



TAO Installation Guide v0.1

September 2012

This installation guide provides instructions for installing TAO. For all other aspects of using TAO, please see the user's manual, available in this package, or from TAO website (www.tao.lu).

This document will help you install TAO on your server or desktop, guiding you through the TAO installation one step at a time. Depending on your hardware configuration, the installation process can take as little as 15 minutes.

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Things to know before installing TAO

TAO is an open source e-Testing platform for building, delivering, and sharing innovative and engaging assessments online. The minimum system requirements for installing TAO are PHP 5.3 or higher, MySQL 5.0 or higher and an Apache server (recommended version: 2.2.9, other version should work).

To install these components, visit the Apache, MySQL and PHP websites to download the software. First you have to select the appropriate archive and executable files, and then you have to pick the versions that match your web server. Please check your company software installation policy before executing the installation of these components.

Installation Modes

Under all Windows operating systems, you will have the ability to install the TAO platform using the Automated Installation mode. This mode is recommended when installing TAO with just basic technical information.

Alternatively, you can perform a manual installation on your server or desktop. To do so, you need to download the “TAO sources” package from the TAO website. The “TAO sources” package contains the source codes and files of the TAO application. These source files need to be uploaded into the appropriate Apache server folder and set into MySQL workbench in order to run TAO.

a) Automated Installation

If your IT environment meets TAO’s system requirements, follow the instructions below. Please note that the TAO Automated Installation is only available for Microsoft Windows operating systems.

The Automated Installation consists of the following steps:

- Step 1: Download the TAO windows exe package on tao.lu
- Step 2: Run the TAO window exe package
- Step 3: Check the application and database servers port
- Step 4: Start the application and database servers
- Step 5: Access to the application through localhost
- Step 6: Change the default administrator password
- Step 7: Test the Installation

Step 1. Download the TAO windows exe package on tao.lu



You can get the TAO Automated Installation from TAO website (www.tao.lu). TAO windows exe package is available under the download section.

Please click on the link “windows exe package with servers” to download it. This package contains the application and database servers in order to run the TAO platform.

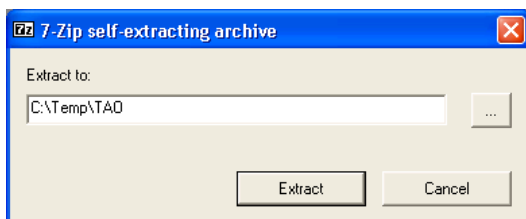
Step 2. Run the TAO windows exe package



Once the package downloaded on your computer, you can launch the TAO windows exe package installation. To do so, click on the “Run” button when the dialog “Open File” pops up.

During the process of installation, you will be asked to enter the folder name where TAO will be installed. Please click on “Extract” to extract TAO subdirectories and files to the entered folder on your computer.

A pop-up window with progress bar indicating the percentage of package extraction completion shows up. When the extraction is complete, you can browse the installation folder to pursue the installation of TAO.



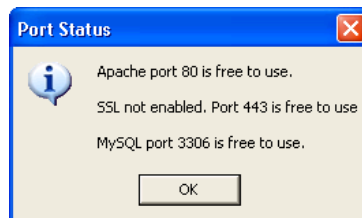
C:\Temp\TAO\TAO_2.2_build_with_server			
Name	Size	Type	Date Modified
udrive		File Folder	02/07/2012 17:36
UniController.exe	69 KB	Application	30/06/2010 12:17
gpl-2.0.html	27 KB	Opera Web Document	30/06/2010 12:17
readme.txt	3 KB	Text Document	02/07/2012 17:14



Please check if the following elements are correctly extracted in the installation folder:

- udrive is the TAO source folder
- UniController.exe is a utility for testing and launching the application and database servers
- Gpl-2.0.html is a note on licensing agreements
- readme.txt is a short installation guide

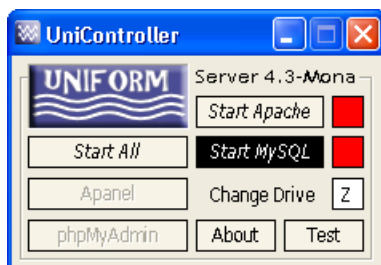
Step 3. Check the application and database servers port



Before starting TAO servers, you can run UniController application to check ports availability.

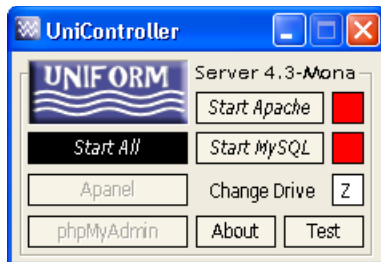
If Apache or MySQL ports are used, please change those in Apache configuration file.

Step 4. Start the application and database servers

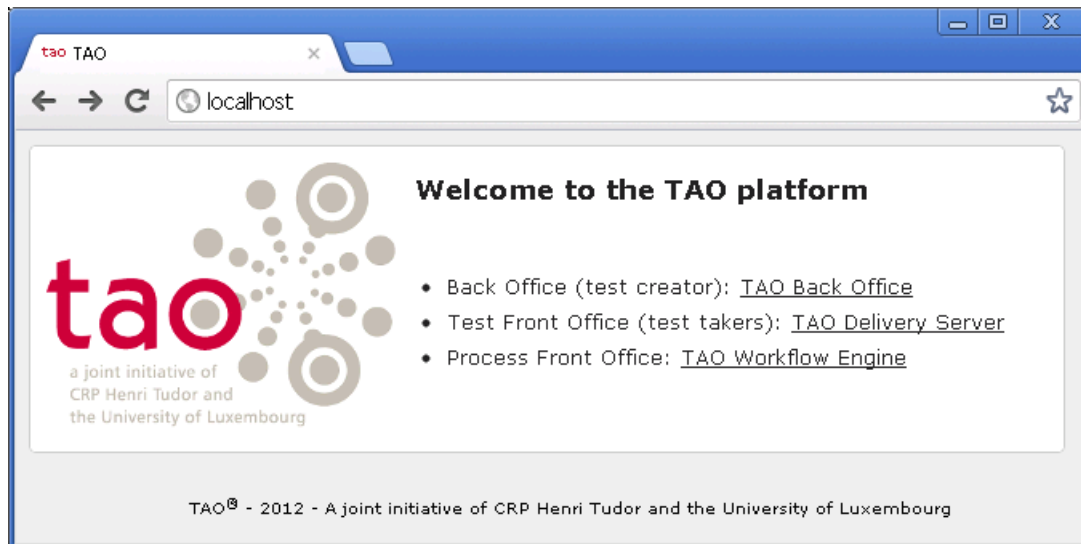


With UniController application, you have the ability to start all the servers or start each server individually.

When all the indicators go green, that means the Apache server and MySQL server run correctly. You can access TAO platform by typing the following URL: <http://localhost/>



Step 5. Access to the application through localhost



By entering localhost in a web browser, you can access to TAO Back Office where you can manage the assessments, the tests schedules and the items design, you can also access to TAO Delivery Server and TAO Workflow Engine.

Step 6. Change the default administrator password

Please login into TAO Back Office in order to set a new password for the administrator user. You can find the details of the administrator in the users management section.

Step 7. Test the installation

You can connect to TAO Back Office with the login and password of the super-user you have defined in the TAO Installation Process. To test TAO Back Office, you can design items, configure tests, imports users, schedule assessments, monitor reports. If you may encounter problems with some TAO modules or functionalities, please contact our support service in order to fix the issues.

b) Manual Installation

Once your software stack is ready, i.e., PHP, Apache and MySQL servers installed, you can choose to install TAO either on a remote server, or on your desktop. After locating the TAO platform .zip/.tar file

you will need to extract the software before installing and configuring TAO. Most file managers can extract the TAO files for you.

1. Download the TAO platform .zip/.tar file

To get the “TAO sources” package, visit the TAO website Download section and look for the latest version of TAO. Once the download is complete, locate the path of the downloaded file in order to extract the TAO sources files.

2. Extract or uncompress your files in your server web folder

Open the “TAO sources” package with your preferred file manager and extract the TAO files. Depending on your operating system, you can use either WinZip/WinRAR on Windows, or command line tar -xf on Linux/Unix, and Ez7z on Mac OS X.

Locate your web folder (usually named htdocs or www) and extract the TAO files into this folder. The web folder is the directory that the web server software (Apache) looks for files to serve on your domain. Anything you want web-viewable needs to be inside this web folder. When done, start installing TAO by following the instructions below.

3. Launch the web installation

Once you have extracted the TAO sources package into your web folder, you have to start your application and data servers first (Apache and MySQL). Then, you can launch the TAO platform installation by entering the web server URL address concatenated with the extracted folder name and “/tao/install/” in your web browser. This leads you to the TAO Installation Process screen.

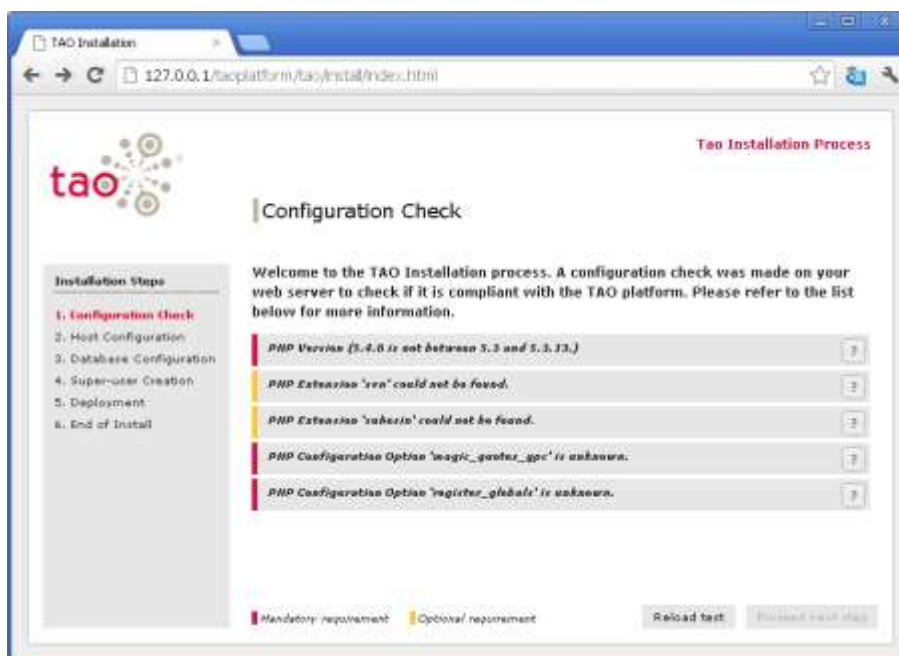


Figure a. System configuration check, main screen

The Configuration Checker scans the computer and checks for conditions that prevent a successful TAO platform installation. The Configuration Checker retrieves the status of your application server, your database server and multiple components required (i.e. PHP, Jason module, etc...) to ensure appropriate system settings for TAO.

The main screen of TAO Installation Process will check your system environment. If a component is missing or does not match the requirements listed in the chapter “

Things to know before installing TAO” and a red vertical line indicator is displayed next to the requirement statement, then you cannot continue the TAO installation process.

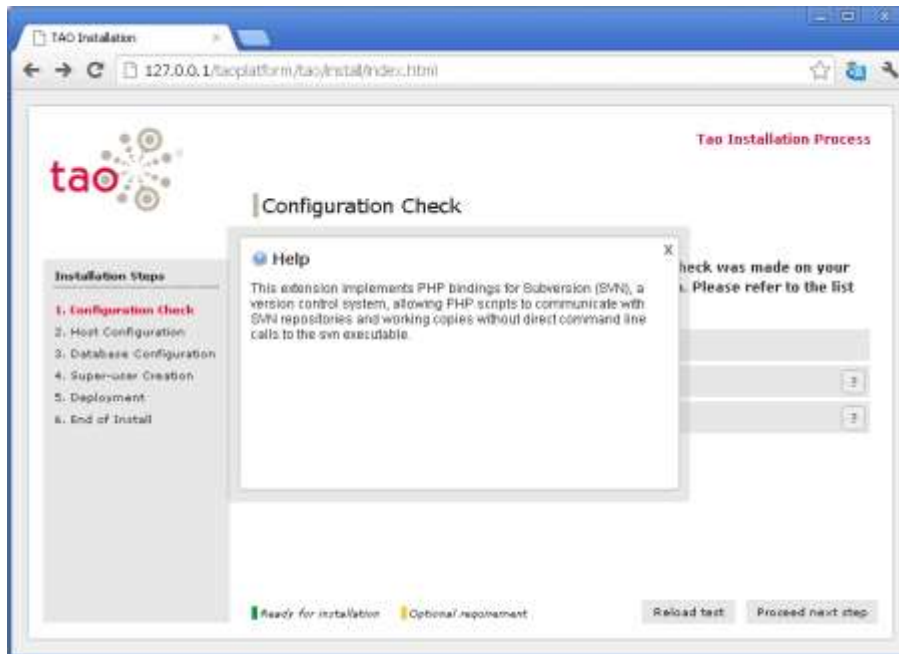


Figure b. System configuration check, helper

There is a helper for each component statement; to open it, you have to click on the question mark next to the component item line. This can help you to fix some issues before continuing with the next step of TAO Installation Process.

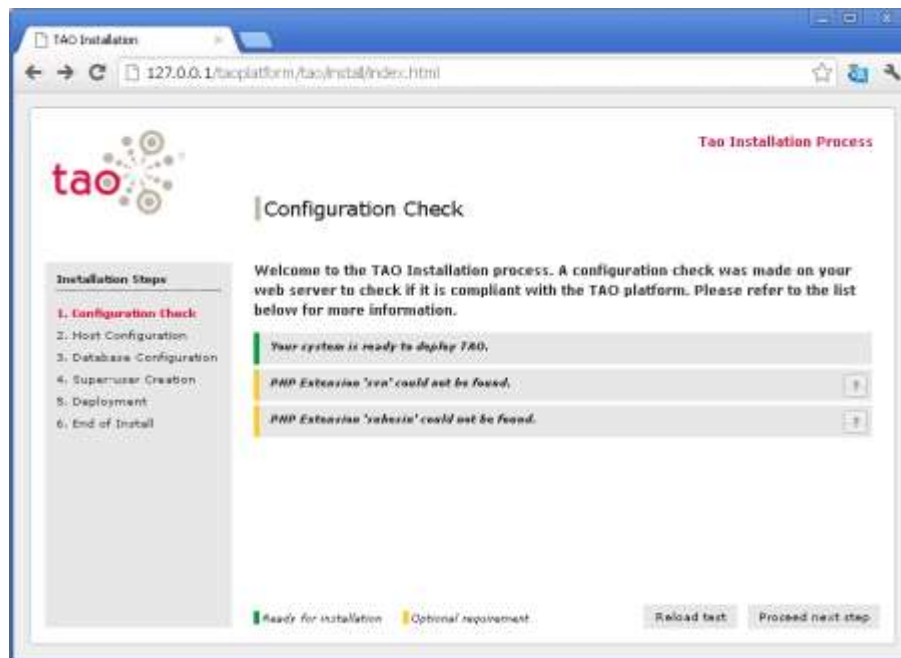


Figure c. System configuration check, system ready to be installed

Once the green vertical line indicator is displayed, this means your system is ready for installation. This also means that your computer environment is functional and is aligned with TAO requirements, and then you can proceed with the next step of the installation process.

4. Follow the instructions

TAO Installation Process includes multiple steps of configuration. First, you have to set up your TAO host configuration; second, you have to enter TAO database server information and finally you have to enter the details of the TAO super user (login name and password) to access and manage TAO platform.

4.1. Host configuration

The TAO host configuration page allows you to configure custom host entries. In order to start TAO, you have to host all TAO files on a single web server. Then, you can set up the name of the domain where you can access your TAO platform through the configuration files of your web server.

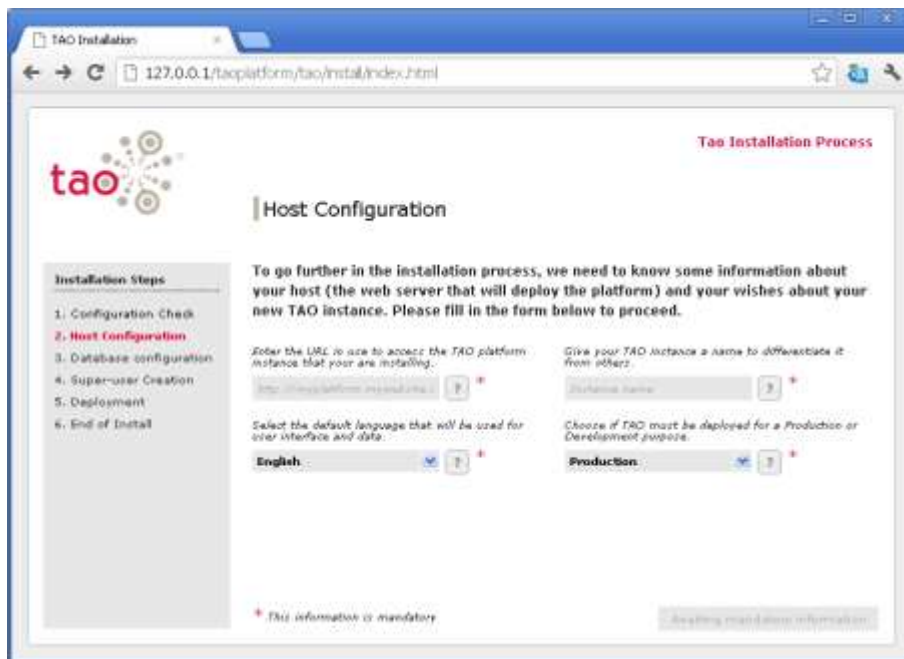


Figure d. Host configuration page, domain name

Once you get the address of your TAO platform instance, you need to enter it on the host configuration page. Next, select the interface language for TAO and the working environment where TAO is deployed.

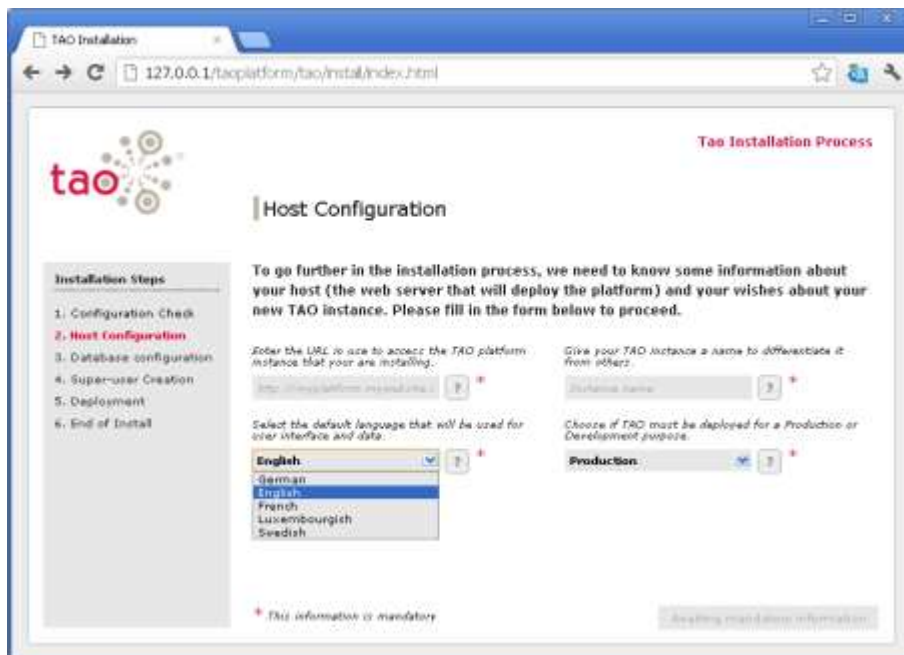


Figure e. Host configuration page, language interface selection

The languages available are listed in the drop-down menu. More languages will be added as TAO continues to grow.

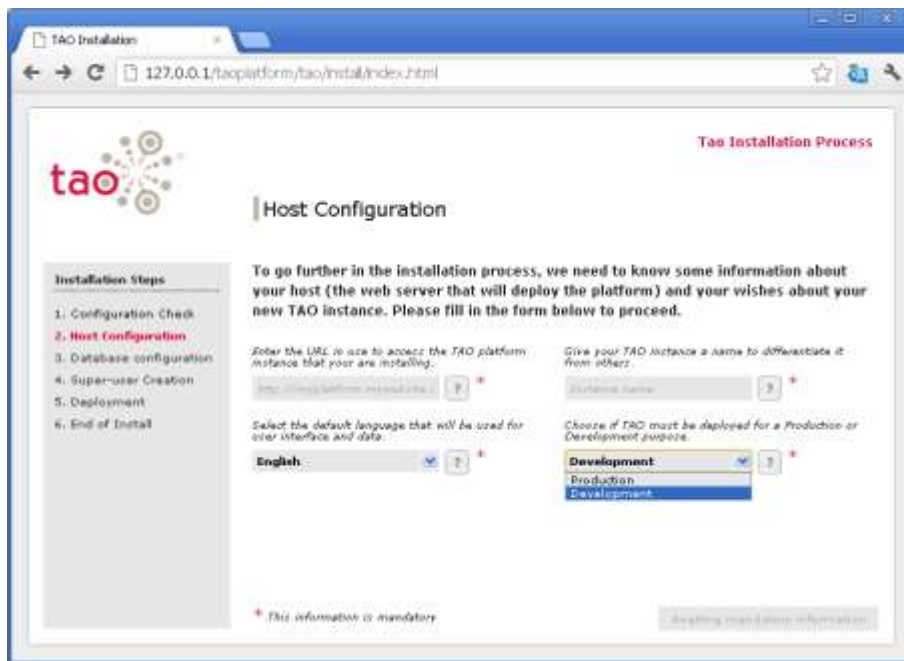


Figure f. Host configuration page, working environment selection

You can choose between Production and Development environment when installing TAO. The development environment is recommended for software and database developers who contribute to the improvement of the TAO platform and want to design specific components for TAO. When TAO components are tested and completed, they are moved to the production environment.

The production environment is the live environment where final users enter their data, query information, perform assessments and run their reports and designers can model their items and tests.

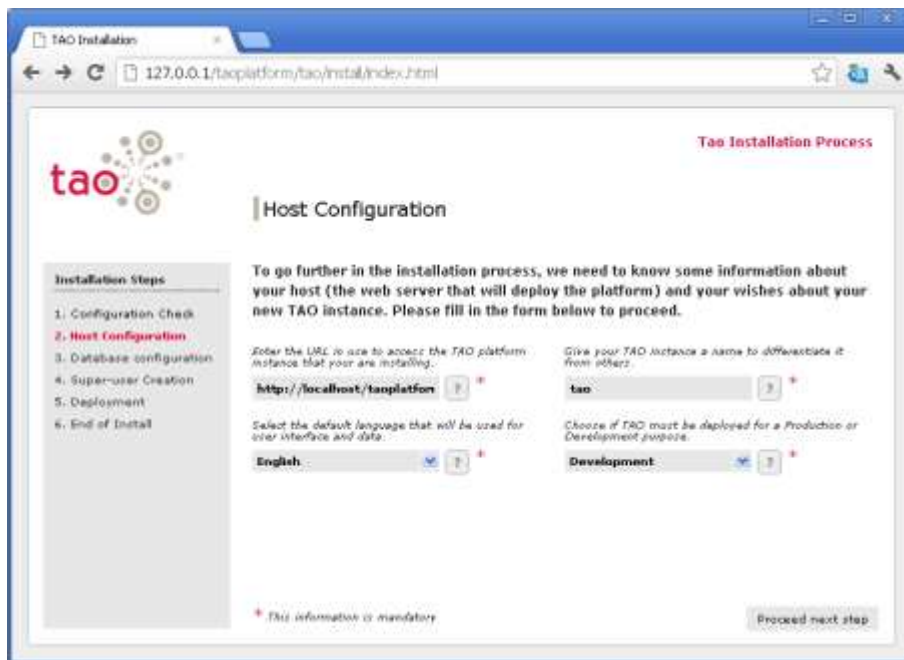
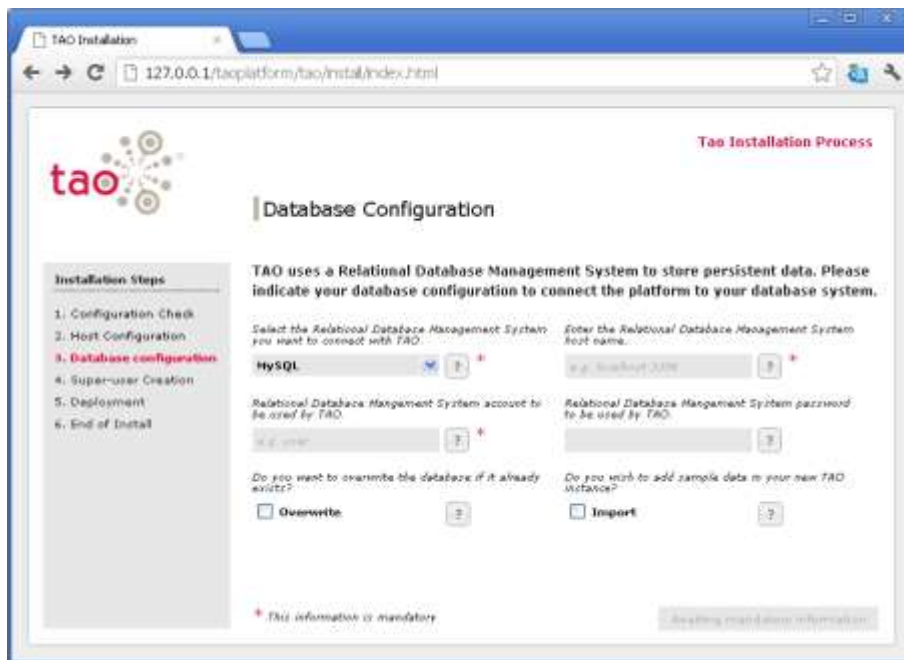


Figure g. Host configuration page, data ready to proceed next step

Once you entered all the required information, the button “Awaiting mandatory information” switches to “Proceed next step”. This means that the entered data are correct and that you can proceed to the next step.

4.2. Database configuration

You have to configure the database connection in order to start TAO. If there is no instance of a database management system on your server or desktop, you have to install it. However, in case access to your server or desktop is restricted by your company’s software installation policy, please contact your system administrator in order to install MySQL.



TAO Installation

127.0.0.1/taoplatform/tao/install/index.html

tao

TAO Installation Process

Database Configuration

TAO uses a Relational Database Management System to store persistent data. Please indicate your database configuration to connect the platform to your database system.

Select the Relational Database Management System you want to connect with TAO:

MySQL

Enter the Relational Database Management System host name:

Relational Database Management System account to be used by TAO:

Relational Database Management System password to be used by TAO:

Do you want to overwrite the database if it already exists?

Overwrite

Do you wish to add sample data to your new TAO instance?

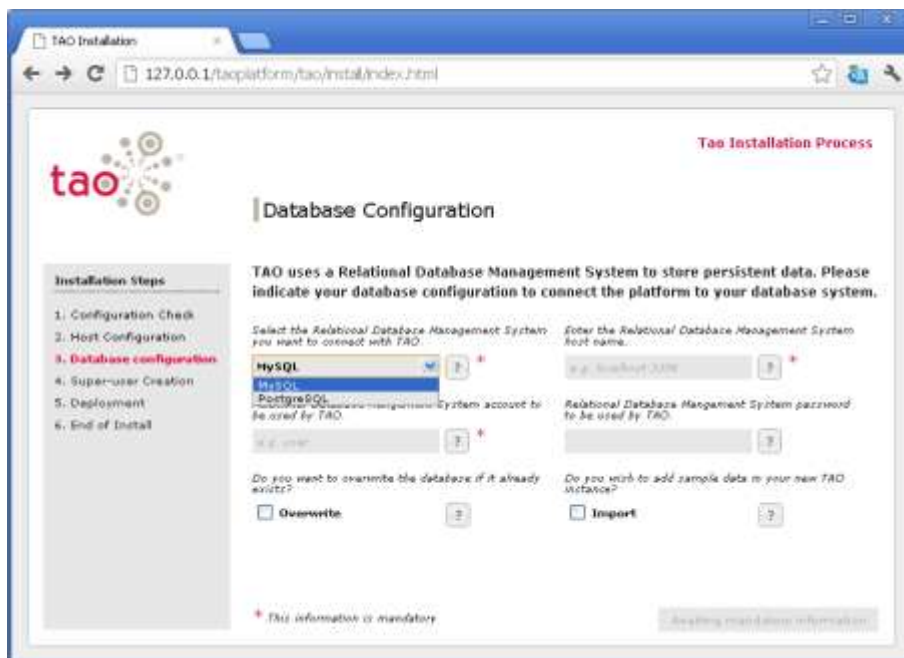
Import

* This information is mandatory

Resolving mandatory information

Figure h. Database configuration page, main page

Here you will need to enter the database type, hostname, user name, user password for the database you have set up. If you select the option “Overwrite”, the installation program will overwrite any existing TAO database with a new and clean TAO database.



TAO Installation

127.0.0.1/taoplatform/tao/install/index.html

tao

TAO Installation Process

Database Configuration

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Select the Relational Database Management System you want to connect with TAO:

MySQL

Enter the Relational Database Management System host name:

Relational Database Management System account to be used by TAO:

Relational Database Management System password to be used by TAO:

Do you want to overwrite the database if it already exists?

Overwrite

Do you wish to add sample data to your new TAO instance?

Import

* This information is mandatory

Resolving mandatory information

Figure i. Database configuration page, database management system

If you haven't installed a database server yet, then you have to install MySQL Server version 5.0 or higher or PostgreSQL on your server or desktop. Once installed, you can select the correct database management system in the database list in the page "database configuration".

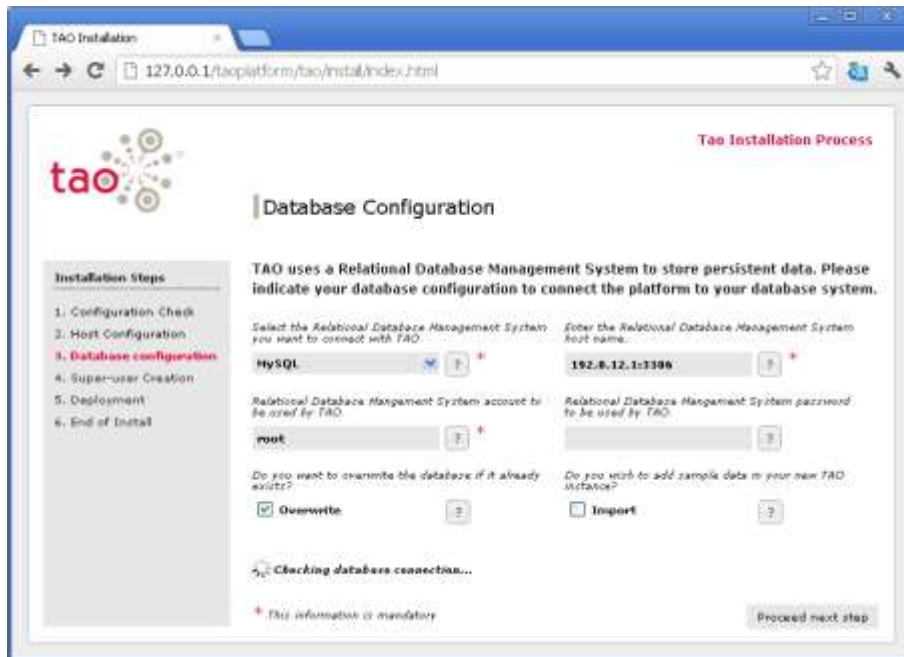


Figure j. Database configuration page, checking database management

The TAO Installation Process will check the database connection once all details of your database management system have been entered.

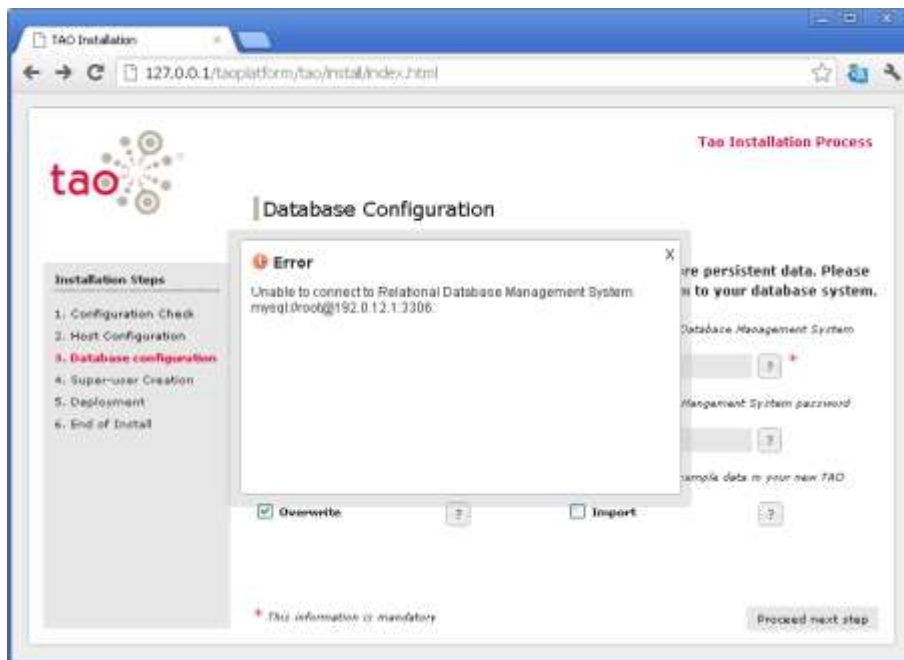


Figure k. Database configuration page, connection error

A message box is displayed when the connection with the database cannot be established; in this case, please verify your database connection details.

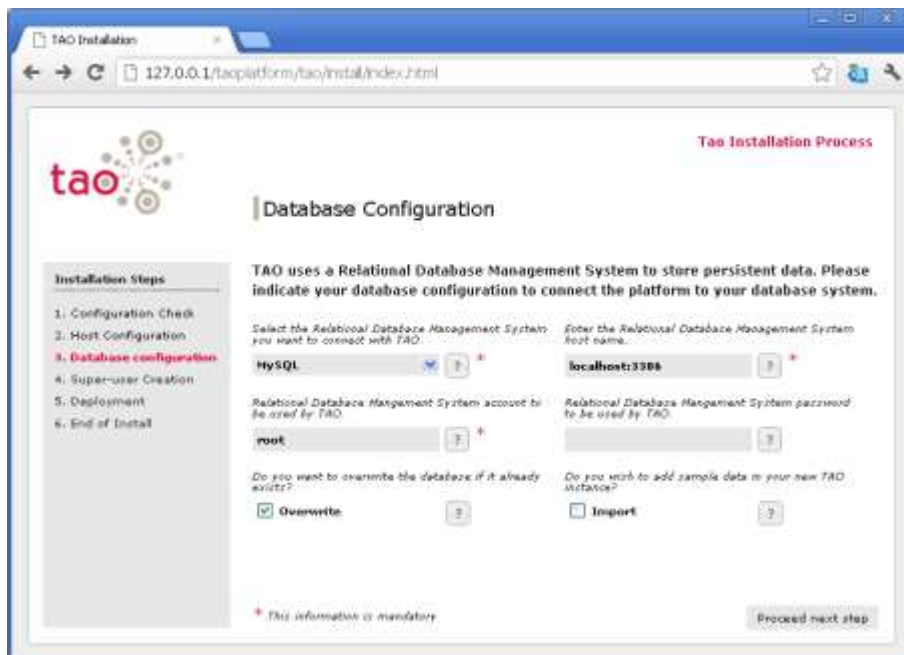


Figure l. Database configuration page, data ready to proceed next step

Once you entered all the required information, the button “Awaiting mandatory information” switches to “Proceed next step”. This means that the entered data are correct and then you can continue the TAO installation process.

4.1. Super user creation

The super user in TAO has an administrator role for managing the TAO platform; the super user has the full right of designing new items, managing tests libraries, scheduling assessments campaign, importing users and even more operations in TAO platform.

You need to create a super user login in order to access TAO. To do so, you have to enter the details of the person in charge of managing TAO; you also have to give to this person a login name and a password.

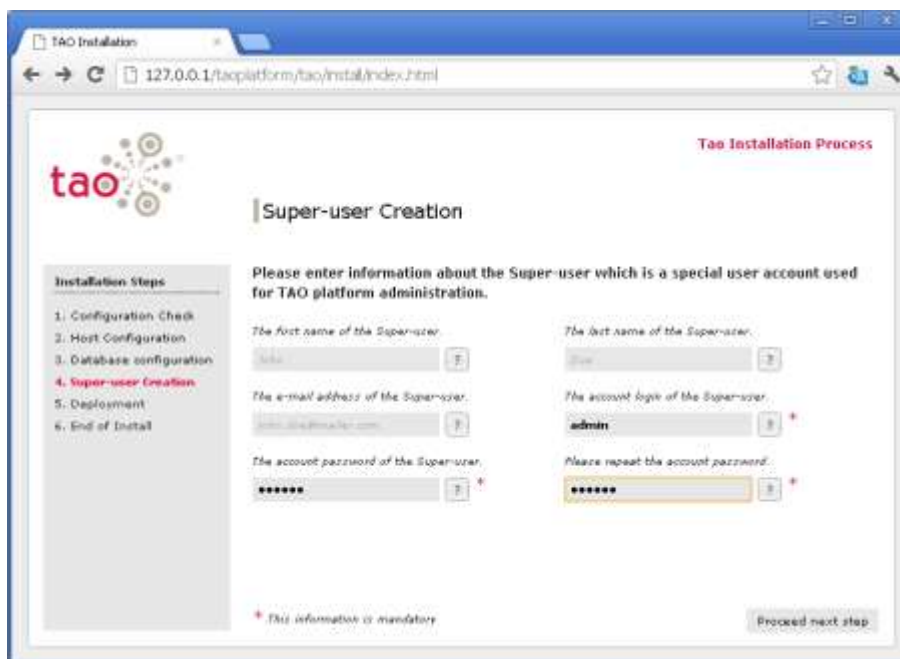


Figure m. Super-user creation page, details

Login name and passwords are mandatory for the super-user. You have to pick a password that meets complexity requirements (the system requires at least 4 characters in length for now).

4.1. TAO platform deployment

Once the super-user has been created, you’ve reached the final step of the TAO Installation Process. To complete the Installation Process, you have to press the button “Deploy” on the “Deployment” page. This will make TAO platform available for general use.

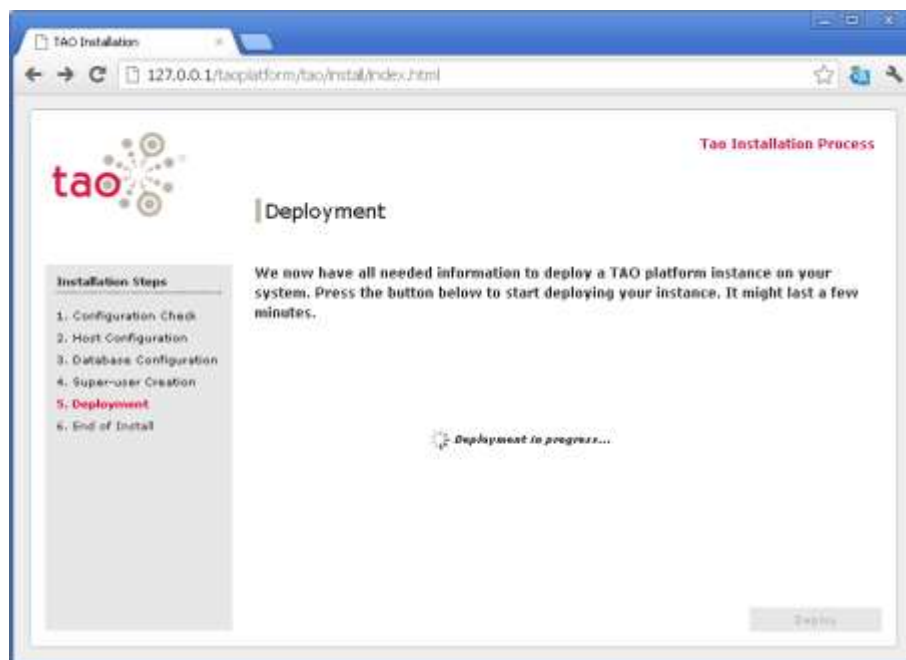


Figure n. Deployment page

During the deployment phase, all information provided in the previous steps is taken into account to build the final installation package and to automatically set up the TAO platform.

4.1. Finishing installation

This step finalizes the installation of TAO platform.

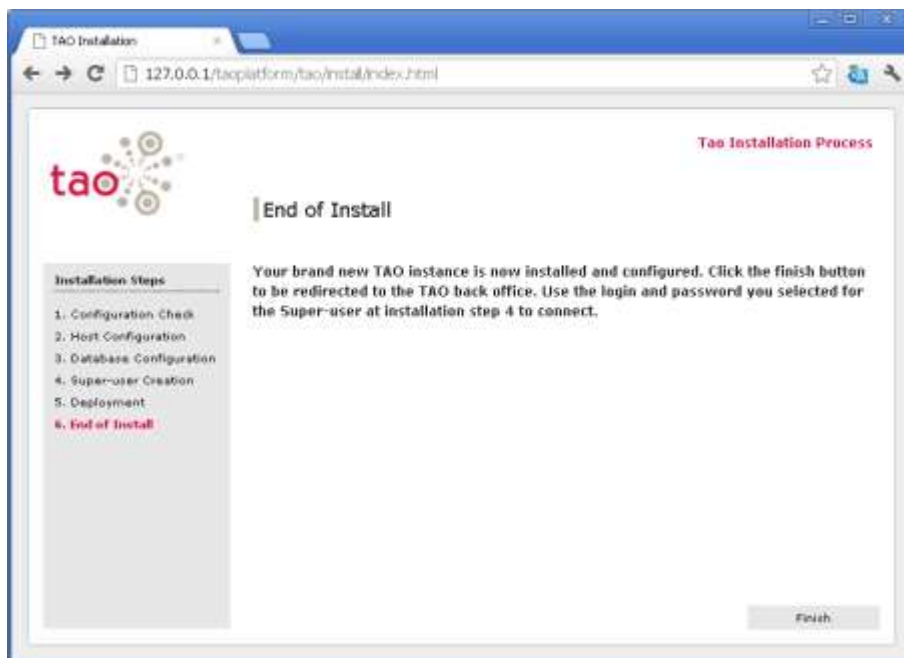


Figure o. End of Install page

Once your installation process has completed, and no errors or issues occurred during this step, a successful installation message is displayed; click on the Finish button to complete the TAO Installation Process.

5. Test the installation

Use your web browser to test the installation by entering the URL of your web domain concatenated with the instance of TAO platform in your browser's navigation address bar. A welcome page will be displayed giving you access to TAO Back Office, TAO Delivery Server and TAO Workflow Engine.

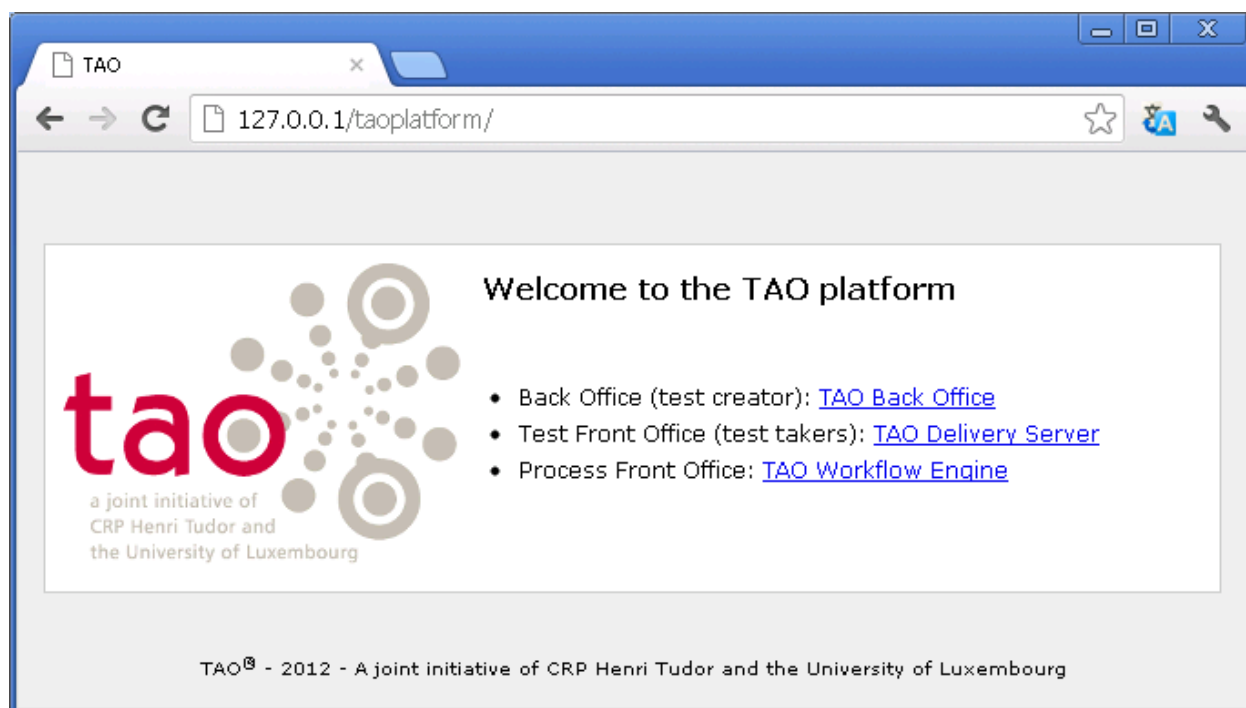


Figure p. Welcome page to TAO platform

You can connect to TAO Back Office with the login and password of the super-user you have defined in the TAO Installation Process. The TAO Back Office lets you design items, configure tests, import users, schedule assessments, and generate reports. In case you have any questions or encounter problems with TAO, please contact us through the TAO website or directly through the TAO Forge.