

dm-linear

=====

Device-Mapper's "linear" target maps a linear range of the Device-Mapper device onto a linear range of another device. This is the basic building block of logical volume managers.

Parameters: <dev path> <offset>

<dev path>: Full pathname to the underlying block-device, or a "major:minor" device-number.

<offset>: Starting sector within the device.

Example scripts

=====

```
[[
#!/bin/sh
# Create an identity mapping for a device
echo "0 `blockdev --getsize $1` linear $1 0" | dmsetup create identity
]]
```

```
[[
#!/bin/sh
# Join 2 devices together
size1=`blockdev --getsize $1`
size2=`blockdev --getsize $2`
echo "0 $size1 linear $1 0
$size1 $size2 linear $2 0" | dmsetup create joined
]]
```

```
[[
#!/usr/bin/perl -w
# Split a device into 4M chunks and then join them together in reverse order.

my $name = "reverse";
my $extent_size = 4 * 1024 * 2;
my $dev = $ARGV[0];
my $table = "";
my $count = 0;

if (!defined($dev)) {
    die("Please specify a device.\n");
}

my $dev_size = `blockdev --getsize $dev`;
my $extents = int($dev_size / $extent_size) -
    (($dev_size % $extent_size) ? 1 : 0);

while ($extents > 0) {
    my $this_start = $count * $extent_size;
    $extents--;
    $count++;
    my $this_offset = $extents * $extent_size;
```

```
linear.txt
$table .= "$this_start $extent_size linear $dev $this_offset\n";
}
`echo \"$table\" | dmsetup create $name`;
]]
```