

Jason Gasparini
Final Erlang

BUGS:

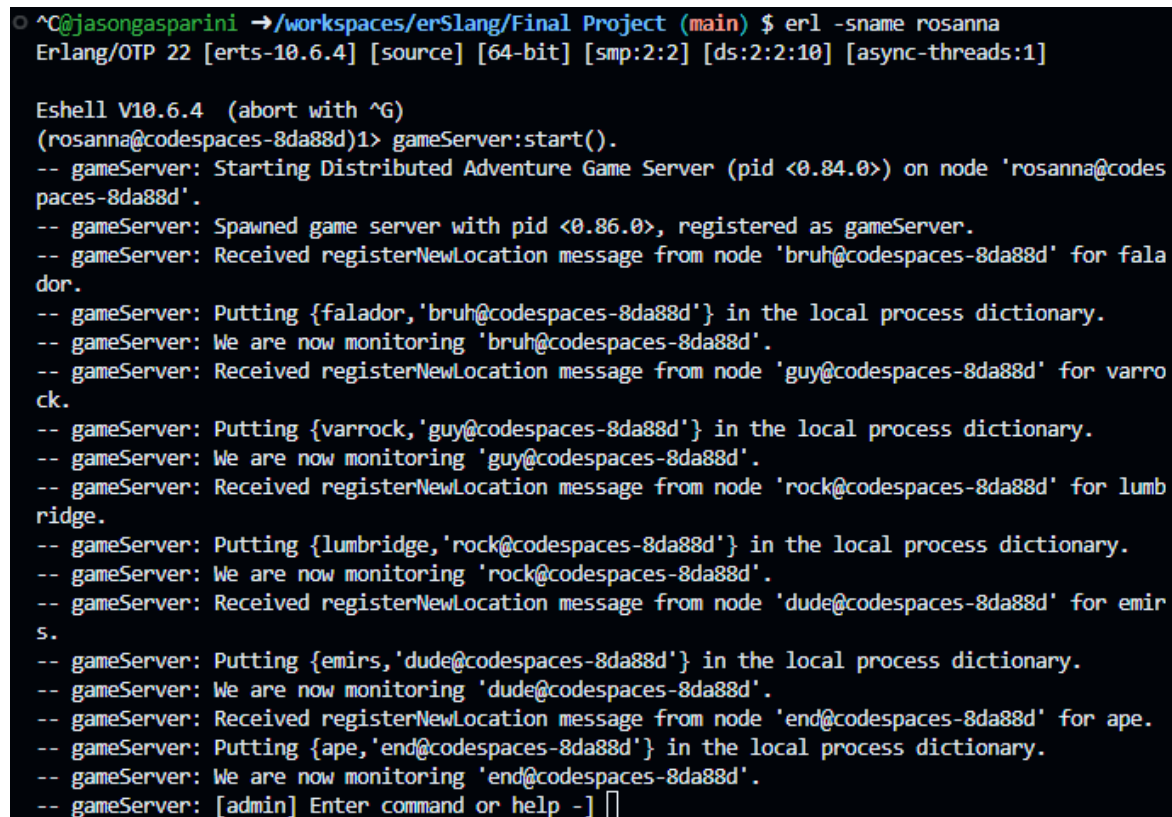
Unfortunately, after using the pickup command the messages that are sent to the client when using the [go] command won't display until the game is over. I cannot figure out the reason for it and have tried multiple reordering and refactoring of code to try and fix it. But this has been to no success. Nevertheless, the game still functions and the win/losing event is functional.

Movement:

Game directionality is non-linear which is the style of the Runescape map in which the locations are inspired by.

Screenshots:

Server monitoring of location nodes as they are initialized. There are 5 locations, ape (ape Atoll), lumbridge, falador, varrock, and emirs arena:



```
○ ^C@jasongasparini →/workspaces/erSlang/Final Project (main) $ erl -sname rosanna
Erlang/OTP 22 [erts-10.6.4] [source] [64-bit] [smp:2:2] [ds:2:2:10] [async-threads:1]

Eshell V10.6.4 (abort with ^G)
(rosanna@codespaces-8da88d)1> gameServer:start().
-- gameServer: Starting Distributed Adventure Game Server (pid <0.84.0>) on node 'rosanna@codespaces-8da88d'.
-- gameServer: Spawned game server with pid <0.86.0>, registered as gameServer.
-- gameServer: Received registerNewLocation message from node 'bruh@codespaces-8da88d' for falador.
-- gameServer: Putting {falador,'bruh@codespaces-8da88d'} in the local process dictionary.
-- gameServer: We are now monitoring 'bruh@codespaces-8da88d'.
-- gameServer: Received registerNewLocation message from node 'guy@codespaces-8da88d' for varrock.
-- gameServer: Putting {varrock,'guy@codespaces-8da88d'} in the local process dictionary.
-- gameServer: We are now monitoring 'guy@codespaces-8da88d'.
-- gameServer: Received registerNewLocation message from node 'rock@codespaces-8da88d' for lumbridge.
-- gameServer: Putting {lumbridge,'rock@codespaces-8da88d'} in the local process dictionary.
-- gameServer: We are now monitoring 'rock@codespaces-8da88d'.
-- gameServer: Received registerNewLocation message from node 'dude@codespaces-8da88d' for emirs.
-- gameServer: Putting {emirs,'dude@codespaces-8da88d'} in the local process dictionary.
-- gameServer: We are now monitoring 'dude@codespaces-8da88d'.
-- gameServer: Received registerNewLocation message from node 'end@codespaces-8da88d' for ape.
-- gameServer: Putting {ape,'end@codespaces-8da88d'} in the local process dictionary.
-- gameServer: We are now monitoring 'end@codespaces-8da88d'.
-- gameServer: [admin] Enter command or help -) []
```

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All 5 locations being initialized in their terminals:

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS
osanna@codespaces-8da88d'.
-- location ape: Monitoring game server on node 'rosanna@codespaces-8da88d'.
ok
-- location aps: Server node 'rosanna@codespaces-8da88d' has left our cluster and is no longer reachable. Shutting down.
(end@codespaces-8da88d)>
BREAK: (a)bort (c)ontinue (p)roc info (i)nf
(l)oad
(v)ersion (k)ill (D)b-tables (d)istrib
ution
@jasongasparini → /workspaces/erSlang/Final
Project (main) $ erl -sname end
Erlang/OTP 22 [erts-10.6.4] [source] [64-bit
] [smp:2:2] [ds:2:2:10] [async-threads:1]

Eshell V10.6.4 (abort with ^G)
(end@codespaces-8da88d)> ape:start('rosanna@codespaces-8da88d').
-- location ape: Starting location ape atoll (pid <0.84.0>) on node 'end@codespaces-8da88d'.
-- location ape: Spawned location with pid <0.86.0>, registered as ape.
-- location ape: Notifying server on node 'rosanna@codespaces-8da88d'.
-- location ape: Monitoring game server on node 'rosanna@codespaces-8da88d'.
ok
(end@codespaces-8da88d)>

m lumbridge.
-- location Lumbridge: A gameClient on 'jason@codespaces-8da88d' is picking up items from lumbridge.
-- location Lumbridge: Server node 'rosanna@codespaces-8da88d' has left our cluster and is no longer reachable. Shutting down.
(dude@codespaces-8da88d)>
BREAK: (a)bort (c)ontinue (p)roc info (i)nf
(l)oad
(v)ersion (k)ill (D)b-tables (d)istrib
ution
@jasongasparini → /workspaces/erSlang/Final
Project (main) $ erl -sname dude
Erlang/OTP 22 [erts-10.6.4] [source] [64-bit
] [smp:2:2] [ds:2:2:10] [async-threads:1]

Eshell V10.6.4 (abort with ^G)
(dude@codespaces-8da88d)> emirs:start('rosanna@codespaces-8da88d').
-- location emirs: Starting location emirs (pid <0.84.0>) on node 'dude@codespaces-8da88d'.
-- location emirs: Spawned location with pid <0.86.0>, registered as emirs.
-- location emirs: Notifying server on node 'rosanna@codespaces-8da88d'.
-- location emirs: Monitoring game server on node 'rosanna@codespaces-8da88d'.
ok
(dude@codespaces-8da88d)>

e 'rosanna@codespaces-8da88d'.
-- location Varrock: Monitoring game server on node 'rosanna@codespaces-8da88d'.
ok
-- location Varrock: Server node 'rosanna@codespaces-8da88d' has left our cluster and is no longer reachable. Shutting down.
(rock@codespaces-8da88d)>
BREAK: (a)bort (c)ontinue (p)roc info (i)nf
(l)oad
(v)ersion (k)ill (D)b-tables (d)istrib
ution
@jasongasparini → /workspaces/erSlang/Final
Project (main) $ erl -sname rock
Erlang/OTP 22 [erts-10.6.4] [source] [64-bit
] [smp:2:2] [ds:2:2:10] [async-threads:1]

Eshell V10.6.4 (abort with ^G)
(rock@codespaces-8da88d)> lumbridge:start('rosanna@codespaces-8da88d').
-- location Lumbridge: Starting location lumbridge (pid <0.84.0>) on node 'rock@codespaces-8da88d'.
-- location Lumbridge: Spawned location with pid <0.86.0>, registered as lumbridge.
-- location Lumbridge: Notifying server on node 'rosanna@codespaces-8da88d'.
-- location Lumbridge: Monitoring game server on node 'rosanna@codespaces-8da88d'.
ok
(rock@codespaces-8da88d)>

@jasongasparini → /workspaces/erSlang (main)
$ cd 'Final Project'
@jasongasparini → /workspaces/erSlang/Final
Project (main) $ erl -sname guy
Erlang/OTP 22 [erts-10.6.4] [source] [64-bit
] [smp:2:2] [ds:2:2:10] [async-threads:1]

Eshell V10.6.4 (abort with ^G)
(guy@codespaces-8da88d)> c(varrock).
{ok,varrock}
(guy@codespaces-8da88d)> varrock:start('rosanna@codespaces-8da88d').
-- location Varrock: Starting location 2 (pid <0.84.0>) on node 'guy@codespaces-8da88d'.
-- location Varrock: Spawned location with pid <0.91.0>, registered as varrock.
-- location Varrock: Notifying server on node 'rosanna@codespaces-8da88d'.
-- location Varrock: Monitoring game server on node 'rosanna@codespaces-8da88d'.
(guy@codespaces-8da88d)>

t) [smp:2:2] [ds:2:2:10] [async-threads:1]
Eshell V10.6.4 (abort with ^G)
1>
BREAK: (a)bort (c)ontinue (p)roc info (i)nf
o (l)oad
(v)ersion (k)ill (D)b-tables (d)istrib
ution
@jasongasparini → /workspaces/erSlang/Final
Project (main) $ erl -sname bruh
Erlang/OTP 22 [erts-10.6.4] [source] [64-bit
] [smp:2:2] [ds:2:2:10] [async-threads:1]

Eshell V10.6.4 (abort with ^G)
(bruh@codespaces-8da88d)> c(falador).
{ok,falador}
(bruh@codespaces-8da88d)> c(emirs).
{ok,emirs}
(bruh@codespaces-8da88d)> falador:start('rosanna@codespaces-8da88d').
-- location falador: Starting location falador (pid <0.84.0>) on node 'bruh@codespaces-8da88d'.
-- location falador: Spawned location with pid <0.96.0>, registered as falador.
-- location falador: Notifying server on node 'rosanna@codespaces-8da88d'.
-- location falador: Monitoring game server on node 'rosanna@codespaces-8da88d'.
ok
(bruh@codespaces-8da88d)>
```

Locations displayed and 1st client started:

```
@jasongasparini → /workspaces/erSlang/Final Project (main) $ erl -sname jason
Erlang/OTP 22 [erts-10.6.4] [source] [64-bit] [smp:2:2] [ds:2:2:10] [async-threads:1]

Eshell V10.6.4 (abort with ^G)
(jason@codespaces-8da88d)> gameClient:start('rosanna@codespaces-8da88d').
-- game client: Starting Distributed Adventure Game Client (pid <0.84.0>) on node 'jason@codespaces-8da88d'.
-- game client: Spawned game client with pid <0.86.0>, registered as gameClient.
-- game client: Monitoring game server on node 'rosanna@codespaces-8da88d'.
-- game client: [play] Enter action or help -] help
-- game client: Commands: [help], [quit], [nodes], [server], [go <location>], [enter], [drink], [inventory], [pickup <location>]
-- game client: [play] Enter action or help -] nodes
-- game client: This node: 'jason@codespaces-8da88d'
-- game client: Other nodes in our cluster: ['rosanna@codespaces-8da88d', 'bruh@codespaces-8da88d', 'guy@codespaces-8da88d', 'rock@codespaces-8da88d', 'dude@codespaces-8da88d', 'end@codespaces-8da88d']
-- game client: [play] Enter action or help -]

-- gameServer: Received registerNewLocation message from node 'rosanna@codespaces-8da88d' for lumbridge.
-- gameServer: Putting {lumbridge, 'rock@codespaces-8da88d'} in the local process dictionary.
-- gameServer: We are now monitoring 'rock@codespaces-8da88d'.
-- gameServer: Received registerNewLocation message from node 'dude@codespaces-8da88d' for emirs.
-- gameServer: Putting {emirs, 'dude@codespaces-8da88d'} in the local process dictionary.
-- gameServer: We are now monitoring 'dude@codespaces-8da88d'.
-- gameServer: Received registerNewLocation message from node 'end@codespaces-8da88d' for ape.
-- gameServer: Putting {ape, 'end@codespaces-8da88d'} in the local process dictionary.
-- gameServer: We are now monitoring 'end@codespaces-8da88d'.
-- gameServer: [admin] Enter command or help -] help
-- gameServer: Commands: [help], [locations], [nodes], [quit]
-- gameServer: [admin] Enter command or help -] locations
-- gameServer: ok
-- gameServer: This server knows about the following (client) locations: [{emirs, 'dude@codespaces-8da88d'}, {lumbridge, 'rock@codespaces-8da88d'}, {varrock, 'guy@codespaces-8da88d'}, {falador, 'bruh@codespaces-8da88d'}, {ape, 'end@codespaces-8da88d'}]
-- gameServer: [admin] Enter command or help -]
```

[pickup] function to retrieve any items from a specified location:

```

-- game client: [play] Enter action or help -] pickup lumbridge
-- game client: [debug] Sending Item request to [lumbridge].
-- game client: ok
-- game client: Client is picking up items. Your old items have been dropped.
ok
-- game client: Received items [[dagger,ale,steak]] from node 'rock@codespaces-8da88d'.
-- game client: [play] Enter action or help -]
```

[inventory] function:

```

-- game client: Received items [[dagger,ale,steak]] from node 'rock@codespaces-8da88d'.
-- game client: [play] Enter action or help -] inventory
-- game client: You are carrying [dagger,ale,steak].

-- game client: [play] Enter action or help -]
```

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[drink] function that sends the user to Ape Atoll to receive the game winning item
mysteriousMask

```
-- game client: [play] Enter action or help -] drink
-- game client: ok
-- game client: Client is now on a bender.
-- game client: Received message ["?. Ape Atoll\n...You wake up stranded on an island filled with evil monkeys. Maybe
you shouldn't have drank that ale. You see a boat in the distance which could bring you home...\nBefore you leave yo
u pickup a strange mask laying by the wayside."] from node 'end@codespaces-8da88d'.
-- game client: Received items [[mysteriousMask]] from node 'end@codespaces-8da88d'.
-- game client: [play] Enter action or help -] █
```

Handling for if drink is used with no ale:

```
-- game client: Received items [[mysteriousMask]] from node 'end@codespaces-8da88d'.
-- game client: [play] Enter action or help -] drink
You have no ale to drink. Maybe you should go find some...
-- game client: ok
-- game client: [play] Enter action or help -] █
```

Game ending [enter] command that allows the user to choose whether or not they want to enter the arena:

```
-- game client: [play] Enter action or help -] enter
-- game client: emirs
Are you sure you want to enter Emir's inner arena ruins? (Y/N): n
Invalid input. Please enter Y or N.
Are you sure you want to enter Emir's inner arena ruins? (Y/N): N
You decide not to enter the arena. Maybe next time.
```

First client entering the arena WITH the mask:

```
-- game client: [play] Enter action or help -] enter
-- game client: emirs
Are you sure you want to enter Emir's inner arena ruins? (Y/N): Y
You bravely enter the arena wearing the mysterious mask. As you take a step in you see the ghosts of legendary warrio
rs rise from the sands. They welcome you as you have finally set them free with the power of the mask. You win...
```

Second client entering the arena with NO mask:

```
@jasongasparini →/workspaces/erSlang/Final Project (main) $ erl -sname jason2
Erlang/OTP 22 [erts-10.6.4] [source] [64-bit] [smp:2:2] [ds:2:2:10] [async-threads:1]

Eshell V10.6.4 (abort with ^G)
(jason2@codespaces-8da88d)1> gameClient:start('rosanna@codespaces-8da88d').
-- game client: Starting Distributed Adventure Game Client (pid <0.84.0>) on node 'jason2@codespaces-8da88d'.
-- game client: Spawned game client with pid <0.86.0>, registered as gameClient.
-- game client: Monitoring game server on node 'rosanna@codespaces-8da88d'.
-- game client: [play] Enter action or help -] enter
-- game client: emirs
Are you sure you want to enter Emir's inner arena ruins? (Y/N): Y
You enter the arena, but you feel as if you should be wearing something. Maybe a mask of some sort? As you turn around to leave, corpses and skeletons wearing armors from different ages rise from the sands and viciously attack you. You D
ied...
ok
(jason2@codespaces-8da88d)2> █
```