# Appendix: Game Resources and References

Industry recommended styling guide-line, wherever such best practices exist. Their primary foundation is the jQuery Javascript Style Guide, available under the MIT License. They have adapted extensively from those guidelines, so please read through them facilitate your understanding.

They are influenced by several other style guides too; and although not being fully in accord with KiwiJS programming style, these following recommendations are worthy of review:

- WordPress JavaScript Coding Standards
- Principles of Writing Consistent, Idiomatic JavaScript **By Rick Waldron and contributors** $mdash; a good discussion concerning why "programming styles" matters, and an excellent further reading selection.
- Code Conventions for the JavaScript Programming Language **By Douglas Crockford:** a practical justification for several programming style recommendations, from a perspective that is not necessarily JavaScript oriented.
- Coding in Style **By Thomas M. Tuerke:** an insightful discourse on programming style in general.
- Google JavaScript Style Guide: a thorough programming style guide based on sound decisions and supporting justifications.

## Other Reference Books

- Advanced Game Design with HTML5 and JavaScript **By Rex van der Spuy**
- An Introduction to HTML5 Game Development with Phaser.js **By A K Peters/CRC Press**
- An Introduction to HTML5 Game Development with Phaser.js **By Travis Faas**
- Developing an HTML5 Brick-breaker Game With Phaser **By Jorge Palacios**
- Discover Phaser **By Thomas Palef**
- **FREE 472 pages book!** Game Development for Human Beings Build Cross-Platform Games with Phaser **By Zenva Game Development Academy**
- From null to full HTML5 cross platform game **By Emanuele Feronato**
- HTML 5 Shoot 'em Up in an Afternoon **By Bryan Bibat**

## Game Business Development & References:

1) Google Chrome is officially killing Flash starting next month (2016). Retrieved August 17, 2016
2) Google to push Flash closer to extinction with new version of Chrome (n.d.). Retrieved August 17, 2016
3) Google to block Flash on Chrome, only 10 websites exempt (n.d.). Retrieved August 17, 2016
4) Mind map: What makes a great game. (n.d.). Retrieved August 18, 2016
5) Secrets of the Game Business **By Francois Dominic Laramee**
6) Achievement Unlocked: One Man's Journey In Game Development **By Liam Twose**
7) Game Development Business and Legal Guide **By Ashley Salisbury**
8) Indie Game Development Survival Guide **By David Michael**
9) Game mechanics. (n.d.). Retrieved August 20, 2016,
10) Gamification Design and Implementation * A Starter Kit. Here a sample FREE lesson plan for K-12 teachers.

## Capturing Your Ideas

1) Programming like a Pro Chapter 7, by Charles R. Hardnett
2) The Anatomy of a Design Document, Part 1: Documentation Guidelines for the Game Concept and Proposal. (n.d.). Retrieved August 29, 2016,
3) How (and Why) to Write a Great Game Design Document. (n.d.). Retrieved August 30, 2016
4) Death of the game design document. (n.d.). Retrieved August 30, 2016
5) Game Security:

- http://closure-compiler.appspot.com/home
- https://developers.google.com/closure/?csw=1
- http://dean.edwards.name/packer/
- https://developer.yahoo.com/yui/compressor/
- http://crockford.com/javascript/jsmin

## Game Genre Descriptions & Starter Kits (Mechanics)

## Action Game Starter Kits:

- Making Browser Games Series from Amazon.com.
- Commercial Game Starter Kits

The action genre has been around since the arcade craze. In fact, almost every arcade game is an action game. In action games, players are required to have good reflexes and quick reaction to overcome challenges. The goal of most action games involves quickly destroying an opponent while avoiding being destroyed yourself – all-the-while, the player must press buttons or keys rapidly or in timed intervals to execute attacks and other moves. These games tend to be simpler because they focus on player reaction time. Simplicity is necessary for this game-style because the average brain cannot process too much additional information in a fast-paced environment. Common action sub-genres are shooters, fighting, and platform games. Though most racing/driving, sports, and many simulation games have action-oriented game-play, they can be considered action games only if they specifically emphasize arcade-like, reflex-based game-play.

Action games may include extensive non-violent exploration and/or puzzle-solving, or combine themselves with other genres, e.g. role-playing or driving.

Eye-to-hand coordination is necessary to excel in action games. Quick thinking is often necessary to succeed in action games; however, games that specifically emphasize quick thinking over reflexes are usually better suited towards real-time strategy or puzzle games.

## Adventure Game Starter Kits:

- Making Browser Games Series from Amazon.com.
- Commercial Game Starter Kits

In adventure games, **the emphasis is placed on experiencing a story** as seen by one or more user-controlled characters, often by manipulating them and the environment, they exist in. Adventure games are characterized by general lack of reflex-based game-play found in typical action-arcade games, though they may feature such segments sporadically. The background story can be an automated process or specifically crafted by the developer; either way, it is a "behind the scenes" process that it is invisible to the gamer.

Adventure games initially featured text input and little or no graphics — for example, interactive fiction. Afterwards, graphical adventures became more prominent and text input was replaced by a limited number of icon-based menus with verbal commands.

Two distinct sub-genres of adventure games are **Western-style adventures** (also referred to as puzzle-solving adventure) and **Japanese adventures,** which typically have no puzzles and minimal interaction. Visual novels are traditionally also considered a sub-genre of adventure games.

Action-Adventure is the only a hybrid-genre that has distinguished itself as an accepted genre within its own rights. The action component provides quick, reflexive movements as the character dodges and hunts down enemies – while the adventure component blends in conceptual puzzles and story elements to the game. Pure adventure gamers aren't usually interested in action-adventures because they are used to the slower pace of adventure games.

## Casino Game Starter Kits:

- Making Browser Games Series from Amazon.com.
- Commercial Game Starter Kits & Blueprints here

This genre is the electronic version of popular games of chance. These are extremely restricted by US Federal laws surrounding online casino games and gaming across State's boundaries. I strongly recommend researching legal constraints before releasing anything in this game genre from inside the United States.

## Educational:

- Making Browser Games Series from Amazon.com.
- Commercial Game Starter Kits

Denotes a game specifically designed to educate the player in an area or rehearse a topic for mastery. Usually intended for younger children since their desire to learn is greatest. Educational games offer a fun, indirect way to practice "non-fun" subjects like spelling, math, history, etc.

## Fighting Game Starter Kits:

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This genre includes action games that focus on close-combat fighting, unarmed, or using melee weapons; the emphasis is on executing precise moves (kata, punches, kicks, etc.) when facing opponents who usually use similar tactics against the playable character. Characteristic for these games is reliance on martial art techniques. Fighting games are traditionally divided into two broad categories: Versus fighters and Beat 'em 'ups / Brawlers. Many fighting games are two-person games in which each player controls a figure on screen and uses a combination of moves to attack the opponent and to defend against the opponent's attacks. This genre often presents a 3rd Person side-view perspective.

## Platformers Game Starter Kits:

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These games (aka **platformers**) are **a sub-genre of action games** in which the playing field is set up as a series of planes (floors, levels, or platforms) for the player to navigate in **3rd person**. These focus on players moving quickly through an environment — often jumping and dodging to avoid obstacles, and sometimes collecting items along the way. These games have clearly identifiable and memorable characters that often act as mascots for these games.

Platform games often involve combat but include additional challenges by making navigation hazardous. Often the challenges of overcoming environmental dangers surpass those posed by combat. The player character is usually required to jump over gaps and damage-infliction areas or to access a different platform. In many platform games, the player character is very vulnerable and can die easily from falling, environmental traps, or enemy attacks.

Early platform games (e.g. Donkey Kong) were confined to one screen and required the player character to climb to reach higher platforms. Later platformers, popularized by Super Mario Bros., began to focus on traversing side-scrolling levels, often within an allotted time limit, fending off upcoming enemies and jumping. This style, commonly referred to as jump-and-run, has preserved itself in many later platformers as well.

Other platform games, such as Prince of Persia, emphasize exploration, combat, and problem-solving in addition to the usual platform challenges. Such games have become known as cinematic platformers. This style has had a considerable influence on many 3D platformers (e.g. later Prince of Persia games, ICO, etc.), which incorporate extensive puzzle-solving.

## Puzzle Game Starter Kits:

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Although puzzle elements appear in many game genres, a pure puzzle game focuses on the player solving a puzzle or series of puzzles without controlling a character. There is little or no story surrounding puzzle games, which can be either real-time or turn-based.

## Racing Game Starter Kits:

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This genre encompasses all games in which either driving a vehicle or participating in a race (often both) is a primary gameplay element. Many such games revolve around speed/velocity, i.e. trying to move faster than an opponent to reach a specified goal or beat a specified time. Usually, racing games use vehicles (cars, tanks, motorcycle, powerboat, etc.), but on-foot racing games also qualify. Games in this genre also use various perspectives such as first-person, bird's-eye or third-person. The standard scenario involves the player's vehicle racing one or more opponents on a variety of roads or terrains. Players attempt to make their vehicle move as quickly as possible without losing control of it.

## Rhythm / Music

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Denotes a **sub-genre of action games** whose mechanics are based on the player's command of **timing, audio perception, and reflexes**. The game-play environment uses musical rhythms as timing events to drive gaming events. Examples include Mozart's Music Match: Sight Reading, Parappa the Rapper, Space Channel 5, Frequency, Samba De Amigo, etc.

## Role Playing Game (RPG) Starter Kits:

Role-playing games originated since the dawn of time when children mimic the adulthood roles and behaviors. Modern online Role-playing video games are descendants of pen-and-paper RPGs. In those games, **character development is the main driving gameplay mechanic.** Dungeons' and Dragons molded this child's play into a popular fantasy adventure during the 1970s. Typically one or more characters are created and shaped by the player, then those avatars embark on a series of adventure encounters which increase the inventory, wealth, or combat statistics of those characters. I remember the days when a single night's gaming session was devoted to just character creations.

In RPGs, players take on roles such as various imagined occupations. Once the players' characters are defined exploration into exotic heroic quests follows. A role-playing game is not just simply any game in which the gamer "plays a role", i.e. controls a character and participates in exploration and narrative. Rather, the defining characteristic of role-playing games is **player-dependent character growth**. The distinguishing feature of a role-playing game is: player-controlled characters mature from the gamer's supervision (aka avatars become stronger or "level up"; usually based experience points rewards). This is contrasted to the adventure genre that has an automatic elevation from a story-line plot. The degree of supervision in shaping players' characters may vary considerably: some RPGs offer vast customization possibilities, while other RPGs tend to simplify and even automate the process.

Traditional RPGs have turn-based combat and a fantasy setting (Adventurers of Renown, Wizardry series, Ultima series, Rogue-like, etc.). Later, other settings were introduced, and many RPGs — such as Diablo — began favoring action-based combat. In these games, Action is used as a modifier to the RPG genre.

By the late 1980's, this genre split distinctly into two main sub-genres: Western and Japanese (sometimes called console-style) RPG. Western RPGs normally favor free exploration and player-made decisions, while Japanese RPGs focus on following a linear storyline. Japanese RPGs also tend to keep simple turn-based combat mechanics; and, in many cases, also random enemy encounters.

In many early Western RPGs, the player was given the choice to create an entire party of characters (usually up to six). Ultima games introduced the possibility of recruiting initially non-playable characters (NPCs) with their own personalities from the game world into the party. Beginning with Phantasy Star, Japanese RPGs followed this template and even elevated it to their cornerstone mechanic.

The late 1990s saw an **"RPG revival"** in the West. Fallout greatly expanded the usage of non-combat statistics and moral decisions during game-play, while Baldur's Gate popularized real-time party-based combat.

## Shooters Game Starter Kits:

The shooter action sub-genre focuses on combat between a player and the other characters in the game world--usually in the form of shooting with guns and other weapons controlled by the characters' hands. In **1st person** shooters (FPS), the player has a **1st person** perspective and cannot see his character on screen. The player can see the character's weapons, as well as the other characters in the game. The interactions in an FPS appear to be more inclusive since the **1st person** perspective gives the feeling of being thrown into the game world. A **3rd person** shooter (TPS), allows players to see their characters, along with the rest of the game world--the player has a much wider perspective vision than FPS.

## Simulations

Simulation games are created with the goal of putting the player in control of a certain activity while trying to make it as realistic as possible.

In the strictest sense of the word, all electronic games are simulations, since they cannot exist without simulating aspects of real life. However, simulation genre only includes games that focus (entirely or mostly) on imitating real-life activities. That does not mean that simulation games must be completely realistic; for example, space combat simulation games simulate an activity that is (yet) unknown to human beings. The distinguishing feature of simulation games is their emphasis on realism and details as found to those in real life.

Most simulation games are not story-driven since they concentrate on describing general activities, not concrete situations. Among notable exceptions are Wing Commander games, which combine space combat simulation with a continuous narrative.

Simulation themes vary greatly; theoretically, they are limited only by a number of activities known to human beings. Simulation themes include, for example, traffic networks, medical care, romance, music, and many others.

Simulation games can be roughly divided into five main groups:

- Managerial simulations put the player in a position of a manager or a similar role.
- Construction simulations primarily involve building, for example, cities.
- Life simulations may deal with human life or life in general.
- Professional / Social simulations are dedicated to specific social activities and professions.
- Vehicle simulations allow the player direct control of a vehicle with a certain sense of realism, for example, plane, spaceship, tank, etc.

Simulation can also be used as a modifier for other genres, for example, Strategy (realistic re-creation of historical battles), Racing / Driving (particularly realistic vehicle-handling, tuning, repair, etc.), or Sports (team management, training, trading, etc.).

Suggested Simulations are:

- Flight: Simulation of aircraft flight, usually represented in three-dimensional (3D) graphics.
- Game Show: Simulation of a TV "game show". Examples: The Price Is Right, Family Feud, Wheel of Fortune, etc.
- Helicopter: Simulation of helicopter flight or battle.
- Historical Battle (specific/exact): Any strategy game that recreates, closely mimics, or attempts to show different outcomes of a historical battle or battles. Examples: Gettysburg, Patton vs. Rommel, European Air War, Close Combat 3, etc.

## Sports Games

- Making Browser Games Series from Amazon.com.
- Commercial Game Starter Kits

Sports games put the player in control of individual athletes/competitors or sports managers. In the latter case, the sports game is also considered a managerial simulation. Most sports games are dedicated to popular team sports (e.g. football/soccer) and are action-oriented. A sports game that deliberately favors arcade action over realistic simulation, or adds arcade challenges non-existing in the real-life sport is considered both an action and a sports game. Suggested sports games are:

- Baseball: Simulation of a baseball game, or variant.
- Basketball: Simulation of a basketball game, or variant.
- Bike/Bicycling: Description to come
- Bowling: Simulates the common ten-pin alley experience of bowling.
- Boxing: Simulation (or a close variant) of boxing.
- Cricket: Any game that simulates a cricket match.
- Fishing: Simulation of the traditional hobby of catching fish for sport.
- Football (American): Refers to a simulation of an American football game (for European football, see "Soccer")
- Golf: Simulation of a traditional golf game. (To describe Miniature Golf, combine with the "Arcade" genre.)
- Hockey: Simulation of a traditional hockey game.
- Horse / Derby: Denotes any game that simulates horse racing or "fantasy" betting on horse races, like the Kentucky Derby.
- Hunting: Describes game-play that simulates hunting wildlife or game. Examples: Deer Hunter, Turkey Shoot, etc.
- Motorcycle: Specifically denotes motorcycle or motocross (dirt bike) racing.
- Off-Road / Monster Truck denotes any racing game based on off-road driving conditions or using "monster trucks". Examples: 4x4, Off-road, Monster Truck Madness, Test Drive: Off-Road, Extreme Mountain Bike, etc.
- Olympiad: Represents multiple sporting events in a single game, like the Olympics. Examples: Summer Games, Winter Games, Boot Camp, Ski or Die, etc.
- Paintball: Simulation of a non-violent sport where participants use markers to shoot paint-balls (gelatin capsules filled with paint) at other players, or using the game mechanics.
- Ping Pong/Table Tennis: Simulations of the sport of ping pong/table tennis.
- Pool / Snooker: Denotes any game that simulates the popular bar game of pool (all variations), snooker, or similar.
- Rugby: Game-play mimics the action or managerial aspects of professional rugby.
- Sailing / Boating: Denotes any simulation of piloting or racing sailboats, wind sails, powerboats, etc.
- Skateboarding: Simulation of traditional skateboard racing and stunts.
- Snowboarding / Skiing: Games that have a snowboarding or skiing theme, such as the Cool Boarders series.
- Soccer / Football (European): Simulation of a traditional soccer game.
- Surfing: Simulation of traditional surfing.
- Tennis: Simulation of a traditional tennis match.
- Tricks / Stunts: Denotes game-play where scoring and/or advancement is achieved via performing "tricks" or "stunts". Games in this genre are usually (but not always) sports-related. Common terms for this kind of game are "Action Sports" or "Extreme Sports". Examples: Dave Mirra

Freestyle BMX, Tony Hawk Pro Skater, California Games, Trick-style.

- Volleyball: Denotes any game that simulates volleyball-style game-play.
- Wakeboarding: Simulation of traditional wakeboarding.
- Wrestling: Simulation of "Pro" wrestling.

## Strategy Game Starter Kits:

- Making Browser Games Series from Amazon.com.
- Commercial Game Starter Kits
  In its broad sense, the strategy genre encompasses games that emphasize problem-solving. Thinking and planning are necessary components of strategy; they can be used for such diverse purposes as preparing and positioning (for example, troops gaining an advantage in a war), or figuring out the principle of a puzzle. While adventure games may include puzzles, they focus on following a linear story while occasionally dealing with obstacles rather than being entirely dedicated to problem-solving. Puzzle, chess, and card games fall under the strategy category.

In a more specific (and more common) sense, strategy games refer to a genre that puts the player in command of an abstract power (sometimes an entire nation) or armed force, trying to gain the upper hand in a conflict either through diplomatic means or warfare. Strategy games can be either turn-based or real-time.

Managerial simulations that involve competition with the computer AI are classified as both simulation and strategy games. Strategy war games may also include some role-playing elements.

Strategy game spawned from classic board games in which players manage a limited set of resources to achieve goals. Most strategy games take place in a military setting. Resource management typically includes constructing a variety of building or units; and then, deciding how and when to put them into action. The strategy in these games is based on comparative resources and decisions between opponents. Turn-based strategy (TBS) was the original strategy games in which players alternated move game pieces. The interval between turns lends itself nicely well-thought-out plans. In contrast, real-time strategy (RTS) games incorporate a restrictive time interval; the player is under such time constraints and is often pressured into sufficing management decisions.

## Tower Defense™ — USPTO awarded to COM2US {#tdGenre}

- Making Browser Games Series from Amazon.com.
- Commercial Game Starter Kits

This game genre is **a subset of Strategy Games**. The game board is a simple layout of roads or paths that the game AI antagonist will follow during its attack on the defending human player. The gamer prepares for the game AI's attacks by laying "choke points" and overlapping "killing fields" from their towers' offensive shooting capabilities. The game is typically a "capture the flag"; the gamer attempts to protect his primary objective from AI antagonists waves of onslaughts. Some games include towers that restrict the AI's movement. In all, the gamer is limited to a number of defensive towers during the deployment phase. Gamers are rewarded with more resources, and better offensive or defensive upgrades on their deployed towers.

A>"On June 3, 2008, COM2US Corporation was awarded the trademark for the term "Tower Defense", filed on June 13, 2007 — serial number 3442002. The corporation is reported to have started enforcing the trademark: in early 2010, developers of games on Apple's App Store reported receiving messages requiring name changes for their games, citing trademark violation. Adding the phrase "Tower Defense" (in capital letters) to the description of an app submission to `iTunesConnect` and the app store automatically triggers a warning that the submission is likely to be rejected for use of the term; however, writing the phrase in lower case is still acceptable as "tower defense" is a valid description of a game style."(Wikipedia)

# Artwork Research

- The Animator's Survival Kit by Richard Williams Expanded edition (25 Sept. 2012)
- Free art and sound database
- Sound effects (sfx) generator
- Custom bitmap font generator
- Let's make games directory
- Reiner's Tilesets
- List of Game Artists
- Free Game Art

## Online Tools

- IntelXDK App Builder
- http://www.piskelapp.com/
- https://sketch.io/sketchpad/
- https://fonts.google.com/
- https://color.adobe.com/create/color-wheel/
- https://developer.valvesoftware.com/wiki/Color_Theory_in_Level_Design
- Lessons in color theory
- Picking a color palette for your games artwork
- http://www.pixelprospector.com/color-theory-and-color-palette-editors/
- How not to suck at game design
- http://howtonotsuckatgamedesign.com/2014/11/archives-game-swatch-part-1-2/
- Color theory game design part 1
- Color theory game design part 2
- art direction analysis of arkham city

## Prefabricated Art

- https://opengameart.org/ is a huge site of game tailored 2d and 3d art.
- https://kenney.nl/
- http://oryxdesignlab.com/product-sprites/
- GameDevMarket.net Collection of Music, Sound effects (sfx), 2D/3D/GUI Art
- https://www.reddit.com/r/gameassets/
- http://www.blendswap.com
- http://www.blender-models.com
- http://www.mixamo.com
- http://www.contentparadise.com
- http://www.daz3d.com
- http://www.unity3d.com/asset-store/
- http://www.turbosquid.com
- http://www.cgtrader.com
- http://www.gametextures.com
  - *

### *Where to recruit artists?*

- http://www.polycount.com/forum/
- http://www.reddit.com/r/GameDevClassifieds
- http://www.gamedev.net/classifieds
- http://www.conceotart.org/forumdisplay.php?f=11
- http://forum.deviantart.com/jobs/
- http://www.game-artist.net/forums/employment/

## Audio, Sounds and Music

Listed alphabetically with preference inferred:

- http://8bitcollective.com
- http://ccmixter.org
- http://openmusicarchive.org
- http://www.flashkit.com/soundfx
- http://www.freesound.org
- http://www.jamendo.com
- http://www.nosoapradio.us
- http://www.opsound.org
- http://www.purple-planet.com/
- http://www.soundimage.org
- http://www.stockmusic.net

# Building Your Work Environment

- Google Search for Text Editor for Source Code Development
- How to use browserify to build modular applications. Free handbook.
- Read–eval–print loop: repl.it also known as an interactive top-level or language shell, is a simple, interactive computer programming environment that takes single user inputs (i.e. single expressions), evaluates them, and returns the result to the user; a program written in a REPL environment is executed piecewise.

# Bottom Up Development

1) Programming like a Pro Chapter 8, by Charles R. Hardnett
2) Google Analytics

# Game Distribution Channels

- Cloud Games
- Spil Games
- Playsterr
- Gamefoot — Gamefroot is designed to be efficient, comprehensive and straight forward enough to be **used by schools to teach basic skills in programming and code:** the most important second-language a child can learn.

# Game Elements

- The Animator's Survival Kit by Richard Williams Expanded edition (25 Sept. 2012)
  Google Search: game mechanics list
- Types of game mechanics
- Examples of Game mechanics
- Indie Game Developers' Assistant & Tools

## Maze samples

- Macromedia Flash MX ActionScript for Fun and Games – Gary Rosenzweig (AS2)
- Macromedia Flash 5 ActionScript for Fun and Games – Gary Rosenzweig (AS2)
- http://rosettacode.org/wiki/Maze * Source Code in various languages
- http://www.apolitical.info/webgame/dungeon/sourcecode * web maze generation

## Labyrinth Algorithm References Appendix

- http://rosettacode.org/wiki/Maze_generation
- http://oos.moxiecode.com/blog/index.php/tutorials/
- http://oos.moxiecode.com/blog/index.php/experiments/flash/
- http://www.mazeworks.com/download/index.htm
- http://www.astrolog.org/labyrnth.htm
- http://www.astrolog.org/labyrnth/daedalus.htm
- http://www.mazeworks.com/mazegen/maze_faq

o Maze Creator Software: Features the Maze Creator shareware program by Greg Peatfield.
o One Gram Mazes: A selection of Maze generation shareware programs by One Gram Software, featuring hexagonal, circular, over and under, symmetric, and amorphous Mazes.
o MazeWorks: Race the computer through Mazes, and automatically create Maze levels for the old game DOOM too.
o 4D Maze homepage: Create and try to navigate Mazes in up to four dimensions in this freeware program.
o 4D Maze Game: Four-dimensional Mazes rendered as perspective stereograms, by John McIntosh.
o Mazecast: Create and solve Mazes, including a texture mapped the first-person view, with C source code available. Older versions of Maze programming are here.
o TorqMaze: A Maze making and solving program written in the C# language, with source code available, by Wiktor Zychla.
o Dungeon Generator: Create random dungeon Mazes online or offline, with source code available, by Jamis Buck.
o Maze Builder: Download a Windows executable to draw and move through Mazes of definable sizes, by David Fotland.

o Daedalus: Last but not least, Daedalus is an extensive Windows program; solve, analyze, view, and walk through Mazes.

## JavaScript & HTML

- http://www.astrolog.org/labyrnth/jscript.htm
- https://github.com/englercj/dungen

## Microsoft Office Excel Maze

- http://www.astrolog.org/labyrnth/xlmaze.xls

## Wolfenstein source code

- https://github.com/id-Software/wolf3d
- https://github.com/id-Software MORE!

# Game Construction Tools

## AutoRealm

*AutoREALM* is a free role-playing game mapping program originally made by Andrew Gryc. This program is an excellent mapping program that can design castles, caves, cities, dungeons and more. New developers are more than welcome! Previously, development was using Delphi language. Some attempts to rewrite it in other languages we're done, but currently (since January 2012) there is an attempt or rewrite using those technologies:

- C++11
- wxWidgets 2.9 (will be 3.0 when it will be released)
- openGL
- pluma framework (a fixed version located on bitbucket)

The design of the actual C++ code-base primarily targets clean source code and high modularity of source code, to allow easy reuse of the code and fast learning for people who might join the effort. Current development is located on https://bitbucket.org/bmorel/autorealm However, older repositories are still here in case someone would like to consult them and to allow easy access to algorithms they might contain. Autorealm file format information listing:

C>https://www.rpglibrary.org/software/autorealm/fileformat.html.

Developers or those who would like to compile the source code for themselves may visit the AutoRealm project at SourceForge: http://sourceforge.net/projects/autorealm/. For up-to-date information about AutoRealm, you can join the Yahoo! AutoRealm email group: http://groups.yahoo.com/group/autorealm/.
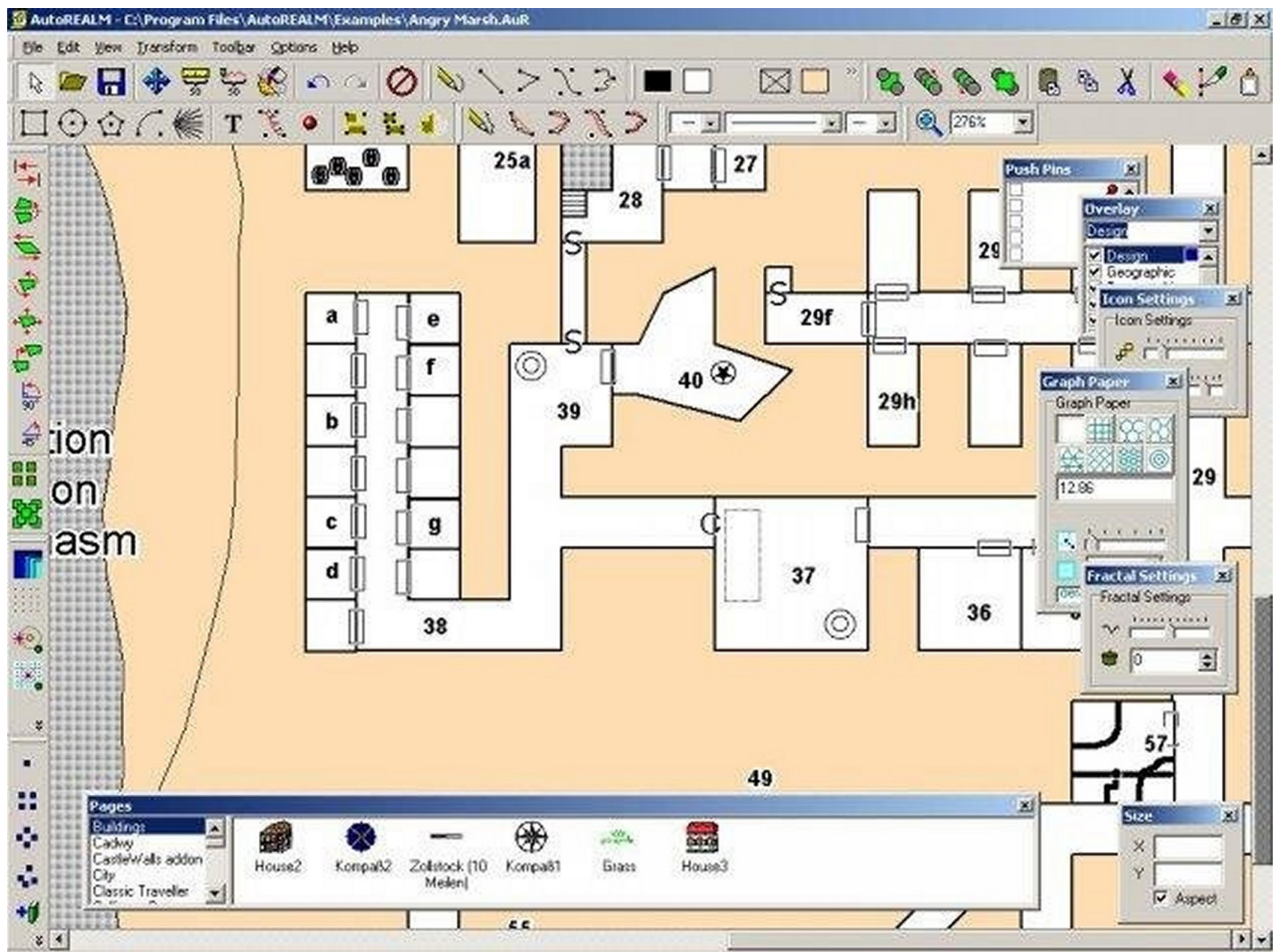
## Deadly Alien Map Editor (DAME)

It is a free multi-layer map editor for Windows, Mac, and Linux operating systems for indie game developers.

DAME (now open source and available at ( https://github.com/XanderXevious/DAME ) is ideally suited to flash games in the flixel framework because its roots originate from the flixel engine. DAME's flexible design works for almost any 2D game engine and provides many features. In fact, it comes with exporters for flixel and flash-punk both excellent free flash game frameworks. It further supports full-object scaling, rotation and dynamic properties assignments facilitate dynamic maps creation! This environment editor features:

- Tilemap editing with real-time parallax scrolling.
- Fully configurable Tile Matrix to make it easy to paint blocks of tiles using the auto-tiling algorithm.
- Matrix magnet to allow you to add auto-tiling to existing maps preserving old tiles.
- Drawing on tiles directly within the editor.
- Reload tilesets changed externally at runtime.
- Move tiles around within the tilemap, and insert and delete tiles * the editor will ensure the maps and data all adjust accordingly.
- Create tile brushes to pastedown over and over again.
- Reload tile map images while in the editor.
- Sprites (animated and from sprite sheets).
- Paths polygons and splines.
- Path instancing and attaching sprites to paths.
- Create links to define custom relationships between objects or set up triggers.
- Textboxes.
- Shapes (box and circle) so you can set up triggers or whatever you want.
- Can write custom exporters using LUA and some DAME functions allowing you to export in almost any format.
- Preexisting exporters and samples for both Flixel and FlashPunk frameworks.
- Help documentation.

- Multi-platform it's made using Adobe Air so it can run on PC and Mac!
- Maps can be resized with the ability to choose the placement of old map (left, right, top, bottom, center), and now maps can be resized and moved around in real-time!
- Can selectively import parts of DAME projects into the current one being edited to allow you to create templates or share data.
- Supports jpg, png, and bmp.
- Custom properties tied to maps, sprites and any object you place down.
- Snap to grid along with guidelines.
- Multiple layers, including grouping.
- Onion skin option.
- Can create image layers to set as a guide image.
- Drag drop to move layers around.
- Layer locking.
- Scaling and rotating.
- Undo, copy and paste.
- Desktop file associations.
- Set coordinates, angle and scale of multiple sprites to specific values.
- Control amount of zoom for the view.
- Search for sprites on a layer.
- Select and move tiles around intuitively.
- Add bookmarks to quickly navigate around huge maps.
- Add sprite trails to automatically populate paths with sprites.
- Select, copy, paste, move, scale your tilemap tiles in real-time.
- Per tile properties.
- Animating tiles.
- Isometric tile maps.
- Stack tiles.
- Choice of themes.
- Rip tile maps from images.
- Share sprite lists with multiple projects.
- Free (for everyone) and regularly updated with new features based on user requests.
- Made using the Flixel framework so it is perfectly suited to flash games!

This game map editor follows the same methods as Tiled; the artwork and labyrinth code are bound into a single black box.

## Mappy Application

Mappy — official website is a free utility for creating flexible 'maps' for 2D and 3D tile-based games. Mappy uses a fairly flexible file format called `FMP`. All the versions of Mappy and playback libraries use the same `FMP` files and are backwards compatible. Comprehensive help is included with the files and you should look at that for more information. Use of Mappy and libraries is royalty free. This environment editor features:

- Single `FMP` file format (0.5) compatible with all versions of Mappy and playback libraries
- User definable MAP file format for compatibility with other systems
- Supports `8/15/16/24/32` bit color modes
- Supports all resolutions
- Imports `BMP`, `PNG`, `PCX` and `TGA` files
- Supports still and animated tiles
- Supports tile sizes of `8x8` up to `128x128`, including non-square tiles
- 30000 tiles, AND 2048 animations available
- Can edit maps with rectangular, isometric, hexagonal and other shape tiles
- Easy to use interface
- Fill (with still/animated blocks, brush (multi-block) and random from brush)
- Lines
- Zoom (1x, 2x and 4x)
- Hotkeys and keyboard shortcuts, inc pick block and next/prev tile
- New, Cut, Copy and Paste
- Brush an area, then draw with it!
- Various playback libraries to use with your games to load and display the FMP map file
- All color depths converting (display 8bit maps on 16bit screens? no problem)
- Import and Export individual components
- Export data as text
- Lua support for expanding functionality with scripts
- Resize map array with re-centering (nice)
- Undo (and Undo-undo :)

- Grid, for easy positioning/tile recognition
- Onion skin transparency
- Tidy up/space functions `garbage collects` unused data
- Map information, see exactly how much space things are using
- DirectX preview (MappyWin32 will run without DirectX except for preview), scroll around your animated map on any valid DirectX mode (all valid modes for your system are listed), includes parallax layer for transparency checking. On my relatively lowly 200Mhz K6 I can run my monitor rate of 75fps in 800x600x16 with all layers and parallax
- Layers, 4 for each block, 8 in the map including transparency and depth.
- Expansive and useful documentation (surely the best feature?)

## Nadion

- current version: 0.3.0
- author: Josh Shepard (jcs)
- date: Feb. 12, 2014
- uses: Phaser 1.1.5

Nadion is an add-on to the Phaser ( http://phaser.io ) HTML5 game framework, by Rich Davey Photon Storm. It was originally pulled out of an in-progress platformer/scroller game as reusable and extensible elements became obvious. As more work went into these elements I thought that others might benefit from them as well. (Yes, the name 'Nadion' is a Star Trek joke * "Phasers" in the Star Trek universe emit "Nadions").

T>*Hint:*Please do not use the artwork or music in an actual product. They do not belong to me. The artwork used in the sample is all owned by Photon Storm Ltd, borrowed from the Phaser examples and used with their kind permission. The music used in the sample is owned by "Bodenstaendig 2000", an Atari scene composer. It is from the Fading Twilight Atari collection (Fading Twilight). (I borrowed it from the Phaser examples as well).

## What does Nadion Get Me?

Primarily Nadion is a framework for creating game levels in the Tiled map editor. To this end, Nadion provides Trigger, Area, Alarm and Emitter entities which can be added and tweaked in Tiled, setting up game logic without needing to write code to do it. (Adding some of these to the sample is planned). It supports multiple layers, which can scroll at different rates (`parallax` scrolling), as well as Tiled image layers and object layers (which map to Groups in Phaser and which contain all your sprites and objects).

Nadion also provides some simple game objects such as a state machine, for handling sprite logic, and on-screen controls for touch-screen devices. It also provides some helper functions that I have found useful; things such as finding a named item in a group or array (see the docs on the Nadion namespace for a complete list).

Plus are some development-time helpers. You can use a browser query string ('render=canvas') to force canvas rendering. There is a "developer mode" toggle you can set that will set some hotkeys: 'f' will display the frame-rate, 'd' will show some debug info (currently just sprite bounds), 'p' will toggle on/off Particles and the '1' * '5' keys will toggle on/off the drawing of first five tile layers. The sample also shows how to use a query string to enter "developer mode" and start at a particular level (overriding what's saved in local storage).

## Getting Started

A working example is provided of a simple platformer game. You may use it as a template to get you started. Documentation is also provided in the `docs` directory.

When in doubt, remember that Nadion is just an add-on to Phaser, which provides many (many) examples and documentation of its own.

And as always, "Use the source, Luke"! It's open source for a reason!

## Building Nadion

A fully "compiled" version of Nadion is provided in the `dist` directory, in both plain and minified formats.

Nadion is built using `grunt`, a Node.js utility for running tasks. You'll need Node.js installed, which you can use to install Grunt (`npm install -g grunt-cli`) and to install the prerequisite modules for building (`npm install` in your Nadion directory).

Once you have Node.js and Grunt installed you can run `grunt` in the Nadion directory to build.

## Requirements

Nadion is an add-on to Phaser; it builds on the great work that Rich and team have put into Phaser and does nothing without having the Phaser library available.

A copy of the version of Phaser that Nadion was currently tested against in the `lib` directory. Hopefully, this will always be the latest released version of Phaser (though I can't guarantee it).

### Bugs?

Please add them to the Issue Tracker with as much info as possible, especially source code demonstrating the issue.

### License

Nadion is released under the MIT License. (Please note that I personally don't consider a minified JavaScript file to be a "source release" and I do NOT care if you put the license into such a file. In other words * don't feel like you need to include the license text in your release JavaScript file!)

### Phaser III Editor (release v2.x)

Phaser Editor is a multi-platform IDE to develop games based on the fast and popular Phaser framework. It is a *commercial product* made and supported by Arian Fornaris.

- Features: https://phasereditor2d.com/blog/features
- GitHub: https://github.com/PhaserEditor2D/PhaserEditor

### Tile Application

Tiled (http://www.mapeditor.org/) is a general-purpose tile map editor. It is built to be easy to use, yet flexible enough to work with varying game engines, whether your game is an RPG, platform or Breakout clone. Tiled is free software and written in C++, using the Qt application framework. This environment editor features:

- General-purpose tile map editor with external XML-based map format.
- Supports orthogonal and isometric maps.
- Deploy Custom objects with pixel precision.
- Full undo/redo and copy/paste support.
- Add custom properties to tiles, layers, objects or the map.
- Automatically reloads tilesets when changed externally.
- Resize or offset your tile map later as needed.
- Efficient tile editing tools like stamp and fill brushes.
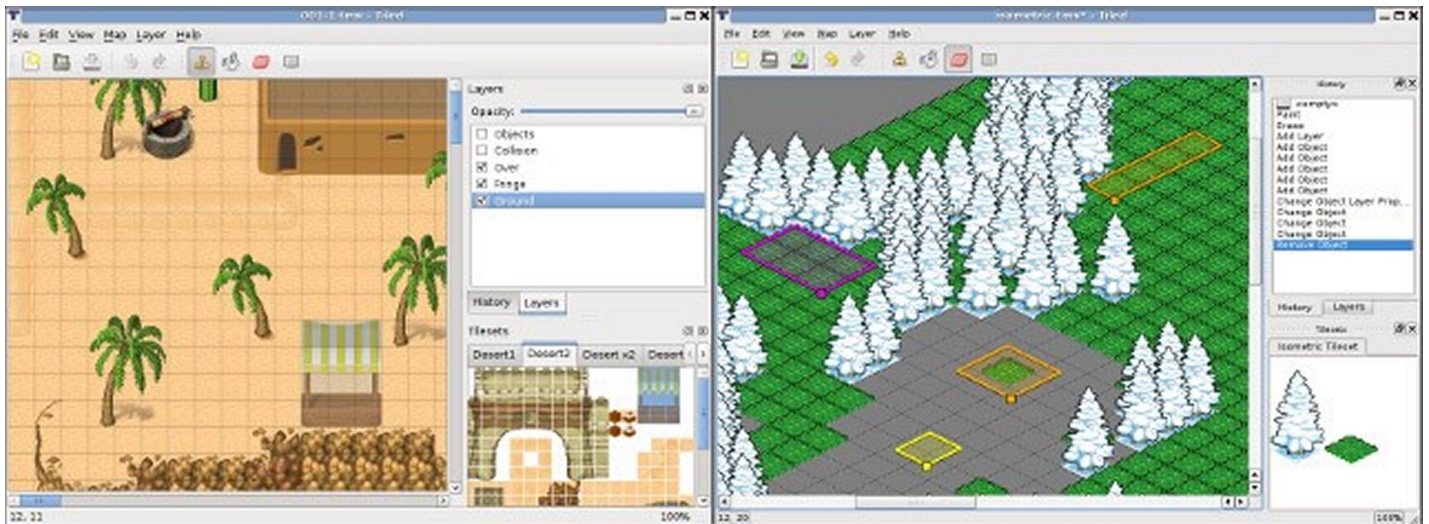


My opinion of this tool conjurors the clich "cart pulling the horse" or "artwork driving the game engine". The problem I find is the integration of `txm files` and having game engine interpret the art. I am not alone in this opinion. The artwork and the labyrinth code are coupled.

# Ludology

- What is ludology? A provisory definition.

- Game Theory

## Network Concepts

FREE TCP/IP online course

## Codeigniter / Phaser Integrated CMS

- CodeIgniter Overview
- CodeIgniter Doc v3 & v2

### Tutorials

- CodeIgniter User Guide Tutorial
- Learn CodeIgniter 3 in small steps
- Create a CMS using CodeIgniter 3
- Authentication system with Ion Auth and CI3
- Fat-Free Framework Tutorials

# Web site reference:

- https://www.irs.gov/businesses/small-businesses-self-employed/starting-a-business
- SBA 10 steps starting a business
- https://www.entrepreneur.com/article/247574
- http://articles.bplans.com/a-standard-business-plan-outline/
- http://www.inc.com/jeff-haden/how-to-start-a-small-business-in-a-few-hours.html
- https://www.entrepreneur.com/article/248802
- how to start your business * your legal requirements
- how to start a small business for less than 1000

# Game Design References:

- The Animator's Survival Kit by Richard Williams Expanded edition (25 Sept. 2012)
- Indie Game Developers' Assistant & Tools
- Playing to Win: Becoming the Champion **By David Sirlin**
- Game Mechanics: Advanced Game Design **By Dr. Ernest Adams**
- Designing Games: A Guide to Engineering Experiences **By Tynan Sylvester**
- Breaking Into the Game Industry: Advice for a Successful Career from Those Who Have Done It **By Brenda Brathwaite and Ian Schreiber**
- Game Balance Concepts Tutorials (FREE) **By Ian Shreiber**
- Game Design Concepts Tutorial (FREE) **By Ian Shreiber**
- Theory of Fun for Game Design **By Ralph Koster**
- Game Production Handbook **By Heather M Chandler**
- 21st Century Game Design **By Chris Bateman, Richard Boon**
- Rules of Play: Game Design Fundamentals **By Katie Salen Tekinbas, Eric Zimmerman**
- Game Feel: A Game Designer's Guide to Virtual Sensation **By Steve Swink**
- Game Design: Theory and Practice (2nd Edition) **By Richard Rouse III**
- Fundamentals of Game Design (2nd Edition) **By Ernest Adams**
- **Juuso Hietalahti** http://www.gameproducer.net
- How to Create your first game
- **Dev-master tools, resources and engines** http://devmaster.net/devdb
- **300 Game Mechanics:** http://www.squidi.net/three/index.php
- **300 Game Prototypes:** http://www.squidi.net/threep/index.php
- **Game Mechanics explorer:** http://gamemechanicexplorer.com/
- **The Power of Virtual Gifts in a Gamified World:** https://stratsynergy.wordpress.com/page/3/
- What are Game Mechanics:
- **Incentive Research Foundation:** Game Mechanics

- **Knowledge Guru:** Learning Game design
- Shopping Up a Virtual Storm * 5 Tips for Monetization
- Why People Play Games
- Need a Game Idea? A List of Game Mechanics and a Random Mechanic Mixer.
- Evaluating Game Mechanics For Depth

# Game Programming References:

- Game Programming Patterns **By Robert Nystrom**
- Agile Game Development with Scrum **By Clinton Keith**
- **For prototyping**, Kloonigames
- **Experimental Game Play Project:** http://experimentalgameplay.com/
- Gary Rosenzweig http://developerdispatch.com

# Development Tools

- Chrome Logger (formerly known as ChromePHP)
- Developer Companion
- Firebug
- Firebug Extension for AJAX Development
- GoJS: Interactive JavaScript Diagrams in HTML
- IntelXDK App Builder
- uiKit * A lightweight and modular front-end framework for developing fast and powerful web interfaces.
- Online Regular Expression Editor
- Regular Express 101

# DNS prefetching

- controlling DNS prefetching
- Prefetching, preloading, prebrowsing
- The Chrome Project: DNS Prefetching

# HTML5

- HTML5 Boilerplate Video 2:00 minutes.
- HTML5 Boilerplate Initializr build an html5 index page in 15 seconds!
- HTML5 Introduction **By W3Schools.com**
- HTML 5 Tutorial
- HTML5 Quick Reference Guide https://www.thecssninja.com/demo/gmail_dragout/html5-cheat-sheet.pdf
- HTML5 Tag Cheat Sheet http://websitesetup.org/HTML5-cheat-sheet.pdf
- Must-Have Social Meta Tags for Twitter, Google+, Facebook and More
- Web Page template Generators

# JavaScript

- ES6 modules and classes
- How to start an app early or DOMContentLoaded vs window.onload
- Performance Checking Dom and Load events
- http://javascript.info/tutorial/onload-ondomcontentloaded
- https://varvy.com/performance/domcontentloaded.html
- Critical Rendering Path
- https://webdevwithsam.wordpress.com/2016/04/19/load-vs-domcontentloaded/

# CSS

- Taking Advantage of HTML5 and CSS3 with Modernizr
- 11 CSS Code Generators to Speed Your Work

# Storage

- Firebase: Firebase provides a real-time database and backend as a service. Firebase Storage provides secure file uploads and downloads for your Firebase apps, regardless of network quality. Firebase Hosting is a static asset web hosting service that launched on May 13, 2014. It supports hosting static files such as CSS, HTML, JavaScript and other files that do not change dynamically.
- ForeRunnerDB: A JavaScript database with a mongo-like query language, data-binding support, runs in browsers and hybrid mobile apps as a client-side DB or on the server via Node.js!
- PouchDB: PouchDB is a pocket-sized database. PouchDB is an open-source JavaScript database inspired by Apache CouchDB that is designed to run well within the browser.
- SQLitev3: SQLite is an in-process library that implements a self-contained, serverless, zero-configuration, transactional SQL database engine. The code for SQLite is in the public domain and is thus free for use for any purpose, commercial or private. SQLite is the most widely deployed database in the world with more applications than we can count, including several high-profile projects.

# Structured Data

- Schema.org Structured Data
- Structured Data for Dummies
- Getting started with structured data **by Google**

# Copyright Resources

- US Copyright Office http://www.copyright.gov/fls/fl108.pdf
- Copy-Left License Comparisons: http://choosealicense.com/licenses/
- "Hey, That's MY Game!" https://www.gamasutra.com/view/feature/131951

GitHub wants to help developers choose an open source license for their source code. An open-source license allows reuse of your code while retaining copyright. If your goal is to completely opt-out of copyright restrictions, try a public domain dedication.

If you already know what you're doing and have a license you prefer to use, that's great! We're not here to change your mind. But if you are bewildered by a large number of open source license choices, maybe this might help.

# Appendix - Marketing Ad Resources

- CPMStar.com is the Oldest and Largest Ad Network in the Games and Youth Oriented Entertainment space. Since 2001, CPMStar has been connecting brands and game publishers with unique content providers and the largest audience of game players globally. CPMStar is committed to bringing innovation to interactive entertainment by helping the most exciting new content on the web succeed through intelligent design, marketing, and technology. Based in Santa Monica, with office's spread throughout the United States and Europe we are here to assist you in meeting your goals. CPMStar is a GSM company. GSN Games is a division of GSN (Game Show Network), which is co-owned by Sony Pictures Entertainment and DIRECTV. GSN is a multimedia entertainment company offering original and classic game programming and competitive entertainment via its 80-million subscriber television network and online game sites.
- Ad4Game.com outperforms CPMStar on RPM; but, I discovered few recorded hits than CPMStar. They provide a dedicated program manager; mine is simply charming and very helpful. You can learn more about their operations at http://www.ad4game.com/core/
- Famobi
- itch.io
- Cool Games
- Cloud Games