

# Annex

## 1 Identidem Problem Type Results

The success rates, averages, minimums, and maximums for each problem instance, which are rather large tables, are at the end in Annex Section 4.

Success Rate By Problem Type			
Problem Type	Attempt Count	Success Count	Success Rate
Depots	110	104	0.945455
DepotsN	110	92	0.836364
DriverLog	100	67	0.67
DriverLogN	100	84	0.84
FreeCell	100	86	0.86
FreeCellN	100	93	0.93
Rovers	100	100	1
RoversN	100	100	1
Satellite	100	100	1
SatelliteN	100	99	0.99
SuperBarman	25	23	0.92
SuperBarmanN	25	22	0.88
ZenoTravel	100	100	1
ZenoTravelN	100	100	1

Averages By Problem Type			
Problem Type	Restart Count	Cache Hits	Total Time
Depots	47.34545	224554.8	175.2561
DepotsN	9.981818	147677	343.0019
DriverLog	1002.82	1000458	678.2338
DriverLogN	7.66	36499.6	300.2717
FreeCell	5.13	23914.13	288.5084
FreeCellN	4.35	38747.91	214.3783
Rovers	0	45.6	0.0681
RoversN	0	45.6	0.0671
Satellite	0.56	15852.58	6.5359
SatelliteN	0.62	34065.6	35.8491
SuperBarman	16.2	420619.6	259.0232
SuperBarmanN	8.56	343545.2	280.47
ZenoTravel	0.04	164.29	1.2768
ZenoTravelN	0.04	164.29	1.2805

Minimums By Problem Type			
Problem Type	Restart Count	Cache Hits	Total Time
Depots	0	0	0
DepotsN	0	0	0
DriverLog	0	0	0
DriverLogN	0	0	0
FreeCell	0	0	0
FreeCellN	0	0	0.01
Rovers	0	0	0
RoversN	0	0	0
Satellite	0	0	0
SatelliteN	0	0	0
SuperBarman	0	0	0
SuperBarmanN	0	0	0
ZenoTravel	0	0	0
ZenoTravelN	0	0	0

Maximums By Problem Type			
Problem Type	Restart Count	Cache Hits	Total Time
Depots	900	6391775	1195.08
DepotsN	70	2766342	1202.81
DriverLog	7010	1.57E+07	1212.03
DriverLogN	31	768422	280.44
FreeCell	31	674060	1123.9
FreeCellN	24	850214	1762.12
Rovers	0	397	0.69
RoversN	0	397	0.69
Satellite	12	647886	236.16
SatelliteN	15	2517128	1236.19
SuperBarman	110	5270894	1605.5
SuperBarmanN	32	2759593	1276.26
ZenoTravel	1	3155	16.92
ZenoTravelN	1	3155	17.18

## 2 SuperBarman Results

Runtime (seconds)					
Planner	P1	P2	P3	P4	P5
FF	0	0	0.01	0.18	2.37
SAPA	0.05	*	3.04	*	*
LPG-quality	0.26	0.26	0.26	10.26	177.26
LPG-speed	0	0.01	0.17	0.19	7.33
Identidem-avg	0	0	0.06	102.094	*
Identidem-variance	0	0	0.10173495	111.97464	*
Identidem-min	0	0	0	0.69	36
Identidem-r1	0	0	0.01	0.69	*
Identidem-r2	0	0	0.04	217	36
Identidem-r3	0	0	0	226	1325
Identidem-r4	0	0	0.24	2.78	*
Identidem-r5	0	0	0.01	64	*

Number of Actions					
Planner	P1	P2	P3	P4	P5
FF	9	19	26	46	76
SAPA	9	*	20	*	*
LPG-quality	9	13	23	38	58
LPG-speed	9	15	23	65	72
Identidem-avg	14	18.8	34.4	76.2	*
Identidem-variance	2.82842712	1.09544512	4.50555213	8.46758525	*
Identidem-min	10	18	29	63	120
Identidem-r1	16	18	40	86	*
Identidem-r2	12	18	33	63	128
Identidem-r3	16	20	29	75	120
Identidem-r4	10	18	38	77	*
Identidem-r5	16	20	32	80	*

Plan Duration						
Planner	P1	P2	P3	P4	P5	
LPG-quality	9	9	20	18	18	
LPG-speed	9	12	20	40	27	

## 3 SuperBarman PDDL

```
(define (domain superbarman)
  (:requirements :typing)
  (:types liquid bottle glass customer hand - object)
  (:predicates (bottleContains ?b - bottle ?l - liquid)
    (onRack ?b - bottle)
    (onBar ?g - glass)
    (pouredInLast ?l - liquid ?g - glass)
    (pouredInAfter ?l after ?l before - liquid ?g - glass)
    (holding ?b - bottle ?h - hand)
    (handFree ?h - hand)
    (wants ?c - customer ?l1 ?l2 ?l3 ?l4 - liquid)
    (satisfied ?c - customer) )

  (:action pickup
    :parameters (?b - bottle ?h - hand)
    :precondition (and (handFree ?h)
      (onRack ?b))
    :effect (and (not (handFree ?h))
      (not (onRack ?b))
      (holding ?b ?h)) )

  (:action putdown
    :parameters (?b - bottle ?h - hand)
    :precondition (and (holding ?b ?h))
    :effect (and (not (holding ?b ?h))
      (handFree ?h)
      (onRack ?b)) )

  (:action pour
    :parameters (?l new - liquid ?b - bottle ?h - hand
      ?g - glass ?l before - liquid)
    :precondition (and (holding ?b ?h)
      (bottleContains ?b ?l new)
      (onBar ?g)
      (pouredInLast ?l before ?g))
    :effect (and (not (pouredInLast ?l before ?g))
      (pouredInLast ?l new ?g)
      (pouredInAfter ?l new ?l before ?g)) )

  (:action give
    :parameters (?c - customer ?g - glass ?l1 ?l2 ?l3 ?l4 - liquid)
    :precondition (and (onBar ?g)
      (wants ?c ?l1 ?l2 ?l3 ?l4)
      (pouredInLast ?l1 ?g)
      (pouredInAfter ?l1 ?l2 ?g)
      (pouredInAfter ?l2 ?l3 ?g)
      (pouredInAfter ?l3 ?l4 ?g))
    :effect (and (not (onBar ?g))
      (satisfied ?c)) ) )
```

### 3.1 SuperBarman Problem 1

```
(define (problem SUPERBARMAN-1)
 (:domain superbarman)
 (:objects
  vodkaL - liquid
  martiniL - liquid
  iceL - liquid
  emptyL - liquid
  vodkaB - bottle
  martiniB - bottle
  iceB - bottle
  glass1 - glass
  customer1 - customer
  hand1 - hand )
```

### 3.2 SuperBarman Problem 2

```
(define (problem SUPERBARMAN-2)
 (:domain superbarman)
 (:objects
  vodkaL - liquid
  martiniL - liquid
  iceL - liquid
  emptyL - liquid
  vodkaB - bottle
  martiniB - bottle
  iceB - bottle
  glass1 - glass
  glass2 - glass
  customer1 - customer
  customer2 - customer
  hand1 - hand )
```

### 3.3 SuperBarman Problem 3

```
(define (problem SUPERBARMAN-3)
 (:domain superbarman)
 (:objects
  vodkaL - liquid
  martiniL - liquid
  orangeL - liquid
  iceL - liquid
  emptyL - liquid
  vodkaB - bottle
  martiniB - bottle
  orangeB - bottle
  iceB - bottle
  glass1 - glass
  glass2 - glass
  glass3 - glass
  customer1 - customer
  customer2 - customer
  customer3 - customer
  hand1 - hand )
```

```
(:init
 (bottleContains vodkaB vodkaL)
 (bottleContains martiniB martiniL)
 (bottleContains iceB iceL)
 (onRack vodkaB)
 (onRack martiniB)
 (onRack iceB)
 (onBar glass1)
 (pouredInLast emptyL glass1)
 (handFree hand1)
 (wants customer1 vodkaL martiniL iceL emptyL) )
 (:goal (and (satisfied customer1)) ) )
```

```
(:init
 (bottleContains vodkaB vodkaL)
 (bottleContains martiniB martiniL)
 (bottleContains iceB iceL)
 (onRack vodkaB)
 (onRack martiniB)
 (onRack iceB)
 (onBar glass1)
 (onBar glass2)
 (pouredInLast emptyL glass1)
 (pouredInLast emptyL glass2)
 (handFree hand1)
 (wants customer1 vodkaL martiniL iceL emptyL)
 (wants customer2 vodkaL martiniL iceL emptyL) )
 (:goal (and (satisfied customer1) (satisfied customer2)) ) )
```

```
(:init
 (bottleContains vodkaB vodkaL)
 (bottleContains martiniB martiniL)
 (bottleContains orangeB orangeL)
 (bottleContains iceB iceL)
 (onRack vodkaB)
 (onRack martiniB)
 (onRack orangeB)
 (onRack iceB)
 (onBar glass1)
 (onBar glass2)
 (onBar glass3)
 (pouredInLast emptyL glass1)
 (pouredInLast emptyL glass2)
 (pouredInLast emptyL glass3)
 (handFree hand1)
 (wants customer1 vodkaL martiniL iceL emptyL)
 (wants customer2 orangeL vodkaL vodkaL emptyL)
 (wants customer3 martiniL martiniL iceL emptyL) )
 (:goal (and (satisfied customer1) (satisfied customer2)
 (satisfied customer3)) ) )
```

### 3.4 SuperBarman Problem 4

```

(define (problem SUPERBARMAN-4)
  (: domain superbarman)
  (: objects
    liquid1 - liquid
    liquid2 - liquid
    liquid3 - liquid
    liquid4 - liquid
    liquid5 - liquid
    liquid6 - liquid
    emptyL - liquid
    bottle1 - bottle
    bottle2 - bottle
    bottle3 - bottle
    bottle4 - bottle
    bottle5 - bottle
    bottle6 - bottle
    glass1 - glass
    glass2 - glass
    glass3 - glass
    glass4 - glass
    glass5 - glass
    glass6 - glass
    customer1 - customer
    customer2 - customer
    customer3 - customer
    customer4 - customer
    customer5 - customer
    customer6 - customer
    hand1 - hand
    hand2 - hand )
  (: init
    (bottleContains bottle1 liquid1)
    (bottleContains bottle2 liquid2)
    (bottleContains bottle3 liquid3)
    (bottleContains bottle4 liquid4)
    (bottleContains bottle5 liquid5)
    (bottleContains bottle6 liquid6)
    (onRack bottle1)
    (onRack bottle2)
    (onRack bottle3)
    (onRack bottle4)
    (onRack bottle5)
    (onRack bottle6)
    (onBar glass1)
    (onBar glass2)
    (onBar glass3)
    (onBar glass4)
    (onBar glass5)
    (onBar glass6)
    (pouredInLast emptyL glass1)
    (pouredInLast emptyL glass2)
    (pouredInLast emptyL glass3)
    (pouredInLast emptyL glass4)
    (pouredInLast emptyL glass5)
    (pouredInLast emptyL glass6)
    (handFree hand1)
    (handFree hand2)
    (wants customer1 liquid3 liquid1 liquid4 emptyL)
    (wants customer2 liquid5 liquid2 liquid6 emptyL)
    (wants customer3 liquid5 liquid3 liquid5 emptyL)
    (wants customer4 liquid1 liquid3 liquid2 emptyL)
    (wants customer5 liquid3 liquid4 liquid6 emptyL)
    (wants customer6 liquid2 liquid6 liquid4 emptyL) )
  (: goal (and
    (satisfied customer1)
    (satisfied customer2)
    (satisfied customer3)
    (satisfied customer4)
    (satisfied customer5)
    (satisfied customer6)) ) )

```

### 3.5 SuperBarman Problem 5

```
(define (problem SUPERBARMAN-5)
 (: domain superbarman)
 (: objects
```

```
  liquid0 - liquid
  liquid1 - liquid
  liquid2 - liquid
  liquid3 - liquid
  liquid4 - liquid
  liquid5 - liquid
  liquid6 - liquid
  liquid7 - liquid
  liquid8 - liquid
  liquid9 - liquid
  emptyL - liquid
  bottle0 - bottle
  bottle1 - bottle
  bottle2 - bottle
  bottle3 - bottle
  bottle4 - bottle
  bottle5 - bottle
  bottle6 - bottle
  bottle7 - bottle
  bottle8 - bottle
  bottle9 - bottle
  glass0 - glass
  glass1 - glass
  glass2 - glass
  glass3 - glass
  glass4 - glass
  glass5 - glass
  glass6 - glass
  glass7 - glass
  glass8 - glass
  glass9 - glass
  customer0 - customer
  customer1 - customer
  customer2 - customer
  customer3 - customer
  customer4 - customer
  customer5 - customer
  customer6 - customer
  customer7 - customer
  customer8 - customer
  customer9 - customer
  hand1 - hand
  hand2 - hand
  hand3 - hand
  hand4 - hand )
```

```
(: init
(bottleContains bottle0 liquid0)
(bottleContains bottle1 liquid1)
(bottleContains bottle2 liquid2)
(bottleContains bottle3 liquid3)
(bottleContains bottle4 liquid4)
(bottleContains bottle5 liquid5)
```

```
(bottleContains bottle6 liquid6)
(bottleContains bottle7 liquid7)
(bottleContains bottle8 liquid8)
(bottleContains bottle9 liquid9)
(onRack bottle0)
(onRack bottle1)
(onRack bottle2)
(onRack bottle3)
(onRack bottle4)
(onRack bottle5)
(onRack bottle6)
(onRack bottle7)
(onRack bottle8)
(onRack bottle9)
(onBar glass0)
(onBar glass1)
(onBar glass2)
(onBar glass3)
(onBar glass4)
(onBar glass5)
(onBar glass6)
(onBar glass7)
(onBar glass8)
(onBar glass9)
(pouredInLast emptyL glass0)
(pouredInLast emptyL glass1)
(pouredInLast emptyL glass2)
(pouredInLast emptyL glass3)
(pouredInLast emptyL glass4)
(pouredInLast emptyL glass5)
(pouredInLast emptyL glass6)
(pouredInLast emptyL glass7)
(pouredInLast emptyL glass8)
(pouredInLast emptyL glass9)
(handFree hand1)
(handFree hand2)
(handFree hand3)
(handFree hand4)
(wants customer0 liquid3 liquid1 liquid4 emptyL)
(wants customer1 liquid5 liquid9 liquid2 emptyL)
(wants customer2 liquid6 liquid5 liquid3 emptyL)
(wants customer3 liquid5 liquid8 liquid9 emptyL)
(wants customer4 liquid7 liquid9 liquid3 emptyL)
(wants customer5 liquid2 liquid3 liquid8 emptyL)
(wants customer6 liquid4 liquid6 liquid2 emptyL)
(wants customer7 liquid6 liquid4 liquid3 emptyL)
(wants customer8 liquid3 liquid8 liquid3 emptyL)
(wants customer9 liquid2 liquid7 liquid9 emptyL) )
```

```
(: goal (and
(satisfied customer0) (satisfied customer1)
(satisfied customer2) (satisfied customer3)
(satisfied customer4) (satisfied customer5)
(satisfied customer6) (satisfied customer7)
(satisfied customer8) (satisfied customer9)) ) )
```

## 4

## Identidem Problem Results

Success Rate By Problem			
Problem	Attempt Count	Success Count	Success Rate
Depots-01	5	5	1
Depots-01-N	5	5	1
Depots-02	5	5	1
Depots-02-N	5	5	1
Depots-03	5	5	1
Depots-03-N	5	5	1
Depots-04	5	0	0
Depots-04-N	5	5	1
Depots-05	5	5	1
Depots-05-N	5	5	1
Depots-06	5	4	0.8
Depots-06-N	5	0	0
Depots-07	5	5	1
Depots-07-N	5	5	1
Depots-08	5	5	1
Depots-08-N	5	5	1
Depots-09	5	5	1
Depots-09-N	5	5	1
Depots-10	5	5	1
Depots-10-N	5	5	1
Depots-11	5	5	1
Depots-11-N	5	4	0.8
Depots-12	5	5	1
Depots-12-N	5	0	0
Depots-13	5	5	1
Depots-13-N	5	5	1
Depots-14	5	5	1
Depots-14-N	5	5	1
Depots-15	5	5	1
Depots-15-N	5	3	0.6
Depots-16	5	5	1
Depots-16-N	5	5	1
Depots-17	5	5	1
Depots-17-N	5	5	1
Depots-18	5	5	1
Depots-18-N	5	5	1
Depots-19	5	5	1
Depots-19-N	5	5	1
Depots-20	5	5	1
Depots-20-N	5	0	0
Depots-21	5	5	1
Depots-21-N	5	5	1
Depots-22	5	5	1
Depots-22-N	5	5	1
DriverLog-01	5	5	1
DriverLog-01-N	5	5	1
DriverLog-02	5	0	0
DriverLog-02-N	5	5	1
DriverLog-03	5	5	1
DriverLog-03-N	5	5	1

Averages By Problem			
Problem	Restart Count	Cache Hits	Total Time
Depots-01	0	4.6	0
Depots-01-N	0	4.6	0
Depots-02	0	42.2	0
Depots-02-N	0	42.2	0.002
Depots-03	1.2	2745.4	0.154
Depots-03-N	1.2	2745.4	0.156
Depots-04	891	0	1800
Depots-04-N	10	66933.4	4.002
Depots-05	12.8	231314.8	23.256
Depots-05-N	13.6	398430.6	36.32
Depots-06	42	2088614	752.016
Depots-06-N	67.8	0	1800
Depots-07	0.2	366.4	0.042
Depots-07-N	0.2	366.4	0.038
Depots-08	0.6	1510.2	0.298
Depots-08-N	0.6	1510.2	0.304
Depots-09	14.4	328493.8	71.672
Depots-09-N	17.8	1112055	228.75
Depots-10	0	360.2	0.096
Depots-10-N	0	360.2	0.096
Depots-11	12.4	196046.4	43.23
Depots-11-N	23	974973.4	543.072
Depots-12	16.6	735030	300
Depots-12-N	29.6	0	1800
Depots-13	0	173.8	0.094
Depots-13-N	0	173.8	0.096
Depots-14	5	11195.2	3.028
Depots-14-N	5	11158	3.098
Depots-15	19.2	829048.4	335.026
Depots-15-N	20	572910.4	941.21
Depots-16	0.2	477.8	0.194
Depots-16-N	0.2	477.8	0.196
Depots-17	0.6	981.2	0.622
Depots-17-N	0.6	981.2	0.612
Depots-18	0.2	1556.2	2.99
Depots-18-N	0.2	1556.2	2.976
Depots-19	5	15906.4	4.548
Depots-19-N	5	15906.4	4.458
Depots-20	14.2	438354	288.192
Depots-20-N	18.8	0	1800
Depots-21	0	161	0.588
Depots-21-N	0	161	0.584
Depots-22	6	57823.8	229.588
Depots-22-N	6	88147.8	380.072
DriverLog-01	0	12.6	0
DriverLog-01-N	0	12.6	0
DriverLog-02	5226.6	0	1800
DriverLog-02-N	7	18725.6	0.142
DriverLog-03	0	6.8	0
DriverLog-03-N	0	6.8	0

Success Rate By Problem Continued...			
Problem	Attempt Count	Success Count	Success Rate
Dri verLog-04	5	0	0
Dri verLog-04-N	5	5	1
Dri verLog-05	5	5	1
Dri verLog-05-N	5	5	1
Dri verLog-06	5	5	1
Dri verLog-06-N	5	5	1
Dri verLog-07	5	5	1
Dri verLog-07-N	5	5	1
Dri verLog-08	5	0	0
Dri verLog-08-N	5	5	1
Dri verLog-09	5	5	1
Dri verLog-09-N	5	5	1
Dri verLog-10	5	5	1
Dri verLog-10-N	5	5	1
Dri verLog-11	5	5	1
Dri verLog-11-N	5	5	1
Dri verLog-12	5	0	0
Dri verLog-12-N	5	5	1
Dri verLog-13	5	5	1
Dri verLog-13-N	5	5	1
Dri verLog-14	5	5	1
Dri verLog-14-N	5	5	1
Dri verLog-15	5	5	1
Dri verLog-15-N	5	5	1
Dri verLog-16	5	0	0
Dri verLog-16-N	5	0	0
Dri verLog-17	5	5	1
Dri verLog-17-N	5	5	1
Dri verLog-18	5	5	1
Dri verLog-18-N	5	4	0.8
Dri verLog-19	5	0	0
Dri verLog-19-N	5	0	0
Dri verLog-20	5	2	0.4
Dri verLog-20-N	5	0	0
FreeCel I -01	5	5	1
FreeCel I -01-N	5	5	1
FreeCel I -02	5	5	1
FreeCel I -02-N	5	5	1
FreeCel I -03	5	5	1
FreeCel I -03-N	5	5	1
FreeCel I -04	5	5	1
FreeCel I -04-N	5	5	1
FreeCel I -05	5	5	1
FreeCel I -05-N	5	5	1
FreeCel I -06	5	5	1
FreeCel I -06-N	5	5	1
FreeCel I -07	5	5	1
FreeCel I -07-N	5	5	1
FreeCel I -08	5	5	1
FreeCel I -08-N	5	5	1
FreeCel I -09	5	5	1
FreeCel I -09-N	5	5	1

Averages By Problem Continued...			
Problem	Restart Count	Cache Hits	Total Time
Dri verLog-04	6842.6	0	1800
Dri verLog-04-N	7	14733	0.138
Dri verLog-05	0	41	0
Dri verLog-05-N	0	41	0
Dri verLog-06	187.4	4986798	47.234
Dri verLog-06-N	5.8	26432	0.34
Dri verLog-07	0	21.8	0
Dri verLog-07-N	0	21.8	0.002
Dri verLog-08	4956.6	0	1800
Dri verLog-08-N	8.4	42555.4	0.718
Dri verLog-09	17.2	336477.4	5.544
Dri verLog-09-N	5.8	8787.4	0.186
Dri verLog-10	0	56.6	0.008
Dri verLog-10-N	0	56.6	0.008
Dri verLog-11	0	60.2	0.008
Dri verLog-11-N	0	60.2	0.016
Dri verLog-12	2209.8	0	1800
Dri verLog-12-N	9	49627.8	2.082
Dri verLog-13	8.4	118598.2	6.73
Dri verLog-13-N	4.6	12234.8	0.932
Dri verLog-14	368.4	1.11E+07	401.09
Dri verLog-14-N	9.4	41731	2.702
Dri verLog-15	0	342	0.158
Dri verLog-15-N	0	342	0.154
Dri verLog-16	73.2	0	1800
Dri verLog-16-N	30.6	0	1800
Dri verLog-17	55	2292373	600.048
Dri verLog-17-N	13.2	417584.4	164.116
Dri verLog-18	19	468734	226.304
Dri verLog-18-N	11.8	97039.6	433.898
Dri verLog-19	38.6	0	1800
Dri verLog-19-N	22.4	0	1800
Dri verLog-20	53.6	697479.2	1477.552
Dri verLog-20-N	18.2	0	1800
FreeCel I -01	0	0	0.01
FreeCel I -01-N	0	0	0.01
FreeCel I -02	0	0	0.052
FreeCel I -02-N	0	0	0.05
FreeCel I -03	0	0	0.082
FreeCel I -03-N	0	0	0.08
FreeCel I -04	0.2	295.4	0.126
FreeCel I -04-N	0.2	295.4	0.118
FreeCel I -05	0.4	366.8	0.258
FreeCel I -05-N	0.4	366.8	0.258
FreeCel I -06	0.2	221.6	0.31
FreeCel I -06-N	0.2	221.6	0.32
FreeCel I -07	4.6	29995	17.646
FreeCel I -07-N	3.4	5733.2	3.582
FreeCel I -08	0.8	692.8	0.982
FreeCel I -08-N	0.8	692.8	0.984
FreeCel I -09	0.6	613.4	0.876
FreeCel I -09-N	0.6	613.4	0.874

Success Rate By Problem Continued...			
Problem	Attempt Count	Success Count	Success Rate
FreeCell-10	5	5	1
FreeCell-10-N	5	5	1
FreeCell-11	5	5	1
FreeCell-11-N	5	5	1
FreeCell-12	5	5	1
FreeCell-12-N	5	5	1
FreeCell-13	5	5	1
FreeCell-13-N	5	5	1
FreeCell-14	5	5	1
FreeCell-14-N	5	5	1
FreeCell-15	5	5	1
FreeCell-15-N	5	5	1
FreeCell-16	5	5	1
FreeCell-16-N	5	5	1
FreeCell-17	5	5	1
FreeCell-17-N	5	5	1
FreeCell-18	5	1	0.2
FreeCell-18-N	5	4	0.8
FreeCell-19	5	0	0
FreeCell-19-N	5	2	0.4
FreeCell-20	5	0	0
FreeCell-20-N	5	2	0.4
Rovers-01	5	5	1
Rovers-01-N	5	5	1
Rovers-02	5	5	1
Rovers-02-N	5	5	1
Rovers-03	5	5	1
Rovers-03-N	5	5	1
Rovers-04	5	5	1
Rovers-04-N	5	5	1
Rovers-05	5	5	1
Rovers-05-N	5	5	1
Rovers-06	5	5	1
Rovers-06-N	5	5	1
Rovers-07	5	5	1
Rovers-07-N	5	5	1
Rovers-08	5	5	1
Rovers-08-N	5	5	1
Rovers-09	5	5	1
Rovers-09-N	5	5	1
Rovers-10	5	5	1
Rovers-10-N	5	5	1
Rovers-11	5	5	1
Rovers-11-N	5	5	1
Rovers-12	5	5	1
Rovers-12-N	5	5	1
Rovers-13	5	5	1
Rovers-13-N	5	5	1
Rovers-14	5	5	1
Rovers-14-N	5	5	1
Rovers-15	5	5	1
Rovers-15-N	5	5	1

Averages By Problem Continued...			
Problem	Restart Count	Cache Hits	Total Time
FreeCell-10	0.8	807	1.624
FreeCell-10-N	0.8	807	1.62
FreeCell-11	19.2	324602	401.738
FreeCell-11-N	12	81778	85.868
FreeCell-12	0.2	222.2	0.652
FreeCell-12-N	0.2	222.2	0.658
FreeCell-13	2.8	6103.8	10.092
FreeCell-13-N	2.8	6103.8	10.04
FreeCell-14	0	199.6	1.056
FreeCell-14-N	0	199.6	1.06
FreeCell-15	4.6	24019.4	47.142
FreeCell-15-N	4.2	13275	28.598
FreeCell-16	3.8	7077.6	16.69
FreeCell-16-N	3.6	6877.4	16.258
FreeCell-17	1.2	1311.2	6.052
FreeCell-17-N	1.2	1311.2	6.026
FreeCell-18	23.2	81754.8	1664.78
FreeCell-18-N	19.2	415158.2	1244.614
FreeCell-19	20.6	0	1800
FreeCell-19-N	18.8	85729.8	1353.582
FreeCell-20	19.4	0	1800
FreeCell-20-N	18.6	155572.8	1532.966
Rovers-01	0	3.6	0
Rovers-01-N	0	3.6	0
Rovers-02	0	0	0
Rovers-02-N	0	0	0
Rovers-03	0	5.6	0
Rovers-03-N	0	5.6	0
Rovers-04	0	0	0
Rovers-04-N	0	0	0
Rovers-05	0	0.8	0
Rovers-05-N	0	0.8	0
Rovers-06	0	32.2	0.004
Rovers-06-N	0	32.2	0
Rovers-07	0	4.2	0
Rovers-07-N	0	4.2	0
Rovers-08	0	6	0.006
Rovers-08-N	0	6	0.002
Rovers-09	0	23.4	0.008
Rovers-09-N	0	23.4	0.01
Rovers-10	0	31.4	0.01
Rovers-10-N	0	31.4	0.018
Rovers-11	0	43.2	0.016
Rovers-11-N	0	43.2	0.016
Rovers-12	0	7.6	0.002
Rovers-12-N	0	7.6	0.002
Rovers-13	0	36.8	0.04
Rovers-13-N	0	36.8	0.038
Rovers-14	0	28.4	0.018
Rovers-14-N	0	28.4	0.014
Rovers-15	0	74	0.048
Rovers-15-N	0	74	0.046



Success Rate By Problem Continued...			
Problem	Attempt Count	Success Count	Success Rate
Rovers-16	5	5	1
Rovers-16-N	5	5	1
Rovers-17	5	5	1
Rovers-17-N	5	5	1
Rovers-18	5	5	1
Rovers-18-N	5	5	1
Rovers-19	5	5	1
Rovers-19-N	5	5	1
Rovers-20	5	5	1
Rovers-20-N	5	5	1
Satellite-01	5	5	1
Satellite-01-N	5	5	1
Satellite-02	5	5	1
Satellite-02-N	5	5	1
Satellite-03	5	5	1
Satellite-03-N	5	5	1
Satellite-04	5	5	1
Satellite-04-N	5	5	1
Satellite-05	5	5	1
Satellite-05-N	5	5	1
Satellite-06	5	5	1
Satellite-06-N	5	5	1
Satellite-07	5	5	1
Satellite-07-N	5	5	1
Satellite-08	5	5	1
Satellite-08-N	5	5	1
Satellite-09	5	5	1
Satellite-09-N	5	5	1
Satellite-10	5	5	1
Satellite-10-N	5	5	1
Satellite-11	5	5	1
Satellite-11-N	5	5	1
Satellite-12	5	5	1
Satellite-12-N	5	5	1
Satellite-13	5	5	1
Satellite-13-N	5	5	1
Satellite-14	5	5	1
Satellite-14-N	5	5	1
Satellite-15	5	5	1
Satellite-15-N	5	5	1
Satellite-16	5	5	1
Satellite-16-N	5	5	1
Satellite-17	5	5	1
Satellite-17-N	5	5	1
Satellite-18	5	5	1
Satellite-18-N	5	5	1
Satellite-19	5	5	1
Satellite-19-N	5	5	1
Satellite-20	5	5	1
Satellite-20-N	5	4	0.8
SuperBarman-01	5	5	1
SuperBarman-01-N	5	5	1

Averages By Problem Continued...			
Problem	Restart Count	Cache Hits	Total Time
Rovers-16	0	43.2	0.04
Rovers-16-N	0	43.2	0.038
Rovers-17	0	49	0.09
Rovers-17-N	0	49	0.094
Rovers-18	0	83.4	0.144
Rovers-18-N	0	83.4	0.144
Rovers-19	0	245.6	0.35
Rovers-19-N	0	245.6	0.34
Rovers-20	0	193.6	0.586
Rovers-20-N	0	193.6	0.58
Satellite-01	0	11.8	0
Satellite-01-N	0	11.8	0
Satellite-02	0	144.6	0
Satellite-02-N	0	144.6	0
Satellite-03	0	40.8	0
Satellite-03-N	0	40.8	0
Satellite-04	0	128	0.002
Satellite-04-N	0	128	0.004
Satellite-05	0	123.6	0.012
Satellite-05-N	0	123.6	0.012
Satellite-06	0	243.2	0.018
Satellite-06-N	0	243.2	0.018
Satellite-07	0	230.6	0.04
Satellite-07-N	0	230.6	0.04
Satellite-08	0	284	0.086
Satellite-08-N	0	284	0.09
Satellite-09	0	148.2	0.1
Satellite-09-N	0	148.2	0.094
Satellite-10	0	128	0.122
Satellite-10-N	0	128	0.124
Satellite-11	0	396.8	0.214
Satellite-11-N	0	396.8	0.212
Satellite-12	0.8	3587.4	1.65
Satellite-12-N	0.8	3587.4	1.654
Satellite-13	0.6	4589	3.602
Satellite-13-N	0.6	4589	3.606
Satellite-14	0	763.4	0.612
Satellite-14-N	0	763.4	0.606
Satellite-15	0	528.4	1.066
Satellite-15-N	0	528.4	1.064
Satellite-16	0.2	1366.4	1.972
Satellite-16-N	0.2	1366.4	1.958
Satellite-17	0	696.2	1.472
Satellite-17-N	0	696.2	1.468
Satellite-18	0.2	982.4	0.536
Satellite-18-N	0.2	982.4	0.536
Satellite-19	0.2	1970.8	1.828
Satellite-19-N	0.2	1970.8	1.818
Satellite-20	9.2	300688	117.386
Satellite-20-N	10.4	664948.4	703.678
SuperBarman-01	0	23.8	0.002
SuperBarman-01-N	0	23.8	0

Success Rate By Problem Continued...			
Problem	Attempt Count	Success Count	Success Rate
SuperBarman-02	5	5	1
SuperBarman-02-N	5	5	1
SuperBarman-03	5	5	1
SuperBarman-03-N	5	5	1
SuperBarman-04	5	5	1
SuperBarman-04-N	5	5	1
SuperBarman-05	5	3	0.6
SuperBarman-05-N	5	2	0.4
ZenoTravel -01	5	5	1
ZenoTravel -01-N	5	5	1
ZenoTravel -02	5	5	1
ZenoTravel -02-N	5	5	1
ZenoTravel -03	5	5	1
ZenoTravel -03-N	5	5	1
ZenoTravel -04	5	5	1
ZenoTravel -04-N	5	5	1
ZenoTravel -05	5	5	1
ZenoTravel -05-N	5	5	1
ZenoTravel -06	5	5	1
ZenoTravel -06-N	5	5	1
ZenoTravel -07	5	5	1
ZenoTravel -07-N	5	5	1
ZenoTravel -08	5	5	1
ZenoTravel -08-N	5	5	1
ZenoTravel -09	5	5	1
ZenoTravel -09-N	5	5	1
ZenoTravel -10	5	5	1
ZenoTravel -10-N	5	5	1
ZenoTravel -11	5	5	1
ZenoTravel -11-N	5	5	1
ZenoTravel -12	5	5	1
ZenoTravel -12-N	5	5	1
ZenoTravel -13	5	5	1
ZenoTravel -13-N	5	5	1
ZenoTravel -14	5	5	1
ZenoTravel -14-N	5	5	1
ZenoTravel -15	5	5	1
ZenoTravel -15-N	5	5	1
ZenoTravel -16	5	5	1
ZenoTravel -16-N	5	5	1
ZenoTravel -17	5	5	1
ZenoTravel -17-N	5	5	1
ZenoTravel -18	5	5	1
ZenoTravel -18-N	5	5	1
ZenoTravel -19	5	5	1
ZenoTravel -19-N	5	5	1
ZenoTravel -20	5	5	1
ZenoTravel -20-N	5	5	1

Averages By Problem Continued...			
Problem	Restart Count	Cache Hits	Total Time
SuperBarman-02	1.2	643.4	0.012
SuperBarman-02-N	1.2	643.4	0.016
SuperBarman-03	2.2	2839	0.06
SuperBarman-03-N	2	2437	0.058
SuperBarman-04	34.8	1316903	96.946
SuperBarman-04-N	18.2	1227925	63.214
SuperBarman-05	42.8	782688.4	1198.096
SuperBarman-05-N	21.4	486696.6	1339.062
ZenoTravel -01	0	0	0
ZenoTravel -01-N	0	0	0
ZenoTravel -02	0	2.6	0
ZenoTravel -02-N	0	2.6	0
ZenoTravel -03	0	0	0
ZenoTravel -03-N	0	0	0
ZenoTravel -04	0	0.4	0
ZenoTravel -04-N	0	0.4	0
ZenoTravel -05	0	1.4	0.002
ZenoTravel -05-N	0	1.4	0
ZenoTravel -06	0	3.8	0.006
ZenoTravel -06-N	0	3.8	0.002
ZenoTravel -07	0	7.6	0.008
ZenoTravel -07-N	0	7.6	0.008
ZenoTravel -08	0	2.6	0.032
ZenoTravel -08-N	0	2.6	0.028
ZenoTravel -09	0	21.8	0.038
ZenoTravel -09-N	0	21.8	0.04
ZenoTravel -10	0	39	0.048
ZenoTravel -10-N	0	39	0.05
ZenoTravel -11	0	1.2	0.052
ZenoTravel -11-N	0	1.2	0.046
ZenoTravel -12	0	27.6	0.058
ZenoTravel -12-N	0	27.6	0.06
ZenoTravel -13	0	60.2	0.078
ZenoTravel -13-N	0	60.2	0.084
ZenoTravel -14	0	125.6	0.478
ZenoTravel -14-N	0	125.6	0.488
ZenoTravel -15	0	172.6	0.468
ZenoTravel -15-N	0	172.6	0.474
ZenoTravel -16	0	227.2	0.946
ZenoTravel -16-N	0	227.2	0.952
ZenoTravel -17	0	1073	3.23
ZenoTravel -17-N	0	1073	3.234
ZenoTravel -18	0.2	1519.2	6.122
ZenoTravel -18-N	0.2	1519.2	6.082
ZenoTravel -19	0.2	0	4.384
ZenoTravel -19-N	0.2	0	4.45
ZenoTravel -20	0.4	0	9.586
ZenoTravel -20-N	0.4	0	9.612

Minimums By Problem			
Problem	Restart Count	Cache Hits	Total Time
Depots-01	0	0	0
Depots-01-N	0	0	0
Depots-02	0	0	0
Depots-02-N	0	0	0
Depots-03	0	224	0.03
Depots-03-N	0	224	0.03
Depots-04	883	*	*
Depots-04-N	9	23629	1.7
Depots-05	9	69031	7
Depots-05-N	9	69031	6.97
Depots-06	20	951706	180.64
Depots-06-N	66	*	*
Depots-07	0	35	0.02
Depots-07-N	0	35	0.01
Depots-08	0	457	0.14
Depots-08-N	0	457	0.15
Depots-09	13	216925	47.53
Depots-09-N	12	187205	43.42
Depots-10	0	126	0.07
Depots-10-N	0	126	0.07
Depots-11	9	48470	11.29
Depots-11-N	9	48470	11.27
Depots-12	15	445867	183.1
Depots-12-N	29	*	*
Depots-13	0	45	0.08
Depots-13-N	0	45	0.07
Depots-14	3	4116	1.32
Depots-14-N	3	4116	1.32
Depots-15	15	442202	184.6
Depots-15-N	15	702107	281.26
Depots-16	0	24	0.11
Depots-16-N	0	24	0.11
Depots-17	0	71	0.23
Depots-17-N	0	71	0.23
Depots-18	0	484	1.77
Depots-18-N	0	484	1.77
Depots-19	0	1124	0.54
Depots-19-N	0	1124	0.55
Depots-20	11	174292	122.76
Depots-20-N	18	*	*
Depots-21	0	86	0.51
Depots-21-N	0	86	0.51
Depots-22	3	16690	87.98
Depots-22-N	3	16690	85.78
Dri verLog-01	0	0	0
Dri verLog-01-N	0	0	0
Dri verLog-02	5169	*	*
Dri verLog-02-N	6	10699	0.08
Dri verLog-03	0	0	0
Dri verLog-03-N	0	0	0

Maximums By Problem			
Problem	Restart Count	Cache Hits	Total Time
Depots-01	0	10	0
Depots-01-N	0	10	0
Depots-02	0	88	0
Depots-02-N	0	88	0.01
Depots-03	4	8385	0.42
Depots-03-N	4	8385	0.43
Depots-04	900	*	*
Depots-04-N	12	142530	8.09
Depots-05	17	508702	51.25
Depots-05-N	16	728626	67.04
Depots-06	84	6391775	1195.08
Depots-06-N	70	*	*
Depots-07	1	1247	0.09
Depots-07-N	1	1247	0.09
Depots-08	2	3496	0.56
Depots-08-N	2	3496	0.56
Depots-09	17	582492	123.51
Depots-09-N	24	2055888	421.92
Depots-10	0	707	0.13
Depots-10-N	0	707	0.13
Depots-11	15	313867	67.17
Depots-11-N	50	2766342	510.91
Depots-12	23	1618798	656.73
Depots-12-N	31	*	*
Depots-13	0	242	0.11
Depots-13-N	0	242	0.11
Depots-14	7	18401	4.79
Depots-14-N	7	18215	5.17
Depots-15	27	1846331	704.94
Depots-15-N	27	1326764	500.39
Depots-16	1	1204	0.34
Depots-16-N	1	1204	0.34
Depots-17	1	1930	0.94
Depots-17-N	1	1930	0.96
Depots-18	1	2972	5.17
Depots-18-N	1	2972	5.15
Depots-19	8	33092	8.85
Depots-19-N	8	33092	8.82
Depots-20	15	629989	400.11
Depots-20-N	20	*	*
Depots-21	0	252	0.69
Depots-21-N	0	252	0.69
Depots-22	10	130057	449.48
Depots-22-N	10	281677	1202.81
Dri verLog-01	0	32	0
Dri verLog-01-N	0	32	0
Dri verLog-02	5269	*	*
Dri verLog-02-N	9	34040	0.27
Dri verLog-03	0	28	0
Dri verLog-03-N	0	28	0

Minimums By Problem Continued...			
Problem	Restart Count	Cache Hits	Total Time
Dri verLog-04	6650	*	*
Dri verLog-04-N	6	7979	0.07
Dri verLog-05	0	6	0
Dri verLog-05-N	0	6	0
Dri verLog-06	0	0	0
Dri verLog-06-N	0	0	0
Dri verLog-07	0	10	0
Dri verLog-07-N	0	10	0
Dri verLog-08	4813	*	*
Dri verLog-08-N	7	12220	0.2
Dri verLog-09	1	649	0.02
Dri verLog-09-N	1	649	0.02
Dri verLog-10	0	9	0
Dri verLog-10-N	0	9	0
Dri verLog-11	0	20	0
Dri verLog-11-N	0	20	0.01
Dri verLog-12	2165	*	*
Dri verLog-12-N	6	10455	0.51
Dri verLog-13	1	767	0.1
Dri verLog-13-N	1	767	0.1
Dri verLog-14	80	2194507	80.86
Dri verLog-14-N	9	21360	1.45
Dri verLog-15	0	92	0.1
Dri verLog-15-N	0	92	0.1
Dri verLog-16	71	*	*
Dri verLog-16-N	30	*	*
Dri verLog-17	25	684309	186.24
Dri verLog-17-N	10	61794	39.51
Dri verLog-18	4	11922	15.71
Dri verLog-18-N	4	11922	15.73
Dri verLog-19	36	*	*
Dri verLog-19-N	21	*	*
Dri verLog-20	33	1313369	775.73
Dri verLog-20-N	17	*	*
FreeCell -01	0	0	0
FreeCell -01-N	0	0	0.01
FreeCell -02	0	0	0.04
FreeCell -02-N	0	0	0.04
FreeCell -03	0	0	0.07
FreeCell -03-N	0	0	0.07
FreeCell -04	0	16	0.05
FreeCell -04-N	0	16	0.04
FreeCell -05	0	15	0.08
FreeCell -05-N	0	15	0.08
FreeCell -06	0	0	0.13
FreeCell -06-N	0	0	0.13
FreeCell -07	1	746	0.73
FreeCell -07-N	1	746	0.69
FreeCell -08	0	35	0.28
FreeCell -08-N	0	35	0.27
FreeCell -09	0	31	0.28
FreeCell -09-N	0	31	0.28

Maximums By Problem Continued...			
Problem	Restart Count	Cache Hits	Total Time
Dri verLog-04	7010	*	*
Dri verLog-04-N	9	25162	0.24
Dri verLog-05	0	125	0
Dri verLog-05-N	0	125	0
Dri verLog-06	357	9663258	90.75
Dri verLog-06-N	9	100352	1.32
Dri verLog-07	0	58	0
Dri verLog-07-N	0	58	0.01
Dri verLog-08	5063	*	*
Dri verLog-08-N	9	115362	2.04
Dri verLog-09	67	1663752	27.26
Dri verLog-09-N	10	25302	0.47
Dri verLog-10	0	95	0.01
Dri verLog-10-N	0	95	0.01
Dri verLog-11	0	115	0.01
Dri verLog-11-N	0	115	0.02
Dri verLog-12	2265	*	*
Dri verLog-12-N	10	95591	3.62
Dri verLog-13	29	580707	32.52
Dri verLog-13-N	10	48890	3.57
Dri verLog-14	521	1.57E+07	560.26
Dri verLog-14-N	10	71823	4.35
Dri verLog-15	0	829	0.22
Dri verLog-15-N	0	829	0.21
Dri verLog-16	75	*	*
Dri verLog-16-N	31	*	*
Dri verLog-17	76	3449625	881.08
Dri verLog-17-N	15	768422	252.46
Dri verLog-18	37	1192449	539.95
Dri verLog-18-N	25	395144	280.44
Dri verLog-19	42	*	*
Dri verLog-19-N	23	*	*
Dri verLog-20	66	2174027	1212.03
Dri verLog-20-N	19	*	*
FreeCell -01	0	0	0.02
FreeCell -01-N	0	0	0.01
FreeCell -02	0	0	0.06
FreeCell -02-N	0	0	0.06
FreeCell -03	0	0	0.09
FreeCell -03-N	0	0	0.09
FreeCell -04	1	1171	0.34
FreeCell -04-N	1	1171	0.34
FreeCell -05	1	1143	0.63
FreeCell -05-N	1	1143	0.63
FreeCell -06	1	837	0.71
FreeCell -06-N	1	837	0.73
FreeCell -07	15	141266	81.59
FreeCell -07-N	9	19957	11.28
FreeCell -08	2	1975	2.27
FreeCell -08-N	2	1975	2.27
FreeCell -09	2	1571	2.07
FreeCell -09-N	2	1571	2.08

Minimums By Problem Continued...			
Problem	Restart Count	Cache Hits	Total Time
FreeCell-10	0	17	0.33
FreeCell-10-N	0	17	0.32
FreeCell-11	9	21940	27.08
FreeCell-11-N	9	10725	16.73
FreeCell-12	0	44	0.35
FreeCell-12-N	0	44	0.36
FreeCell-13	0	247	1.05
FreeCell-13-N	0	247	1.03
FreeCell-14	0	37	0.57
FreeCell-14-N	0	37	0.58
FreeCell-15	1	1406	4.89
FreeCell-15-N	1	1406	5.04
FreeCell-16	0	749	2.75
FreeCell-16-N	0	749	2.7
FreeCell-17	1	847	4.27
FreeCell-17-N	1	847	4.31
FreeCell-18	20	408774	1123.9
FreeCell-18-N	14	109688	275.37
FreeCell-19	19	*	*
FreeCell-19-N	14	152464	504.75
FreeCell-20	18	*	*
FreeCell-20-N	15	183771	587.58
Rovers-01	0	0	0
Rovers-01-N	0	0	0
Rovers-02	0	0	0
Rovers-02-N	0	0	0
Rovers-03	0	0	0
Rovers-03-N	0	0	0
Rovers-04	0	0	0
Rovers-04-N	0	0	0
Rovers-05	0	0	0
Rovers-05-N	0	0	0
Rovers-06	0	7	0
Rovers-06-N	0	7	0
Rovers-07	0	0	0
Rovers-07-N	0	0	0
Rovers-08	0	1	0
Rovers-08-N	0	1	0
Rovers-09	0	3	0
Rovers-09-N	0	3	0.01
Rovers-10	0	14	0.01
Rovers-10-N	0	14	0.01
Rovers-11	0	15	0.01
Rovers-11-N	0	15	0.01
Rovers-12	0	3	0
Rovers-12-N	0	3	0
Rovers-13	0	20	0.03
Rovers-13-N	0	20	0.03
Rovers-14	0	3	0.01
Rovers-14-N	0	3	0.01
Rovers-15	0	30	0.04
Rovers-15-N	0	30	0.04

Maximums By Problem Continued...			
Problem	Restart Count	Cache Hits	Total Time
FreeCell-10	3	1972	3.69
FreeCell-10-N	3	1972	3.71
FreeCell-11	31	674060	841.74
FreeCell-11-N	18	186792	186.44
FreeCell-12	1	742	1.34
FreeCell-12-N	1	742	1.35
FreeCell-13	7	18566	27.78
FreeCell-13-N	7	18566	27.55
FreeCell-14	0	495	1.67
FreeCell-14-N	0	495	1.67
FreeCell-15	11	101337	186.82
FreeCell-15-N	9	47615	93.79
FreeCell-16	7	16191	34.69
FreeCell-16-N	6	15190	32.7
FreeCell-17	2	2104	8.52
FreeCell-17-N	2	2104	8.64
FreeCell-18	26	408774	1123.9
FreeCell-18-N	24	850214	1762.12
FreeCell-19	24	*	*
FreeCell-19-N	22	276185	863.16
FreeCell-20	20	*	*
FreeCell-20-N	21	594093	1677.25
Rovers-01	0	15	0
Rovers-01-N	0	15	0
Rovers-02	0	0	0
Rovers-02-N	0	0	0
Rovers-03	0	12	0
Rovers-03-N	0	12	0
Rovers-04	0	0	0
Rovers-04-N	0	0	0
Rovers-05	0	2	0
Rovers-05-N	0	2	0
Rovers-06	0	75	0.01
Rovers-06-N	0	75	0
Rovers-07	0	10	0
Rovers-07-N	0	10	0
Rovers-08	0	10	0.01
Rovers-08-N	0	10	0.01
Rovers-09	0	60	0.01
Rovers-09-N	0	60	0.01
Rovers-10	0	47	0.01
Rovers-10-N	0	47	0.02
Rovers-11	0	101	0.02
Rovers-11-N	0	101	0.02
Rovers-12	0	15	0.01
Rovers-12-N	0	15	0.01
Rovers-13	0	60	0.05
Rovers-13-N	0	60	0.04
Rovers-14	0	58	0.02
Rovers-14-N	0	58	0.02
Rovers-15	0	191	0.06
Rovers-15-N	0	191	0.06

Minimums By Problem Continued...			
Problem	Restart Count	Cache Hits	Total Time
Rovers-16	0	13	0.04
Rovers-16-N	0	13	0.02
Rovers-17	0	14	0.07
Rovers-17-N	0	14	0.08
Rovers-18	0	37	0.13
Rovers-18-N	0	37	0.13
Rovers-19	0	79	0.26
Rovers-19-N	0	79	0.25
Rovers-20	0	90	0.49
Rovers-20-N	0	90	0.5
Satellite-01	0	0	0
Satellite-01-N	0	0	0
Satellite-02	0	4	0
Satellite-02-N	0	4	0
Satellite-03	0	0	0
Satellite-03-N	0	0	0
Satellite-04	0	101	0
Satellite-04-N	0	101	0
Satellite-05	0	27	0
Satellite-05-N	0	27	0
Satellite-06	0	14	0.01
Satellite-06-N	0	14	0.01
Satellite-07	0	32	0.03
Satellite-07-N	0	32	0.03
Satellite-08	0	35	0.05
Satellite-08-N	0	35	0.05
Satellite-09	0	10	0.05
Satellite-09-N	0	10	0.05
Satellite-10	0	73	0.11
Satellite-10-N	0	73	0.11
Satellite-11	0	153	0.16
Satellite-11-N	0	153	0.16
Satellite-12	0	1023	0.62
Satellite-12-N	0	1023	0.63
Satellite-13	0	2355	2.36
Satellite-13-N	0	2355	2.36
Satellite-14	0	212	0.46
Satellite-14-N	0	212	0.43
Satellite-15	0	215	0.72
Satellite-15-N	0	215	0.71
Satellite-16	0	250	0.98
Satellite-16-N	0	250	0.97
Satellite-17	0	216	0.93
Satellite-17-N	0	216	0.93
Satellite-18	0	330	0.32
Satellite-18-N	0	330	0.32
Satellite-19	0	760	1.07
Satellite-19-N	0	760	1.05
Satellite-20	6	65754	34.13
Satellite-20-N	6	65754	34.02
SuperBarman-01	0	0	0
SuperBarman-01-N	0	0	0

Maximums By Problem Continued...			
Problem	Restart Count	Cache Hits	Total Time
Rovers-16	0	67	0.04
Rovers-16-N	0	67	0.05
Rovers-17	0	113	0.1
Rovers-17-N	0	113	0.1
Rovers-18	0	161	0.16
Rovers-18-N	0	161	0.16
Rovers-19	0	397	0.44
Rovers-19-N	0	397	0.44
Rovers-20	0	345	0.69
Rovers-20-N	0	345	0.69
Satellite-01	0	31	0
Satellite-01-N	0	31	0
Satellite-02	0	414	0
Satellite-02-N	0	414	0
Satellite-03	0	126	0
Satellite-03-N	0	126	0
Satellite-04	0	172	0.01
Satellite-04-N	0	172	0.01
Satellite-05	0	198	0.02
Satellite-05-N	0	198	0.02
Satellite-06	0	411	0.02
Satellite-06-N	0	411	0.03
Satellite-07	0	704	0.07
Satellite-07-N	0	704	0.07
Satellite-08	0	1031	0.17
Satellite-08-N	0	1031	0.18
Satellite-09	0	487	0.14
Satellite-09-N	0	487	0.15
Satellite-10	0	296	0.14
Satellite-10-N	0	296	0.14
Satellite-11	0	718	0.29
Satellite-11-N	0	718	0.28
Satellite-12	1	5104	2.15
Satellite-12-N	1	5104	2.15
Satellite-13	2	10040	6.92
Satellite-13-N	2	10040	6.93
Satellite-14	0	2047	0.88
Satellite-14-N	0	2047	0.88
Satellite-15	0	811	1.34
Satellite-15-N	0	811	1.33
Satellite-16	1	4406	4.45
Satellite-16-N	1	4406	4.39
Satellite-17	0	1442	1.88
Satellite-17-N	0	1442	1.84
Satellite-18	1	2925	1.18
Satellite-18-N	1	2925	1.18
Satellite-19	1	3325	3.25
Satellite-19-N	1	3325	3.25
Satellite-20	12	647886	236.16
Satellite-20-N	15	2517128	1236.19
SuperBarman-01	0	63	0.01
SuperBarman-01-N	0	63	0

Minimums By Problem Continued...			
Problem	Restart Count	Cache Hits	Total Time
SuperBarman-02	0	107	0
SuperBarman-02-N	0	107	0
SuperBarman-03	0	12	0.01
SuperBarman-03-N	0	12	0.01
SuperBarman-04	4	5618	0.5
SuperBarman-04-N	4	5618	0.51
SuperBarman-05	9	29822	18.99
SuperBarman-05-N	9	29822	19.05
ZenoTravel -01	0	0	0
ZenoTravel -01-N	0	0	0
ZenoTravel -02	0	0	0
ZenoTravel -02-N	0	0	0
ZenoTravel -03	0	0	0
ZenoTravel -03-N	0	0	0
ZenoTravel -04	0	0	0
ZenoTravel -04-N	0	0	0
ZenoTravel -05	0	0	0
ZenoTravel -05-N	0	0	0
ZenoTravel -06	0	0	0
ZenoTravel -06-N	0	0	0
ZenoTravel -07	0	0	0
ZenoTravel -07-N	0	0	0
ZenoTravel -08	0	0	0.03
ZenoTravel -08-N	0	0	0.02
ZenoTravel -09	0	1	0.03
ZenoTravel -09-N	0	1	0.04
ZenoTravel -10	0	2	0.04
ZenoTravel -10-N	0	2	0.04
ZenoTravel -11	0	0	0.05
ZenoTravel -11-N	0	0	0.04
ZenoTravel -12	0	1	0.05
ZenoTravel -12-N	0	1	0.05
ZenoTravel -13	0	2	0.05
ZenoTravel -13-N	0	2	0.06
ZenoTravel -14	0	43	0.36
ZenoTravel -14-N	0	43	0.37
ZenoTravel -15	0	35	0.25
ZenoTravel -15-N	0	35	0.26
ZenoTravel -16	0	44	0.65
ZenoTravel -16-N	0	44	0.67
ZenoTravel -17	0	548	2.14
ZenoTravel -17-N	0	548	2.14
ZenoTravel -18	0	773	3.73
ZenoTravel -18-N	0	773	3.8
ZenoTravel -19	0	0	2.13
ZenoTravel -19-N	0	0	2.18
ZenoTravel -20	0	0	5.88
ZenoTravel -20-N	0	0	5.61

Maximums By Problem Continued...			
Problem	Restart Count	Cache Hits	Total Time
SuperBarman-02	3	1623	0.04
SuperBarman-02-N	3	1623	0.04
SuperBarman-03	8	12291	0.18
SuperBarman-03-N	7	10281	0.19
SuperBarman-04	110	5270894	386.4
SuperBarman-04-N	32	2759593	138.55
SuperBarman-05	59	2659916	1605.5
SuperBarman-05-N	27	2403661	1276.26
ZenoTravel -01	0	0	0
ZenoTravel -01-N	0	0	0
ZenoTravel -02	0	12	0
ZenoTravel -02-N	0	12	0
ZenoTravel -03	0	0	0
ZenoTravel -03-N	0	0	0
ZenoTravel -04	0	1	0
ZenoTravel -04-N	0	1	0
ZenoTravel -05	0	3	0.01
ZenoTravel -05-N	0	3	0
ZenoTravel -06	0	14	0.01
ZenoTravel -06-N	0	14	0.01
ZenoTravel -07	0	16	0.01
ZenoTravel -07-N	0	16	0.01
ZenoTravel -08	0	6	0.04
ZenoTravel -08-N	0	6	0.03
ZenoTravel -09	0	77	0.04
ZenoTravel -09-N	0	77	0.04
ZenoTravel -10	0	148	0.07
ZenoTravel -10-N	0	148	0.06
ZenoTravel -11	0	3	0.06
ZenoTravel -11-N	0	3	0.05
ZenoTravel -12	0	62	0.06
ZenoTravel -12-N	0	62	0.07
ZenoTravel -13	0	186	0.11
ZenoTravel -13-N	0	186	0.12
ZenoTravel -14	0	220	0.6
ZenoTravel -14-N	0	220	0.61
ZenoTravel -15	0	387	0.78
ZenoTravel -15-N	0	387	0.77
ZenoTravel -16	0	621	1.61
ZenoTravel -16-N	0	621	1.6
ZenoTravel -17	0	1680	3.89
ZenoTravel -17-N	0	1680	3.87
ZenoTravel -18	1	3155	12.11
ZenoTravel -18-N	1	3155	12
ZenoTravel -19	1	0	11.5
ZenoTravel -19-N	1	0	11.18
ZenoTravel -20	1	0	16.92
ZenoTravel -20-N	1	0	17.18