TIB – Leibniz Data Manager
Installation and Configuration Manual

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LDM version 2.4.2

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1. Description

1.1 About

The LDM Data Manager has been developed to support the aspect of better re-usability of research data.

The prototype supports the management and access to heterogeneous research data publications and assists researchers in the selection of relevant data sets for their respective disciplines.

The prototype currently offers the following functions for the visualization of research data:

- Supports data collections and publications with different formats
- Different views on the same data set (2D and 3D support)
- Visualization of Auto CAD files
- Jupyter Notebook(s) for demonstrating live code
- RDF Description of data collections

The file specific viewers were implemented using CKAN (Comprehensive Knowledge Archive Network) plug-ins to render existing viewers for the datasets included in the CKAN instance.

1.2 Impact on Scientific Data Management

In the research data landscape, there is a high demand for a sustainable and meaningful handling of a main product of scientific work - research data.

Since digital data production has increased rapidly in recent years and an end to this growth is not foreseeable, the availability of these growing volumes of data must be ensured not only for current research but also for future generations. The LDM Data Manager was developed to provide scientists with a **tool to improve the usability of research data**.

The LDM Data Manager provides a data management system that makes it possible to **check the contents of research data sets for their potential application** to the respective domain - **without having to download** them beforehand.

Therefore, the Data Manager enables the visualization of different research data formats and thus supports the **'screening' of data sets** for their potential benefits. As a visualization and

management tool, TIB CKAN can be implemented on top of classical research data repositories, which often focus on the (long-term) archiving and publication of research data.

1.3 Application of the Data Manager

As an open source tool, the LDM Data Manager **offers**

● **developers,**
● **scientists and**
● **data curators in public and academic research as well as in industry** a wide range of possibilities for **expanding and connecting established and developing research data management systems** , such as local and discipline-specific research data repositories.

As the German National Library of Science and Technology, we advise universities, research institutions and industry on the use and implementation of the LDM Data Manager. Furthermore, we continue to develop and enhance the functionality of the system in view of the constantly growing number of scientific file formats.

LDM source code is made available under “GNU Affero General Public v3.0 License”.
Please contact us at service.ldm@tib.eu for comments or questions.

2. How to install

2.1 Dependencies

The LDM Data Manager is composed by different services:

● CKAN: Open-source DMS (data management system) for powering data hubs and data portals
● PostgreSQL: Open-source object-relational database management system
● SOLR: Open-source enterprise search platform
● Postfix: Open-source mail transfer agent (MTA) that routes and delivers electronic mail
● DataPusher:

In order to avoid having to manually install these dependencies, the distribution package comes with dockerized instances of these dependencies, making it easy to get started with LDM Data Manager.

The distribution package also contains a docker-compose file, where

Docker
Docker-compose 1.18.0+

2.2 LDM Data Manager

Docker is necessary so that the LDM Data Manager can be used. To be able to install it, the user must download the docker packets from Docker official website (https://docs.docker.com/install/), and afterwards follow the installation steps established in the packets.

In case the user is going to clone the LDM Data Manager code into your system is also needed to have GIT installed following the instructions in the GIT official website (https://gitforwindows.org).

Note: Before starting the steps below please check that you don't have conflicting docker containers from other projects on your machine. You can check them by firing this command in terminal:

```
docker container ls -aq
```

If you find some of them then please stop them by using the command:

```
docker container stop $(docker container ls -aq)
```

And further after stopping them remove them by the following command:

```
docker container rm $(docker container ls -aq)
```

After doing the steps above continue with the steps below:

To be able use CKAN with all the services it is necessary to follow these steps:

Step 1:

First, it is necessary to change the url of the site in the .env file (which is located in the "docker " folder), in the line 21 of the file the user needs to put the url of the server to get access to the CKAN through the server.

CKAN_SITE_URL : "<URL Server>:5000"

Additionally, make sure the following ports are free in the server:

- Port 5000 for data pusher.

● Port 8000 for Jupyter Notebooks.

Notes:

In **Windows** you can use "netstat" to check whether a port is available.
Use the netstat -anp | find "port number" command to find whether a port is occupied by an another process or not. If it is occupied by an another process, it will show the process id of that process.
For example, in “Command Promt” run:

netstat -ano | find ":5000"

In case the port is free the command shows no results, otherwise if is occupied will show some details like above:

netstat -ano | find ":5000"
TCP 0.0.0.0:5000 0.0.0.0:0 LISTENING 14284
TCP [::]:5000 [::]:0 LISTENING 14284

To check the listening ports and applications on **Linux**:

1. Open a terminal application i.e. shell prompt.
2. **Run any one** of the following command on Linux to see open ports:
   sudo lsof -i -P -n | grep LISTEN
   sudo netstat -tulpn | grep LISTEN
   sudo lsof -i:5000 ## see a specific port such as 5000 ##
   sudo nmap -sTU -O IP-address-Here
3. For the latest version of Linux use the ss command. For example**, ss -tulw**

Step 2:

Note:
If you have knowledge about HTML and CSS and are very sure you are not going to break the source code you can now see the chapter “3. Customizing the Data Manager” before continue for avoiding rework later.

Build the container base of CKAN inside the docker folder.

Inside “Command Prompt” or “Terminal” depending of your Operating System, go to the “docker” folder using “cd” command. For example:

```
cd docker
```

and then run the command:

```
docker-compose up –d --build
```

and then you need to restart the containers to take ckan configuration:

```
docker restart solr db jupyternotebook
```

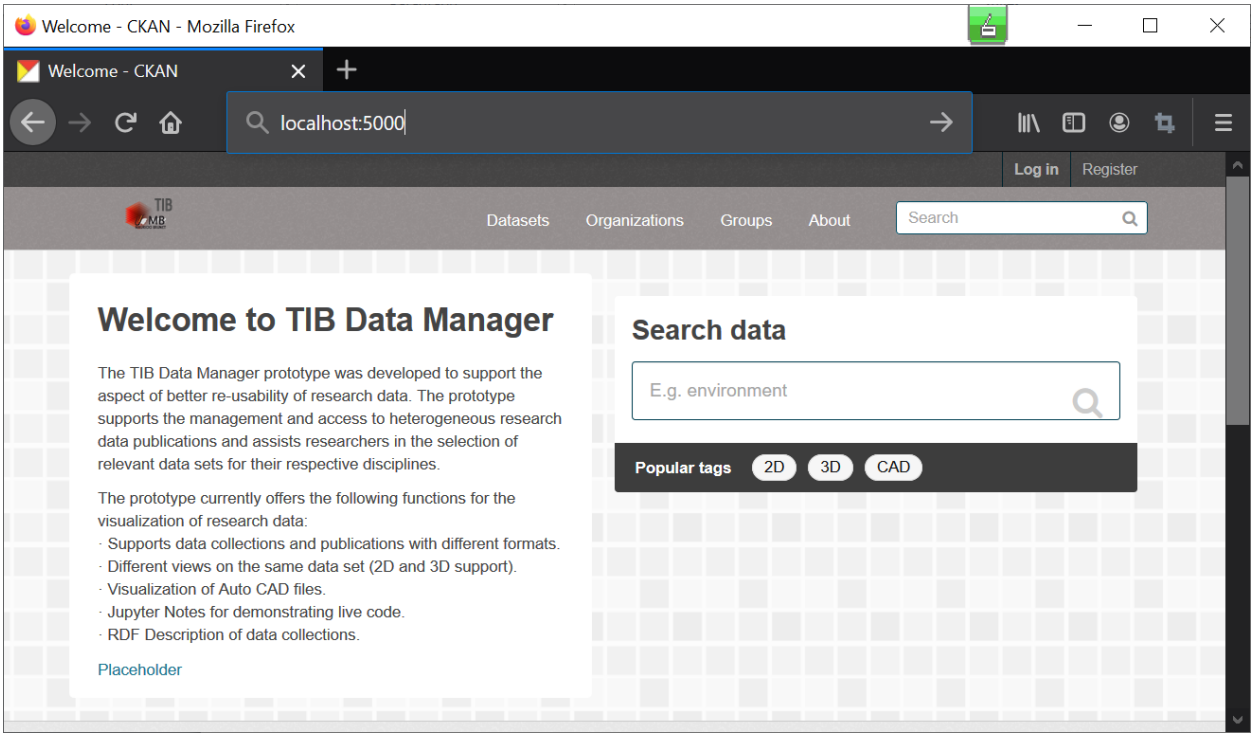
Important!:
After launching the command above CKAN will start running configuration and settings procedures. Please wait until all the process is complete. You can check in docker logs if ckan container is already running (INFO [ckan.cli.server] Running CKAN on http://0.0.0.0:5000) or just accessing to localhost:5000 and getting the LDM home page as result.

For running the Data Manager in further occasions you can run:

```
docker-compose up ckan
```

Note: Please be patient the dependencies take some time to download.

To open the data manager you must open a browser and enter localhost:5000 or the url that was used in the port 5000.



Step 3:

In case the examples datasets are not showing in the system you can fix the problem running the following command:

```
docker exec -it ckan /reload_database.sh
```

Otherwise, if you need to clean the database and erase all the datasets and TIB examples you can run:

```
docker exec -it ckan /clean_database.sh
```

Sysadmin user:
In case you are using LDM with installed examples you can access the system as system administrator user with credentials: “admin” (without quotes) as user and “admin” (without quotes) as password.
Otherwise, in case you cleaned the database you can create a new user through the registration option of the tool and promote the user as sysadmin running the command:
docker exec -it ckan ckan -c /etc/ckan/default/ckan.ini sysadmin add your-user-name
replacing your-user-name with the username you created before.

Troubleshooting:

- “No such file or directory” or other unexpected errors:

Docker outputs all build steps when creating an image based on a Dockerfile. On **Windows systems** is possible to the “exec user process caused **„no such file or directory“**” issue occurred when executing a shell script or many others **unexpected errors**.
The error message is misleading in terms of a wrong file path or path reference. In our case, the issue occurred due to a Windows-style file ending.
We created the Dockerfile on a Windows machine. Saving the Dockerfile used the default Windows file format. This caused the Docker build to fail on a Linux machine.
We fix this converting the file format to UNIX style using dos2unix:
dos2unix your-file.sh
You can run the dos2unix command on any Linux system. If you don’t have access to a Linux system, you may use the Git Bash for Windows which comes with a dos2unix.exe.
“Git for Windows” (https://gitforwindows.org/) provides a BASH emulation used to run Git from the command line. *NIX users should feel right at home, as the BASH emulation behaves just like the "git" command in LINUX and UNIX environments.
If you already installed GIT following this manual you are able to open the Start menu by clicking on the Windows icon and typing “Git Bash” into the search bar. The icon for Git Bash and the words “Git Bash Desktop App” will appear. Click on the icon or the words “Git Bash Desktop App” to open Git Bash. Be sure to navigate to the project folder and run the following command:

find . -type f -print0 | xargs -0 dos2unix
This will recursively find all files inside current directory and call for these files dos2unix command

- SERVER ERROR in CKAN’s home page:

This could happen if any problem during the installation causes the Databases not building properly.
Try going into a shell inside the ckan container and rebuild the Databases executing the following commands:
docker run --rm -it --entrypoint=/bin/bash ckan

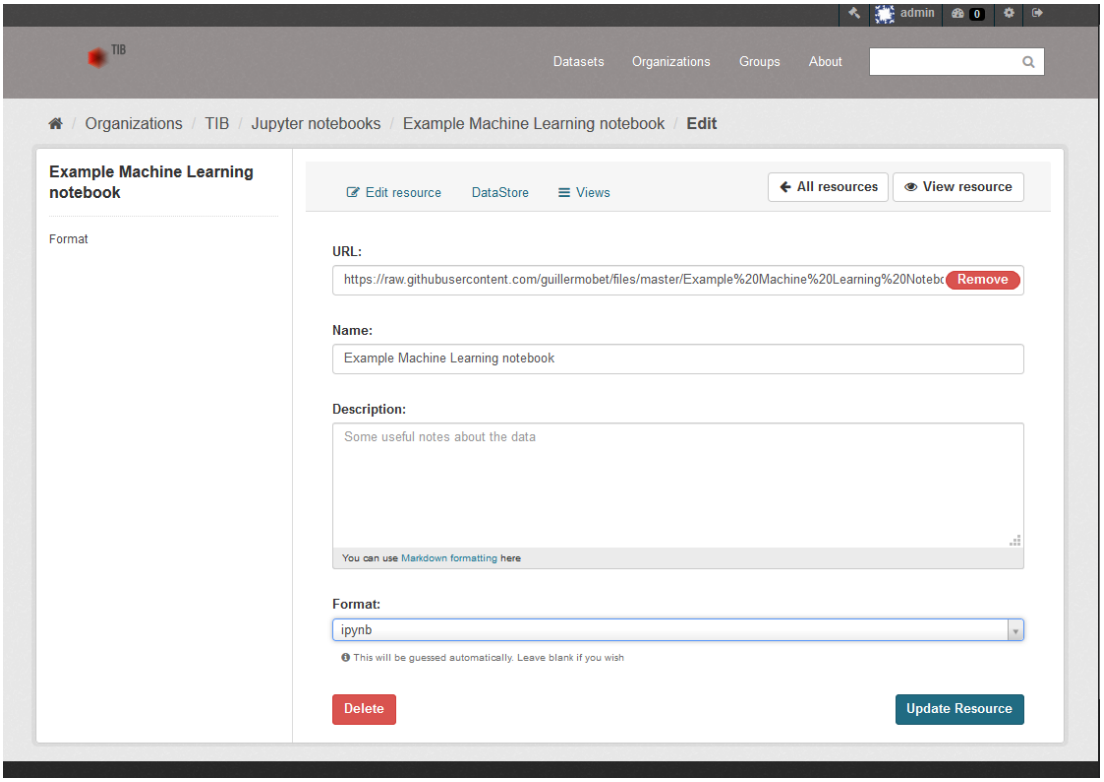
cd /usr/lib/ckan/default/src/ckan

ckan -c /etc/ckan/default/ckan.ini db init

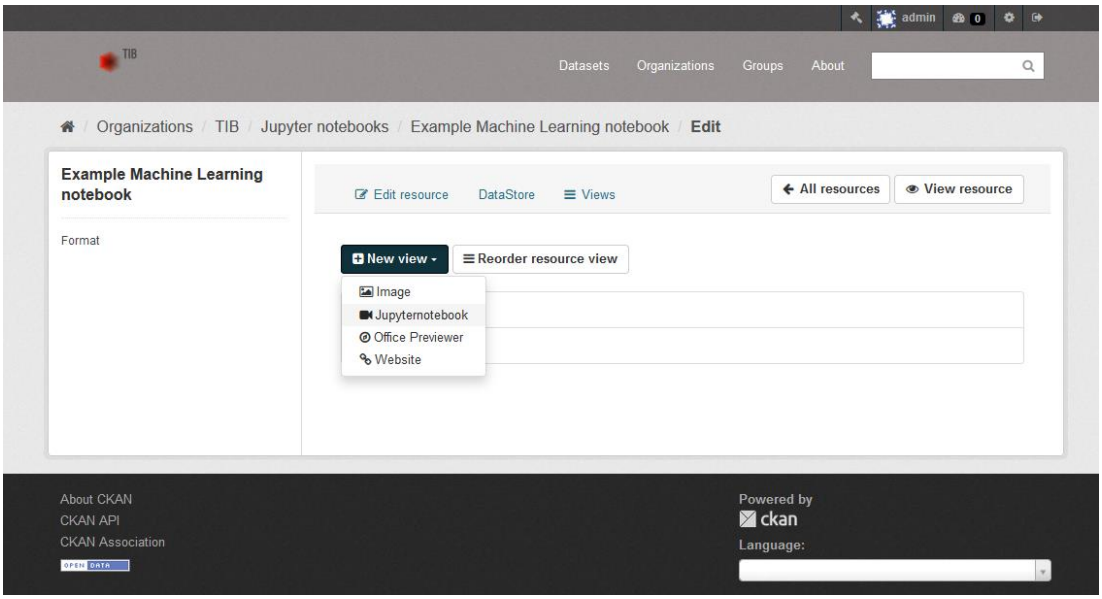
And create admin user with:
ckan-paster --plugin=ckan sysadmin -c $CKAN_CONFIG/ckan.ini add admin email=admin@email.com password=admin

2.3 Jupyter Notebooks visualization plugin.

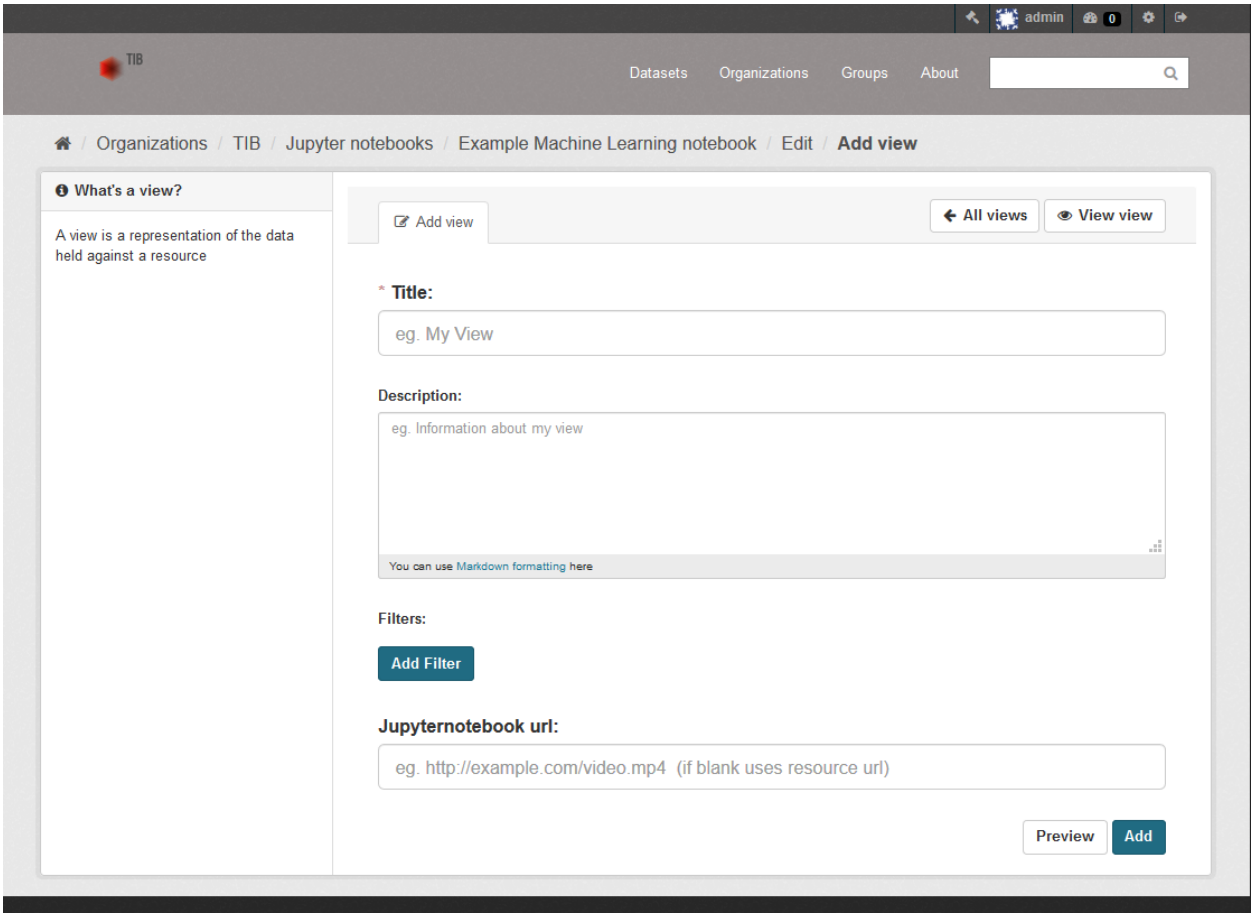
You can view Jupyter Notebooks files using the visualization plugin installed with LDM. For that make sure your notebooks files are described like “ipybn” as format in your resource’s administration page. For example:



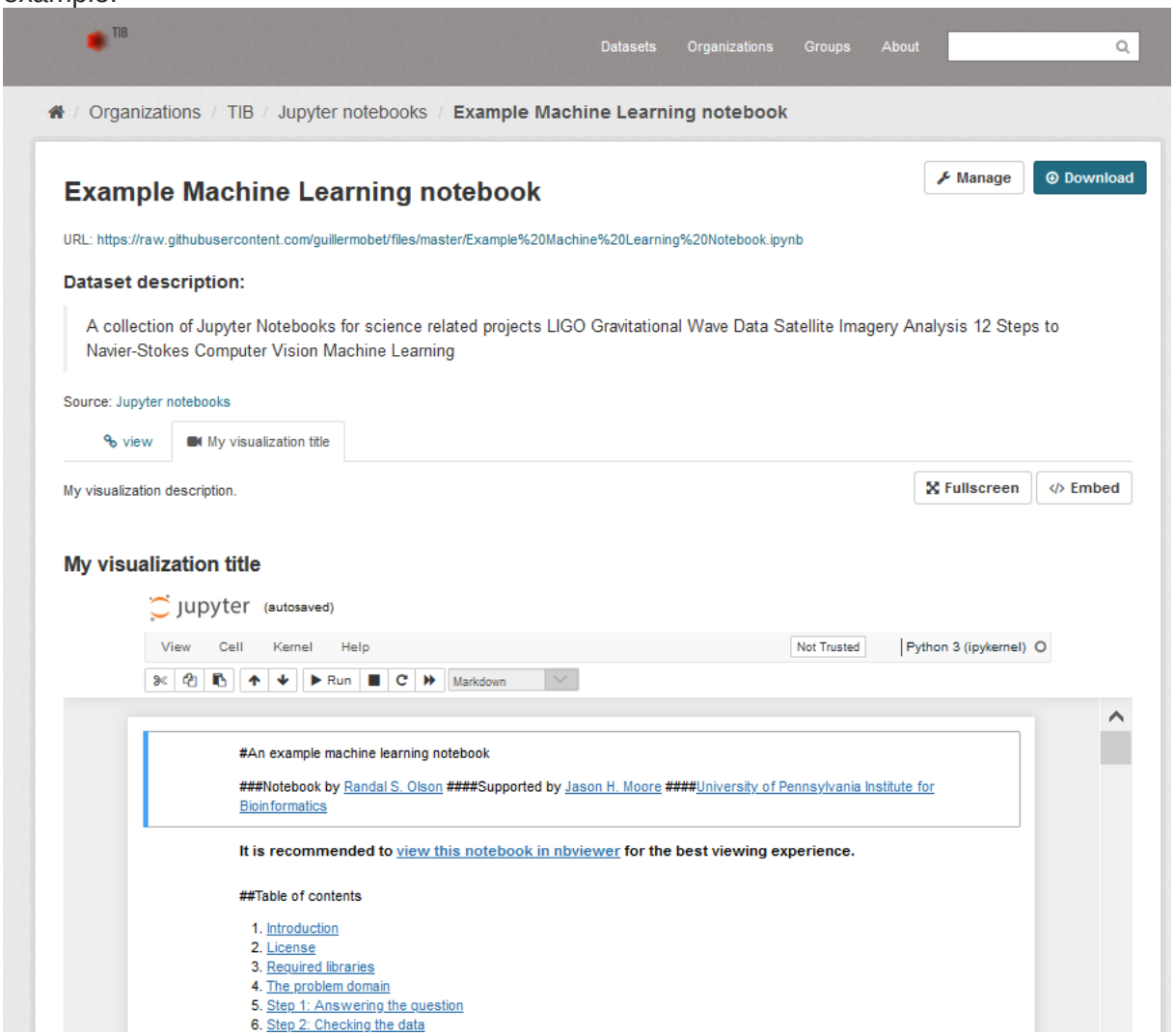
Then you can add the “JupyterNotebook” visualization in the “Views” tab clicking in the “New view” button:



Next add a title and description for your visualization. And in case the visualization should use a different notebook file than the resource itself you can set an URL in the “Jupyternotebook url” field.



Then click “Add” and your view will be ready to be shown in your resource landing page. For example:



3. Customizing The Data Manager

3.1 Changing configuration settings (ckan.ini)

Within the installation of LDM a Docker container is created with the name “ckan” containing an instance of CKAN. Inside the container a configuration file is generated: **/etc/ckan/default/ckan.ini.** This configuration file stores very useful CKAN’s settings that could be changed, customizing the instance behavior (See the documentation for more information: http://docs.ckan.org/en/latest/maintaining/configuration.html#ckan-configuration-file).

One simple manner for accessing and changing ckan.ini file is the following:

a. In a terminal (Linux) or command line (Windows) run the bellowing command making a copy of the file ckan.ini to your current directory.

```
docker cp ckan:/etc/ckan/default/ckan.ini ./ckan.ini
```

After the user should be able to see ckan.ini listed in the directory by running the command:
(on Windows)

```
dir
```

(on Linux)

```
ls
```

b. Open and browse/edit your local copy of **ckan.ini** using any text editor of your preference available on your Operating System. Save the changes.

> **Make a copy!:**
>
> It’s highly recommended making a copy of your local file **ckan.ini**.
> By doing that the user should be able to restore the system in case of errors or mistakes during the edition of the settings restoring the original file into the container by running the steps “c” and “d” with the original ckan.ini as target. Without this precaution a simple spelling error could cause the system to irreversible failure in lack of the knowledge for detecting and fixing the mistake.

c. Replace the configuration file inside the ckan container with your customized local version by running the command:

```
docker cp ckan.ini ckan:/etc/ckan/default/ckan.ini
```

d. Restart **ckan** container running the command:

```
docker restart ckan
```

3.2 Changing “Site Title” and “Site Logo”

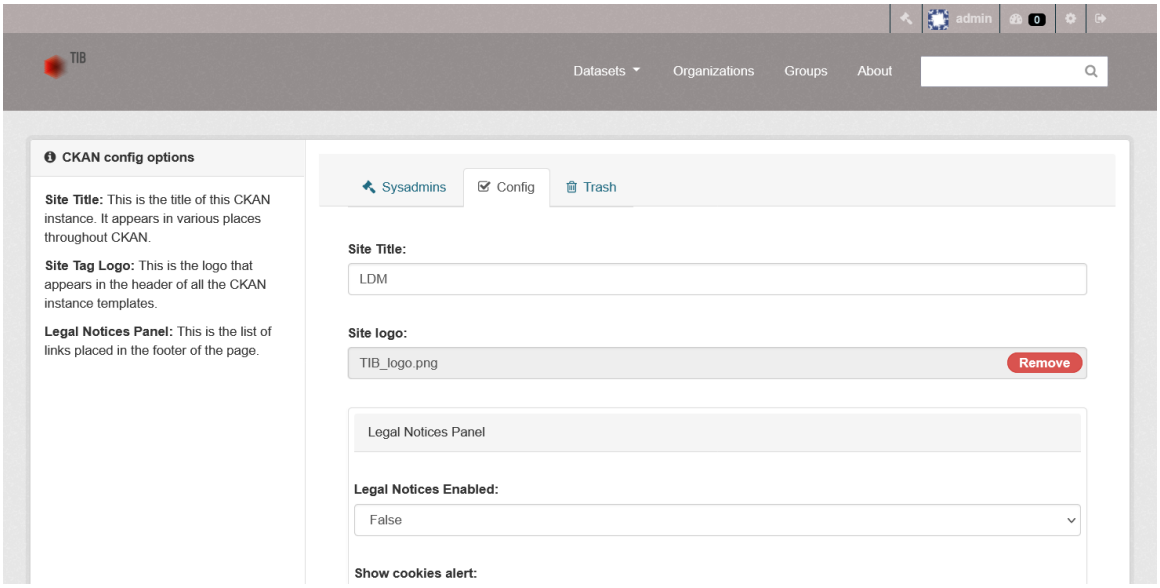
Site Title: This is the title of this CKAN instance. It appears in several places throughout CKAN, for example in the label of the tab’s browser as “Welcome – LDM” in homepage.
Site Logo: This is the logo that appears in the header of all the CKAN instance templates.

To be able to change the site title and/or the logo of the header of the Data Manager, the user should follow the next steps:

a. Login as sysadmin. Click in the “Log in” label at the upper-right corner of the LDM, and log-in introducing user and password.

> **Note:**
> If sysadmin user credentials are unknown consult the section “2.2 LDM Data Manager – step 3” of this manual for more information.

b. Click in the header’s logo to access homepage and add ‘/ckan-admin/config’.
For example: in case LDM instance is running in http://localhost:5000/ access to the URL http://localhost:5000/ckan-admin/config .



c. Using this form change the text in “Site Title”, load a new image for “Site logo” and click on “Update Config” button at the bottom of the page.

3.3 Changing The LDM Styles and Colors (CSS)

To be able to change the visual aspect of LDM the user could access and modify the file TIBtheme.css where styles and colors are defined for the main HTML elements in the website.

Following the next steps:

a. In a terminal (Linux) or command line (Windows) run the bellowing command making a copy of the file ckan.ini to your current directory.

```
docker cp ckan:/usr/lib/ckan/default/src/ckanext-
TIBtheme/ckanext/TIBtheme/public/assets/TIBtheme.css ./TIBtheme.css
```

After the user should be able to see TIBtheme.css listed in the directory by running the command:
(on Windows)

```
dir
```

(on Linux)

```
ls
```

b. Open and browse/edit your local copy of **TIBtheme.css** using any text editor of your preference available on your Operating System. Save the changes.

> **Make a copy!:**
>
> It's highly recommended making a copy of your local file **ckan.ini**.
> By doing that the user should be able to restore the original CSS file in case of errors or mistakes during the edition of the settings restoring the original file into the container by running the steps "c" and "d" with the original TIBtheme.css as target. Without this precaution a simple spelling error could cause the system to irreversible failure in lack of the knowledge for detecting and fixing the mistake.

c. Replace the CSS file inside the ckan container with your customized local version by running the command:

```
docker cp TIBtheme.css ckan:/usr/lib/ckan/default/src/ckanext-
TIBtheme/ckanext/TIBtheme/public/assets/TIBtheme.css
```

d. Restart **ckan** container running the command:

```
docker restart ckan
```

Example: How to change header and footer colors:

a. Edit TIBtheme.css (step b) and replace it in the container (step c) following the steps above and making this changes:
   1. Find this line:

```
.masthead {
  background-color: #989292 !important;
}
```

   2. Change it to:

```
.masthead {
  background-color: blue !important;
}
```

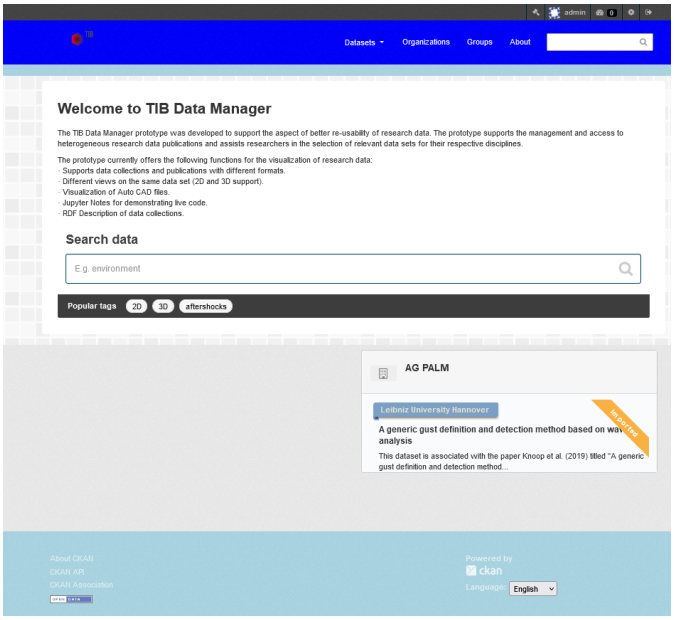
3. Find this line:

```
.site-footer,
body {
    background: #b9afaf url("../../../base/images/bg.png");
}
```

4. Change it to:

```
.site-footer,
body {
    background: lightblue;
}
```

The result is:



About HTML colors:

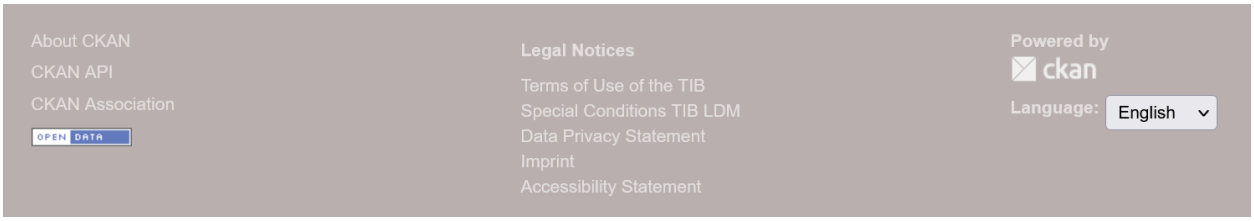
In this example we changed the hexadecimal representation of the color '#989292' with the color name 'blue' and the hexadecimal representation of the color '#b9afaf' and an image url '("../../../base/images/bg.png")' with the color name 'lightblue'. This situation is regular en CSS definitions. For more information about the color options available visit https://www.w3.org/wiki/CSS/Properties/color/keywords.

3.4 "Legal Notices" Configuration

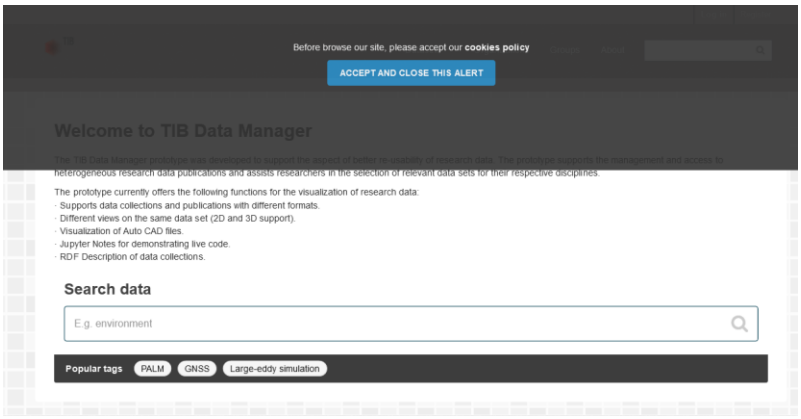
The LDM has implemented Legal Documents required for any website to be published.

This feature is disabled by default, but the user could use and adapt these documents to their needs following this instructions.

When this feature is enabled LDM shows in the footer section the “Legal Notices” links:



The user is able to enable/disable the whole feature or, having it enabled, show or hide each one of the links.
As part of “Legal Notices” feature LDM also offers a “Cookies Alert” pop-up window that also can be enabled or disabled by configuration.



Finally, with some HTML knowledge the content of each Legal Document could be changed and adapted to the user’s needs.

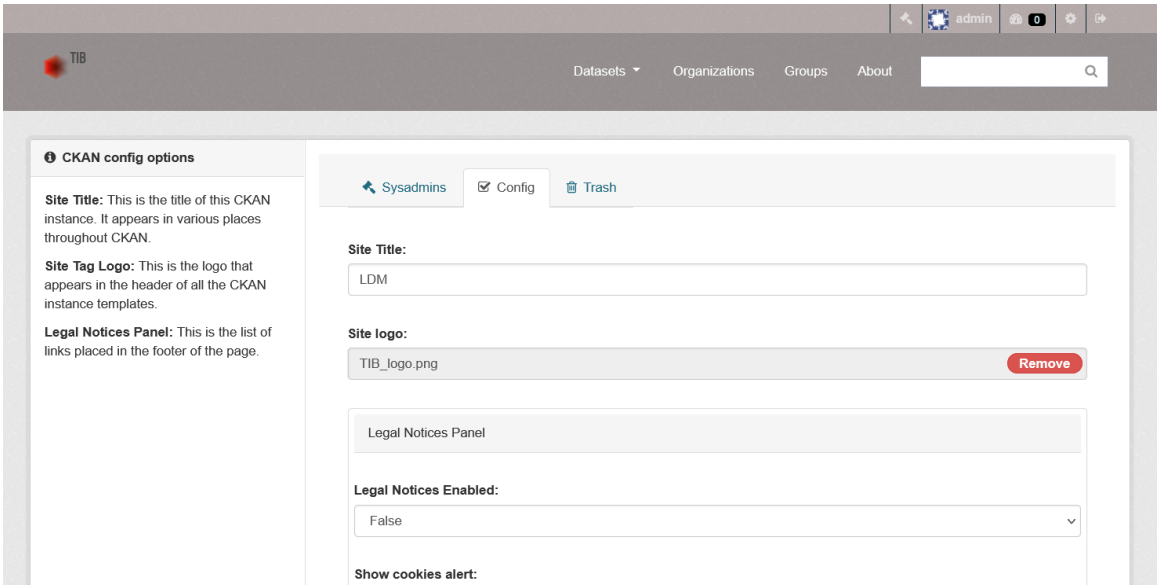
“Legal Notices” configuration:

The user should follow the next steps:

a. Login as sysadmin. Click in the “Log in” label at the upper-right corner of the LDM, and log-in introducing user and password.

> **Note:**
> If sysadmin user credentials are unknown consult the section “2.2 LDM Data Manager – step 3” of this manual for more information.

b. Click in the header’s logo to access homepage and add ‘/ckan-admin/config’.
For example: in case LDM instance is running in http://localhost:5000/ access to the URL http://localhost:5000/ckan-admin/config .



c. Using the options in this form the user can enable/disable the “Legal Notices” features, enable/disable the “Cookie alert” feature and/or show or hide each of the links in the footer. Each field is self-explanatory by its label. The changes are saved by clicking on “Update Config” button at the bottom of the page.

Changing the content of “Legal Notices” documents:

LDM offers the possibility of adapt each of the following “Legal Notices” documents:

- Special conditions TIB LDM
- Data Privacy Statement
- Imprint
- Accessibility Statement
- Cookies alert (pop-up window)

In case of “Special conditions TIB LDM” also the label could be changed by configuration using the form descripted in the previous section of this manual.

For changing the content of each document the user should access and edit the following files:

- For “Special conditions TIB LDM”:
  - **special_conditions_LDM_en.html** (content in English)
  - **special_conditions_LDM_de.html** (content in German)
- For “Data Privacy Statement”:
  - **data_privacy_en.html** (content in English)
  - **data_privacy_de.html** (content in German)
- For “Imprint”:
  - **imprint_en.html** (content in English)
  - **imprint_de.html** (content in German)
- For “Accessibility Statement”:
  - **accessibility_statement_en.html** (content in English)
  - **accessibility_statement_de.html** (content in German)
- For “Cookies alert”:
  - **cookies_alert.html** (content in English and German)

Example changing “Special conditions TIB LDM” content in English:

The following steps are an example. The user is able to change all mentioned documents following the same steps but changing the name of the file “special_conditions_LDM_en.html” with the correspondent file name in the list above.

a. In a terminal (Linux) or command line (Windows) run the bellowing command making a copy of the file ckan.ini to your current directory.

```
docker cp ckan:/usr/lib/ckan/default/src/ckanext-TIBtheme/ckanext/TIBtheme/templates/home/snippets/special_conditions_LDM_en.html ./special_conditions_LDM_en.html
```

After the user should be able to see special_conditions_LDM_en.html listed in the directory by running the command:
(on Windows)

```
dir
```

(on Linux)

```
ls
```

b. Open and browse/edit your local copy of special_conditions_LDM_en.html using any text editor of your preference available on your Operating System. Save the changes.

> **Make a copy!:**
>
> It’s highly recommended making a copy of your local file **special_conditions_LDM_en.html**.
> By doing that the user should be able to restore the original HTML file in case of errors or mistakes during the edition of the settings restoring the original file into the container by running the steps “c” and “d” with the original file as target.

c. Replace the special_conditions_LDM_en.html file inside the ckan container with your customized local version by running the command:

```
docker cp special_conditions_LDM_en.html ckan:/usr/lib/ckan/default/src/ckanext-TIBtheme/ckanext/TIBtheme/templates/home/snippets/special_conditions_LDM_en.html
```

d. Restart **ckan** container running the command:

```
docker restart ckan
```

The content of the document is changed in the website.

4. Useful documentation links:

- **CKAN User guide: http://docs.ckan.org/en/2.9/user-guide.html**
- **CKAN Sysadmin guide: http://docs.ckan.org/en/2.9/sysadmin-guide.html**
- **CKAN Mantainer's guide: http://docs.ckan.org/en/2.9/maintaining/index.html**
- **CKAN API guide: http://docs.ckan.org/en/2.9/api/index.html**

5. LDM Demo

The LDM's demo presents the Leibniz Data Manager (LDM) and illustrates how Semantic Web technologies and FAIR principles empower research data management. The demonstration shows how various digital objects are created and puts in perspective the crucial role of metadata in efficient and effective management and analysis of research data management.

The demonstration comprises:

- A short paper is published in the proceeding of the Extended Semantic Web Conference (ESWC 2022) in the track of poster and demos. It describes the main features of the Leibniz Data Manager,

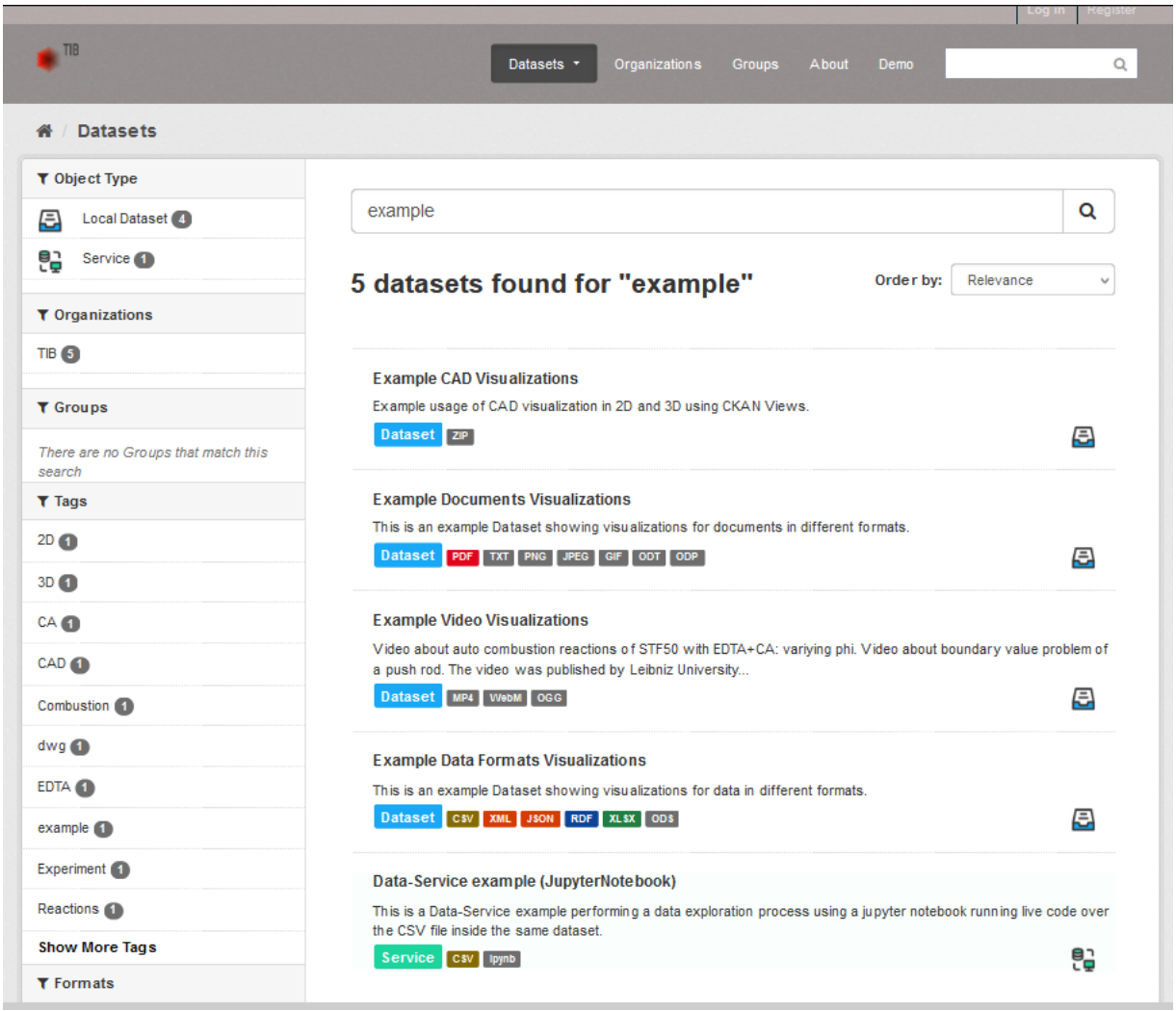
- A poster summarizing the project,

- A short video describing the motivation of this project, and

- A video showing the LDM features.

6. Resource Visualization Examples

Both in the installed version (Link) and in the online version (Link) are Datasets examples available showing visualizations of resources (csv, json, xlsl, pdf, videos, images, etc.) in different formats and representations.



7. Configuration's options:

All configuration options described in this section must be accessed and changed in the CKAN's configuration file: "ckan.ini". In a regular LDM installation this file is located in: **/etc/ckan/default/ckan.ini.**
This configuration file also stores very useful CKAN's settings that could be changed, customizing the instance behavior (See the documentation for more information: http://docs.ckan.org/en/latest/maintaining/configuration.html#ckan-configuration-file).
The following items explain LDM's configurations options for each of its CKAN's Plugins used and developed by and for LDM.
For more information changing "ckan.ini" in a regular LDM's installation visit the section "3.1 Changing configuration settings (ckan.ini)" in this Manual.

Summary

1.1 DOI Plugin
1.2 Scheming Plugin
1.3 Matomo Plugin
1.4 TIBImport Plugin
1.5 TIBNotify Plugin
1.6 CKAN Email Configuration
1.7 TIBTheme Plugin

1.1 DOI Plugin (Back to summary)

A **digital object identifier** (**DOI**) is a persistent identifier or handle used to uniquely identify various objects, standardized by the International Organization for Standardization (ISO).

Fabrica is DataCite's web interface where you can create, find, connect and track all of your DOIs and metadata. Fabrica also includes all of the functionalities needed to manage repository accounts, prefixes and contacts.

The following configuration options allow setting the "DataCite Fabrica" credentials for register and manage DOIs and metadata in LDM.

User and password:

```
ckanext.doi.account_name = WUUA.XXXX
ckanext.doi.account_password = ThisIsMyPassword
```

DOI prefix:

```
ckanext.doi.prefix = 10.23000
```

Publisher name:

```
ckanext.doi.publisher = TIB
```

Test Mode:

“Test Mode” enables or disables (true/false) the test mode. With test mode enabled the credentials for testing should be provided and the DOIs are generated for testing but are not functional URIs as DOIs generated in real mode.

```
ckanext.doi.test_mode = true
```

1.2 Scheming Plugin (Back to summary)

In LDM resources inside datasets can be set for being updated from an URL periodically. The following configuration options allow enable/disable these updates and setting the user for the "Crontab" utility that performs the calls to the updates procedures on Linux's core.

Enable/Disable updates:

In LDM regular installation is default to False.

```
scheming_tibupdateresources_enabled = false
```

Crontab user:

In LDM regular instalation is default to root.

```
scheming_tibupdateresources_crontab_user = root
```

1.3 Matomo Plugin (Back to summary)

This plugin allows Matomo's Analytics features tracking LDM's website.

Enable/Disable Matomo:

Values are NOT present in ckan.ini by default. Defaults to false:

```
tib_matomo.enabled = false
```

Matomo user URL and ID (provided by Matomo):

Values are NOT present in ckan.ini by default. It defaults to an empty string.

```
tib_matomo.url = https://support.tib.eu/piwik/
tib_matomo.id = 99
```

1.4 TIBImport Plugin (Back to summary)

This plugin performs the importation of datasets from different sources as "RADAR" (https://www.radar-service.eu), "PANGEA" (https://www.pangaea.de/) and "Leibniz University Hannover" (https://data.uni-hannover.de/) repositories.

Destinations of LOG's files created during the importation/updates proccess:

Values are NOT present in ckan.ini by default. Defaults to path showed in the example:

```
tibimport.log_file_path = /usr/lib/ckan/default/src/ckanext-
TIBimport/ckanext/tibimport/logs/
```

In LDM imported datasets can be updated periodically. The following configuration options allow enable/disable these updates and setting the user for the "Crontab" utility that performs the calls to the updates procedures on Linux's core.

Enable/Disable updates:

In LDM regular installation is default to False.

```
tibimport.updatedatasets_enabled = false
```

Crontab user:

In LDM regular installation is default to root.

```
tibimport.updatedatasets_crontab_user = root
```

Visual Interface features:

TIBImport plugin defines some visualization options in the user's interface as:

- A ribbon in the list of datasets indicating "Imported" in the right-up corner.

- A ribbon in the list of datasets indicating the name of the Dataset's source.

Enable/Disable "Import" ribbon:

In LDM regular installation is default to true. If is not defined in ckan.ini defaults to false.

```
tibimport.show_vdatasets_virtual_ribbon = true
```

Enable/Disable "Source" ribbon:

In LDM regular installation is default to true. If is not defined in ckan.ini defaults to false.

```
tibimport.show_vdatasets_virtual_source_ribbon = true
```

1.5 TIBNotify Plugin (Back to summary)

This plugin implements email notifications to LDM's administrators. It uses its own configuration options and also some CKAN's default options for performing its tasks.

Email account where the notifications are sent:

```
TIBnotify.mail_to = example@mail.com
```

Name of the administrator receiving the notifications:

```
TIBnotify.sysadmin_name = LDM-Sysadmin
```

Email account set as origin of the notifications:

```
TIBnotify.sysadmin_email = no.reply@mail.com
```

TIBNotify also performs some operations enabling the CKAN's notification system, that otherwise needs some tasks to be performed in the server for being enabled (see https://docs.ckan.org/en/2.9/maintaining/email-notifications.html#email-notifications).

User for the "Crontab" utility that performs the calls to the CKAN's notification's system periodically.

By default this calls occurs every 1 hour.

In LDM regular installation is default to root.

```
TIBnotify.ckan_notifications_crontab_user = root
```

1.6 CKAN Email Configuration (Back to summary)

CKAN will not send out any email notifications, nor show the email notifications preference to users, unless the **ckan.activity_streams_email_notifications** option is set to True.

Notice: for sending emails the LDM instance should be public in a valid web domain and SMTP options well configured.

```
ckan.activity_streams_email_notifications = True
```

ckan.site_url: is used to generate links in the bodies of the notification emails

```
ckan.site_url = http://ldm.example.com
```

smtp.mail_from defines the email address that CKAN's email notifications will appear to come from.

```
smtp.mail_from = no.reply@ldm.example.com
```

ckan.site_title is used on emails to form the "From". Ex. From: PublicData.eu <mailmain@ldm.example.com>

```
ckan.site_title = LDM
```

smtp.reply_to set an alternate reply address

```
smtp.reply_to = noreply@ldm.example.com
```

smtp.ssl enables ssl on smtp connection

```
smtp.ssl = true
```

CKAN will not send email notifications for events older than the time period specified by the **ckan.email_notifications_since** configuration setting (default: 2 days), so your cron job should run more frequently than this. @hourly and @daily are good choices.

```
ckan.email_notifications_since = 2 days
```

Accepts strings in these formats:

2 days

14 days

4:35:00 (hours, minutes and seconds)

4:35:12.087465 (hours, minutes, seconds and microseconds)

7 days, 3:23:34

7 days, 3:23:34.087465

.087465 (microseconds only)

1.7 TIBTheme Plugin (Back to summary)

This plugin defines LDM's visual interfaces, translations to German and some options regarding "Legal Notices" features in the website.

Enable/Disable "Legal Notices" links and webpages:

In LDM regular installation is default to false.

```
tibtheme.legal_notices_enabled = false
```

Enable/Disable message alerting the use of cookies in the website.

In LDM regular installation is default to true, but this feature only works if the previous configuration option is set to true.

```
tibtheme.show_cookies_alert = true
```

Enable/Disable "Legal Notices - Terms of use" link and webpage:

In LDM regular installation is default to true, but this feature only works if the "tibtheme.legal_notices_enabled" configuration option is set to true.

```
tibtheme.legal_notices_TIB_terms_use_enabled = true
```

Enable/Disable "Legal Notices - Special Conditions" link and webpage:

In LDM regular installation is default to true, but this feature only works if the "tibtheme.legal_notices_enabled" configuration option is set to true.

```
tibtheme.special_conditions_LDM_enabled = true
```

Set the label to link on "Legal Notices - Special Conditions":

In LDM regular installation is default to "Special conditions TIB LDM"

```
tibtheme.special_conditions_label = Special conditions TIB LDM
```

Enable/Disable "Legal Notices - Data Privacy" link and webpage:

In LDM regular installation is default to true, but this feature only works if the "tibtheme.legal_notices_enabled" configuration option is set to true.

```
tibtheme.data_privacy_enabled = true
```

Enable/Disable "Legal Notices - Imprint" link and webpage:

In LDM regular installation is default to true, but this feature only works if the "tibtheme.legal_notices_enabled" configuration option is set to true.

```
tibtheme.imprint_enabled = true
```

Enable/Disable "Legal Notices - Imprint" link and webpage:

In LDM regular installation is default to true, but this feature only works if the "tibtheme.legal_notices_enabled" configuration option is set to true.

```
tibtheme.accessibility_statement_enabled = true
```

All the following options are changeable at runtime in: ckan.site_url/ckan-admin/config (Ex. http://localhost:5000/ckan-admin/config)

tibtheme.legal_notices_enabled,

tibtheme.show_cookies_alert,

tibtheme.legal_notices_TIB_terms_use_enabled,

tibtheme.special_conditions_LDM_enabled,

tibtheme.special_conditions_label,

tibtheme.data_privacy_enabled,

tibtheme.imprint_enabled,

tibtheme.accessibility_statement_enabled,

tibimport.updatedatasets_enabled.

Enable/Disable box in Dataset's lists showing the type of object: "Dataset", "Imported Dataset" or "Service".

In LDM regular installation is not set. If not defined in ckan.ini it defaults to true.

```
tibtheme.show_object_icon_in_package_item = true
```

Set the LDM's instance as TiB-Service or other:

With this option the content of "Home" and "About" pages are changed and adapted to be a regular LDM's instance or the one belonging to TIB's online service.

In LDM regular installation is not set. If not defined in ckan.ini it defaults to false.

```
tibtheme.is_TIBservice_instance = false
```

Set the LDM's instance name:

In case the previous configuration option is set to false, the following one sets the name of the instance in "Home" and "About" webpages.

In LDM regular installation is not set. If not defined in ckan.ini it defaults to empty string.

```
tibtheme.default_instance_name = CoyPU
```

8. DOI Generation:

A **digital object identifier** (**DOI**) is a persistent identifier or handle used to uniquely identify various objects, standardized by the International Organization for Standardization (ISO).

Fabrica is DataCite's web interface where you can create, find, connect and track all of your DOIs and metadata. Fabrica also includes all of the functionalities needed to manage repository accounts, prefixes and contacts.

The LDM includes a Plugin allowing the creation of DOI for Datasets named “doi”, but this plugin is disabled by default in a regular installation.

For enabling this plugin and in consequence the DOI creation the “doi” name must be added to the ckan.ini under the ckan.plugins configuration. For example:

ckan.ini before adding “doi”:

```
ckan.plugins = stats text_view image_view recline_view resource_proxy officedocs_view
webpage_view videoviewer TIBtheme dcat dcat_json_interface pdf_view scheming_datasets
tibimport jupyternotebook tibvocparser scheming_tibupdateresources tib_cadviewer
```

ckan.ini after adding “doi”:

```
ckan.plugins = stats text_view image_view recline_view resource_proxy officedocs_view
webpage_view videoviewer TIBtheme dcat dcat_json_interface pdf_view scheming_datasets
tibimport jupyternotebook tibvocparser scheming_tibupdateresources tib_cadviewer doi
```

Notice:
For detailed instructions regarding how to change ckan.ini see the section 3.1 Changing Configuration settings (ckan.ini).

Also the "DataCite Fabrica" credentials must be set and configured for registering and managing DOIs and metadata in LDM. For details regarding this task see “Apendix I: DOI Plugin”.

Troubleshooting:

In case “Datacite Fabrica” credentials are not correct or not set in the configuration file (ckan.ini) the system is going to fail every time a Dataset is created o modified.
If this occurs roll back and delete the “doi” from ckan.plugins until the problem is solved to allow LDM keep working without the DOI feature.