



Cobra BlackFin Users' Manual

v1.00

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The BlackFin Hardware

BlackFin is the first ever peer to peer game sharing device for Vita! It allows you to share your friends' game titles by connecting to a P2P network from your PC.

The BlackFin comes as three separate devices:

1. The BlackFin Reader



2. The BlackFin Card Emulator



3. The BlackFin Dongle



The BlackFin Reader allows you to connect your own game cards to the network, dump the games' ISO from your cards and to allow your friends to play the games that you own.

The BlackFin Card Emulator allows you to emulate a Vita game card by using a game's ISO and access to the original game via the network of BlackFin Readers.

The BlackFin Dongle is a simple BlueTooth 4.0 Low Energy (BTLE) dongle for the PC.

The BlackFin Software

The BlackFin software is the link between the BlackFin Card Emulator and the BlackFin Reader.

In order to emulate and run a game, the BlackFin Emulator needs access to the game's ISO as well as access to the real game card for authentication. The game ISO resides on the microSD inserted into the BlackFin Emulator while the BlackFin Software handles the communication between the Emulator (via BlueTooth) and the Reader (via the BlackFin Server).

The software comes into two parts:

- The BlackFin Application which serves as the main user interface
- The BlackFin Server which can be used for running your own servers.

You can set the BlackFin app to connect to the cobra-blackfin.com servers (by default) or set it to connect to localhost (your own computer) in order to use your BlackFin Reader as a game jukebox for yourself, or connect to any other third-party servers, such as your friend's.

The BlackFin mode of operation

The mode of operation of the BlackFin system is simple, but requires many components to work together for a successful game launch.

The BlackFin Dongle is inserted into your PC via USB. This will allow the BlackFin Software to use the dongle to connect to the BlackFin Emulator via BlueTooth. Once The BlackFin Software is connected to the Emulator, it will receive a list of games available on the microSD card of the Emulator.

The BlackFin Software will then connect to the BlackFin Server and checks if the games on the microSD are available on the server. Once a game has been selected, the Vita will try to authenticate the card. Those authentication messages will then be sent from the Emulator to the Software via Bluetooth. The Software will then send those authentication message via the internet to the BlackFin Server, which will in turn send them to your friend's BlackFin Software. Your friend's Software will then authenticate the card via the BlackFin Reader connected to their PC via USB.

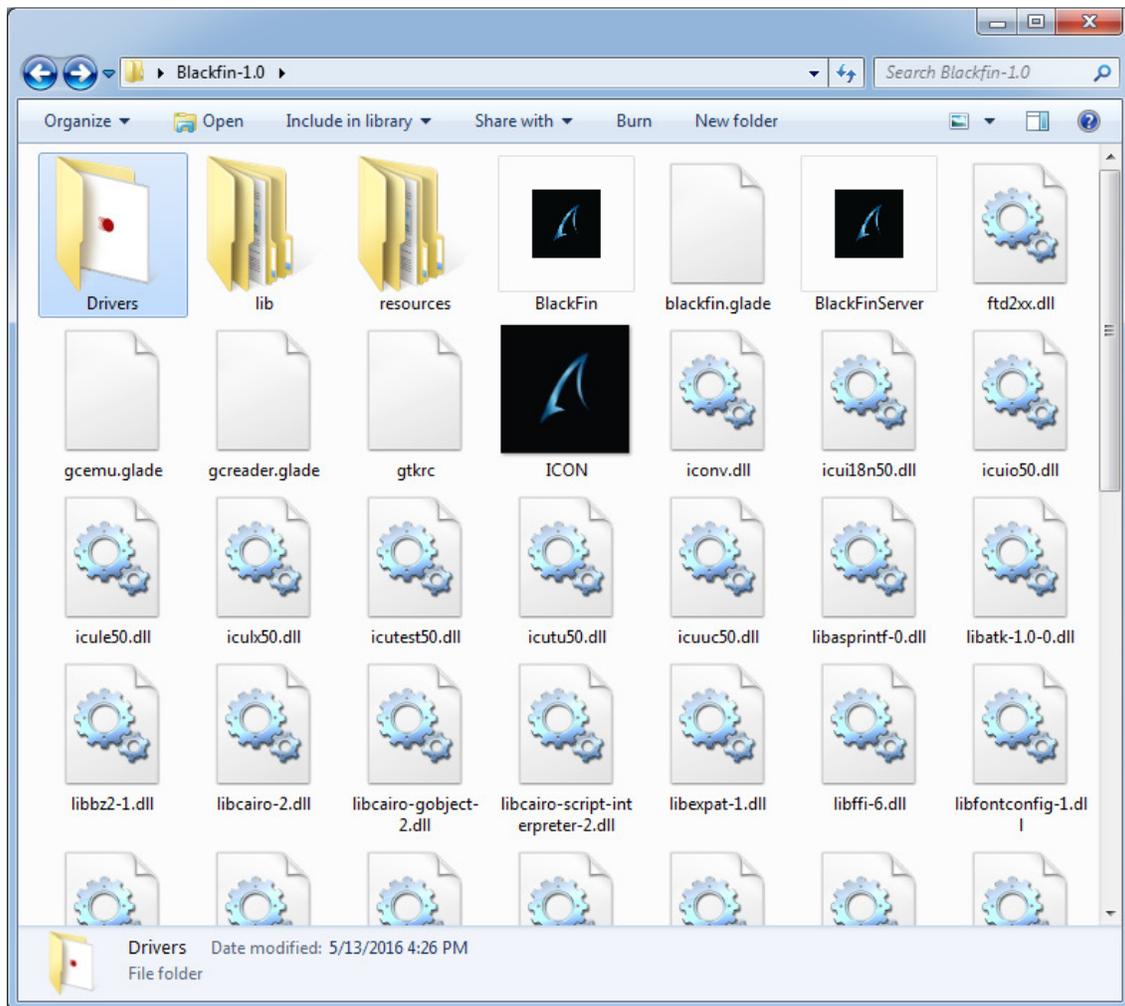
Once the game card has been authenticated with the Vita, the connection with the Emulator is dropped and the Emulator will then emulate the game card using the game ISO on the microSD.

In order to share a game with your friends, all you need to do is connect the BlackFin Reader to your PC via USB, and insert original Vita game cards into the Reader. If your BlackFin Software is connected to the Server, and the game card has been authenticated at least once before, then that game will be shared with the server for use by other users of the BlackFin Emulator.

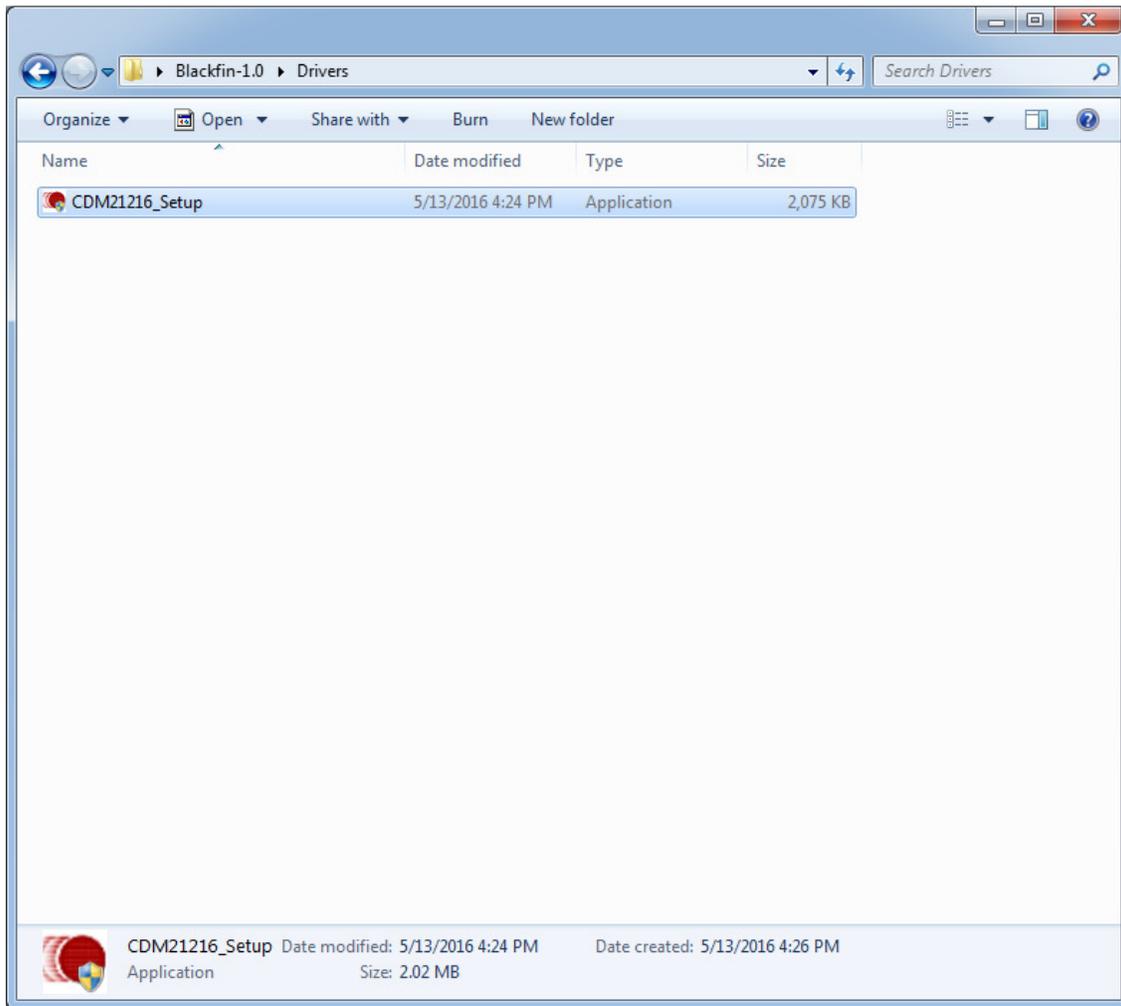
First run and Emulator Initialization

The BlackFin Emulator uses a specially formatted microSD card which will contain the ISO files. In order to set up the microSD and copy files to it, you need to connect the BlackFin Reader to your PC using the included Mini USB cable.

Before being able to access the BlackFin Reader from the Software, you must first install the provided drivers on your PC. Navigate to the folder where you have unpacked the Vita BlackFin Software.

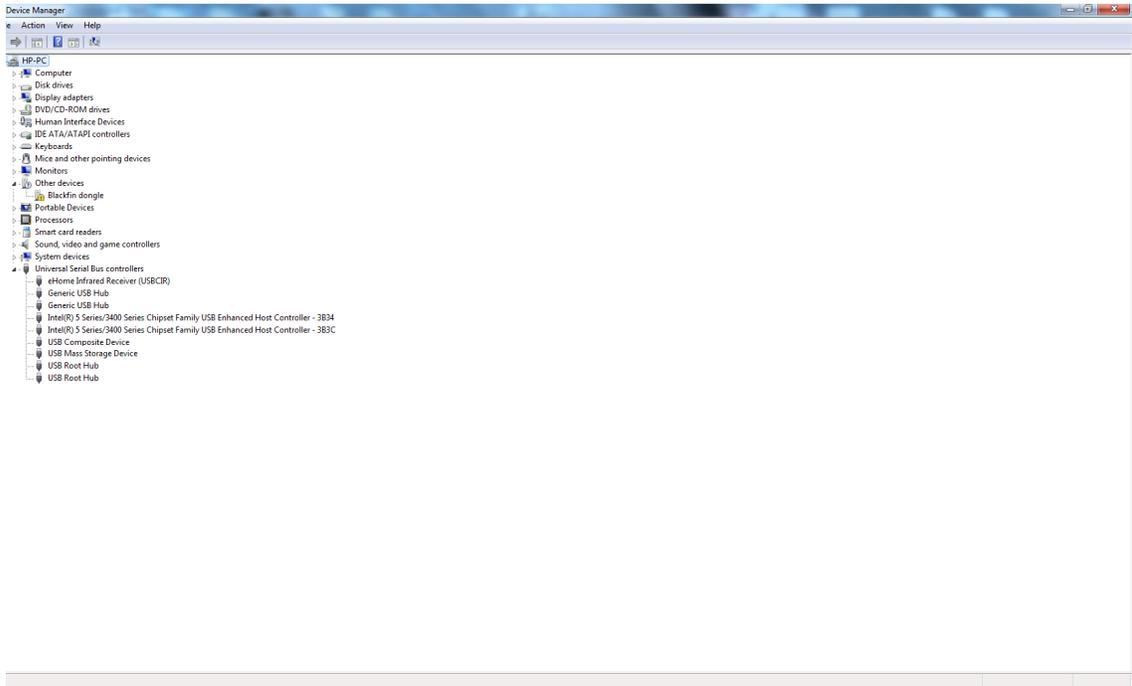


and enter the **Drivers** directory.

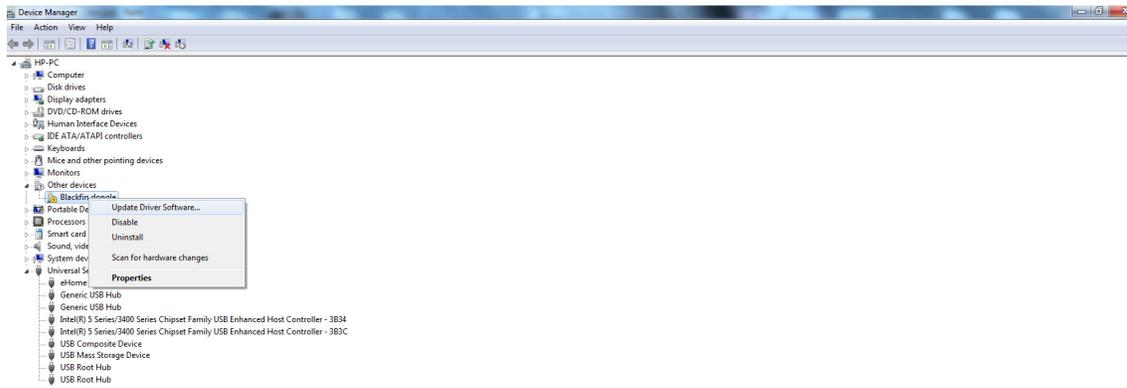


Run the CDM21216_Setup installer and follow the instructions to install the FTDI drivers for the BlackFin Reader hardware.

The BlackFin Dongle requires a driver which is also located in the **Drivers** folder. Navigate to control panel of your PC, then Device manager and select the BlackFin Dongle as shown below:

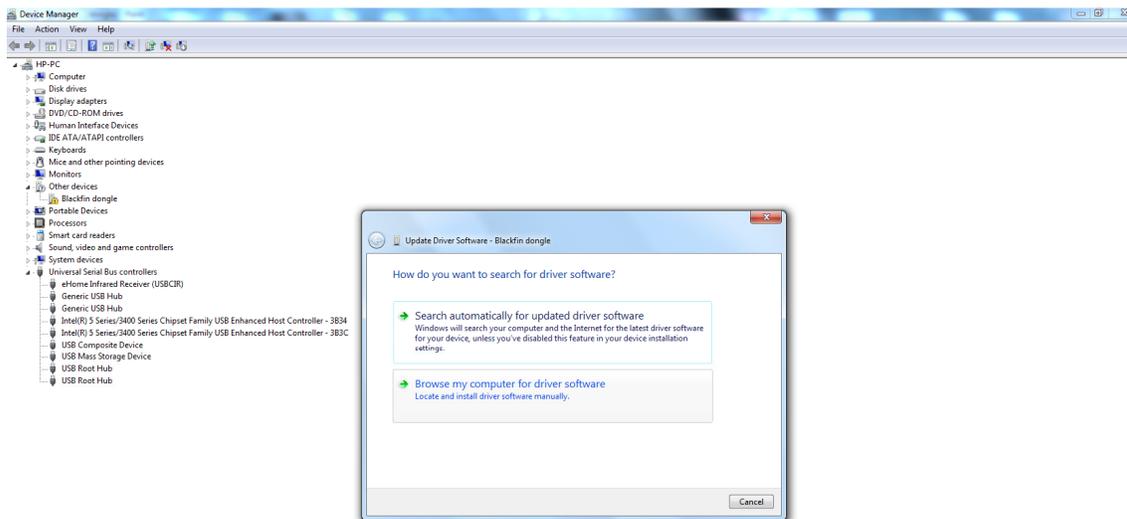


Next, right click on the BlackFin Dongle entry and then select Update drive software:

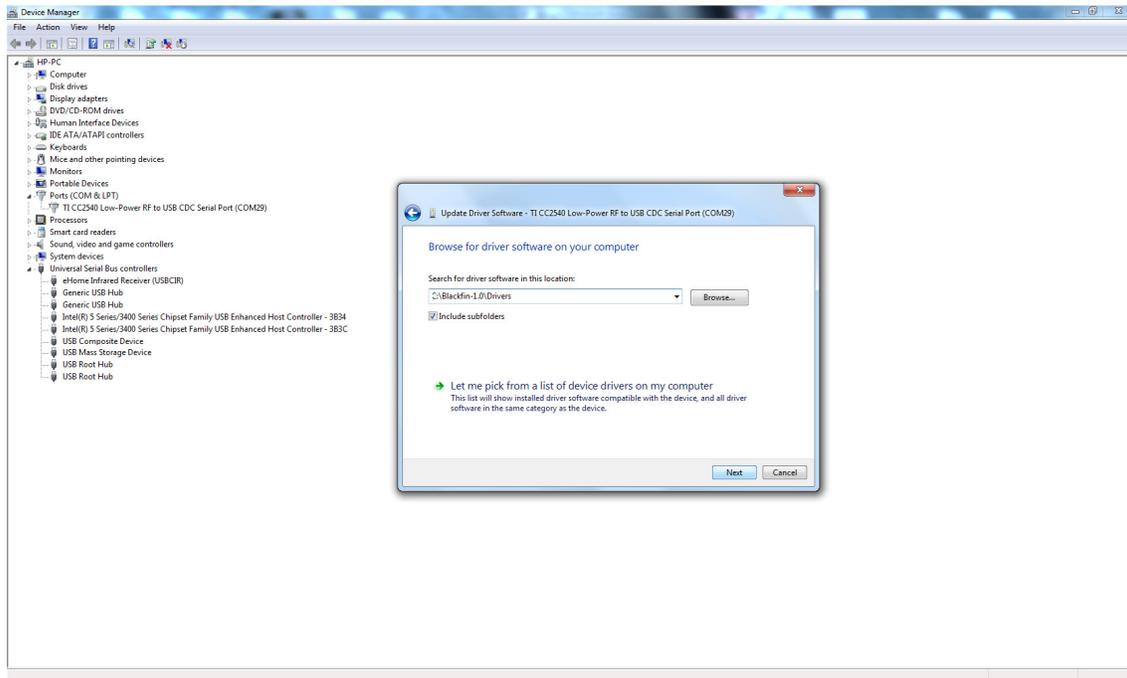


Launches the Update Driver Software Wizard for the selected device.

Then select Browse my computer for driver software:

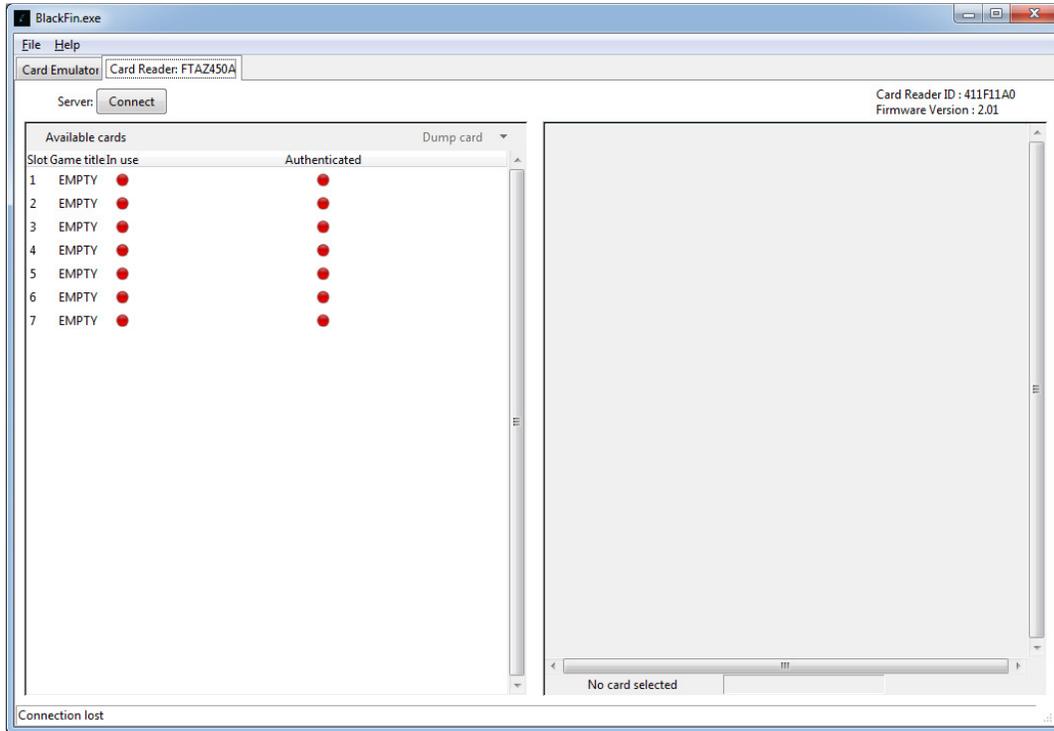


Point the search towards the Drivers directory of the BlackFin-1.0 software folder in the relevant directory of your PC, replace x: \ with the relevant drive storage letter on your PC such as c: \, d: \ etc.



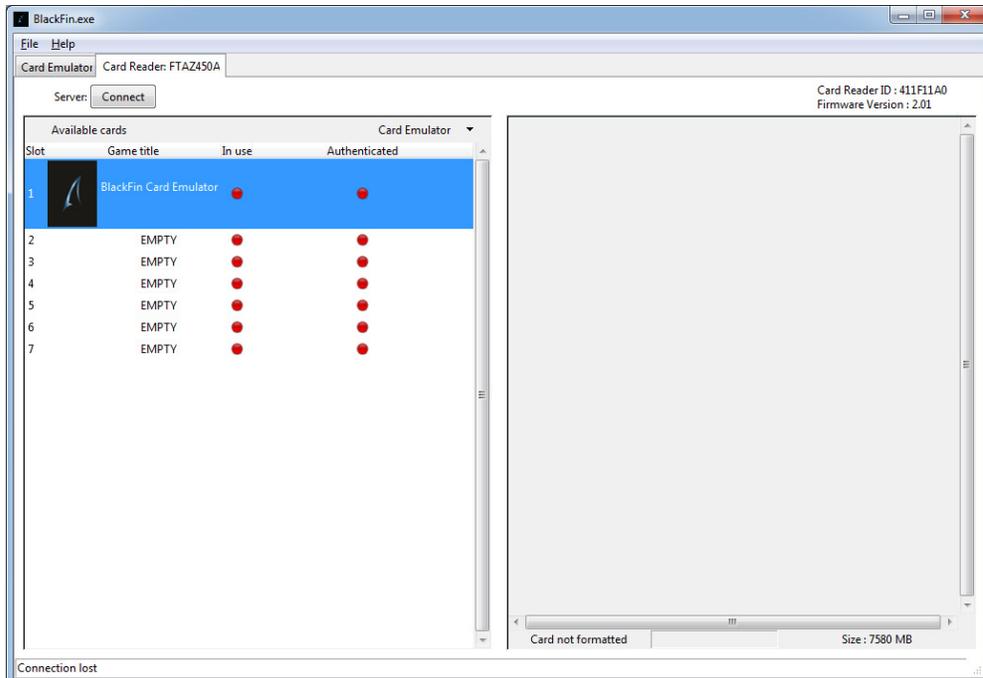
Click next, then the driver installation will be completed automatically.

Once the drivers are installed, open the **BlackFin** application and make sure that the BlackFin Reader tab appears in the window.

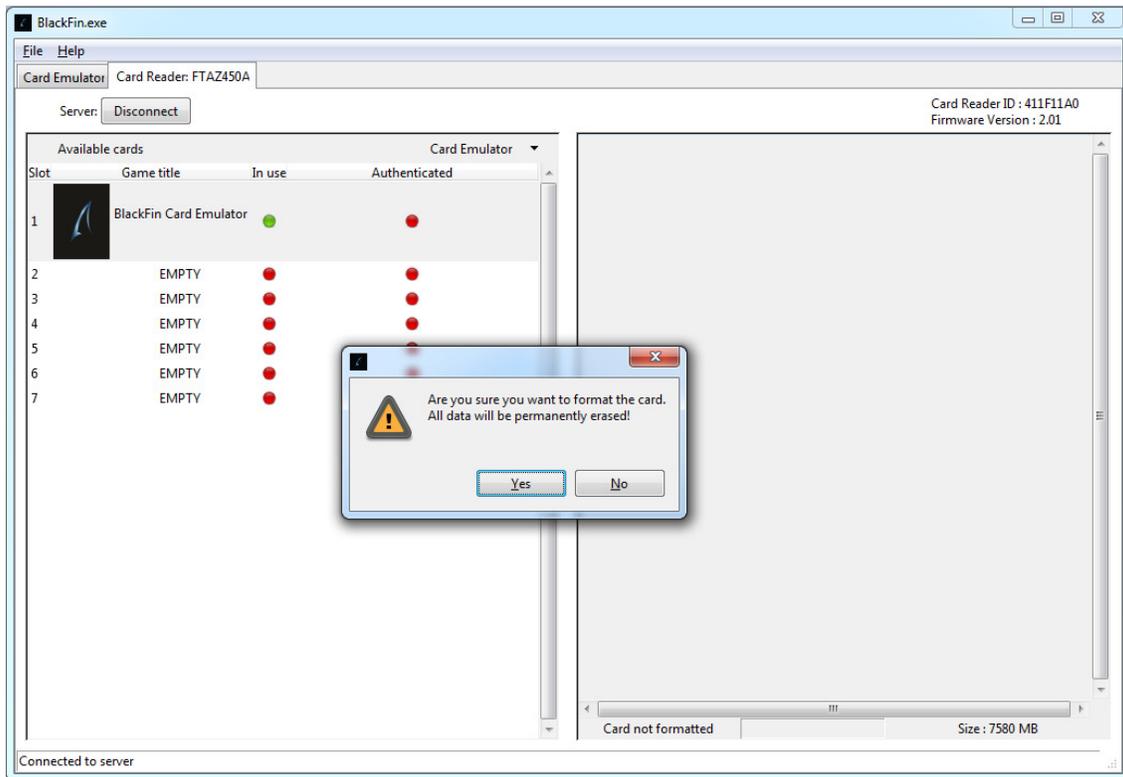
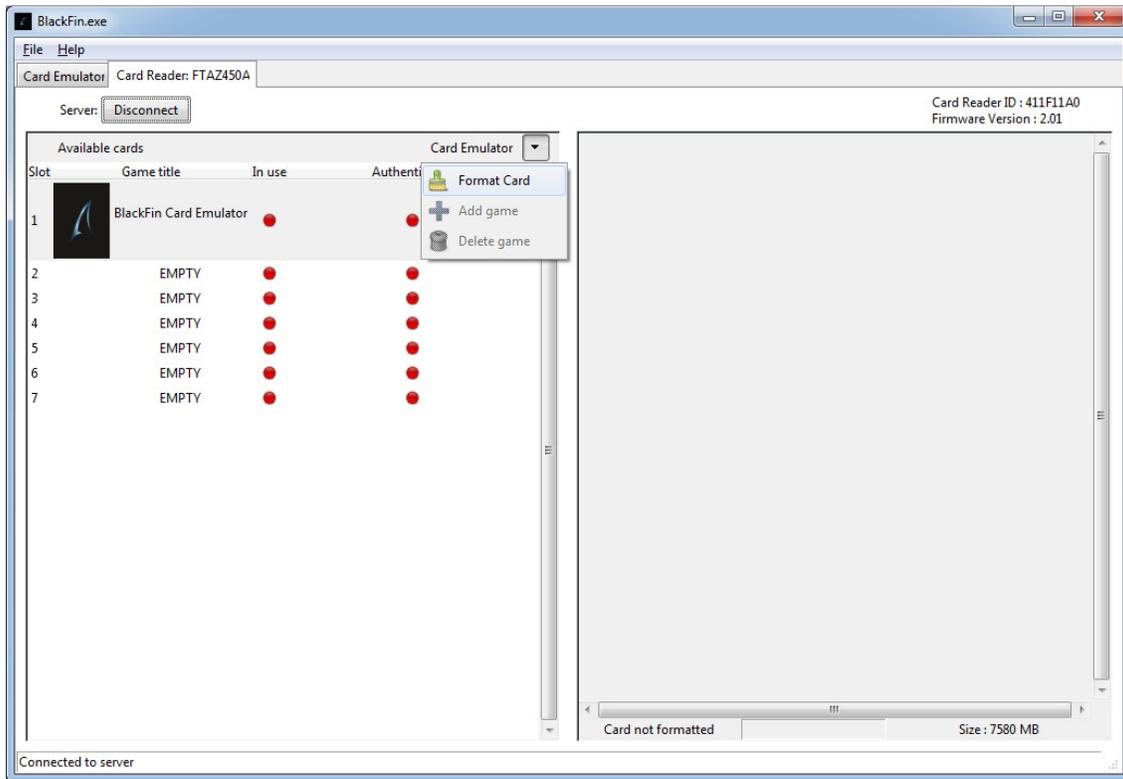


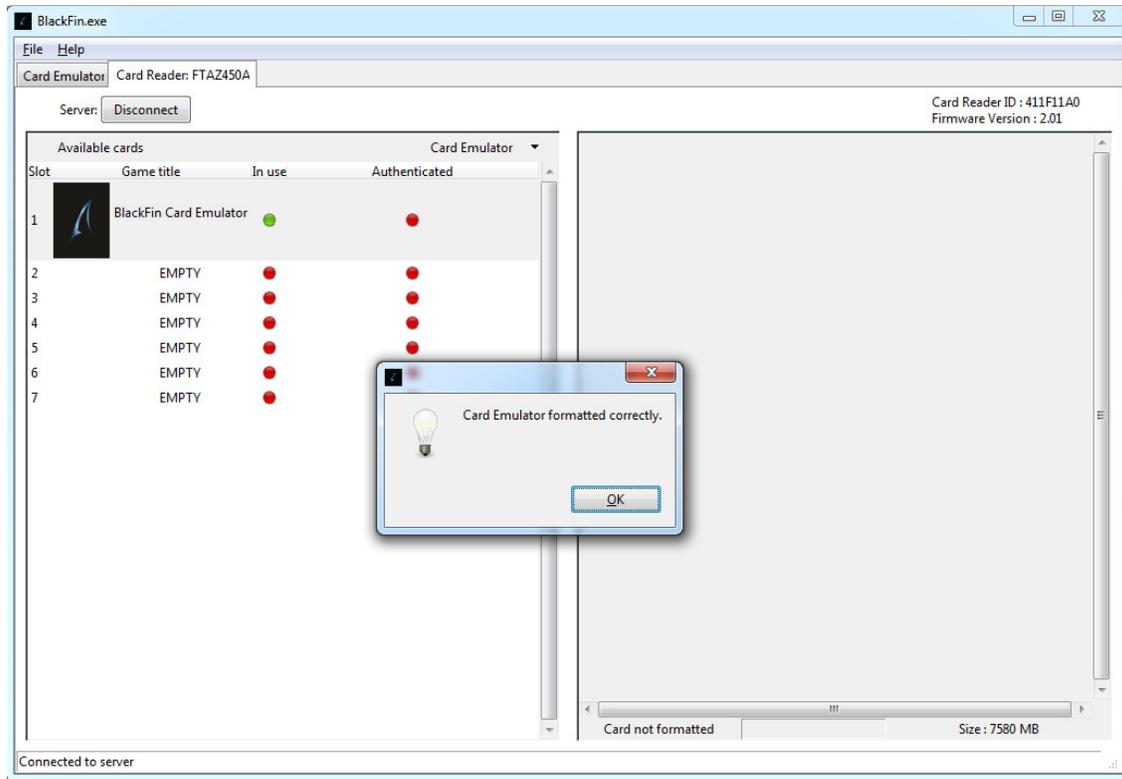
Insert a blank Micro SD card into your BlackFin Emulator, then insert it into any one of the seven card slots of the BlackFin Reader.

The BlackFin Emulator is then detected and the microSD card is not recognized as being properly formatted.



You can now format the microSD card using the following steps :





Once the card has been formatted, you can then add game dumps to the card. See below for more information on how to do that.

Setting the server to use with the BlackFin Software

The BlackFin Software can be configured to use any server, including your own, locally running BlackFin Server. Using a local server will mean that only original games connected to your PC and BlackFin Reader can be played, whereas using a public server will allow you to play any of the games available on the server, providing that you have the corresponding ISO(s).

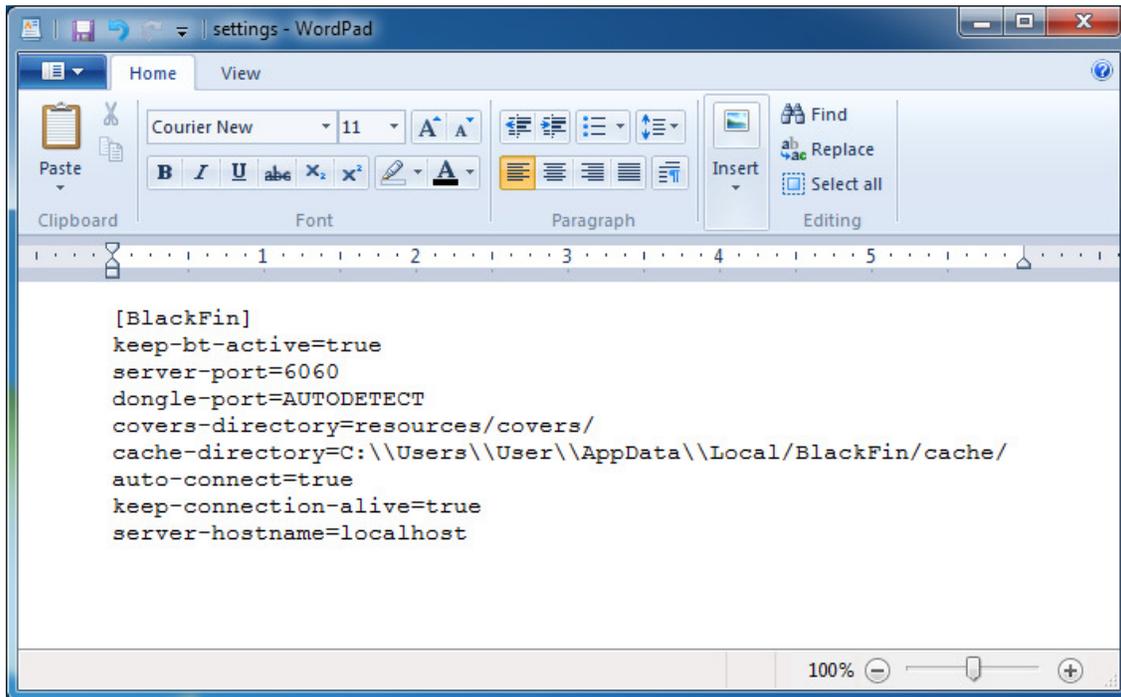
To change the server your Software connects to, you need to edit the following file :

C:\Users

In order to edit that file, we recommend using WordPad (do not use NotePad). The server to use is specified by the "**server-hostname**" line, which is by default set to "**cobra-blackfin.com**". In order to use a local server, you need to change that value to "**localhost**", such that the line becomes :

```
server-hostname=localhost
```

Save the settings.conf file, exit and restart the BlackFin Application.



You can also set that value to any other third-party server, such as one hosted by a friend of yours. if you want to revert the setting back to the default Cobra BlackFin server, replace that line with :

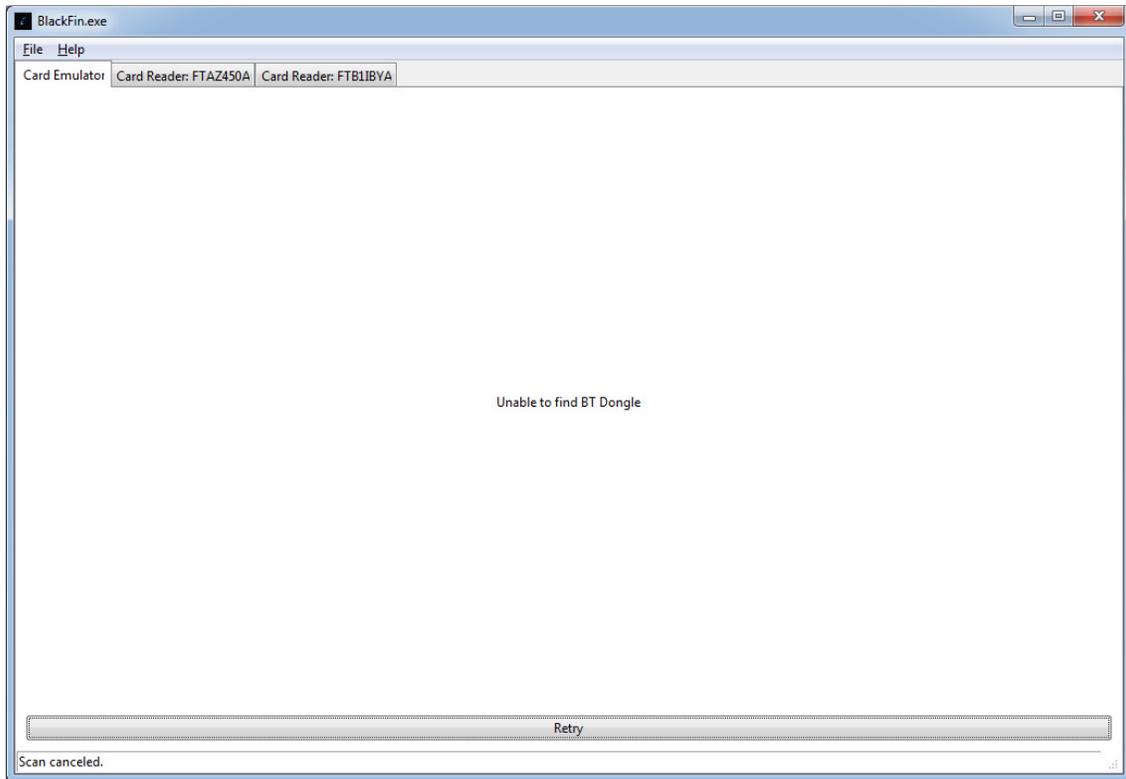
```
server-hostname=cobra-blackfin.com
```

If you set the *server-hostname* to *localhost*, then you need to run the BlackFin Server (BlackFinServer.exe) whenever you wish to use the BlackFin Application.

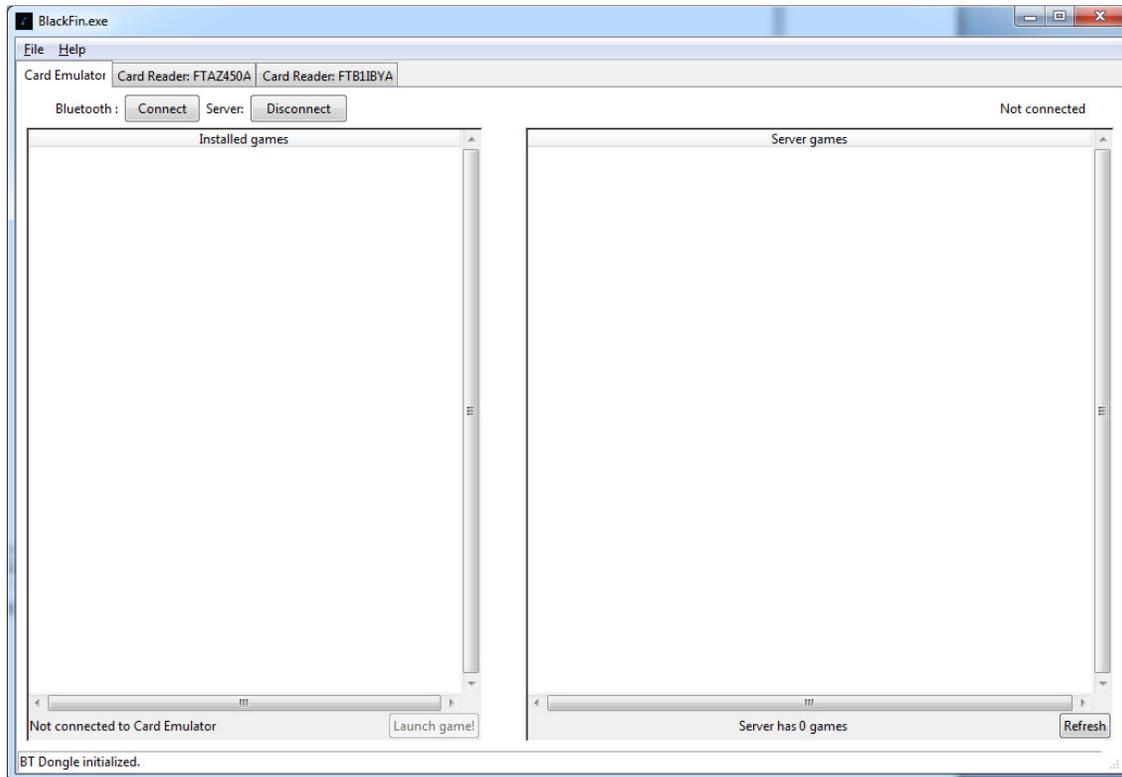
Using the BlackFin Software

The BlackFin Software has one or more tabs. The first tab is for accessing the Card Emulator and one new tab will be created for any BlackFin Readers that the application detects.

If the BlackFin Dongle is not detected, the first tab will notify you of that problem and you need to click on the "**Retry**" button after you've connected the BlackFin Dongle to your PC.



Once the dongle is found, and opened, the BlackFin Software will present with a window similar to this :



Notice that the server is automatically connected to. This behavior can be changed from the settings.conf file. If the server cannot be accessed, the Software will periodically try to reconnect. You can also force it to connect immediately or force it to disconnect by clicking the "Server: **Connect**" or "Server: **Disconnect**" buttons, respectively.

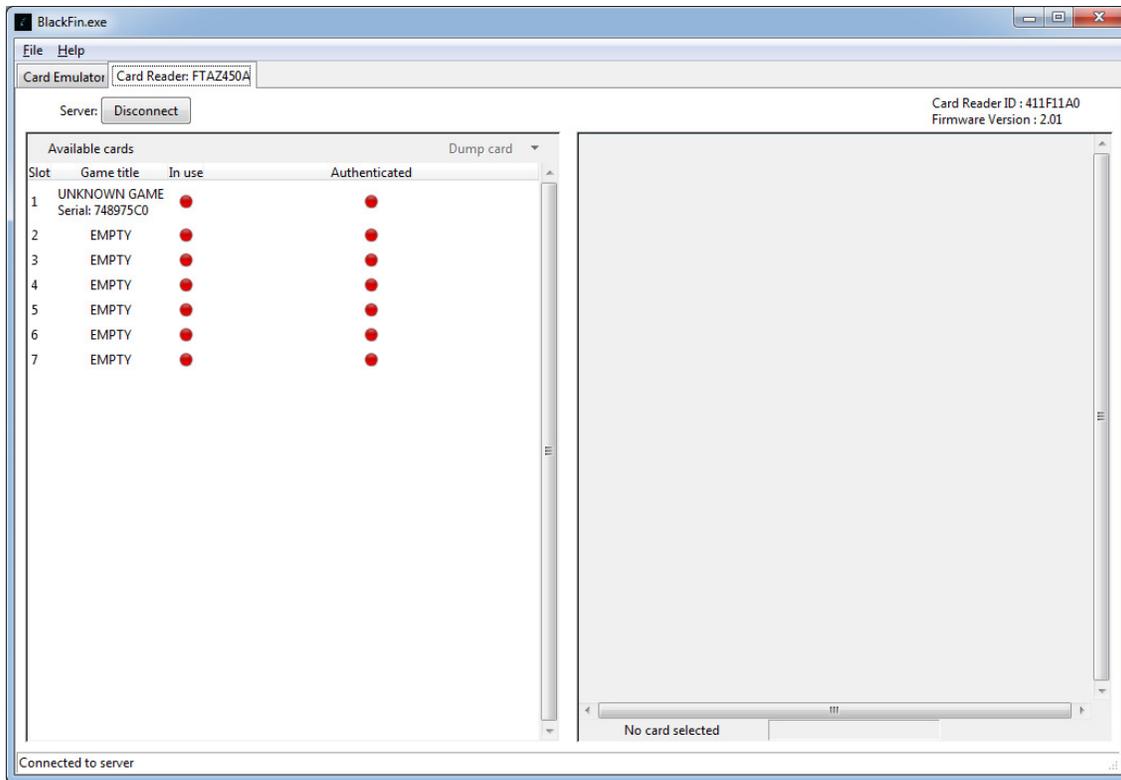
If you have set your settings to connect to the **localhost** server, you must make sure to have the **BlackFinServer.exe** server running locally on your PC at the same time.

The "Bluetooth: **Connect**" button is used to connect to the BlackFin Emulator via Bluetooth. It is used to launch games. More on this is explained later.

You can switch to the **Card Reader** tab to see the status of your BlackFin Reader and the cards that are inserted in it.

Authenticating your game cards

At first, the reader will not recognize any of the cards that you have inserted.

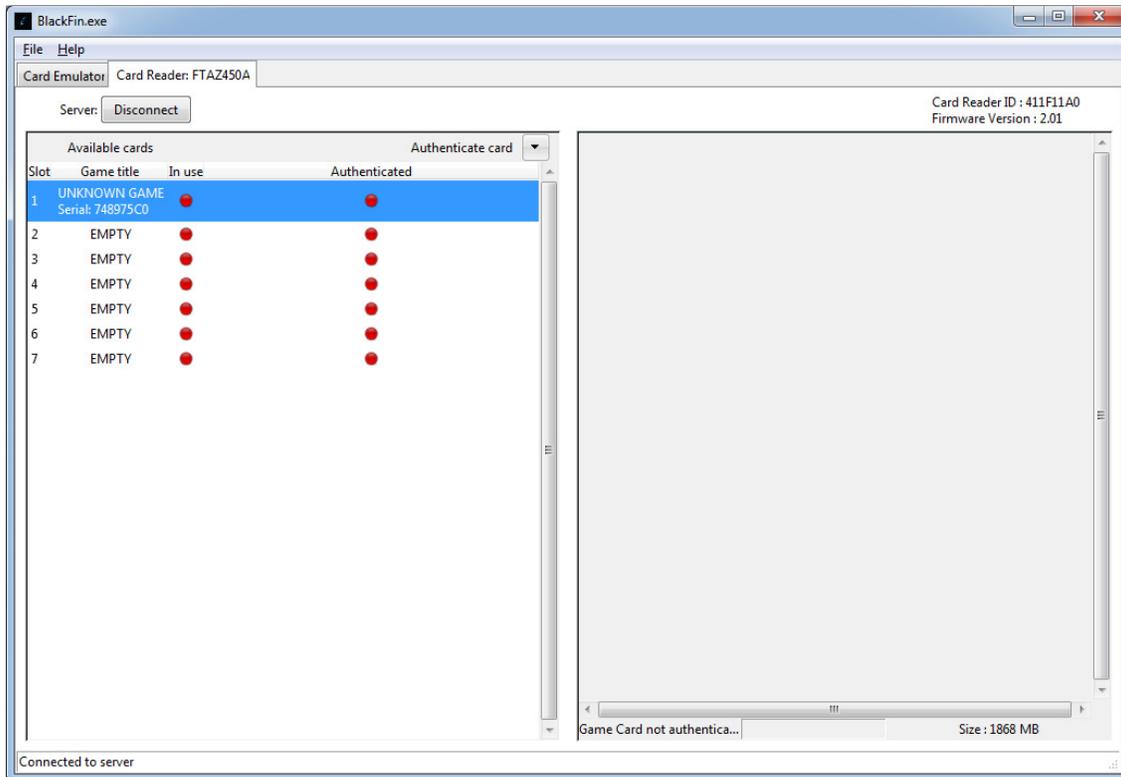


While a card is shown as "**UNKNOWN GAME**", it will not be made available for others even though your reader is connected to the server. To fix this problem, you need to at least authenticate the card once before in order for the BlackFin Software to recognize which game the card belongs to.

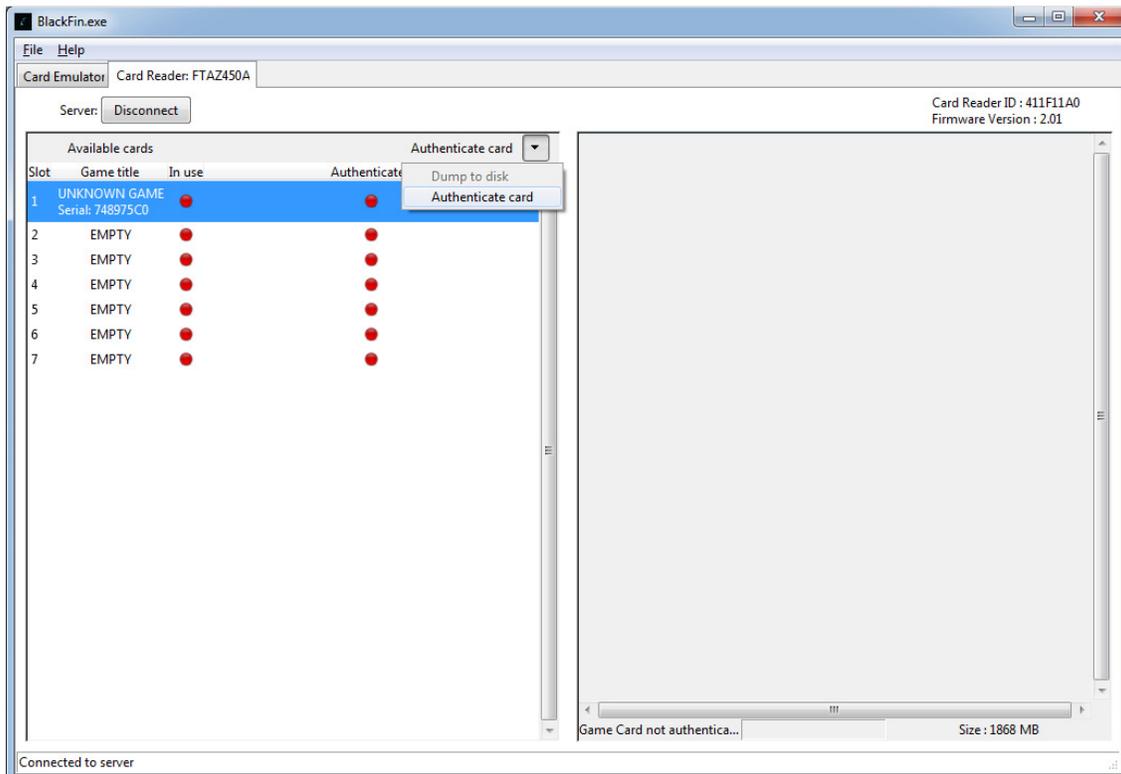
Authenticating cards is also required in order to dump their contents into an ISO file.

To authenticate a card, simply follow these instructions :

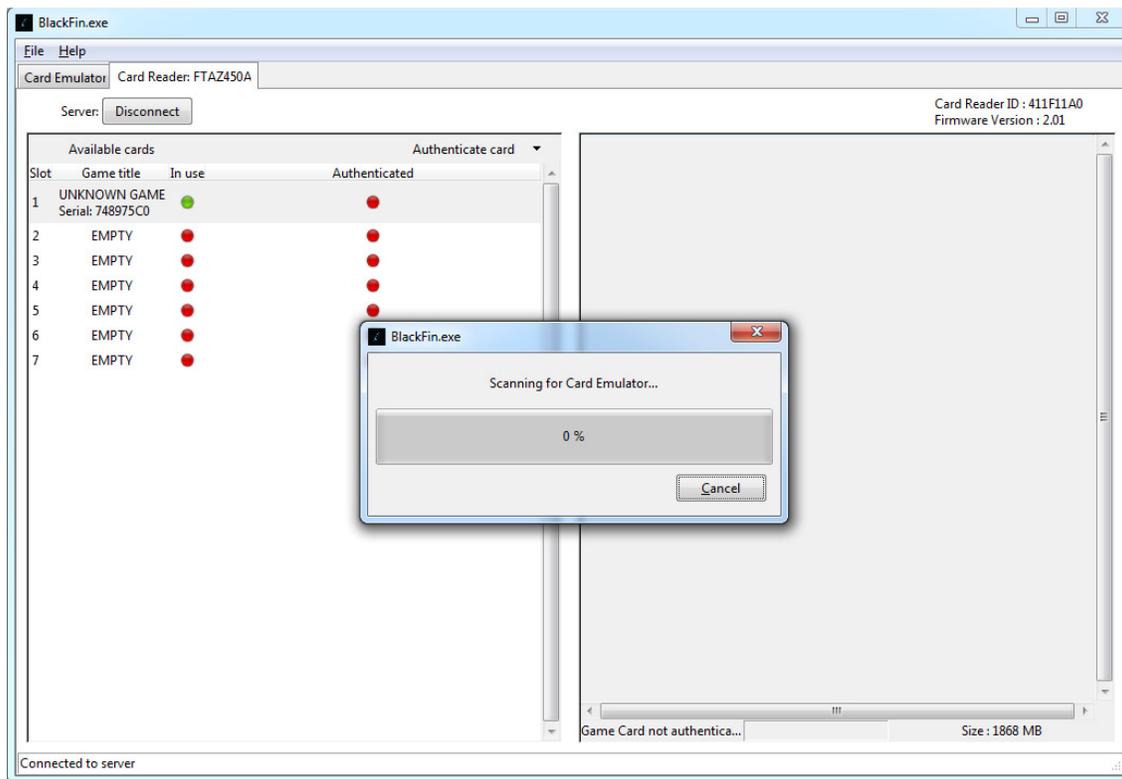
- First, select the card to authenticate



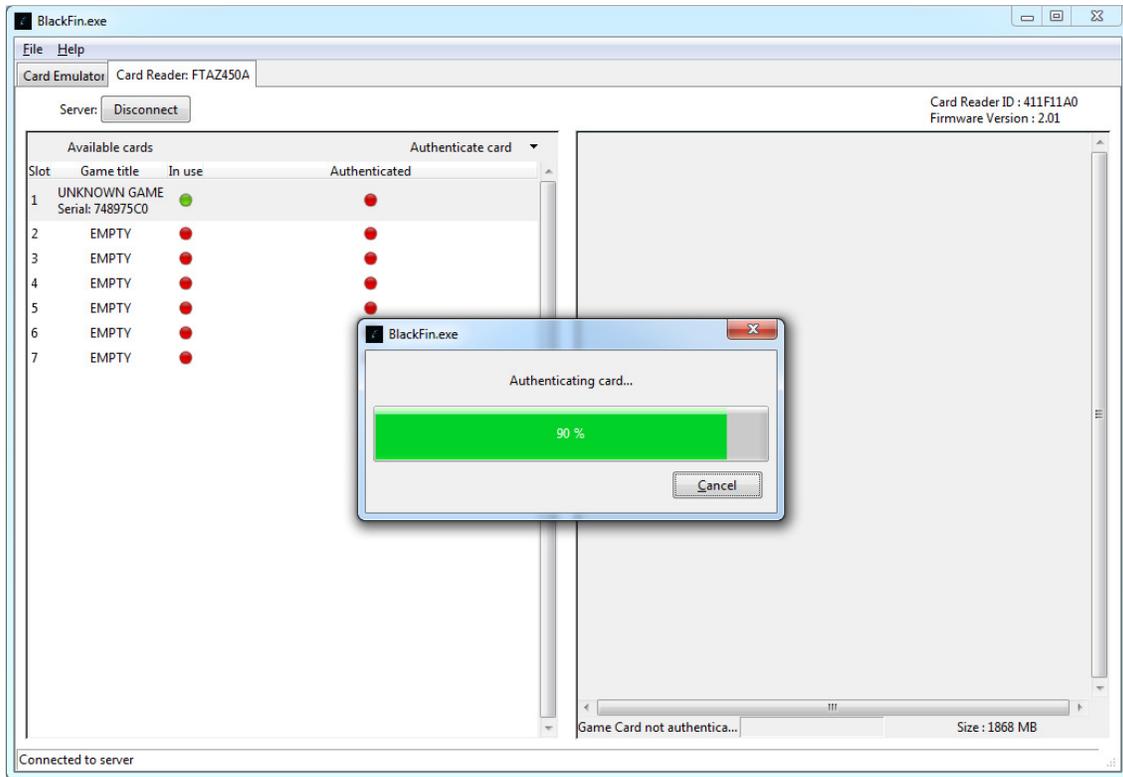
- At this point, the BlackFin Emulator must not be inserted in the Reader or in Playstation Vita, or the Vita must be off
- Then select Authenticate card from the reader's menu



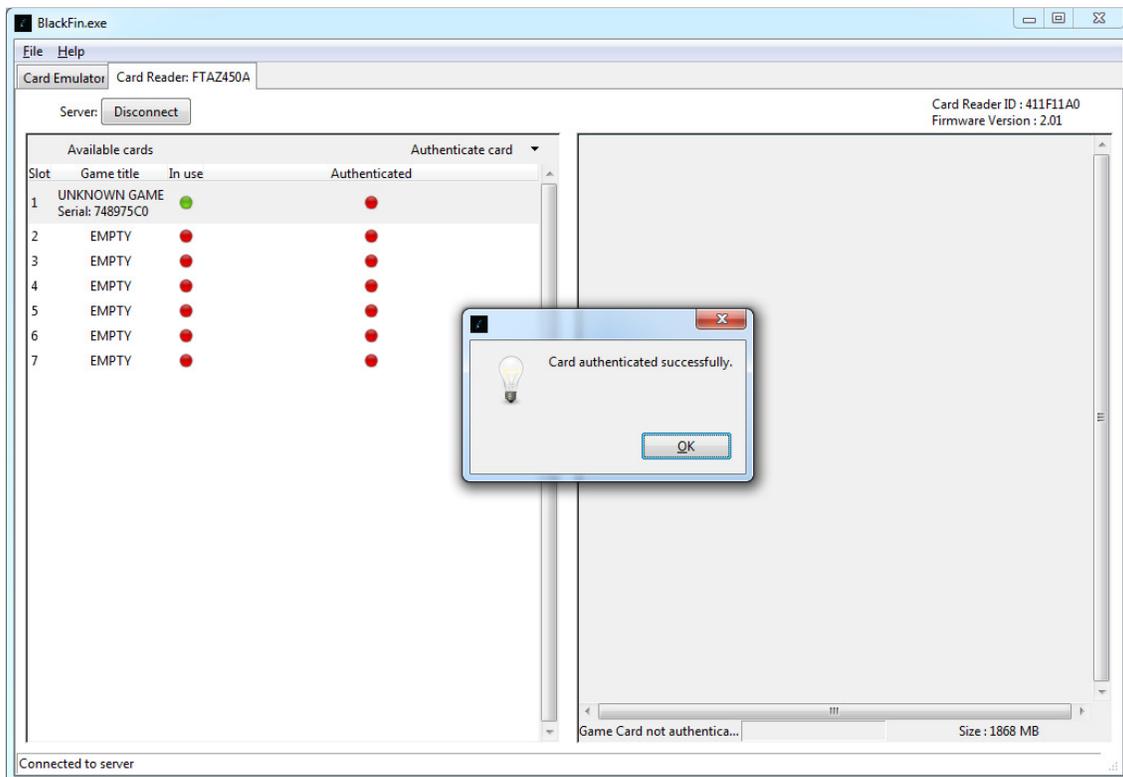
- The Software will start scanning for the BlackFin Emulator



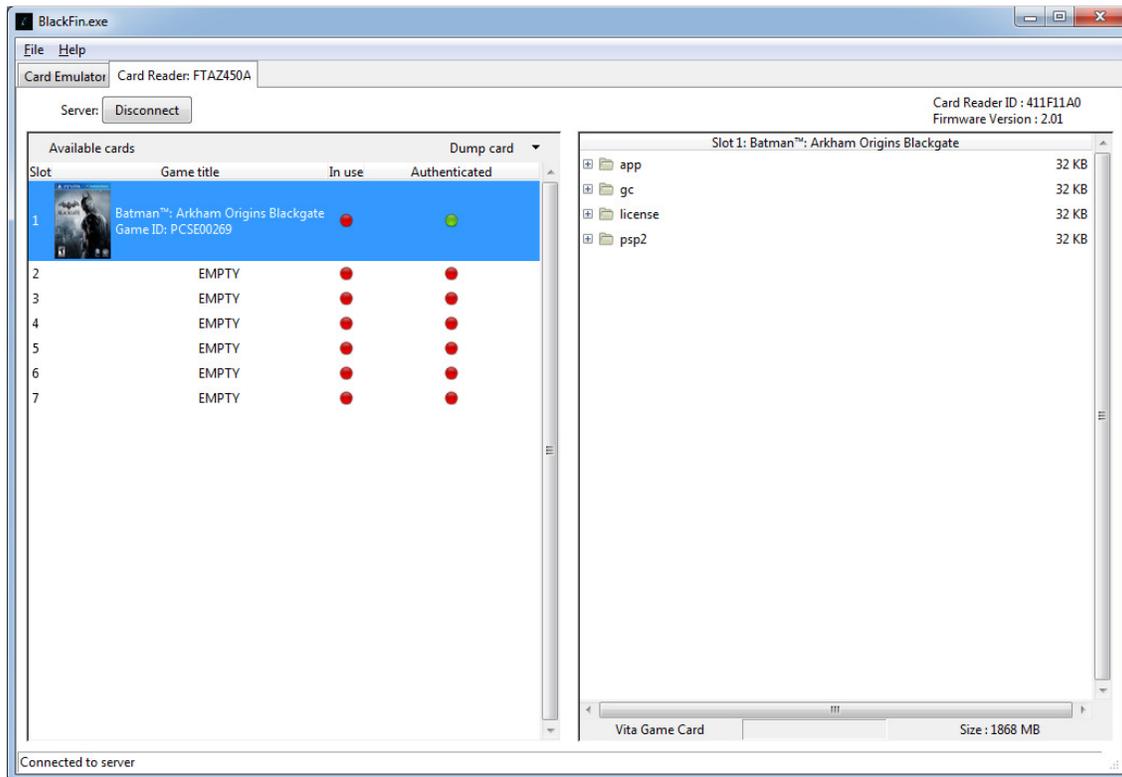
- You can now turn the Vita on and/or insert the BlackFin Emulator in the Vita
- Once the BlackFin Emulator is inserted in the Vita, it will be detected by the Software and authentication of the game card will begin



- The card is authenticated



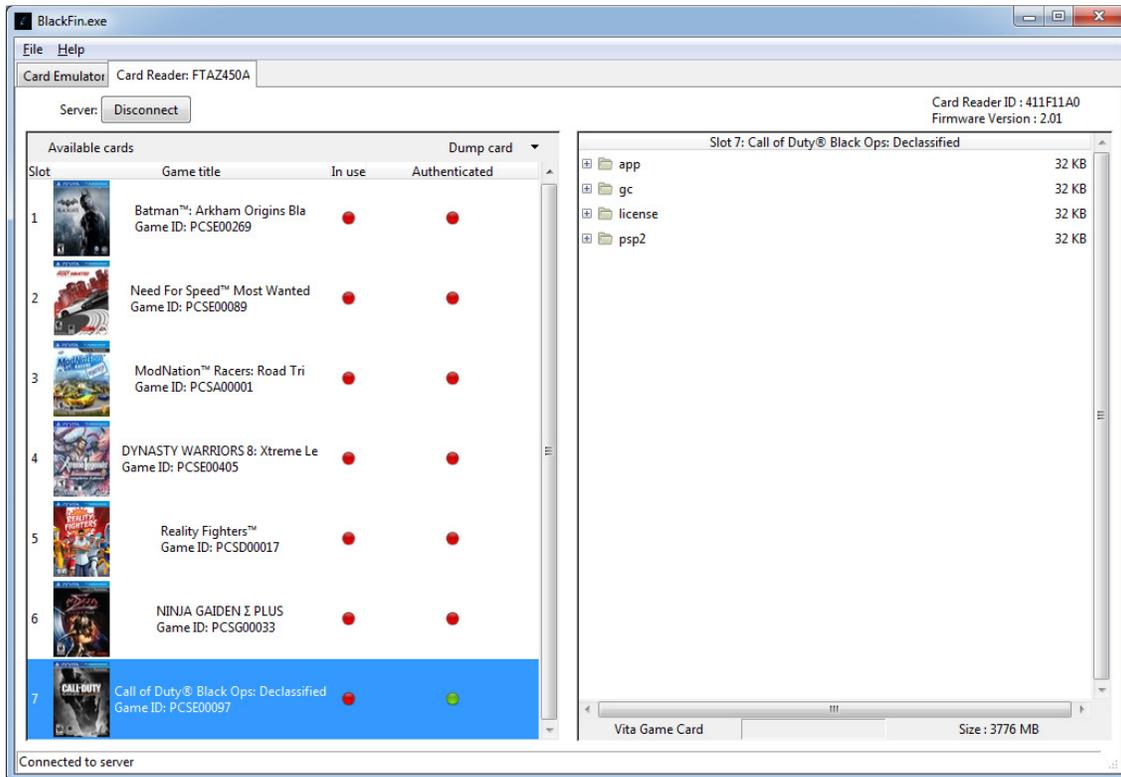
- The game is now recognized by the BlackFin Software and will be available to others online and can also be dumped



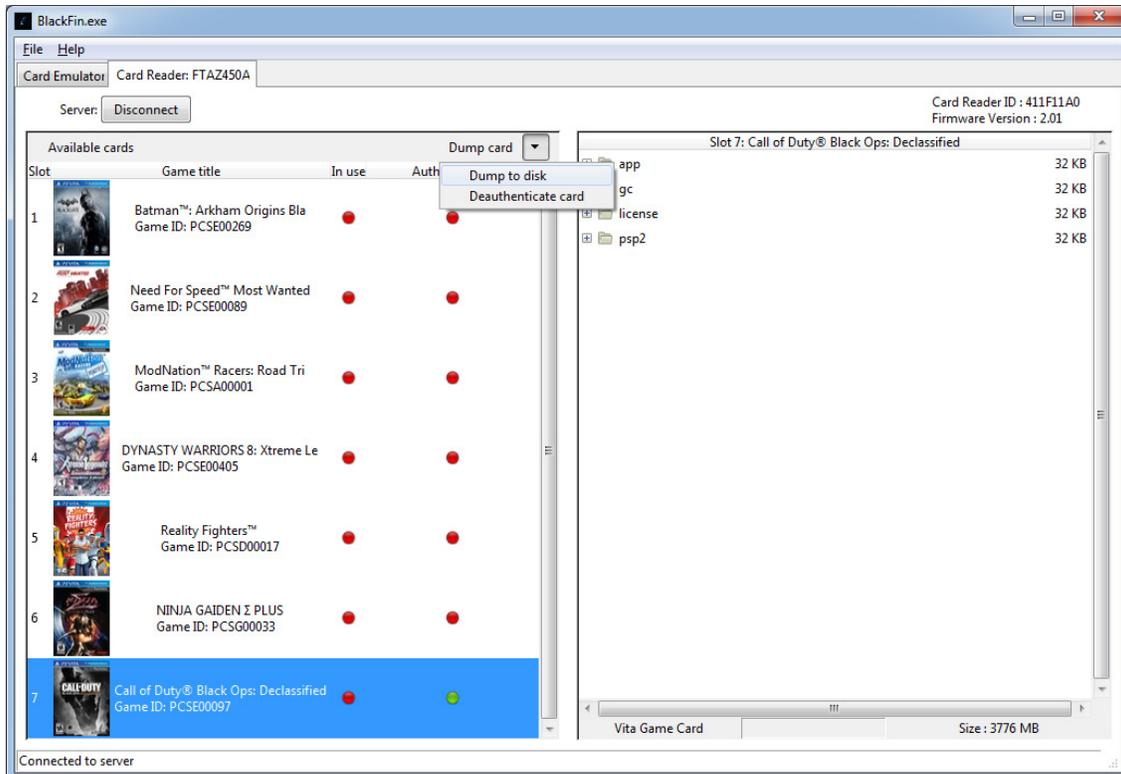
Dumping a Vita Game Card to disk

In order to dump a Vita Game Card to disk, follow these instructions

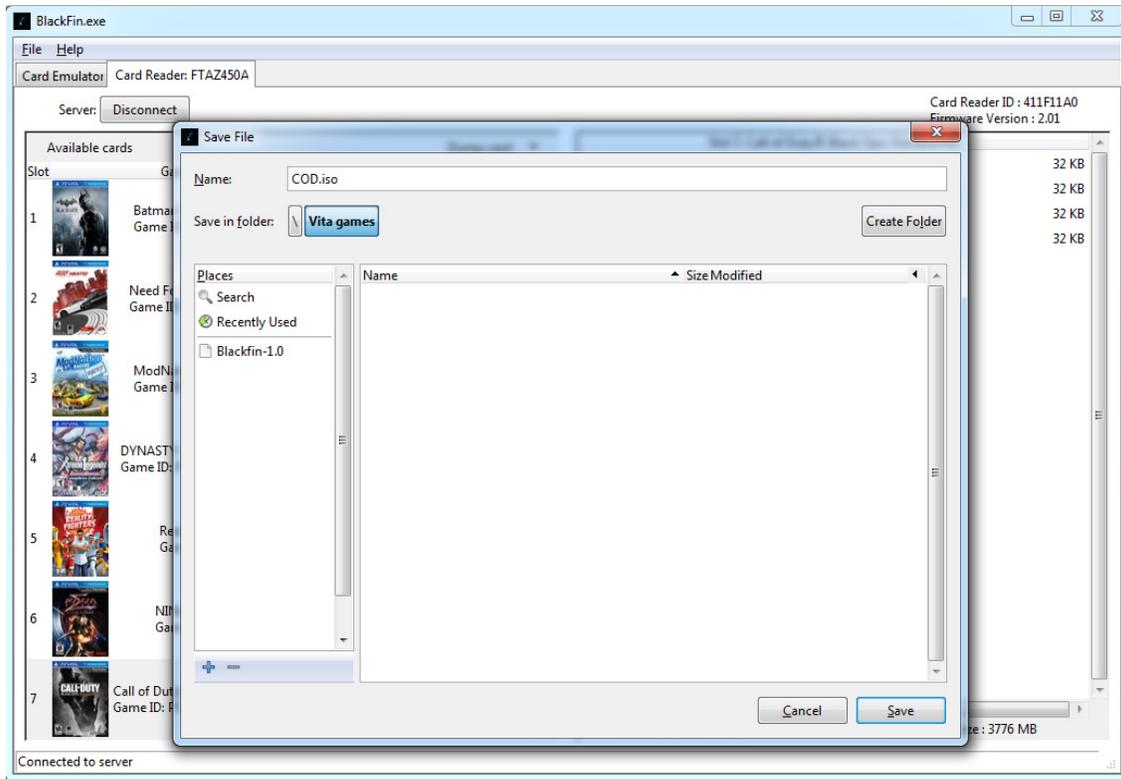
- Ensure the game card is authenticated. If it's not, follow the instructions above for authenticating the card
- Select the game card to dump



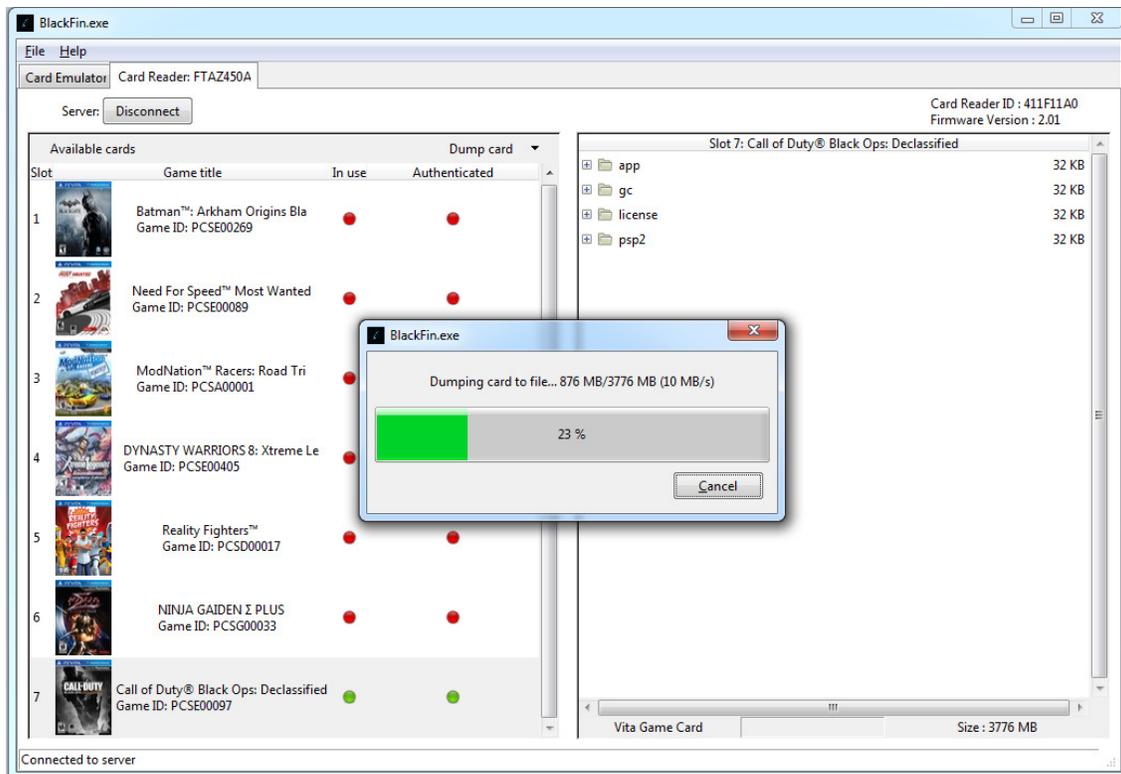
- Select the **Dump to disk** option from the reader's menu



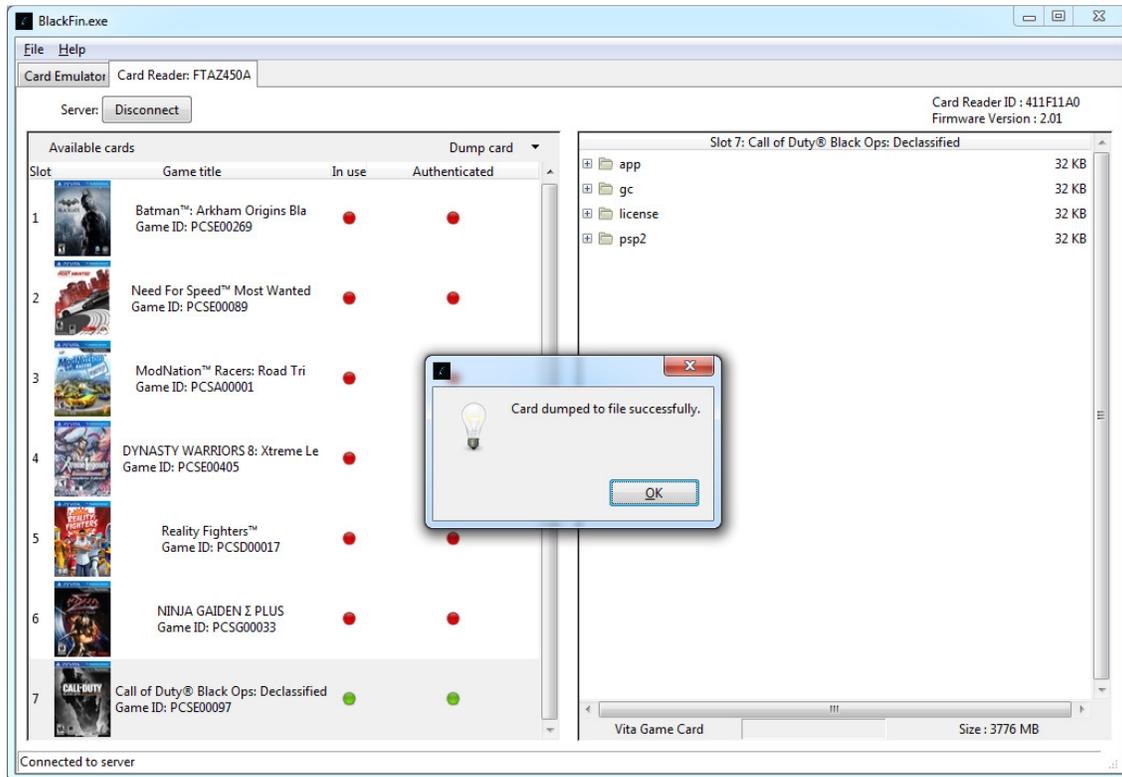
- Select the directory and filename to save the ISO file to



- The game will be dumped from the Reader to the file you selected



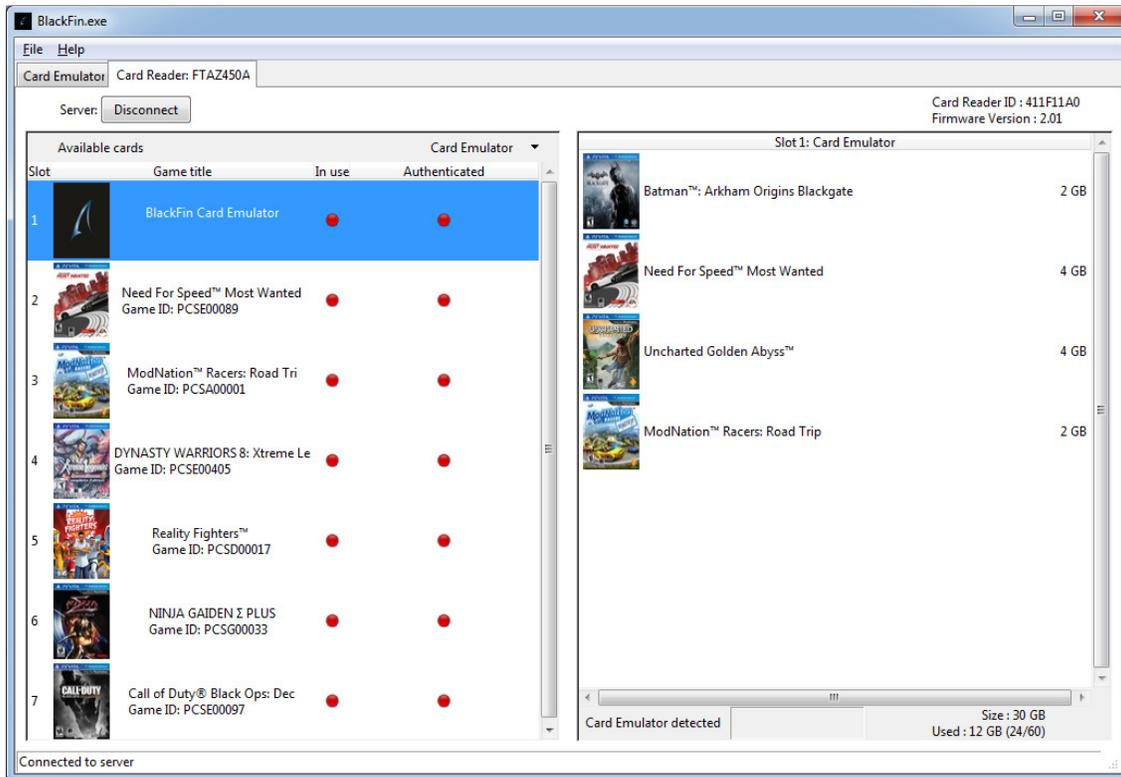
- Wait until the game is dumped



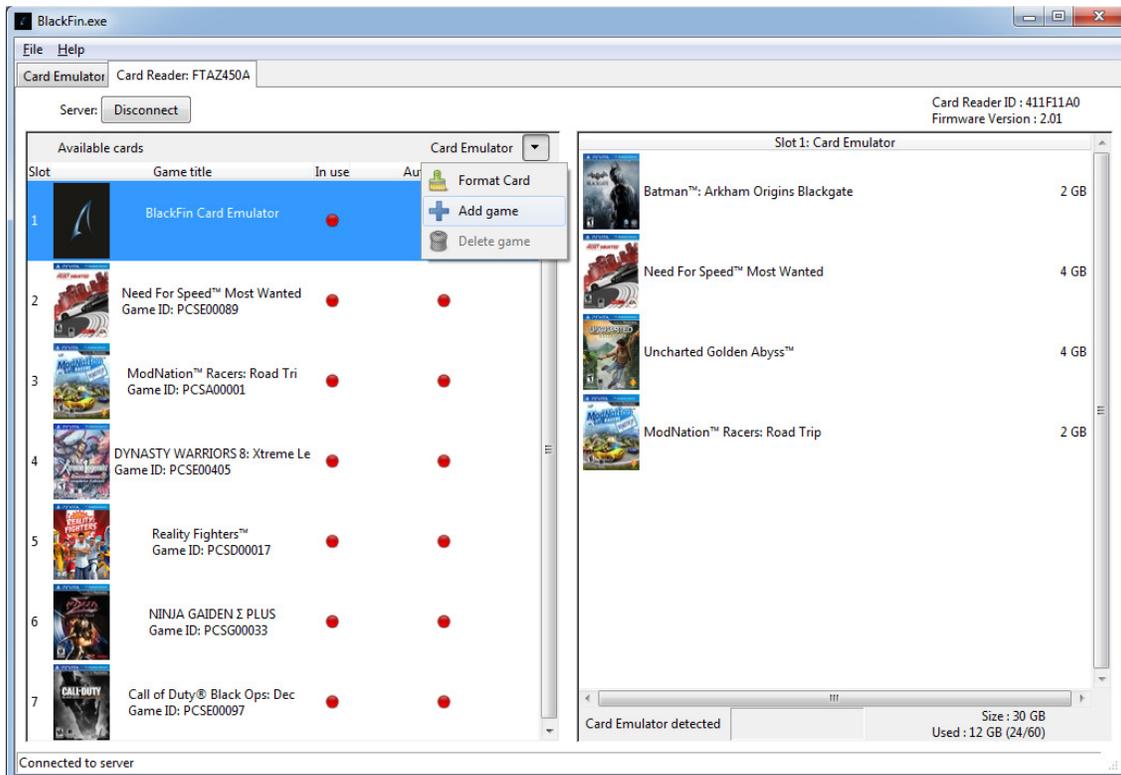
Adding a game dump to the BlackFin Emulator MicroSD

Insert the BlackFin Emulator in any of the slots of the BlackFin Reader, then follow the steps outlined below.

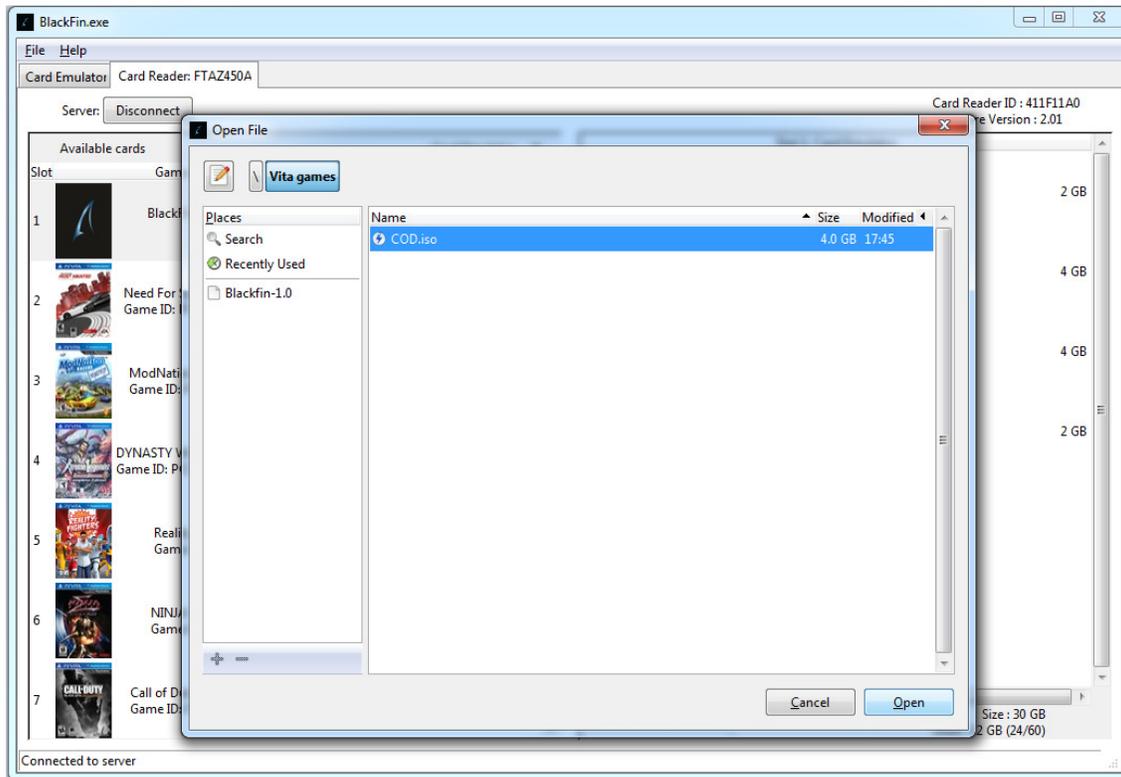
- Make sure the microSD has already formatted been formatted, if not, follow the instructions outlined in this manual in order to do that
- Select the BlackFin Emulator from the list of cards in the reader



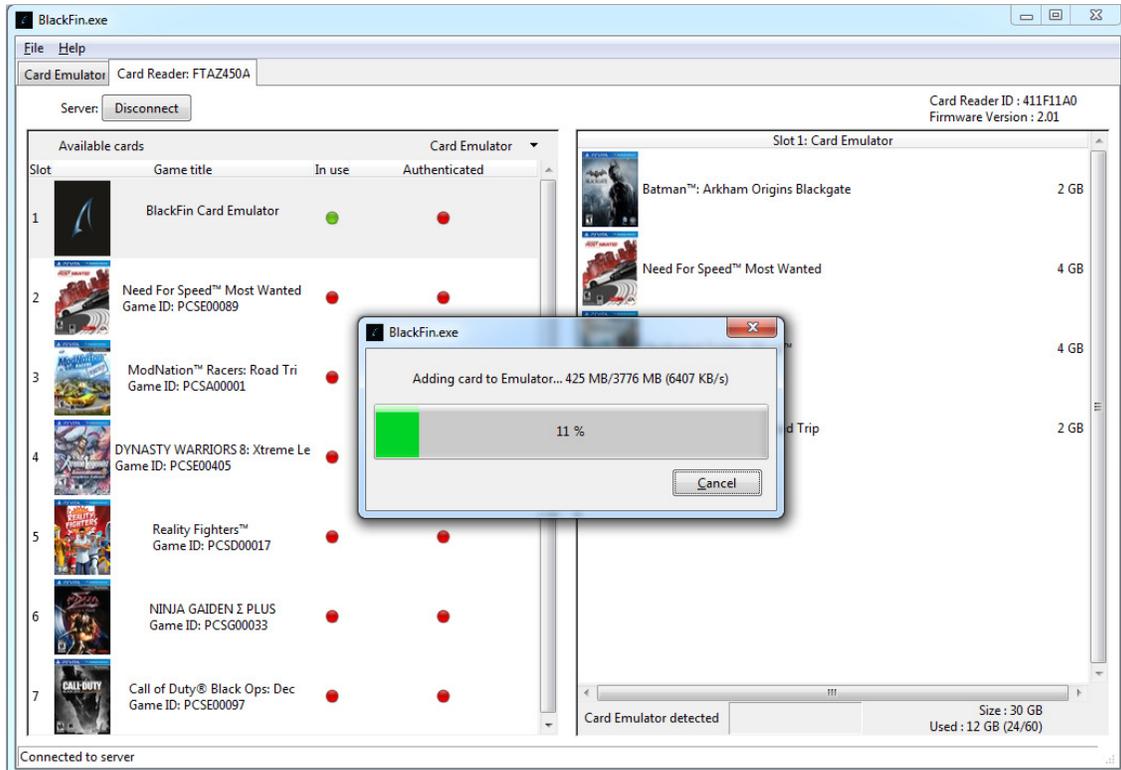
- Select the **Add Game** button from the reader's menu



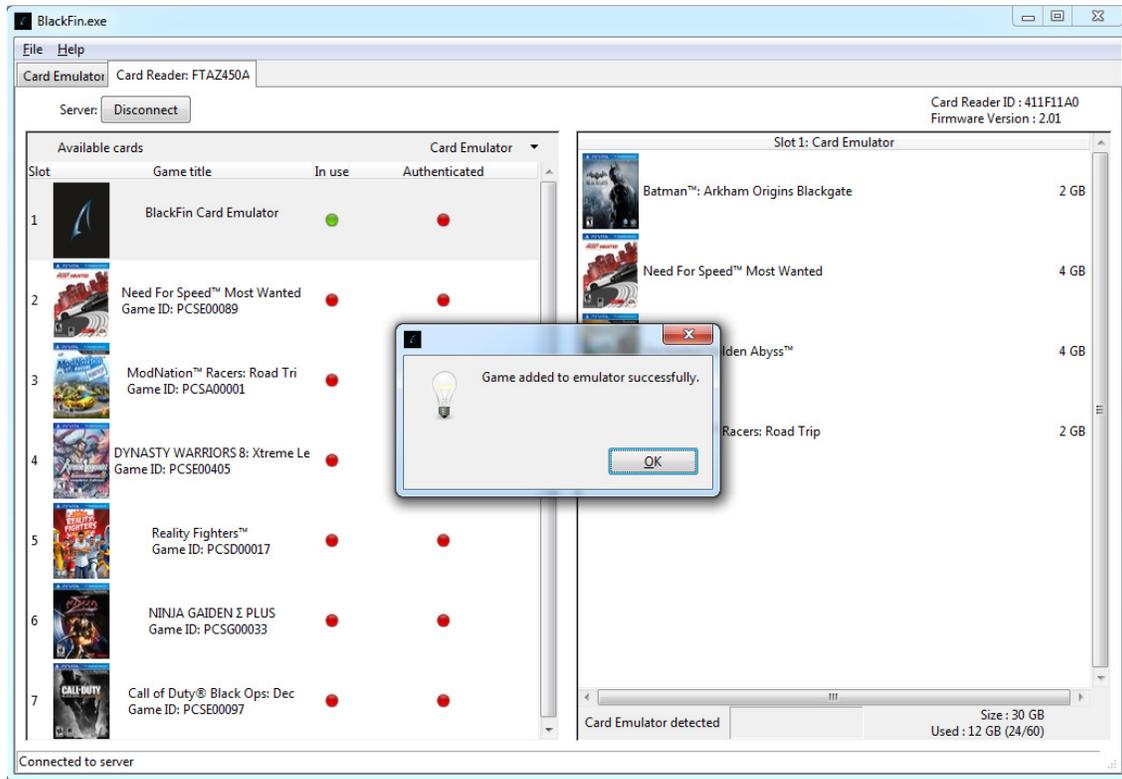
- Select the ISO file you want to add to the microSD



- The game will be added to the microSD of the emulator



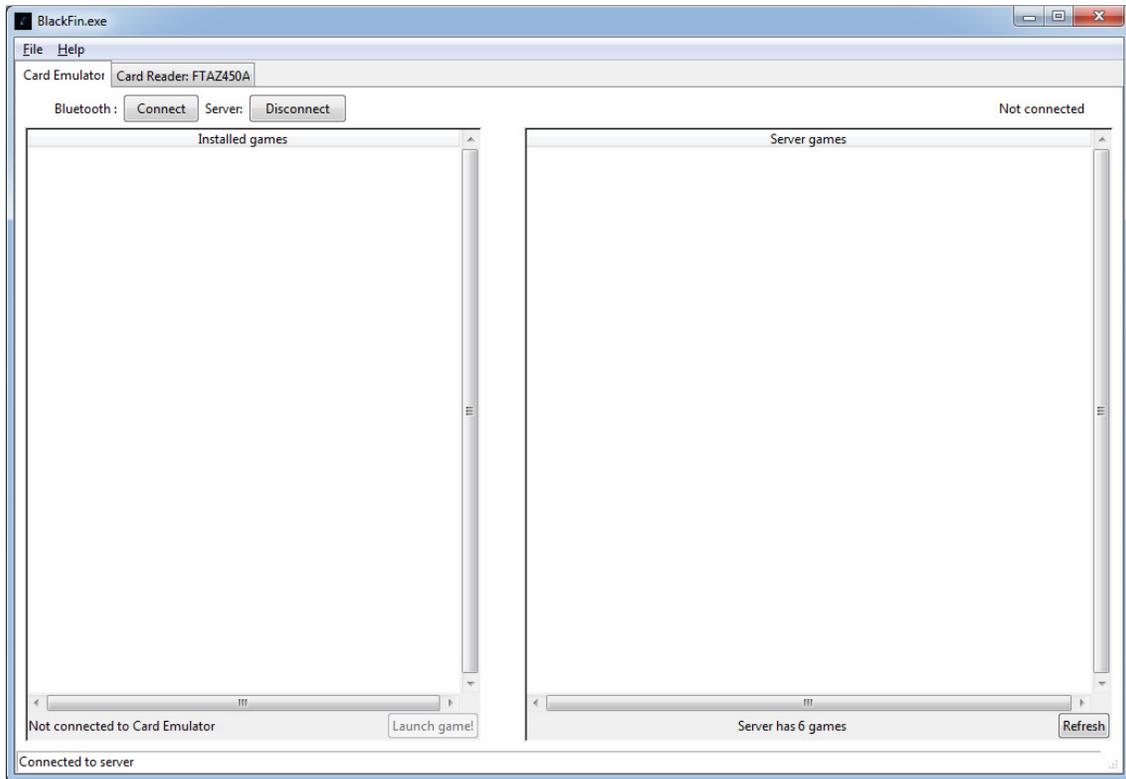
- Wait until the ISO has been copied entirely to the microSD



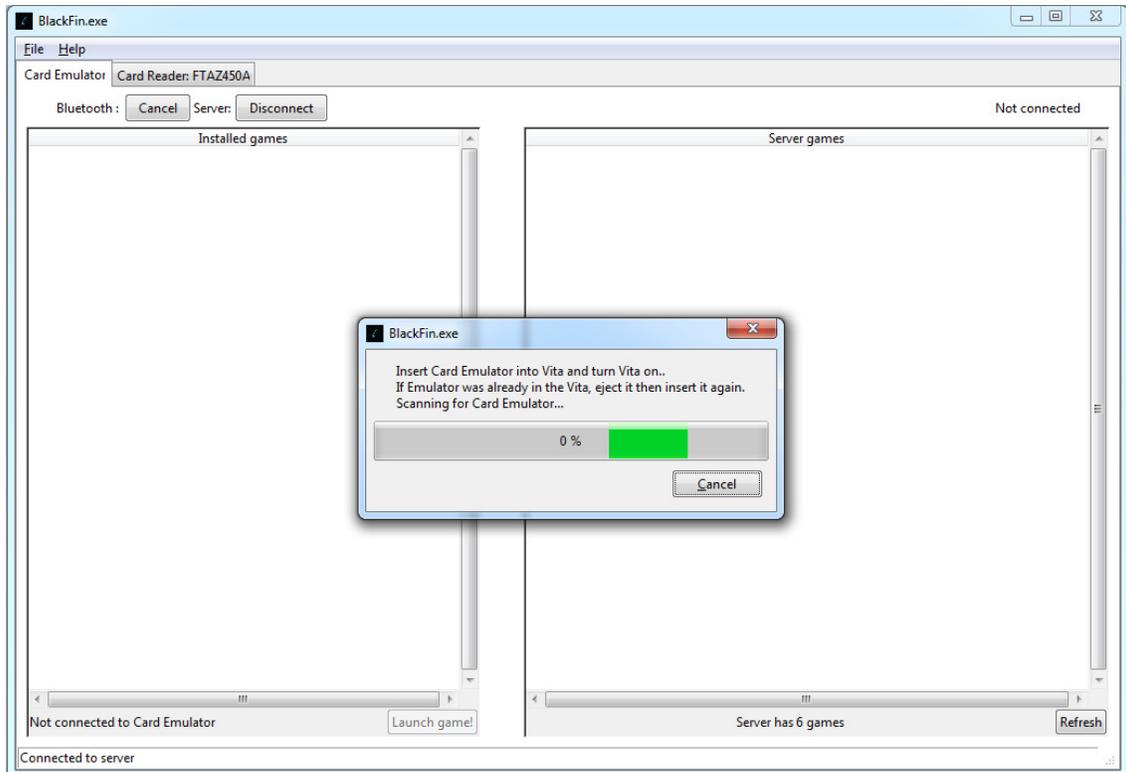
Launching a game through the BlackFin Emulator

In order to launch a game on the Playstation Vita with the BlackFin Emulator, follow these instructions:

- Make sure a formatted microSD card with ISO games is inserted into the BlackFin Emulator
- At this point, the BlackFin Emulator must not be inserted in the Reader or in Playstation Vita, or the Vita must be off
- Select the **Card Emulator** tab

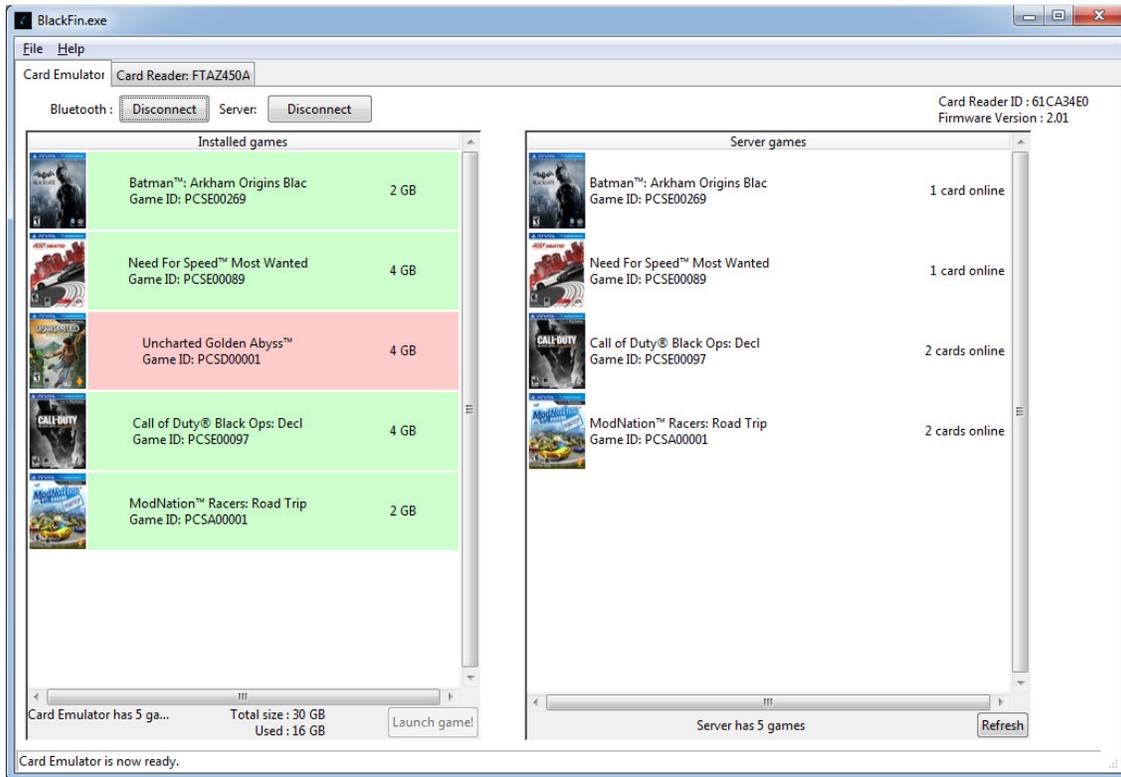


- Press the "Bluetooth: **Connect**" button

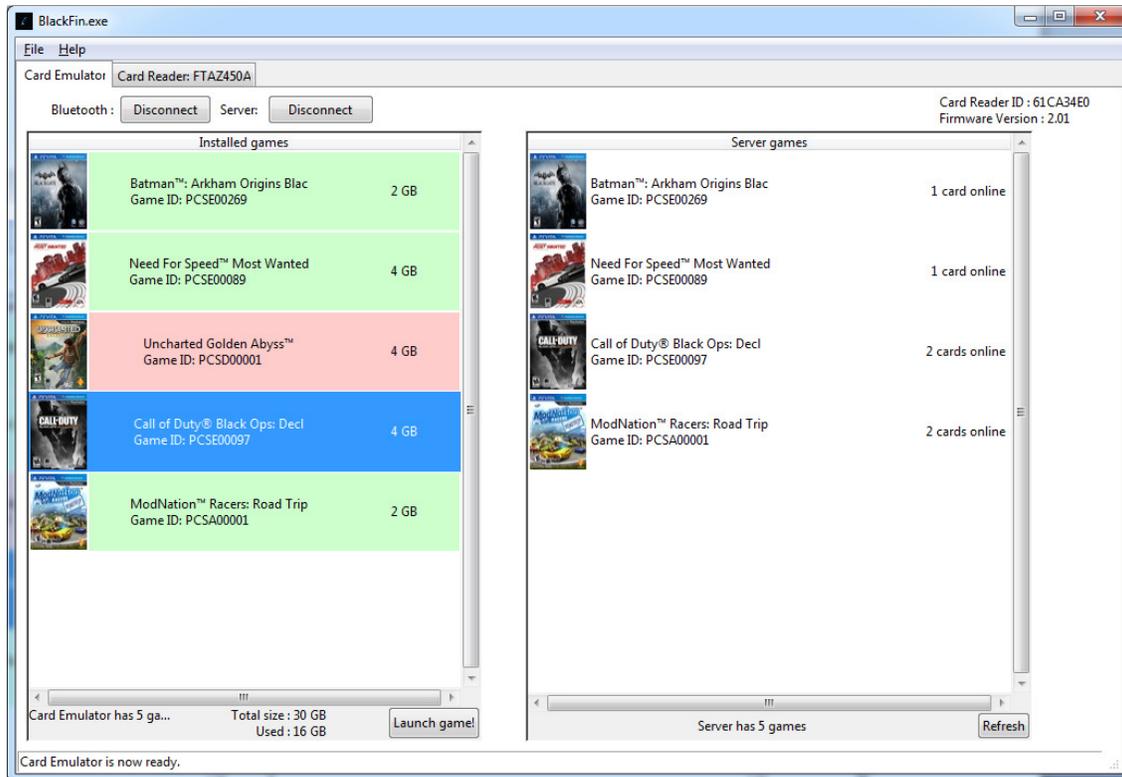


- You can now turn the Vita on and/or insert the BlackFin Emulator in the Vita

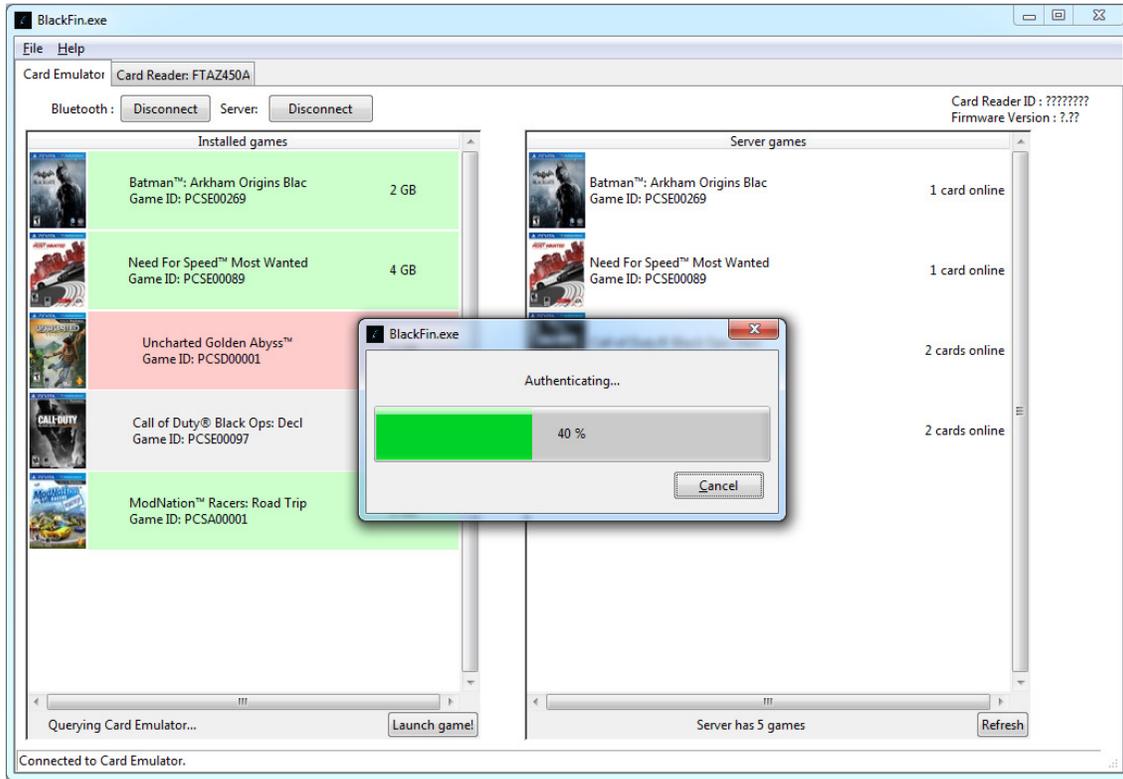
- The software will then display the list of games available on the Emulator as well as the list of games available on the server



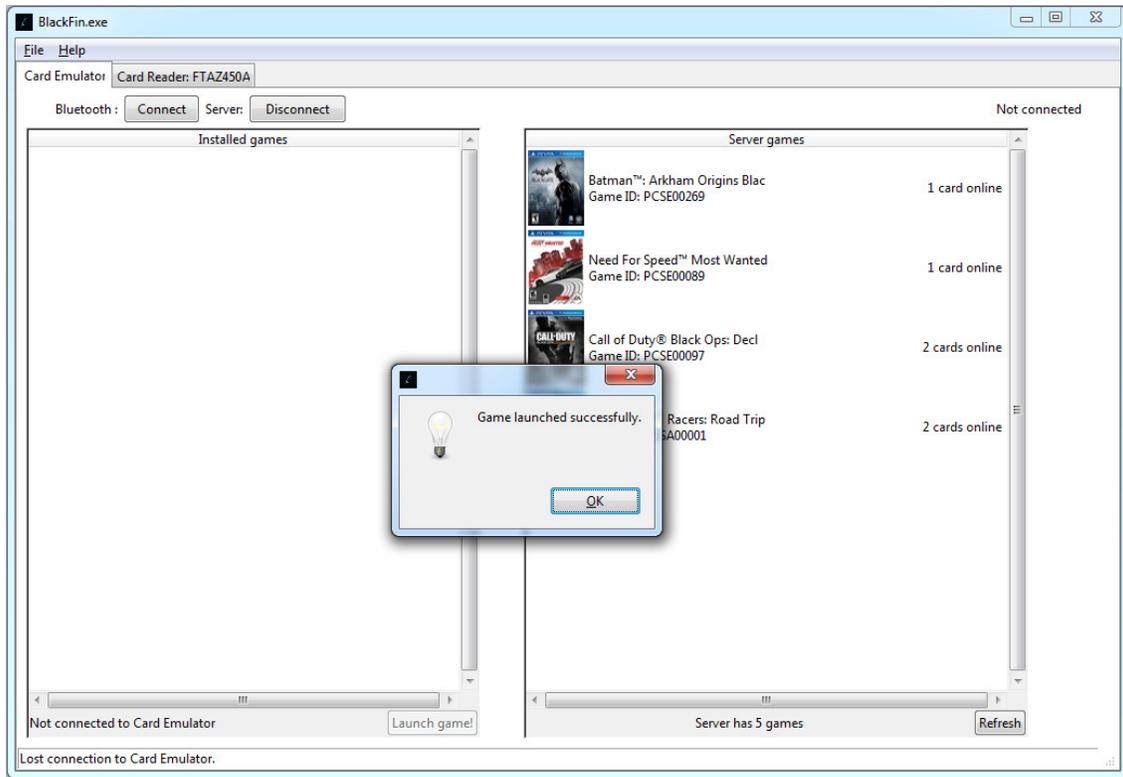
- On the left side, the games available on the Emulator will show up as green if that game is available on the server, and they will show up as red, if they are not available on the server.
- On the right side, the games available on the server will only be shown for the games that are also available on the Emulator. You can also see how many cards are available for a specific game.
- You must then select the game that you wish to launch



- The **Launch game** button at the bottom will become selectable
- Click on the **Launch game!** button
- The game will be authenticated by the Vita through the BlackFin Server



- The game is launched and you can now play it on your Playstation Vita



BlackFin is currently supported up to PS Vita Firmware 3.57. We are currently developing support for Firmware 3.60. Please do not update your console past 3.57 FW in the meantime.