

Vecset

Introduction

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Overview

Introduction to Vecset

[[Home](#)]

Vecset is a software tool that lets you create multiplayer board games, as well as games with 2D, and ultimately 3D animation. You can log on to [vecsworld.com](#) and play these games with other Vecset users.

Using a built-in scripting language called Vecscript, developers can create almost any game imaginable. These games can then be uploaded to the Vecset web site. Non-programmers can create drag-and-drop board games, and programmers can add functionality to these games.

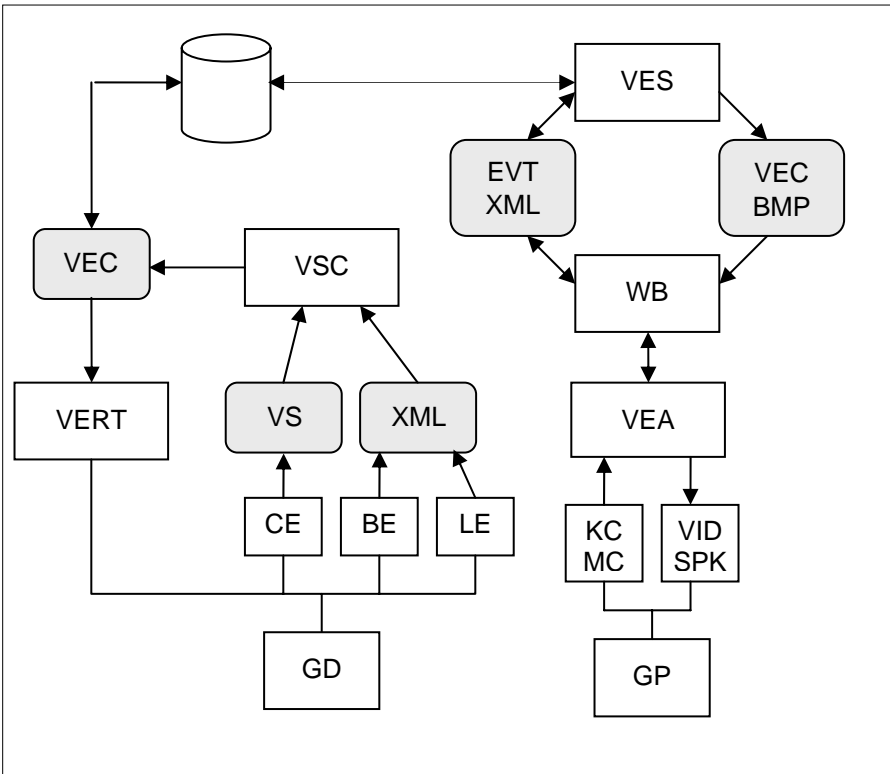
The primary goal of Vecset is to enable both programmers and non-programmers to create games more easily than with a conventional RAD tool such as Visual Basic or Delphi. A secondary goal is to create in Vecscript a simple yet powerful scripting language that is easier for a beginner to master than C#, Java or Object Pascal.

Goals

The all-encompassing goal of Vecset is ease of use. Here are the other goals, in descending order of importance:

1. The income from members, who are charged \$24/year for the privilege of owning Vecset real estate (similar to Second Life), exceeds expenses, such as web hosting fees, enabling VECSworld.com to either break even or make a profit.
2. Non-programming adults and teens can easily use Vecset to create drag-and-drop multiplayer games, without being coached by Vecset gurus and/or tech support.
3. Non-programming high school students and undergraduates can learn Vecscript as a first programming language more easily than any other Graphical User Interface (GUI) programming tool.
4. Programming novices (who are already familiar with at least one other GUI programming tool) can master Vecscript in one month or less, on their own, with little or no coaching from Vecset gurus and/or tech support.
5. Advanced programmers can master Vecscript as easily as falling off the proverbial log, unlike most existing GUI programming tools.
6. A vibrant Vecset community blossoms, consisting of game designers and game players from all around the world.

VECSET Block Diagram



BE	Board Editor
BMP	Bitmaps
CE	Code Editor
EVT	Events
GD	Game Designer
GP	Game Player
KC	Key Clicks
LE	Level Editor
MC	Mouse Clicks
SPK	Speaker
VEA	Virtual Env. Applet
VEC	Virtual Env. Code
VERT	Virtual Env. Run-Time
VES	Virtual Env. Server
VID	Video
VS	Vecscript
VSC	Vecscript Compiler
WB	Web Browser
XML	Extensible Markup Lang.

Board Games

Board Game Codes

This web site describes using Vecset to make multiplayer Scramble, backgammon and bridge. Non-programmers are restricted to No-Code (codeless programming) drag-and-drop type games. Code 1 (Automation) is the easiest type of game programming, which involves automating various aspects of the game-player environment and game-playing process. Code 2 (Move Constraints), or checking for illegal moves, is a little harder. Code 3 (Auto Move), playing against the computer, is the most challenging type of game programming.

No-Code: Codeless Programming (drag and drop)

Code 1: Automation of simple tasks

Code 2: Move Constraints (checking for illegal moves)

Code 3: Auto Move (playing against the computer)

Animation

Low-Level Components

Vecset can be used to make web-based, multiplayer animated games, and these games are coded in a built-in scripting language called Vecscript. Non-programmers can use the Level Editor and the Vector Editor to create simple animated games, and programmers can add functionality to these games.

These low-level components are the basic building blocks of animated games, otherwise known as "atoms."

Coord: Point on screen

Rect: Rectangle

Quad: Rectangle with fill color

Ellipse: Circle or oval

Disc: Ellipse with fill color

Polyline: Set of connected line segments

Shape: Set of connected line segments (polygon with fill)

Bitmap: Rectangular array of pixels (colored dots)

Text: Label containing text

High-Level Components

Vector: collection of atoms and/or other vectors

Window: Rectangular area on screen, static or animated.

User: Game player

Level: Arena containing game action

Game: Collection of levels making up a complete game

In-Progress: Game in progress – web site includes list of these

Event Handling

Keyboard: These events are handled at the user level.

Mouse: These events are handled at the vector level.

Collision Detection: These events are triggered when 2 atoms collide.

Timer: These events are triggered after every N frame changes.

Vecscript

Vecscript Overview

All Vecset games are written in a built-in scripting language called Vecscript. Vecscript is a powerful object-oriented language which is designed with beginner programmers in mind. Pressing the question mark key (?) when in the code editor brings up a popup menu of choices valid in the context of the text cursor position. Optional Structure-Editor mode eases code entry for naïve users. The default operator/operand mode is prefix (operators come before their operands) as opposed to optional infix (binary operators come in between their operands). Vecscript is based on Java, and when infix mode is selected, Vecscript code strongly resembles Java, with a touch of Object Pascal thrown in for good measure.

Language Features

- **Syntax:** Vecscript is a subset of Java, although the syntax differs radically from Java, in that all operators are, by default, prefix (like Lisp) rather than infix, and parentheses are used for grouping.
- **Semicolons:** Statements and declarations are semicolon-delimited.
- **Case:** Vecscript is case-sensitive: the convention for identifiers is all lower case, hyphens being used to separate parts of multi-word identifiers. Class names are an exception: the initial letter is upper case.
- **Keyboard Aid:** When enabled, this feature allows the user to enter a hyphen followed by a lower case letter by typing an upper case letter (but only when the text cursor is in the middle or at the end of an identifier). Alternatively, the user may enter a hyphen by typing a quote ('). Also, commas and periods are immediately converted into parentheses if desired (if the period key is used to enter ')', then the ')' key may be used to enter a decimal point). The user may toggle Code Menu mode by typing slash (/) instead of question mark (?). Keyboard Aid is always disabled inside comments and string literals.
- **Meta-Programming:** Vecscript programs are lists, which can act as data for other Vecscript programs. Structure editor mode lets newbies create simple event handlers without having to know the syntax of the Vecscript programming language.