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A long story of genomic interface

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► **To cite this version:**

Franck Samson, Carène Rizzon. A long story of genomic interface. Jobim, Jun 2023, Multiples, France. . hal-04431423

HAL Id: hal-04431423

<https://hal.science/hal-04431423>

Submitted on 1 Feb 2024

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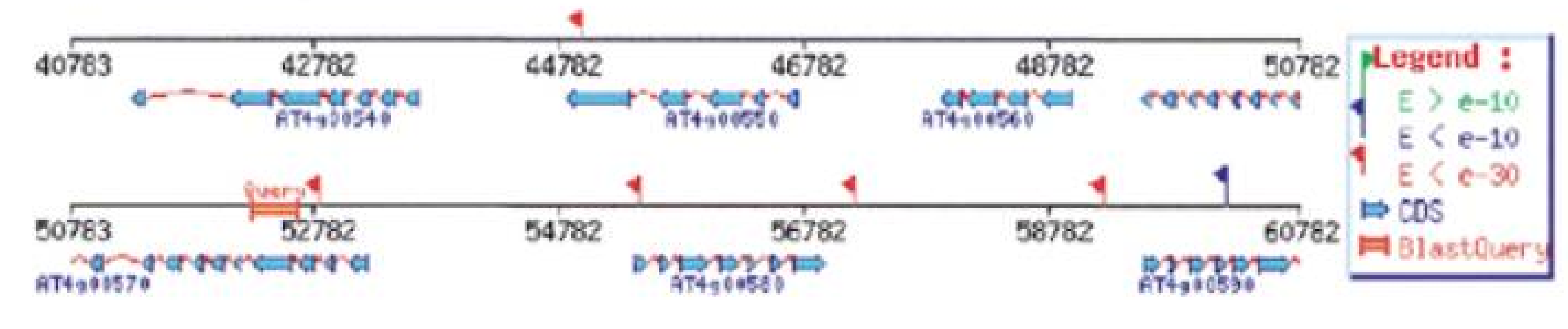
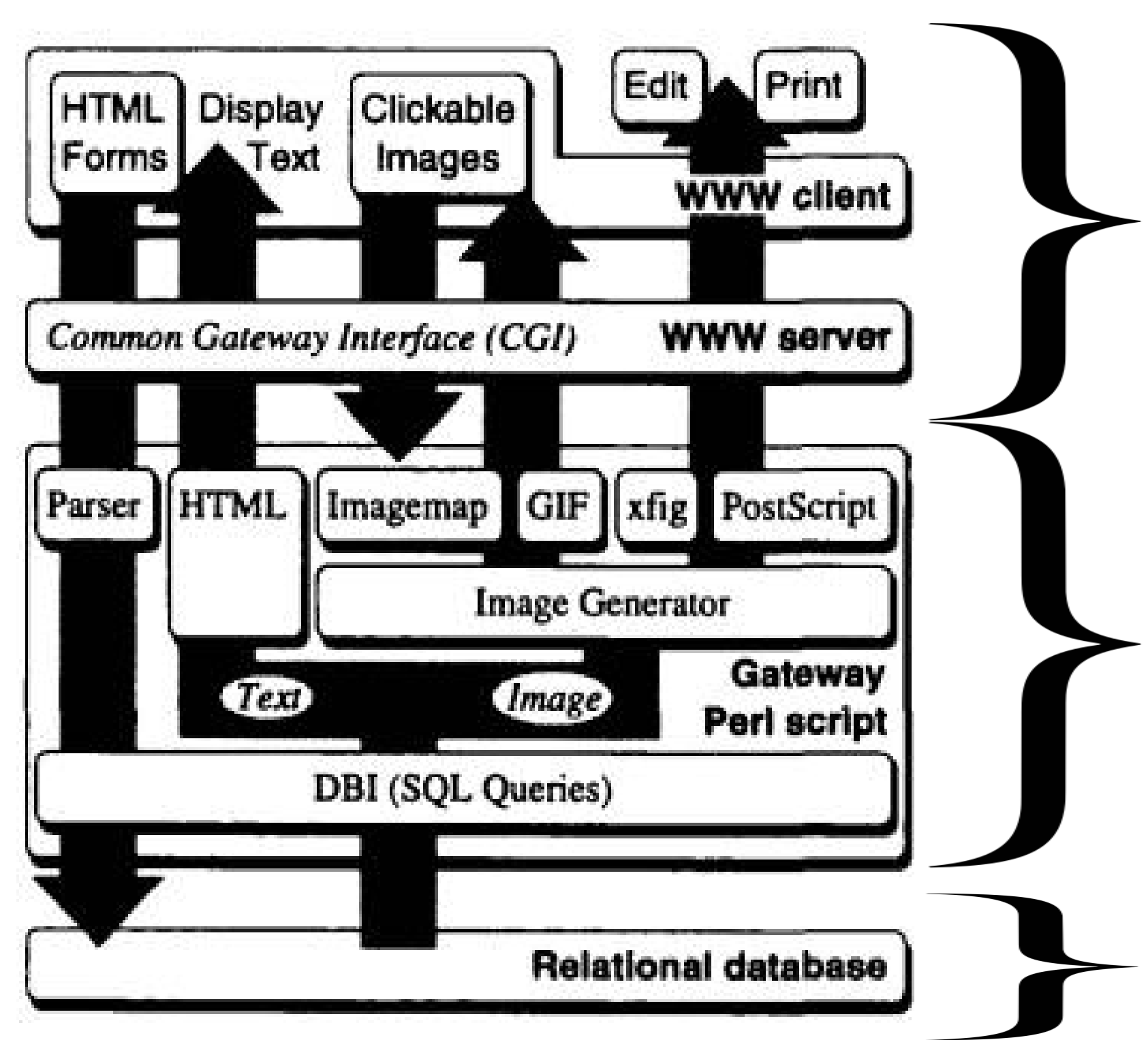
FliesDB a long story of genomic interface.

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30 years ago, MICADO database : the beginnings. [Microbial genomes]

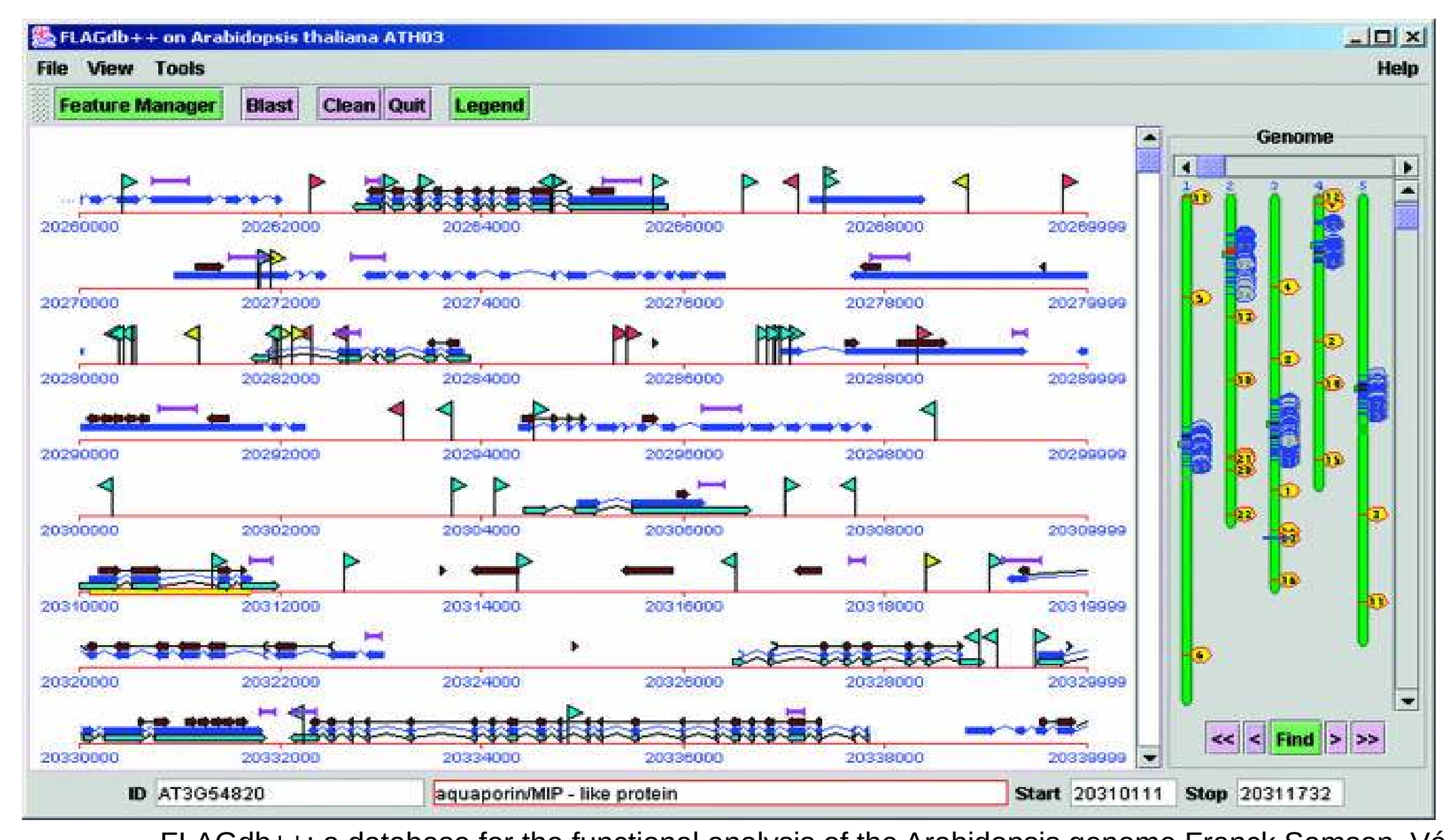


Technics for the interface : *GIF* images are generated on server to preserve the client and associated with *imagemaps* for user interactions and *clickable images*

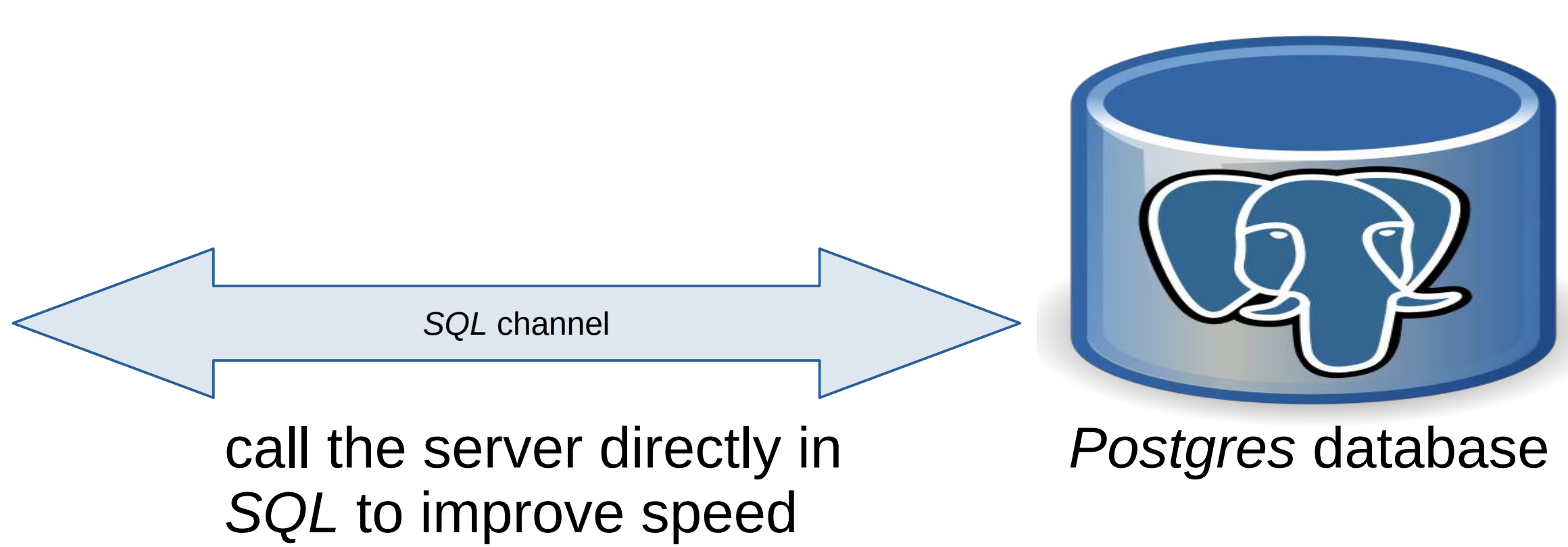
Relational database, Oracle then postgresql

Micado a network oriented database for microbial genomes. Véronique BiauDET, Franck Samson, Philippe BessiÈres. CABIOS, 1997.

10 years ago, FLAGdb++ database : the story continues. [Plants genomes]

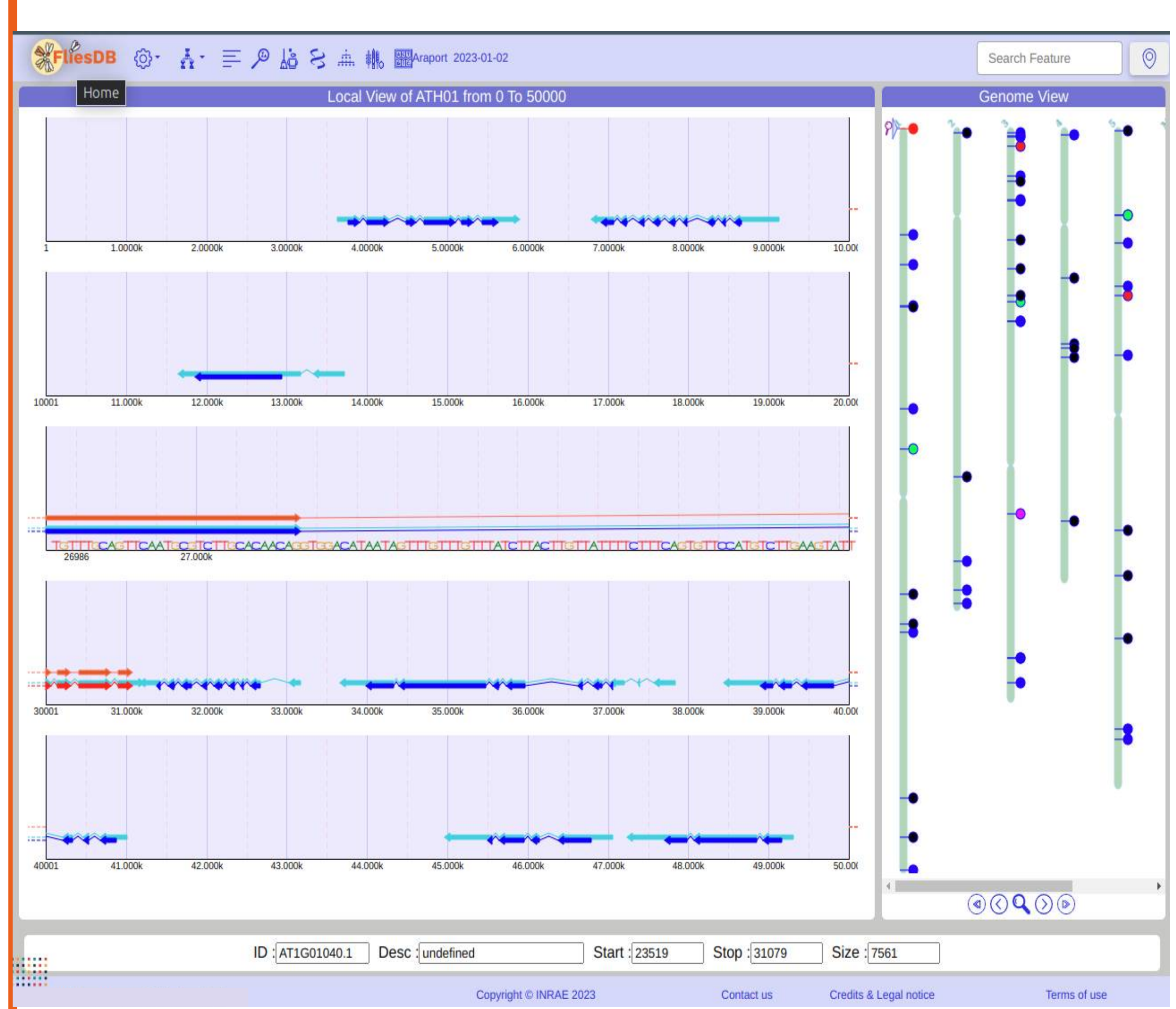


Fashion turns to the *java* language and *javaweb start* technics. The client draws the images of physical view with associated features and the genome view with chromosomes map.

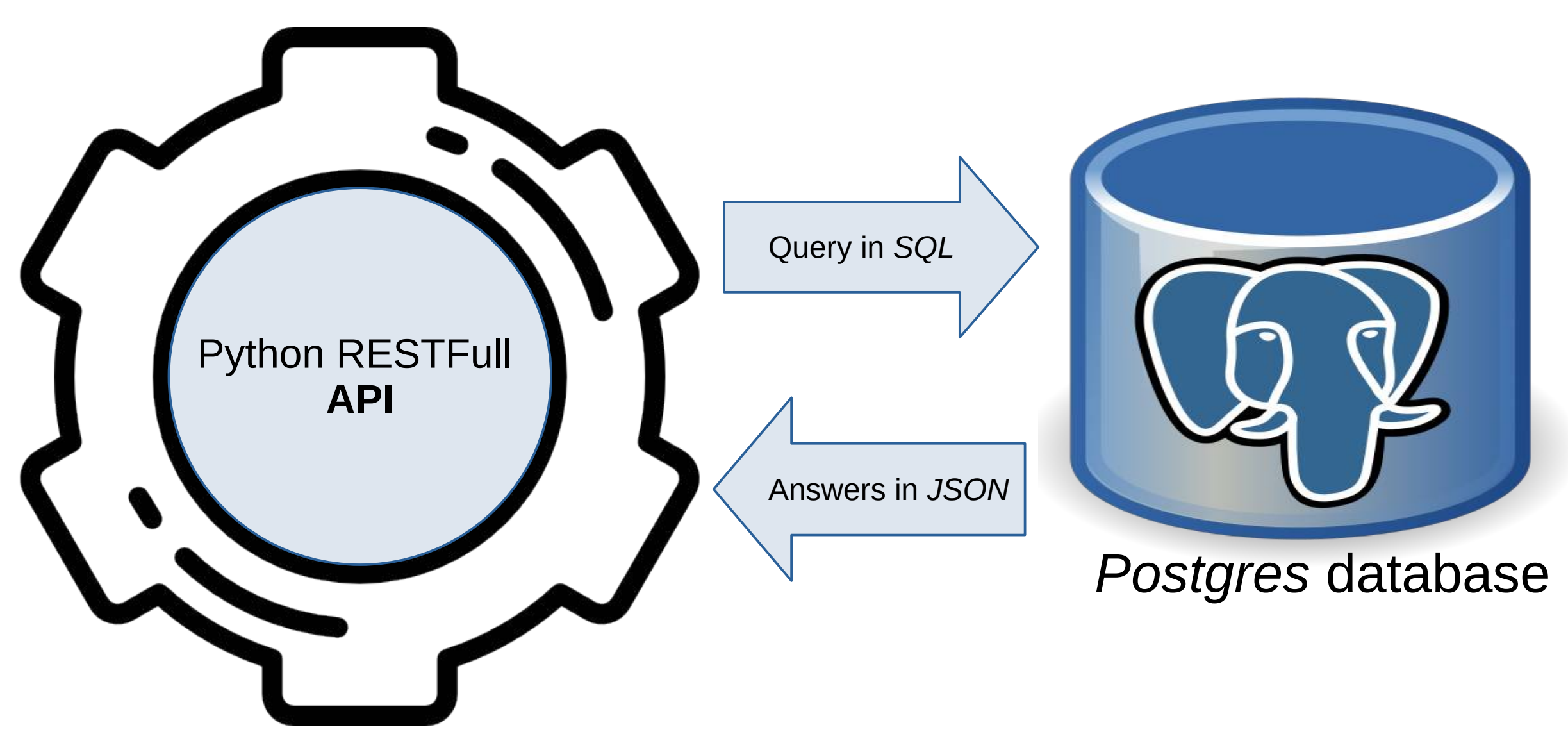


FLAGdb++: a database for the functional analysis of the Arabidopsis genome Franck Samson, Véronique Brunaud, Sylvain Duchêne, Yannick De Oliveira, Michel Caboche, Alain Lecharny, Sébastien Aubourg, Nucleic Acids Res. 2004

now, FliesDB database : the maturity, javascript's heyday. [Every genomes]



Fashion turns to the *python* language. *Python* is used for the REST API. We developed the interface in full *vanilla javascript*. Calls to the API use *XMLHttpRequest*. The images were generated in *SVG* format on the client with the *d3js* library.



What will fashion bring us in the future?

- The **WebSocket API** is an advanced technology that opens a two-way communication channel between a browser (client side) and a server. This technics can already be applied on our database.
- **WebAssembly** (Wasm) is designed as a portable compilation target for programming languages, enabling deployment on the web for client and server applications.
- **IndexedDB** for client side storage.
- We will see soon what will be the new fashion, perhaps in next JOBIM...