

# RMS and EDF Scheduler

Ollie Rees (or1g18)

January 15, 2021

## Contents

<b>1</b>	<b>Use</b>	<b>2</b>
<b>2</b>	<b>Implementation</b>	<b>2</b>
2.1	EDF and RMS algorithm . . . . .	2
2.2	Structures . . . . .	2
2.2.1	Hashmap . . . . .	2
2.2.2	Priority Queue . . . . .	2
2.3	Parsing . . . . .	3
2.3.1	Input Parsing . . . . .	3
2.3.2	Output Parsing . . . . .	3
2.4	Graphics . . . . .	3
<b>3</b>	<b>Scheduling Logic</b>	<b>3</b>
3.1	Misses . . . . .	3
3.2	NULL currTask . . . . .	3
3.3	Execution . . . . .	4
3.4	Interrupt . . . . .	4
<b>4</b>	<b>Performance</b>	<b>4</b>
4.1	Timing using bash's time . . . . .	4
<b>5</b>	<b>Appendix</b>	<b>4</b>
5.1	Task1 . . . . .	4
5.2	RMS . . . . .	4
5.3	EDF . . . . .	24
5.4	Task2 . . . . .	41
5.5	RMS . . . . .	41
5.6	EDF . . . . .	69
5.7	Task3 . . . . .	95
5.8	RMS . . . . .	95
5.9	EDF . . . . .	123
5.10	Task4 . . . . .	150
5.11	RMS . . . . .	150

5.12 EDF . . . . .	178
5.13 Performance . . . . .	204

## 1 Use

Running the executable, Scheduler, requires 4 arguments.

Argument 1: Input file location

Argument 2: Output file location

Argument 3: Supertime duration

Argument 4: Priority Algorithm (0 for RMS, 1 for EDF)

## 2 Implementation

### 2.1 EDF and RMS algorithm

I use a functor (*SchedulingAlgorithm*) to represent the priority assignment of EDF and RMS.

RMS assigns priority by returning the task's period.

EDF assigns priority by returning the difference between the task's next deadline and the current time.

This deadline is based off  $time + (time \% task\_period)$

### 2.2 Structures

The two structures I use are the hashmap and the priority queue.

#### 2.2.1 Hashmap

The hashmap's key is the deadline and the elements are the list of tasks that have their deadline on that key.

Using a hashmap offers  $O(1)$  access to all the tasks that need to be refreshed at a given time.

The hashing function is a multiplicative hash using Knuth's constant.

#### 2.2.2 Priority Queue

The priority queue is used to decide what task has the highest priority at any given time.

It's heapify method is a quicksort of the arrayified min-heap structure.

As such getting the minimum gives us  $O(n \log n)$ :  $O(1)$  to find the root, and  $O(n \log n)$  to heapify the remaining tree.

## 2.3 Parsing

Parsing was done to get information about the tasks being scheduled and to output misses, completions and executions of tasks.

### 2.3.1 Input Parsing

Input parsing reads the first line jumping 8 spaces, and then removing any whitespace, to get the task count.

From there I call *parseTaskLine* for the number of tasks given in the first line. *parseTaskLine* uses *strtok* to get each word from the line.

### 2.3.2 Output Parsing

Output parsing was writing to a file, either a miss message, an execution message, or a completion message.

When closing the file I also printed "Scheduling Finished".

## 2.4 Graphics

For the graphics I'm using the glade tool which creates gtk3 widgets in C.

## 3 Scheduling Logic

### 3.1 Misses

The first thing I check for is if any tasks have their deadline at the current time. These tasks are popped from the hashmap and then parsed one-by-one in a for loop.

If the task's progress is the same as its execution time, then it was executed successfully, and I add it back to the priority queue it was removed from after completion.

If the task's progress isn't equal to its execution time, then I parse a miss for it. A special consideration is made for the current task's execution, as it's progress won't be equal to the execution time, even if it executed, and it needs to be added back to the tpq, to get the next highest task.

### 3.2 NULL currTask

If the currTask is NULL it's because it's deadline is during the current time, or the priority queue was empty as all the tasks had completed for the closest period.

In this case I check if the priority queue is no longer empty, and if it isn't, I pop the highest priority task to be the currTask.

Otherwise, I continue back to the top of the loop, incrementing the time, since a NULL currTask can't be executed or be interrupted.

### 3.3 Execution

If the currTask has executed then I parse an execution message, set its progress to its execution time, and pop the highest priority task from the priority queue. I do not add the currTask back to the priority queue until its period has ended.

### 3.4 Interrupt

Interrupts often mean saving the state of the currTask, but since the task doesn't do anything, all I need to do is save its progress.

After I've saved its progress, I add the task back to the priority queue and get the highest priority task from the queue that interrupted the currTask's execution.

## 4 Performance

### 4.1 Timing using bash's time

I tested the performance of the scheduler, on testcase 3, using bash's time which gives the real, user and sys time.

The sys time gives us the time it took to run on the system hardware, and so we'll look at that.

The sys. time. is often at 0.00 ms even at 1,000,000 time superduration.

There are anomalies, even at 100 ms, due to the computer relying on context switching running the scheduler, but even these never peak above 0.005 ms.

The full results are in the appendix under performance

The script I used is in the root folder.

## 5 Appendix

### 5.1 Task1

### 5.2 RMS

```
2 Task1 Completes
2 Task2 Executes
5 Task1 Executes
7 Task2 Misses
7 Task1 Completes
7 Task2 Executes
```

10 Task1 Executes  
12 Task1 Completes  
12 Task2 Executes  
13 Task2 Completes  
14 Task2 Executes  
15 Task1 Executes  
17 Task1 Completes  
17 Task2 Executes  
20 Task2 Completes  
20 Task1 Executes  
22 Task1 Completes  
22 Task2 Executes  
25 Task1 Executes  
27 Task1 Completes  
27 Task2 Executes  
28 Task2 Completes  
30 Task1 Executes  
32 Task1 Completes  
32 Task2 Executes  
33 Task2 Completes  
33 Task2 Executes  
35 Task2 Misses  
35 Task1 Executes  
37 Task1 Completes  
37 Task2 Executes  
39 Task2 Completes  
39 Task2 Executes  
40 Task1 Executes  
42 Task2 Misses  
42 Task1 Completes  
42 Task2 Executes  
45 Task1 Executes  
47 Task1 Completes  
47 Task2 Executes  
48 Task2 Completes  
49 Task2 Executes  
50 Task1 Executes  
52 Task1 Completes  
52 Task2 Executes  
55 Task2 Completes  
55 Task1 Executes  
57 Task1 Completes  
57 Task2 Executes  
60 Task1 Executes  
62 Task1 Completes  
62 Task2 Executes

63 Task2 Completes  
65 Task1 Executes  
67 Task1 Completes  
67 Task2 Executes  
68 Task2 Completes  
68 Task2 Executes  
70 Task2 Misses  
70 Task1 Executes  
72 Task1 Completes  
72 Task2 Executes  
74 Task2 Completes  
74 Task2 Executes  
75 Task1 Executes  
77 Task2 Misses  
77 Task1 Completes  
77 Task2 Executes  
80 Task1 Executes  
82 Task1 Completes  
82 Task2 Executes  
83 Task2 Completes  
84 Task2 Executes  
85 Task1 Executes  
87 Task1 Completes  
87 Task2 Executes  
90 Task2 Completes  
90 Task1 Executes  
92 Task1 Completes  
92 Task2 Executes  
95 Task1 Executes  
97 Task1 Completes  
97 Task2 Executes  
98 Task2 Completes  
100 Task1 Executes  
102 Task1 Completes  
102 Task2 Executes  
103 Task2 Completes  
103 Task2 Executes  
105 Task2 Misses  
105 Task1 Executes  
107 Task1 Completes  
107 Task2 Executes  
109 Task2 Completes  
109 Task2 Executes  
110 Task1 Executes  
112 Task2 Misses  
112 Task1 Completes

112 Task2 Executes  
115 Task1 Executes  
117 Task1 Completes  
117 Task2 Executes  
118 Task2 Completes  
119 Task2 Executes  
120 Task1 Executes  
122 Task1 Completes  
122 Task2 Executes  
125 Task2 Completes  
125 Task1 Executes  
127 Task1 Completes  
127 Task2 Executes  
130 Task1 Executes  
132 Task1 Completes  
132 Task2 Executes  
133 Task2 Completes  
135 Task1 Executes  
137 Task1 Completes  
137 Task2 Executes  
138 Task2 Completes  
138 Task2 Executes  
140 Task2 Misses  
140 Task1 Executes  
142 Task1 Completes  
142 Task2 Executes  
144 Task2 Completes  
144 Task2 Executes  
145 Task1 Executes  
147 Task2 Misses  
147 Task1 Completes  
147 Task2 Executes  
150 Task1 Executes  
152 Task1 Completes  
152 Task2 Executes  
153 Task2 Completes  
154 Task2 Executes  
155 Task1 Executes  
157 Task1 Completes  
157 Task2 Executes  
160 Task2 Completes  
160 Task1 Executes  
162 Task1 Completes  
162 Task2 Executes  
165 Task1 Executes  
167 Task1 Completes

167 Task2 Executes  
168 Task2 Completes  
170 Task1 Executes  
172 Task1 Completes  
172 Task2 Executes  
173 Task2 Completes  
173 Task2 Executes  
175 Task2 Misses  
175 Task1 Executes  
177 Task1 Completes  
177 Task2 Executes  
179 Task2 Completes  
179 Task2 Executes  
180 Task1 Executes  
182 Task2 Misses  
182 Task1 Completes  
182 Task2 Executes  
185 Task1 Executes  
187 Task1 Completes  
187 Task2 Executes  
188 Task2 Completes  
189 Task2 Executes  
190 Task1 Executes  
192 Task1 Completes  
192 Task2 Executes  
195 Task2 Completes  
195 Task1 Executes  
197 Task1 Completes  
197 Task2 Executes  
200 Task1 Executes  
202 Task1 Completes  
202 Task2 Executes  
203 Task2 Completes  
205 Task1 Executes  
207 Task1 Completes  
207 Task2 Executes  
208 Task2 Completes  
208 Task2 Executes  
210 Task2 Misses  
210 Task1 Executes  
212 Task1 Completes  
212 Task2 Executes  
214 Task2 Completes  
214 Task2 Executes  
215 Task1 Executes  
217 Task2 Misses



217 Task1 Completes  
217 Task2 Executes  
220 Task1 Executes  
222 Task1 Completes  
222 Task2 Executes  
223 Task2 Completes  
224 Task2 Executes  
225 Task1 Executes  
227 Task1 Completes  
227 Task2 Executes  
230 Task2 Completes  
230 Task1 Executes  
232 Task1 Completes  
232 Task2 Executes  
235 Task1 Executes  
237 Task1 Completes  
237 Task2 Executes  
238 Task2 Completes  
240 Task1 Executes  
242 Task1 Completes  
242 Task2 Executes  
243 Task2 Completes  
243 Task2 Executes  
245 Task2 Misses  
245 Task1 Executes  
247 Task1 Completes  
247 Task2 Executes  
249 Task2 Completes  
249 Task2 Executes  
250 Task1 Executes  
252 Task2 Misses  
252 Task1 Completes  
252 Task2 Executes  
255 Task1 Executes  
257 Task1 Completes  
257 Task2 Executes  
258 Task2 Completes  
259 Task2 Executes  
260 Task1 Executes  
262 Task1 Completes  
262 Task2 Executes  
265 Task2 Completes  
265 Task1 Executes  
267 Task1 Completes  
267 Task2 Executes  
270 Task1 Executes

272 Task1 Completes  
272 Task2 Executes  
273 Task2 Completes  
275 Task1 Executes  
277 Task1 Completes  
277 Task2 Executes  
278 Task2 Completes  
278 Task2 Executes  
280 Task2 Misses  
280 Task1 Executes  
282 Task1 Completes  
282 Task2 Executes  
284 Task2 Completes  
284 Task2 Executes  
285 Task1 Executes  
287 Task2 Misses  
287 Task1 Completes  
287 Task2 Executes  
290 Task1 Executes  
292 Task1 Completes  
292 Task2 Executes  
293 Task2 Completes  
294 Task2 Executes  
295 Task1 Executes  
297 Task1 Completes  
297 Task2 Executes  
300 Task2 Completes  
300 Task1 Executes  
302 Task1 Completes  
302 Task2 Executes  
305 Task1 Executes  
307 Task1 Completes  
307 Task2 Executes  
308 Task2 Completes  
310 Task1 Executes  
312 Task1 Completes  
312 Task2 Executes  
313 Task2 Completes  
313 Task2 Executes  
315 Task2 Misses  
315 Task1 Executes  
317 Task1 Completes  
317 Task2 Executes  
319 Task2 Completes  
319 Task2 Executes  
320 Task1 Executes

322 Task2 Misses  
322 Task1 Completes  
322 Task2 Executes  
325 Task1 Executes  
327 Task1 Completes  
327 Task2 Executes  
328 Task2 Completes  
329 Task2 Executes  
330 Task1 Executes  
332 Task1 Completes  
332 Task2 Executes  
335 Task2 Completes  
335 Task1 Executes  
337 Task1 Completes  
337 Task2 Executes  
340 Task1 Executes  
342 Task1 Completes  
342 Task2 Executes  
343 Task2 Completes  
345 Task1 Executes  
347 Task1 Completes  
347 Task2 Executes  
348 Task2 Completes  
348 Task2 Executes  
350 Task2 Misses  
350 Task1 Executes  
352 Task1 Completes  
352 Task2 Executes  
354 Task2 Completes  
354 Task2 Executes  
355 Task1 Executes  
357 Task2 Misses  
357 Task1 Completes  
357 Task2 Executes  
360 Task1 Executes  
362 Task1 Completes  
362 Task2 Executes  
363 Task2 Completes  
364 Task2 Executes  
365 Task1 Executes  
367 Task1 Completes  
367 Task2 Executes  
370 Task2 Completes  
370 Task1 Executes  
372 Task1 Completes  
372 Task2 Executes

375 Task1 Executes  
377 Task1 Completes  
377 Task2 Executes  
378 Task2 Completes  
380 Task1 Executes  
382 Task1 Completes  
382 Task2 Executes  
383 Task2 Completes  
383 Task2 Executes  
385 Task2 Misses  
385 Task1 Executes  
387 Task1 Completes  
387 Task2 Executes  
389 Task2 Completes  
389 Task2 Executes  
390 Task1 Executes  
392 Task2 Misses  
392 Task1 Completes  
392 Task2 Executes  
395 Task1 Executes  
397 Task1 Completes  
397 Task2 Executes  
398 Task2 Completes  
399 Task2 Executes  
400 Task1 Executes  
402 Task1 Completes  
402 Task2 Executes  
405 Task2 Completes  
405 Task1 Executes  
407 Task1 Completes  
407 Task2 Executes  
410 Task1 Executes  
412 Task1 Completes  
412 Task2 Executes  
413 Task2 Completes  
415 Task1 Executes  
417 Task1 Completes  
417 Task2 Executes  
418 Task2 Completes  
418 Task2 Executes  
420 Task2 Misses  
420 Task1 Executes  
422 Task1 Completes  
422 Task2 Executes  
424 Task2 Completes  
424 Task2 Executes

425 Task1 Executes  
427 Task2 Misses  
427 Task1 Completes  
427 Task2 Executes  
430 Task1 Executes  
432 Task1 Completes  
432 Task2 Executes  
433 Task2 Completes  
434 Task2 Executes  
435 Task1 Executes  
437 Task1 Completes  
437 Task2 Executes  
440 Task2 Completes  
440 Task1 Executes  
442 Task1 Completes  
442 Task2 Executes  
445 Task1 Executes  
447 Task1 Completes  
447 Task2 Executes  
448 Task2 Completes  
450 Task1 Executes  
452 Task1 Completes  
452 Task2 Executes  
453 Task2 Completes  
453 Task2 Executes  
455 Task2 Misses  
455 Task1 Executes  
457 Task1 Completes  
457 Task2 Executes  
459 Task2 Completes  
459 Task2 Executes  
460 Task1 Executes  
462 Task2 Misses  
462 Task1 Completes  
462 Task2 Executes  
465 Task1 Executes  
467 Task1 Completes  
467 Task2 Executes  
468 Task2 Completes  
469 Task2 Executes  
470 Task1 Executes  
472 Task1 Completes  
472 Task2 Executes  
475 Task2 Completes  
475 Task1 Executes  
477 Task1 Completes

477 Task2 Executes  
480 Task1 Executes  
482 Task1 Completes  
482 Task2 Executes  
483 Task2 Completes  
485 Task1 Executes  
487 Task1 Completes  
487 Task2 Executes  
488 Task2 Completes  
488 Task2 Executes  
490 Task2 Misses  
490 Task1 Executes  
492 Task1 Completes  
492 Task2 Executes  
494 Task2 Completes  
494 Task2 Executes  
495 Task1 Executes  
497 Task2 Misses  
497 Task1 Completes  
497 Task2 Executes  
500 Task1 Executes  
502 Task1 Completes  
502 Task2 Executes  
503 Task2 Completes  
504 Task2 Executes  
505 Task1 Executes  
507 Task1 Completes  
507 Task2 Executes  
510 Task2 Completes  
510 Task1 Executes  
512 Task1 Completes  
512 Task2 Executes  
515 Task1 Executes  
517 Task1 Completes  
517 Task2 Executes  
518 Task2 Completes  
520 Task1 Executes  
522 Task1 Completes  
522 Task2 Executes  
523 Task2 Completes  
523 Task2 Executes  
525 Task2 Misses  
525 Task1 Executes  
527 Task1 Completes  
527 Task2 Executes  
529 Task2 Completes

529 Task2 Executes  
530 Task1 Executes  
532 Task2 Misses  
532 Task1 Completes  
532 Task2 Executes  
535 Task1 Executes  
537 Task1 Completes  
537 Task2 Executes  
538 Task2 Completes  
539 Task2 Executes  
540 Task1 Executes  
542 Task1 Completes  
542 Task2 Executes  
545 Task2 Completes  
545 Task1 Executes  
547 Task1 Completes  
547 Task2 Executes  
550 Task1 Executes  
552 Task1 Completes  
552 Task2 Executes  
553 Task2 Completes  
555 Task1 Executes  
557 Task1 Completes  
557 Task2 Executes  
558 Task2 Completes  
558 Task2 Executes  
560 Task2 Misses  
560 Task1 Executes  
562 Task1 Completes  
562 Task2 Executes  
564 Task2 Completes  
564 Task2 Executes  
565 Task1 Executes  
567 Task2 Misses  
567 Task1 Completes  
567 Task2 Executes  
570 Task1 Executes  
572 Task1 Completes  
572 Task2 Executes  
573 Task2 Completes  
574 Task2 Executes  
575 Task1 Executes  
577 Task1 Completes  
577 Task2 Executes  
580 Task2 Completes  
580 Task1 Executes

582 Task1 Completes  
582 Task2 Executes  
585 Task1 Executes  
587 Task1 Completes  
587 Task2 Executes  
588 Task2 Completes  
590 Task1 Executes  
592 Task1 Completes  
592 Task2 Executes  
593 Task2 Completes  
593 Task2 Executes  
595 Task2 Misses  
595 Task1 Executes  
597 Task1 Completes  
597 Task2 Executes  
599 Task2 Completes  
599 Task2 Executes  
600 Task1 Executes  
602 Task2 Misses  
602 Task1 Completes  
602 Task2 Executes  
605 Task1 Executes  
607 Task1 Completes  
607 Task2 Executes  
608 Task2 Completes  
609 Task2 Executes  
610 Task1 Executes  
612 Task1 Completes  
612 Task2 Executes  
615 Task2 Completes  
615 Task1 Executes  
617 Task1 Completes  
617 Task2 Executes  
620 Task1 Executes  
622 Task1 Completes  
622 Task2 Executes  
623 Task2 Completes  
625 Task1 Executes  
627 Task1 Completes  
627 Task2 Executes  
628 Task2 Completes  
628 Task2 Executes  
630 Task2 Misses  
630 Task1 Executes  
632 Task1 Completes  
632 Task2 Executes



634 Task2 Completes  
634 Task2 Executes  
635 Task1 Executes  
637 Task2 Misses  
637 Task1 Completes  
637 Task2 Executes  
640 Task1 Executes  
642 Task1 Completes  
642 Task2 Executes  
643 Task2 Completes  
644 Task2 Executes  
645 Task1 Executes  
647 Task1 Completes  
647 Task2 Executes  
650 Task2 Completes  
650 Task1 Executes  
652 Task1 Completes  
652 Task2 Executes  
655 Task1 Executes  
657 Task1 Completes  
657 Task2 Executes  
658 Task2 Completes  
660 Task1 Executes  
662 Task1 Completes  
662 Task2 Executes  
663 Task2 Completes  
663 Task2 Executes  
665 Task2 Misses  
665 Task1 Executes  
667 Task1 Completes  
667 Task2 Executes  
669 Task2 Completes  
669 Task2 Executes  
670 Task1 Executes  
672 Task2 Misses  
672 Task1 Completes  
672 Task2 Executes  
675 Task1 Executes  
677 Task1 Completes  
677 Task2 Executes  
678 Task2 Completes  
679 Task2 Executes  
680 Task1 Executes  
682 Task1 Completes  
682 Task2 Executes  
685 Task2 Completes

685 Task1 Executes  
687 Task1 Completes  
687 Task2 Executes  
690 Task1 Executes  
692 Task1 Completes  
692 Task2 Executes  
693 Task2 Completes  
695 Task1 Executes  
697 Task1 Completes  
697 Task2 Executes  
698 Task2 Completes  
698 Task2 Executes  
700 Task2 Misses  
700 Task1 Executes  
702 Task1 Completes  
702 Task2 Executes  
704 Task2 Completes  
704 Task2 Executes  
705 Task1 Executes  
707 Task2 Misses  
707 Task1 Completes  
707 Task2 Executes  
710 Task1 Executes  
712 Task1 Completes  
712 Task2 Executes  
713 Task2 Completes  
714 Task2 Executes  
715 Task1 Executes  
717 Task1 Completes  
717 Task2 Executes  
720 Task2 Completes  
720 Task1 Executes  
722 Task1 Completes  
722 Task2 Executes  
725 Task1 Executes  
727 Task1 Completes  
727 Task2 Executes  
728 Task2 Completes  
730 Task1 Executes  
732 Task1 Completes  
732 Task2 Executes  
733 Task2 Completes  
733 Task2 Executes  
735 Task2 Misses  
735 Task1 Executes  
737 Task1 Completes

737 Task2 Executes  
739 Task2 Completes  
739 Task2 Executes  
740 Task1 Executes  
742 Task2 Misses  
742 Task1 Completes  
742 Task2 Executes  
745 Task1 Executes  
747 Task1 Completes  
747 Task2 Executes  
748 Task2 Completes  
749 Task2 Executes  
750 Task1 Executes  
752 Task1 Completes  
752 Task2 Executes  
755 Task2 Completes  
755 Task1 Executes  
757 Task1 Completes  
757 Task2 Executes  
760 Task1 Executes  
762 Task1 Completes  
762 Task2 Executes  
763 Task2 Completes  
765 Task1 Executes  
767 Task1 Completes  
767 Task2 Executes  
768 Task2 Completes  
768 Task2 Executes  
770 Task2 Misses  
770 Task1 Executes  
772 Task1 Completes  
772 Task2 Executes  
774 Task2 Completes  
774 Task2 Executes  
775 Task1 Executes  
777 Task2 Misses  
777 Task1 Completes  
777 Task2 Executes  
780 Task1 Executes  
782 Task1 Completes  
782 Task2 Executes  
783 Task2 Completes  
784 Task2 Executes  
785 Task1 Executes  
787 Task1 Completes  
787 Task2 Executes

790 Task2 Completes  
790 Task1 Executes  
792 Task1 Completes  
792 Task2 Executes  
795 Task1 Executes  
797 Task1 Completes  
797 Task2 Executes  
798 Task2 Completes  
800 Task1 Executes  
802 Task1 Completes  
802 Task2 Executes  
803 Task2 Completes  
803 Task2 Executes  
805 Task2 Misses  
805 Task1 Executes  
807 Task1 Completes  
807 Task2 Executes  
809 Task2 Completes  
809 Task2 Executes  
810 Task1 Executes  
812 Task2 Misses  
812 Task1 Completes  
812 Task2 Executes  
815 Task1 Executes  
817 Task1 Completes  
817 Task2 Executes  
818 Task2 Completes  
819 Task2 Executes  
820 Task1 Executes  
822 Task1 Completes  
822 Task2 Executes  
825 Task2 Completes  
825 Task1 Executes  
827 Task1 Completes  
827 Task2 Executes  
830 Task1 Executes  
832 Task1 Completes  
832 Task2 Executes  
833 Task2 Completes  
835 Task1 Executes  
837 Task1 Completes  
837 Task2 Executes  
838 Task2 Completes  
838 Task2 Executes  
840 Task2 Misses  
840 Task1 Executes

842 Task1 Completes  
842 Task2 Executes  
844 Task2 Completes  
844 Task2 Executes  
845 Task1 Executes  
847 Task2 Misses  
847 Task1 Completes  
847 Task2 Executes  
850 Task1 Executes  
852 Task1 Completes  
852 Task2 Executes  
853 Task2 Completes  
854 Task2 Executes  
855 Task1 Executes  
857 Task1 Completes  
857 Task2 Executes  
860 Task2 Completes  
860 Task1 Executes  
862 Task1 Completes  
862 Task2 Executes  
865 Task1 Executes  
867 Task1 Completes  
867 Task2 Executes  
868 Task2 Completes  
870 Task1 Executes  
872 Task1 Completes  
872 Task2 Executes  
873 Task2 Completes  
873 Task2 Executes  
875 Task2 Misses  
875 Task1 Executes  
877 Task1 Completes  
877 Task2 Executes  
879 Task2 Completes  
879 Task2 Executes  
880 Task1 Executes  
882 Task2 Misses  
882 Task1 Completes  
882 Task2 Executes  
885 Task1 Executes  
887 Task1 Completes  
887 Task2 Executes  
888 Task2 Completes  
889 Task2 Executes  
890 Task1 Executes  
892 Task1 Completes

892 Task2 Executes  
895 Task2 Completes  
895 Task1 Executes  
897 Task1 Completes  
897 Task2 Executes  
900 Task1 Executes  
902 Task1 Completes  
902 Task2 Executes  
903 Task2 Completes  
905 Task1 Executes  
907 Task1 Completes  
907 Task2 Executes  
908 Task2 Completes  
908 Task2 Executes  
910 Task2 Misses  
910 Task1 Executes  
912 Task1 Completes  
912 Task2 Executes  
914 Task2 Completes  
914 Task2 Executes  
915 Task1 Executes  
917 Task2 Misses  
917 Task1 Completes  
917 Task2 Executes  
920 Task1 Executes  
922 Task1 Completes  
922 Task2 Executes  
923 Task2 Completes  
924 Task2 Executes  
925 Task1 Executes  
927 Task1 Completes  
927 Task2 Executes  
930 Task2 Completes  
930 Task1 Executes  
932 Task1 Completes  
932 Task2 Executes  
935 Task1 Executes  
937 Task1 Completes  
937 Task2 Executes  
938 Task2 Completes  
940 Task1 Executes  
942 Task1 Completes  
942 Task2 Executes  
943 Task2 Completes  
943 Task2 Executes  
945 Task2 Misses

945 Task1 Executes  
947 Task1 Completes  
947 Task2 Executes  
949 Task2 Completes  
949 Task2 Executes  
950 Task1 Executes  
952 Task2 Misses  
952 Task1 Completes  
952 Task2 Executes  
955 Task1 Executes  
957 Task1 Completes  
957 Task2 Executes  
958 Task2 Completes  
959 Task2 Executes  
960 Task1 Executes  
962 Task1 Completes  
962 Task2 Executes  
965 Task2 Completes  
965 Task1 Executes  
967 Task1 Completes  
967 Task2 Executes  
970 Task1 Executes  
972 Task1 Completes  
972 Task2 Executes  
973 Task2 Completes  
975 Task1 Executes  
977 Task1 Completes  
977 Task2 Executes  
978 Task2 Completes  
978 Task2 Executes  
980 Task2 Misses  
980 Task1 Executes  
982 Task1 Completes  
982 Task2 Executes  
984 Task2 Completes  
984 Task2 Executes  
985 Task1 Executes  
987 Task2 Misses  
987 Task1 Completes  
987 Task2 Executes  
990 Task1 Executes  
992 Task1 Completes  
992 Task2 Executes  
993 Task2 Completes  
994 Task2 Executes  
995 Task1 Executes

997 Task1 Completes  
997 Task2 Executes  
1000 Task2 Misses  
Scheduling Finishes

### 5.3 EDF

2 Task1 Completes  
2 Task2 Executes  
5 Task1 Executes  
7 Task2 Misses  
7 Task1 Completes  
7 Task2 Executes  
10 Task1 Executes  
12 Task1 Completes  
12 Task2 Executes  
13 Task2 Completes  
14 Task2 Executes  
15 Task1 Executes  
17 Task1 Completes  
17 Task2 Executes  
20 Task2 Completes  
20 Task1 Executes  
21 Task2 Executes  
25 Task1 Misses  
25 Task2 Completes  
25 Task1 Executes  
27 Task1 Completes  
28 Task2 Executes  
30 Task1 Executes  
32 Task1 Completes  
32 Task2 Executes  
34 Task2 Completes  
35 Task1 Executes  
37 Task1 Completes  
37 Task2 Executes  
40 Task1 Executes  
42 Task2 Misses  
42 Task1 Completes  
42 Task2 Executes  
45 Task1 Executes  
47 Task1 Completes  
47 Task2 Executes  
48 Task2 Completes  
49 Task2 Executes  
50 Task1 Executes



52 Task1 Completes  
52 Task2 Executes  
55 Task2 Completes  
55 Task1 Executes  
56 Task2 Executes  
60 Task1 Misses  
60 Task2 Completes  
60 Task1 Executes  
62 Task1 Completes  
63 Task2 Executes  
65 Task1 Executes  
67 Task1 Completes  
67 Task2 Executes  
69 Task2 Completes  
70 Task1 Executes  
72 Task1 Completes  
72 Task2 Executes  
75 Task1 Executes  
77 Task2 Misses  
77 Task1 Completes  
77 Task2 Executes  
80 Task1 Executes  
82 Task1 Completes  
82 Task2 Executes  
83 Task2 Completes  
84 Task2 Executes  
85 Task1 Executes  
87 Task1 Completes  
87 Task2 Executes  
90 Task2 Completes  
90 Task1 Executes  
91 Task2 Executes  
95 Task1 Misses  
95 Task2 Completes  
95 Task1 Executes  
97 Task1 Completes  
98 Task2 Executes  
100 Task1 Executes  
102 Task1 Completes  
102 Task2 Executes  
104 Task2 Completes  
105 Task1 Executes  
107 Task1 Completes  
107 Task2 Executes  
110 Task1 Executes  
112 Task2 Misses

112 Task1 Completes  
112 Task2 Executes  
115 Task1 Executes  
117 Task1 Completes  
117 Task2 Executes  
118 Task2 Completes  
119 Task2 Executes  
120 Task1 Executes  
122 Task1 Completes  
122 Task2 Executes  
125 Task2 Completes  
125 Task1 Executes  
126 Task2 Executes  
130 Task1 Misses  
130 Task2 Completes  
130 Task1 Executes  
132 Task1 Completes  
133 Task2 Executes  
135 Task1 Executes  
137 Task1 Completes  
137 Task2 Executes  
139 Task2 Completes  
140 Task1 Executes  
142 Task1 Completes  
142 Task2 Executes  
145 Task1 Executes  
147 Task2 Misses  
147 Task1 Completes  
147 Task2 Executes  
150 Task1 Executes  
152 Task1 Completes  
152 Task2 Executes  
153 Task2 Completes  
154 Task2 Executes  
155 Task1 Executes  
157 Task1 Completes  
157 Task2 Executes  
160 Task2 Completes  
160 Task1 Executes  
161 Task2 Executes  
165 Task1 Misses  
165 Task2 Completes  
165 Task1 Executes  
167 Task1 Completes  
168 Task2 Executes  
170 Task1 Executes

172 Task1 Completes  
172 Task2 Executes  
174 Task2 Completes  
175 Task1 Executes  
177 Task1 Completes  
177 Task2 Executes  
180 Task1 Executes  
182 Task2 Misses  
182 Task1 Completes  
182 Task2 Executes  
185 Task1 Executes  
187 Task1 Completes  
187 Task2 Executes  
188 Task2 Completes  
189 Task2 Executes  
190 Task1 Executes  
192 Task1 Completes  
192 Task2 Executes  
195 Task2 Completes  
195 Task1 Executes  
196 Task2 Executes  
200 Task1 Misses  
200 Task2 Completes  
200 Task1 Executes  
202 Task1 Completes  
203 Task2 Executes  
205 Task1 Executes  
207 Task1 Completes  
207 Task2 Executes  
209 Task2 Completes  
210 Task1 Executes  
212 Task1 Completes  
212 Task2 Executes  
215 Task1 Executes  
217 Task2 Misses  
217 Task1 Completes  
217 Task2 Executes  
220 Task1 Executes  
222 Task1 Completes  
222 Task2 Executes  
223 Task2 Completes  
224 Task2 Executes  
225 Task1 Executes  
227 Task1 Completes  
227 Task2 Executes  
230 Task2 Completes

230 Task1 Executes  
231 Task2 Executes  
235 Task1 Misses  
235 Task2 Completes  
235 Task1 Executes  
237 Task1 Completes  
238 Task2 Executes  
240 Task1 Executes  
242 Task1 Completes  
242 Task2 Executes  
244 Task2 Completes  
245 Task1 Executes  
247 Task1 Completes  
247 Task2 Executes  
250 Task1 Executes  
252 Task2 Misses  
252 Task1 Completes  
252 Task2 Executes  
255 Task1 Executes  
257 Task1 Completes  
257 Task2 Executes  
258 Task2 Completes  
259 Task2 Executes  
260 Task1 Executes  
262 Task1 Completes  
262 Task2 Executes  
265 Task2 Completes  
265 Task1 Executes  
266 Task2 Executes  
270 Task1 Misses  
270 Task2 Completes  
270 Task1 Executes  
272 Task1 Completes  
273 Task2 Executes  
275 Task1 Executes  
277 Task1 Completes  
277 Task2 Executes  
279 Task2 Completes  
280 Task1 Executes  
282 Task1 Completes  
282 Task2 Executes  
285 Task1 Executes  
287 Task2 Misses  
287 Task1 Completes  
287 Task2 Executes  
290 Task1 Executes

292 Task1 Completes  
292 Task2 Executes  
293 Task2 Completes  
294 Task2 Executes  
295 Task1 Executes  
297 Task1 Completes  
297 Task2 Executes  
300 Task2 Completes  
300 Task1 Executes  
301 Task2 Executes  
305 Task1 Misses  
305 Task2 Completes  
305 Task1 Executes  
307 Task1 Completes  
308 Task2 Executes  
310 Task1 Executes  
312 Task1 Completes  
312 Task2 Executes  
314 Task2 Completes  
315 Task1 Executes  
317 Task1 Completes  
317 Task2 Executes  
320 Task1 Executes  
322 Task2 Misses  
322 Task1 Completes  
322 Task2 Executes  
325 Task1 Executes  
327 Task1 Completes  
327 Task2 Executes  
328 Task2 Completes  
329 Task2 Executes  
330 Task1 Executes  
332 Task1 Completes  
332 Task2 Executes  
335 Task2 Completes  
335 Task1 Executes  
336 Task2 Executes  
340 Task1 Misses  
340 Task2 Completes  
340 Task1 Executes  
342 Task1 Completes  
343 Task2 Executes  
345 Task1 Executes  
347 Task1 Completes  
347 Task2 Executes  
349 Task2 Completes

350 Task1 Executes  
352 Task1 Completes  
352 Task2 Executes  
355 Task1 Executes  
357 Task2 Misses  
357 Task1 Completes  
357 Task2 Executes  
360 Task1 Executes  
362 Task1 Completes  
362 Task2 Executes  
363 Task2 Completes  
364 Task2 Executes  
365 Task1 Executes  
367 Task1 Completes  
367 Task2 Executes  
370 Task2 Completes  
370 Task1 Executes  
371 Task2 Executes  
375 Task1 Misses  
375 Task2 Completes  
375 Task1 Executes  
377 Task1 Completes  
378 Task2 Executes  
380 Task1 Executes  
382 Task1 Completes  
382 Task2 Executes  
384 Task2 Completes  
385 Task1 Executes  
387 Task1 Completes  
387 Task2 Executes  
390 Task1 Executes  
392 Task2 Misses  
392 Task1 Completes  
392 Task2 Executes  
395 Task1 Executes  
397 Task1 Completes  
397 Task2 Executes  
398 Task2 Completes  
399 Task2 Executes  
400 Task1 Executes  
402 Task1 Completes  
402 Task2 Executes  
405 Task2 Completes  
405 Task1 Executes  
406 Task2 Executes  
410 Task1 Misses

410 Task2 Completes  
410 Task1 Executes  
412 Task1 Completes  
413 Task2 Executes  
415 Task1 Executes  
417 Task1 Completes  
417 Task2 Executes  
419 Task2 Completes  
420 Task1 Executes  
422 Task1 Completes  
422 Task2 Executes  
425 Task1 Executes  
427 Task2 Misses  
427 Task1 Completes  
427 Task2 Executes  
430 Task1 Executes  
432 Task1 Completes  
432 Task2 Executes  
433 Task2 Completes  
434 Task2 Executes  
435 Task1 Executes  
437 Task1 Completes  
437 Task2 Executes  
440 Task2 Completes  
440 Task1 Executes  
441 Task2 Executes  
445 Task1 Misses  
445 Task2 Completes  
445 Task1 Executes  
447 Task1 Completes  
448 Task2 Executes  
450 Task1 Executes  
452 Task1 Completes  
452 Task2 Executes  
454 Task2 Completes  
455 Task1 Executes  
457 Task1 Completes  
457 Task2 Executes  
460 Task1 Executes  
462 Task2 Misses  
462 Task1 Completes  
462 Task2 Executes  
465 Task1 Executes  
467 Task1 Completes  
467 Task2 Executes  
468 Task2 Completes

469 Task2 Executes  
470 Task1 Executes  
472 Task1 Completes  
472 Task2 Executes  
475 Task2 Completes  
475 Task1 Executes  
476 Task2 Executes  
480 Task1 Misses  
480 Task2 Completes  
480 Task1 Executes  
482 Task1 Completes  
483 Task2 Executes  
485 Task1 Executes  
487 Task1 Completes  
487 Task2 Executes  
489 Task2 Completes  
490 Task1 Executes  
492 Task1 Completes  
492 Task2 Executes  
495 Task1 Executes  
497 Task2 Misses  
497 Task1 Completes  
497 Task2 Executes  
500 Task1 Executes  
502 Task1 Completes  
502 Task2 Executes  
503 Task2 Completes  
504 Task2 Executes  
505 Task1 Executes  
507 Task1 Completes  
507 Task2 Executes  
510 Task2 Completes  
510 Task1 Executes  
511 Task2 Executes  
515 Task1 Misses  
515 Task2 Completes  
515 Task1 Executes  
517 Task1 Completes  
518 Task2 Executes  
520 Task1 Executes  
522 Task1 Completes  
522 Task2 Executes  
524 Task2 Completes  
525 Task1 Executes  
527 Task1 Completes  
527 Task2 Executes



530 Task1 Executes  
532 Task2 Misses  
532 Task1 Completes  
532 Task2 Executes  
535 Task1 Executes  
537 Task1 Completes  
537 Task2 Executes  
538 Task2 Completes  
539 Task2 Executes  
540 Task1 Executes  
542 Task1 Completes  
542 Task2 Executes  
545 Task2 Completes  
545 Task1 Executes  
546 Task2 Executes  
550 Task1 Misses  
550 Task2 Completes  
550 Task1 Executes  
552 Task1 Completes  
553 Task2 Executes  
555 Task1 Executes  
557 Task1 Completes  
557 Task2 Executes  
559 Task2 Completes  
560 Task1 Executes  
562 Task1 Completes  
562 Task2 Executes  
565 Task1 Executes  
567 Task2 Misses  
567 Task1 Completes  
567 Task2 Executes  
570 Task1 Executes  
572 Task1 Completes  
572 Task2 Executes  
573 Task2 Completes  
574 Task2 Executes  
575 Task1 Executes  
577 Task1 Completes  
577 Task2 Executes  
580 Task2 Completes  
580 Task1 Executes  
581 Task2 Executes  
585 Task1 Misses  
585 Task2 Completes  
585 Task1 Executes  
587 Task1 Completes

588 Task2 Executes  
590 Task1 Executes  
592 Task1 Completes  
592 Task2 Executes  
594 Task2 Completes  
595 Task1 Executes  
597 Task1 Completes  
597 Task2 Executes  
600 Task1 Executes  
602 Task2 Misses  
602 Task1 Completes  
602 Task2 Executes  
605 Task1 Executes  
607 Task1 Completes  
607 Task2 Executes  
608 Task2 Completes  
609 Task2 Executes  
610 Task1 Executes  
612 Task1 Completes  
612 Task2 Executes  
615 Task2 Completes  
615 Task1 Executes  
616 Task2 Executes  
620 Task1 Misses  
620 Task2 Completes  
620 Task1 Executes  
622 Task1 Completes  
623 Task2 Executes  
625 Task1 Executes  
627 Task1 Completes  
627 Task2 Executes  
629 Task2 Completes  
630 Task1 Executes  
632 Task1 Completes  
632 Task2 Executes  
635 Task1 Executes  
637 Task2 Misses  
637 Task1 Completes  
637 Task2 Executes  
640 Task1 Executes  
642 Task1 Completes  
642 Task2 Executes  
643 Task2 Completes  
644 Task2 Executes  
645 Task1 Executes  
647 Task1 Completes

647 Task2 Executes  
650 Task2 Completes  
650 Task1 Executes  
651 Task2 Executes  
655 Task1 Misses  
655 Task2 Completes  
655 Task1 Executes  
657 Task1 Completes  
658 Task2 Executes  
660 Task1 Executes  
662 Task1 Completes  
662 Task2 Executes  
664 Task2 Completes  
665 Task1 Executes  
667 Task1 Completes  
667 Task2 Executes  
670 Task1 Executes  
672 Task2 Misses  
672 Task1 Completes  
672 Task2 Executes  
675 Task1 Executes  
677 Task1 Completes  
677 Task2 Executes  
678 Task2 Completes  
679 Task2 Executes  
680 Task1 Executes  
682 Task1 Completes  
682 Task2 Executes  
685 Task2 Completes  
685 Task1 Executes  
686 Task2 Executes  
690 Task1 Misses  
690 Task2 Completes  
690 Task1 Executes  
692 Task1 Completes  
693 Task2 Executes  
695 Task1 Executes  
697 Task1 Completes  
697 Task2 Executes  
699 Task2 Completes  
700 Task1 Executes  
702 Task1 Completes  
702 Task2 Executes  
705 Task1 Executes  
707 Task2 Misses  
707 Task1 Completes

707 Task2 Executes  
710 Task1 Executes  
712 Task1 Completes  
712 Task2 Executes  
713 Task2 Completes  
714 Task2 Executes  
715 Task1 Executes  
717 Task1 Completes  
717 Task2 Executes  
720 Task2 Completes  
720 Task1 Executes  
721 Task2 Executes  
725 Task1 Misses  
725 Task2 Completes  
725 Task1 Executes  
727 Task1 Completes  
728 Task2 Executes  
730 Task1 Executes  
732 Task1 Completes  
732 Task2 Executes  
734 Task2 Completes  
735 Task1 Executes  
737 Task1 Completes  
737 Task2 Executes  
740 Task1 Executes  
742 Task2 Misses  
742 Task1 Completes  
742 Task2 Executes  
745 Task1 Executes  
747 Task1 Completes  
747 Task2 Executes  
748 Task2 Completes  
749 Task2 Executes  
750 Task1 Executes  
752 Task1 Completes  
752 Task2 Executes  
755 Task2 Completes  
755 Task1 Executes  
756 Task2 Executes  
760 Task1 Misses  
760 Task2 Completes  
760 Task1 Executes  
762 Task1 Completes  
763 Task2 Executes  
765 Task1 Executes  
767 Task1 Completes

767 Task2 Executes  
769 Task2 Completes  
770 Task1 Executes  
772 Task1 Completes  
772 Task2 Executes  
775 Task1 Executes  
777 Task2 Misses  
777 Task1 Completes  
777 Task2 Executes  
780 Task1 Executes  
782 Task1 Completes  
782 Task2 Executes  
783 Task2 Completes  
784 Task2 Executes  
785 Task1 Executes  
787 Task1 Completes  
787 Task2 Executes  
790 Task2 Completes  
790 Task1 Executes  
791 Task2 Executes  
795 Task1 Misses  
795 Task2 Completes  
795 Task1 Executes  
797 Task1 Completes  
798 Task2 Executes  
800 Task1 Executes  
802 Task1 Completes  
802 Task2 Executes  
804 Task2 Completes  
805 Task1 Executes  
807 Task1 Completes  
807 Task2 Executes  
810 Task1 Executes  
812 Task2 Misses  
812 Task1 Completes  
812 Task2 Executes  
815 Task1 Executes  
817 Task1 Completes  
817 Task2 Executes  
818 Task2 Completes  
819 Task2 Executes  
820 Task1 Executes  
822 Task1 Completes  
822 Task2 Executes  
825 Task2 Completes  
825 Task1 Executes

826 Task2 Executes  
830 Task1 Misses  
830 Task2 Completes  
830 Task1 Executes  
832 Task1 Completes  
833 Task2 Executes  
835 Task1 Executes  
837 Task1 Completes  
837 Task2 Executes  
839 Task2 Completes  
840 Task1 Executes  
842 Task1 Completes  
842 Task2 Executes  
845 Task1 Executes  
847 Task2 Misses  
847 Task1 Completes  
847 Task2 Executes  
850 Task1 Executes  
852 Task1 Completes  
852 Task2 Executes  
853 Task2 Completes  
854 Task2 Executes  
855 Task1 Executes  
857 Task1 Completes  
857 Task2 Executes  
860 Task2 Completes  
860 Task1 Executes  
861 Task2 Executes  
865 Task1 Misses  
865 Task2 Completes  
865 Task1 Executes  
867 Task1 Completes  
868 Task2 Executes  
870 Task1 Executes  
872 Task1 Completes  
872 Task2 Executes  
874 Task2 Completes  
875 Task1 Executes  
877 Task1 Completes  
877 Task2 Executes  
880 Task1 Executes  
882 Task2 Misses  
882 Task1 Completes  
882 Task2 Executes  
885 Task1 Executes  
887 Task1 Completes

887 Task2 Executes  
888 Task2 Completes  
889 Task2 Executes  
890 Task1 Executes  
892 Task1 Completes  
892 Task2 Executes  
895 Task2 Completes  
895 Task1 Executes  
896 Task2 Executes  
900 Task1 Misses  
900 Task2 Completes  
900 Task1 Executes  
902 Task1 Completes  
903 Task2 Executes  
905 Task1 Executes  
907 Task1 Completes  
907 Task2 Executes  
909 Task2 Completes  
910 Task1 Executes  
912 Task1 Completes  
912 Task2 Executes  
915 Task1 Executes  
917 Task2 Misses  
917 Task1 Completes  
917 Task2 Executes  
920 Task1 Executes  
922 Task1 Completes  
922 Task2 Executes  
923 Task2 Completes  
924 Task2 Executes  
925 Task1 Executes  
927 Task1 Completes  
927 Task2 Executes  
930 Task2 Completes  
930 Task1 Executes  
931 Task2 Executes  
935 Task1 Misses  
935 Task2 Completes  
935 Task1 Executes  
937 Task1 Completes  
938 Task2 Executes  
940 Task1 Executes  
942 Task1 Completes  
942 Task2 Executes  
944 Task2 Completes  
945 Task1 Executes

947 Task1 Completes  
947 Task2 Executes  
950 Task1 Executes  
952 Task2 Misses  
952 Task1 Completes  
952 Task2 Executes  
955 Task1 Executes  
957 Task1 Completes  
957 Task2 Executes  
958 Task2 Completes  
959 Task2 Executes  
960 Task1 Executes  
962 Task1 Completes  
962 Task2 Executes  
965 Task2 Completes  
965 Task1 Executes  
966 Task2 Executes  
970 Task1 Misses  
970 Task2 Completes  
970 Task1 Executes  
972 Task1 Completes  
973 Task2 Executes  
975 Task1 Executes  
977 Task1 Completes  
977 Task2 Executes  
979 Task2 Completes  
980 Task1 Executes  
982 Task1 Completes  
982 Task2 Executes  
985 Task1 Executes  
987 Task2 Misses  
987 Task1 Completes  
987 Task2 Executes  
990 Task1 Executes  
992 Task1 Completes  
992 Task2 Executes  
993 Task2 Completes  
994 Task2 Executes  
995 Task1 Executes  
997 Task1 Completes  
997 Task2 Executes  
1000 Task2 Misses  
Scheduling Finishes



## 5.4 Task2

## 5.5 RMS

1 Task2 Completes  
1 Task3 Executes  
3 Task3 Completes  
3 Task1 Executes  
4 Task2 Executes  
5 Task2 Completes  
5 Task3 Executes  
7 Task3 Completes  
7 Task1 Executes  
8 Task2 Executes  
9 Task2 Completes  
9 Task1 Executes  
10 Task1 Misses  
10 Task3 Executes  
12 Task3 Completes  
12 Task2 Executes  
13 Task2 Completes  
13 Task1 Executes  
15 Task3 Executes  
16 Task2 Executes  
17 Task2 Completes  
17 Task3 Executes  
18 Task3 Completes  
18 Task1 Executes  
20 Task1 Completes  
20 Task2 Executes  
21 Task2 Completes  
21 Task3 Executes  
23 Task3 Completes  
23 Task1 Executes  
24 Task2 Executes  
25 Task2 Completes  
25 Task3 Executes  
27 Task3 Completes  
27 Task1 Executes  
28 Task2 Executes  
29 Task2 Completes  
29 Task1 Executes  
30 Task1 Completes  
30 Task3 Executes  
32 Task3 Completes  
32 Task2 Executes

33 Task2 Completes  
33 Task1 Executes  
35 Task3 Executes  
36 Task2 Executes  
37 Task2 Completes  
37 Task3 Executes  
38 Task3 Completes  
38 Task1 Executes  
40 Task1 Completes  
40 Task2 Executes  
41 Task2 Completes  
41 Task3 Executes  
43 Task3 Completes  
43 Task1 Executes  
44 Task2 Executes  
45 Task2 Completes  
45 Task3 Executes  
47 Task3 Completes  
47 Task1 Executes  
48 Task2 Executes  
49 Task2 Completes  
49 Task1 Executes  
50 Task1 Completes  
50 Task3 Executes  
52 Task3 Completes  
52 Task2 Executes  
53 Task2 Completes  
53 Task1 Executes  
55 Task3 Executes  
56 Task2 Executes  
57 Task2 Completes  
57 Task3 Executes  
58 Task3 Completes  
58 Task1 Executes  
60 Task1 Completes  
60 Task2 Executes  
61 Task2 Completes  
61 Task3 Executes  
63 Task3 Completes  
63 Task1 Executes  
64 Task2 Executes  
65 Task2 Completes  
65 Task3 Executes  
67 Task3 Completes  
67 Task1 Executes  
68 Task2 Executes

69 Task2 Completes  
69 Task1 Executes  
70 Task1 Completes  
70 Task3 Executes  
72 Task3 Completes  
72 Task2 Executes  
73 Task2 Completes  
73 Task1 Executes  
75 Task3 Executes  
76 Task2 Executes  
77 Task2 Completes  
77 Task3 Executes  
78 Task3 Completes  
78 Task1 Executes  
80 Task1 Completes  
80 Task2 Executes  
81 Task2 Completes  
81 Task3 Executes  
83 Task3 Completes  
83 Task1 Executes  
84 Task2 Executes  
85 Task2 Completes  
85 Task3 Executes  
87 Task3 Completes  
87 Task1 Executes  
88 Task2 Executes  
89 Task2 Completes  
89 Task1 Executes  
90 Task1 Completes  
90 Task3 Executes  
92 Task3 Completes  
92 Task2 Executes  
93 Task2 Completes  
93 Task1 Executes  
95 Task3 Executes  
96 Task2 Executes  
97 Task2 Completes  
97 Task3 Executes  
98 Task3 Completes  
98 Task1 Executes  
100 Task1 Completes  
100 Task2 Executes  
101 Task2 Completes  
101 Task3 Executes  
103 Task3 Completes  
103 Task1 Executes

104 Task2 Executes  
105 Task2 Completes  
105 Task3 Executes  
107 Task3 Completes  
107 Task1 Executes  
108 Task2 Executes  
109 Task2 Completes  
109 Task1 Executes  
110 Task1 Completes  
110 Task3 Executes  
112 Task3 Completes  
112 Task2 Executes  
113 Task2 Completes  
113 Task1 Executes  
115 Task3 Executes  
116 Task2 Executes  
117 Task2 Completes  
117 Task3 Executes  
118 Task3 Completes  
118 Task1 Executes  
120 Task1 Completes  
120 Task2 Executes  
121 Task2 Completes  
121 Task3 Executes  
123 Task3 Completes  
123 Task1 Executes  
124 Task2 Executes  
125 Task2 Completes  
125 Task3 Executes  
127 Task3 Completes  
127 Task1 Executes  
128 Task2 Executes  
129 Task2 Completes  
129 Task1 Executes  
130 Task1 Completes  
130 Task3 Executes  
132 Task3 Completes  
132 Task2 Executes  
133 Task2 Completes  
133 Task1 Executes  
135 Task3 Executes  
136 Task2 Executes  
137 Task2 Completes  
137 Task3 Executes  
138 Task3 Completes  
138 Task1 Executes

140 Task1 Completes  
140 Task2 Executes  
141 Task2 Completes  
141 Task3 Executes  
143 Task3 Completes  
143 Task1 Executes  
144 Task2 Executes  
145 Task2 Completes  
145 Task3 Executes  
147 Task3 Completes  
147 Task1 Executes  
148 Task2 Executes  
149 Task2 Completes  
149 Task1 Executes  
150 Task1 Completes  
150 Task3 Executes  
152 Task3 Completes  
152 Task2 Executes  
153 Task2 Completes  
153 Task1 Executes  
155 Task3 Executes  
156 Task2 Executes  
157 Task2 Completes  
157 Task3 Executes  
158 Task3 Completes  
158 Task1 Executes  
160 Task1 Completes  
160 Task2 Executes  
161 Task2 Completes  
161 Task3 Executes  
163 Task3 Completes  
163 Task1 Executes  
164 Task2 Executes  
165 Task2 Completes  
165 Task3 Executes  
167 Task3 Completes  
167 Task1 Executes  
168 Task2 Executes  
169 Task2 Completes  
169 Task1 Executes  
170 Task1 Completes  
170 Task3 Executes  
172 Task3 Completes  
172 Task2 Executes  
173 Task2 Completes  
173 Task1 Executes

175 Task3 Executes  
176 Task2 Executes  
177 Task2 Completes  
177 Task3 Executes  
178 Task3 Completes  
178 Task1 Executes  
180 Task1 Completes  
180 Task2 Executes  
181 Task2 Completes  
181 Task3 Executes  
183 Task3 Completes  
183 Task1 Executes  
184 Task2 Executes  
185 Task2 Completes  
185 Task3 Executes  
187 Task3 Completes  
187 Task1 Executes  
188 Task2 Executes  
189 Task2 Completes  
189 Task1 Executes  
190 Task1 Completes  
190 Task3 Executes  
192 Task3 Completes  
192 Task2 Executes  
193 Task2 Completes  
193 Task1 Executes  
195 Task3 Executes  
196 Task2 Executes  
197 Task2 Completes  
197 Task3 Executes  
198 Task3 Completes  
198 Task1 Executes  
200 Task1 Completes  
200 Task2 Executes  
201 Task2 Completes  
201 Task3 Executes  
203 Task3 Completes  
203 Task1 Executes  
204 Task2 Executes  
205 Task2 Completes  
205 Task3 Executes  
207 Task3 Completes  
207 Task1 Executes  
208 Task2 Executes  
209 Task2 Completes  
209 Task1 Executes

210 Task1 Completes  
210 Task3 Executes  
212 Task3 Completes  
212 Task2 Executes  
213 Task2 Completes  
213 Task1 Executes  
215 Task3 Executes  
216 Task2 Executes  
217 Task2 Completes  
217 Task3 Executes  
218 Task3 Completes  
218 Task1 Executes  
220 Task1 Completes  
220 Task2 Executes  
221 Task2 Completes  
221 Task3 Executes  
223 Task3 Completes  
223 Task1 Executes  
224 Task2 Executes  
225 Task2 Completes  
225 Task3 Executes  
227 Task3 Completes  
227 Task1 Executes  
228 Task2 Executes  
229 Task2 Completes  
229 Task1 Executes  
230 Task1 Completes  
230 Task3 Executes  
232 Task3 Completes  
232 Task2 Executes  
233 Task2 Completes  
233 Task1 Executes  
235 Task3 Executes  
236 Task2 Executes  
237 Task2 Completes  
237 Task3 Executes  
238 Task3 Completes  
238 Task1 Executes  
240 Task1 Completes  
240 Task2 Executes  
241 Task2 Completes  
241 Task3 Executes  
243 Task3 Completes  
243 Task1 Executes  
244 Task2 Executes  
245 Task2 Completes

245 Task3 Executes  
247 Task3 Completes  
247 Task1 Executes  
248 Task2 Executes  
249 Task2 Completes  
249 Task1 Executes  
250 Task1 Completes  
250 Task3 Executes  
252 Task3 Completes  
252 Task2 Executes  
253 Task2 Completes  
253 Task1 Executes  
255 Task3 Executes  
256 Task2 Executes  
257 Task2 Completes  
257 Task3 Executes  
258 Task3 Completes  
258 Task1 Executes  
260 Task1 Completes  
260 Task2 Executes  
261 Task2 Completes  
261 Task3 Executes  
263 Task3 Completes  
263 Task1 Executes  
264 Task2 Executes  
265 Task2 Completes  
265 Task3 Executes  
267 Task3 Completes  
267 Task1 Executes  
268 Task2 Executes  
269 Task2 Completes  
269 Task1 Executes  
270 Task1 Completes  
270 Task3 Executes  
272 Task3 Completes  
272 Task2 Executes  
273 Task2 Completes  
273 Task1 Executes  
275 Task3 Executes  
276 Task2 Executes  
277 Task2 Completes  
277 Task3 Executes  
278 Task3 Completes  
278 Task1 Executes  
280 Task1 Completes  
280 Task2 Executes



281 Task2 Completes  
281 Task3 Executes  
283 Task3 Completes  
283 Task1 Executes  
284 Task2 Executes  
285 Task2 Completes  
285 Task3 Executes  
287 Task3 Completes  
287 Task1 Executes  
288 Task2 Executes  
289 Task2 Completes  
289 Task1 Executes  
290 Task1 Completes  
290 Task3 Executes  
292 Task3 Completes  
292 Task2 Executes  
293 Task2 Completes  
293 Task1 Executes  
295 Task3 Executes  
296 Task2 Executes  
297 Task2 Completes  
297 Task3 Executes  
298 Task3 Completes  
298 Task1 Executes  
300 Task1 Completes  
300 Task2 Executes  
301 Task2 Completes  
301 Task3 Executes  
303 Task3 Completes  
303 Task1 Executes  
304 Task2 Executes  
305 Task2 Completes  
305 Task3 Executes  
307 Task3 Completes  
307 Task1 Executes  
308 Task2 Executes  
309 Task2 Completes  
309 Task1 Executes  
310 Task1 Completes  
310 Task3 Executes  
312 Task3 Completes  
312 Task2 Executes  
313 Task2 Completes  
313 Task1 Executes  
315 Task3 Executes  
316 Task2 Executes

317 Task2 Completes  
317 Task3 Executes  
318 Task3 Completes  
318 Task1 Executes  
320 Task1 Completes  
320 Task2 Executes  
321 Task2 Completes  
321 Task3 Executes  
323 Task3 Completes  
323 Task1 Executes  
324 Task2 Executes  
325 Task2 Completes  
325 Task3 Executes  
327 Task3 Completes  
327 Task1 Executes  
328 Task2 Executes  
329 Task2 Completes  
329 Task1 Executes  
330 Task1 Completes  
330 Task3 Executes  
332 Task3 Completes  
332 Task2 Executes  
333 Task2 Completes  
333 Task1 Executes  
335 Task3 Executes  
336 Task2 Executes  
337 Task2 Completes  
337 Task3 Executes  
338 Task3 Completes  
338 Task1 Executes  
340 Task1 Completes  
340 Task2 Executes  
341 Task2 Completes  
341 Task3 Executes  
343 Task3 Completes  
343 Task1 Executes  
344 Task2 Executes  
345 Task2 Completes  
345 Task3 Executes  
347 Task3 Completes  
347 Task1 Executes  
348 Task2 Executes  
349 Task2 Completes  
349 Task1 Executes  
350 Task1 Completes  
350 Task3 Executes

352 Task3 Completes  
352 Task2 Executes  
353 Task2 Completes  
353 Task1 Executes  
355 Task3 Executes  
356 Task2 Executes  
357 Task2 Completes  
357 Task3 Executes  
358 Task3 Completes  
358 Task1 Executes  
360 Task1 Completes  
360 Task2 Executes  
361 Task2 Completes  
361 Task3 Executes  
363 Task3 Completes  
363 Task1 Executes  
364 Task2 Executes  
365 Task2 Completes  
365 Task3 Executes  
367 Task3 Completes  
367 Task1 Executes  
368 Task2 Executes  
369 Task2 Completes  
369 Task1 Executes  
370 Task1 Completes  
370 Task3 Executes  
372 Task3 Completes  
372 Task2 Executes  
373 Task2 Completes  
373 Task1 Executes  
375 Task3 Executes  
376 Task2 Executes  
377 Task2 Completes  
377 Task3 Executes  
378 Task3 Completes  
378 Task1 Executes  
380 Task1 Completes  
380 Task2 Executes  
381 Task2 Completes  
381 Task3 Executes  
383 Task3 Completes  
383 Task1 Executes  
384 Task2 Executes  
385 Task2 Completes  
385 Task3 Executes  
387 Task3 Completes

387 Task1 Executes  
388 Task2 Executes  
389 Task2 Completes  
389 Task1 Executes  
390 Task1 Completes  
390 Task3 Executes  
392 Task3 Completes  
392 Task2 Executes  
393 Task2 Completes  
393 Task1 Executes  
395 Task3 Executes  
396 Task2 Executes  
397 Task2 Completes  
397 Task3 Executes  
398 Task3 Completes  
398 Task1 Executes  
400 Task1 Completes  
400 Task2 Executes  
401 Task2 Completes  
401 Task3 Executes  
403 Task3 Completes  
403 Task1 Executes  
404 Task2 Executes  
405 Task2 Completes  
405 Task3 Executes  
407 Task3 Completes  
407 Task1 Executes  
408 Task2 Executes  
409 Task2 Completes  
409 Task1 Executes  
410 Task1 Completes  
410 Task3 Executes  
412 Task3 Completes  
412 Task2 Executes  
413 Task2 Completes  
413 Task1 Executes  
415 Task3 Executes  
416 Task2 Executes  
417 Task2 Completes  
417 Task3 Executes  
418 Task3 Completes  
418 Task1 Executes  
420 Task1 Completes  
420 Task2 Executes  
421 Task2 Completes  
421 Task3 Executes

423 Task3 Completes  
423 Task1 Executes  
424 Task2 Executes  
425 Task2 Completes  
425 Task3 Executes  
427 Task3 Completes  
427 Task1 Executes  
428 Task2 Executes  
429 Task2 Completes  
429 Task1 Executes  
430 Task1 Completes  
430 Task3 Executes  
432 Task3 Completes  
432 Task2 Executes  
433 Task2 Completes  
433 Task1 Executes  
435 Task3 Executes  
436 Task2 Executes  
437 Task2 Completes  
437 Task3 Executes  
438 Task3 Completes  
438 Task1 Executes  
440 Task1 Completes  
440 Task2 Executes  
441 Task2 Completes  
441 Task3 Executes  
443 Task3 Completes  
443 Task1 Executes  
444 Task2 Executes  
445 Task2 Completes  
445 Task3 Executes  
447 Task3 Completes  
447 Task1 Executes  
448 Task2 Executes  
449 Task2 Completes  
449 Task1 Executes  
450 Task1 Completes  
450 Task3 Executes  
452 Task3 Completes  
452 Task2 Executes  
453 Task2 Completes  
453 Task1 Executes  
455 Task3 Executes  
456 Task2 Executes  
457 Task2 Completes  
457 Task3 Executes

458 Task3 Completes  
458 Task1 Executes  
460 Task1 Completes  
460 Task2 Executes  
461 Task2 Completes  
461 Task3 Executes  
463 Task3 Completes  
463 Task1 Executes  
464 Task2 Executes  
465 Task2 Completes  
465 Task3 Executes  
467 Task3 Completes  
467 Task1 Executes  
468 Task2 Executes  
469 Task2 Completes  
469 Task1 Executes  
470 Task1 Completes  
470 Task3 Executes  
472 Task3 Completes  
472 Task2 Executes  
473 Task2 Completes  
473 Task1 Executes  
475 Task3 Executes  
476 Task2 Executes  
477 Task2 Completes  
477 Task3 Executes  
478 Task3 Completes  
478 Task1 Executes  
480 Task1 Completes  
480 Task2 Executes  
481 Task2 Completes  
481 Task3 Executes  
483 Task3 Completes  
483 Task1 Executes  
484 Task2 Executes  
485 Task2 Completes  
485 Task3 Executes  
487 Task3 Completes  
487 Task1 Executes  
488 Task2 Executes  
489 Task2 Completes  
489 Task1 Executes  
490 Task1 Completes  
490 Task3 Executes  
492 Task3 Completes  
492 Task2 Executes

493 Task2 Completes  
493 Task1 Executes  
495 Task3 Executes  
496 Task2 Executes  
497 Task2 Completes  
497 Task3 Executes  
498 Task3 Completes  
498 Task1 Executes  
500 Task1 Completes  
500 Task2 Executes  
501 Task2 Completes  
501 Task3 Executes  
503 Task3 Completes  
503 Task1 Executes  
504 Task2 Executes  
505 Task2 Completes  
505 Task3 Executes  
507 Task3 Completes  
507 Task1 Executes  
508 Task2 Executes  
509 Task2 Completes  
509 Task1 Executes  
510 Task1 Completes  
510 Task3 Executes  
512 Task3 Completes  
512 Task2 Executes  
513 Task2 Completes  
513 Task1 Executes  
515 Task3 Executes  
516 Task2 Executes  
517 Task2 Completes  
517 Task3 Executes  
518 Task3 Completes  
518 Task1 Executes  
520 Task1 Completes  
520 Task2 Executes  
521 Task2 Completes  
521 Task3 Executes  
523 Task3 Completes  
523 Task1 Executes  
524 Task2 Executes  
525 Task2 Completes  
525 Task3 Executes  
527 Task3 Completes  
527 Task1 Executes  
528 Task2 Executes

529 Task2 Completes  
529 Task1 Executes  
530 Task1 Completes  
530 Task3 Executes  
532 Task3 Completes  
532 Task2 Executes  
533 Task2 Completes  
533 Task1 Executes  
535 Task3 Executes  
536 Task2 Executes  
537 Task2 Completes  
537 Task3 Executes  
538 Task3 Completes  
538 Task1 Executes  
540 Task1 Completes  
540 Task2 Executes  
541 Task2 Completes  
541 Task3 Executes  
543 Task3 Completes  
543 Task1 Executes  
544 Task2 Executes  
545 Task2 Completes  
545 Task3 Executes  
547 Task3 Completes  
547 Task1 Executes  
548 Task2 Executes  
549 Task2 Completes  
549 Task1 Executes  
550 Task1 Completes  
550 Task3 Executes  
552 Task3 Completes  
552 Task2 Executes  
553 Task2 Completes  
553 Task1 Executes  
555 Task3 Executes  
556 Task2 Executes  
557 Task2 Completes  
557 Task3 Executes  
558 Task3 Completes  
558 Task1 Executes  
560 Task1 Completes  
560 Task2 Executes  
561 Task2 Completes  
561 Task3 Executes  
563 Task3 Completes  
563 Task1 Executes



564 Task2 Executes  
565 Task2 Completes  
565 Task3 Executes  
567 Task3 Completes  
567 Task1 Executes  
568 Task2 Executes  
569 Task2 Completes  
569 Task1 Executes  
570 Task1 Completes  
570 Task3 Executes  
572 Task3 Completes  
572 Task2 Executes  
573 Task2 Completes  
573 Task1 Executes  
575 Task3 Executes  
576 Task2 Executes  
577 Task2 Completes  
577 Task3 Executes  
578 Task3 Completes  
578 Task1 Executes  
580 Task1 Completes  
580 Task2 Executes  
581 Task2 Completes  
581 Task3 Executes  
583 Task3 Completes  
583 Task1 Executes  
584 Task2 Executes  
585 Task2 Completes  
585 Task3 Executes  
587 Task3 Completes  
587 Task1 Executes  
588 Task2 Executes  
589 Task2 Completes  
589 Task1 Executes  
590 Task1 Completes  
590 Task3 Executes  
592 Task3 Completes  
592 Task2 Executes  
593 Task2 Completes  
593 Task1 Executes  
595 Task3 Executes  
596 Task2 Executes  
597 Task2 Completes  
597 Task3 Executes  
598 Task3 Completes  
598 Task1 Executes

600 Task1 Completes  
600 Task2 Executes  
601 Task2 Completes  
601 Task3 Executes  
603 Task3 Completes  
603 Task1 Executes  
604 Task2 Executes  
605 Task2 Completes  
605 Task3 Executes  
607 Task3 Completes  
607 Task1 Executes  
608 Task2 Executes  
609 Task2 Completes  
609 Task1 Executes  
610 Task1 Completes  
610 Task3 Executes  
612 Task3 Completes  
612 Task2 Executes  
613 Task2 Completes  
613 Task1 Executes  
615 Task3 Executes  
616 Task2 Executes  
617 Task2 Completes  
617 Task3 Executes  
618 Task3 Completes  
618 Task1 Executes  
620 Task1 Completes  
620 Task2 Executes  
621 Task2 Completes  
621 Task3 Executes  
623 Task3 Completes  
623 Task1 Executes  
624 Task2 Executes  
625 Task2 Completes  
625 Task3 Executes  
627 Task3 Completes  
627 Task1 Executes  
628 Task2 Executes  
629 Task2 Completes  
629 Task1 Executes  
630 Task1 Completes  
630 Task3 Executes  
632 Task3 Completes  
632 Task2 Executes  
633 Task2 Completes  
633 Task1 Executes

635 Task3 Executes  
636 Task2 Executes  
637 Task2 Completes  
637 Task3 Executes  
638 Task3 Completes  
638 Task1 Executes  
640 Task1 Completes  
640 Task2 Executes  
641 Task2 Completes  
641 Task3 Executes  
643 Task3 Completes  
643 Task1 Executes  
644 Task2 Executes  
645 Task2 Completes  
645 Task3 Executes  
647 Task3 Completes  
647 Task1 Executes  
648 Task2 Executes  
649 Task2 Completes  
649 Task1 Executes  
650 Task1 Completes  
650 Task3 Executes  
652 Task3 Completes  
652 Task2 Executes  
653 Task2 Completes  
653 Task1 Executes  
655 Task3 Executes  
656 Task2 Executes  
657 Task2 Completes  
657 Task3 Executes  
658 Task3 Completes  
658 Task1 Executes  
660 Task1 Completes  
660 Task2 Executes  
661 Task2 Completes  
661 Task3 Executes  
663 Task3 Completes  
663 Task1 Executes  
664 Task2 Executes  
665 Task2 Completes  
665 Task3 Executes  
667 Task3 Completes  
667 Task1 Executes  
668 Task2 Executes  
669 Task2 Completes  
669 Task1 Executes

670 Task1 Completes  
670 Task3 Executes  
672 Task3 Completes  
672 Task2 Executes  
673 Task2 Completes  
673 Task1 Executes  
675 Task3 Executes  
676 Task2 Executes  
677 Task2 Completes  
677 Task3 Executes  
678 Task3 Completes  
678 Task1 Executes  
680 Task1 Completes  
680 Task2 Executes  
681 Task2 Completes  
681 Task3 Executes  
683 Task3 Completes  
683 Task1 Executes  
684 Task2 Executes  
685 Task2 Completes  
685 Task3 Executes  
687 Task3 Completes  
687 Task1 Executes  
688 Task2 Executes  
689 Task2 Completes  
689 Task1 Executes  
690 Task1 Completes  
690 Task3 Executes  
692 Task3 Completes  
692 Task2 Executes  
693 Task2 Completes  
693 Task1 Executes  
695 Task3 Executes  
696 Task2 Executes  
697 Task2 Completes  
697 Task3 Executes  
698 Task3 Completes  
698 Task1 Executes  
700 Task1 Completes  
700 Task2 Executes  
701 Task2 Completes  
701 Task3 Executes  
703 Task3 Completes  
703 Task1 Executes  
704 Task2 Executes  
705 Task2 Completes

705 Task3 Executes  
707 Task3 Completes  
707 Task1 Executes  
708 Task2 Executes  
709 Task2 Completes  
709 Task1 Executes  
710 Task1 Completes  
710 Task3 Executes  
712 Task3 Completes  
712 Task2 Executes  
713 Task2 Completes  
713 Task1 Executes  
715 Task3 Executes  
716 Task2 Executes  
717 Task2 Completes  
717 Task3 Executes  
718 Task3 Completes  
718 Task1 Executes  
720 Task1 Completes  
720 Task2 Executes  
721 Task2 Completes  
721 Task3 Executes  
723 Task3 Completes  
723 Task1 Executes  
724 Task2 Executes  
725 Task2 Completes  
725 Task3 Executes  
727 Task3 Completes  
727 Task1 Executes  
728 Task2 Executes  
729 Task2 Completes  
729 Task1 Executes  
730 Task1 Completes  
730 Task3 Executes  
732 Task3 Completes  
732 Task2 Executes  
733 Task2 Completes  
733 Task1 Executes  
735 Task3 Executes  
736 Task2 Executes  
737 Task2 Completes  
737 Task3 Executes  
738 Task3 Completes  
738 Task1 Executes  
740 Task1 Completes  
740 Task2 Executes

741 Task2 Completes  
741 Task3 Executes  
743 Task3 Completes  
743 Task1 Executes  
744 Task2 Executes  
745 Task2 Completes  
745 Task3 Executes  
747 Task3 Completes  
747 Task1 Executes  
748 Task2 Executes  
749 Task2 Completes  
749 Task1 Executes  
750 Task1 Completes  
750 Task3 Executes  
752 Task3 Completes  
752 Task2 Executes  
753 Task2 Completes  
753 Task1 Executes  
755 Task3 Executes  
756 Task2 Executes  
757 Task2 Completes  
757 Task3 Executes  
758 Task3 Completes  
758 Task1 Executes  
760 Task1 Completes  
760 Task2 Executes  
761 Task2 Completes  
761 Task3 Executes  
763 Task3 Completes  
763 Task1 Executes  
764 Task2 Executes  
765 Task2 Completes  
765 Task3 Executes  
767 Task3 Completes  
767 Task1 Executes  
768 Task2 Executes  
769 Task2 Completes  
769 Task1 Executes  
770 Task1 Completes  
770 Task3 Executes  
772 Task3 Completes  
772 Task2 Executes  
773 Task2 Completes  
773 Task1 Executes  
775 Task3 Executes  
776 Task2 Executes

777 Task2 Completes  
777 Task3 Executes  
778 Task3 Completes  
778 Task1 Executes  
780 Task1 Completes  
780 Task2 Executes  
781 Task2 Completes  
781 Task3 Executes  
783 Task3 Completes  
783 Task1 Executes  
784 Task2 Executes  
785 Task2 Completes  
785 Task3 Executes  
787 Task3 Completes  
787 Task1 Executes  
788 Task2 Executes  
789 Task2 Completes  
789 Task1 Executes  
790 Task1 Completes  
790 Task3 Executes  
792 Task3 Completes  
792 Task2 Executes  
793 Task2 Completes  
793 Task1 Executes  
795 Task3 Executes  
796 Task2 Executes  
797 Task2 Completes  
797 Task3 Executes  
798 Task3 Completes  
798 Task1 Executes  
800 Task1 Completes  
800 Task2 Executes  
801 Task2 Completes  
801 Task3 Executes  
803 Task3 Completes  
803 Task1 Executes  
804 Task2 Executes  
805 Task2 Completes  
805 Task3 Executes  
807 Task3 Completes  
807 Task1 Executes  
808 Task2 Executes  
809 Task2 Completes  
809 Task1 Executes  
810 Task1 Completes  
810 Task3 Executes

812 Task3 Completes  
812 Task2 Executes  
813 Task2 Completes  
813 Task1 Executes  
815 Task3 Executes  
816 Task2 Executes  
817 Task2 Completes  
817 Task3 Executes  
818 Task3 Completes  
818 Task1 Executes  
820 Task1 Completes  
820 Task2 Executes  
821 Task2 Completes  
821 Task3 Executes  
823 Task3 Completes  
823 Task1 Executes  
824 Task2 Executes  
825 Task2 Completes  
825 Task3 Executes  
827 Task3 Completes  
827 Task1 Executes  
828 Task2 Executes  
829 Task2 Completes  
829 Task1 Executes  
830 Task1 Completes  
830 Task3 Executes  
832 Task3 Completes  
832 Task2 Executes  
833 Task2 Completes  
833 Task1 Executes  
835 Task3 Executes  
836 Task2 Executes  
837 Task2 Completes  
837 Task3 Executes  
838 Task3 Completes  
838 Task1 Executes  
840 Task1 Completes  
840 Task2 Executes  
841 Task2 Completes  
841 Task3 Executes  
843 Task3 Completes  
843 Task1 Executes  
844 Task2 Executes  
845 Task2 Completes  
845 Task3 Executes  
847 Task3 Completes



847 Task1 Executes  
848 Task2 Executes  
849 Task2 Completes  
849 Task1 Executes  
850 Task1 Completes  
850 Task3 Executes  
852 Task3 Completes  
852 Task2 Executes  
853 Task2 Completes  
853 Task1 Executes  
855 Task3 Executes  
856 Task2 Executes  
857 Task2 Completes  
857 Task3 Executes  
858 Task3 Completes  
858 Task1 Executes  
860 Task1 Completes  
860 Task2 Executes  
861 Task2 Completes  
861 Task3 Executes  
863 Task3 Completes  
863 Task1 Executes  
864 Task2 Executes  
865 Task2 Completes  
865 Task3 Executes  
867 Task3 Completes  
867 Task1 Executes  
868 Task2 Executes  
869 Task2 Completes  
869 Task1 Executes  
870 Task1 Completes  
870 Task3 Executes  
872 Task3 Completes  
872 Task2 Executes  
873 Task2 Completes  
873 Task1 Executes  
875 Task3 Executes  
876 Task2 Executes  
877 Task2 Completes  
877 Task3 Executes  
878 Task3 Completes  
878 Task1 Executes  
880 Task1 Completes  
880 Task2 Executes  
881 Task2 Completes  
881 Task3 Executes

883 Task3 Completes  
883 Task1 Executes  
884 Task2 Executes  
885 Task2 Completes  
885 Task3 Executes  
887 Task3 Completes  
887 Task1 Executes  
888 Task2 Executes  
889 Task2 Completes  
889 Task1 Executes  
890 Task1 Completes  
890 Task3 Executes  
892 Task3 Completes  
892 Task2 Executes  
893 Task2 Completes  
893 Task1 Executes  
895 Task3 Executes  
896 Task2 Executes  
897 Task2 Completes  
897 Task3 Executes  
898 Task3 Completes  
898 Task1 Executes  
900 Task1 Completes  
900 Task2 Executes  
901 Task2 Completes  
901 Task3 Executes  
903 Task3 Completes  
903 Task1 Executes  
904 Task2 Executes  
905 Task2 Completes  
905 Task3 Executes  
907 Task3 Completes  
907 Task1 Executes  
908 Task2 Executes  
909 Task2 Completes  
909 Task1 Executes  
910 Task1 Completes  
910 Task3 Executes  
912 Task3 Completes  
912 Task2 Executes  
913 Task2 Completes  
913 Task1 Executes  
915 Task3 Executes  
916 Task2 Executes  
917 Task2 Completes  
917 Task3 Executes

918 Task3 Completes  
918 Task1 Executes  
920 Task1 Completes  
920 Task2 Executes  
921 Task2 Completes  
921 Task3 Executes  
923 Task3 Completes  
923 Task1 Executes  
924 Task2 Executes  
925 Task2 Completes  
925 Task3 Executes  
927 Task3 Completes  
927 Task1 Executes  
928 Task2 Executes  
929 Task2 Completes  
929 Task1 Executes  
930 Task1 Completes  
930 Task3 Executes  
932 Task3 Completes  
932 Task2 Executes  
933 Task2 Completes  
933 Task1 Executes  
935 Task3 Executes  
936 Task2 Executes  
937 Task2 Completes  
937 Task3 Executes  
938 Task3 Completes  
938 Task1 Executes  
940 Task1 Completes  
940 Task2 Executes  
941 Task2 Completes  
941 Task3 Executes  
943 Task3 Completes  
943 Task1 Executes  
944 Task2 Executes  
945 Task2 Completes  
945 Task3 Executes  
947 Task3 Completes  
947 Task1 Executes  
948 Task2 Executes  
949 Task2 Completes  
949 Task1 Executes  
950 Task1 Completes  
950 Task3 Executes  
952 Task3 Completes  
952 Task2 Executes

953 Task2 Completes  
953 Task1 Executes  
955 Task3 Executes  
956 Task2 Executes  
957 Task2 Completes  
957 Task3 Executes  
958 Task3 Completes  
958 Task1 Executes  
960 Task1 Completes  
960 Task2 Executes  
961 Task2 Completes  
961 Task3 Executes  
963 Task3 Completes  
963 Task1 Executes  
964 Task2 Executes  
965 Task2 Completes  
965 Task3 Executes  
967 Task3 Completes  
967 Task1 Executes  
968 Task2 Executes  
969 Task2 Completes  
969 Task1 Executes  
970 Task1 Completes  
970 Task3 Executes  
972 Task3 Completes  
972 Task2 Executes  
973 Task2 Completes  
973 Task1 Executes  
975 Task3 Executes  
976 Task2 Executes  
977 Task2 Completes  
977 Task3 Executes  
978 Task3 Completes  
978 Task1 Executes  
980 Task1 Completes  
980 Task2 Executes  
981 Task2 Completes  
981 Task3 Executes  
983 Task3 Completes  
983 Task1 Executes  
984 Task2 Executes  
985 Task2 Completes  
985 Task3 Executes  
987 Task3 Completes  
987 Task1 Executes  
988 Task2 Executes

989 Task2 Completes  
 989 Task1 Executes  
 990 Task1 Completes  
 990 Task3 Executes  
 992 Task3 Completes  
 992 Task2 Executes  
 993 Task2 Completes  
 993 Task1 Executes  
 995 Task3 Executes  
 996 Task2 Executes  
 997 Task2 Completes  
 997 Task3 Executes  
 998 Task3 Completes  
 998 Task1 Executes  
 Scheduling Finishes

## 5.6 EDF

1 Task2 Completes  
 1 Task3 Executes  
 3 Task3 Completes  
 3 Task1 Executes  
 4 Task2 Executes  
 5 Task2 Completes  
 5 Task3 Executes  
 7 Task3 Completes  
 7 Task1 Executes  
 8 Task2 Executes  
 9 Task2 Completes  
 9 Task1 Executes  
 10 Task1 Misses  
 12 Task2 Executes  
 13 Task2 Completes  
 13 Task1 Executes  
 15 Task3 Misses  
 15 Task1 Completes  
 15 Task1 Executes  
 16 Task2 Executes  
 17 Task2 Completes  
 17 Task3 Executes  
 19 Task3 Completes  
 19 Task1 Executes  
 20 Task1 Misses  
 24 Task2 Misses  
 24 Task1 Completes  
 24 Task2 Executes

25 Task3 Misses  
25 Task2 Completes  
25 Task3 Executes  
27 Task3 Completes  
27 Task1 Executes  
28 Task2 Executes  
29 Task2 Completes  
29 Task1 Executes  
30 Task1 Misses  
32 Task2 Executes  
33 Task2 Completes  
33 Task1 Executes  
35 Task3 Misses  
35 Task1 Completes  
35 Task1 Executes  
36 Task2 Executes  
37 Task2 Completes  
37 Task3 Executes  
39 Task3 Completes  
39 Task1 Executes  
40 Task1 Misses  
44 Task2 Misses  
44 Task1 Completes  
44 Task2 Executes  
45 Task3 Misses  
45 Task2 Completes  
45 Task3 Executes  
47 Task3 Completes  
47 Task1 Executes  
48 Task2 Executes  
49 Task2 Completes  
49 Task1 Executes  
50 Task1 Misses  
52 Task2 Executes  
53 Task2 Completes  
53 Task1 Executes  
55 Task3 Misses  
55 Task1 Completes  
55 Task1 Executes  
56 Task2 Executes  
57 Task2 Completes  
57 Task3 Executes  
59 Task3 Completes  
59 Task1 Executes  
60 Task1 Misses  
64 Task2 Misses

64 Task1 Completes  
64 Task2 Executes  
65 Task3 Misses  
65 Task2 Completes  
65 Task3 Executes  
67 Task3 Completes  
67 Task1 Executes  
68 Task2 Executes  
69 Task2 Completes  
69 Task1 Executes  
70 Task1 Misses  
72 Task2 Executes  
73 Task2 Completes  
73 Task1 Executes  
75 Task3 Misses  
75 Task1 Completes  
75 Task1 Executes  
76 Task2 Executes  
77 Task2 Completes  
77 Task3 Executes  
79 Task3 Completes  
79 Task1 Executes  
80 Task1 Misses  
84 Task2 Misses  
84 Task1 Completes  
84 Task2 Executes  
85 Task3 Misses  
85 Task2 Completes  
85 Task3 Executes  
87 Task3 Completes  
87 Task1 Executes  
88 Task2 Executes  
89 Task2 Completes  
89 Task1 Executes  
90 Task1 Misses  
92 Task2 Executes  
93 Task2 Completes  
93 Task1 Executes  
95 Task3 Misses  
95 Task1 Completes  
95 Task1 Executes  
96 Task2 Executes  
97 Task2 Completes  
97 Task3 Executes  
99 Task3 Completes  
99 Task1 Executes

100 Task1 Misses  
104 Task2 Misses  
104 Task1 Completes  
104 Task2 Executes  
105 Task3 Misses  
105 Task2 Completes  
105 Task3 Executes  
107 Task3 Completes  
107 Task1 Executes  
108 Task2 Executes  
109 Task2 Completes  
109 Task1 Executes  
110 Task1 Misses  
112 Task2 Executes  
113 Task2 Completes  
113 Task1 Executes  
115 Task3 Misses  
115 Task1 Completes  
115 Task1 Executes  
116 Task2 Executes  
117 Task2 Completes  
117 Task3 Executes  
119 Task3 Completes  
119 Task1 Executes  
120 Task1 Misses  
124 Task2 Misses  
124 Task1 Completes  
124 Task2 Executes  
125 Task3 Misses  
125 Task2 Completes  
125 Task3 Executes  
127 Task3 Completes  
127 Task1 Executes  
128 Task2 Executes  
129 Task2 Completes  
129 Task1 Executes  
130 Task1 Misses  
132 Task2 Executes  
133 Task2 Completes  
133 Task1 Executes  
135 Task3 Misses  
135 Task1 Completes  
135 Task1 Executes  
136 Task2 Executes  
137 Task2 Completes  
137 Task3 Executes



139 Task3 Completes  
139 Task1 Executes  
140 Task1 Misses  
144 Task2 Misses  
144 Task1 Completes  
144 Task2 Executes  
145 Task3 Misses  
145 Task2 Completes  
145 Task3 Executes  
147 Task3 Completes  
147 Task1 Executes  
148 Task2 Executes  
149 Task2 Completes  
149 Task1 Executes  
150 Task1 Misses  
152 Task2 Executes  
153 Task2 Completes  
153 Task1 Executes  
155 Task3 Misses  
155 Task1 Completes  
155 Task1 Executes  
156 Task2 Executes  
157 Task2 Completes  
157 Task3 Executes  
159 Task3 Completes  
159 Task1 Executes  
160 Task1 Misses  
164 Task2 Misses  
164 Task1 Completes  
164 Task2 Executes  
165 Task3 Misses  
165 Task2 Completes  
165 Task3 Executes  
167 Task3 Completes  
167 Task1 Executes  
168 Task2 Executes  
169 Task2 Completes  
169 Task1 Executes  
170 Task1 Misses  
172 Task2 Executes  
173 Task2 Completes  
173 Task1 Executes  
175 Task3 Misses  
175 Task1 Completes  
175 Task1 Executes  
176 Task2 Executes

177 Task2 Completes  
177 Task3 Executes  
179 Task3 Completes  
179 Task1 Executes  
180 Task1 Misses  
184 Task2 Misses  
184 Task1 Completes  
184 Task2 Executes  
185 Task3 Misses  
185 Task2 Completes  
185 Task3 Executes  
187 Task3 Completes  
187 Task1 Executes  
188 Task2 Executes  
189 Task2 Completes  
189 Task1 Executes  
190 Task1 Misses  
192 Task2 Executes  
193 Task2 Completes  
193 Task1 Executes  
195 Task3 Misses  
195 Task1 Completes  
195 Task1 Executes  
196 Task2 Executes  
197 Task2 Completes  
197 Task3 Executes  
199 Task3 Completes  
199 Task1 Executes  
200 Task1 Misses  
204 Task2 Misses  
204 Task1 Completes  
204 Task2 Executes  
205 Task3 Misses  
205 Task2 Completes  
205 Task3 Executes  
207 Task3 Completes  
207 Task1 Executes  
208 Task2 Executes  
209 Task2 Completes  
209 Task1 Executes  
210 Task1 Misses  
212 Task2 Executes  
213 Task2 Completes  
213 Task1 Executes  
215 Task3 Misses  
215 Task1 Completes

215 Task1 Executes  
216 Task2 Executes  
217 Task2 Completes  
217 Task3 Executes  
219 Task3 Completes  
219 Task1 Executes  
220 Task1 Misses  
224 Task2 Misses  
224 Task1 Completes  
224 Task2 Executes  
225 Task3 Misses  
225 Task2 Completes  
225 Task3 Executes  
227 Task3 Completes  
227 Task1 Executes  
228 Task2 Executes  
229 Task2 Completes  
229 Task1 Executes  
230 Task1 Misses  
232 Task2 Executes  
233 Task2 Completes  
233 Task1 Executes  
235 Task3 Misses  
235 Task1 Completes  
235 Task1 Executes  
236 Task2 Executes  
237 Task2 Completes  
237 Task3 Executes  
239 Task3 Completes  
239 Task1 Executes  
240 Task1 Misses  
244 Task2 Misses  
244 Task1 Completes  
244 Task2 Executes  
245 Task3 Misses  
245 Task2 Completes  
245 Task3 Executes  
247 Task3 Completes  
247 Task1 Executes  
248 Task2 Executes  
249 Task2 Completes  
249 Task1 Executes  
250 Task1 Misses  
252 Task2 Executes  
253 Task2 Completes  
253 Task1 Executes

255 Task3 Misses  
255 Task1 Completes  
255 Task1 Executes  
256 Task2 Executes  
257 Task2 Completes  
257 Task3 Executes  
259 Task3 Completes  
259 Task1 Executes  
260 Task1 Misses  
264 Task2 Misses  
264 Task1 Completes  
264 Task2 Executes  
265 Task3 Misses  
265 Task2 Completes  
265 Task3 Executes  
267 Task3 Completes  
267 Task1 Executes  
268 Task2 Executes  
269 Task2 Completes  
269 Task1 Executes  
270 Task1 Misses  
272 Task2 Executes  
273 Task2 Completes  
273 Task1 Executes  
275 Task3 Misses  
275 Task1 Completes  
275 Task1 Executes  
276 Task2 Executes  
277 Task2 Completes  
277 Task3 Executes  
279 Task3 Completes  
279 Task1 Executes  
280 Task1 Misses  
284 Task2 Misses  
284 Task1 Completes  
284 Task2 Executes  
285 Task3 Misses  
285 Task2 Completes  
285 Task3 Executes  
287 Task3 Completes  
287 Task1 Executes  
288 Task2 Executes  
289 Task2 Completes  
289 Task1 Executes  
290 Task1 Misses  
292 Task2 Executes

293 Task2 Completes  
293 Task1 Executes  
295 Task3 Misses  
295 Task1 Completes  
295 Task1 Executes  
296 Task2 Executes  
297 Task2 Completes  
297 Task3 Executes  
299 Task3 Completes  
299 Task1 Executes  
300 Task1 Misses  
304 Task2 Misses  
304 Task1 Completes  
304 Task2 Executes  
305 Task3 Misses  
305 Task2 Completes  
305 Task3 Executes  
307 Task3 Completes  
307 Task1 Executes  
308 Task2 Executes  
309 Task2 Completes  
309 Task1 Executes  
310 Task1 Misses  
312 Task2 Executes  
313 Task2 Completes  
313 Task1 Executes  
315 Task3 Misses  
315 Task1 Completes  
315 Task1 Executes  
316 Task2 Executes  
317 Task2 Completes  
317 Task3 Executes  
319 Task3 Completes  
319 Task1 Executes  
320 Task1 Misses  
324 Task2 Misses  
324 Task1 Completes  
324 Task2 Executes  
325 Task3 Misses  
325 Task2 Completes  
325 Task3 Executes  
327 Task3 Completes  
327 Task1 Executes  
328 Task2 Executes  
329 Task2 Completes  
329 Task1 Executes

330 Task1 Misses  
332 Task2 Executes  
333 Task2 Completes  
333 Task1 Executes  
335 Task3 Misses  
335 Task1 Completes  
335 Task1 Executes  
336 Task2 Executes  
337 Task2 Completes  
337 Task3 Executes  
339 Task3 Completes  
339 Task1 Executes  
340 Task1 Misses  
344 Task2 Misses  
344 Task1 Completes  
344 Task2 Executes  
345 Task3 Misses  
345 Task2 Completes  
345 Task3 Executes  
347 Task3 Completes  
347 Task1 Executes  
348 Task2 Executes  
349 Task2 Completes  
349 Task1 Executes  
350 Task1 Misses  
352 Task2 Executes  
353 Task2 Completes  
353 Task1 Executes  
355 Task3 Misses  
355 Task1 Completes  
355 Task1 Executes  
356 Task2 Executes  
357 Task2 Completes  
357 Task3 Executes  
359 Task3 Completes  
359 Task1 Executes  
360 Task1 Misses  
364 Task2 Misses  
364 Task1 Completes  
364 Task2 Executes  
365 Task3 Misses  
365 Task2 Completes  
365 Task3 Executes  
367 Task3 Completes  
367 Task1 Executes  
368 Task2 Executes

369 Task2 Completes  
369 Task1 Executes  
370 Task1 Misses  
372 Task2 Executes  
373 Task2 Completes  
373 Task1 Executes  
375 Task3 Misses  
375 Task1 Completes  
375 Task1 Executes  
376 Task2 Executes  
377 Task2 Completes  
377 Task3 Executes  
379 Task3 Completes  
379 Task1 Executes  
380 Task1 Misses  
384 Task2 Misses  
384 Task1 Completes  
384 Task2 Executes  
385 Task3 Misses  
385 Task2 Completes  
385 Task3 Executes  
387 Task3 Completes  
387 Task1 Executes  
388 Task2 Executes  
389 Task2 Completes  
389 Task1 Executes  
390 Task1 Misses  
392 Task2 Executes  
393 Task2 Completes  
393 Task1 Executes  
395 Task3 Misses  
395 Task1 Completes  
395 Task1 Executes  
396 Task2 Executes  
397 Task2 Completes  
397 Task3 Executes  
399 Task3 Completes  
399 Task1 Executes  
400 Task1 Misses  
404 Task2 Misses  
404 Task1 Completes  
404 Task2 Executes  
405 Task3 Misses  
405 Task2 Completes  
405 Task3 Executes  
407 Task3 Completes

407 Task1 Executes  
408 Task2 Executes  
409 Task2 Completes  
409 Task1 Executes  
410 Task1 Misses  
412 Task2 Executes  
413 Task2 Completes  
413 Task1 Executes  
415 Task3 Misses  
415 Task1 Completes  
415 Task1 Executes  
416 Task2 Executes  
417 Task2 Completes  
417 Task3 Executes  
419 Task3 Completes  
419 Task1 Executes  
420 Task1 Misses  
424 Task2 Misses  
424 Task1 Completes  
424 Task2 Executes  
425 Task3 Misses  
425 Task2 Completes  
425 Task3 Executes  
427 Task3 Completes  
427 Task1 Executes  
428 Task2 Executes  
429 Task2 Completes  
429 Task1 Executes  
430 Task1 Misses  
432 Task2 Executes  
433 Task2 Completes  
433 Task1 Executes  
435 Task3 Misses  
435 Task1 Completes  
435 Task1 Executes  
436 Task2 Executes  
437 Task2 Completes  
437 Task3 Executes  
439 Task3 Completes  
439 Task1 Executes  
440 Task1 Misses  
444 Task2 Misses  
444 Task1 Completes  
444 Task2 Executes  
445 Task3 Misses  
445 Task2 Completes



445 Task3 Executes  
447 Task3 Completes  
447 Task1 Executes  
448 Task2 Executes  
449 Task2 Completes  
449 Task1 Executes  
450 Task1 Misses  
452 Task2 Executes  
453 Task2 Completes  
453 Task1 Executes  
455 Task3 Misses  
455 Task1 Completes  
455 Task1 Executes  
456 Task2 Executes  
457 Task2 Completes  
457 Task3 Executes  
459 Task3 Completes  
459 Task1 Executes  
460 Task1 Misses  
464 Task2 Misses  
464 Task1 Completes  
464 Task2 Executes  
465 Task3 Misses  
465 Task2 Completes  
465 Task3 Executes  
467 Task3 Completes  
467 Task1 Executes  
468 Task2 Executes  
469 Task2 Completes  
469 Task1 Executes  
470 Task1 Misses  
472 Task2 Executes  
473 Task2 Completes  
473 Task1 Executes  
475 Task3 Misses  
475 Task1 Completes  
475 Task1 Executes  
476 Task2 Executes  
477 Task2 Completes  
477 Task3 Executes  
479 Task3 Completes  
479 Task1 Executes  
480 Task1 Misses  
484 Task2 Misses  
484 Task1 Completes  
484 Task2 Executes

485 Task3 Misses  
485 Task2 Completes  
485 Task3 Executes  
487 Task3 Completes  
487 Task1 Executes  
488 Task2 Executes  
489 Task2 Completes  
489 Task1 Executes  
490 Task1 Misses  
492 Task2 Executes  
493 Task2 Completes  
493 Task1 Executes  
495 Task3 Misses  
495 Task1 Completes  
495 Task1 Executes  
496 Task2 Executes  
497 Task2 Completes  
497 Task3 Executes  
499 Task3 Completes  
499 Task1 Executes  
500 Task1 Misses  
504 Task2 Misses  
504 Task1 Completes  
504 Task2 Executes  
505 Task3 Misses  
505 Task2 Completes  
505 Task3 Executes  
507 Task3 Completes  
507 Task1 Executes  
508 Task2 Executes  
509 Task2 Completes  
509 Task1 Executes  
510 Task1 Misses  
512 Task2 Executes  
513 Task2 Completes  
513 Task1 Executes  
515 Task3 Misses  
515 Task1 Completes  
515 Task1 Executes  
516 Task2 Executes  
517 Task2 Completes  
517 Task3 Executes  
519 Task3 Completes  
519 Task1 Executes  
520 Task1 Misses  
524 Task2 Misses

524 Task1 Completes  
524 Task2 Executes  
525 Task3 Misses  
525 Task2 Completes  
525 Task3 Executes  
527 Task3 Completes  
527 Task1 Executes  
528 Task2 Executes  
529 Task2 Completes  
529 Task1 Executes  
530 Task1 Misses  
532 Task2 Executes  
533 Task2 Completes  
533 Task1 Executes  
535 Task3 Misses  
535 Task1 Completes  
535 Task1 Executes  
536 Task2 Executes  
537 Task2 Completes  
537 Task3 Executes  
539 Task3 Completes  
539 Task1 Executes  
540 Task1 Misses  
544 Task2 Misses  
544 Task1 Completes  
544 Task2 Executes  
545 Task3 Misses  
545 Task2 Completes  
545 Task3 Executes  
547 Task3 Completes  
547 Task1 Executes  
548 Task2 Executes  
549 Task2 Completes  
549 Task1 Executes  
550 Task1 Misses  
552 Task2 Executes  
553 Task2 Completes  
553 Task1 Executes  
555 Task3 Misses  
555 Task1 Completes  
555 Task1 Executes  
556 Task2 Executes  
557 Task2 Completes  
557 Task3 Executes  
559 Task3 Completes  
559 Task1 Executes

560 Task1 Misses  
564 Task2 Misses  
564 Task1 Completes  
564 Task2 Executes  
565 Task3 Misses  
565 Task2 Completes  
565 Task3 Executes  
567 Task3 Completes  
567 Task1 Executes  
568 Task2 Executes  
569 Task2 Completes  
569 Task1 Executes  
570 Task1 Misses  
572 Task2 Executes  
573 Task2 Completes  
573 Task1 Executes  
575 Task3 Misses  
575 Task1 Completes  
575 Task1 Executes  
576 Task2 Executes  
577 Task2 Completes  
577 Task3 Executes  
579 Task3 Completes  
579 Task1 Executes  
580 Task1 Misses  
584 Task2 Misses  
584 Task1 Completes  
584 Task2 Executes  
585 Task3 Misses  
585 Task2 Completes  
585 Task3 Executes  
587 Task3 Completes  
587 Task1 Executes  
588 Task2 Executes  
589 Task2 Completes  
589 Task1 Executes  
590 Task1 Misses  
592 Task2 Executes  
593 Task2 Completes  
593 Task1 Executes  
595 Task3 Misses  
595 Task1 Completes  
595 Task1 Executes  
596 Task2 Executes  
597 Task2 Completes  
597 Task3 Executes

599 Task3 Completes  
599 Task1 Executes  
600 Task1 Misses  
604 Task2 Misses  
604 Task1 Completes  
604 Task2 Executes  
605 Task3 Misses  
605 Task2 Completes  
605 Task3 Executes  
607 Task3 Completes  
607 Task1 Executes  
608 Task2 Executes  
609 Task2 Completes  
609 Task1 Executes  
610 Task1 Misses  
612 Task2 Executes  
613 Task2 Completes  
613 Task1 Executes  
615 Task3 Misses  
615 Task1 Completes  
615 Task1 Executes  
616 Task2 Executes  
617 Task2 Completes  
617 Task3 Executes  
619 Task3 Completes  
619 Task1 Executes  
620 Task1 Misses  
624 Task2 Misses  
624 Task1 Completes  
624 Task2 Executes  
625 Task3 Misses  
625 Task2 Completes  
625 Task3 Executes  
627 Task3 Completes  
627 Task1 Executes  
628 Task2 Executes  
629 Task2 Completes  
629 Task1 Executes  
630 Task1 Misses  
632 Task2 Executes  
633 Task2 Completes  
633 Task1 Executes  
635 Task3 Misses  
635 Task1 Completes  
635 Task1 Executes  
636 Task2 Executes

637 Task2 Completes  
637 Task3 Executes  
639 Task3 Completes  
639 Task1 Executes  
640 Task1 Misses  
644 Task2 Misses  
644 Task1 Completes  
644 Task2 Executes  
645 Task3 Misses  
645 Task2 Completes  
645 Task3 Executes  
647 Task3 Completes  
647 Task1 Executes  
648 Task2 Executes  
649 Task2 Completes  
649 Task1 Executes  
650 Task1 Misses  
652 Task2 Executes  
653 Task2 Completes  
653 Task1 Executes  
655 Task3 Misses  
655 Task1 Completes  
655 Task1 Executes  
656 Task2 Executes  
657 Task2 Completes  
657 Task3 Executes  
659 Task3 Completes  
659 Task1 Executes  
660 Task1 Misses  
664 Task2 Misses  
664 Task1 Completes  
664 Task2 Executes  
665 Task3 Misses  
665 Task2 Completes  
665 Task3 Executes  
667 Task3 Completes  
667 Task1 Executes  
668 Task2 Executes  
669 Task2 Completes  
669 Task1 Executes  
670 Task1 Misses  
672 Task2 Executes  
673 Task2 Completes  
673 Task1 Executes  
675 Task3 Misses  
675 Task1 Completes

675 Task1 Executes  
676 Task2 Executes  
677 Task2 Completes  
677 Task3 Executes  
679 Task3 Completes  
679 Task1 Executes  
680 Task1 Misses  
684 Task2 Misses  
684 Task1 Completes  
684 Task2 Executes  
685 Task3 Misses  
685 Task2 Completes  
685 Task3 Executes  
687 Task3 Completes  
687 Task1 Executes  
688 Task2 Executes  
689 Task2 Completes  
689 Task1 Executes  
690 Task1 Misses  
692 Task2 Executes  
693 Task2 Completes  
693 Task1 Executes  
695 Task3 Misses  
695 Task1 Completes  
695 Task1 Executes  
696 Task2 Executes  
697 Task2 Completes  
697 Task3 Executes  
699 Task3 Completes  
699 Task1 Executes  
700 Task1 Misses  
704 Task2 Misses  
704 Task1 Completes  
704 Task2 Executes  
705 Task3 Misses  
705 Task2 Completes  
705 Task3 Executes  
707 Task3 Completes  
707 Task1 Executes  
708 Task2 Executes  
709 Task2 Completes  
709 Task1 Executes  
710 Task1 Misses  
712 Task2 Executes  
713 Task2 Completes  
713 Task1 Executes

715 Task3 Misses  
715 Task1 Completes  
715 Task1 Executes  
716 Task2 Executes  
717 Task2 Completes  
717 Task3 Executes  
719 Task3 Completes  
719 Task1 Executes  
720 Task1 Misses  
724 Task2 Misses  
724 Task1 Completes  
724 Task2 Executes  
725 Task3 Misses  
725 Task2 Completes  
725 Task3 Executes  
727 Task3 Completes  
727 Task1 Executes  
728 Task2 Executes  
729 Task2 Completes  
729 Task1 Executes  
730 Task1 Misses  
732 Task2 Executes  
733 Task2 Completes  
733 Task1 Executes  
735 Task3 Misses  
735 Task1 Completes  
735 Task1 Executes  
736 Task2 Executes  
737 Task2 Completes  
737 Task3 Executes  
739 Task3 Completes  
739 Task1 Executes  
740 Task1 Misses  
744 Task2 Misses  
744 Task1 Completes  
744 Task2 Executes  
745 Task3 Misses  
745 Task2 Completes  
745 Task3 Executes  
747 Task3 Completes  
747 Task1 Executes  
748 Task2 Executes  
749 Task2 Completes  
749 Task1 Executes  
750 Task1 Misses  
752 Task2 Executes



753 Task2 Completes  
753 Task1 Executes  
755 Task3 Misses  
755 Task1 Completes  
755 Task1 Executes  
756 Task2 Executes  
757 Task2 Completes  
757 Task3 Executes  
759 Task3 Completes  
759 Task1 Executes  
760 Task1 Misses  
764 Task2 Misses  
764 Task1 Completes  
764 Task2 Executes  
765 Task3 Misses  
765 Task2 Completes  
765 Task3 Executes  
767 Task3 Completes  
767 Task1 Executes  
768 Task2 Executes  
769 Task2 Completes  
769 Task1 Executes  
770 Task1 Misses  
772 Task2 Executes  
773 Task2 Completes  
773 Task1 Executes  
775 Task3 Misses  
775 Task1 Completes  
775 Task1 Executes  
776 Task2 Executes  
777 Task2 Completes  
777 Task3 Executes  
779 Task3 Completes  
779 Task1 Executes  
780 Task1 Misses  
784 Task2 Misses  
784 Task1 Completes  
784 Task2 Executes  
785 Task3 Misses  
785 Task2 Completes  
785 Task3 Executes  
787 Task3 Completes  
787 Task1 Executes  
788 Task2 Executes  
789 Task2 Completes  
789 Task1 Executes

790 Task1 Misses  
792 Task2 Executes  
793 Task2 Completes  
793 Task1 Executes  
795 Task3 Misses  
795 Task1 Completes  
795 Task1 Executes  
796 Task2 Executes  
797 Task2 Completes  
797 Task3 Executes  
799 Task3 Completes  
799 Task1 Executes  
800 Task1 Misses  
804 Task2 Misses  
804 Task1 Completes  
804 Task2 Executes  
805 Task3 Misses  
805 Task2 Completes  
805 Task3 Executes  
807 Task3 Completes  
807 Task1 Executes  
808 Task2 Executes  
809 Task2 Completes  
809 Task1 Executes  
810 Task1 Misses  
812 Task2 Executes  
813 Task2 Completes  
813 Task1 Executes  
815 Task3 Misses  
815 Task1 Completes  
815 Task1 Executes  
816 Task2 Executes  
817 Task2 Completes  
817 Task3 Executes  
819 Task3 Completes  
819 Task1 Executes  
820 Task1 Misses  
824 Task2 Misses  
824 Task1 Completes  
824 Task2 Executes  
825 Task3 Misses  
825 Task2 Completes  
825 Task3 Executes  
827 Task3 Completes  
827 Task1 Executes  
828 Task2 Executes

829 Task2 Completes  
829 Task1 Executes  
830 Task1 Misses  
832 Task2 Executes  
833 Task2 Completes  
833 Task1 Executes  
835 Task3 Misses  
835 Task1 Completes  
835 Task1 Executes  
836 Task2 Executes  
837 Task2 Completes  
837 Task3 Executes  
839 Task3 Completes  
839 Task1 Executes  
840 Task1 Misses  
844 Task2 Misses  
844 Task1 Completes  
844 Task2 Executes  
845 Task3 Misses  
845 Task2 Completes  
845 Task3 Executes  
847 Task3 Completes  
847 Task1 Executes  
848 Task2 Executes  
849 Task2 Completes  
849 Task1 Executes  
850 Task1 Misses  
852 Task2 Executes  
853 Task2 Completes  
853 Task1 Executes  
855 Task3 Misses  
855 Task1 Completes  
855 Task1 Executes  
856 Task2 Executes  
857 Task2 Completes  
857 Task3 Executes  
859 Task3 Completes  
859 Task1 Executes  
860 Task1 Misses  
864 Task2 Misses  
864 Task1 Completes  
864 Task2 Executes  
865 Task3 Misses  
865 Task2 Completes  
865 Task3 Executes  
867 Task3 Completes

867 Task1 Executes  
868 Task2 Executes  
869 Task2 Completes  
869 Task1 Executes  
870 Task1 Misses  
872 Task2 Executes  
873 Task2 Completes  
873 Task1 Executes  
875 Task3 Misses  
875 Task1 Completes  
875 Task1 Executes  
876 Task2 Executes  
877 Task2 Completes  
877 Task3 Executes  
879 Task3 Completes  
879 Task1 Executes  
880 Task1 Misses  
884 Task2 Misses  
884 Task1 Completes  
884 Task2 Executes  
885 Task3 Misses  
885 Task2 Completes  
885 Task3 Executes  
887 Task3 Completes  
887 Task1 Executes  
888 Task2 Executes  
889 Task2 Completes  
889 Task1 Executes  
890 Task1 Misses  
892 Task2 Executes  
893 Task2 Completes  
893 Task1 Executes  
895 Task3 Misses  
895 Task1 Completes  
895 Task1 Executes  
896 Task2 Executes  
897 Task2 Completes  
897 Task3 Executes  
899 Task3 Completes  
899 Task1 Executes  
900 Task1 Misses  
904 Task2 Misses  
904 Task1 Completes  
904 Task2 Executes  
905 Task3 Misses  
905 Task2 Completes

905 Task3 Executes  
907 Task3 Completes  
907 Task1 Executes  
908 Task2 Executes  
909 Task2 Completes  
909 Task1 Executes  
910 Task1 Misses  
912 Task2 Executes  
913 Task2 Completes  
913 Task1 Executes  
915 Task3 Misses  
915 Task1 Completes  
915 Task1 Executes  
916 Task2 Executes  
917 Task2 Completes  
917 Task3 Executes  
919 Task3 Completes  
919 Task1 Executes  
920 Task1 Misses  
924 Task2 Misses  
924 Task1 Completes  
924 Task2 Executes  
925 Task3 Misses  
925 Task2 Completes  
925 Task3 Executes  
927 Task3 Completes  
927 Task1 Executes  
928 Task2 Executes  
929 Task2 Completes  
929 Task1 Executes  
930 Task1 Misses  
932 Task2 Executes  
933 Task2 Completes  
933 Task1 Executes  
935 Task3 Misses  
935 Task1 Completes  
935 Task1 Executes  
936 Task2 Executes  
937 Task2 Completes  
937 Task3 Executes  
939 Task3 Completes  
939 Task1 Executes  
940 Task1 Misses  
944 Task2 Misses  
944 Task1 Completes  
944 Task2 Executes

945 Task3 Misses  
945 Task2 Completes  
945 Task3 Executes  
947 Task3 Completes  
947 Task1 Executes  
948 Task2 Executes  
949 Task2 Completes  
949 Task1 Executes  
950 Task1 Misses  
952 Task2 Executes  
953 Task2 Completes  
953 Task1 Executes  
955 Task3 Misses  
955 Task1 Completes  
955 Task1 Executes  
956 Task2 Executes  
957 Task2 Completes  
957 Task3 Executes  
959 Task3 Completes  
959 Task1 Executes  
960 Task1 Misses  
964 Task2 Misses  
964 Task1 Completes  
964 Task2 Executes  
965 Task3 Misses  
965 Task2 Completes  
965 Task3 Executes  
967 Task3 Completes  
967 Task1 Executes  
968 Task2 Executes  
969 Task2 Completes  
969 Task1 Executes  
970 Task1 Misses  
972 Task2 Executes  
973 Task2 Completes  
973 Task1 Executes  
975 Task3 Misses  
975 Task1 Completes  
975 Task1 Executes  
976 Task2 Executes  
977 Task2 Completes  
977 Task3 Executes  
979 Task3 Completes  
979 Task1 Executes  
980 Task1 Misses  
984 Task2 Misses

984 Task1 Completes  
 984 Task2 Executes  
 985 Task3 Misses  
 985 Task2 Completes  
 985 Task3 Executes  
 987 Task3 Completes  
 987 Task1 Executes  
 988 Task2 Executes  
 989 Task2 Completes  
 989 Task1 Executes  
 990 Task1 Misses  
 992 Task2 Executes  
 993 Task2 Completes  
 993 Task1 Executes  
 995 Task3 Misses  
 995 Task1 Completes  
 995 Task1 Executes  
 996 Task2 Executes  
 997 Task2 Completes  
 997 Task3 Executes  
 999 Task3 Completes  
 999 Task1 Executes  
 Scheduling Finishes

### 5.7 Task3

### 5.8 RMS

1 Task2 Completes  
 1 Task3 Executes  
 3 Task3 Completes  
 3 Task1 Executes  
 4 Task2 Executes  
 5 Task2 Completes  
 5 Task3 Executes  
 7 Task3 Completes  
 7 Task1 Executes  
 8 Task2 Executes  
 9 Task2 Completes  
 9 Task1 Executes  
 10 Task1 Misses  
 10 Task3 Executes  
 12 Task3 Completes  
 12 Task2 Executes  
 13 Task2 Completes  
 13 Task1 Executes

15 Task3 Executes  
16 Task2 Executes  
17 Task2 Completes  
17 Task3 Executes  
18 Task3 Completes  
18 Task1 Executes  
20 Task1 Completes  
20 Task2 Executes  
21 Task2 Completes  
21 Task3 Executes  
23 Task3 Completes  
23 Task1 Executes  
24 Task2 Executes  
25 Task2 Completes  
25 Task3 Executes  
27 Task3 Completes  
27 Task1 Executes  
28 Task2 Executes  
29 Task2 Completes  
29 Task1 Executes  
30 Task1 Completes  
30 Task3 Executes  
32 Task3 Completes  
32 Task2 Executes  
33 Task2 Completes  
33 Task1 Executes  
35 Task3 Executes  
36 Task2 Executes  
37 Task2 Completes  
37 Task3 Executes  
38 Task3 Completes  
38 Task1 Executes  
40 Task1 Completes  
40 Task2 Executes  
41 Task2 Completes  
41 Task3 Executes  
43 Task3 Completes  
43 Task1 Executes  
44 Task2 Executes  
45 Task2 Completes  
45 Task3 Executes  
47 Task3 Completes  
47 Task1 Executes  
48 Task2 Executes  
49 Task2 Completes  
49 Task1 Executes



50 Task1 Completes  
50 Task3 Executes  
52 Task3 Completes  
52 Task2 Executes  
53 Task2 Completes  
53 Task1 Executes  
55 Task3 Executes  
56 Task2 Executes  
57 Task2 Completes  
57 Task3 Executes  
58 Task3 Completes  
58 Task1 Executes  
60 Task1 Completes  
60 Task2 Executes  
61 Task2 Completes  
61 Task3 Executes  
63 Task3 Completes  
63 Task1 Executes  
64 Task2 Executes  
65 Task2 Completes  
65 Task3 Executes  
67 Task3 Completes  
67 Task1 Executes  
68 Task2 Executes  
69 Task2 Completes  
69 Task1 Executes  
70 Task1 Completes  
70 Task3 Executes  
72 Task3 Completes  
72 Task2 Executes  
73 Task2 Completes  
73 Task1 Executes  
75 Task3 Executes  
76 Task2 Executes  
77 Task2 Completes  
77 Task3 Executes  
78 Task3 Completes  
78 Task1 Executes  
80 Task1 Completes  
80 Task2 Executes  
81 Task2 Completes  
81 Task3 Executes  
83 Task3 Completes  
83 Task1 Executes  
84 Task2 Executes  
85 Task2 Completes

85 Task3 Executes  
87 Task3 Completes  
87 Task1 Executes  
88 Task2 Executes  
89 Task2 Completes  
89 Task1 Executes  
90 Task1 Completes  
90 Task3 Executes  
92 Task3 Completes  
92 Task2 Executes  
93 Task2 Completes  
93 Task1 Executes  
95 Task3 Executes  
96 Task2 Executes  
97 Task2 Completes  
97 Task3 Executes  
98 Task3 Completes  
98 Task1 Executes  
100 Task1 Completes  
100 Task2 Executes  
101 Task2 Completes  
101 Task3 Executes  
103 Task3 Completes  
103 Task1 Executes  
104 Task2 Executes  
105 Task2 Completes  
105 Task3 Executes  
107 Task3 Completes  
107 Task1 Executes  
108 Task2 Executes  
109 Task2 Completes  
109 Task1 Executes  
110 Task1 Completes  
110 Task3 Executes  
112 Task3 Completes  
112 Task2 Executes  
113 Task2 Completes  
113 Task1 Executes  
115 Task3 Executes  
116 Task2 Executes  
117 Task2 Completes  
117 Task3 Executes  
118 Task3 Completes  
118 Task1 Executes  
120 Task1 Completes  
120 Task2 Executes

121 Task2 Completes  
121 Task3 Executes  
123 Task3 Completes  
123 Task1 Executes  
124 Task2 Executes  
125 Task2 Completes  
125 Task3 Executes  
127 Task3 Completes  
127 Task1 Executes  
128 Task2 Executes  
129 Task2 Completes  
129 Task1 Executes  
130 Task1 Completes  
130 Task3 Executes  
132 Task3 Completes  
132 Task2 Executes  
133 Task2 Completes  
133 Task1 Executes  
135 Task3 Executes  
136 Task2 Executes  
137 Task2 Completes  
137 Task3 Executes  
138 Task3 Completes  
138 Task1 Executes  
140 Task1 Completes  
140 Task2 Executes  
141 Task2 Completes  
141 Task3 Executes  
143 Task3 Completes  
143 Task1 Executes  
144 Task2 Executes  
145 Task2 Completes  
145 Task3 Executes  
147 Task3 Completes  
147 Task1 Executes  
148 Task2 Executes  
149 Task2 Completes  
149 Task1 Executes  
150 Task1 Completes  
150 Task3 Executes  
152 Task3 Completes  
152 Task2 Executes  
153 Task2 Completes  
153 Task1 Executes  
155 Task3 Executes  
156 Task2 Executes

157 Task2 Completes  
157 Task3 Executes  
158 Task3 Completes  
158 Task1 Executes  
160 Task1 Completes  
160 Task2 Executes  
161 Task2 Completes  
161 Task3 Executes  
163 Task3 Completes  
163 Task1 Executes  
164 Task2 Executes  
165 Task2 Completes  
165 Task3 Executes  
167 Task3 Completes  
167 Task1 Executes  
168 Task2 Executes  
169 Task2 Completes  
169 Task1 Executes  
170 Task1 Completes  
170 Task3 Executes  
172 Task3 Completes  
172 Task2 Executes  
173 Task2 Completes  
173 Task1 Executes  
175 Task3 Executes  
176 Task2 Executes  
177 Task2 Completes  
177 Task3 Executes  
178 Task3 Completes  
178 Task1 Executes  
180 Task1 Completes  
180 Task2 Executes  
181 Task2 Completes  
181 Task3 Executes  
183 Task3 Completes  
183 Task1 Executes  
184 Task2 Executes  
185 Task2 Completes  
185 Task3 Executes  
187 Task3 Completes  
187 Task1 Executes  
188 Task2 Executes  
189 Task2 Completes  
189 Task1 Executes  
190 Task1 Completes  
190 Task3 Executes

192 Task3 Completes  
192 Task2 Executes  
193 Task2 Completes  
193 Task1 Executes  
195 Task3 Executes  
196 Task2 Executes  
197 Task2 Completes  
197 Task3 Executes  
198 Task3 Completes  
198 Task1 Executes  
200 Task1 Completes  
200 Task2 Executes  
201 Task2 Completes  
201 Task3 Executes  
203 Task3 Completes  
203 Task1 Executes  
204 Task2 Executes  
205 Task2 Completes  
205 Task3 Executes  
207 Task3 Completes  
207 Task1 Executes  
208 Task2 Executes  
209 Task2 Completes  
209 Task1 Executes  
210 Task1 Completes  
210 Task3 Executes  
212 Task3 Completes  
212 Task2 Executes  
213 Task2 Completes  
213 Task1 Executes  
215 Task3 Executes  
216 Task2 Executes  
217 Task2 Completes  
217 Task3 Executes  
218 Task3 Completes  
218 Task1 Executes  
220 Task1 Completes  
220 Task2 Executes  
221 Task2 Completes  
221 Task3 Executes  
223 Task3 Completes  
223 Task1 Executes  
224 Task2 Executes  
225 Task2 Completes  
225 Task3 Executes  
227 Task3 Completes

227 Task1 Executes  
228 Task2 Executes  
229 Task2 Completes  
229 Task1 Executes  
230 Task1 Completes  
230 Task3 Executes  
232 Task3 Completes  
232 Task2 Executes  
233 Task2 Completes  
233 Task1 Executes  
235 Task3 Executes  
236 Task2 Executes  
237 Task2 Completes  
237 Task3 Executes  
238 Task3 Completes  
238 Task1 Executes  
240 Task1 Completes  
240 Task2 Executes  
241 Task2 Completes  
241 Task3 Executes  
243 Task3 Completes  
243 Task1 Executes  
244 Task2 Executes  
245 Task2 Completes  
245 Task3 Executes  
247 Task3 Completes  
247 Task1 Executes  
248 Task2 Executes  
249 Task2 Completes  
249 Task1 Executes  
250 Task1 Completes  
250 Task3 Executes  
252 Task3 Completes  
252 Task2 Executes  
253 Task2 Completes  
253 Task1 Executes  
255 Task3 Executes  
256 Task2 Executes  
257 Task2 Completes  
257 Task3 Executes  
258 Task3 Completes  
258 Task1 Executes  
260 Task1 Completes  
260 Task2 Executes  
261 Task2 Completes  
261 Task3 Executes

263 Task3 Completes  
263 Task1 Executes  
264 Task2 Executes  
265 Task2 Completes  
265 Task3 Executes  
267 Task3 Completes  
267 Task1 Executes  
268 Task2 Executes  
269 Task2 Completes  
269 Task1 Executes  
270 Task1 Completes  
270 Task3 Executes  
272 Task3 Completes  
272 Task2 Executes  
273 Task2 Completes  
273 Task1 Executes  
275 Task3 Executes  
276 Task2 Executes  
277 Task2 Completes  
277 Task3 Executes  
278 Task3 Completes  
278 Task1 Executes  
280 Task1 Completes  
280 Task2 Executes  
281 Task2 Completes  
281 Task3 Executes  
283 Task3 Completes  
283 Task1 Executes  
284 Task2 Executes  
285 Task2 Completes  
285 Task3 Executes  
287 Task3 Completes  
287 Task1 Executes  
288 Task2 Executes  
289 Task2 Completes  
289 Task1 Executes  
290 Task1 Completes  
290 Task3 Executes  
292 Task3 Completes  
292 Task2 Executes  
293 Task2 Completes  
293 Task1 Executes  
295 Task3 Executes  
296 Task2 Executes  
297 Task2 Completes  
297 Task3 Executes

298 Task3 Completes  
298 Task1 Executes  
300 Task1 Completes  
300 Task2 Executes  
301 Task2 Completes  
301 Task3 Executes  
303 Task3 Completes  
303 Task1 Executes  
304 Task2 Executes  
305 Task2 Completes  
305 Task3 Executes  
307 Task3 Completes  
307 Task1 Executes  
308 Task2 Executes  
309 Task2 Completes  
309 Task1 Executes  
310 Task1 Completes  
310 Task3 Executes  
312 Task3 Completes  
312 Task2 Executes  
313 Task2 Completes  
313 Task1 Executes  
315 Task3 Executes  
316 Task2 Executes  
317 Task2 Completes  
317 Task3 Executes  
318 Task3 Completes  
318 Task1 Executes  
320 Task1 Completes  
320 Task2 Executes  
321 Task2 Completes  
321 Task3 Executes  
323 Task3 Completes  
323 Task1 Executes  
324 Task2 Executes  
325 Task2 Completes  
325 Task3 Executes  
327 Task3 Completes  
327 Task1 Executes  
328 Task2 Executes  
329 Task2 Completes  
329 Task1 Executes  
330 Task1 Completes  
330 Task3 Executes  
332 Task3 Completes  
332 Task2 Executes



333 Task2 Completes  
333 Task1 Executes  
335 Task3 Executes  
336 Task2 Executes  
337 Task2 Completes  
337 Task3 Executes  
338 Task3 Completes  
338 Task1 Executes  
340 Task1 Completes  
340 Task2 Executes  
341 Task2 Completes  
341 Task3 Executes  
343 Task3 Completes  
343 Task1 Executes  
344 Task2 Executes  
345 Task2 Completes  
345 Task3 Executes  
347 Task3 Completes  
347 Task1 Executes  
348 Task2 Executes  
349 Task2 Completes  
349 Task1 Executes  
350 Task1 Completes  
350 Task3 Executes  
352 Task3 Completes  
352 Task2 Executes  
353 Task2 Completes  
353 Task1 Executes  
355 Task3 Executes  
356 Task2 Executes  
357 Task2 Completes  
357 Task3 Executes  
358 Task3 Completes  
358 Task1 Executes  
360 Task1 Completes  
360 Task2 Executes  
361 Task2 Completes  
361 Task3 Executes  
363 Task3 Completes  
363 Task1 Executes  
364 Task2 Executes  
365 Task2 Completes  
365 Task3 Executes  
367 Task3 Completes  
367 Task1 Executes  
368 Task2 Executes

369 Task2 Completes  
369 Task1 Executes  
370 Task1 Completes  
370 Task3 Executes  
372 Task3 Completes  
372 Task2 Executes  
373 Task2 Completes  
373 Task1 Executes  
375 Task3 Executes  
376 Task2 Executes  
377 Task2 Completes  
377 Task3 Executes  
378 Task3 Completes  
378 Task1 Executes  
380 Task1 Completes  
380 Task2 Executes  
381 Task2 Completes  
381 Task3 Executes  
383 Task3 Completes  
383 Task1 Executes  
384 Task2 Executes  
385 Task2 Completes  
385 Task3 Executes  
387 Task3 Completes  
387 Task1 Executes  
388 Task2 Executes  
389 Task2 Completes  
389 Task1 Executes  
390 Task1 Completes  
390 Task3 Executes  
392 Task3 Completes  
392 Task2 Executes  
393 Task2 Completes  
393 Task1 Executes  
395 Task3 Executes  
396 Task2 Executes  
397 Task2 Completes  
397 Task3 Executes  
398 Task3 Completes  
398 Task1 Executes  
400 Task1 Completes  
400 Task2 Executes  
401 Task2 Completes  
401 Task3 Executes  
403 Task3 Completes  
403 Task1 Executes

404 Task2 Executes  
405 Task2 Completes  
405 Task3 Executes  
407 Task3 Completes  
407 Task1 Executes  
408 Task2 Executes  
409 Task2 Completes  
409 Task1 Executes  
410 Task1 Completes  
410 Task3 Executes  
412 Task3 Completes  
412 Task2 Executes  
413 Task2 Completes  
413 Task1 Executes  
415 Task3 Executes  
416 Task2 Executes  
417 Task2 Completes  
417 Task3 Executes  
418 Task3 Completes  
418 Task1 Executes  
420 Task1 Completes  
420 Task2 Executes  
421 Task2 Completes  
421 Task3 Executes  
423 Task3 Completes  
423 Task1 Executes  
424 Task2 Executes  
425 Task2 Completes  
425 Task3 Executes  
427 Task3 Completes  
427 Task1 Executes  
428 Task2 Executes  
429 Task2 Completes  
429 Task1 Executes  
430 Task1 Completes  
430 Task3 Executes  
432 Task3 Completes  
432 Task2 Executes  
433 Task2 Completes  
433 Task1 Executes  
435 Task3 Executes  
436 Task2 Executes  
437 Task2 Completes  
437 Task3 Executes  
438 Task3 Completes  
438 Task1 Executes

440 Task1 Completes  
440 Task2 Executes  
441 Task2 Completes  
441 Task3 Executes  
443 Task3 Completes  
443 Task1 Executes  
444 Task2 Executes  
445 Task2 Completes  
445 Task3 Executes  
447 Task3 Completes  
447 Task1 Executes  
448 Task2 Executes  
449 Task2 Completes  
449 Task1 Executes  
450 Task1 Completes  
450 Task3 Executes  
452 Task3 Completes  
452 Task2 Executes  
453 Task2 Completes  
453 Task1 Executes  
455 Task3 Executes  
456 Task2 Executes  
457 Task2 Completes  
457 Task3 Executes  
458 Task3 Completes  
458 Task1 Executes  
460 Task1 Completes  
460 Task2 Executes  
461 Task2 Completes  
461 Task3 Executes  
463 Task3 Completes  
463 Task1 Executes  
464 Task2 Executes  
465 Task2 Completes  
465 Task3 Executes  
467 Task3 Completes  
467 Task1 Executes  
468 Task2 Executes  
469 Task2 Completes  
469 Task1 Executes  
470 Task1 Completes  
470 Task3 Executes  
472 Task3 Completes  
472 Task2 Executes  
473 Task2 Completes  
473 Task1 Executes

475 Task3 Executes  
476 Task2 Executes  
477 Task2 Completes  
477 Task3 Executes  
478 Task3 Completes  
478 Task1 Executes  
480 Task1 Completes  
480 Task2 Executes  
481 Task2 Completes  
481 Task3 Executes  
483 Task3 Completes  
483 Task1 Executes  
484 Task2 Executes  
485 Task2 Completes  
485 Task3 Executes  
487 Task3 Completes  
487 Task1 Executes  
488 Task2 Executes  
489 Task2 Completes  
489 Task1 Executes  
490 Task1 Completes  
490 Task3 Executes  
492 Task3 Completes  
492 Task2 Executes  
493 Task2 Completes  
493 Task1 Executes  
495 Task3 Executes  
496 Task2 Executes  
497 Task2 Completes  
497 Task3 Executes  
498 Task3 Completes  
498 Task1 Executes  
500 Task1 Completes  
500 Task2 Executes  
501 Task2 Completes  
501 Task3 Executes  
503 Task3 Completes  
503 Task1 Executes  
504 Task2 Executes  
505 Task2 Completes  
505 Task3 Executes  
507 Task3 Completes  
507 Task1 Executes  
508 Task2 Executes  
509 Task2 Completes  
509 Task1 Executes

510 Task1 Completes  
510 Task3 Executes  
512 Task3 Completes  
512 Task2 Executes  
513 Task2 Completes  
513 Task1 Executes  
515 Task3 Executes  
516 Task2 Executes  
517 Task2 Completes  
517 Task3 Executes  
518 Task3 Completes  
518 Task1 Executes  
520 Task1 Completes  
520 Task2 Executes  
521 Task2 Completes  
521 Task3 Executes  
523 Task3 Completes  
523 Task1 Executes  
524 Task2 Executes  
525 Task2 Completes  
525 Task3 Executes  
527 Task3 Completes  
527 Task1 Executes  
528 Task2 Executes  
529 Task2 Completes  
529 Task1 Executes  
530 Task1 Completes  
530 Task3 Executes  
532 Task3 Completes  
532 Task2 Executes  
533 Task2 Completes  
533 Task1 Executes  
535 Task3 Executes  
536 Task2 Executes  
537 Task2 Completes  
537 Task3 Executes  
538 Task3 Completes  
538 Task1 Executes  
540 Task1 Completes  
540 Task2 Executes  
541 Task2 Completes  
541 Task3 Executes  
543 Task3 Completes  
543 Task1 Executes  
544 Task2 Executes  
545 Task2 Completes

545 Task3 Executes  
547 Task3 Completes  
547 Task1 Executes  
548 Task2 Executes  
549 Task2 Completes  
549 Task1 Executes  
550 Task1 Completes  
550 Task3 Executes  
552 Task3 Completes  
552 Task2 Executes  
553 Task2 Completes  
553 Task1 Executes  
555 Task3 Executes  
556 Task2 Executes  
557 Task2 Completes  
557 Task3 Executes  
558 Task3 Completes  
558 Task1 Executes  
560 Task1 Completes  
560 Task2 Executes  
561 Task2 Completes  
561 Task3 Executes  
563 Task3 Completes  
563 Task1 Executes  
564 Task2 Executes  
565 Task2 Completes  
565 Task3 Executes  
567 Task3 Completes  
567 Task1 Executes  
568 Task2 Executes  
569 Task2 Completes  
569 Task1 Executes  
570 Task1 Completes  
570 Task3 Executes  
572 Task3 Completes  
572 Task2 Executes  
573 Task2 Completes  
573 Task1 Executes  
575 Task3 Executes  
576 Task2 Executes  
577 Task2 Completes  
577 Task3 Executes  
578 Task3 Completes  
578 Task1 Executes  
580 Task1 Completes  
580 Task2 Executes

581 Task2 Completes  
581 Task3 Executes  
583 Task3 Completes  
583 Task1 Executes  
584 Task2 Executes  
585 Task2 Completes  
585 Task3 Executes  
587 Task3 Completes  
587 Task1 Executes  
588 Task2 Executes  
589 Task2 Completes  
589 Task1 Executes  
590 Task1 Completes  
590 Task3 Executes  
592 Task3 Completes  
592 Task2 Executes  
593 Task2 Completes  
593 Task1 Executes  
595 Task3 Executes  
596 Task2 Executes  
597 Task2 Completes  
597 Task3 Executes  
598 Task3 Completes  
598 Task1 Executes  
600 Task1 Completes  
600 Task2 Executes  
601 Task2 Completes  
601 Task3 Executes  
603 Task3 Completes  
603 Task1 Executes  
604 Task2 Executes  
605 Task2 Completes  
605 Task3 Executes  
607 Task3 Completes  
607 Task1 Executes  
608 Task2 Executes  
609 Task2 Completes  
609 Task1 Executes  
610 Task1 Completes  
610 Task3 Executes  
612 Task3 Completes  
612 Task2 Executes  
613 Task2 Completes  
613 Task1 Executes  
615 Task3 Executes  
616 Task2 Executes



617 Task2 Completes  
617 Task3 Executes  
618 Task3 Completes  
618 Task1 Executes  
620 Task1 Completes  
620 Task2 Executes  
621 Task2 Completes  
621 Task3 Executes  
623 Task3 Completes  
623 Task1 Executes  
624 Task2 Executes  
625 Task2 Completes  
625 Task3 Executes  
627 Task3 Completes  
627 Task1 Executes  
628 Task2 Executes  
629 Task2 Completes  
629 Task1 Executes  
630 Task1 Completes  
630 Task3 Executes  
632 Task3 Completes  
632 Task2 Executes  
633 Task2 Completes  
633 Task1 Executes  
635 Task3 Executes  
636 Task2 Executes  
637 Task2 Completes  
637 Task3 Executes  
638 Task3 Completes  
638 Task1 Executes  
640 Task1 Completes  
640 Task2 Executes  
641 Task2 Completes  
641 Task3 Executes  
643 Task3 Completes  
643 Task1 Executes  
644 Task2 Executes  
645 Task2 Completes  
645 Task3 Executes  
647 Task3 Completes  
647 Task1 Executes  
648 Task2 Executes  
649 Task2 Completes  
649 Task1 Executes  
650 Task1 Completes  
650 Task3 Executes

652 Task3 Completes  
652 Task2 Executes  
653 Task2 Completes  
653 Task1 Executes  
655 Task3 Executes  
656 Task2 Executes  
657 Task2 Completes  
657 Task3 Executes  
658 Task3 Completes  
658 Task1 Executes  
660 Task1 Completes  
660 Task2 Executes  
661 Task2 Completes  
661 Task3 Executes  
663 Task3 Completes  
663 Task1 Executes  
664 Task2 Executes  
665 Task2 Completes  
665 Task3 Executes  
667 Task3 Completes  
667 Task1 Executes  
668 Task2 Executes  
669 Task2 Completes  
669 Task1 Executes  
670 Task1 Completes  
670 Task3 Executes  
672 Task3 Completes  
672 Task2 Executes  
673 Task2 Completes  
673 Task1 Executes  
675 Task3 Executes  
676 Task2 Executes  
677 Task2 Completes  
677 Task3 Executes  
678 Task3 Completes  
678 Task1 Executes  
680 Task1 Completes  
680 Task2 Executes  
681 Task2 Completes  
681 Task3 Executes  
683 Task3 Completes  
683 Task1 Executes  
684 Task2 Executes  
685 Task2 Completes  
685 Task3 Executes  
687 Task3 Completes

687 Task1 Executes  
688 Task2 Executes  
689 Task2 Completes  
689 Task1 Executes  
690 Task1 Completes  
690 Task3 Executes  
692 Task3 Completes  
692 Task2 Executes  
693 Task2 Completes  
693 Task1 Executes  
695 Task3 Executes  
696 Task2 Executes  
697 Task2 Completes  
697 Task3 Executes  
698 Task3 Completes  
698 Task1 Executes  
700 Task1 Completes  
700 Task2 Executes  
701 Task2 Completes  
701 Task3 Executes  
703 Task3 Completes  
703 Task1 Executes  
704 Task2 Executes  
705 Task2 Completes  
705 Task3 Executes  
707 Task3 Completes  
707 Task1 Executes  
708 Task2 Executes  
709 Task2 Completes  
709 Task1 Executes  
710 Task1 Completes  
710 Task3 Executes  
712 Task3 Completes  
712 Task2 Executes  
713 Task2 Completes  
713 Task1 Executes  
715 Task3 Executes  
716 Task2 Executes  
717 Task2 Completes  
717 Task3 Executes  
718 Task3 Completes  
718 Task1 Executes  
720 Task1 Completes  
720 Task2 Executes  
721 Task2 Completes  
721 Task3 Executes

723 Task3 Completes  
723 Task1 Executes  
724 Task2 Executes  
725 Task2 Completes  
725 Task3 Executes  
727 Task3 Completes  
727 Task1 Executes  
728 Task2 Executes  
729 Task2 Completes  
729 Task1 Executes  
730 Task1 Completes  
730 Task3 Executes  
732 Task3 Completes  
732 Task2 Executes  
733 Task2 Completes  
733 Task1 Executes  
735 Task3 Executes  
736 Task2 Executes  
737 Task2 Completes  
737 Task3 Executes  
738 Task3 Completes  
738 Task1 Executes  
740 Task1 Completes  
740 Task2 Executes  
741 Task2 Completes  
741 Task3 Executes  
743 Task3 Completes  
743 Task1 Executes  
744 Task2 Executes  
745 Task2 Completes  
745 Task3 Executes  
747 Task3 Completes  
747 Task1 Executes  
748 Task2 Executes  
749 Task2 Completes  
749 Task1 Executes  
750 Task1 Completes  
750 Task3 Executes  
752 Task3 Completes  
752 Task2 Executes  
753 Task2 Completes  
753 Task1 Executes  
755 Task3 Executes  
756 Task2 Executes  
757 Task2 Completes  
757 Task3 Executes

758 Task3 Completes  
758 Task1 Executes  
760 Task1 Completes  
760 Task2 Executes  
761 Task2 Completes  
761 Task3 Executes  
763 Task3 Completes  
763 Task1 Executes  
764 Task2 Executes  
765 Task2 Completes  
765 Task3 Executes  
767 Task3 Completes  
767 Task1 Executes  
768 Task2 Executes  
769 Task2 Completes  
769 Task1 Executes  
770 Task1 Completes  
770 Task3 Executes  
772 Task3 Completes  
772 Task2 Executes  
773 Task2 Completes  
773 Task1 Executes  
775 Task3 Executes  
776 Task2 Executes  
777 Task2 Completes  
777 Task3 Executes  
778 Task3 Completes  
778 Task1 Executes  
780 Task1 Completes  
780 Task2 Executes  
781 Task2 Completes  
781 Task3 Executes  
783 Task3 Completes  
783 Task1 Executes  
784 Task2 Executes  
785 Task2 Completes  
785 Task3 Executes  
787 Task3 Completes  
787 Task1 Executes  
788 Task2 Executes  
789 Task2 Completes  
789 Task1 Executes  
790 Task1 Completes  
790 Task3 Executes  
792 Task3 Completes  
792 Task2 Executes

793 Task2 Completes  
793 Task1 Executes  
795 Task3 Executes  
796 Task2 Executes  
797 Task2 Completes  
797 Task3 Executes  
798 Task3 Completes  
798 Task1 Executes  
800 Task1 Completes  
800 Task2 Executes  
801 Task2 Completes  
801 Task3 Executes  
803 Task3 Completes  
803 Task1 Executes  
804 Task2 Executes  
805 Task2 Completes  
805 Task3 Executes  
807 Task3 Completes  
807 Task1 Executes  
808 Task2 Executes  
809 Task2 Completes  
809 Task1 Executes  
810 Task1 Completes  
810 Task3 Executes  
812 Task3 Completes  
812 Task2 Executes  
813 Task2 Completes  
813 Task1 Executes  
815 Task3 Executes  
816 Task2 Executes  
817 Task2 Completes  
817 Task3 Executes  
818 Task3 Completes  
818 Task1 Executes  
820 Task1 Completes  
820 Task2 Executes  
821 Task2 Completes  
821 Task3 Executes  
823 Task3 Completes  
823 Task1 Executes  
824 Task2 Executes  
825 Task2 Completes  
825 Task3 Executes  
827 Task3 Completes  
827 Task1 Executes  
828 Task2 Executes

829 Task2 Completes  
829 Task1 Executes  
830 Task1 Completes  
830 Task3 Executes  
832 Task3 Completes  
832 Task2 Executes  
833 Task2 Completes  
833 Task1 Executes  
835 Task3 Executes  
836 Task2 Executes  
837 Task2 Completes  
837 Task3 Executes  
838 Task3 Completes  
838 Task1 Executes  
840 Task1 Completes  
840 Task2 Executes  
841 Task2 Completes  
841 Task3 Executes  
843 Task3 Completes  
843 Task1 Executes  
844 Task2 Executes  
845 Task2 Completes  
845 Task3 Executes  
847 Task3 Completes  
847 Task1 Executes  
848 Task2 Executes  
849 Task2 Completes  
849 Task1 Executes  
850 Task1 Completes  
850 Task3 Executes  
852 Task3 Completes  
852 Task2 Executes  
853 Task2 Completes  
853 Task1 Executes  
855 Task3 Executes  
856 Task2 Executes  
857 Task2 Completes  
857 Task3 Executes  
858 Task3 Completes  
858 Task1 Executes  
860 Task1 Completes  
860 Task2 Executes  
861 Task2 Completes  
861 Task3 Executes  
863 Task3 Completes  
863 Task1 Executes

864 Task2 Executes  
865 Task2 Completes  
865 Task3 Executes  
867 Task3 Completes  
867 Task1 Executes  
868 Task2 Executes  
869 Task2 Completes  
869 Task1 Executes  
870 Task1 Completes  
870 Task3 Executes  
872 Task3 Completes  
872 Task2 Executes  
873 Task2 Completes  
873 Task1 Executes  
875 Task3 Executes  
876 Task2 Executes  
877 Task2 Completes  
877 Task3 Executes  
878 Task3 Completes  
878 Task1 Executes  
880 Task1 Completes  
880 Task2 Executes  
881 Task2 Completes  
881 Task3 Executes  
883 Task3 Completes  
883 Task1 Executes  
884 Task2 Executes  
885 Task2 Completes  
885 Task3 Executes  
887 Task3 Completes  
887 Task1 Executes  
888 Task2 Executes  
889 Task2 Completes  
889 Task1 Executes  
890 Task1 Completes  
890 Task3 Executes  
892 Task3 Completes  
892 Task2 Executes  
893 Task2 Completes  
893 Task1 Executes  
895 Task3 Executes  
896 Task2 Executes  
897 Task2 Completes  
897 Task3 Executes  
898 Task3 Completes  
898 Task1 Executes



900 Task1 Completes  
900 Task2 Executes  
901 Task2 Completes  
901 Task3 Executes  
903 Task3 Completes  
903 Task1 Executes  
904 Task2 Executes  
905 Task2 Completes  
905 Task3 Executes  
907 Task3 Completes  
907 Task1 Executes  
908 Task2 Executes  
909 Task2 Completes  
909 Task1 Executes  
910 Task1 Completes  
910 Task3 Executes  
912 Task3 Completes  
912 Task2 Executes  
913 Task2 Completes  
913 Task1 Executes  
915 Task3 Executes  
916 Task2 Executes  
917 Task2 Completes  
917 Task3 Executes  
918 Task3 Completes  
918 Task1 Executes  
920 Task1 Completes  
920 Task2 Executes  
921 Task2 Completes  
921 Task3 Executes  
923 Task3 Completes  
923 Task1 Executes  
924 Task2 Executes  
925 Task2 Completes  
925 Task3 Executes  
927 Task3 Completes  
927 Task1 Executes  
928 Task2 Executes  
929 Task2 Completes  
929 Task1 Executes  
930 Task1 Completes  
930 Task3 Executes  
932 Task3 Completes  
932 Task2 Executes  
933 Task2 Completes  
933 Task1 Executes

935 Task3 Executes  
936 Task2 Executes  
937 Task2 Completes  
937 Task3 Executes  
938 Task3 Completes  
938 Task1 Executes  
940 Task1 Completes  
940 Task2 Executes  
941 Task2 Completes  
941 Task3 Executes  
943 Task3 Completes  
943 Task1 Executes  
944 Task2 Executes  
945 Task2 Completes  
945 Task3 Executes  
947 Task3 Completes  
947 Task1 Executes  
948 Task2 Executes  
949 Task2 Completes  
949 Task1 Executes  
950 Task1 Completes  
950 Task3 Executes  
952 Task3 Completes  
952 Task2 Executes  
953 Task2 Completes  
953 Task1 Executes  
955 Task3 Executes  
956 Task2 Executes  
957 Task2 Completes  
957 Task3 Executes  
958 Task3 Completes  
958 Task1 Executes  
960 Task1 Completes  
960 Task2 Executes  
961 Task2 Completes  
961 Task3 Executes  
963 Task3 Completes  
963 Task1 Executes  
964 Task2 Executes  
965 Task2 Completes  
965 Task3 Executes  
967 Task3 Completes  
967 Task1 Executes  
968 Task2 Executes  
969 Task2 Completes  
969 Task1 Executes

```

970 Task1 Completes
970 Task3 Executes
972 Task3 Completes
972 Task2 Executes
973 Task2 Completes
973 Task1 Executes
975 Task3 Executes
976 Task2 Executes
977 Task2 Completes
977 Task3 Executes
978 Task3 Completes
978 Task1 Executes
980 Task1 Completes
980 Task2 Executes
981 Task2 Completes
981 Task3 Executes
983 Task3 Completes
983 Task1 Executes
984 Task2 Executes
985 Task2 Completes
985 Task3 Executes
987 Task3 Completes
987 Task1 Executes
988 Task2 Executes
989 Task2 Completes
989 Task1 Executes
990 Task1 Completes
990 Task3 Executes
992 Task3 Completes
992 Task2 Executes
993 Task2 Completes
993 Task1 Executes
995 Task3 Executes
996 Task2 Executes
997 Task2 Completes
997 Task3 Executes
998 Task3 Completes
998 Task1 Executes
Scheduling Finishes

```

## 5.9 EDF

```

1 Task2 Completes
1 Task3 Executes
3 Task3 Completes
3 Task1 Executes

```

4 Task2 Executes  
5 Task2 Completes  
5 Task3 Executes  
7 Task3 Completes  
7 Task1 Executes  
8 Task2 Executes  
9 Task2 Completes  
9 Task1 Executes  
10 Task1 Misses  
12 Task2 Executes  
13 Task2 Completes  
13 Task1 Executes  
15 Task3 Misses  
15 Task1 Completes  
15 Task1 Executes  
16 Task2 Executes  
17 Task2 Completes  
17 Task3 Executes  
19 Task3 Completes  
19 Task1 Executes  
20 Task1 Misses  
24 Task2 Misses  
24 Task1 Completes  
24 Task2 Executes  
25 Task3 Misses  
25 Task2 Completes  
25 Task3 Executes  
27 Task3 Completes  
27 Task1 Executes  
28 Task2 Executes  
29 Task2 Completes  
29 Task1 Executes  
30 Task1 Misses  
32 Task2 Executes  
33 Task2 Completes  
33 Task1 Executes  
35 Task3 Misses  
35 Task1 Completes  
35 Task1 Executes  
36 Task2 Executes  
37 Task2 Completes  
37 Task3 Executes  
39 Task3 Completes  
39 Task1 Executes  
40 Task1 Misses  
44 Task2 Misses

44 Task1 Completes  
44 Task2 Executes  
45 Task3 Misses  
45 Task2 Completes  
45 Task3 Executes  
47 Task3 Completes  
47 Task1 Executes  
48 Task2 Executes  
49 Task2 Completes  
49 Task1 Executes  
50 Task1 Misses  
52 Task2 Executes  
53 Task2 Completes  
53 Task1 Executes  
55 Task3 Misses  
55 Task1 Completes  
55 Task1 Executes  
56 Task2 Executes  
57 Task2 Completes  
57 Task3 Executes  
59 Task3 Completes  
59 Task1 Executes  
60 Task1 Misses  
64 Task2 Misses  
64 Task1 Completes  
64 Task2 Executes  
65 Task3 Misses  
65 Task2 Completes  
65 Task3 Executes  
67 Task3 Completes  
67 Task1 Executes  
68 Task2 Executes  
69 Task2 Completes  
69 Task1 Executes  
70 Task1 Misses  
72 Task2 Executes  
73 Task2 Completes  
73 Task1 Executes  
75 Task3 Misses  
75 Task1 Completes  
75 Task1 Executes  
76 Task2 Executes  
77 Task2 Completes  
77 Task3 Executes  
79 Task3 Completes  
79 Task1 Executes

80 Task1 Misses  
84 Task2 Misses  
84 Task1 Completes  
84 Task2 Executes  
85 Task3 Misses  
85 Task2 Completes  
85 Task3 Executes  
87 Task3 Completes  
87 Task1 Executes  
88 Task2 Executes  
89 Task2 Completes  
89 Task1 Executes  
90 Task1 Misses  
92 Task2 Executes  
93 Task2 Completes  
93 Task1 Executes  
95 Task3 Misses  
95 Task1 Completes  
95 Task1 Executes  
96 Task2 Executes  
97 Task2 Completes  
97 Task3 Executes  
99 Task3 Completes  
99 Task1 Executes  
100 Task1 Misses  
104 Task2 Misses  
104 Task1 Completes  
104 Task2 Executes  
105 Task3 Misses  
105 Task2 Completes  
105 Task3 Executes  
107 Task3 Completes  
107 Task1 Executes  
108 Task2 Executes  
109 Task2 Completes  
109 Task1 Executes  
110 Task1 Misses  
112 Task2 Executes  
113 Task2 Completes  
113 Task1 Executes  
115 Task3 Misses  
115 Task1 Completes  
115 Task1 Executes  
116 Task2 Executes  
117 Task2 Completes  
117 Task3 Executes

119 Task3 Completes  
119 Task1 Executes  
120 Task1 Misses  
124 Task2 Misses  
124 Task1 Completes  
124 Task2 Executes  
125 Task3 Misses  
125 Task2 Completes  
125 Task3 Executes  
127 Task3 Completes  
127 Task1 Executes  
128 Task2 Executes  
129 Task2 Completes  
129 Task1 Executes  
130 Task1 Misses  
132 Task2 Executes  
133 Task2 Completes  
133 Task1 Executes  
135 Task3 Misses  
135 Task1 Completes  
135 Task1 Executes  
136 Task2 Executes  
137 Task2 Completes  
137 Task3 Executes  
139 Task3 Completes  
139 Task1 Executes  
140 Task1 Misses  
144 Task2 Misses  
144 Task1 Completes  
144 Task2 Executes  
145 Task3 Misses  
145 Task2 Completes  
145 Task3 Executes  
147 Task3 Completes  
147 Task1 Executes  
148 Task2 Executes  
149 Task2 Completes  
149 Task1 Executes  
150 Task1 Misses  
152 Task2 Executes  
153 Task2 Completes  
153 Task1 Executes  
155 Task3 Misses  
155 Task1 Completes  
155 Task1 Executes  
156 Task2 Executes

157 Task2 Completes  
157 Task3 Executes  
159 Task3 Completes  
159 Task1 Executes  
160 Task1 Misses  
164 Task2 Misses  
164 Task1 Completes  
164 Task2 Executes  
165 Task3 Misses  
165 Task2 Completes  
165 Task3 Executes  
167 Task3 Completes  
167 Task1 Executes  
168 Task2 Executes  
169 Task2 Completes  
169 Task1 Executes  
170 Task1 Misses  
172 Task2 Executes  
173 Task2 Completes  
173 Task1 Executes  
175 Task3 Misses  
175 Task1 Completes  
175 Task1 Executes  
176 Task2 Executes  
177 Task2 Completes  
177 Task3 Executes  
179 Task3 Completes  
179 Task1 Executes  
180 Task1 Misses  
184 Task2 Misses  
184 Task1 Completes  
184 Task2 Executes  
185 Task3 Misses  
185 Task2 Completes  
185 Task3 Executes  
187 Task3 Completes  
187 Task1 Executes  
188 Task2 Executes  
189 Task2 Completes  
189 Task1 Executes  
190 Task1 Misses  
192 Task2 Executes  
193 Task2 Completes  
193 Task1 Executes  
195 Task3 Misses  
195 Task1 Completes



195 Task1 Executes  
196 Task2 Executes  
197 Task2 Completes  
197 Task3 Executes  
199 Task3 Completes  
199 Task1 Executes  
200 Task1 Misses  
204 Task2 Misses  
204 Task1 Completes  
204 Task2 Executes  
205 Task3 Misses  
205 Task2 Completes  
205 Task3 Executes  
207 Task3 Completes  
207 Task1 Executes  
208 Task2 Executes  
209 Task2 Completes  
209 Task1 Executes  
210 Task1 Misses  
212 Task2 Executes  
213 Task2 Completes  
213 Task1 Executes  
215 Task3 Misses  
215 Task1 Completes  
215 Task1 Executes  
216 Task2 Executes  
217 Task2 Completes  
217 Task3 Executes  
219 Task3 Completes  
219 Task1 Executes  
220 Task1 Misses  
224 Task2 Misses  
224 Task1 Completes  
224 Task2 Executes  
225 Task3 Misses  
225 Task2 Completes  
225 Task3 Executes  
227 Task3 Completes  
227 Task1 Executes  
228 Task2 Executes  
229 Task2 Completes  
229 Task1 Executes  
230 Task1 Misses  
232 Task2 Executes  
233 Task2 Completes  
233 Task1 Executes

235 Task3 Misses  
235 Task1 Completes  
235 Task1 Executes  
236 Task2 Executes  
237 Task2 Completes  
237 Task3 Executes  
239 Task3 Completes  
239 Task1 Executes  
240 Task1 Misses  
244 Task2 Misses  
244 Task1 Completes  
244 Task2 Executes  
245 Task3 Misses  
245 Task2 Completes  
245 Task3 Executes  
247 Task3 Completes  
247 Task1 Executes  
248 Task2 Executes  
249 Task2 Completes  
249 Task1 Executes  
250 Task1 Misses  
252 Task2 Executes  
253 Task2 Completes  
253 Task1 Executes  
255 Task3 Misses  
255 Task1 Completes  
255 Task1 Executes  
256 Task2 Executes  
257 Task2 Completes  
257 Task3 Executes  
259 Task3 Completes  
259 Task1 Executes  
260 Task1 Misses  
264 Task2 Misses  
264 Task1 Completes  
264 Task2 Executes  
265 Task3 Misses  
265 Task2 Completes  
265 Task3 Executes  
267 Task3 Completes  
267 Task1 Executes  
268 Task2 Executes  
269 Task2 Completes  
269 Task1 Executes  
270 Task1 Misses  
272 Task2 Executes

273 Task2 Completes  
273 Task1 Executes  
275 Task3 Misses  
275 Task1 Completes  
275 Task1 Executes  
276 Task2 Executes  
277 Task2 Completes  
277 Task3 Executes  
279 Task3 Completes  
279 Task1 Executes  
280 Task1 Misses  
284 Task2 Misses  
284 Task1 Completes  
284 Task2 Executes  
285 Task3 Misses  
285 Task2 Completes  
285 Task3 Executes  
287 Task3 Completes  
287 Task1 Executes  
288 Task2 Executes  
289 Task2 Completes  
289 Task1 Executes  
290 Task1 Misses  
292 Task2 Executes  
293 Task2 Completes  
293 Task1 Executes  
295 Task3 Misses  
295 Task1 Completes  
295 Task1 Executes  
296 Task2 Executes  
297 Task2 Completes  
297 Task3 Executes  
299 Task3 Completes  
299 Task1 Executes  
300 Task1 Misses  
304 Task2 Misses  
304 Task1 Completes  
304 Task2 Executes  
305 Task3 Misses  
305 Task2 Completes  
305 Task3 Executes  
307 Task3 Completes  
307 Task1 Executes  
308 Task2 Executes  
309 Task2 Completes  
309 Task1 Executes

310 Task1 Misses  
312 Task2 Executes  
313 Task2 Completes  
313 Task1 Executes  
315 Task3 Misses  
315 Task1 Completes  
315 Task1 Executes  
316 Task2 Executes  
317 Task2 Completes  
317 Task3 Executes  
319 Task3 Completes  
319 Task1 Executes  
320 Task1 Misses  
324 Task2 Misses  
324 Task1 Completes  
324 Task2 Executes  
325 Task3 Misses  
325 Task2 Completes  
325 Task3 Executes  
327 Task3 Completes  
327 Task1 Executes  
328 Task2 Executes  
329 Task2 Completes  
329 Task1 Executes  
330 Task1 Misses  
332 Task2 Executes  
333 Task2 Completes  
333 Task1 Executes  
335 Task3 Misses  
335 Task1 Completes  
335 Task1 Executes  
336 Task2 Executes  
337 Task2 Completes  
337 Task3 Executes  
339 Task3 Completes  
339 Task1 Executes  
340 Task1 Misses  
344 Task2 Misses  
344 Task1 Completes  
344 Task2 Executes  
345 Task3 Misses  
345 Task2 Completes  
345 Task3 Executes  
347 Task3 Completes  
347 Task1 Executes  
348 Task2 Executes

349 Task2 Completes  
349 Task1 Executes  
350 Task1 Misses  
352 Task2 Executes  
353 Task2 Completes  
353 Task1 Executes  
355 Task3 Misses  
355 Task1 Completes  
355 Task1 Executes  
356 Task2 Executes  
357 Task2 Completes  
357 Task3 Executes  
359 Task3 Completes  
359 Task1 Executes  
360 Task1 Misses  
364 Task2 Misses  
364 Task1 Completes  
364 Task2 Executes  
365 Task3 Misses  
365 Task2 Completes  
365 Task3 Executes  
367 Task3 Completes  
367 Task1 Executes  
368 Task2 Executes  
369 Task2 Completes  
369 Task1 Executes  
370 Task1 Misses  
372 Task2 Executes  
373 Task2 Completes  
373 Task1 Executes  
375 Task3 Misses  
375 Task1 Completes  
375 Task1 Executes  
376 Task2 Executes  
377 Task2 Completes  
377 Task3 Executes  
379 Task3 Completes  
379 Task1 Executes  
380 Task1 Misses  
384 Task2 Misses  
384 Task1 Completes  
384 Task2 Executes  
385 Task3 Misses  
385 Task2 Completes  
385 Task3 Executes  
387 Task3 Completes

387 Task1 Executes  
388 Task2 Executes  
389 Task2 Completes  
389 Task1 Executes  
390 Task1 Misses  
392 Task2 Executes  
393 Task2 Completes  
393 Task1 Executes  
395 Task3 Misses  
395 Task1 Completes  
395 Task1 Executes  
396 Task2 Executes  
397 Task2 Completes  
397 Task3 Executes  
399 Task3 Completes  
399 Task1 Executes  
400 Task1 Misses  
404 Task2 Misses  
404 Task1 Completes  
404 Task2 Executes  
405 Task3 Misses  
405 Task2 Completes  
405 Task3 Executes  
407 Task3 Completes  
407 Task1 Executes  
408 Task2 Executes  
409 Task2 Completes  
409 Task1 Executes  
410 Task1 Misses  
412 Task2 Executes  
413 Task2 Completes  
413 Task1 Executes  
415 Task3 Misses  
415 Task1 Completes  
415 Task1 Executes  
416 Task2 Executes  
417 Task2 Completes  
417 Task3 Executes  
419 Task3 Completes  
419 Task1 Executes  
420 Task1 Misses  
424 Task2 Misses  
424 Task1 Completes  
424 Task2 Executes  
425 Task3 Misses  
425 Task2 Completes

425 Task3 Executes  
427 Task3 Completes  
427 Task1 Executes  
428 Task2 Executes  
429 Task2 Completes  
429 Task1 Executes  
430 Task1 Misses  
432 Task2 Executes  
433 Task2 Completes  
433 Task1 Executes  
435 Task3 Misses  
435 Task1 Completes  
435 Task1 Executes  
436 Task2 Executes  
437 Task2 Completes  
437 Task3 Executes  
439 Task3 Completes  
439 Task1 Executes  
440 Task1 Misses  
444 Task2 Misses  
444 Task1 Completes  
444 Task2 Executes  
445 Task3 Misses  
445 Task2 Completes  
445 Task3 Executes  
447 Task3 Completes  
447 Task1 Executes  
448 Task2 Executes  
449 Task2 Completes  
449 Task1 Executes  
450 Task1 Misses  
452 Task2 Executes  
453 Task2 Completes  
453 Task1 Executes  
455 Task3 Misses  
455 Task1 Completes  
455 Task1 Executes  
456 Task2 Executes  
457 Task2 Completes  
457 Task3 Executes  
459 Task3 Completes  
459 Task1 Executes  
460 Task1 Misses  
464 Task2 Misses  
464 Task1 Completes  
464 Task2 Executes

465 Task3 Misses  
465 Task2 Completes  
465 Task3 Executes  
467 Task3 Completes  
467 Task1 Executes  
468 Task2 Executes  
469 Task2 Completes  
469 Task1 Executes  
470 Task1 Misses  
472 Task2 Executes  
473 Task2 Completes  
473 Task1 Executes  
475 Task3 Misses  
475 Task1 Completes  
475 Task1 Executes  
476 Task2 Executes  
477 Task2 Completes  
477 Task3 Executes  
479 Task3 Completes  
479 Task1 Executes  
480 Task1 Misses  
484 Task2 Misses  
484 Task1 Completes  
484 Task2 Executes  
485 Task3 Misses  
485 Task2 Completes  
485 Task3 Executes  
487 Task3 Completes  
487 Task1 Executes  
488 Task2 Executes  
489 Task2 Completes  
489 Task1 Executes  
490 Task1 Misses  
492 Task2 Executes  
493 Task2 Completes  
493 Task1 Executes  
495 Task3 Misses  
495 Task1 Completes  
495 Task1 Executes  
496 Task2 Executes  
497 Task2 Completes  
497 Task3 Executes  
499 Task3 Completes  
499 Task1 Executes  
500 Task1 Misses  
504 Task2 Misses



504 Task1 Completes  
504 Task2 Executes  
505 Task3 Misses  
505 Task2 Completes  
505 Task3 Executes  
507 Task3 Completes  
507 Task1 Executes  
508 Task2 Executes  
509 Task2 Completes  
509 Task1 Executes  
510 Task1 Misses  
512 Task2 Executes  
513 Task2 Completes  
513 Task1 Executes  
515 Task3 Misses  
515 Task1 Completes  
515 Task1 Executes  
516 Task2 Executes  
517 Task2 Completes  
517 Task3 Executes  
519 Task3 Completes  
519 Task1 Executes  
520 Task1 Misses  
524 Task2 Misses  
524 Task1 Completes  
524 Task2 Executes  
525 Task3 Misses  
525 Task2 Completes  
525 Task3 Executes  
527 Task3 Completes  
527 Task1 Executes  
528 Task2 Executes  
529 Task2 Completes  
529 Task1 Executes  
530 Task1 Misses  
532 Task2 Executes  
533 Task2 Completes  
533 Task1 Executes  
535 Task3 Misses  
535 Task1 Completes  
535 Task1 Executes  
536 Task2 Executes  
537 Task2 Completes  
537 Task3 Executes  
539 Task3 Completes  
539 Task1 Executes

540 Task1 Misses  
544 Task2 Misses  
544 Task1 Completes  
544 Task2 Executes  
545 Task3 Misses  
545 Task2 Completes  
545 Task3 Executes  
547 Task3 Completes  
547 Task1 Executes  
548 Task2 Executes  
549 Task2 Completes  
549 Task1 Executes  
550 Task1 Misses  
552 Task2 Executes  
553 Task2 Completes  
553 Task1 Executes  
555 Task3 Misses  
555 Task1 Completes  
555 Task1 Executes  
556 Task2 Executes  
557 Task2 Completes  
557 Task3 Executes  
559 Task3 Completes  
559 Task1 Executes  
560 Task1 Misses  
564 Task2 Misses  
564 Task1 Completes  
564 Task2 Executes  
565 Task3 Misses  
565 Task2 Completes  
565 Task3 Executes  
567 Task3 Completes  
567 Task1 Executes  
568 Task2 Executes  
569 Task2 Completes  
569 Task1 Executes  
570 Task1 Misses  
572 Task2 Executes  
573 Task2 Completes  
573 Task1 Executes  
575 Task3 Misses  
575 Task1 Completes  
575 Task1 Executes  
576 Task2 Executes  
577 Task2 Completes  
577 Task3 Executes

579 Task3 Completes  
579 Task1 Executes  
580 Task1 Misses  
584 Task2 Misses  
584 Task1 Completes  
584 Task2 Executes  
585 Task3 Misses  
585 Task2 Completes  
585 Task3 Executes  
587 Task3 Completes  
587 Task1 Executes  
588 Task2 Executes  
589 Task2 Completes  
589 Task1 Executes  
590 Task1 Misses  
592 Task2 Executes  
593 Task2 Completes  
593 Task1 Executes  
595 Task3 Misses  
595 Task1 Completes  
595 Task1 Executes  
596 Task2 Executes  
597 Task2 Completes  
597 Task3 Executes  
599 Task3 Completes  
599 Task1 Executes  
600 Task1 Misses  
604 Task2 Misses  
604 Task1 Completes  
604 Task2 Executes  
605 Task3 Misses  
605 Task2 Completes  
605 Task3 Executes  
607 Task3 Completes  
607 Task1 Executes  
608 Task2 Executes  
609 Task2 Completes  
609 Task1 Executes  
610 Task1 Misses  
612 Task2 Executes  
613 Task2 Completes  
613 Task1 Executes  
615 Task3 Misses  
615 Task1 Completes  
615 Task1 Executes  
616 Task2 Executes

617 Task2 Completes  
617 Task3 Executes  
619 Task3 Completes  
619 Task1 Executes  
620 Task1 Misses  
624 Task2 Misses  
624 Task1 Completes  
624 Task2 Executes  
625 Task3 Misses  
625 Task2 Completes  
625 Task3 Executes  
627 Task3 Completes  
627 Task1 Executes  
628 Task2 Executes  
629 Task2 Completes  
629 Task1 Executes  
630 Task1 Misses  
632 Task2 Executes  
633 Task2 Completes  
633 Task1 Executes  
635 Task3 Misses  
635 Task1 Completes  
635 Task1 Executes  
636 Task2 Executes  
637 Task2 Completes  
637 Task3 Executes  
639 Task3 Completes  
639 Task1 Executes  
640 Task1 Misses  
644 Task2 Misses  
644 Task1 Completes  
644 Task2 Executes  
645 Task3 Misses  
645 Task2 Completes  
645 Task3 Executes  
647 Task3 Completes  
647 Task1 Executes  
648 Task2 Executes  
649 Task2 Completes  
649 Task1 Executes  
650 Task1 Misses  
652 Task2 Executes  
653 Task2 Completes  
653 Task1 Executes  
655 Task3 Misses  
655 Task1 Completes

655 Task1 Executes  
656 Task2 Executes  
657 Task2 Completes  
657 Task3 Executes  
659 Task3 Completes  
659 Task1 Executes  
660 Task1 Misses  
664 Task2 Misses  
664 Task1 Completes  
664 Task2 Executes  
665 Task3 Misses  
665 Task2 Completes  
665 Task3 Executes  
667 Task3 Completes  
667 Task1 Executes  
668 Task2 Executes  
669 Task2 Completes  
669 Task1 Executes  
670 Task1 Misses  
672 Task2 Executes  
673 Task2 Completes  
673 Task1 Executes  
675 Task3 Misses  
675 Task1 Completes  
675 Task1 Executes  
676 Task2 Executes  
677 Task2 Completes  
677 Task3 Executes  
679 Task3 Completes  
679 Task1 Executes  
680 Task1 Misses  
684 Task2 Misses  
684 Task1 Completes  
684 Task2 Executes  
685 Task3 Misses  
685 Task2 Completes  
685 Task3 Executes  
687 Task3 Completes  
687 Task1 Executes  
688 Task2 Executes  
689 Task2 Completes  
689 Task1 Executes  
690 Task1 Misses  
692 Task2 Executes  
693 Task2 Completes  
693 Task1 Executes

695 Task3 Misses  
695 Task1 Completes  
695 Task1 Executes  
696 Task2 Executes  
697 Task2 Completes  
697 Task3 Executes  
699 Task3 Completes  
699 Task1 Executes  
700 Task1 Misses  
704 Task2 Misses  
704 Task1 Completes  
704 Task2 Executes  
705 Task3 Misses  
705 Task2 Completes  
705 Task3 Executes  
707 Task3 Completes  
707 Task1 Executes  
708 Task2 Executes  
709 Task2 Completes  
709 Task1 Executes  
710 Task1 Misses  
712 Task2 Executes  
713 Task2 Completes  
713 Task1 Executes  
715 Task3 Misses  
715 Task1 Completes  
715 Task1 Executes  
716 Task2 Executes  
717 Task2 Completes  
717 Task3 Executes  
719 Task3 Completes  
719 Task1 Executes  
720 Task1 Misses  
724 Task2 Misses  
724 Task1 Completes  
724 Task2 Executes  
725 Task3 Misses  
725 Task2 Completes  
725 Task3 Executes  
727 Task3 Completes  
727 Task1 Executes  
728 Task2 Executes  
729 Task2 Completes  
729 Task1 Executes  
730 Task1 Misses  
732 Task2 Executes

733 Task2 Completes  
733 Task1 Executes  
735 Task3 Misses  
735 Task1 Completes  
735 Task1 Executes  
736 Task2 Executes  
737 Task2 Completes  
737 Task3 Executes  
739 Task3 Completes  
739 Task1 Executes  
740 Task1 Misses  
744 Task2 Misses  
744 Task1 Completes  
744 Task2 Executes  
745 Task3 Misses  
745 Task2 Completes  
745 Task3 Executes  
747 Task3 Completes  
747 Task1 Executes  
748 Task2 Executes  
749 Task2 Completes  
749 Task1 Executes  
750 Task1 Misses  
752 Task2 Executes  
753 Task2 Completes  
753 Task1 Executes  
755 Task3 Misses  
755 Task1 Completes  
755 Task1 Executes  
756 Task2 Executes  
757 Task2 Completes  
757 Task3 Executes  
759 Task3 Completes  
759 Task1 Executes  
760 Task1 Misses  
764 Task2 Misses  
764 Task1 Completes  
764 Task2 Executes  
765 Task3 Misses  
765 Task2 Completes  
765 Task3 Executes  
767 Task3 Completes  
767 Task1 Executes  
768 Task2 Executes  
769 Task2 Completes  
769 Task1 Executes

770 Task1 Misses  
772 Task2 Executes  
773 Task2 Completes  
773 Task1 Executes  
775 Task3 Misses  
775 Task1 Completes  
775 Task1 Executes  
776 Task2 Executes  
777 Task2 Completes  
777 Task3 Executes  
779 Task3 Completes  
779 Task1 Executes  
780 Task1 Misses  
784 Task2 Misses  
784 Task1 Completes  
784 Task2 Executes  
785 Task3 Misses  
785 Task2 Completes  
785 Task3 Executes  
787 Task3 Completes  
787 Task1 Executes  
788 Task2 Executes  
789 Task2 Completes  
789 Task1 Executes  
790 Task1 Misses  
792 Task2 Executes  
793 Task2 Completes  
793 Task1 Executes  
795 Task3 Misses  
795 Task1 Completes  
795 Task1 Executes  
796 Task2 Executes  
797 Task2 Completes  
797 Task3 Executes  
799 Task3 Completes  
799 Task1 Executes  
800 Task1 Misses  
804 Task2 Misses  
804 Task1 Completes  
804 Task2 Executes  
805 Task3 Misses  
805 Task2 Completes  
805 Task3 Executes  
807 Task3 Completes  
807 Task1 Executes  
808 Task2 Executes



809 Task2 Completes  
809 Task1 Executes  
810 Task1 Misses  
812 Task2 Executes  
813 Task2 Completes  
813 Task1 Executes  
815 Task3 Misses  
815 Task1 Completes  
815 Task1 Executes  
816 Task2 Executes  
817 Task2 Completes  
817 Task3 Executes  
819 Task3 Completes  
819 Task1 Executes  
820 Task1 Misses  
824 Task2 Misses  
824 Task1 Completes  
824 Task2 Executes  
825 Task3 Misses  
825 Task2 Completes  
825 Task3 Executes  
827 Task3 Completes  
827 Task1 Executes  
828 Task2 Executes  
829 Task2 Completes  
829 Task1 Executes  
830 Task1 Misses  
832 Task2 Executes  
833 Task2 Completes  
833 Task1 Executes  
835 Task3 Misses  
835 Task1 Completes  
835 Task1 Executes  
836 Task2 Executes  
837 Task2 Completes  
837 Task3 Executes  
839 Task3 Completes  
839 Task1 Executes  
840 Task1 Misses  
844 Task2 Misses  
844 Task1 Completes  
844 Task2 Executes  
845 Task3 Misses  
845 Task2 Completes  
845 Task3 Executes  
847 Task3 Completes

847 Task1 Executes  
848 Task2 Executes  
849 Task2 Completes  
849 Task1 Executes  
850 Task1 Misses  
852 Task2 Executes  
853 Task2 Completes  
853 Task1 Executes  
855 Task3 Misses  
855 Task1 Completes  
855 Task1 Executes  
856 Task2 Executes  
857 Task2 Completes  
857 Task3 Executes  
859 Task3 Completes  
859 Task1 Executes  
860 Task1 Misses  
864 Task2 Misses  
864 Task1 Completes  
864 Task2 Executes  
865 Task3 Misses  
865 Task2 Completes  
865 Task3 Executes  
867 Task3 Completes  
867 Task1 Executes  
868 Task2 Executes  
869 Task2 Completes  
869 Task1 Executes  
870 Task1 Misses  
872 Task2 Executes  
873 Task2 Completes  
873 Task1 Executes  
875 Task3 Misses  
875 Task1 Completes  
875 Task1 Executes  
876 Task2 Executes  
877 Task2 Completes  
877 Task3 Executes  
879 Task3 Completes  
879 Task1 Executes  
880 Task1 Misses  
884 Task2 Misses  
884 Task1 Completes  
884 Task2 Executes  
885 Task3 Misses  
885 Task2 Completes

885 Task3 Executes  
887 Task3 Completes  
887 Task1 Executes  
888 Task2 Executes  
889 Task2 Completes  
889 Task1 Executes  
890 Task1 Misses  
892 Task2 Executes  
893 Task2 Completes  
893 Task1 Executes  
895 Task3 Misses  
895 Task1 Completes  
895 Task1 Executes  
896 Task2 Executes  
897 Task2 Completes  
897 Task3 Executes  
899 Task3 Completes  
899 Task1 Executes  
900 Task1 Misses  
904 Task2 Misses  
904 Task1 Completes  
904 Task2 Executes  
905 Task3 Misses  
905 Task2 Completes  
905 Task3 Executes  
907 Task3 Completes  
907 Task1 Executes  
908 Task2 Executes  
909 Task2 Completes  
909 Task1 Executes  
910 Task1 Misses  
912 Task2 Executes  
913 Task2 Completes  
913 Task1 Executes  
915 Task3 Misses  
915 Task1 Completes  
915 Task1 Executes  
916 Task2 Executes  
917 Task2 Completes  
917 Task3 Executes  
919 Task3 Completes  
919 Task1 Executes  
920 Task1 Misses  
924 Task2 Misses  
924 Task1 Completes  
924 Task2 Executes

925 Task3 Misses  
925 Task2 Completes  
925 Task3 Executes  
927 Task3 Completes  
927 Task1 Executes  
928 Task2 Executes  
929 Task2 Completes  
929 Task1 Executes  
930 Task1 Misses  
932 Task2 Executes  
933 Task2 Completes  
933 Task1 Executes  
935 Task3 Misses  
935 Task1 Completes  
935 Task1 Executes  
936 Task2 Executes  
937 Task2 Completes  
937 Task3 Executes  
939 Task3 Completes  
939 Task1 Executes  
940 Task1 Misses  
944 Task2 Misses  
944 Task1 Completes  
944 Task2 Executes  
945 Task3 Misses  
945 Task2 Completes  
945 Task3 Executes  
947 Task3 Completes  
947 Task1 Executes  
948 Task2 Executes  
949 Task2 Completes  
949 Task1 Executes  
950 Task1 Misses  
952 Task2 Executes  
953 Task2 Completes  
953 Task1 Executes  
955 Task3 Misses  
955 Task1 Completes  
955 Task1 Executes  
956 Task2 Executes  
957 Task2 Completes  
957 Task3 Executes  
959 Task3 Completes  
959 Task1 Executes  
960 Task1 Misses  
964 Task2 Misses

964 Task1 Completes  
964 Task2 Executes  
965 Task3 Misses  
965 Task2 Completes  
965 Task3 Executes  
967 Task3 Completes  
967 Task1 Executes  
968 Task2 Executes  
969 Task2 Completes  
969 Task1 Executes  
970 Task1 Misses  
972 Task2 Executes  
973 Task2 Completes  
973 Task1 Executes  
975 Task3 Misses  
975 Task1 Completes  
975 Task1 Executes  
976 Task2 Executes  
977 Task2 Completes  
977 Task3 Executes  
979 Task3 Completes  
979 Task1 Executes  
980 Task1 Misses  
984 Task2 Misses  
984 Task1 Completes  
984 Task2 Executes  
985 Task3 Misses  
985 Task2 Completes  
985 Task3 Executes  
987 Task3 Completes  
987 Task1 Executes  
988 Task2 Executes  
989 Task2 Completes  
989 Task1 Executes  
990 Task1 Misses  
992 Task2 Executes  
993 Task2 Completes  
993 Task1 Executes  
995 Task3 Misses  
995 Task1 Completes  
995 Task1 Executes  
996 Task2 Executes  
997 Task2 Completes  
997 Task3 Executes  
999 Task3 Completes  
999 Task1 Executes

Scheduling Finishes

#### 5.10 Task4

#### 5.11 RMS

1 Task2 Completes  
1 Task3 Executes  
3 Task3 Completes  
3 Task1 Executes  
4 Task2 Executes  
5 Task2 Completes  
5 Task3 Executes  
7 Task3 Completes  
7 Task1 Executes  
8 Task2 Executes  
9 Task2 Completes  
9 Task1 Executes  
10 Task1 Misses  
10 Task3 Executes  
12 Task3 Completes  
12 Task2 Executes  
13 Task2 Completes  
13 Task1 Executes  
15 Task3 Executes  
16 Task2 Executes  
17 Task2 Completes  
17 Task3 Executes  
18 Task3 Completes  
18 Task1 Executes  
20 Task1 Completes  
20 Task2 Executes  
21 Task2 Completes  
21 Task3 Executes  
23 Task3 Completes  
23 Task1 Executes  
24 Task2 Executes  
25 Task2 Completes  
25 Task3 Executes  
27 Task3 Completes  
27 Task1 Executes  
28 Task2 Executes  
29 Task2 Completes  
29 Task1 Executes  
30 Task1 Completes  
30 Task3 Executes

32 Task3 Completes  
32 Task2 Executes  
33 Task2 Completes  
33 Task1 Executes  
35 Task3 Executes  
36 Task2 Executes  
37 Task2 Completes  
37 Task3 Executes  
38 Task3 Completes  
38 Task1 Executes  
40 Task1 Completes  
40 Task2 Executes  
41 Task2 Completes  
41 Task3 Executes  
43 Task3 Completes  
43 Task1 Executes  
44 Task2 Executes  
45 Task2 Completes  
45 Task3 Executes  
47 Task3 Completes  
47 Task1 Executes  
48 Task2 Executes  
49 Task2 Completes  
49 Task1 Executes  
50 Task1 Completes  
50 Task3 Executes  
52 Task3 Completes  
52 Task2 Executes  
53 Task2 Completes  
53 Task1 Executes  
55 Task3 Executes  
56 Task2 Executes  
57 Task2 Completes  
57 Task3 Executes  
58 Task3 Completes  
58 Task1 Executes  
60 Task1 Completes  
60 Task2 Executes  
61 Task2 Completes  
61 Task3 Executes  
63 Task3 Completes  
63 Task1 Executes  
64 Task2 Executes  
65 Task2 Completes  
65 Task3 Executes  
67 Task3 Completes

67 Task1 Executes  
68 Task2 Executes  
69 Task2 Completes  
69 Task1 Executes  
70 Task1 Completes  
70 Task3 Executes  
72 Task3 Completes  
72 Task2 Executes  
73 Task2 Completes  
73 Task1 Executes  
75 Task3 Executes  
76 Task2 Executes  
77 Task2 Completes  
77 Task3 Executes  
78 Task3 Completes  
78 Task1 Executes  
80 Task1 Completes  
80 Task2 Executes  
81 Task2 Completes  
81 Task3 Executes  
83 Task3 Completes  
83 Task1 Executes  
84 Task2 Executes  
85 Task2 Completes  
85 Task3 Executes  
87 Task3 Completes  
87 Task1 Executes  
88 Task2 Executes  
89 Task2 Completes  
89 Task1 Executes  
90 Task1 Completes  
90 Task3 Executes  
92 Task3 Completes  
92 Task2 Executes  
93 Task2 Completes  
93 Task1 Executes  
95 Task3 Executes  
96 Task2 Executes  
97 Task2 Completes  
97 Task3 Executes  
98 Task3 Completes  
98 Task1 Executes  
100 Task1 Completes  
100 Task2 Executes  
101 Task2 Completes  
101 Task3 Executes



103 Task3 Completes  
103 Task1 Executes  
104 Task2 Executes  
105 Task2 Completes  
105 Task3 Executes  
107 Task3 Completes  
107 Task1 Executes  
108 Task2 Executes  
109 Task2 Completes  
109 Task1 Executes  
110 Task1 Completes  
110 Task3 Executes  
112 Task3 Completes  
112 Task2 Executes  
113 Task2 Completes  
113 Task1 Executes  
115 Task3 Executes  
116 Task2 Executes  
117 Task2 Completes  
117 Task3 Executes  
118 Task3 Completes  
118 Task1 Executes  
120 Task1 Completes  
120 Task2 Executes  
121 Task2 Completes  
121 Task3 Executes  
123 Task3 Completes  
123 Task1 Executes  
124 Task2 Executes  
125 Task2 Completes  
125 Task3 Executes  
127 Task3 Completes  
127 Task1 Executes  
128 Task2 Executes  
129 Task2 Completes  
129 Task1 Executes  
130 Task1 Completes  
130 Task3 Executes  
132 Task3 Completes  
132 Task2 Executes  
133 Task2 Completes  
133 Task1 Executes  
135 Task3 Executes  
136 Task2 Executes  
137 Task2 Completes  
137 Task3 Executes

138 Task3 Completes  
138 Task1 Executes  
140 Task1 Completes  
140 Task2 Executes  
141 Task2 Completes  
141 Task3 Executes  
143 Task3 Completes  
143 Task1 Executes  
144 Task2 Executes  
145 Task2 Completes  
145 Task3 Executes  
147 Task3 Completes  
147 Task1 Executes  
148 Task2 Executes  
149 Task2 Completes  
149 Task1 Executes  
150 Task1 Completes  
150 Task3 Executes  
152 Task3 Completes  
152 Task2 Executes  
153 Task2 Completes  
153 Task1 Executes  
155 Task3 Executes  
156 Task2 Executes  
157 Task2 Completes  
157 Task3 Executes  
158 Task3 Completes  
158 Task1 Executes  
160 Task1 Completes  
160 Task2 Executes  
161 Task2 Completes  
161 Task3 Executes  
163 Task3 Completes  
163 Task1 Executes  
164 Task2 Executes  
165 Task2 Completes  
165 Task3 Executes  
167 Task3 Completes  
167 Task1 Executes  
168 Task2 Executes  
169 Task2 Completes  
169 Task1 Executes  
170 Task1 Completes  
170 Task3 Executes  
172 Task3 Completes  
172 Task2 Executes

173 Task2 Completes  
173 Task1 Executes  
175 Task3 Executes  
176 Task2 Executes  
177 Task2 Completes  
177 Task3 Executes  
178 Task3 Completes  
178 Task1 Executes  
180 Task1 Completes  
180 Task2 Executes  
181 Task2 Completes  
181 Task3 Executes  
183 Task3 Completes  
183 Task1 Executes  
184 Task2 Executes  
185 Task2 Completes  
185 Task3 Executes  
187 Task3 Completes  
187 Task1 Executes  
188 Task2 Executes  
189 Task2 Completes  
189 Task1 Executes  
190 Task1 Completes  
190 Task3 Executes  
192 Task3 Completes  
192 Task2 Executes  
193 Task2 Completes  
193 Task1 Executes  
195 Task3 Executes  
196 Task2 Executes  
197 Task2 Completes  
197 Task3 Executes  
198 Task3 Completes  
198 Task1 Executes  
200 Task1 Completes  
200 Task2 Executes  
201 Task2 Completes  
201 Task3 Executes  
203 Task3 Completes  
203 Task1 Executes  
204 Task2 Executes  
205 Task2 Completes  
205 Task3 Executes  
207 Task3 Completes  
207 Task1 Executes  
208 Task2 Executes

209 Task2 Completes  
209 Task1 Executes  
210 Task1 Completes  
210 Task3 Executes  
212 Task3 Completes  
212 Task2 Executes  
213 Task2 Completes  
213 Task1 Executes  
215 Task3 Executes  
216 Task2 Executes  
217 Task2 Completes  
217 Task3 Executes  
218 Task3 Completes  
218 Task1 Executes  
220 Task1 Completes  
220 Task2 Executes  
221 Task2 Completes  
221 Task3 Executes  
223 Task3 Completes  
223 Task1 Executes  
224 Task2 Executes  
225 Task2 Completes  
225 Task3 Executes  
227 Task3 Completes  
227 Task1 Executes  
228 Task2 Executes  
229 Task2 Completes  
229 Task1 Executes  
230 Task1 Completes  
230 Task3 Executes  
232 Task3 Completes  
232 Task2 Executes  
233 Task2 Completes  
233 Task1 Executes  
235 Task3 Executes  
236 Task2 Executes  
237 Task2 Completes  
237 Task3 Executes  
238 Task3 Completes  
238 Task1 Executes  
240 Task1 Completes  
240 Task2 Executes  
241 Task2 Completes  
241 Task3 Executes  
243 Task3 Completes  
243 Task1 Executes

244 Task2 Executes  
245 Task2 Completes  
245 Task3 Executes  
247 Task3 Completes  
247 Task1 Executes  
248 Task2 Executes  
249 Task2 Completes  
249 Task1 Executes  
250 Task1 Completes  
250 Task3 Executes  
252 Task3 Completes  
252 Task2 Executes  
253 Task2 Completes  
253 Task1 Executes  
255 Task3 Executes  
256 Task2 Executes  
257 Task2 Completes  
257 Task3 Executes  
258 Task3 Completes  
258 Task1 Executes  
260 Task1 Completes  
260 Task2 Executes  
261 Task2 Completes  
261 Task3 Executes  
263 Task3 Completes  
263 Task1 Executes  
264 Task2 Executes  
265 Task2 Completes  
265 Task3 Executes  
267 Task3 Completes  
267 Task1 Executes  
268 Task2 Executes  
269 Task2 Completes  
269 Task1 Executes  
270 Task1 Completes  
270 Task3 Executes  
272 Task3 Completes  
272 Task2 Executes  
273 Task2 Completes  
273 Task1 Executes  
275 Task3 Executes  
276 Task2 Executes  
277 Task2 Completes  
277 Task3 Executes  
278 Task3 Completes  
278 Task1 Executes

280 Task1 Completes  
280 Task2 Executes  
281 Task2 Completes  
281 Task3 Executes  
283 Task3 Completes  
283 Task1 Executes  
284 Task2 Executes  
285 Task2 Completes  
285 Task3 Executes  
287 Task3 Completes  
287 Task1 Executes  
288 Task2 Executes  
289 Task2 Completes  
289 Task1 Executes  
290 Task1 Completes  
290 Task3 Executes  
292 Task3 Completes  
292 Task2 Executes  
293 Task2 Completes  
293 Task1 Executes  
295 Task3 Executes  
296 Task2 Executes  
297 Task2 Completes  
297 Task3 Executes  
298 Task3 Completes  
298 Task1 Executes  
300 Task1 Completes  
300 Task2 Executes  
301 Task2 Completes  
301 Task3 Executes  
303 Task3 Completes  
303 Task1 Executes  
304 Task2 Executes  
305 Task2 Completes  
305 Task3 Executes  
307 Task3 Completes  
307 Task1 Executes  
308 Task2 Executes  
309 Task2 Completes  
309 Task1 Executes  
310 Task1 Completes  
310 Task3 Executes  
312 Task3 Completes  
312 Task2 Executes  
313 Task2 Completes  
313 Task1 Executes

315 Task3 Executes  
316 Task2 Executes  
317 Task2 Completes  
317 Task3 Executes  
318 Task3 Completes  
318 Task1 Executes  
320 Task1 Completes  
320 Task2 Executes  
321 Task2 Completes  
321 Task3 Executes  
323 Task3 Completes  
323 Task1 Executes  
324 Task2 Executes  
325 Task2 Completes  
325 Task3 Executes  
327 Task3 Completes  
327 Task1 Executes  
328 Task2 Executes  
329 Task2 Completes  
329 Task1 Executes  
330 Task1 Completes  
330 Task3 Executes  
332 Task3 Completes  
332 Task2 Executes  
333 Task2 Completes  
333 Task1 Executes  
335 Task3 Executes  
336 Task2 Executes  
337 Task2 Completes  
337 Task3 Executes  
338 Task3 Completes  
338 Task1 Executes  
340 Task1 Completes  
340 Task2 Executes  
341 Task2 Completes  
341 Task3 Executes  
343 Task3 Completes  
343 Task1 Executes  
344 Task2 Executes  
345 Task2 Completes  
345 Task3 Executes  
347 Task3 Completes  
347 Task1 Executes  
348 Task2 Executes  
349 Task2 Completes  
349 Task1 Executes

350 Task1 Completes  
350 Task3 Executes  
352 Task3 Completes  
352 Task2 Executes  
353 Task2 Completes  
353 Task1 Executes  
355 Task3 Executes  
356 Task2 Executes  
357 Task2 Completes  
357 Task3 Executes  
358 Task3 Completes  
358 Task1 Executes  
360 Task1 Completes  
360 Task2 Executes  
361 Task2 Completes  
361 Task3 Executes  
363 Task3 Completes  
363 Task1 Executes  
364 Task2 Executes  
365 Task2 Completes  
365 Task3 Executes  
367 Task3 Completes  
367 Task1 Executes  
368 Task2 Executes  
369 Task2 Completes  
369 Task1 Executes  
370 Task1 Completes  
370 Task3 Executes  
372 Task3 Completes  
372 Task2 Executes  
373 Task2 Completes  
373 Task1 Executes  
375 Task3 Executes  
376 Task2 Executes  
377 Task2 Completes  
377 Task3 Executes  
378 Task3 Completes  
378 Task1 Executes  
380 Task1 Completes  
380 Task2 Executes  
381 Task2 Completes  
381 Task3 Executes  
383 Task3 Completes  
383 Task1 Executes  
384 Task2 Executes  
385 Task2 Completes



385 Task3 Executes  
387 Task3 Completes  
387 Task1 Executes  
388 Task2 Executes  
389 Task2 Completes  
389 Task1 Executes  
390 Task1 Completes  
390 Task3 Executes  
392 Task3 Completes  
392 Task2 Executes  
393 Task2 Completes  
393 Task1 Executes  
395 Task3 Executes  
396 Task2 Executes  
397 Task2 Completes  
397 Task3 Executes  
398 Task3 Completes  
398 Task1 Executes  
400 Task1 Completes  
400 Task2 Executes  
401 Task2 Completes  
401 Task3 Executes  
403 Task3 Completes  
403 Task1 Executes  
404 Task2 Executes  
405 Task2 Completes  
405 Task3 Executes  
407 Task3 Completes  
407 Task1 Executes  
408 Task2 Executes  
409 Task2 Completes  
409 Task1 Executes  
410 Task1 Completes  
410 Task3 Executes  
412 Task3 Completes  
412 Task2 Executes  
413 Task2 Completes  
413 Task1 Executes  
415 Task3 Executes  
416 Task2 Executes  
417 Task2 Completes  
417 Task3 Executes  
418 Task3 Completes  
418 Task1 Executes  
420 Task1 Completes  
420 Task2 Executes

421 Task2 Completes  
421 Task3 Executes  
423 Task3 Completes  
423 Task1 Executes  
424 Task2 Executes  
425 Task2 Completes  
425 Task3 Executes  
427 Task3 Completes  
427 Task1 Executes  
428 Task2 Executes  
429 Task2 Completes  
429 Task1 Executes  
430 Task1 Completes  
430 Task3 Executes  
432 Task3 Completes  
432 Task2 Executes  
433 Task2 Completes  
433 Task1 Executes  
435 Task3 Executes  
436 Task2 Executes  
437 Task2 Completes  
437 Task3 Executes  
438 Task3 Completes  
438 Task1 Executes  
440 Task1 Completes  
440 Task2 Executes  
441 Task2 Completes  
441 Task3 Executes  
443 Task3 Completes  
443 Task1 Executes  
444 Task2 Executes  
445 Task2 Completes  
445 Task3 Executes  
447 Task3 Completes  
447 Task1 Executes  
448 Task2 Executes  
449 Task2 Completes  
449 Task1 Executes  
450 Task1 Completes  
450 Task3 Executes  
452 Task3 Completes  
452 Task2 Executes  
453 Task2 Completes  
453 Task1 Executes  
455 Task3 Executes  
456 Task2 Executes

457 Task2 Completes  
457 Task3 Executes  
458 Task3 Completes  
458 Task1 Executes  
460 Task1 Completes  
460 Task2 Executes  
461 Task2 Completes  
461 Task3 Executes  
463 Task3 Completes  
463 Task1 Executes  
464 Task2 Executes  
465 Task2 Completes  
465 Task3 Executes  
467 Task3 Completes  
467 Task1 Executes  
468 Task2 Executes  
469 Task2 Completes  
469 Task1 Executes  
470 Task1 Completes  
470 Task3 Executes  
472 Task3 Completes  
472 Task2 Executes  
473 Task2 Completes  
473 Task1 Executes  
475 Task3 Executes  
476 Task2 Executes  
477 Task2 Completes  
477 Task3 Executes  
478 Task3 Completes  
478 Task1 Executes  
480 Task1 Completes  
480 Task2 Executes  
481 Task2 Completes  
481 Task3 Executes  
483 Task3 Completes  
483 Task1 Executes  
484 Task2 Executes  
485 Task2 Completes  
485 Task3 Executes  
487 Task3 Completes  
487 Task1 Executes  
488 Task2 Executes  
489 Task2 Completes  
489 Task1 Executes  
490 Task1 Completes  
490 Task3 Executes

492 Task3 Completes  
492 Task2 Executes  
493 Task2 Completes  
493 Task1 Executes  
495 Task3 Executes  
496 Task2 Executes  
497 Task2 Completes  
497 Task3 Executes  
498 Task3 Completes  
498 Task1 Executes  
500 Task1 Completes  
500 Task2 Executes  
501 Task2 Completes  
501 Task3 Executes  
503 Task3 Completes  
503 Task1 Executes  
504 Task2 Executes  
505 Task2 Completes  
505 Task3 Executes  
507 Task3 Completes  
507 Task1 Executes  
508 Task2 Executes  
509 Task2 Completes  
509 Task1 Executes  
510 Task1 Completes  
510 Task3 Executes  
512 Task3 Completes  
512 Task2 Executes  
513 Task2 Completes  
513 Task1 Executes  
515 Task3 Executes  
516 Task2 Executes  
517 Task2 Completes  
517 Task3 Executes  
518 Task3 Completes  
518 Task1 Executes  
520 Task1 Completes  
520 Task2 Executes  
521 Task2 Completes  
521 Task3 Executes  
523 Task3 Completes  
523 Task1 Executes  
524 Task2 Executes  
525 Task2 Completes  
525 Task3 Executes  
527 Task3 Completes

527 Task1 Executes  
528 Task2 Executes  
529 Task2 Completes  
529 Task1 Executes  
530 Task1 Completes  
530 Task3 Executes  
532 Task3 Completes  
532 Task2 Executes  
533 Task2 Completes  
533 Task1 Executes  
535 Task3 Executes  
536 Task2 Executes  
537 Task2 Completes  
537 Task3 Executes  
538 Task3 Completes  
538 Task1 Executes  
540 Task1 Completes  
540 Task2 Executes  
541 Task2 Completes  
541 Task3 Executes  
543 Task3 Completes  
543 Task1 Executes  
544 Task2 Executes  
545 Task2 Completes  
545 Task3 Executes  
547 Task3 Completes  
547 Task1 Executes  
548 Task2 Executes  
549 Task2 Completes  
549 Task1 Executes  
550 Task1 Completes  
550 Task3 Executes  
552 Task3 Completes  
552 Task2 Executes  
553 Task2 Completes  
553 Task1 Executes  
555 Task3 Executes  
556 Task2 Executes  
557 Task2 Completes  
557 Task3 Executes  
558 Task3 Completes  
558 Task1 Executes  
560 Task1 Completes  
560 Task2 Executes  
561 Task2 Completes  
561 Task3 Executes

563 Task3 Completes  
563 Task1 Executes  
564 Task2 Executes  
565 Task2 Completes  
565 Task3 Executes  
567 Task3 Completes  
567 Task1 Executes  
568 Task2 Executes  
569 Task2 Completes  
569 Task1 Executes  
570 Task1 Completes  
570 Task3 Executes  
572 Task3 Completes  
572 Task2 Executes  
573 Task2 Completes  
573 Task1 Executes  
575 Task3 Executes  
576 Task2 Executes  
577 Task2 Completes  
577 Task3 Executes  
578 Task3 Completes  
578 Task1 Executes  
580 Task1 Completes  
580 Task2 Executes  
581 Task2 Completes  
581 Task3 Executes  
583 Task3 Completes  
583 Task1 Executes  
584 Task2 Executes  
585 Task2 Completes  
585 Task3 Executes  
587 Task3 Completes  
587 Task1 Executes  
588 Task2 Executes  
589 Task2 Completes  
589 Task1 Executes  
590 Task1 Completes  
590 Task3 Executes  
592 Task3 Completes  
592 Task2 Executes  
593 Task2 Completes  
593 Task1 Executes  
595 Task3 Executes  
596 Task2 Executes  
597 Task2 Completes  
597 Task3 Executes

598 Task3 Completes  
598 Task1 Executes  
600 Task1 Completes  
600 Task2 Executes  
601 Task2 Completes  
601 Task3 Executes  
603 Task3 Completes  
603 Task1 Executes  
604 Task2 Executes  
605 Task2 Completes  
605 Task3 Executes  
607 Task3 Completes  
607 Task1 Executes  
608 Task2 Executes  
609 Task2 Completes  
609 Task1 Executes  
610 Task1 Completes  
610 Task3 Executes  
612 Task3 Completes  
612 Task2 Executes  
613 Task2 Completes  
613 Task1 Executes  
615 Task3 Executes  
616 Task2 Executes  
617 Task2 Completes  
617 Task3 Executes  
618 Task3 Completes  
618 Task1 Executes  
620 Task1 Completes  
620 Task2 Executes  
621 Task2 Completes  
621 Task3 Executes  
623 Task3 Completes  
623 Task1 Executes  
624 Task2 Executes  
625 Task2 Completes  
625 Task3 Executes  
627 Task3 Completes  
627 Task1 Executes  
628 Task2 Executes  
629 Task2 Completes  
629 Task1 Executes  
630 Task1 Completes  
630 Task3 Executes  
632 Task3 Completes  
632 Task2 Executes

633 Task2 Completes  
633 Task1 Executes  
635 Task3 Executes  
636 Task2 Executes  
637 Task2 Completes  
637 Task3 Executes  
638 Task3 Completes  
638 Task1 Executes  
640 Task1 Completes  
640 Task2 Executes  
641 Task2 Completes  
641 Task3 Executes  
643 Task3 Completes  
643 Task1 Executes  
644 Task2 Executes  
645 Task2 Completes  
645 Task3 Executes  
647 Task3 Completes  
647 Task1 Executes  
648 Task2 Executes  
649 Task2 Completes  
649 Task1 Executes  
650 Task1 Completes  
650 Task3 Executes  
652 Task3 Completes  
652 Task2 Executes  
653 Task2 Completes  
653 Task1 Executes  
655 Task3 Executes  
656 Task2 Executes  
657 Task2 Completes  
657 Task3 Executes  
658 Task3 Completes  
658 Task1 Executes  
660 Task1 Completes  
660 Task2 Executes  
661 Task2 Completes  
661 Task3 Executes  
663 Task3 Completes  
663 Task1 Executes  
664 Task2 Executes  
665 Task2 Completes  
665 Task3 Executes  
667 Task3 Completes  
667 Task1 Executes  
668 Task2 Executes



669 Task2 Completes  
669 Task1 Executes  
670 Task1 Completes  
670 Task3 Executes  
672 Task3 Completes  
672 Task2 Executes  
673 Task2 Completes  
673 Task1 Executes  
675 Task3 Executes  
676 Task2 Executes  
677 Task2 Completes  
677 Task3 Executes  
678 Task3 Completes  
678 Task1 Executes  
680 Task1 Completes  
680 Task2 Executes  
681 Task2 Completes  
681 Task3 Executes  
683 Task3 Completes  
683 Task1 Executes  
684 Task2 Executes  
685 Task2 Completes  
685 Task3 Executes  
687 Task3 Completes  
687 Task1 Executes  
688 Task2 Executes  
689 Task2 Completes  
689 Task1 Executes  
690 Task1 Completes  
690 Task3 Executes  
692 Task3 Completes  
692 Task2 Executes  
693 Task2 Completes  
693 Task1 Executes  
695 Task3 Executes  
696 Task2 Executes  
697 Task2 Completes  
697 Task3 Executes  
698 Task3 Completes  
698 Task1 Executes  
700 Task1 Completes  
700 Task2 Executes  
701 Task2 Completes  
701 Task3 Executes  
703 Task3 Completes  
703 Task1 Executes

704 Task2 Executes  
705 Task2 Completes  
705 Task3 Executes  
707 Task3 Completes  
707 Task1 Executes  
708 Task2 Executes  
709 Task2 Completes  
709 Task1 Executes  
710 Task1 Completes  
710 Task3 Executes  
712 Task3 Completes  
712 Task2 Executes  
713 Task2 Completes  
713 Task1 Executes  
715 Task3 Executes  
716 Task2 Executes  
717 Task2 Completes  
717 Task3 Executes  
718 Task3 Completes  
718 Task1 Executes  
720 Task1 Completes  
720 Task2 Executes  
721 Task2 Completes  
721 Task3 Executes  
723 Task3 Completes  
723 Task1 Executes  
724 Task2 Executes  
725 Task2 Completes  
725 Task3 Executes  
727 Task3 Completes  
727 Task1 Executes  
728 Task2 Executes  
729 Task2 Completes  
729 Task1 Executes  
730 Task1 Completes  
730 Task3 Executes  
732 Task3 Completes  
732 Task2 Executes  
733 Task2 Completes  
733 Task1 Executes  
735 Task3 Executes  
736 Task2 Executes  
737 Task2 Completes  
737 Task3 Executes  
738 Task3 Completes  
738 Task1 Executes

740 Task1 Completes  
740 Task2 Executes  
741 Task2 Completes  
741 Task3 Executes  
743 Task3 Completes  
743 Task1 Executes  
744 Task2 Executes  
745 Task2 Completes  
745 Task3 Executes  
747 Task3 Completes  
747 Task1 Executes  
748 Task2 Executes  
749 Task2 Completes  
749 Task1 Executes  
750 Task1 Completes  
750 Task3 Executes  
752 Task3 Completes  
752 Task2 Executes  
753 Task2 Completes  
753 Task1 Executes  
755 Task3 Executes  
756 Task2 Executes  
757 Task2 Completes  
757 Task3 Executes  
758 Task3 Completes  
758 Task1 Executes  
760 Task1 Completes  
760 Task2 Executes  
761 Task2 Completes  
761 Task3 Executes  
763 Task3 Completes  
763 Task1 Executes  
764 Task2 Executes  
765 Task2 Completes  
765 Task3 Executes  
767 Task3 Completes  
767 Task1 Executes  
768 Task2 Executes  
769 Task2 Completes  
769 Task1 Executes  
770 Task1 Completes  
770 Task3 Executes  
772 Task3 Completes  
772 Task2 Executes  
773 Task2 Completes  
773 Task1 Executes

775 Task3 Executes  
776 Task2 Executes  
777 Task2 Completes  
777 Task3 Executes  
778 Task3 Completes  
778 Task1 Executes  
780 Task1 Completes  
780 Task2 Executes  
781 Task2 Completes  
781 Task3 Executes  
783 Task3 Completes  
783 Task1 Executes  
784 Task2 Executes  
785 Task2 Completes  
785 Task3 Executes  
787 Task3 Completes  
787 Task1 Executes  
788 Task2 Executes  
789 Task2 Completes  
789 Task1 Executes  
790 Task1 Completes  
790 Task3 Executes  
792 Task3 Completes  
792 Task2 Executes  
793 Task2 Completes  
793 Task1 Executes  
795 Task3 Executes  
796 Task2 Executes  
797 Task2 Completes  
797 Task3 Executes  
798 Task3 Completes  
798 Task1 Executes  
800 Task1 Completes  
800 Task2 Executes  
801 Task2 Completes  
801 Task3 Executes  
803 Task3 Completes  
803 Task1 Executes  
804 Task2 Executes  
805 Task2 Completes  
805 Task3 Executes  
807 Task3 Completes  
807 Task1 Executes  
808 Task2 Executes  
809 Task2 Completes  
809 Task1 Executes

810 Task1 Completes  
810 Task3 Executes  
812 Task3 Completes  
812 Task2 Executes  
813 Task2 Completes  
813 Task1 Executes  
815 Task3 Executes  
816 Task2 Executes  
817 Task2 Completes  
817 Task3 Executes  
818 Task3 Completes  
818 Task1 Executes  
820 Task1 Completes  
820 Task2 Executes  
821 Task2 Completes  
821 Task3 Executes  
823 Task3 Completes  
823 Task1 Executes  
824 Task2 Executes  
825 Task2 Completes  
825 Task3 Executes  
827 Task3 Completes  
827 Task1 Executes  
828 Task2 Executes  
829 Task2 Completes  
829 Task1 Executes  
830 Task1 Completes  
830 Task3 Executes  
832 Task3 Completes  
832 Task2 Executes  
833 Task2 Completes  
833 Task1 Executes  
835 Task3 Executes  
836 Task2 Executes  
837 Task2 Completes  
837 Task3 Executes  
838 Task3 Completes  
838 Task1 Executes  
840 Task1 Completes  
840 Task2 Executes  
841 Task2 Completes  
841 Task3 Executes  
843 Task3 Completes  
843 Task1 Executes  
844 Task2 Executes  
845 Task2 Completes

845 Task3 Executes  
847 Task3 Completes  
847 Task1 Executes  
848 Task2 Executes  
849 Task2 Completes  
849 Task1 Executes  
850 Task1 Completes  
850 Task3 Executes  
852 Task3 Completes  
852 Task2 Executes  
853 Task2 Completes  
853 Task1 Executes  
855 Task3 Executes  
856 Task2 Executes  
857 Task2 Completes  
857 Task3 Executes  
858 Task3 Completes  
858 Task1 Executes  
860 Task1 Completes  
860 Task2 Executes  
861 Task2 Completes  
861 Task3 Executes  
863 Task3 Completes  
863 Task1 Executes  
864 Task2 Executes  
865 Task2 Completes  
865 Task3 Executes  
867 Task3 Completes  
867 Task1 Executes  
868 Task2 Executes  
869 Task2 Completes  
869 Task1 Executes  
870 Task1 Completes  
870 Task3 Executes  
872 Task3 Completes  
872 Task2 Executes  
873 Task2 Completes  
873 Task1 Executes  
875 Task3 Executes  
876 Task2 Executes  
877 Task2 Completes  
877 Task3 Executes  
878 Task3 Completes  
878 Task1 Executes  
880 Task1 Completes  
880 Task2 Executes

881 Task2 Completes  
881 Task3 Executes  
883 Task3 Completes  
883 Task1 Executes  
884 Task2 Executes  
885 Task2 Completes  
885 Task3 Executes  
887 Task3 Completes  
887 Task1 Executes  
888 Task2 Executes  
889 Task2 Completes  
889 Task1 Executes  
890 Task1 Completes  
890 Task3 Executes  
892 Task3 Completes  
892 Task2 Executes  
893 Task2 Completes  
893 Task1 Executes  
895 Task3 Executes  
896 Task2 Executes  
897 Task2 Completes  
897 Task3 Executes  
898 Task3 Completes  
898 Task1 Executes  
900 Task1 Completes  
900 Task2 Executes  
901 Task2 Completes  
901 Task3 Executes  
903 Task3 Completes  
903 Task1 Executes  
904 Task2 Executes  
905 Task2 Completes  
905 Task3 Executes  
907 Task3 Completes  
907 Task1 Executes  
908 Task2 Executes  
909 Task2 Completes  
909 Task1 Executes  
910 Task1 Completes  
910 Task3 Executes  
912 Task3 Completes  
912 Task2 Executes  
913 Task2 Completes  
913 Task1 Executes  
915 Task3 Executes  
916 Task2 Executes

917 Task2 Completes  
917 Task3 Executes  
918 Task3 Completes  
918 Task1 Executes  
920 Task1 Completes  
920 Task2 Executes  
921 Task2 Completes  
921 Task3 Executes  
923 Task3 Completes  
923 Task1 Executes  
924 Task2 Executes  
925 Task2 Completes  
925 Task3 Executes  
927 Task3 Completes  
927 Task1 Executes  
928 Task2 Executes  
929 Task2 Completes  
929 Task1 Executes  
930 Task1 Completes  
930 Task3 Executes  
932 Task3 Completes  
932 Task2 Executes  
933 Task2 Completes  
933 Task1 Executes  
935 Task3 Executes  
936 Task2 Executes  
937 Task2 Completes  
937 Task3 Executes  
938 Task3 Completes  
938 Task1 Executes  
940 Task1 Completes  
940 Task2 Executes  
941 Task2 Completes  
941 Task3 Executes  
943 Task3 Completes  
943 Task1 Executes  
944 Task2 Executes  
945 Task2 Completes  
945 Task3 Executes  
947 Task3 Completes  
947 Task1 Executes  
948 Task2 Executes  
949 Task2 Completes  
949 Task1 Executes  
950 Task1 Completes  
950 Task3 Executes



952 Task3 Completes  
952 Task2 Executes  
953 Task2 Completes  
953 Task1 Executes  
955 Task3 Executes  
956 Task2 Executes  
957 Task2 Completes  
957 Task3 Executes  
958 Task3 Completes  
958 Task1 Executes  
960 Task1 Completes  
960 Task2 Executes  
961 Task2 Completes  
961 Task3 Executes  
963 Task3 Completes  
963 Task1 Executes  
964 Task2 Executes  
965 Task2 Completes  
965 Task3 Executes  
967 Task3 Completes  
967 Task1 Executes  
968 Task2 Executes  
969 Task2 Completes  
969 Task1 Executes  
970 Task1 Completes  
970 Task3 Executes  
972 Task3 Completes  
972 Task2 Executes  
973 Task2 Completes  
973 Task1 Executes  
975 Task3 Executes  
976 Task2 Executes  
977 Task2 Completes  
977 Task3 Executes  
978 Task3 Completes  
978 Task1 Executes  
980 Task1 Completes  
980 Task2 Executes  
981 Task2 Completes  
981 Task3 Executes  
983 Task3 Completes  
983 Task1 Executes  
984 Task2 Executes  
985 Task2 Completes  
985 Task3 Executes  
987 Task3 Completes

987 Task1 Executes  
 988 Task2 Executes  
 989 Task2 Completes  
 989 Task1 Executes  
 990 Task1 Completes  
 990 Task3 Executes  
 992 Task3 Completes  
 992 Task2 Executes  
 993 Task2 Completes  
 993 Task1 Executes  
 995 Task3 Executes  
 996 Task2 Executes  
 997 Task2 Completes  
 997 Task3 Executes  
 998 Task3 Completes  
 998 Task1 Executes  
 Scheduling Finishes

## 5.12 EDF

1 Task2 Completes  
 1 Task3 Executes  
 3 Task3 Completes  
 3 Task1 Executes  
 4 Task2 Executes  
 5 Task2 Completes  
 5 Task3 Executes  
 7 Task3 Completes  
 7 Task1 Executes  
 8 Task2 Executes  
 9 Task2 Completes  
 9 Task1 Executes  
 10 Task1 Misses  
 12 Task2 Executes  
 13 Task2 Completes  
 13 Task1 Executes  
 15 Task3 Misses  
 15 Task1 Completes  
 15 Task1 Executes  
 16 Task2 Executes  
 17 Task2 Completes  
 17 Task3 Executes  
 19 Task3 Completes  
 19 Task1 Executes  
 20 Task1 Misses  
 24 Task2 Misses

24 Task1 Completes  
24 Task2 Executes  
25 Task3 Misses  
25 Task2 Completes  
25 Task3 Executes  
27 Task3 Completes  
27 Task1 Executes  
28 Task2 Executes  
29 Task2 Completes  
29 Task1 Executes  
30 Task1 Misses  
32 Task2 Executes  
33 Task2 Completes  
33 Task1 Executes  
35 Task3 Misses  
35 Task1 Completes  
35 Task1 Executes  
36 Task2 Executes  
37 Task2 Completes  
37 Task3 Executes  
39 Task3 Completes  
39 Task1 Executes  
40 Task1 Misses  
44 Task2 Misses  
44 Task1 Completes  
44 Task2 Executes  
45 Task3 Misses  
45 Task2 Completes  
45 Task3 Executes  
47 Task3 Completes  
47 Task1 Executes  
48 Task2 Executes  
49 Task2 Completes  
49 Task1 Executes  
50 Task1 Misses  
52 Task2 Executes  
53 Task2 Completes  
53 Task1 Executes  
55 Task3 Misses  
55 Task1 Completes  
55 Task1 Executes  
56 Task2 Executes  
57 Task2 Completes  
57 Task3 Executes  
59 Task3 Completes  
59 Task1 Executes

60 Task1 Misses  
64 Task2 Misses  
64 Task1 Completes  
64 Task2 Executes  
65 Task3 Misses  
65 Task2 Completes  
65 Task3 Executes  
67 Task3 Completes  
67 Task1 Executes  
68 Task2 Executes  
69 Task2 Completes  
69 Task1 Executes  
70 Task1 Misses  
72 Task2 Executes  
73 Task2 Completes  
73 Task1 Executes  
75 Task3 Misses  
75 Task1 Completes  
75 Task1 Executes  
76 Task2 Executes  
77 Task2 Completes  
77 Task3 Executes  
79 Task3 Completes  
79 Task1 Executes  
80 Task1 Misses  
84 Task2 Misses  
84 Task1 Completes  
84 Task2 Executes  
85 Task3 Misses  
85 Task2 Completes  
85 Task3 Executes  
87 Task3 Completes  
87 Task1 Executes  
88 Task2 Executes  
89 Task2 Completes  
89 Task1 Executes  
90 Task1 Misses  
92 Task2 Executes  
93 Task2 Completes  
93 Task1 Executes  
95 Task3 Misses  
95 Task1 Completes  
95 Task1 Executes  
96 Task2 Executes  
97 Task2 Completes  
97 Task3 Executes

99 Task3 Completes  
99 Task1 Executes  
100 Task1 Misses  
104 Task2 Misses  
104 Task1 Completes  
104 Task2 Executes  
105 Task3 Misses  
105 Task2 Completes  
105 Task3 Executes  
107 Task3 Completes  
107 Task1 Executes  
108 Task2 Executes  
109 Task2 Completes  
109 Task1 Executes  
110 Task1 Misses  
112 Task2 Executes  
113 Task2 Completes  
113 Task1 Executes  
115 Task3 Misses  
115 Task1 Completes  
115 Task1 Executes  
116 Task2 Executes  
117 Task2 Completes  
117 Task3 Executes  
119 Task3 Completes  
119 Task1 Executes  
120 Task1 Misses  
124 Task2 Misses  
124 Task1 Completes  
124 Task2 Executes  
125 Task3 Misses  
125 Task2 Completes  
125 Task3 Executes  
127 Task3 Completes  
127 Task1 Executes  
128 Task2 Executes  
129 Task2 Completes  
129 Task1 Executes  
130 Task1 Misses  
132 Task2 Executes  
133 Task2 Completes  
133 Task1 Executes  
135 Task3 Misses  
135 Task1 Completes  
135 Task1 Executes  
136 Task2 Executes

137 Task2 Completes  
137 Task3 Executes  
139 Task3 Completes  
139 Task1 Executes  
140 Task1 Misses  
144 Task2 Misses  
144 Task1 Completes  
144 Task2 Executes  
145 Task3 Misses  
145 Task2 Completes  
145 Task3 Executes  
147 Task3 Completes  
147 Task1 Executes  
148 Task2 Executes  
149 Task2 Completes  
149 Task1 Executes  
150 Task1 Misses  
152 Task2 Executes  
153 Task2 Completes  
153 Task1 Executes  
155 Task3 Misses  
155 Task1 Completes  
155 Task1 Executes  
156 Task2 Executes  
157 Task2 Completes  
157 Task3 Executes  
159 Task3 Completes  
159 Task1 Executes  
160 Task1 Misses  
164 Task2 Misses  
164 Task1 Completes  
164 Task2 Executes  
165 Task3 Misses  
165 Task2 Completes  
165 Task3 Executes  
167 Task3 Completes  
167 Task1 Executes  
168 Task2 Executes  
169 Task2 Completes  
169 Task1 Executes  
170 Task1 Misses  
172 Task2 Executes  
173 Task2 Completes  
173 Task1 Executes  
175 Task3 Misses  
175 Task1 Completes

175 Task1 Executes  
176 Task2 Executes  
177 Task2 Completes  
177 Task3 Executes  
179 Task3 Completes  
179 Task1 Executes  
180 Task1 Misses  
184 Task2 Misses  
184 Task1 Completes  
184 Task2 Executes  
185 Task3 Misses  
185 Task2 Completes  
185 Task3 Executes  
187 Task3 Completes  
187 Task1 Executes  
188 Task2 Executes  
189 Task2 Completes  
189 Task1 Executes  
190 Task1 Misses  
192 Task2 Executes  
193 Task2 Completes  
193 Task1 Executes  
195 Task3 Misses  
195 Task1 Completes  
195 Task1 Executes  
196 Task2 Executes  
197 Task2 Completes  
197 Task3 Executes  
199 Task3 Completes  
199 Task1 Executes  
200 Task1 Misses  
204 Task2 Misses  
204 Task1 Completes  
204 Task2 Executes  
205 Task3 Misses  
205 Task2 Completes  
205 Task3 Executes  
207 Task3 Completes  
207 Task1 Executes  
208 Task2 Executes  
209 Task2 Completes  
209 Task1 Executes  
210 Task1 Misses  
212 Task2 Executes  
213 Task2 Completes  
213 Task1 Executes

215 Task3 Misses  
215 Task1 Completes  
215 Task1 Executes  
216 Task2 Executes  
217 Task2 Completes  
217 Task3 Executes  
219 Task3 Completes  
219 Task1 Executes  
220 Task1 Misses  
224 Task2 Misses  
224 Task1 Completes  
224 Task2 Executes  
225 Task3 Misses  
225 Task2 Completes  
225 Task3 Executes  
227 Task3 Completes  
227 Task1 Executes  
228 Task2 Executes  
229 Task2 Completes  
229 Task1 Executes  
230 Task1 Misses  
232 Task2 Executes  
233 Task2 Completes  
233 Task1 Executes  
235 Task3 Misses  
235 Task1 Completes  
235 Task1 Executes  
236 Task2 Executes  
237 Task2 Completes  
237 Task3 Executes  
239 Task3 Completes  
239 Task1 Executes  
240 Task1 Misses  
244 Task2 Misses  
244 Task1 Completes  
244 Task2 Executes  
245 Task3 Misses  
245 Task2 Completes  
245 Task3 Executes  
247 Task3 Completes  
247 Task1 Executes  
248 Task2 Executes  
249 Task2 Completes  
249 Task1 Executes  
250 Task1 Misses  
252 Task2 Executes



253 Task2 Completes  
253 Task1 Executes  
255 Task3 Misses  
255 Task1 Completes  
255 Task1 Executes  
256 Task2 Executes  
257 Task2 Completes  
257 Task3 Executes  
259 Task3 Completes  
259 Task1 Executes  
260 Task1 Misses  
264 Task2 Misses  
264 Task1 Completes  
264 Task2 Executes  
265 Task3 Misses  
265 Task2 Completes  
265 Task3 Executes  
267 Task3 Completes  
267 Task1 Executes  
268 Task2 Executes  
269 Task2 Completes  
269 Task1 Executes  
270 Task1 Misses  
272 Task2 Executes  
273 Task2 Completes  
273 Task1 Executes  
275 Task3 Misses  
275 Task1 Completes  
275 Task1 Executes  
276 Task2 Executes  
277 Task2 Completes  
277 Task3 Executes  
279 Task3 Completes  
279 Task1 Executes  
280 Task1 Misses  
284 Task2 Misses  
284 Task1 Completes  
284 Task2 Executes  
285 Task3 Misses  
285 Task2 Completes  
285 Task3 Executes  
287 Task3 Completes  
287 Task1 Executes  
288 Task2 Executes  
289 Task2 Completes  
289 Task1 Executes

290 Task1 Misses  
292 Task2 Executes  
293 Task2 Completes  
293 Task1 Executes  
295 Task3 Misses  
295 Task1 Completes  
295 Task1 Executes  
296 Task2 Executes  
297 Task2 Completes  
297 Task3 Executes  
299 Task3 Completes  
299 Task1 Executes  
300 Task1 Misses  
304 Task2 Misses  
304 Task1 Completes  
304 Task2 Executes  
305 Task3 Misses  
305 Task2 Completes  
305 Task3 Executes  
307 Task3 Completes  
307 Task1 Executes  
308 Task2 Executes  
309 Task2 Completes  
309 Task1 Executes  
310 Task1 Misses  
312 Task2 Executes  
313 Task2 Completes  
313 Task1 Executes  
315 Task3 Misses  
315 Task1 Completes  
315 Task1 Executes  
316 Task2 Executes  
317 Task2 Completes  
317 Task3 Executes  
319 Task3 Completes  
319 Task1 Executes  
320 Task1 Misses  
324 Task2 Misses  
324 Task1 Completes  
324 Task2 Executes  
325 Task3 Misses  
325 Task2 Completes  
325 Task3 Executes  
327 Task3 Completes  
327 Task1 Executes  
328 Task2 Executes

329 Task2 Completes  
329 Task1 Executes  
330 Task1 Misses  
332 Task2 Executes  
333 Task2 Completes  
333 Task1 Executes  
335 Task3 Misses  
335 Task1 Completes  
335 Task1 Executes  
336 Task2 Executes  
337 Task2 Completes  
337 Task3 Executes  
339 Task3 Completes  
339 Task1 Executes  
340 Task1 Misses  
344 Task2 Misses  
344 Task1 Completes  
344 Task2 Executes  
345 Task3 Misses  
345 Task2 Completes  
345 Task3 Executes  
347 Task3 Completes  
347 Task1 Executes  
348 Task2 Executes  
349 Task2 Completes  
349 Task1 Executes  
350 Task1 Misses  
352 Task2 Executes  
353 Task2 Completes  
353 Task1 Executes  
355 Task3 Misses  
355 Task1 Completes  
355 Task1 Executes  
356 Task2 Executes  
357 Task2 Completes  
357 Task3 Executes  
359 Task3 Completes  
359 Task1 Executes  
360 Task1 Misses  
364 Task2 Misses  
364 Task1 Completes  
364 Task2 Executes  
365 Task3 Misses  
365 Task2 Completes  
365 Task3 Executes  
367 Task3 Completes

367 Task1 Executes  
368 Task2 Executes  
369 Task2 Completes  
369 Task1 Executes  
370 Task1 Misses  
372 Task2 Executes  
373 Task2 Completes  
373 Task1 Executes  
375 Task3 Misses  
375 Task1 Completes  
375 Task1 Executes  
376 Task2 Executes  
377 Task2 Completes  
377 Task3 Executes  
379 Task3 Completes  
379 Task1 Executes  
380 Task1 Misses  
384 Task2 Misses  
384 Task1 Completes  
384 Task2 Executes  
385 Task3 Misses  
385 Task2 Completes  
385 Task3 Executes  
387 Task3 Completes  
387 Task1 Executes  
388 Task2 Executes  
389 Task2 Completes  
389 Task1 Executes  
390 Task1 Misses  
392 Task2 Executes  
393 Task2 Completes  
393 Task1 Executes  
395 Task3 Misses  
395 Task1 Completes  
395 Task1 Executes  
396 Task2 Executes  
397 Task2 Completes  
397 Task3 Executes  
399 Task3 Completes  
399 Task1 Executes  
400 Task1 Misses  
404 Task2 Misses  
404 Task1 Completes  
404 Task2 Executes  
405 Task3 Misses  
405 Task2 Completes

405 Task3 Executes  
407 Task3 Completes  
407 Task1 Executes  
408 Task2 Executes  
409 Task2 Completes  
409 Task1 Executes  
410 Task1 Misses  
412 Task2 Executes  
413 Task2 Completes  
413 Task1 Executes  
415 Task3 Misses  
415 Task1 Completes  
415 Task1 Executes  
416 Task2 Executes  
417 Task2 Completes  
417 Task3 Executes  
419 Task3 Completes  
419 Task1 Executes  
420 Task1 Misses  
424 Task2 Misses  
424 Task1 Completes  
424 Task2 Executes  
425 Task3 Misses  
425 Task2 Completes  
425 Task3 Executes  
427 Task3 Completes  
427 Task1 Executes  
428 Task2 Executes  
429 Task2 Completes  
429 Task1 Executes  
430 Task1 Misses  
432 Task2 Executes  
433 Task2 Completes  
433 Task1 Executes  
435 Task3 Misses  
435 Task1 Completes  
435 Task1 Executes  
436 Task2 Executes  
437 Task2 Completes  
437 Task3 Executes  
439 Task3 Completes  
439 Task1 Executes  
440 Task1 Misses  
444 Task2 Misses  
444 Task1 Completes  
444 Task2 Executes

445 Task3 Misses  
445 Task2 Completes  
445 Task3 Executes  
447 Task3 Completes  
447 Task1 Executes  
448 Task2 Executes  
449 Task2 Completes  
449 Task1 Executes  
450 Task1 Misses  
452 Task2 Executes  
453 Task2 Completes  
453 Task1 Executes  
455 Task3 Misses  
455 Task1 Completes  
455 Task1 Executes  
456 Task2 Executes  
457 Task2 Completes  
457 Task3 Executes  
459 Task3 Completes  
459 Task1 Executes  
460 Task1 Misses  
464 Task2 Misses  
464 Task1 Completes  
464 Task2 Executes  
465 Task3 Misses  
465 Task2 Completes  
465 Task3 Executes  
467 Task3 Completes  
467 Task1 Executes  
468 Task2 Executes  
469 Task2 Completes  
469 Task1 Executes  
470 Task1 Misses  
472 Task2 Executes  
473 Task2 Completes  
473 Task1 Executes  
475 Task3 Misses  
475 Task1 Completes  
475 Task1 Executes  
476 Task2 Executes  
477 Task2 Completes  
477 Task3 Executes  
479 Task3 Completes  
479 Task1 Executes  
480 Task1 Misses  
484 Task2 Misses

484 Task1 Completes  
484 Task2 Executes  
485 Task3 Misses  
485 Task2 Completes  
485 Task3 Executes  
487 Task3 Completes  
487 Task1 Executes  
488 Task2 Executes  
489 Task2 Completes  
489 Task1 Executes  
490 Task1 Misses  
492 Task2 Executes  
493 Task2 Completes  
493 Task1 Executes  
495 Task3 Misses  
495 Task1 Completes  
495 Task1 Executes  
496 Task2 Executes  
497 Task2 Completes  
497 Task3 Executes  
499 Task3 Completes  
499 Task1 Executes  
500 Task1 Misses  
504 Task2 Misses  
504 Task1 Completes  
504 Task2 Executes  
505 Task3 Misses  
505 Task2 Completes  
505 Task3 Executes  
507 Task3 Completes  
507 Task1 Executes  
508 Task2 Executes  
509 Task2 Completes  
509 Task1 Executes  
510 Task1 Misses  
512 Task2 Executes  
513 Task2 Completes  
513 Task1 Executes  
515 Task3 Misses  
515 Task1 Completes  
515 Task1 Executes  
516 Task2 Executes  
517 Task2 Completes  
517 Task3 Executes  
519 Task3 Completes  
519 Task1 Executes

520 Task1 Misses  
524 Task2 Misses  
524 Task1 Completes  
524 Task2 Executes  
525 Task3 Misses  
525 Task2 Completes  
525 Task3 Executes  
527 Task3 Completes  
527 Task1 Executes  
528 Task2 Executes  
529 Task2 Completes  
529 Task1 Executes  
530 Task1 Misses  
532 Task2 Executes  
533 Task2 Completes  
533 Task1 Executes  
535 Task3 Misses  
535 Task1 Completes  
535 Task1 Executes  
536 Task2 Executes  
537 Task2 Completes  
537 Task3 Executes  
539 Task3 Completes  
539 Task1 Executes  
540 Task1 Misses  
544 Task2 Misses  
544 Task1 Completes  
544 Task2 Executes  
545 Task3 Misses  
545 Task2 Completes  
545 Task3 Executes  
547 Task3 Completes  
547 Task1 Executes  
548 Task2 Executes  
549 Task2 Completes  
549 Task1 Executes  
550 Task1 Misses  
552 Task2 Executes  
553 Task2 Completes  
553 Task1 Executes  
555 Task3 Misses  
555 Task1 Completes  
555 Task1 Executes  
556 Task2 Executes  
557 Task2 Completes  
557 Task3 Executes



559 Task3 Completes  
559 Task1 Executes  
560 Task1 Misses  
564 Task2 Misses  
564 Task1 Completes  
564 Task2 Executes  
565 Task3 Misses  
565 Task2 Completes  
565 Task3 Executes  
567 Task3 Completes  
567 Task1 Executes  
568 Task2 Executes  
569 Task2 Completes  
569 Task1 Executes  
570 Task1 Misses  
572 Task2 Executes  
573 Task2 Completes  
573 Task1 Executes  
575 Task3 Misses  
575 Task1 Completes  
575 Task1 Executes  
576 Task2 Executes  
577 Task2 Completes  
577 Task3 Executes  
579 Task3 Completes  
579 Task1 Executes  
580 Task1 Misses  
584 Task2 Misses  
584 Task1 Completes  
584 Task2 Executes  
585 Task3 Misses  
585 Task2 Completes  
585 Task3 Executes  
587 Task3 Completes  
587 Task1 Executes  
588 Task2 Executes  
589 Task2 Completes  
589 Task1 Executes  
590 Task1 Misses  
592 Task2 Executes  
593 Task2 Completes  
593 Task1 Executes  
595 Task3 Misses  
595 Task1 Completes  
595 Task1 Executes  
596 Task2 Executes

597 Task2 Completes  
597 Task3 Executes  
599 Task3 Completes  
599 Task1 Executes  
600 Task1 Misses  
604 Task2 Misses  
604 Task1 Completes  
604 Task2 Executes  
605 Task3 Misses  
605 Task2 Completes  
605 Task3 Executes  
607 Task3 Completes  
607 Task1 Executes  
608 Task2 Executes  
609 Task2 Completes  
609 Task1 Executes  
610 Task1 Misses  
612 Task2 Executes  
613 Task2 Completes  
613 Task1 Executes  
615 Task3 Misses  
615 Task1 Completes  
615 Task1 Executes  
616 Task2 Executes  
617 Task2 Completes  
617 Task3 Executes  
619 Task3 Completes  
619 Task1 Executes  
620 Task1 Misses  
624 Task2 Misses  
624 Task1 Completes  
624 Task2 Executes  
625 Task3 Misses  
625 Task2 Completes  
625 Task3 Executes  
627 Task3 Completes  
627 Task1 Executes  
628 Task2 Executes  
629 Task2 Completes  
629 Task1 Executes  
630 Task1 Misses  
632 Task2 Executes  
633 Task2 Completes  
633 Task1 Executes  
635 Task3 Misses  
635 Task1 Completes

635 Task1 Executes  
636 Task2 Executes  
637 Task2 Completes  
637 Task3 Executes  
639 Task3 Completes  
639 Task1 Executes  
640 Task1 Misses  
644 Task2 Misses  
644 Task1 Completes  
644 Task2 Executes  
645 Task3 Misses  
645 Task2 Completes  
645 Task3 Executes  
647 Task3 Completes  
647 Task1 Executes  
648 Task2 Executes  
649 Task2 Completes  
649 Task1 Executes  
650 Task1 Misses  
652 Task2 Executes  
653 Task2 Completes  
653 Task1 Executes  
655 Task3 Misses  
655 Task1 Completes  
655 Task1 Executes  
656 Task2 Executes  
657 Task2 Completes  
657 Task3 Executes  
659 Task3 Completes  
659 Task1 Executes  
660 Task1 Misses  
664 Task2 Misses  
664 Task1 Completes  
664 Task2 Executes  
665 Task3 Misses  
665 Task2 Completes  
665 Task3 Executes  
667 Task3 Completes  
667 Task1 Executes  
668 Task2 Executes  
669 Task2 Completes  
669 Task1 Executes  
670 Task1 Misses  
672 Task2 Executes  
673 Task2 Completes  
673 Task1 Executes

675 Task3 Misses  
675 Task1 Completes  
675 Task1 Executes  
676 Task2 Executes  
677 Task2 Completes  
677 Task3 Executes  
679 Task3 Completes  
679 Task1 Executes  
680 Task1 Misses  
684 Task2 Misses  
684 Task1 Completes  
684 Task2 Executes  
685 Task3 Misses  
685 Task2 Completes  
685 Task3 Executes  
687 Task3 Completes  
687 Task1 Executes  
688 Task2 Executes  
689 Task2 Completes  
689 Task1 Executes  
690 Task1 Misses  
692 Task2 Executes  
693 Task2 Completes  
693 Task1 Executes  
695 Task3 Misses  
695 Task1 Completes  
695 Task1 Executes  
696 Task2 Executes  
697 Task2 Completes  
697 Task3 Executes  
699 Task3 Completes  
699 Task1 Executes  
700 Task1 Misses  
704 Task2 Misses  
704 Task1 Completes  
704 Task2 Executes  
705 Task3 Misses  
705 Task2 Completes  
705 Task3 Executes  
707 Task3 Completes  
707 Task1 Executes  
708 Task2 Executes  
709 Task2 Completes  
709 Task1 Executes  
710 Task1 Misses  
712 Task2 Executes

713 Task2 Completes  
713 Task1 Executes  
715 Task3 Misses  
715 Task1 Completes  
715 Task1 Executes  
716 Task2 Executes  
717 Task2 Completes  
717 Task3 Executes  
719 Task3 Completes  
719 Task1 Executes  
720 Task1 Misses  
724 Task2 Misses  
724 Task1 Completes  
724 Task2 Executes  
725 Task3 Misses  
725 Task2 Completes  
725 Task3 Executes  
727 Task3 Completes  
727 Task1 Executes  
728 Task2 Executes  
729 Task2 Completes  
729 Task1 Executes  
730 Task1 Misses  
732 Task2 Executes  
733 Task2 Completes  
733 Task1 Executes  
735 Task3 Misses  
735 Task1 Completes  
735 Task1 Executes  
736 Task2 Executes  
737 Task2 Completes  
737 Task3 Executes  
739 Task3 Completes  
739 Task1 Executes  
740 Task1 Misses  
744 Task2 Misses  
744 Task1 Completes  
744 Task2 Executes  
745 Task3 Misses  
745 Task2 Completes  
745 Task3 Executes  
747 Task3 Completes  
747 Task1 Executes  
748 Task2 Executes  
749 Task2 Completes  
749 Task1 Executes

750 Task1 Misses  
752 Task2 Executes  
753 Task2 Completes  
753 Task1 Executes  
755 Task3 Misses  
755 Task1 Completes  
755 Task1 Executes  
756 Task2 Executes  
757 Task2 Completes  
757 Task3 Executes  
759 Task3 Completes  
759 Task1 Executes  
760 Task1 Misses  
764 Task2 Misses  
764 Task1 Completes  
764 Task2 Executes  
765 Task3 Misses  
765 Task2 Completes  
765 Task3 Executes  
767 Task3 Completes  
767 Task1 Executes  
768 Task2 Executes  
769 Task2 Completes  
769 Task1 Executes  
770 Task1 Misses  
772 Task2 Executes  
773 Task2 Completes  
773 Task1 Executes  
775 Task3 Misses  
775 Task1 Completes  
775 Task1 Executes  
776 Task2 Executes  
777 Task2 Completes  
777 Task3 Executes  
779 Task3 Completes  
779 Task1 Executes  
780 Task1 Misses  
784 Task2 Misses  
784 Task1 Completes  
784 Task2 Executes  
785 Task3 Misses  
785 Task2 Completes  
785 Task3 Executes  
787 Task3 Completes  
787 Task1 Executes  
788 Task2 Executes

789 Task2 Completes  
789 Task1 Executes  
790 Task1 Misses  
792 Task2 Executes  
793 Task2 Completes  
793 Task1 Executes  
795 Task3 Misses  
795 Task1 Completes  
795 Task1 Executes  
796 Task2 Executes  
797 Task2 Completes  
797 Task3 Executes  
799 Task3 Completes  
799 Task1 Executes  
800 Task1 Misses  
804 Task2 Misses  
804 Task1 Completes  
804 Task2 Executes  
805 Task3 Misses  
805 Task2 Completes  
805 Task3 Executes  
807 Task3 Completes  
807 Task1 Executes  
808 Task2 Executes  
809 Task2 Completes  
809 Task1 Executes  
810 Task1 Misses  
812 Task2 Executes  
813 Task2 Completes  
813 Task1 Executes  
815 Task3 Misses  
815 Task1 Completes  
815 Task1 Executes  
816 Task2 Executes  
817 Task2 Completes  
817 Task3 Executes  
819 Task3 Completes  
819 Task1 Executes  
820 Task1 Misses  
824 Task2 Misses  
824 Task1 Completes  
824 Task2 Executes  
825 Task3 Misses  
825 Task2 Completes  
825 Task3 Executes  
827 Task3 Completes

827 Task1 Executes  
828 Task2 Executes  
829 Task2 Completes  
829 Task1 Executes  
830 Task1 Misses  
832 Task2 Executes  
833 Task2 Completes  
833 Task1 Executes  
835 Task3 Misses  
835 Task1 Completes  
835 Task1 Executes  
836 Task2 Executes  
837 Task2 Completes  
837 Task3 Executes  
839 Task3 Completes  
839 Task1 Executes  
840 Task1 Misses  
844 Task2 Misses  
844 Task1 Completes  
844 Task2 Executes  
845 Task3 Misses  
845 Task2 Completes  
845 Task3 Executes  
847 Task3 Completes  
847 Task1 Executes  
848 Task2 Executes  
849 Task2 Completes  
849 Task1 Executes  
850 Task1 Misses  
852 Task2 Executes  
853 Task2 Completes  
853 Task1 Executes  
855 Task3 Misses  
855 Task1 Completes  
855 Task1 Executes  
856 Task2 Executes  
857 Task2 Completes  
857 Task3 Executes  
859 Task3 Completes  
859 Task1 Executes  
860 Task1 Misses  
864 Task2 Misses  
864 Task1 Completes  
864 Task2 Executes  
865 Task3 Misses  
865 Task2 Completes



865 Task3 Executes  
867 Task3 Completes  
867 Task1 Executes  
868 Task2 Executes  
869 Task2 Completes  
869 Task1 Executes  
870 Task1 Misses  
872 Task2 Executes  
873 Task2 Completes  
873 Task1 Executes  
875 Task3 Misses  
875 Task1 Completes  
875 Task1 Executes  
876 Task2 Executes  
877 Task2 Completes  
877 Task3 Executes  
879 Task3 Completes  
879 Task1 Executes  
880 Task1 Misses  
884 Task2 Misses  
884 Task1 Completes  
884 Task2 Executes  
885 Task3 Misses  
885 Task2 Completes  
885 Task3 Executes  
887 Task3 Completes  
887 Task1 Executes  
888 Task2 Executes  
889 Task2 Completes  
889 Task1 Executes  
890 Task1 Misses  
892 Task2 Executes  
893 Task2 Completes  
893 Task1 Executes  
895 Task3 Misses  
895 Task1 Completes  
895 Task1 Executes  
896 Task2 Executes  
897 Task2 Completes  
897 Task3 Executes  
899 Task3 Completes  
899 Task1 Executes  
900 Task1 Misses  
904 Task2 Misses  
904 Task1 Completes  
904 Task2 Executes

905 Task3 Misses  
905 Task2 Completes  
905 Task3 Executes  
907 Task3 Completes  
907 Task1 Executes  
908 Task2 Executes  
909 Task2 Completes  
909 Task1 Executes  
910 Task1 Misses  
912 Task2 Executes  
913 Task2 Completes  
913 Task1 Executes  
915 Task3 Misses  
915 Task1 Completes  
915 Task1 Executes  
916 Task2 Executes  
917 Task2 Completes  
917 Task3 Executes  
919 Task3 Completes  
919 Task1 Executes  
920 Task1 Misses  
924 Task2 Misses  
924 Task1 Completes  
924 Task2 Executes  
925 Task3 Misses  
925 Task2 Completes  
925 Task3 Executes  
927 Task3 Completes  
927 Task1 Executes  
928 Task2 Executes  
929 Task2 Completes  
929 Task1 Executes  
930 Task1 Misses  
932 Task2 Executes  
933 Task2 Completes  
933 Task1 Executes  
935 Task3 Misses  
935 Task1 Completes  
935 Task1 Executes  
936 Task2 Executes  
937 Task2 Completes  
937 Task3 Executes  
939 Task3 Completes  
939 Task1 Executes  
940 Task1 Misses  
944 Task2 Misses

944 Task1 Completes  
944 Task2 Executes  
945 Task3 Misses  
945 Task2 Completes  
945 Task3 Executes  
947 Task3 Completes  
947 Task1 Executes  
948 Task2 Executes  
949 Task2 Completes  
949 Task1 Executes  
950 Task1 Misses  
952 Task2 Executes  
953 Task2 Completes  
953 Task1 Executes  
955 Task3 Misses  
955 Task1 Completes  
955 Task1 Executes  
956 Task2 Executes  
957 Task2 Completes  
957 Task3 Executes  
959 Task3 Completes  
959 Task1 Executes  
960 Task1 Misses  
964 Task2 Misses  
964 Task1 Completes  
964 Task2 Executes  
965 Task3 Misses  
965 Task2 Completes  
965 Task3 Executes  
967 Task3 Completes  
967 Task1 Executes  
968 Task2 Executes  
969 Task2 Completes  
969 Task1 Executes  
970 Task1 Misses  
972 Task2 Executes  
973 Task2 Completes  
973 Task1 Executes  
975 Task3 Misses  
975 Task1 Completes  
975 Task1 Executes  
976 Task2 Executes  
977 Task2 Completes  
977 Task3 Executes  
979 Task3 Completes  
979 Task1 Executes

```

980 Task1 Misses
984 Task2 Misses
984 Task1 Completes
984 Task2 Executes
985 Task3 Misses
985 Task2 Completes
985 Task3 Executes
987 Task3 Completes
987 Task1 Executes
988 Task2 Executes
989 Task2 Completes
989 Task1 Executes
990 Task1 Misses
992 Task2 Executes
993 Task2 Completes
993 Task1 Executes
995 Task3 Misses
995 Task1 Completes
995 Task1 Executes
996 Task2 Executes
997 Task2 Completes
997 Task3 Executes
999 Task3 Completes
999 Task1 Executes
Scheduling Finishes

```

### 5.13 Performance

100

sys 0m0.001 s

100

sys 0m0.004 s

100

sys 0m0.003 s

200

sys 0m0.000 s

200

sys	0m0.002 s
200	
sys	0m0.003 s
300	
sys	0m0.000 s
300	
sys	0m0.000 s
300	
sys	0m0.000 s
400	
sys	0m0.000 s
400	
sys	0m0.000 s
400	
sys	0m0.000 s
500	
sys	0m0.000 s
500	
sys	0m0.000 s
500	
sys	0m0.000 s
600	
sys	0m0.001 s

600	
sys	0m0.000 s
600	
sys	0m0.001 s
700	
sys	0m0.000 s
700	
sys	0m0.000 s
700	
sys	0m0.000 s
800	
sys	0m0.000 s
800	
sys	0m0.000 s
800	
sys	0m0.000 s
900	
sys	0m0.000 s
900	
sys	0m0.000 s
900	
sys	0m0.000 s
1000	

sys	0m0.000 s
1000	
sys	0m0.001 s
1000	
sys	0m0.000 s
1100	
sys	0m0.001 s
1100	
sys	0m0.000 s
1100	
sys	0m0.000 s
1200	
sys	0m0.000 s
1200	
sys	0m0.000 s
1200	
sys	0m0.000 s
1300	
sys	0m0.000 s
1300	
sys	0m0.000 s
1300	
sys	0m0.000 s

1400	
sys	0m0.001 s
1400	
sys	0m0.000 s
1400	
sys	0m0.001 s
1500	
sys	0m0.000 s
1500	
sys	0m0.000 s
1500	
sys	0m0.000 s
1600	
sys	0m0.000 s
1600	
sys	0m0.000 s
1600	
sys	0m0.001 s
1700	
sys	0m0.000 s
1700	
sys	0m0.001 s
1700	



sys	0m0.000 s
1800	
sys	0m0.001 s
1800	
sys	0m0.000 s
1800	
sys	0m0.000 s
1900	
sys	0m0.000 s
1900	
sys	0m0.000 s
1900	
sys	0m0.001 s
2000	
sys	0m0.000 s
2000	
sys	0m0.001 s
2000	
sys	0m0.000 s
2100	
sys	0m0.001 s
2100	
sys	0m0.000 s

2100	
sys	0m0.001 s
2200	
sys	0m0.000 s
2200	
sys	0m0.000 s
2200	
sys	0m0.000 s
2300	
sys	0m0.000 s
2300	
sys	0m0.001 s
2300	
sys	0m0.000 s
2400	
sys	0m0.000 s
2400	
sys	0m0.000 s
2400	
sys	0m0.001 s
2500	
sys	0m0.000 s
2500	

sys	0m0.000 s
2500	
sys	0m0.000 s
2600	
sys	0m0.000 s
2600	
sys	0m0.000 s
2600	
sys	0m0.000 s
2700	
sys	0m0.000 s
2700	
sys	0m0.000 s
2700	
sys	0m0.001 s
2800	
sys	0m0.000 s
2800	
sys	0m0.000 s
2800	
sys	0m0.000 s
2900	
sys	0m0.000 s

2900	
sys	0m0.000 s
2900	
sys	0m0.000 s
3000	
sys	0m0.000 s
3000	
sys	0m0.000 s
3000	
sys	0m0.000 s
3100	
sys	0m0.000 s
3100	
sys	0m0.000 s
3100	
sys	0m0.000 s
3200	
sys	0m0.000 s
3200	
sys	0m0.000 s
3200	
sys	0m0.000 s
3300	

sys	0m0.001 s
3300	
sys	0m0.000 s
3300	
sys	0m0.001 s
3400	
sys	0m0.000 s
3400	
sys	0m0.001 s
3400	
sys	0m0.000 s
3500	
sys	0m0.000 s
3500	
sys	0m0.000 s
3500	
sys	0m0.000 s
3600	
sys	0m0.000 s
3600	
sys	0m0.000 s
3600	
sys	0m0.000 s

3700	
sys	0m0.000 s
3700	
sys	0m0.001 s
3700	
sys	0m0.000 s
3800	
sys	0m0.000 s
3800	
sys	0m0.000 s
3800	
sys	0m0.000 s
3900	
sys	0m0.000 s
3900	
sys	0m0.000 s
3900	
sys	0m0.000 s
4000	
sys	0m0.001 s
4000	
sys	0m0.000 s
4000	

sys	0m0.000 s
4100	
sys	0m0.000 s
4100	
sys	0m0.000 s
4100	
sys	0m0.000 s
4200	
sys	0m0.000 s
4200	
sys	0m0.001 s
4200	
sys	0m0.000 s
4300	
sys	0m0.000 s
4300	
sys	0m0.000 s
4300	
sys	0m0.002 s
4400	
sys	0m0.000 s
4400	
sys	0m0.001 s

4400  
sys 0m0.000 s  
4500  
sys 0m0.000 s  
4500  
sys 0m0.000 s  
4500  
sys 0m0.000 s  
4600  
sys 0m0.000 s  
4600  
sys 0m0.000 s  
4600  
sys 0m0.001 s  
4700  
sys 0m0.000 s  
4700  
sys 0m0.000 s  
4700  
sys 0m0.000 s  
4800  
sys 0m0.000 s  
4800



sys	0m0.000 s
4800	
sys	0m0.000 s
4900	
sys	0m0.000 s
4900	
sys	0m0.000 s
4900	
sys	0m0.000 s
5000	
sys	0m0.000 s
5000	
sys	0m0.001 s
5000	
sys	0m0.000 s
5100	
sys	0m0.001 s
5100	
sys	0m0.000 s
5100	
sys	0m0.000 s
5200	
sys	0m0.000 s

5200	
sys	0m0.000 s
5200	
sys	0m0.000 s
5300	
sys	0m0.000 s
5300	
sys	0m0.001 s
5300	
sys	0m0.000 s
5400	
sys	0m0.000 s
5400	
sys	0m0.000 s
5400	
sys	0m0.000 s
5500	
sys	0m0.000 s
5500	
sys	0m0.001 s
5500	
sys	0m0.000 s
5600	

sys	0m0.001 s
5600	
sys	0m0.000 s
5600	
sys	0m0.000 s
5700	
sys	0m0.000 s
5700	
sys	0m0.000 s
5700	
sys	0m0.000 s
5800	
sys	0m0.001 s
5800	
sys	0m0.000 s
5800	
sys	0m0.000 s
5900	
sys	0m0.000 s
5900	
sys	0m0.000 s
5900	
sys	0m0.001 s

6000	
sys	0m0.000 s
6000	
sys	0m0.000 s
6000	
sys	0m0.000 s
6100	
sys	0m0.001 s
6100	
sys	0m0.000 s
6100	
sys	0m0.000 s
6200	
sys	0m0.000 s
6200	
sys	0m0.000 s
6200	
sys	0m0.001 s
6300	
sys	0m0.000 s
6300	
sys	0m0.001 s
6300	

sys	0m0.000 s
6400	
sys	0m0.001 s
6400	
sys	0m0.000 s
6400	
sys	0m0.000 s
6500	
sys	0m0.000 s
6500	
sys	0m0.000 s
6500	
sys	0m0.001 s
6600	
sys	0m0.000 s
6600	
sys	0m0.001 s
6600	
sys	0m0.000 s
6700	
sys	0m0.001 s
6700	
sys	0m0.000 s

6700	
sys	0m0.000 s
6800	
sys	0m0.000 s
6800	
sys	0m0.001 s
6800	
sys	0m0.000 s
6900	
sys	0m0.001 s
6900	
sys	0m0.000 s
6900	
sys	0m0.000 s
7000	
sys	0m0.000 s
7000	
sys	0m0.000 s
7000	
sys	0m0.000 s
7100	
sys	0m0.000 s
7100	

sys	0m0.001 s
7100	
sys	0m0.000 s
7200	
sys	0m0.000 s
7200	
sys	0m0.000 s
7200	
sys	0m0.001 s
7300	
sys	0m0.000 s
7300	
sys	0m0.001 s
7300	
sys	0m0.000 s
7400	
sys	0m0.001 s
7400	
sys	0m0.000 s
7400	
sys	0m0.001 s
7500	
sys	0m0.000 s

7500	
sys	0m0.000 s
7500	
sys	0m0.000 s
7600	
sys	0m0.001 s
7600	
sys	0m0.000 s
7600	
sys	0m0.000 s
7700	
sys	0m0.000 s
7700	
sys	0m0.002 s
7700	
sys	0m0.000 s
7800	
sys	0m0.000 s
7800	
sys	0m0.000 s
7800	
sys	0m0.000 s
7900	



sys	0m0.000 s
7900	
sys	0m0.000 s
7900	
sys	0m0.001 s
8000	
sys	0m0.000 s
8000	
sys	0m0.000 s
8000	
sys	0m0.000 s
8100	
sys	0m0.000 s
8100	
sys	0m0.000 s
8100	
sys	0m0.000 s
8200	
sys	0m0.000 s
8200	
sys	0m0.000 s
8200	
sys	0m0.001 s

8300	
sys	0m0.000 s
8300	
sys	0m0.000 s
8300	
sys	0m0.000 s
8400	
sys	0m0.001 s
8400	
sys	0m0.000 s
8400	
sys	0m0.000 s
8500	
sys	0m0.000 s
8500	
sys	0m0.000 s
8500	
sys	0m0.000 s
8600	
sys	0m0.000 s
8600	
sys	0m0.000 s
8600	

sys	0m0.000 s
8700	
sys	0m0.000 s
8700	
sys	0m0.000 s
8700	
sys	0m0.001 s
8800	
sys	0m0.000 s
8800	
sys	0m0.000 s
8800	
sys	0m0.000 s
8900	
sys	0m0.000 s
8900	
sys	0m0.001 s
8900	
sys	0m0.000 s
9000	
sys	0m0.000 s
9000	
sys	0m0.000 s

9000	
sys	0m0.000 s
9100	
sys	0m0.000 s
9100	
sys	0m0.000 s
9100	
sys	0m0.000 s
9200	
sys	0m0.000 s
9200	
sys	0m0.001 s
9200	
sys	0m0.000 s
9300	
sys	0m0.001 s
9300	
sys	0m0.000 s
9300	
sys	0m0.001 s
9400	
sys	0m0.000 s
9400	

sys	0m0.000 s
9400	
sys	0m0.000 s
9500	
sys	0m0.000 s
9500	
sys	0m0.000 s
9500	
sys	0m0.000 s
9600	
sys	0m0.001 s
9600	
sys	0m0.000 s
9600	
sys	0m0.001 s
9700	
sys	0m0.000 s
9700	
sys	0m0.000 s
9700	
sys	0m0.000 s
9800	
sys	0m0.000 s

9800	
sys	0m0.001 s
9800	
sys	0m0.000 s
9900	
sys	0m0.001 s
9900	
sys	0m0.000 s
9900	
sys	0m0.000 s
10000	
sys	0m0.000 s
10000	
sys	0m0.001 s
10000	
sys	0m0.000 s
10100	
sys	0m0.000 s
10100	
sys	0m0.000 s
10100	
sys	0m0.000 s
10200	

sys	0m0.000 s
10200	
sys	0m0.000 s
10200	
sys	0m0.000 s
10300	
sys	0m0.000 s
10300	
sys	0m0.002 s
10300	
sys	0m0.000 s
10400	
sys	0m0.000 s
10400	
sys	0m0.000 s
10400	
sys	0m0.001 s
10500	
sys	0m0.000 s
10500	
sys	0m0.000 s
10500	
sys	0m0.000 s

10600	
sys	0m0.000 s
10600	
sys	0m0.000 s
10600	
sys	0m0.000 s
10700	
sys	0m0.000 s
10700	
sys	0m0.000 s
10700	
sys	0m0.001 s
10800	
sys	0m0.000 s
10800	
sys	0m0.001 s
10800	
sys	0m0.000 s
10900	
sys	0m0.001 s
10900	
sys	0m0.000 s
10900	



sys	0m0.000 s
11000	
sys	0m0.000 s
11000	
sys	0m0.000 s
11000	
sys	0m0.000 s
11100	
sys	0m0.000 s
11100	
sys	0m0.001 s
11100	
sys	0m0.000 s
11200	
sys	0m0.000 s
11200	
sys	0m0.000 s
11200	
sys	0m0.000 s
11300	
sys	0m0.000 s
11300	
sys	0m0.000 s

11300  
sys 0m0.000 s  
11400  
sys 0m0.000 s  
11400  
sys 0m0.000 s  
11400  
sys 0m0.000 s  
11500  
sys 0m0.000 s  
11500  
sys 0m0.000 s  
11500  
sys 0m0.000 s  
11600  
sys 0m0.000 s  
11600  
sys 0m0.001 s  
11600  
sys 0m0.000 s  
11700  
sys 0m0.000 s  
11700

sys	0m0.000 s
11700	
sys	0m0.001 s
11800	
sys	0m0.000 s
11800	
sys	0m0.000 s
11800	
sys	0m0.000 s
11900	
sys	0m0.000 s
11900	
sys	0m0.002 s
11900	
sys	0m0.000 s
12000	
sys	0m0.000 s
12000	
sys	0m0.000 s
12000	
sys	0m0.000 s
12100	
sys	0m0.000 s

12100	
sys	0m0.000 s
12100	
sys	0m0.000 s
12200	
sys	0m0.000 s
12200	
sys	0m0.001 s
12200	
sys	0m0.000 s
12300	
sys	0m0.000 s
12300	
sys	0m0.000 s
12300	
sys	0m0.000 s
12400	
sys	0m0.000 s
12400	
sys	0m0.000 s
12400	
sys	0m0.000 s
12500	

sys	0m0.000 s
12500	
sys	0m0.000 s
12500	
sys	0m0.000 s
12600	
sys	0m0.000 s
12600	
sys	0m0.000 s
12600	
sys	0m0.000 s
12700	
sys	0m0.000 s
12700	
sys	0m0.000 s
12700	
sys	0m0.000 s
12800	
sys	0m0.000 s
12800	
sys	0m0.001 s
12800	
sys	0m0.000 s

12900	
sys	0m0.001 s
12900	
sys	0m0.000 s
12900	
sys	0m0.001 s
13000	
sys	0m0.000 s
13000	
sys	0m0.000 s
13000	
sys	0m0.000 s
13100	
sys	0m0.000 s
13100	
sys	0m0.000 s
13100	
sys	0m0.000 s
13200	
sys	0m0.000 s
13200	
sys	0m0.000 s
13200	

sys	0m0.001 s
13300	
sys	0m0.000 s
13300	
sys	0m0.000 s
13300	
sys	0m0.000 s
13400	
sys	0m0.000 s
13400	
sys	0m0.000 s
13400	
sys	0m0.000 s
13500	
sys	0m0.000 s
13500	
sys	0m0.000 s
13500	
sys	0m0.001 s
13600	
sys	0m0.000 s
13600	
sys	0m0.000 s

13600  
sys 0m0.000 s  
13700  
sys 0m0.001 s  
13700  
sys 0m0.000 s  
13700  
sys 0m0.000 s  
13800  
sys 0m0.000 s  
13800  
sys 0m0.000 s  
13800  
sys 0m0.001 s  
13900  
sys 0m0.000 s  
13900  
sys 0m0.000 s  
13900  
sys 0m0.000 s  
14000  
sys 0m0.000 s  
14000



sys	0m0.000 s
14000	
sys	0m0.000 s
14100	
sys	0m0.000 s
14100	
sys	0m0.000 s
14100	
sys	0m0.000 s
14200	
sys	0m0.000 s
14200	
sys	0m0.001 s
14200	
sys	0m0.000 s
14300	
sys	0m0.001 s
14300	
sys	0m0.000 s
14300	
sys	0m0.000 s
14400	
sys	0m0.000 s

14400  
sys 0m0.000 s  
14400  
sys 0m0.000 s  
14500  
sys 0m0.000 s  
14500  
sys 0m0.000 s  
14500  
sys 0m0.000 s  
14600  
sys 0m0.000 s  
14600  
sys 0m0.000 s  
14600  
sys 0m0.001 s  
14700  
sys 0m0.000 s  
14700  
sys 0m0.001 s  
14700  
sys 0m0.000 s  
14800

sys	0m0.000 s
14800	
sys	0m0.000 s
14800	
sys	0m0.000 s
14900	
sys	0m0.001 s
14900	
sys	0m0.000 s
14900	
sys	0m0.001 s
15000	
sys	0m0.000 s
15000	
sys	0m0.001 s
15000	
sys	0m0.000 s
15100	
sys	0m0.000 s
15100	
sys	0m0.000 s
15100	
sys	0m0.000 s

15200	
sys	0m0.000 s
15200	
sys	0m0.000 s
15200	
sys	0m0.001 s
15300	
sys	0m0.000 s
15300	
sys	0m0.001 s
15300	
sys	0m0.000 s
15400	
sys	0m0.000 s
15400	
sys	0m0.000 s
15400	
sys	0m0.000 s
15500	
sys	0m0.000 s
15500	
sys	0m0.000 s
15500	

sys	0m0.001 s
15600	
sys	0m0.000 s
15600	
sys	0m0.001 s
15600	
sys	0m0.000 s
15700	
sys	0m0.000 s
15700	
sys	0m0.000 s
15700	
sys	0m0.000 s
15800	
sys	0m0.000 s
15800	
sys	0m0.000 s
15800	
sys	0m0.001 s
15900	
sys	0m0.000 s
15900	
sys	0m0.001 s

15900  
sys 0m0.000 s  
16000  
sys 0m0.000 s  
16000  
sys 0m0.000 s  
16000  
sys 0m0.001 s  
16100  
sys 0m0.000 s  
16100  
sys 0m0.000 s  
16100  
sys 0m0.000 s  
16200  
sys 0m0.000 s  
16200  
sys 0m0.000 s  
16200  
sys 0m0.000 s  
16300  
sys 0m0.001 s  
16300

sys	0m0.000 s
16300	
sys	0m0.000 s
16400	
sys	0m0.000 s
16400	
sys	0m0.000 s
16400	
sys	0m0.000 s
16500	
sys	0m0.000 s
16500	
sys	0m0.001 s
16500	
sys	0m0.000 s
16600	
sys	0m0.001 s
16600	
sys	0m0.000 s
16600	
sys	0m0.000 s
16700	
sys	0m0.000 s

16700  
sys 0m0.000 s  
16700  
sys 0m0.000 s  
16800  
sys 0m0.000 s  
16800  
sys 0m0.000 s  
16800  
sys 0m0.000 s  
16900  
sys 0m0.000 s  
16900  
sys 0m0.000 s  
16900  
sys 0m0.001 s  
17000  
sys 0m0.000 s  
17000  
sys 0m0.000 s  
17000  
sys 0m0.000 s  
17100



sys	0m0.000 s
17100	
sys	0m0.000 s
17100	
sys	0m0.001 s
17200	
sys	0m0.000 s
17200	
sys	0m0.000 s
17200	
sys	0m0.000 s
17300	
sys	0m0.000 s
17300	
sys	0m0.001 s
17300	
sys	0m0.000 s
17400	
sys	0m0.000 s
17400	
sys	0m0.000 s
17400	
sys	0m0.000 s

17500  
sys 0m0.000 s  
17500  
sys 0m0.000 s  
17500  
sys 0m0.002 s  
17600  
sys 0m0.000 s  
17600  
sys 0m0.000 s  
17600  
sys 0m0.000 s  
17700  
sys 0m0.000 s  
17700  
sys 0m0.000 s  
17700  
sys 0m0.001 s  
17800  
sys 0m0.000 s  
17800  
sys 0m0.000 s  
17800

sys	0m0.000 s
17900	
sys	0m0.001 s
17900	
sys	0m0.000 s
17900	
sys	0m0.001 s
18000	
sys	0m0.000 s
18000	
sys	0m0.000 s
18000	
sys	0m0.000 s
18100	
sys	0m0.000 s
18100	
sys	0m0.001 s
18100	
sys	0m0.000 s
18200	
sys	0m0.001 s
18200	
sys	0m0.000 s

18200  
sys 0m0.000 s  
18300  
sys 0m0.000 s  
18300  
sys 0m0.000 s  
18300  
sys 0m0.000 s  
18400  
sys 0m0.000 s  
18400  
sys 0m0.001 s  
18400  
sys 0m0.000 s  
18500  
sys 0m0.000 s  
18500  
sys 0m0.000 s  
18500  
sys 0m0.002 s  
18600  
sys 0m0.000 s  
18600

sys	0m0.000 s
18600	
sys	0m0.000 s
18700	
sys	0m0.000 s
18700	
sys	0m0.000 s
18700	
sys	0m0.000 s
18800	
sys	0m0.000 s
18800	
sys	0m0.000 s
18800	
sys	0m0.000 s
18900	
sys	0m0.001 s
18900	
sys	0m0.000 s
19000	
sys	0m0.000 s

19000  
sys 0m0.000 s  
19000  
sys 0m0.000 s  
19100  
sys 0m0.000 s  
19100  
sys 0m0.001 s  
19100  
sys 0m0.000 s  
19200  
sys 0m0.000 s  
19200  
sys 0m0.000 s  
19200  
sys 0m0.000 s  
19300  
sys 0m0.000 s  
19300  
sys 0m0.000 s  
19300  
sys 0m0.001 s  
19400

sys	0m0.000 s
19400	
sys	0m0.000 s
19400	
sys	0m0.000 s
19500	
sys	0m0.000 s
19500	
sys	0m0.000 s
19500	
sys	0m0.000 s
19600	
sys	0m0.001 s
19600	
sys	0m0.000 s
19600	
sys	0m0.000 s
19700	
sys	0m0.000 s
19700	
sys	0m0.001 s
19700	
sys	0m0.000 s

19800  
sys 0m0.000 s  
19800  
sys 0m0.000 s  
19800  
sys 0m0.001 s  
19900  
sys 0m0.000 s  
19900  
sys 0m0.000 s  
19900  
sys 0m0.000 s  
20000  
sys 0m0.000 s  
20000  
sys 0m0.002 s  
20000  
sys 0m0.000 s  
20100  
sys 0m0.001 s  
20100  
sys 0m0.000 s  
20100



sys	0m0.000 s
20200	
sys	0m0.000 s
20200	
sys	0m0.000 s
20200	
sys	0m0.000 s
20300	
sys	0m0.000 s
20300	
sys	0m0.000 s
20300	
sys	0m0.000 s
20400	
sys	0m0.000 s
20400	
sys	0m0.000 s
20400	
sys	0m0.000 s
20500	
sys	0m0.000 s
20500	
sys	0m0.000 s

20500  
sys 0m0.000 s  
20600  
sys 0m0.002 s  
20600  
sys 0m0.000 s  
20600  
sys 0m0.000 s  
20700  
sys 0m0.000 s  
20700  
sys 0m0.000 s  
20700  
sys 0m0.000 s  
20800  
sys 0m0.000 s  
20800  
sys 0m0.000 s  
20800  
sys 0m0.000 s  
20900  
sys 0m0.001 s  
20900

sys	0m0.000 s
20900	
sys	0m0.000 s
21000	
sys	0m0.000 s
21000	
sys	0m0.000 s
21000	
sys	0m0.000 s
21100	
sys	0m0.000 s
21100	
sys	0m0.001 s
21100	
sys	0m0.000 s
21200	
sys	0m0.001 s
21200	
sys	0m0.000 s
21200	
sys	0m0.000 s
21300	
sys	0m0.000 s

21300  
sys 0m0.000 s  
21300  
sys 0m0.001 s  
21400  
sys 0m0.000 s  
21400  
sys 0m0.000 s  
21400  
sys 0m0.000 s  
21500  
sys 0m0.000 s  
21500  
sys 0m0.000 s  
21500  
sys 0m0.000 s  
21600  
sys 0m0.000 s  
21600  
sys 0m0.000 s  
21600  
sys 0m0.000 s  
21700

sys	0m0.000 s
21700	
sys	0m0.000 s
21700	
sys	0m0.000 s
21800	
sys	0m0.001 s
21800	
sys	0m0.000 s
21800	
sys	0m0.000 s
21900	
sys	0m0.000 s
21900	
sys	0m0.001 s
21900	
sys	0m0.000 s
22000	
sys	0m0.000 s
22000	
sys	0m0.000 s
22000	
sys	0m0.000 s

22100  
sys 0m0.000 s  
22100  
sys 0m0.000 s  
22100  
sys 0m0.000 s  
22200  
sys 0m0.000 s  
22200  
sys 0m0.002 s  
22200  
sys 0m0.000 s  
22300  
sys 0m0.001 s  
22300  
sys 0m0.000 s  
22300  
sys 0m0.000 s  
22400  
sys 0m0.000 s  
22400  
sys 0m0.001 s  
22400

sys	0m0.000 s
22500	
sys	0m0.000 s
22500	
sys	0m0.000 s
22500	
sys	0m0.000 s
22600	
sys	0m0.001 s
22600	
sys	0m0.000 s
22600	
sys	0m0.001 s
22700	
sys	0m0.000 s
22700	
sys	0m0.000 s
22700	
sys	0m0.000 s
22800	
sys	0m0.000 s
22800	
sys	0m0.000 s

22800  
sys 0m0.006 s  
22900  
sys 0m0.000 s  
22900  
sys 0m0.000 s  
22900  
sys 0m0.000 s  
23000  
sys 0m0.001 s  
23000  
sys 0m0.000 s  
23000  
sys 0m0.001 s  
23100  
sys 0m0.000 s  
23100  
sys 0m0.001 s  
23100  
sys 0m0.000 s  
23200  
sys 0m0.000 s  
23200



sys	0m0.000 s
23200	
sys	0m0.000 s
23300	
sys	0m0.001 s
23300	
sys	0m0.000 s
23300	
sys	0m0.001 s
23400	
sys	0m0.000 s
23400	
sys	0m0.001 s
23400	
sys	0m0.000 s
23500	
sys	0m0.000 s
23500	
sys	0m0.000 s
23500	
sys	0m0.000 s
23600	
sys	0m0.001 s

23600  
sys 0m0.000 s  
23600  
sys 0m0.001 s  
23700  
sys 0m0.000 s  
23700  
sys 0m0.000 s  
23700  
sys 0m0.000 s  
23800  
sys 0m0.000 s  
23800  
sys 0m0.000 s  
23800  
sys 0m0.000 s  
23900  
sys 0m0.001 s  
23900  
sys 0m0.000 s  
23900  
sys 0m0.000 s  
24000

sys	0m0.000 s
24000	
sys	0m0.001 s
24000	
sys	0m0.000 s
24100	
sys	0m0.001 s
24100	
sys	0m0.000 s
24100	
sys	0m0.000 s
24200	
sys	0m0.000 s
24200	
sys	0m0.001 s
24200	
sys	0m0.000 s
24300	
sys	0m0.000 s
24300	
sys	0m0.000 s
24300	
sys	0m0.000 s

24400  
sys 0m0.000 s  
24400  
sys 0m0.000 s  
24400  
sys 0m0.000 s  
24500  
sys 0m0.000 s  
24500  
sys 0m0.001 s  
24500  
sys 0m0.000 s  
24600  
sys 0m0.001 s  
24600  
sys 0m0.000 s  
24600  
sys 0m0.000 s  
24700  
sys 0m0.000 s  
24700  
sys 0m0.000 s  
24700

sys	0m0.000 s
24800	
sys	0m0.000 s
24800	
sys	0m0.001 s
24800	
sys	0m0.000 s
24900	
sys	0m0.001 s
24900	
sys	0m0.000 s
24900	
sys	0m0.001 s
25000	
sys	0m0.000 s
25000	
sys	0m0.000 s
25000	
sys	0m0.000 s
25100	
sys	0m0.000 s
25100	
sys	0m0.000 s

25100  
sys 0m0.001 s  
25200  
sys 0m0.000 s  
25200  
sys 0m0.001 s  
25200  
sys 0m0.000 s  
25300  
sys 0m0.000 s  
25300  
sys 0m0.000 s  
25300  
sys 0m0.000 s  
25400  
sys 0m0.000 s  
25400  
sys 0m0.000 s  
25400  
sys 0m0.000 s  
25500  
sys 0m0.000 s  
25500

sys	0m0.000 s
25500	
sys	0m0.000 s
25600	
sys	0m0.000 s
25600	
sys	0m0.000 s
25600	
sys	0m0.000 s
25700	
sys	0m0.000 s
25700	
sys	0m0.000 s
25700	
sys	0m0.001 s
25800	
sys	0m0.000 s
25800	
sys	0m0.000 s
25800	
sys	0m0.000 s
25900	
sys	0m0.001 s

25900  
sys 0m0.000 s  
25900  
sys 0m0.001 s  
26000  
sys 0m0.000 s  
26000  
sys 0m0.001 s  
26000  
sys 0m0.000 s  
26100  
sys 0m0.001 s  
26100  
sys 0m0.000 s  
26100  
sys 0m0.000 s  
26200  
sys 0m0.000 s  
26200  
sys 0m0.001 s  
26200  
sys 0m0.000 s  
26300



sys	0m0.001 s
26300	
sys	0m0.000 s
26300	
sys	0m0.001 s
26400	
sys	0m0.000 s
26400	
sys	0m0.000 s
26400	
sys	0m0.000 s
26500	
sys	0m0.000 s
26500	
sys	0m0.002 s
26500	
sys	0m0.000 s
26600	
sys	0m0.000 s
26600	
sys	0m0.000 s
26600	
sys	0m0.000 s

26700  
sys 0m0.000 s  
26700  
sys 0m0.000 s  
26700  
sys 0m0.000 s  
26800  
sys 0m0.002 s  
26800  
sys 0m0.000 s  
26800  
sys 0m0.001 s  
26900  
sys 0m0.000 s  
26900  
sys 0m0.000 s  
26900  
sys 0m0.000 s  
27000  
sys 0m0.001 s  
27000  
sys 0m0.000 s  
27000

sys	0m0.000 s
27100	
sys	0m0.000 s
27100	
sys	0m0.000 s
27100	
sys	0m0.000 s
27200	
sys	0m0.000 s
27200	
sys	0m0.001 s
27200	
sys	0m0.002 s
27300	
sys	0m0.000 s
27300	
sys	0m0.000 s
27300	
sys	0m0.000 s
27400	
sys	0m0.000 s
27400	
sys	0m0.000 s

27400  
sys 0m0.000 s  
27500  
sys 0m0.000 s  
27500  
sys 0m0.000 s  
27500  
sys 0m0.000 s  
27600  
sys 0m0.002 s  
27600  
sys 0m0.000 s  
27600  
sys 0m0.000 s  
27700  
sys 0m0.000 s  
27700  
sys 0m0.002 s  
27700  
sys 0m0.000 s  
27800  
sys 0m0.001 s  
27800

sys	0m0.000 s
27800	
sys	0m0.001 s
27900	
sys	0m0.000 s
27900	
sys	0m0.000 s
27900	
sys	0m0.000 s
28000	
sys	0m0.000 s
28000	
sys	0m0.000 s
28000	
sys	0m0.000 s
28100	
sys	0m0.000 s
28100	
sys	0m0.001 s
28100	
sys	0m0.000 s
28200	
sys	0m0.001 s

28200  
sys 0m0.000 s  
28200  
sys 0m0.002 s  
28300  
sys 0m0.000 s  
28300  
sys 0m0.000 s  
28300  
sys 0m0.000 s  
28400  
sys 0m0.001 s  
28400  
sys 0m0.000 s  
28400  
sys 0m0.001 s  
28500  
sys 0m0.000 s  
28500  
sys 0m0.001 s  
28500  
sys 0m0.000 s  
28600

sys	0m0.001 s
28600	
sys	0m0.000 s
28600	
sys	0m0.001 s
28700	
sys	0m0.000 s
28700	
sys	0m0.001 s
28700	
sys	0m0.000 s
28800	
sys	0m0.002 s
28800	
sys	0m0.000 s
28800	
sys	0m0.002 s
28900	
sys	0m0.000 s
28900	
sys	0m0.001 s
28900	
sys	0m0.000 s

29000  
sys 0m0.000 s  
29000  
sys 0m0.000 s  
29000  
sys 0m0.002 s  
29100  
sys 0m0.000 s  
29100  
sys 0m0.000 s  
29100  
sys 0m0.000 s  
29200  
sys 0m0.002 s  
29200  
sys 0m0.000 s  
29200  
sys 0m0.000 s  
29300  
sys 0m0.000 s  
29300  
sys 0m0.000 s  
29300



sys	0m0.000 s
29400	
sys	0m0.000 s
29400	
sys	0m0.000 s
29400	
sys	0m0.002 s
29500	
sys	0m0.000 s
29500	
sys	0m0.002 s
29500	
sys	0m0.000 s
29600	
sys	0m0.001 s
29600	
sys	0m0.000 s
29600	
sys	0m0.001 s
29700	
sys	0m0.000 s
29700	
sys	0m0.002 s

29700  
sys 0m0.000 s  
29800  
sys 0m0.000 s  
29800  
sys 0m0.002 s  
29800  
sys 0m0.000 s  
29900  
sys 0m0.000 s  
29900  
sys 0m0.000 s  
29900  
sys 0m0.000 s  
30000  
sys 0m0.000 s  
30000  
sys 0m0.002 s  
30000  
sys 0m0.000 s  
30100  
sys 0m0.000 s  
30100

sys	0m0.000 s
30100	
sys	0m0.000 s
30200	
sys	0m0.000 s
30200	
sys	0m0.000 s
30200	
sys	0m0.000 s
30300	
sys	0m0.000 s
30300	
sys	0m0.000 s
30300	
sys	0m0.001 s
30400	
sys	0m0.000 s
30400	
sys	0m0.000 s
30400	
sys	0m0.000 s
30500	
sys	0m0.000 s

30500  
sys 0m0.000 s  
30500  
sys 0m0.000 s  
30600  
sys 0m0.002 s  
30600  
sys 0m0.000 s  
30600  
sys 0m0.002 s  
30700  
sys 0m0.000 s  
30700  
sys 0m0.000 s  
30700  
sys 0m0.002 s  
30800  
sys 0m0.000 s  
30800  
sys 0m0.002 s  
30800  
sys 0m0.000 s  
30900

sys	0m0.000 s
30900	
sys	0m0.000 s
30900	
sys	0m0.000 s
31000	
sys	0m0.000 s
31000	
sys	0m0.000 s
31000	
sys	0m0.000 s
31100	
sys	0m0.000 s
31100	
sys	0m0.002 s
31100	
sys	0m0.000 s
31200	
sys	0m0.002 s
31200	
sys	0m0.000 s
31200	
sys	0m0.000 s

31300  
sys 0m0.000 s  
31300  
sys 0m0.001 s  
31300  
sys 0m0.000 s  
31400  
sys 0m0.000 s  
31400  
sys 0m0.000 s  
31400  
sys 0m0.000 s  
31500  
sys 0m0.000 s  
31500  
sys 0m0.000 s  
31500  
sys 0m0.000 s  
31600  
sys 0m0.001 s  
31600  
sys 0m0.000 s  
31600

sys	0m0.000 s
31700	
sys	0m0.000 s
31700	
sys	0m0.000 s
31700	
sys	0m0.000 s
31800	
sys	0m0.000 s
31800	
sys	0m0.000 s
31800	
sys	0m0.000 s
31900	
sys	0m0.000 s
31900	
sys	0m0.000 s
31900	
sys	0m0.002 s
32000	
sys	0m0.000 s
32000	
sys	0m0.000 s

32000  
sys 0m0.000 s  
32100  
sys 0m0.000 s  
32100  
sys 0m0.000 s  
32100  
sys 0m0.000 s  
32200  
sys 0m0.000 s  
32200  
sys 0m0.000 s  
32200  
sys 0m0.000 s  
32300  
sys 0m0.001 s  
32300  
sys 0m0.000 s  
32300  
sys 0m0.001 s  
32400  
sys 0m0.000 s  
32400



sys	0m0.001 s
32400	
sys	0m0.000 s
32500	
sys	0m0.001 s
32500	
sys	0m0.000 s
32500	
sys	0m0.002 s
32600	
sys	0m0.000 s
32600	
sys	0m0.000 s
32600	
sys	0m0.000 s
32700	
sys	0m0.000 s
32700	
sys	0m0.000 s
32700	
sys	0m0.000 s
32800	
sys	0m0.000 s

32800  
sys 0m0.000 s  
32800  
sys 0m0.000 s  
32900  
sys 0m0.001 s  
32900  
sys 0m0.000 s  
32900  
sys 0m0.001 s  
33000  
sys 0m0.000 s  
33000  
sys 0m0.000 s  
33000  
sys 0m0.000 s  
33100  
sys 0m0.000 s  
33100  
sys 0m0.002 s  
33100  
sys 0m0.000 s  
33200

sys	0m0.000 s
33200	
sys	0m0.000 s
33200	
sys	0m0.000 s
33300	
sys	0m0.000 s
33300	
sys	0m0.000 s
33300	
sys	0m0.000 s
33400	
sys	0m0.000 s
33400	
sys	0m0.000 s
33400	
sys	0m0.001 s
33500	
sys	0m0.000 s
33500	
sys	0m0.001 s
33500	
sys	0m0.000 s

33600  
sys 0m0.001 s  
33600  
sys 0m0.000 s  
33600  
sys 0m0.000 s  
33700  
sys 0m0.000 s  
33700  
sys 0m0.000 s  
33700  
sys 0m0.000 s  
33800  
sys 0m0.000 s  
33800  
sys 0m0.000 s  
33800  
sys 0m0.000 s  
33900  
sys 0m0.001 s  
33900  
sys 0m0.000 s  
33900

sys	0m0.000 s
34000	
sys	0m0.000 s
34000	
sys	0m0.001 s
34000	
sys	0m0.000 s
34100	
sys	0m0.000 s
34100	
sys	0m0.000 s
34100	
sys	0m0.001 s
34200	
sys	0m0.000 s
34200	
sys	0m0.000 s
34200	
sys	0m0.000 s
34300	
sys	0m0.000 s
34300	
sys	0m0.000 s

34300  
sys 0m0.000 s  
34400  
sys 0m0.000 s  
34400  
sys 0m0.000 s  
34400  
sys 0m0.001 s  
34500  
sys 0m0.000 s  
34500  
sys 0m0.001 s  
34500  
sys 0m0.000 s  
34600  
sys 0m0.001 s  
34600  
sys 0m0.000 s  
34600  
sys 0m0.000 s  
34700  
sys 0m0.000 s  
34700

sys	0m0.000 s
34700	
sys	0m0.000 s
34800	
sys	0m0.000 s
34800	
sys	0m0.001 s
34800	
sys	0m0.000 s
34900	
sys	0m0.000 s
34900	
sys	0m0.000 s
34900	
sys	0m0.001 s
35000	
sys	0m0.000 s
35000	
sys	0m0.000 s
35000	
sys	0m0.000 s
35100	
sys	0m0.000 s

35100  
sys 0m0.000 s  
35100  
sys 0m0.000 s  
35200  
sys 0m0.000 s  
35200  
sys 0m0.000 s  
35200  
sys 0m0.001 s  
35300  
sys 0m0.000 s  
35300  
sys 0m0.000 s  
35300  
sys 0m0.000 s  
35400  
sys 0m0.001 s  
35400  
sys 0m0.000 s  
35400  
sys 0m0.001 s  
35500



sys	0m0.000 s
35500	
sys	0m0.001 s
35500	
sys	0m0.000 s
35600	
sys	0m0.000 s
35600	
sys	0m0.000 s
35600	
sys	0m0.002 s
35700	
sys	0m0.000 s
35700	
sys	0m0.001 s
35700	
sys	0m0.000 s
35800	
sys	0m0.001 s
35800	
sys	0m0.000 s
35800	
sys	0m0.001 s

35900  
sys 0m0.000 s  
35900  
sys 0m0.002 s  
35900  
sys 0m0.000 s  
36000  
sys 0m0.000 s  
36000  
sys 0m0.000 s  
36000  
sys 0m0.001 s  
36100  
sys 0m0.000 s  
36100  
sys 0m0.001 s  
36100  
sys 0m0.000 s  
36200  
sys 0m0.002 s  
36200  
sys 0m0.000 s  
36200

sys	0m0.001 s
36300	
sys	0m0.000 s
36300	
sys	0m0.001 s
36300	
sys	0m0.000 s
36400	
sys	0m0.000 s
36400	
sys	0m0.000 s
36400	
sys	0m0.000 s
36500	
sys	0m0.000 s
36500	
sys	0m0.001 s
36500	
sys	0m0.000 s
36600	
sys	0m0.000 s
36600	
sys	0m0.000 s

36600  
sys 0m0.000 s  
36700  
sys 0m0.001 s  
36700  
sys 0m0.000 s  
36700  
sys 0m0.001 s  
36800  
sys 0m0.000 s  
36800  
sys 0m0.001 s  
36800  
sys 0m0.000 s  
36900  
sys 0m0.000 s  
36900  
sys 0m0.000 s  
36900  
sys 0m0.000 s  
37000  
sys 0m0.000 s  
37000

sys	0m0.000 s
37000	
sys	0m0.000 s
37100	
sys	0m0.000 s
37100	
sys	0m0.000 s
37100	
sys	0m0.001 s
37200	
sys	0m0.000 s
37200	
sys	0m0.001 s
37200	
sys	0m0.000 s
37300	
sys	0m0.000 s
37300	
sys	0m0.000 s
37300	
sys	0m0.000 s
37400	
sys	0m0.000 s

37400  
sys 0m0.000 s  
37400  
sys 0m0.001 s  
37500  
sys 0m0.000 s  
37500  
sys 0m0.000 s  
37500  
sys 0m0.000 s  
37600  
sys 0m0.000 s  
37600  
sys 0m0.000 s  
37600  
sys 0m0.000 s  
37700  
sys 0m0.000 s  
37700  
sys 0m0.000 s  
37700  
sys 0m0.000 s  
37800

sys	0m0.000 s
37800	
sys	0m0.000 s
37800	
sys	0m0.000 s
37900	
sys	0m0.000 s
37900	
sys	0m0.000 s
37900	
sys	0m0.002 s
38000	
sys	0m0.000 s
38000	
sys	0m0.000 s
38000	
sys	0m0.000 s
38100	
sys	0m0.000 s
38100	
sys	0m0.000 s
38100	
sys	0m0.000 s

38200	
sys	0m0.002 s
38200	
sys	0m0.000 s
38200	
sys	0m0.001 s
38300	
sys	0m0.000 s
38300	
sys	0m0.001 s
38300	
sys	0m0.000 s
38400	
sys	0m0.001 s
38400	
sys	0m0.000 s
38400	
sys	0m0.002 s
38500	
sys	0m0.000 s
38500	
sys	0m0.000 s
38500	



sys	0m0.000 s
38600	
sys	0m0.001 s
38600	
sys	0m0.000 s
38600	
sys	0m0.001 s
38700	
sys	0m0.000 s
38700	
sys	0m0.000 s
38700	
sys	0m0.000 s
38800	
sys	0m0.000 s
38800	
sys	0m0.000 s
38800	
sys	0m0.000 s
38900	
sys	0m0.000 s
38900	
sys	0m0.000 s

38900  
sys 0m0.001 s  
39000  
sys 0m0.000 s  
39000  
sys 0m0.000 s  
39000  
sys 0m0.000 s  
39100  
sys 0m0.000 s  
39100  
sys 0m0.000 s  
39100  
sys 0m0.000 s  
39200  
sys 0m0.000 s  
39200  
sys 0m0.001 s  
39200  
sys 0m0.000 s  
39300  
sys 0m0.000 s  
39300

sys	0m0.000 s
39300	
sys	0m0.001 s
39400	
sys	0m0.000 s
39400	
sys	0m0.000 s
39400	
sys	0m0.000 s
39500	
sys	0m0.000 s
39500	
sys	0m0.000 s
39500	
sys	0m0.000 s
39600	
sys	0m0.001 s
39600	
sys	0m0.000 s
39600	
sys	0m0.002 s
39700	
sys	0m0.000 s

39700  
sys 0m0.001 s  
39700  
sys 0m0.000 s  
39800  
sys 0m0.002 s  
39800  
sys 0m0.000 s  
39800  
sys 0m0.000 s  
39900  
sys 0m0.000 s  
39900  
sys 0m0.000 s  
39900  
sys 0m0.001 s  
40000  
sys 0m0.000 s  
40000  
sys 0m0.002 s  
40000  
sys 0m0.000 s  
40100

sys	0m0.000 s
40100	
sys	0m0.000 s
40100	
sys	0m0.000 s
40200	
sys	0m0.001 s
40200	
sys	0m0.000 s
40200	
sys	0m0.002 s
40300	
sys	0m0.000 s
40300	
sys	0m0.000 s
40300	
sys	0m0.002 s
40400	
sys	0m0.000 s
40400	
sys	0m0.002 s
40400	
sys	0m0.002 s

40500  
sys 0m0.000 s  
40500  
sys 0m0.002 s  
40500  
sys 0m0.000 s  
40600  
sys 0m0.002 s  
40600  
sys 0m0.000 s  
40600  
sys 0m0.000 s  
40700  
sys 0m0.000 s  
40700  
sys 0m0.002 s  
40700  
sys 0m0.000 s  
40800  
sys 0m0.002 s  
40800  
sys 0m0.000 s  
40800

sys	0m0.000 s
40900	
sys	0m0.001 s
40900	
sys	0m0.000 s
40900	
sys	0m0.002 s
41000	
sys	0m0.000 s
41000	
sys	0m0.000 s
41000	
sys	0m0.002 s
41100	
sys	0m0.000 s
41100	
sys	0m0.000 s
41100	
sys	0m0.000 s
41200	
sys	0m0.002 s
41200	
sys	0m0.000 s

41200  
sys 0m0.000 s  
41300  
sys 0m0.000 s  
41300  
sys 0m0.000 s  
41300  
sys 0m0.002 s  
41400  
sys 0m0.002 s  
41400  
sys 0m0.000 s  
41400  
sys 0m0.000 s  
41500  
sys 0m0.000 s  
41500  
sys 0m0.002 s  
41500  
sys 0m0.000 s  
41600  
sys 0m0.000 s  
41600



sys	0m0.002 s
41600	
sys	0m0.000 s
41700	
sys	0m0.000 s
41700	
sys	0m0.002 s
41700	
sys	0m0.000 s
41800	
sys	0m0.000 s
41800	
sys	0m0.000 s
41800	
sys	0m0.000 s
41900	
sys	0m0.000 s
41900	
sys	0m0.001 s
41900	
sys	0m0.000 s
42000	
sys	0m0.000 s

42000  
sys 0m0.000 s  
42000  
sys 0m0.000 s  
42100  
sys 0m0.001 s  
42100  
sys 0m0.000 s  
42100  
sys 0m0.000 s  
42200  
sys 0m0.000 s  
42200  
sys 0m0.000 s  
42200  
sys 0m0.001 s  
42300  
sys 0m0.000 s  
42300  
sys 0m0.000 s  
42300  
sys 0m0.000 s  
42400

sys	0m0.000 s
42400	
sys	0m0.001 s
42400	
sys	0m0.000 s
42500	
sys	0m0.000 s
42500	
sys	0m0.000 s
42500	
sys	0m0.000 s
42600	
sys	0m0.000 s
42600	
sys	0m0.002 s
42600	
sys	0m0.000 s
42700	
sys	0m0.000 s
42700	
sys	0m0.001 s
42700	
sys	0m0.000 s

42800  
sys 0m0.000 s  
42800  
sys 0m0.000 s  
42800  
sys 0m0.001 s  
42900  
sys 0m0.000 s  
42900  
sys 0m0.000 s  
42900  
sys 0m0.000 s  
43000  
sys 0m0.001 s  
43000  
sys 0m0.000 s  
43000  
sys 0m0.002 s  
43100  
sys 0m0.000 s  
43100  
sys 0m0.000 s  
43100

sys	0m0.000 s
43200	
sys	0m0.002 s
43200	
sys	0m0.000 s
43200	
sys	0m0.000 s
43300	
sys	0m0.000 s
43300	
sys	0m0.001 s
43300	
sys	0m0.000 s
43400	
sys	0m0.000 s
43400	
sys	0m0.000 s
43400	
sys	0m0.000 s
43500	
sys	0m0.000 s
43500	
sys	0m0.001 s

43500  
sys 0m0.000 s  
43600  
sys 0m0.001 s  
43600  
sys 0m0.000 s  
43600  
sys 0m0.000 s  
43700  
sys 0m0.000 s  
43700  
sys 0m0.002 s  
43700  
sys 0m0.000 s  
43800  
sys 0m0.000 s  
43800  
sys 0m0.000 s  
43800  
sys 0m0.000 s  
43900  
sys 0m0.000 s  
43900

sys	0m0.000 s
43900	
sys	0m0.000 s
44000	
sys	0m0.000 s
44000	
sys	0m0.000 s
44000	
sys	0m0.001 s
44100	
sys	0m0.000 s
44100	
sys	0m0.000 s
44100	
sys	0m0.000 s
44200	
sys	0m0.000 s
44200	
sys	0m0.000 s
44200	
sys	0m0.000 s
44300	
sys	0m0.000 s

44300  
sys 0m0.001 s  
44300  
sys 0m0.000 s  
44400  
sys 0m0.002 s  
44400  
sys 0m0.000 s  
44400  
sys 0m0.000 s  
44500  
sys 0m0.000 s  
44500  
sys 0m0.000 s  
44500  
sys 0m0.001 s  
44600  
sys 0m0.000 s  
44600  
sys 0m0.001 s  
44600  
sys 0m0.000 s  
44700



sys	0m0.001 s
44700	
sys	0m0.000 s
44700	
sys	0m0.001 s
44800	
sys	0m0.000 s
44800	
sys	0m0.000 s
44800	
sys	0m0.000 s
44900	
sys	0m0.000 s
44900	
sys	0m0.000 s
44900	
sys	0m0.000 s
45000	
sys	0m0.000 s
45000	
sys	0m0.001 s
45000	
sys	0m0.000 s

45100  
sys 0m0.000 s  
45100  
sys 0m0.000 s  
45100  
sys 0m0.000 s  
45200  
sys 0m0.002 s  
45200  
sys 0m0.000 s  
45200  
sys 0m0.000 s  
45300  
sys 0m0.000 s  
45300  
sys 0m0.000 s  
45300  
sys 0m0.002 s  
45400  
sys 0m0.000 s  
45400  
sys 0m0.000 s  
45400

sys	0m0.000 s
45500	
sys	0m0.000 s
45500	
sys	0m0.000 s
45500	
sys	0m0.001 s
45600	
sys	0m0.000 s
45600	
sys	0m0.000 s
45600	
sys	0m0.000 s
45700	
sys	0m0.001 s
45700	
sys	0m0.000 s
45700	
sys	0m0.002 s
45800	
sys	0m0.000 s
45800	
sys	0m0.001 s

45800  
sys 0m0.000 s  
45900  
sys 0m0.001 s  
45900  
sys 0m0.000 s  
45900  
sys 0m0.000 s  
46000  
sys 0m0.000 s  
46000  
sys 0m0.002 s  
46000  
sys 0m0.000 s  
46100  
sys 0m0.000 s  
46100  
sys 0m0.000 s  
46100  
sys 0m0.000 s  
46200  
sys 0m0.000 s  
46200

sys	0m0.001 s
46200	
sys	0m0.000 s
46300	
sys	0m0.000 s
46300	
sys	0m0.000 s
46300	
sys	0m0.001 s
46400	
sys	0m0.000 s
46400	
sys	0m0.000 s
46400	
sys	0m0.000 s
46500	
sys	0m0.001 s
46500	
sys	0m0.000 s
46500	
sys	0m0.000 s
46600	
sys	0m0.000 s

46600  
sys 0m0.000 s  
46600  
sys 0m0.000 s  
46700  
sys 0m0.000 s  
46700  
sys 0m0.000 s  
46700  
sys 0m0.000 s  
46800  
sys 0m0.000 s  
46800  
sys 0m0.000 s  
46800  
sys 0m0.000 s  
46900  
sys 0m0.000 s  
46900  
sys 0m0.000 s  
46900  
sys 0m0.000 s  
47000

sys	0m0.000 s
47000	
sys	0m0.000 s
47000	
sys	0m0.001 s
47100	
sys	0m0.000 s
47100	
sys	0m0.001 s
47100	
sys	0m0.000 s
47200	
sys	0m0.000 s
47200	
sys	0m0.000 s
47200	
sys	0m0.000 s
47300	
sys	0m0.000 s
47300	
sys	0m0.000 s
47300	
sys	0m0.000 s

47400  
sys 0m0.001 s  
47400  
sys 0m0.000 s  
47400  
sys 0m0.000 s  
47500  
sys 0m0.000 s  
47500  
sys 0m0.000 s  
47500  
sys 0m0.000 s  
47600  
sys 0m0.001 s  
47600  
sys 0m0.000 s  
47600  
sys 0m0.001 s  
47700  
sys 0m0.000 s  
47700  
sys 0m0.000 s  
47700



sys	0m0.000 s
47800	
sys	0m0.000 s
47800	
sys	0m0.000 s
47800	
sys	0m0.000 s
47900	
sys	0m0.000 s
47900	
sys	0m0.000 s
47900	
sys	0m0.000 s
48000	
sys	0m0.000 s
48000	
sys	0m0.002 s
48000	
sys	0m0.000 s
48100	
sys	0m0.000 s
48100	
sys	0m0.000 s

48100	
sys	0m0.001 s
48200	
sys	0m0.000 s
48200	
sys	0m0.000 s
48200	
sys	0m0.000 s
48300	
sys	0m0.000 s
48300	
sys	0m0.000 s
48300	
sys	0m0.000 s
48400	
sys	0m0.000 s
48400	
sys	0m0.000 s
48400	
sys	0m0.000 s
48500	
sys	0m0.000 s
48500	

sys	0m0.001 s
48500	
sys	0m0.000 s
48600	
sys	0m0.001 s
48600	
sys	0m0.000 s
48600	
sys	0m0.001 s
48700	
sys	0m0.000 s
48700	
sys	0m0.000 s
48700	
sys	0m0.000 s
48800	
sys	0m0.001 s
48800	
sys	0m0.000 s
48800	
sys	0m0.000 s
48900	
sys	0m0.000 s

48900  
sys 0m0.000 s  
48900  
sys 0m0.000 s  
49000  
sys 0m0.000 s  
49000  
sys 0m0.000 s  
49000  
sys 0m0.000 s  
49100  
sys 0m0.000 s  
49100  
sys 0m0.000 s  
49100  
sys 0m0.000 s  
49200  
sys 0m0.000 s  
49200  
sys 0m0.002 s  
49200  
sys 0m0.000 s  
49300

sys	0m0.001 s
49300	
sys	0m0.000 s
49300	
sys	0m0.001 s
49400	
sys	0m0.000 s
49400	
sys	0m0.000 s
49400	
sys	0m0.000 s
49500	
sys	0m0.000 s
49500	
sys	0m0.000 s
49500	
sys	0m0.001 s
49600	
sys	0m0.000 s
49600	
sys	0m0.001 s
49600	
sys	0m0.000 s

49700  
sys 0m0.000 s  
49700  
sys 0m0.000 s  
49700  
sys 0m0.000 s  
49800  
sys 0m0.000 s  
49800  
sys 0m0.000 s  
49800  
sys 0m0.000 s  
49900  
sys 0m0.000 s  
49900  
sys 0m0.000 s  
49900  
sys 0m0.000 s  
50000  
sys 0m0.000 s  
50000  
sys 0m0.000 s  
50000

sys	0m0.001 s
50100	
sys	0m0.000 s
50100	
sys	0m0.001 s
50100	
sys	0m0.000 s
50200	
sys	0m0.001 s
50200	
sys	0m0.000 s
50200	
sys	0m0.000 s
50300	
sys	0m0.000 s
50300	
sys	0m0.000 s
50300	
sys	0m0.000 s
50400	
sys	0m0.000 s
50400	
sys	0m0.000 s

50400  
sys 0m0.000 s  
50500  
sys 0m0.000 s  
50500  
sys 0m0.000 s  
50500  
sys 0m0.000 s  
50600  
sys 0m0.000 s  
50600  
sys 0m0.000 s  
50600  
sys 0m0.000 s  
50700  
sys 0m0.000 s  
50700  
sys 0m0.000 s  
50700  
sys 0m0.000 s  
50800  
sys 0m0.000 s  
50800



sys	0m0.000 s
50800	
sys	0m0.000 s
50900	
sys	0m0.000 s
50900	
sys	0m0.000 s
50900	
sys	0m0.002 s
51000	
sys	0m0.000 s
51000	
sys	0m0.000 s
51000	
sys	0m0.000 s
51100	
sys	0m0.001 s
51100	
sys	0m0.000 s
51100	
sys	0m0.000 s
51200	
sys	0m0.000 s

51200  
sys 0m0.000 s  
51200  
sys 0m0.000 s  
51300  
sys 0m0.000 s  
51300  
sys 0m0.001 s  
51300  
sys 0m0.000 s  
51400  
sys 0m0.001 s  
51400  
sys 0m0.000 s  
51400  
sys 0m0.002 s  
51500  
sys 0m0.000 s  
51500  
sys 0m0.001 s  
51500  
sys 0m0.000 s  
51600

sys	0m0.000 s
51600	
sys	0m0.000 s
51600	
sys	0m0.001 s
51700	
sys	0m0.000 s
51700	
sys	0m0.002 s
51700	
sys	0m0.000 s
51800	
sys	0m0.000 s
51800	
sys	0m0.000 s
51800	
sys	0m0.000 s
51900	
sys	0m0.000 s
51900	
sys	0m0.000 s
51900	
sys	0m0.000 s

52000  
sys 0m0.000 s  
52000  
sys 0m0.002 s  
52000  
sys 0m0.000 s  
52100  
sys 0m0.000 s  
52100  
sys 0m0.000 s  
52100  
sys 0m0.000 s  
52200  
sys 0m0.002 s  
52200  
sys 0m0.000 s  
52200  
sys 0m0.000 s  
52300  
sys 0m0.000 s  
52300  
sys 0m0.000 s  
52300

sys	0m0.000 s
52400	
sys	0m0.000 s
52400	
sys	0m0.000 s
52400	
sys	0m0.000 s
52500	
sys	0m0.000 s
52500	
sys	0m0.000 s
52500	
sys	0m0.000 s
52600	
sys	0m0.000 s
52600	
sys	0m0.000 s
52600	
sys	0m0.000 s
52700	
sys	0m0.000 s
52700	
sys	0m0.000 s

52700  
sys 0m0.001 s  
52800  
sys 0m0.000 s  
52800  
sys 0m0.002 s  
52800  
sys 0m0.000 s  
52900  
sys 0m0.002 s  
52900  
sys 0m0.000 s  
52900  
sys 0m0.000 s  
53000  
sys 0m0.000 s  
53000  
sys 0m0.000 s  
53000  
sys 0m0.000 s  
53100  
sys 0m0.002 s  
53100

sys	0m0.000 s
53100	
sys	0m0.002 s
53200	
sys	0m0.000 s
53200	
sys	0m0.000 s
53200	
sys	0m0.000 s
53300	
sys	0m0.001 s
53300	
sys	0m0.000 s
53300	
sys	0m0.000 s
53400	
sys	0m0.000 s
53400	
sys	0m0.001 s
53400	
sys	0m0.000 s
53500	
sys	0m0.000 s

53500  
sys 0m0.001 s  
53500  
sys 0m0.000 s  
53600  
sys 0m0.000 s  
53600  
sys 0m0.000 s  
53600  
sys 0m0.001 s  
53700  
sys 0m0.002 s  
53700  
sys 0m0.000 s  
53700  
sys 0m0.000 s  
53800  
sys 0m0.000 s  
53800  
sys 0m0.002 s  
53800  
sys 0m0.000 s  
53900



sys	0m0.000 s
53900	
sys	0m0.000 s
53900	
sys	0m0.002 s
54000	
sys	0m0.000 s
54000	
sys	0m0.000 s
54000	
sys	0m0.002 s
54100	
sys	0m0.000 s
54100	
sys	0m0.001 s
54100	
sys	0m0.000 s
54200	
sys	0m0.002 s
54200	
sys	0m0.002 s
54200	
sys	0m0.000 s

54300  
sys 0m0.000 s  
54300  
sys 0m0.000 s  
54300  
sys 0m0.000 s  
54400  
sys 0m0.000 s  
54400  
sys 0m0.000 s  
54400  
sys 0m0.000 s  
54500  
sys 0m0.001 s  
54500  
sys 0m0.000 s  
54500  
sys 0m0.002 s  
54600  
sys 0m0.000 s  
54600  
sys 0m0.001 s  
54600

sys	0m0.000 s
54700	
sys	0m0.000 s
54700	
sys	0m0.002 s
54700	
sys	0m0.000 s
54800	
sys	0m0.000 s
54800	
sys	0m0.000 s
54800	
sys	0m0.000 s
54900	
sys	0m0.000 s
54900	
sys	0m0.000 s
54900	
sys	0m0.002 s
55000	
sys	0m0.000 s
55000	
sys	0m0.000 s

55000  
sys 0m0.002 s  
55100  
sys 0m0.000 s  
55100  
sys 0m0.000 s  
55100  
sys 0m0.000 s  
55200  
sys 0m0.000 s  
55200  
sys 0m0.001 s  
55200  
sys 0m0.000 s  
55300  
sys 0m0.000 s  
55300  
sys 0m0.002 s  
55300  
sys 0m0.000 s  
55400  
sys 0m0.002 s  
55400

sys	0m0.000 s
55400	
sys	0m0.001 s
55500	
sys	0m0.000 s
55500	
sys	0m0.001 s
55500	
sys	0m0.000 s
55600	
sys	0m0.000 s
55600	
sys	0m0.002 s
55600	
sys	0m0.002 s
55700	
sys	0m0.000 s
55700	
sys	0m0.001 s
55700	
sys	0m0.000 s
55800	
sys	0m0.000 s

55800  
sys 0m0.000 s  
55800  
sys 0m0.002 s  
55900  
sys 0m0.000 s  
55900  
sys 0m0.000 s  
55900  
sys 0m0.000 s  
56000  
sys 0m0.000 s  
56000  
sys 0m0.000 s  
56000  
sys 0m0.001 s  
56100  
sys 0m0.000 s  
56100  
sys 0m0.002 s  
56100  
sys 0m0.002 s  
56200

sys	0m0.000 s
56200	
sys	0m0.000 s
56200	
sys	0m0.000 s
56300	
sys	0m0.002 s
56300	
sys	0m0.000 s
56300	
sys	0m0.000 s
56400	
sys	0m0.000 s
56400	
sys	0m0.002 s
56400	
sys	0m0.000 s
56500	
sys	0m0.000 s
56500	
sys	0m0.002 s
56500	
sys	0m0.000 s

56600  
sys 0m0.001 s  
56600  
sys 0m0.002 s  
56600  
sys 0m0.000 s  
56700  
sys 0m0.002 s  
56700  
sys 0m0.000 s  
56700  
sys 0m0.002 s  
56800  
sys 0m0.000 s  
56800  
sys 0m0.001 s  
56800  
sys 0m0.000 s  
56900  
sys 0m0.002 s  
56900  
sys 0m0.000 s  
56900



sys	0m0.000 s
57000	
sys	0m0.000 s
57000	
sys	0m0.002 s
57000	
sys	0m0.000 s
57100	
sys	0m0.000 s
57100	
sys	0m0.000 s
57100	
sys	0m0.000 s
57200	
sys	0m0.000 s
57200	
sys	0m0.000 s
57200	
sys	0m0.002 s
57300	
sys	0m0.000 s
57300	
sys	0m0.000 s

57300  
sys 0m0.000 s  
57400  
sys 0m0.001 s  
57400  
sys 0m0.000 s  
57400  
sys 0m0.000 s  
57500  
sys 0m0.000 s  
57500  
sys 0m0.000 s  
57500  
sys 0m0.000 s  
57600  
sys 0m0.001 s  
57600  
sys 0m0.000 s  
57600  
sys 0m0.000 s  
57700  
sys 0m0.000 s  
57700

sys	0m0.001 s
57700	
sys	0m0.000 s
57800	
sys	0m0.001 s
57800	
sys	0m0.000 s
57800	
sys	0m0.001 s
57900	
sys	0m0.000 s
57900	
sys	0m0.000 s
57900	
sys	0m0.000 s
58000	
sys	0m0.000 s
58000	
sys	0m0.000 s
58000	
sys	0m0.000 s
58100	
sys	0m0.000 s

58100  
sys 0m0.000 s  
58100  
sys 0m0.001 s  
58200  
sys 0m0.000 s  
58200  
sys 0m0.000 s  
58200  
sys 0m0.000 s  
58300  
sys 0m0.000 s  
58300  
sys 0m0.000 s  
58300  
sys 0m0.001 s  
58400  
sys 0m0.000 s  
58400  
sys 0m0.001 s  
58400  
sys 0m0.000 s  
58500

sys	0m0.002 s
58500	
sys	0m0.000 s
58500	
sys	0m0.000 s
58600	
sys	0m0.000 s
58600	
sys	0m0.000 s
58600	
sys	0m0.000 s
58700	
sys	0m0.000 s
58700	
sys	0m0.000 s
58700	
sys	0m0.000 s
58800	
sys	0m0.000 s
58800	
sys	0m0.000 s
58800	
sys	0m0.001 s

58900  
sys 0m0.000 s  
58900  
sys 0m0.001 s  
58900  
sys 0m0.000 s  
59000  
sys 0m0.000 s  
59000  
sys 0m0.000 s  
59000  
sys 0m0.000 s  
59100  
sys 0m0.000 s  
59100  
sys 0m0.000 s  
59100  
sys 0m0.000 s  
59200  
sys 0m0.000 s  
59200  
sys 0m0.000 s  
59200

sys	0m0.000 s
59300	
sys	0m0.000 s
59300	
sys	0m0.000 s
59300	
sys	0m0.000 s
59400	
sys	0m0.000 s
59400	
sys	0m0.000 s
59400	
sys	0m0.000 s
59500	
sys	0m0.000 s
59500	
sys	0m0.000 s
59500	
sys	0m0.000 s
59600	
sys	0m0.000 s
59600	
sys	0m0.000 s

59600  
sys 0m0.000 s  
59700  
sys 0m0.000 s  
59700  
sys 0m0.000 s  
59700  
sys 0m0.000 s  
59800  
sys 0m0.000 s  
59800  
sys 0m0.000 s  
59800  
sys 0m0.000 s  
59900  
sys 0m0.000 s  
59900  
sys 0m0.000 s  
59900  
sys 0m0.000 s  
60000  
sys 0m0.000 s  
60000



sys	0m0.000 s
60000	
sys	0m0.000 s
60100	
sys	0m0.002 s
60100	
sys	0m0.000 s
60100	
sys	0m0.000 s
60200	
sys	0m0.000 s
60200	
sys	0m0.001 s
60200	
sys	0m0.000 s
60300	
sys	0m0.001 s
60300	
sys	0m0.000 s
60300	
sys	0m0.001 s
60400	
sys	0m0.000 s

60400  
sys 0m0.000 s  
60400  
sys 0m0.000 s  
60500  
sys 0m0.001 s  
60500  
sys 0m0.000 s  
60500  
sys 0m0.000 s  
60600  
sys 0m0.000 s  
60600  
sys 0m0.000 s  
60600  
sys 0m0.000 s  
60700  
sys 0m0.002 s  
60700  
sys 0m0.000 s  
60700  
sys 0m0.001 s  
60800

sys	0m0.000 s
60800	
sys	0m0.000 s
60800	
sys	0m0.000 s
60900	
sys	0m0.001 s
60900	
sys	0m0.000 s
60900	
sys	0m0.000 s
61000	
sys	0m0.000 s
61000	
sys	0m0.001 s
61000	
sys	0m0.000 s
61100	
sys	0m0.000 s
61100	
sys	0m0.000 s
61100	
sys	0m0.000 s

61200	
sys	0m0.000 s
61200	
sys	0m0.002 s
61200	
sys	0m0.000 s
61300	
sys	0m0.000 s
61300	
sys	0m0.000 s
61300	
sys	0m0.000 s
61400	
sys	0m0.000 s
61400	
sys	0m0.000 s
61400	
sys	0m0.001 s
61500	
sys	0m0.000 s
61500	
sys	0m0.000 s
61500	

sys	0m0.000 s
61600	
sys	0m0.002 s
61600	
sys	0m0.000 s
61600	
sys	0m0.000 s
61700	
sys	0m0.000 s
61700	
sys	0m0.000 s
61700	
sys	0m0.000 s
61800	
sys	0m0.000 s
61800	
sys	0m0.000 s
61800	
sys	0m0.000 s
61900	
sys	0m0.000 s
61900	
sys	0m0.000 s

61900  
sys 0m0.000 s  
62000  
sys 0m0.001 s  
62000  
sys 0m0.000 s  
62000  
sys 0m0.002 s  
62100  
sys 0m0.000 s  
62100  
sys 0m0.000 s  
62100  
sys 0m0.000 s  
62200  
sys 0m0.000 s  
62200  
sys 0m0.000 s  
62200  
sys 0m0.001 s  
62300  
sys 0m0.000 s  
62300

sys	0m0.001 s
62300	
sys	0m0.000 s
62400	
sys	0m0.000 s
62400	
sys	0m0.000 s
62400	
sys	0m0.000 s
62500	
sys	0m0.000 s
62500	
sys	0m0.000 s
62500	
sys	0m0.000 s
62600	
sys	0m0.002 s
62600	
sys	0m0.000 s
62600	
sys	0m0.000 s
62700	
sys	0m0.000 s

62700  
sys 0m0.001 s  
62700  
sys 0m0.000 s  
62800  
sys 0m0.001 s  
62800  
sys 0m0.000 s  
62800  
sys 0m0.000 s  
62900  
sys 0m0.000 s  
62900  
sys 0m0.002 s  
62900  
sys 0m0.000 s  
63000  
sys 0m0.001 s  
63000  
sys 0m0.000 s  
63000  
sys 0m0.001 s  
63100



sys	0m0.000 s
63100	
sys	0m0.001 s
63100	
sys	0m0.000 s
63200	
sys	0m0.000 s
63200	
sys	0m0.000 s
63200	
sys	0m0.001 s
63300	
sys	0m0.000 s
63300	
sys	0m0.002 s
63300	
sys	0m0.000 s
63400	
sys	0m0.000 s
63400	
sys	0m0.000 s
63400	
sys	0m0.000 s

63500  
sys 0m0.000 s  
63500  
sys 0m0.000 s  
63500  
sys 0m0.000 s  
63600  
sys 0m0.001 s  
63600  
sys 0m0.000 s  
63600  
sys 0m0.001 s  
63700  
sys 0m0.000 s  
63700  
sys 0m0.001 s  
63700  
sys 0m0.000 s  
63800  
sys 0m0.001 s  
63800  
sys 0m0.000 s  
63800

sys	0m0.000 s
63900	
sys	0m0.000 s
63900	
sys	0m0.000 s
63900	
sys	0m0.000 s
64000	
sys	0m0.000 s
64000	
sys	0m0.000 s
64000	
sys	0m0.000 s
64100	
sys	0m0.000 s
64100	
sys	0m0.000 s
64100	
sys	0m0.000 s
64200	
sys	0m0.000 s
64200	
sys	0m0.001 s

64200	
sys	0m0.000 s
64300	
sys	0m0.000 s
64300	
sys	0m0.000 s
64300	
sys	0m0.000 s
64400	
sys	0m0.001 s
64400	
sys	0m0.000 s
64400	
sys	0m0.000 s
64500	
sys	0m0.000 s
64500	
sys	0m0.000 s
64500	
sys	0m0.000 s
64600	
sys	0m0.001 s
64600	

sys	0m0.000 s
64600	
sys	0m0.001 s
64700	
sys	0m0.000 s
64700	
sys	0m0.000 s
64700	
sys	0m0.000 s
64800	
sys	0m0.000 s
64800	
sys	0m0.000 s
64800	
sys	0m0.000 s
64900	
sys	0m0.000 s
64900	
sys	0m0.000 s
64900	
sys	0m0.000 s
65000	
sys	0m0.000 s

65000  
sys 0m0.000 s  
65000  
sys 0m0.000 s  
65100  
sys 0m0.000 s  
65100  
sys 0m0.000 s  
65100  
sys 0m0.001 s  
65200  
sys 0m0.000 s  
65200  
sys 0m0.001 s  
65200  
sys 0m0.000 s  
65300  
sys 0m0.001 s  
65300  
sys 0m0.000 s  
65300  
sys 0m0.000 s  
65400

sys	0m0.000 s
65400	
sys	0m0.001 s
65400	
sys	0m0.000 s
65500	
sys	0m0.000 s
65500	
sys	0m0.000 s
65500	
sys	0m0.000 s
65600	
sys	0m0.000 s
65600	
sys	0m0.000 s
65600	
sys	0m0.000 s
65700	
sys	0m0.000 s
65700	
sys	0m0.001 s
65700	
sys	0m0.000 s

65800  
sys 0m0.000 s  
65800  
sys 0m0.000 s  
65800  
sys 0m0.001 s  
65900  
sys 0m0.000 s  
65900  
sys 0m0.001 s  
65900  
sys 0m0.000 s  
66000  
sys 0m0.000 s  
66000  
sys 0m0.000 s  
66000  
sys 0m0.001 s  
66100  
sys 0m0.000 s  
66100  
sys 0m0.000 s  
66100



sys	0m0.000 s
66200	
sys	0m0.000 s
66200	
sys	0m0.000 s
66200	
sys	0m0.000 s
66300	
sys	0m0.000 s
66300	
sys	0m0.001 s
66300	
sys	0m0.000 s
66400	
sys	0m0.001 s
66400	
sys	0m0.000 s
66400	
sys	0m0.001 s
66500	
sys	0m0.000 s
66500	
sys	0m0.000 s

66500  
sys 0m0.000 s  
66600  
sys 0m0.001 s  
66600  
sys 0m0.000 s  
66600  
sys 0m0.000 s  
66700  
sys 0m0.000 s  
66700  
sys 0m0.000 s  
66700  
sys 0m0.000 s  
66800  
sys 0m0.000 s  
66800  
sys 0m0.000 s  
66800  
sys 0m0.001 s  
66900  
sys 0m0.000 s  
66900

sys	0m0.000 s
66900	
sys	0m0.000 s
67000	
sys	0m0.000 s
67000	
sys	0m0.000 s
67000	
sys	0m0.000 s
67100	
sys	0m0.000 s
67100	
sys	0m0.000 s
67100	
sys	0m0.000 s
67200	
sys	0m0.000 s
67200	
sys	0m0.000 s
67200	
sys	0m0.000 s
67300	
sys	0m0.001 s

67300  
sys 0m0.000 s  
67300  
sys 0m0.000 s  
67400  
sys 0m0.000 s  
67400  
sys 0m0.001 s  
67400  
sys 0m0.000 s  
67500  
sys 0m0.000 s  
67500  
sys 0m0.000 s  
67500  
sys 0m0.000 s  
67600  
sys 0m0.001 s  
67600  
sys 0m0.000 s  
67600  
sys 0m0.000 s  
67700

sys	0m0.000 s
67700	
sys	0m0.000 s
67700	
sys	0m0.000 s
67800	
sys	0m0.000 s
67800	
sys	0m0.000 s
67800	
sys	0m0.001 s
67900	
sys	0m0.000 s
67900	
sys	0m0.001 s
67900	
sys	0m0.000 s
68000	
sys	0m0.000 s
68000	
sys	0m0.000 s
68000	
sys	0m0.000 s

68100	
sys	0m0.000 s
68100	
sys	0m0.000 s
68100	
sys	0m0.000 s
68200	
sys	0m0.000 s
68200	
sys	0m0.000 s
68200	
sys	0m0.000 s
68300	
sys	0m0.000 s
68300	
sys	0m0.000 s
68300	
sys	0m0.000 s
68400	
sys	0m0.000 s
68400	
sys	0m0.001 s
68400	

sys	0m0.000 s
68500	
sys	0m0.001 s
68500	
sys	0m0.000 s
68500	
sys	0m0.000 s
68600	
sys	0m0.000 s
68600	
sys	0m0.000 s
68600	
sys	0m0.000 s
68700	
sys	0m0.000 s
68700	
sys	0m0.000 s
68700	
sys	0m0.001 s
68800	
sys	0m0.000 s
68800	
sys	0m0.000 s

68800  
sys 0m0.000 s  
68900  
sys 0m0.000 s  
68900  
sys 0m0.000 s  
68900  
sys 0m0.001 s  
69000  
sys 0m0.000 s  
69000  
sys 0m0.000 s  
69000  
sys 0m0.000 s  
69100  
sys 0m0.000 s  
69100  
sys 0m0.000 s  
69100  
sys 0m0.000 s  
69200  
sys 0m0.000 s  
69200



sys	0m0.000 s
69200	
sys	0m0.000 s
69300	
sys	0m0.000 s
69300	
sys	0m0.000 s
69300	
sys	0m0.000 s
69400	
sys	0m0.000 s
69400	
sys	0m0.000 s
69400	
sys	0m0.000 s
69500	
sys	0m0.001 s
69500	
sys	0m0.000 s
69500	
sys	0m0.000 s
69600	
sys	0m0.000 s

69600  
sys 0m0.000 s  
69600  
sys 0m0.001 s  
69700  
sys 0m0.000 s  
69700  
sys 0m0.002 s  
69700  
sys 0m0.000 s  
69800  
sys 0m0.000 s  
69800  
sys 0m0.000 s  
69800  
sys 0m0.000 s  
69900  
sys 0m0.000 s  
69900  
sys 0m0.001 s  
69900  
sys 0m0.000 s  
70000

sys	0m0.000 s
70000	
sys	0m0.000 s
70000	
sys	0m0.001 s
70100	
sys	0m0.000 s
70100	
sys	0m0.000 s
70100	
sys	0m0.000 s
70200	
sys	0m0.001 s
70200	
sys	0m0.000 s
70200	
sys	0m0.000 s
70300	
sys	0m0.000 s
70300	
sys	0m0.001 s
70300	
sys	0m0.000 s

70400  
sys 0m0.001 s  
70400  
sys 0m0.000 s  
70400  
sys 0m0.000 s  
70500  
sys 0m0.000 s  
70500  
sys 0m0.000 s  
70500  
sys 0m0.000 s  
70600  
sys 0m0.000 s  
70600  
sys 0m0.000 s  
70600  
sys 0m0.000 s  
70700  
sys 0m0.000 s  
70700  
sys 0m0.000 s  
70700

sys	0m0.000 s
70800	
sys	0m0.000 s
70800	
sys	0m0.001 s
70800	
sys	0m0.000 s
70900	
sys	0m0.001 s
70900	
sys	0m0.000 s
70900	
sys	0m0.001 s
71000	
sys	0m0.000 s
71000	
sys	0m0.000 s
71000	
sys	0m0.000 s
71100	
sys	0m0.001 s
71100	
sys	0m0.000 s

71100	
sys	0m0.000 s
71200	
sys	0m0.000 s
71200	
sys	0m0.001 s
71200	
sys	0m0.000 s
71300	
sys	0m0.000 s
71300	
sys	0m0.000 s
71300	
sys	0m0.000 s
71400	
sys	0m0.001 s
71400	
sys	0m0.002 s
71400	
sys	0m0.000 s
71500	
sys	0m0.001 s
71500	

sys	0m0.000 s
71500	
sys	0m0.002 s
71600	
sys	0m0.000 s
71600	
sys	0m0.000 s
71600	
sys	0m0.000 s
71700	
sys	0m0.000 s
71700	
sys	0m0.000 s
71700	
sys	0m0.000 s
71800	
sys	0m0.000 s
71800	
sys	0m0.000 s
71800	
sys	0m0.000 s
71900	
sys	0m0.001 s

71900  
sys 0m0.000 s  
71900  
sys 0m0.002 s  
72000  
sys 0m0.000 s  
72000  
sys 0m0.000 s  
72000  
sys 0m0.000 s  
72100  
sys 0m0.001 s  
72100  
sys 0m0.000 s  
72100  
sys 0m0.000 s  
72200  
sys 0m0.000 s  
72200  
sys 0m0.002 s  
72200  
sys 0m0.000 s  
72300



sys	0m0.000 s
72300	
sys	0m0.000 s
72300	
sys	0m0.001 s
72400	
sys	0m0.000 s
72400	
sys	0m0.001 s
72400	
sys	0m0.000 s
72500	
sys	0m0.000 s
72500	
sys	0m0.000 s
72500	
sys	0m0.000 s
72600	
sys	0m0.000 s
72600	
sys	0m0.000 s
72600	
sys	0m0.000 s

72700  
sys 0m0.000 s  
72700  
sys 0m0.000 s  
72700  
sys 0m0.000 s  
72800  
sys 0m0.000 s  
72800  
sys 0m0.000 s  
72800  
sys 0m0.001 s  
72900  
sys 0m0.000 s  
72900  
sys 0m0.000 s  
72900  
sys 0m0.000 s  
73000  
sys 0m0.000 s  
73000  
sys 0m0.000 s  
73000

sys	0m0.000 s
73100	
sys	0m0.000 s
73100	
sys	0m0.000 s
73100	
sys	0m0.000 s
73200	
sys	0m0.000 s
73200	
sys	0m0.000 s
73200	
sys	0m0.000 s
73300	
sys	0m0.000 s
73300	
sys	0m0.000 s
73300	
sys	0m0.000 s
73400	
sys	0m0.000 s
73400	
sys	0m0.000 s

73400  
sys 0m0.000 s  
73500  
sys 0m0.000 s  
73500  
sys 0m0.000 s  
73500  
sys 0m0.001 s  
73600  
sys 0m0.000 s  
73600  
sys 0m0.002 s  
73600  
sys 0m0.000 s  
73700  
sys 0m0.000 s  
73700  
sys 0m0.000 s  
73700  
sys 0m0.001 s  
73800  
sys 0m0.000 s  
73800

sys	0m0.001 s
73800	
sys	0m0.000 s
73900	
sys	0m0.001 s
73900	
sys	0m0.000 s
73900	
sys	0m0.000 s
74000	
sys	0m0.000 s
74000	
sys	0m0.000 s
74000	
sys	0m0.000 s
74100	
sys	0m0.000 s
74100	
sys	0m0.001 s
74100	
sys	0m0.000 s
74200	
sys	0m0.002 s

74200	
sys	0m0.000 s
74200	
sys	0m0.000 s
74300	
sys	0m0.000 s
74300	
sys	0m0.000 s
74300	
sys	0m0.000 s
74400	
sys	0m0.000 s
74400	
sys	0m0.000 s
74400	
sys	0m0.002 s
74500	
sys	0m0.000 s
74500	
sys	0m0.000 s
74500	
sys	0m0.000 s
74600	

sys	0m0.001 s
74600	
sys	0m0.000 s
74600	
sys	0m0.001 s
74700	
sys	0m0.000 s
74700	
sys	0m0.000 s
74700	
sys	0m0.000 s
74800	
sys	0m0.002 s
74800	
sys	0m0.000 s
74800	
sys	0m0.001 s
74900	
sys	0m0.000 s
74900	
sys	0m0.001 s
74900	
sys	0m0.000 s

75000  
sys 0m0.000 s  
75000  
sys 0m0.000 s  
75000  
sys 0m0.001 s  
75100  
sys 0m0.000 s  
75100  
sys 0m0.001 s  
75100  
sys 0m0.000 s  
75200  
sys 0m0.000 s  
75200  
sys 0m0.000 s  
75200  
sys 0m0.000 s  
75300  
sys 0m0.000 s  
75300  
sys 0m0.000 s  
75300



sys	0m0.000 s
75400	
sys	0m0.000 s
75400	
sys	0m0.000 s
75400	
sys	0m0.000 s
75500	
sys	0m0.000 s
75500	
sys	0m0.002 s
75500	
sys	0m0.000 s
75600	
sys	0m0.000 s
75600	
sys	0m0.000 s
75600	
sys	0m0.000 s
75700	
sys	0m0.000 s
75700	
sys	0m0.000 s

75700  
sys 0m0.000 s  
75800  
sys 0m0.000 s  
75800  
sys 0m0.000 s  
75800  
sys 0m0.001 s  
75900  
sys 0m0.000 s  
75900  
sys 0m0.002 s  
75900  
sys 0m0.000 s  
76000  
sys 0m0.000 s  
76000  
sys 0m0.000 s  
76000  
sys 0m0.000 s  
76100  
sys 0m0.000 s  
76100

sys	0m0.002 s
76100	
sys	0m0.000 s
76200	
sys	0m0.000 s
76200	
sys	0m0.000 s
76200	
sys	0m0.000 s
76300	
sys	0m0.000 s
76300	
sys	0m0.000 s
76300	
sys	0m0.000 s
76400	
sys	0m0.000 s
76400	
sys	0m0.002 s
76400	
sys	0m0.000 s
76500	
sys	0m0.001 s

76500  
sys 0m0.000 s  
76500  
sys 0m0.000 s  
76600  
sys 0m0.000 s  
76600  
sys 0m0.000 s  
76600  
sys 0m0.001 s  
76700  
sys 0m0.000 s  
76700  
sys 0m0.002 s  
76700  
sys 0m0.000 s  
76800  
sys 0m0.000 s  
76800  
sys 0m0.000 s  
76800  
sys 0m0.000 s  
76900

sys	0m0.000 s
76900	
sys	0m0.001 s
76900	
sys	0m0.000 s
77000	
sys	0m0.002 s
77000	
sys	0m0.000 s
77000	
sys	0m0.002 s
77100	
sys	0m0.000 s
77100	
sys	0m0.000 s
77100	
sys	0m0.000 s
77200	
sys	0m0.000 s
77200	
sys	0m0.000 s
77200	
sys	0m0.001 s

77300  
sys 0m0.000 s  
77300  
sys 0m0.000 s  
77300  
sys 0m0.000 s  
77400  
sys 0m0.001 s  
77400  
sys 0m0.000 s  
77400  
sys 0m0.001 s  
77500  
sys 0m0.000 s  
77500  
sys 0m0.000 s  
77500  
sys 0m0.000 s  
77600  
sys 0m0.000 s  
77600  
sys 0m0.000 s  
77600

sys	0m0.001 s
77700	
sys	0m0.000 s
77700	
sys	0m0.001 s
77700	
sys	0m0.000 s
77800	
sys	0m0.000 s
77800	
sys	0m0.000 s
77800	
sys	0m0.000 s
77900	
sys	0m0.000 s
77900	
sys	0m0.000 s
77900	
sys	0m0.001 s
78000	
sys	0m0.000 s
78000	
sys	0m0.001 s

78000  
sys 0m0.000 s  
78100  
sys 0m0.002 s  
78100  
sys 0m0.000 s  
78100  
sys 0m0.002 s  
78200  
sys 0m0.000 s  
78200  
sys 0m0.000 s  
78200  
sys 0m0.000 s  
78300  
sys 0m0.001 s  
78300  
sys 0m0.000 s  
78300  
sys 0m0.000 s  
78400  
sys 0m0.000 s  
78400



sys	0m0.000 s
78400	
sys	0m0.000 s
78500	
sys	0m0.000 s
78500	
sys	0m0.000 s
78500	
sys	0m0.000 s
78600	
sys	0m0.000 s
78600	
sys	0m0.000 s
78600	
sys	0m0.000 s
78700	
sys	0m0.000 s
78700	
sys	0m0.001 s
78700	
sys	0m0.000 s
78800	
sys	0m0.000 s

78800  
sys 0m0.000 s  
78800  
sys 0m0.000 s  
78900  
sys 0m0.000 s  
78900  
sys 0m0.000 s  
78900  
sys 0m0.000 s  
79000  
sys 0m0.000 s  
79000  
sys 0m0.000 s  
79000  
sys 0m0.001 s  
79100  
sys 0m0.000 s  
79100  
sys 0m0.000 s  
79100  
sys 0m0.000 s  
79200

sys	0m0.000 s
79200	
sys	0m0.000 s
79200	
sys	0m0.001 s
79300	
sys	0m0.000 s
79300	
sys	0m0.000 s
79300	
sys	0m0.000 s
79400	
sys	0m0.000 s
79400	
sys	0m0.000 s
79400	
sys	0m0.001 s
79500	
sys	0m0.000 s
79500	
sys	0m0.000 s
79500	
sys	0m0.000 s

79600  
sys 0m0.000 s  
79600  
sys 0m0.000 s  
79600  
sys 0m0.000 s  
79700  
sys 0m0.000 s  
79700  
sys 0m0.000 s  
79700  
sys 0m0.000 s  
79800  
sys 0m0.000 s  
79800  
sys 0m0.000 s  
79800  
sys 0m0.000 s  
79900  
sys 0m0.000 s  
79900  
sys 0m0.000 s  
79900

sys	0m0.000 s
80000	
sys	0m0.000 s
80000	
sys	0m0.000 s
80000	
sys	0m0.000 s
80100	
sys	0m0.000 s
80100	
sys	0m0.000 s
80100	
sys	0m0.000 s
80200	
sys	0m0.000 s
80200	
sys	0m0.000 s
80200	
sys	0m0.000 s
80300	
sys	0m0.000 s
80300	
sys	0m0.000 s

80300	
sys	0m0.000 s
80400	
sys	0m0.000 s
80400	
sys	0m0.002 s
80400	
sys	0m0.000 s
80500	
sys	0m0.000 s
80500	
sys	0m0.001 s
80500	
sys	0m0.000 s
80600	
sys	0m0.000 s
80600	
sys	0m0.000 s
80600	
sys	0m0.000 s
80700	
sys	0m0.001 s
80700	

sys	0m0.000 s
80700	
sys	0m0.000 s
80800	
sys	0m0.000 s
80800	
sys	0m0.000 s
80800	
sys	0m0.000 s
80900	
sys	0m0.000 s
80900	
sys	0m0.000 s
80900	
sys	0m0.000 s
81000	
sys	0m0.000 s
81000	
sys	0m0.000 s
81000	
sys	0m0.000 s
81100	
sys	0m0.000 s

81100	
sys	0m0.000 s
81100	
sys	0m0.000 s
81200	
sys	0m0.001 s
81200	
sys	0m0.000 s
81200	
sys	0m0.001 s
81300	
sys	0m0.000 s
81300	
sys	0m0.000 s
81300	
sys	0m0.000 s
81400	
sys	0m0.000 s
81400	
sys	0m0.000 s
81400	
sys	0m0.000 s
81500	



sys	0m0.000 s
81500	
sys	0m0.000 s
81500	
sys	0m0.000 s
81600	
sys	0m0.000 s
81600	
sys	0m0.000 s
81600	
sys	0m0.000 s
81700	
sys	0m0.000 s
81700	
sys	0m0.001 s
81700	
sys	0m0.000 s
81800	
sys	0m0.001 s
81800	
sys	0m0.000 s
81800	
sys	0m0.000 s

81900  
sys 0m0.000 s  
81900  
sys 0m0.000 s  
81900  
sys 0m0.000 s  
82000  
sys 0m0.000 s  
82000  
sys 0m0.000 s  
82000  
sys 0m0.000 s  
82100  
sys 0m0.000 s  
82100  
sys 0m0.000 s  
82100  
sys 0m0.000 s  
82200  
sys 0m0.000 s  
82200  
sys 0m0.000 s  
82200

sys	0m0.002 s
82300	
sys	0m0.000 s
82300	
sys	0m0.000 s
82300	
sys	0m0.000 s
82400	
sys	0m0.000 s
82400	
sys	0m0.000 s
82400	
sys	0m0.000 s
82500	
sys	0m0.000 s
82500	
sys	0m0.000 s
82500	
sys	0m0.000 s
82600	
sys	0m0.000 s
82600	
sys	0m0.001 s

82600  
sys 0m0.000 s  
82700  
sys 0m0.002 s  
82700  
sys 0m0.000 s  
82700  
sys 0m0.001 s  
82800  
sys 0m0.000 s  
82800  
sys 0m0.000 s  
82800  
sys 0m0.000 s  
82900  
sys 0m0.000 s  
82900  
sys 0m0.000 s  
82900  
sys 0m0.001 s  
83000  
sys 0m0.000 s  
83000

sys	0m0.001 s
83000	
sys	0m0.000 s
83100	
sys	0m0.001 s
83100	
sys	0m0.000 s
83100	
sys	0m0.002 s
83200	
sys	0m0.000 s
83200	
sys	0m0.000 s
83200	
sys	0m0.000 s
83300	
sys	0m0.000 s
83300	
sys	0m0.002 s
83300	
sys	0m0.000 s
83400	
sys	0m0.000 s

83400	
sys	0m0.000 s
83400	
sys	0m0.000 s
83500	
sys	0m0.000 s
83500	
sys	0m0.000 s
83500	
sys	0m0.000 s
83600	
sys	0m0.000 s
83600	
sys	0m0.000 s
83600	
sys	0m0.000 s
83700	
sys	0m0.000 s
83700	
sys	0m0.000 s
83700	
sys	0m0.001 s
83800	

sys	0m0.000 s
83800	
sys	0m0.002 s
83800	
sys	0m0.000 s
83900	
sys	0m0.001 s
83900	
sys	0m0.000 s
83900	
sys	0m0.002 s
84000	
sys	0m0.000 s
84000	
sys	0m0.001 s
84000	
sys	0m0.000 s
84100	
sys	0m0.000 s
84100	
sys	0m0.000 s
84100	
sys	0m0.000 s

84200	
sys	0m0.000 s
84200	
sys	0m0.000 s
84200	
sys	0m0.000 s
84300	
sys	0m0.001 s
84300	
sys	0m0.000 s
84300	
sys	0m0.000 s
84400	
sys	0m0.000 s
84400	
sys	0m0.000 s
84400	
sys	0m0.000 s
84500	
sys	0m0.000 s
84500	
sys	0m0.001 s
84500	



sys	0m0.000 s
84600	
sys	0m0.001 s
84600	
sys	0m0.000 s
84600	
sys	0m0.000 s
84700	
sys	0m0.000 s
84700	
sys	0m0.001 s
84700	
sys	0m0.000 s
84800	
sys	0m0.001 s
84800	
sys	0m0.000 s
84800	
sys	0m0.001 s
84900	
sys	0m0.000 s
84900	
sys	0m0.001 s

84900	
sys	0m0.000 s
85000	
sys	0m0.000 s
85000	
sys	0m0.000 s
85000	
sys	0m0.000 s
85100	
sys	0m0.000 s
85100	
sys	0m0.000 s
85100	
sys	0m0.001 s
85200	
sys	0m0.002 s
85200	
sys	0m0.000 s
85200	
sys	0m0.002 s
85300	
sys	0m0.000 s
85300	

sys	0m0.000 s
85300	
sys	0m0.000 s
85400	
sys	0m0.000 s
85400	
sys	0m0.002 s
85400	
sys	0m0.000 s
85500	
sys	0m0.000 s
85500	
sys	0m0.000 s
85500	
sys	0m0.000 s
85600	
sys	0m0.002 s
85600	
sys	0m0.000 s
85600	
sys	0m0.002 s
85700	
sys	0m0.000 s

85700  
sys 0m0.001 s  
85700  
sys 0m0.000 s  
85800  
sys 0m0.000 s  
85800  
sys 0m0.000 s  
85800  
sys 0m0.000 s  
85900  
sys 0m0.000 s  
85900  
sys 0m0.000 s  
85900  
sys 0m0.002 s  
86000  
sys 0m0.000 s  
86000  
sys 0m0.000 s  
86000  
sys 0m0.000 s  
86100

sys	0m0.000 s
86100	
sys	0m0.000 s
86100	
sys	0m0.000 s
86200	
sys	0m0.001 s
86200	
sys	0m0.000 s
86200	
sys	0m0.001 s
86300	
sys	0m0.000 s
86300	
sys	0m0.000 s
86300	
sys	0m0.000 s
86400	
sys	0m0.001 s
86400	
sys	0m0.000 s
86400	
sys	0m0.000 s

86500	
sys	0m0.000 s
86500	
sys	0m0.000 s
86500	
sys	0m0.000 s
86600	
sys	0m0.001 s
86600	
sys	0m0.000 s
86600	
sys	0m0.000 s
86700	
sys	0m0.000 s
86700	
sys	0m0.000 s
86700	
sys	0m0.002 s
86800	
sys	0m0.000 s
86800	
sys	0m0.000 s
86800	

sys	0m0.001 s
86900	
sys	0m0.000 s
86900	
sys	0m0.000 s
86900	
sys	0m0.000 s
87000	
sys	0m0.000 s
87000	
sys	0m0.000 s
87000	
sys	0m0.000 s
87100	
sys	0m0.000 s
87100	
sys	0m0.000 s
87100	
sys	0m0.000 s
87200	
sys	0m0.000 s
87200	
sys	0m0.000 s

87200  
sys 0m0.000 s  
87300  
sys 0m0.000 s  
87300  
sys 0m0.002 s  
87300  
sys 0m0.000 s  
87400  
sys 0m0.000 s  
87400  
sys 0m0.000 s  
87400  
sys 0m0.001 s  
87500  
sys 0m0.000 s  
87500  
sys 0m0.001 s  
87500  
sys 0m0.000 s  
87600  
sys 0m0.002 s  
87600



sys	0m0.000 s
87600	
sys	0m0.000 s
87700	
sys	0m0.000 s
87700	
sys	0m0.001 s
87700	
sys	0m0.000 s
87800	
sys	0m0.000 s
87800	
sys	0m0.000 s
87800	
sys	0m0.000 s
87900	
sys	0m0.000 s
87900	
sys	0m0.000 s
87900	
sys	0m0.000 s
88000	
sys	0m0.000 s

88000  
sys 0m0.000 s  
88000  
sys 0m0.000 s  
88100  
sys 0m0.000 s  
88100  
sys 0m0.000 s  
88100  
sys 0m0.001 s  
88200  
sys 0m0.000 s  
88200  
sys 0m0.000 s  
88200  
sys 0m0.000 s  
88300  
sys 0m0.001 s  
88300  
sys 0m0.000 s  
88300  
sys 0m0.000 s  
88400

sys	0m0.001 s
88400	
sys	0m0.000 s
88400	
sys	0m0.002 s
88500	
sys	0m0.000 s
88500	
sys	0m0.000 s
88500	
sys	0m0.000 s
88600	
sys	0m0.000 s
88600	
sys	0m0.000 s
88600	
sys	0m0.000 s
88700	
sys	0m0.001 s
88700	
sys	0m0.000 s
88700	
sys	0m0.002 s

88800  
sys 0m0.000 s  
88800  
sys 0m0.000 s  
88800  
sys 0m0.000 s  
88900  
sys 0m0.000 s  
88900  
sys 0m0.000 s  
88900  
sys 0m0.001 s  
89000  
sys 0m0.000 s  
89000  
sys 0m0.002 s  
89000  
sys 0m0.000 s  
89100  
sys 0m0.001 s  
89100  
sys 0m0.000 s  
89100

sys	0m0.000 s
89200	
sys	0m0.000 s
89200	
sys	0m0.000 s
89200	
sys	0m0.000 s
89300	
sys	0m0.000 s
89300	
sys	0m0.000 s
89300	
sys	0m0.000 s
89400	
sys	0m0.000 s
89400	
sys	0m0.000 s
89400	
sys	0m0.000 s
89500	
sys	0m0.001 s
89500	
sys	0m0.000 s

89500	
sys	0m0.000 s
89600	
sys	0m0.000 s
89600	
sys	0m0.002 s
89600	
sys	0m0.000 s
89700	
sys	0m0.001 s
89700	
sys	0m0.000 s
89700	
sys	0m0.000 s
89800	
sys	0m0.000 s
89800	
sys	0m0.000 s
89800	
sys	0m0.000 s
89900	
sys	0m0.000 s
89900	

sys	0m0.000 s
89900	
sys	0m0.000 s
90000	
sys	0m0.000 s
90000	
sys	0m0.000 s
90000	
sys	0m0.002 s
90100	
sys	0m0.000 s
90100	
sys	0m0.001 s
90100	
sys	0m0.000 s
90200	
sys	0m0.000 s
90200	
sys	0m0.000 s
90200	
sys	0m0.000 s
90300	
sys	0m0.000 s

90300  
sys 0m0.000 s  
90300  
sys 0m0.000 s  
90400  
sys 0m0.000 s  
90400  
sys 0m0.000 s  
90400  
sys 0m0.002 s  
90500  
sys 0m0.000 s  
90500  
sys 0m0.001 s  
90500  
sys 0m0.000 s  
90600  
sys 0m0.000 s  
90600  
sys 0m0.000 s  
90600  
sys 0m0.000 s  
90700



sys	0m0.000 s
90700	
sys	0m0.000 s
90700	
sys	0m0.000 s
90800	
sys	0m0.000 s
90800	
sys	0m0.000 s
90800	
sys	0m0.001 s
90900	
sys	0m0.000 s
90900	
sys	0m0.000 s
90900	
sys	0m0.000 s
91000	
sys	0m0.002 s
91000	
sys	0m0.000 s
91000	
sys	0m0.001 s

91100	
sys	0m0.000 s
91100	
sys	0m0.000 s
91100	
sys	0m0.000 s
91200	
sys	0m0.000 s
91200	
sys	0m0.000 s
91200	
sys	0m0.001 s
91300	
sys	0m0.000 s
91300	
sys	0m0.000 s
91300	
sys	0m0.000 s
91400	
sys	0m0.000 s
91400	
sys	0m0.000 s
91400	

sys	0m0.000 s
91500	
sys	0m0.000 s
91500	
sys	0m0.000 s
91500	
sys	0m0.002 s
91600	
sys	0m0.002 s
91600	
sys	0m0.000 s
91600	
sys	0m0.001 s
91700	
sys	0m0.000 s
91700	
sys	0m0.000 s
91700	
sys	0m0.000 s
91800	
sys	0m0.000 s
91800	
sys	0m0.000 s

91800	
sys	0m0.000 s
91900	
sys	0m0.000 s
91900	
sys	0m0.000 s
91900	
sys	0m0.000 s
92000	
sys	0m0.000 s
92000	
sys	0m0.000 s
92000	
sys	0m0.000 s
92100	
sys	0m0.000 s
92100	
sys	0m0.000 s
92100	
sys	0m0.000 s
92200	
sys	0m0.000 s
92200	

sys	0m0.000 s
92200	
sys	0m0.000 s
92300	
sys	0m0.000 s
92300	
sys	0m0.001 s
92300	
sys	0m0.000 s
92400	
sys	0m0.001 s
92400	
sys	0m0.000 s
92400	
sys	0m0.002 s
92500	
sys	0m0.000 s
92500	
sys	0m0.000 s
92500	
sys	0m0.000 s
92600	
sys	0m0.000 s

92600  
sys 0m0.000 s  
92600  
sys 0m0.001 s  
92700  
sys 0m0.000 s  
92700  
sys 0m0.001 s  
92700  
sys 0m0.000 s  
92800  
sys 0m0.001 s  
92800  
sys 0m0.000 s  
92800  
sys 0m0.000 s  
92900  
sys 0m0.000 s  
92900  
sys 0m0.002 s  
92900  
sys 0m0.000 s  
93000

sys	0m0.000 s
93000	
sys	0m0.000 s
93000	
sys	0m0.001 s
93100	
sys	0m0.000 s
93100	
sys	0m0.001 s
93100	
sys	0m0.000 s
93200	
sys	0m0.000 s
93200	
sys	0m0.000 s
93200	
sys	0m0.001 s
93300	
sys	0m0.000 s
93300	
sys	0m0.001 s
93300	
sys	0m0.000 s

93400  
sys 0m0.000 s  
93400  
sys 0m0.000 s  
93400  
sys 0m0.000 s  
93500  
sys 0m0.000 s  
93500  
sys 0m0.000 s  
93500  
sys 0m0.001 s  
93600  
sys 0m0.000 s  
93600  
sys 0m0.002 s  
93600  
sys 0m0.000 s  
93700  
sys 0m0.001 s  
93700  
sys 0m0.000 s  
93700



sys	0m0.000 s
93800	
sys	0m0.000 s
93800	
sys	0m0.000 s
93800	
sys	0m0.000 s
93900	
sys	0m0.000 s
93900	
sys	0m0.000 s
93900	
sys	0m0.000 s
94000	
sys	0m0.000 s
94000	
sys	0m0.000 s
94000	
sys	0m0.000 s
94100	
sys	0m0.000 s
94100	
sys	0m0.000 s

94100  
sys 0m0.000 s  
94200  
sys 0m0.000 s  
94200  
sys 0m0.001 s  
94200  
sys 0m0.000 s  
94300  
sys 0m0.001 s  
94300  
sys 0m0.000 s  
94300  
sys 0m0.002 s  
94400  
sys 0m0.000 s  
94400  
sys 0m0.000 s  
94400  
sys 0m0.000 s  
94500  
sys 0m0.001 s  
94500

sys	0m0.000 s
94500	
sys	0m0.000 s
94600	
sys	0m0.000 s
94600	
sys	0m0.000 s
94600	
sys	0m0.000 s
94700	
sys	0m0.000 s
94700	
sys	0m0.000 s
94700	
sys	0m0.000 s
94800	
sys	0m0.000 s
94800	
sys	0m0.000 s
94800	
sys	0m0.000 s
94900	
sys	0m0.000 s

94900  
sys 0m0.001 s  
94900  
sys 0m0.000 s  
95000  
sys 0m0.000 s  
95000  
sys 0m0.000 s  
95000  
sys 0m0.002 s  
95100  
sys 0m0.000 s  
95100  
sys 0m0.001 s  
95100  
sys 0m0.000 s  
95200  
sys 0m0.000 s  
95200  
sys 0m0.000 s  
95200  
sys 0m0.000 s  
95300

sys	0m0.000 s
95300	
sys	0m0.000 s
95300	
sys	0m0.000 s
95400	
sys	0m0.000 s
95400	
sys	0m0.000 s
95400	
sys	0m0.000 s
95500	
sys	0m0.000 s
95500	
sys	0m0.000 s
95500	
sys	0m0.000 s
95600	
sys	0m0.000 s
95600	
sys	0m0.001 s
95600	
sys	0m0.000 s

95700  
sys 0m0.000 s  
95700  
sys 0m0.000 s  
95700  
sys 0m0.000 s  
95800  
sys 0m0.000 s  
95800  
sys 0m0.001 s  
95800  
sys 0m0.000 s  
95900  
sys 0m0.000 s  
95900  
sys 0m0.000 s  
95900  
sys 0m0.000 s  
96000  
sys 0m0.001 s  
96000  
sys 0m0.000 s  
96000

sys	0m0.001 s
96100	
sys	0m0.000 s
96100	
sys	0m0.000 s
96100	
sys	0m0.000 s
96200	
sys	0m0.001 s
96200	
sys	0m0.000 s
96200	
sys	0m0.000 s
96300	
sys	0m0.000 s
96300	
sys	0m0.000 s
96300	
sys	0m0.000 s
96400	
sys	0m0.000 s
96400	
sys	0m0.000 s

96400  
sys 0m0.000 s  
96500  
sys 0m0.000 s  
96500  
sys 0m0.000 s  
96500  
sys 0m0.001 s  
96600  
sys 0m0.000 s  
96600  
sys 0m0.000 s  
96600  
sys 0m0.000 s  
96700  
sys 0m0.000 s  
96700  
sys 0m0.000 s  
96700  
sys 0m0.000 s  
96800  
sys 0m0.000 s  
96800



sys	0m0.000 s
96800	
sys	0m0.000 s
96900	
sys	0m0.001 s
96900	
sys	0m0.000 s
96900	
sys	0m0.000 s
97000	
sys	0m0.000 s
97000	
sys	0m0.000 s
97000	
sys	0m0.000 s
97100	
sys	0m0.000 s
97100	
sys	0m0.000 s
97100	
sys	0m0.000 s
97200	
sys	0m0.001 s

97200  
sys 0m0.000 s  
97200  
sys 0m0.001 s  
97300  
sys 0m0.000 s  
97300  
sys 0m0.002 s  
97300  
sys 0m0.000 s  
97400  
sys 0m0.001 s  
97400  
sys 0m0.000 s  
97400  
sys 0m0.001 s  
97500  
sys 0m0.000 s  
97500  
sys 0m0.000 s  
97500  
sys 0m0.000 s  
97600

sys	0m0.000 s
97600	
sys	0m0.000 s
97600	
sys	0m0.000 s
97700	
sys	0m0.000 s
97700	
sys	0m0.000 s
97700	
sys	0m0.000 s
97800	
sys	0m0.000 s
97800	
sys	0m0.000 s
97800	
sys	0m0.000 s
97900	
sys	0m0.001 s
97900	
sys	0m0.000 s
97900	
sys	0m0.000 s

98000  
sys 0m0.000 s  
98000  
sys 0m0.001 s  
98000  
sys 0m0.000 s  
98100  
sys 0m0.001 s  
98100  
sys 0m0.000 s  
98100  
sys 0m0.000 s  
98200  
sys 0m0.000 s  
98200  
sys 0m0.000 s  
98200  
sys 0m0.000 s  
98300  
sys 0m0.000 s  
98300  
sys 0m0.000 s  
98300

sys	0m0.000 s
98400	
sys	0m0.000 s
98400	
sys	0m0.000 s
98400	
sys	0m0.000 s
98500	
sys	0m0.000 s
98500	
sys	0m0.000 s
98500	
sys	0m0.000 s
98600	
sys	0m0.001 s
98600	
sys	0m0.000 s
98600	
sys	0m0.002 s
98700	
sys	0m0.000 s
98700	
sys	0m0.000 s

98700  
sys 0m0.000 s  
98800  
sys 0m0.002 s  
98800  
sys 0m0.000 s  
98800  
sys 0m0.001 s  
98900  
sys 0m0.000 s  
98900  
sys 0m0.001 s  
98900  
sys 0m0.000 s  
99000  
sys 0m0.001 s  
99000  
sys 0m0.000 s  
99000  
sys 0m0.000 s  
99100  
sys 0m0.000 s  
99100

sys	0m0.001 s
99100	
sys	0m0.000 s
99200	
sys	0m0.000 s
99200	
sys	0m0.000 s
99200	
sys	0m0.000 s
99300	
sys	0m0.001 s
99300	
sys	0m0.000 s
99300	
sys	0m0.000 s
99400	
sys	0m0.000 s
99400	
sys	0m0.001 s
99400	
sys	0m0.000 s
99500	
sys	0m0.000 s

99500  
sys 0m0.000 s  
99500  
sys 0m0.000 s  
99600  
sys 0m0.000 s  
99600  
sys 0m0.002 s  
99600  
sys 0m0.000 s  
99700  
sys 0m0.001 s  
99700  
sys 0m0.000 s  
99700  
sys 0m0.000 s  
99800  
sys 0m0.000 s  
99800  
sys 0m0.000 s  
99800  
sys 0m0.000 s  
99900



sys 0m0.001 s

99900

sys 0m0.000 s

99900

sys 0m0.001 s

100000

sys 0m0.000 s

100000

sys 0m0.000 s

100000

sys 0m0.000 s