



COLUMNISTS

*ChessBase
Cafe*

Steve Lopez

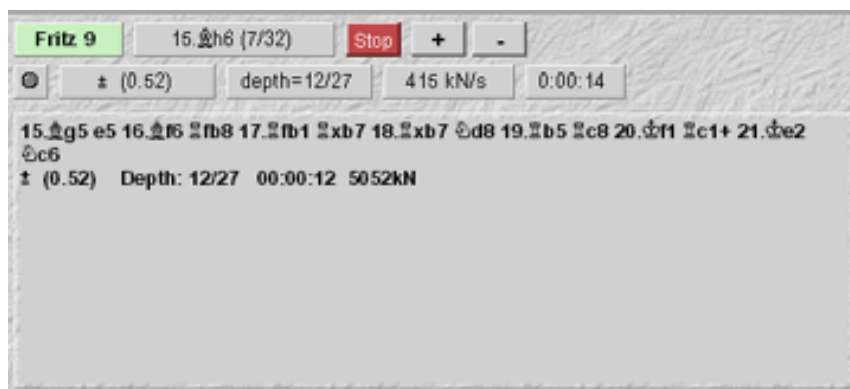


Fritz 9 Engine Displays

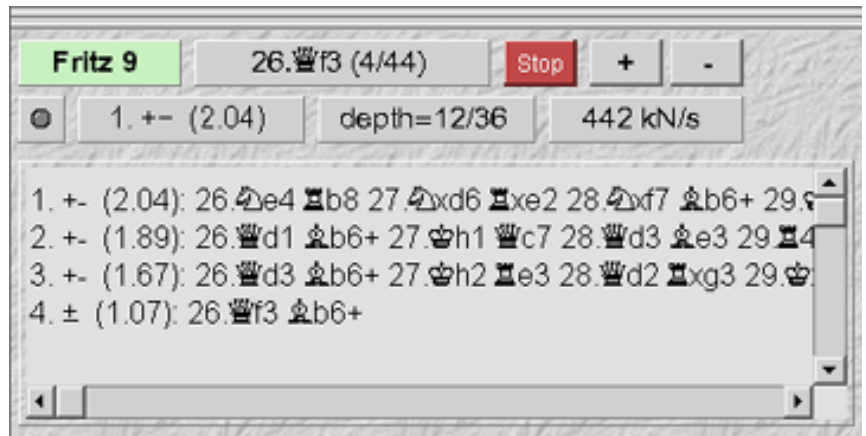
This month's column was prompted by a user question regarding the additional engine displays in *Fritz* and the other chess engines offered by ChessBase.

"Wait a minute!" I can already hear you saying. "*What* other engine displays?"

To fully understand these displays, you might first want to review the [January 2006](#) column, in which we examined each individual element contained in the basic engine analysis pane in the *Fritz* "family" of playing programs:



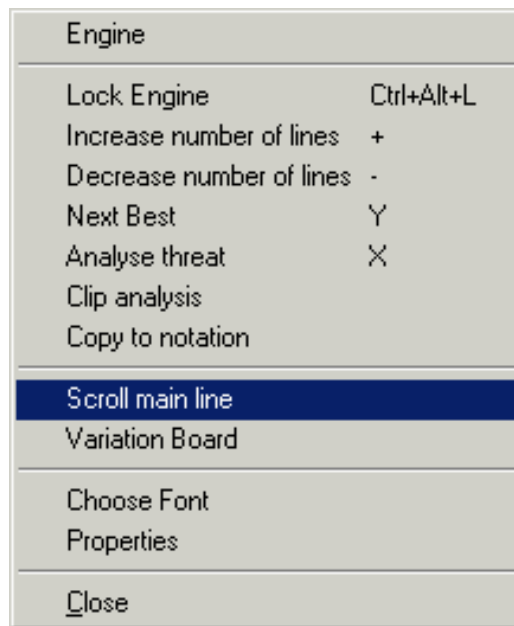
The reason I called this a "basic" display is that only one line of play is shown. But, as was briefly mentioned before, the "plus" and "minus" buttons allow you to increase or decrease the number of lines shown in the analysis pane:



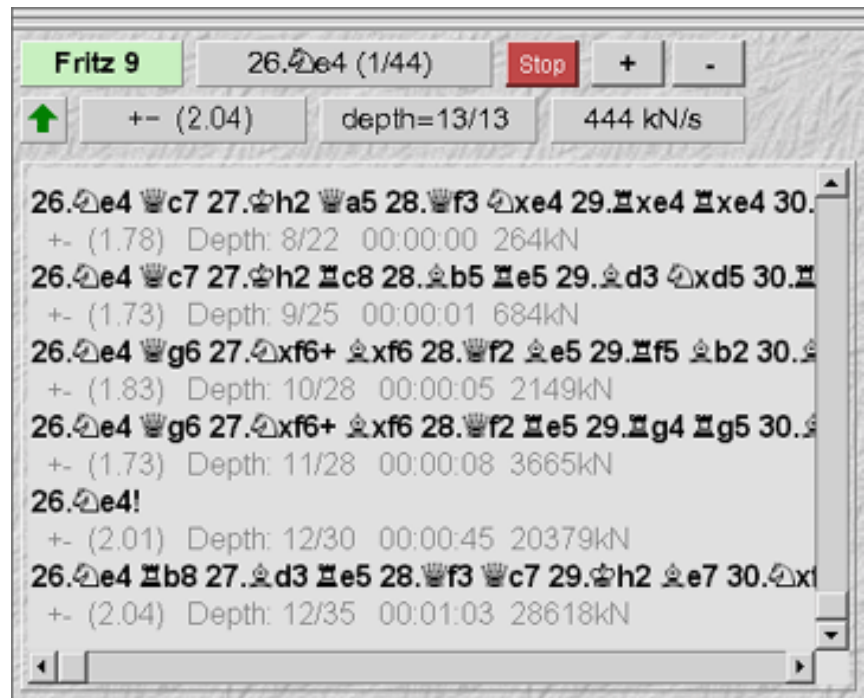
In this illustration from a different position, we've increased the number of variations *Fritz* is displaying to four. The lines are ranked from best to worst, following the best line of play for both sides. Since there are forty-four possible moves for White (indicated by the number to the right of the slash in the "4/44" at the top of the display), we could theoretically drag the analysis pane's top border upward to enlarge it vertically, and display all forty-four variations. However, displaying all the lines will slow the engine's computational ability and thus slow the search progress. In practice, it's generally best to only display three or four lines, unless you have a special reason for doing otherwise; for instance, if there's a particular move you have in mind and you want to see how it ranks in the overall list.

In the above illustration, we see that *Fritz* is partway through its twelfth ply (it's searched eleven half-moves, or five and a half moves ahead, and is now examining variations twelve plies deep). The variation starting with 26.Ne4 looks to be the best for White so far, giving him an advantage of just over two pawns. The second best move being analyzed is 26.Qd1, while the third best is 26.Qd3, both of which score higher than one and a half pawns, with a winning position for White. But the fourth best move, 26.Qf3, drops *Fritz's* evaluation to just over a pawn, when White is only slightly better.

However, there's yet another type of engine display that can give us some interesting information about *Fritz's* "thought process," and will display how *Fritz* "changes its mind" as it looks deeper into a position. To use this display, you **must** begin with the single best variation displayed in the engine analysis pane – otherwise the "scrolling" engine display isn't available. So, if you've been following along using your *Fritz* program, go ahead and use the "minus" button to reduce the number of variations displayed to just one. Next, right-click in the engine analysis pane to get a popup menu containing various commands:



Select the command “Scroll main line,” as shown in the above illustration. The next time you start Infinite analysis mode, you’ll see a display that looks like this:

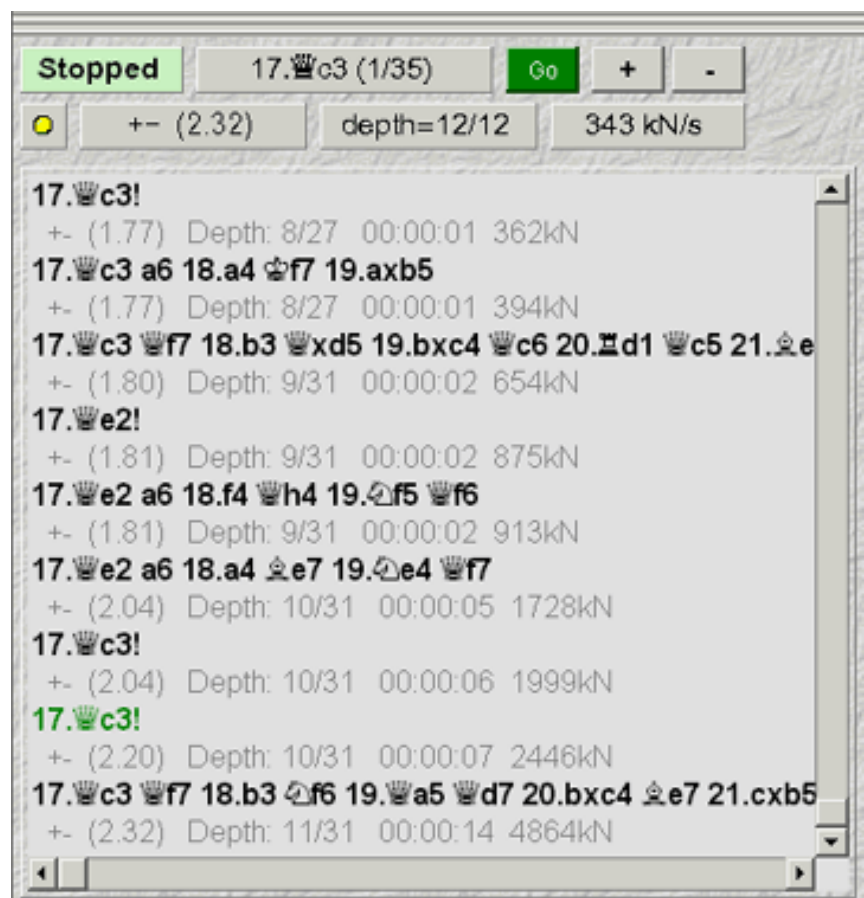


I’ve dragged the top border of the analysis pane upward so that we can see more of *Fritz*’s analysis. The difference between this display and the one first pictured in this article is that *Fritz* is showing the best variation it finds **without replacing the prior best line of play**. In other words, as *Fritz* updates its analysis and revises its “opinion,” it’s still letting us see what it thought previously.

In this example, we see that *Fritz* still thinks 26.Ne4 is the best move, but we get some interesting information about each step in the process. After an

eight-ply search (done almost instantaneously, as indicated by the “0:00” for the time spent up to that point, in which it analyzed 264,000 positions), it thought that 26.Ne4 gave White a 1.78 pawn advantage. By the time eleven plies were completed (in eight seconds, in which the program evaluated 3,665,000 positions), *Fritz*’s evaluation dropped to 1.73 pawns for White. There are two entries for the twelfth ply: an initial one and a slightly later one, in which things have become clearer to the engine, thus the variation has been extended to show moves for both sides. By this time, White shows a healthy two pawn advantage. It took *Fritz* just over a minute to arrive at this evaluation, during which time it numerically quantified more than 28,000,000 positions.

A look at another position will show us how *Fritz* changes its mind as its search depth increases:



Here we see that *Fritz* thought 17.Qc3 was White’s best move on the eighth ply. Partway through the ninth ply, *Fritz* revised its opinion and thought 17.Qe2 was best. Then, during its ten-ply deep analysis, the engine switched back to 17.Qc3 and, a wee bit later, saw a big swing in its analysis (possibly because of a major combination), which is why one of the moves is displayed in green. Seven seconds later, it revised its evaluation and the text on the screen returned to the normal black color, but we see that White still has an advantage of about two and a third pawns.

Right-clicking again in the engine analysis pane will display a new

command: “Scroll new moves only.” This modifies the scrolling view, so that instead of displaying a new line at each additional ply, a new line will be added to the display only when *Fritz* finds a new idea that causes it to change the starting move of the variation.

To turn off the scrolling analysis and return to the original basic view, just right-click in the engine analysis pane and select “Scroll main line” again.

The special analysis display can provide an interesting glimpse into an engine’s thought process, which is especially useful in games pitting two chess engines against each other.

Returning to the “basic” analysis display (in which just the single best line of play is displayed without the updated scrolling analysis), there’s a useful graphic display that is also available to you. Right-click in the engine analysis pane and select “Variation board,” you might have to resize the engine analysis pane to display it properly:



This variation board will initially display the board position being analyzed. But the “VCR” buttons below the board will allow you to play through the variation that *Fritz* is displaying in the engine analysis pane (i.e. the best line of play for both sides). You can step forward and backward through the moves without disturbing the position on the main chessboard. This also avoids copying the line into the Notation pane as a replayable variation to the main game.

Until next month, have fun!

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All the ChessBase software described by Steve in this column, as well as many more ChessBase programs, are available in the [ChessCafe Online Catalog](#).

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