



9

5

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9





6



! b1

jmp start

.array: ,+1

s 2

n 8

n 7

-1

tad sp 1

cma

tad lastv

dac lastv

lmg

lac sp

tad d1

dac sp 1

isz sp

lacq

dac sp 1

isz sp

jmp fetch

.read: ,+1

s 2

n 8

n 7

lac sp

tad d1

dac sp 1

isz sp

jms getc

dac sp 1

isz sp

jmp fetch

.write: ,+1

s 2

n 8

n 7

lac sp 1

dac t1

lrss 9

jms putc

lac t1

jms putc

jmp fetch

.flush: ,+1

n 8

n 7

jms flush

jmp fetch

getc: 0

lac iflg

dzm iflg

sza

jmp getc 1

lac cibufp

sad eibufp

jmp 1f

```
lac cibufp i
and o777
dac iflg
lac cibufp i
isz cibufp
lrss 9
jmp getc i
```

1:

```
lac .fin
sys read; ibufp: ..; 64
sna spa
jmp 1f
tad ibufp
dac eibufp
lac ibufp
dac cibufp
jmp getc+1
```

1:

```
lac o4
jmp getc i
```

putc: 0

```
and o777
sna
jmp putc i
lmq
lac oflg
```

```
sza
jmp 1f
lacq
alss 9
dac cobufp i
dac oflg
jmp putc i
```

1:

```
lac cobufp i
omq
dac cobufp i
dac cobufp i
dzm oflg
isz cobufp
lac cobufp
sad eobufp
skp
jmp putc i
lac .fout
sys write; obufp: ..; 64
lac obufp
dac cobufp
jmp putc i
```

stop:

```
jms flush
las
sma
sys save
sys exit
```

flush: 0

```
lac oflg
sza
```

```
isz cobuflp
lac cobuflp
cma
tad obuflp
cma
sna
jmp flush i
dac 1f+1
lac obuflp
dac 1f
lac .fout
sys write; 1: i.; ..
lac obuflp
dac cobuflp
dzm oflg
jmp flush i
```

```
initio: 0
lac 017777 i
sad d4
jmp 2f
sad d8
jmp 1f
```

```
law 9
tad 017777
dac ,+3
law 017
sys creat; ..
spa
jmp stop
dac ,fout
```

```
1:
law 5
tad 017777
dac ,+2
sys open; ..; 0
spa
jmp stop
dac ,fin
```

```
2:
lac lastv
dac eibuflp
dac cibuffp
-64
```

```
tad lastv
dac lastv
dac ibuffp
lac lastv
dac eobuffp
-64
```

```
tad lastv
dac lastv
dac obuflp
dac cobuflp
dzm oflg
jmp initio i
```

```
.fin: 0
.fout: 1
eibuflp: 0
```

cibufp: 0  
iflg: 0  
eobufp: 0  
cobufp: 0  
oflg: 0  
lastv: 017770

o777: 0777  
d4:o4: 4  
d8: 8

11  
10  
7  
6  
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4  
3

" bc

```
    jmp start
rinit:
    jms initio
    jmp .+1 i
initio: 0
    lac inter-1
    dac fetch
    jmp rinit
    jms inter
inter: 0
    las
    and 017
    sza
    jms trace
    lac pc i
    dac instr
    lac pc
    and 010000
    sna
    jmp badpc
    lac sp
    and 017700
    sad 017700
    jmp badsp
    and 010000
    sna
    jmp badsp
    lac instr
    sad insasg
    skp
    jmp inter i
    -4
    tad sp
    dac t1
    lac t1 i
    and 010000
    sna
    jmp badasgn
    lac instr
    jmp inter i

    trace: 0
    and d1
    sza
    jms dtrace
    las
    and d2
    sza
    jms ddisp
    las
    and d4
    sza
    jms histog
    las
    and d8
    sza
    jmp stop
    jmp trace i

    |trace: 0
```

```
lac pc
dac 8
lac 8 i
dac instr
lac 8
jms octal; -4
law 040
jms putc
lac instr
c11; lrs 14
taā lacop
dac ,+1
lac ,,
jms putc
law 040
jms putc
lac instr
jms octal; -4
```

```
lac instr
saā inslitr
skp
jmp 1f
law 040
jms putc
lac 8 i
jms octal; -6
```

```
1:
law 012
jms putc
jms flush
jmp dtrace i
```

```
ldisp: 0
jms dspinit
lac dspbp
dac 8
lac dp
saā olddp
skp
jms dspblk
lac pc
jms dspnt
lac sp
jms dspnt
lac lastv
jms dspnt
-1
dac 8 i
lac pbs i
sza
jmp , -2
jmp ddisp i
```

```
ispblk: 0
lac dspbuf
dac 8
lac dp
dac t1
dzm t2
```

```
1:
```



```
lac t1
sna
jmp 1f
lac o216000 " dx -20
dac 8 i
lac t2
tad o20
dac t2
lac t1
tad d1
dac t3
lac t3 i
jms dspnt
lac t1 i
dac t1
jmp 1b
```

```
l:
lac o160020 " sx 20
tad t2
dac dspbuf i
dac 8 i
lac 8
dac dspbp
jmp dspblk i
```

```
ispnt: 0
and o7777
lrss 2
xor o164000 " sy 0
dac 8 i
lac o17010
dac 8 i
jmp dspnt i
```

```
ispinit: 0
-1
tad dspinit
dac dspinit
-300
tad lastv
dac lastv
dac dspbuf
-1
dac dspinit i
dac dspbuf i
dzm olddp
lac dspbuf
sys capt
law 13
sys sysloc
dac pbs
jmp dspinit i
```

```
histog: 0
jms hisinit
lac pc
lrs 6
and o77
tad histbuf
dac t1
isz t1 i
```

jmp histog i  
jmp .

hisinit: 0  
r1  
tad hisinit  
dac hisinit  
-1  
dac hisinit i  
-64  
dac t1  
tad lastv  
dac lastv  
dac histbuf  
tad dm1  
dac 8

1:  
dzm 8 i  
isz t1  
jmp 1b  
jmp hisinit i

histbuf: 0  
oldap: 0  
ispbuf: 0  
ispbp: 0  
instr: 0

pbs: 0  
inslitr: n 5  
insasg: b 1  
>17: 017  
18: 8  
>77: 077  
>10000: 010000  
15: 5  
>60: 060  
>7777: 07777  
>216000: 0216000  
>160020: 0160020  
>20: 020  
>164000: 0164000  
>17010: 017010  
>17700: 017700  
12: 2

lacop: lac .  
a>;b>;c>;f>;n>;s>;t>;u>;x>;y>

badpc:  
jms flush  
lac d1  
sys write; mpc; mpcs  
jmp stop

badsp:  
jms flush  
lac d1  
sys write; msp; msp  
jmp stop

badasgn:  
jms flush  
lac d1

```
sys write; mas; mass  
jmp stop
```

```
mPC:
```

```
012;<pc>;012  
mPCs = ,-mPC
```

```
mSP:
```

```
012;<sp>;012  
mSPs = ,-mSP
```

```
maS:
```

```
012;<as>;012  
maSS = ,-maS
```

```
octal: 0
```

```
lmq
```

```
lac d5
```

```
tad octal 1
```

```
cma
```

```
dac 2f
```

```
sna
```

```
jmp 3f
```

```
1:
```

```
llss 3
```

```
isz 2f
```

```
jmp 1b
```

```
3:
```

```
lac octal 1
```

```
dac 2f
```

```
lacq
```

```
dac 2f+1
```

```
1:
```

```
lac 2f+1
```

```
lmq
```

```
ecla llss 3
```

```
tad o60
```

```
jms putc
```

```
lac 2f+1
```

```
alss 3
```

```
dac 2f+1
```

```
isz 2f
```

```
jmp 1b
```

```
isz octal
```

```
jmp octal 1
```

```
2: 0;0
```

```
11
```

```
10
```

```
7
```

```
6
```

```
5
```

```
4
```

```
3
```

" bi

start:

```
jms initio
-1
tad .main
dac pc
```

fetch:

```
lac pc i
lmq
and o17777
dac addr
ecla lls 4
tad .+3
dac .+1
```

```
jmp .. i
jmp . i
```

```
autop; binop; consop; ifop; etcop; setop; traop
unaop; extop; aryop
```

ifop:

```
-2
tad sp
dac sp
lac sp i
dac t1
lac t1 i
sza
jmp fetch
-1
tad addr i
dac pc
jmp fetch
```

autop:

```
lac addr
tad dp
dac sp i
isz sp
isz sp
jmp fetch
```

binop:

```
-2
tad sp
dac sp
tad dm1
dac t4
tad dm1
dac t3
lac t3 i
dac t1
lac sp i
dac t2
lac t4
dac t3 i
lac addr
tad .+3
dac .+1
jmp .. i
```

jmp , i  
basg; bor; band; beq; bne; ble; blt; bge; bgt; brsh; blsh  
badd; bmin; bmod; bmul; bdiv

basg:  
lac t2 i  
dac t1 i  
dac t4 i  
jmp fetch

bor:  
lac t1 i  
lmg  
lac t2 i  
omg  
dac t4 i  
jmp fetch

band:  
lac t1 i  
and t2 i  
dac t4 i  
jmp fetch

beq:  
lac t1 i  
xor t2 i  
sna cla  
lac d1  
dac t4 i  
jmp fetch

bne:  
lac t1 i  
xor t2 i  
sza  
lac d1  
dac t4 i  
jmp fetch

ble:  
lac t2 i  
cma  
tad t1 i  
spa cla  
lac d1  
dac t4 i  
jmp fetch

blt:  
lac t1 i  
cma  
tad t2 i  
sma cla  
lac d1  
dac t4 i  
jmp fetch

bge:  
lac t1 i  
cma

```
tad t2 i
spa cla
lac d1
dac t4 i
jmp fetch
```

```
bgt:
lac t2 i
cma
tad t1 i
sma cla
lac d1
dac t4 i
jmp fetch
```

```
brsh:
blsh:
hlt
```

```
badd:
lac t1 i
tad t2 i
dac t4 i
jmp fetch
```

```
bmin:
lac t1 i
cma
tad t2 i
cma
dac t4 i
jmp fetch
```

```
bmod:
lac t2 i
dac ,+4
lac t1 i
cli; idiv; ..
dac t4 i
jmp fetch
```

```
bmul:
lac t2 i
dac ,+4
lac t1 i
cli; mul; ..
lacq
dac t4 i
jmp fetch
```

```
bdiv:
lac t2 i
dac ,+4
lac t1 i
cli; idiv; ..
lacq
dac t4 i
jmp fetch
```

```
consop:
lac sp
```

```
tad d1
dac sp 1
isz sp
lac addr
dac sp 1
isz sp
jmp fetch
```

etcopi:

```
lac addr
tad ,+3
dac ,+1
jmp .. i
jmp . i
```

mcall; mark; call; vector; litrl; goto; retin; escp

mcall:

```
-2
tad sp
dac t1
lac t1 i
dac t2
-1
tad t2 i
lmq
lac dp
dac t1 i
lac t1
dac dp
isz t1
lac pc
dac t1 i
lace
dac pc
jmp fetch
```

mark:

```
-1
tad sp
dac t2
tad dm1
dac t1
lac t1 i
dac t3
lac t3 i
dac t2 i
lac ap
dac t1 i
lac t1
dac ap
jmp fetch
```

call:

```
lac ap
tad d1
dac 8
dac 9
```

1:

```
lac 8 i
dac t1
lac t1 i
```

dac 9 i  
isz 8  
-1

tad sp  
sad 8  
skp  
jmp 1b  
lac ap i  
img

lac dp  
dac ap i  
lac ap  
dac dp  
isz ap  
-1

tad ap i  
dac t1  
lac pc  
dac ap i  
lacq  
dac ap  
lac t1  
dac pc  
jmp fetch

vector:

-2  
tad sp  
dac sp  
tad dm2  
dac t1  
lac sp i  
dac t2  
lac t1 i  
dac t3  
lac t3 i  
tad t2 i  
dac t1 i  
jmp fetch

litrl:

lac sp  
tad d1  
dac sp i  
isz sp  
lac pc i  
dac sp i  
isz sp  
jmp fetch

foto:

-2  
tad sp  
dac sp  
lac sp i  
dac t1  
-1  
tad t1 i  
dac pc  
jmp fetch

11  
10  
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retrn:

-2

tad sp

dac sp

lac sp 1

dac t1

lac t1 1

lmq

lac dp

dac sp

dac t1

lac sp 1

sna

jmp stop

dac dp

isz sp

lac sp

dac t1 1

lac sp 1

dac pc

lacq

dac sp 1

isz sp

jmp fetch

iscp:

law 2

tad pc

dac t1

jmp t1 1

setop:

lac addr

tad dp

dac sp

jmp fetch

traop:

-1

tad addr

dac pc

jmp fetch

inaop:

-1

tad sp

dac t3

tad dm1

dac t2

lac t2 1

dac t1

lac t3

dac t2 1

lac addr

tad ,+3

dac ,+1

jmp .. 1

jmp , 1

uadr; umin; uind; unot

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1000

```
lac t1
dac t3 i
jmp fetch
```

```
imin:
-1
tad t1 i
cma
dac t3 i
jmp fetch
```

```
ind:
lac t1 i
dac t2 i
jmp fetch
```

```
inot:
lac t1 i
sna cla
lac d1
dac t3 i
jmp fetch
```

```
xtop:
lac addr
dac sp i
isz sp
isz sp
jmp fetch
```

```
ryop:
lac addr
tad dp
dac t1
tad d1
dac t1 i
jmp fetch
```

```
i = 040000
```

```
j = a+a
```

```
: = b+a
```

```
! = c+a
```

```
l = f+a
```

```
m = n+a
```

```
: = s+a
```

```
l = t+a
```

```
c = u+a
```

```
? = x+a
```

```
l1: 1
```

```
lm1: -1
```

```
lm2: -2
```

```
l17777: 017777
```

```
:1: 0
```

```
:2: 0
```

```
:3: 0
```

```
:4: 0
```

```
addr: 0
```

```
jc = 017
```

ip: stack  
lp: stack  
ip: stack  
stack: 0

11  
10  
7  
6  
5  
4  
3



7

" cat

```
lac 017777 i
sad d4
jmp nofiles
lac 017777
tad d1
tad d4
dac name
```

```
loop:
  sys open; name; 0; 0
  spa
  jmp badfile
  dac fi
```

```
1:
  jms getc
  sad o4
  jmp 1f
  jms putc
  jmp 1b
```

```
1:
  lac fi
  sys close
```

```
loop1:
  -4
  tad 017777 i
  dac 017777 i
  sad d4
  jmp done
  lac name
  tad d4
  dac name
  jmp loop
```

```
badfile:
  lac name
  dac 1f
  lac d8
  sys write; 1;0; 4
  lac d8
  sys write; 1f; 2
  jmp loop1
```

```
1: 040;077012
nofiles:
  lac d8
  sys write; 1f; 5
  sys exit
```

```
1: <no>; 040; <fi>;<le>;<s 012
```

```
done:
  lac noc
  sna
  sys exit
  and d1
  sna cla
  jmp 1f
```

```
jms putc
jmp done
```

1:

```
lac noc
rcr
dac 1f
lac fo
sys write; iopt+1; 1:..
sys exit
```

getc: 0

```
lac ipt
sad eipt
jmp 1f
dac 2f
add 0400000
dac ipt
ral
lac 2f i
szl
lrss 9
and 0177
sna
jmp getc+1
jmp getc i
```

1:

```
lac fi
sys read; iipt+1; 64
sna
jmp 1f
tad iipt
dac eipt
lac iipt
dac ipt
jmp getc+1
```

1:

```
lac 04
jmp getc i
```

putc: 0

```
and 0177
dac 2f+1
lac opt
dac 2f
add 0400000
dac opt
spa
jmp 1f
lac 2f i
xor 2f+1
jmp 3f
```

1:

```
lac 2f+1
alss 9
```

3:

```
lac 2f i
isz noc
lac noc
sad d128
skp
jmp putc i
```

```
lac fo
sys write; iopt+1; 64
lac iopt
dac opt
dzm noc
jmp putc i
```

```
2: 0;0
ipt: 0
eipt: 0
iplt: ,+1; .=.+64
fi: 0
opt: ,+2
iopt: ,+1; .=.+64
noc: 0
fo: 1
```

```
d1: 1
o4:d4: 4
d8: 8
o400000: 0400000
o177: 0177
d128: 128
```

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8

8

8



" check

lac d1  
SYS SYSLOC  
dac iget

lac d2  
SYS SYSLOC  
dac inode

lac d4  
SYS SYSLOC  
dac nxfblk  
tad d1  
dac nfbkls  
tad d1  
dac fblks

lac d5  
SYS SYSLOC  
dac copy

lac d6  
SYS SYSLOC  
dac copyz

lac d7  
SYS SYSLOC  
dac betwen

lac d8  
SYS SYSLOC  
dac dskrd

lac d10  
SYS SYSLOC  
dac dskbuf  
dac dskbuf1

dzm indircnt  
dzm icnt  
dzm licnt  
dzm blcnt  
dzm curi  
jms copyz i; usestab; 500

513400

11 iloop:  
10 isz curi  
isz -3400  
tad curi  
sma  
7 jmp part2  
6 lac curi  
5 jms iget i  
4 jms copy i; inode: 0; linode; 12  
3 lac iflags  
sma  
jmp iloop  
isz icnt  
lac iflags  
and o40  
sza

```
jmp iloop
law idskps
dac t1
r7
dac t2
```

```
1: lac i t1
   sza
   jms dupcheck
   isz t1
   isz t2
   jmp 1b
   lac iflags
   and o200000
   sna
   jmp iloop
```

```
isz licht
law idskps
dac t1
-7
dac t2
```

```
1: lac i t1
   sna
   jmp 3f
   jms dskrd 1
   jms copy i; dskbuf: 0; laskbuf: 64
   isz indirnt
   law ldkbuf
   dac t3
   -64
   dac t4
```

```
2: lac i t3
   sza
   jms dupcheck
   isz t3
   isz t4
   jmp 2b
```

```
3: isz t1
   isz t2
   jmp 1b
   jmp iloop
```

```
dupcheck: 0
isz blcht
jms betwen i; d709; d6400
jmp badaadr
dac t5
```

```
lrss 4
tad usetabb
dac t6
cla
llss 4
tad alsscom
dac 2f
lac d1
2: alss 0
dac bit
```

710 6399

~~scribble~~

~~scribble~~

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11  
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4  
3

```
lac i t6
and bit
SZA
jmp dup
lac i t6
xor bit
dac i t6
jmp i dupcheck
```

```
badadr:
jms print
lac d1
sys write; badmes; 3
jmp i dupcheck
```

```
badmes:
< b>;<ad>;<r 012
```

```
dup:
lac t5
jms print
lac d1
sys write; dupmes; 3
lac cur1
jms print
lac d1
sys write; dupmes+3; 1
jmp i dupcheck
```

```
dupmes:
< d>;<up>; 040; 012
```

```
print: 0
lmq
law prbuf-1
dac 8
-6
dac t6
```

```
1:
cla
llss 3
tad 060
dac i 8
isz t6
jmp 1b
lac d1
sys write; rbuf; 6
jmp i print
```

```
part2:
lac icnt
jms print
lac d1
sys write; m3; m3s
lac licnt
jms print
lac d1
sys write; m4; m4s
lac indircnt
jms print
lac d1
sys write; m5; m5s
lac blcnt
```

jms print  
lac d1  
sys write; m6; m6s  
dzm blcnt

-1  
tad nfbkls i  
cma  
sma

jmp 2f  
dac t1  
lac fblks  
dac t2

1:  
lac i t2  
jms dupcheck  
isz t2  
isz t1  
jmp 1b

2:  
lac nxfblk i

1:  
sna  
jmp part3  
dac t1  
jms dupcheck  
lac t1  
jms dskrd i  
jms copy i; dskbuf1; 0; ldskbuf; 64  
law ldskbuf  
dac t1  
-9  
dac t2

2:  
isz t1  
lac i t1  
jms dupcheck  
isz t2  
jmp 2b  
lac ldskbuf  
jmp 1b

part3:  
lac blcnt  
jms print  
lac d1  
sys write; m7; m7s  
lac d709  
dac t1

1:  
isz t1  
lac t1  
sad 6400  
sys exit  
lrss 4  
tad usetabp  
dac t2  
cla  
liss 4  
tad allsscom

nfbkls : 0

13072

409.6  
3072  
58

4096  
1536  
58  
5696

7226

312

6400  
710  
5690

710-6399

```
    dac 2f
    lac d1
2:  alss 0
    dac bit
    lac i t2
    and bit
    sza
    jmp 1b
    lac t1
    jms print
    lac d1
    sys write; m6; m8s
    jmp 1b
```

```
d1: 1
d2: 2
d4: 4
d5: 5
d6: 6
d7: 7
d8: 8
d10: 10
o60: 060
o400000: 0400000
o400001: 0400001
o40: 040
o200000: 0200000
alsscom: alss 0
d709: 709
d6400: 6400
```

```
m3:
    040;<fi>;<le>;<s 012
m3s = , -m3
m4:
    040;<la>;<rg>;<e 012
m4s = , -m4
m5:
    040;<in>;<ri>;<r 012
m5s = , -m5
m6:
    040;<us>;<ed>;012
m6s = , -m6
m7:
    040;<fr>;<ee>;012
m7s = , -m7
m8:
    040;<mi>;<ss>;<in>;<g 012
m8s = , -m8
```

```
usetabp: usetab
curi: 0
bit: 0
blcnt: 0
indircnt: 0
icnt: 0
licnt: 0
t1: 0
t2: 0
t3: 0
t4: 0
```

t5: 0  
t6: 0

iget: 0  
nxflbk: 0  
nfbkks: 0  
fbkks: 0  
copy: 0  
copyz: 0  
betwen: 0  
dskrd: 0

ldskbuf: .,+.64  
linode: .,+.12  
iflags = linode  
idskps = iflags+1  
usetab: .,+.500  
prbuf: .,+.6

9

\* chown

lac 017777 i  
sad d4  
jmp error

lac 017777  
tad d4  
dac 8  
tad d1  
dac name  
dzm octal  
dzm nchar  
-8  
dac c1

1:

lac nchar  
dzm nchar  
sza  
jmp 2f  
lac 8 i  
lmq  
and 0177  
dac nchar  
lacq  
lrss 9

2:

sad 040  
jmp 3f  
tad 0m60  
lmq  
lac octal  
c11; als 3  
omq  
dac octal

3:

isz c1  
jmp 1b

loop:

lac 017777 i  
sad d6  
sys exit  
tad dm4  
dac 017777 i  
lac name  
tad d4  
dac name  
lac octal  
sys chowner; name:0  
sma  
jmp loop  
lac name  
dac 1f  
lac d1  
sys write; 1f; 4  
lac d1  
sys write; 1f; 2  
jmp loop

1:

040;077012



error:

lac d1

sys write; 1b+1; 1

sys exit

om60: -060

o40: 040

d1: 1

d8: 8

dm4: -4

d4: 4

o177: 0177

nchar: .,+.1

c1: .,+.1

octal: .,+.1



10

( )

( )

" chmod

lac 017777 i  
sad d4  
jmp error

lac 017777  
tad d4  
dac 8  
tad d1  
dac name  
dzm octal  
dzm nchar  
-8  
dac c1

1:

lac nchar  
dzm nchar  
sza  
jmp 2f  
lac 8 i  
lmq  
and 0177  
dac nchar  
lacq  
lrss 9

2:

sad o40  
jmp 3f  
tad om60  
lmq  
lac octal  
c11; als 3  
omq  
dac octal

3:

isz c1  
jmp 1b

loop:

lac 017777 i  
sad d8  
sys exit  
tad dm4  
dac 017777 i  
lac name  
tad d4  
dac name  
lac octal  
sys chmod; name:0  
sma  
jmp loop  
lac name  
dac 1f  
lac d1  
sys write; 1:0; 4  
lac d1  
sys write; 1f; 2  
jmp loop

1:

040;077012

error:

lac d1

sys write; 1b+1; 1

sys exit

om60: -060

o40: 040

d1: 1

d8: 8

am4: -4

d4: 4

o177: 0177

nchar: .,+.1

c1: .,+.1

octal: .,+.1

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11

" cp

lac 017777  
tad d1

dac name2

loop:

lac 017777 i

sad d4

sys exit

sad d6

jmp unbal

tad dm8

dac 017777 i

lac name2

tad d4

dac name1

tad d4

dac name2

sys open; name1: 0; 0

spa

jmp error

lac o17

sys creat; name2: 0

spa

jmp error

dzm nin

1:

lac bufp

tad nin

dac 0f

-1

tad nin

cma

tad d1024

dac 0f+1

lac d2

sys read; 0!...!..

sna

jmp 2f

tad nin

dac nin

sad d1024

jmp 2f

jmp 1b

2:

lac nin

dac 2f

lac d3

sys write; buf; 2: 0

dzm nin

lac 2b

sad d1024

jmp 1b

lac d2

sys close

lac d3

sys close

jmp loop

error:

lac name1

dac 1f

```
lac d1
sys write; 1; 0; 4
lac d1
sys write; mes; 1
lac name2
dac 1f
lac d1
sys write; 1; 0; 4
lac d1
sys write; mes; 2
jmp loop
```

mes:

040000;077012

unbal:

```
lac name2
tad d4
dac 1f
lac d1
sys write; 1; 0; 4
lac d1
sys write; mes; 2
sys exit
```

```
d1: 1
d4: 4
d8: 8
o17: 017
dm8: -8
d3: 3
d1024: 1024
nin: 0
bufp: buf
a2: 2
```

buf:

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" chrm

lac 017777

tad d5

dac 1f

dac 2f

lac 017777 i

sad d4

sys exit

tad dm4

dac 017777 i

sys chdir; dd

sys chdir; 1;0

1:

lac 017777 i

sad d4

sys exit

tad dm4

dac 017777 i

lac 2f

tad d4

dac 2f

sys unlink; 2:0

sma

jmp 1b

lac 2b

dac 2f

lac d1

sys write; 2:0; 4

lac d1

sys write; 1f; 2

jmp 1b

1:

040077;012000

dd:

<dd>;040040;040040;04C040

d1: 1

d4: 4

d5: 5

dm4: -4

11  
10  
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3