



Heirloom Software

The Idjits Guide to

Find and Fix

Find broken files. Fix them. Keep them safe.

Pictures, papers, PDFs, videos, and Windows itself - one easy step at a time.

Disclaimer and Hold Harmless Agreement

The Idjits Guide to Find and Fix • October 2026 edition • Heirloom Software LLC

In plain words: This book is here to help you learn. We tried hard to get everything right, but we can make mistakes, and computers change. Save a copy of your important stuff before you try things. If something goes wrong, it is not our fault, and you agree not to blame or sue us. Kids: ask a grown-up before you install or change anything.

COPYRIGHT

Copyright © 2026 Heirloom Software LLC. All rights reserved. You may keep copies of this guide and print it for your own personal use. You may not resell it, share it publicly, or reproduce any part of it for others without written permission from Heirloom Software LLC.

TRADEMARKS

Product names, logos, and brands mentioned in this guide (including Microsoft, Windows, Linux, Ubuntu, Python, and the others named inside) are the property of their respective owners and are used only to identify their products. Heirloom Software LLC is not affiliated with, sponsored by, or endorsed by any of them, or by the publishers of any other book series.

DISCLAIMER

This guide is for general information and education only. It is provided "as is," without warranties of any kind, express or implied, including warranties of accuracy, completeness, merchantability, or fitness for a particular purpose. Software, websites, prices, and menus change often; the information was believed accurate in October 2026 but may be out of date or incorrect when you read it. Nothing in this guide is professional, legal, financial, or security advice. For important systems or data, consult a qualified professional.

YOUR RESPONSIBILITY

Installing operating systems, changing settings, typing commands, and working with computer hardware can erase data, make a computer unable to start, void warranties, or expose a computer or network to security risks. **Back up your data before you follow any instructions in this guide.** You alone decide whether to follow them, and you do so at your own risk. Always follow the manufacturer's and software maker's own instructions where they differ from this guide.

LIMITATION OF LIABILITY

To the fullest extent permitted by law, Heirloom Software LLC and its owners, authors, employees, and agents will not be liable for any direct, indirect, incidental, special, consequential, or punitive damages, or for any loss of data, profits, use, equipment, or business, arising out of or related to this guide or your use of it, even if advised of the possibility of such damages. If any liability is found despite this, it is limited to the amount you paid for this guide.

HOLD HARMLESS AGREEMENT

By reading or using this guide, you agree to release, hold harmless, defend, and indemnify Heirloom Software LLC and its owners, authors, employees, and agents from and against any and all claims, demands, losses, damages, liabilities, costs, and expenses (including reasonable attorneys' fees) arising out of or related to your use of this guide, your following or failing to follow any of its instructions, or your use of any software, hardware, website, or service it mentions.

THIRD PARTIES

This guide mentions software, websites, and services made by others. Heirloom Software LLC does not control them and is not responsible for their content, safety, availability, or terms. Your use of them is governed by their own terms and policies.

AGREEMENT

If any part of this notice is found unenforceable, the rest remains in effect. **If you do not agree to these terms, do not use this guide.** Using it means you accept them.

What's Inside

1. What Is a Broken File?	5
2. Getting Find and Fix	7
3. A Tour of the Window	9
4. Your First Scan	10
5. Fixing Files	12
6. Fixing Pictures	14
7. Fixing Papers and PDFs	16
8. Fixing Videos and Text	18
9. When a File Can't Be Fixed	20
10. Fixing Windows Itself	22
11. Checking Your Drive	25
12. Keeping Files Safe	27
13. Troubleshooting	29
Cheat Sheet	31
Glossary	33

Hi there! Read this first.

Have you ever clicked on a picture and seen only half of it? Or opened a paper and got a message that says **"the file is corrupt"**? That means the file is broken. This book shows you how to find broken files and fix them with **Heirloom Find and Fix**.

You don't need to know anything about computers. We start at the very beginning. Each chapter is short. Read one, try it, and then read the next.

Gray boxes show things you type. Dark boxes show what the computer says back. Words in **bold** are names of buttons you click.

TIP

Shortcuts and smart tricks.

WATCH OUT

Mistakes that can cost you files.

REMEMBER

The big idea from a section.

TRY IT!

Something to try on your own computer.

FUN FACT

Something cool to know.

Grown-ups: this book is written at a 3rd to 5th grade reading level, but it covers everything the program does: how files get damaged, scanning folders, the repair types for JPEG, PNG, GIF, Office/zip, PDF, MP4 and text files, wrong file extensions, disk-damage salvage copies, the Originals folder and fix log, DISM, SFC and CHKDSK, Previous Versions and OneDrive version history, drive health, the 3-2-1 backup rule, and troubleshooting.

CHAPTER 1

What Is a Broken File?

Everything on a computer is kept in **files**. A photo is a file. A school paper is a file. A song is a file. A video is a file.

Inside, every file is just a long list of numbers. Millions of them! The computer reads the numbers in order, like you read the words in a book. The numbers tell it what colors to show, or what words to put on the page.

Files are like books

Think of a file like a book. A book has a cover, a table of contents, pages, and an end. Files have parts like that too:

- The **start** says what kind of file it is. "I am a picture!"
- The **middle** holds the stuff: the colors, the words, the sounds.
- Many files have a **table of contents** that says where each part is.
- Many files have an **end mark** that says "the end."

If a book is missing its last pages, you can still read most of it. But a computer is pickier than you. If a file is missing its end mark, the computer may say "broken!" and show nothing at all. Even when almost everything is still there.

REMEMBER

A broken file usually still has most of its stuff inside. It just has a missing or messed-up part that scares the computer. Find and Fix puts that part back.

How do files get broken?

Files get broken when something stops the computer while it is writing the numbers. Here are the most common ways:

What happened	What it does to the file
The power went out	The computer stopped writing in the middle. The end is missing.
A USB stick was pulled out too soon	The file was only partly copied.
A download stopped early	You got the start of the file, but not the end.

What happened	What it does to the file
The computer froze or crashed	Parts of a file can be filled with blank zeros.
The disk is wearing out	Some spots on the disk can't be read any more.
Someone renamed a file	A picture might have the wrong ending, like .jpg on a PNG.

FUN FACT

The word for a broken file is **corrupted**. It sounds scary, but it just means "some of the numbers are wrong or missing."

What Find and Fix does

Find and Fix does two jobs:

1. It **finds** broken files. It opens each file and checks its start, its middle, its table of contents, and its end. Just looking never changes anything.
2. It **fixes** the broken files that can be fixed. It makes a new, fixed copy and leaves the broken one alone.

It can also fix **Windows itself** with the repair tools that come with Windows. That is in Chapter 10.

CHAPTER 2

Getting Find and Fix

Installing it

Find and Fix comes as one file named **Install Heirloom Find and Fix.exe**. It might be on a USB stick, or you might download it.

1. Double-click **Install Heirloom Find and Fix.exe**.
2. If Windows asks "Do you want to run this file?", click **Run**. If a blue box says "Windows protected your PC", click **More info**, then **Run anyway**.
3. Click **Install**. You do not need a grown-up's password to install it.
4. Wait a few seconds. When it says it's installed, it opens by itself.

Now there is a **Heirloom Find and Fix** icon on your Desktop and in the Start menu.

TIP

The installer also puts this book on your computer. In the program, click the **Help** tab, then **Open the Guide**.

The two agreements

The first time Find and Fix opens, it shows two agreements: the **End User License Agreement** and the **Hold Harmless and Indemnity Agreement**. These are the rules for using the program. Ask a grown-up to read them with you.

If you agree, click the agree button. If you don't agree, the program closes. It asks again after each new version. You can read them any time with the **Agreements** button at the top of the window.

The free trial and your key

You can use **every part** of Find and Fix free for **30 days**. The top of the window says how many days are left.

After 30 days, scanning and the Windows Files tab still work. To **fix** files, you need a **key**. A key costs **\$19 one time** - it never runs out. To buy one, call or text **(606) 521-7093**, or order at **heirloomsoftwarellc.com**. The key comes in an email.

1. Save the file from the email that ends in **.lic**.

2. In Find and Fix, click **Enter Your Key** at the top.
3. Click **Load License File** and pick the .lic file. (Or copy the key from the email and paste it in the box. A Find and Fix key starts with **FF1-**.)
4. Click **Save Key**. The top of the window now says **Licensed to** and your name.

TIP

Keys for other Heirloom programs won't work in Find and Fix, and a Find and Fix key won't work in them. Each program has its own.

Taking it off the computer

To uninstall it, click **Uninstall** at the top of the program. Or open Windows **Settings**, then **Apps**, find **Heirloom Find and Fix**, and click **Uninstall**. Your fixed files and the Originals folder are not touched.

TRY IT!

Find the Find and Fix icon on your Desktop. Double-click it to open the program.

CHAPTER 3

A Tour of the Window

Let's look around. The window has a dark blue strip at the top and three tabs under it.

The blue strip at the top

- **Heirloom Find and Fix** - the program's name.
- **Administrator** or **Not administrator** - tells you if the program has the extra power it needs to fix Windows itself. You only need that for the Windows Files tab.
- **Restart as Administrator** - opens the program again with that extra power. Windows will ask "Do you want to allow this app to make changes?" Click **Yes**. If it asks for a password, get a grown-up.
- **Uninstall** - takes the program off the computer.
- **Agreements** - shows the two agreements again.

The three tabs

Tab	What it is for
My Files	Finding and fixing YOUR files: pictures, papers, PDFs, videos.
Windows Files	Fixing Windows itself, and checking the disk.
Help	Short help, and the button that opens this book.

The My Files tab

On the left is a light blue panel. It has the list of **folders to check** and three check boxes. On the right are the big buttons and the list where broken files show up.

REMEMBER

Left side = WHERE to look and HOW to fix. Right side = WHAT it found.

CHAPTER 4

Your First Scan

A **scan** means the program looks at every file in some folders and checks each one. Scanning never changes anything. It's like a doctor's checkup.

Step 1: pick the folders

Find and Fix already lists the folders where most people keep their stuff: **Desktop**, **Documents**, **Pictures**, **Videos**, **Downloads**, and **Music**.

- To add a folder, click **Add Folder...** and pick it. A USB stick or camera card works too!
- To take a folder off the list, click it, then click **Remove**.

TIP

Got a USB stick with pictures that won't open? Plug it in, click **Add Folder...**, and pick the USB stick. Then scan just that.

Step 2: the check boxes

Check box	What it does	Should I check it?
Read every file	Also reads music, programs, and other files to find bad spots on the disk.	Only if you think the disk is going bad. It's slower.
Read big files all the way	Files bigger than 300 MB (like long videos) are normally checked at the start and end only.	Only if a big video won't play.
Put the fixed file in place	The fixed file gets the broken one's name. The broken one moves to the Originals folder.	Leave it off at first. See Chapter 5.

Step 3: click SCAN NOW

Click the big **SCAN NOW** button. At the bottom of the window you'll see the files going by as they are checked. A scan of a normal computer takes a few minutes.

Want it to stop? Click **Stop**. You keep what it found so far.

Step 4: read the list

Each broken file gets one row in the list:

Column	What it means
Fix	A check mark means "fix this one." Click it to uncheck.
File	The file's name.
What's wrong	What is broken, in plain words.
Can fix?	Yes or No. The No ones are gray.
Size	How big the file is.
Folder	Where the file lives.

Double-click a row to open its folder with the file picked out. **Right-click** a row for **Show in folder** and **Open the file**.

If nothing is broken, it says **No damaged files found**. Hooray!

FUN FACT

Find and Fix skips OneDrive files that live only in the cloud (the ones with a little cloud icon). Opening them would download them, and that could take all day!

TRY IT!

Do your first scan now. Did it find anything? Read the What's wrong column.

CHAPTER 5

Fixing Files

Found some broken files? Let's fix them!

1. Look at the list. The ones that can be fixed already have a check mark.
2. If you want to leave one alone, click its check mark to take it away. You can also click a row and press the **Space** bar.
3. Click **FIX CHECKED**.
4. It asks if you are sure. Click **Yes**.
5. Watch each row. A green check means fixed. A red X means it couldn't be fixed, and the row tells you why.

Where does the fixed file go?

Normally, the fixed file is a **new file** right next to the broken one. It has the same name with **(fixed)** added. For example:

```
Beach Trip.jpg          <- the broken picture (not changed)
Beach Trip (fixed).jpg  <- the new, fixed picture
```

1. Open the **(fixed)** file and look at it.
2. If it looks good, you can delete the broken one yourself, and rename the fixed one if you like.
3. If it doesn't look good, nothing was lost. The broken one is still there.

REMEMBER

Find and Fix never deletes your broken file. You always have it to try again.

"Put the fixed file in place"

If you check this box before you click **FIX CHECKED**, the fixed file gets the broken file's real name. The broken one is **moved** to the **Originals** folder. It is not deleted.

To see the Originals folder, click **Open Originals Folder** on the left. Inside, there is a folder for each day you fixed things.

TIP

Use "in place" when a program expects a file at an exact name, like a spreadsheet that other spreadsheets link to.

It checks its own work

After each fix, Find and Fix checks the fixed file all over again. If the fix didn't work, it throws that copy away and tells you. You never get a "fixed" file that is still broken.

The fix log

Every fix is written down in a list called **fix log.txt**. It says when, which file, and where the fixed one went. The bottom of the window tells you where the log is.

CHAPTER 6

Fixing Pictures

Pictures are the files that break the most, because cameras and phones save so many of them. Find and Fix checks the three most common kinds: **JPG**, **PNG**, and **GIF**.

JPG pictures (photos)

Almost every photo from a camera or phone is a **JPG** (also spelled JPEG). Here is what Find and Fix can fix:

What's wrong	What it does
The picture is cut off (the end is missing)	Adds the end mark back. The part of the photo that's there shows up. The missing part at the bottom is gray.
Junk at the start of the picture	Cuts off the junk so the photo starts where it should.
The picture's header is damaged	Can't fix. The part that says how big the photo is and what colors it uses is broken.

A cut-off photo is still worth fixing! Often the gray part is only a little strip at the bottom, and you can crop it off in the Photos app.

PNG pictures (screenshots and drawings)

PNG pictures are what you get from screenshots and drawing apps. A PNG is made of **sections**, and each section has a little check number. If the numbers don't match, the picture won't open.

What's wrong	What it does
The picture is cut off	Saves every row that's still there. Missing rows become blank, so every program can open it.
Damaged sections inside	Rebuilds the picture's data and fixes the check numbers.

GIF pictures (little animations)

A **GIF** that is cut off is missing its very last letter, a little ";". Find and Fix puts it back.

The wrong ending

The letters after the dot in a file name are called the **ending** or **extension**. **.jpg** means JPG. **.png** means PNG. Sometimes a file gets the wrong ending, like a PNG picture named **cat.jpg**. Some programs then refuse to open it.

Find and Fix looks at the first few numbers inside the file to learn what it really is. If the ending is wrong, it says **This is really a PNG picture with the wrong ending**. The fix makes a copy with the right ending, like **cat (fixed).png**.

FUN FACT

Every PNG file starts with the same 8 numbers. One of them spells out the letters P, N, G! Programs use those first numbers like a name tag.

TRY IT!

Have a picture that won't open? Put it in its own folder, add that folder, and scan.

CHAPTER 7

Fixing Papers and PDFs

Word, Excel, and PowerPoint files are zip files!

Here is a secret: a Word paper (**.docx**), an Excel sheet (**.xlsx**), and a PowerPoint show (**.pptx**) are really **zip files**. A zip file is like a folder squished into one file. Inside are many little parts: the words, the pictures, the styles.

A zip file has a **table of contents** at the very end. If the file is cut off, the table of contents is the first thing to go. Then Word says the file is corrupt, even though almost all the parts are still inside!

Find and Fix doesn't need the table of contents. It walks through the file, finds each part one by one, checks each part, and builds a brand-new file from the good ones.

What's wrong	What it does
The file's table of contents is damaged	Finds every part and makes a new file with a new table of contents.
A part inside is damaged	Saves all the good parts. Tells you how many parts could not be saved.

This works for these kinds of files:

- Word: **.docx .docm .dotx**
- Excel: **.xlsx .xlsm .xltx**
- PowerPoint: **.pptx .pptm .potx**
- LibreOffice and OpenOffice: **.odt .ods .odp**
- Zip files **.zip**, e-books **.epub**, and Visio **.vsdx**

WATCH OUT

If a part could not be saved, the fixed file may be missing something, like a picture or a page. Always open the fixed file and check it before you delete the broken one.

TIP

If Word says the fixed file has a problem, click **Yes** when Word asks to recover the contents. Word's own fixer works much better on a file Find and Fix already fixed.

FUN FACT

Old Word files that end in **.doc** (with no x) are not zip files. Find and Fix leaves those alone.

PDF files

A **PDF** is a paper that looks the same on every computer. A PDF has an **index** near the end that says where each page is. If the end is cut off, the index is lost.

What's wrong	What it does
The PDF is cut off (the end is missing)	Finds every page and part that's still there and builds a new index.
The PDF's index is damaged or missing	Builds a new index.
Can't fix	Locked PDFs (with a password) and PDFs that pack their parts in a special squished way. Try opening those in a web browser - browsers have their own PDF fixer.

CHAPTER 8

Fixing Videos and Text

Videos

Videos from phones are usually **MP4** or **MOV** files. A video is made of big boxes. One box holds the video itself. Another box, called the **index**, tells the player where each moment of the video is.

If the phone died while recording, the video is cut off. What happens next depends on where the index is:

Where the index is	Can Find and Fix fix it?
At the start	Yes! It fixes the size of the video box, and the video plays up to where it was cut.
At the end (got cut off)	No. Without the index, the player doesn't know how to play the video. A video repair service can sometimes rebuild it, using another video from the same phone as a sample.

Find and Fix also checks **.m4v**, **.m4a** (sound), and **.3gp** files the same way.

Text files

Text files are the simplest files: plain letters. This includes **.txt**, **.csv** (simple spreadsheets), **.log**, **.json**, **.xml**, **.html** web pages, **.ini**, **.md**, and **.rtf**.

When a computer crashes while saving a text file, part of it can turn into **blank zeros**. The text there is gone, but the zeros make programs act strange. Find and Fix takes the blank zeros out so the rest of the file works again.

Here is what a damaged spreadsheet looks like before and after:

```
BEFORE:  Name, Age
          Sam, 9
          .....(4,096 blank zeros).....
          Ana, 10

AFTER:   Name, Age
          Sam, 9
          Ana, 10
```

WATCH OUT

Whatever was written where the zeros are is gone for good. Check the fixed file to see if anything is missing.

Files the disk can't read

Sometimes a disk gets a bad spot, and the computer can't read part of a file at all. Find and Fix says **Can't be read - the disk has a damaged spot here**. The fix copies everything that **can** be read into a new file and leaves the bad spot blank.

WATCH OUT

A disk with bad spots is getting sick. Copy your important files somewhere else right away! See Chapter 11.

CHAPTER 9

When a File Can't Be Fixed

Some files can't be fixed, because nothing is left inside to save. Find and Fix tells you when that happens:

What it says	What it means
The file is empty (0 bytes)	The file has a name but nothing inside at all.
Blank inside (all zeros)	Everything inside turned into zeros.
The start of the ... is damaged	The name tag at the start is gone, so there's no way to know how to read the rest.

Don't give up! There may be a **backup copy** somewhere. Here are four places to look.

1. Previous Versions

1. Right-click the broken file (or the folder it was in).
2. Click **Properties**.
3. Click the **Previous Versions** tab.
4. If you see older copies listed, pick one from before it broke and click **Restore** or **Open**.

This only works if Windows was saving copies (File History or restore points was on).

2. OneDrive version history

If the file is in OneDrive, OneDrive keeps old versions. Right-click the file, pick **OneDrive**, then **Version history**. Pick an older version and click **Restore**.

3. The Recycle Bin

Was there a good copy that you deleted? Open the **Recycle Bin** on the Desktop. Find it, right-click it, and click **Restore**. OneDrive has its own Recycle Bin on the OneDrive website too.

4. Other places a copy might be

- Did you email it to someone? Look in your sent email.
- Did you send the photo to a friend or family member? Ask them to send it back.
- Is it on your phone, an old USB stick, or a camera card?

- Is it on Facebook, Google Photos, or iCloud?

REMEMBER

The best fix for a broken file is a backup made before it broke. Chapter 12 shows you how.

CHAPTER 10

Fixing Windows Itself

Sometimes the broken files are not yours. They are **Windows' own files**. When that happens, the computer acts strange:

- Programs crash or won't open.
- The blue screen shows up.
- Windows Update keeps failing.
- The Start menu or Settings won't open.

Windows comes with its own repair tools. Find and Fix runs them for you and shows you what they say, on the **Windows Files** tab.

First: Restart as Administrator

Fixing Windows needs extra power. Click **Restart as Administrator** at the top. When Windows asks "Do you want to allow this app to make changes?", click **Yes**. The top of the window now says **Administrator**.

Step 1: Repair the Windows image (DISM)

Windows keeps a spare set of all its parts, called the **image**. If the spare set is broken, nothing else can be fixed. So we fix it first. **DISM** gets fresh, good parts from Windows Update over the internet.

Click **1. Repair the Windows image (DISM)**. It takes 10 to 30 minutes. It may seem stuck at 20% or 62% for a long time. That's normal! Be patient.

OUTPUT

```
Deployment Image Servicing and Management tool
Version: 10.0.19041.3636

Image Version: 10.0.19045.4529

[=====100.0%=====]
The restore operation completed successfully.
The operation completed successfully.
```

On Windows 7, there is no step 1. Skip to step 2.

Step 2: Check and fix Windows files (SFC)

SFC stands for **System File Checker**. It checks every important Windows file. If one is broken, it puts back a good copy from the spare set. Click **2. Check and fix Windows files (SFC)**. It takes 10 to 20 minutes.

At the end, SFC says one of these things:

SFC says	What it means	What to do
did not find any integrity violations	Nothing was broken.	Nothing! Windows files are fine.
found corrupt files and successfully repaired them	Broken files were found and fixed.	Restart the computer.
found corrupt files but was unable to fix some of them	Some files couldn't be fixed.	Run step 1 (DISM), restart, then run step 2 again.
could not perform the requested operation	SFC couldn't run.	Restart the computer and try again.

OUTPUT

```
Beginning system scan. This process will take some time.

Beginning verification phase of system scan.
Verification 100% complete.

Windows Resource Protection found corrupt files and successfully repaired them.
```

Show what SFC fixed

Want to know which files SFC fixed? Click **Show what SFC fixed**. It reads SFC's notes and shows the lines about broken and repaired files.

TIP

The best order is: step 1, then step 2, then restart the computer. If SFC still finds problems, do steps 1 and 2 one more time.

Doing it yourself by typing

You can also run these tools by typing. Click Start, type **cmd**, right-click **Command Prompt**, and click **Run as administrator**. Then type:

```
DISM /Online /Cleanup-Image /RestoreHealth  
sfc /scannow
```

Press **Enter** after each line, and wait for each one to finish.

CHAPTER 11

Checking Your Drive

The **drive** (also called the **disk**) is the part of the computer that keeps all your files, even when the computer is off. Most computers have one drive called **C:**.

The drive keeps a big list of where every file is, like a library's card catalog. If that list gets mixed up, files can go missing or break. **CHKDSK** (say it "check disk") checks that list.

Step 3: Check a drive for errors

1. Pick the drive in the **Drive for steps 3 and 4** box. C: is the Windows drive.
2. Click **3. Check a drive for errors (CHKDSK)**.
3. Wait. On most computers it takes a few minutes. It doesn't change anything.

OUTPUT

```
Stage 1: Examining basic file system structure ...
Stage 2: Examining file name linkage ...
Stage 3: Examining security descriptors ...

Windows has scanned the file system and found no problems.
No further action is required.
```

Step 4: Fix drive errors

If step 3 found problems, click **4. Fix drive errors (CHKDSK /F)**. On the Windows drive (C:) it can't fix things while Windows is using them, so it sets the fix up for **the next time you restart**.

Restart the computer. Before Windows starts, you'll see a screen that says it's scanning and repairing the drive. It can take a long time on a big drive.

WATCH OUT

Don't turn the computer off while the drive is being repaired! Plug a laptop into the wall first.

Is my drive getting sick?

Drives wear out, just like shoes. Here are the signs:

- Find and Fix finds files that **can't be read**.

- The computer clicks, grinds, or beeps from inside.
- Files open very slowly, or the computer freezes a lot.
- CHKDSK keeps finding problems.

You can ask the drive how it feels. In Command Prompt, type:

```
wmic diskdrive get model,status
```

OUTPUT

Model	Status
Samsung SSD 870 EVO 500GB	OK

OK is good. If it says **Pred Fail** or anything else, the drive is about to stop working.

WATCH OUT

If your drive is getting sick, **copy your photos and papers to a USB drive or OneDrive today**. Then get a grown-up to replace the drive. A sick drive can stop working any time, and then fixing gets much, much harder.

CHAPTER 12

Keeping Files Safe

Fixing is great. But not breaking files in the first place is even better! Here's how.

The 3-2-1 backup rule

A **backup** is an extra copy of your files kept somewhere else. Grown-ups who take care of computers follow the **3-2-1 rule**:

Number	Rule	Example
3	Keep 3 copies of important files.	The computer, a USB drive, and OneDrive.
2	Use 2 different kinds of storage.	A drive in the computer AND a USB drive.
1	Keep 1 copy away from home.	OneDrive, Google Drive, or a drive at Grandma's.

Then if one copy breaks, you still have two more!

Good habits

- **Eject USB sticks before pulling them out.** Click the little USB picture near the clock, then click **Eject**. Wait for "Safe to remove."
- **Don't turn the computer off by holding the power button** unless it is truly frozen. Use Start, then Power, then **Shut down**.
- **Don't turn it off during Windows updates**, even if it's slow.
- **Wait for downloads to finish** before opening them.
- **Save often** while you work on a paper. Press **Ctrl + S**.
- **Use a battery backup** (a UPS) on a desktop computer, so a power blink doesn't crash it.
- **Run a Find and Fix scan once a month.** Catching a broken file early is easier, because a backup from before it broke is more likely to still be around.

Turning on File History

Windows can save copies of your files every hour by itself. It's called **File History**. You need a USB drive or second drive for it.

1. Plug in a USB drive.
2. Click Start and type **File History**.
3. Click **File History** in the list.
4. Click **Turn on**.

Now Windows saves copies, and the **Previous Versions** tab from Chapter 9 has copies to give you back.

TRY IT!

Count how many copies of your favorite photo you have. Is it 3? If not, make some!

CHAPTER 13

Troubleshooting

"The scan found nothing, but my file still won't open!"

- Is the file's folder in the list? Add it with **Add Folder...**
- Is it a kind of file Find and Fix checks? See the Cheat Sheet. If not, check **Read every file** to at least find disk damage.
- Maybe the file is fine, and the **program** is the problem. Try opening it in a different program, like a web browser.
- Is it an online-only OneDrive file? Right-click it and pick **Always keep on this device**, wait for it to download, and scan again.

"Lots of files were skipped."

Files that another program has open can't be checked. Close your other programs and scan again. Online-only OneDrive files are skipped on purpose.

"It says Not fixed: The repair didn't work."

The file was too damaged. Find and Fix threw away the bad copy, so nothing changed. Look for a backup (Chapter 9).

"The fixed picture has a gray part."

That part of the photo was lost before you got it back. Crop it off in the Photos app: open the picture, click **Edit**, then **Crop**.

"The Windows Files buttons say I need Administrator."

Click **Restart as Administrator** at the top and click **Yes** when Windows asks.

"DISM says it can't find the source files."

DISM needs the internet to get good parts. Check that the computer is online and try again. If it still fails, a grown-up can run Windows Update first and then try DISM again.

"SFC said it couldn't fix some files."

Run step 1 (DISM), restart, then run step 2 (SFC) again. Most of the time the second try fixes them.

"Where did my broken file go?"

If you used **Put the fixed file in place**, the broken one is in the Originals folder. Click **Open Originals Folder**. The **fix log** lists exactly where each one went.

Still stuck?

Call or text Heirloom Software at **(606) 521-7093**, or visit **heirloomsoftwarellc.com**.

QUICK REFERENCE

Cheat Sheet

What Find and Fix checks and fixes

Kind of file	Endings	Can fix
Photos	.jpg .jpeg .jpe .jfif	Cut off, junk at the start, wrong ending
Screenshots and drawings	.png	Cut off, damaged sections, wrong ending
Little animations	.gif	Cut off, wrong ending
Word, Excel, PowerPoint	.docx .xlsx .pptx (and more)	Damaged table of contents, damaged parts
Zip, e-books, OpenDocument	.zip .epub .odt .ods .odp	Damaged table of contents, damaged parts
PDF papers	.pdf	Cut off, damaged index
Videos and sound	.mp4 .mov .m4v .m4a .3gp	Cut off (index at the start)
Text	.txt .csv .json .xml .html (and more)	Blanked-out sections
Any file	(with Read every file)	Disk damage: copies what can be read

The steps

To do this	Do this
Find broken files	My Files tab, check the folders, click SCAN NOW
Fix them	Click FIX CHECKED, then Yes
See a file	Double-click its row
Find a broken original	Open Originals Folder
Fix Windows	Restart as Administrator, Windows Files tab, step 1 then step 2, then restart
Check the drive	Windows Files tab, step 3
Fix the drive	Windows Files tab, step 4, then restart

QUICK REFERENCE

Glossary

Word	What it means
Administrator	A user with the power to change Windows itself.
Backup	An extra copy of a file kept somewhere else.
CHKDSK	Windows' tool that checks the drive's list of files.
Corrupted	Broken: some of a file's numbers are wrong or missing.
DISM	Windows' tool that fixes Windows' spare set of parts.
Drive (disk)	The part of the computer that keeps your files.
Extension (ending)	The letters after the dot in a file name, like .jpg.
File	One thing saved on a computer: a photo, a paper, a song.
Folder	A place that holds files, like a drawer.
Index	The part of a PDF or video that says where everything is.
Originals folder	Where Find and Fix keeps broken files it replaced.
Scan	Checking files to find broken ones. Changes nothing.
SFC	System File Checker: fixes broken Windows files.
Table of contents	The list at the end of a zip, Word, or Excel file that says where each part is.
Zip file	Many files squished into one. Word, Excel and PowerPoint files are zip files.