

For our project, we are building a concurrent version of the classic Sharks and Minnows game. Each user controls a different minnow on a single board. The goal is to not get eaten and thus stay alive the longest. The main issue we needed to tackle was how to allow multiple users to simultaneously access the same board. The two ways we considered addressing this were with Erlport and Pyro. Ultimately, we chose to use Pyro since we thought it would be simpler. Whereas Erlport would add in an extra layer to the implementation, since the users would have to communicate with the gen server, which in turn would have to communicate with the board, Pyro allows the various users to communicate with the board directly. In addition, Pyro will be fire.

Gather round fam, come, have a seat
We have a story to tell, and this one's a treat.
Consider a minnow, trying to survive
But in shark-fested waters it can be hard to strive.
But these little minnows, eaten they weren't,
They're all together in a game that's a bit concurrent.
The problem here that we wish to address,
So many fishies at once, not even one less.
And all of these little guys, all of them stored
Each trying to access the same very board.
An issue like this, two ways we can go,
The first is called Erlport; the second Pyro.
But with Erlport you see,
Things get a little tricky,
This intermediary step
Which we cannot forget
We've got all these fishies all swimming around
Need to move quick; don't wanna be sharkbound.
And these little fishies, why they're in such a fervor
They don't wanna take the time to talk with a gen server.
But fish to gen server to board is the sport,
If we decide to go with Erlport.
But now listen closely for Pyro you'll hear,
Straight form fishies to board? The choice here is clear!
There **can** be no question, there can be no more debate,
We've resolved this argument, it need not get late.
For Pyro is simple, it's nice, it will work,
Our fishies will swim, the sharks they can lurk,
Our implementation, Mark will admire.
And the reason? Pyro is fire.