

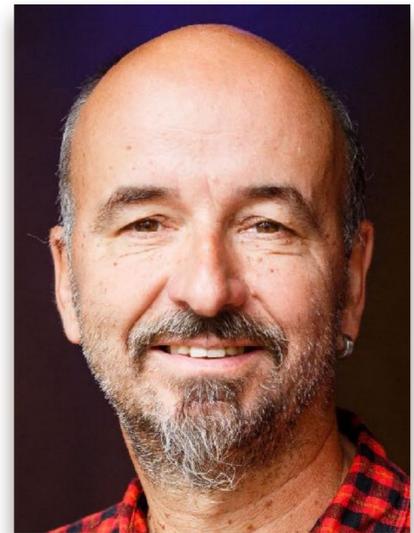
# Faire simple, la clé de la durabilité ?

**Bertrand Delacrétaz**

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Former Board Member, Apache Software Foundation

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grep.codeconsult.ch

*images: Adobe Stock, sauf indication contraire  
revision 2024-12-05*



**devfest**  
Dijon 24



**3**  
parties

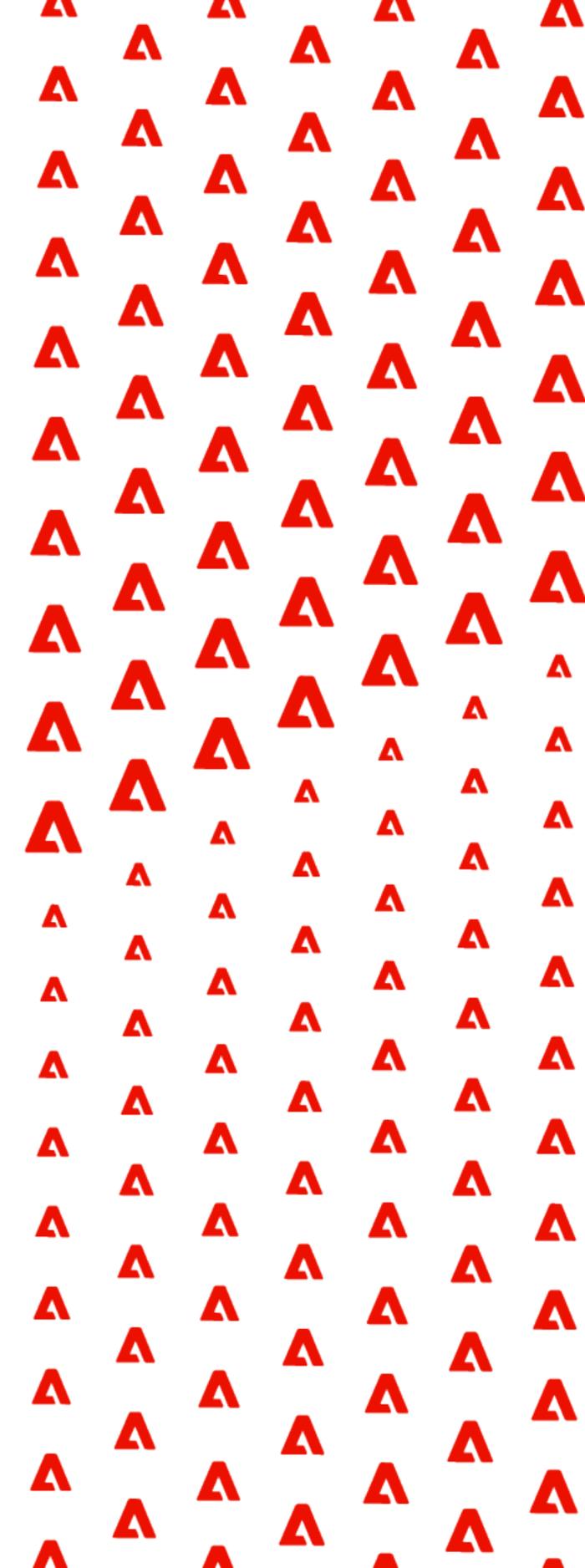
**Simplicité et beauté ...**

**Exemples**

**Comment faire ?**

# 1

## Simplicité et beauté ...





# Simplicité splendide et évidente



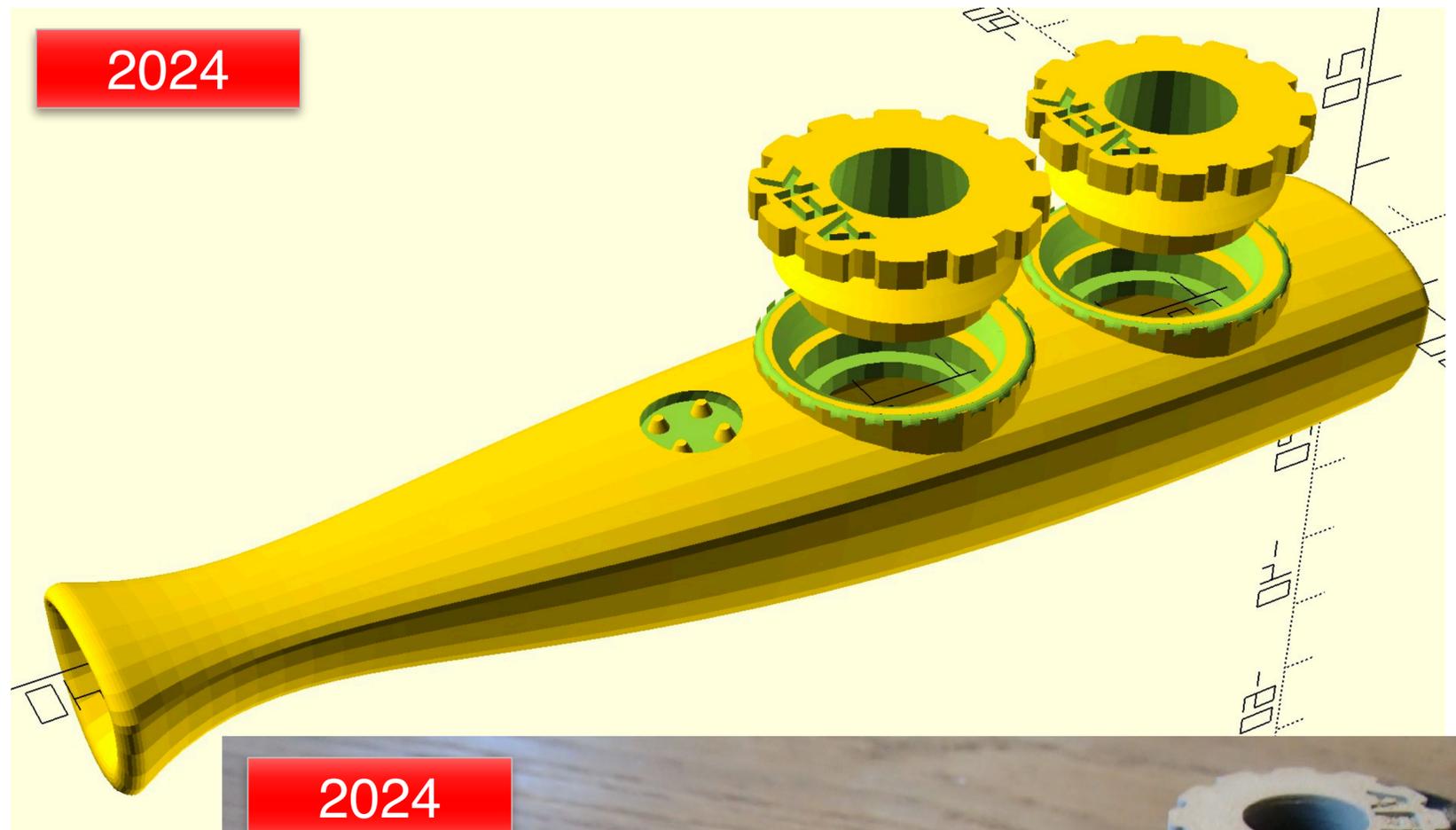


**Le kazoo,  
minimaliste  
mais efficace**

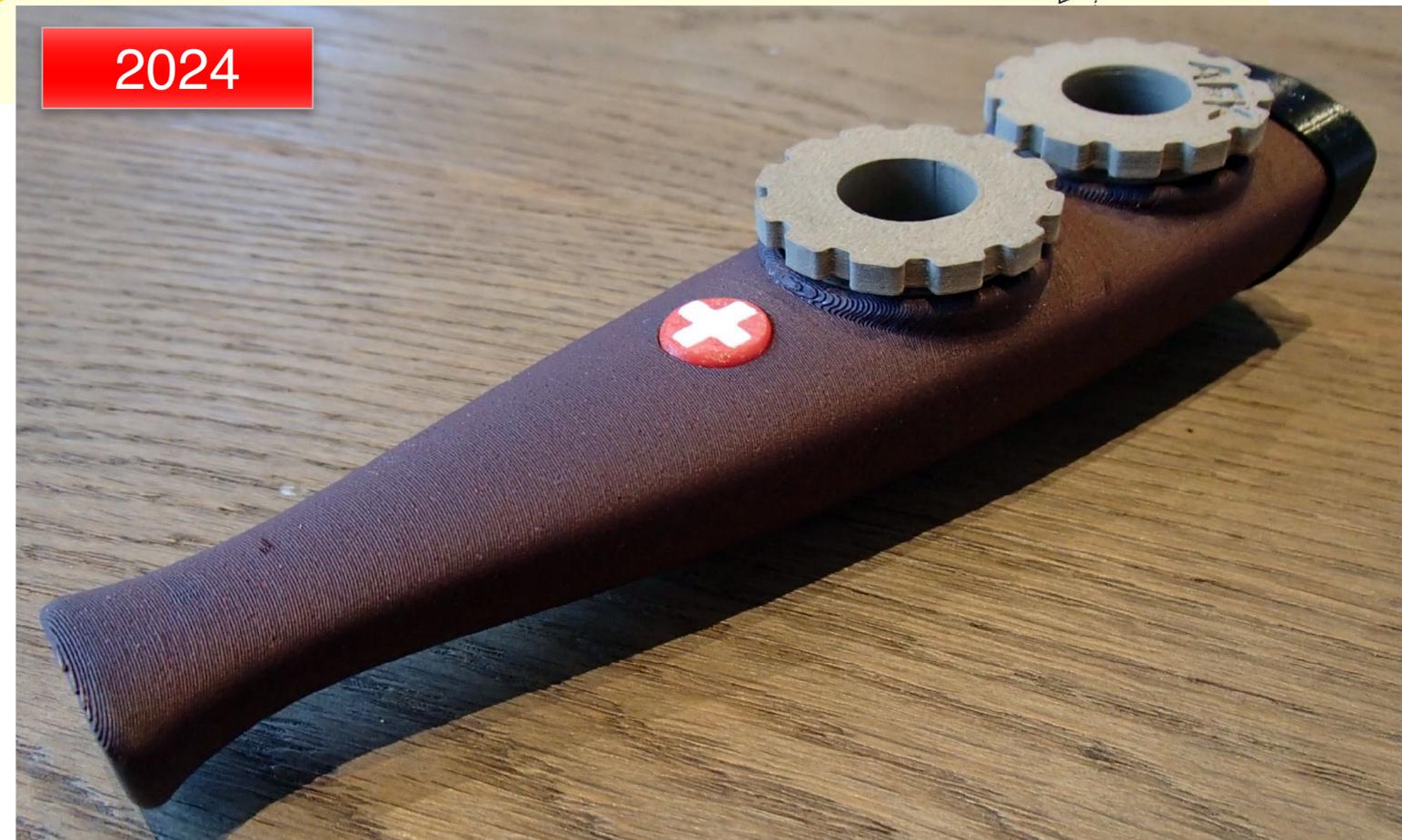
# Simple, mais pas simpliste...



1930



2024



2024

**Simple, mais pas simpliste!**

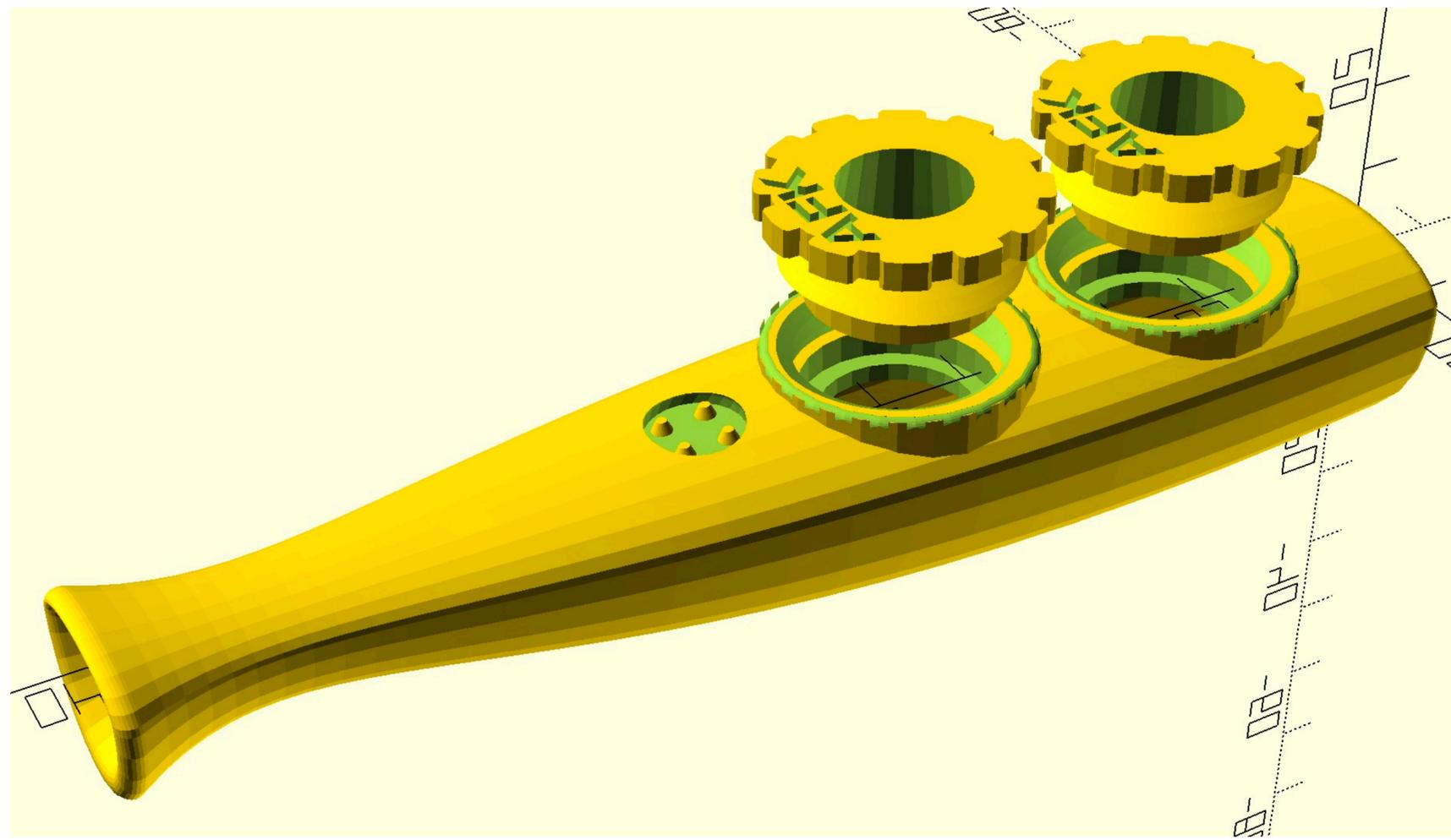
SPACE & PHYSICS

# **Fact or Fiction?: NASA Spent Millions to Develop a Pen that Would Write in Space, whereas the Soviet Cosmonauts Used a Pencil**

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**SCIENTIFIC  
AMERICAN**

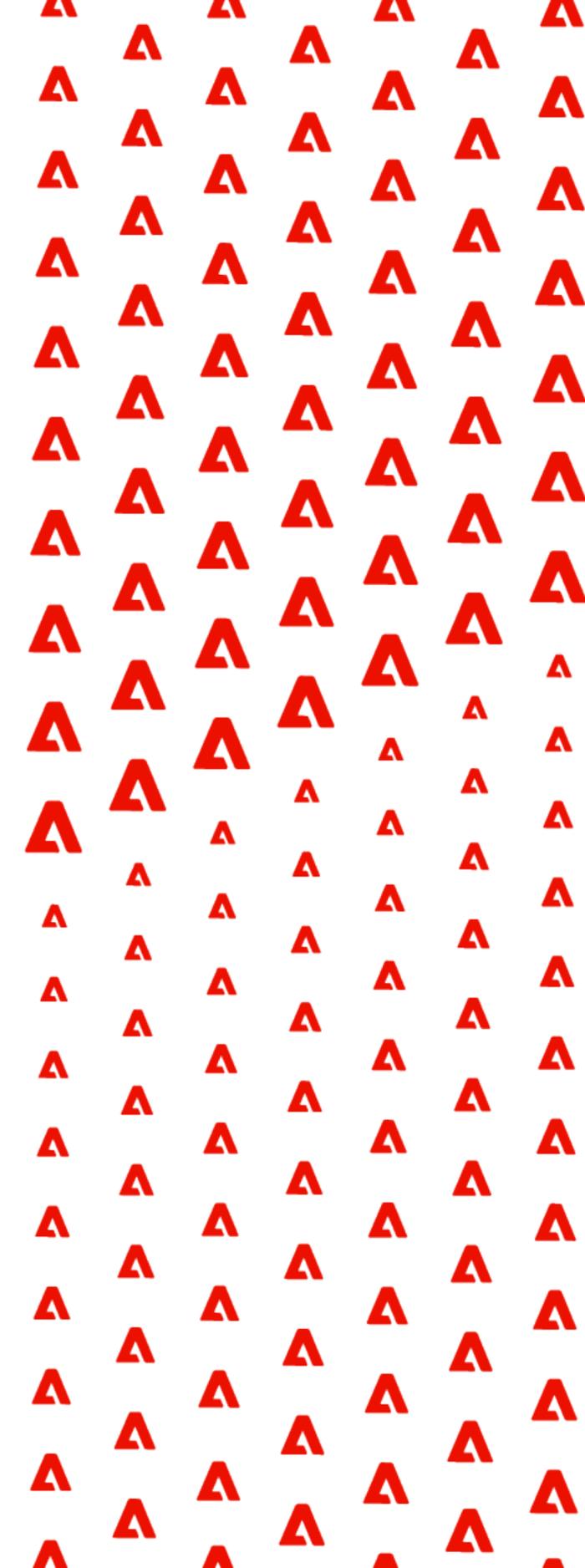
---



simplicité splendide, adaptée et efficace

# 2

## Exemples

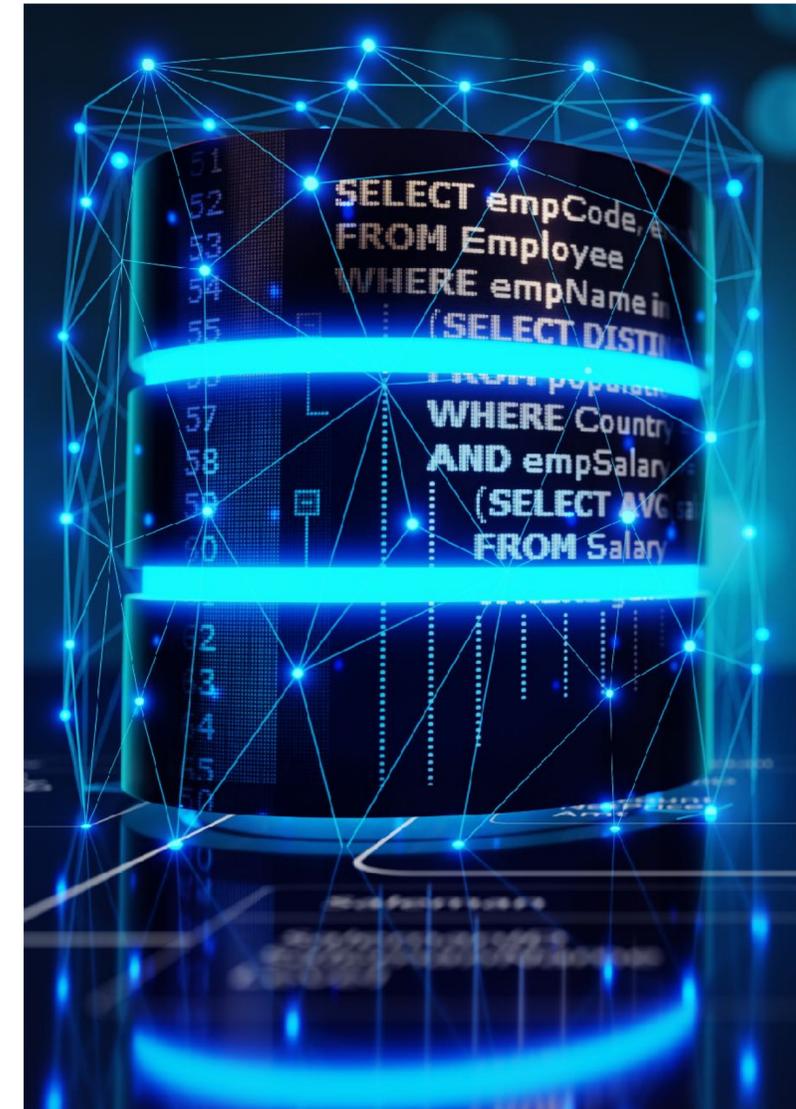


# Acquisition continue de données météo?



Plusieurs centaines de stations

données continues



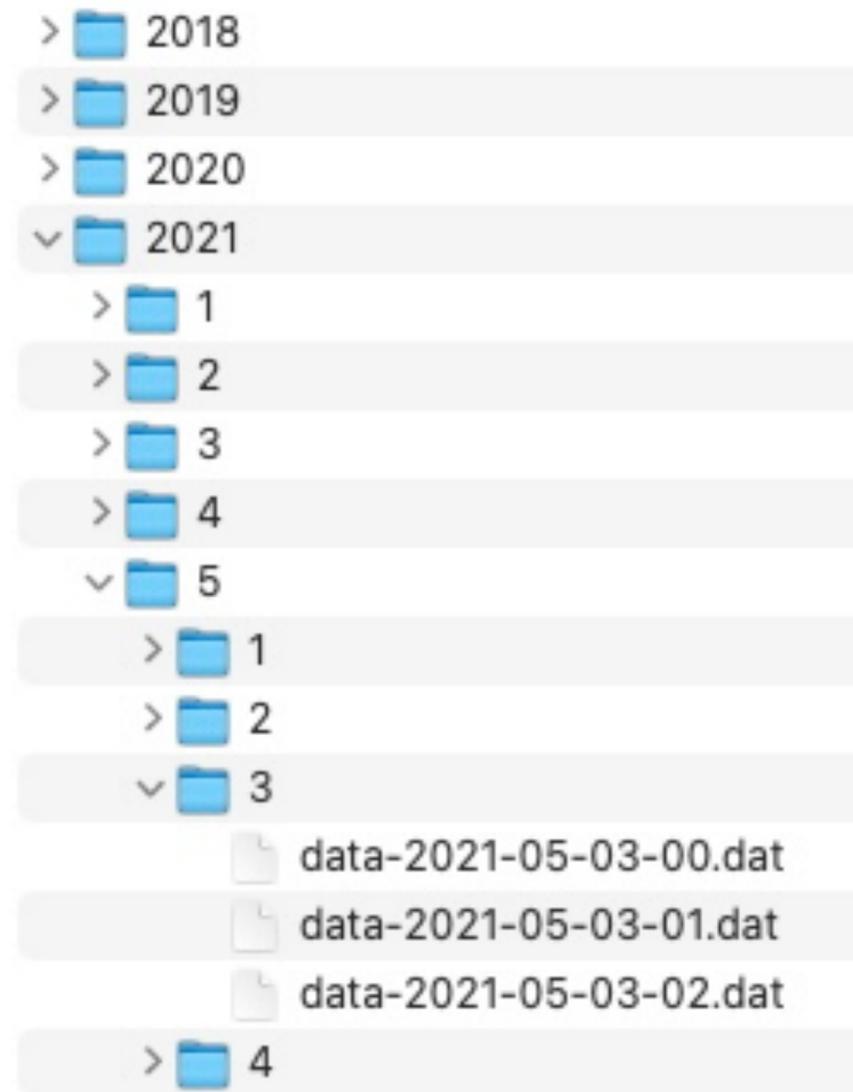
Stockage et requêtes simples?

# Acquisition continue de données météo!



Plusieurs centaines de stations

continuous data



Stockage et requêtes simples:  
*Fichiers dans des dossiers chronologiques*

# Enregistrement audio numérique robuste?

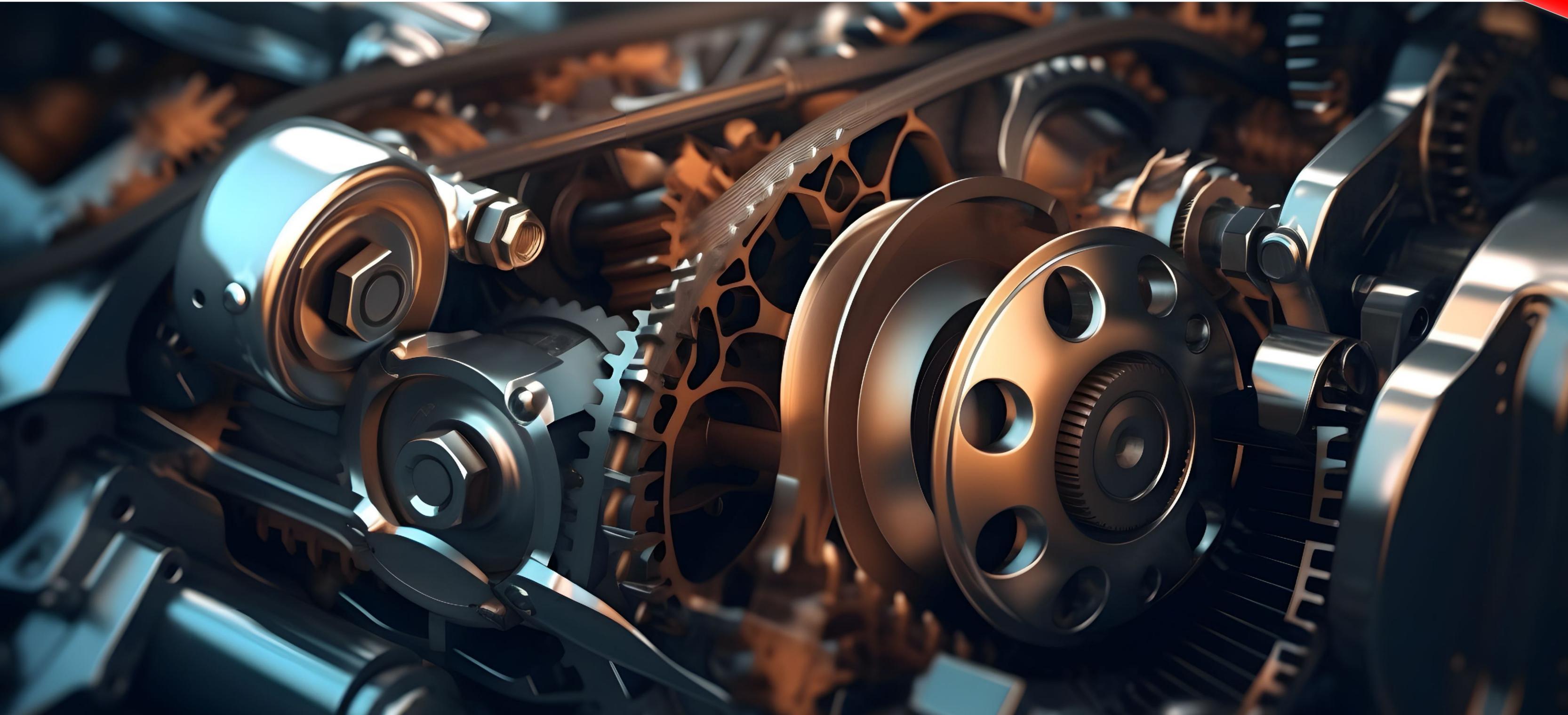
C'était en 1999...



enregistrement audio continu  
impossible de perdre > 15 secondes

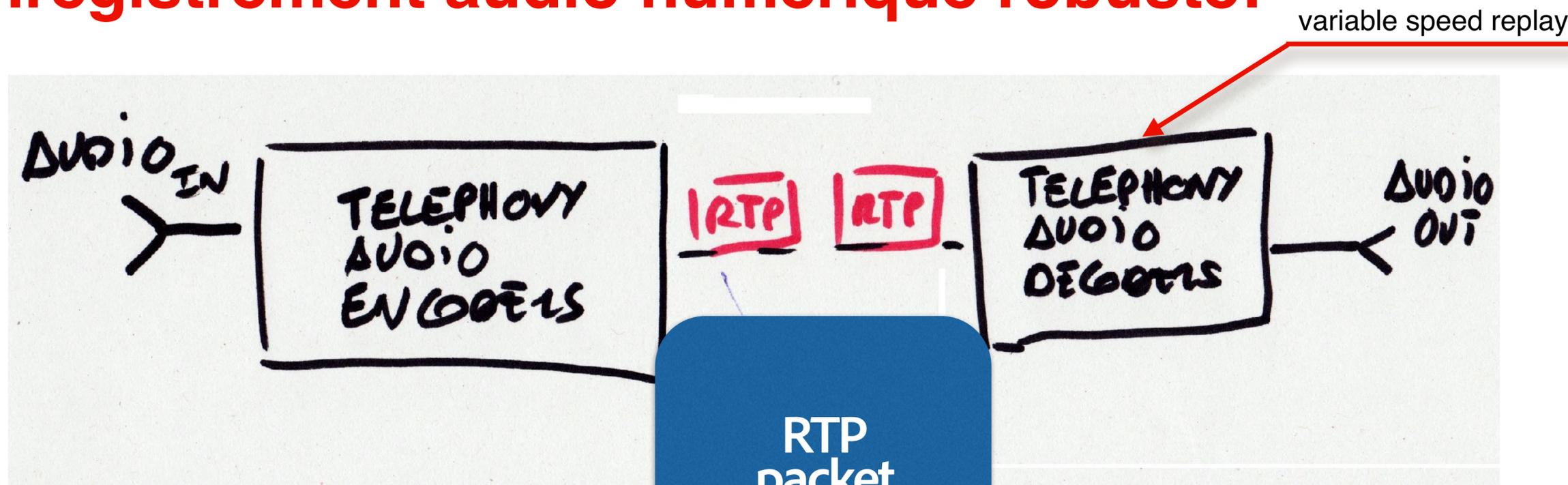
# Enregistrement audio numérique robuste??

Complexe ?

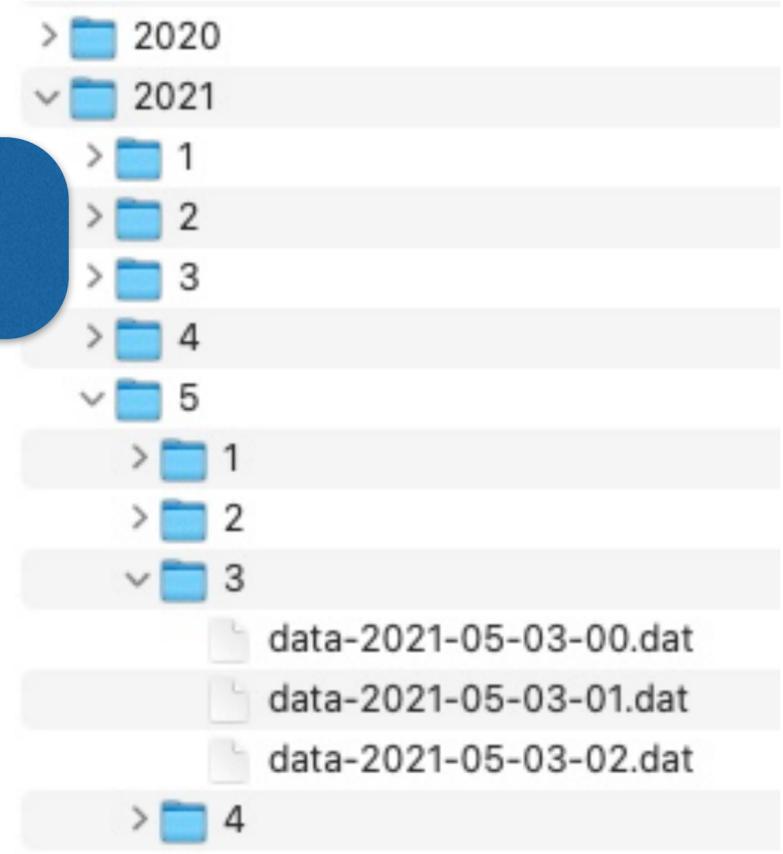


# Enregistrement audio numérique robuste!

86 lignes de code - 3 mois de travail



```
s = UDP socket
While(s is open) {
  Wait for packet
  Packet matches our filter?
  If yes:
    Compute storage path from T
    Append packet to storage file
}
```



# Web Components pour une page de commerce?

<https://opensource.adobe.com/web-platform-zoo>

Cart: 7 products, 38 items, USD 540 - [Cart contents](#)



**Blue bottle**

+ 3 -

USD 17: 3 in cart → USD 51

*This one is really blue*



**Symmetric knife**

+ 11 -

USD 21: 11 in cart → USD 231

*Not really, it's just marketing*



**Fantastic bottle**

+ 4 -

USD 19: 4 in cart → USD 76

*This bottle is really fantastic*



**Super bread knife**

+ 0 -

USD 8: 0 in cart → USD 0

*Stainless steel, the works!*



**East white**

+ 11 -

USD 5: 11 in cart → USD 55

*Eastern is bestern*



**Soft South Red**

+ 5 -

USD 15: 5 in cart → USD 75

*Soft but not weak!*



**Kitchen knife**

+ 2 -

USD 10: 2 in cart → USD 20

*A must for every kitchen*



**White from the South**

+ 0 -

USD 6: 0 in cart → USD 0

# Web Components pour une page de commerce??

<https://opensource.adobe.com/web-platform-zoo>

**STATUS** Cart: 7 products, 38 items, USD 540 - [Cart contents](#)

IMAGE	PRODUCT	IMAGE	IMAGE	IMAGE
				
<b>TITLE</b>	<b>Blue bottle</b>	<b>Symmetric knife</b>	<b>Fantastic bottle</b>	<b>Super bread knife</b>
<b>SLIDER</b>	<input type="text" value="3"/>	<input type="text" value="11"/>	<input type="text" value="4"/>	<input type="text" value="0"/>
<b>PRICE</b>	USD 17: 3 in cart → USD 51	USD 21: 11 in cart → USD 231	USD 19: 4 in cart → USD 76	USD 8: 0 in cart → USD 0
<b>TEXT</b>	<i>This one is really blue</i>	<i>Not really, it's just marketing</i>	<i>This bottle is really fantastic</i>	<i>Stainless steel, the works!</i>
				
	<b>East white</b>	<b>Soft South Red</b>	<b>Kitchen knife</b>	<b>White from the South</b>
	<input type="text" value="11"/>	<input type="text" value="5"/>	<input type="text" value="2"/>	<input type="text" value="0"/>
	USD 5: 11 in cart → USD 55	USD 15: 5 in cart → USD 75	USD 10: 2 in cart → USD 20	USD 6: 0 in cart → USD 0
	<i>Eastern is bestern</i>	<i>Soft but not weak!</i>	<i>A must for every kitchen</i>	

PRODUCT LIST

# Web Components pour une page de commerce!

<https://opensource.adobe.com/web-platform-zoo>

**STATUS** Cart: 7 products, 38 items, USD 540 - [Cart contents](#)

**HTML TEMPLATE**

**INC-DEC**

**PRODUCT LIST**

 <p><b>Blue bottle</b></p> <p>+ 3 -</p> <p>USD 17: 3 in cart → USD 51</p> <p><i>This one is really blue</i></p>	 <p><b>Symmetric knife</b></p> <p>+ 11 -</p> <p>USD 21: 11 in cart → USD 231</p> <p><i>Not really, it's just marketing</i></p>	 <p><b>Fantastic bottle</b></p> <p>+ 4 -</p> <p>USD 19: 4 in cart → USD 76</p> <p><i>This bottle is really fantastic</i></p>	 <p><b>Super bread knife</b></p> <p>+ 0 -</p> <p>USD 8: 0 in cart → USD 0</p> <p><i>Stainless steel, the works!</i></p>
 <p><b>East white</b></p> <p>+ 11 -</p> <p>USD 5: 11 in cart → USD 55</p> <p><i>Eastern is bestern</i></p>	 <p><b>Soft South Red</b></p> <p>+ 5 -</p> <p>USD 15: 5 in cart → USD 75</p> <p><i>Soft but not weak!</i></p>	 <p><b>Kitchen knife</b></p> <p>+ 2 -</p> <p>USD 10: 2 in cart → USD 20</p> <p><i>A must for every kitchen</i></p>	 <p><b>White from the South</b></p> <p>+ 0 -</p> <p>USD 6: 0 in cart → USD 0</p>

AI 1Y STATUS  
(INVISIBLE)

simple, mais pas simpliste!

# HTTP 0.9, le Moteur Original du Web



Client

GET /index.html

TCP socket



Server

## https://http.dev/0.9

The **HyperText Transfer Protocol (HTTP)** is a data communications protocol and acts as the foundation of the *World Wide Web*. It was released in 1991 and originally did not have a version number associated with it. Later, it was referred to as version 0.9 ([HTTP/0.9](#)) to distinguish it from future revisions.

### Table of Contents

- [1. Request methods and usage](#)
- [2. Responses](#)
- [3. Example](#)
- [4. Takeaway](#)
- [5. See also](#)

### Request methods and usage

The sole HTTP request method available was HTTP **GET**, which only included a path to the resource. Unlike future revisions of the protocol, the full **URL** was not included because the protocol version, server, and port were redundant and therefore unnecessary after a connection was made. There was no support for **HTTP header fields** in the HTTP request.

### Responses

The HTTP response included only the requested resource, which was always a *Hypertext Markup Language (HTML)* file. There were no **HTTP header fields** in the HTTP response, and no **HTTP status codes** existed to indicate success, error, or otherwise. If an error occurred then the server will generate a situation-specific *HTML* file that the client will present to the user to describe the issue.

### Example

In the following example, the client is assumed to have connected to a server and requests an *HTML* file. The server successfully processes the HTTP request and responds with the contents.

#### Request

```
GET /index.html
```

#### Response

```
<html>
Welcome to the example.re homepage!
</html>
```

### Takeaway

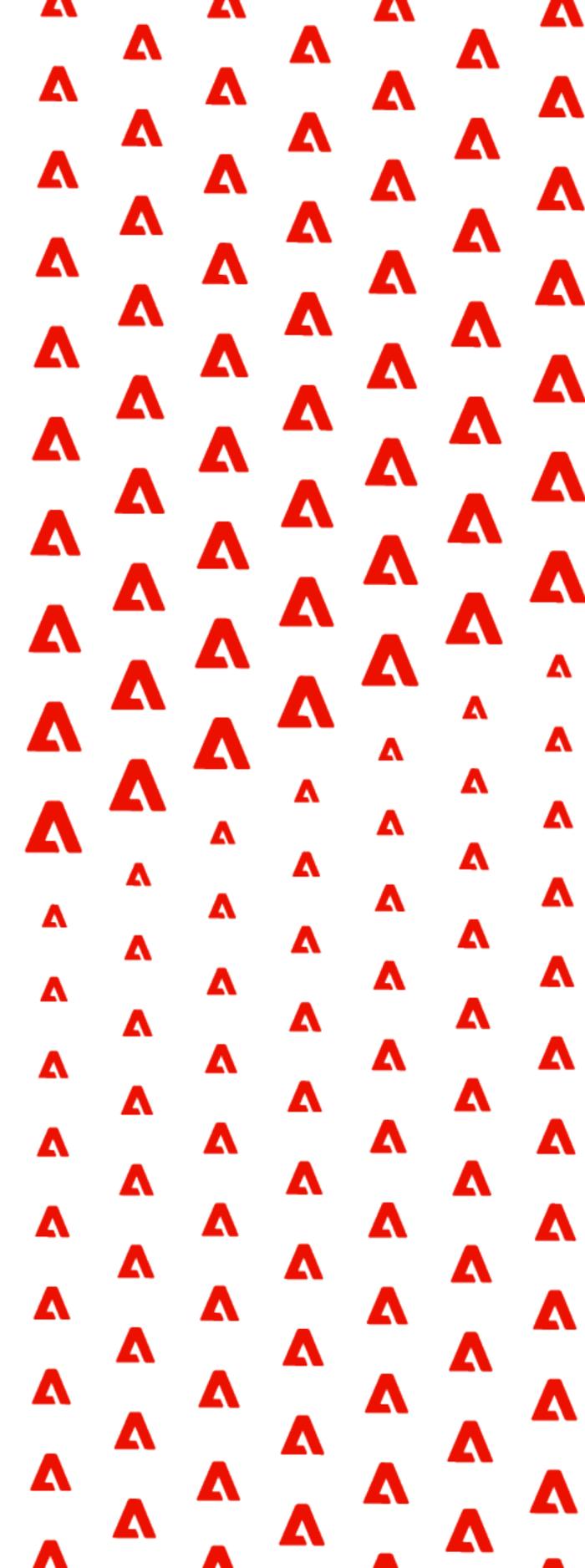
**HTTP/0.9** was the original release and it was extremely simple, supporting only the HTTP **GET** method. Only *HTML* files were included in HTTP responses, there were no **HTTP headers**, and there were no **HTTP status codes**.

### See also

- [HTTP/1.0](#)
- [HTTP/1.1](#)
- [HTTP/2](#)
- [HTTP/3](#)

# 3

## Comment faire?





La simplicité  
au centre..

# La *quête* de simplicité..



**N'abandonnez pas - essayez encore!**



# Mesurer, évaluer



*Il semble que la perfection soit atteinte non quand il n'y a plus rien à ajouter, mais quand il n'y a plus rien à retrancher.*

*Antoine de Saint-Exupéry*

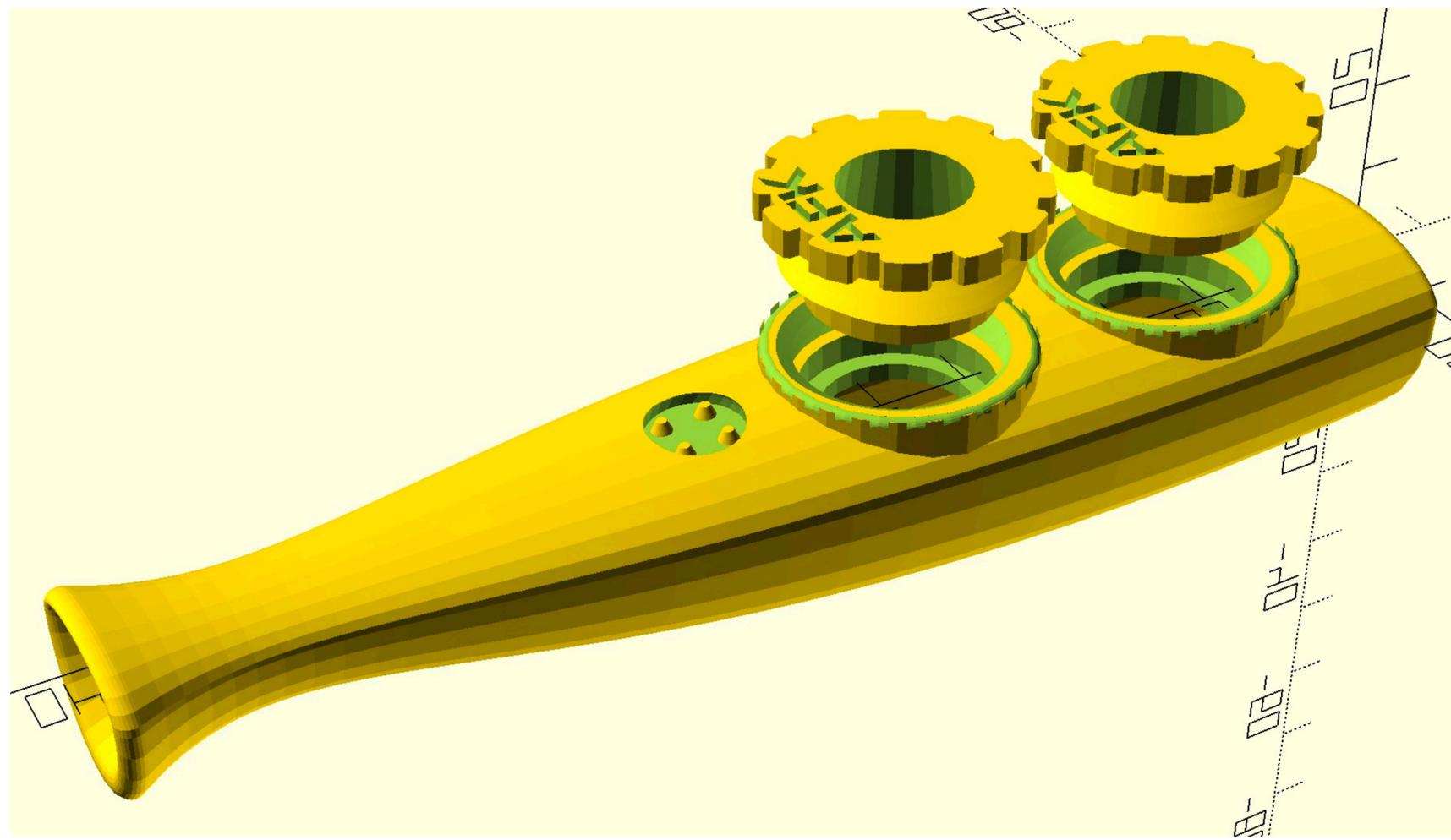
# Définition d'achèvement ("of done")



Reste-t-il  
quelque chose à  
retrancher?



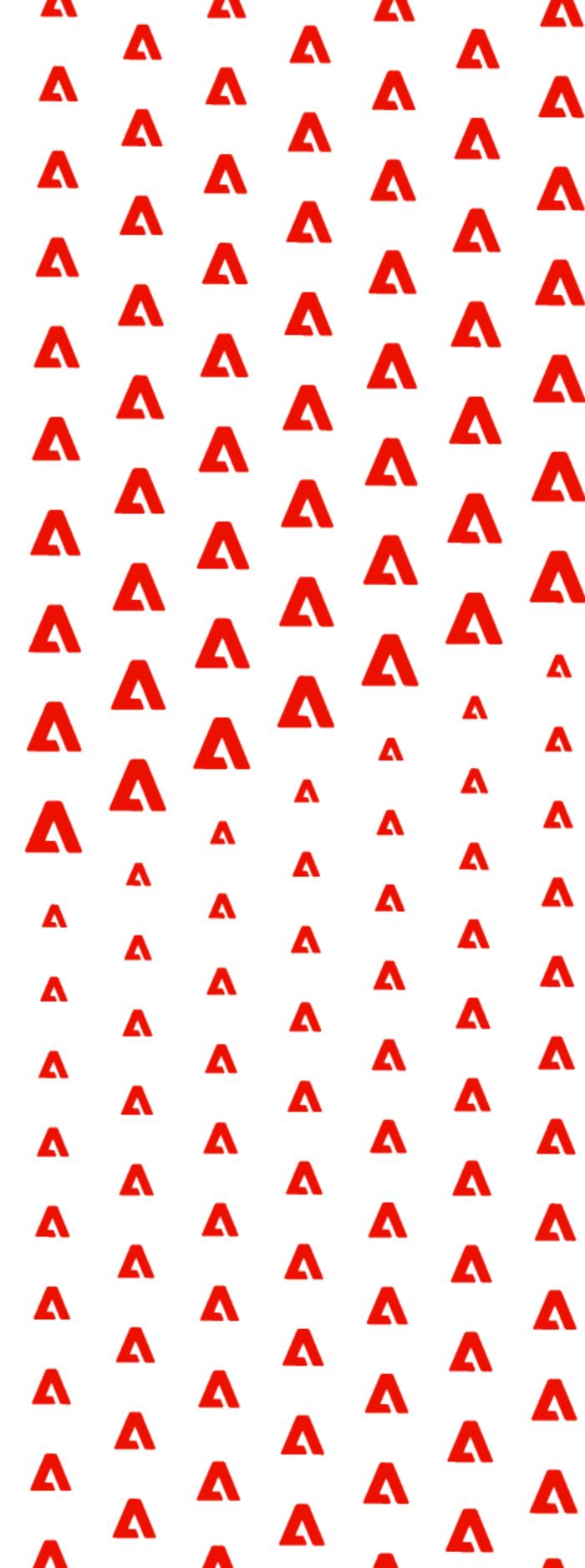
# Simplicité splendide et évidente



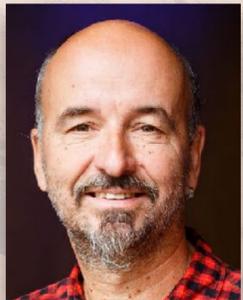
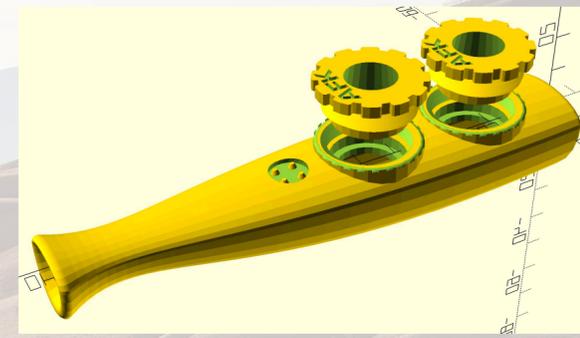
# Simple, mais pas simpliste

# 4

# Coda



# LA SIMPLICITÉ? IMPORTANTE, DIFFICILE, INTÉGRABLE!



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[fosstodon.org/@bdelacretaz](https://fosstodon.org/@bdelacretaz)  
[grep.codeconsult.ch/](https://grep.codeconsult.ch/)

