Tower of Babel or How to turn an elephant into a polyglot Pavlo Golub

Senior Database Consultant

pavlo.golub@cybertec.at

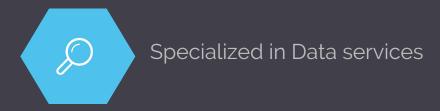
















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# hims





































- University
- Automotive
- Government
- Industry
- Administration
- Finance
- Trade
- etc.

# PostgreSQL Database Services





Replication

# DATA Services

- Artificial Intelligence
- Machine learning
- BIG DATA
- Business Intelligence
- Data Mining





# Intro



#### Some facts

- 72.4% of consumers say they would be more likely to buy/use a product with information in their own language
- Content offered in only one language can address at most 30% of the total online population
- It would take over 7,000 languages to reach the whole world population, but it only 83 languages to reach 80 percent of it



## Top10 Internet languages

Rank	Language	Internet users	Percentage
1	English	1,052,764,386	25.3%
2	Chinese	804,634,814	19.4%
3	Spanish	337,892,295	8.1%
4	Arabic	219,041,264	5.3%
5	Portuguese	169,157,589	4.1%
6	Indonesian / Malaysian	168,755,091	4.1%
7	French	118,626,672	2.9%
8	Japanese	109,552,842	2.8%
9	Russian	108,014,564	2.7%
10	German	84,700,419	2.2%
11-36	Others	950,318,284	22.9%
Total		4.16 Billion	100%



#### You have to translate

- you want your product in a government sector
- you want your product in an education sphere
- you want to pass some corporate restrictions
- you want licensing



#### You want to translate

- you want local communities
- you want to improve user adoption
- you want to open new markets and countries
- you want to build credebility



- **⊘** localization help us spread the PostgreSQL
- O localization help us in building community
- **⊘** localization may be done by non-developers
- this is excellent area for beginners

WHY
we want
localization



# Internationalization i18n

is the process of designing a software application so that it can be adapted to various languages and regions without engineering changes.





# Localization 110n

is the process of adapting internationalized software for a specific region or language by translating text and adding locale-specific components





#### Gettext

- library for i18n and l10n
- supports many languages
- supports plurals and genders
- supports context comments
- no source tree needed for translation
- all strings are gathered to the .po file
- .po file compiled to .mo file after translation
- each translated string searched in .mo file by hash



### .c source example

```
fprintf(output, _("psql is the PostgreSQL interactive terminal.\n"));
fprintf(output, _("Usage:\n"));
fprintf(output, _(" psql [OPTION]... [DBNAME [USERNAME]]\n\n"));
fprintf(output, _("General options:\n"));
...
```



## .pot generated by xgettext

```
#: help.c:73
#, c-format
msgid "psql is the PostgreSQL interactive terminal.\n"
msgstr ""
#: help.c:74 help.c:345 help.c:419 help.c:462
#, c-format
msgid "Usage:\n"
msgstr ""
```



- PostgreSQL uses Gettext system
- O Developers call gettext (\_) function
- Strings parsed and gatherd into .po file
- Translators work with them
- Result .po files compiled to .mo files then

WHAT is under the hood





# State of affairs



## Top10 Internet languages

Rank	Language	PG11	PG10	PG9.6
1	English	100%	100%	100%
2	Chinese	86%	89%	97%
3	Spanish	92%	94%	99%
4	Arabic	0%	0%	0%
5	Portuguese	86%	89%	98%
6	Indonesian/Malaysian	67%	72%	81%
7	French	99%	100%	100%
8	Japanese	100%	99%	97%
9	Russian	100%	100%	100%
10	German	99%	99%	99%



#### Resources

- wiki.postgresql.org/wiki/NLS
- babel.postgresql.org
- pgsql-translators@postgresql.org



#### Workflow

- 1. Go to babel.postgresql.org
- 2. Choose language
- 3. Choose PostgreSQL release
- 4. Download .pot or .po file
- 5. Work with it (poEdit, KBabel, Emacs, Sublime etc.)
- 6. Review and check it
- 7. Submit to redmine.postgresql.org or to pgsql-translators (?)
- 8. PROFIT!!!11



# Demo of the localization process



## Proposed Workflow

- 1. Go to transifex.com/postgresql
- 2. Choose language
- 3. Choose PostgreSQL release and resource
- 4. Work with it online using your browser
- 5. Translate or review strings (if you have permissions)
- 6. Reviewer checks translations and commit it back to pgsql-translators
- 7. PROFIT!!!11



# Demo of the Transifex platform for open-source



It is strongly recommended that you plan your presentation to avoid any requirement for Wi-Fi.

Whilst we do not expect problems, as you can imagine if there is going to be one, it will be right as you need it the most!



#### Admin workflow

- 1. Check translations updates on babel.postgresql.org
- 2. Upload it to transifex



- No 3rd party soft needed
- Unified translation environment
- Dashboard and notifications
- Communication between users
- Tags, history, glossary, suggestions
- Instant saving, instant reviewing
- Shared translation memory for all resources
- Role system: admins, translators, reviewers
- Pro-translators to hire

PROS
of online
translation
platform



- You should be online
- Browser is not the fastest environment
- Some hotkeys may interfere with browser or extensions
- Free translation is possible only for OSI licenced software

CONS
of online
translation
platform



# QUESTIONS

# Feedback: https://2018.pgconf.eu/f

