



OPENAPI

DOCTOR

pb33f.io

>HELLO

1. My name is **Quobix**
2. Founder of **Princess Beef Heavy Industries** (*by night*)
3. *Distinguished Engineer at Cisco* (*by day*)

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pb33f.io / quobix.com

>WHAT IS PB33F?

1. Open source *I would buy*.
2. Software that *gets out of the way*.
3. Software engineers *take with them*.
4. Software people *adore*.

Princess
B33F
HEAVY INDUSTRIES

> TRUSTED & USED BY

J.P.Morgan
CHASE 

 THE
APACHE[®]
SOFTWARE FOUNDATION

Google

 HashiCorp

 mongoDB[®]

 elastic

 Red Hat

 Kong

 okta

 @mailgun

apigee

 bump.sh

softplan

apideck

 SCALAR.COM

SPEAKERSY

MISSION

1. Create *high-strength, enterprise-grade, and beautiful* developer tools for *everyone, everywhere*.
2. Build tools that work *out of the box* and run at *lightning speed*.
3. Make tools that will scale from *hobbyists* to *enterprises*.



1,805

GITHUB STARS



84k

DOCKER IMAGE
DOWNLOADS



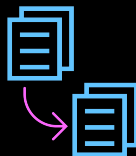
183

REPO FORKS



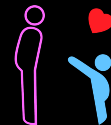
2.5m

BINARY DOWNLOADS



5k

MONTHLY REPO
CLONES



374

PUBLIC
DEPENDENTS



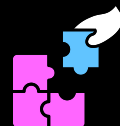
100k+

MONTHLY NPM
DOWNLOADS



8k

MONTHLY GITHUB
REPO VIEWS



94

CONTRIBUTORS

“

If you **fully understood** how much work is represented in **libopenapi**, and if we had all had this in 2015...

The API space would be *very, very, very different*.

The business and politics of the decisions, licensing, and modularity are where **pb33f's** approach is going to **dominate** the conversation.

”

—— **Kin Lane**

The API Evangelist

<https://apievangelist.com/>

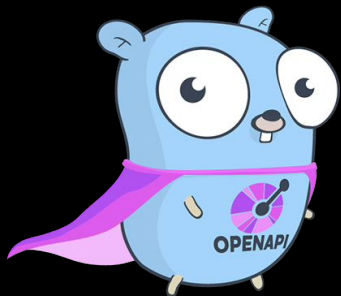
Princess

B333F

HEAVY INDUSTRIES



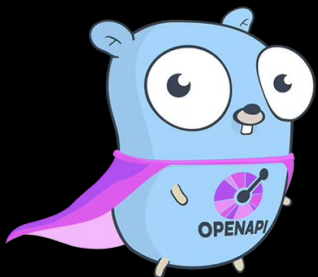
**THE BUILDING
BLOCKS**



LIBOPENAPI

pb33f.io/libopenapi

1. Supports Swagger, 3.0 and 3.1.
2. Powerful indexing & reference resolving.
3. Designed for *engineers* and *software businesses*.
4. Powers absolutely *all of our tools*.



LIBOPENAPI VALIDATOR

pb33f.io/libopenapi/validation

1. Provides HTTP traffic contract validation.
2. Full model, schema and object validation.
3. Built on top of [libopenapi](https://pb33f.io/libopenapi)



OPENAPI CHANGES

pb33f.io/openapi-changes

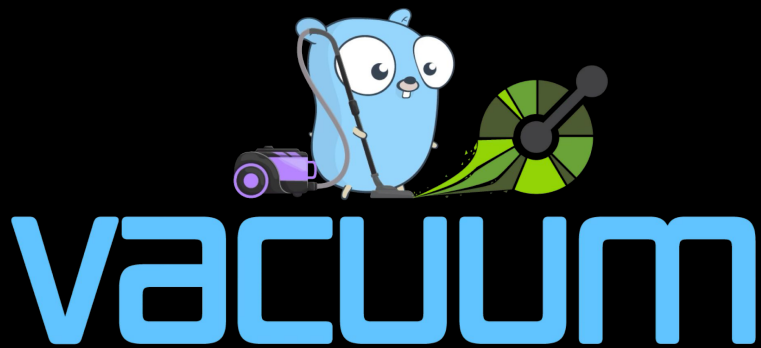
1. Explore changes as a tree.
2. Explore changes as a visual graph.
3. See changes over time.
4. Integrated with git & github.
5. Terminal UI, Console or HTML, you choose!



WIREF TAP

pb33f.io/wiretap

1. Validate HTTP traffic against OpenAPI specs.
2. Operates as a smart, configurable proxy.
3. Can operate as a mock server.
4. Can host UIs and static sites.
5. Can simulate slow APIs.



quobix.com/vacuum

THE WORLD'S
FASTEST OPENAPI
QUALITY TOOL

-
1. Mostly compatible with Spectral rules & rulesets.
 2. Better HTML report*
 3. Comes with a terminal UI.
 4. Supports custom functions in JavaScript or Go.
 5. Much, much faster than Spectral.





INTRODUCING THE
DOCTOR

pb33f.io/doctor

“

The **OpenAPI Doctor** is what **API innovation** looks like, *today*..

..visual eye candy at the intersection of OpenAPI **editing, documentation,** and **governance.**

”

— **Kin Lane**

The API Evangelist

<https://apievangelist.com/>

READY FOR SOME COOL SHIT?

THE THREE TOWERS

QA

CM

CV

QA

Quality Analysis

CM

Change Management

CV

Compliance Validation

>QUALITY ANALYSIS

QA

1. Governance and quality analysis across the board.
2. Easily update, add, import, share and publish vacuum rulesets.
3. Track quality over time.
4. Autofix issues automatically.
5. Report on API quality across products or whole companies.

Powered by [vacuum](#).

> CHANGE MANAGEMENT

CM

1. Tracks all changes **semantically**.
2. See objects and schemas rendered **side by side**.
3. Know when a change has **broken the contract**.
4. Explore changes **visually** across the **explorer** and **model tree**.
5. Beautiful charts and graphs showing changes over time.

Powered by [openapi-changes](#).

> COMPLIANCE VALIDATION

CV

1. Run real end-to-end tests through the doctor.
2. Test server and clients are compliant with the OpenAPI Spec
3. Validate schemas are compliant with HTTP traffic.
4. Mock entire APIs with or *without* OpenAPI specifications.
5. Generate OpenAPI specifications and schemas from HTTP traffic.

Powered by [wiretap](#).



DEMO

Import

OpenAPI Spec Explorer Ruleset API Docs

Overview Objects Problems Rules Feedback

- Document
- Components
- Info
- Paths
- Security
- Servers
- Tags
- Webhooks

```

1 openapi: 3.1.0
2 info:
3   title: Train Travel API
4   description: |
5     API for finding and booking train trips across Europe.
6
7   ## Run in Postman
8
9   Experiment with this API in Postman, using our Postman Collection.
10
11   [! [Run In Postman] (https://run.pstmn.io/button.svg =128pxx32px)] (https://ap
12 version: 1.2.0
13 contact:
14   name: Train Support
15   url: https://example.com/support
16   email: support@example.com
17 license:
18   name: Creative Commons Attribution-NonCommercial-ShareAlike 4.0 Internationa
19   identifier: CC-BY-NC-SA-4.0
20 x-feedbackLink:
21   label: Submit Feedback
22   url: https://github.com/bump-sh-examples/train-travel-api/issues/new
23
24 servers:
25   - url: https://try.microcks.io/rest/train+travel+API/1.0.0
26     description: Mock Server
27     x-internal: false
28
29   - url: https://api.example.com
30     description: Production
31     x-internal: false
32
33 x-speakeasy-retries:
34   strategy: backoff
35   backoff:
36     initialInterval: 500 # 500 milliseconds
37     maxInterval: 60000 # 60 seconds
38     maxElapsedTime: 3600000 # 5 minutes
39     exponent: 1.5
40   statusCodes:
41     - 5XX

```

Size: 42kb Version: 3.1.0 Schemas: 184 Parameters: 13 Operations: 7 Refs: 23 Enums: 3 Tags: 4

Violation Statistics

Total	Rules	Categories	Errors	Warnings	Inform
20	5	4	0	19	1

Overall score

92%

A

Excellent Quality

The doctor's diagnosis:

Top work, so far this is looking excellent, a very strong and well crafted contract. Almost perfect!, but there's still a little room for improvement. *Keep going!* There are 19 warnings, which isn't a huge amount, but it should concern you. I also see an informational message, you can probably ignore it, but you should still check it out. I recommend focusing on fixing violations against the following rules:

- > component-description
- > oas3-missing-example
- > operation-description

1	oas3-missing-example	152:13 287:13 362:13 402:11	40%	8 >
2	component-description	717:5 759:5 779:5 788:5	40%	8 >
3	operation-description	399:7 548:7	10%	2 >
4	oas3-host-not-example	29:10	5%	1 >
5	openapi-tags-alphabetical	54:3	5%	1 >

>COMING SOON

1. Track all changes made to all specifications.
2. Test and mock your APIs in real time.
3. Create and manage organizations for huge numbers of specs.
4. Charts, graphs and visualizations, across all three towers.
5. A full and complete API. Build your own custom apps on top!

Check out the preview @ pb33f.io/doctor

>WILL BE AVAILABLE AS

1. SaaS platform
2. Self hosted platform
3. Headless CLI
4. Native Desktop Application
5. CI/CD Integrations

> FLEXIBLE PRICING MODELS

1. Open source projects get free access*, forever.
2. Pay As You Go Credits / Subscription for SaaS.
 - a. Features can be unlocked individually.
 - b. Credits can be earned by contributing to OSS.
3. Perpetual Licensing for self hosted and desktop editions.

* Upto a metered limit each month.

>BUT, WHAT IF...

1. The Doctor was *not just for OpenAPI?*
2. It had a 'JSON Schema' mode that focused only on JSON Schema?
3. It supported AsyncAPI and Protobuf?
4. It supported bi-directional UML?
5. Ballerina became a first class citizen of the Doctor?

Stay tuned! *we're just getting started here.*

>THANKS

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pb33f.io/discord

github.com/pb33f

linkedin.com/in/daveshanley

Princess
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