

PGN Opening Tree Viewer

User Handbook

Features, workflow and reference — updated edition

A browser-based tool for building interactive opening trees from PGN game collections. All processing runs locally in the browser; no server upload is required.

Document type	User handbook (updated)
Tool file	pgn-tree-viewer.html
UI language	English
Runs in	Modern web browser (offline-capable)

1. Introduction

The **PGN Opening Tree Viewer** is a single self-contained HTML file. Open it in a web browser, load a PGN file, choose a player and colour, and the tool builds a position-based opening tree with statistics, a chessboard, figurine notation, and a list of games that reached the current position.

Everything runs **locally**. The chess library and piece graphics are embedded, so the tool works offline.

1.1 Typical uses

- Study a player's opening repertoire from a personal or downloaded PGN database.
- See which moves were played most often and how successful they were (score from the player's side).
- Inspect the concrete games that reached a given position.
- Browse the tree with mouse clicks on the board and the move table.

1.2 What it is not

- Not a ChessBase .ctg book editor or converter.
- Not a chess engine: it does not evaluate positions beyond statistics from the loaded games.
- Not an online service; it is a local single-page application.

2. Requirements

A modern browser (Chrome, Firefox, Edge, Safari, etc.) and the file **pgn-tree-viewer.html**. No installation. The system file dialog may still use the OS language; all in-page labels are English.

3. Quick start

1. Click **Choose file...** and select a .pgn or .txt file. Distinct player names are scanned automatically.
2. Type a player name or pick one from the suggestion list (see §5).
3. Choose **Black** or **White**.
4. Optionally set **Max. plies** (default 40, range 4–60).
5. Click **Build tree** (centred under the controls).
6. Explore: click moves in the table, use the board (left = back, right = only-move forward), or the notation path under the table.

4. Controls

Control	Purpose
Choose file...	Select a PGN. Custom English button (avoids OS-localised file-picker wording). Shows the file name.
Player name	Substring filter with autocomplete from all White/Black headers in the file. See §5.
Player colour	Black or White only (same row as Max. plies). Sets which side the player must have played and the score perspective.
Max. plies	Maximum half-moves stored from the start of each game. Default 40 .
Build tree	Parses the PGN, filters games, builds the tree. Button is centred.

5. Player names and encoding

5.1 Matching rules

- **Case-sensitive**: “Heyl” does not match “hey!”.
- **Whitespace ignored**: spaces are stripped on both sides before comparison.

- **Substring:** the query only needs to appear inside the header name after stripping spaces.

5.2 Autocomplete

After a file is loaded, all distinct White/Black names are listed with game counts. Typing filters the list; click an entry or use arrow keys and Enter to select. Escape closes the list.

5.3 Character encoding (umlauts)

Many European / ChessBase PGNs are Windows-1252, not UTF-8. The viewer detects invalid UTF-8 and falls back to Windows-1252 so names such as Müller, Schröder, or Jörg display correctly. UTF-8 files still work as usual.

6. Main view

6.1 Summary bar

Shows total games in the filter, the player name, and the colour.

6.2 Chessboard

- CBurnett-style SVG pieces (same family as Lichess); no rank/file coordinates so the board can be larger.
- Width follows the content area (up to about 640px), square aspect ratio.
- **Orientation:** with Black selected, White is at the bottom; with White selected, the board is flipped (Black at the bottom).
- **Left half click:** go to the previous position (one move back), if any.
- **Right half click:** if the move table has **exactly one** move, that move is played.

6.3 Move statistics table

Lists every move played from the current position in the filtered games, sorted by frequency. Uses **figurine notation** (Unicode piece symbols; white/black symbols by side to move). Example: 1.e4, 1...c5, 2.♞f3, 2...♞c6. Castling remains O-O / O-O-O. Pawns have no piece symbol.

Column	Meaning
Move	Figurine SAN with move number. Click to advance.
N	Number of games that played this move from the current position.
Score	(wins + ½ draws) / N × 100% from the selected player's side. Green ≥ 55%, amber mid, red ≤ 45%.
Year	Most recent year (from the Date tag) this move occurred.
Avg opp.	Average opponent Elo from WhiteElo/BlackElo tags when present.

There is no W–D–L column; wins/draws/losses are only used internally for the score.

6.4 Game notation path

Shown **below the move table**, starting with **Start**, then continuous notation (e.g. 1.e4 c5 2.♞f3 e6). No arrows. Each token is clickable to jump back to that point in the line.

6.5 Games in this position

Expandable panel under the notation path. Lists White – Black, result, and date for every game that reached the current position (count should match Σ N of the move rows). Sorted by date, newest first.

7. Score calculation

- Black selected: 0-1 = win, 1-0 = loss, 1/2-1/2 = draw for the player.
- White selected: 1-0 = win, 0-1 = loss, 1/2-1/2 = draw.
- Score % = (wins + 0.5 × draws) ÷ N × 100.

8. How the tree is built

Positions are keyed by a normalised FEN (placement, side to move, castling, en passant). Transpositions share one node. **Only the main line** of each game is used: comments {...}, variations in parentheses (...), NAGs, and results are stripped before moves are applied. Max. plies cuts each game after that many half-moves from the start.

Moves are validated with the embedded chess.js library. Parsing prefers strict SAN, then a sloppy fallback (strict-first avoids a known issue where sloppy-only mode rejected legal pawn captures such as bxc5).

9. Navigation summary

Action	Effect
Click move in table	Advance to the position after that move.
Click left half of board	One move back (previous position).
Click right half of board	If exactly one move exists in the table, play it.
Click Start / a move in the path	Jump to that point in the current line.

10. Tips for large files

- Building from thousands of games may take a few seconds; wait for the green status message.
- Use a distinctive name substring if several players share a surname.
- If no games are found, check case, colour, and that the PGN contains that player.
- Lower Max. plies for a quicker shallow overview; raise it (up to 60) for deeper lines.

11. Limitations

- Nested variations and annotations are discarded; only the main line is imported.
- Average opponent Elo needs WhiteElo/BlackElo tags.
- Year uses the first four digits of the Date tag.
- Does not export ChessBase .ctg files.
- Board orientation is fixed to the colour rule in §6.2 (no separate “always White at bottom” toggle).

12. Troubleshooting

Symptom	What to try
Please select a PGN file first	Use Choose file... until the file name appears.
Please enter a player name	Name field must not be empty; use autocomplete if needed.
Please select the player's colour	Choose Black or White (not the placeholder).
No games found	Check case-sensitive name, colour, and PGN contents.
Broken umlauts in names	Reload the latest HTML; encoding auto-detect should fix Windows-1252 PGNs.
Tree ends too early	Increase Max. plies; ensure you use the current version (move-parsing fix for pawn captures).
Chess library failed to load	Reload the page; the library is embedded and should not need the network.

13. Technical notes

Single HTML file with CSS, application JavaScript, embedded chess.js, and inline CBurnett SVG pieces. No external CDN. File contents stay in browser memory for the session; closing the tab discards the tree.

End of handbook. Open [pgn-tree-viewer.html](#) in your browser to use the tool.