.