



Show your working

Top tips for beginners: notes and evidence capture

TOP TIPS A finding you cannot show your working for is an anecdote. This sheet covers what to record, how to capture, archive and hash what you find, and when to stop. Use it on every piece of research, from the first search.

01 Open the log first.

Record as you go, not from memory afterwards. The ACPO guide says every process applied to digital evidence should leave an audit trail that an independent examiner could follow to the same result. A spreadsheet will do. ^{1,17}

```
Columns: Ref, Date/time, Action, URL,
Finding, Capture, Archive / SHA-256.
```

06 Hash every download.

A hash is a file's fingerprint: alter one byte and it changes. Log the algorithm and the whole result. Get-FileHash defaults to SHA256; shasum without -a 256 uses SHA-1, so always say which you used. ^{9,10,11}

```
shasum -a 256 HGF-002_2026-09-
22_1011BST_careers.png
```

02 Always add the time zone.

The UK is on BST (UTC+1) until the clocks go back on 25 October 2026, then GMT. Wayback Machine timestamps are recorded in GMT, so a page archived at 10:12 BST carries 09:12 in its link. ^{2,3}

```
Write 10:12 BST, never 10:12.
```

07 Name files so they sort.

Reference, date, time, zone, description, in that order, and the folder sorts itself into a timeline. No colons: Windows forbids them in file names, and a name that works on one machine should work on all of them. ¹²

```
HGF-002_2026-09-22_1011BST_careers.png
```

03 Log the nil results.

Engine, exact query, outcome. Searches that found nothing are the ones people forget, and the ones they get asked about later. Under the CPIA code, negative information that may be relevant must be recorded. ¹

```
Bing | "Harrowgate Freight" "data breach" |
0 results
```

08 Annotate copies, never originals.

Keep the original read-only and draw your arrows and boxes on a duplicate. Hash the original, never the copy. Mark up the original and your hash stops matching, and with it your proof that nothing changed.

```
..._careers.png stays untouched; ...
_careers_annotated.png carries the
markings.
```

04 Screenshot the full page.

Firefox: right-click, Take Screenshot, Save full page, or Ctrl+Shift+S (Cmd+Shift+S on a Mac). Chrome: open DevTools with F12 (Cmd+Option+I), press Ctrl+Shift+P for the Command Menu, type screenshot and choose the full-size option. ^{4,5,6,7}

```
Firefox default name: Screenshot 2026-09-22
at 10-11-40 Careers - Harrowgate
Freight.png (fictional).
```

09 Collect the minimum, delete on schedule.

Keep only the personal data you need, protect it and justify how long you keep it. The ICO is clear: no collecting personal data on the off-chance it is useful later. Log the deletion date alongside the finding. ^{13,14}

```
Add a "Delete by" column with a date and a
reason.
```

05 Archive it and log the link.

Save Page Now at archive.org/web saves that one page, not the whole site, and gives you a permanent link. The link is a 14-digit GMT timestamp (yyyymmddhhmmss) followed by the archived address. Log it in full. ^{3,8}

```
https://web.archive.org/web/20260922091230/
https://harrowgate-freight.example/careers
(fictional)
```

10 Stop if it should be private.

If a page or file exposes something that should not be public, stop. Do not download it, do not archive it (Save Page Now makes a public copy), and tell the owner. Then log the decision and the reason. ^{8,16}

```
HGF-003: "Page 14 lists staff names and
mobiles. Stopped, not saved. Client told."
```



■ What to log, and how to hash it (fictional example)

FIELD	EXAMPLE OR COMMAND
Ref, date and time + zone	HGF-002, 22/09/2026 10:11 BST
Search or action, full URL	Opened careers page, https://harrowgate-freight.example/careers
Finding, why / decision	Job advert names depot software; exposure review, captured
Capture file, archive URL, SHA-256	HGF-002_2026-09-22_1011BST_careers.png; web.archive.org/web/20260922091230/.../4b7d...e21c
Hash: Windows PowerShell	Get-FileHash file.png -Algorithm SHA256
Hash: Windows Command Prompt	certutil -hashfile file.png SHA256
Hash: macOS Terminal	shasum -a 256 file.png

■ Worked example (fictional)

- 1 Harrowgate Freight Ltd (fictional) asks what its website gives away. The log is open before the first search, with a time zone column.
- 2 HGF-001, 10:04 BST: Google site:harrowgate-freight.example filetype:pdf, 3 PDFs indexed. Screenshot saved and hashed. Not archived.
- 3 HGF-002, 10:11 BST: careers page names depot software and version. Screenshot taken, archived, SHA-256 recorded.
- 4 HGF-003, 10:26 BST: driver handbook PDF lists staff names and mobiles. Stopped, not saved, client told. The line beginners leave out.

■ Common mistakes

- ✗ Screenshots with no URL or time zone; Firefox's default name has neither.
- ✗ Hoarding personal data on the off-chance it is useful later.
- ✗ Archiving pages that hold personal details; Save Page Now copies are public.
- ✗ Annotating the original, so the hash no longer matches.

Keep it lawful

The Computer Misuse Act 1990 makes it an offence to cause a computer to perform a function intending to secure access you know is unauthorised; using someone else's login risks exactly that.¹⁵ UK GDPR and the Data Protection Act 2018 still apply to public data: have a purpose, be proportionate, record your reasons.^{13,16}

Recording and reporting run through the whole course. Find out about our Level 3 Award in OSINT at obsidianarctraining.com.

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■ REFERENCES

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