Computational Physics and Methods (CCS-2)
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Jennifer Garner
Director, INCITS Standards Programs
Information Technology Industry Council
700 K Street NW, Suite 600
Washington, DC 20001

Dear Ms. Garner,

I am applying for the position of WG5 convenor and below I discuss my platform as well as my experience.

Platform

The goal of Fortran is to provide a programming language for high performance and technical computing which enables domain experts to program the latest computers and HPC systems with maximum simplicity, portability, and performance, while retaining compatibility with previous versions of the standard. The original mission of Fortran should still be the mission today: enable scientists, engineers, and other domain experts to write programs that naturally express the mathematics and algorithms employed, are portable across HPC systems, remain viable over decades of use, and extract a high percentage of performance from the underlying hardware.

The role of the Fortran Standards Committee is to steward the language and standardize new features that help move towards the language goal, while keeping them backwards compatible so that older codes continue working.

The role of the WG5 Convenor is described in the INCITS Organization, Policies and Procedures document[1], in general the Convenor is "responsible for presiding at meetings and ensuring that the program of work for that body is carried out in a prompt, efficient, and effective manner".

To summarize my platform at a high level, it breaks down into the following bullet points:

- Release on a faster fixed schedule.
- Adopt rules and procedures.
- Prior compiler implementation of new features.
- Be community driven.
- Use meeting time efficiently.

[1] `http://www.incits.org/standards-information/policies`

- Improve meeting logistics.
- Enforce the ISO Code of Conduct.

Let me explain why each point is needed and my plan how to get it done as a WG5 convenor.

Release on a faster fixed schedule. This is one of the most upvoted proposals at our J3 proposals GitHub repository[2]. It fixes two issues: significantly speeds up getting new features into the language and at the same time prevents not well developed features from getting into the language by allowing as much time as needed to discuss and refine each proposal and only accept it when it is ready, without delaying a given standard release. The WG5 convenor can change to this mode of operation and direct the J3 Committee to consider proposals submitted by the community at all times and to help get proposals ready and ship a standard at a given date.

Adopt rules and procedures. The J3 Committee currently does not have a written down set of rules how a new proposal will get reviewed and eventually accepted or rejected. I submitted a draft that many people upvoted of an example of such rules[3], which we can use as a starting point to discuss and agree on a set of operating rules and procedures. The WG5 convenor can help facilitate this process.

Prior compiler implementation of new features. Traditionally the Fortran Committee standardizes many features that do not have a prior compiler implementations and uses the Standard as a driving mechanism to force compiler vendors to implement such features. I propose to reverse the process and rather have a compiler implementation first. The common objection at the Committee is that compiler vendors do not have the time and money to do so. The long term solution is to have community compilers such as Flang and LFortran which would allow such new features prototyping. The WG5 convenor should encourage such efforts. We might not be able to achieve for every single feature to be implemented first, but that is what we should strive for and we should encourage and try to do that.

Be community driven. The Committee should consider and discuss proposals from the Fortran community and focus on community priorities, as outlined by which proposals the community wants to see implemented[4]. In addition each proposal that the Committee considers should have high support at the J3 Github repository. The Committee should not consider proposals that have not been discussed at GitHub ahead of time, or do not have wide support. Furthermore the Committee should work more closely with the wider Fortran community. This fixes a long standing issue that the wider Fortran community sometimes feels (as evidenced by online posts and personal interaction) that the Committee does not listen. I have already started fixing this issue by creating the J3 GitHub repository and encouraging public participation in it, but as a WG5 convenor I could help fix this faster by facilitating the dialog between the Committee and the wider Fortran community. By coming from the outside community, I have first hand understanding of the feelings and frustrations that Fortran practitioners often feel, and at the same time by being on the Committee I understand the background and history why the Committee sometimes operates the way it does and I think I

[2] `https://github.com/j3-fortran/fortran_proposals/issues/36`

[3] `https://github.com/j3-fortran/fortran_proposals/issues/98`

[4] `https://github.com/j3-fortran/fortran_proposals/issues?q=is%3Aissue+is%3Aopen+sort%3Areactions-%2B1-desc`

can help bring the two sides together to work as one community on improving Fortran together and to improve the trust in each other.

Use meeting time efficiently. Currently almost no work is being done between meetings, and then valuable meeting time is used to develop new proposals from scratch and to have design discussions. That is very inefficient. I propose to develop proposals between meetings online at our J3 GitHub repository, discuss all the pros and cons remotely and try to agree on a path forward and polish the proposals as much as possible and also do initial review ahead of time. And use our in person meeting time to focus on review and decision making. I have already been very successful with getting the community to do a lot of work at our new J3 repository, and as a WG5 convenor I would encourage even wider participation of both the community and the Committee.

Improve meeting logistics. Currently we meet in a small room that sometimes does not have enough chairs or table space for all participants, does not have a projector and subcommittees must meet in hotel rooms. Rather, our goal should be to have enough rooms for both plenary and subcommittee meetings, have a projector and telecon equipment available. As a WG5 convenor I would use my contacts in Industry, Academia and National Labs to try to find an affordable facility that would meet our goals.

Enforce the ISO Code of Conduct (CoC). The CoC is a tool to ensure that discussions are healthy and open to everyone. I have a lot of experience with running large open source communities and ensuring that discussions always stay healthy, that there is no abusive behavior, and that new participants feel safe to discuss ideas. As a WG5 convenor I would enforce the CoC and ensure that unprofessional behavior is not tolerated at any meeting.

Some of the above issues are specific to J3 Committee. However, sometimes the J3 and WG5 meetings are held together and furthermore, as a WG5 convenor, I would work with the J3 leadership to help implement the above goals, as I outlined above.

Experience

I am new to the Committee, my first meeting was February 2019. However, all the U.S. committee members know me well by now, I have achieved some little changes such as starting the J3 GitHub repository or getting the Committee to consider community submitted proposals at the plenary meeting. I am a long time Fortran user (15+ years developing in Fortran, 8+ years as my primary language).

I have experience managing large open source online communities of a few projects that I started, such as SymPy[5] (over 15 years, over 845 contributors, 89 students as part of Google Summer of Code, which is a Google internship where I have been responsible for organizing SymPy mentors / students), or SymEngine[6] (63 contributors). I already mentioned in my platform above the J3 GitHub repository[7] that I started. I also started LFortran[8]: a modern interactive LLVM-based For-

[5] `https://sympy.org/`

[6] `https://github.com/symengine/symengine/`

[7] `https://github.com/j3-fortran/fortran_proposals`

[8] `https://lfortran.org/`

tran compiler (129 stars at GitHub). About 8 years ago I started a fortran90.org[9] website for showing the best practices in modern Fortran. Besides these, I am the founding member of fortran-lang.org[10], the Fortran Standard Library[11] and fpm[12] projects and efforts.

In these communities I have successfully achieved a welcoming atmosphere that allows all ideas to be freely discussed and I have many times had to bring different sides together and figure out an acceptable path forward for everybody.

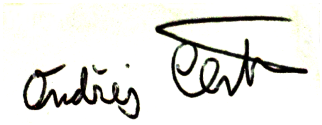
I have a long (over 15 years) experience enforcing the Code of Conduct (CoC), even before CoC became common (I was enforcing an "unwritten" CoC, and when CoC came along, we always adopt one in all the communities that I manage because it greatly helps to clarify in writing what is and what is not an acceptable behavior). In particular my experience is that one must enforce the CoC at the beginning, but once the community learns that unprofessional behavior is not tolerated, the community becomes self sustaining and welcoming to new and old members.

Overall, my management experience from these online communities translates to managing the Committee between meetings, where all interaction must happen online, as well as at meetings, where similar principles apply. For example, in order to get new code merged into an open source project, one must submit a Pull Request (PR) and convince the community that this is a good change that should be accepted. One must react to constructive review/criticism of the PR and as the owner of the project, I must ensure that this process works for all participants (i.e., people submitting the code as well as reviewers / maintainers).

I also have a lot of experience from various hiring and grant committees that I have been on.

Feel free to contact me if you would like any additional information or if you would like to meet (email, phone, video call, etc.) to discuss more.

Sincerely yours,



Ondřej Čertík, Ph.D.
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[9] https://www.fortran90.org/

[10] https://fortran-lang.org/

[11] https://github.com/fortran-lang/stdlib

[12] https://github.com/fortran-lang/fpm