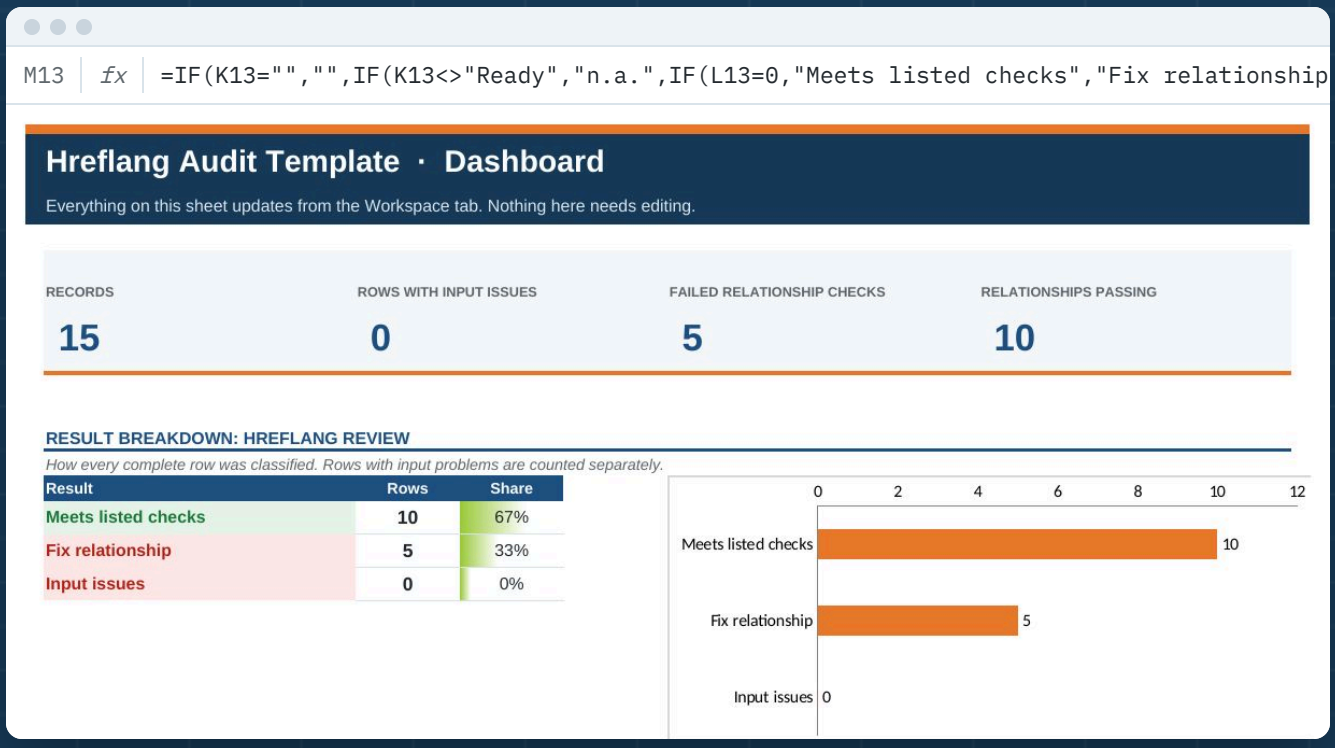
OptimizationTheory.com

SEO Migration Toolkit, resource 12

Hreflang Audit Template

Validate every hreflang relationship: alternate status, self-reference, return tags, canonical match and locale codes.

Built for the DataForSEO API: On-Page API



Field guide, v3.0, November 2026

Jourdan Rombough, optimizationtheory.com

What this template decides

Which hreflang relationships pass every check and which need fixing, with the number of failed checks per alternate.

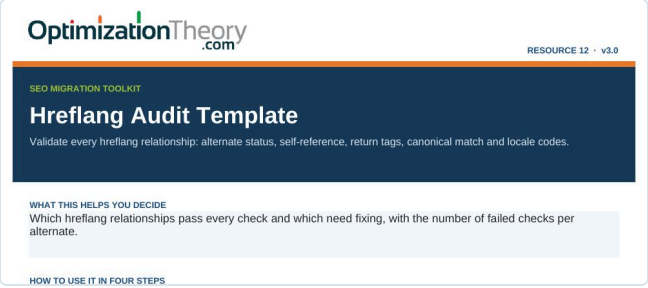
Hreflang has a reputation for being fragile, and it earns it. One missing return tag, one alternate that 404s, or one 'en-uk' instead of 'en-gb' and Google ignores the annotation for that pair. Large international sites can have thousands of these relationships, and they break quietly.

This hreflang audit template checks each URL and alternate pair for five conditions: the alternate returns 200, the page references itself, the alternate links back (reciprocal), the canonicals agree, and the locale code is valid. It counts failed checks and marks each relationship Meets listed checks or Fix relationship.

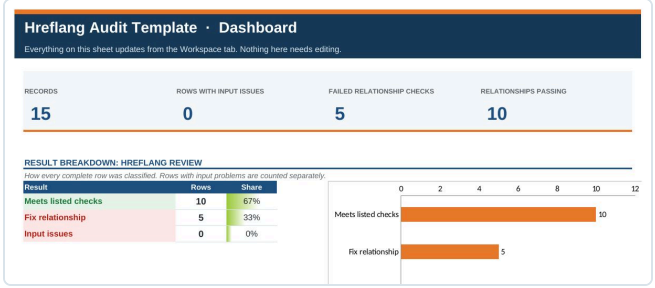
Who it's for

- International SEOs managing multiple locales
- Developers implementing hreflang in templates or sitemaps
- Teams launching a new market or language
- Migrations that change international URL structure

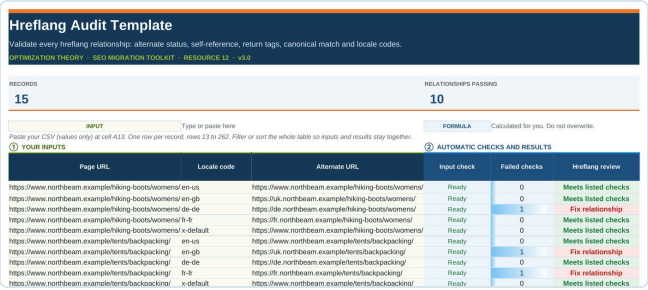
What's in the workbook



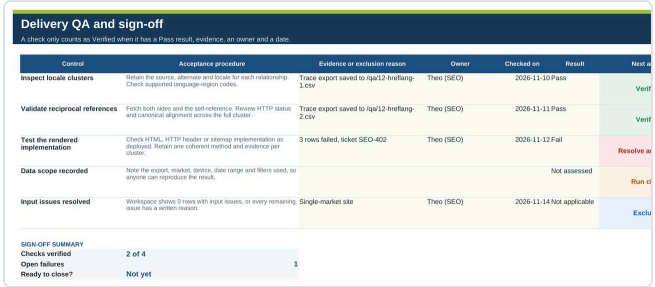
Start Here. Purpose, four-step setup and colour key.



Dashboard. KPIs, charts, Top 10 and an automatic action list.



Workspace. The working table, room for 250 rows.



Delivery QA. Evidence, owner and date for each validation step.

How the calculation works

Failed checks = 1 if the alternate isn't 200, plus 1 for each of: missing self-reference, missing return tag, canonical mismatch, invalid locale. Zero failures = Meets listed checks.

The key formula, as written in the workbook

```
=IF(K13="","",IF(K13<>"Ready","n.a.",IF(L13=0,"Meets listed checks","Fix relationship")))
```

Result column	Plain-English formula	What it tells you
Failed checks	IF(Alternate status=200,0,1)+(1-Self-reference verified)+(1-Reciprocal verified)+(1-Canonical aligned)+(1-Locale valid)	Count of the five reviewed acceptance checks that fail.
Hreflang review	IF(Failed checks=0,"Meets listed checks","Fix relationship")	Evidence-backed QA status for this directed page pair.

The results you'll see

Meets listed checks Fix relationship

Green means the row meets the checks, red means fix it first, amber needs a human review and blue marks an opportunity. Rows with missing or out-of-range inputs show in the Input check column and are left out of the results until fixed.

How to use it, step by step

1

Export hreflang annotations

Crawl your site and export each page with its declared alternates and locale codes, from HTML, headers or sitemaps.

2

Add one row per relationship

Each row is one page and one alternate, with the alternate's status code.

3

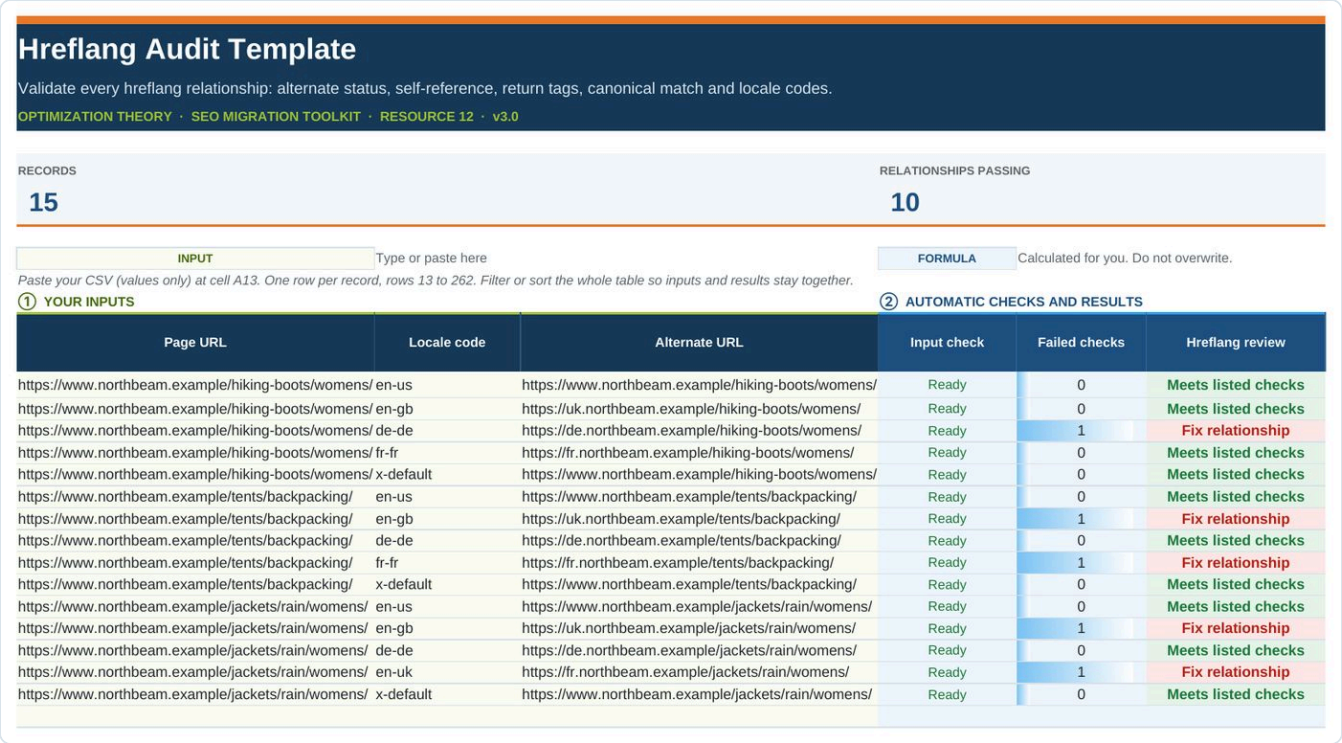
Score the five checks

Mark self-reference, reciprocal, canonical match and locale valid as 1 or 0. Use the dropdown for common codes.

4

Fix by pattern

Failures usually repeat by template or locale. Fix the template, then re-crawl.



Hreflang Audit Template

Validate every hreflang relationship: alternate status, self-reference, return tags, canonical match and locale codes.

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RECORDS 15

RELATIONSHIPS PASSING 10

INPUT Type or paste here

FORMULA Calculated for you. Do not overwrite.

Paste your CSV (values only) at cell A13. One row per record, rows 13 to 262. Filter or sort the whole table so inputs and results stay together.

① YOUR INPUTS

② AUTOMATIC CHECKS AND RESULTS

Page URL	Locale code	Alternate URL	Input check	Failed checks	Hreflang review
https://www.northbeam.example/hiking-boots/womens/	en-us	https://www.northbeam.example/hiking-boots/womens/	Ready	0	Meets listed checks
https://www.northbeam.example/hiking-boots/womens/	en-gb	https://uk.northbeam.example/hiking-boots/womens/	Ready	0	Meets listed checks
https://www.northbeam.example/hiking-boots/womens/	de-de	https://de.northbeam.example/hiking-boots/womens/	Ready	1	Fix relationship
https://www.northbeam.example/hiking-boots/womens/	fr-fr	https://fr.northbeam.example/hiking-boots/womens/	Ready	0	Meets listed checks
https://www.northbeam.example/hiking-boots/womens/	x-default	https://www.northbeam.example/hiking-boots/womens/	Ready	0	Meets listed checks
https://www.northbeam.example/tents/backpacking/	en-us	https://www.northbeam.example/tents/backpacking/	Ready	0	Meets listed checks
https://www.northbeam.example/tents/backpacking/	en-gb	https://uk.northbeam.example/tents/backpacking/	Ready	1	Fix relationship
https://www.northbeam.example/tents/backpacking/	de-de	https://de.northbeam.example/tents/backpacking/	Ready	0	Meets listed checks
https://www.northbeam.example/tents/backpacking/	fr-fr	https://fr.northbeam.example/tents/backpacking/	Ready	1	Fix relationship
https://www.northbeam.example/tents/backpacking/	x-default	https://www.northbeam.example/tents/backpacking/	Ready	0	Meets listed checks
https://www.northbeam.example/jackets/rain/womens/	en-us	https://www.northbeam.example/jackets/rain/womens/	Ready	0	Meets listed checks
https://www.northbeam.example/jackets/rain/womens/	en-gb	https://uk.northbeam.example/jackets/rain/womens/	Ready	1	Fix relationship
https://www.northbeam.example/jackets/rain/womens/	de-de	https://de.northbeam.example/jackets/rain/womens/	Ready	0	Meets listed checks
https://www.northbeam.example/jackets/rain/womens/	en-uk	https://fr.northbeam.example/jackets/rain/womens/	Ready	1	Fix relationship
https://www.northbeam.example/jackets/rain/womens/	x-default	https://www.northbeam.example/jackets/rain/womens/	Ready	0	Meets listed checks

The Workspace tab with the worked example. Lime cells are inputs; blue cells are formulas.

Fill it with DataForSEO

This template is built to run on **DataForSEO On-Page API**: a crawl of your site: URLs, status codes, canonicals, inlinks and sitemap membership.

This is a sign-off workflow. DataForSEO responses are the evidence you attach; the human checks stay manual by design.

1. Request the data

```
POST https://api.dataforseo.com/v3/on_page/task_post
[
  {
    "target": "yourdomain.com",
    "max_crawl_pages": 1000
  }
]
```

Post the crawl task, wait for it to finish, then request on_page/pages with {"id": "<task id>", "limit": 1000} and save that response.

2. Save the full JSON response

Save the complete response, not just the task ID, next to the template folder.

3. Convert it to the input CSV

The script in the Automation folder runs offline: no API call, no credentials.

```
python3 Automation/dataforseo_import.py import --template 12 --csv --input my-filled.csv --output my
-inputs.csv
```

Fills automatically	You add
Page URL	Locale code, Alternate URL, Alternate status, Self-reference verified, Reciprocal verified, Canonical aligned, Locale valid, Evidence

Source reference fills automatically with the task ID, endpoint, location, language, device and snapshot time, so every row is traceable. Paste the finished CSV at Workspace cell A13. Estimate the cost first with the DataForSEO Cost Calculator (template 38).

Input dictionary

Keep the CSV columns in this order and paste values at Workspace cell A13. A missing observation stays blank; use 0 only for a measured zero or a verified No.

CSV field	Column	Meaning and rule	Typical source
`url`	Page URL	Exact absolute URL. Keep case and query parameters unless a documented normalization rule applies.	DataForSEO: url
`locale`	Locale code	Language or language-region code reviewed against the implementation spec.	Your records or manual review
`alternate_url`	Alternate URL	Absolute alternate URL extracted from hreflang markup.	Your records or manual review
`alternate_status`	Alternate status	HTTP response at the alternate URL.	Your records or manual review
`self_reference`	Self-reference verified	1 when the page includes the required self-reference. 1 = Yes, 0 = No.	Your records or manual review
`reciprocal`	Reciprocal verified	1 after checking the alternate links back to this page. 1 = Yes, 0 = No.	Your records or manual review
`canonical_match`	Canonical aligned	1 after verifying canonical choices do not conflict with the hreflang relationship. 1 = Yes, 0 = No.	Your records or manual review
`locale_valid`	Locale valid	1 only after validating the actual locale code and page language. 1 = Yes, 0 = No.	Your records or manual review
`evidence`	Evidence	Link to a dated crawl, screenshot, ticket or source that another reviewer can inspect.	Your records or manual review
`source_ref`	Source reference	Task ID, export filename and observation scope. Retain the untouched source response separately. Optional.	DataForSEO: source_ref

The worked example

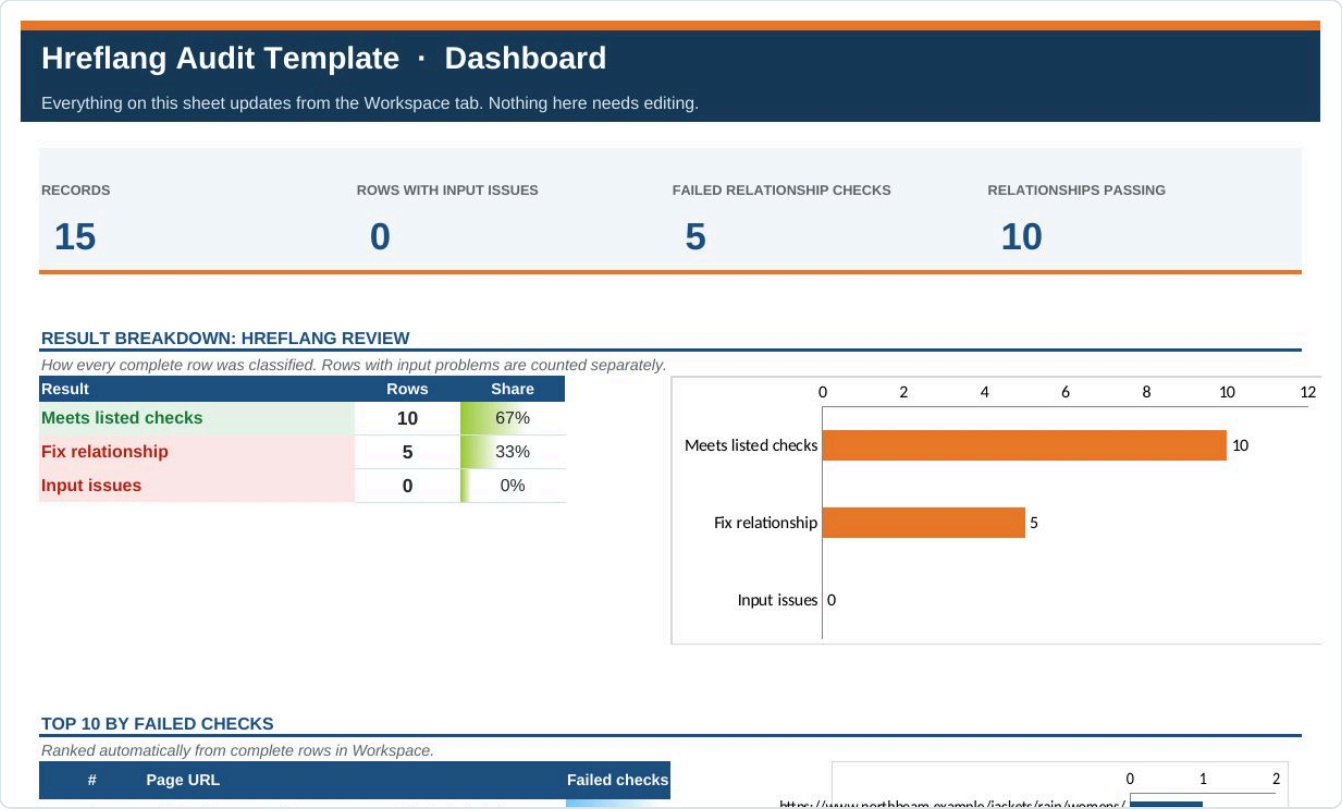
Every workbook ships filled with data from Northbeam Outdoor, a fictional outdoor-gear retailer. This one has 15 example rows.

15	0	5	10
Records	Rows with input issues	Failed relationship checks	Relationships passing

Five of 15 example relationships fail, and they fail in the classic ways: a German page missing its return tag, a UK URL that was renamed and now 404s, a French canonical pointing to English, and the invalid code en-uk.

Top 10 by failed checks

#	Page URL	Failed checks
1	https://www.northbeam.example/jackets/rain/womens/	1
2	https://www.northbeam.example/jackets/rain/womens/	1
3	https://www.northbeam.example/tents/backpacking/	1
4	https://www.northbeam.example/tents/backpacking/	1
5	https://www.northbeam.example/hiking-boots/womens/	1



The Dashboard updates automatically from the Workspace tab.

Reading the result honestly

Use one row per directed alternate relationship. Validate every member of a locale cluster.

Limits. The starter importer enriches page URLs. It does not extract or infer hreflang tags, return links or language correctness.

Mistakes to avoid

Using en-uk. The ISO region code for the United Kingdom is GB. en-uk is invalid and ignored.

Canonicalizing every locale to one version. If the French page canonicals to English, Google drops the French page and its hreflang.

Forgetting x-default. x-default tells Google which page to show when no locale matches. It's optional but recommended.

Tips from the field

Pick one implementation method (HTML, header or sitemap) per page type; mixing causes conflicts.

Validate after every locale launch, not just once.

Include hreflang checks in the migration checklist.

Questions people ask

What are hreflang return tags?

Each page in a hreflang set must link to every alternate, and each alternate must link back. Without the return link, Google may ignore the pair.

What is the correct hreflang code for the UK?

en-gb. Language codes are ISO 639-1 and region codes are ISO 3166-1 Alpha 2.

Does hreflang need a self-referencing tag?

Yes. Each page should include itself in its own hreflang set.

Is hreflang a ranking factor?

No. It helps Google show the right language or regional version; it doesn't boost rankings on its own.

Templates that work well with this one

Indexability Audit Template

Check status, robots, noindex and canonical on every page you want indexed, then see exactly what to fix first.

XML Sitemap Audit Template

Reconcile sitemap URLs against status, canonical, robots and noindex to see what to add, remove or fix.

Redirect Mapping Template

Map every old URL to its new home and verify each redirect: one permanent hop, a 200 page, no noindex, matching canonical.

SEO Migration Checklist

Every pre-launch, launch-day and post-launch control with an owner, evidence and automatic launch-blocker flags.

Brand Entity Consistency Audit

Compare your official brand facts with Wikidata, LinkedIn, GBP, Yelp and more, and log every correction request.

Schema Markup Audit Template

Check presence, syntax, required fields, visible-content match and policy for every structured data type you ship.

Read the full tutorial online: **optimizationtheory.com/download-view/hreflang-audit-template/**
Get all six templates in the **SEO Migration Toolkit**, or all 40 in the **Complete SEO & GEO Toolkit**.