

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

Moab

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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		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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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.

Moab

Moab

Unique solution ID: #1044

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