

EVOLUTIONARY TASK FORCE

SUMMARY OF WEEK 18 (28 FEBRUARY – 5 MARCH 2012)

No spectacular breakthroughs or milestones this week. Much work is going on “under the hood”....

S/T details:

Subtask-force 1 (Morphogenesis)

Explicit approach: Christopher is testing the crossover operator – it is rather complicated. Furthermore, tests for comparing evolution with crossover+mutation compared to just mutation are being discussed.

Implicit approach 1: Ronny/Markus@Graz are still working on the integration of evolution, i.e., making their approach evolvable on-the-fly in Robot3d. (Last week’s video demo used a genome from an external simulator.)

Implicit approach 2: Yaoyao switched to using Robot3d. This caused many problems because of software dependencies. This issue is under investigation in contact with Berend, Lutz, Vojta.

We hope to have a well-funded choice about implicit approaches next week and present it on the General Assembly.

Subtask-force 2 (Organism control)

Bug-fixing, testing and parameter tuning took place in this week for the CPG and AHHS approaches. Jean-Marc has worked with Berend and Juergen on the debugging of the supervisor and the worldModel and improved the code a lot.

The two approaches CPG and AHHS are now using the same implementation for the on-line evolutionary algorithm (LioLib provided by Evert and integrated into the overall framework by Jean-Marc) and the same fitness function. Thus, we have everything for a direct comparison between approaches. The third approach (GRN) is working, but still needs to be integrated into the framework.

Subtask-force 4 (Integration and Joint Experimentation)

Vojta is still testing cloud setups for speed improvements.

Berend is doing the last (?) pieces of debugging and tuning the docking code.

More details and a full collection of our weekly reports on <https://symbion-ec.wikidot.com/>