

# **Integrated API Documentation at Scale**

Technical Writing Governance  
6-April-2021



**FARFETCH**

# The Farfetch Challenge

Explain a business platform...

...continuously evolved by  
1000 developers and  
4000 business and operational people

...and used by  
100s of partners.

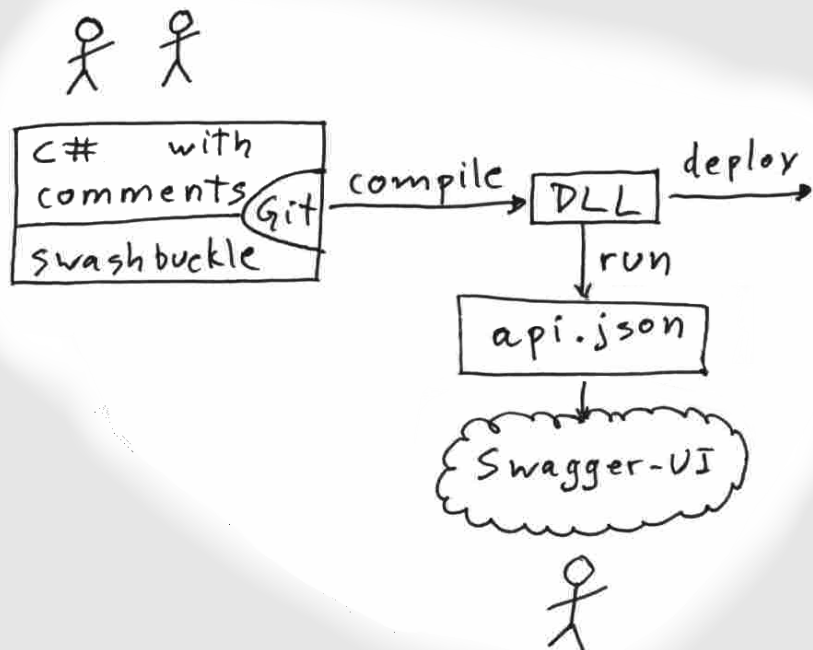
Deliver exceptional business and technical knowledge  
supported by effective tools and processes,  
to Farfetchers and selected partners.

# Our Challenges Today

Keep API reference documentation up-to-date with the code.

Seamlessly integrate API references with manually created documentation.

# Updated API References (x3)



## API references with Swashbuckle

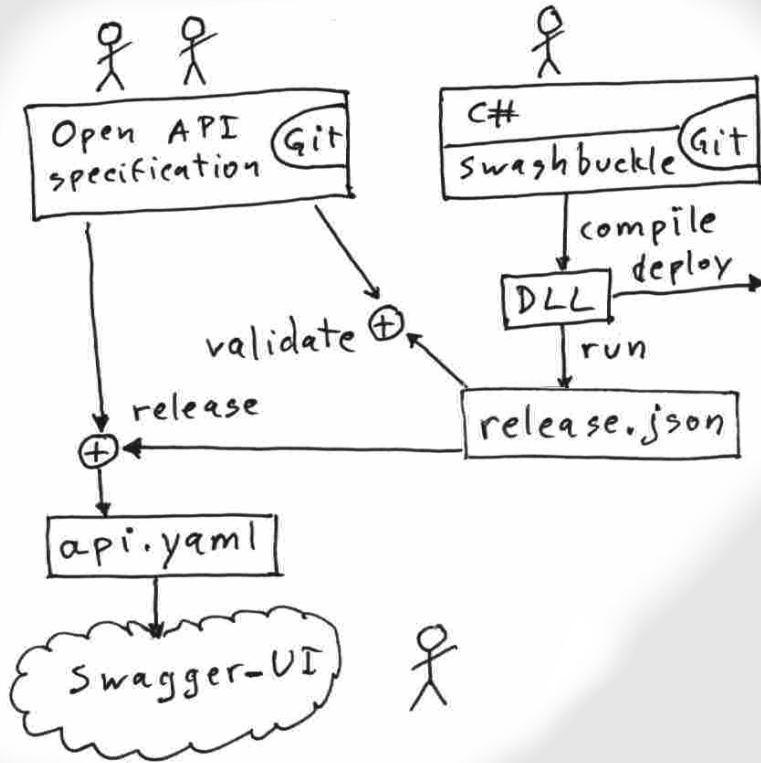
Feed existing developer process for quick delivery.  
Git workflows support collaboration.

### CUSTOM TOOLS

**swagger-diff** to audit changes.

### ISSUES

Writers must compile and execute the code to extract swagger.json.



## Specification-first docs

API code implements a subset of the implementation.  
Writers can document before implementation.

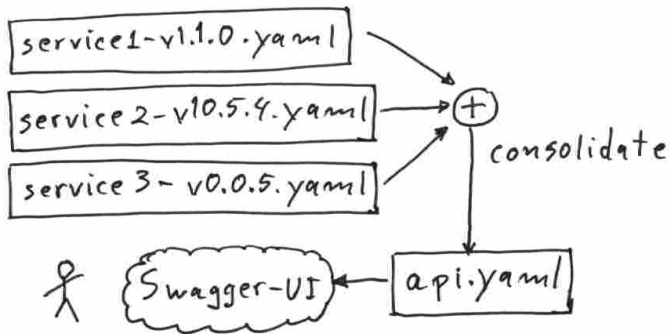
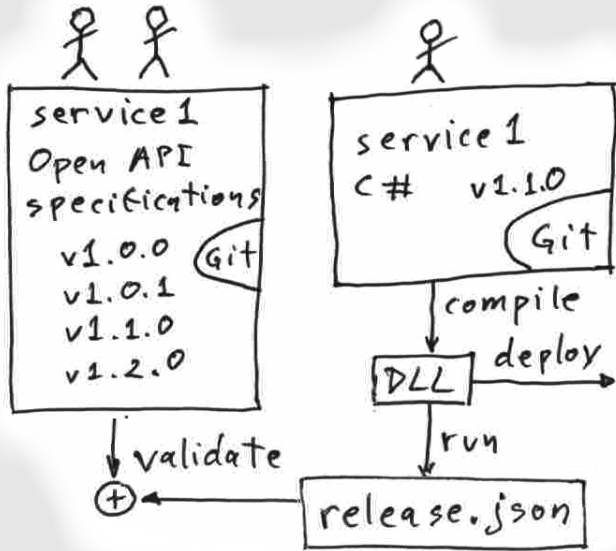
### CUSTOM TOOLS

**normalint** to check syntax and guidelines.

**swaggerff** to validate semantics.

**validate** to ensure implementation follows spec.

**swagger-release** to filter out what is not implemented.



# Microservices

One versioned specification for each service.  
Services implement a version of their specification.

## CUSTOM TOOLS

**validate** to ensure implementation matches spec.

**consolidate** to combine many specifications into one.

**API  
References**

**Integrate**

**Regular  
Documentation**

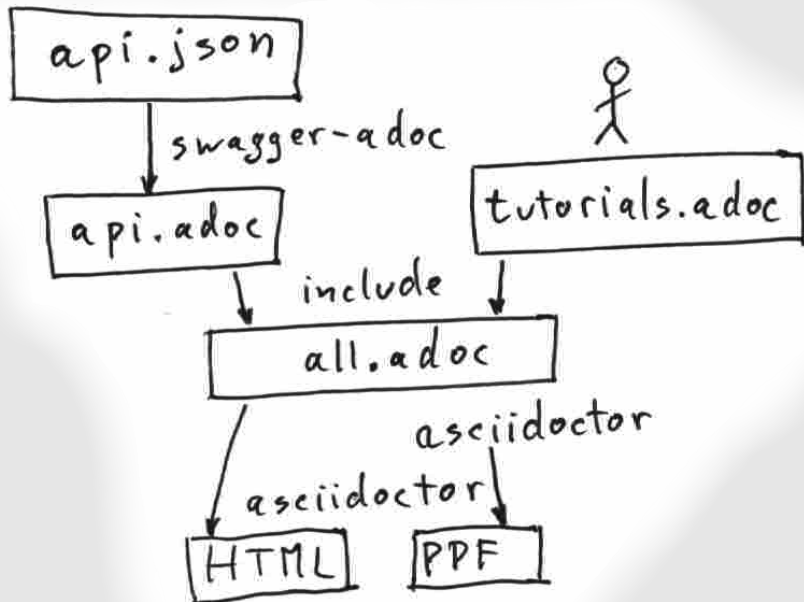
# Why Integrate?

Navigate to and from API references.

Flexible outputs: HTML, PDF, ePub.

Integrate:

- API references
- API tutorials
- Concepts
- Internal information
- ...



## Integrate with AsciiDoc\*

AsciiDoc with AsciiDocFX as writing environment.

### CUSTOM TOOLS

**swagger-adoc** to generate AsciiDoc from Open API.

### ISSUES

Ambiguous AsciiDoc syntax prompts move to SGML.

\* AsciiDoc is an open source text format from 2002 based on DocBook from 1991.



## Integrate with DITA\*

Writers manually add generated DITA files to Git and curate related topics.

Conditional processing supports multiple deliverables.

### CUSTOM TOOLS

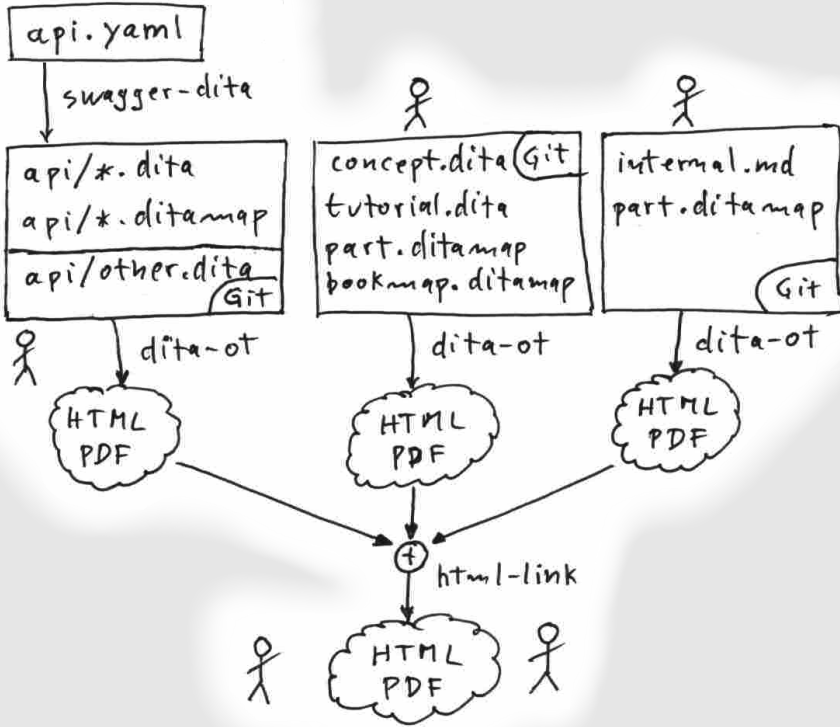
**swagger-dita** to generate DITA XML from Open API.

### ISSUES

API reference updates can break links in DITA.

DITA-OT HTML builds have quadratic complexity.

\* Darwin Information Typing Architecture is a standard open-sourced by IBM in 2004.



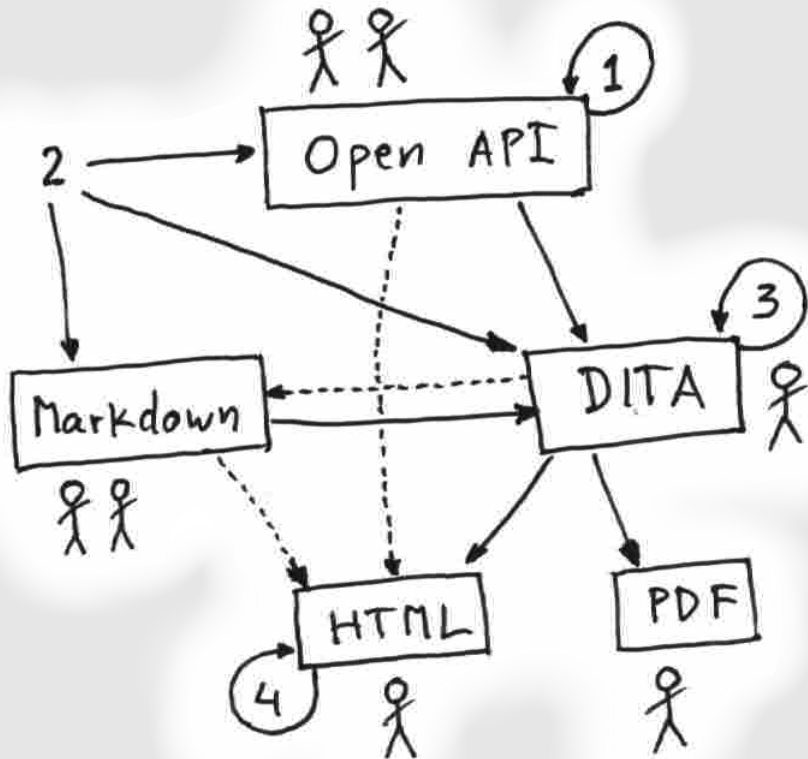
## Modular DITA builds

Heuristic generates related topics based on metadata.  
 One DITA-OT build for each API, plus others.  
 Build duration reduced from 30 to 9 minutes.  
 CI/CD.

### CUSTOM TOOLS

**html-link** to generate and fix links among pages.

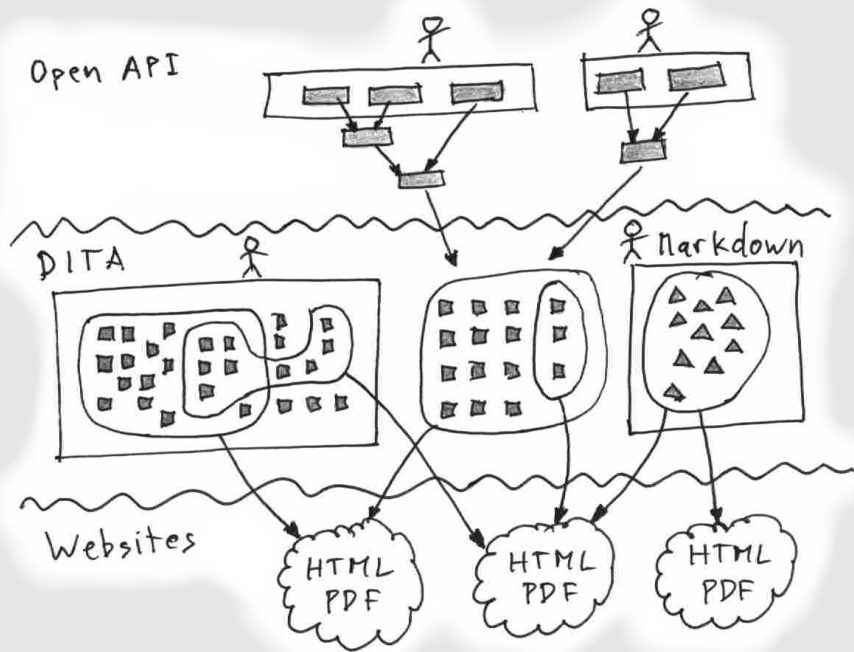
# **The Luxury of Knowledge**



## Information ecosystem

Information flows between formats.  
Each format is an integration point.

1. Automatic transformations propagate information from service to API.
2. Convert information to Open API extensions, DITA, or Markdown.
3. Process DITA topics like a structured database.
4. Use metadata to link topics together.



## Knowledge work For the love of fashion

Information flows:

- Collect where most effective.
- Publish where most effective.

An ecosystem that flexes and grows as needed.

## Lessons Learned

YAML and Open API are simple-looking but not simple, so define sane subsets. The ability to process Open API is surprisingly useful for resiliency and migration.

DITA enables you to walk on the shoulders of giants.  
Often, your new need was the beaten path of someone else.

There is no Markdown, only Markdown dialects.  
For most users, their toolset defines Markdown.

Off-the-shelf tools only take you so far, so use them critically.  
Adopting open formats means you can use the best parts of each tool, and add your own custom tools to the mix.

## Our future

Scale with multiple repositories, CI/CD, partial builds.

Scale with more types of knowledge.

Support integrated partner experiences.

And keep learning...

# Summary

Open formats:

- Open API
- AsciiDoc
- OASIS DITA
- Markdown
- HTML.

Tool ecosystem: existing tools, custom tools.



**FARFETCH**