

History of the Chess System Tal

<http://adamscpages.blogspot.nl/2012/07/chess-system-programs-of-chris.html>

The Chess System programs were created by **Chris Whittington** in the 1990's and marketed by his company, Oxford Softworks. Their creation was guided by Whittington's philosophy that encoding knowledge into a chess program is much preferable over fast and deep searches.

The first of these programs (though not the first developed by Whittington; it was preceded by Chess Simulator and ChessPlayer 2150) was **Complete Chess System**. It was released in 1993 for MS-DOS, and later a version was released for Commodore Amiga.

<https://www.myabandonware.com/game/complete-chess-system-2yf>

Next came **Chess System Tal**, written for MS-DOS. A description of the program can be found at ICGA for the 1997 WMCCC tournament:

CSTal is designed to play in the romantic and dangerous style of Michael Tal, famous for his daring and aggressive style of play.

Programmer Chris Whittington has developed a radically different approach to chess programming, concentrating on speculative chess knowledge within the evaluation function; and the use of forward pruning techniques which rely on this evaluation function knowledge.

One effect of using a high knowledge-based approach is that CSTal operates at a nodes per second rate much less than programs with simple evaluation functions. The risks and benefits of this strategy are obvious; on the one side CSTal is able to steer games towards tactical king-attack complexities, and to execute stunning sacrifices. On the other side the disparity in effective search depth means that state of the art search programs will have the advantage if the position does not contain factors where CSTal's knowledge is able to give it the edge.

CSTal's computer-computer games are often very exciting and double-edged, with the result in doubt until the end. It is capable of causing serious upsets to top programs, but also of being seriously upset itself.

In a materialistic world, in the materialistic world of computer chess, Chess System Tal offers the alternative pathway of idealism.

Chris Whittington's philosophy of knowledge over search can be best described by his own words:

It's the search gap. Gettit ? Out of this search gap comes all the naive speculation

and nonsense that gets written. The program has every style and no style, it has no consistency to play against, only materialism, you can't learn from it, tomorrow it will be different (found another mine in the search gap), only the difference is just a reelection of - whoops, trod on another mine. What can you do with such a program? Use the take-back key and try again? - and imagine this helps you improve or learn?

Now, I claim this search gap has no meaning or understanding possibilities for a human. That a human can't relate his heuristics to it. That you can't extract the knowledge out of it and represent it to a human. That you can't even extract the knowledge out of it and represent it to yourself. You can't get heuristics from it. So I call it counting beans - useless for us humans.

Now, take a knowledge program, you can play it and see the play style. You can try and work out what it does and why. There'll be a reason, based on human chess heuristics. The game has plan, and flow, and doesn't consist of hidden minefields. It won't grind you down by search, it will try speculative ideas which it might, or might not, be able to get to work. You can see the speculative ideas, and try them yourself. I think you can, as a human, relate to this type of program. If you know the programmer, maybe you can see patterns into the program that come from him, and so on. I think these types of programs are infused with some force, in so far as any chunk of silicon can be.

I hate materialists.

Chris Whittington

Chess System Tal contained some of the essence of this philosophy. By all accounts its sequel, **Chess System Tal 2** (written for Windows), was this philosophy captured in code. By all accounts, CSTal 2 was a masterpiece as a chess program for humans to play against. Aggressive, speculative, unsound. But, above all, the chess it played was exciting and interesting.