# Dev Diary

## Tell me a little about you?

My name is Adam Telford and I am the designer of Pirates Port. I have a degree in engineering and have been a k-12 educator and tech director for 15 years. I have always enjoyed playing games and working out difficult problems.

## How did you get associated with SANS?

Josh Wright, a friend for many years, is a fellow at the Sans Institute. For the last two years we have been getting together frequently to talk about our jobs and other interests. On one occasion, Josh began asking me about my game design with an interest that seemed very genuine. He was especially interested in my methodology. I was only too happy to talk about a topic in which I have a bit of knowledge and a great deal of interest. I was also complimented because I am usually the one asking Josh questions.

## How did Pirates Port get started?

When I was approached by Josh Wright to build a card game for the SANS Institute, I was honored and excited. I had worked on board games before both for myself and for contests but never for someone else, especially a prestigious institution such as SANS. During our first meeting Josh explained the requirements of the game, and I got even more motivated.

As he explained, the objective was to design a game that provided an entertaining way to get people interested in and learning about cyber security. In addition, it had to help plays learn envision what it might be like if they were in the cyber security field. Sans intended to give the game away for free so they could reach as many people as possible. Consequently, I had to facilitate certain design parameters to ensure that the game was cost effective: the game should be a standard-size card game with the standard 54-card deck; it should be easily expandable; it should be simple to learn and play but still be entertaining and educational. I also added one of my own parameters. That is, the game should have single-player option so a player could play whenever he wanted. For me, the parameters made the design process much simpler. It helped me home in my focus.

Now that I had my parameters, I got to work. Before beginning the actual design process, I took some time to think about what kind of games I thought would fit the bill. When I heard that SANS wanted an expandable card game, the first thing to come to mind was to build a deck-building game. So, I referred to and played some of my favorites, everything from Palm Island to Star Realms. I decided to use the card game Super-Hot as a starting point for Pirates Port, and I showed that to Josh at our next meeting.

## How did the name come about?

Pirates Port was the original working title. I wanted port in the title for the double meaning. It could be a space port or an Ethernet port. While some people think space pirates is an overdone theme (as in Metroid Mass and Mass Effect), I wanted these pirates to have a different twist. Guns are not their weapons of choice. In fact, guns are a last resort because these pirates are interested in capturing the data aboard their victims’ ships. It is a much more effective to do that stealthily.

## Who is the main character in Pirates Port?

The player is the main character assuming the role of the newly commissioned cyber security officer.

## Is Pirates Port a card game?

Pirates Port is a Sci-Fi world that teaches about the real world of cyber security. It includes a card game series, a video game, an interactive novel, and as a series of lessons and a quiz. I am hopeful it will be even more as time goes on.

## Why is Pirates Port not just a card game?

The goal of Pirates Port is to engage and entertain the player while giving him the opportunity to take his interest in cyber security to the next level. The card game does not require a working knowledge of cyber security; so, it can be played and enjoyed by anyone. However, a player can scan the QR codes that are located on each card to view lessons, videos, and helpful links on the related topic. There is even a question at the end of each lesson for the player to test his knowledge. Even better, each lesson has a link to a course at SANS that can kick the player’s cyber security knowledge into the stratosphere. If the player wants to dip their toe into cyber security without committing, they can scan the mission cards which will take them to the interactive novel. This is enjoyable to read, and it helps players engage in some of the real-life choices and consequences that can occur in the field (Just in a sci-fi setting). Finally, the QR codes on the AI mission cards will take player to a puzzler video game which adds on to the Pirates Port storyline. Players can either order the cards from the website or simply play the game for free in video game form.

## What program did you use to make the cards?

This might sound outdated, but I always start by sketching out the functional elements of the cards on paper. I use these to play test before moving continuing. Play testing the solo game was easy in the early stages because I could do it myself. This game took a bit of balancing; so, the first program I used was Libre Office sheets. When I thought the cards were balanced, I tried the game again with the new numbers. When I was happy with balance, I started looking at the card design. I started with the open-source software GIMP. However, I did not end up using GIMP for long because it required many changes to every card in the game. In the end, I ended up building my own software in Nodejs and Electron. It essentially breaks each piece of a card down into components that can be adjusted independently. So, moving the cost of a card over 10 pixels on every card was so much easier. I would create these components and add content to each card by adding lines to csv’s. and pressing run on the program. If you are interested in the program, you can download it from a link on the download page of the Pirates Port Website.

## What was the best part of working on Pirates Port?

For me, the best part of developing Pirates Port was being able to take deep dive into cyber security for myself. It is a fascinating field. The SANS institute was able to offer me many resources in my research. A close second was getting to know the world of Pirates Port. I feel less like I am creating it and more like I am discovering it for the very first time.

## What framework did you use to build the video game?

I wanted the video game to be accessible to everyone. So, it had to be able to playable from every platform both online and off. I also wanted the fact that it was a video game to be a positive and not get in the way of gameplay. I had considered simply doing a tabletop simulator, but I did not feel that alone would enhance the gameplay. I ended up deciding to work with Phaser.io. It was designed specifically for web and mobile 2d games and that is what I wanted my game to be. It also is built in JavaScript which is a language I am comfortable coding in.

## Have you ever built a video game before?

I have built small things such as classroom projects but nothing in Phaser. I would say that this was my first real video game. I have been coding for a long time, but my primary concentration has been on building business web applications.

## How about card games? Was this your first card game?

No, this is not the first card or board game I have built because I have created for my own entertainment or for competitions on the Game Crafter. I really enjoy playing with mechanics and showcasing them in new and interesting ways.

## Is Pirates Port your favorite game you have created?

In some ways it is. It is the most thematic and comprehensive game system I have made. Wizardry, another game I created, probably has the best gameplay. Lately, I have been developing a game which is not even a game per se. Instead, it is a game system. Originally, it was a game played on a standard deck of cards. However, I wanted to delve further into it to see what game I can discover hiding in the system.

## How has it been working with SANS?

The SANS Institute has been amazing to work with. I get a lot of great feedback from them about the game and they have really been great about giving me space to make the game the best I feel I can make it. I am so proud to be working with an organization that cares about its students and their success. I have had the opportunity to be mentored by Josh Wright, a fellow and instructor at the SANS institute, and I feel this has had a huge impact on my work. I cannot say enough good things about working with the SANS Institute.

## Knowing how much work it has been to create Pirates Port, would you do it again?

I would do it again in a heartbeat. Publishing a game has been on the top of my bucket list for a while. This has been the biggest and most challenging project I have worked on, but I love to create. Even more important, like every artist, I love to see people getting to enjoy my work.

## As a final note, what is your main take away for the players of this game?

I want players to feel empowered and know that they have an exciting career in cyber security waiting for them if they wish to pursue it. I also want them to feel that they have the tools and resources they need to start or further that pursuit.

Thank you for taking the time to read this dev diary. If you have interest in learning more about anything we covered or did not cover during this interview, please contact us. We would love to expand on this piece in the future.