

Résultats de ASP et MCTS

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Il faut placer le dossier « mcts » dans les dossier « pddl4j\src\main\java\fr\uga\pddl4j\examples »

Commandes (sur Windows) pour compiler puis lancer les deux programmes :

Compilation :

```
javac -d classes -cp build\libs\pddl4j-4.0.0.jar;lib\* src\main\java\fr\uga\pddl4j\examples\asp\
Node.java src\main\java\fr\uga\pddl4j\examples\asp\ASP.java
```

```
javac -d classes -cp build\libs\pddl4j-4.0.0.jar;lib\* src\main\java\fr\uga\pddl4j\examples\mcts\
Node.java src\main\java\fr\uga\pddl4j\examples\mcts\MCTS.java
```

Vérification si cela fonctionne :

```
java -cp classes;build\libs\pddl4j-4.0.0.jar;lib\* fr.uga.pddl4j.examples.asp.ASP --help
```

```
java -cp classes;build\libs\pddl4j-4.0.0.jar;lib\* fr.uga.pddl4j.examples.mcts.MCTS -help
```

Résultats :

PXXX	ASP	MCTS
ipc2000/blocks/strips-typed		
p001	0: (pick-up b) [0] 1: (stack b a) [0] 2: (pick-up c) [0] 3: (stack c b) [0] 4: (pick-up d) [0] 5: (stack d c) [0] time spent: 0,07 seconds parsing 0,17 seconds encoding 0,02 seconds searching 0,26 seconds total time memory used: 0,19 MBytes for problem representation 0,00 MBytes for searching 0,19 MBytes total	00: (pick-up d) [0] 01: (stack d c) [0] 02: (unstack d c) [0] 03: (put-down d) [0] 04: (pick-up b) [0] 05: (stack b a) [0] 06: (unstack b a) [0] 07: (stack b a) [0] 08: (pick-up c) [0] 09: (stack c d) [0] 10: (unstack b a) [0] 11: (stack b a) [0] 12: (unstack c d) [0] 13: (stack c b) [0] 14: (unstack c b) [0] 15: (stack c b) [0] 16: (pick-up d) [0] 17: (put-down d) [0] 18: (pick-up d) [0] 19: (stack d c) [0] time spent: 0,08 seconds parsing 0,18 seconds encoding 0,15 seconds searching 0,40 seconds total time memory used: 0,19 MBytes for problem representation 0,00 MBytes for searching 0,19 MBytes total
p002	00: (unstack b c) [0] 01: (put-down b) [0] 02: (unstack c a) [0] 03: (put-down c) [0] 04: (unstack a d) [0] 05: (stack a b) [0] 06: (pick-up c) [0] 07: (stack c a) [0] 08: (pick-up d) [0] 09: (stack d c) [0] time spent: 0,07 seconds parsing	00: (unstack b c) [0] 01: (stack b c) [0] 02: (unstack b c) [0] 03: (put-down b) [0] 04: (unstack c a) [0] 05: (put-down c) [0] 06: (pick-up c) [0] 07: (put-down c) [0] 08: (unstack a d) [0] 09: (stack a b) [0] 10: (pick-up c) [0] 11: (stack c a) [0]

	0,19 seconds encoding 0,04 seconds searching 0,29 seconds total time memory used: 0,18 MBytes for problem representation 0,00 MBytes for searching 0,19 MBytes total	12: (pick-up d) [0] 13: (stack d c) [0] time spent: 0,11 seconds parsing 0,22 seconds encoding 0,13 seconds searching 0,46 seconds total time memory used: 0,18 MBytes for problem representation 0,00 MBytes for searching 0,18 MBytes total
p0003	0: (unstack c b) [0] 1: (stack c d) [0] 2: (pick-up b) [0] 3: (stack b c) [0] 4: (pick-up a) [0] 5: (stack a b) [0] time spent: 0,09 seconds parsing 0,15 seconds encoding 0,04 seconds searching 0,27 seconds total time memory used: 0,19 MBytes for problem representation 0,00 MBytes for searching 0,19 MBytes total	00: (unstack c b) [0] 01: (stack c a) [0] 02: (unstack c a) [0] 03: (stack c d) [0] 04: (unstack c d) [0] 05: (stack c a) [0] 06: (unstack c a) [0] 07: (stack c d) [0] 08: (pick-up a) [0] 09: (stack a b) [0] 10: (unstack a b) [0] 11: (put-down a) [0] 12: (pick-up a) [0] 13: (stack a c) [0] 14: (unstack a c) [0] 15: (put-down a) [0] 16: (pick-up b) [0] 17: (stack b c) [0] 18: (pick-up a) [0] 19: (stack a b) [0] time spent: 0,07 seconds parsing 0,22 seconds encoding 0,06 seconds searching 0,35 seconds total time memory used: 0,19 MBytes for problem representation 0,00 MBytes for searching 0,19 MBytes total
p004	00: (unstack c e) [0] 01: (put-down c) [0] 02: (pick-up d) [0] 03: (stack d c) [0] 04: (unstack e b) [0] 05: (put-down e) [0] 06: (unstack b a) [0] 07: (stack b d) [0] 08: (pick-up e) [0] 09: (stack e b) [0] 10: (pick-up a) [0] 11: (stack a e) [0] time spent: 0,08 seconds parsing 0,20 seconds encoding 0,07 seconds searching 0,35 seconds total time memory used: 0,26 MBytes for problem representation 0,01 MBytes for searching 0,27 MBytes total	00: (unstack d c) [0] 01: (stack d c) [0] 02: (unstack d c) [0] 03: (stack d c) [0] 04: (unstack e b) [0] 05: (put-down e) [0] 06: (unstack b a) [0] 07: (stack b d) [0] 08: (unstack b d) [0] 09: (stack b d) [0] 10: (pick-up e) [0] 11: (stack e b) [0] 12: (unstack e b) [0] 13: (stack e a) [0] 14: (unstack e a) [0] 15: (stack e b) [0] 16: (pick-up a) [0] 17: (stack a e) [0] time spent: 0,07 seconds parsing 0,17 seconds encoding 0,14 seconds searching 0,37 seconds total time memory used: 0,26 MBytes for problem representation 0,00 MBytes for searching 0,26 MBytes total
p005	00: (unstack b a) [0] 01: (stack b c) [0] 02: (unstack a d) [0] 03: (stack a e) [0] 04: (unstack b c) [0] 05: (stack b a) [0] 06: (pick-up c) [0]	0: (unstack c d) [0] 1: (stack c d) [0] 2: (unstack c d) [0] 3: (stack c b) [0] 4: (pick-up d) [0] 5: (stack d c) [0]

	07: (stack c b) [0] 08: (pick-up d) [0] 09: (stack d c) [0] time spent: 0,08 seconds parsing 0,16 seconds encoding 0,07 seconds searching 0,31 seconds total time memory used: 0,26 MBytes for problem representation 0,01 MBytes for searching 0,27 MBytes total	time spent: 0,07 seconds parsing 0,16 seconds encoding 0,10 seconds searching 0,33 seconds total time memory used: 0,26 MBytes for problem representation 0,00 MBytes for searching 0,26 MBytes total
p006	00: (unstack d e) [0] 01: (put-down d) [0] 02: (unstack e c) [0] 03: (put-down e) [0] 04: (unstack c a) [0] 05: (stack c d) [0] 06: (unstack a b) [0] 07: (put-down a) [0] 08: (pick-up e) [0] 09: (stack e a) [0] 10: (pick-up b) [0] 11: (stack b e) [0] 12: (unstack c d) [0] 13: (stack c b) [0] 14: (pick-up d) [0] 15: (stack d c) [0] time spent: 0,06 seconds parsing 0,15 seconds encoding 0,08 seconds searching 0,30 seconds total time memory used: 0,26 MBytes for problem representation 0,02 MBytes for searching 0,28 MBytes total	00: (unstack c b) [0] 01: (put-down c) [0] 02: (unstack b d) [0] 03: (stack b e) [0] 04: (pick-up d) [0] 05: (put-down d) [0] 06: (pick-up c) [0] 07: (stack c d) [0] 08: (unstack c d) [0] 09: (stack c b) [0] 10: (pick-up d) [0] 11: (stack d c) [0] time spent: 0,07 seconds parsing 0,15 seconds encoding 0,15 seconds searching 0,38 seconds total time memory used: 0,26 MBytes for problem representation 0,00 MBytes for searching 0,26 MBytes total
p007	00: (unstack d a) [0] 01: (put-down d) [0] 02: (unstack f e) [0] 03: (stack f d) [0] 04: (unstack e b) [0] 05: (stack e f) [0] 06: (unstack a c) [0] 07: (stack a e) [0] 08: (pick-up b) [0] 09: (stack b a) [0] 10: (pick-up c) [0] 11: (stack c b) [0] time spent: 0,07 seconds parsing 0,20 seconds encoding 0,04 seconds searching 0,31 seconds total time memory used: 0,35 MBytes for problem representation 0,01 MBytes for searching 0,35 MBytes total	00: (unstack b e) [0] 01: (put-down b) [0] 02: (unstack a c) [0] 03: (stack a e) [0] 04: (unstack a e) [0] 05: (stack a e) [0] 06: (pick-up b) [0] 07: (stack b a) [0] 08: (pick-up c) [0] 09: (put-down c) [0] 10: (pick-up c) [0] 11: (put-down c) [0] 12: (unstack b a) [0] 13: (stack b a) [0] 14: (pick-up c) [0] 15: (stack c b) [0] time spent: 0,08 seconds parsing 0,24 seconds encoding 0,24 seconds searching 0,55 seconds total time memory used: 0,35 MBytes for problem representation 0,00 MBytes for searching 0,35 MBytes total
p008	00: (unstack a f) [0] 01: (stack a d) [0] 02: (pick-up b) [0] 03: (stack b a) [0] 04: (pick-up c) [0] 05: (stack c b) [0] 06: (pick-up f) [0] 07: (stack f c) [0] 08: (pick-up e) [0] 09: (stack e f) [0] time spent: 0,08 seconds parsing	00: (pick-up f) [0] 01: (stack f e) [0] 02: (unstack f e) [0] 03: (put-down f) [0] 04: (unstack e c) [0] 05: (put-down e) [0] 06: (pick-up f) [0] 07: (stack f c) [0] 08: (pick-up e) [0] 09: (stack e f) [0] time spent: 0,07 seconds parsing

	0,20 seconds encoding 0,07 seconds searching 0,35 seconds total time memory used: 0,35 MBytes for problem representation 0,01 MBytes for searching 0,36 MBytes total	0,17 seconds encoding 0,30 seconds searching 0,54 seconds total time memory used: 0,35 MBytes for problem representation 0,00 MBytes for searching 0,35 MBytes total
p009	00: (unstack a d) [0] 01: (put-down a) [0] 02: (unstack d b) [0] 03: (put-down d) [0] 04: (unstack b f) [0] 05: (stack b a) [0] 06: (unstack f e) [0] 07: (put-down f) [0] 08: (unstack e c) [0] 09: (put-down e) [0] 10: (pick-up c) [0] 11: (stack c d) [0] 12: (unstack b a) [0] 13: (stack b c) [0] 14: (pick-up a) [0] 15: (stack a b) [0] 16: (pick-up f) [0] 17: (stack f a) [0] 18: (pick-up e) [0] 19: (stack e f) [0] time spent: 0,06 seconds parsing 0,17 seconds encoding 0,23 seconds searching 0,46 seconds total time memory used: 0,35 MBytes for problem representation 0,25 MBytes for searching 0,60 MBytes total	00: (unstack f a) [0] 01: (stack f a) [0] 02: (unstack f a) [0] 03: (stack f b) [0] 04: (unstack f b) [0] 05: (stack f e) [0] 06: (pick-up a) [0] 07: (stack a f) [0] 08: (unstack a f) [0] 09: (stack a b) [0] 10: (unstack f e) [0] 11: (put-down f) [0] 12: (pick-up e) [0] 13: (put-down e) [0] 14: (pick-up f) [0] 15: (stack f a) [0] 16: (pick-up e) [0] 17: (stack e f) [0] time spent: 0,06 seconds parsing 0,18 seconds encoding 3,86 seconds searching 4,10 seconds total time memory used: 0,35 MBytes for problem representation 0,00 MBytes for searching 0,35 MBytes total
p010	00: (unstack e g) [0] 01: (put-down e) [0] 02: (unstack g b) [0] 03: (put-down g) [0] 04: (unstack b a) [0] 05: (stack b g) [0] 06: (unstack a f) [0] 07: (put-down a) [0] 08: (unstack f c) [0] 09: (stack f e) [0] 10: (unstack c d) [0] 11: (stack c f) [0] 12: (unstack b g) [0] 13: (stack b c) [0] 14: (pick-up d) [0] 15: (stack d b) [0] 16: (pick-up g) [0] 17: (stack g d) [0] 18: (pick-up a) [0] 19: (stack a g) [0] time spent: 0,07 seconds parsing 0,20 seconds encoding 0,36 seconds searching 0,63 seconds total time memory used: 0,45 MBytes for problem representation 0,19 MBytes for searching 0,64 MBytes total	00: (unstack g d) [0] 01: (stack g a) [0] 02: (unstack d b) [0] 03: (put-down d) [0] 04: (unstack g a) [0] 05: (stack g a) [0] 06: (pick-up d) [0] 07: (stack d b) [0] 08: (unstack g a) [0] 09: (stack g a) [0] 10: (unstack d b) [0] 11: (stack d b) [0] 12: (unstack g a) [0] 13: (stack g d) [0] 14: (pick-up a) [0] 15: (put-down a) [0] 16: (unstack g d) [0] 17: (stack g d) [0] 18: (pick-up a) [0] 19: (stack a g) [0] time spent: 0,07 seconds parsing 0,22 seconds encoding 0,47 seconds searching 0,76 seconds total time memory used: 0,45 MBytes for problem representation 0,00 MBytes for searching 0,45 MBytes total
ipc1998/gripper/strips		
p01	0: (move rooma roomb) [0] 1: (pick ball1 rooma right) [0] 2: (drop ball1 roomb right) [0] 3: (pick ball4 rooma left) [0] 4: (drop ball4 roomb left) [0]	00: (pick ball1 rooma left) [0] 01: (move rooma roomb) [0] 02: (pick ball3 rooma left) [0] 03: (pick ball1 rooma left) [0] 04: (drop ball3 roomb left) [0]

	<p>5: (pick ball3 rooma left) [0] 6: (drop ball3 roomb left) [0] 7: (pick ball2 rooma left) [0] 8: (drop ball2 roomb left) [0]</p> <p>time spent: 0,06 seconds parsing 0,14 seconds encoding 0,22 seconds searching 0,42 seconds total time</p> <p>memory used: 0,11 MBytes for problem representation 0,21 MBytes for searching 0,33 MBytes total</p>	<p>05: (pick ball2 rooma left) [0] 06: (pick ball1 rooma left) [0] 07: (pick ball3 roomb right) [0] 08: (pick ball1 rooma left) [0] 09: (drop ball1 roomb left) [0] 10: (move roomb roomb) [0] 11: (pick ball4 rooma right) [0] 12: (pick ball1 rooma left) [0] 13: (drop ball4 rooma right) [0] 14: (drop ball3 rooma right) [0] 15: (drop ball4 roomb right) [0] 16: (pick ball2 rooma left) [0] 17: (pick ball1 rooma left) [0] 18: (drop ball2 roomb left) [0]</p> <p>time spent: 0,07 seconds parsing 0,12 seconds encoding 0,11 seconds searching 0,29 seconds total time</p> <p>memory used: 0,11 MBytes for problem representation 0,00 MBytes for searching 0,11 MBytes total</p>
p02	<p>00: (move rooma roomb) [0] 01: (pick ball5 rooma right) [0] 02: (drop ball5 roomb right) [0] 03: (pick ball2 rooma left) [0] 04: (drop ball2 roomb left) [0] 05: (pick ball6 rooma right) [0] 06: (drop ball6 roomb right) [0] 07: (pick ball4 rooma left) [0] 08: (drop ball4 roomb left) [0] 09: (pick ball3 rooma right) [0] 10: (drop ball3 roomb right) [0] 11: (pick ball1 rooma left) [0] 12: (drop ball1 roomb left) [0]</p> <p>time spent: 0,08 seconds parsing 0,14 seconds encoding 1,80 seconds searching 2,02 seconds total time</p> <p>memory used: 0,15 MBytes for problem representation 7,09 MBytes for searching 7,23 MBytes total</p>	<p>00: (drop ball1 rooma right) [0] 01: (pick ball6 roomb left) [0] 02: (pick ball5 roomb right) [0] 03: (pick ball5 roomb left) [0] 04: (pick ball2 rooma right) [0] 05: (pick ball3 roomb left) [0] 06: (drop ball6 rooma left) [0] 07: (drop ball6 rooma left) [0] 08: (pick ball6 roomb left) [0] 09: (drop ball3 roomb right) [0] 10: (drop ball3 roomb right) [0] 11: (pick ball4 rooma right) [0] 12: (pick ball5 rooma left) [0] 13: (drop ball4 roomb left) [0] 14: (drop ball5 roomb left) [0] 15: (pick ball3 rooma right) [0] 16: (drop ball5 rooma left) [0] 17: (drop ball2 roomb right) [0]</p> <p>time spent: 0,06 seconds parsing 0,14 seconds encoding 0,13 seconds searching 0,33 seconds total time</p> <p>memory used: 0,15 MBytes for problem representation 0,00 MBytes for searching 0,15 MBytes total</p>
p03	<p>00: (move rooma roomb) [0] 01: (pick ball4 rooma right) [0] 02: (drop ball4 roomb right) [0] 03: (pick ball2 rooma right) [0] 04: (drop ball2 roomb right) [0] 05: (pick ball5 rooma left) [0] 06: (drop ball5 roomb left) [0] 07: (pick ball6 rooma right) [0] 08: (drop ball6 roomb right) [0] 09: (pick ball8 rooma right) [0] 10: (drop ball8 roomb right) [0] 11: (pick ball3 rooma right) [0] 12: (drop ball3 roomb right) [0] 13: (pick ball7 rooma right) [0] 14: (drop ball7 roomb right) [0] 15: (pick ball1 rooma right) [0] 16: (drop ball1 roomb right) [0]</p> <p>time spent: 0,09 seconds parsing 0,18 seconds encoding 50,05 seconds searching 50,31 seconds total time</p> <p>memory used: 0,18 MBytes for problem representation</p>	<p>00: (pick ball3 roomb right) [0] 01: (drop ball8 roomb left) [0] 02: (drop ball1 roomb left) [0] 03: (drop ball2 rooma right) [0] 04: (pick ball3 roomb left) [0] 05: (pick ball8 roomb left) [0] 06: (pick ball2 rooma right) [0] 07: (drop ball3 rooma right) [0] 08: (pick ball3 rooma right) [0] 09: (drop ball8 roomb right) [0] 10: (drop ball3 roomb right) [0] 11: (drop ball6 roomb right) [0]</p> <p>time spent: 0,07 seconds parsing 0,13 seconds encoding 0,21 seconds searching 0,40 seconds total time</p> <p>memory used: 0,18 MBytes for problem representation 0,00 MBytes for searching 0,18 MBytes total</p>

	291,20 MBytes for searching 291,38 MBytes total	
p04	java.lang.OutOfMemoryError: Java heap space: failed reallocation of scalar replaced objects	0: (drop ball8 rooma left) [0] 1: (drop ball10 roomb right) [0] 2: (drop ball2 rooma right) [0] 3: (pick ball6 roomb left) [0] 4: (drop ball4 rooma left) [0] 5: (pick ball8 rooma right) [0] 6: (drop ball1 roomb right) [0] time spent: 0,08 seconds parsing 0,15 seconds encoding 0,92 seconds searching 1,15 seconds total time memory used: 0,21 MBytes for problem representation 0,00 MBytes for searching 0,21 MBytes total
p05	java.lang.OutOfMemoryError: Java heap space	00: (pick ball10 roomb right) [0] 01: (drop ball11 roomb right) [0] 02: (drop ball8 roomb left) [0] 03: (pick ball12 roomb right) [0] 04: (drop ball11 rooma left) [0] 05: (pick ball6 roomb left) [0] 06: (pick ball7 rooma right) [0] 07: (drop ball9 roomb right) [0] 08: (drop ball5 roomb left) [0] 09: (pick ball11 roomb left) [0] 10: (pick ball1 rooma right) [0] 11: (drop ball9 roomb left) [0] 12: (pick ball11 rooma left) [0] 13: (pick ball3 roomb right) [0] 14: (pick ball2 rooma left) [0] 15: (drop ball2 roomb left) [0] time spent: 0,10 seconds parsing 0,30 seconds encoding 2,17 seconds searching 2,57 seconds total time memory used: 0,25 MBytes for problem representation 0,00 MBytes for searching 0,25 MBytes total
ipc2002/depots/strips-automatic		
p01	00: (lift hoist0 crate1 pallet0 depot0) [0] 01: (lift hoist1 crate0 pallet1 distributor0) [0] 02: (load hoist0 crate1 truck1 depot0) [0] 03: (drive truck1 depot0 distributor0) [0] 04: (load hoist1 crate0 truck1 distributor0) [0] 05: (unload hoist1 crate1 truck1 distributor0) [0] 06: (drive truck1 distributor0 distributor1) [0] 07: (drop hoist1 crate1 pallet1 distributor0) [0] 08: (unload hoist2 crate0 truck1 distributor1) [0] 09: (drop hoist2 crate0 pallet2 distributor1) [0] time spent: 0,13 seconds parsing 0,23 seconds encoding 0,06 seconds searching 0,41 seconds total time memory used: 0,41 MBytes for problem representation 0,01 MBytes for searching 0,42 MBytes total	00: (drive truck0 distributor1 depot0) [0] 01: (drive truck0 depot0 depot0) [0] 02: (unload hoist0 crate0 truck0 depot0) [0] 03: (drive truck0 depot0 distributor0) [0] 04: (drive truck0 distributor0 distributor1) [0] 05: (load hoist0 crate0 truck1 depot0) [0] 06: (drive truck1 depot0 distributor1) [0] 07: (drive truck0 distributor1 distributor0) [0] 08: (drive truck0 distributor0 distributor1) [0] 09: (unload hoist2 crate0 truck1 distributor1) [0] 10: (drive truck1 distributor1 depot0) [0] 11: (lift hoist1 crate1 pallet1 distributor0) [0] 12: (drive truck1 depot0 distributor0) [0] 13: (drop hoist2 crate0 pallet2 distributor1) [0] 14: (drive truck1 distributor0 distributor0) [0] 15: (drive truck0 distributor1 distributor1) [0] 16: (drive truck0 distributor1 depot0) [0] 17: (drop hoist1 crate1 pallet1 distributor0) [0] time spent: 0,08 seconds parsing 0,22 seconds encoding 0,38 seconds searching 0,68 seconds total time memory used: 0,41 MBytes for problem representation 0,00 MBytes for searching 0,41 MBytes total

p02	00: (lift hoist0 crate0 pallet0 depot0) [0] 01: (load hoist0 crate0 truck0 depot0) [0] 02: (lift hoist2 crate2 crate1 distributor1) [0] 03: (drive truck0 depot0 distributor1) [0] 04: (load hoist2 crate2 truck0 distributor1) [0] 05: (lift hoist2 crate1 pallet2 distributor1) [0] 06: (load hoist2 crate1 truck0 distributor1) [0] 07: (unload hoist2 crate0 truck0 distributor1) [0] 08: (drive truck0 distributor1 depot0) [0] 09: (unload hoist0 crate2 truck0 depot0) [0] 10: (drive truck0 depot0 distributor0) [0] 11: (drop hoist0 crate2 pallet0 depot0) [0] 12: (unload hoist1 crate1 truck0 distributor0) [0] 13: (drop hoist1 crate1 crate3 distributor0) [0] 14: (drop hoist2 crate0 pallet2 distributor1) [0] time spent: 0,11 seconds parsing 0,40 seconds encoding 0,19 seconds searching 0,69 seconds total time memory used: 0,90 MBytes for problem representation 0,05 MBytes for searching 0,95 MBytes total	00: (drive truck1 distributor1 depot0) [0] 01: (drive truck1 depot0 distributor1) [0] 02: (drive truck1 distributor1 depot0) [0] 03: (drop hoist0 crate2 pallet0 depot0) [0] 04: (lift hoist1 crate3 pallet1 distributor0) [0] 05: (drive truck1 depot0 distributor0) [0] 06: (lift hoist0 crate2 pallet0 depot0) [0] 07: (drop hoist1 crate3 pallet1 distributor0) [0] 08: (unload hoist1 crate1 truck1 distributor0) [0] 09: (drive truck1 distributor0 depot0) [0] 10: (drive truck0 depot0 depot0) [0] 11: (load hoist0 crate2 truck0 depot0) [0] 12: (drop hoist1 crate1 crate3 distributor0) [0] 13: (unload hoist0 crate2 truck0 depot0) [0] 14: (drop hoist0 crate2 pallet0 depot0) [0] 15: (drive truck0 depot0 distributor0) [0] 16: (drive truck1 depot0 distributor1) [0] 17: (drive truck0 distributor0 depot0) [0] 18: (unload hoist2 crate0 truck1 distributor1) [0] 19: (drop hoist2 crate0 pallet2 distributor1) [0] time spent: 0,09 seconds parsing 0,27 seconds encoding 1,30 seconds searching 1,65 seconds total time memory used: 0,90 MBytes for problem representation 0,00 MBytes for searching 0,90 MBytes total
p03	00: (lift hoist0 crate1 pallet0 depot0) [0] 01: (load hoist0 crate1 truck0 depot0) [0] 02: (lift hoist2 crate5 crate2 distributor1) [0] 03: (drive truck0 depot0 distributor1) [0] 04: (load hoist2 crate5 truck0 distributor1) [0] 05: (lift hoist1 crate4 crate3 distributor0) [0] 06: (lift hoist2 crate2 pallet2 distributor1) [0] 07: (load hoist2 crate2 truck0 distributor1) [0] 08: (load hoist1 crate4 truck1 distributor0) [0] 09: (unload hoist2 crate1 truck0 distributor1) [0] 10: (drop hoist2 crate1 pallet2 distributor1) [0] 11: (drive truck0 distributor1 distributor0) [0] 12: (lift hoist1 crate3 crate0 distributor0) [0] 13: (load hoist1 crate3 truck0 distributor0) [0] 14: (drive truck0 distributor0 depot0) [0] 15: (unload hoist0 crate2 truck0 depot0) [0] 16: (lift hoist1 crate0 pallet1 distributor0) [0] 17: (load hoist1 crate0 truck1 distributor0) [0] 18: (unload hoist1 crate4 truck1 distributor0) [0] 19: (drive truck1 distributor0 distributor1) [0] 20: (drop hoist0 crate2 pallet0 depot0) [0] 21: (unload hoist2 crate0 truck1 distributor1) [0] 22: (drop hoist1 crate4 pallet1 distributor0) [0] 23: (drop hoist2 crate0 crate1 distributor1) [0] 24: (unload hoist0 crate3 truck0 depot0) [0] 25: (drive truck0 depot0 distributor1) [0] 26: (drop hoist0 crate3 crate2 depot0) [0] 27: (unload hoist2 crate5 truck0 distributor1) [0] 28: (drop hoist2 crate5 crate0 distributor1) [0] time spent: 0,08 seconds parsing 0,35 seconds encoding 3,71 seconds searching 4,15 seconds total time memory used: 1,59 MBytes for problem representation 2,98 MBytes for searching 4,57 MBytes total	00: (drop hoist2 crate0 crate1 distributor1) [0] 01: (unload hoist1 crate4 truck0 distributor0) [0] 02: (drive truck0 distributor0 distributor1) [0] 03: (drive truck1 distributor1 distributor0) [0] 04: (drive truck1 distributor0 distributor0) [0] 05: (drive truck0 distributor1 distributor1) [0] 06: (load hoist1 crate4 truck1 distributor0) [0] 07: (unload hoist1 crate4 truck1 distributor0) [0] 08: (drop hoist0 crate3 crate2 depot0) [0] 09: (drive truck1 distributor0 distributor1) [0] 10: (unload hoist2 crate5 truck1 distributor1) [0] 11: (drive truck1 distributor1 distributor0) [0] 12: (drop hoist1 crate4 pallet1 distributor0) [0] 13: (drop hoist2 crate5 crate0 distributor1) [0] time spent: 0,08 seconds parsing 0,36 seconds encoding 2,87 seconds searching 3,31 seconds total time memory used: 1,59 MBytes for problem representation 0,00 MBytes for searching 1,59 MBytes total
p04	00: (lift hoist2 crate6 crate5 distributor1) [0] 01: (load hoist2 crate6 truck1 distributor1) [0] 02: (drive truck1 distributor1 distributor0) [0] 03: (lift hoist1 crate2 pallet1 distributor0) [0] 04: (load hoist1 crate2 truck1 distributor0) [0] 05: (unload hoist1 crate6 truck1 distributor0) [0] 06: (drop hoist1 crate6 pallet1 distributor0) [0] 07: (unload hoist1 crate2 truck1 distributor0) [0]	00: (drive truck1 depot0 depot0) [0] 01: (unload hoist0 crate1 truck1 depot0) [0] 02: (load hoist0 crate1 truck1 depot0) [0] 03: (lift hoist1 crate2 crate6 distributor0) [0] 04: (unload hoist2 crate3 truck0 distributor1) [0] 05: (unload hoist0 crate4 truck1 depot0) [0] 06: (drop hoist1 crate2 crate6 distributor0) [0] 07: (drive truck0 distributor1 distributor1) [0]

	08: (drop hoist1 crate2 crate6 distributor0) [0] 09: (drive truck1 distributor0 depot0) [0] 10: (lift hoist0 crate7 crate4 depot0) [0] 11: (load hoist0 crate7 truck1 depot0) [0] 12: (lift hoist0 crate4 crate1 depot0) [0] 13: (load hoist0 crate4 truck1 depot0) [0] 14: (lift hoist0 crate1 crate0 depot0) [0] 15: (load hoist0 crate1 truck1 depot0) [0] 16: (lift hoist0 crate0 pallet0 depot0) [0] 17: (load hoist0 crate0 truck1 depot0) [0] 18: (unload hoist0 crate7 truck1 depot0) [0] 19: (drop hoist0 crate7 pallet0 depot0) [0] 20: (lift hoist2 crate5 crate3 distributor1) [0] 21: (load hoist2 crate5 truck0 distributor1) [0] 22: (lift hoist2 crate3 pallet2 distributor1) [0] 23: (load hoist2 crate3 truck0 distributor1) [0] 24: (unload hoist0 crate4 truck1 depot0) [0] 25: (drop hoist0 crate4 crate7 depot0) [0] 26: (unload hoist0 crate0 truck1 depot0) [0] 27: (drop hoist0 crate0 crate4 depot0) [0] 28: (unload hoist2 crate5 truck0 distributor1) [0] 29: (drop hoist2 crate5 pallet2 distributor1) [0] time spent: 0,09 seconds parsing 0,50 seconds encoding 11,12 seconds searching 11,70 seconds total time memory used: 2,49 MBytes for problem representation 17,72 MBytes for searching 20,21 MBytes total	08: (drop hoist0 crate4 crate7 depot0) [0] 09: (lift hoist0 crate4 crate7 depot0) [0] 10: (load hoist2 crate3 truck0 distributor1) [0] 11: (drop hoist0 crate4 crate7 depot0) [0] 12: (unload hoist0 crate0 truck1 depot0) [0] 13: (drop hoist0 crate0 crate4 depot0) [0] time spent: 0,09 seconds parsing 0,45 seconds encoding 9,75 seconds searching 10,29 seconds total time memory used: 2,49 MBytes for problem representation 0,00 MBytes for searching 2,49 MBytes total
p05	00: (lift hoist0 crate4 crate3 depot0) [0] 01: (load hoist0 crate4 truck0 depot0) [0] 02: (lift hoist0 crate3 crate1 depot0) [0] 03: (load hoist0 crate3 truck0 depot0) [0] 04: (lift hoist0 crate1 pallet0 depot0) [0] 05: (load hoist0 crate1 truck0 depot0) [0] 06: (drive truck0 depot0 distributor0) [0] 07: (lift hoist1 crate8 crate7 distributor0) [0] 08: (load hoist1 crate8 truck0 distributor0) [0] 09: (lift hoist1 crate7 crate6 distributor0) [0] 10: (load hoist1 crate7 truck0 distributor0) [0] 11: (lift hoist1 crate6 pallet1 distributor0) [0] 12: (load hoist1 crate6 truck0 distributor0) [0] 13: (unload hoist1 crate1 truck0 distributor0) [0] 14: (drop hoist1 crate1 pallet1 distributor0) [0] 15: (unload hoist1 crate7 truck0 distributor0) [0] 16: (drive truck0 distributor0 distributor1) [0] 17: (lift hoist2 crate9 crate5 distributor1) [0] 18: (load hoist2 crate9 truck0 distributor1) [0] 19: (lift hoist2 crate5 crate2 distributor1) [0] 20: (load hoist2 crate5 truck0 distributor1) [0] 21: (lift hoist2 crate2 crate0 distributor1) [0] 22: (load hoist2 crate2 truck0 distributor1) [0] 23: (lift hoist2 crate0 pallet2 distributor1) [0] 24: (load hoist2 crate0 truck0 distributor1) [0] 25: (unload hoist2 crate3 truck0 distributor1) [0] 26: (drive truck0 distributor1 depot0) [0] 27: (drop hoist2 crate3 pallet2 distributor1) [0] 28: (unload hoist0 crate9 truck0 depot0) [0] 29: (drop hoist0 crate9 pallet0 depot0) [0] 30: (unload hoist0 crate6 truck0 depot0) [0] 31: (drop hoist0 crate6 crate9 depot0) [0] 32: (drop hoist1 crate7 crate1 distributor0) [0] 33: (unload hoist0 crate4 truck0 depot0) [0] 34: (drop hoist0 crate4 crate6 depot0) [0] 35: (unload hoist0 crate5 truck0 depot0) [0] 36: (drop hoist0 crate5 crate4 depot0) [0] 37: (unload hoist0 crate0 truck0 depot0) [0] 38: (drop hoist0 crate0 crate5 depot0) [0] 39: (unload hoist0 crate2 truck0 depot0) [0] 40: (drive truck0 depot0 distributor1) [0] 41: (drop hoist0 crate2 crate0 depot0) [0] 42: (unload hoist2 crate8 truck0 distributor1) [0] 43: (drop hoist2 crate8 crate3 distributor1) [0] time spent: 0,08 seconds parsing	00: (load hoist2 crate3 truck1 distributor1) [0] 01: (lift hoist2 crate5 crate2 distributor1) [0] 02: (drive truck1 distributor1 distributor1) [0] 03: (drive truck0 distributor1 distributor0) [0] 04: (lift hoist1 crate7 crate1 distributor0) [0] 05: (drive truck0 distributor0 distributor0) [0] 06: (load hoist2 crate5 truck1 distributor1) [0] 07: (unload hoist2 crate3 truck1 distributor1) [0] 08: (drop hoist2 crate3 crate2 distributor1) [0] 09: (drive truck0 distributor0 distributor1) [0] 10: (lift hoist0 crate4 crate6 depot0) [0] 11: (unload hoist2 crate8 truck0 distributor1) [0] 12: (drop hoist2 crate8 crate3 distributor1) [0] 13: (drive truck1 distributor1 distributor1) [0] 14: (drive truck1 distributor1 distributor0) [0] 15: (drop hoist0 crate4 crate6 depot0) [0] 16: (drop hoist1 crate7 crate1 distributor0) [0] 17: (drive truck1 depot0 distributor1) [0] 18: (drive truck1 distributor1 distributor0) [0] 19: (drive truck1 distributor0 distributor1) [0] time spent: 0,09 seconds parsing 0,60 seconds encoding 600,46 seconds searching 601,15 seconds total time memory used: 3,61 MBytes for problem representation 0,00 MBytes for searching 3,61 MBytes total

	0,52 seconds encoding 272,73 seconds searching 273,33 seconds total time memory used: 3,61 MBytes for problem representation 293,38 MBytes for searching 296,99 MBytes total	
p06	no plan found time spent: 0,10 seconds parsing 0,86 seconds encoding 0,00 seconds searching 0,96 seconds total time memory used: 7,33 MBytes for problem representation 0,00 MBytes for searching 7,33 MBytes total	00: (drive truck0 distributor1 depot0) [0] 01: (unload hoist0 crate6 truck0 depot0) [0] 02: (load hoist0 crate6 truck0 depot0) [0] 03: (drive truck1 distributor0 distributor1) [0] 04: (drive truck0 depot0 distributor1) [0] 05: (drop hoist1 crate0 crate11 distributor0) [0] 06: (load hoist2 crate14 truck1 distributor1) [0] 07: (drive truck0 distributor1 distributor1) [0] 08: (unload hoist2 crate2 truck1 distributor1) [0] 09: (load hoist2 crate2 truck0 distributor1) [0] 10: (drive truck0 distributor1 distributor0) [0] 11: (drive truck1 distributor1 depot0) [0] 12: (drive truck0 distributor0 depot0) [0] 13: (unload hoist0 crate13 truck1 depot0) [0] 14: (lift hoist1 crate0 crate11 distributor0) [0] 15: (load hoist0 crate13 truck1 depot0) [0] 16: (drop hoist1 crate0 crate11 distributor0) [0] 17: (drive truck1 depot0 distributor1) [0] 18: (drive truck1 distributor1 distributor0) [0] 19: (lift hoist1 crate0 crate11 distributor0) [0] time spent: 0,09 seconds parsing 0,87 seconds encoding 600,84 seconds searching 601,80 seconds total time memory used: 7,33 MBytes for problem representation 0,00 MBytes for searching 7,33 MBytes total
ipc1998/logistics/strips-round1		
p01	java.lang.OutOfMemoryError: Java heap space	00: (unload-truck package2 truck3 city3-2) [0] 01: (load-airplane package4 plane1 city5-2) [0] 02: (unload-airplane package4 plane2 city1-2) [0] 03: (unload-airplane package4 plane1 city3-2) [0] 04: (fly-airplane plane1 city3-2 city5-2) [0] 05: (drive-truck truck6 city6-2 city6-2 city6) [0] 06: (unload-airplane package5 plane1 city6-2) [0] 07: (fly-airplane plane2 city5-2 city2-2) [0] 08: (fly-airplane plane1 city2-2 city4-2) [0] 09: (unload-airplane package2 plane2 city3-2) [0] 10: (load-airplane package2 plane2 city3-2) [0] 11: (fly-airplane plane2 city3-2 city3-2) [0] 12: (fly-airplane plane2 city5-2 city3-2) [0] 13: (unload-airplane package3 plane2 city6-2) [0] 14: (load-truck package4 truck5 city5-2) [0] 15: (load-airplane package2 plane2 city5-2) [0] 16: (load-airplane package6 plane1 city1-2) [0] 17: (fly-airplane plane1 city6-2 city1-2) [0] 18: (unload-truck package3 truck6 city6-1) [0] time spent: 0,26 seconds parsing 0,36 seconds encoding 16,89 seconds searching 17,50 seconds total time memory used: 2,26 MBytes for problem representation 0,00 MBytes for searching 2,26 MBytes total

p02	<p>no plan found</p> <p>time spent: 0,09 seconds parsing 0,74 seconds encoding 0,00 seconds searching 0,83 seconds total time</p> <p>memory used: 5,75 MBytes for problem representation 0,00 MBytes for searching 5,75 MBytes total</p>	<p>00: (fly-airplane plane3 city6-2 city6-2) [0] 01: (fly-airplane plane3 city7-2 city2-2) [0] 02: (fly-airplane plane4 city10-2 city1-2) [0] 03: (fly-airplane plane3 city1-2 city9-2) [0] 04: (unload-airplane package1 plane2 city1-2) [0] 05: (unload-truck package3 truck1 city1-1) [0] 06: (fly-airplane plane2 city9-2 city9-2) [0] 07: (load-airplane package5 plane2 city1-2) [0] 08: (fly-airplane plane2 city5-2 city10-2) [0] 09: (fly-airplane plane3 city10-2 city9-2) [0] 10: (fly-airplane plane2 city7-2 city2-2) [0] 11: (fly-airplane plane4 city9-2 city10-2) [0] 12: (fly-airplane plane2 city6-2 city8-2) [0] 13: (fly-airplane plane3 city6-2 city5-2) [0] 14: (unload-airplane package3 plane1 city4-2) [0] 15: (fly-airplane plane3 city8-2 city5-2) [0] 16: (fly-airplane plane2 city4-2 city9-2) [0] 17: (fly-airplane plane2 city7-2 city1-2) [0] 18: (fly-airplane plane4 city1-2 city7-2) [0] 19: (fly-airplane plane1 city4-2 city3-2) [0]</p> <p>time spent: 0,08 seconds parsing 0,79 seconds encoding 608,93 seconds searching 609,80 seconds total time</p> <p>memory used: 5,75 MBytes for problem representation 0,00 MBytes for searching 5,75 MBytes total</p>
p03	<p>no plan found</p> <p>time spent: 0,11 seconds parsing 2,14 seconds encoding 0,00 seconds searching 2,24 seconds total time</p> <p>memory used: 27,05 MBytes for problem representation 0,00 MBytes for searching 27,05 MBytes total</p>	<p>00: (drive-truck truck7 city7-1 city7-1 city7) [0] 01: (drive-truck truck1 city1-1 city1-2 city1) [0] 02: (drive-truck truck6 city6-2 city6-2 city6) [0] 03: (drive-truck truck8 city8-2 city8-1 city8) [0] 04: (fly-airplane plane2 city11-3 city10-3) [0] 05: (drive-truck truck5 city5-1 city5-2 city5) [0] 06: (fly-airplane plane2 city11-3 city4-3) [0] 07: (fly-airplane plane1 city11-3 city11-3) [0] 08: (fly-airplane plane3 city1-3 city4-3) [0] 09: (fly-airplane plane2 city4-3 city3-3) [0] 10: (fly-airplane plane2 city4-3 city7-3) [0] 11: (fly-airplane plane2 city7-3 city7-3) [0] 12: (fly-airplane plane2 city10-3 city6-3) [0] 13: (drive-truck truck1 city1-1 city1-3 city1) [0] 14: (load-truck package7 truck1 city1-2) [0] 15: (unload-truck package7 truck1 city1-3) [0] 16: (fly-airplane plane2 city11-3 city1-3) [0] 17: (fly-airplane plane1 city11-3 city3-3) [0] 18: (fly-airplane plane2 city3-3 city12-3) [0] 19: (fly-airplane plane2 city4-3 city12-3) [0]</p> <p>time spent: 0,32 seconds parsing 3,46 seconds encoding 629,14 seconds searching 632,92 seconds total time</p> <p>memory used: 27,05 MBytes for problem representation 0,00 MBytes for searching 27,05 MBytes total</p>
p04	<p>no plan found</p> <p>time spent: 0,12 seconds parsing 3,90 seconds encoding 0,00 seconds searching 4,02 seconds total time</p> <p>memory used: 46,59 MBytes for problem representation 0,00 MBytes for searching 46,59 MBytes total</p>	<p>00: (fly-airplane plane2 city12-4 city13-4) [0] 01: (fly-airplane plane1 city3-4 city5-4) [0] 02: (drive-truck truck3 city7-1 city7-2 city7) [0] 03: (drive-truck truck7 city9-1 city9-4 city9) [0] 04: (unload-airplane package7 plane2 city12-4) [0] 05: (fly-airplane plane1 city3-4 city11-4) [0] 06: (drive-truck truck18 city8-2 city8-3 city8) [0] 07: (fly-airplane plane2 city4-4 city5-4) [0] 08: (fly-airplane plane4 city4-4 city10-4) [0]</p>

		<p>[0] 09: (fly-airplane plane2 city12-4 city5-4) [0] 10: (fly-airplane plane4 city6-4 city5-4) [0] 11: (fly-airplane plane4 city8-4 city3-4) [0] 12: (drive-truck truck5 city8-2 city8-2 city8) [0] 13: (fly-airplane plane3 city6-4 city4-4) [0] 14: (fly-airplane plane1 city3-4 city7-4) [0] 15: (drive-truck truck23 city13-2 city13-2 city13) [0] 16: (drive-truck truck6 city9-2 city9-1 city9) [0] 17: (fly-airplane plane4 city5-4 city11-4) [0] 18: (drive-truck truck17 city7-3 city7-4 city7) [0] 19: (fly-airplane plane1 city2-4 city6-4) [0]</p> <p>time spent: 0,09 seconds parsing 3,81 seconds encoding 629,00 seconds searching 632,90 seconds total time</p> <p>memory used: 46,59 MBytes for problem representation 0,00 MBytes for searching 46,59 MBytes total</p>
p05	<p>no plan found</p> <p>time spent: 0,08 seconds parsing 0,74 seconds encoding 0,00 seconds searching 0,82 seconds total time</p> <p>memory used: 3,90 MBytes for problem representation 0,00 MBytes for searching 3,90 MBytes total</p>	<p>00: (load-truck package2 truck2 city8-2) [0] 01: (fly-airplane plane1 city5-2 city5-2) [0] 02: (unload-airplane package2 plane1 city2-2) [0] 03: (fly-airplane plane1 city4-2 city6-2) [0] 04: (fly-airplane plane1 city1-2 city7-2) [0] 05: (drive-truck truck2 city8-1 city8-1 city8) [0] 06: (fly-airplane plane1 city1-2 city3-2) [0] 07: (fly-airplane plane1 city2-2 city3-2) [0] 08: (drive-truck truck1 city3-2 city3-1 city3) [0] 09: (fly-airplane plane1 city4-2 city9-2) [0] 10: (fly-airplane plane1 city9-2 city3-2) [0] 11: (fly-airplane plane1 city9-2 city7-2) [0] 12: (load-truck package3 truck11 city9-2) [0] 13: (load-airplane package2 plane1 city3-2) [0] 14: (load-airplane package4 plane1 city8-2) [0] 15: (load-airplane package4 plane1 city2-2) [0] 16: (unload-truck package2 truck1 city3-2) [0] 17: (fly-airplane plane1 city5-2 city8-2) [0] 18: (load-airplane package3 plane1 city7-2) [0] 19: (unload-truck package2 truck1 city3-1) [0]</p> <p>time spent: 0,07 seconds parsing 0,60 seconds encoding 28,82 seconds searching 29,49 seconds total time</p> <p>memory used: 3,90 MBytes for problem representation 0,00 MBytes for searching 3,90 MBytes total</p>
p06	<p>no plan found</p> <p>time spent: 0,12 seconds parsing 9,68 seconds encoding 0,00 seconds searching 9,80 seconds total time</p> <p>memory used: 160,65 MBytes for problem representation 0,00 MBytes for searching 160,65 MBytes total</p>	<p>java.lang.NullPointerException</p>
p07	<p>no plan found</p> <p>time spent: 0,18 seconds parsing 1,15 seconds encoding 0,00 seconds searching</p>	<p>00: (unload-airplane package8 plane2 city8-2) [0] 01: (load-airplane package6 plane1 city5-2) [0] 02: (fly-airplane plane3 city4-2 city3-2) [0] 03: (fly-airplane plane3 city7-2 city8-2) [0] 04: (fly-airplane plane3 city9-2 city3-2) [0]</p>

	<p>1,33 seconds total time</p> <p>memory used: 13,46 MBytes for problem representation</p> <p>0,00 MBytes for searching</p> <p>13,46 MBytes total</p>	<p>05: (fly-airplane plane2 city3-2 city11-2) [0]</p> <p>06: (fly-airplane plane1 city10-2 city9-2) [0]</p> <p>07: (fly-airplane plane4 city6-2 city8-2) [0]</p> <p>08: (fly-airplane plane1 city8-2 city8-2) [0]</p> <p>09: (drive-truck truck9 city9-1 city9-1 city9) [0]</p> <p>10: (drive-truck truck5 city5-1 city5-2 city5) [0]</p> <p>11: (fly-airplane plane3 city11-2 city2-2) [0]</p> <p>12: (unload-airplane package8 plane3 city10-2) [0]</p> <p>13: (fly-airplane plane2 city2-2 city9-2) [0]</p> <p>14: (drive-truck truck7 city7-2 city7-2 city7) [0]</p> <p>15: (load-truck package7 truck5 city5-2) [0]</p> <p>16: (unload-airplane package4 plane1 city2-2) [0]</p> <p>17: (load-airplane package6 plane2 city10-2) [0]</p> <p>18: (fly-airplane plane6 city3-2 city4-2) [0]</p> <p>19: (load-airplane package6 plane2 city11-2) [0]</p> <p>time spent: 0,08 seconds parsing</p> <p>1,02 seconds encoding</p> <p>609,55 seconds searching</p> <p>610,65 seconds total time</p> <p>memory used: 13,46 MBytes for problem representation</p> <p>0,00 MBytes for searching</p> <p>13,46 MBytes total</p>
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