User’s Manual

Chess Forge is a Windows desktop application designed to aid in chess training of players at different proficiency levels.

It allows the user to conveniently browse games and workbooks in a number of views combining it with computer engine analysis, testing their knowledge in a battle with the computer, bookmarking positions for further study et cetera.

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# Terminology

**Workbook** a set of variations (a variation tree) used by the program at any given time. See the next section for details.

**Line** a single variation with no forks (i.e., no alternative moves at any point).

**Board** a chess board

**Position** the setup of the pieces on the board together with the dynamic attributes like the right to castling, en passant capture etc.

**Move** this is an ambiguous term that may refer to a *ply* (a move by one side, White or Black) or to both White’s and Black’s plies together e.g., when giving the number of moves in a game. Where practical we will refer to a move made by one side as a ply.

**Ply** a move made by one side, either White or Black. In some contexts, it may be referred to as *half-move*.

**Chess Engine** an application or a library generating moves in response to receiving a *Position* or a complete game’s move sequence as input.

# Workbooks

Chess Forge reads and presents ***Workbooks***. Workbooks record chess variations and are treated as study units in the program. A Workbook can be thought of as a variation tree or a chess game with comments and side lines.

A Chess Forge workbook is a file containing a tree of variations. In the simplest case, it is just a chess game with optional commentary.

A Chess Forge Workbook is stored as a text file in a format that is an extension of the popular PGN format.

Chess Forge can read standard PGN files so they can be used as input Workbooks. After a training session, it will save them, with any additional data from the training, in its extended PGN format in files with the .chfrg extension.

The CHFRG format adds some non-PGN headers (e.g., for the title of the workbook), the ability to start the workbook at any position (using the FEN format to define it) thus making it possible to produce workbooks for studying middle game and endgames rather than just the openings and also some Chess Forge specific tags.

# Usage Modes

Once the user has opened a Workbook, there are 3 modes in which the program can be used:

1. Manual review
2. Play against the computer engine
3. Training

## Manual Review

The user can browse through all the lines from the Workbook on the main chess board, using any of the available views.

### Workbook view

The main view, called simply “Workbook”, displays the complete variation tree in a way similar to how traditional chess books would show it.

Graphical user interface, text

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### Table view

The “Table” view, behind it in the tabbed view, has all the lines flattened, shown one per row.

Table

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### Active Line view

The is always one selected line in the Workbook. We will refer to it as “Active Line”. In addition to being highlighted in the Workbook and Table views, it is also shown the Active Line view.

Graphical user interface, application

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## Play against the computer engine

With a simple selection in the context menu, the user can switch at any point, from the manual review to a game against the computer.

The game will start with the computer responding to the move currently selected in the Active Line view.

The program will then wait for the user to make their move, respond with the chess engine’s move etc., continuing the game until it ends technically (e.g., by checkmate) or the user stops it.

## Training

The Training Mode is the key differentiator of the Chess Forge software.

The user selects a training position (or let the program select one) and tests his memory as well as skills against it.

In the training mode, the user makes move for one side, White or Black, with the program makes moves for the other.

After making a move, the user gets feedback on whether the move was in Workbook, together with any comment that may have been included.

Note that at this point, the program makes no evaluation of the quality of the move, just advices the user whether it was found in the Workbook. However, the user can request such evaluation for the move as well as for other moves included in the Workbook.

If the user’s move is not in the Workbook, the user will be advised accordingly, and the program will automatically perform the evaluation.

The basic usage of Chess Forge is to open a PGN file and review the Variation Tree from it.

* Manual replay, move by move
* Auto replay
* Evaluate Move
* Evaluate Line

# Evaluation

When a move evaluation is in progress, clicking on another move will cancel not impact the process and a request for a new evaluation will not be accepted. The user would have to explicitly cancel the evaluation first.

However, changing the Active Line will cancel any evaluations in progress. The user will receive a warning.

If a line evaluation is in progress, the user will be asked whether to cancel it.

Active Line

Selected Move

Elements of the GUI

Main Board

Main Board Notes

Active Line View

Workbook Text

Workbook Table

Bookmarks

# Technical Notes

## Changing Application Modes

### Manual Review -> Game vs Engine

GUI updates:

* The main chessboard changes its color
* The Active Line view is hidden, replaced by the Game Line view. The Game Line view shows the moves leading to the position the user chose to start the game from and then updates it as the game progresses.

### Training -> Game vs Engine

GUI updates:

* The main chessboard changes its color
* The Training Line view is hidden, replaced by the Game Line view. The Game Line view shows the moves leading to the position the user chose to start the game from and then updates it as the game progresses.

### Game vs Engine -> Manual Review

If the Game mode was entered from the Manual Review mode, upon exit, the App will return to that mode.

GUI updates:

* The main chessboard changes its color back
* The Active Line view is shown, replacing the Game Line view.
* The Active Line view will have the move from which the game started selected. There is no need to preserve the state of the game (any save/update actions would have taken place before exiting the game mode).