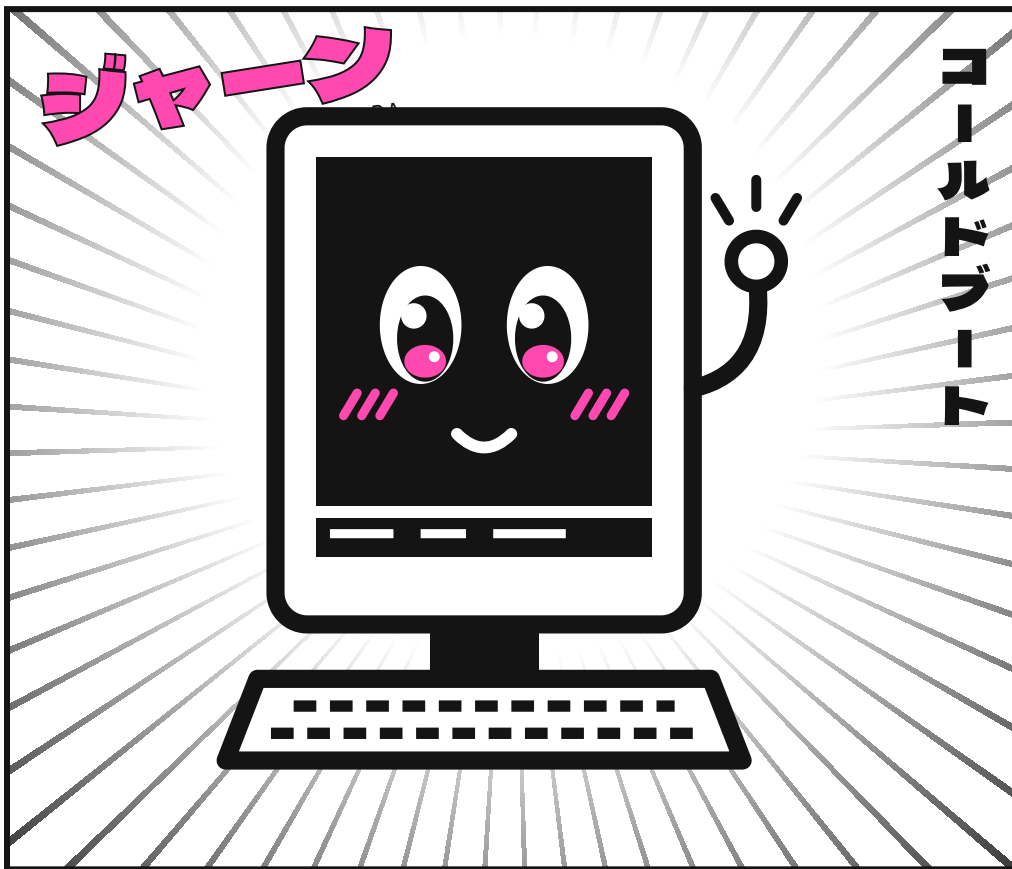
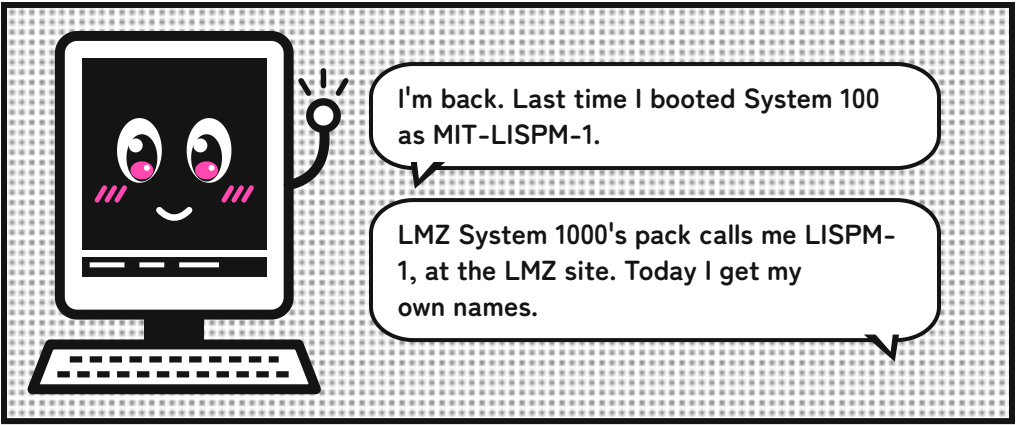


COLD BOOT



LMZ System 1000 boots as the LMZ site's machine. This issue gives it a site of its own and names of its own.

LMZ System 1000 ・ subnet 376 ・ COLDBOOT-LISPM-1



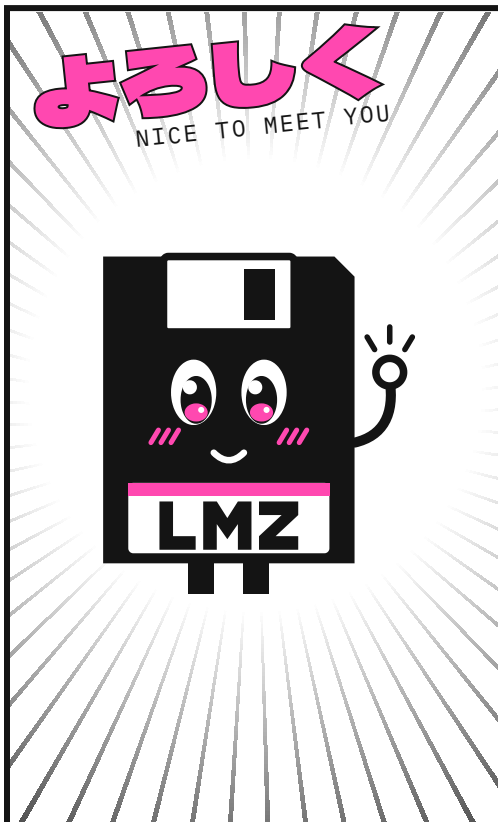
What changes by page 12		
	before	after
site	LMZ	COLDBOOT
CADR	LISPM-1	COLDBOOT-LISPM-1
OZ	OZ	COLDBOOT-OZ
pack	LISPM-1	COLDBOOT-LISPM-1
band	LOD1	LOD2

The addresses stay as they are: OZ at 177200, the CADR at 177201.

THIS ISSUE		
CAST	New crew	p.03
EP.1	LMZ System 1000	p.04
EP.2	Subnet 376	p.05
EP.3	The pack as it comes	p.07
EP.4	Four files	p.09
EP.5	New name, new band	p.11
END	Links and docs	p.12

New crew

Issue 01's crew: muir, the CADR in software, and ozd, OZ as a daemon. This issue, the software on the pack joins them.



LMZ

The system: MIT's Lisp Machine software, made usable today.

FROM	MIT's System 99.32, as LM-3 brought it up as System 100
RELEASE	LMZ System 1000, 17 September 2026
BUILT BY	itself: the band on its pack was compiled by LMZ System 1000 from its own sources
LICENCE	GNU AGPL 3.0 or later



LMZ is what I run this time.

And I serve its sources at /sys.



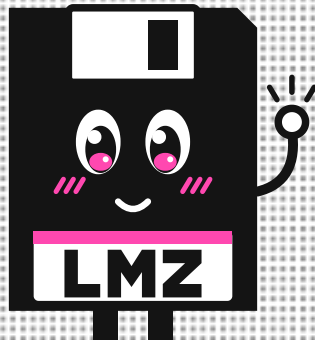
LMZ System 1000

LMZ's first release is two files on GitHub: a disk pack, and the sources its band was built from.

```
$ mkdir -p ~/lmz && cd ~/lmz
$ R=https://github.com/metebalci/lmz/releases/download/lmz-1000
$ curl -LO $R/lmz-1000-pack.img.gz
$ curl -LO $R/lmz-1000-sys.tar.gz
$ gunzip -k lmz-1000-pack.img.gz
$ tar -xzf lmz-1000-sys.tar.gz
```

What is in ~/lmz now

PACK	lmz-1000-pack.img, named LISPM-1: microcode 323 in MCR1, the band in LOD1
SYS/	lmz-1000/sys, the system's sources
SITE/	lmz-1000/site, the LMZ site the band was built with: an example to copy and readdress



Subnet 376

A site of its own needs addresses that belong to nobody else. chaosnet.net keeps one subnet for that.

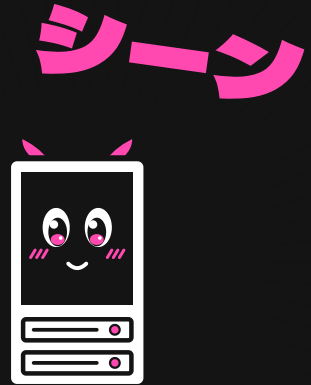
“one subnet has been reserved as a private, non-routed subnet. ... This is similar to the IP Private networks such as 10.x.y.z or 192.168.x.y.”

“That subnet is 376 (octal, = 254 decimal) which gives addresses 177001-177377 octal.”

chaosnet.net/local

376

An address is sixteen bits in octal, the subnet and then the host. 177201 is subnet 376, host 201.



Today the Global Chaosnet joins Chaosnets over modern protocols. Packets from subnet 376 are not sent to other subnets, so they never reach it.

The LMZ site already lives on 376: OZ is 177200, and a machine LISPM-n is 177200 plus n. So I am 177201.

OZ and the CADR on 376

In the ozd directory. OZ serves ~/lisp, where the new site will go, and LMZ's sources at /sys. It already answers to the names it will have.

```
$ mkdir -p ~/lisp
$ target/release/ozd --address 177200 \
  --name COLDBOOT-OZ,OZ,system=UNIX \
  --root ~/lisp \
  --root sys=$HOME/lmz/lmz-1000/sys,ro \
  --host 177201,COLDBOOT-LISPM-1,LM1,system=LISPM \
  --peer 177201@127.0.0.1:42043
```

In the muir directory. Start the CADR at 177201 on the pack.

```
$ target/release/muir --micro \
  --disk-pack ~/lmz/lmz-1000-pack.img \
  --chaos-address 177201 --chaos-udp 42043 \
  --chaos-udp-peer 177200@127.0.0.1:42042 \
  --terminal 0.0.0.0:5900
```

--micro is muir's fastest engine, and the machine's clock runs fast with it. --pace holds the machine to its own speed.



Same ports as issue 01: I listen on 42042, and the CADR on 42043.

muir writes to the pack as the machine does. Keep lmz-1000-pack.img.gz if you want the original back.

The pack as it comes

No date to type: the band's host table already has OZ at 177200, and OZ tells it the time. It says:

```
LMZ System, band 1 of LISPM-1.
2048K physical memory, 16127K virtual memory.
Experimental System 1000
Microcode          323
LMZ Lisp Machine One, with associated machine OZ.
```

①

②

- ① band 1 of LISPM-1. The pack is named after its machine, LISPM-1.
- ② LMZ Lisp Machine One. The band's site is LMZ, and it calls the machine Lisp Machine One.

(print-disk-label) lists the pack's partitions. The star marks the current band.

```
Current microload = MCR1, current virtual memory load
(band) = LOD1
```

```
* LOD1 at block 65569, 49419 blocks long, "Exp 1000"
LOD2 at block 114988, 49419 blocks long, ""
LOD3 at block 164407, 49419 blocks long, ""
LOD4 at block 213826, 49419 blocks long, ""
```

LOD1, "Exp 1000", is current. LOD2 to LOD4 are empty.

A band carries the site it was saved with: the site's options, its host table, and where its machines are.

So a new name needs new site files. Where does the band look for them?

It reads them from SYS: SITE; and LMZ's sys.translations sends that to OZ:

```
("SITE;" "//site//")
```

That is /site/ on OZ. Our OZ serves ~/lisp on there, which has no site/ yet.

So we write our own four files into /site/, on the Lisp Machine itself.

```
(login 'lisp)  
T  
(fs:create-directory "oz: //site//")  
NIL
```

1

2

① (login 'lisp). Log in on OZ, the associated machine.

② (fs:create-directory ...). Make /site/ on OZ.

Press no Return: the Listener runs a form at its closing parenthesis. In this syntax a slash quotes the next character, so each / in a path is typed //.

Now open ZMACS on the first site file.

```
(ed "oz: //site//site.lisp")
```

```
ZMACS (LISP) * site.lisp /site/ OZ:  
(New File)
```

EP.4 · FOUR FILES

In ZMACS, type each file and save it with Control-X Control-S. Control-X Control-F and a name, such as hosts.text, opens the next one in /site/.

site.lisp: the site's name and options. :TIMEZONE is hours earlier than GMT, so Switzerland is -1.

```
;;- Mode:LISP; Package:SYSTEM-INTERNALS; Base:8 -*-  
(DEFSITE :COLDBOOT  
  (:SYS-LOGIN-NAME "LISPM")  
  (:SYS-LOGIN-PASSWORD "LISPM")  
  (:TIMEZONE -1)  
  (:CHAOS-FILE-SERVER-HOSTS '("COLDBOOT-OZ"))  
  (:CHAOS-TIME-SERVER-HOSTS '("COLDBOOT-OZ"))  
  (:CHAOS-HOST-TABLE-SERVER-HOSTS '("COLDBOOT-OZ")))
```

hosts.text: the two hosts, their addresses and nicknames.

```
;;- Mode:Text -*-  
HOST COLDBOOT-OZ,      CHAOS 177200,SERVER,UNIX,UNIX,[OZ]  
HOST COLDBOOT-LISPM-1, CHAOS 177201,USER,LISPM,CADR,[LM1]
```

lmlocs.lisp: where the CADR is, and its associated machine.

```
;;- Mode:Lisp; Package:SYSTEM-INTERNALS; Base:10. -*-  
(DEFCONST MACHINE-LOCATION-ALIST  
  '(("COLDBOOT-LISPM-1" "Lisp Machine One"  
    "Cold Boot" (COLDBOOT 1) "OZ")))
```

sys.translations: where SYS: files live on OZ.

```
;;- Mode:LISP; Package:FS; Base:10 -*-  
(SET-LOGICAL-PATHNAME-HOST "SYS"  
  :PHYSICAL-HOST "COLDBOOT-OZ"  
  :TRANSLATIONS '(("SITE;" "//site/")  
    ("*; *; *;" "//sys/*/*/*/*/")  
    ("*; *;" "//sys/*/*/*/")  
    ("*;" "//sys/*/*/")))
```

Back in the Listener (SYSTEM L), (make-system 'site :compile) builds the site. It asks before each step: type y.

```
(make-system 'site :compile)
File to be read:
SYS: SYS; SYSIDCL LISP >
Read it? (S, Y, or N) Yes.
Reading SYS: SYS; SYSIDCL LISP >
File to be generated into host table:
SYS: SITE; HOSTS TEXT >
Generate host table from it? (S, Y, or N) Yes.
Generating host table from SYS: SITE; HOSTS TEXT > in
package CHAOS
```

```
Files to be compiled:
SYS: SITE; SITE LISP >
SYS: SITE; LMLOCS LISP >
SYS: SITE; HSTTBL LISP >
Compile all three of them? (S, Y, or N) Yes.
Compiling SYS: SITE; SITE LISP > in package
SYSTEM-INTERNALS
Compiling SYS: SITE; LMLOCS LISP > in package
SYSTEM-INTERNALS
Compiling SYS: SITE; HSTTBL LISP > in package CHAOS
```

```
Files to be loaded:
SYS: SITE; SITE QFASL >
SYS: SITE; LMLOCS QFASL >
SYS: SITE; HSTTBL QFASL >
Load site files because of changes in all three of them?
(S, Y, or N) Yes.
Loading site files on account of SYS: SITE; SITE QFASL >
into package SYSTEM-INTERNALS
Loading site files on account of SYS: SITE; LMLOCS QFASL >
into package SYSTEM-INTERNALS
Loading site files on account of SYS: SITE; HSTTBL QFASL >
into package CHAOS
T
```

T, and I am COLDBOOT-LISPM-1 already. The pack still says LISPM-1.



New name, new band

Name the pack. The name goes into the disk label at once.

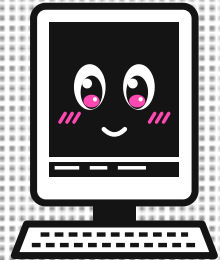
```
(si:set-pack-name "COLDBOOT-LISPM-1")
"COLDBOOT-LISPM-1"
```

Save this world into LOD2, which is empty.

```
(disk-save 2)
Do you really want to clobber partition LOD2 on unit 0 ()?
(Yes or No) yes
This is now:
  Experimental System 1000
  Microcode          323
Additional comment for herald:
```

Type yes and Return, then Return again for no comment.
The machine saves band 2 and boots it.

I booted band 2, but the pack still boots band 1.
One more form.



```
(set-current-band 2)
The new current band LOD2 should work properly
with the ucode version that is already current.
T
```

```
COLDBOOT-LISPM-1: Trident T-300, LMZ 1000
Current microload = MCR1, current virtual memory load
(band) = LOD2
```

Cold boot the pack again. It boots band 2, with my own names.

```
LMZ System, band 2 of COLDBOOT-LISPM-1.  
2048K physical memory, 16127K virtual memory.  
Experimental System 1000  
Microcode          323  
COLDBOOT Lisp Machine One, with associated machine OZ.
```

END

Links and docs

LINKS

muir github.com/metebalci/muir
ozd github.com/metebalci/ozd
LMZ github.com/metebalci/lmz
LM-3 tumbleweed.nu/lm-3, which brought
System 99.32 up as System 100
**Subnet
376** chaosnet.net/local

DOCS

Lisp Machine Manual

Site options, and Updating Site Information.
tumbleweed.nu/r/lm-3/uv/chinual.html

Chaosnet

David A. Moon. MIT AI Memo 628, 1981.
hdl.handle.net/1721.1/6353



Cold Boot is made by Mete Balci, with help from Claude Opus 5 and OpenAI GPT-6 Astra. Set in Dela Gothic One, Zen Maru Gothic and IBM Plex Mono, in two colours: black and fluorescent pink. The screens are from muir. Send feedback to coldboot@metebalci.com.

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