30-01-2018

Working on my ai today, figured out the issues with the plan structure. It seems that the action list for building buildings get to build in the order that the plan goes.

One issue I have run into is the train unit function, it seems that the ai has an issue with selecting a gateway to build from if there's more than one gateway. Turns out build army in the code was set to returning false. I need to come up with a way to return true

Also, posh plans seem to only be able to do one thing at a time, so if it is trying to do something impossible it will hang there and not continue.

31-01-2018

After working on the project today I decided to give up on the small plan and instead implement the larger plan, this threw up many issues, including getting the plan to run, which after searching through the log files worked in the end. Now there’s the issue of getting the bot to build correctly.

This is the same issue I ran into for the smaller plan, but unlike the smaller one when I get this one working then I can begin my testing.

01-02-2018

The ai now builds up to the cybernetics core, but will not go any further I think its because it gets stuck in a loop somewhere but from reading the logs I can’t figure out where that is.

I don't understand why it's not working the way its supposed to, the code seems to look fine, but when I run it the AI doesn't follow it, then sometimes when I make an unrelated change it will change how the ai does everything.

08/02/2018

Added the build forge and cannon start so the ai can defend the early game

IVE GIVEN UP

20/02/2018

After meeting with my supervisor for most of the day, he helped me get back on track with the bot. All I need to do now is figure out a way to get the probes to build a little further away from the base and then that should solve the issues. Though a new issue cropped up with the scouting breaking the bot, with a little reverting of code this fixed the issue, it was strange as I had done nothing to the behaviours of the scouting, I had only changed the plan’s code, yet this was enough to break it. At the end of this day, I did not manage to get the probe to build elsewhere.

22/02/2018

Today I have managed to get the chokepoint tile position, this has allowed me to give the builder a location to build, unfortunately, the build command in the bwapi keeps returning false, and I’m not sure why as I’m passing in a tile position, perhaps its something to do with the PossibleBuildLocation function.

27/02/2018

Today I have half sorted it, it now builds near the choke not exactly on the choke, but at least its progress.

I think the issue was how the system uses the build sites i.e. StartingLocation = 1, Natural = 2, Extension = 3 so what I did was add a fourth being choke, but I never used this I tried to subvert it using your select choke code, which the system wouldn't accept, so I looked to see how the initial build site was set and it was set using a simple Self().GetStartLocation(), so instead of going around the build site selection, I added the following code to set the add and set the choke point to the built site enum.

[ExecutableAction("SelectChokeBuild")]

public bool SelectChokeBuild()

{

if (Interface().buildingChoke is TilePosition)

{

Interface().baseLocations[(int)BuildSite.Choke] = Interface().buildingChoke;

return SwitchBuildToBase((int)BuildSite.Choke);

}

return false;

}

This is the code to get the choke point position

though I'm not entirely confident on how it works, I know that it does get the position of the chokepoint and converts it into a tile position

Interface().buildingChoke = (targetChoke.getDistance(new TilePosition(chokepoint.getSides().second)) < targetChoke.getDistance(new TilePosition(chokepoint.getSides().first))) ? new TilePosition(chokepoint.getSides().second) : new TilePosition(chokepoint.getSides().first);

after testing, it now build on the correct side of the choke most of the time, i basically swapped the getsides() as can be seen in the snippet.

In conclusion to today's work, as I said originally I was just passing that value straight into the get possible build location which it didn't like

So my issue again was just not understanding the API.

07/03/2018

Today with the indispensable help of Swen the bot now builds at the choke correctly, though the plan needs editing and a bit of function need fleshing out, the bot now does more of what its supposed to do. I was correct in it being a build site/position issue,

Altered scouting to happen at the start of the game.

Changed build location to change correctly

Added more functions to scouting so scout only happens once

Added two while loops into the scouting and building positioning so the game has to wait for the probe to arrive at the destination before attempting to fire the next command.

Altered the move command in the position function so probe now moves to its destination correctly.