Afraid of Backing Up?
Don't Know Where To Start?

Just do it!

Backing Up To Your Own Hardware Has Never Been Cheaper or Easier!

What's the Big Deal?

- Just Imagine….

  - "Your files are encrypted, send **$800**…"

  - Losing ALL the pictures from your family gatherings

  - Trying to recreate the **250** email addresses and phone numbers on your contact list

What's the Big Deal?

- Just Imagine….
  - Your hard drive crashed losing all your saved emails
  - Losing all the genealogy data
    - or your Quicken accounts
    - or the IRS backup Information you've compiled
  - I didn't mean to push "Delete"…

Types of Backup

- **Full Backup**

  - All files/folders selected for backup are included

  - Subsequent runs back everything up again

  - Pro: Makes restore easier to do all files, easy to confirm that you've saved everything you want

  - Con: Take lots of time and storage space

Types of Backup

- **Incremental Backup**

  – Backup of all changes since _last backup_

  – Subsequent runs back up just the changes

  – Pro: Take much less time and storage space

  – Con: Makes restore slower and more complex, difficult to see that you've saved everything you want

Types of Backup

- **Differential Backup**

  - Backup of all changes *since last FULL backup*

  - Pro: Take less time and storage space than full backup but less than incremental backup

  - Con: Makes restore slower, difficult to see that you've saved everything you want, but better than incremental backup

Types of Backup

- **Full PC (Image) Backup**
  - Individual files not backed up, but entire image of the computer is backed up
  - Pro: Can restore personal files, operating system, hardware drivers, system files, registry, programs, emails, etc to its exact state as when backup was made
  - Con: Requires more in-depth technical skills to perform the restore, takes long time to run

Types of Backup

- **Local Backup**
  - Any backup where storage medium is close at hand - on your own hardware
  - Good for very large amounts of data
  - Your backup data isn't visible to internet hackers
- **Online (Cloud) Backup**
  - Storage medium is offsite and connected to backup source by network or internet connection
  - Doesn't require human intervention to plug in drives and storage media for backups to run

What Kind of Backup Storage Media?

- CD's

- DVD's

- Flashdrives (aka Thumb Drives)

- External Hard drives

- Cloud services

What Kind of Data Do You Have?

- **Text - very small file sizes**

- **Music – bigger**

- **Pictures –larger yet (and getting even bigger, with higher camera photo resolutions)**

- **Videos – biggest of the bunch**

How Much of Each Do You Have?

- **If you have small amount of pictures (especially older ones) and small amount of music, a good sized flash drive is okay.**

- **If lots of pictures or lots of music, get a 1 TB or bigger hard drive. (500GB HD's aren't much cheaper)**

How Much of Each Do You Have?

- **If you want to back up your entire hard drive for a possible complete system restore**

  – **get a 1 TB drive**

Which External Hard Drive to Buy?

- Two Basic Types
  - Desktop-style drives with 3.5 in mechanisms
  - Notebook/Pocket drives with 2.5 in. mechanisms

- Connections to your PC or Device
  - USB 2.0, USB 3.0, FireWire, eSATA
  - USB 3.0 – a good choice for speed and compatibility with various devices

Which External Hardware to Buy?

- Is Drive Speed important?

  – If you have USB 3.0 connector, consider 7200 rpm

  – If you only have USB 2.0, consider 5400 rpm to save a little cash

  – For backups, you won't notice the speed difference

Data to Backup

- What's important to you that you can't easily replace
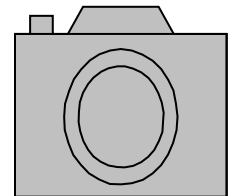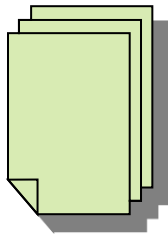
Data to Backup

Documents   Pictures

Music   Videos

PC-based Email folders   Favorites

People/Contacts   Other Original files

Which Software???

- Online Storage Service (a "Cloud" service)

- Microsoft-provided software

- 3rd party purchased software

- Software included with your backup drive

- Free software

Online Storage Service

- OneDrive

- Google Drive

- Dropbox

- Carbonite

- Mozy

- etc

Microsoft-provided software

- **Windows Backup** (Windows 7)

- **File History** (Windows 8)

3rd party purchased software

- Genie Backup Manager

- Acronis True Image

- EasUS ToDo Backup

- Etc, etc

Software included with your backup drive

- WD Smartware Pro

  - More full-featured than in the past and only free with certain WD drives)

  - Used to be intrusive, but seems okay now

Free software

- EasUS ToDo Backup Free (I've tried it and it worked fine for one of my customers)

- Many others

  - BUT no guarantees and no support!

Windows Backup

- Win 7 only

- Choose what to back up, or pick individual folders, libraries, and drives yourself.

- Set-it-and-forget it but make to manage space as drive fills up!

- Can only run one schedule with the parameters you set up

Side note: Where is my **email** stored?

- Stored by user under a folder called **Appdata**

- Can't usually see it because it is "hidden"

- Need to unhide it and drill down into Local/Microsoft email folder

- Hint: Look in the settings of your Email program to find the file location

Windows Backup and Restore
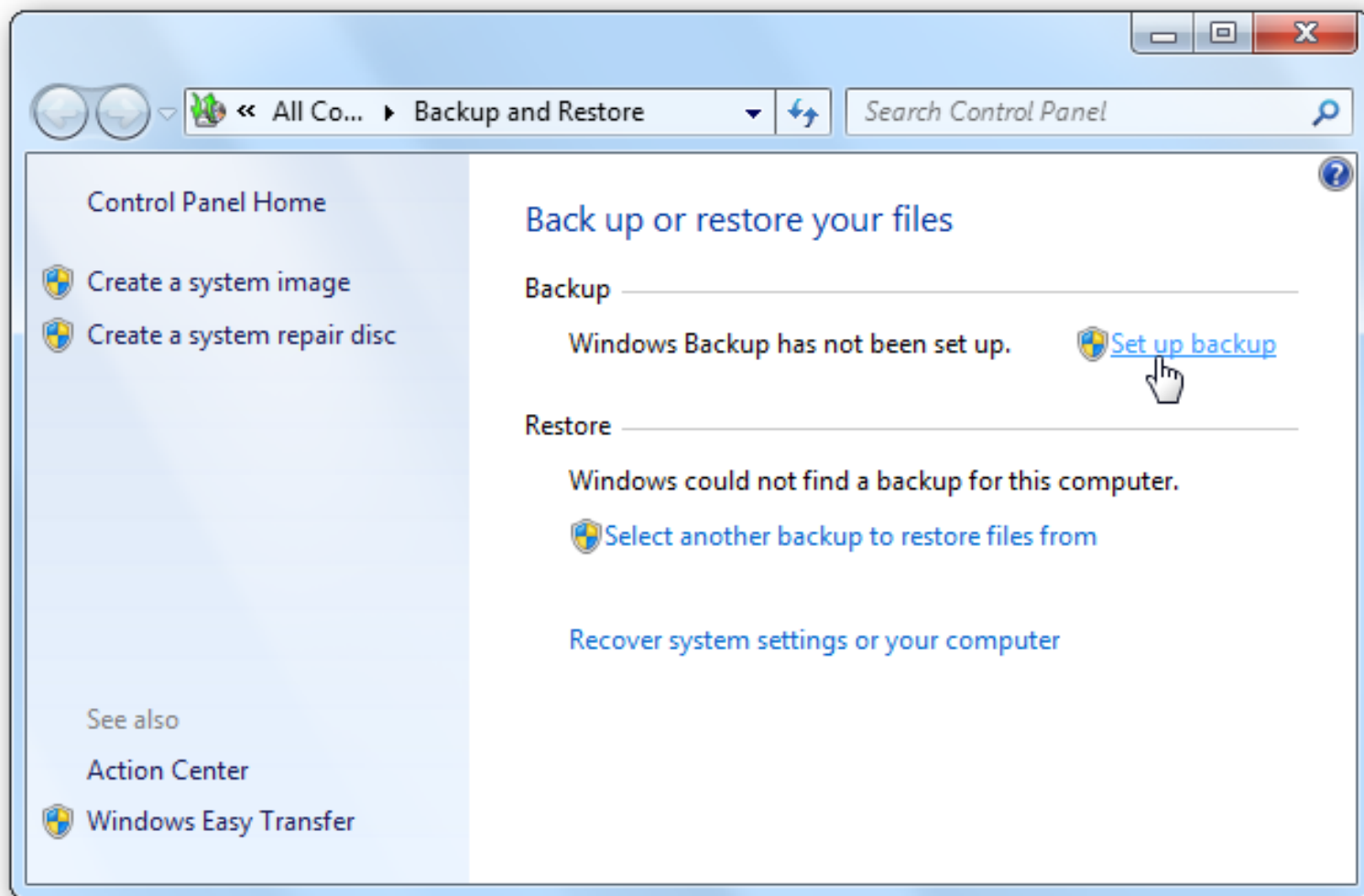
Set Up Backup
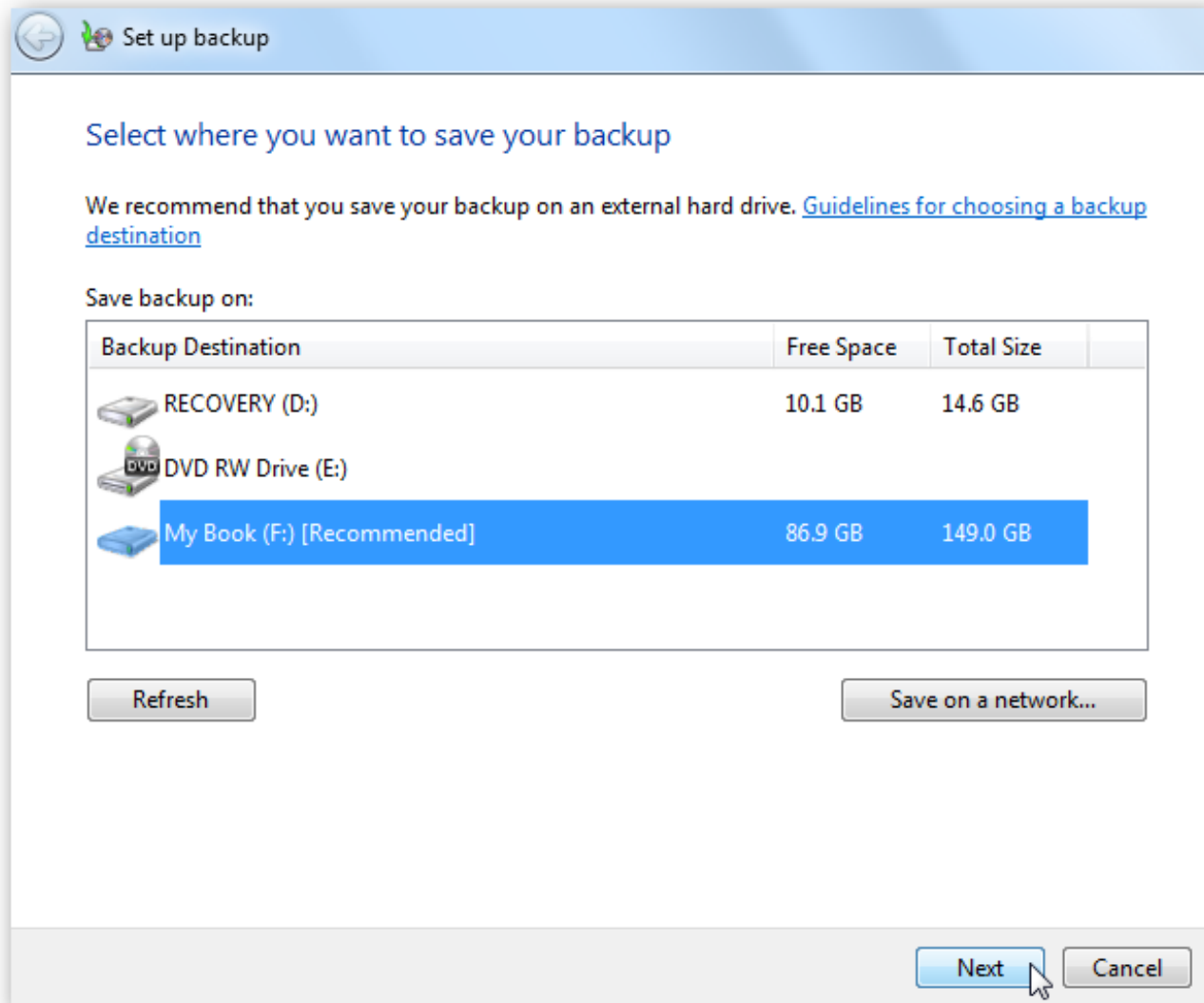
What Do You Want to Back Up?

What do you want to back up?

○ Let Windows choose (recommended)

Windows will back up data files saved in libraries, on the desktop, and in default Windows folders. Windows will also create a system image, which can be used to restore your computer if it stops working. These items will be backed up on a regular schedule. How does Windows choose what files to back up?

● Let me choose

You can select libraries and folders and whether to include a system image in the backup.
The items you choose will be backed up on a regular schedule.

What If Windows Chooses?

- Included files:
  - Data files saved in libraries, on desktop, and in default Windows folders for all users

  - Only LOCAL files

  - Default Windows folders: Appdata, Contacts, Desktop, Downloads, Favorites, Links, Saved Games, and Searches

  (remember that *Appdata* includes email messages and email contacts)

What If I Choose?

- Included files:
  - Individual folders, libraries, drives that you select for all users that you select

What If I Choose?

- Excluded files:

  - Files in known SYSTEM folders, known program files

  - Files and drives not selected/checked

  - Files stored on hard disks formatted using FAT file system

  - Recycle Bin files

What If I Choose?
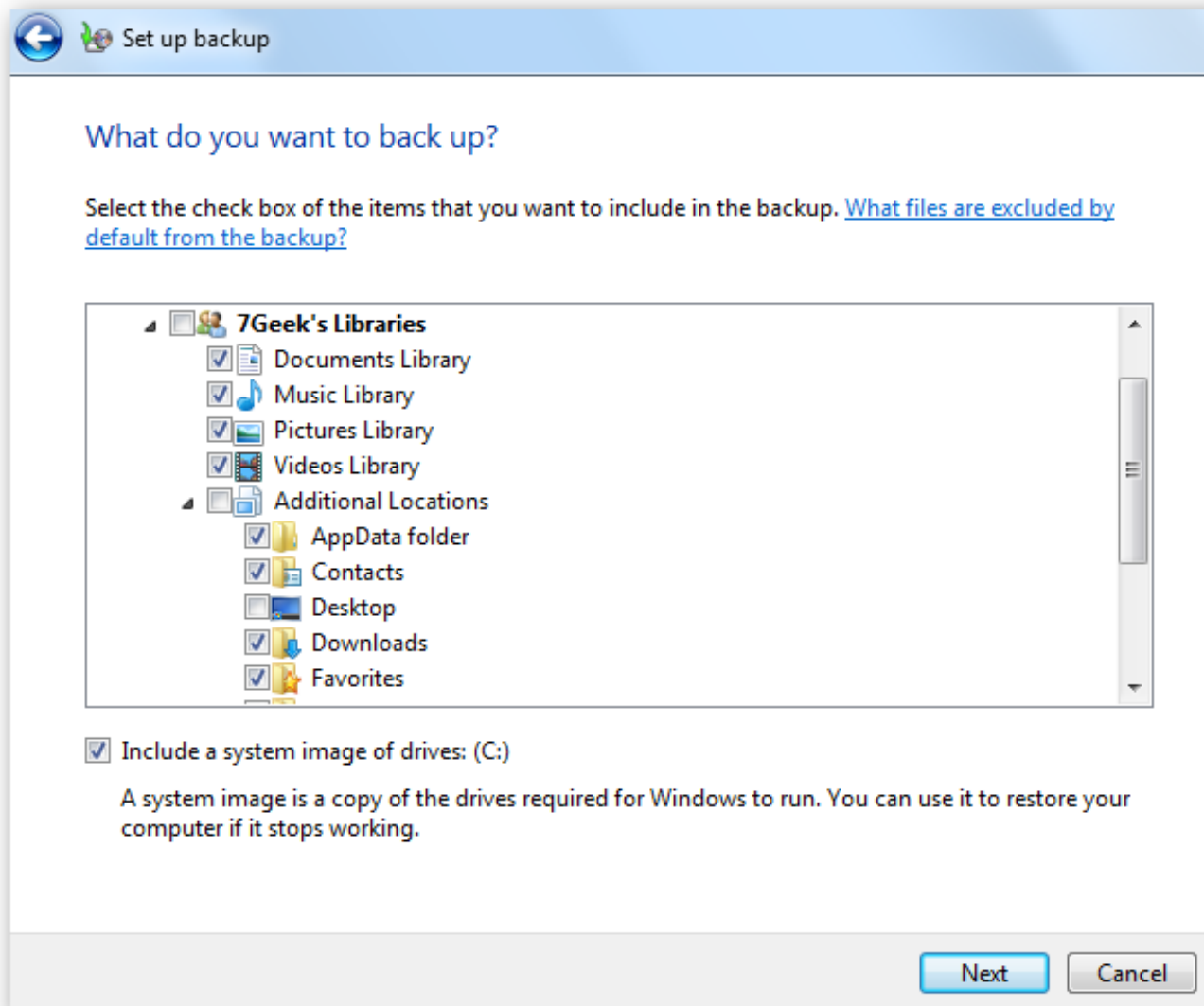
What If I Choose?

Set up backup

How often do you want to back up?

Files that have changed and new files that have been created since your last backup will be added to your backup according to the schedule you set below.

☑ Run backup on a schedule (recommended)

How often:	Monthly ▼
What day:	11 ▼
What time:	4:00 AM ▼

OK   Cancel

Review Your Backup Settings
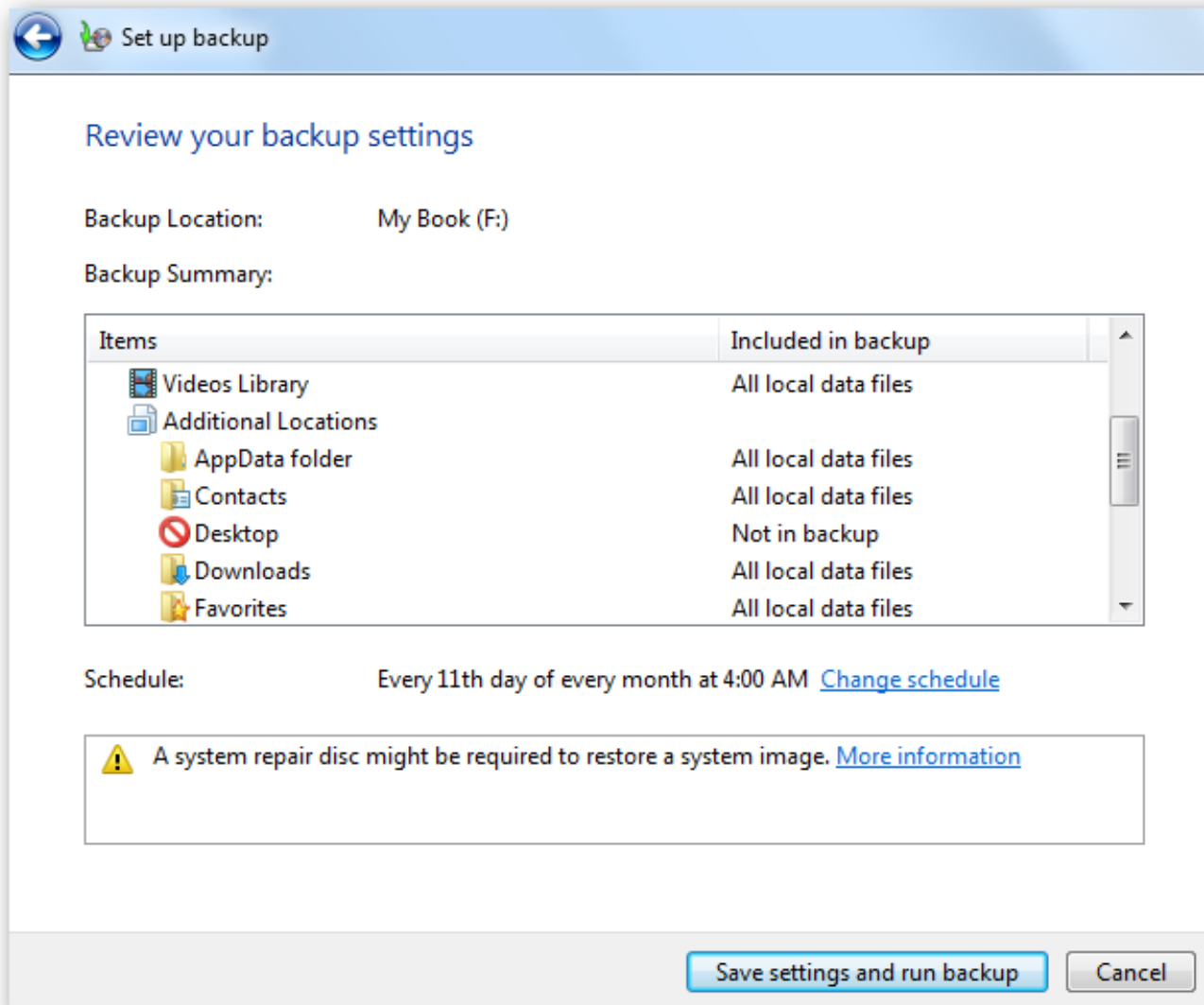
Backup Is Running
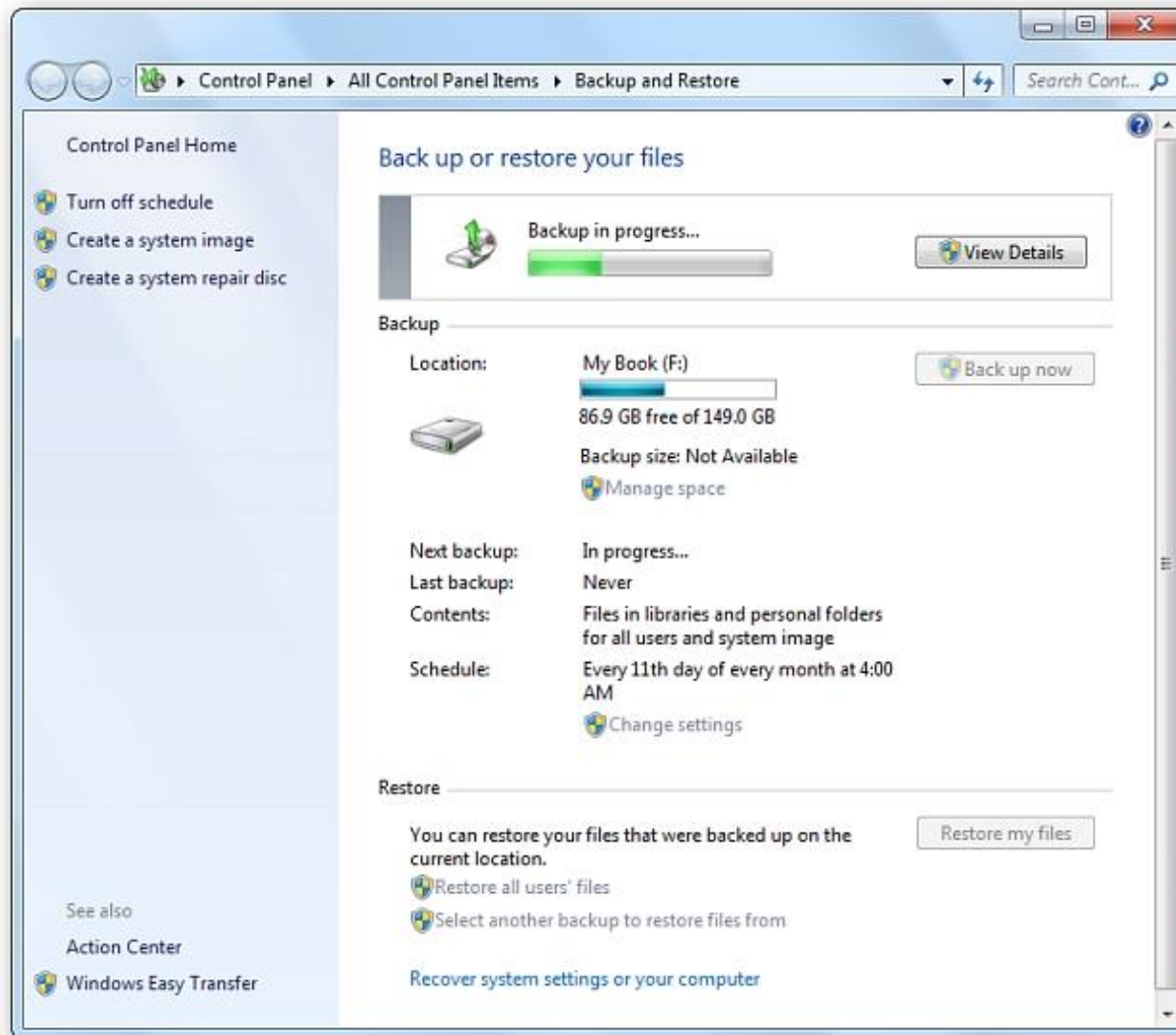
Manage Windows Backup Space
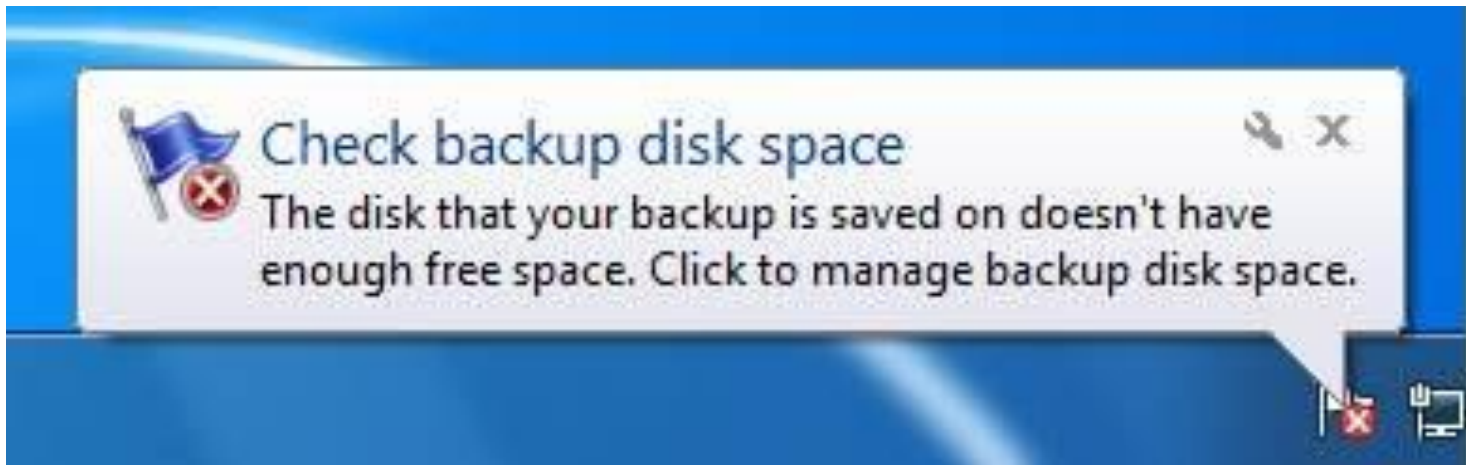
Manage Windows Backup Space

Windows Backup Win 7

R. Wronkiewicz 11/12/14
rwronk@gmail.com
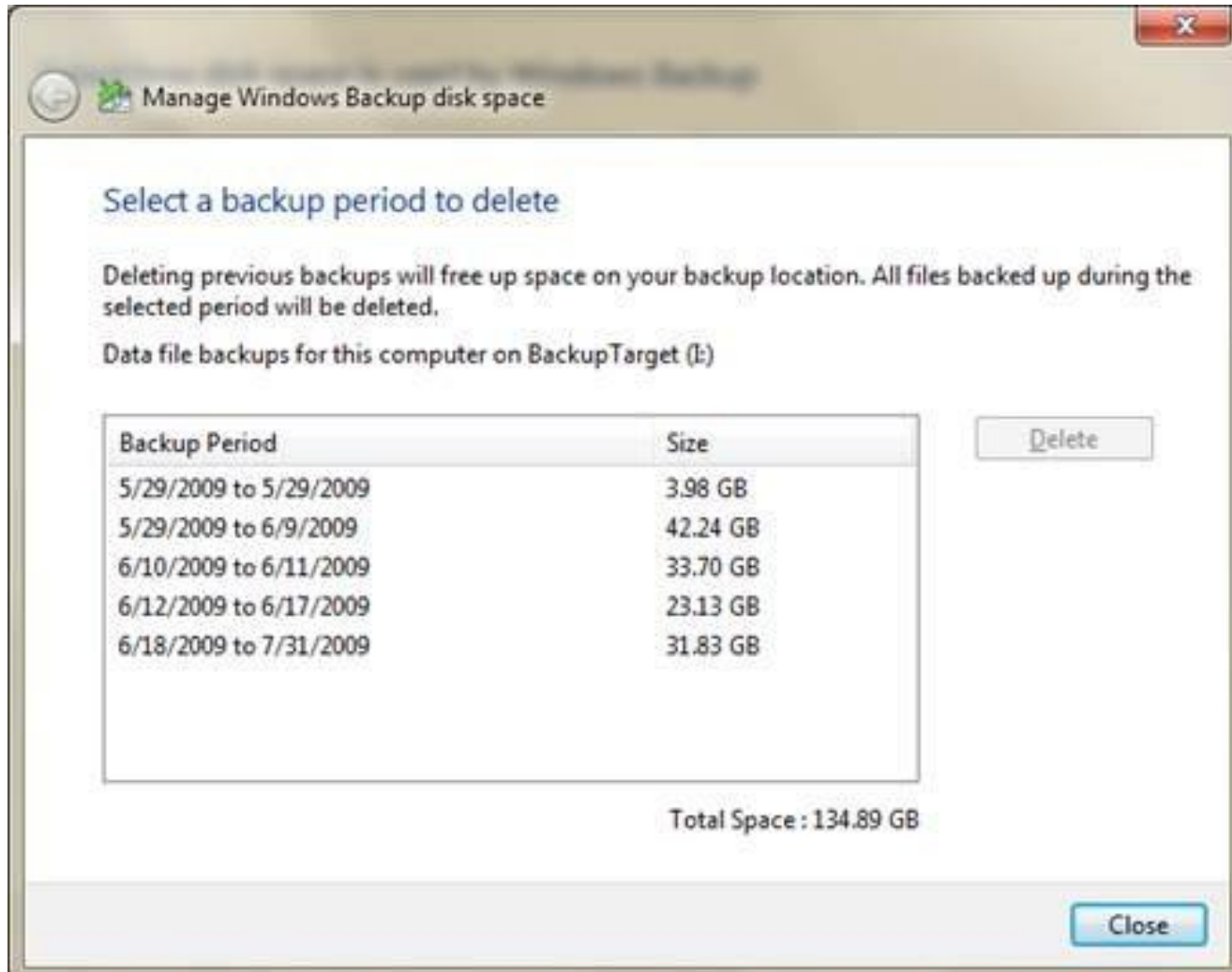
File History

- Win 8.1 only

- Backs up most commonly needed files by default

- Set-it-and-forget it solution

- Stores multiple versions of files to enable reverting back to prior version

File History

➢ Can *exclude* folders and libraries but can only *include* additional custom <u>libraries</u>

➢ First backup takes time, but subsequent processing is minimal

➢ Configurable to match your editing habits and file retention needs

File History
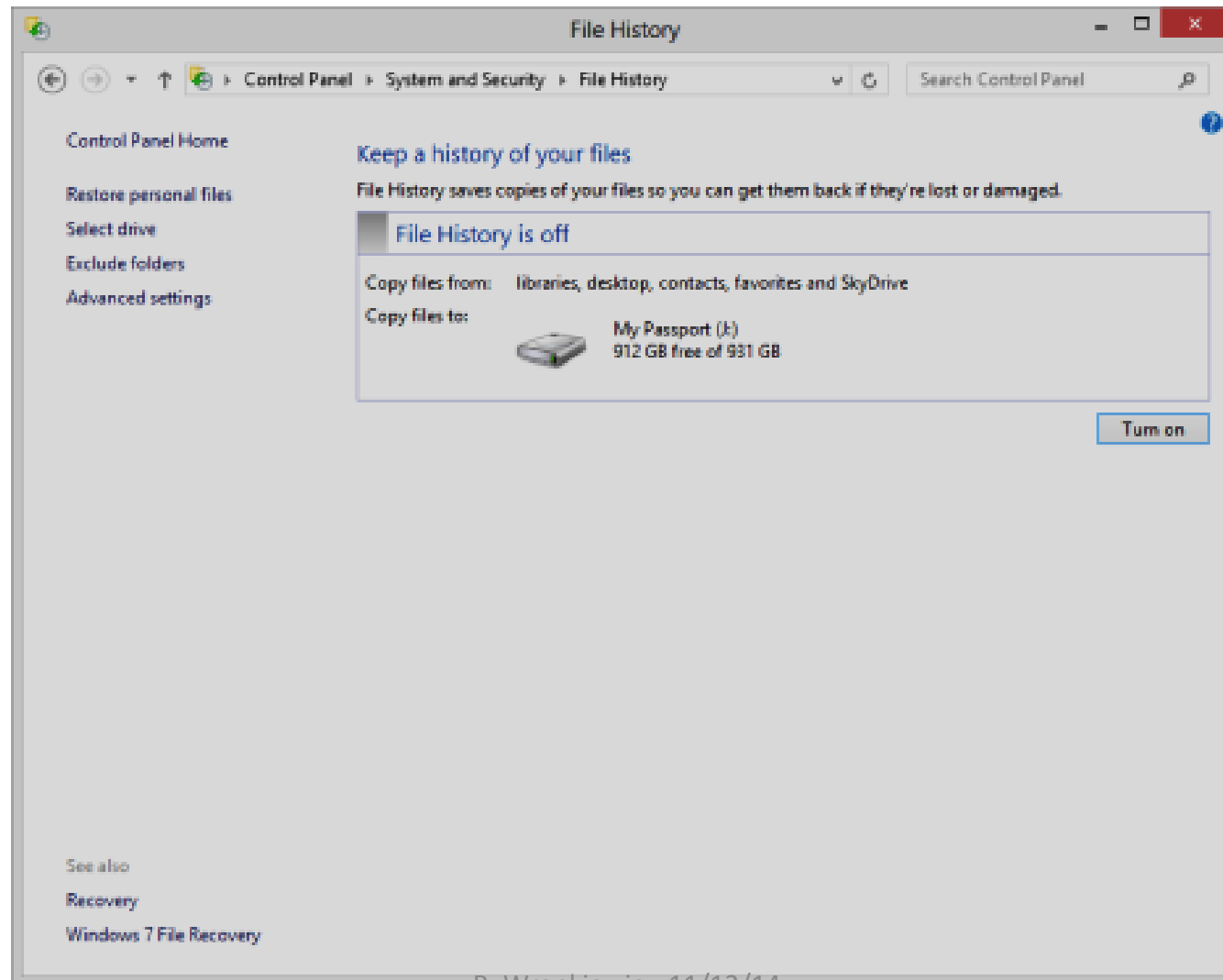
File History
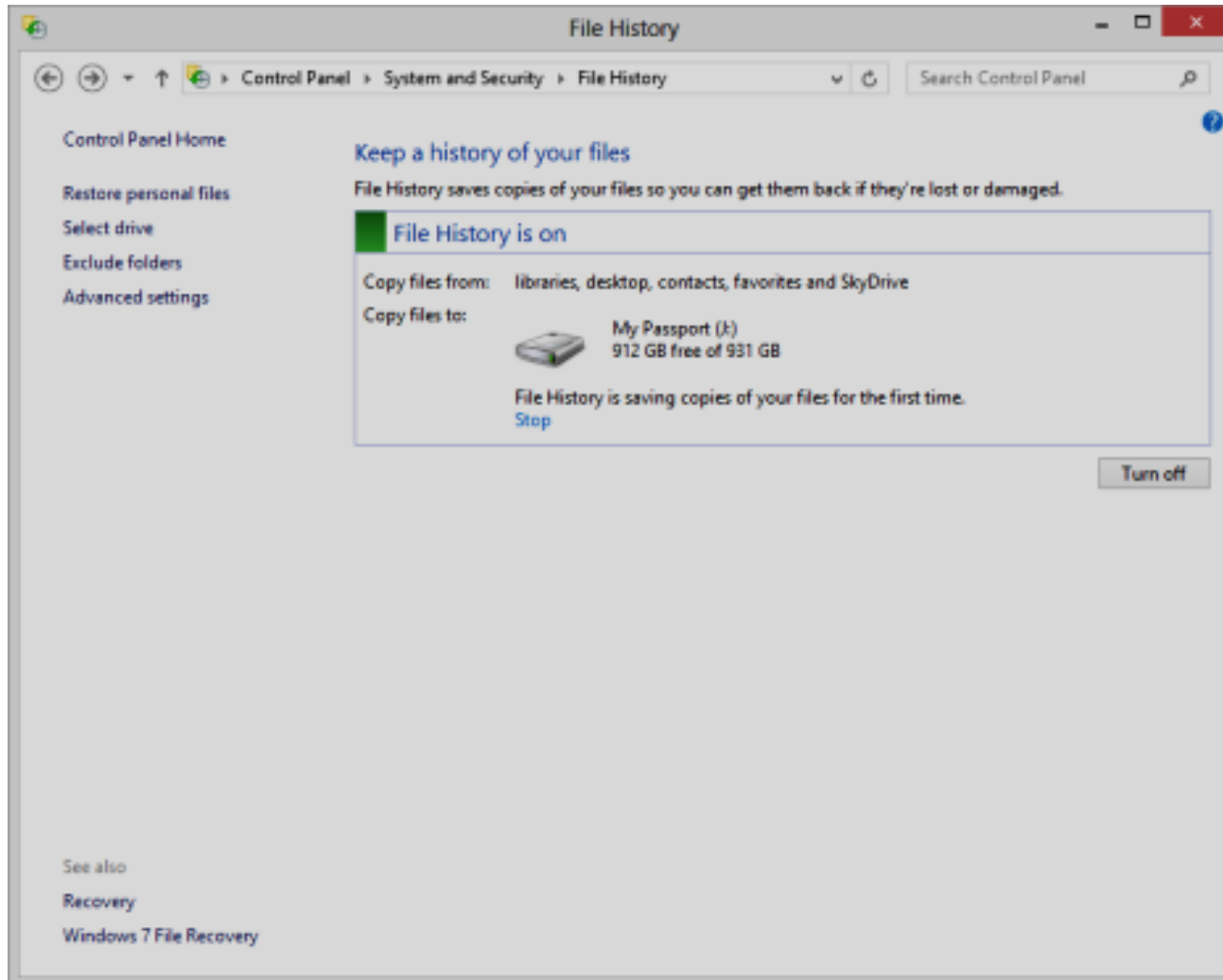
File History – Exclude Folders
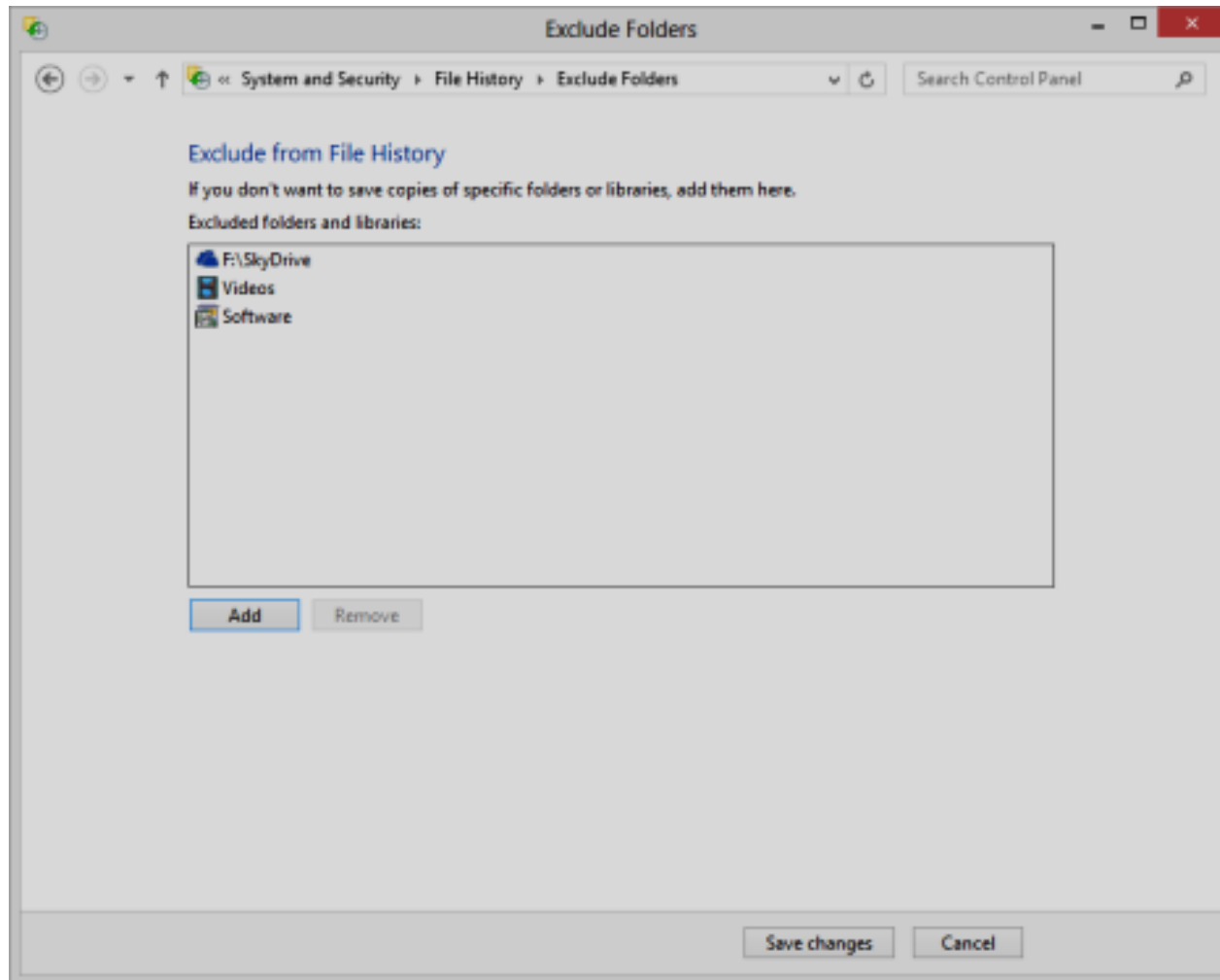
File History – Advanced Settings
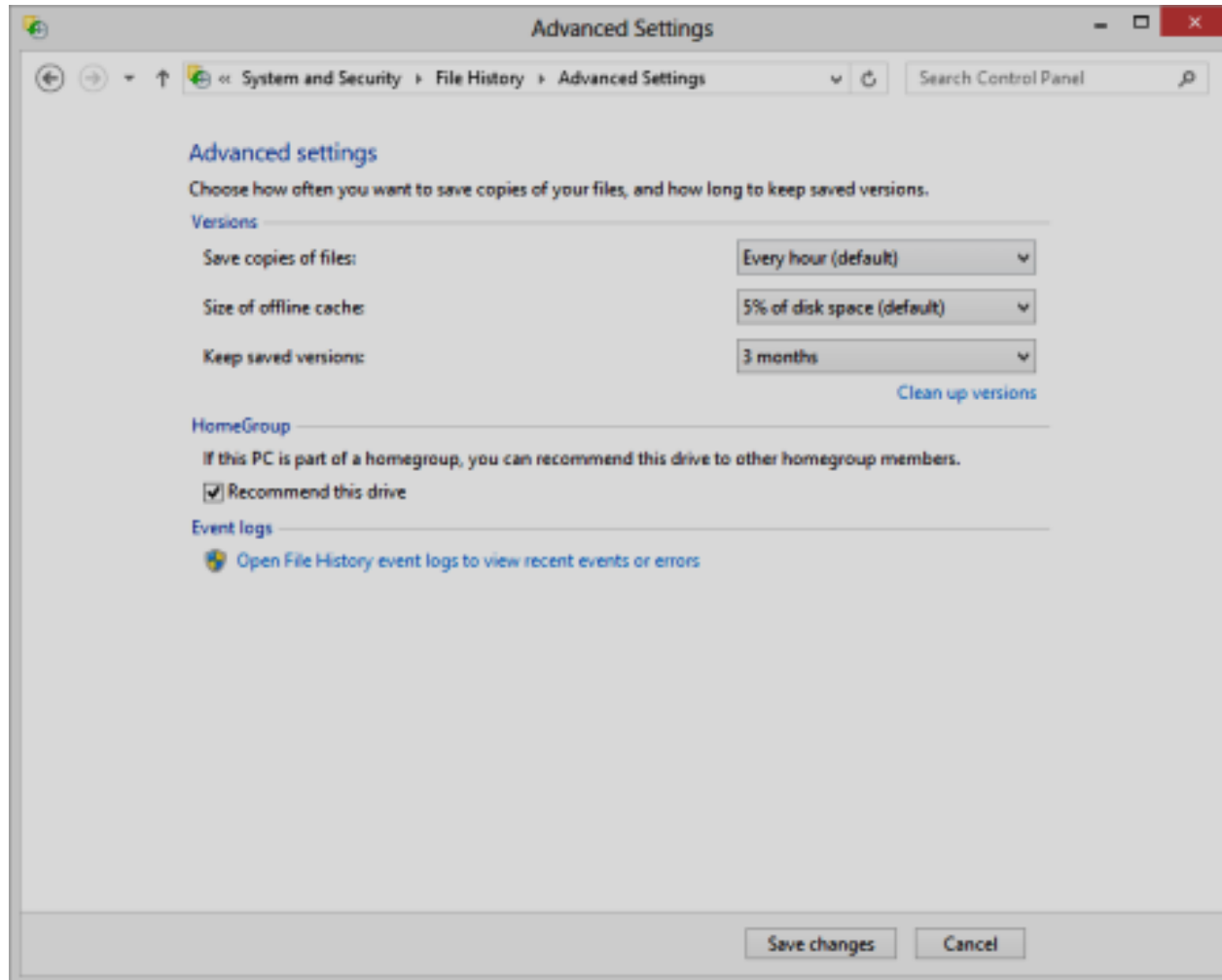
File History – Advanced Settings

- Save copies of files
  - Controls how frequently it checks for new or changed files
  - Should base it on how much editing you do using software that doesn't create backup versions
- Size of offline cache
  - When backup drive disconnected, offline cache stores changes on internal disk
  - Should reflect how often/how long you disconnect the backup drive

File History – Advanced Settings

- Keep saved versions
  - Default is forever
  - Should base it on criticality of your data

- Clean up versions
  - You select time period for deleting older versions
  - Can vary from "keep all but the latest one" to "delete older than two years"

File History – Select Drive
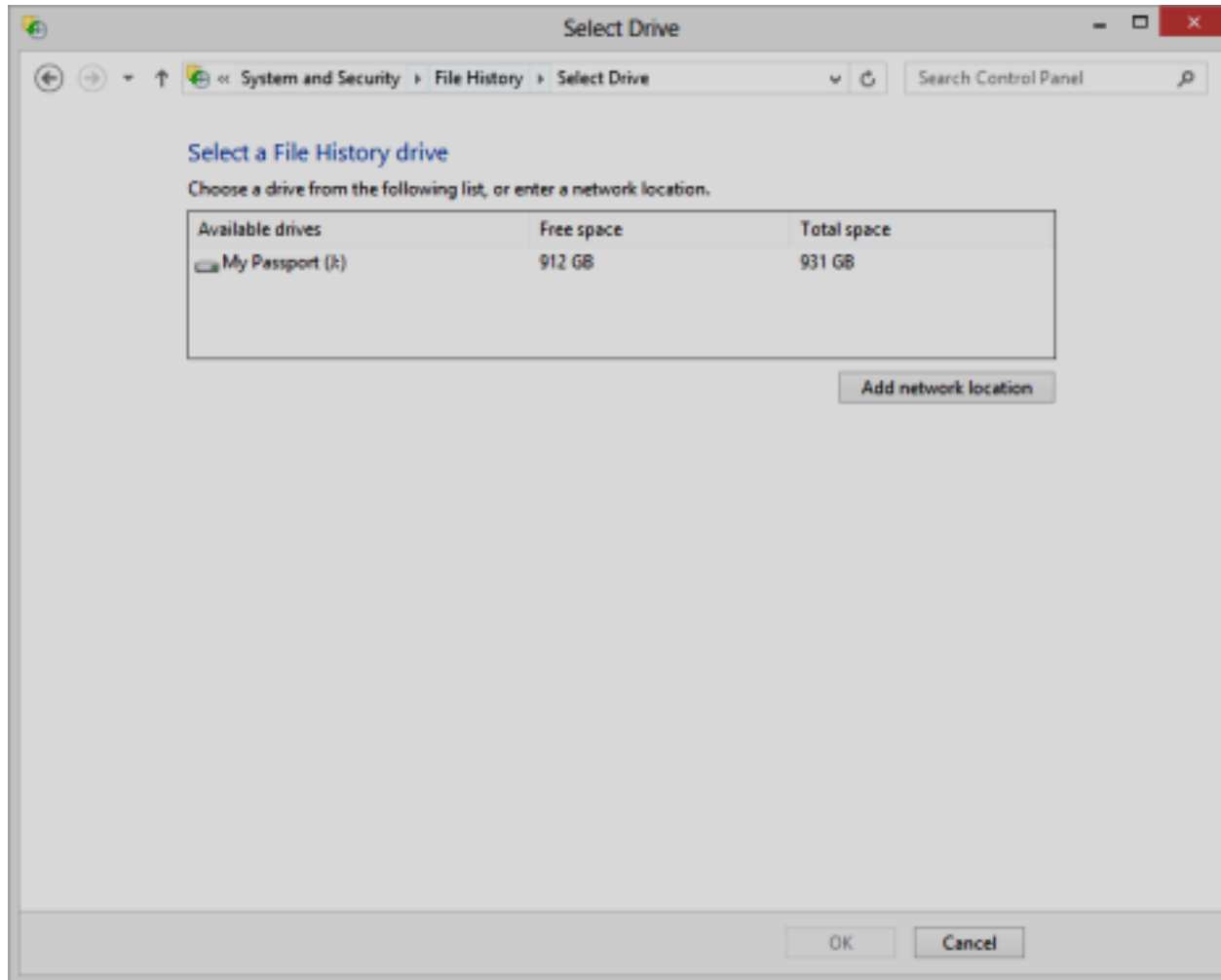
File History
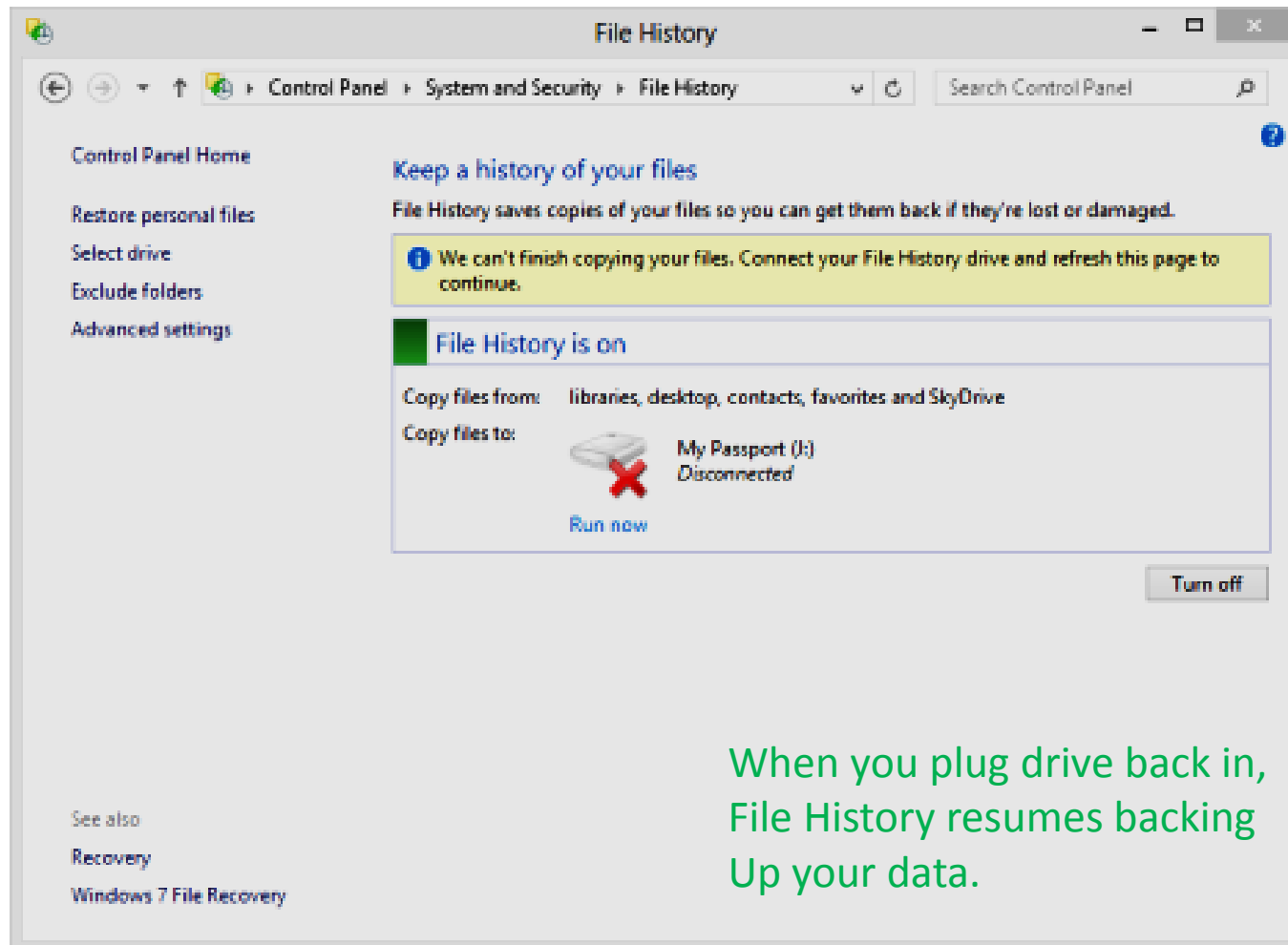
When you plug drive back in,
File History resumes backing
Up your data.

Genie Backup Manager
Home Edition 9.0

- PCMag Editors' Choice ⭐

  – Fast, straight-forward, effective, reliable

  – Easy for novice, but also useful options for advanced users

  – Can save your backups in ZIP format or with all files readily accessible

Genie Backup Manager
Home Edition 9.0

- Can set up email notifications of jobs and errors

- Can set up "mirror" backups that delete the backup if you delete the source (Take care!!)

- Not as fast as Acronis, but more reliable and easier to use

Genie Backup Manager
Home Edition 9.0

- – Can create backups in form of executable programs that can be run on any Windows machine, regardless of Genie Backup being installed on it.

- – Can schedule backups in flexible way, cloning and modifying what you've already created
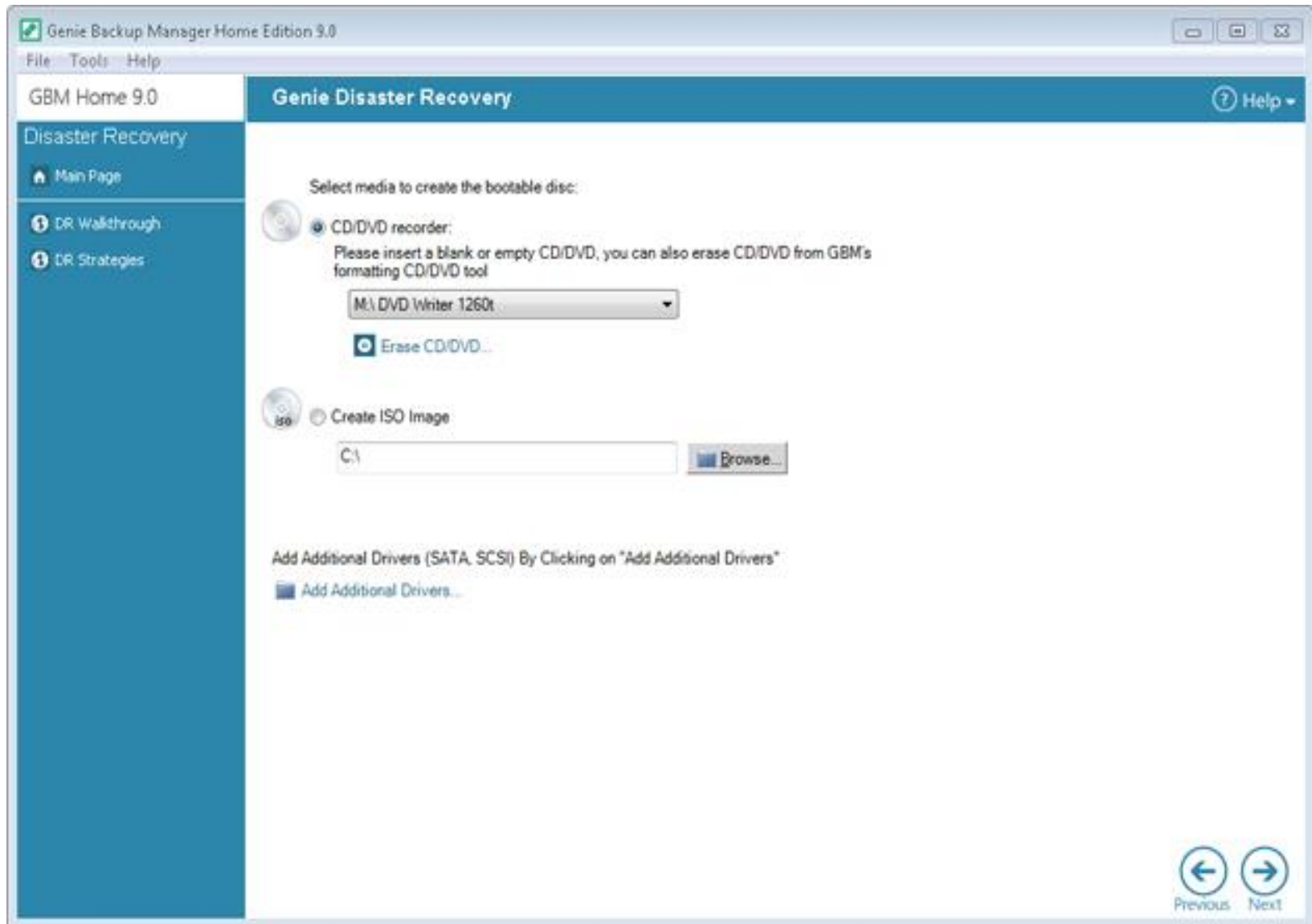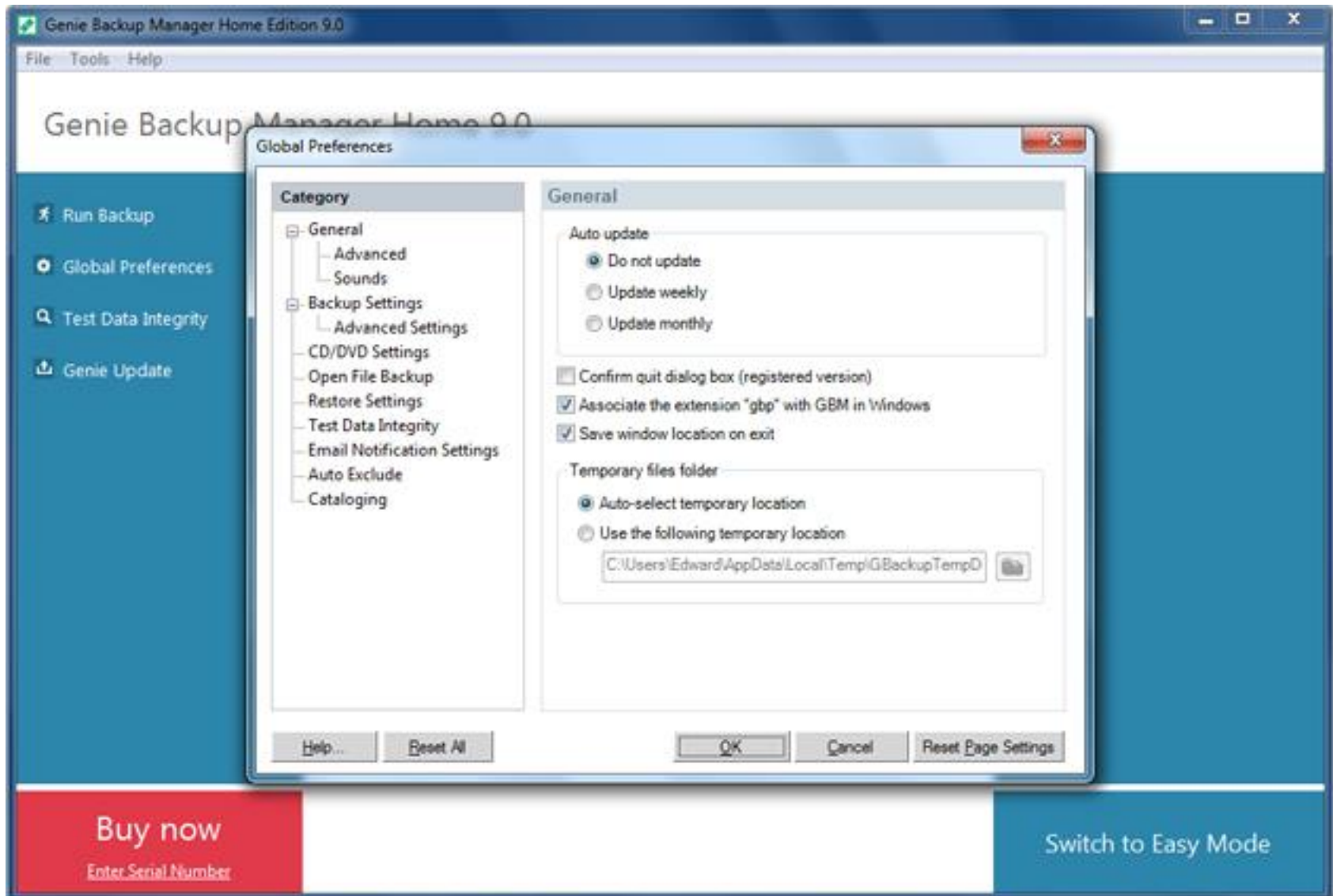
My Profile
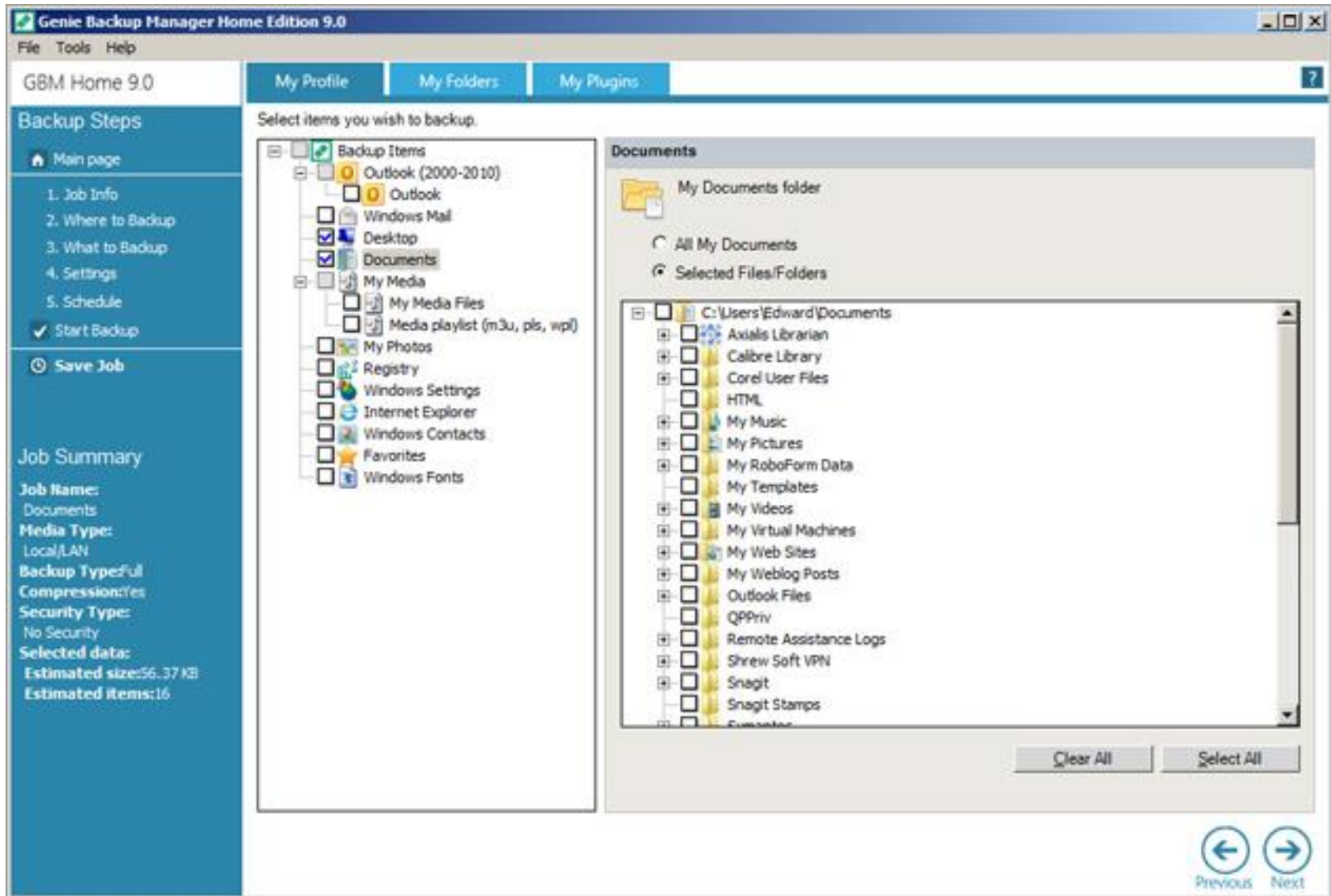
Backup Settings
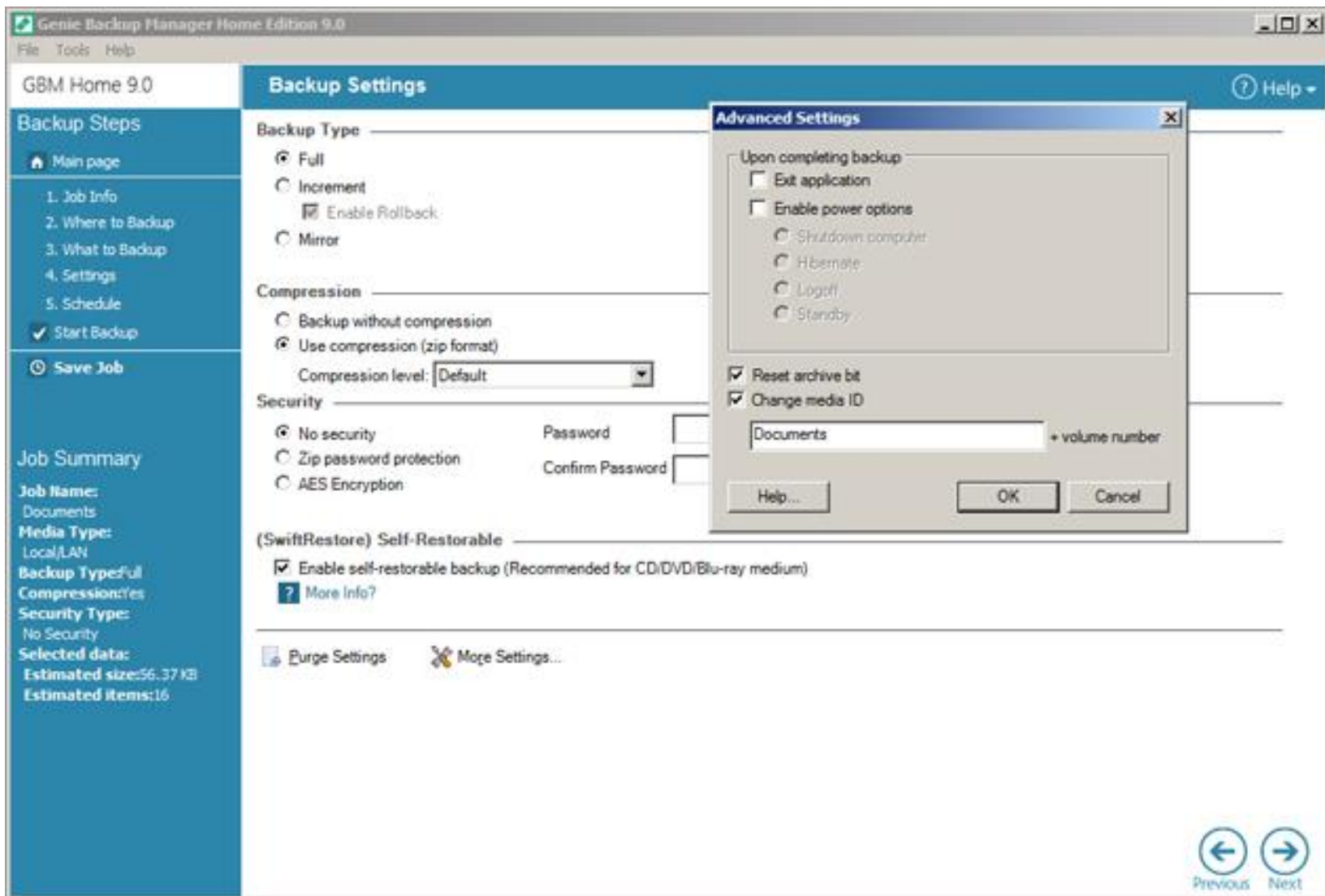
Backup Job
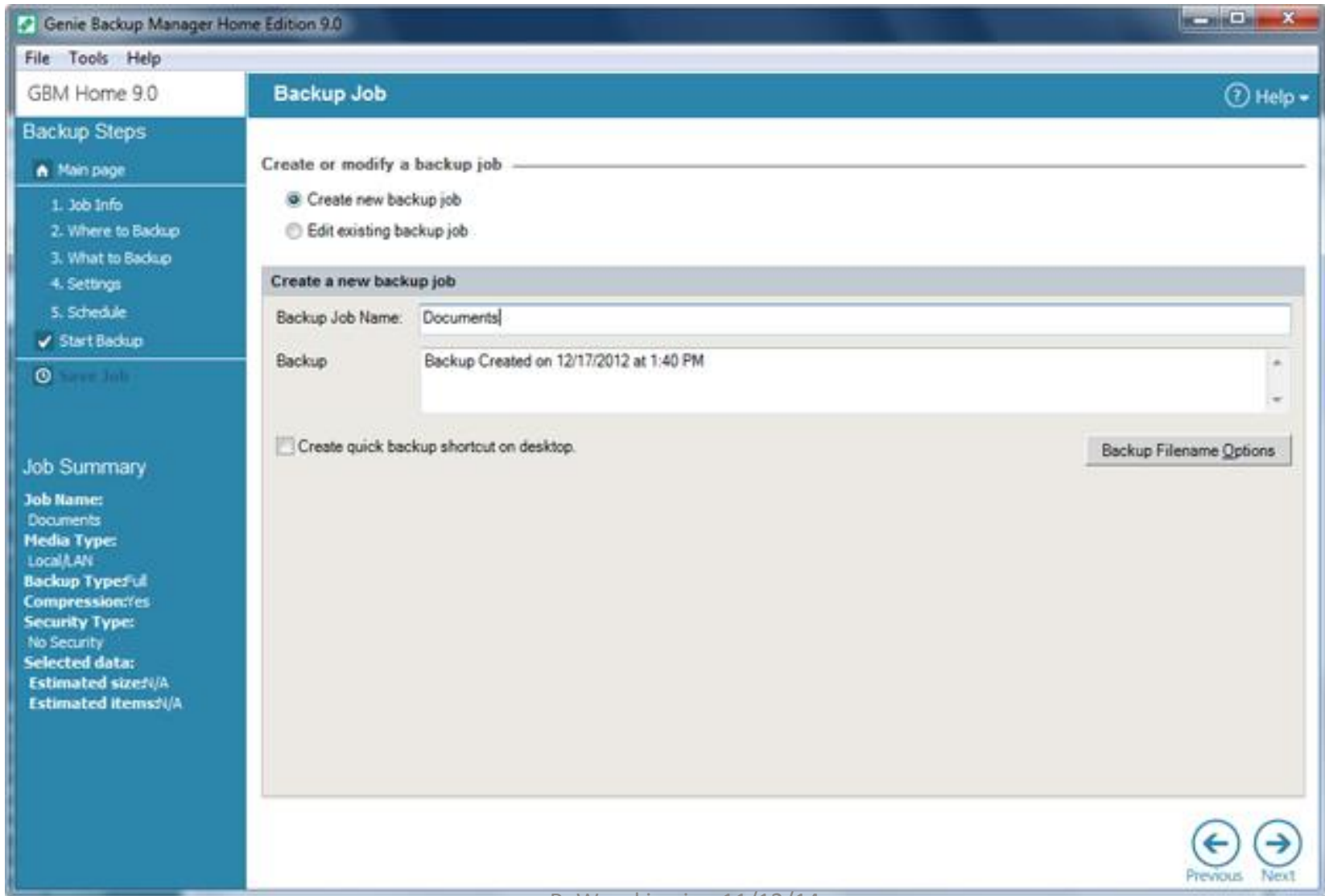
Backup Schedule
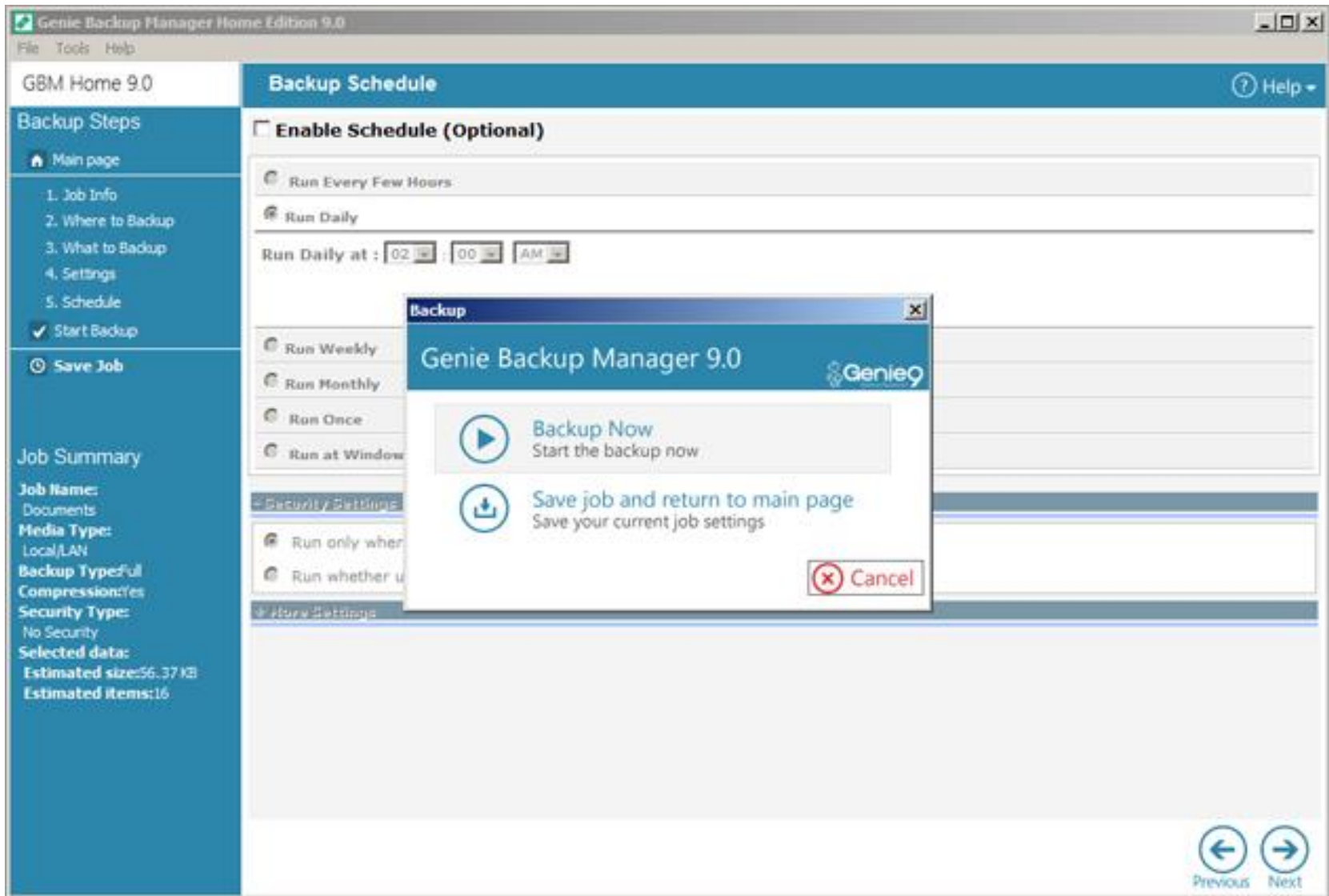
# Genie Disaster Recovery

Global Preferences

Acronis True Image 2015

- PCWorld: Easy to use, at last!

- Can back up any files you choose

- Can restore individual files, groups of files, or all files

- Can sync folders to Acronis Cloud

Acronis True Image 2015

- Can clone a disk

- Can create multiple backup jobs with different data and frequencies
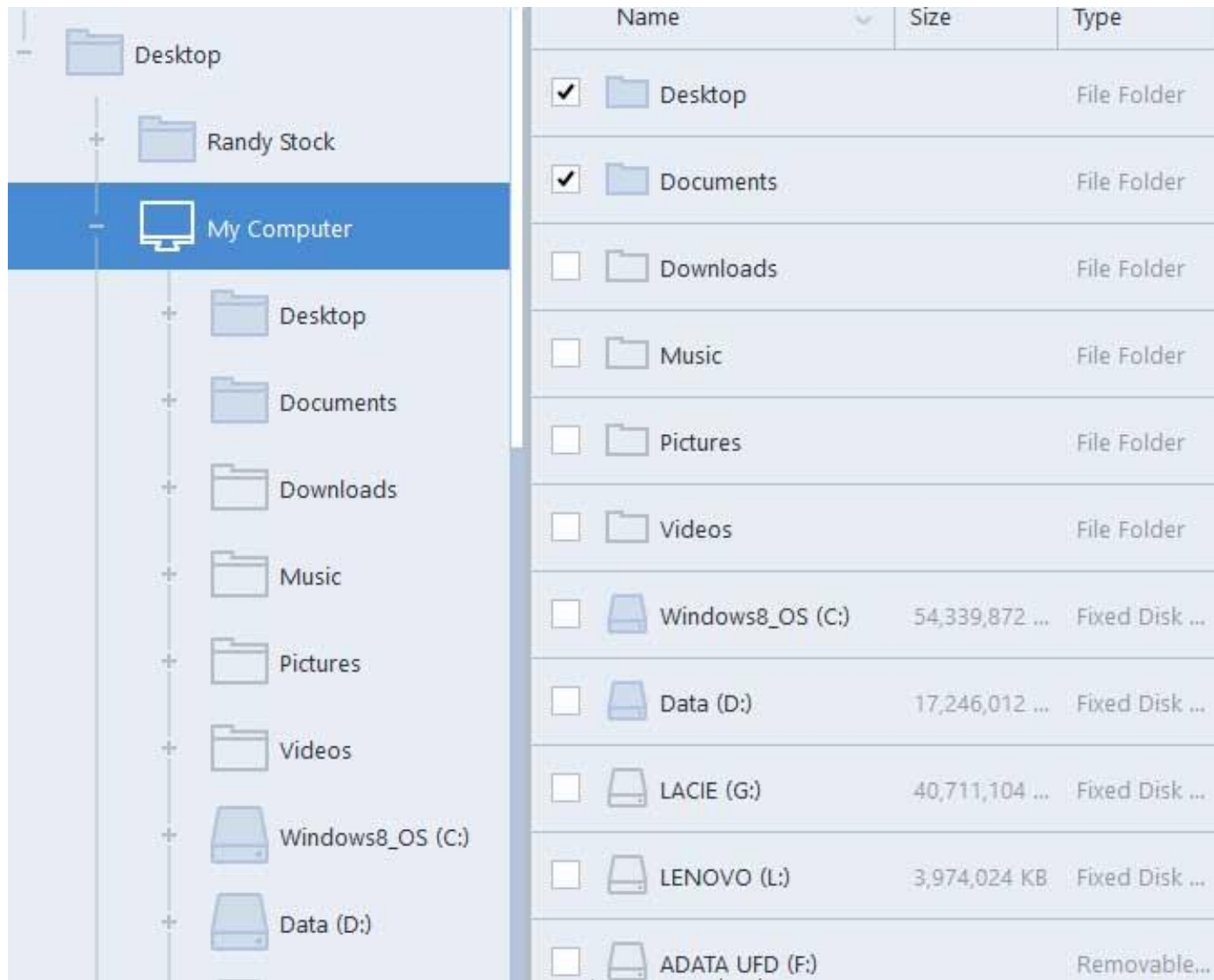

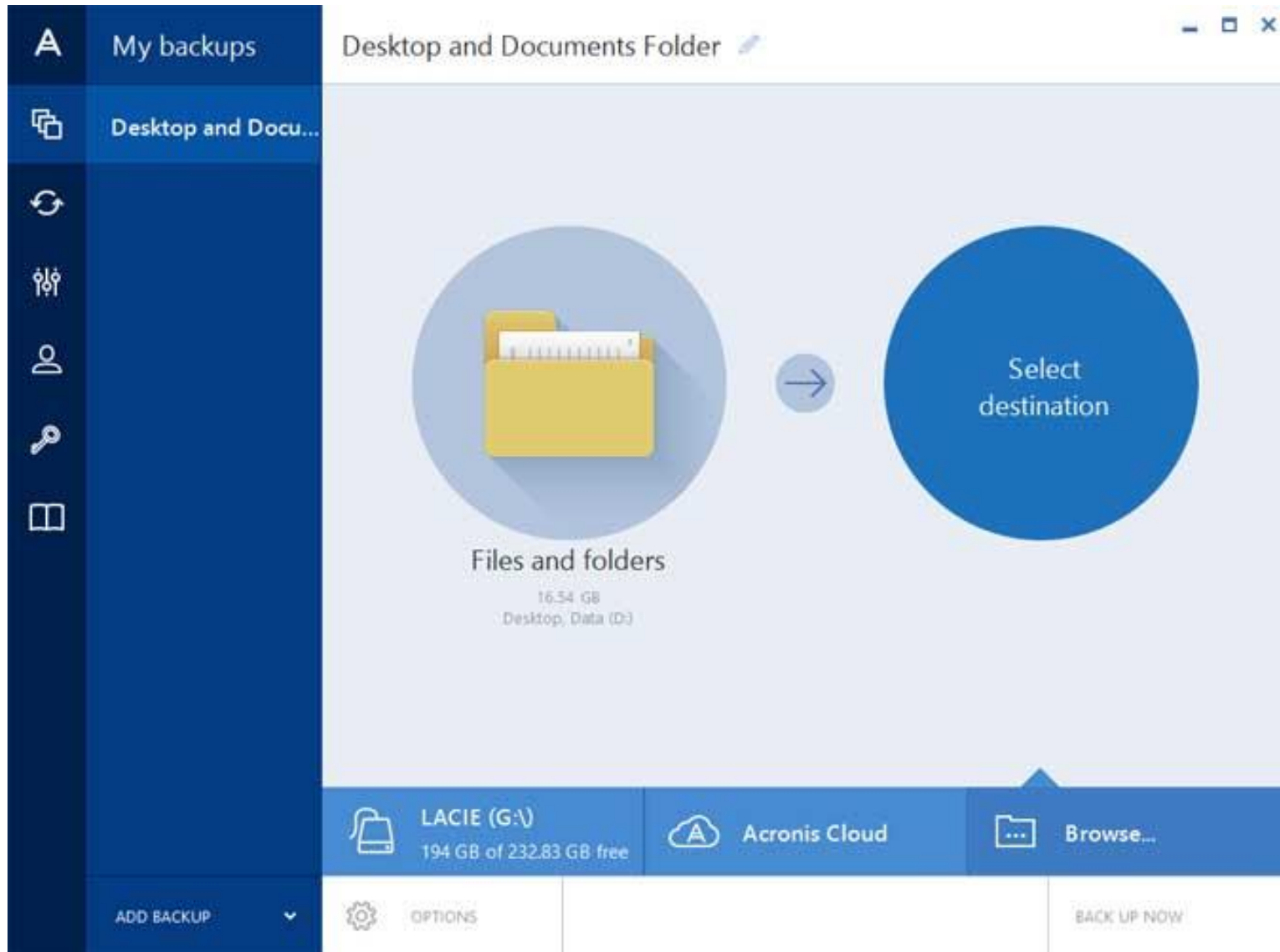- Con: no plain file backup (?)

Acronis True Image 2015
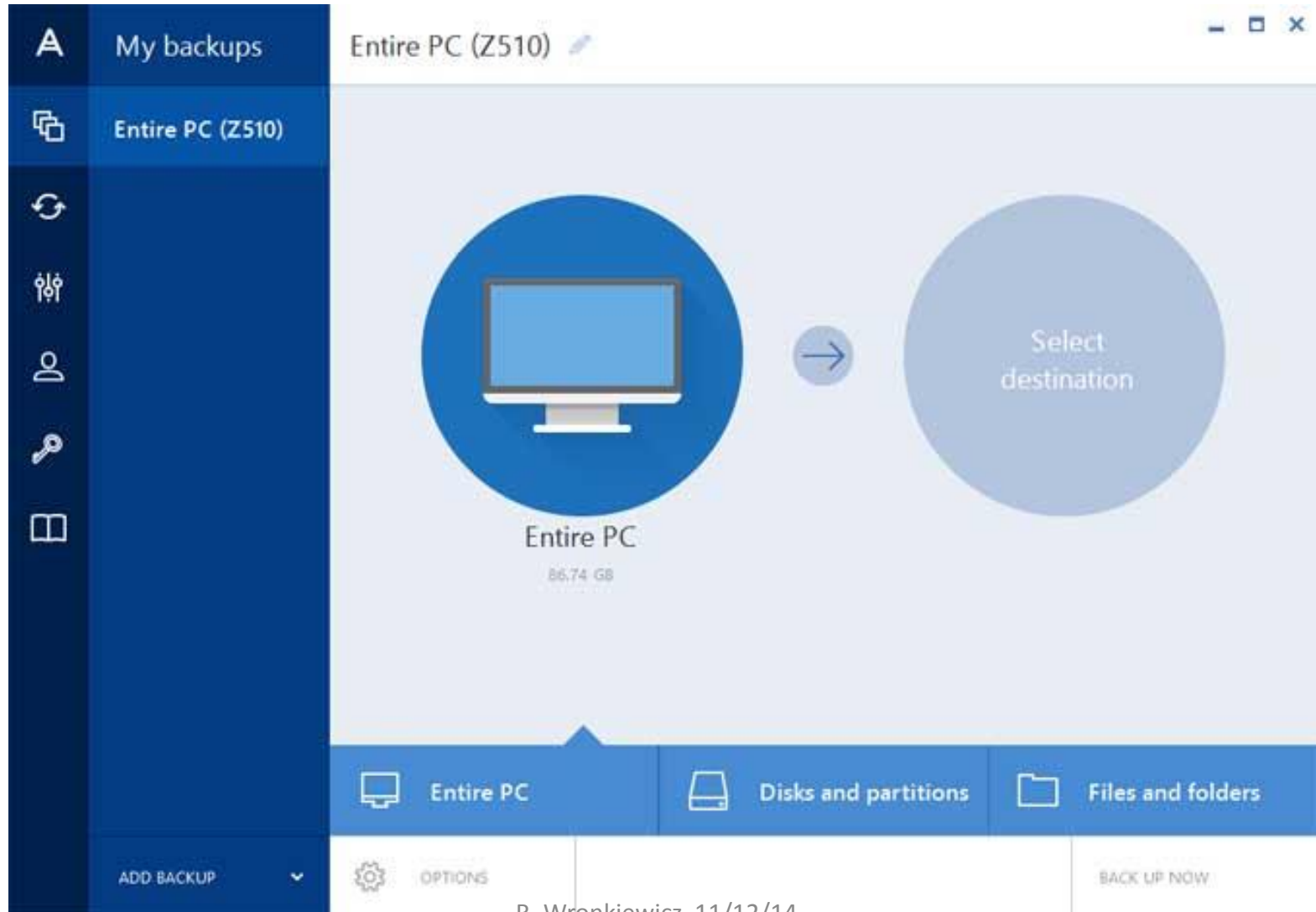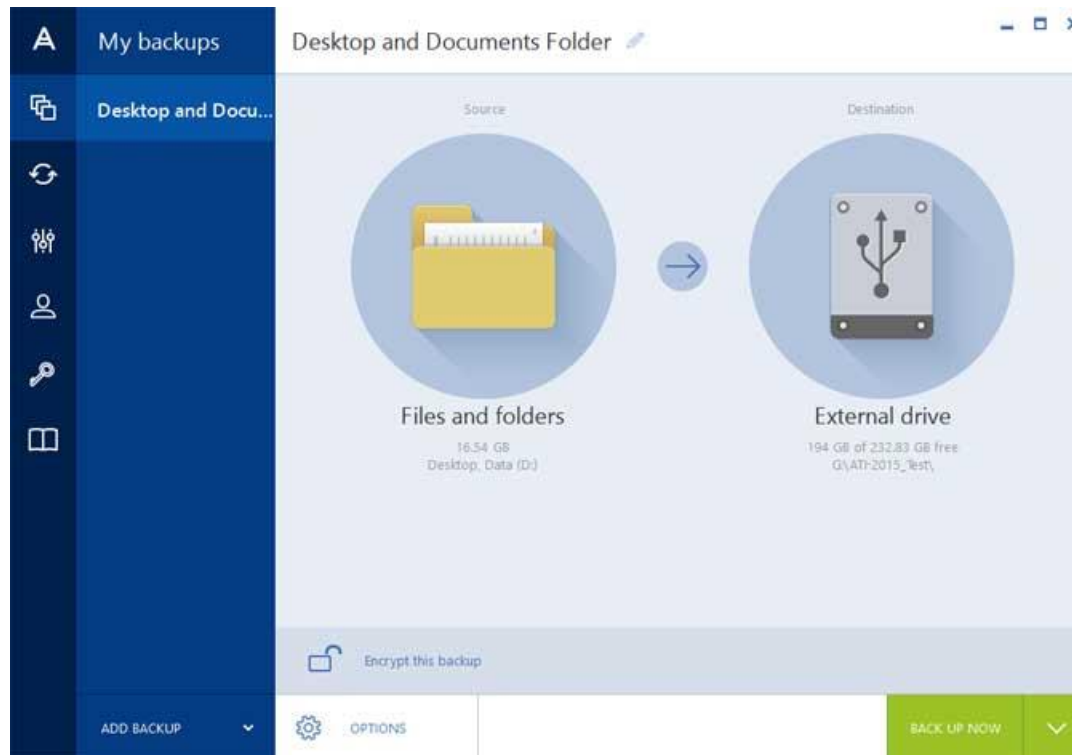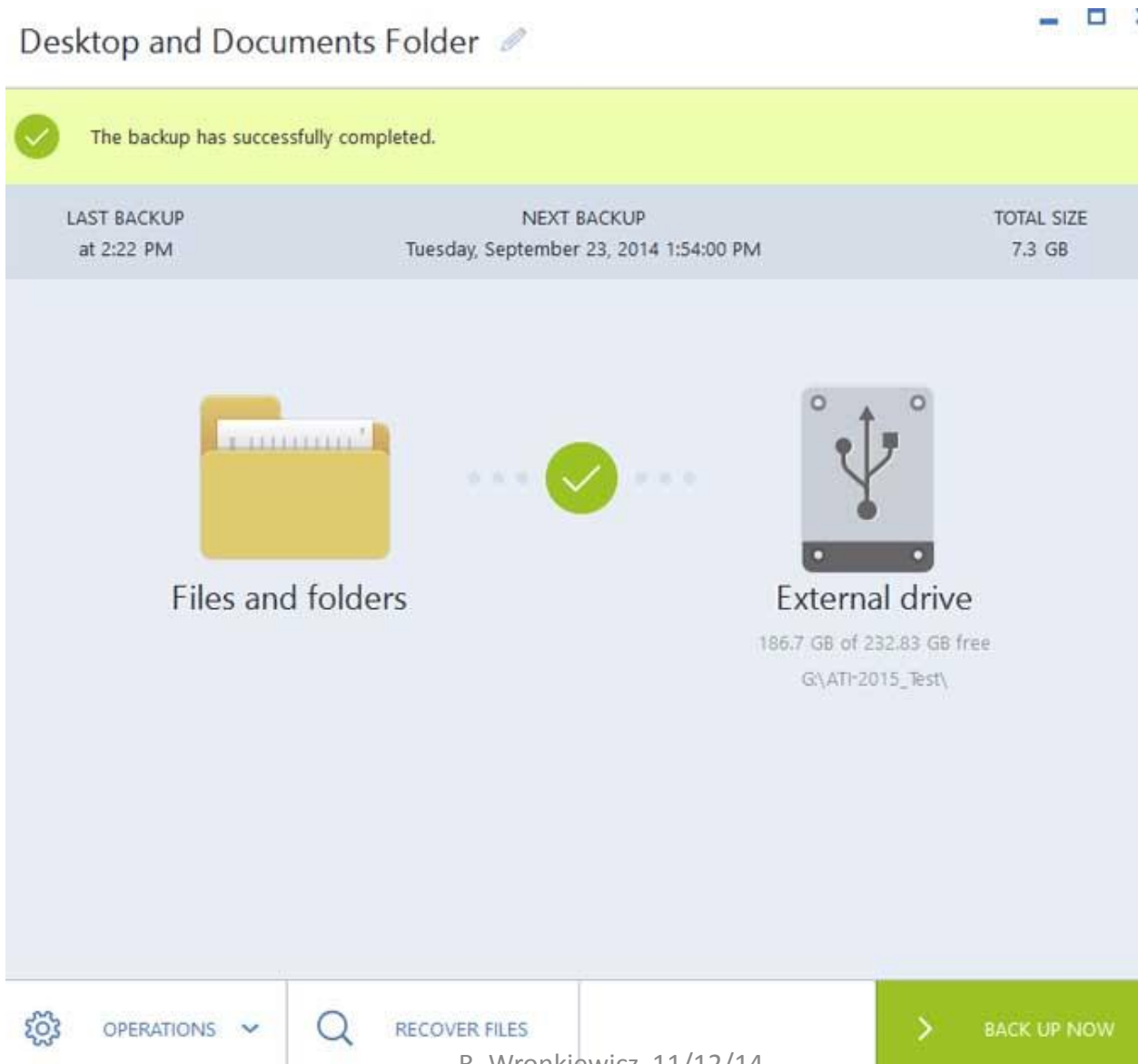
Acronis True Image 2015

Acronis True Image 2015

Acronis True Image 2015

Acronis True Image 2015

Acronis True Image 2015

EaseUS ToDo Backup Home 6

- PCWorld
  - Not as fast as older versions
  - Free version – most comprehensive free backup solution on the market (+ some advertisements)
  - Don't really need paid version, but you do get support and more features
  - Can just click into folders and see files in same structure as Windows

EaseUS ToDo Backup Home 6

– $29 Home version adds

- differential backups,
- dedicated Outlook backup and restore,
- Ready-made Windows PE boot disk
- Free tech support

– $39 Workstation version also adds

- Recovery to dissimilar hardware,
- Business use license

EaseUS Todo Backup Home 6.0
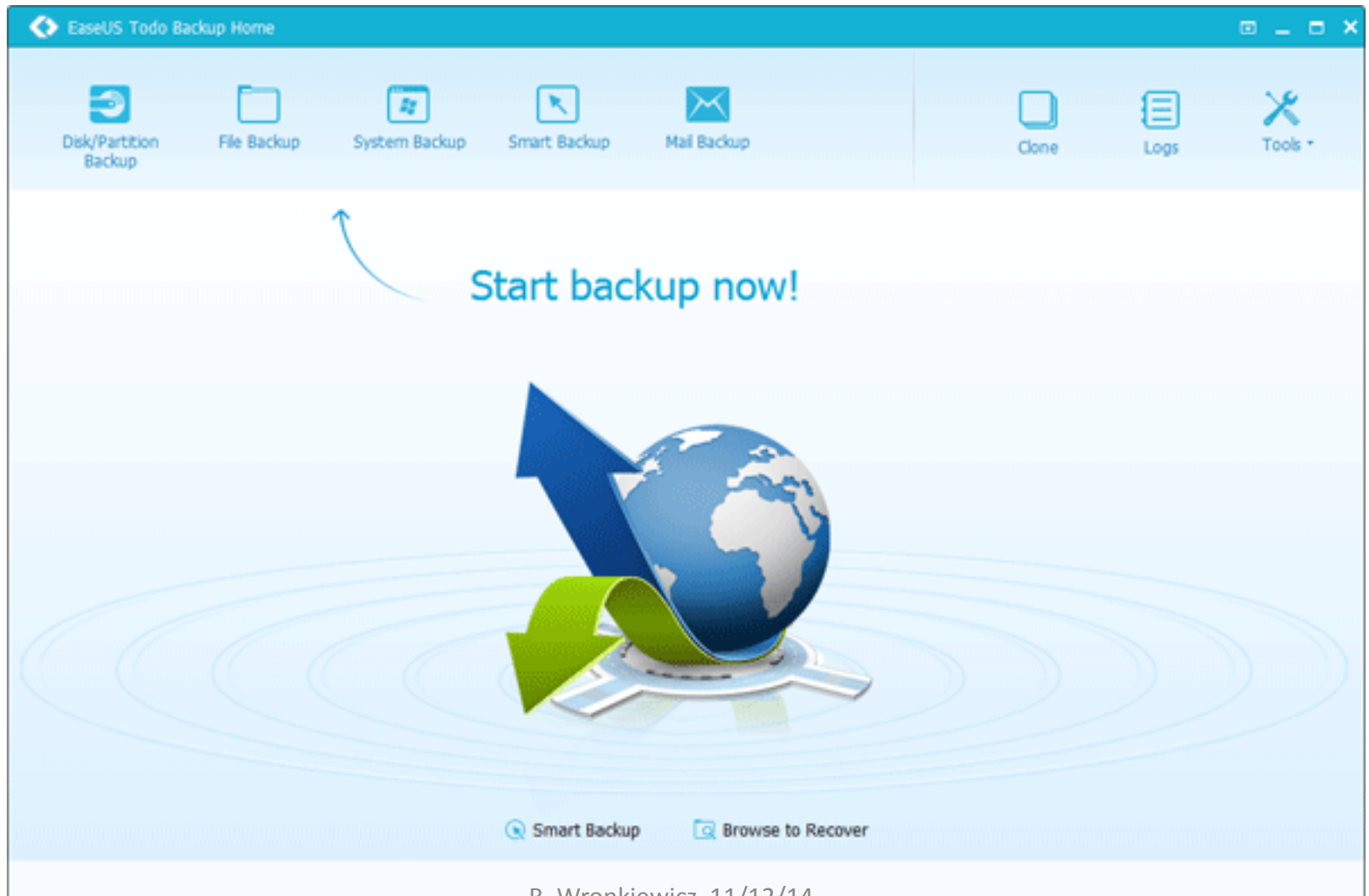
EaseUS Todo Backup Home 6.0

WD Anytime Backup

- Friday @ 3pm

You Did It But You're Not Sure It Exists and Is Usable?

Learn how to check out the backup files
Try restoring at least a few folders