TAO
An Open-Source Computer-Based Assessment Platform
More than a transposition of existing paper and pencil tests on computer

- Instantaneous feedback to the test takers
- No paper wasting
- No distance and time limits
- Better data reliability
- Adaptive testing
- Multimedia and interaction
An Open-Source Platform

Create items and tests
Deliver tests and manage Test campaigns
Manage Test takers and Groups
Manage and analyze the Results
Modules

- Item
- Test
- Test taker
- Group
- Delivery
- Result
Item development and management

Multilingual and cognitive items

WYSIWYG* authoring

(* what you see is what you get)

Different item types/templates

(QCM, Kohs, C-Test, Campus, Cascade...)

**Item Module**

**Item Library:** offers different types of items to be authored, such as **cTest** (text with gaps item), **Hawaii** (rich items conceived for human-machine interaction)...

**Authoring tool:** to conceive and design your item.

**Edit item:** fill the label, choose the item type, save and click on Authoring.

**New Item:** to create an item click on ITEM in the Items Library and then on this action tool.
Test development and management

Selection of items

Opportunity to sequence items by difficulty, weight, guessing...

Preview of created tests during designed phase
**Test Module**

- **Advanced parameters**
  - To adapt your test to special needs (layout, timing, scoring, sequencing mode, etc.)

- **Items sequence**
  - It displays items and offers sequencing with drag & drops

- **Preview**
  - It displays and runs a test and enables one to check whether it has been created correctly
Test taker management

Assignation of logins/passwords

Set up the necessary information on each subject
Teste library: select a Testee then you can add it to a Group

Lists: create a list of elements to which you may add properties (by filling the label and selecting the type.)
Group management

Populate Groups with Test takers

Assign Tests to a Group of selected Test takers
Select group testees: select the Testees that belong to School A

Label: rename this Group as you please

Move: select the Testees that belong to School A
Test delivery management

Tests are available on any system (PC, Mac OSX, Linux) using any browser

Online and offline-testing

Multilingual tests

Optional result report available at the of test for the subject
**Deliveries library:** to edit property values

**Edit delivery:** executing parameters (maximum number of execution per subject, delivery period, result server)

**Compile:** a delivery test must be compiled before being executed

**Delivery composition:** selection of tests and their sequence, exclusion of Testees not concerned by the test and the delivery campaign
Results management

Wizard to build tables with results

Export results to csv files (excel, open office)

Wizard to create reports with multiple scores combined
Result Module

- **TEST CLASS**: to see the result properties
- **Template manager**: to save the table(s) you have created
- **Export**: to export the table and use it on other applications
- **Create table**: to set your own list of properties
Assets

Special features • Availability • License • Assets • Advances in CBA •
Libraries used for the TAO platform

- Apache Web Server
- PHP 5.2.6 as server side language
- MySQL for data persistence
- Semantic Web Paradigm
- RDF/RDFS for ontology representation and exchange format
- Ajax technology for high optimized client
- jQuery Library
- Redmine for bug tracking
Assets

General Architecture

Test takers

Server

MySQL

Results

Administrators, conceptors of tests, ...

intro

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Conclusion
What you need to manage and serve TAO tests

Apache (recommended version: 2.2.9 - other version may work)

PHP 5.2.6 or later, not later than 5.3

A database server: MySQL 5.0 or later

Any navigator
GNU GPLv2

TAO is a free software

Available to download, free of any charges

The source code is available on demand
Web-based platform

Multilingual and flexible

Supports a wide range of assessments
  (simple playful, psychometric...)

Centered knowledge modeling
Mandatory fields contributing to advances

Technology

Psychometrics

Cognitive science

For instance, the TAO team developed HAWAI

(Hyper Adaptive Work Area Item - for human-machine interaction)
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Fast Facts

A little history • TAO Team • Success stories • What’s to come •
TAO was created in November 2002

The first release came out in January 2003

Since 2004, use of TAO in several research projects financed by the University of Luxembourg and the Public Center of Research Henri Tudor

By the end of the year, TAO 2.0 will be released
Fast Facts

TAO Team
In Luxembourg
Monitoring of competencies in education

In Europe
The Hungarian school monitoring

On an international level
PISA (Program for Intl Students Assessment) studies with the OECD
And PIAAC studies (Program for the Intl Assessment for Adult Competencies)
The TAO platform is about to support QTI IMS

TAO version 2.0

TAO Days in March 2011 in Luxembourg
TAO is a versatile platform

It is highly adaptable and multilingual

It is an open source platform in constant progress
Thanks!

tao
a joint initiative of
CRP Henri Tudor and
the University of Luxembourg

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