CIVL Software Working Group
FS Survey 2012 Results

11 November 2012

Contents

1   Summary

In Spring 2012, shortly after being elected Chairman of the CIVL Software Working Group, I conducted a survey amongst users of FS, CIVL's scoring software for cross-country competitions. The 17 questions were filled in at least partially by 119 participants.

1.1   Experience with Scoring Software in General

The participants in general have considerable experience scoring competitions, with either FS or other tools. The majority scores paragliding competitions, but nearly half of them score hang gliding competitions as well, or even exclusively.

Experience with other scoring programs includes mainly CompeGPS with Race. CompCheck, Cargol and SeeYou are also mentioned several times. About 2/3 of the participants like FS best, mainly because of its simplicity, ease of use, the fact that it's free, as well as reliable and bug-free.

1.2   Quality of FS

On a scale from 1 to 6, participants rated FS' ease of use and user friendliness between 4 and 4.5 – not bad, but there is room for improvement.

The two points most frequently named that would make FS more user friendly were: Integrated GPS download capability, and support for maps in the track visualization and analysis tool.

Best liked about FS is its simplicity, ease of use, its speed, its size and resource requirements, as well as the fact that is available for free. On the other hand, the lack of GPS downloading capabilities, the missing maps and the generally limited options for track analysis and manual override options in problem cases are seen as FS' major drawbacks.

1.3   Features

While about 80% of participants can live with the fact that FS only runs on Windows-based computers, about 20% would rather run it on either Mac OS X or Linux. When presented with a list of possible future features, the most frequent choice was GPS downloading capability, followed by league scoring, direct upload of results to WPRS and the option to run FS as a Web-based online service. Further feature suggestions mainly revolved around track visualization and analysis.

1.4   Miscellaneous

Besides English, support for a number of additional languages was suggested, most notably Spanish and German. Nearly half of the participants have experience with adapting the result report templates – another area where many wished for improvements and better usability. When asked about Internet connectivity at competition sites, 2/3 of the participants stated that they can always or at least most of the times rely on having Internet available. 1/3, on the other hand, has only occasionally or never access to the Internet when scoring competitions – an important point to consider when working on integrating FS more tightly with online services.

1.5   Conclusions, Outlook

The survey results provide the FS development team with invaluable information regarding what users like about FS (and must be maintained), what users do not like (and should be changed) and what new features they are looking for in the future. This information will now guide all development decisions for the next couple releases.

2   Introduction

At the 2012 CIVL Plenary, I was elected Chairman of CIVL's Software Working Group. A major part of this role, as I define and understand it, is to act a as a product manager for the various software tools in CIVL's realm. Besides the two Web sites for both the World Pilot Ranking System and the World XC Online contest, this includes FS – or FScomp, as it is sometimes referred to: CIVL's tool for scoring cross country competition.

Product management – from my point of view and my professional experience – consists mainly in gathering information from actual and potential users. What do they like in a product (and should be kept or even extended), what would they like to be different (and should be changed), what do they consider missing.

In order to gather this information from FS users, I created an online survey that ran from April 29th, until May 15th 2012. This report contains the outcomes of this survey, including the conclusions I draw for the further development of FS.

3   Overview

The "FS Survey 2012" was created using the online service SurveyMonkey.com. It consisted of 17 questions in four sections, covering participants' experience with FS and other scoring tools, their satisfaction with FS as well as their vision for FS' future development.

A link to the Survey was sent out to 288 score keepers and competition organizers known to have been active over the last 3 years – this list was assembled by Brian Harris, CIVL's competition coordinator. 95 of those 288 filled out the survey; the return quote is therefore 33%. Only a single participation was possible per Email sent out. Therefore, whenever the original recipient forwarded the Email to several potential participants, only the first would succeed in filling in the survey. Of those who failed and contacted me, an additional 8 filled in the survey through an alternative link.

In addition, links to the survey were posted on fs.fai.org (3 responses), on paraglidingforum.org – and subsequently passed on the Oz Report's forum (13 responses). An Email sent out to all FS forum users resulted in no additional participations.

In total, this results in 119 participations.

4   Questions, Answers and Conclusions

4.1   Section 1: Experience with Scoring Software in General
The goal if this section was to establish the participants' experience level with scoring software.
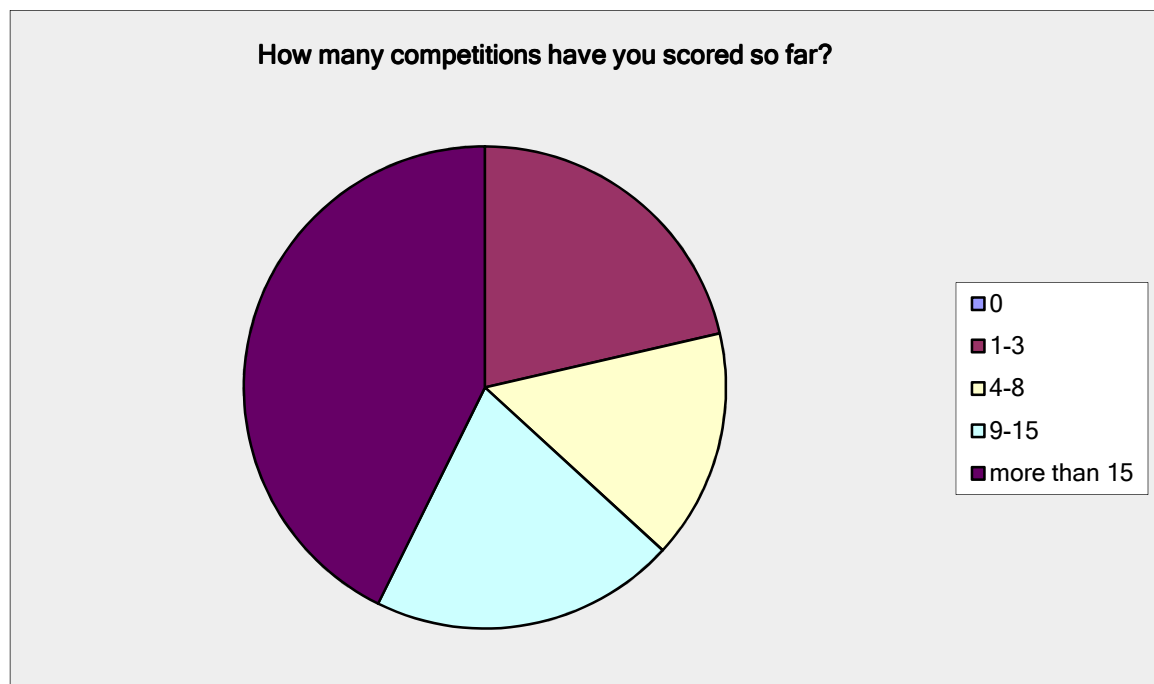
4.1.1   Question 1: How many competitions have you scored so far?

4.1.1.1   Possible answers
0 / 1-3 / 4-8 / 9-15 / more than 15 – only one answer possible

4.1.1.2   Actual answers

Answer Options	Response Percent	Response Count
0	0.0%	0
1-3	21.4%	25
4-8	15.4%	18
9-15	20.5%	24
more than 15	42.7%	50
answered question		117
skipped question		2

4.1.1.3   Conclusion
The majority of participants has considerable experience with competition scoring, having scored 9 or more competitions. Every participant has scored at least one competition. To me, this gives a lot of credibility to the survey results.
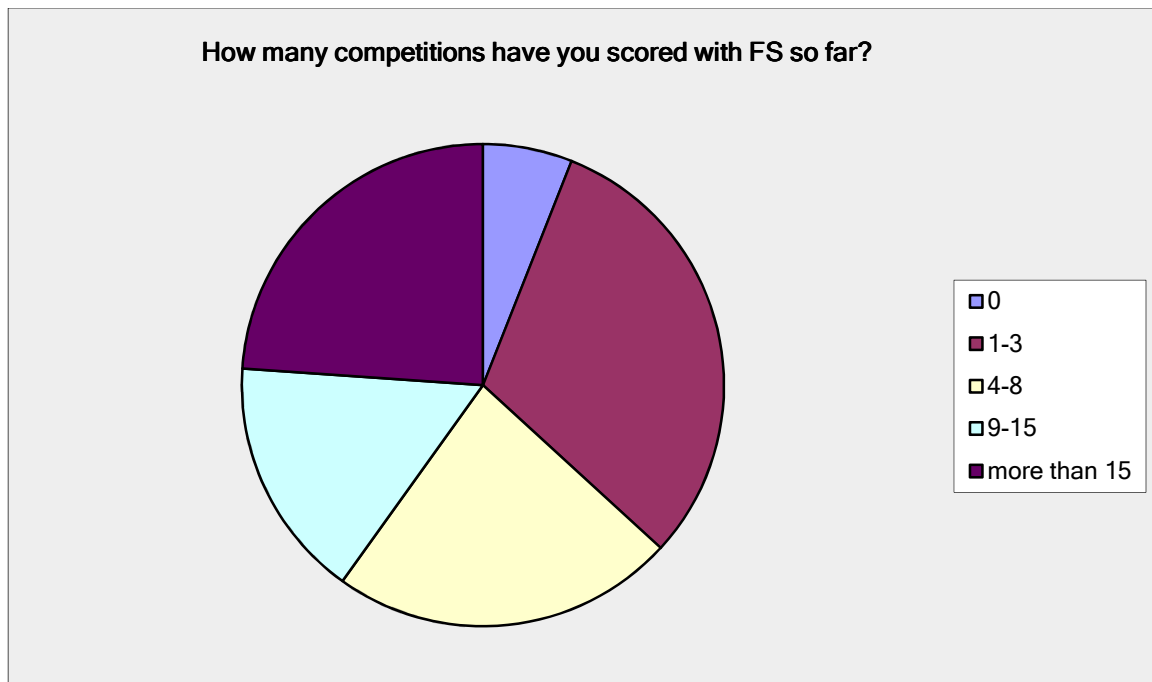
4.1.2   Question 2: How many competitions have you scored with FS so far?

4.1.2.1   Possible answers
0 / 1-3 / 4-8 / 9-15 / more than 15 – only one answer possible

4.1.2.2   Actual Answers

Answer Options	Response Percent	Response Count
0	6.0%	7
1-3	30.8%	36
4-8	23.1%	27
9-15	16.2%	19
more than 15	23.9%	28
	answered question	117
	skipped question	2

4.1.2.3   Conclusions

The majority of participants have scored at least 4 competitions with FS, only a small group has not done so until now. Again, this adds to the general impression that the right people filled in the survey.

4.1.3   Question 3: What kind of competitions do you score with FS?

4.1.3.1   Possible answers

Hang-gliding / Paragliding / Both Hang-gliding and Paragliding – only one answer possible

4.1.3.2   Actual answers

Answer Options	Response Percent	Response Count
Hang-gliding	21.4%	25
Paragliding	54.7%	64
Both Hang-gliding and Paragliding	23.9%	28
	answered question	117
	skipped question	2

What kind of competitions do you score with FS?

Legend:
- Hang-gliding
- Paragliding
- Both Hang-gliding and Paragliding
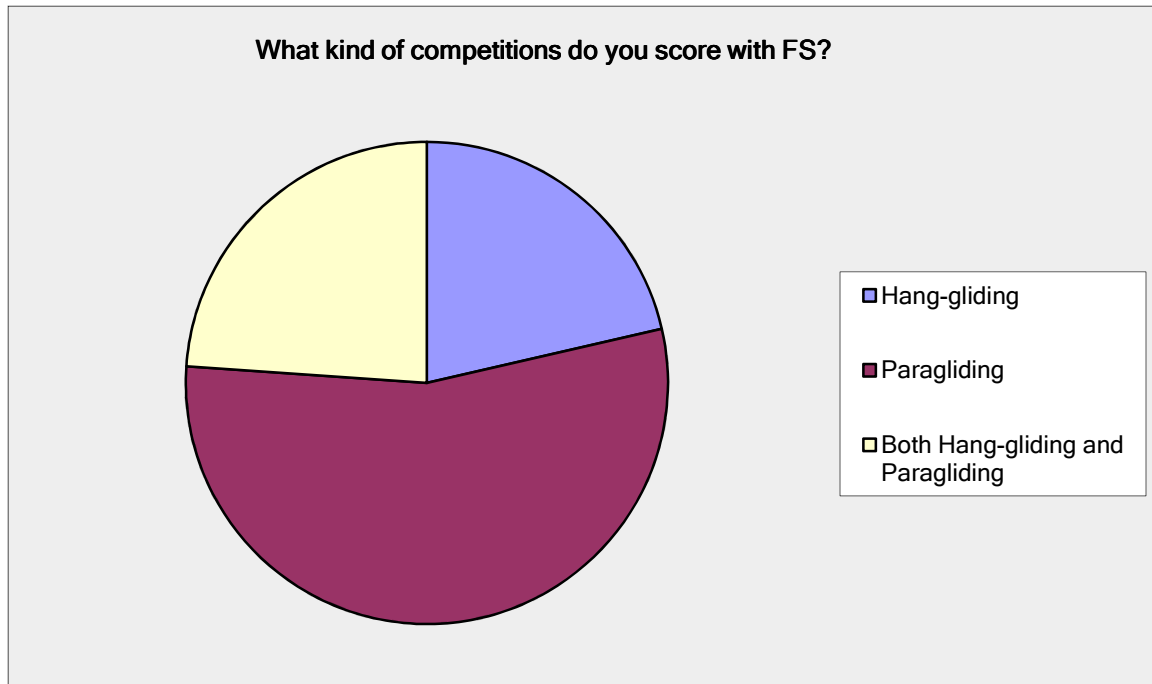
4.1.3.3   Conclusions

Paragliding competitions dominate, which is also reflected by the respective numbers of competitions for the two disciplines sanctioned by the FAI. But overall, almost half of the participants score Hang-gliding competitions exclusively or alongside Paragliding competitions. From this I conclude that both disciplines must be adequately supported in FS, should any special requirements come from one or the other.

### 4.1.4   Question 4: What other programs have you used for scoring?

4.1.4.1   Possible answers

CompeGPS / SeeYou / CompCheck / airscore / other (please specify) – multiple answers possible

4.1.4.2   Actual answers

Answer Options	Response Percent	Response Count
CompeGPS	81.6%	80
SeeYou	14.3%	14
CompCheck	13.3%	13
airscore	4.1%	4
Other (please specify)	34.7%	34
	answered question	98
	skipped question	21
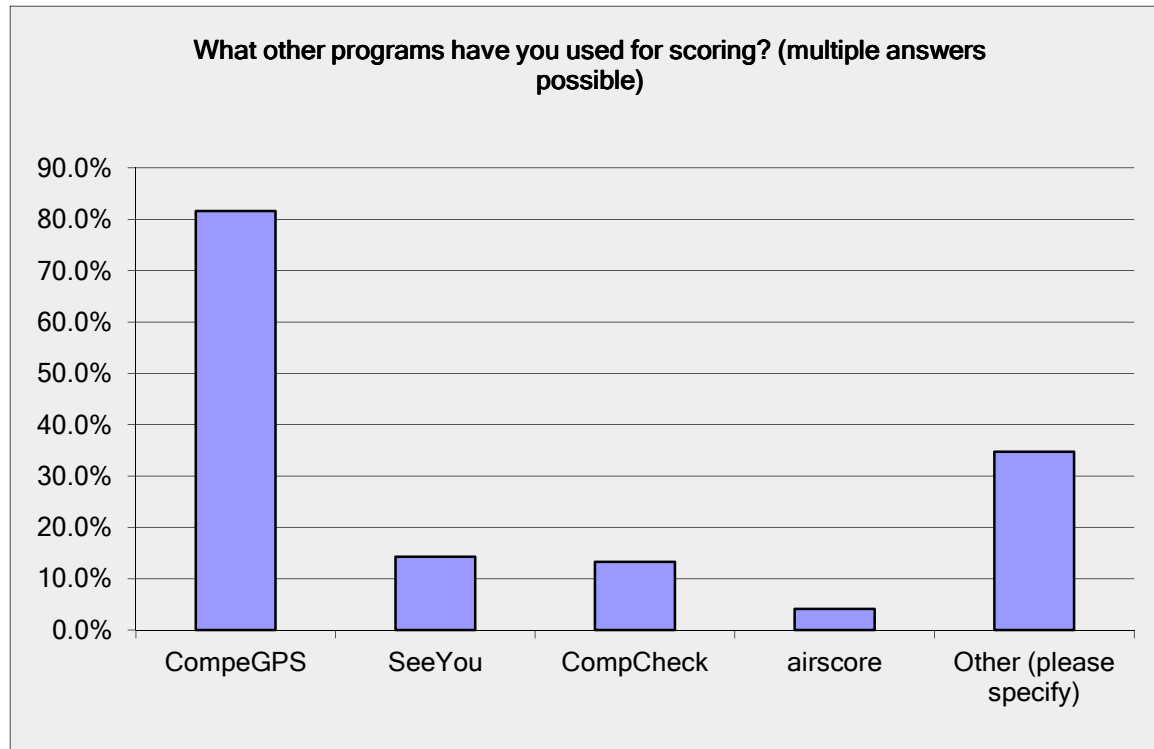
Of the 34 entries under "other", 12 referred to Race, 5 to Cargol (the FFVL's scoring system), 2 to Excel, 2 to Maxpunkte, and 6 to manual scoring or software they wrote themselves. A number of systems were mentioned only by a single participant: CheckIn, FSComp, a Japanese tool, Vultur, XC-Open's scoring tool, and a tool written by Ulf Arndt.

4.1.4.3   Conclusions

The vast majority of previous experience comes from CompeGPS in connection with Race – something I can personally relate to very well, since it also reflects my own experience. Besides this discontinued tool, SeeYou, CompCheck and Cargol seem to be the ones consistently in use. It's always good to know what is out there, and what forms the users' frame of reference.

4.1.5   Question 5: Which scoring program did you like best?

4.1.5.1   Possible answers

FS / CompeGPS / SeeYou / CompCheck / airscore / Other (please specify) – only one answer possible

4.1.5.2   Actual answers

Answer Options	Response Percent	Response Count
FS	63.6%	68
CompeGPS	13.1%	14
SeeYou	2.8%	3
CompCheck	7.5%	8
airscore	4.7%	5
Other (please specify)	8.4%	9
	answered question	107
	skipped question	12
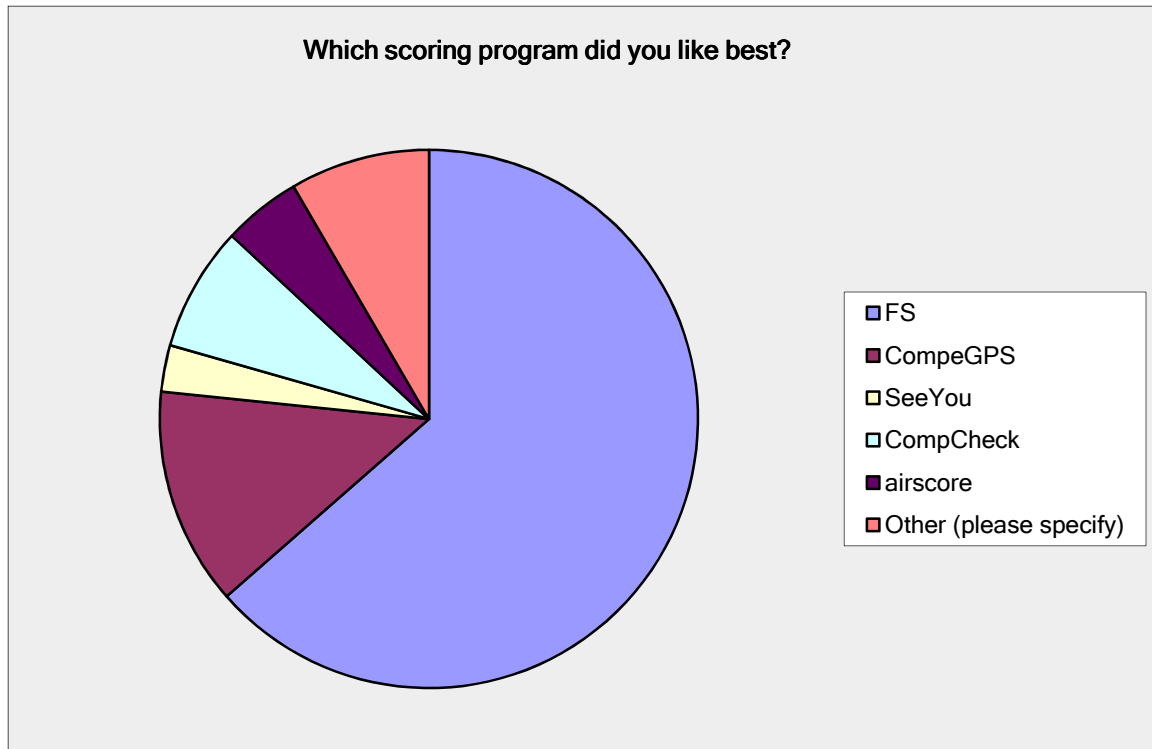
Of the 9 entries under "other", 2 referred to Cargol, 2 to "FS" (!), the rest were only mentioned once: "Both FS and CompeGPS", "Race", "Vultur", "Maxpunkte", "own made".

4.1.5.3   Conclusions

At first sight, this looks fantastic for FS: Nearly 2/3 of all participants name it as their favourite. But to me, the 15 participants who still like CompeGPS better – software for which development stopped many years ago – shows that there is still a lot of room for improvement regarding FS. Also, linking these answers with those to Question 4 above, we can see that of the 13 participants who have used CompCheck before, 8 like it best – that's nearly the same percentage as for FS. In the case of airscore (4 participants who used it, 5 who like it best) the ratio is greater than 100% - obviously these two systems must be doings something right, people like them as well.

4.1.6   Question 6: Why? (In reference to Question 5)

4.1.6.1   Possible answers

Free text

4.1.6.2   Actual answers

Of those preferring FS: 32 "simple, easy, convenient" / 11 "free" / 6 "few bugs or crashes" / 5 "fast" / 5 "Official tool (CIVL or association)" / 4 "The only one I know" / 3 "Scoring accuracy" / 3 "Open Source"[1] / 2 "Support for most GPS devices"

Of those preferring CompeGPS: 8 "better graphics, better user interface" / 6 "All in one, including GPS download" / 4 "Easy, intuitive" / 3 "Maps"

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[1] Contrary to what some of the participants seem to believe, FS is not Open Source software: Access to the sources is restricted to the members of the Software Working Group, and only they can modify the program. It is possible that these participants mixed up "Open Source" with "Freeware" – since these two terms are often used synonymously.

Of those preferring SeeYou: 1 "only one I know" / 1 "Real-time updates of pilot scores"

Of those preferring CompCheck: 5 "All in one, including GPS download" / 2 "Feedback to pilots during downloads" / 2 "parallel download of multiple GPS devices"

Of those preferring airscore: 3 "Pilots upload themselves" / 1 "Airspace support" / 1 "Support by developer" / 1 "Custom formula" / 1 "Online, web-based"

Of those preferring others: Vultur because of AAT, Maxpunkte because it is in German, Cargol because of availability in France

4.1.6.3   Conclusions

FS's strengths lie in its simplicity, its availability for free and its quality. Speed, accuracy and support for many GPS devices (through GPS Dump) are also considered positive.

Other programs are preferred mainly because of a built-in GPS downloads, and associated functionality such as real-time track validation and scoring. More on this in Section 3: Features.

4.2   Section 2: Quality of FS

4.2.1   Question 7: Do you agree or disagree with the following statements?

4.2.1.1   Statements and possible answers

"FS is easy to use", "I love working with FS", "FS is very user friendly". Answers in a range from 1="Completely disagree" to 6="Completely agree".

4.2.1.2   Actual answers

Answer Options	1	2	3	4	5	6	Rating Average	Response Count
FS is easy to use	1	9	8	25	32	28	4.57	103
I love working with FS	4	6	13	27	31	19	4.32	100
FS is very user friendly	2	13	16	24	28	17	4.14	100
							answered question	103
							skipped question	16
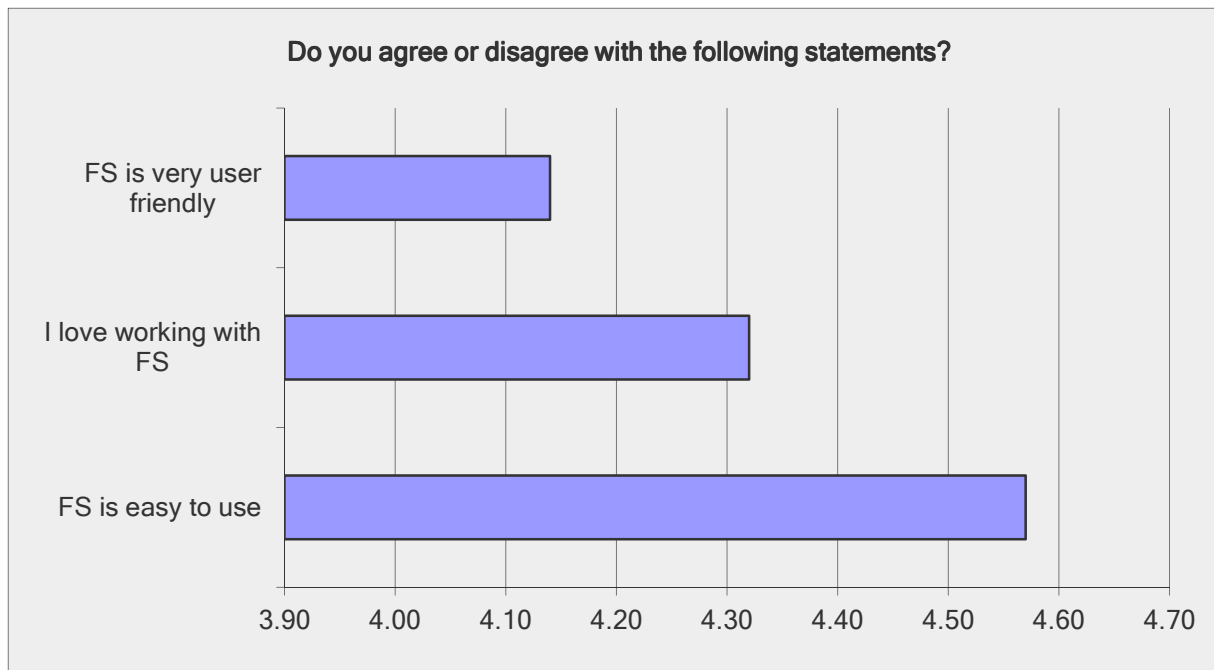
4.2.1.3   Conclusions

Even though easiness and user friendliness is often given as a reason why people prefer FS, there is still room for improvement in the usability aspects of FS.

4.2.2   Question 8: How could FS be made more user-friendly?

4.2.2.1   Possible answers
Free text

4.2.2.2   Actual answers
73 participants entered one or several points of improvement. The major ones were:

- GPS download integration (20)
- Maps for the track visualisation window (8)
- Easier customization of result sheets (6)
- Better documentation / manual / online help (6)
- More helpful UI, wizards for beginners (4)
- Better track visualisation (4)

Additional points were mentioned only a few times, but will of course also be considered when planning of future releases.

4.2.2.3   Conclusions
Many very valid points came up, which will need to be considered when making design decisions for future releases. Especially GPS download integration is urgently required.

4.2.3   Question 9: What do you like best about FS?

4.2.3.1   Possible answers
Free text

4.2.3.2   Actual answers
67 participants entered one or several points. The most frequent ones are:

- Simple and easy to use (18)
- FS is fast (9)
- Small size, runs with limited resources (8)
- Reliability and stability, no crashes (5)
- Database based on XML (4)
- It's free (4)
- The HTML result reports (3)
- Track visualization (3)

Additional points were mentioned only a few times, but will of course also be considered when planning of future releases.

4.2.3.3   Conclusions
Simplicity, usability, speed and modest hardware requirements are what users seem to like best about FS. Future development will have to bear this in mind and ensure that we don't veer of this path.

4.2.4   Question 10: What do you hate most about FS?

4.2.4.1   Possible answers
Free text

4.2.4.2   Actual answers
70 participants entered one or several points. The most frequent ones are:

- Lack of integrated GPS download (10)
- Missing maps for track analysis (7)
- FS Flight for track visualization and analysis (6)
- Does not run on Mac or Linux (5)
- Confusing to learn, hard to use (5)
- Hard to customize reports (4)
- Missing manual override options for problematic tracks (4)
- Having to switch windows / programs during download to show pilots their tracks and results (3)
- Lack of real-time scores, need to print result reports to see scores (3)

Additional points were mentioned only a few times, but will of course also be considered when planning of future releases.

4.2.4.3   Conclusions
Once again, the lack of integrated GPS download capability is voiced as a big drawback of FS. Another area that is in urgent need of improvement is track visualization, analysis and possibly modification.

4.3   Section 3: Features

4.3.1   Question 11: If you had a choice, which Operating Systems would you use to run the scoring software?
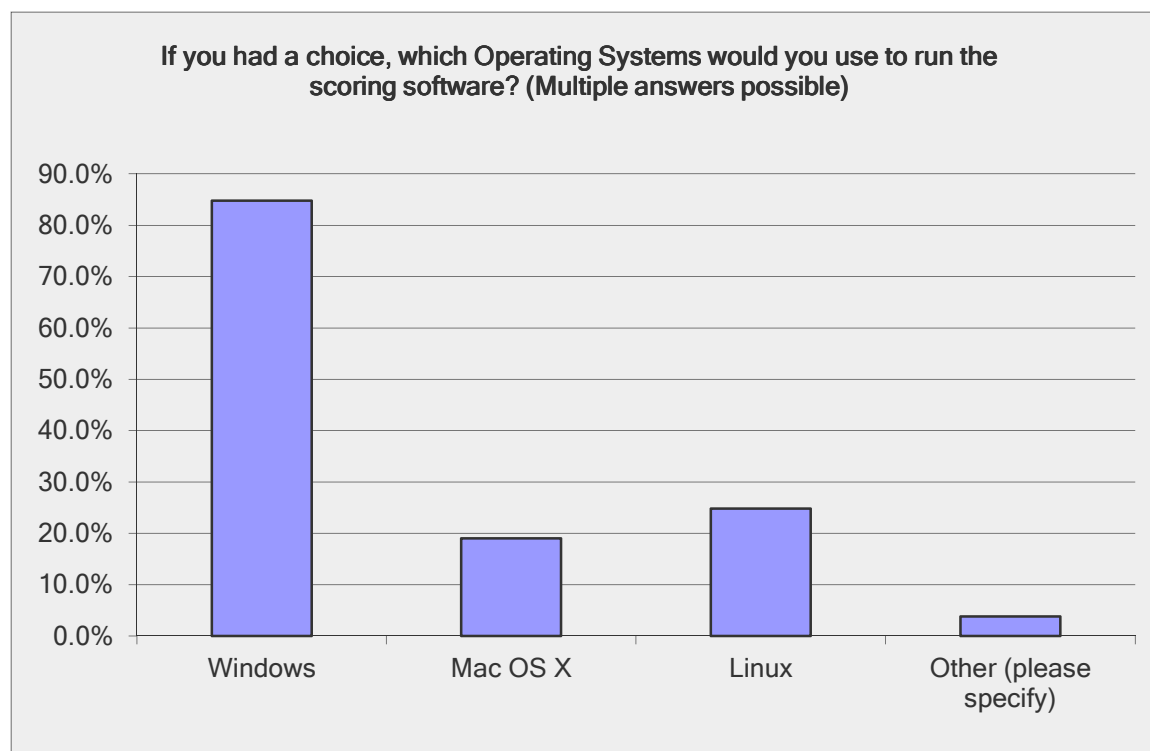
4.3.1.1   Possible answers
Windows / Mac OS X / Linux / Other (please specify) – multiple answers were possible

4.3.1.2   Actual answers

Answer Options	Response Percent	Response Count
Windows	84.8%	89
Mac OS X	19.0%	20
Linux	24.8%	26
Other (please specify)	3.8%	4
answered question		**105**
skipped question		**14**

The four "Other" entries were "Web based" (2x) / "multiple platform" / "Android"

4.3.1.3   Conclusions

The demand for support of non-Windows operating systems clearly exists, but with more than 80% of users favouring Windows, for now we will probably have to invest our time into more pressing features, like GPS download, rather than making FS available on OS X and/or Linux. In the long run, multi-platform support is definitely a requirement.

4.3.2   Question 12: Which of the following features are the most important to you and should be added to FS first?

4.3.2.1   Possible answers

- Alerts if a newer FS version exists
- Direct upload of results to the WPRS server
- Recommended GAP parameters for a specific site and time of the year
- Integrated GPS download, for multiple devices in parallel
- AAT scoring
- FTV
- Integrate incident reporting, transmit reports directly to CIVL
- Scoring for a series of competitions (e.g. League)
- Possibility to run FS on Mac OS X
- Possibility to run FS on Linux
- Possibility to run FS as an Online-Service on the Web

(pick one or two)

4.3.2.2   Actual answers

Answer Options	Response Percent	Response Count
Alerts if a newer FS version exists	16.0%	16
Direct upload of results to the WPRS server	30.0%	30
Recommended GAP parameters for a specific site and time of the year	13.0%	13
Integrated GPS download, for multiple devices in parallel	79.0%	79
AAT scoring	10.0%	10
FTV	3.0%	3
Integrate incident reporting, transmit reports directly to CIVL	18.0%	18
Scoring for a series of competitions (e.g. League)	41.0%	41
Possibility to run FS on Mac OS X	13.0%	13
Possibility to run FS on Linux	16.0%	16
Possibility to run FS as an Online-Service on the Web	28.0%	28
answered question		100
skipped question		19
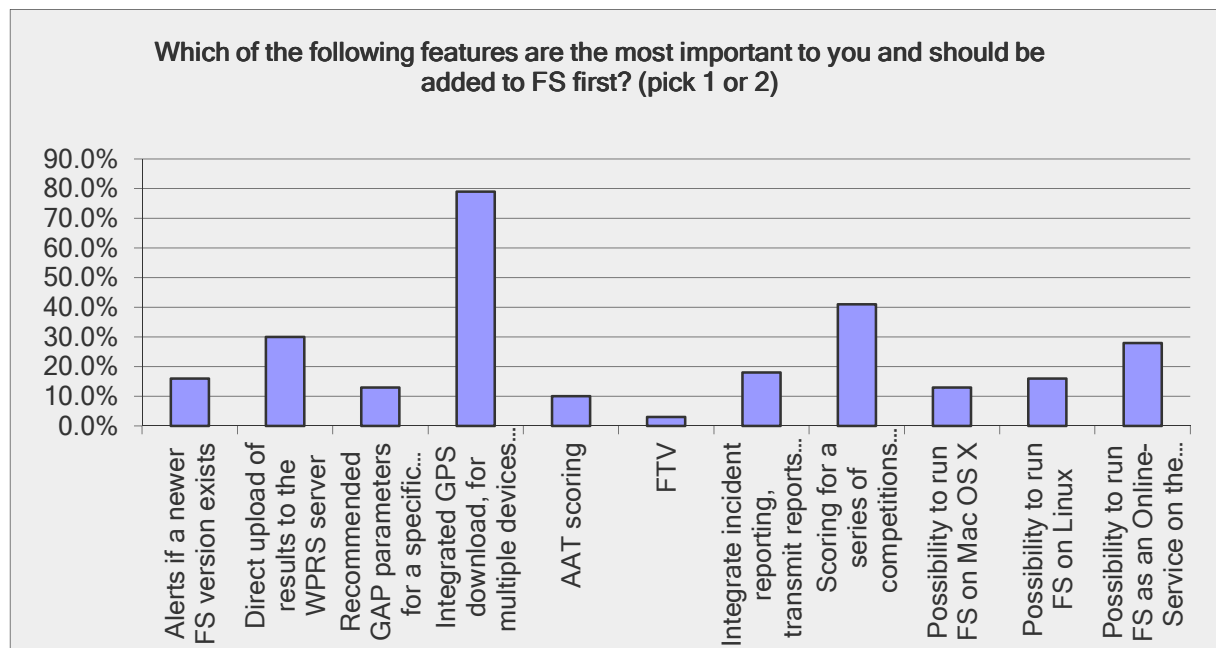
4.3.2.3   Conclusions

This again confirms that the most pressing need is for adding GPS download capability to FS. Competition series scoring and direct upload to the WPRS as well as the possibility to run FS as an Online-Service on the Web are also in high demand.

4.3.3   Question 13: Which other features or functionalities would you like to see added to FS?

4.3.3.1   Possible answers

Free text

4.3.3.2   Actual answers

50 participants entered one or several features. The most frequent ones are:

- Map integration, for example Google Maps (10)

- Better track analysis and manual override capabilities (7)
- Display pilot distance and time on download screen (4)
- Flight animations (2D, 3D, multiple pilots) (4)
- GPS downloads (4)
- Publish current scores automatically on web page during download (4)

Additional points were mentioned only a few times, but will of course also be considered when planning of future releases.

4.3.3.3   Conclusions

This is in line with the conclusion from question 10: Flight analysis could be made a lot more useful. Also, scores should be made available in easier and more versatile ways than currently available.

4.4   Section 4: Miscellaneous

4.4.1   Question 14: Besides English, which other languages should be available in FS?

4.4.1.1   Possible answers
Free text

4.4.1.2   Actual answers
64 participants entered one or several languages. The most frequent ones are:

- Only English (better than bad translations) (17)
- Spanish (15)
- German (13)
- Russian (7)
- French (4)
- Portuguese (4)

4.4.1.3   Conclusions
Many participants offered their assistance with translations to their language. We will certainly think about adding additional languages to the user interface in the long run.

4.4.2   Question 15: Have you ever adapted the templates used by FS to create the ranking pages?
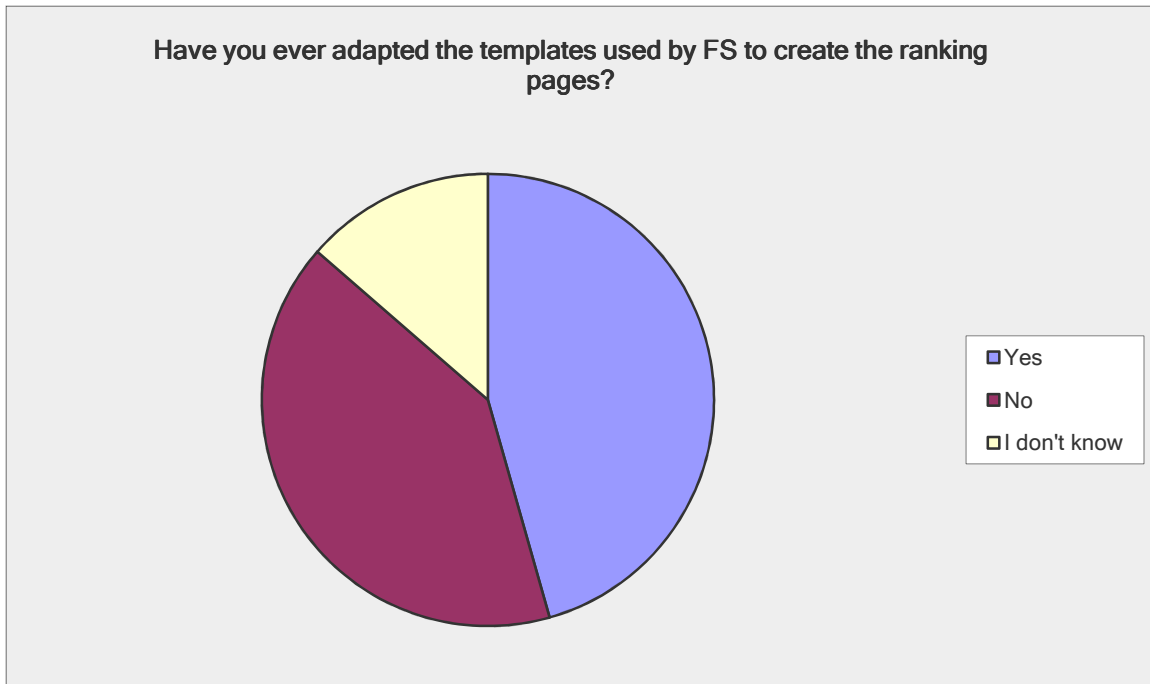
4.4.2.1   Possible answers
Yes / No / I don't know – only one answer possible

4.4.2.2   Actual answers

Answer Options	Response Percent	Response Count
Yes	45.6%	47
No	40.8%	42
I don't know	13.6%	14
answered question		103
skipped question		16

Have you ever adapted the templates used by FS to create the ranking pages?

- Yes
- No
- I don't know

4.4.2.3   Conclusions

With that many participants using this option, and considering the feedback given earlier regarding report modification, this also is a topic we will have to do some work on in the future.
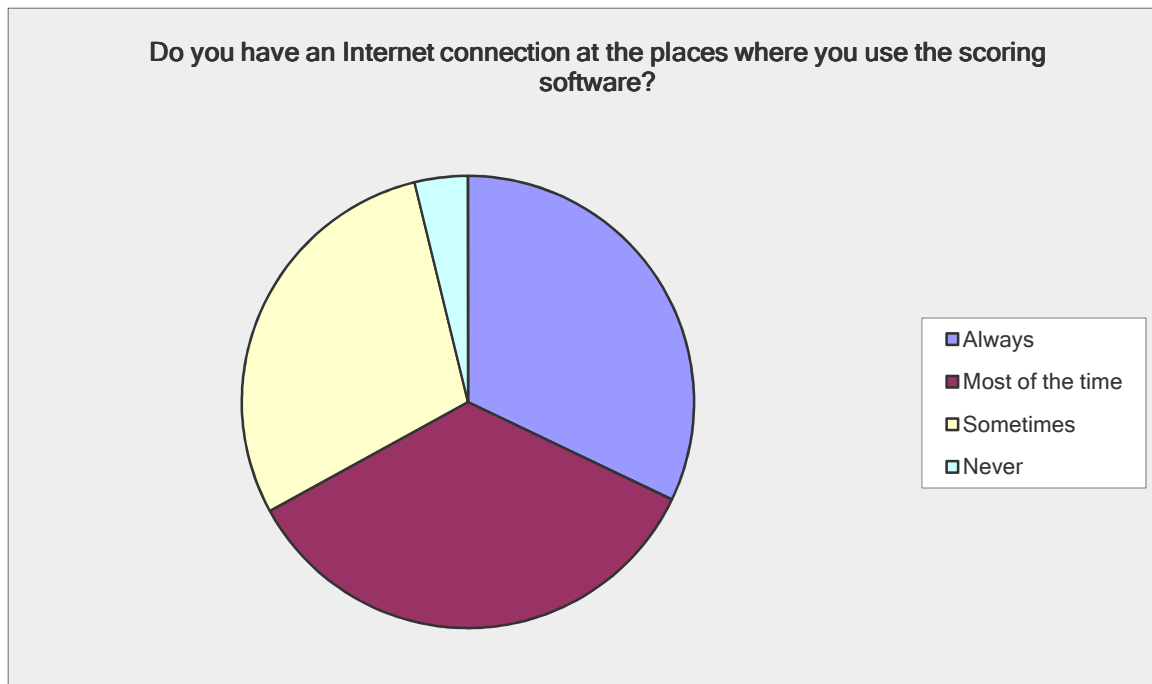
4.4.3   Question 16: Do you have an Internet connection at the places where you use the scoring software?

4.4.3.1   Possible answers

Always / most of the time / sometimes / never – only one answer possible

4.4.3.2   Actual answers

Answer Options	Response Percent	Response Count
Always	32.1%	34
Most of the time	34.9%	37
Sometimes	29.2%	31
Never	3.8%	4
	answered question	**106**
	skipped question	**13**

Do you have an Internet connection at the places where you use the scoring software?

- Always
- Most of the time
- Sometimes
- Never

4.4.3.3   Conclusions

2/3 of the participants have Internet access always or most of the time, 1/3 only sometimes or never. This is important information when planning on integrating FS more tightly with WPRS. Also, this clearly tells me that even if FS were available as a Web-based online service, many score keepers would still need an offline solution such as the current FS desktop application.

4.4.4   Question 17: Here's a place for other remarks and anything else you want us to know

4.4.4.1   Possible answers

Free text

4.4.4.2   Actual answers

35 participants entered a remark here. The majority were "thank you" notes (you're welcome!), and offers for help and more information. A small number of individual feature requests were given, which will be considered for the future development.

5   Outlook

What happens next? Now that we know so much more about what FS users like about the program, where they feel improvements are necessary, and what features they are waiting for most urgently, we can start working on exactly those things. The information given in the survey allows us to work exactly on those things that create the biggest value for score keepers. Thank you for sharing all this information with us!

So now we go to work, and we'll keep you posted about our progress at http://fs.fai.org