

## Training evaluation report

**Training session:** Embedded Linux Training  
**Training dates:** Apr. 21-25, 2008 (5 days)

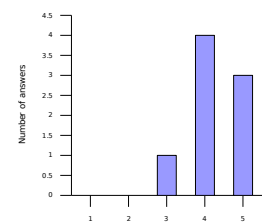
**Number of participants:** 10 to 15  
**Returned feedback forms:** 8

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	4	
5	3	Fully met

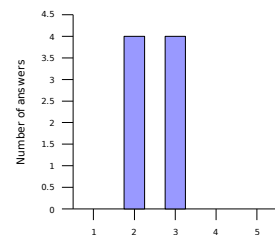


4 - Probably a little bit more about application creation.

4 - Almost everything. I did not learn everything, because it was my first Linux knowledge (*the first time I learn about Linux?*), so I had no background.

#### 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	4	A little too short
3	4	Just fine
4	0	A little too long
5	0	Definitely too long. The concepts could be learned in much less time.



2 - I suggest to make 3<sup>rd</sup> day a little bit longer

3 - It could last 1 or 2 more days, in order to actually use some hardware with simple application, such as toggle LED every certain time.

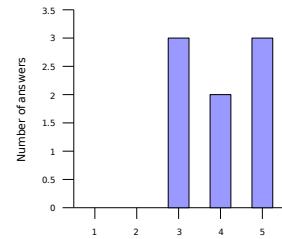
3 - Just fine in time, but too much info for this time.



## Lecture materials

### 3. How helpful were the lecture materials?

Rating	Answers	Description
1	0	Not helpful. Made things more difficult to learn and understand.
2	0	
3	3	
4	2	
5	3	Really made things easier to understand and learn.



3 - There are some missing stuff that can be added, notes about what to remember between lectures, but the materials are excellent.

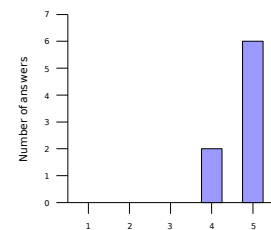
5 - Great material!!

3 - Good in information, but slightly confusing in structure: e.g. too long, few summaries...

4 - I don't know whether having extra comments for slides would help for self training.

### 4. Will you recommend these materials to others?

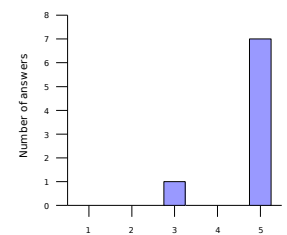
Rating	Answers	Description
1	0	No. Not helpful without following the sessions.
2	0	
3	0	
4	2	
5	6	Definitely



4 - Hard to find the needed info.

### 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	7	Definitely



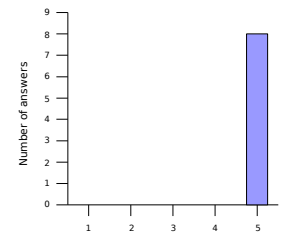
5 - I hope not, but every one needs documentation support. Maybe, I'll buy one of the recommended books.



## Instructor added value

### 6. How knowledgeable was the instructor?

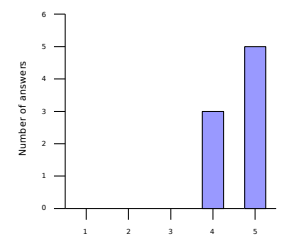
Rating	Answers	Description
1	0	Not enough for my own technical experience.
2	0	
3	0	
4	0	
5	8	More than enough for my own experience.



5 - Great job!!

### 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	0	
4	3	
5	5	Yes. The instructor really made very useful oral explanations.

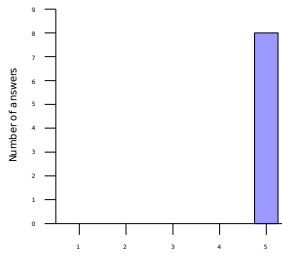


5 - The show / examples can be slower, sometimes can not see what happens.

4 - Few concrete examples of "daily life" like mouse, ethernet...

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

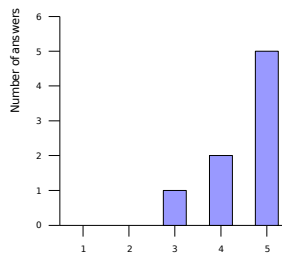
Rating	Answers	Description
1	0	Poorly. Didn't try to understand the questions well or rarely managed to find useful answers.
2	0	
3	0	
4	0	
5	8	Answered very well to questions from the audience



5 - Thomas does not know everything, but he knows hoe to find it!

### 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	1	
4	2	
5	5	Yes. The instructor definitely helped to make labs a learning opportunity.



4 - Yes, but I mised kind of summary at the end of the labs about "what" we made and "why".

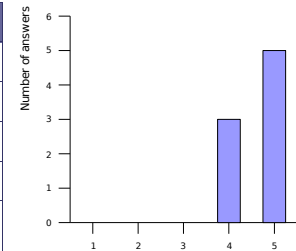
3 - I would recommend: 1. All together labs at the end of the end of every lab. 2. A guide for the lab with instructions for self training: if you do have it, please mail it to rdealba - at - gmail dot com



## 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	0	
4	3	
5	5	Very useful. Helped to highlight things not understood and build useful experience.

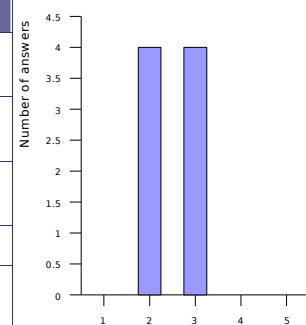


5 - Helpful to land all the concepts.

4 - A lot of downloading stuff -> eats time. The same with looking for download - homepages (*note: 2<sup>nd</sup> sentence not understood... did the person mean "already downloaded" stuff?*)

### 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	4	A bit too difficult. Would be better if the lab instructions gave a bit more details about explanations.
3	4	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 - But, sometimes it will be better if you can solve the lab (*note: give solutions?*) just to make sure that we did the right thing.

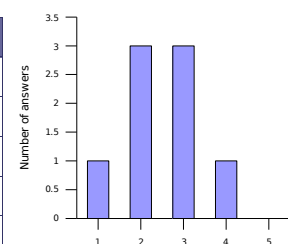
2 - They were just fine, but I found them difficult because of my lack of experience.

4 - Some times a lot of "just-typing" stuff. (*Note: most commands were available in ready to run files or ready-to-use source files. But it's true there are still a few things that have to be typed.*)

2 - Please provide the "answers" (*solutions?*). rdealba - at - gmail dot com

### 12. Was enough time dedicated to the practical labs?

Rating	Answers	Description
1	1	No. More practice is needed
2	3	A little bit more time would help.
3	3	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



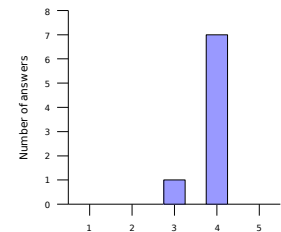
1 - Definitely more practise is needed, to not just "do" it but to have time to investigate "what" you are doing.



## Training conditions

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

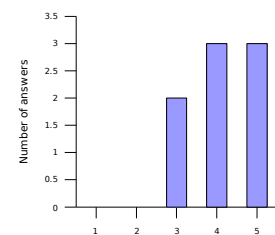
Rating	Answers	Description
1	0	Poor.
2	0	
3	1	
4	7	
5	0	Very good.



4 - Network issues  
 4 - The only problem was the network but it wasn't your problem.  
 4 - The network connection was pretty bad.  
 4 - Good.  
 4 - Cold!!!

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

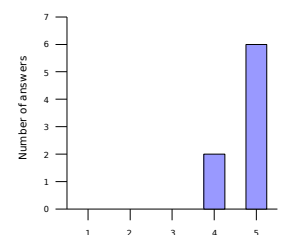
Rating	Answers	Description
1	0	Poor. Not powerful enough to execute practical labs.
2	0	
3	2	
4	3	
5	3	Very good. Very little time waiting, more time learning.



5 - For me it was OK because I have Linux  
 3 - Fine  
 4 - Ethernet bad.

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

Rating	Answers	Description
1	0	Not well
2	0	
3	0	
4	2	
5	6	Very well



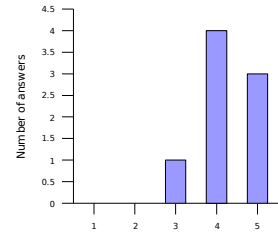
5 - Awesome.  
 4 - Good.



## Overall rating

16. How much did you learn?

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

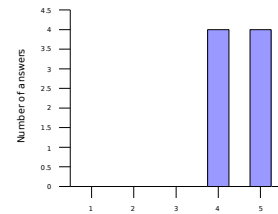


5 - It was an amazing training!!!

4 - I learned a lot, but I expected more. i was not a problem caused by the training, but by myself, I should have prepared with the basics.

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

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

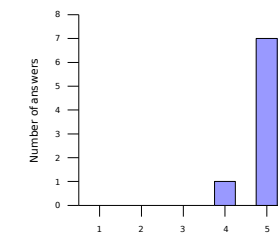


5 - Without this training I was lost in finding the right places / documentation / support for me to start. Great starting point!!

4 - Useful.

18. Would you recommend this course to others?

Rating	Answers	Description
1	0	No.
2	0	
3	0	
4	1	
5	7	Yes, definitely

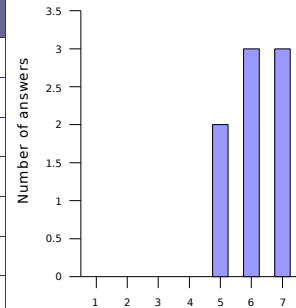


5 - Of course!



## 19. Overall rating

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

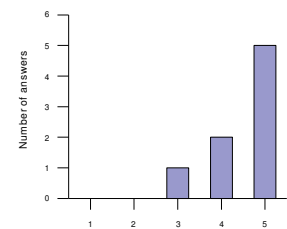


7 - Increase the duration of the training to 2 or 3 weeks :-)

5- I see a big need to improve the .pdf file. 1 - More well designed charts instead of text. 2 - More structure. 3 - Better and more examples.

## 20. An extra session?

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



5 - ALL OF THEM ! I mean it! :-) Thank you guys for everything!!! Jesus Gutiérrez.

4 - More basic Linux stuff.

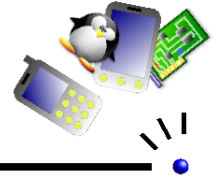
### Number of votes for topics in an extra session

Understanding the Linux kernel	Linux device driver development	Linux board support packages	Embedded system development	Miscellaneous needs
Process management	1 USB device drivers	3 Processor specific code	1 Lightweight tools	1 Java
Filesystem implementation	1 USB host drivers	3 Board specific code	1 Embedded system development tools	2 Real-time
Memory management	1 PCI drivers	1 Board specific interrupt support code	1 Cross-compiling toolchains	1 Audio
Scheduling implementation	1 Network drivers	1 DMA support	1 Debugging solutions	1 Video
Bootstrap code	1 Block drivers	1 Bootloader development	3 Software development tools	1 uClinux
	Flash drivers	1	Programming with graphical libraries	1 Voice over IP
	I2S drivers	1	POSIX API	1
	Input drivers	1	System optimization	1
	Sound drivers	1	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 giving solutions for all the labs at the end.
- By summing up what we did at the end of each lab, and why we did it.
- By adding more summaries and real-code examples in the lecture slides, and by adding more charts and diagrams.
- By making some sections shorter, to focus on the key things to remember.



- By providing notes along with the slides.
- By trying to find simple hardware (typically with leds) to write drivers for, instead of just using emulated systems.