

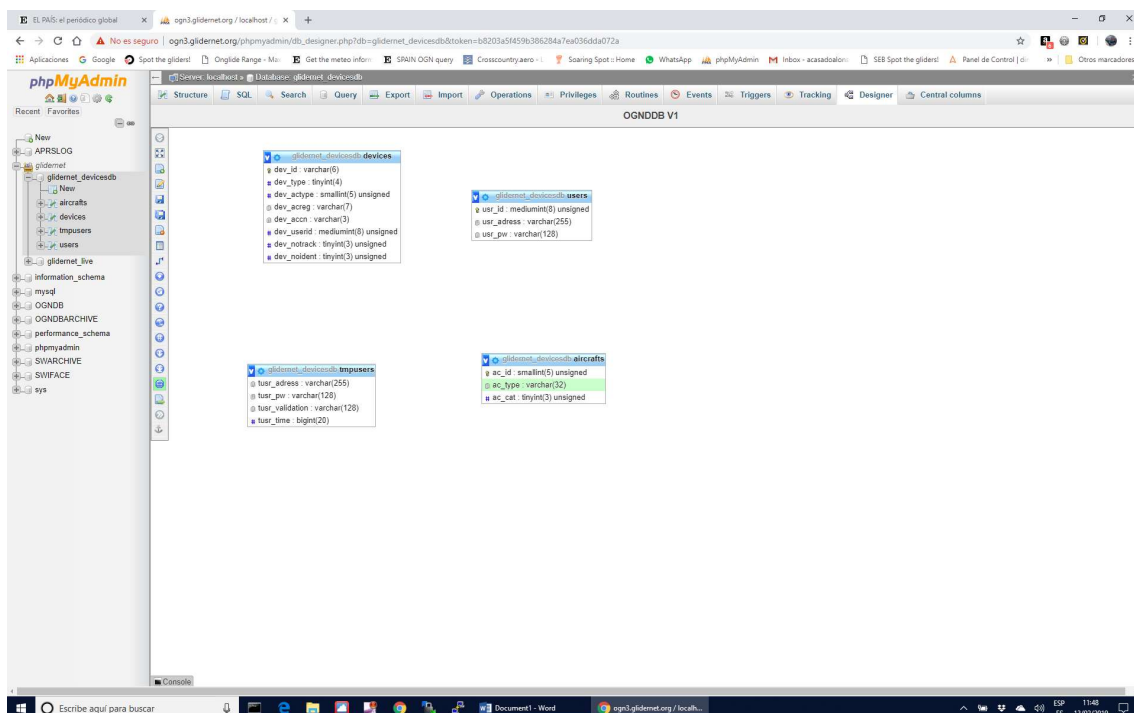
OGN Device Data Base (DDB) V2 proposal

Background:

The current OGN DDB contains the registration data of all the devices that can be handled by the OGN.

As version 1 the DB it contains 4 tables:

- Devices: that contains the registration information
- Aircrafts: is a table with all the possible aircraft types
- Users: with information about the registered users
- TmpUsers: with information about users that still did not confirm the email.



Rational for the change:

When the OGN DDB was designed, it was with the intention of register mostly Flarms and OGN trackers, under the assumption that only one device was in one plane. It was an alternate of FlarmNET.

Nowadays, we have a plethora of devices that pilots carry on their aircraft or paraglider, for example: Flarms, OGN trackers, Spider, Spot, InReaach, Captur, Naviter Oudie, Flymaster, tablets with XCsoar, smart phones with apps, etc., ...

The OGN is just not longer only for gliders and glider pilots, it is been used now more and more by paragliders, helicopters, tow planes, etc.

Also there are many requests to be used by a plethora of virtual radars in conjunction with the popularity of drones.

And in many cases, the pilots can carry more than one device on board, but in that case, we do not want to show on the web apps as two or three aircrafts on the web map.

Proposal (V2):

What is proposed in this new version of the OGNDDDB, it is to decouple the information about the device information itself of the about the aircraft or flying object (glider, paraglider, helicopter, etc., ...).

So on the new design of the database, we will have 6 tables:

- Devices: that contains the device registration information, but only info about the device, but with a link where this device is being carry on.
- Aircrafts: is a table with all the possible aircraft types (same)
- Users: with information about the registered users (same)
- TmpUsers: with information about users that still did not confirm the email. (same)
- FlyingObjects: with information about the aircraft like registration, competition ID, aircraft type, etc., ...
- DeviceTypes: a small table making the correspondence for the device names: Flarms, OGNtrackers, SPOT, Naviter, etc., ... and their assigned device types.

See below the new design and the SQL data.

Migration and API compatible:

Once that the new software has been tested, we can define a cut day and migrate with a specific utility the current data to the new format.

In terms of the current API, we will maintain the compatibility, however we will extend it in order to gather the new data, perhaps restricting the new data to the JSON format for easier handling.

API-Endpoints

/download

```
#DEVICE_TYPE,DEVICE_ID,AIRCRAFT_MODEL,REGISTRATION,CN,TRACKED,IDENTIFIED
'F','0123BC','LS-4','X-0123','23','Y','Y'
'F','DEADBE','DR-400','X-EABC','','N','N'
```

WEB presentation.

On the current presentation, we need to delete the aircraft data from the device information page and move it to a new push down page (ADD AIRCRAFT) similar to the current ADD DEVICE

The screenshot shows the OGN Devices DataBase web application. The header includes the logo, the text "13751 registered devices", and flags for Spain, Germany, and France. The left sidebar contains buttons: "MY DEVICES", "ADD DEVICE" (highlighted in blue), "CHANGE PASSWORD", and "DISCONNECT". The main content area is titled "Register a device" and contains the following form fields:

- Device type:** A dropdown menu with "ICAO" selected.
- Device ID:** A text input field containing "10EB2E".
- Aircraft type:** A dropdown menu with "JS-1 C18 EVO" selected.
- Registration:** A text input field containing "ZSGBB".
- Competition Number:** A text input field containing "ZB".

Below the form fields, there are two checkboxes:

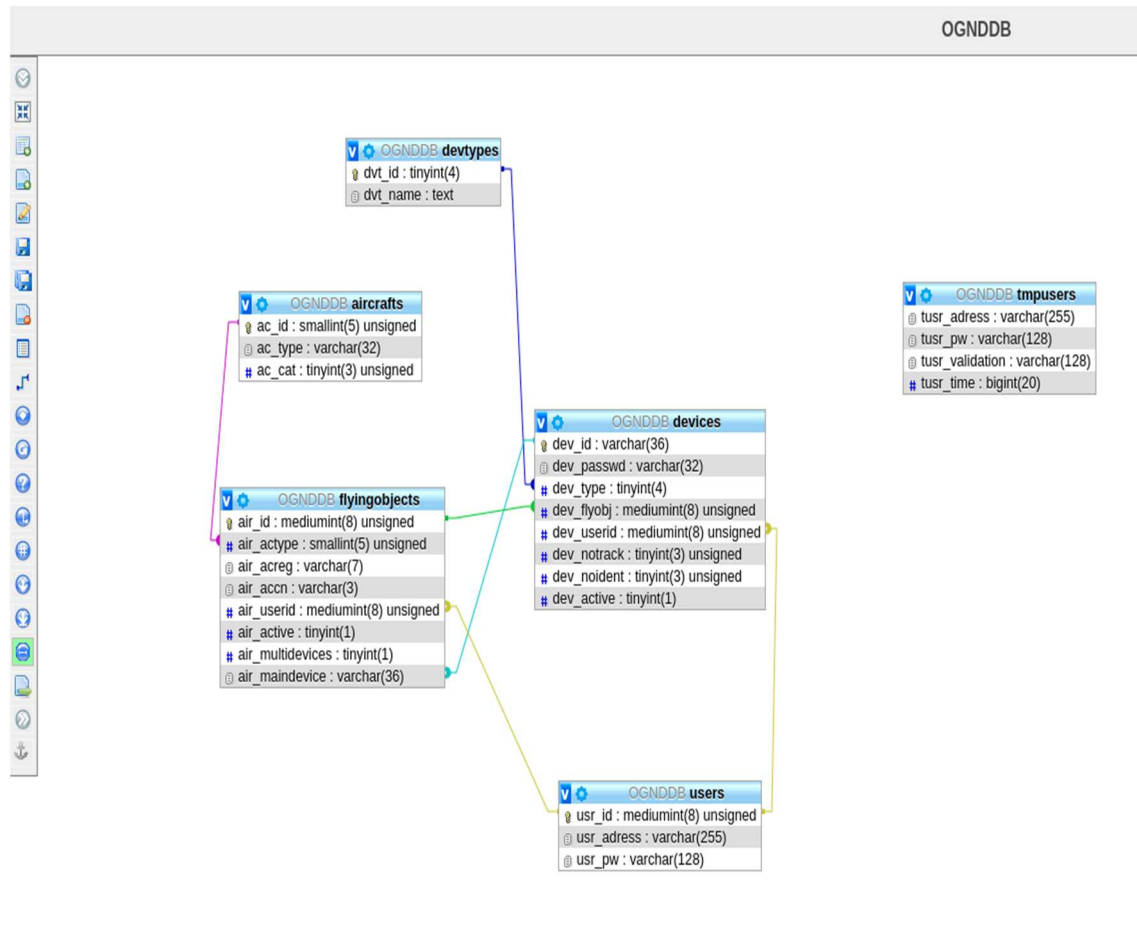
- ☐ I don't want this device to be identified
- ☐ I don't want this device to be tracked

Under the heading "Full participation", there are two bullet points:

- Tracking applications that use the OGN DDB will mark the position with aircraft identification
- Aircraft registration and CN are published in the OGN Devices Database

At the bottom, there is a checkbox "I certify to be the owner of this device" and two buttons: "SUBMIT" and "CANCEL".

NEW DEVICE DATABASE design:



OGNDDB Tables schema:



OGNDDB Schema

OGNDDB SQL definition:

```
-- phpMyAdmin SQL Dump
-- version 4.8.4
-- https://www.phpmyadmin.net/
--
-- Host: localhost:3306
-- Generation Time: Feb 08, 2019 at 06:11 PM
-- Server version: 5.7.25-0ubuntu0.18.04.2
-- PHP Version: 7.2.10-0ubuntu0.18.04.1

SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO";
SET AUTOCOMMIT = 0;
START TRANSACTION;
SET time_zone = "+00:00";

/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!40101 SET NAMES utf8mb4 */;

--
-- Database: `OGNDDB`
--

--
-- -----
--
-- Table structure for table `aircrafts`
--

CREATE TABLE `aircrafts` (
  `ac_id` smallint(5) UNSIGNED NOT NULL COMMENT 'Internal ID',
  `ac_type` varchar(32) CHARACTER SET utf32 COLLATE
utf32_unicode_ci NOT NULL COMMENT 'Aircraft type name: Arcus, etc,
...',
  `ac_cat` tinyint(3) UNSIGNED NOT NULL DEFAULT '1' COMMENT
'Category: Glider, paraglider, etc, ...'
) ENGINE=MyISAM DEFAULT CHARSET=utf8 COLLATE=utf8_unicode_ci;

--
-- -----
--
-- Table structure for table `devices`
```

```
--

CREATE TABLE `devices` (
  `dev_id` varchar(36) COLLATE utf8_unicode_ci NOT NULL COMMENT
  'The hex device ID',
  `dev_passwd` varchar(32) COLLATE utf8_unicode_ci DEFAULT NULL
  COMMENT 'Device password if required',
  `dev_type` tinyint(4) NOT NULL DEFAULT '2' COMMENT 'The device
  type: Flarm, OGNT, etc, ...',
  `dev_flyobj` mediumint(8) UNSIGNED NOT NULL COMMENT 'Plane on
  which this device is installed',
  `dev_userid` mediumint(8) UNSIGNED NOT NULL COMMENT 'User
  registering this device',
  `dev_notrack` tinyint(3) UNSIGNED NOT NULL DEFAULT '0' COMMENT
  'If device does not want to be tracked',
  `dev_noident` tinyint(3) UNSIGNED NOT NULL DEFAULT '0' COMMENT
  'If device does not want to be identified',
  `dev_active` tinyint(1) NOT NULL COMMENT 'A flag indicating if
  active or not in'
) ENGINE=MyISAM DEFAULT CHARSET=utf8 COLLATE=utf8_unicode_ci;

-- -----

--
-- Table structure for table `devtypes`
--

CREATE TABLE `devtypes` (
  `dvt_id` tinyint(4) NOT NULL COMMENT 'Device type identifier',
  `dvt_name` text NOT NULL COMMENT 'Device name, like Flarm, OGNT,
  SPOT'
) ENGINE=InnoDB DEFAULT CHARSET=utf8;

-- -----

--
-- Table structure for table `flyingobjects`
--

CREATE TABLE `flyingobjects` (
  `air_id` mediumint(8) UNSIGNED NOT NULL COMMENT 'Internal ID',
  `air_actype` smallint(5) UNSIGNED NOT NULL COMMENT 'Link with
  Aircraft type table',
  `air_acreg` varchar(7) COLLATE utf8_unicode_ci NOT NULL COMMENT
  'Aircraft registration, ex: EC-ACA',
  `air_accn` varchar(3) COLLATE utf8_unicode_ci NOT NULL COMMENT
  'Aircraft competition ID',
  `air_userid` mediumint(8) UNSIGNED NOT NULL COMMENT 'Link to user
  registering this aircraft',
  `air_active` tinyint(1) NOT NULL COMMENT 'A flag indicating if
  this plane is active or not',
  `air_multidevices` tinyint(1) NOT NULL COMMENT 'A flag indicating
  this plane has multiple devices',
  `air_maindevice` varchar(36) COLLATE utf8_unicode_ci NOT NULL
  COMMENT 'Link to device ID table for the main device'
) ENGINE=MyISAM DEFAULT CHARSET=utf8 COLLATE=utf8_unicode_ci;

-- -----
```

```
--
-- Table structure for table `tmpusers`
--

CREATE TABLE `tmpusers` (
  `tusr_adress` varchar(255) COLLATE utf8_unicode_ci NOT NULL,
  `tusr_pw` varchar(128) COLLATE utf8_unicode_ci NOT NULL,
  `tusr_validation` varchar(128) CHARACTER SET utf16 COLLATE
utf16_unicode_ci NOT NULL,
  `tusr_time` bigint(20) NOT NULL
) ENGINE=MyISAM DEFAULT CHARSET=utf8 COLLATE=utf8_unicode_ci;

--
-----

--
-- Table structure for table `users`
--

CREATE TABLE `users` (
  `usr_id` mediumint(8) UNSIGNED NOT NULL COMMENT 'Internal ID',
  `usr_adress` varchar(255) COLLATE utf8_unicode_ci NOT NULL
COMMENT 'Email address',
  `usr_pw` varchar(128) COLLATE utf8_unicode_ci NOT NULL COMMENT
'Assigned password'
) ENGINE=MyISAM DEFAULT CHARSET=utf8 COLLATE=utf8_unicode_ci;

--
-- Indexes for dumped tables
--

--
-- Indexes for table `aircrafts`
--
ALTER TABLE `aircrafts`
  ADD PRIMARY KEY (`ac_id`);

--
-- Indexes for table `devices`
--
ALTER TABLE `devices`
  ADD UNIQUE KEY `dev_id` (`dev_id`);

--
-- Indexes for table `devtypes`
--
ALTER TABLE `devtypes`
  ADD PRIMARY KEY (`dvt_id`);

--
-- Indexes for table `flyingobjects`
--
ALTER TABLE `flyingobjects`
  ADD PRIMARY KEY (`air_id`) USING BTREE COMMENT 'Primary key';

--
-- Indexes for table `users`
--
```

```

ALTER TABLE `users`
  ADD PRIMARY KEY (`usr_id`);

--
-- AUTO_INCREMENT for dumped tables
--

--
-- AUTO_INCREMENT for table `aircrafts`
--
ALTER TABLE `aircrafts`
  MODIFY `ac_id` smallint(5) UNSIGNED NOT NULL AUTO_INCREMENT
  COMMENT 'Internal ID';

--
-- AUTO_INCREMENT for table `devtypes`
--
ALTER TABLE `devtypes`
  MODIFY `dvt_id` tinyint(4) NOT NULL AUTO_INCREMENT COMMENT
  'Device type identifier';

--
-- AUTO_INCREMENT for table `flyingobjects`
--
ALTER TABLE `flyingobjects`
  MODIFY `air_id` mediumint(8) UNSIGNED NOT NULL AUTO_INCREMENT
  COMMENT 'Internal ID';

--
-- AUTO_INCREMENT for table `users`
--
ALTER TABLE `users`
  MODIFY `usr_id` mediumint(8) UNSIGNED NOT NULL AUTO_INCREMENT
  COMMENT 'Internal ID';
COMMIT;

/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;

```