Tryton: A Framework for Health Organizations

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What are we looking for in an IT system?

Some common requirements when shopping for a business IT system:

- It brings sound business practices
- It should be easily extendible
- It should be affordable

And a not so common requirement:

- It should be based on a strong ethic

I will try to demonstrate how Tryton meet those requirements.
Business
Lots of modules are already available

- Tryton is made of 142 modules
- They cover miscellaneous functional areas
  - Accounting
  - Payment processing
  - Sales
  - Purchases
  - Stock management
  - Project management
  - Technical modules (Authentication through SMS, URL Shortening, ...)
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Q&A

Business use cases (I)

- Lot tracking
- Back Orders
- Sell-by date of item in the stock
- Restocking of missing products
- Stock consignment
- Stock forecast
- Grouping of invoices / shipments
- Accounting charts
- Importation of statements in numerous format
Business use cases (II)

- Price lists of products
- Sale advanced payments
- Commission computation on sales
- Management of complaints
- Management of promotions
- Production of items
- Handling of routing of productions
- Project management
- Project invoicing (different methods)
- ...

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Some deployments (...that I know of)

- One of the biggest berry exporter in Europe (GRUFESA) uses Tryton.
- Do you know that 80% of the billiard balls in the world are made in Belgium? The company producing them (SALUC) is also using Tryton.
- A webshop selling fresh fruits which uses almost all the Tryton features http://www.jurassicfruit.com/.
- More on https://www.tryton.org/success-stories
Extendible
Tryton is written in **python** (most wanted and 2\textsuperscript{nd} most loved language in the recent StackOverflow survey).
- Lots of resource to learn python
- Expressiveness of language is tremendous
- Dynamic nature of the language enable us to have evolving data models by activating modules

Rely on **3-Tier architecture** to ensure a good segmentation of the concepts

Tryton is built on top of an **ORM layer**. It makes the learning curve more gradual and allows to use different databases.

Special care is given to make the code of the published modules **modular** to allow for easy overriding in custom or specific modules.
Verticalizations already exist

Tryton has been specialized for numerous activities:

**GNU Health**  Health & Hospital Information System

**Occhiolino**  Laboratory Information Management System

**Kalenis**  Laboratory Information Management System

**coog**  Insurances management

**Koolvet**  Veterinary clinics

**GotSHO**  Laboratory Information Management System

The degree of "openness" varies:

- GNU Health’s code is two clicks away
- Kalenis’ code is available on pypi + bitbucket
- coog’s code is hosted in a private github repository
- Koolvet’s and GotSHO’s code might not even be Free
GNU Health provides the functionalities of:

- Electronic Medical Record
- Hospital Management
- Health Information System

to health practitioners and institutions

GNU Health is just a part of a bigger picture which include a LIMS and a federation system (Thalamus).
Some GNU Health Implementations

Some of the biggest Tryton implementations are in fact GNU Health implementations:

- **India**: All India Institute of Medicine in New Delhi
- **Laos**: Center of Medical Rehabilitation, Mahosot Hospital in Vientiane
- **Jamaica**: Implementation of the ePAS (electronic Patient Administration System).
- **Other**: Dominican Republic, Cameroon, Haïti, ... You should ask Luis about those ;-).
Ethic
A bit of history: How it all started

► At first there was TinyERP (which became OpenERP then Odoo™)
► But some of Tiny’s developers were unhappy with
  ▶ The code quality
  ▶ The relationship with the community
  ▶ The overall design of the business modules
► On the 10th of December 2007, the first commit in the repository trytond.
  ▶ A more robust code base
  ▶ No company should be above the others
  ▶ No vendor lock-in
Contrary to its predecessor Tryton won’t modify its license. NEVER. A few reasons for that:

- Tiny SPRL still holds a sizeable part of the copyright (even if almost every line has been changed since 2007)
- There is no Contributor Licence Agreement.
  - Every contributor retains the © to his contributions
  - Changing the license means contacting everyone which would be a difficult task
  - It’s a burden but it’s also a protection
- There is no reason to do so.
Soon people coming from the OpenERP world joined the project.

The behaviour of Tiny was so harmful towards the community that they felt the need to create a super structure to protect Tryton.

On the 20\textsuperscript{th} of November 2012, the Tryton Foundation was born. It aims to:

- Protect,
- Promote,
- and Develop Tryton as a Free Software
Why a Belgian Foundation?

- In Belgium: because we’re Belgians ;)
- The foundation must pursue a selfless goal
- Anybody in the world can sue the board in front of the Belgian courts if the board does not respect the goal.
- A foundation allows us to have a specific mode of governing the foundation: Supporters of the Tryton Foundation can revoke any administrator.
What the foundation is / is not

The foundation does not
▶ hold the copyright to Tryton
▶ provide consulting service on Tryton
▶ decide anything about the Tryton code

The foundation
▶ supports the organization of conferences
▶ holds and administers the tryton.org infrastructure
▶ manages and promotes the Tryton trademark
Conclusion
A review of Tryton’s strength

- **a Free Software**
  - GNU GPLv3
  - No Contributor Licence Agreement
  - It’s free and it will stay free forever

- **a Framework**
  - Written in a cool language: python
  - Database agnostic (with a strong preference towards PostgreSQL for real world deployments)
  - Usable through the browser or on your computer

- **a Business Software**
  - Covers the main ERP functionalities
  - Extendible to suits your needs (the verticalization you’re looking for might already exists!)
You can help too!

- Donate to the foundation
- Join our forum to share your knowledge or ask questions
- Report bugs and issues you found
- Translate Tryton in your language
- Propose a large change and discuss it with the community
- Propose a patch
Q&A