

First European LLVM Developers' Conference



London, 12th-13th April 2012

Opening remarks by Lee Smith, *ARM Fellow and
Director of Technology, System Design Division*

The boring (but necessary stuff ...)

In case of emergency (fire, medical, or other incident ...)

- Emergency exits are signed; use the nearest stairs to the street
- The emergency signal is a siren (*breeeeeeee!*)
- The emergency meeting point is outside the main entrance in *Russell Square* – turn left out of the main entrance towards Barclays Bank
- You can get first aid from the hotel reception
- The UK emergency number is 999 (or 112 from a mobile phone)
 - Fire and rescue services
 - Police
 - Ambulance and paramedical services (all medical emergencies)
- Or, *ask any ARM person*

Some words of thanks

To ARM for underwriting and organizing this event

- To the many colleagues without whose enthusiasm...
- and to the “ARM TV” crew recording the event

To Google and Qualcomm Innovation Center as significant sponsors of this event

To the programme committee who selected papers...

- Anton Korobeynikov, Chandler Carruth, Chris Lattner, David Kipping, Duncan Sands, (*James Molloy, Lee Smith*)

To Chris and Tanya Lattner at Apple, David Kipping at Qualcomm and Chandler Carruth at Google

- For encouragement and practical advice

To you for being here, determined to make the event succeed

What drives interest in LLVM?

ARM is interested because its customers are interested; they are interested by diverse factors including

- A modern, open source code base, much easier to work on than the GCC code base
- OpenCL
- Code generation for proprietary DSP cores
- Absence of GCC-like legacy commitments makes the community less constrained (for now...) than the GCC community
- JIT code generation
- Compared with GCC, Clang provides an easier-to-use framework for building both ad hoc analysis tools and domain-specific languages
- Non-viral licence

LLVM weaknesses we can address

The community's strength and vibrancy in technical diversity is/causes a weakness in focus

- *Challenge:* How to get significantly better focus on key issues without significantly reducing diversity or becoming obstructive...
- *Challenge:* How to ensure that the many worthy developments we see do get subsumed into the mainline...
- *Challenge:* How to accelerate academic/research adoption in the face of an incumbent gcc, SUIF, Open64...

LLVM is currently unsuited to lightweight JIT... More AoT... ☺

- *Challenge:* How to drop the pretence or make it work!

Not a strong enough community around llvm-arm ...

- *ARM and x86 are arguably the most important CPU targets*

What next?

Create a broadly sponsored, independent, annual conference within 3 years (stretch goal: 2014 conference)

- Please tell one of this year's organizers* if you have previous experience of doing this and would be willing to help us

Additionally, we need you to

- Participate with enthusiasm
- Encourage your employers to pledge sponsorship – tell them how worthwhile the conference is!
- Consider whether you could help to organize Euro LLVM 2013 and whether your employer could underwrite it
 - Tell one of this year's organizers if you think you can*...

* By E-mail: Euro-llvm@arm.com, chandlerc@google.com, dkiipping@qualcomm.com

How *you* can help Euro-LLVM 2013 to succeed

- Fill in our questionnaire about Euro LLVM 2012!
 - *And hand it to any ARM person before you leave
(You should at least recognize me and Alice from registration!)*
- Make *your* preferences clear to any of the organizers *before* you leave
 - *If you don't know who we are, ask any ARM person!*

Thank you for listening!

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ΚΟΗΕϚ
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