



CIVL 2021 PLENARY – ANNEXE 18

SOFTWARE REPORT

Igor Erzen, Elena Filonova

AMS

In 2018 FAI represented by cooperation of 2 Air sports commissions CIVL and CIAM (Aeromodelling) has launched an IT project to create Application Management System to be used for Sanctioning of mainly FAI Category 2 events. The project was carried out by FAI IT partner Noosphera a development company from Ukraine. From FAI side the work was supervised by Antonis Papadopoulos CIAM President, Elena Filonova CIVL Competition coordinator, and Visa-Matti Leinikki FAI IT Manager.

In Summer of 2019 AMS was finally launched in full operation and successfully used in 2020.

However there happened some delays in competition publishing due to defined workflow. After CIVL approval the applications still had to be verified and published manually by FAI finance manager Paola Lopes. To avoid this in the second half of 2020 FAI started developing of automatic payment verification addition to AMS under supervision of and Visa-Matti Leinikki FAI IT Manager. On 8 September 2020, there was a zoom training session for CIVL Competition Coordinator with explanation and demonstration of the future features. Visa-Matti explained that FAI starts using One account banking system that will allow to automatically verify bank payments of sanction fees. Combined with already existing PayPal verification it will work in such a way that all submitted events will be published on FAI calendar right after the approval of CIVL, without additional delay in FAI HQ.

EMS

CIVL Plenary 2018 approved the creation of CIVL Event management system and task CIVL Administrator and Competitions Coordinator to collect the requirements and work out technical brief to get quotation from development companies.

CIVL Plenary 2019 approved the budget and system aims with basic description:
In 2019 CIVL Software manager Mitch Shipley and CIVL Administrator Elena Filonova worked on a contract with Noosphera to create the system. In September 2019 the contract was finalised and signed by FAI and Noosphera and active development began. It continued in 2020.

At this moment we have the following elements of the system implemented on a test server:

- WPRS DB migration
- EMS Login / User registration
- Events list/map
- Event general info page
- Participants Management and SL check
- Participants trackers
- Allocation
- Event Blog
- Staff&Access Management
- Notifications Management
- Seminar info


Seminar Participants management
 Seminar Blog
 Seminar access.
 Ranking pages
 WPRS formula setting interface.

Screens of examples:

VICTORIA CUP 2019-20

UPDATE

Thank you! You are successfully registred!



FAI license info

FAI ID: 179458 📄

FAI license : 🚫 12345 Last check: Dec 18, 2020 14:51

NAC license : 47324

Dates of validity : Jan 01, 2014 - Mar 31, 2015

CHECK FAI LICENCE
SHOW ALL LICENCES

Participant number	4567
First name	Kyrylo

Victoria Cup 2019-20 🔗
Hide
🗑️

Info
Participants
Staff & Access
Blog
Live
Send results to ranking
Notifications

Status
Trackers
Allocation
Registration Form

Export to Excel
📄 Export to FSDB

Name

N	Name	Nation	Gender	SL	Status	Created
Showing 1-38 of 38 items.						
69063	Abraham Libor	CZE	Female	🚫	Confirmed	Aug 5, 2019 17:40
61698	Adam Dědina	CZE	Male	🚫	Not qualified	Aug 5, 2019 17:40
34381	Emil Červeňan	SVK	Male	🟢	Confirmed	Aug 5, 2019 17:40
50389	Erika Nemcekova	SVK	Male	🚫	Not qualified	Aug 5, 2019 17:40

Event Management System

EVENTS SEMINARS RANKINGS INFO

CREATE EVENT

RANKING: PARAGLIDING XC

Home → Ranking → Paragliding XC

WORLD OVERALL

Ranking updated: Dec 3, 2020 16:04 +0200

December 2020


Search by Name or CIVL ID

Competitions used in ranking Nations ranking

Ranking Continent: World Europe Africa Asia-Oceania Pan America

Ranking Type: Overall Women Junior

Number of pilots: **5130** EXCEL DOWNLOAD

Rank	Name	Gender	Nation	Points	Rank / Ranking-Points / Competition
1	 Ferdinand Vogel CIVL ID: 19463	Female	Germany	169.2	9 - 50.0 Paragliding World Cup- France... 2 - 40.7 Trofeo Montegrappa 2019 2 - 40.6 German Open 2019 1 - 37.9 44. Internationale HESSISCHE L...

Units to be done:
 Task and Results
 Sending Results to ranking
 Deployment of the system to production server
 Testing
 Bug fixing and additional works on User Experience

CIVL Scoring Programs

FS.

CIVL FS has been updated to GAP 2020 and PWC 2019. There were totally 9 releases made in the period from May to July 2020 due to bug-fixing. Many thanks to Joerg Ewald for taking care of it..

The latest release 1.9 is stable and allows to import data into CIVL EMS.

WPRS

In May 2020 time devaluation parameter in CIVL ranking was frozen, which means since that time pilots' points from the competitions that happened after May 2020 will not be reduced with time. CIVL is to observe the pandemic situation to decide when it will be fair to return to normal WPRS formula calculation.

CIVL Category 1 Accepted Instruments

During the year of 2020 2 more instruments were reviewed by the work group and added to the list of accepted by CIVL.

The workgroup includes: Brian Harris, Daniel Dimov, Gordon Rigg, Igor Erzen, John Stevenson, Mitch Shipley, Oyvind Ellefsen, Richard Bungay.

The current list is on CIVL website:

<https://www.fai.org/page/civl-xc-instrument-accepted>

AirScore

The project was started by Geoff Wong and continued by Antonio Golfari and Stuart Mackintosh.

Website: <https://airscore.legapiloti.it/>

Antonio Golfari agrees to lead the project of transforming the current AirScore in a full CIVL-approved software.

A specific AirScore Basecamp Project was implemented. Mitch Shipley and Igor Erzen represent the CIVL Bureau. The Project will define what exactly needs to be done to transform AirScore in a full CIVL-approved software.

A list of what has been done in AirScore in 2020:

Features:

- Scoring Method
 - GAP
 - GAP2000
 - GAP2002
 - OzGAP2005
 - GAP2007
 - GAP2008
 - GAP2011
 - GAP2013
 - GAP2014
 - GAP2015
 - GAP2016
 - GAP2018
 - GAP2020
 - PWC (GAP variant)
 - PWC2007
 - PWC2008
 - PWC2009
 - PWC2011
 - PWC2012
 - PWC2013
 - PWC2014
 - PWC2015
 - PWC2016

- PWC2017
 - PWC2019
 - Linear distance
 - Time-based scoring (TBS)
- Earth Model
 - FAI sphere
 - WGS84 ellipsoid
- Distance Method
 - Pythagorus on a UTM plane
 - Haversines on the sphere
 - Vincenty on the ellipsoid
 - Andoyer on the ellipsoid
- Type of Task
 - Race
 - Elapsed time
 - Open distance (can be declared but not yet scored)
- Shape of Zone
 - Cylinder
 - Inverted cone (can be defined but treated as a cylinder)
- Shape of Goal
 - Circle
 - Line
- Final Glide Decelerator
 - Conical end of speed section (CESS)
 - Arrival altitude time bonus (AATB)
- Source of Altitude
 - GPS
 - Pressure (QNH)
- Validities
 - Task (day quality)
 - Launch
 - Distance
 - Time
 - Stop
- Points
 - Linear distance (reach)
 - Distance difficulty (effort)

- Arrival position
 - Arrival time
 - Time (speed)
 - Leading
 - Departure
- Leading Area as a Function of Time and Distance Tweaks
 - Use distance; $a = t * d$
 - Use distance squared; $a = t * d^2$
 - Use PWCA weighting; $a = w(t, d)$
- Parameter Tweaks
 - Day quality override
 - 1000 points for winner if no pilot made goal
 - 1000 points for winner before day quality applied
 - Leading points weight
 - Proportional leading points weight if no pilot made goal
 - Adjustable stopped task bonus glide ratio (fixed at 4:1 for PG and 5:1 for HG)
 - Adjustable turnpoint radius tolerance fractional
 - Adjustable turnpoint radius tolerance absolute minimum
- Special Cases
 - End of the speed section but not goal (adjustable penalty)
 - Early start
 - Stopped tasks
- Stopped Tasks
 - Stopped task time as announcement minus score back
 - Requirements checking, goal or duration
 - Score time window
 - Time points for pilots at or after the end of the speed section
 - Distance points with altitude bonus
- Airspaces
 - OpenAir file reading
 - OpenAir file editing
 - Activate / Deactivate single airspace zone on task basis
 - Tracks checking against airspaces
 - Automatic Infractions penalty calculation
- Penalties

- Absolute
- Fractional
- Jump-the-gun factor
- Jump-the-gun maximum
- Airspace
- PWC style progressive Airspace penalty
- Task Ranking
 - Overall
 - Female
 - Class
 - Country
 - Teams
- Competition Ranking
 - Overall
 - Female
 - Country
 - Teams
 - Ties
 - Fixed Total Validity
- IGC checks
 - G-record checking
 - file quality checking

Front end and back end has been completed to a point that all features to setup, score and publish results of a competition are working.

This includes:

- a publicly accessible area with competition and task results, task maps, tracklog maps including airspace.
- an admin area with comp setup, task setup, tracklog management, registered pilot management, waypoint management, airspace management, score management (with the ability to publish to the public area)

All of the above is running with python (flask framework) and Java script /HTML/CSS. There is no longer any PHP or Perl used.

At the moment, a more versatile way of creating rankings is in development, to permit for example rankings based on pilots age, or a custom pilot parameter.

There has also been added a basic API that allows flare timing to access the results and lower level calculations to audit and compare the scores with FS or Flare timing.

It also has the ability to import and export FSDB files which has been used extensively to test FS scored comps by importing them and rescoring with Airscore and comparing the results in Flare timing with the exception of GAP 2020 HG, so far the results of these competitions are comparable with FS (usually +/- 1 or 2 points out of 1000)

What is needed in my opinion to get this to a point of release is some oversight/management. This management would need to facilitate a prioritisation of developing a plan and timeframe that involves:

- stopping scope creep and feature addition.
- focus on testing/CI so that any bugs (or future post release development) can be fixed safely with the assurance that there are no regressions.
- documentation.

I think that the software could be ready with about 2 months of work if there is the above. Depending on time available by the developers of course. We also expect test environment on FAI servers to be setup and let a selected number of testers to try it and get feedback.