Beginning HTML5 Games with CreateJS

Brad Manderscheid
For my wife, Jennifer
Contents at a Glance

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About the Author

Brad Manderscheid is currently a Sr. Developer for the agency Bader Rutter and lives in Milwaukee, WI. He specializes in mobile and games, and has a strong passion for creating rich, interactive experiences for both desktop and mobile. He previously spent the better part of a decade making documentaries, working as a freelance developer and consultant for large companies and agencies across the country, and has built everything from mobile applications to large CMS applications and multi-player games for the Web. You can find him on Twitter @bmanderscheid, or on Google+, where he is most active at http://plus.google.com/u/0/+BradManderscheid.
Sebastian De Rossi is a senior software developer working at gskinner.com. During this time, most of his efforts have been in developing web- and mobile-based applications. Serving as the Community Evangelist for CreateJS and one of the two @createjs posters on Twitter, he finds himself answering a ton of great questions from community members.

You can see what Sebastian is up to with his latest experiments on Twitter @derossi_s, https://github.com/sebastianderossi/amusement, and https://plus.google.com/+SebastianDeRossi.

Outside the office, you’ll find him racking up the miles on his treadmill or planning his next travel adventure with his wife, Shelagh.

Sebastian currently lives in Edmonton, Alberta.
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Last but not least, a huge thanks to Sebastian DeRossi for his technical review of this book. His knowledge and technical advice far exceeded what I could have possibly fit into this book.
CreateJS is not a game engine. It was written to create rich, interactive experiences of all kinds by providing tools for HTML5 applications. EaselJS, the library in the suite upon which all games in this book are based, helps manage and control graphics in HTML5 Canvas. Because the very nature of Canvas lend itself nicely to both performance and the technical procedures of classic game development, EaselJS very much feels like it’s meant for games in many ways. Although this is not entirely true, EaselJS, along with the other tools in the CreateJS suite, are a perfect combination of tools to do just that. The low level, heavy lifting of drawing and management of your game graphics are taken care of, which gives you more freedom to concentrate on the game logic itself. Tools for preloading assets, playing and managing audio, and creating complicated tweens are also included in CreateJS, and can also be used extensively to build engaging games.

A large advantage of using CreateJS for games, as opposed to the other game-specific HTML5 libraries out there, is the freedom to create and fine-tune your own game framework. In many popular markets, primarily casual, board, and turn-based games, the overhead of a framework built for tiling, heavy collision, and physics is not necessary. Simply utilizing a tool to draw and sort graphics on the canvas is all that is needed. That’s where this book comes in. It puts you right in the middle between complicated native canvas management and being tied down to a specific framework to build your games. This is not to say these other frameworks are bad. In fact they are quite good, especially Phaser and ImpactJS. Depending on the type of game you are building, they can often be the better choice. The purpose of this book is to not only teach you to write these game development techniques yourself, but to give you the skills to mold your own workflow and frameworks using the CreateJS tools. What’s more, the skills learned in this book will fully prepare you to create endless, rich HTML5 applications that extend far beyond games.

The book itself is split up into two parts. The first half of the book concentrates on learning the APIs of the suite. Game development techniques will be introduced, focusing on how they can be used with EaselJS and TweenJS. The second half of the book will take your new CreateJS skills to the next level by learning more advanced, objected-oriented JavaScript, asset loading and management, and code organization. More advanced game development techniques will also be learned, which will result in performance gains; mobile optimization will be introduced as well.

You’ll find that the libraries in CreateJS are powerful and extremely easy to use. You’ll also learn the best tools and applications used to create the graphical assets needed for your games, and how to best use them in conjunction with EaselJS. There are several small exercises, including four full game project chapters. I hope you find this book both fun and educational, and that it will encourage you to create new and exciting applications using CreateJS.

For support, updates on code APIs, and general discussion on this book, please visit the public forum at https://plus.google.com/u/0/communities/109922548905806388011.