<u>Free Electrons notes</u>

The below evaluations report (amongst others)
- Mismatches with the latest Android source code
  We are precisely updating our materials and practical labs according to Android Jelly Bean, which is much more recent. Such new materials should be available in December 2013.
- Boot time performance issues with the kit
  We are also switching to a faster platform, the Beagle Bone Black.
- Lack of details in the practical lab instructions
  We will address this issue in the new version of the course (available soon). We will do our best to make it clear what participants should implement, but we won't give them too many details about how to do it, if such details are already given in the lectures. That's important to reveal what participants haven't understood in the lectures yet.
- A wish to have 1 computer for each participant.
  To make sure the instructor can spend enough time supporting each group (1 PC and one board per group), and that the class progresses fast enough as a whole, we limit the number of working groups and PCs running practical labs to 8. This is not manageable otherwise when we have 16 participants.
- A wish to have more missile launchers devices, 1 per workstation
  Unfortunately, we have to share such devices, because they are quite big to carry. There are 4 devices for 8 working groups.

Many thanks to the participants for sharing such useful feedback!

11 responses

Summary See complete responses

How did the course meet your learning objectives?
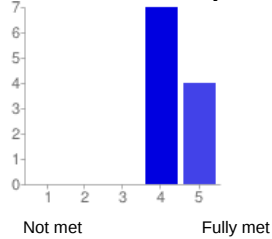
| 1 -	Not met	0	0%
2		0	0%
3		0	0%
4		7	64%
5 -	Fully met	4	36%

Comments and suggestions

Printed Material needs to be revised, there are some discrepancies between what the material states and the actual files/directories of the system. Given that the programming background of the participants was very different, we were not able to do all the code by ourselves. It'd be nice to have prework not only for Linux and vi, but also on C/Java programming for Android so we can then write the code within the class. For my type of job, i think the course should focus more in OS architecture. I wish I had learn more, not because of lack of the material but because of time

How was the duration of the course?
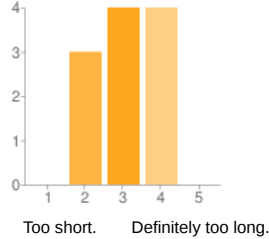
1 -	Too short.	0	0%
2		3	27%
3		4	36%
4		4	36%
5 -	Definitely too long.	0	0%

Comments and suggestions

The main problem was the lack of knowledge of the overall quorum   It'd be better to have a 5 day course ti implement extra activities based on the lessons received, I mean enhance the labs already performed   A bit too long.. more programmed breaks would be good.   This training would be best suited for a two week cadence.   I would have liked the course to be longer so we could review the topics to a more advanced level.   Maybe more time would be perfect   Regarding the amount of material to review and to learn from, I think 4 days is a short time. However, I understand that it is complicated to have a tea   ...

**How useful was the lecture document?**
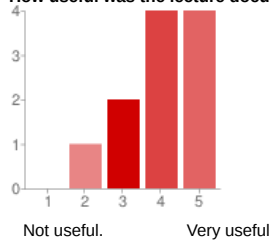
1 -	Not useful.	0	0%
2		1	9%
3		2	18%
4		4	36%
5 -	Very useful	4	36%

Comments and suggestions

would be good to have real life examples of some of the concepts   They need to be revised, see main comments.   The slides provide an overview but do help because they have links and the important information that you can later investigate to learn more details.   the examples were not very usefull and very confusing.. I would suggest to put instructions for dummies.. example: step 1 ==> go to the device directory. Example: ~/felabs/android/source /android/device/linaro/beagleboard step 2: ==> create Android.mk example: etc... Due to the this is too much material to be covered in 4 day   ...

How knowledgeable was the instructor?
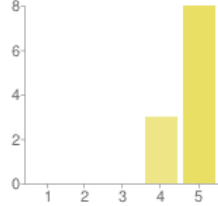
Not enough for meMore than enough

1 -	Not enough for me	0	0%
2		0	0%
3		0	0%
4		3	27%
5 -	More than enough	8	73%

Comments and suggestions

He was able to answer any question that we made, and at lest speaking for me, I understood all the answers he explained.   This is basically my first Android course so everything was new to me. Chris was able to explain lots of details regardless of my lack of knowledge on the topic.   it was more than enough to answer my questions so, for me, it is good.

**How much value did the instructor add to lecture materials?**
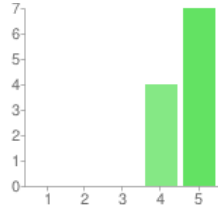
Not much added valueA lot of added value

1 -	Not much added value	0	0%
2		0	0%
3		0	0%
4		4	36%
5 -	A lot of added value	7	64%

Suggestions and comments

He explained more than read the slides, which makes easier to follow and understand.   He relied heavily in the lectures, although there were some discrepancies as I mentioned before.   As I stated in a comment above, the instructors skills are a complement to the written material and at least half of the value of this training.

Was the instructor helpful with practical labs?
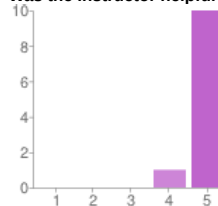

Not much   Very helpful

1 -	Not much	0	0%
2		0	0%
3		0	0%
4		1	9%
5 -	Very helpful	10	91%

Comments and suggestions

He walked around helping people and responding questions.   There were too much people to support, but he was always willing to help.   Yes,

he spent time with each of us explaining and answering our questions.   Very handy. And what I liked more is that he was resourceful to get
alternative solutions when we got stuck in performing the labs.

How useful were the training labs?
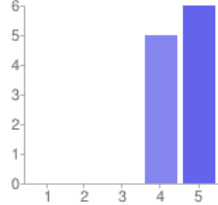
1 -	Not useful	**0**	0%
2		**0**	0%
3		**0**	0%
4		**5**	45%
5 -	Very useful	**6**	55%

Comments and suggestions

Some instructions were very vague, specifically the ones related to the last labs.   This is where we could actually practice what we were
learning. Unfortunately we had to cheat with the last labs and did not make the code ourselves due to time/knowledge restrictions.   As you may
know, this course intention is to apply to the specific job we have in the company. I think it is complicated to make a course 100% useful for the specific
needs of a company such like this. Therefore, I think have of the usefulness of the course depends also in how we, students, are able to integrate it in real
job dut   ...

**How difficult were the training labs?**
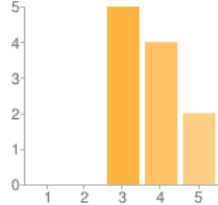
1 -	Too easy	**0**	0%
2		**0**	0%
3		**5**	45%
4		**4**	36%
5 -	Too difficult	**2**	18%

Comments and suggestions

The main problem was the lack of knowledge of the overall quorum   But very interesting   Some of them need a bit more of explanation.   Some
instructions were very vague, specifically the ones related to the last labs.   Given that this was my first Android experience (besides playing Angry Birds
of course!) I found some of the labs difficult to complete, but I would say that for a person that has a little bit more experience they would be just
fine.   I think they had been more difficult if we hadn't received the instructor's help and shortcuts provided. To do it by myself I would have needed
more time.   ...

**Was enough time dedicated to practical labs?**
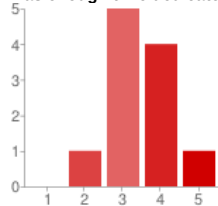
1 -	Definitely not enough	**0**	0%
2		**1**	9%
3		**5**	45%
4		**4**	36%
5 -	Definitely too much time for labs	**1**	9%

Comments and suggestions

The main problem was the lack of knowledge of the overall quorum   It was good enough.   Yes, but if the training could be imparted in two weeks I think it'll be better.   We ran out of time to complete the practical labs.   Yes

### How do you rate training conditions (room size, equipment, environment)?
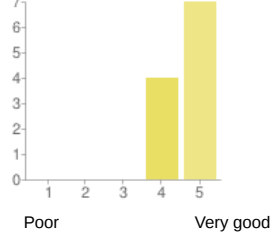
1 - Poor	0	0%
2	0	0%
3	0	0%
4	4	36%
5 - Very good	7	64%

Comments and suggestions

Development kit needs to be improved in order to boot faster and have training on Gfx side   Good, but there weren't enough missile launcher towers. Had to wait for other to finish their testing.   Chris had some trouble because his desk was facing the audience and not the projected image. I would suggest he would request for a desk that faces the projection.   Very good other than the cables that were laying loosely on the floor. This issue was addressed until the last day. It would have been nice to have it addressed before.

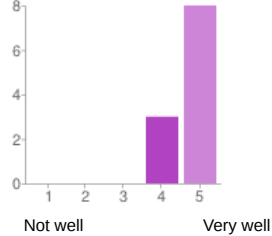### How do you rate the training equipment (mainly computers)?
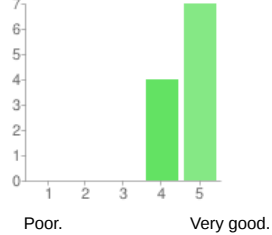
1 - Poor.	0	0%
2	0	0%
3	0	0%
4	4	36%
5 - Very good.	7	64%

Comments and suggestions

I would prefer one PC for each person

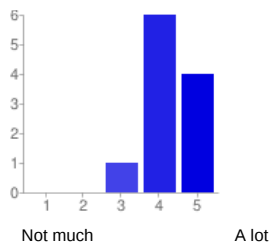### How well was the course organized (program, registration, schedule...)?

1 - Not well	0	0%
2	0	0%
3	0	0%
4	3	27%
5 - Very well	8	73%

Comments and suggestions

I think the only thing missing was breaks programmed during the day.
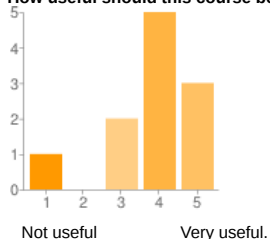
How much did you learn?

1 - Not much	**0**	0%
2	**0**	0%
3	**1**	9%
4	**6**	55%
5 - A lot	**4**	36%

Comments and suggestions

I knew nothing and I really learn a lot.   A lot and I hope to learn more.

How useful should this course be in your daily job?

1 - Not useful	**1**	9%
2	**0**	0%
3	**2**	18%
4	**5**	45%
5 - Very useful.	**3**	27%

Comments and suggestions

The goals are not defined yet   At the present time my job does not include doing any Android activities. But I will use it in future projects.   This is a baseline. Obviously I am aware that is much more to develop and tailor to the daily job.

What part(s) of the course did you like most?

The labs   Kernel and framework construction   Instructor experience   labs and Android Framework and Applications   The labs.   Practical labs   The practical labs.   labs   How to build the kernel and Android and, knowing about the philosophy of Android programming.

What part(s) of the course did you like least?

nothing everything was OK   When much theory was explained without breaks or labs.   I'd say, latest sections.   I felt that some of the topics deserved more time and explanation but due to time restrictions we had to skip them or review them very fast.   None particularly.
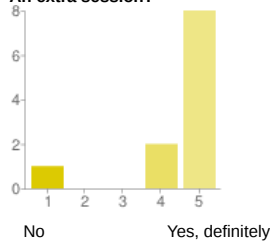
Overall rating
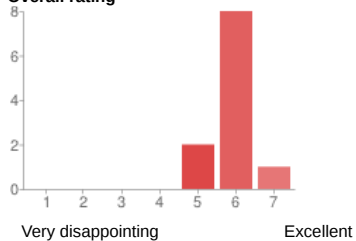
1 - Very disappointing	**0**	0%
2	**0**	0%
3	**0**	0%
4	**0**	0%
5	**2**	18%
6	**8**	73%
7 - Excellent	**1**	9%

Comments and suggestions

⌷⌷⌷⌷⌷⌷⌷⌷⌷⌷ Thank you!!

An extra session?

| 1 - No | **1** | 9% |
2	**0**	0%
3	**0**	0%
4	**2**	18%
5 - Yes, definitely	**8**	73%

Comments

⌷⌷⌷⌷⌷⌷⌷⌷ Android programming.   the extra session would be for programming,   Os deep architecture session.   I appreciate the instructor's sense of humor. It helps to keep dynamic the environment during the lectures. However, I would appreciate more frequent changes in his voice tone or doing something to refresh the environment. There was a time it got tiring to hear the same voice tone and in consequence, it was easier to loose the attention.

How far do you come from?
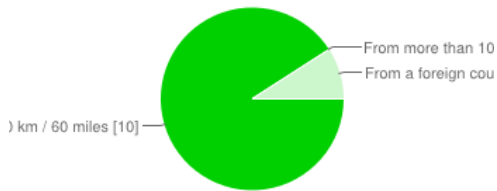
| From less than 100 km / 60 miles | **10** | 91% |
| From more than 100 km / 60 miles, same country | **0** | 0% |
| From a foreign country | **1** | 9% |

What prompted you to choose Free Electrons?
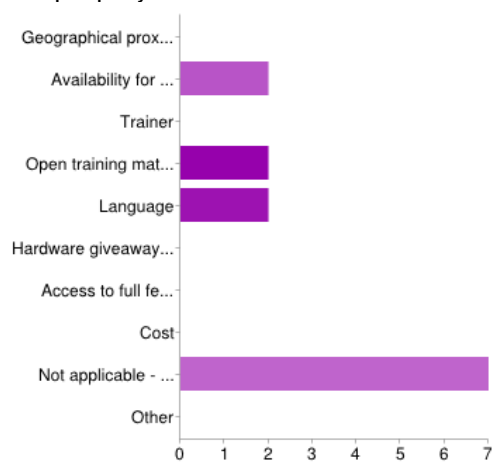
| Geographical proximity (public sessions only) | **0** | 0% |
Availability for on-site sessions	**2**	18%
Trainer	**0**	0%
Open training materials that can be checked in advance	**2**	18%
Language	**2**	18%
Hardware giveaway (public sessions only)	**0**	0%
Access to full feedback from participants to previous sessions	**0**	0%
Cost	**0**	0%
Not applicable - My management made the decision	**7**	64%
Other	**0**	0%

People may select more than one checkbox, so percentages may add up to more than 100%.

How did you first learn about Free Electrons?
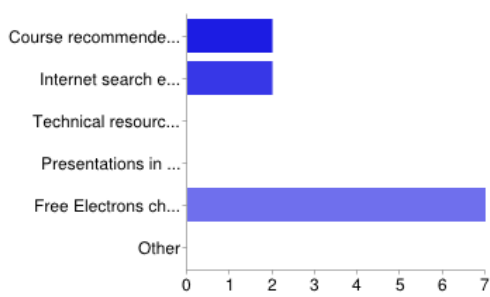
Course recommended by previous participants	**2**	18%
Internet search engines	**2**	18%
Technical resources on the Free Electrons website	**0**	0%
Presentations in conferences	**0**	0%
Free Electrons chosen by my management	**7**	64%
Other	**0**	0%

Interested in other types of embedded Linux / Android engineering services?
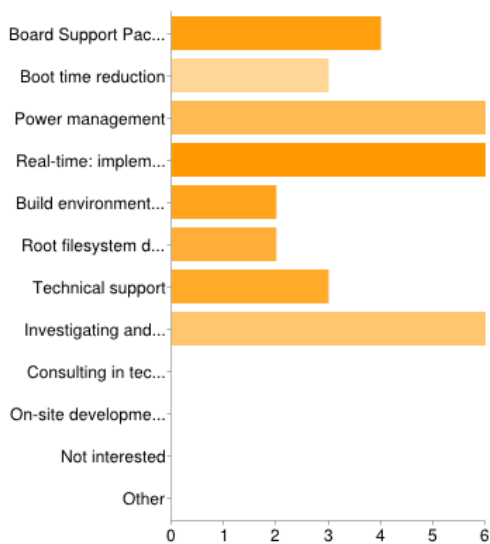
Board Support Package development: make Linux / Android support your new hardware	**4**
Boot time reduction	**3**
Power management	**6**
Real-time: implementation and bug fixing	**6**
Build environment deployment and support	**2**
Root filesystem design and development	**2**
Technical support	**3**
Investigating and fixing bugs	**6**
Consulting in technology selection and methodology	**0**
On-site development, support and consulting services	**0**
Not interested	**0**
Other	**0**

People may select more than one checkbox, so percentages may add up to more than 100%.

Comments and expectations

It was a really good training. thanks to Chris!   Training similar to this one.   excellent course!, just need to work on labs documentation to generate steps for dummies... at the end add and extra session where students can dedicate to program and reinforce knowledge.   Thanks again!

Number of daily responses