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[Cyrus the Great](#) <sup>[1]</sup>

### **Cyrus 68K,**

a chess program by [Mark Taylor](#) and advisor [David Levy](#) for the [68000](#) (68K) based family of [microprocessors](#). Cyrus 68K, not to be confused with [Richard Lang's](#) earlier program [Cyrus](#), was written by Taylor from scratch in 1985. Richard Lang, like Mark Taylor, affiliated with Levy's and [O'Connell's](#) company [Intelligent Software](#), already focused on [Psion](#) at that time, had abandoned Intelligent Software, and was about to work for [Hegener & Glaser](#) on [Mephisto](#).

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## **Photos & Games**



[Mark Taylor](#), [Kevin O'Connell](#) and [David Levy](#) with [Cyrus 68K](#) vs. [Nona](#), [WCCC 1986](#) <sup>[2]</sup> <sup>[3]</sup>

```
[Event "5th World Computer Chess Championship"]
[Site "Cologne, Germany"]
[Date "1986.06.15"]
[Round "5"]
[White "Nona"]
[Black "Cyrus 68K"]
[Result "1-0"]
```

```
1. d4 e6 2. e4 d5 3. Nc3 Bb4 4. e5 Ne7 5. Bd2 Nf5 6. Nf3 Be7 7. Bd3 Nc
6
8. Be3 Nxe3 9. fxe3 Nb4 10. Be2 c5 11. O-O Nc6 12. Na4 c4 13. Nc3 Kf8
14. e4 Ke8 15. Rf2 h6 16. exd5 exd5 17. Qd2 Bf5 18. Nd1 Nb4 19. Ne3 Be
4
20. b3 cxb3 21. axb3 h5 22. Ng5 Bxg5 23. Qxb4 Qe7 24. Bb5+ Kf8 25. Qxe
7+
Kxe7 26. Re1 Ke6 27. c4 Raf8 28. cxd5+ Bxd5 29. Nxd5 Kxd5 30. e6 Be7
31. Rxf7 Rxf7 32. exf7 Bb4 33. Rd1 Rf8 34. Be2 h4 35. Bc4+ Kd6 36. Rf1
Bc3
37. Rf4 Rh8 38. f8=Q+ 1-0
```

## SEX

Cyrus 68K was Intelligent Software's testbed for the [SEX Algorithm](#), to apply [fractional extensions](#) and [reductions](#), most notably already a kind of [LMR](#), considering forced [tactical moves](#) such as [checks](#), [captures](#), [mate threats](#) determined by [Mate at a Glance](#), as well as [killer moves](#) and early [non-tactical moves](#) and from a evaluated and sorted [move list](#) with a lower [depth](#) decrement than later non-tactical siblings.

Excerpts from *The [SEX Algorithm](#) in Computer Chess* 1989 <sup>[4]</sup> :

Later we designed a [68000](#) program called **Cyrus 68K**, written by one of us ([Mark Taylor](#)), which evaluated and sorted all the moves from a node

being expanded: we used these evaluations to determine the SXDEC for moves that were non-tactical. An obvious way to accomplish this is to assign the "best" (i.e., highest-scoring) non-tactical move a low SXDEC and to determine the SXDEC values for its non-tactical siblings on the basis of the difference in score among them.

...

A second generation of the search extension algorithm was developed during the period 1985-1988. Many of the original ideas were used but we tried to eliminate certain obvious deficiencies and to make the intelligence in the program more sophisticated. We came up with a number of new ideas and tested them in a [68000](#)-based program called **Cyrus 68K**. In general the results were rather encouraging, and we now feel that there is no longer a need to be shy about our work, hence the revised acronym for the algorithm and the renaming of the key variables to SEX and SEXDEC.

## The Sphinx

Cyrus 68K was commercially available as the [Sphinx](#), a [dedicated chess computer](#) under the brand name [CGX](#), and manufactured by [Eric White's Newcrest Technology Ltd., Hong Kong](#) <sup>[5]</sup> <sup>[6]</sup>.

## See also

- [Cyrus](#)
- [Legend](#)

## Publications

- [David Levy](#), [David Broughton](#), [Mark Taylor](#) (1989). *The SEX Algorithm in Computer Chess*. [ICCA Journal](#), Vol. 12, No. 1, pp. 10-21

## External Links

- [Cyrus 68K' ICGA Tournaments](#)
- [The chess games of Cyrus 68K \(Computer\)](#) from [chessgames.com](#)
- [CXG Electronic Chess Computers](#) from [The Spacious Mind](#)
- [Chess Computers - The UK Story](#) from [Chess Computer UK](#) by [Mike Watters](#)
- [Cyrus IMAP server from Wikipedia](#)

## References

1. [^](#) Illustration from "[Illustrerad verldshistoria](#) utgifven av [Ernst Wallis](#). Volume I": Relief of Cyrus, 1875. [Cyrus the Great from Wikipedia](#), not to confused with his grandfather [Cyrus I](#)
2. [^](#) [Chess Computers - The UK Story](#) from [Chess Computer UK](#) by [Mike Watters](#)
3. [^](#) [Cologne 1986 - Chess - Round 5 - Game 7 \(ICGA Tournaments\)](#)
4. [^](#) [David Levy](#), [David Broughton](#), [Mark Taylor](#) (1989). *The SEX Algorithm in Computer Chess*. [ICCA Journal](#), Vol. 12, No. 1, pp. 10-21.
5. [^](#) [CXG Electronic Chess Computers](#) from [The Spacious Mind](#)
6. [^](#) [CXG](#) from [Schachcomputer.info Wiki](#)

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