Computing

Format of the Wthor database

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General information

The base of Wthor is original PC / Intel. Also, the Are Word and Longint data stored in Intel format, ie the least significant byte in front.

On your mind

All files in the Wthor database Have a 16-byte header, followed by a certain number of Number of records all of the same size. The header consists of the following:

Wording	Size	Type
Century of creation of the file	1	Byte
Year of creation of the file	1	Byte
Month of file creation	1	Byte
File creation date	1	Byte
N Number of records $_1$	4	Longint
Number of N $_2$ records	2	word
Year of the parties	2	word
Parameter P $_1$: game board size	1	Byte
P Parameter $_2$: Type parts	1	Byte
Parameter P $_3$: depth	1	Byte
X	1	(Reserve)

- The first 4 bytes represent a signature To avoid the overwriting of a file by a more Ancient. For this purpose, the programs must An update to the directory (or folder) other than By a system copy.
- The number of records N $_1$ stores the number of Parts (file of parts) or positions (file of Solitaires) in the file. It is 0 for the files of Players and tournaments. The number of records N $_1$ Is limited to 2 147 483 648 parts per year for The parties' files, to 2,147,483,648 positions for the Solitaire files.
- The number of N $_2$ records Stores the number of Players (file of names of players), tournaments (file Of tournament titles) or the number of empty Solitaire file in the file. It is worth 0 For the parts files. The number of records N $_2$ is limited to 65535 for labels and tournaments Names of players, to 64 for solitaire files.
- The year of the games is 0 in the player files, Tournaments or loners.
- The parameter P $_1$ (in a file or parts

Part files on 8x8 board

Name of the file: WTH _ ####. WTB
Each record (68 bytes) contains:

Wording	Cut	Type
Tournament Label Number	2	word
Player number Black	2	word
Player number White	2	word
Number of black tokens (actual score)	1	Byte
Theoretical Score	1	Byte
List of shots	60	Byte []

- There is a file of parts per year. In a file Of parts, these are stored in a certain order. Conque, but normally grouped by tournament.
- The #### of the file name is the year number.
- The theoretical score contains the score (in number of Pawns) of the Black player on a perfect finish. This final Is calculated on the position where the number of empty cells Is equal to parameter 3 (depth). For example, for A depth of 22, the perfect finale begins at Shot 39, that is, once the shot 38 has been played.
- The list of moves starts at the hit 1.f5.
- Strokes are stored in the chronological order of the Part in the following format: number lines and co- From 1 to 8 and perform the operation => column + (10 * line). Ex: a1 = 11, h1 = 18, a8 = 81, h8 = 88.
- File size in bytes: 16 + 68 * N $_1$.

Part files on board 10x10

Name of the file: WTH _ ####. WTD
Each record (104 bytes) contains:

Wording	Cut	Type
Tournament Label Number	2	word
Player number Black	2	word
Player number White	2	word
Number of black tokens (actual score)	1	Byte
Theoretical Score	1	Byte
List of shots	96	Byte []

- There is a file of parts per year. In a file Of parts, these are stored in a certain order. Conque, but normally grouped by tournament.
- The #### of the file name is the year number.
- The theoretical score contains the score (in number of

Solitary) indicates the size of the game board:
0: standard game board 8x8
8: standard game board 8x8
10: game board 10x10
It is 0 in all other cases.
- The P_2 parameter is 1 in solitary files, and 0 in all other cases.
- The P_3 parameter (in a parts file) indicates the Depth for which the theoretical score is calculated (the Value 0 is equivalent to the value 22 for files After 01/01/2001).

Pawns) of the Black player on a perfect finish. This final Is calculated on the position where the number of empty cells Is equal to parameter 3 (depth). For example, for A depth of 22, the perfect finale begins at Shot 75, that is, once the shot 74 has been played.
- The list of shots starts at the hit 1.g6.
- Strokes are stored in the chronological order of the Part according to the following format: numbering the lines and co- From 1 to 10 and perform the operation => column + (12 * line). Ex: a1 = 13, j1 = 22, a10 = 121, j10 = 130.
- File size in bytes: $16 + N_1 * 104$.

Solitaire files on 8x8 board

Name of the file: SOLITAIRES _ ##. PZZ
The solitaires are interesting positions of finals Extracted from the base of Wthor in which the player Having the trait a, with each stroke, a single stroke leading to the Gain or null on the perfect sequel. All the solitaries Of the same file have the same number of empty boxes, Indicated in the header and ## of the file name.

Following the 16-byte standard header of the Wthor base, each 8x8 solo file includes one Secondary header of 512 bytes constituted as follows:

Wording	Size	Type
Time table	512	Longint

The time table is an array of 64 long integers in which all inputs are 0, except the N_2 eme that contains the number of records N_1 of the file. This Time table allows a consistency check the information read in the main header: N_1 is the number of lonely and N_2 the number of empty boxes for Lonely.

Each record (36 bytes) is constituted as follows:

Wording	Size	Type
Year of the Solitaire	2	word
Tournament Label Number	2	word
Player number Black	4	Longint
Player number White	4	Longint
Position	16	Byte []
Number of empty boxes	1	Byte
Trait	1	Byte
Solution Score	1	Signed Byte
1st shot of the solution	1	Byte
Score of the game	1	Byte
Blow 25 of the game	1	Byte
X	2	(Reserve)

- The position is stored line by line, with 2 bytes per line. Byte 0 encodes the boxes a1-d1, byte 1 the boxes e1- H1, etc., to the octet encoding the cells e8-h8. In Each byte, the color of each cell is coded by the Following bit combination:
Empty box: 00
Black pawn: 11
White pawn: 10
- The line is worth 1 for Black, 2 for White.
- The score of the solution contains the score, in difference Of pawns with his opponent, of the player having the The position of the solitaire, on a perfect finale.
- The first shot of the solution is stored according to the Matte: number the rows and columns from 1 to 8 and Perform the operation => column + (10 * row).
- The actual score of the game contains the actual score (in Number of pawns) of the Black player in the game of which Extracts the solitary.
- The coup 25 of the part contains the one that took place in The part from which the solitaire is drawn, if the part appears in The Wthor base. It is stored in the following format: Numbering rows and columns from 1 to 8 and performing The operation => column + (10 * row). It contains 0 if Information is not available.
- File size in bytes: $16 + 512 + 36 * N_1$.

Tournament Label File

Name of the file: WTHOR.TRN
Each record (26 bytes) is an array of Characters terminated by a binary zero. The useful length Is 25 characters.
File size in bytes: $16 + N_2 * 26$.

Player Names File

Name of the file: WTHOR.JOU
Each record (20 bytes) is an array of Characters terminated by a binary zero. The useful length Is 19 characters.
File size in bytes: $16 + N_2 * 20$.