

DBXTalk/Garage

A strategy to RDBMS connectivity



Esteban Lorenzano

Author of DBXTalk (with many others), Voyage and your Pharo fireman :)

One year ago...

DBXTalk suite

- Pharo strategy to RDBMS connectivity
- Includes:
 - GLORP
 - Database drivers
 - Other tools

GLORP

- “The” ORM for Smalltalk dialects (no point on doing another).
- Mature, modern, proven, used, tested, all what you might want (except cookies).
- “GLORP is amazing!” (Niall Ross, a couple of years ago)
 - Just... Pharo port of GLORP is less amazing :)

GLORP for Pharo

- Old port...
 - Nobody knows when was branched :(
 - Is not completely ported
 - Some are working on it, but cost of maintaining is growing
- Compatible with PostgresV2, NBSqlite3 and OpenDBX

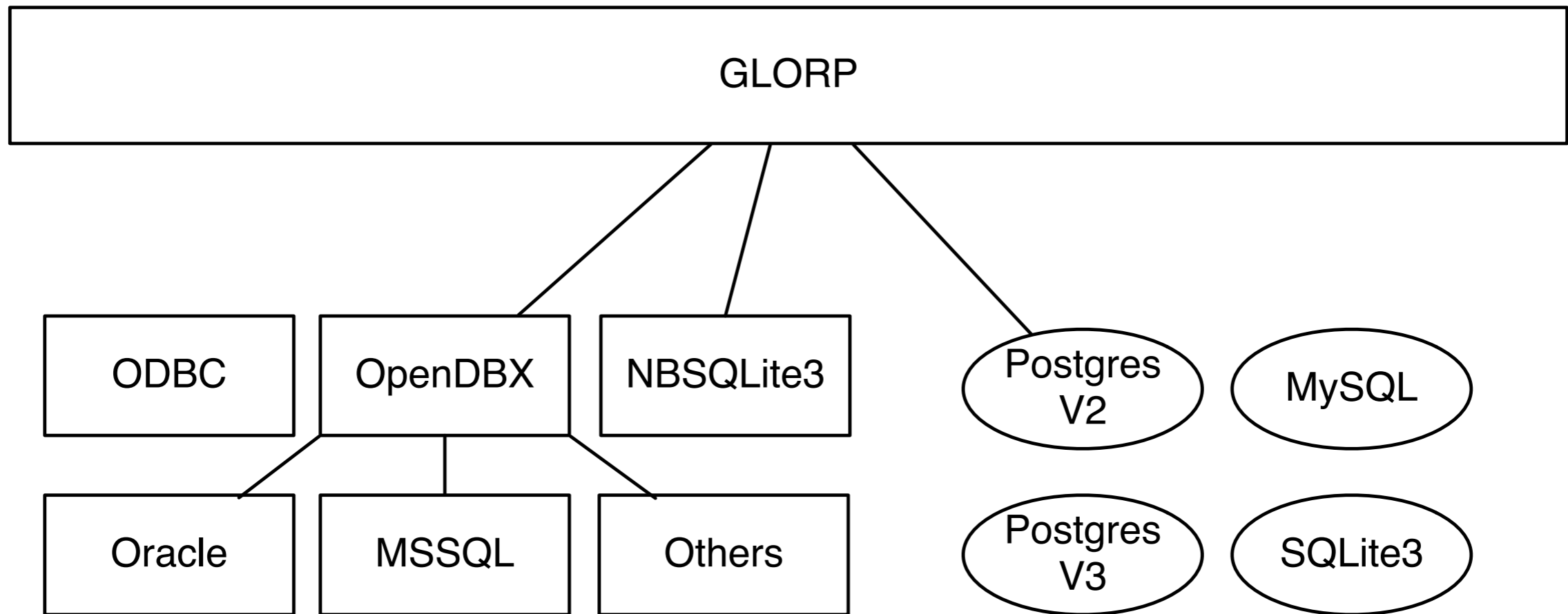
Database drivers

- There are several native drivers on Pharo (for non-commercial databases)
 - PostgresV2, PostgresV3, Sqlite3, MySQL
- They are good, but:
 - Incompatible APIs (so is hard to plug them into GLORP)
 - Dispersed, not clear maintenance strategy

Database drivers

- We provide OpenDBX driver to connect with commercial databases:
 - Oracle, MSSQL, others.
- Uses FFI so it blocks VM on execution.
- Is “yet another layer”, so not all capabilities are provided.

architecture



Documentation

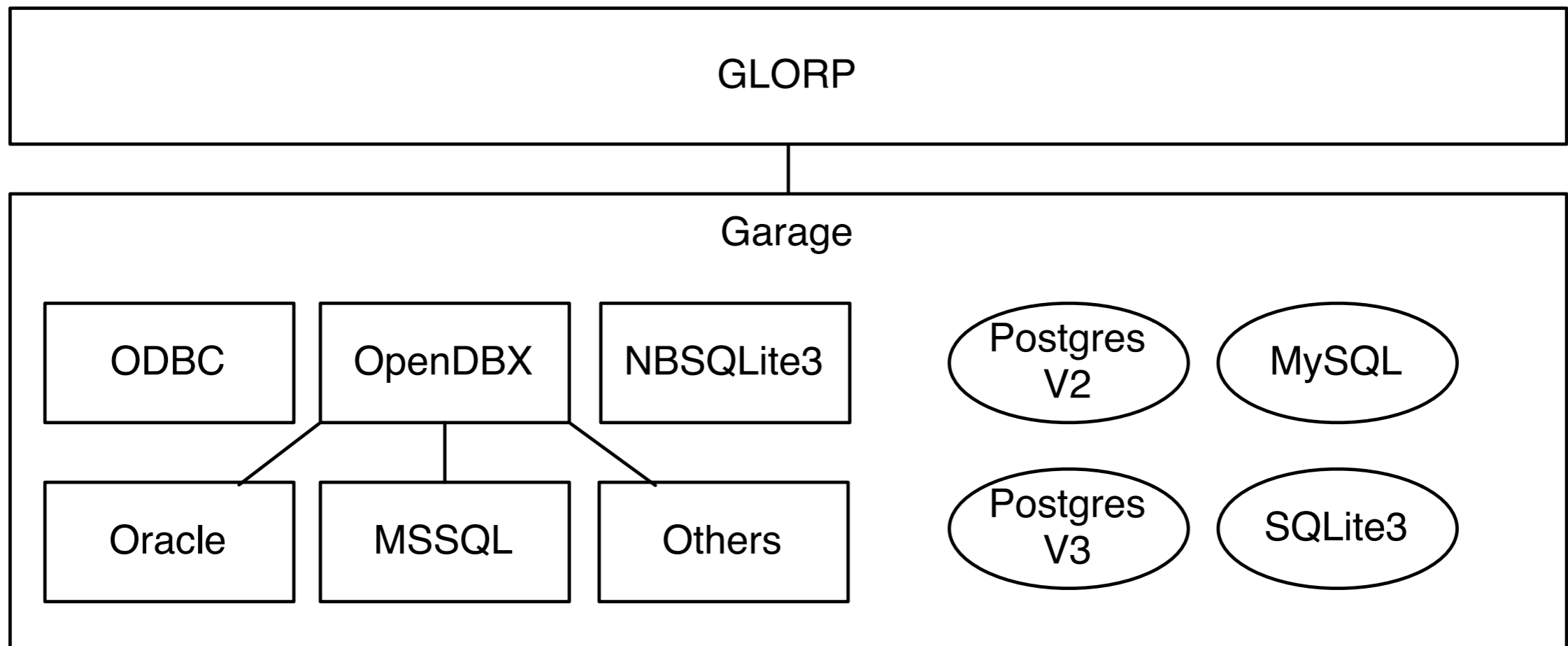
- There is none, or almost none.
- When it is, people does not know where to find it.

Now

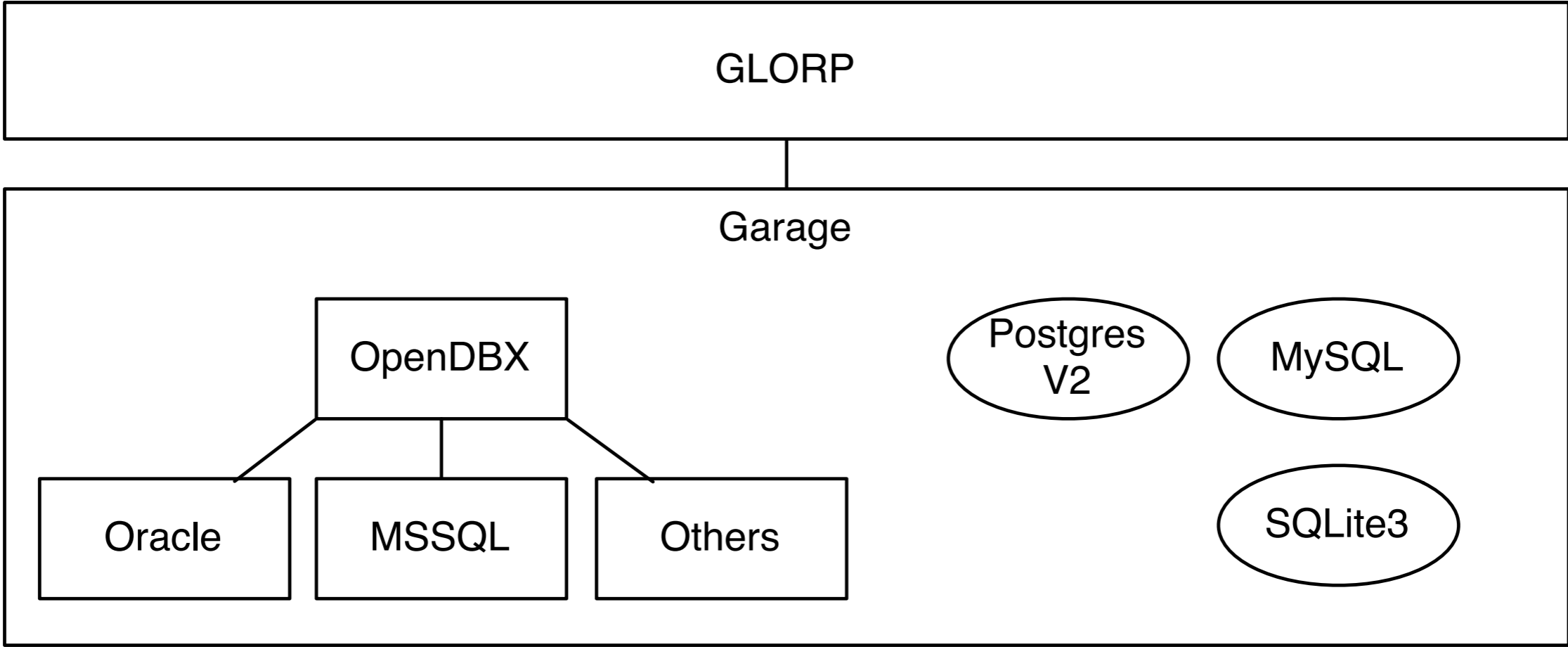
Garage

- Common API to connect relational drivers (think on JDBC)
- Compatible with GLORP
- Implements drivers for:
 - Sqlite3, PostgresV2, MySQL
 - ... and OpenDBX

Architecture



Architecture



Jenkins

- OpenDBX for Oracle, MySQL, Postgresql and SQLite3
- Native MySQL, PostgresV2 and NBSQLite3
- GLORP + Garage
- Linux and Windows. Mac soon(™).
- Yes, it is just 32bits
- <https://ci.inria.fr/dbxtalk>

The screenshot shows the Jenkins web interface for the DBXTalk CI server. The browser address bar shows 'ci.inria.fr'. The Jenkins logo is at the top. On the left, there are navigation links: People, Build History, Project Relationship, and Check File Fingerprint. Below these are two sections: 'Build Queue' (empty) and 'Build Executor Status' (showing two executors in 'Idle' status). The main area displays a welcome message and a table of jobs. The table has columns for status (S), weather icon (W), name, and last success time. Jobs include various combinations of artifacts, drivers, and databases like MySQL, PostgreSQL, and SQLite3.

S	W	Name ↓	Last Su
●	☀	CLibrary-OpenDBX-1.4.6-MySQL	2 hr 36
●	☀	CLibrary-OpenDBX-1.4.6-Oracle	21 hr -
●	☀	CLibrary-OpenDBX-1.4.6-Postgresql	7 hr 0 m
●	☀	CLibrary-OpenDBX-1.4.6-SQLite3	23 hr -
●	☀	Garage-MySQL	18 hr -
●	☀	Garage-OpenDBX-Sqlite3	21 min
●	☀	Garage-Postgres	10 hr -
●	☀	Garage-Sqlite3	21 hr -
●	☀	Garage-Webdoc	22 min
●	☀	GarageGlorp-MySQL	6 hr 30

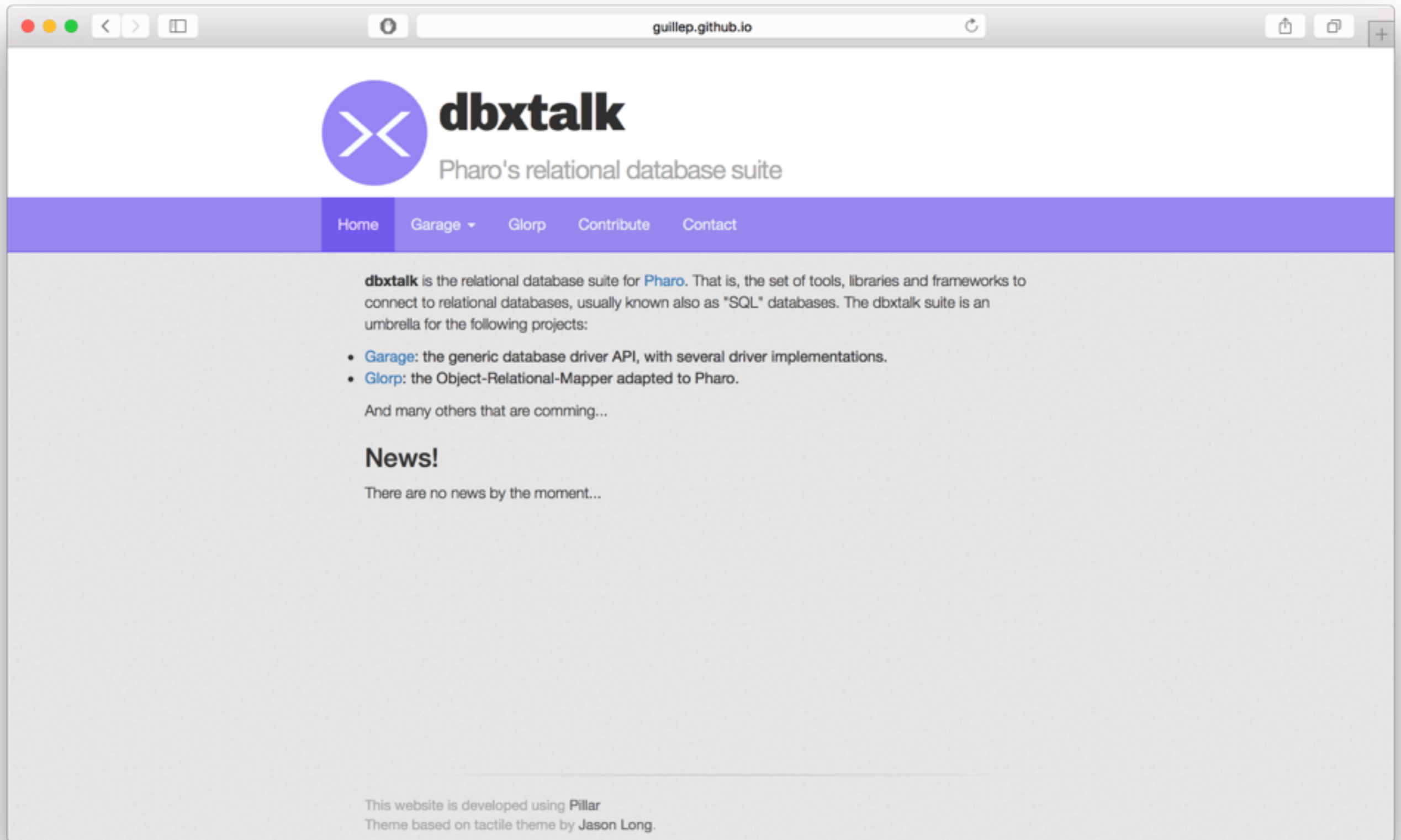
Next year

We really need

- New GLORP port.
- Threaded VM
 - ... and OpenDBX drivers to take care about.
- DOCUMENTATION!

Would be nice

- Add drivers (as needed, as always).
- Replace FFI drivers with native drivers when possible (but many vendors does not share the API).
- Replace OpenDBX with vendor libraries (but this does not have much sense before ThreadedVM).
- DOCUMENTATION!



DBXTalk/Garage
<http://dbxtalk.smallworks.eu>

Esteban Lorenzano