Crossfire

By Christian Freeling

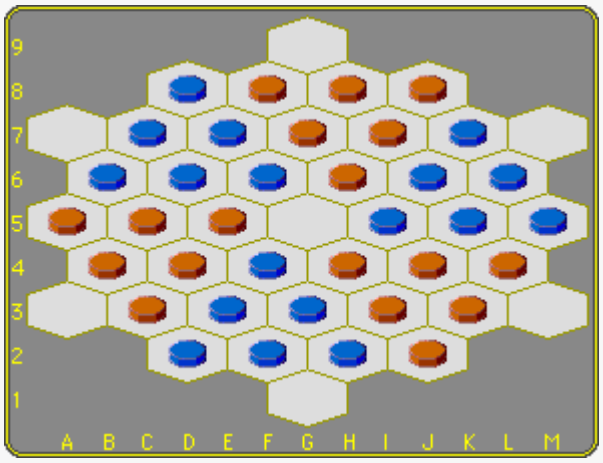
Crossfire is derived from Sid Sackson's game *'Focus'*. It's predecessor features rather capricious tactics, involving the building of stacks of men, and Crossfire follows suit.

Yet, apart from the obvious difference of Focus being played on a square grid and Crossfire on a hexagonal one, there's one big difference: in Focus the 'capacity' of every square - the maximum stack it will hold - is five men. Any stack surpassing this number is reduced to five by taking the excess from underneath, whereby the opponent's men are captured, and friendly men are kept as 'reserves' that may be re-entered on the board.

In Crossfire the capacity of a cell *equals the number of adjacent cells*! Corners will hold at most a stack of two, sides at most three or five, and cells of the inner area at most six.

This gives rise to a strategy not possible in Focus: moving big stacks onto 'low-capacity' cells, corners in particular. This way considerable numbers of prisoners can be made and reserves created on fixed target cells. In Focus for instance one can never make prisoners, nor create reserves, by moving a stack onto a vacant square. In Crossfire, moving a stack of five onto a vacant corner renders three men. This fixed element makes Crossfire more of a strategy game than its predecessor.

Rules



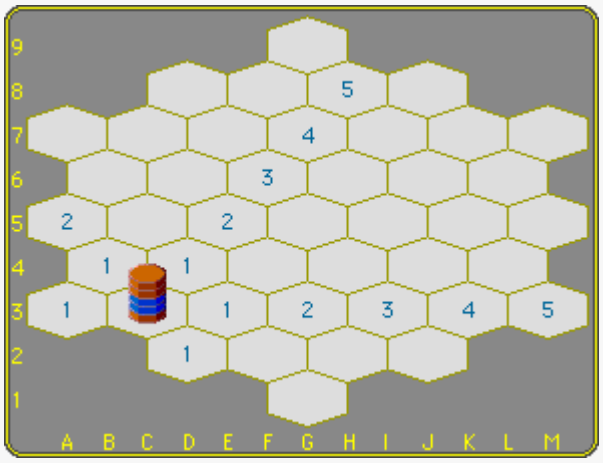
If there's mention of men and pieces, a man is single, while a piece consists of a number of stacked men. If the difference doesn't matter, a man may also be referred to as a piece, for instance 'the number of pieces on the board'.

Object

- If a player has no legal move he loses the game.

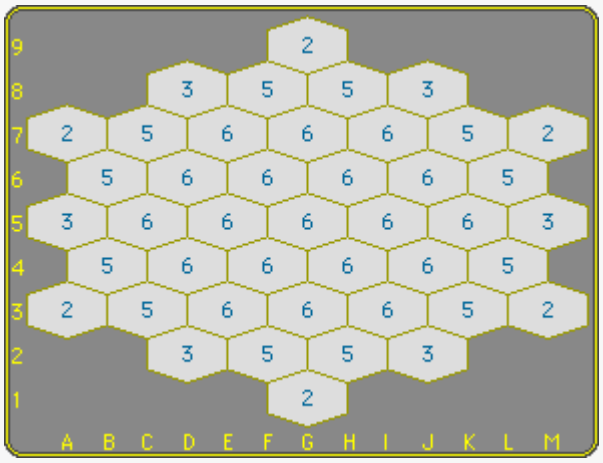
The diagram shows the board with the pieces in the initial position. The coordinates of a cell can be found by looking along the ranks and alternating files to obtain the letter and number.

- There are two players, 'black' and 'white'.
- Players move, and must move, in turn. White moves first.
- A piece consists of one or more stacked men. It may be composed in any way. The top man determines its owner. Players move only their own pieces.
- A move consists of either:
  - picking up the piece - or any number of top men of the piece - and *moving it the number of cells equal to the number of men that are moved*, in one of the six main directions.
    It does not matter whether, or by whom, the target cell is occupied.
  - entering a 'reserve' on any cell (except if excluded by the ko rule).
    It does not matter whether, or by whom, the target cell is occupied.



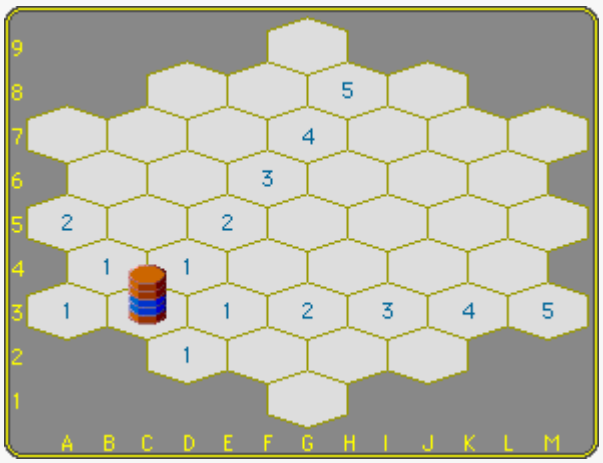
The diagram shows white's options for the piece of five - he may move ...

- the top man onto any of the cells marked '1'.
- the top two men onto any of the cells marked '2'.
- the top three man onto any of the cells marked '3'.
- the top four men onto any of the cells marked '4'.
- the whole stack onto any of the cells marked '5'.



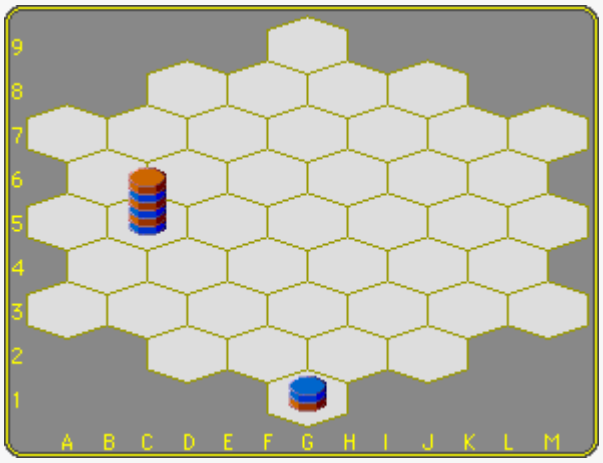
The capacity of a cell

- The maximum height of the stack it will hold equals the number of its adjacent cells. The diagram gives the capacity of every cell.
- If a player's move results in a stack surpassing the capacity of the cell it occupies, then the player must *remove the excess from underneath* the stack.
  Friendly men thus obtained become part of the player's reserves.
  Opponent's men thus obtained become prisoners and are removed from play.



Overcapacity

- If you consider once again white's movement options in this diagram, you'll see that moving the entire stack 5 cells horizontally to m3 leads to a stack of 5 on a two-capacity cell, and thus to an 'overcapacity' of three men.
  These three men - two prisoners and one reserve - are removed from under the stack in the same turn. The remainder, a stack of two white men, remains on m3.



The 'ko-rule'

- A player may not create the same position with the same move twice.

This example is not meant to illustrate any strategy, only the mechanics involved. Other pieces, prisoners and reserves have been left out for clarity. Let's assume that white has created a stack of six by moving a white-black-white stack onto a black-white-black one, and that black has next put a reserve on top of a white-black one and removed a reserve from underneath (diagram).
It is now white's turn. If he enters on g1, he immediately regains his reserve, which means that he effectively only reverses the colors of the stack. Now black cannot enter on g1 because he would, with the same move, recreate a position that already occurred!

But black can enter on top of the six, also immediately regaining the reserve and effectively only reversing the colors of the stack. The difference is that white now still can enter on the six. Although he does recreate a position that already occurred, he does so with a *different move* (since he first created the stack by moving a white-black-white stack onto a black-white-black one). Black now of course cannot enter on either stack, though he may do so as soon the position as a whole, which isn't depicted here, has changed.

The ko-rule has been introduced for precisely the type of situation depicted here: even numbered maximum capacity stacks with alternating colors that, by nature, can be reversed while all else remains exactly the same.

Note: the ko-rule equally applies to odd-numbered alternating stacks, though not all remains the same there, because the moving player captures an opponent's man rather than a reserve. That's why no ko-rule is necessary in Focus: the situation sorts itself out by dwindling numbers. Situations involving alternating 5-stacks in Focus and, if at capacity, in Crossfire, may therefore have different tactical implications.