

pharmacy duty roster
Documentation

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Chapter 1

Introduction

Pharmacy Duty Roster (PDR) is a web application that allows to operate a duty roster for pharmacies. PDR started in 2015 as an alternative to a really simple excel sheet without formulas. PDR aims to be user-friendly but at the same time cover all necessary features. PDR continuously strives to improve. It is open to your requests and wishes. I hope it will fulfil your expectations.

1.1 Getting PDR

The latest release of PDR is available on [GitHub](#). GitHub provides the source code as *.zip file or *.tar.gz ball. Extract the files into a folder.

Make sure to unpack PDR to a directory, that your webserver has access to. PHP and the webserver must have read access to all the files and folders. It also needs write access to the subdirectories upload, tmp and config. You might want to change the owner of the directory to the webserver's user with e.g.:

You can also clone the repository with git:

```
git clone https://github.com/MaMaKow/dienstplan-apotheke.git
```

See the Administrator manual for details!

1.2 License

PDR is open source software under the AGPL license.

Copyright (C) 2018 Dr. Martin Mandelkow

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.

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.

You should have received a copy of the GNU Affero General Public License along with this program. If not, see <https://www.gnu.org/licenses/>.

Please see the [license file](#) for details!

1.3 Reporting bugs

The issue tracker is currently located at GitHub. GitHub requires an account in order to report bugs or feature requests. If you do not want to create one, you might send a mail to pdr-issues@martin-mandelkow.de

1.4 How to contribute

Pull requests are desired. If you made changes to PDR and want to contribute them to the public, you are welcome to open a pull-request on GitHub or send your changes in any other way.

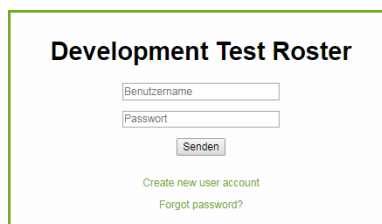
Chapter 2

User manual

2.1 The web interface

You can connect to your PDR instance using any web browser. Just navigate to your server and enter your username and password.

2.1.1 Login

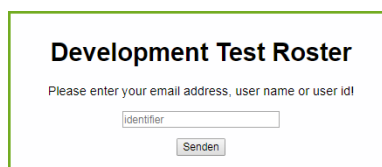


The screenshot shows a web form titled "Development Test Roster". It contains two input fields: "Benutzername" and "Passwort". Below these fields is a "Senden" button. At the bottom of the form, there are two links: "Create new user account" and "Forgot password?".

Figure 2.1: Login page

The login page shows the name of the application. You are prompted to enter your username and password. If you do not have an account yet, you can create one. Just follow the link. If you have an account, but forgot about your password, or want to change it, you can click on "Forgot password?".

2.1.2 Lost password



The screenshot shows a web form titled "Development Test Roster". It contains a single input field labeled "Identifier". Below this field is a "Senden" button. Above the input field, there is a prompt: "Please enter your email address, user name or user id".

Figure 2.2: Lost password page

The lost password page shows the name of the application. You are prompted to enter either your username, id or your email-address at your option. After you submit the form, an email is sent to your stored email address. In that email you will find a link. That link will lead you to the password change page.

Lost password recovery

The lost password recovery page shows the name of the application and your user name. You are prompted to enter a new password twice.






2.1.3 Create new user account

New users can only be created for existing employees. New employees are created by an administrator. Choose a user name, enter your employee id and your email. And enter a password twice.

The account will be inactive until an administrator activates it. The administrator is informed via email regarding the registration.

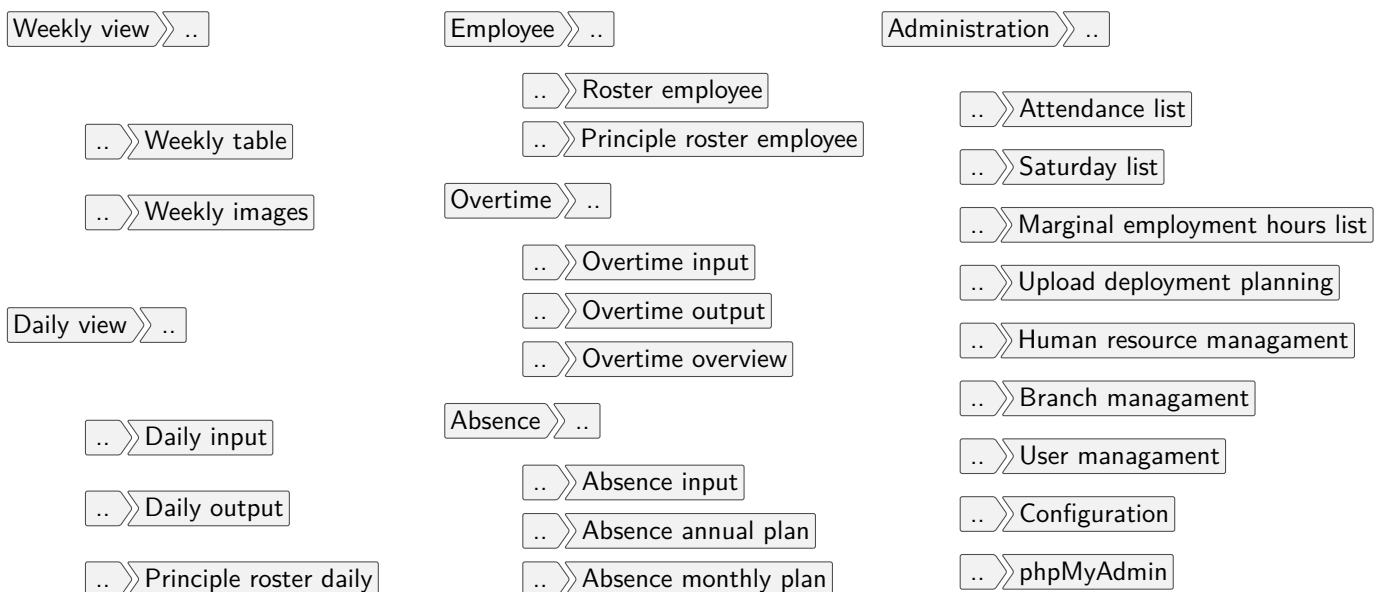
2.1.4 Navigation

By default, the PDR web interface opens a menu containing 5 tiles. You can navigate to:

- Roster week table view 
- Roster daily view 
- Roster employee view 
- Overtime 
- Absence 

The navigation bar

In the top there is a navigation bar containing hyperlinks to nearly all the pages of PDR. Hover the mouse over an entry to open the submenus (Figure 2.5).



Roster week table view

The roster week table view shows the roster of a chosen week an a chosen branch (Figure 2.6). If employees of the branch are working in an other branch, then those are shown below. The table foot contains the information about absent employees and their reason of absence.

The date can be chosen by direct input. It can also be shifted by one week backwards or forwards by pressing `Ctrl+ ⬆+ →` or `Ctrl+ ⬆+ ←` respectively.

Roster daily view

Roster employee view

Overtime

Absence

There are four views to the absence data.

- Employee view readonly
- Employee view edit
- Monthly table
- Year overview

In the *Employee view readonly* there is a select element to choose the employee to view. There is a button to switch to the edit view. And there is a table containing the absence data. The columns are start and end of the absence, reason of absence and number of days. There is a distinct list of possible reasons (vacation, remaining holiday, sickness, sickness of child, unpaid leave of absence, paid leave of absence, parental leave and maternity leave). The number of days of absence is calculated for a 5 day week. Absences on Saturdays and Sundays are registered but not counted. The same applies for holidays.

Development Test Roster

Mandelkow

Abschicken

Figure 2.3: Lost password recovery page

Development Test Roster

Abschicken

The user account will be verified after the registration. This may take a while. You will be informed by email after the verification is complete.

Figure 2.4: Register new user page

Weekly view

Daily view

Employee

Overtime

Absence

Administration

Mandelkow

Figure 2.5: Navigation bar

calendar week 32

Small Branch

<<

1 week backward

>>

1 week forward

06.08.2018

Anzeigen

Monday 06.08.	Tuesday 07.08.	Wednesday 08.08.	Thursday 09.08.	Friday 10.08.	Saturday 11.08.	Sunday 12.08.
<div>PI_17 / 6</div> <div>08:00 - 14:00</div> <div>PTA_10 / 7</div> <div>08:00 - 15:30</div> <div>break: 11:30 - 12:00</div> <div>Apotheker_9 / 4,5</div> <div>14:00 - 18:30</div>	<div>Apotheker_9 / 2</div> <div>08:00 - 10:00</div> <div>PI_17 / 8</div> <div>09:30 - 18:00</div> <div>break: 11:30 - 12:00</div> <div>PTA_10 / 7,5</div> <div>10:00 - 18:30</div> <div>break: 12:00 - 13:00</div>	<div>PI_17 / 6</div> <div>08:00 - 14:00</div> <div>PTA_10 / 7,5</div> <div>08:00 - 16:00</div> <div>break: 11:30 - 12:00</div> <div>Apotheker_9 / 4</div> <div>14:00 - 18:00</div> <div>PKA_11 / 2</div> <div>16:00 - 18:00</div>	<div>Apotheker_9 / 4</div> <div>08:00 - 12:00</div> <div>PTA_10 / 8,5</div> <div>09:00 - 18:00</div> <div>break: 11:30 - 12:00</div> <div>PI_17 / 6</div> <div>12:00 - 18:30</div> <div>break: 13:00 - 13:30</div>	<div>PI_17 / 6</div> <div>08:00 - 14:00</div> <div>PTA_10 / 6,5</div> <div>08:00 - 15:00</div> <div>break: 11:30 - 12:00</div> <div>Apotheker_9 / 4,5</div> <div>14:00 - 18:30</div>		
<div>Small Branch in Big Branch</div> <div> <div>PTA_10 / 1,5</div> <div>18:30 - 20:00</div> </div> <div> <div>PI_17 / 1,5</div> <div>18:30 - 20:00</div> </div>						
<div>Absentees</div> <div>PTA_8 (maternity leave)</div> <div>PTA_12 (vacation)</div> <div>Apotheker_14 (vacation)</div> <div>PKA_18 (vacation)</div> <div>PKA_19 (vacation)</div>	<div>Absentees</div> <div>PTA_8 (maternity leave)</div> <div>PTA_12 (vacation)</div> <div>Apotheker_14 (vacation)</div> <div>PKA_18 (vacation)</div> <div>PKA_19 (vacation)</div>	<div>Absentees</div> <div>PTA_8 (maternity leave)</div> <div>PTA_12 (vacation)</div> <div>Apotheker_14 (vacation)</div> <div>PKA_18 (vacation)</div> <div>PKA_19 (vacation)</div>	<div>Absentees</div> <div>PTA_8 (maternity leave)</div> <div>PTA_12 (vacation)</div> <div>Apotheker_14 (vacation)</div> <div>PKA_18 (vacation)</div> <div>PKA_19 (vacation)</div>	<div>Absentees</div> <div>PTA_8 (maternity leave)</div> <div>PTA_12 (vacation)</div> <div>Apotheker_14 (vacation)</div> <div>PKA_18 (vacation)</div> <div>PKA_19 (vacation)</div>	<div>Absentees</div> <div>PTA_8 (maternity leave)</div> <div>PTA_12 (vacation)</div> <div>Apotheker_14 (vacation)</div> <div>PKA_18 (vacation)</div> <div>PKA_19 (vacation)</div>	<div>Absentees</div> <div>PTA_8 (maternity leave)</div> <div>PTA_12 (vacation)</div> <div>Apotheker_14 (vacation)</div> <div>PKA_18 (vacation)</div> <div>PKA_19 (vacation)</div>

Figure 2.6: Roster week table view, excerpt without task rotation and weekly working hours

Chapter 3

Administrator manual

3.1 Installation

3.1.1 Getting PDR

The latest release of PDR is available on [GitHub](#)

You can also get the latest stable version via git:

```
git clone https://github.com/MaMaKow/dienstplan-apotheke.git
```

The master branch is tested to be stable.

3.1.2 The installer

Introduction

The first page shows some non-technical information about this program. Click to move on.

Welcome

On the second page some technical background information is given. You are informed about the necessary input data, required for continuing the installation. Available database management systems (currently only MySQL) are listed. Finally, you are informed about the user and password strategy for the database access. Click again, to continue.

Requirements

On the next page the application checks, if all requirements are met. These include a minimum PHP version, some PHP extensions and support for database connections. Also the program needs write access to some of its directories. If problems are found, then a descriptive error message will be shown. It is not possible to continue, until all issues are solved. Click again, to continue.

Database configuration

The application now starts to collect configuration data.

- Database type
- hostname


- port (optional)
- username
An existing database user. The user MUST have the privilege to create a database. The user SHOULD have the privilege to create a less privileged user.
- password
The database password of the user. If a new user could be created, then a new secure random password will be given to the new user.
- database name

Enter the required data and it.

Administrator configuration

After the database values are set, some information about the administrator is collected:

- User name
the name used by the administrator to login into the program in the future.
- Last name
this name is connected to the employee id.
- Employee id
this is used to create an employee, who is connected to the administrative user.
- Contact email address
is used for questions and comments from the users. Also this email will receive some internal information from the roster.
- Administrator password
the password used by the administrator to login into the program in the future.

Please register the administrator and click . The data will be written to the file  `config/config.php`. For every user, that uses the program, there has to be exactly one employee.

3.1.3 First steps

After submitting the administrator configuration, you will be forwarded to the login page. Login with your administrator credentials.

On your first login you will be prompted with the branch management. Please create at least one branch. You can reach this page at all times in the menu .

The next logical step is to setup some more employees in the .

After all the employees are inserted, you can just start to write rosters () or you might create principle rosters for specific weekdays () or for distinct employees ()

3.2 Upgrading

Until now, there is no automatic update mechanism established. You can regularly download release packages from GitHub. Or you can stay in touch via git:

```
1 git pull origin master
```

CAVE: Make sure, that you keep your `config/config.php`! It should not be changed by git, because it is listed in the `.gitignore` file of this project.

3.3 Configuration

You can manually edit the file `config/config.php`. The default values are:

```
'application_name' => 'PDR',
'database_management_system' => 'mysql',
'database_host' => 'localhost',
'database_name' => '',
'database_port' => 3306,
'database_user' => '',
'database_password' => '',
'session_secret' => '',
'error_reporting' => E_ALL,
'display_errors' => 0,
'log_errors' => 1,
'error_log' => PDR_FILE_SYSTEM_APPLICATION_PATH . 'error.log',
'LC_TIME' => 'C',
'timezone' => 'Europe/Berlin',
'language' => 'de_DE',
'mb_internal_encoding' => 'UTF-8',
'contact_email' => '',
'hide_disapproved' => FALSE
```

Never delete the first two lines! If the file does not start with "`<?php`" then PHP will not handle it, meaning that anyone can read its content. [Administration](#) [Human resource management](#)

3.4 Maintenance

3.5 Issues and Troubleshooting

Chapter 4

Developer manual

4.1 Core development

All PHP scripts have a common file `default.php`, which handles the default settings. It is placed at `./`, which is the `PDR_FILE_SYSTEM_APPLICATION_PATH`. See the file below:

```
1 <?php
2
3 /*
4  * Copyright (C) 2017 Mandelkow
5  *
6  * This program is free software: you can redistribute it and/or modify
7  * it under the terms of the GNU Affero General Public License as published by
8  * the Free Software Foundation, either version 3 of the License, or
9  * (at your option) any later version.
10 *
11 * This program is distributed in the hope that it will be useful,
12 * but WITHOUT ANY WARRANTY; without even the implied warranty of
13 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
14 * GNU Affero General Public License for more details.
15 *
16 * You should have received a copy of the GNU Affero General Public License
17 * along with this program. If not, see <http://www.gnu.org/licenses/>.
18 */
19
20 /**
21  * @var PDR_FILE_SYSTEM_APPLICATION_PATH The full path of the application root
22  * as determined by the position of the default.php
23  */
24 define('PDR_FILE_SYSTEM_APPLICATION_PATH', __DIR__ . '/');
25 /**
26  * @var PDR_HTTP_SERVER_APPLICATION_PATH The relative path of the application
27  * root on the web server.
28  */
29 $folder_tree_depth_in_chars = strlen(substr(getcwd(), strlen(__DIR__)));
30 $root_folder = substr(dirname($_SERVER["SCRIPT_NAME"]), 0, strlen(dirname(
31     $_SERVER["SCRIPT_NAME"]))) - $folder_tree_depth_in_chars) . "/";
32 define('PDR_HTTP_SERVER_APPLICATION_PATH', $root_folder);
33 //TODO: This does not work, if the location is a symbolic link.
34 /**
35  * @var PDR_ONE_DAY_IN_SECONDS The amount of seconds in one day.
36  */
37 define('PDR_ONE_DAY_IN_SECONDS', 24 * 60 * 60);
38
39 /*
40  * Define an autoloader:
```

```

38 */
39 spl_autoload_register(function ($class_name) {
40     include_once PDR_FILE_SYSTEM_APPLICATION_PATH . 'src/php/classes/class.' .
        $class_name . '.php';
41 });
42
43
44 if (!file_exists(PDR_FILE_SYSTEM_APPLICATION_PATH . '/config/config.php')) {
45     header("Location: " . PDR_HTTP_SERVER_APPLICATION_PATH . "src/php/pages/
install_page_intro.php");
46     die("The application does not seem to be installed. Please see the <a href='
" . PDR_HTTP_SERVER_APPLICATION_PATH . "src/php/pages/install_page_intro.php
'>installation page</a>!");
47 } else {
48     /*
49     * Load configuration parameters from the configuration file:
50     */
51     require_once PDR_FILE_SYSTEM_APPLICATION_PATH . "config/config.php";
52     /*
53     * Complement the configuration array with the default values for unset
parameters:
54     */
55     foreach (configuration::$List_of_configuration_parameters as $key => $value)
        {
56         if (!isset($config[$key])) {
57             $config[$key] = $value;
58         }
59     }
60 }
61 /*
62 * Setup if errors should be reported to the user, if to log them, and where:
63 */
64 ini_set('display_errors', $config['display_errors']); //Display errors to the
end user?
65 ini_set('log_errors', $config['log_errors']); //Log errors to file?
66 ini_set('error_log', $config['error_log']); //Which file should errors be logged
to?
67 error_reporting($config['error_reporting']); //Which errors should be reported?
68
69 /*
70 * We want some functions to be accessible in all scripts.
71 */
72 require_once PDR_FILE_SYSTEM_APPLICATION_PATH . "funktionen.php";
73
74 /*
75 * Setup the presentation of time values:
76 //setlocale(LC_ALL, 'de_DE'); // Leider versteht die Datenbank dann nicht mehr
, was die Kommata sollen.
77 */
78 setlocale(LC_TIME, $config['LC_TIME']);
79 /*
80 * Setup default timezone for date()
81 */
82 date_default_timezone_set($config['timezone']);
83 /*
84 * Setup the encoding for multibyte functions:
85 * This is necessary for the usage of UTF-8 characters in functions like
mb_substr()
86 */
87 mb_internal_encoding($config['mb_internal_encoding']);

```




















```

88 require_once PDR_FILE_SYSTEM_APPLICATION_PATH . 'src/php/localization.php';
89
90
91 /*
92  * session management
93  */
94 $session = new sessions;
95
96 $List_of_branch_objects = branch::read_branches_from_database();
97 /*
98  * Guess the navigator (=browser) language from HTTP_ACCEPT_LANGUAGE:
99  * This is used in the head.php
100 */
101 $navigator_languages = preg_split('/[;,]/', filter_input(INPUT_SERVER, '
    HTTP_ACCEPT_LANGUAGE', FILTER_SANITIZE_STRING));
102 $navigator_language = $navigator_languages[0]; //ignore the other options

```

../default.php

4.1.1 Directory structure

-  **config/** Contains the configuration file config.php
-  **css/** *obsolete*, use  **src/css/** instead
-  **docs/** This documentation and tools to build it
-  **img/** Images used by the program
-  **js/** *obsolete*, use  **src/js/** instead
-  **locale/** translation files for gettext, currently only german (de_DE)
-  **src/** Most of the actual source code
 -  **src/css** Style Sheets
 -  **src/js** JavaScript
 -  **src/php/** PHP: Hypertext Preprocessor
 -  **src/php/classes/** Contains all the class files class.class_name.php
 -  **src/php/fragments/** parts of bigger pages, may be included via php require/include or loaded with JavaScript
 -  **src/php/pages/** This is the place for the single views, which the human user will use to look at the roster etc.
 -  **src/sql/** SQL Database Tables and Triggers
-  **tests/** Tests to find errors in the source code; This folder is listed in .gitignore. Only some files are part of the visible source.
-  **tmp/** A directy for temporary files. There is no automatic cleanup yet.
-  **upload/** The destination for uploaded content. Currently only specific *.PEP files produced by Awinta ASYS Smart are understood. Those files contain information about the amount of customers that have been served in the past.

4.1.2 Coding standards

This project aims to follow some coding style guide.

- Please avoid StudlyCaps and camelCase.
- Class constants MUST be declared in all upper case with underscore separators.
- Property names MUST be written in under_score.
- Plain variables and objects are written in all lowercase.
- Array names start with a single Uppercase letter followed by lowercase characters.
- Method names MUST be written in under_score.
- Code MUST use 4 spaces for indenting, not tabs.
- Opening braces for classes and functions MUST go on the same line, and closing braces MUST go on the next line after the body.
- Opening braces for control structures SHOULD go on the same line, and closing braces MUST go on the next line after the body.

4.2 Documentation

This documentation about a program, app or script is a stub. You can help this project by expanding it.

4.3 Testing

4.4 Bug tracker

4.5 Translation

4.5.1 Internationalization

Different countries have different laws regarding pharmacies and employment. They also have different holidays.