Review: The Compiler, 1952

1) Is the suggested wording of the Plaque Citation accurate?

Ans:
Yes, the wording of the Plaque Citation is accurate. The associated historical facts have been checked against reliable documents (Wikipedia, peer-reviewed journals, and similar sources) and are found correct. The wording also highlights the fitting achievement within the historical epoch it mentioned. The subsequent justifications for the plaque also underpin the wording proposed here. Considering these all, I endorse the proposed wording of the Plaque Citation.

2) Is the evidence presented in the proposal of sufficient substance and accuracy to support the Citation?

Ans:
Yes, I have read the proposal carefully, and it has detailed all the important information that is needed to evaluate the proposal. I have also checked the evidence mentioned in the proposal for its historical accuracy and balanced representation. I checked the quality of the proposal against previous milestones as documented in the IEEE Milestones website (https://ethw.org/Milestones:List_of_IEEE_Milestones), and I found this proposal to be of comparable merit.

3) Does the proposed milestone represent a significant technical achievement?

Ans:
Yes, The contribution of the proposed achievement toward developing modern compilers, as presented in the proposal, is enormous. Translating human-like words toward machine code was a huge leap toward conversing with a machine. While the early development of computing relied on the mathematical abilities of computers, it was largely unaddressed how the interface between a machine and human programmers could be improved. As a result, human interactions with computers were extremely limited to a few scientists, who would spend months to years developing a code that a machine could read. Even worse, any mistake in such a code would mean another delay in the whole process. The invention of the compiler was hence a great breakthrough that brought humans and computers closer and allowed programmers to talk to their machines. The compiler worked as an intelligent interpreter that would translate the human language to a machine code. Hence, humans no longer needed to develop machine codes by themselves; thus, they started saving time and energy at a massive level. This was a huge advancement in the development of modern computers that we use today.

The proposal correctly captures this very important historical moment, and I believe highlighting this contribution is of immense importance to acknowledge the merit of associated scientists in driving contemporary technologies toward their advanced versions. Modern computer science is undoubtedly indebted to them.

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