



Installation Guide

Version 2.3

1. Document History	3
2.1. Server Requirements (Linux based or Windows)	5
Apache:	5
Enable Url Rewriting	5
PHP 8.0– PHP 8.2	6
Database Server (commonly MySQL)	6
Elastic Search (supported 7.6 and higher)	7
NodeJS	7
How to Check requirements per console	7
Access to external APIs	7
2.2. Download package	8
3. Launch Frontend	9
3.1. Backend Settings	9
3.2. System Requirements check	10
3.3. Database Settings	11
3.4. ElasticSearch Settings	12
3.5. CRM Credentials for admin user	13
3.6. Screen Output & Data Export	13
3.7. Review Settings	14
3.8. Scroll down and push “begin installation” button	15
3.9. After install	16
4. Trouble shooting	20
4.1. File permissions	20
Apache: default file permissions for SpiceCRM api	20
4.2. Check URL Rewriting	21
Check REST API availability	21
5. Get additional configurations for UI	22
5.1. Load default e-mail templates	22
5.2. Load any other package you need	22
5.3. Trouble shooting	23
6. Index Data	23
6.1. Index data per cron job	24
6.2. Index data manually	24
7. Access Rights in SpiceCRM	25

1. Document History

Details/Section	Version	Date	current release	Owner
Initial Version	1.0.0	20.04.2018		Valérie Maret
Added Server checks	1.0.1	28.06.2018		Valérie Maret
Restructured	1.0.2	22.08.2018		Valérie Maret
Added ping check	1.0.3	18.10.2018	2018.10.001	Valérie Maret
Improved documentation Get default configuration, Index data	1.0.4	30.11.2018	2018.11.001	Valérie Maret
Simplified installation: introducing package loader to load default settings	1.0.5	17.01.2019	2019.01.001	Valérie Maret
Simplified load for UI configuration Slight change in install steps	1.0.6	06.03.2019	2019.02.001	Valérie Maret
new install process	2.0.0	25.09.2020	2020.02.001	Valérie Maret
Section 7 Access Rights in SpiceCRM	2.0.1	31.12.2020	2020.04.001	Valérie Maret
Updated requirements	2.0.2	08.10.2021	2021.02.001	Valérie Maret
default preferences	2.0.3	22.11.2021	2021.03.001	Valérie Maret
php requirements	2.0.4	08.07.2022	2022.02.001	Valérie Maret
Fts connection params; repair/rebuild moved to Dictionary Manager; reload cache	2.0.5	21.03.2023	2023.01.001	Valérie Maret
Added imap to required extensions, recommendation charset and collation for MySQL	2.0.6	2.10.2023	2023.01.002	Valérie Maret

New Installation Process with SpiceCRM version 2024.01.001	2.1	21.5.2024	2024.01.001	Valérie Maret
Additional php extension php-pear	2.2	8.11.2024	2024.02.001	Valérie Maret
Updated the after installation steps	2.3	05.12.2024	2024.02.001	Valérie Maret

2. Server architecture

Backend and Frontend may be installed on different servers or on the same one

2.1. Server Requirements (Linux based or Windows)

Apache:

Caution: there was a bug with debian/ubuntu higher than apache 2.4.54

Enable Url Rewriting

On linux based systems e.g. debian enter

`a2enmod rewrite`

On **windows** based systems in your httpd.conf ensure the following line is there

`LoadModule rewrite_module modules/mod_rewrite.so`

Restart webserver

To ensure that the rewrite rules from the .htaccess files can be evaluated also override for the directory or the virtual host if you use virtual hosts in apache. Depending on your configuration you might find the Directory part in the `httpd.conf` or any subconfiguration for your webserver.

`DocumentRoot "/var/www"`

`<Directory "/var/www">`

`Options Indexes FollowSymLinks Includes ExecCGI`

`AllowOverride All`

`Require all granted`

`</Directory>`

A fast way to get an environment on your local computer would be to download xampp distribution from xampp.org and install.

PHP 8.0– PHP 8.2

PHP 8.0 is minimum requirement since 2024.01.001

Required extensions:

- BCMath => bcmath (since 2024.01.001)
- cURL Module => curl
- Database Drivers => dbdrivers
- Image handling => gd
- Imap => imap
- Mail Parse => mailparse
- MB Strings Module => mbstring
- PCRE Library => pcre
- Pear => pear (since 2024.02.001)
- XML Parsing => xml_parser
- ZIP Handling Module => zip

Additionally any php extension related to the database type you use.

PHP allows to use stream (upload://)

php.ini

- display_errors=Off
- default_charset="UTF-8"
- date.timezone = Europe/Vienna date.timezone setting is important! Think of it!
- max_execution_time=300
- memory_limit=256M
- upload_file_size=50MB

If your php CLI uses another php.ini, do the same modifications there too!

Database Server (commonly MySQL)

Supported MySQL, MSSQL, Oracle

Installation wizard supports MySQL

MySQL 8 is supported since SpiceCRM version 2023.01.001

Check your version: **SHOW VARIABLES LIKE "%version%"**

Elastic Search (supported 7.6 and higher)

ElasticSearch 8 is supported & recommended since SpiceCRM version 2023.01.001

Follow installation steps described under <https://www.elastic.co/de/downloads/elasticsearch>:

1. Download and unzip Elasticsearch
2. Run bin/elasticsearch (or bin\elasticsearch.bat on Windows)
3. Run curl http://localhost:9200/ or Invoke-RestMethod http://localhost:9200 with PowerShell

NodeJS

If you wish to use the real time notification capability or any CTI integration, you will need NodeJS.

Use latest version available for your server environment.

How to Check requirements per console

Check php version	php -v or create a phpinfo file
Check elastic Search version	curl -XGET 'localhost:9200'
Check MySQL	connect to db: #: mysql -u xxx -pyyy mysql > SHOW VARIABLES LIKE 'version'
Check url rewrite	open phpinfo: search for mod_rewrite Sollte in "apache2handler" "Loaded Modules" erscheinen

Access to external APIs

API	needed for	Check per command line
smtp.sendgrid.net (SpiceCRM full version only)	Mailboxes	ping smtp.sendgrid.net
spicecrmrelease.spicecrm.io	SpiceLoader	ping spicecrmrelease.spicecrm.io

	(default configurations)	
--	--------------------------	--

2.2. Download package

The main components (core) can be retrieved from GitHub

<https://github.com/spicecrm/spicecrm>

2.3. Architecture example

`/var/www/html/myspicecrm/`

- api
- app
- assets
- assets_custom
- config
- environments
- license
- sldassets
- src
- vendor
- .gitignore
- .htaccess
- angular
- index
- index-dev
- opener
- package
- package-lock
- proxy.conf
- README.md
- styles
- tsconfig
- tslint
- webpack.config

Unzip spicecrm package to the root of your instance (here called *myspicecrm*).

Or checkout with git clone:

```
cd /var/www/html
```

```
git clone https://github.com/spicecrm/spicecrm.git myspicecrm
```

3. Launch Frontend

Make sure you have all credentials needed for installation:

- Database host, name, user name and password
- Elastic search server name, port.
Optional: username and password to secure your elasticsearch (new since 2023.01.001)
- File permission will be checked during installation but they won't be corrected automatically

Installation process will also create folders under api/. Make sure api/ is writeable.

Call your SpiceCRM instance. <http://localhost/myspicecrm> in our example.

Installation process will start automatically. Fill in fields step by step.

3.1. Backend Settings

Welcome to SpiceCRM
Set Backend

* Name
SpiceCRM

* Show Forgot Password on Login Screen
No

* Show LoginSidebar
No

next

Field	description
-------	-------------

Name	Name of your instance
Show Forgot Password on Login Screen	display the Link to request a new password
Show LoginSideBar	Will display a sidebar on the right hand side. May contain a link to another website, news feeds.

3.2. System Requirements check

Check required php extensions and file access permissions

<div> <div>✓</div> <div>Set Backend</div> </div> <div> <div>○</div> <div>System Requirements</div> </div> <div> <div>●</div> <div>Licence</div> </div> <div> <div>●</div> <div>Database</div> </div> <div> <div>●</div> <div>FTS</div> </div> <div> <div>●</div> <div>Credentials</div> </div> <div> <div>●</div> <div>Output & Export</div> </div> <div> <div>●</div> <div>Review & Install</div> </div>	System Requirements	
	Status	Extension
	✓	Cache directory
	✓	Curl
	✓	Custom directory
	✓	Database
	✓	Databasedrivers
	✓	Gd
	✓	Mailparse
	✓	Mbstrings
	✓	Media files directory
	✓	Modules directory
	✓	Pcre
	✓	Php
	✓	Upload directory
	✓	Xml parser
	✓	Zip

3.3. Licence

<div><div>✔</div>Set Backend</div> <div><div>✔</div>System Requirements</div> <div><div>○</div>Licence</div> <div><div>●</div>Database</div> <div><div>●</div>FTS</div> <div><div>●</div>Credentials</div> <div><div>●</div>Output & Export</div> <div><div>●</div>Review & Install</div>	<h4>License Agreement</h4> <p>If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.</p> <p>To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively state the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.</p> <p>one line to give the programs name and a brief idea of what it does Copyright (C) 2023 SpiceCRM</p> <p>This program is free software: you can redistribute it and/or modify it under the terms of the GNU Affero General Public License as published by the Free Software Foundation, either version 3 of the License, or (at your option) any later version.</p> <p>This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Affero General Public License for more details.</p> <p>You should have received a copy of the GNU Affero General Public License along with this program. If not, see gnu.org/licenses.</p> <p>Also add information on how to contact you by electronic and paper mail.</p> <p>If your software can interact with users remotely through a computer network, you should also make sure that it provides a way for users to get its source. For example, if your program is a web application, its interface could display a "Source" link that leads users to an archive of the code. There are many ways you could offer source, and different solutions will be better for different programs; see section 13 for the specific requirements.</p> <p>You should also get your employer (if you work as a programmer) or school, if any, to sign a "copyright disclaimer" for the program, if necessary. For more information on this, and how to apply and follow the GNU AGPL, see gnu.org/licenses.</p> <div><input checked="" type="checkbox"/> agree to Terms & Conditions</div> <div><div>back</div><div>next</div></div>
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3.3. Database Settings

<div><div>✔</div>Set Backend</div> <div><div>✔</div>System Requirements</div> <div><div>✔</div>Licence</div> <div><div>○</div>Database</div> <div><div>●</div>FTS</div> <div><div>●</div>Credentials</div> <div><div>●</div>Output & Export</div> <div><div>●</div>Review & Install</div>	<h4>Database Configuration</h4> <div>Database Type<div>mysql</div></div> <div>* Host Name<div>localhost</div></div> <div>* Administrator User Name<div>root</div></div> <div>Administrator Password<div>****</div></div> <div>Port<div>3306</div></div> <div>* Database Name<div>spicecrm</div></div> <div>Collation<div>utf8mb4</div></div>
---	--

We recommend collation `utf8mb4_general_ci` and charset `utf8mb4`

With MySQL8 you may use `utf8mb4_unicode_900_ai_ci`

3.4. Elasticsearch Settings

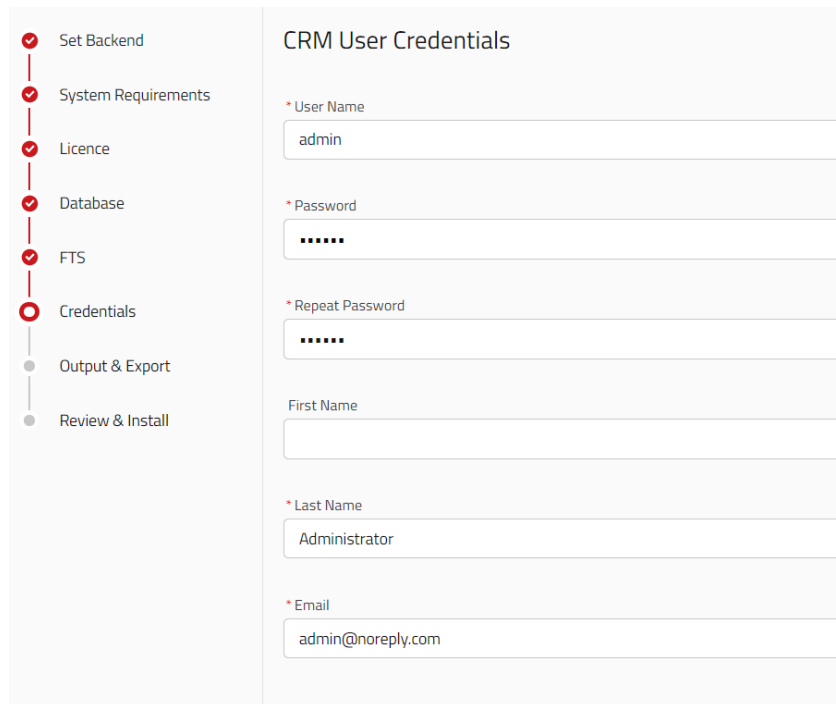
elastic server shall be up and running

The screenshot shows a web interface for configuring FTS. On the left is a sidebar with a vertical list of steps: 'Set Backend', 'System Requirements', 'Licence', 'Database', 'FTS', 'Credentials', 'Output & Export', and 'Review & Install'. The 'FTS' step is currently selected and highlighted with a red circle. The main area on the right is titled 'FTS Configuration' and contains several settings:

- ☒ use https
- ☐ SSL veriy
- * Server: localhost
- * Port: 9200
- * Prefix: release202301001_
- User: admin
- Password:

Field	description	Available since
Use https	Will set how to call the url weather with https or http Http is default	2021.01.001
Ssl verify	Adds SSL verify host and verify peer in curl options to connect to elasticsearch. False is default.	2023.01.001
Server	The name of the host localhost or any IP where you installed elastic	2016.01.01
Port	Default port is 9200	2016.01.01
Prefix	The prefix for your index names	2016.01.01
username	Optional username to connect to elasticsearch	2023.01.001
password	Optional password to connect to elasticsearch	2023.01.001

3.5. CRM Credentials for admin user



CRM User Credentials

* User Name
admin

* Password

* Repeat Password

First Name

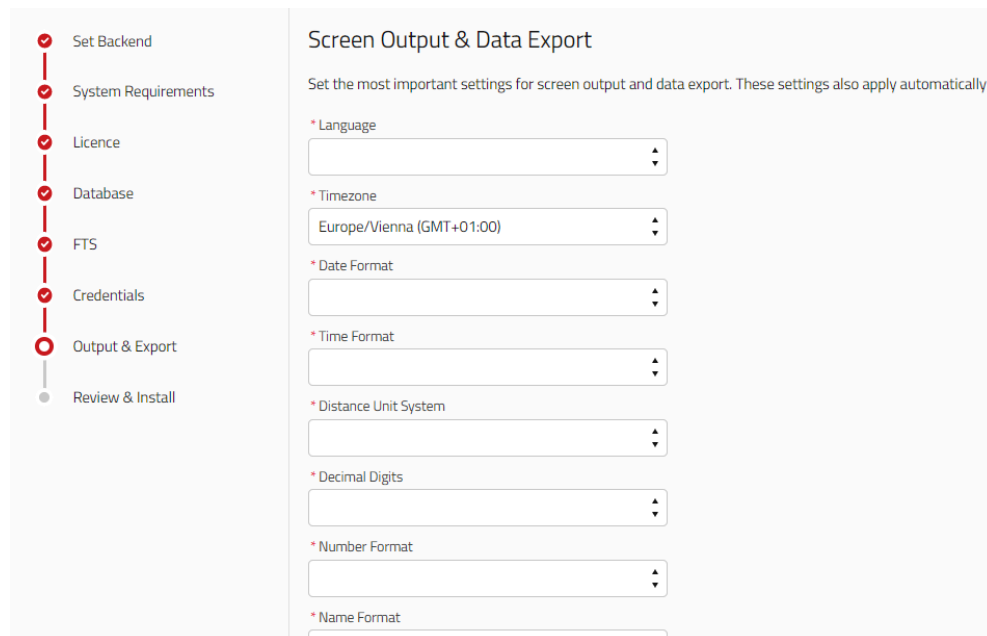
* Last Name
Administrator

* Email
admin@noreply.com

3.6. Screen Output & Data Export

Extended view since 2022.03.001

Set the most important settings for screen output and data export. These settings also apply automatically to each user as long as a user does not make any individual settings.



Screen Output & Data Export

Set the most important settings for screen output and data export. These settings also apply automatically to each user as long as a user does not make any individual settings.

* Language
▼

* Timezone
Europe/Vienna (GMT+01:00) ▼

* Date Format
▼

* Time Format
▼

* Distance Unit System
▼

* Decimal Digits
▼

* Number Format
▼

* Name Format
▼

Field	description
Language	Select default language
Timezone	Set the default time zone
Date Format	Set default date format
Time Format	Set default time format
Distance Unit System	Set default measure units (metric imperial)
Decimal digits	Set default number of decimal digits
Number format	Set default number format
Name format	Set default format to display a contact name
Week start day	Set default value for the first day of the week in the calendar display
Week Days Count	Set default value for the number of days the calendar should display in “week” display
Export delimiter	Set default field separator for data export (, or ;)
Export charset	Set default value for export charset

3.7. Review Settings

You can review all your settings before proceeding with installation.

<div> <div>✓</div> <div>Set Backend</div> </div> <div> <div>✓</div> <div>System Requirements</div> </div> <div> <div>✓</div> <div>Licence</div> </div> <div> <div>✓</div> <div>Database</div> </div> <div> <div>✓</div> <div>FTS</div> </div> <div> <div>✓</div> <div>Credentials</div> </div> <div> <div>✓</div> <div>Output & Export</div> </div> <div> <div>○</div> <div>Review & Install</div> </div>	<div>Review & Install</div> <div>Backend Configuration Settings</div> <div> <div>Backend Url</div> <div>http://localhost/spicecrm_factory/api</div> </div> <div> <div>Frontend Url</div> <div>http://localhost/spicecrm_factory/</div> </div> <div>Database Configuration Settings</div> <div> <div>Database host instance</div> <div>SQLEXPRESS</div> </div> <div> <div>Database host name</div> <div>localhost</div> </div> <div> <div>Database manager</div> <div>MysqliManager</div> </div> <div> <div>Database name</div> <div>release202301001</div> </div> <div> <div>Database password</div> <div></div> </div> <div> <div>Database port</div> <div>3306</div> </div> <div> <div>Database type</div> <div>mysql</div> </div>
---	--

3.8. Scroll down and push “begin installation” button

Username	admin
Output & Export Settings	
Language	en_us
Date Format	d.m.Y
Distance Unit System	METRIC
Export Charset	UTF-8
Export Delimiter	;
Name Format	s f l
Time Format	Hh
Timezone	Europe/Vienna
Week Days Count	5
Week Start Day	Monday

[back](#) [Begin Installation](#)

Installation is successful when you are redirected to the login screen



☐ Angemeldet bleiben

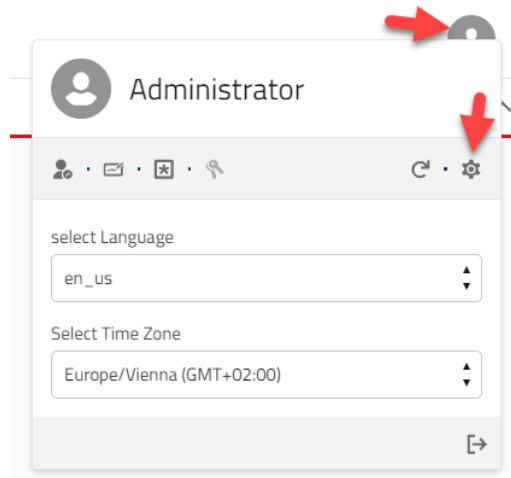
[Anmelden](#)

3.9. After install

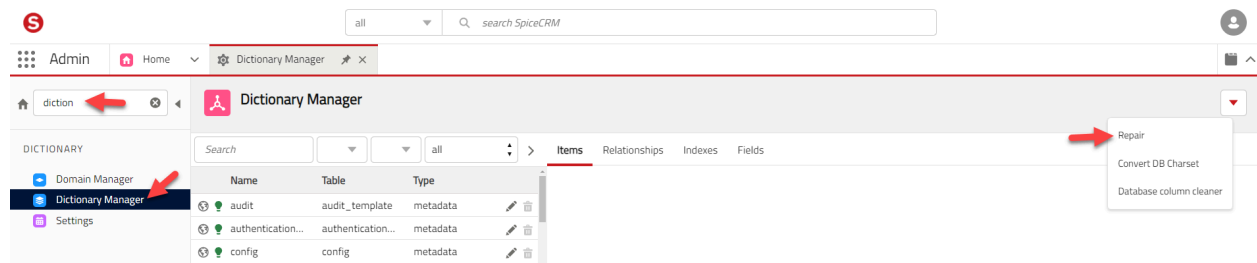
Login as the admin user.

Timezone will be set automatically for the user.

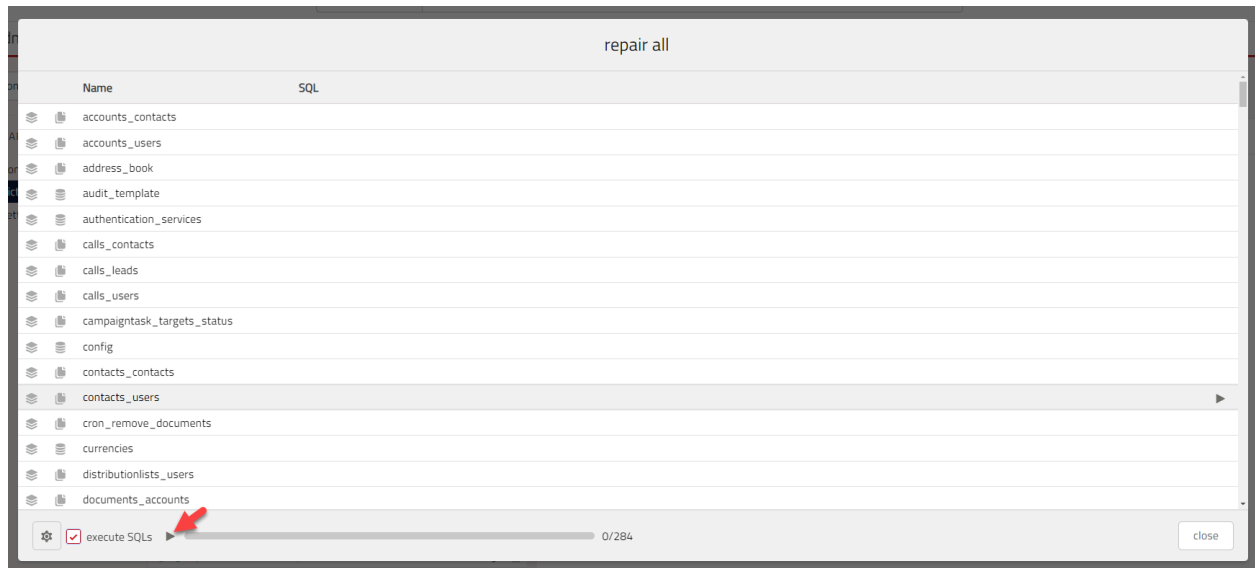
Go to the workbench: the click is now under the profile panel of the admin user



Open the workbench, look for ~~repair & perform a repair/rebuild~~ the **Dictionary Manager** & perform Repair.



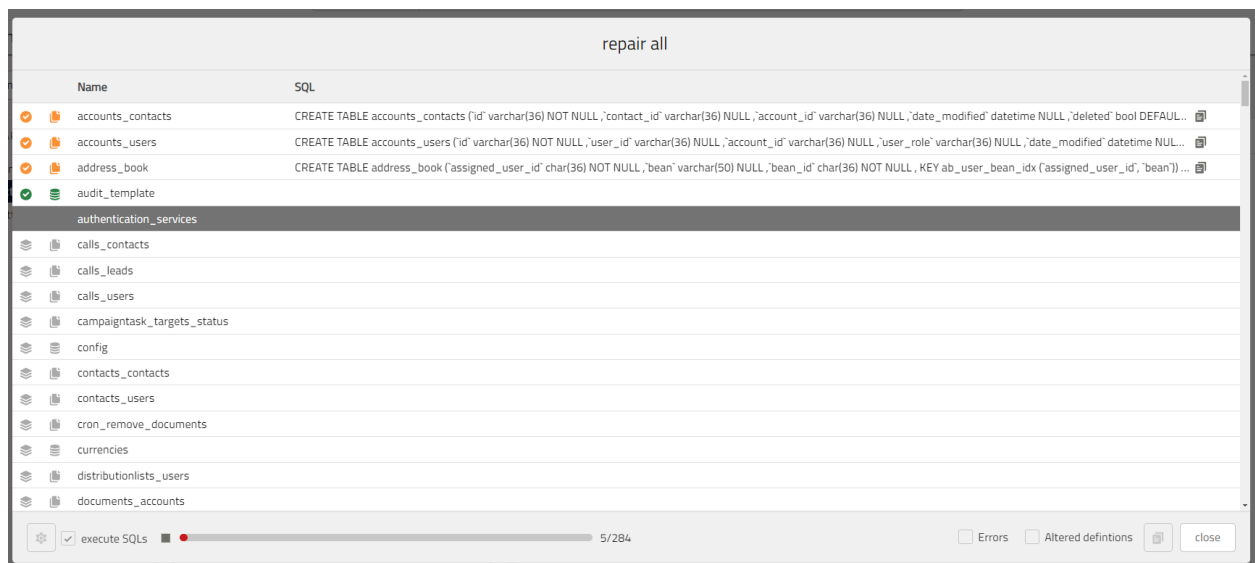
The repair modal window pops up.



Set execute SQLs and push the “play” button.

SQL queries to be processed will be found and executed.

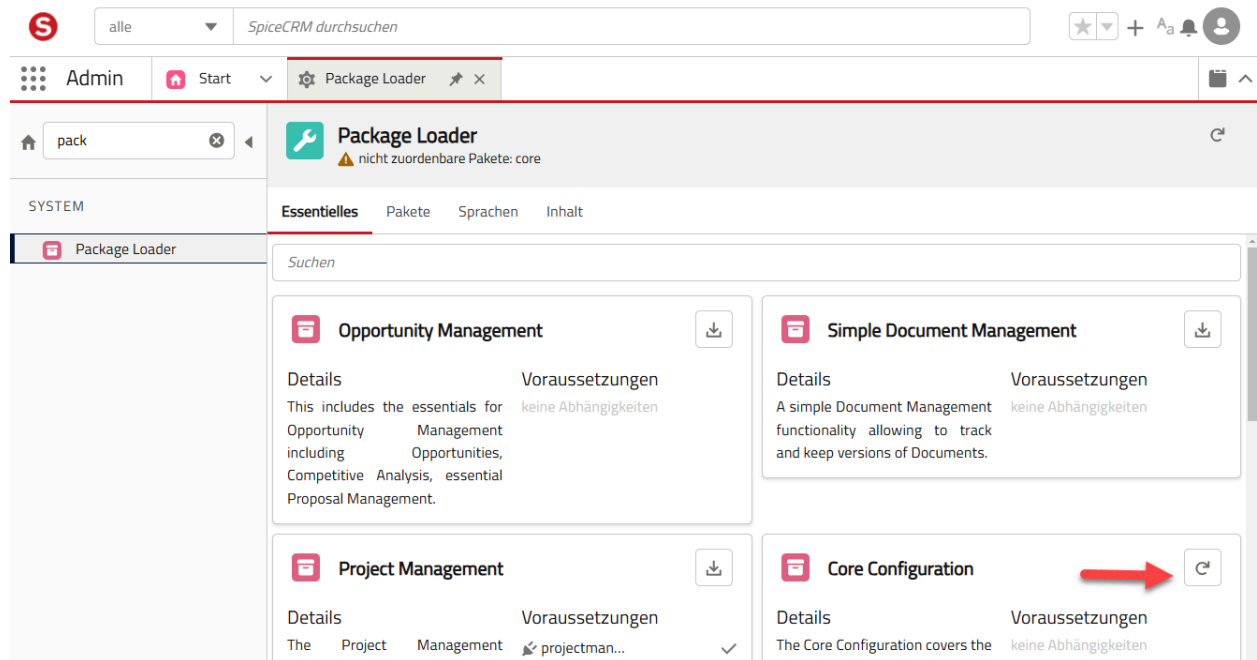
Follow the progress on the screen. In version 2024.01.001 it might seem a little long. Future versions will have less tables to create.



After all SQLs have been executed, close the window.

Go to the package loader and load the Essentials > CORE package

This contains all the definitions for the basic modules like Accounts, Contacts and Activities.

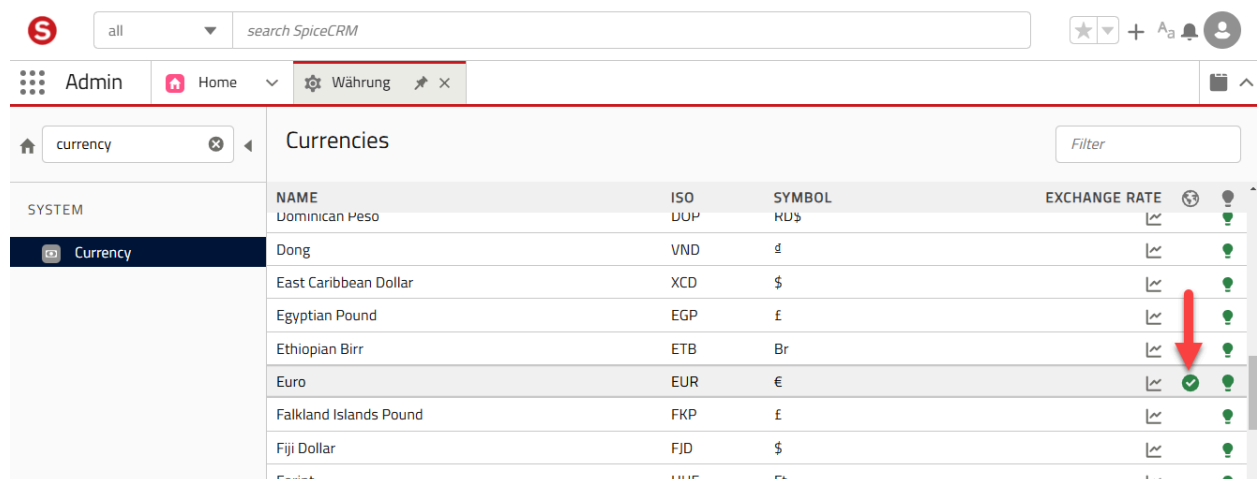


Go back to the Dictionary Manager & perform *Repair* again.

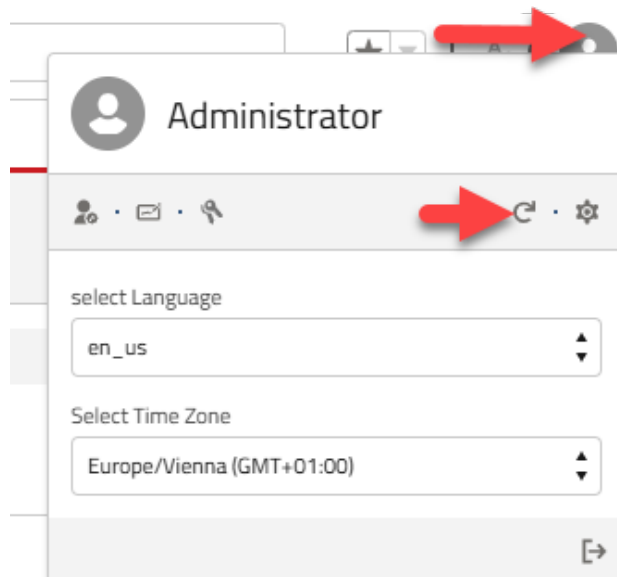
Go to currency and set the system currency

Click in the empty column on the proper line to get the checked icon.

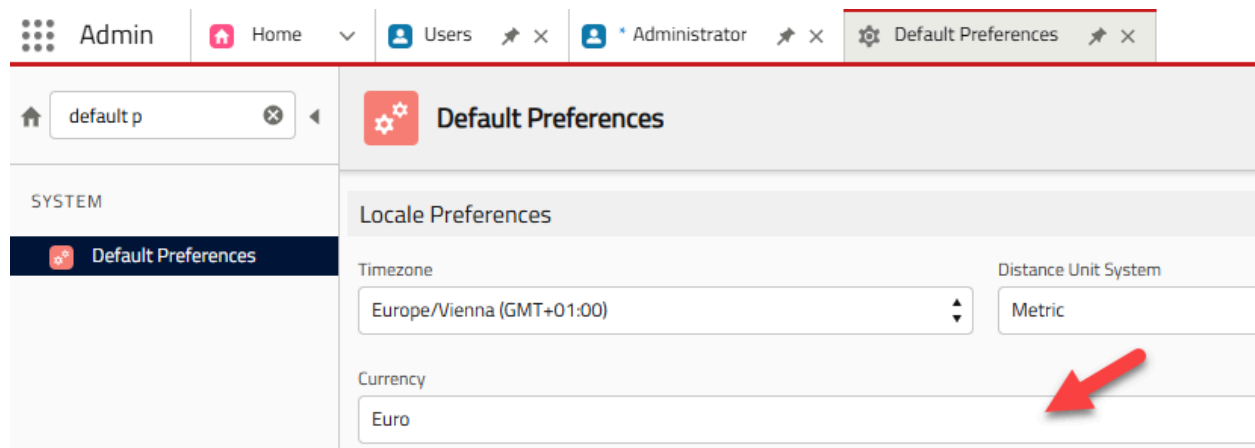
CAUTION: you can only click one time! Make sure you click the proper currency!



Reset & reload



Go to the default preferences and set the default currency.



Reset & reload

Logout & re-login

Go to the package loader and load the following packages

- Essentials > Email Handling: includes the basics for Email Management: send e-mails via CRM or process incoming emails for specific mailboxes. Also load the Content packages *Notification email Templates* as well as *Default Email Templates*.
- Essentials > Opportunity Management, Lead Management
- Content > FTS default settings: contains all the basic index definitions for Accounts, Contacts and Activities

- Content > Default Scheduler Jobs: contains default scheduler job tasks
- Content > ACL essentials: contains the basic configuration for the administration of access permissions.

We recommend newcomers to download the Content > ACL examples Package. It contains ACL profiles and pre-defined access permissions.

- Content > Default Scheduler Jobs: contains basic jobs like FTS bulk indexing

After that we recommend running the *repair* again.

Dictionary Manager > repair

Then run *reset* and *reload* in order to make sure all important configurations are cached (cached data is stored under `./api/cache` per default).

Alternatively you will find the button in the workbench > cache viewer.

If you haven't encountered any problem, please jump to [section 6. Index data](#)

4. Trouble shooting

4.1. File permissions

Apache: default file permissions for SpiceCRM api

Web user (usually www-data on Apache linux server)

Needs recursive write permissions for:

- `./cache`
- `./custom`
- `./media`
- `./upload`

Needs write permissions in folder `./` (where CRM is installed)

If you want to restrict:

*.log files + config.php and config_override.php shall be writable

Standard Setup example

```
cd /var/www/html/spicecrm/api
```

```
chown -R www-data cache
```

```
chmod -R 0755 cache
```

cache, custom, media and upload folders are created during the installation process. Permissions are set automatically unless server settings do not allow this action.

4.2. Check URL Rewriting

Check REST API availability

Call your CRM url in browser + /api/sysinfo

Example: <http://localhost/myspicecrm/api/sysinfo>

You shall get a json string as response looking like:

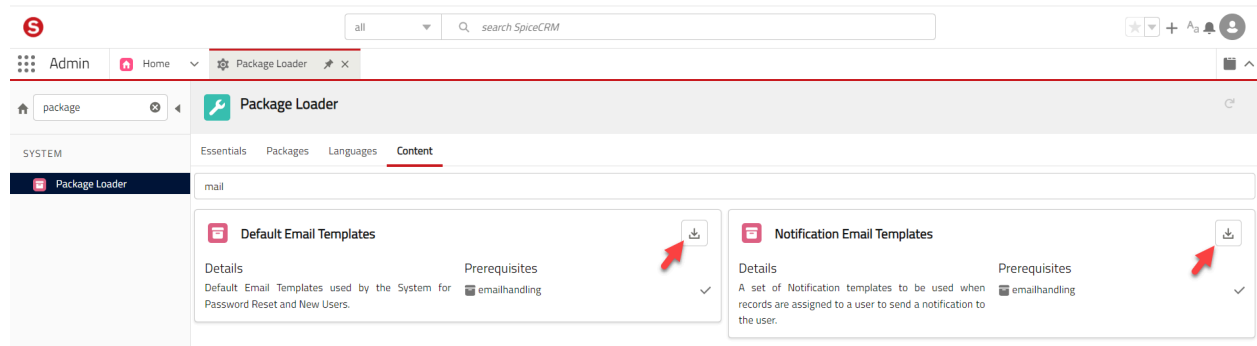
```
{
  "version": "2.0",
  "extensions": {
    "google_api": {
      "version": "1.0",
      "config": {
        "key": ""
      }
    },
    "telecockpit": {
      "version": "1.0",
      "config": []
    },
    "portal": {
      "version": "1.0",
      "config": []
    },
    "mailboxes": {
      "version": "1.0",
      "config": []
    },
    "projectmanagement": {
      "version": "1.0",
      "config": []
    },
    "theme": {
      "version": "1.0",
      "config": []
    },
    "cardreader": {
      "version": "1.0",
      "config": []
    },
    "core": {
      "version": "2.0",
      "config": {
        "edit_mode": "custom"
      }
    },
    "gdpr": {
      "version": "1.0",
      "config": []
    },
    "reporting": {
      "version": "1.0",
      "config": []
    },
    "login": {
      "version": "1.0",
      "config": []
    },
    "forgotPassword": {
      "version": "1.0",
      "config": []
    },
    "metadata": {
      "version": "1.0",
      "config": []
    },
    "module": {
      "version": "2.0",
      "config": []
    },
    "mobile": {
      "version": "2.0",
      "config": []
    },
    "user": {
      "version": "1.0",
      "config": []
    },
    "utils": {
      "version": "1.0",
      "config": []
    },
    "languages": {
      "available": [
        {
          "language_code": "en_us",
          "language_name": "English (US)",
          "system_language": true,
          "communication_language": true
        },
        {
          "language_code": "de_DE",
          "language_name": "Deutsch",
          "system_language": true,
          "communication_language": true
        }
      ],
      "default": "en_us",
      "loginSidebarUrl": false,
      "ChangeRequestRequired": false,
      "sessionMaxLifetime": 1440
    }
  }
}
```

If not, please check the php error log and the api/spicercrm.log

5. Get additional configurations for UI

5.1. Load default e-mail templates

Go to the workbench and search for the package loader



Click appropriate download icon. All necessary “repairs” are performed automatically

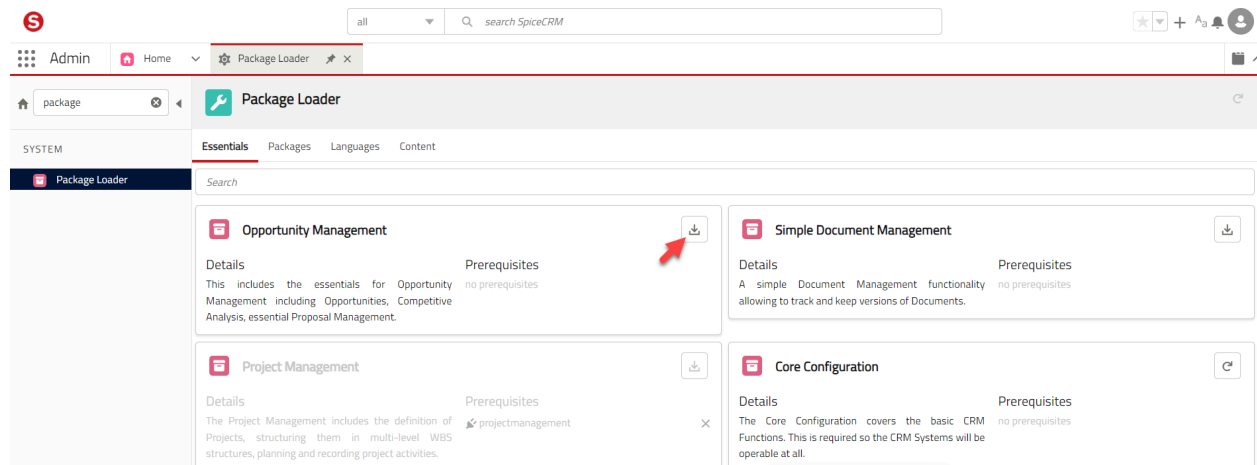
Perform the following actions after loading the package

- Dictionary Manager > repair database
- Dictionary Manager > repair cache
- Admin Profile > reset and reload

5.2. Load any other package you need

Example with Opportunity Management.

Load package Essentials > Opportunity Management



Perform the following actions after loading the package

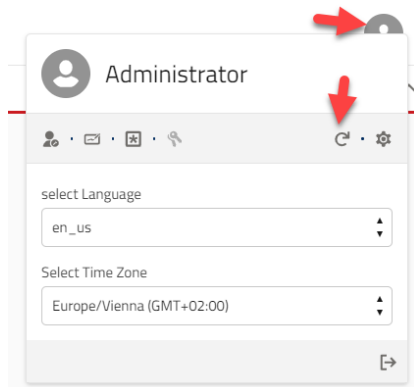
- Dictionary Manager > repair database
- Dictionary Manager > repair cache
- Admin Profile > reset and reload

Opportunity module will be available in the navigation bar after re-login right away

5.3. Trouble shooting

In case the machine ran into a timeout, not all repair tasks might have been executed.
Run a *repair* database again.

You also may try to reset the application cache. The reload button is now under the admin user profile pop over



6. Index Data

You now need elastic to index your data.

Go to **Workbench > FTS Status**

ATTRIBUTE	VALUE
Version	7.17.0
Documents	0 / 0
Size	0 / 0

INDEX	DOCUMENTS	STORED	UNINDEXED	SIZE	BLOCKED

Click button „initialize“ and confirm. All indexes will be created (Data itself will not be indexed yet).

6.1. Index data per cron job

Make sure crontab contains cron.php entry on server

```
#: crontab -e -u www-data
```

Login to backend and check command defined under Administration > Schedulers

Example:

```
* * * * * cd /var/www/html/myspicecrm/api; php -f cron.php > /dev/null 2>&1
```

Go to **Workbench > manage jobs**

Set Status= Active for Job „Spice Full Text Indexing“

In case the job is not there, run following query in database

```
REPLACE INTO `schedulers` (`id`, `deleted`, `date_entered`, `date_modified`, `created_by`, `modified_user_id`, `name`, `job`, `date_time_start`, `date_time_end`, `job_interval`, `time_from`, `time_to`, `last_run`, `status`, `catch_up`) VALUES ('5cfc2d1b-23c3-3dc1-8713-5a213f9021fb', 0, '2017-12-01 11:39:52', '2018-07-04 12:48:30', '1', '1', 'Spice Full Text Indexing', 'function::fullTextIndex', '2017-12-01 11:45:00', NULL, '* /5::*::*::*', NULL, NULL, NULL, 'Inactive', 0);
```

6.2. Index data manually

You will have to repeat the steps for each module!

Select the module and click index

The screenshot shows the SpiceCRM Admin interface. The top navigation bar includes 'Admin', 'Home', and 'FTS Setup'. The left sidebar shows 'FTS' with sub-items 'FTS Status', 'FTS Connection', and 'FTS Setup'. The main content area is titled 'Accounts' and contains a table with columns 'PATH', 'FIELD', and 'NAME'. The table lists various fields for the Accounts module, such as 'name', 'description', 'industry', 'account_type', 'email1', 'ext_id', 'parent_name', 'phone_office', 'billing_address_city', and 'billing_address_country'. The 'index' button is highlighted with a red arrow.

PATH	FIELD	NAME
root:Accounts:fieldname	name	Name
root:Accounts:fielddescription	description	Beschreibung
root:Accounts:fieldindustry	industry	Industry
root:Accounts:fieldaccount_type	account_type	Type
root:Accounts:fieldemail1	email1	Email
root:Accounts:fieldext_id	ext_id	External ID
root:Accounts:fieldparent_name	parent_name	Member of
root:Accounts:fieldphone_office	phone_office	Phone Office
root:Accounts:fieldbilling_address_city	billing_address_city	City
root:Accounts:fieldbilling_address_country	billing_address_country	Country

7. Access Rights in SpiceCRM

With SpiceCRM 202004001 ACL concept is based on SpiceACL logic.

After creating users you will have to allocate them access rights so they may see and use modules like Accounts, Contacts, Opportunities...

You may create your own ACL profiles or download package ACL Examples

To allocate, edit or create ACL Profile go to workbench, look up for ACL, select ACL Profiles

To allocate a user to a profile, select profile, click tab "Users", then select the user.

We recommend Newcomers to load the ACL examples package.

In version 202402001 you can create employee records, add organizational units and link the employee records to the proper organizational unit(s). Add the organizational unit(s) to the ACL Profiles. The access rights will propagate from the organizational unit to the employee record to the user record.