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Aron Nimzowitsch <sup>[3]</sup>

### **Nimzo,**

a chess program by primary developer [Chrilly Donniger](#), subsequently supported by members of the [First Vienna Computer Chess Club](#) (Nimzo Werkstatt) concerning [testing](#), [chess knowledge](#), [opening book](#) and hardware. The program was first dubbed *Nimzo-Guernica* in remembrance to [Aron Nimzowitsch](#) and as manifest of Chrilly's [Anti-war](#) engagement <sup>[1]</sup>. It had its tournament debut at the [3rd Computer Olympiad 1991](#) and further played the [DOCCC 1991](#) and [IPCCC 1991](#). At the [WMCCC 1993](#), Nimzo-Guernica aka Nimzo-2 upset [Mephisto Gideon](#) <sup>[2]</sup> and later winner [Hiarcs](#) to lead the pack after five rounds, and finished strong fourth despite 1.5 points out of the last four rounds.

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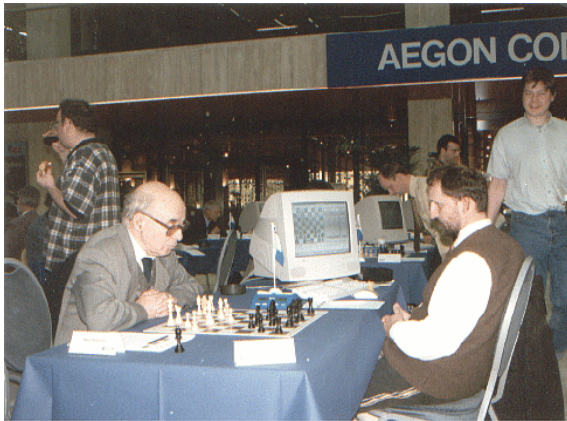
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## Photos



[David Bronstein](#) playing Nimzo by [Chrilly Donninger](#), [Johan de Koning](#) kibitzing, [Aegon 1997](#) <sup>[4]</sup>

## Nimzo-3

Guernica and Nimzo-2 were leaf evaluators to spent 60 to 70 percent of its time in [evaluation](#). The main design criterion for Nimzo-3 was combining the positional play of Nimzo-2 with the [tactical](#) strength of a program like [Fritz](#). Nimzo-3 therefor became a [Genius](#)/Fritz like program with a complex root evaluation <sup>[5]</sup>, called [Oracle](#) as proposed by [Hans Berliner](#) <sup>[6] [7]</sup>, and which seems to have been first used by [Kaare Danielsen](#). The oracle approach with very simple, mainly first-order evaluation terms at the leaves, made Nimzo-3 to spent about only 10 to 20 percent on leaf evaluation, yielding in an increased node rate of 400%.

## CHE

The [CHE](#) and CHE++ declarative language for expressing chess knowledge using a [GUI](#) was used to incorporate [planning](#) features within the oracle used <sup>[8]</sup>.

## Commerce

During the [WMCCC 1996](#), Nimzo was still amateur, but soon went commercial as [MS-DOS](#) program Nimzo 3.5 and the [Windows](#) program Nimzo 2000 distributed by [Weiner's Millennium 2000 GmbH](#), later released as [Chess Engine Communication Protocol](#) compliant engine WBNimzo. Nimzo98, Nimzo99 were native [ChessBase](#) engines, followed by Nimzo 7.32 and Nimzo 8 and its derivation [Schweinehund](#) <sup>[9]</sup> <sup>[10]</sup>.

## Description

given in 1999 from the [ICGA](#) tournament site <sup>[11]</sup>:

Nimzo is one of the leading professional chess programs. It combines sound positional play with extremely strong tactics. Nimzo-Paderborn is a considerable improved version of the currently commercially available programs Nimzo98, Nimzo99 and Nimzo2000.

Nimzo-Paderborn [learns](#) automatically from human grandmaster games. It is also equipped with an own Chess-Advice-Language (Che++) which allows strong human players to formulate chess-knowledge. The program can also access in its search [endgame databases](#). It therefore searches regularly from the middlegame into won endgames.

## Forward Pruning in Nimzo 2.2.1

Following [forward pruning](#) code appears in Nimzo's 2.2.1 search routine <sup>[12]</sup> applied at [frontier nodes](#), notably the aggressive [Lang](#) mode at pre-pre-frontier nodes or below. The source was published along with a foreword by Donninger in 2002 <sup>[13]</sup> :

```
if((depth <= 1) && (!extflg) && (score > beta) && (GPtr->hung.w <=
KNIGHTHUNG)) {
    return score;
}

if(LangModus) {
    if((depth <= 3) && (!extflg) && (score > beta) && (GPtr->
hung.w == 0)) {
        return score;
```

```
}  
}
```

## See also

- [Brutus](#)
- [Chess legends](#)
- [Hydra](#)
- [Hydra 97](#)
- [Nimzo's winning white-black bug, WMCCC 1993](#)
- [Schweinehund](#)

## Publications

- [Chrilly Donninger](#) (1992). *The Relation of Mobility, Strategy and the Mean Dead Rabbit in Chess*. Heuristic Programming in Artificial Intelligence 3: the third computer olympiad (eds. [Jaap van den Herik](#) and [Victor Allis](#)), pp. 102-111. Ellis Horwood Ltd., Chichester, UK. ISBN 0-13-388265-9
- [Chrilly Donninger](#) (1993). *Null Move and Deep Search: Selective-Search Heuristics for Obtuse Chess Programs*. [ICCA Journal](#), Vol. 16, No. 3
- [Thomas Mally](#) (1993). *PC Power in Braille - Nimzo Guernica: Ein PC-Schachprogramm für Blinde*. [PC Schach](#) 3/93 (German) <sup>[14]</sup>
- [Chrilly Donninger](#) (1996). *CHE: A Graphical Language for Expressing Chess Knowledge*. [ICCA Journal](#), Vol. 19, No. 4

## Forum Posts

- [NIMZO 3 ist out now!](#) by [Tom Kerrigan](#), [rgcc](#), July 15, 1996
- [Re: NIMZO 3 ist out now!](#) by [Peter Schreiner](#), [rgcc](#), July 19, 1996
- [Re: Nimzo3 - playing strength?](#) by [Helmut Weigel](#), [rgcc](#), August 04, 1996
- [NIMZO 3 !](#) by Komputer Korner, [rgcc](#), December 01, 1996
- [Re: computer chess "oracle" ideas...](#) by [Andreas Mader](#), reply to [Ronald de Man](#), [rgcc](#), April 7, 1997
- [Re: Any word on future Nimzo plans](#) by [Andreas Mader](#), [rgcc](#), March 22, 1998
- [Nimzo 8 and piece values](#) by Matthew Barnett, [CCC](#), January 05, 2001
- [Nimzo Engines of Millenium Chess System](#) by [Norbert Raimund Leisner](#), [CCC](#), June 08, 2016

## External Links

- [Nimzo's ICGA Tournaments](#)
- [The Campbell Report - Computer CC Challenge Match](#)
- [Nimzo 2.2.1 Source Code](#) hosted by Roger Thormann
- [Aron Nimzowitsch from Wikipedia](#)

- [Guernica \(town\) from Wikipedia](#)
- [Bombing of Guernica from Wikiepedia](#)
- [Guernica \(painting\) from Wikipedia](#)

## References

1. [^ Bombing of Guernica from Wikiepedia](#)
2. [^](#) With the help of a sign bug in [passed pawn](#) evaluation, see [Chrilly Donninger \(1999\)](#). *Computer machen keine Fehler*. [CSS](#) 2/99, [pdf](#) (German)
3. [^ Aron Nimzowitsch from Wikipedia](#)
4. [^ David Bronstein](#) vs. [Nimzo](#), Photo by [Thorsten Czub](#) from [Aegon 1996-97](#)
5. [^ Chrilly Donninger \(1996\)](#). *CHE: A Graphical Language for Expressing Chess Knowledge*. [ICCA Journal](#), Vol. 19, No. 4
6. [^ Hans Berliner \(1987\)](#). *Some Innovations Introduced by Hitech*. [ICCA Journal](#), Vol. 10, No. 3
7. [^ Hans Berliner \(1989\)](#). *Some Innovations Introduced by Hitech*. [Advances in Computer Chess 5](#)
8. [^ CHE docs in English / Nimzo 3 version](#) by Mike S., [CCC](#), November 22, 2001
9. [^ Re: Versions of Nimzo](#) by Shep, [CCC](#), December 12, 2000
10. [^ Re: Nimzo 4](#) by [Manfred Meiler](#), [CCC](#), November 19, 2002
11. [^ Nimzo's ICGA Tournaments](#)
12. [^ Nimzo: sr.c: search-tree handling](#) hosted by Roger Thormann
13. [^ Vorwort von Chrilly Donninger](#) (German) hosted by Roger Thormann
14. [^ Braille from Wikipedia](#)

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