Alexander: The Chess Engine for Everyone

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# Your perfect ally: from beginner to grandmaster

Alexander is not just a chess engine: it is your companion on the journey to mastery. Unlike neural network implementations, which are often impenetrable even for Grandmasters (GMs), Alexander uses a **classic evaluation function** , which provides transparent and understandable gameplay. This makes it ideal for all levels, from beginners to advanced players who want to improve their game.

However, Alexander is not intended to replace the human being: as in other sports, where match analysts help but do not replace the intuition and creativity of coaches, Alexander is an **essential tool** , but not a substitute. In chess, the importance of a human instructor remains fundamental, but technology, today more than ever, is an **essential support** to understand the nuances of the game and progress quickly.

# Handicap Mode: Tailored training for every level

Alexander introduces a realistic **handicap mode** , which does not simply reduce the engine strength, but simulates the level and thinking of a human player. With advanced options, you can customize Alexander to suit your exact needs:

## UCI\_LimitStrength

Activate the handicap mode, using only the classic evaluation function. This choice guarantees a realistic and easily interpretable game.

## UCI\_Elo

Inspired by the levels of the Soviet chess school, Alexander adapts his game to your Elo:

* **Beginner** : < 2000 Elo
* **Intermediate** : 2000–2199 Elo
* **Advanced** : 2200–2399 Elo
* **Expert** : ≥ 2400 Elo

Each level uses a dedicated, increasingly refined rating function to provide an authentic and challenging gaming experience.

## Handicapped Depth

The depth of calculation is modulated based on the Elo level, simulating the thinking of a human player. For example:

* Elo < 2000: maximum depth between 1 and 6 moves.
* Elo 2000–2199: maximum depth between 7 and 9 moves.

This ensures a realistic workout, eliminating the frustration of dealing with a “perfect” engine.

# Avatar Player: Your Chess Alter Ego

**Handicapped Avatar Player** feature , Alexander not only adapts his strength to your level, but also replicates the typical imperfections of human players. This makes every game a realistic and rewarding experience.

## Avatar Files

By uploading an .avt file describing your playing profile, Alexander becomes your chess alter ego. With our proprietary tool, you can automatically generate the avatar file by analyzing your games, allowing Alexander to replicate your playing style and even your mistakes.

Furthermore, thanks to our **Virtual Trainer** , Alexander does not just simulate an opponent: he verbally explains your mistakes to you, just like a human instructor would, offering clear and immediate feedback.

[Player Card Example](https://github.com/amchess/Alexander/blob/main/examples/PlayerCard.xlsx)

[Avatar Example](https://github.com/amchess/Alexander/blob/main/examples/Avatar.avt)

# WDL Model: a transparent and objective evaluation

Alexander uses the revolutionary **WDL Model** , which provides a position assessment based not only on the current score, but also on the match history and overall material. This model ensures a balanced analysis, avoiding overly mechanical assessments and providing useful indications to improve your understanding of the game.

# The marriage of artificial intelligence and human creativity

Alexander represents the perfect balance between the rigor of artificial intelligence and the irreplaceable creativity of the human being. Like a match analyst in football who supports coaches with precise data and analysis, Alexander is your ally in identifying patterns, errors and opportunities for improvement. But at the basis of progress remain your intuition and your talent: Alexander is a tool, not a substitute.

# Why choose Alexander?

* **Beginners:** A patient and understanding coach who guides you step by step.
* **Intermediate Players:** A human-like opponent that allows you to learn from your mistakes.
* **Pros:** An advanced tool to hone your game with precision.
* **Grandmasters:** The ability to combine neural networks for high-level challenges.

Alexander makes every game a unique experience, giving you the opportunity to grow as a player and have fun in the process. Technology is the future of chess, and Alexander is proof of that: a powerful, accessible and indispensable tool for every player.

**Discover Alexander and revolutionize your approach to chess, today!**