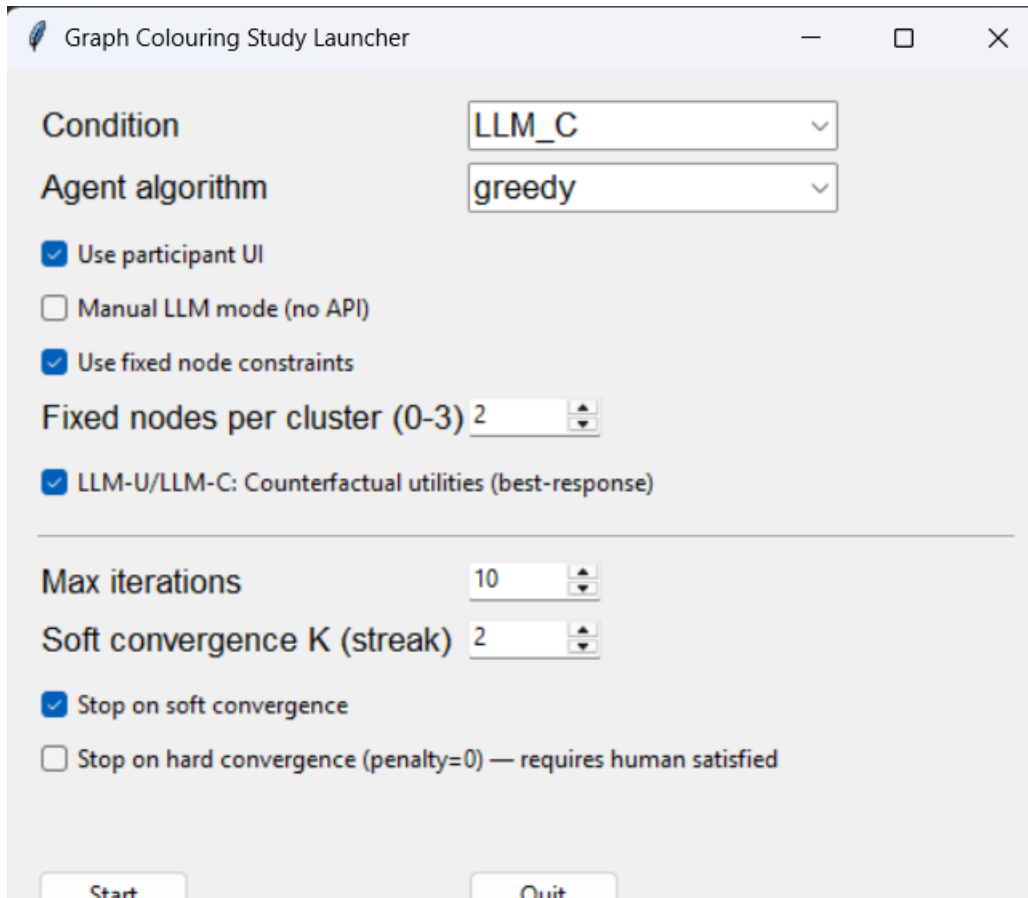


I launch like this



Graph Colouring Study Launcher

Condition: LLM_C

Agent algorithm: greedy

☒ Use participant UI

☐ Manual LLM mode (no API)

☒ Use fixed node constraints

Fixed nodes per cluster (0-3): 2

☒ LLM-U/LLM-C: Counterfactual utilities (best-response)

Max iterations: 10

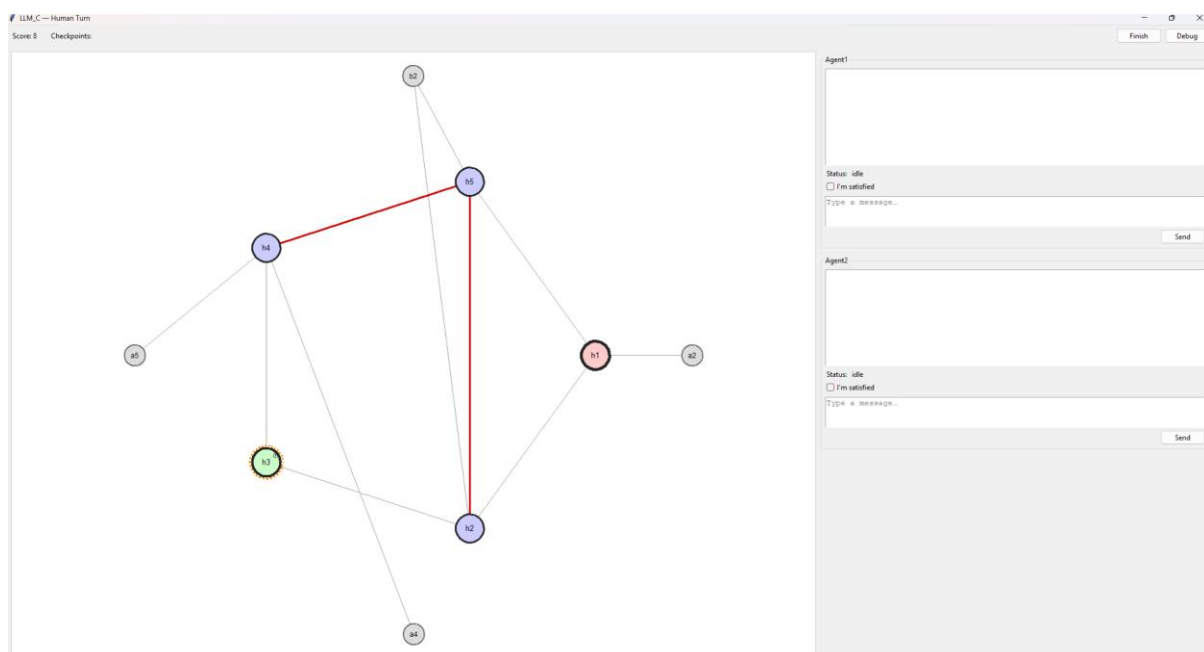
Soft convergence K (streak): 2

☒ Stop on soft convergence

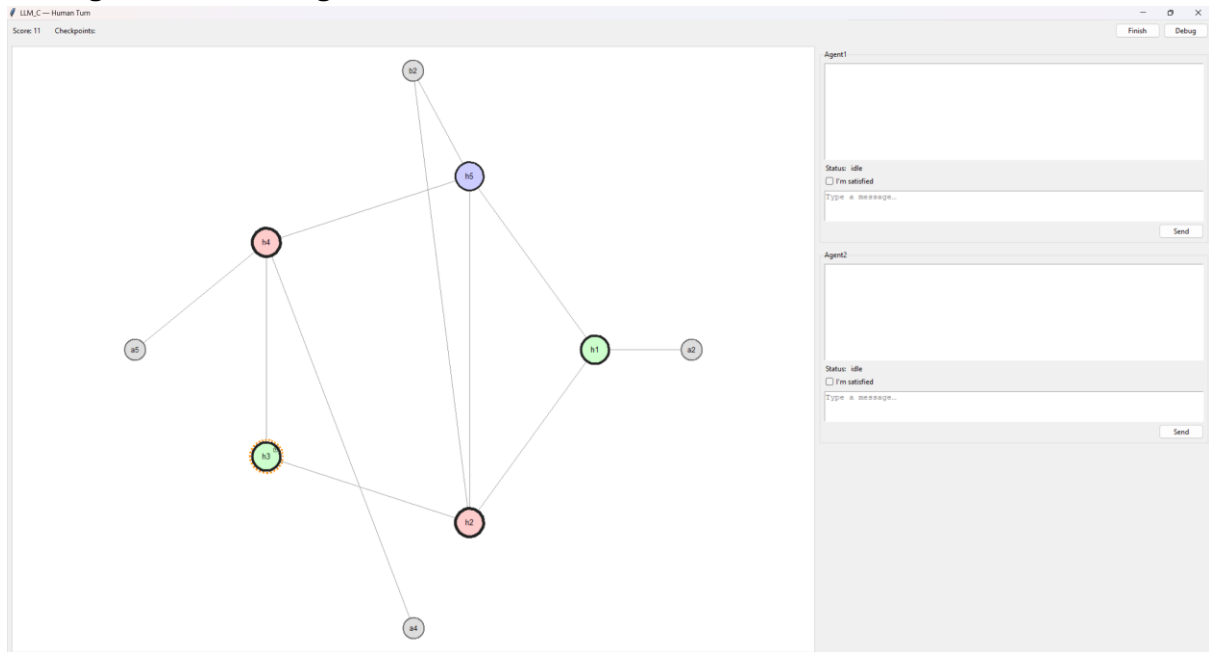
☐ Stop on hard convergence (penalty=0) — requires human satisfied

Start Quit

It preloads like this



I change to these settings



I send an update to each agent

Agent1

[You] (status update)
[Agent1] ✓ SUCCESS! Your boundary (h1=green, h4=red) works perfectly!
I colored my nodes: a1=green, a2=red, a3=blue, a4=green, a5=blue
Zero conflicts. We have a valid solution!

Status: idle

☐ I'm satisfied

Type a message...

Send

Agent2

[You] (status update)
[Agent2] ✗ Your current boundary (h2=red, h5=blue) doesn't work for me.
Penalty: 20.00

✓ I CAN color my nodes if you use ANY of these 1 boundary settings:
1. h2=green, h5=blue

Status: idle

☐ I'm satisfied

Type a message...

Send

Agent 2 says it can solve things itself

Agent2

[You] (status update)

[Agent2] ✗ Your current boundary (h2=red, h5=blue) doesn't work for me.
Penalty: 20.00

✓ I CAN color my nodes if you use ANY of these 1 boundary settings:
1. h2=green, h5=blue

[You] H2 cannot ever be green. Any other options?

[Agent2] I can change node b2 to green as it currently clashes with your h2 (red).

Status: idle

☐ I'm satisfied

Type a message...

Send

It then complains it can't. It refers to “alternatives it suggested” but it has only suggested h2 be green

Agent2

✓ I CAN color my nodes if you use ANY of these 1 boundary settings:
1. h2=green, h5=blue

[You] H2 cannot ever be green. Any other options?

[Agent2] I can change node b2 to green as it currently clashes with your h2 (red).

[You] Ok go ahead

[Agent2] I currently have conflicts with a penalty of 20.00 due to the current boundary configuration. Please consider using one of the alternative configurations I suggested.

Status: idle

☐ I'm satisfied

Type a message...

Send

Again it tries to do this itself

Agent2

[Agent2] I can change node b2 to green as it currently clashes with your h2 (red).

[You] Ok go ahead

[Agent2] I currently have conflicts with a penalty of 20.00 due to the current boundary configuration. Please consider using one of the alternative configurations I suggested.

[You] Suggest some alternative configs then

[Agent2] I could resolve the conflict by changing my node b2 to green, matching your h2 (red).

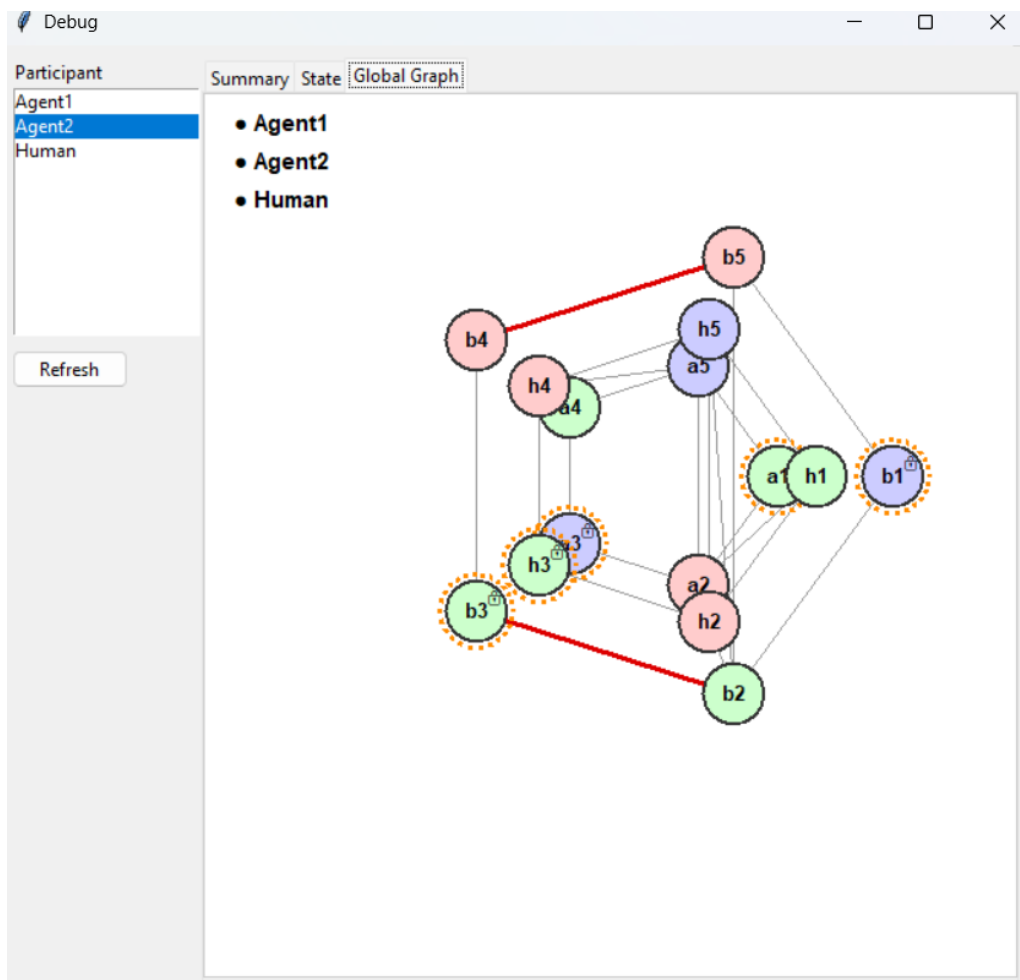
Status: idle

☐ I'm satisfied

Type a message..

Send

The debug window makes it clear that the agent can't do so. Agent2 (B) needs to be asking me to e.g. pick h2=blue, h5=green, which it can plan a colouring around, but it never does.



Full chat log before I gave up

[You] (status update)

[Agent2] X Your current boundary (h2=red, h5=blue) doesn't work for me. Penalty: 20.00

✓ I CAN color my nodes if you use ANY of these 1 boundary settings:

1. h2=green, h5=blue

[You] H2 cannot ever be green. Any other options?

[Agent2] I can change node b2 to green as it currently clashes with your h2 (red).

[You] Ok go ahead

[Agent2] I currently have conflicts with a penalty of 20.00 due to the current boundary configuration. Please consider using one of the alternative configurations I suggested.

[You] Suggest some alternative configs then

[Agent2] I could resolve the conflict by changing my node b2 to green, matching your h2 (red).

[You] Does that fix the colouring for you?

[Agent2] No resolution to the conflict occurred despite the recent color adjustments made.

[You] So what I am asking is, if you cannot fix it on your end, i could change some of my colours, but I need to know how to do that. What options could I pick which you could plan around? Remember that h2 cannot be green

[Agent2] I could resolve the conflict by changing my node b2 to green to match your h2 (red).