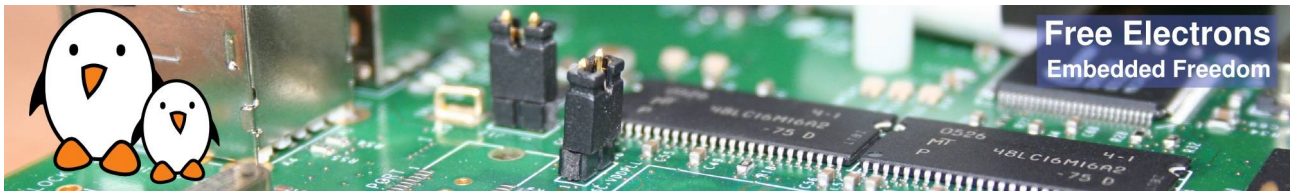


Training evaluation report

Training session: Embedded Linux Training
Training dates: Mar. 15-19, 2010
Country: Turkey

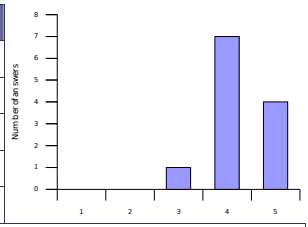
Number of participants: 15
Returned evaluation forms: 12

Thank you for having organized a Free Electrons training session!
Here is a wrap-up of evaluations from participants.

Learning objectives

1. How well did the course meet your learning objectives?

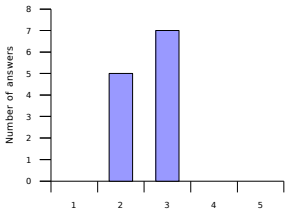
Rating	Answers	Description
1	0	Not met
2	0	
3	1	
4	7	
5	4	Fully met



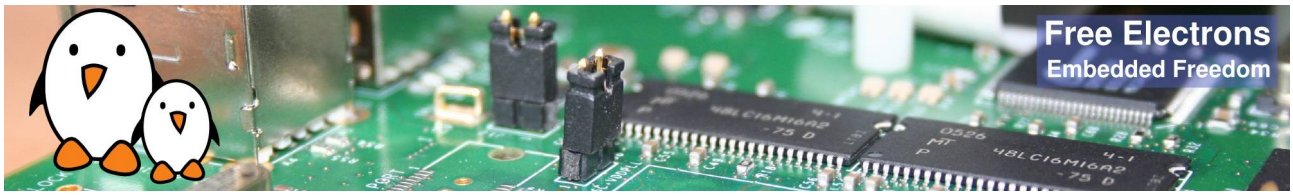
4 - I would prefer a bit more on IDE's and less on graphics examples. Since we mainly do not deal with graphics.

2. How was the duration of the course?

Rating	Answers	Description
1	0	Too short. Couldn't learn enough in such a short time.
2	5	A little too short
3	7	Just fine
4	0	A little too long
5	0	Definitely too long. The concepts could be learned in much less time.



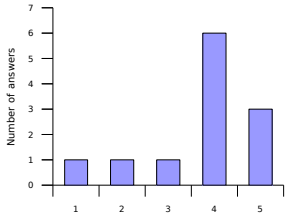
2 - There was a lot of materials to learn from, so; either extend the duration (i.e. 2 weeks) or simplify the content. We ran out of time in almost all sessions.



Lecture materials

3. How helpful were the lecture materials?

Rating	Answers	Description
1	1	Not helpful. Made things more difficult to learn and understand.
2	1	
3	1	
4	6	
5	3	Really made things easier to understand and learn.



4 - Should be more detailed on lab materials.
Free Electrons notes: it's true our instructions detail what to do, but not much how to achieve the goals, when the details can be found in the lecture materials. Doing this reveals anything that wasn't understood or remembered well, and people really learn when they find the solutions by themselves. However, we could give detailed step by step solutions at the end of each lab, and we would get the best of both worlds.

4 - I think that the training lab part was well prepared.

4 - Reorganization of the materials may be necessary, RT-extensions may be studied on the third or fourth day

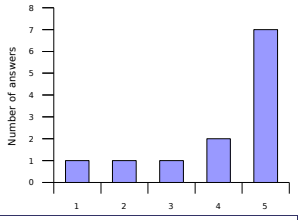
1 - There must be more lecture materials.

4 - Too detailed.

2 - Especially lab explanations can be difficult to understand sometimes. I think they should be clearer.
Free Electrons note: same as above. Of course, if lab goals are not clear enough, this will need to be improved.

4. Will you recommend these materials to others?

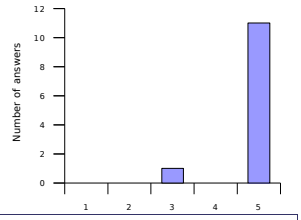
Rating	Answers	Description
1	1	No. Not helpful without following the sessions.
2	1	
3	1	
4	2	
5	7	Definitely



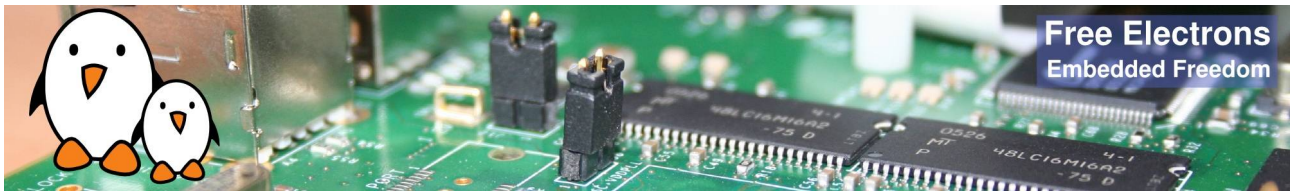
5 - Again, more on IDE's and less on graphics examples. Some mistakes in lab materials should be corrected.

5. If you have Linux project opportunities, will you use these materials again?

Rating	Answers	Description
1	0	No. I will look for other sources of information.
2	0	
3	1	
4	0	
5	11	Definitely



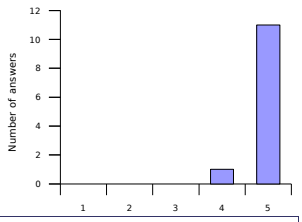
5 - Good overall summary for future reference.



Instructor added value

6. How knowledgeable was the instructor?

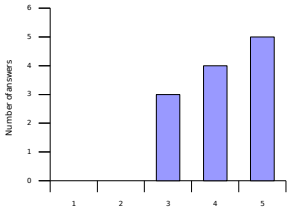
Rating	Answers	Description
1	0	Not enough for my own technical experience.
2	0	
3	0	
4	1	
5	11	More than enough for my own experience.



5 - He certainly know the topics related to the topic well.
5 - Very good knowledge on all related topics.

7. Did instructor oral explanations add value to the lecture materials?

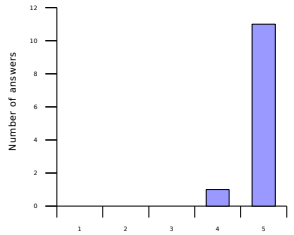
Rating	Answers	Description
1	0	No added value to reading the materials.
2	0	
3	3	
4	4	
5	5	Yes. The instructor really made very useful oral explanations.



3 - More alive voice would be better :) + interaction with listeners

8. How well did the instructor answer questions from the audience?

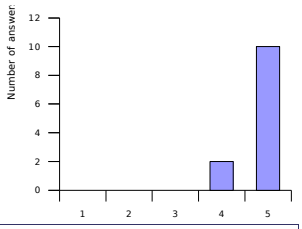
Rating	Answers	Description
1	0	Poorly. Didn't try to understand the questions well or rarely managed to find useful answers.
2	0	
3	0	
4	1	
5	11	Answered very well to questions from the audience



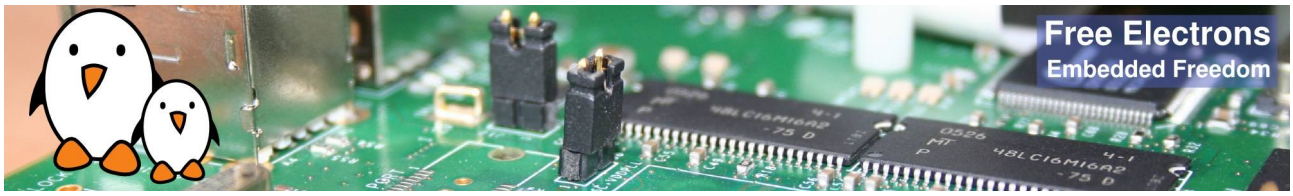
5 - He has answered the questions well and tried for us to understand the topic.

9. Was the instructor helpful with practical labs?

Rating	Answers	Description
1	0	No, not enough available and helpful during the labs.
2	0	
3	0	
4	2	
5	10	Yes. The instructor definitely helped to make labs a learning opportunity.



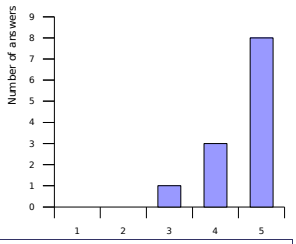
5 - He made a great effort to help us through the labs, I really appreciate his enthusiasm.



Training labs

10. How useful were the training labs?

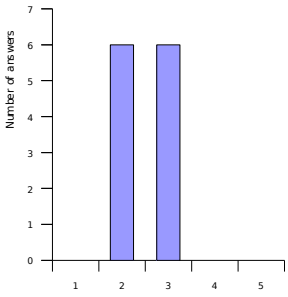
Rating	Answers	Description
1	0	Not useful. Didn't add significant value to the lectures.
2	0	
3	1	
4	3	
5	8	Very useful. Helped to highlight things not understood and build useful experience.



4 - Need Linux knowledge
5 - The lab concerning qemu was a bit black-box, I would prefer a little bit more insight on qemu.
6 - But they should be explained step by step.

11. How difficult were the training labs?

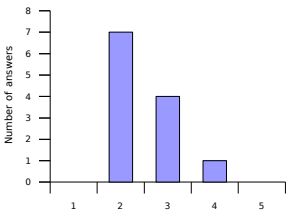
Rating	Answers	Description
1	0	Too difficult. Didn't help or even discouraged a beginner to get more familiar with the tools and concepts.
2	6	A bit too difficult. Would be better if the lab instructions gave a bit more details about explanations.
3	6	Just fine. Prompted me to look for answers, get my own experience and find my own solutions.
4	0	Too easy for my own technical level.
5	0	Too easy for everyone. Should challenge participants more and help everyone to practice on real issues.

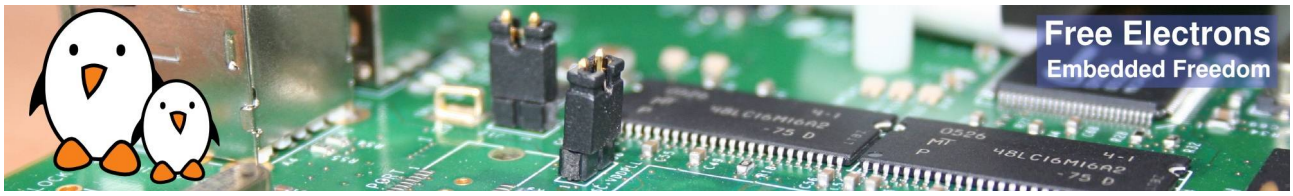


3 - Lack of Internet access was certainly a big problem though it was not the instructors' fault
3 - A bit more explanations or small guides could be attached on some of the instructions in the labs.
2 - Explanations and details were enough but labs were a little bit long.
3 - But a bit too detailed and long i.e. repeating manual compiling for so many libs in the third party app. lab wasn't necessary.

12. Was enough time dedicated to the practical labs?

Rating	Answers	Description
1	0	No. More practice is needed
2	7	A little bit more time would help.
3	4	Just fine
4	1	A little bit less time would be enough.
5	0	Don't need to spend so much time on labs. On-the-job practice is best

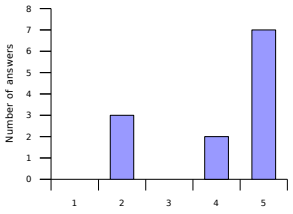




Training conditions

13. How do you rate training conditions (room size, equipment, environment...)?

Rating	Answers	Description
1	0	Poor.
2	3	
3	0	
4	2	
5	7	Very good.



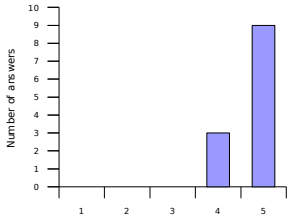
2 - Room - size - equipment - environment were fine but lack of Internet access was a big problem.

2 - It was a shame that we didn't have Internet connection in the labs, but it was due to our company policy, I guess.

2 - There was no Internet connection. Linux without Internet is just a disaster.

14. How do you rate the training equipment (mainly computers)?

Rating	Answers	Description
1	0	Poor. Not powerful enough to execute practical labs.
2	0	
3	0	
4	3	
5	9	Very good. Very little time waiting, more time learning.



5 - But some of the boards were dead (don't know if we damaged them).

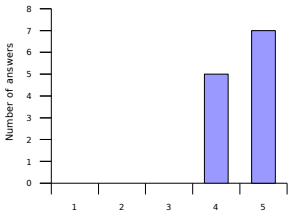
Free Electrons note: fortunately, we always travel with spare boards in case this happens. We could ensure that there were at least 8 working boards (corresponding to the maximum number of working groups that we recommend).

4 - Good, but everyone must do the practical labs by himself, grouping can be bad for training.

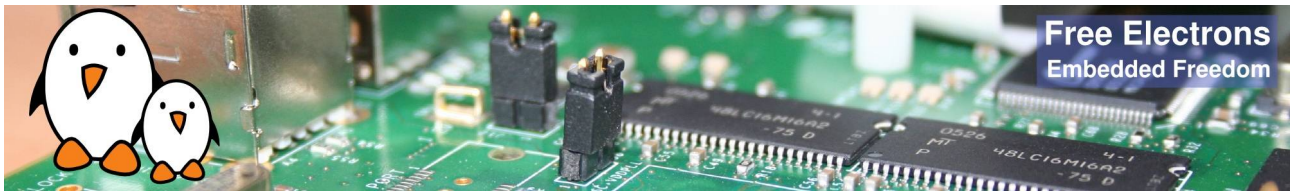
Free Electrons note: this decision if up to the customer. We can effectively have 1 board per participant, but in this case, we have to limit the audience to 8 to 10 people instead of 15. This could be better for each participant, but much more expensive for the customer.

15. How well was the course organized (program, registration, meeting the schedule...)?

Rating	Answers	Description
1	0	Not well
2	0	
3	0	
4	5	
5	7	Very well



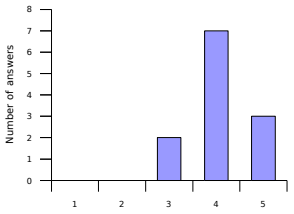
4 - The parts about companies supplying Linux distributions support, could be given in the last day. You can get such information easily with Google.



Overall rating

16. How much did you learn?

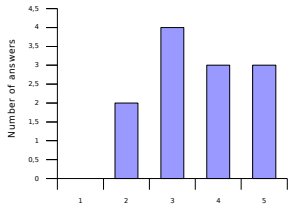
Rating	Answers	Description
1	0	Definitely not much
2	0	
3	2	
4	7	
5	3	Definitely more than I expected.



3 - The mark is 3, but it is not because of the instructor or training. My base knowledge is not enough.

17. How useful will this course be in your daily job?

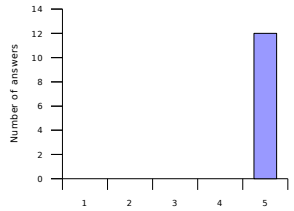
Rating	Answers	Description
1	0	Not useful.
2	2	
3	4	
4	3	
5	3	Very useful. Will make my job easier and more productive.

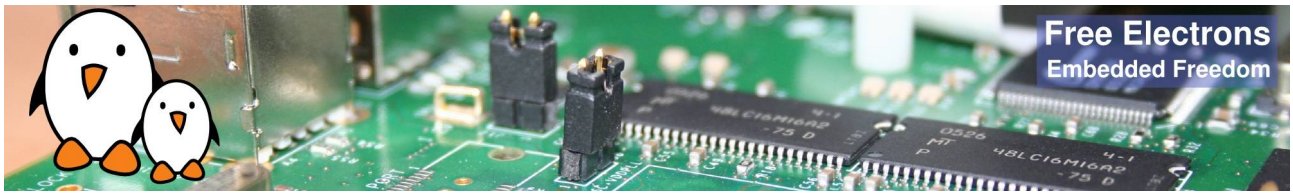


4 - Will be useful in the future
3 - I mostly work in proprietary RTIS, so for now it does not impact my daily job. If we switch to Linux, then it would be very useful.
3 - I am not currently using embedded Linux, but it will be useful when I use it.
2 - Not much because I don't think our company will ever use embedded Linux in its products.

18. Would you recommend this course to others?

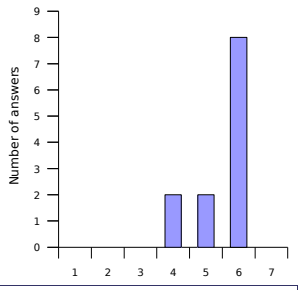
Rating	Answers	Description
1	0	No.
2	0	
3	0	
4	0	
5	12	Yes, definitely





19. Overall rating

Rating	Answers	Description
1	0	Very disappointing
2	0	Disappointing
3	0	A little bit disappointing
4	2	OK
5	2	Pretty good
6	8	Very good
7	0	Excellent

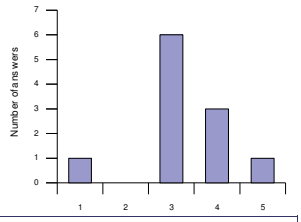


6 - 1 - I am not sure why we used Calao boards instead of the Beagle boards. I am very interested in the Beagle board, and now I am trying to apply what I've learned to the Beagle. It would help me much more if Beagle boards were used instead. 2 - This evaluation may be done online.

Free Electrons note: we have the same labs on the Beagle Board. Don't hesitate to use them: http://free-electrons.com/blog/beagle-labs/

20. An extra session?

Rating	Answers	Description
1	1	No
2	0	
3	6	Why not?
4	3	
5	1	Yes, definitely



5 - PCI, USB device drivers.

3 - Linux device driver development, Linux board support packages.

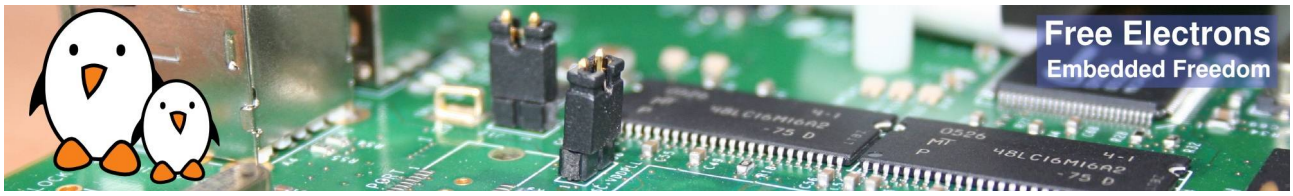
Number of votes for topics in an extra session

Understanding the Linux kernel		Linux device driver development		Linux board support packages		Embedded system development		Miscellaneous needs	
Process management	2	USB device drivers	2	Processor specific code	2	Lightweight tools	1	Java	
Filesystem implementation	2	USB host drivers		Board specific code	1	Embedded system development tools	2	Real-time	3
Memory management	2	PCI drivers	1	Board specific interrupt support code		Cross-compiling toolchains	2	Audio	
Scheduling implementation	2	Network drivers	1	DMA support	1	Debugging solutions	2	Video	1
Bootstrap code		Block drivers		Bootloader development	2	Software development tools	2	uClinux	
		Flash drivers				Programming with graphical libraries		Voice over IP	
		I2S drivers				POSIX API			
		Input drivers				System optimization	1		
		Sound drivers				Root filesystem creation	2		
		Video drivers	1						

Free Electrons comments

Thanks to the (sometimes oral) suggestions from the audience, we will improve future training sessions...

- By increasing our coverage of Integrated Development Environments and interactive debugging solutions (typically with Eclipse)
- By offering step by step solutions at the end of each lab, as a summary that people could rely on when they are faced with similar needs in their real life.
- By fixing issues encountered in labs during the session.
- By making our sessions more interactive.
- Before the session, by putting even stronger emphasis on the requirement of Internet access.
- By implementing prior checks for dead boards.



Life after training

After this training session, do not hesitate to get back to us! Here are things we could do to support you in your embedded Linux projects:

- More training: you may be interested in the other training sessions that we propose, either embedded Linux system development or Linux kernel and driver development, depending on the course you have already taken. See http://free-electrons.com/training for details.
- If some people in your organization missed the session, and you don't have enough requests to organize another session, they can choose to go to our public training sessions. See http://free-electrons.com/training/sessions for details.
- Linux kernel porting. Adding Linux support to your boards, or supporting you in doing this.
- Having your board support code merged in mainstream sources (Linux, U-boot), so that your sources are maintained by the community. This also means for customers that your boards will be supported for a long time.
- System development and integration. Creating demos and prototypes.
- System optimization: improving system performance and features (power consumption, speed, size...)
- Investigating and fixing nasty bugs that you don't have time to cope with by yourselves.

See http://free-electrons.com/services for details.