Moab

Should Moab be reverting the standing reservations node list back after I modify it with mrsvctl?

Issue:

Should Moab be reverting the standing reservations node list back after I modify it with mrsvctl?

Symptom:

```
SRCFG[mod3app2] PERIOD=WEEK DEPTH=3
SRCFG[mod3app2] ACCESS=DEDICATED USERLIST=jbooth
SRCFG[mod3app2] RESOURCES=PROCS:8 TASKCOUNT=16
SRCFG[mod3app2] FLAGS=IGNIDLEJOBS,IGNSTATE,IGNJOBRSV,IGNRSV
SRCFG[mod3app2] HOSTLIST=c4u1[1-9],c4u2[0-6]
```

Submit a 2 jobs to use 2 nodes:

```
[jbooth@honu ~]$ echo sleep 300 | msub -l walltime=300 -l nodes=c4u25

Moab.3
[jbooth@honu ~]$ echo sleep 300 | msub -l walltime=300 -l nodes=c4u26

Moab.4
```

```
[jbooth@honu ~]$ showres -n
reservations on Thu Jul 16 11:24:02

NodeName             Type      ReservationID   JobState Task       Sta
rt    Duration  StartTime

c4u11                User         mod3app2.1        N/A    1   -00:04:
19  2:12:40:17  Thu Jul 16 11:19:43
                     User         mod3app2.2        N/A    1  2:12:35:
58  7:00:00:00  Sun Jul 19 00:00:00
```


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```
                    User         mod3app2.3        N/A    1  9:12:35:
58  7:00:00:00  Sun Jul 26 00:00:00
c4u12               User         mod3app2.1        N/A    1   -00:04:
19  2:12:40:17  Thu Jul 16 11:19:43
                    User         mod3app2.2        N/A    1  2:12:35:
58  7:00:00:00  Sun Jul 19 00:00:00
                    User         mod3app2.3        N/A    1  9:12:35:
58  7:00:00:00  Sun Jul 26 00:00:00
c4u13               User         mod3app2.1        N/A    1   -00:04:
19  2:12:40:17  Thu Jul 16 11:19:43
                    User         mod3app2.2        N/A    1  2:12:35:
58  7:00:00:00  Sun Jul 19 00:00:00
                    User         mod3app2.3        N/A    1  9:12:35:
58  7:00:00:00  Sun Jul 26 00:00:00
c4u14               User         mod3app2.1        N/A    1   -00:04:
19  2:12:40:17  Thu Jul 16 11:19:43
                    User         mod3app2.2        N/A    1  2:12:35:
58  7:00:00:00  Sun Jul 19 00:00:00
                    User         mod3app2.3        N/A    1  9:12:35:
58  7:00:00:00  Sun Jul 26 00:00:00
c4u15               User         mod3app2.1        N/A    1   -00:04:
19  2:12:40:17  Thu Jul 16 11:19:43
                    User         mod3app2.2        N/A    1  2:12:35:
58  7:00:00:00  Sun Jul 19 00:00:00
                    User         mod3app2.3        N/A    1  9:12:35:
58  7:00:00:00  Sun Jul 26 00:00:00
c4u16               User         mod3app2.1        N/A    1   -00:04:
19  2:12:40:17  Thu Jul 16 11:19:43
                    User         mod3app2.2        N/A    1  2:12:35:
58  7:00:00:00  Sun Jul 19 00:00:00
                    User         mod3app2.3        N/A    1  9:12:35:
58  7:00:00:00  Sun Jul 26 00:00:00
c4u17               User         mod3app2.1        N/A    1   -00:04:
19  2:12:40:17  Thu Jul 16 11:19:43
                    User         mod3app2.2        N/A    1  2:12:35:
58  7:00:00:00  Sun Jul 19 00:00:00
                    User         mod3app2.3        N/A    1  9:12:35:
58  7:00:00:00  Sun Jul 26 00:00:00
c4u18               User         mod3app2.1        N/A    1   -00:04:
19  2:12:40:17  Thu Jul 16 11:19:43
                    User         mod3app2.2        N/A    1  2:12:35:
58  7:00:00:00  Sun Jul 19 00:00:00
                    User         mod3app2.3        N/A    1  9:12:35:
58  7:00:00:00  Sun Jul 26 00:00:00
c4u19               User         mod3app2.1        N/A    1   -00:04:
19  2:12:40:17  Thu Jul 16 11:19:43
                    User         mod3app2.2        N/A    1  2:12:35:
58  7:00:00:00  Sun Jul 19 00:00:00
                    User         mod3app2.3        N/A    1  9:12:35:
```


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```
58  7:00:00:00  Sun Jul 26 00:00:00
c4u20                 User         mod3app2.1        N/A    1   -00:04:
19  2:12:40:17  Thu Jul 16 11:19:43
                      User         mod3app2.2        N/A    1  2:12:35:
58  7:00:00:00  Sun Jul 19 00:00:00
                      User         mod3app2.3        N/A    1  9:12:35:
58  7:00:00:00  Sun Jul 26 00:00:00
c4u21                 User         mod3app2.1        N/A    1   -00:04:
19  2:12:40:17  Thu Jul 16 11:19:43
                      User         mod3app2.2        N/A    1  2:12:35:
58  7:00:00:00  Sun Jul 19 00:00:00
                      User         mod3app2.3        N/A    1  9:12:35:
58  7:00:00:00  Sun Jul 26 00:00:00
c4u22                 User         mod3app2.1        N/A    1   -00:04:
19  2:12:40:17  Thu Jul 16 11:19:43
                      User         mod3app2.2        N/A    1  2:12:35:
58  7:00:00:00  Sun Jul 19 00:00:00
                      User         mod3app2.3        N/A    1  9:12:35:
58  7:00:00:00  Sun Jul 26 00:00:00
c4u23                 User         mod3app2.1        N/A    1   -00:04:
19  2:12:40:17  Thu Jul 16 11:19:43
                      User         mod3app2.2        N/A    1  2:12:35:
58  7:00:00:00  Sun Jul 19 00:00:00
                      User         mod3app2.3        N/A    1  9:12:35:
58  7:00:00:00  Sun Jul 26 00:00:00
c4u24                 User         mod3app2.1        N/A    1   -00:04:
19  2:12:40:17  Thu Jul 16 11:19:43
                      User         mod3app2.2        N/A    1  2:12:35:
58  7:00:00:00  Sun Jul 19 00:00:00
                      User         mod3app2.3        N/A    1  9:12:35:
58  7:00:00:00  Sun Jul 26 00:00:00
c4u25                 User         mod3app2.1        N/A    1   -00:04:
19  2:12:40:17  Thu Jul 16 11:19:43
                       Job             Moab.3    Running    1   -00:00:
05    00:05:00  Thu Jul 16 11:23:57
                      User         mod3app2.2        N/A    1  2:12:35:
58  7:00:00:00  Sun Jul 19 00:00:00
                      User         mod3app2.3        N/A    1  9:12:35:
58  7:00:00:00  Sun Jul 26 00:00:00
c4u26                 User         mod3app2.1        N/A    1   -00:04:
19  2:12:40:17  Thu Jul 16 11:19:43
                       Job             Moab.4    Running    1   -00:00:
03    00:05:00  Thu Jul 16 11:23:59
                      User         mod3app2.2        N/A    1  2:12:35:
58  7:00:00:00  Sun Jul 19 00:00:00
                      User         mod3app2.3        N/A    1  9:12:35:
58  7:00:00:00  Sun Jul 26 00:00:00

16 nodes reserved
```


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Modify the reservation to only consume nodes being used:

```
[jbooth@honu ~]$ mrsvctl -m -h  c4u25,c4u26 --flags=force mod3app2.1


INFO:   expression 'c4u25|c4u26' successfully matched 2 node(s)
NOTE:  hostlist changed for rsv mod3app2.1

[jbooth@honu ~]$ mrsvctl -m -h  c4u25,c4u26 --flags=force mod3app2.2


INFO:   expression 'c4u25|c4u26' successfully matched 2 node(s)
NOTE:  hostlist changed for rsv mod3app2.2

[jbooth@honu ~]$ mrsvctl -m -h  c4u25,c4u26 --flags=force mod3app2.3


INFO:   expression 'c4u25|c4u26' successfully matched 2 node(s)
NOTE:  hostlist changed for rsv mod3app2.3
```

```
[jbooth@honu ~]$ showres -n
reservations on Thu Jul 16 11:24:50

NodeName             Type      ReservationID   JobState Task       Sta
rt    Duration  StartTime

c4u25                User         mod3app2.1        N/A    8   -00:05:
07  2:12:40:17  Thu Jul 16 11:19:43
                      Job             Moab.3    Running    1   -00:00:
53    00:05:00  Thu Jul 16 11:23:57
                     User         mod3app2.2        N/A    8  2:12:35:
10  7:00:00:00  Sun Jul 19 00:00:00
                     User         mod3app2.3        N/A    8  9:12:35:
10  7:00:00:00  Sun Jul 26 00:00:00
c4u26                User         mod3app2.1        N/A    8   -00:05:
07  2:12:40:17  Thu Jul 16 11:19:43
```


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```
                     Job             Moab.4    Running    1   -00:00:
51    00:05:00  Thu Jul 16 11:23:59
                     User         mod3app2.2        N/A    8  2:12:35:
10  7:00:00:00  Sun Jul 19 00:00:00
                     User         mod3app2.3        N/A    8  9:12:35:
10  7:00:00:00  Sun Jul 26 00:00:00

2 nodes reserved
```

After the next scheduling iteration the reservation reverts back to the original nodes in the standing resertvation.

```
[jbooth@honu ~]$ mschedctl -r

scheduling will resume immediately

[jbooth@honu ~]$ showres -n
reservations on Thu Jul 16 11:24:56

NodeName             Type      ReservationID   JobState Task       Sta
rt    Duration  StartTime

c4u11                User         mod3app2.1        N/A    1   -00:00:
01  2:12:35:05  Thu Jul 16 11:24:55
                     User         mod3app2.2        N/A    1  2:12:35:
04  7:00:00:00  Sun Jul 19 00:00:00
                     User         mod3app2.3        N/A    1  9:12:35:
04  7:00:00:00  Sun Jul 26 00:00:00
c4u12                User         mod3app2.1        N/A    1   -00:00:
01  2:12:35:05  Thu Jul 16 11:24:55
                     User         mod3app2.2        N/A    1  2:12:35:
04  7:00:00:00  Sun Jul 19 00:00:00
                     User         mod3app2.3        N/A    1  9:12:35:
04  7:00:00:00  Sun Jul 26 00:00:00
c4u13                User         mod3app2.1        N/A    1   -00:00:
01  2:12:35:05  Thu Jul 16 11:24:55
                     User         mod3app2.2        N/A    1  2:12:35:
04  7:00:00:00  Sun Jul 19 00:00:00
                     User         mod3app2.3        N/A    1  9:12:35:
04  7:00:00:00  Sun Jul 26 00:00:00
c4u14                User         mod3app2.1        N/A    1   -00:00:
01  2:12:35:05  Thu Jul 16 11:24:55
                     User         mod3app2.2        N/A    1  2:12:35:
04  7:00:00:00  Sun Jul 19 00:00:00
```


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URL: /phpmyfaq/index.php?action=artikel&cat=1&id=45&artlang=en

```
                    User         mod3app2.3        N/A    1  9:12:35:
04  7:00:00:00  Sun Jul 26 00:00:00
c4u15               User         mod3app2.1        N/A    1   -00:00:
01  2:12:35:05  Thu Jul 16 11:24:55
                    User         mod3app2.2        N/A    1  2:12:35:
04  7:00:00:00  Sun Jul 19 00:00:00
                    User         mod3app2.3        N/A    1  9:12:35:
04  7:00:00:00  Sun Jul 26 00:00:00
c4u16               User         mod3app2.1        N/A    1   -00:00:
01  2:12:35:05  Thu Jul 16 11:24:55
                    User         mod3app2.2        N/A    1  2:12:35:
04  7:00:00:00  Sun Jul 19 00:00:00
                    User         mod3app2.3        N/A    1  9:12:35:
04  7:00:00:00  Sun Jul 26 00:00:00
c4u17               User         mod3app2.1        N/A    1   -00:00:
01  2:12:35:05  Thu Jul 16 11:24:55
                    User         mod3app2.2        N/A    1  2:12:35:
04  7:00:00:00  Sun Jul 19 00:00:00
                    User         mod3app2.3        N/A    1  9:12:35:
04  7:00:00:00  Sun Jul 26 00:00:00
c4u18               User         mod3app2.1        N/A    1   -00:00:
01  2:12:35:05  Thu Jul 16 11:24:55
                    User         mod3app2.2        N/A    1  2:12:35:
04  7:00:00:00  Sun Jul 19 00:00:00
                    User         mod3app2.3        N/A    1  9:12:35:
04  7:00:00:00  Sun Jul 26 00:00:00
c4u19               User         mod3app2.1        N/A    1   -00:00:
01  2:12:35:05  Thu Jul 16 11:24:55
                    User         mod3app2.2        N/A    1  2:12:35:
04  7:00:00:00  Sun Jul 19 00:00:00
                    User         mod3app2.3        N/A    1  9:12:35:
04  7:00:00:00  Sun Jul 26 00:00:00
c4u20               User         mod3app2.1        N/A    1   -00:00:
01  2:12:35:05  Thu Jul 16 11:24:55
                    User         mod3app2.2        N/A    1  2:12:35:
04  7:00:00:00  Sun Jul 19 00:00:00
                    User         mod3app2.3        N/A    1  9:12:35:
04  7:00:00:00  Sun Jul 26 00:00:00
c4u21               User         mod3app2.1        N/A    1   -00:00:
01  2:12:35:05  Thu Jul 16 11:24:55
                    User         mod3app2.2        N/A    1  2:12:35:
04  7:00:00:00  Sun Jul 19 00:00:00
                    User         mod3app2.3        N/A    1  9:12:35:
04  7:00:00:00  Sun Jul 26 00:00:00
c4u22               User         mod3app2.1        N/A    1   -00:00:
01  2:12:35:05  Thu Jul 16 11:24:55
                    User         mod3app2.2        N/A    1  2:12:35:
04  7:00:00:00  Sun Jul 19 00:00:00
                    User         mod3app2.3        N/A    1  9:12:35:
```


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URL: /phpmyfaq/index.php?action=artikel&cat=1&id=45&artlang=en

```
04  7:00:00:00  Sun Jul 26 00:00:00
c4u23                User         mod3app2.1        N/A    1   -00:00:
01  2:12:35:05  Thu Jul 16 11:24:55
                     User         mod3app2.2        N/A    1  2:12:35:
04  7:00:00:00  Sun Jul 19 00:00:00
                     User         mod3app2.3        N/A    1  9:12:35:
04  7:00:00:00  Sun Jul 26 00:00:00
c4u24                User         mod3app2.1        N/A    1   -00:00:
01  2:12:35:05  Thu Jul 16 11:24:55
                     User         mod3app2.2        N/A    1  2:12:35:
04  7:00:00:00  Sun Jul 19 00:00:00
                     User         mod3app2.3        N/A    1  9:12:35:
04  7:00:00:00  Sun Jul 26 00:00:00
c4u25                 Job             Moab.3    Running    1   -00:00:
59    00:05:00  Thu Jul 16 11:23:57
                     User         mod3app2.1        N/A    1   -00:00:
01  2:12:35:05  Thu Jul 16 11:24:55
                     User         mod3app2.2        N/A    1  2:12:35:
04  7:00:00:00  Sun Jul 19 00:00:00
                     User         mod3app2.3        N/A    1  9:12:35:
04  7:00:00:00  Sun Jul 26 00:00:00
c4u26                 Job             Moab.4    Running    1   -00:00:
57    00:05:00  Thu Jul 16 11:23:59
                     User         mod3app2.1        N/A    1   -00:00:
01  2:12:35:05  Thu Jul 16 11:24:55
                     User         mod3app2.2        N/A    1  2:12:35:
04  7:00:00:00  Sun Jul 19 00:00:00
                     User         mod3app2.3        N/A    1  9:12:35:
04  7:00:00:00  Sun Jul 26 00:00:00

16 nodes reserved
```

Solution:

This is expected behavior. Standing reservations are shepherded by Moab throughout their life cycle to ensure they match what is specified in the configuration. To modify a standing reservation you have to modify the moab.cfg and restart Moab. An alternative is to create the reservation with mrsvctl. In this way Moab will not enforce and shepard the reservation as it normally would with standing reservations.

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Moab

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Moab

Unique solution ID: #1044
Author: Jason Booth
Last update: 2015-07-23 19:12

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