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Blitz <sup>[1]</sup>

**Blitz**,  
the first chess program by primary author [Robert Hyatt](#) and chess advisor [Albert Gower](#) from [University of Southern Mississippi](#). Blitz was a [Shannon Type B](#) program written in [Fortran](#). It played the [ACM 1976](#), [ACM 1977](#), the [WCCC 1977](#), [ACM 1978](#), the [ACM 1979](#) (ran on [UNIVAC 1100/80](#)), until at the [ACM 1980](#) successor [Cray Blitz](#) appeared.

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## Description

[Bob Hyatt's](#) reply to [Christophe Théron](#) on Blitz <sup>[2]</sup>:

Bob, what kind of selection did you use in this early "Blitz"? It was a [forward pruning search](#). Basically searched roughly 6 moves at each ply, to a depth of 5 ply. There was no [capture search](#) after it, just a complex (for the time) static evaluation that also used a [Static Exchange Evaluator](#) to make sure the last move was safe.

The most interesting parts were the following:

1. It had about 30,000 lines of code dedicated to analyzing the set of legal moves at any ply and pick out the moves that appeared to be tactically or positionally promising.
2. It had a "causality analysis" procedure that was invoked at any point in the search where the score dropped. Since I found it hard to recognize I was in trouble and to select moves that would defend against threats that were hard to see from the "other side" I let my tactical analysis find good moves, and if it was successful, at the next ply, after searching a couple of moves and finding that the score was too low, this "causality" facility could look at the PV and figure out what was going wrong and then select moves that had a chance of "fixing" things.

Worked very well, was tactically very dangerous... but made the typical positional mistakes that forward pruning programs do. Entire program was over 80,000 lines of code, however. *\*very\** big, when considering that Crafty is under 40,000 lines with a huge number of comments...

What do you mean by "not even a real quiescence search"?  
I searched 5 plies and *\*quit\**. I did use a static exchange evaluator to determine if the tip moves were safe. This was searching under 100 nodes per second on a machine that was rated at .7 MIPS. This program finished in a 3-way tie for 2nd at the [1976 ACM](#) computer chess tournament, but the following year I was "exhaustive"... :)

## See also

- [Cray Blitz](#)
- [Meteorology](#)
- [Petir](#)

## Publications

- Editor (1979). *Will Blitz be next year's champ?* [Personal Computing](#), Vol. 3, No. 7, pp. 80, July 1979 » [ACM 1978](#), [Blitz 6.5 - Belle](#), Round 4
- [Robert Hyatt](#) (1980). *A Southern Blitz*. [Personal Computing](#), Vol. 4, No. 6, pp. 93

## External Links

## Chess Program

- [Blitz' ICGA Tournaments](#)

## Misc

- [Blitz from Wikipedia](#)
- [The Sweet](#) - [The Ballroom Blitz](#), [Top Of The Pops](#) in 1973, [YouTube](#) Video

## References

1. [^](#) Intercloud lightnings over [Toulouse](#) (France), August 12, 2006, original data by Sebastien D'Arco, Animation by [Koba-chan](#), [CC BY-SA 2.5](#), [Wikimedia Commons](#), [Blitz wikipedia.de](#) (German)
2. [^](#) [Re: Square-of-the-pawn](#) by [Robert Hyatt](#), [CCC](#), January 13, 1998

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