How to become famous In the little world of OpenFOAM

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Outline I

• Why contribute?

General reasons Egoistical reasons

Q How to contribute General foam-extend

3 Go forth and contribute



Who I am

- ICE Stroemungsforschung
 - CFD-consulting company located in Leoben, Austria
 - Doing OpenFOAM-developments
 - also working with commercial solvers
 - Customers in a number of different industries
- My OpenSource-acrivities
 - swak4Foam arbitrary boundary conditions, evaluations etc without programming
 - pyFoam Library and utilities to control OpenFOAM-runs and work with the results



• Why contribute? General reasons Egoistical reasons How to contribute

 General
 foam-extend

 Go forth and contribute

Innovative Computational Engineering



• Why contribute? General reasons

Egoistical reasons



The spirit of OpenSource

- You get something
- You give something
- Everybody profits

But not everyone goes for that Hippy-crap



• Why contribute?

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Q How to contribute General foam-extend



Show your code

Reasons to share your code

- Because you can
- Because you're proud of it

Seriously:

- Give something back to the community
- Have your code reviewed
 - There is always room for improvement
- Don't have to port it to new versions yourself



Don't let your work be lost

Old story:

- 1 PhD does cool stuff
- @ Graduates
- 3 Gets sucked into the "real world"
- Contrary to his good intentions doesn't find time to properly publish his stuff
 - And nobody at the institute builds on it

Result: Good stuff is lost



1 Why contribute?
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A How to contribute General



Not only code

- Contributing code is not the only way
 - Not everyone has to be a coder
- Almost everyone can contribute
 - **Bug-reports**
 - Validation-cases
 - Help to others
 - Documentation



The Message-Board

- The OpenFOAM-forum found at http://www.cfd-online.com/Forums/openfoam/
 - In existence since there is an OpenFOAM (and even longer)
- Probably the first place you got help
- First place where you can contribute by helping
 - Try the "easy" stuff first (nothing is easy in OpenFOAM)



Bug-reports

- Bug reports help the developers
 - How would they otherwise know that there is a problem?
- Be precise in your reports
 - Versions
 - Supply a simple test-case if possible
- For reports on the OpenCFD-OpenFOAM use http://www.openfoam.org/bugs/
 - Most other projects have their own bug-tracker



The Wiki

- Found at http://openfoamwiki.net/
 - Allows people sharing information about OpenFOAM
 - Lives in Austria
- How to contribute
 - 1 Get an account
 - Start typing
- To be used when a discussion has "settled"



A How to contribute foam-extend 3 Go forth and contribute



What is foam-extend

- Fork of OpenFOAM

 - Used to be called OpenFOAM-ext
- Currently at version 3.1
- Tries to be "open" to user contributions
 - You are credited for your work: Authorship and Copyright remains with the original author
- Guidelines at https://sourceforge.net/p/ openfoam-extend/wiki/HowToContribute/



Next release

- foam-extend will have two releases per year
- Next release will be in December
- Before the release there is a public testing phase
- To allow serious testing there is a deadline on contributions
 - For the next release (probably 3.2) it is the 10th of November



Ways of contributing to foam-extend

Bugfixes Small changes that fix problems with the code

- Send through the bug-tracker
- Core Changes to the actual sources
 - For things that change foam in a fundamental way
 - Will be reviewed and you may be asked to make changes
 - Because it will have to be maintained by the core-developers

Bazaar Separate directory in the foam-extend distribution

- Separate projects that are known to compile with foam-extend
 - All things in the Bazaar-directory can be compiled in one go
 - Currently cfMesh and an FSI-library live there
 - Some of the Bazaar-stuff also works with OpenFOAM/OpenCFD
- Review not as rigorous as these are separate projects
- Have your things distributed with foam-extend but still be the master of your project



Getting your stuff into foam-extend

Not as complicated as it looks:

- 1 get an account on SourceForge.net
- 2 "Fork" the foam-extend
- 3 Pull the git-repository of your Fork
- 4 Create a branch and do your changes on it
- 5 Push the branch back with git
- 6 Issue a "Merge request" with foam-extend
- Have a lively discussion with the maintainers about your branch
- Stuff is merged into nextRelease by the maintainers and you're added to the list of contributors



Important people with release 3.2

Hrvoje Jasak Technical head SO SCHUNG GMDH

Dominik Christ In charge of actually merging things into nextRelease. Deals with the merge requests

Francois Guibault Release manager for this release. Maintains documents. Does the announcements

You the ones contributing



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Go forth and contribute

General

Go forth and contribute



Other places of contribution

- There are other places than the ones described above
 - But it is harder for people to find them
- At least link to your pages on the Wiki and the MessageBoard
 - For instance if you want to keep your project on BitBucket,
 GitHub etc
- If you don't plan to maintain it: try to get it into foam-extend or OpenFOAM/OpenCFD
 - Or at least put it into a place where the server is going to be alive for some years



The "reasons" for not contributing

- "It's not good enough"
 - We can't say if you don't show it to us
- "I want to 'polish' it"
 - · You never will. Trust me
- "I'm not allowed to"
 - Fair reason. But did you ask? Twice?
- "My preciousssss! The filthy Hobbit must never have it."
 - Hard to argue with that. But you're ugly and not a happy person



Don't forget

- You're all smart people: your contributions are useful
- 10th of November is the deadline to get into foam-extend-3.2
 - But there is always a next release
 - And if you have reservations about the extend-people try getting it into OpenFOAM/OpenCFD
- I talked a lot of coding, but there are things as important
 - Validation
 - Documentation dational Engineering
 - etc

