

MarioAI Benchmark ¹. Startup options.

Option key	Description	Values range	Example
-echo	Output all command line options to console after initialization	<on off>	Main -echo on

Table 1: Generalization capacity. Performance of the

(-echo) Usage example: java ch.idsia.scenarios. Default: off
Agent (-ag <implementations of Agent> or "-ag AgentName") Agent-Name should extend RegisterableAgent in order for the native agent to be available from command line. Usage example: java ch.idsia.scenarios.Main -ag ForwardAgent **Map zoom level (-zm <0|1|2>)** Observation Detalization for Map. 0 - the most detailed. Usage example: java ch.idsia.scenarios.Main -zm 0 Default: 1 **Enemies Zoom Level (-ze <0|1|2>)** Observation Detalization for Enemies. 0 - The most detailed. Usage example: java ch.idsia.scenarios.Main -ze 0 Default: 1 **Enable Visualization(-vis <on|off>)** Usage example: java ch.idsia.scenarios.Main -vis on Default: off **Set main View to be on top of other windows(-vaot <on|off>)** Usage example: java ch.idsia.scenarios.Main -vaot on Default: off **Time limit (-tl <int>)** Option value: [1..MAXINT], units: marioseconds (1 MrSEC == 16 interactions with Environment) Usage example: java ch.idsia.scenarios.Main -tl 42 Default: 200 **World Timer (-t <on|off>)** Gives the Agent the opportunity of infinite time per level. Usage example: java ch.idsia.scenarios.Main -t off Default: on **Stop Simulation when first Win obtained (-ssiw <on|off>)** Usage example: java ch.idsia.scenarios.Main -t on Default: off **Pause of the World (-pw <on|off>)** Freezes animation all the sprites and disables Mario interaction with creatures. Mario still can run and get level observation Usage example: java ch.idsia.scenarios.Main -pw on Default: off **Enable Power restoration (-pr <on|off>)** Enable Power restoration by pressing speed button (A on a keyboard) Usage example: java ch.idsia.scenarios.Main -pr on Default: off **Exit program when simulation is over (-ewf <on|off>)** Usage example: java ch.idsia.scenarios.Main -gv off Default: on **Enable Game Viewer (-gv <on|off>)** Usage example: java ch.idsia.scenarios.Main -gv on Default: off **Enable Continuous Updates in GameViewer (-gvc <on|off>)** Usage example: java ch.idsia.scenarios.Main -gvc on Default: off **Mario Mode (-mm <0|1|2>)** 0 - small, 1 - large, 2 - large, fire ability is available. Usage example: java ch.idsia.scenarios.Main -mm 1 Default: 2 **Change FPS (-fps <integers in [1..100]>)** 100 enables max FPS. Usage example: java ch.idsia.scenarios.Main -fps 50 Default: 24 **Matlab file name for the report output (-m <[w+]>)** Usage example: java ch.idsia.scenarios.Main -m iMarioReport Default: "" **Level type (-lt <0|1|2>)** 0 - Overground, 1 - Underground, 2 - Castle. Usage example: java ch.idsia.scenarios.Main -lt 1 Default: 0 **Level (Ran-**

¹v-0.1.6 compliant

domization) Seed (-ls <integers in [1..maxInt]>) Usage example: java ch.idsia.scenarios.Main -ls 42 Default: 1 **Level length (-ll <integers in [1..4096]>)** Usage example: java ch.idsia.scenarios.Main -ll 550 Default: 320 **Level height (-lh <integers in [1..4096]>)** Use this option to change height of the level. For this moment height of the level is in range [15..20]. Usage example: java ch.idsia.scenarios.Main -lh 18 will set the height to 18. Default: 15 **Level Difficulty (-ld <integers in [0..maxInt]>)** Note: interesting domain is approximately 0..30 Usage example: java ch.idsia.scenarios.Main -ld 5 Default: 0 **Dead ends (-lde <on|off>)** Use this option to have a control over dead ends on a level. Usage example: java ch.idsia.scenarios.Main -lde on will show the level with dead ends. Default: off **Cannons (-lc <on|off>)** Use this option to enable/disable cannons on the level. Usage example: java ch.idsia.scenarios.Main -lc off will show the level without cannons. Default: on **Hills (-lhs <on|off>)** Use this option to enable/disable hills on the level. Usage example: java ch.idsia.scenarios.Main -lhs off will create level without hills. Default: on **Tubes (-ltb <on|off>)** Use this option to enable/disable tubes on the level. Usage example: java ch.idsia.scenarios.Main -ltb off will create level without tubes. Default: on **Gaps (-lg <on|off>)** Use this option to enable/disable gaps on the level. Usage example: java ch.idsia.scenarios.Main -lg off will create level without gaps. Default: on **Hidden blocks (-lhb <on|off>)** Use this option to enable/disable hidden blocks. If level is build with dead ends and without hidden blocks, thn you will gou out from dead end over visible blocks, e.g. hidden blocks are replaced with visible blocks. Usage example: java ch.idsia.scenarios.Main -lhb off will create level without hidden blocks. Default: off **Enemies (-le <on|off>)** Use this option to enable/disable enemies on the level. Usage example: java ch.idsia.scenarios.Main -le off will create level without enemies. Default: on **Blocks (-lb <on|off>)** Use this option to enable/disable blocks on the level. Usage example: java ch.idsia.scenarios.Main -lb off will create level without blocks. Default: on **Coins (-lco <on|off>)** Use this option to enable/disable coins on the level. Usage example: java ch.idsia.scenarios.Main -lco off will create level without coins. Default: on