

# A technical description

## of the VATEUD PTD application

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### Introduction

The VATEUD PTD application consists of a public frontend, available on [ptd.vateud.net](http://ptd.vateud.net) and a restricted backend at [ptd.vateud.net/admin](http://ptd.vateud.net/admin). The bulk of the action, all trainee management, record editing and housekeeping duties take place in the backend.

### Backend

#### Authentication

The backend access to the application, available for administrators PTD staff, instructors and examiners is gated by an authentication system. New backend user records can only be created by existing app admins, sign up is not possible, password reset tool is provided. Passwords are stored as a random-salted SHA1 hash. No sensitive data is stored in plain text.

#### User roles

Users can have **one or many** backend roles. The role determines the set of permissions a user has. The currently existing roles are:

- **Admin:** has full management access to the entire backend and all data types and records
- **Examiner:** has read only access to the all data types. Has full management access to the “Examination” records. Can update existing pilot records for non-upgraded pilots.
- **Instructor:** has read only access to the all data types. Has full management access to the “Trainings” records. Can update existing pilot records for non-upgraded pilots.

A user **without any defined role** has read-only access to the entire backend.

Note: It’s perfectly possible to combine several roles to one user, so for example a single user can be both an instructor and an examiner, which would grant him the combined privileges of both these roles.

## Dashboard

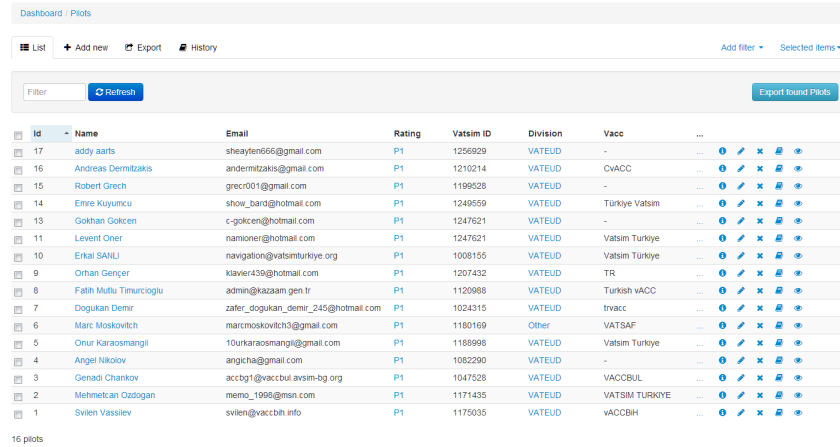
The dashboard is the starting place for admins and managers and lists a summary of all currently existing record types. The navigation menu on the left allows switching between the available record types.

## Record management actions

The following common principles apply across the entire app:

For each **record type** there are several action tabs:

- **List / Index:** a paginated table overview of all available individual records for that type, including links/buttons to individual record actions. Below is an example of the pilot trainees listing:



ID	Name	Email	Rating	Vatsim ID	Division	Vacci	
17	addy aarts	sheaylen66@gmail.com	P1	1256929	VATEUD	-	
16	Andreas Demitziakis	andemitziakis@gmail.com	P1	1210214	VATEUD	CVACC	
15	Robert Grech	grech001@gmail.com	P1	1199528	VATEUD	-	
14	Emre Kuyumcu	show_bard@hotmail.com	P1	1249559	VATEUD	Türkiye Vatsim	
13	Gökhan Gökçen	c-gokcen@hotmail.com	P1	1247621	VATEUD	-	
11	Levent Öner	namioner@hotmail.com	P1	1247621	VATEUD	Vatsim Türkiye	
10	Ertan SANLI	navigation@vatsimturkiye.org	P1	1008155	VATEUD	Vatsim Türkiye	
9	Orhan Gençler	klawer439@hotmail.com	P1	1207432	VATEUD	TR	
8	Fatih Muttu Timurcioglu	admin@kazaan.gen.tr	P1	1120968	VATEUD	Turkish VACC	
7	Dogukan Demir	zafer_dogukan_demir_245@hotmail.com	P1	1024315	VATEUD	trvacc	
6	Marc Moskovitch	marcmoskovitch3@gmail.com	P1	1180169	Other	VATSAF	
5	Onur Karaosmanli	10urkaraosmanli@gmail.com	P1	1188998	VATEUD	Vatsim Türkiye	
4	Angel Nikolov	angicha@gmail.com	P1	1082290	VATEUD	-	
3	Genadi Chankov	acctb1@vaccbul.avsim-bg.org	P1	1047528	VATEUD	VACCBUL	
2	Mehmetcan Ozdogan	memo_1996@msn.com	P1	1171435	VATEUD	VATSIM TURKIYE	
1	Svilen Vassilev	svilen@vaccbh.info	P1	1175035	VATEUD	VACCBH	

16 pilots

- **Add new tab:** a form for adding another individual record of the relevant type. Below is an example of the “Add new examination” form:

Dashboard / Examinations / New

List

+ Add new

Export

History

Date

April 27, 2013

23:00

Required.

Departure airport

LBSF

Required. Length up to 255.

Destination airport

LTBA

Required. Length up to 255.

Examiner

Search

+ Add a new Examiner

Edit this Examiner

Required.

Pilots

Search

Robert Grech

Emre Kuyumcu

Gokhan Gokcen

Levent Oner

Erkal SANLI

Orhan Gençer

Enth Mulla Timourizade

Addy Aarts

Andreas Dermitzakis

+ Add a new Pilot

Choose all

Clear all

Optional.

Save

Save and add another

Save and edit

Cancel

- **Export** tab: allows exporting all or selected individual records of the relevant type to csv, xml or json formats. (See the “Data liberation” section below). Below is an example of the “Export examiners” tab:

Dashboard / Examiners / Export

List
Add new
Export
History

Select fields to export

☒ Select All Fields

Fields from examiners
☒ Id
☒ Name
☒ Vatsimid
☒ Email
☒ Created at
☒ Updated at

Fields from associated examinations
☒ Id
☒ Date
☒ Departure airport
☒ Destination airport
☒ Created at
☒ Updated at

Options for csv

Encode to
Choose output encoding. Leave empty to let current input encoding untouched: (unicode)

No header
Do not output a header (no fields description)

Column separator
Leave blank for default (",")

Export to csv
Export to json
Export to xml
Cancel

- History** tab: it displays a chronology of all “write” actions for the relevant record type (create, edit, delete), plus the details of the action (what was changed) and the backend user who changed it. Also see the “History Log” section below. Below is a “History” snippet:

## History

User	Items	Changes
svilen@rubystudio.net	Addy Aarts	name: "addy aarts" -> "Addy Aarts", examination_feedback: nil -> "", notes: nil -> ""
burak.bugday@vate...	Andreas Dermitzakis	theory_passed: false -> true, theory_score: nil -> #<BigDecimal:bce9a7c,0.18E2,9(18)>
burak.bugday@vate...	Andreas Dermitzakis	token_issued: false -> true, examination_feedback: nil -> "", notes: nil -> ""
svilen@rubystudio.net	Svilen Vassilev	vatsimid: 1234567 -> 1175035
burak.bugday@vate...	Gokhan Gokcen	notes: "" -> "-waiting for problems regarding this pilot and atsimtest to be fixed (19/04/2013)"
burak.bugday@vate...	Examination #9	Created
burak.bugday@vate...	Miguel Frias	Created
burak.bugday@vate...	Examination #8	Created

- **Filter / Search** functionality: allows searching (filtering) the records by single or multiple criteria. The “Quick Filter” field will try to match the entered text against the data of *any* record field. Individual fields can be selected via the “Add filter” dropdown menu on the right. Below is an example of pilot records filtered by their desired pilot rank and division:

Dashboard / Pilots

List + Add new Export History

Rating: Contain P1  
Division: Is exact VATEUD

Filter Refresh

Add filter

	Id	Name	Email	Rating	Vatsim ID	Division	Vacc
	17	Adity Aarits	sheayten66@gmail.com	P1	1256929	VATEUD	-
	16	Andreas Dermizakis	andermitzakis@gmail.com	P1	1210214	VATEUD	CvACC
	15	Robert Grech	grech001@gmail.com	P1	1199528	VATEUD	-
	14	Emre Kuyumcu	show_bard@hotmail.com	P1	1249559	VATEUD	Türkiye Vatsim
	13	Orhan Çakır	cakirand@hotmail.com	P1	1147521	VATEUD	-

Id  
Name  
Rating  
Vatsim ID  
Email  
Vacc  
Examination  
Atc rating  
Division  
Theory passed  
Practical passed  
Upgraded  
Token issued  
Theory score

For each **individual record** there are several individual actions, accessible via the minibuttons in the list/index view. Below is a shot of the minibuttons linked to different actions:

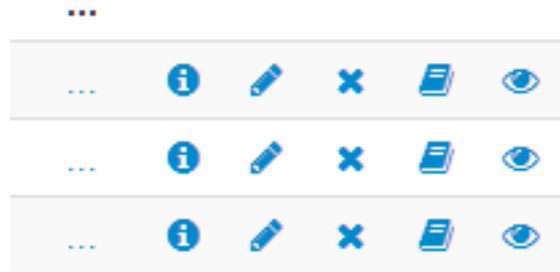


Figure 1: Minibuttons

- **Show** action: presents the details for the selected record. Below is an example of an examination “show” view:

[Dashboard](#) / [Examinations](#) / [Examination #8](#)

[Show](#) [Edit](#) [Delete](#) [History](#)

### Basic info

#### Date

April 21, 2013 19:30

#### Departure airport

LPBJ

#### Destination airport

LPFR

#### Examiner

[Miguel Frias](#)

#### Pilots

[Levent Oner](#), [Erkal SANLI](#), [Orhan Gençer](#), [Angel Nikolov](#), [Genadi Chankov](#), and [Svilen Vassilev](#)

- **Edit** action: a form (with possible nested forms) to edit the record details. Below is part of a pilot “edit” view:

Dashboard / Pilots / Svilen Vassilev / Edit

[Show](#)
[Edit](#)
[Delete](#)
[History](#)
[Show in app](#)

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Name   
 Required. Length up to 255.

Email   
 Required. Length up to 255.

Rating  [+ Add a new Rating](#) [Edit this Rating](#)  
 Required.

Vatsim ID   
 Required.

Division  [+ Add a new Division](#) [Edit this Division](#)  
 Required.

Vacc   
 Optional. Length up to 255.

Atc rating  [+ Add a new ATC rating](#) [Edit this ATC rating](#)  
 Required.

Instructor  [+ Add a new Instructor](#) [Edit this Instructor](#)  
 Optional.

Instructor assigned: -

- **Delete** action: allows deleting of a selected record:

Dashboard / Pilots / Addy Aarts / Delete

[Show](#)
[Edit](#)
[Delete](#)
[History](#)
[Show in app](#)

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Are you sure you want to delete this pilot "Addy Aarts"? The following related items may be deleted or orphaned:

[Pilot Addy Aarts](#)

[Yes, I'm sure](#)
[Cancel](#)

- **History**: the historical log of the record (see the "History Log" section below)

## Record groups

The record types are split in 2 groups: **administrative** records and **operational** records. The administrative records are not accessible to examiners, instructors and other non-admin managers, as they seldom require editing and define the general behaviour and available options of the application.

## Administrative Records

- **ATC ratings**: a listing of all available VATSIM ATC ratings, to be used in forms and pulldown menus

- Divisions: a list of the divisions that are allowed to conduct their pilot training via the VATEUD ATO, to be used in forms and pulldown menus
- Ratings: a list of all pilot ratings that the VATEUD ATO is certified to provide training for
- Users: the user management panel for authorized backend users. Only accessible by the app admins.

## Operational Records

**Examiners** Examiner records are created manually by the app administrators.

*The following data is stored and can be manipulated for each record:*

- Name
- VATSIM ID
- Email

*Data available by association, and listed on each examiner's "show" page:*

- Examinations

**Instructors** Instructor records are created manually by the app administrators.

*The following data is stored and can be manipulated for each record:*

- Name
- VATSIM ID
- Email

*Data available by association, and listed on each instructor's "show" page:*

- Pilots
- Trainings



**Pilots** Pilot (trainee) records are normally created automatically when a trainee submits the “Enroll” form from the frontend. It’s also possible to create pilots manually via the backend.

*The following data is stored and can be manipulated for each record:*

- Name
- Email
- VATSIM ID
- Desired pilot rating
- Division
- VACC
- ATC rating
- Instructor
- Instructor assigned date/time
- Token issued
- Token issued date/time
- Token reissued
- Token reissued date/time
- Theory passed
- Theory passed date/time
- Theory score
- Examination
- Practical passed
- Practical passed date/time
- Practical score
- Examination feedback
- Upgraded
- Upgraded date/tme
- Notes

Some of this data is **automatically collected** and stored by the app without manual input. See the “Chronography automation” section below.

Changing some of this data triggers **email notifications**. See “Email automation” section below.

Note that upon editing a pilot record to assign or re-assign him to an examination, only the upcoming (future) examinations will be available in the list, the past ones are not on the list.

*Data available by association, and listed on each pilot’s “show” page:*

- Trainings

**Examinations** Examination records are created (scheduled) manually by the app administrators or by examiners.

*The following data is stored and can be manipulated for each record:*

- Date / Time
- Departure airport
- Destination airport
- Examiner
- Participating pilot(s)

Note that when creating or editing an examination only the trainees who haven’t been examined yet will be available for inclusion.

Changing some of this data triggers **email notifications**. See “Email automation” section below.

**Trainings** Training records are created (scheduled) manually by the app administrators or by instructors.

*The following data is stored and can be manipulated for each record:*

- Date / Time
- Departure airport
- Destination airport
- Instructor
- Participating pilot(s)

Note that when creating or editing a training only the trainees who haven't been upgraded yet will be available for inclusion.

Changing some of this data triggers **email notifications**. See “Email automation” section below.

## Email automation

Emails are automatically being sent by the app in the following cases to the following recipients:

### Upon pilot registration/enrollment

- When a pilot has *enrolled* for training by filling the form at <http://ptd.vateud.net> **OR**
- When a pilot record has been manually *created* on the backend by an administrator:
- A welcome email is sent *to the pilot* with his record details and general training instructions
- A notification email is sent *to all admin users* of the app, advising that a new pilot has enrolled for training and listing the pilot's details

### Upon assigning an instructor to a pilot

- When a pilot record is edited to *assign/reassign an instructor* to a pilot:
- A notification email is sent *to the pilot*, advising him an instructor has been assigned for his training and providing the instructors details: name, VATSIM id, email
- A notification email is sent *to the instructor*, advising them they have been assigned a new pilot trainee and providing all the pilot details: name, id, email, requested rating, division, vacc, atc rating, etc.

### Upon scheduling a training session

- When a new training session record is created and/or when an training date gets changed:
- A notification email is sent *to the instructor* assigned for the training, providing the necessary details: date, time, arrival and departure airports and participating pilot(s), additional notes
- A notification email is sent *to all pilots* involved in the training with all the aforementioned details

#### **Upon issuing or re-issuing an exam token**

- When a pilot's record is marked with the "Token issued" or "Token re-issued" check-mark:
- A notification email is sent *to the pilot*, advising them they can now sit their theoretical test and giving them instructions on how to access and log into the test system (currently ATSimTest)

#### **Upon passing the theoretical exam**

- When a pilot's record is edited to acknowledge the passing of a theoretical exam and his mark:
- A notification email is sent *to the pilot* informing him that he has passed and about his mark
- A notification email is sent *to the pilot's instructor* informing him that his trainee has passed the test and about his mark

#### **Upon scheduling an examination**

- When a new examination record is created and/or when an examination date gets changed:
- A notification email is sent *to the examiner* assigned for the examination, providing the necessary details: date, time, arrival and departure airports and participating pilot(s)
- A notification email is sent *to all pilots* involved in the examination with all the aforementioned details
- A notification email is sent *to the instructor(s)* of all pilots involved in the examination with the aforementioned details

#### **Upon passing the practical exam**

- When a pilot's record is edited to acknowledge the passing of a practical exam and his mark:
- A notification email is sent *to the pilot* informing him that he has passed and about his mark
- A notification email is sent *to the pilot's instructor* informing him that his trainee has passed the examination and about his mark

### Upon submitting a practical examination feedback

- When a pilot's record is edited to add practical examination feedback by the pilot's examiner:
- A notification email is sent *to the pilot* informing him of the received feedback and its contents
- A notification email is sent *to the pilot's instructor* informing him that his trainee has received examination feedback and its contents

### Upon upgrading

- When a pilot's record is edited to mark him as an “upgraded”
- A notification email is sent *to the pilot* informing him of the rating upgrade

**Overall, over the life-cycle of a single pilot training 17 different emails are being sent by the application to different recipients**

### Technical details regarding the emails

- All emails sent by the app are multipart consisting of html and txt parts to satisfy both email clients that use or don't use html

### Chronography automation

The **dates and times** for the following events, related to the pilot records, are captured automatically without manual input and are available for reference and housekeeping:

- Pilot enrollment
- Instructor assigned
- Exam token issued
- Exam token re-issued
- Theoretical exam passed
- Practical exam passed
- Upgraded
- Last update of the pilot record (on any change)

## History Log

Each “write” action to the database (creation, update, deletion) for any type of record (pilots, instructors, examiners, examinations) is **logged** together with the user who made the change, the date and time and the details of the change.

## Data liberation

All records and record types can be either completely or selectively **exported** via the backend interface by any PTD admin to any of the following formats: csv, xml, json. **Note:** this is **not** a public API.


## Frontend

All frontend pages update dynamically without manual input.

## Enrollment form

New pilots sign up for training by filling in and submitting the enroll form at <http://ptd.vateud.net/>.

## Enroll in the VATEUD pilot training program

* Name	<input type="text"/>
* Desired Rating	Please select... <input type="button" value="v"/>
* VATSIM ID	<input type="text"/> <input type="button" value="v"/>
* E-mail	<input type="text"/>
* Division	Please select... <input type="button" value="v"/>
VACC	<input type="text"/>
* ATC rating	Please select... <input type="button" value="v"/>
Spam protection:	
<div><div>agree</div><div>done</div><div><input type="text"/></div></div> <div> STOP SPAM. HOLD DOWN.</div>	
<input type="button" value="Enroll!"/>	

[Read the PTD documentation](#)

### Pilot records

Each pilot is limited to only check their own record and history, by using a unique, non-reversible URL. This URL is initially emailed to the pilot with the welcome email after enrolling, and subsequently included in each notification email for the lifecycle of the training (see “Email Automation” section).

## Frontend data tables

Abridged data listings are published on the frontend in reverse chronological order for the following data types: pilot trainees, examinations, trainings, PTD staff. Below is a snippet of the pilot's table (the links point to each pilot's [vataware](#) page):

VATEUD PTD Trainees						
Name	Vatsim ID	Rating	Division	vACC	ATC rating	Enrolled at
<a href="#">Addy Aarts</a>	1256929	P1	VATEUD		OBS	2013-04-20 22:01:57 UTC
<a href="#">Andreas Dermitzakis</a>	1210214	P1	VATEUD	CvACC	C1	2013-04-20 21:13:26 UTC
<a href="#">Robert Grech</a>	1199528	P1	VATEUD		OBS	2013-04-20 04:47:56 UTC
<a href="#">Emre Kuyumcu</a>	1249559	P1	VATEUD	Türkiye Vatsim	OBS	2013-04-19 16:30:37 UTC
<a href="#">Gokhan Gokcen</a>	1247621	P1	VATEUD		OBS	2013-04-18 22:49:42 UTC
<a href="#">Levent Oner</a>	1247621	P1	VATEUD	Vatsim Turkiye	S1	2013-04-18 22:02:43 UTC
<a href="#">Erkal SANLI</a>	1008155	P1	VATEUD	Vatsim Türkiye	S3	2013-04-18 21:26:16 UTC
<a href="#">Orhan Gençer</a>	1207432	P1	VATEUD	TR	S1	2013-04-18 18:50:52 UTC
<a href="#">Fatih Mutlu Timurcioglu</a>	1120988	P1	VATEUD	Turkish vACC	S3	2013-04-18 17:48:45 UTC
<a href="#">Dogukan Demir</a>	1024315	P1	VATEUD	trvacc	C1	2013-04-18 16:59:02 UTC
<a href="#">Marc Moskovitch</a>	1180169	P1	Other	VATSAF	S2	2013-04-18 08:44:36 UTC
<a href="#">Onur Karaosmangil</a>	1188998	P1	VATEUD	Vatsim Turkiye	S1	2013-04-17 14:18:30 UTC
<a href="#">Angel Nikolov</a>	1082290	P1	VATEUD		S2	2013-04-17 14:17:45 UTC
<a href="#">Genadi Chankov</a>	1047528	P1	VATEUD	VACCBUL	C1	2013-04-17 14:14:06 UTC
<a href="#">Mehmetcan Ozdogan</a>	1171435	P1	VATEUD	VATSIM TURKIYE	S2	2013-04-17 14:13:05 UTC
<a href="#">Svilen Vassilev</a>	1175035	P1	VATEUD	vACCBih	S3	2013-04-16 23:19:18 UTC

## Statistics

The “Statistics” page shows activity charts (monthly and yearly) depicting the dynamics of trainee records, examinations and trainings. Some numbers are also published: total pilots enrolled, pilots that have passed theory, pilot's that have passed practical exam, upgraded pilots, total numbers of examinations and trainings, etc



VATEUD PTD Statistics

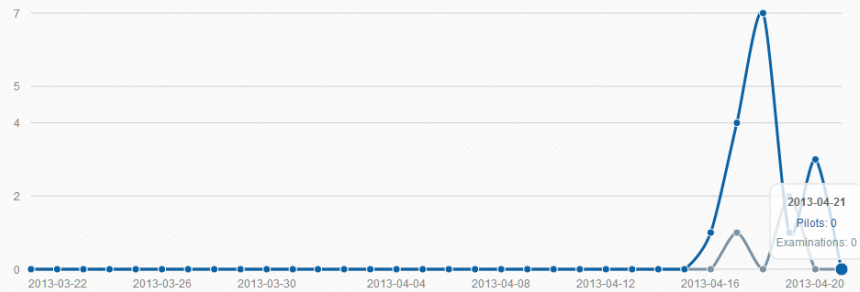
Trainee Statistics

- Total pilots enrolled: 16
- Passed theory test: 10
- Passed practical examination: 2
- Upgraded: 2

Other Statistics

- Total examinations held: 3
- Total trainings held: 0
- Total examiners: 2
- Total instructors: 2

Monthly Activity



Yearly Activity

