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### Planner,

[Jonathan Schaeffer's](#) first chess program. When Schaeffer started studying CS at the [University of Waterloo](#) in 1979, he met [Ron Hansen](#), co-author of [Ribbit](#) and [Treefrog](#), who generously gave him a copy of his program, which Schaeffer used to learn how to write a chess program. For his master's thesis, he translated the [Fortran](#) program into the Z programming language (similar to the well known [C](#) programming language), as a code base to implement own [chess knowledge](#) and [long range planning](#).

## Quotes

[Jonathan Schaeffer](#) in [One Jump Ahead](#) <sup>[1]</sup>:

My time at Waterloo greatly benefited from the presence of Ron Hansen. He was author of Ribbit (later called Treefrog), one of the strongest chess programs around. He generously gave me a copy of his program, which I used to learn how to write a chess program... Hansen's program was written in a computer programming language called Fortran. For my master's thesis, I translated it into the Z programming language (similar to the well known C programming language).

Everything I read about chess programs convinced me that they were ignorant; they had little in the way of chess knowledge. Of course, since I knew a lot about chess, it would be a simple matter of translating my expertise into code and voilà, success! I spent a year working on the program, adding as much knowledge as I could to it. The new program, dubbed Planner, failed to live up to my performance expectations. Gradually my enthusiasm began to wane. The chess knowledge that I had added was simple because important concepts seemed hard to program. The machine required a precise specification but my chess knowledge was imprecise. Further, for every piece of knowledge that I added, there always seemed to be an endless stream of

exceptions. This was going to be harder than I thought.

I finished my master's thesis, titled *Long Range Planning in Computer Chess*, and graduated in 1980. <sup>[2]</sup>

## See also

- [Paradise](#)
- [Planning](#)
- [Prodigy](#)
- [Phoenix](#)

## References

1. <sup>^</sup> [Jonathan Schaeffer](#) (1997, 2009). [One Jump Ahead](#). 1. This Was Going to Be Easy, pp. 7
2. <sup>^</sup> [Jonathan Schaeffer](#) (1980). *Long-Range Planning in Computer Chess*. Master's thesis, Department of Computer Science, [University of Waterloo](#)

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