HexaVic

HexaVic is a puzzle game based on the paper puzzle Hexa-Trex attributed to Canadian teacher Bogusia Gierus.

The puzzle comprises a grid of hexagonal tiles containing an arithmetic equation. The equation is formed from one or two digit operands and the operators ADD, SUBTRACT, MULTIPLY and DIVIDE. The left and right sides of the equation are separated by the equality sign. Arithmetic rules of precedence apply, so multiplication and division are applied before addition and subtraction. Each tile contains either an operator, a single digit or equals. A double digit operand uses two tiles. The equation follows a path through the grid such that all tiles are visited once.

HexaVic provides randomly generated equations laid out in random paths through a series of fixed grids. Three levels of difficulty are provided: Easy, Medium and Hard. The level is selected on the introduction screen. The grid is displayed on the game screen along with a menu of controls.

The puzzle always starts with the cursor on the equals sign. The player can move around the grid using a joystick or the keys E,R,T and D,F,G. The player selects the tiles in the solution path using the space bar or fire button. The path must be sequential and fill the whole grid. If the player selects a tile not connected to the last tile selected, the message 'not joined to path' is displayed along with a sound effect. When all tiles in the grid have been selected, the message 'hit return to check' is displayed.

Pressing return checks the player's selected path and

provides a success or failure response. A reduced subset of the controls is displayed allowing the player to try the same puzzle again, choose a new one at the same level, or return to the introduction screen.

Changes of mind can be applied using the controls: Undo (U) which removes the last selection and Clear (C) which resets the the grid to the start.

Help in finding a solution is given by the controls: Hint (H) which moves the cursor to the start of the program's solution, or if no path looks possible, Solve (S) will display the program's whole solution. Note that the program's solution may not be the only valid path. However, a correctly formed equation with equal left and right sides will be accepted as correct.