```
**********************************************************
    5901 Wed May  8 15:01:07 2013
new/usr/src/cmd/stmfproxy/aluaadm/aluaadm.c
3751 ALUA mode: "/usr/demo/comstar/bin/aluaadm enable 1" sets "ALUA Node" = 0
Reviewed by: Hans Rosenfeld <hans.rosenfeld@nexenta.com>
**********************************************************
______unchanged_portion_omitted_

 162 /*
 163  * enableAluaFunc
 164  *
 165  * Purpose: enable alua mode
 166  *
 167  */
 168 /*ARGSUSED*/
 169 static int
 170 enableAluaFunc(int operandLen, char *operands[], cmdOptions_t *options,
 171     void *args)
 172 {
 173         uint8_t node_id = 0;
 174         if (operands[0][0] == '1') {
 174         if (operands[0][1] == '1') {
 175                 node_id = 1;
 176         }
 177         return (stmfSetAluaState(B_TRUE, node_id));
 178 }
______unchanged_portion_omitted_
```

```
**********************************************************
   24599 Wed May  8 15:01:07 2013
new/usr/src/man/man1m/stmfadm.1m
3751 ALUA mode: "/usr/demo/comstar/bin/aluaadm enable 1" sets "ALUA Node" = 0
Reviewed by: Hans Rosenfeld <hans.rosenfeld@nexenta.com>
**********************************************************
'\" te
.\" Copyright (c) 2009, Sun Microsystems, Inc. All Rights Reserved
.\" The contents of this file are subject to the terms of the Common Development
.\"  See the License for the specific language governing permissions and limitat
.\" fields enclosed by brackets "[]" replaced with your own identifying informat
.TH STMFADM 1M "Jul 30, 2009"
.SH NAME
stmfadm \- SCSI target mode framework command line interface
.SH SYNOPSIS
.LP
.nf
\fBstmfadm\fR \fBadd-hg-member\fR \fB-g\fR, \fB--group-name\fR \fIgroup-name\fR
.fi

.LP
.nf
\fBstmfadm\fR \fBadd-tg-member\fR \fB-g\fR, \fB--group-name\fR \fIgroup-name\fR
.fi

.LP
.nf
\fBstmfadm\fR \fBadd-view\fR [\fB-n\fR, \fB--lun\fR \fIlogical-unit-number\fR
     \fB-t\fR, \fB--target-group\fR \fIgroup-name\fR \fB-h\fR, \fB--host-group\f
.fi

.LP
.nf
\fBstmfadm\fR \fBcreate-hg\fR \fIgroup-name\fR
.fi

.LP
.nf
\fBstmfadm\fR \fBcreate-lu\fR [\fB-p\fR, \fB--lu-prop\fR \fIlogical-unit-propert
     \fB-s\fR, \fB--size\fR \fIsize\fR] \fIlu-file\fR
.fi

.LP
.nf
\fBstmfadm\fR \fBcreate-tg\fR \fIgroup-name\fR
.fi

.LP
.nf
\fBstmfadm\fR \fBdelete-hg\fR \fIgroup-name\fR
.fi

.LP
.nf
\fBstmfadm\fR \fBdelete-lu\fR \fIlu-name\fR
.fi

.LP
.nf
\fBstmfadm\fR \fBdelete-tg\fR \fIgroup-name\fR
.fi

.LP
.nf
\fBstmfadm\fR \fBimport-lu\fR \fIlu-file\fR
.fi
```



```
.LP
.nf
\fBstmfadm\fR \fBlist-hg\fR [\fB-v\fR] [\fIhost-group-name\fR...]
.fi

.LP
.nf
\fBstmfadm\fR \fBlist-tg\fR [\fB-v\fR] [\fItarget-group-name\fR...]
.fi

.LP
.nf
\fBstmfadm\fR \fBlist-lu\fR [\fB-v\fR] [\fIlu-name\fR...]
.fi

.LP
.nf
\fBstmfadm\fR \fBlist-target\fR [\fB-v\fR] [\fItarget-name\fR...]
.fi

.LP
.nf
\fBstmfadm\fR \fBlist-view\fR \fB-l\fR, \fB--lu-name\fR \fIlu-name\fR [\fIentry-
.fi

.LP
.nf
\fBstmfadm\fR \fBlist-state\fR
.fi

.LP
.nf
\fBstmfadm\fR \fBmodify-lu\fR [\fB-p\fR, \fB--lu-prop\fR \fIlogical-unit-propert
     \fB-s\fR, \fB--size\fR \fIsize\fR, \fB-f\fR, \fB--file\fR] \fIlu-name\fR|\f
.fi

.LP
.nf
\fBstmfadm\fR \fBonline-lu\fR \fIlu-name\fR
.fi

.LP
.nf
\fBstmfadm\fR \fBoffline-lu\fR \fIlu-name\fR
.fi

.LP
.nf
\fBstmfadm\fR \fBonline-lu\fR \fItarget-name\fR
.fi

.LP
.nf
\fBstmfadm\fR \fBoffline-lu\fR \fItarget-name\fR
.fi

.LP
.nf
\fBstmfadm\fR \fBremove-hg-member\fR \fB-g\fR, \fB--group-name\fR \fIgroup-name\
.fi

.LP
.nf
\fBstmfadm\fR \fBremove-tg-member\fR \fB-g\fR, \fB--group-name\fR \fIgroup-name\
.fi
```

```
.LP
.nf
\fBstmfadm\fR \fBremove-view\fR \fB-l\fR, \fB--lu-name\fR \fIlu-name\fR \fIentry
.fi

.SH DESCRIPTION
.sp
.LP
The \fBstmfadm\fR command configures logical units within the SCSI Target Mode
Framework (STMF) framework. The framework and this man page use the following
terminology:
.sp
.ne 2
.na
\fB\fBinitiator\fR\fR
.ad
.sp .6
.RS 4n
A device responsible for issuing SCSI I/O commands to a SCSI target and logical
unit.
.RE

.sp
.ne 2
.na
\fB\fBtarget\fR\fR
.ad
.sp .6
.RS 4n
A device responsible for receiving SCSI I/O commands for a logical unit.
.RE

.sp
.ne 2
.na
\fB\fBlogical unit\fR\fR
.ad
.sp .6
.RS 4n
A device within a target responsible for executing SCSI I/O commands.
.RE

.sp
.ne 2
.na
\fB\fBlogical unit number\fR\fR
.ad
.sp .6
.RS 4n
The identifier of a logical unit within a target.
.RE

.sp
.ne 2
.na
\fB\fBinitiator group\fR\fR
.ad
.sp .6
.RS 4n
An initiator group is a set of one or more initiators that are combined for the
purposes of being applied to a \fBview\fR (see below). An initiator cannot be a
member of more than one initiator group.
.RE

.sp
```



```
.ne 2
.na
\fB\fBtarget group\fR\fR
.ad
.sp .6
.RS 4n
A target group is a set of one or more SCSI target ports that are treated the
same when creating a \fBview\fR (see below). The set of logical units that a
particular SCSI initiator can see is determined by the combined set of  views.
.sp
Each logical unit has a set of view entries, and each view entry specifies a
target group, host group, and a LUN. An initiator from that host group, when
connecting through that target group, is able to identify and connect to that
logical unit using the specified LUN. You can use views to restrict the set of
logical units that a specific initiator can see, and assign the set of LUNs
that will be used.
.RE

.sp
.ne 2
.na
\fB\fBview\fR\fR
.ad
.sp .6
.RS 4n
A view defines the association of an initiator group, a target group, and a
logical unit number with a specified logical unit. Any view entry added to a
logical unit must not be in conflict with existing view entries for that
logical unit. A view entry is considered to be in conflict when an attempt is
made to duplicate the association of any given initiator, target and logical
unit number. As an example, logical unit \fBLU_0\fR has the following view
entry associated with it:
.sp
.in +2
.nf
Logical Unit: LU_0
                          View Entry: 0
                                  initiator group: HostA
                                  target group: All targets
                                  logical unit number: 32
.fi
.in -2
.sp

If you attempted the following:
.sp
.in +2
.nf
# \fBstmf add-view -n 31 -h HostA LU_0\fR
.fi
.in -2
.sp

\&...the operation would return an error with a message indicating that the
view entry is in conflict with one or more existing view entries. This conflict
arises because the existing view entry, \fB0\fR, already has mapped \fBLU_0\fR
to logical unit number 32 for the initiator group \fBHostA\fR.
.RE

.SH SUB-COMMANDS
.sp
.LP
The \fBstmfadm\fR command supports the subcommands listed below.
.sp
.ne 2
.na
```

```
\fB\fBadd-view\fR [\fB-n\fR, \fB--lun\fR \fIlogical-unit-number\fR \fB-t\fR,
\fB--target-group\fR \fIgroup-name\fR \fB-h\fR, \fB--host-group\fR
\fIgroup-name\fR] \fIlu-name\fR\fR
.ad
.sp .6
.RS 4n
Adds a logical unit view entry to a logical unit \fIlu-name\fR, where
\fIlu-name\fR is the STMF name for the logical unit as displayed by the
\fBlist-lu\fR subcommand. The \fBadd-view\fR subcommand provides the user with
a mechanism to implement access control for a logical unit and also provides a
means of assigning a logical unit number to a logical unit for a given set of
initiators and targets. A logical unit will not be available to any initiators
until at least one view is applied. Each view entry gets assigned an entry
name, which can be used to reference the entry in the \fBremove-view\fR and
\fBlist-view\fR subcommands.
.sp
\fBadd-view\fR supports the following options:
.sp
.ne 2
.na
\fB\fB-n\fR, \fB--lun\fR \fIlogical-unit-number\fR\fR
.ad
.sp .6
.RS 4n
\fIlogical-unit-number\fR is an integer in the range 0-16383 to be assigned to
the logical unit for this view entry. If this option is not specified, a
logical unit number will be assigned by the STMF framework.
.RE

.sp
.ne 2
.na
\fB\fB-t\fR, \fB--target-group\fR \fIgroup-name\fR\fR
.ad
.sp .6
.RS 4n
\fIgroup-name\fR is the name of a target group previously created using the
STMF \fBcreate-tg\fR subcommand. If this option is not specified, the logical
unit will be available through all targets.
.RE

.sp
.ne 2
.na
\fB\fB-h\fR, \fB-host-group\fR \fIgroup-name\fR\fR
.ad
.sp .6
.RS 4n
\fIgroup-name\fR is the name of an host group previously created using the STMF
\fBcreate-hg\fR subcommand. If this option is not specified, the logical unit
will be available to all initiators that log in to the STMF framework.
.RE

.RE

.sp
.ne 2
.na
\fB\fBadd-hg-member\fR \fB-g\fR \fIgroup-name\fR \fIgroup member\fR...\fR
.ad
.sp .6
.RS 4n
Add a host group member to a host group. \fIgroup-name\fR must be an existing
group created using the \fBcreate-hg\fR subcommand. \fIgroup member\fR can be
specified as \fIname_type\fR.\fIname_value\fR, where \fIname_type\fR can be one
of the following:
```



```
.sp
.in +2
.nf
wwn
iqn
eui
.fi
.in -2
.sp

\&...and \fIname_value\fR is the value of the initiator name. As an example, to
add a fibre channel initiator port world-wide name \fB200000e08b909221\fR to
the host group \fBHostA\fR, the command would be:
.sp
.in +2
.nf
# \fBstmfadm add-hg-member -g HostA wwn.200000e08b909221\fR
.fi
.in -2
.sp

To add an ISCSI initiator node member with the name
\fBiqn.1986-03.com.sun:01.46f7e262\fR to \fBHostA\fR, the command would be:
.sp
.in +2
.nf
# \fBstmfadm add-hg-member -g HostA iqn.1986-03.com.sun:01.46f7e262\fR
.fi
.in -2
.sp

Alternatively, members can be specified using their SCSI name string
identifiers. To add the two initiators above using their SCSI name string
identifiers, the commands would be:
.sp
.in +2
.nf
# \fBstmfadm add-hg-member -g HostA eui.200000e08b909221\fR
# \fBstmfadm add-hg-member -g HostA iqn.1986-03.com.sun:01.46f7e262\fR
.fi
.in -2
.sp

A host group member cannot be a member of more than one host group.
.RE

.sp
.ne 2
.na
\fB\fBadd-tg-member\fR \fB-g\fR \fIgroup-name\fR \fIgroup member\fR...\fR
.ad
.sp .6
.RS 4n
Add a target group member to a target group. \fIgroup-name\fR must be an
existing group created using the \fBcreate-tg\fR subcommand. \fIgroup member\fR
can be specified as \fIname_type\fR.\fIname_value\fR, where \fIname_type\fR can
be one of the following:
.sp
.in +2
.nf
wwn
iqn
eui
.fi
.in -2
.sp
```

\&...and \fIname_value\fR is the value of the target name. As an example, to add a fibre channel target port world-wide name \fB501000e092376af7\fR to the target group \fBTG0\fR, the command would be:

.sp
.in +2
.nf
\fBstmfadm add-tg-member -g TG0 wwn.501000e092376af7\fR
.fi
.in -2
.sp

To add an ISCSI target member with the name \fBiqn.1986-03.com.sun:target.01.01110\fR to \fBTG0\fR, the command would be:

.sp
.in +2
.nf
\fBstmfadm add-tg-member -g TG0 iqn.1986-03.com.sun:target.01.01110\fR
.fi
.in -2
.sp

Alternatively, members can be specified using their SCSI name string identifiers. To add the two targets above using their SCSI name string identifiers, the commands would be:

.sp
.in +2
.nf
\fBstmfadm add-tg-member -g TG0 eui.501000e092376af7\fR
\fBstmfadm add-tg-member -g TG0 iqn.1986-03.com.sun:target.01.01110\fR
.fi
.in -2
.sp

A target group member cannot be a member of more than one target group.
.RE

.sp
.ne 2
.na
\fB\fBcreate-hg\fR \fIgroup-name\fR\fR
.ad
.sp .6
.RS 4n
Create an initiator group with the name \fIgroup-name\fR. \fIgroup-name\fR is a string of Unicode characters with a maximum length of 255. The group name must be unique within the STMF system.
.RE

.sp
.ne 2
.na
\fB\fBcreate-lu\fR [\fB-p\fR, \fB--lu-prop\fR
\fIlogical-unit-property\fR=\fIval\fR \fB--s\fR, \fB--size\fR \fIsize\fR]
\fIlu-file\fR\fR
.ad
.sp .6
.RS 4n
Create a logical unit that can be registered with STMF. For the \fB-p\fR option, \fIlogical-unit-property\fR can be one of the following properties:

.sp
.ne 2
.na
\fB\fBalias\fR\fR
.ad
.sp .6

.RS 4n
Up to 255 characters, representing a user-defined name for the device. The default is the name of the backing store.
.RE

.sp
.ne 2
.na
\fB\fBblk\fR\fR
.ad
.sp .6
.RS 4n
Specifies the block size for the device. The default is 512.
.RE

.sp
.ne 2
.na
\fB\fBguid\fR\fR
.ad
.sp .6
.RS 4n
Thirty-two hexadecimal ASCII characters representing a valid NAA Registered Extended Identifier. The default is set by the STMF to a generated value.
.RE

.sp
.ne 2
.na
\fB\fBmeta\fR\fR
.ad
.sp .6
.RS 4n
Metadata file name. When specified, will be used to hold the SCSI metadata for the logical unit. There is no default.
.RE

.sp
.ne 2
.na
\fB\fBmgmt-url\fR\fR
.ad
.sp .6
.RS 4n
Up to 1024 characters representing a Management Network Address URL. More than one URL can be passed as a single parameter by using space-delimited URLs enclosed inside a single pair of quotation marks (\fB"\fR).
.RE

.sp
.ne 2
.na
\fB\fBoui\fR\fR
.ad
.sp .6
.RS 4n
Organizational Unique Identifier. Six hexadecimal ASCII characters representing the IEEE OUI company ID assignment. This will be used to generate the device identifier (GUID). The default is \fB00144F\fR.
.RE

.sp
.ne 2
.na
\fB\fBpid\fR\fR
.ad

```
523 .sp .6
524 .RS 4n
525 Sixteen characters of product identification SCSI SPC-3. This value will be
526 reflected in the Standard \fBINQUIRY\fR data returned for the device. The
527 default is \fBCOMSTAR\fR.
528 .RE

530 .sp
531 .ne 2
532 .na
533 \fB\fBserial\fR\fR
534 .ad
535 .sp .6
536 .RS 4n
537 Serial Number. Specifies the SCSI Vital Product Data Serial Number (page
538 \fB80h\fR). It is a character value up to 252 bytes in length. There is no
539 default value.
540 .RE

542 .sp
543 .ne 2
544 .na
545 \fB\fBvid\fR\fR
546 .ad
547 .sp .6
548 .RS 4n
549 Eight characters of vendor identification per SCSI SPC-3. This value will be
550 reflected in the Standard \fBINQUIRY\fR data returned for the device. The
551 default is \fBSUN\fR.
552 .RE

554 .sp
555 .ne 2
556 .na
557 \fB\fBwcd\fR\fR
558 .ad
559 .sp .6
560 .RS 4n
561 Write-back cache disable. Specify \fBtrue\fR or \fBfalse\fRto determine
562 write-back cache disable behavior. The default is the write-back cache setting
563 of the backing store device specified by the \fIlu-file\fR argument.
564 .RE

566 .sp
567 .ne 2
568 .na
569 \fB\fBwp\fR\fR
570 .ad
571 .sp .6
572 .RS 4n
573 Write-protect bit. Specify \fBtrue\fR or \fBfalse\fR to determine whether the
574 device reports as write-protected. The default is \fBfalse\fR.
575 .RE

577 For the \fB-s\fR option, \fIsize\fR is an integer followed by one of the
578 following letters, to indicate a unit of size:
579 .sp
580 .ne 2
581 .na
582 \fB\fBk\fR\fR
583 .ad
584 .RS 5n
585 kilobyte
586 .RE

588 .sp
```



```
589 .ne 2
590 .na
591 \fB\fBm\fR\fR
592 .ad
593 .RS 5n
594 megabyte
595 .RE

597 .sp
598 .ne 2
599 .na
600 \fB\fBg\fR\fR
601 .ad
602 .RS 5n
603 gigabyte
604 .RE

606 .sp
607 .ne 2
608 .na
609 \fB\fBt\fR\fR
610 .ad
611 .RS 5n
612 terabyte
613 .RE

615 .sp
616 .ne 2
617 .na
618 \fB\fBp\fR\fR
619 .ad
620 .RS 5n
621 petabyte
622 .RE

624 .sp
625 .ne 2
626 .na
627 \fB\fBe\fR\fR
628 .ad
629 .RS 5n
630 exabyte
631 .RE

633 \fIlu-file\fR is the file to be used as the backing store for the logical unit.
634 If the \fB-s\fR option is not specified, the size of the specified
635 \fIlu-file\fR will be used as the size of the logical unit. Logical units
636 registered with the STMF require space for the metadata to be stored. When a
637 \fBzvol\fR is specified as the backing store device, the default will be to use
638 a special property of the \fBzvol\fR to contain the metadata. For all other
639 devices, the default behavior will be to use the first 64k of the device. An
640 alternative approach would be to use the \fBmeta\fR property in a
641 \fBcreate-lu\fR command to specify an alternate file to contain the metadata.
642 It is advisable to use a file that can provide sufficient storage of the
643 logical unit metadata, preferably 64k.
644 .RE

646 .sp
647 .ne 2
648 .na
649 \fB\fBcreate-tg\fR \fIgroup-name\fR\fR
650 .ad
651 .sp .6
652 .RS 4n
653 Create a target group with the name \fIgroup-name\fR. \fIgroup-name\fR is a
654 string of Unicode characters with a maximum length of 255. The group name must
```

```
655 be unique within the STMF system.
656 .RE

658 .sp
659 .ne 2
660 .na
661 \fB\fBdelete-hg\fR \fIgroup-name\fR\fR
662 .ad
663 .sp .6
664 .RS 4n
665 Delete the host group that identified by \fIgroup-name\fR.
666 .RE

668 .sp
669 .ne 2
670 .na
671 \fB\fBdelete-lu\fR \fIlu-name\fR\fR
672 .ad
673 .sp .6
674 .RS 4n
675 Deletes an existing logical unit that was created using \fBstmfadm
676 create-lu\fR. This effectively unloads the logical unit from the STMF
677 framework. Any existing data on the logical unit remains intact.
678 .RE

680 .sp
681 .ne 2
682 .na
683 \fB\fBdelete-tg\fR \fIgroup-name\fR\fR
684 .ad
685 .sp .6
686 .RS 4n
687 Delete the target group that identified by \fIgroup-name\fR.
688 .RE

690 .sp
691 .ne 2
692 .na
693 \fB\fBimport-lu\fR \fIlu-file\fR\fR
694 .ad
695 .sp .6
696 .RS 4n
697 Imports and loads a logical unit into the STMF that was previously created
698 using \fBstmfadm create-lu\fR and was then deleted from the STMF using
699 \fBstmfadm delete-lu\fR. On success, the logical unit is again made available
700 to the STMF. \fIlu-file\fR is the filename used in the \fBstmfadm create-lu\fR
701 command. If this logical unit is using a separate metadata file, the filename
702 in the \fBmeta\fR property value that was used in the \fBstmfadm create-lu\fR
703 command must be used here.
704 .RE

706 .sp
707 .ne 2
708 .na
709 \fB\fBlist-hg\fR [\fB-v\fR,\fB--verbose\fR] [\fIhost-group-name\fR...]\fR
710 .ad
711 .sp .6
712 .RS 4n
713 Lists information for the host group in the system referenced by
714 \fIhost-group-name\fR. If \fIhost-group-name\fR is not specified, all host
715 groups in the system will be listed. If the \fB--v\fR or \fB--verbose\fR option
716 is specified, all members within a host group are displayed.
717 .RE

719 .sp
720 .ne 2
```



```
721 .na
722 \fB\fBlist-lu\fR [\fB-v\fR,\fB--verbose\fR] [\fIlu-name\fR...]\fR
723 .ad
724 .sp .6
725 .RS 4n
726 Lists information for the logical unit in the system referenced by
727 \fIlu-name\fR. If \fIlu-name\fR is not specified, all logical units in the
728 system will be listed. If the \fB-v\fR or \fB--verbose\fR option is specified,
729 additional information about the logical unit will be displayed.
730 .RE

732 .sp
733 .ne 2
734 .na
735 \fB\fBlist-target\fR [\fB-v\fR,\fB--verbose\fR] [\fItarget-name\fR...]\fR
736 .ad
737 .sp .6
738 .RS 4n
739 Lists information for the target port in the system referenced by
740 \fItarget-name\fR. If target name is not specified, all target ports in the
741 system will be listed. If the \fB-v\fR or \fB--verbose\fR option is specified,
742 additional information about the target along with SCSI session information for
743 logged-in initiators is displayed.
744 .RE

746 .sp
747 .ne 2
748 .na
749 \fB\fBlist-tg\fR [\fB-v\fR,\fB--verbose\fR] [\fItarget-group-name\fR...]\fR
750 .ad
751 .sp .6
752 .RS 4n
753 Lists information for the target group in the system referenced by
754 \fItarget-group-name\fR. If \fItarget-group-name\fR is not specified, all
755 target groups in the system will be listed. If the \fB--v\fR or \fB--verbose\fR
756 option is specified, all members within a target group are displayed.
757 .RE

759 .sp
760 .ne 2
761 .na
762 \fB\fBlist-view\fR \fB--l\fR, \fB--lu-name\fR \fIlu-name\fR
763 [\fIentry-name\fR...]\fR
764 .ad
765 .sp .6
766 .RS 4n
767 Lists the view entry for the logical unit referenced by \fIlu-name\fR. If
768 \fIentry-name\fR is not specified, all view entries for the specified logical
769 unit will be listed.
770 .RE

772 .sp
773 .ne 2
774 .na
775 \fB\fBmodify-lu\fR [\fB-p\fR, \fB--lu-prop\fR
776 \fIlogical-unit-property\fR=\fIval\fR \fB--s\fR, \fB--size\fR \fIsize\fR,
777 \fB-f\fR, \fB--file\fR] \fIlu-name\fR|\fIlu-file\fR\fR
778 .ad
779 .sp .6
780 .RS 4n
781 Modifies attributes of a logical unit created using the \fBstmfadm create-lu\fR
782 command. For the \fB-p\fR option, \fIlogical-unit-property\fR can be one of the
783 following properties:
784 .sp
785 .ne 2
786 .na
```

```
\fB\fBalias\fR\fR
.ad
.sp .6
.RS 4n
Up to 255 characters, representing a user-defined name for the device. The
default is the name of the backing store.
.RE

.sp
.ne 2
.na
\fB\fBmgmt-url\fR\fR
.ad
.sp .6
.RS 4n
Up to 1024 characters representing a Management Network Address URL. More than
one URL can be passed as a single parameter by using space-delimited URLs
enclosed inside a single pair of quotation marks (\fB"\fR).
.RE

.sp
.ne 2
.na
\fB\fBwcd\fR\fR
.ad
.sp .6
.RS 4n
Write-back cache disable. Specify \fBtrue\fR or \fBfalse\fRto determine
write-back cache disable behavior. The default is the write-back cache setting
of the backing store device specified by the \fIlu-file\fR argument.
.RE

.sp
.ne 2
.na
\fB\fBwp\fR\fR
.ad
.sp .6
.RS 4n
Write-protect bit. Specify \fBtrue\fR or \fBfalse\fR to determine whether the
device reports as write-protected. The default is \fBfalse\fR.
.RE

For the \fB-s\fR option, \fIsize\fR is an integer followed by one of the
following letters, to indicate a unit of size:
.sp
.ne 2
.na
\fB\fBk\fR\fR
.ad
.RS 5n
kilobyte
.RE

.sp
.ne 2
.na
\fB\fBm\fR\fR
.ad
.RS 5n
megabyte
.RE

.sp
.ne 2
.na
```



```
\fB\fBg\fR\fR
.ad
.RS 5n
gigabyte
.RE

.sp
.ne 2
.na
\fB\fBt\fR\fR
.ad
.RS 5n
terabyte
.RE

.sp
.ne 2
.na
\fB\fBp\fR\fR
.ad
.RS 5n
petabyte
.RE

.sp
.ne 2
.na
\fB\fBe\fR\fR
.ad
.RS 5n
exabyte
.RE

\fIlu-name\fR is the \fBguid\fR of the logical unit to be modified. If the
\fB-f\fR option is specified, the operand is interpreted as a file name. This
provides the ability to modify a logical unit that is not currently imported
into the STMF.
.RE

.sp
.ne 2
.na
\fB\fBonline-lu\fR \fIlu-name\fR\fR
.ad
.sp .6
.RS 4n
Online a logical unit currently registered with the STMF.
.RE

.sp
.ne 2
.na
\fB\fBonline-target\fR \fItarget-name\fR\fR
.ad
.sp .6
.RS 4n
Online the specified target.
.RE

.sp
.ne 2
.na
\fB\fBoffline-lu\fR \fIlu-name\fR\fR
.ad
.sp .6
.RS 4n
```

```
 919 Offline a logical unit currently registered with the STMF.
 920 .RE

 922 .sp
 923 .ne 2
 924 .na
 925 \fB\fBoffline-target\fR \fItarget-name\fR\fR
 926 .ad
 927 .sp .6
 928 .RS 4n
 929 Offline the specified target.
 929 Online the specified target.
 930 .RE

 932 .sp
 933 .ne 2
 934 .na
 935 \fB\fBlist-state\fR\fR
 936 .ad
 937 .sp .6
 938 .RS 4n
 939 Lists the operational and configuration state of the STMF.
 940 .RE

 942 .sp
 943 .ne 2
 944 .na
 945 \fB\fBremove-hg-member\fR \fB-g\fR \fIgroup-name\fR \fIgroup member\fR\fR
 946 .ad
 947 .sp .6
 948 .RS 4n
 949 Removes a host group member from a host group. \fIgroup-name\fR must be an
 950 existing group created using the \fBcreate-hg\fR subcommand. \fIgroup member\fR
 951 can be specified as \fIname_type\fR.\fIname_value\fR, where \fIname_type\fR can
 952 be one of the following:
 953 .sp
 954 .in +2
 955 .nf
 956 wwn
 957 iqn
 958 eui
 959 .fi
 960 .in -2
 961 .sp

 963 \&...and \fIname_value\fR is the value of the initiator name. As an example, to
 964 remove the fibre channel initiator port world-wide name \fB200000e08b909221\fR
 965 from the host group \fBHostA\fR, the command would be:
 966 .sp
 967 .in +2
 968 .nf
 969 # \fBstmfadm remove-hg-member -g HostA wwn.200000e08b909221\fR
 970 .fi
 971 .in -2
 972 .sp

 974 To remove the ISCSI initiator node member with the name
 975 \fBiqn.1986-03.com.sun:01.46f7e262\fR from \fBHostA\fR, the command would be:
 976 .sp
 977 .in +2
 978 .nf
 979 # \fBstmfadm remove-hg-member -g HostA iqn.1986-03.com.sun:01.46f7e262\fR
 980 .fi
 981 .in -2
 982 .sp
```



```
 984 Alternatively, members can be specified using their SCSI name string
 985 identifiers. To remove the two initiators above using their SCSI name string
 986 identifiers, the commands would be:
 987 .sp
 988 .in +2
 989 .nf
 990 # \fBstmfadm remove-hg-member -g HostA eui.200000e08b909221\fR
 991 # \fBstmfadm remove-hg-member -g HostA iqn.1986-03.com.sun:01.46f7e262\fR
 992 .fi
 993 .in -2
 994 .sp

 996 .RE

 998 .sp
 999 .ne 2
1000 .na
1001 \fB\fBremove-tg-member\fR \fB-g\fR \fIgroup-name\fR \fIgroup member\fR\fR
1002 .ad
1003 .sp .6
1004 .RS 4n
1005 Removes a target group member from a target group. \fIgroup-name\fR must be an
1006 existing group created using the \fBcreate-tg\fR subcommand. \fIgroup member\fR
1007 can be specified as \fIname_type\fR.\fIname_value\fR, where \fIname_type\fR can
1008 be one of the following:
1009 .sp
1010 .in +2
1011 .nf
1012 wwn
1013 iqn
1014 eui
1015 .fi
1016 .in -2
1017 .sp

1019 \&...and \fIname_value\fR is the value of the target name. As an example, to
1020 remove the fibre channel target port world-wide name \fB501000e092376af7\fR
1021 from the target group \fBTG0\fR, the command would be:
1022 .sp
1023 .in +2
1024 .nf
1025 # \fBstmfadm remove-tg-member -g TG0 wwn.501000e092376af7\fR
1026 .fi
1027 .in -2
1028 .sp

1030 To remove the ISCSI target member with the name
1031 \fBiqn.1986-03.com.sun:target.01.01110\fR from \fBTG0\fR, the command would be:
1032 .sp
1033 .in +2
1034 .nf
1035 # \fBstmfadm remove-tg-member -g TG0 iqn.1986-03.com.sun:target.01.01110\fR
1036 .fi
1037 .in -2
1038 .sp

1040 Alternatively, members can be specified using their SCSI name string
1041 identifiers. To remove the two targets above using their SCSI name string
1042 identifiers, the commands would be:
1043 .sp
1044 .in +2
1045 .nf
1046 # \fBstmfadm remove-tg-member -g TG0 eui.501000e092376af7\fR
1047 # \fBstmfadm remove-tg-member -g TG0 iqn.1986-03.com.sun:target.01.01110\fR
1048 .fi
1049 .in -2
```

```
1050 .sp

1052 .RE

1054 .sp
1055 .ne 2
1056 .na
1057 \fB\fBremove-view\fR \fB--l\fR, \fB--lu-name\fR \fIlu-name\fR
1058 \fIentry-name\fR\fR
1059 .ad
1060 .sp .6
1061 .RS 4n
1062 Removes one or more logical unit view entries from a logical unit.
1063 .RE

1065 .SH EXAMPLES
1066 .LP
1067 \fBExample 1 \fRCreating a Host group with Two Initiator Ports
1068 .sp
1069 .LP
1070 The following commands use the \fBcreate-hg\fR and \fBadd-hg-member\fR
1071 subcommands to create a host group and add two initiator ports to that host
1072 group.

1074 .sp
1075 .in +2
1076 .nf
1077 # \fBstmfadm create-hg host-group-a\fR
1078 # \fBstmfadm add-hg-member -g host-group-a wwn.210105b0000d92d0\fR
1079 .fi
1080 .in -2
1081 .sp

1083 .LP
1084 \fBExample 2 \fRAdding a View Entry to a Logical Unit
1085 .sp
1086 .LP
1087 The following command uses the \fBadd-view\fR subcommand to allow access from
1088 \fBhost-group-a\fR to a logical unit.

1090 .sp
1091 .in +2
1092 .nf
1093 # \fBstmfadm add-view -h host-group-a 6000AE40C5000000000046FC4FEA001C\fR
1094 .fi
1095 .in -2
1096 .sp

1098 .LP
1099 \fBExample 3 \fRListing a View Entry
1100 .sp
1101 .LP
1102 The following command uses the \fBlist-view\fR subcommand to list all view
1103 entries for the specified logical unit.

1105 .sp
1106 .in +2
1107 .nf
1108 # \fBstmfadm list-view -l 6000AE40C5000000000046FC4FEA001C\fR
1109 View Entry: 0
1110                         Host group      : host-group-a
1111                         Target group   : All
1112                         LUN               : 0
1113 .fi
1114 .in -2
1115 .sp
```



```
1117 .SH ATTRIBUTES
1118 .sp
1119 .LP
1120 See \fBattributes\fR(5) for descriptions of the following attributes:
1121 .sp

1123 .sp
1124 .TS
1125 box;
1126 c | c
1127 l | l .
1128 ATTRIBUTE TYPE  ATTRIBUTE VALUE
1129 _
1130 Interface Stability     Committed
1131 .TE

1133 .SH SEE ALSO
1134 .sp
1135 .LP
1136 \fBsbdadm\fR(1M), \fBattributes\fR(5)
```