

Connection Machine System Software Release 6.1.2
Installation Instructions for Sun and Vax Front Ends
July 1992

Overview:

This is a patch release to be installed on top of CMSS 6.1.1, on Sun and Vax front ends.

The software repairs in this release are described in the README file included on the tape. For more detail regarding specific bugs fixed, contact Thinking Machines Customer Support at (617)234-4000, or csg@think.com.

Disk Space Requirements:

To install this patch release, you need to extract the contents of the tape into a directory on the front end, from which the software will be moved into the appropriate locations. During the installation you will need the following amount of extra disk space:

Sun front end - 69 MB
Vax front end - 52 MB

After the installation is completed, you can remove the contents of the directory thus reclaiming most of the extra disk space, assuming you did not install any components of the base system via the "symlink" option.

The installation script gives you the option of saving the previous (6.1.1) versions of the libraries and executables in the CM runtime system. If you choose to do so, you will need disk space in *addition* to the disk space mentioned above.

We also strongly recommend that you disk-save your lisp-paris and/or starlisp band (see step 5, below). You will need about 45 MB to disk-save a new starlisp band; about 33 MB for the lisp-paris band.

INSTALLATION INSTRUCTIONS

Please read the following instructions carefully, prior to attempting the installation.

If you have any questions or problems, contact Thinking Machines Customer Support at (617) 234-4000, or csg@think.com.

1. Become root.

2. Create a directory, cd into it and extract the software from the patch release tape.

```
# tar xvfp /dev/tapedevice
```

If you are reading the tape from a tape drive on a remote host, use the following command instead,

```
# rsh tapehost dd if=/dev/tapedevice ibs=bs | tar xBvfp -
```

where bs = 20b for 9 track tapes, 200b for cartridge tapes. (It is necessary for "root" to have remote execution privileges on the tape host in order to do this, i.e. the name of the front end should be in the /.rhosts file on the tape host.)

The installation directory will now contain the following files and subdirectories,

```
6.1.2-installation-instructions - this document.
install-rts-patch*             - installation script.
cm-runtime-6104/               - runtime system patches.
cm-required/                   - required lisp components
```

See Appendix A for a complete list of the tape contents.

3. Install the runtime system patches, by running the script install-rts-patch,

```
# ./install-rts-patch
```

If you are installing this patch release on a Vax, and you've untarred the patch into an automounted directory, you may need to give the directory you untarred the patch release into on the command line, for example:

```
# ./install-rts-patch /usr/cm/patch-release-6.1.2
```

This is because the Ultrix automounter inserts host names into the user's path, making it hard to determine the original path name from a shell script.

This script will copy the contents of the patched CM runtime system (the cm-runtime-6104 directory listed above, in particular the lib.{sun4,vax}, bin.{sun4,vax}, etc.{sun4,vax}, and microcode subdirectories), into the 6.1.1 cm-runtime-6104 hierarchy on this front end.

It will ask if you want to save the previous (6.1.1) versions of the libraries and commands.

```
Back up old versions of executables and libraries? (yes or no)
```

If you respond "yes", you will need additional disk space approximately equal to the size of the patch release above. The script will rename the 6.1 libraries, user executables, system executables, microcode files, header files, and NQS executables with a filename extension containing the current date; then it will copy the 6.1.2 patch release software into the appropriate locations or make the appropriate symlinks.

If you respond "no", the script will copy the 6.1.2 libraries, user executables, system executables, and microcode files, header files, and NQS executables into the appropriate subdirectories of the 6.1.1 cm-runtime-6104 hierarchy on this front end, replacing the 6.1.1 versions.

The installation script will ask you where you would like to install the 6.1.2 bug update files. These files list specific bugs submitted by customers and filed with bug identification numbers by Thinking Machines Customer Support. These files are organized by layered product, and list which specific bugs are fixed by the 6.1.2 patch release.

```
Location to install the online bug update files (path,skip) [/usr/cm/doc] ?
```

Thinking Machines Customer Support will be sending out updates to these

files on a regular basis. These files will allow Connection Machine users to follow the status of a particular bug they have found in a software product.

The install-rts-patch script does NOT install the kernel device driver or lisp patches; that must be done by hand, as described below.

```
***** IMPORTANT NOTE *****
*
* The install-rts-patch script will attempt to install the files on your
* system in the same way you installed the 6.1.1 files (i.e. via copy or
* symlink). If you installed any of the 6.1.1 components via symlink, it will
* assume you want the patch files installed via symlink and are going to keep
* the patch release area around. It will not make backup files of the
* symlinks, but will remove them and install new symlinks pointing to the
* location you unbundled the patch release.
*
* The exceptions to this are components you weren't offered the option of
* linking: header files, microcode, and man pages. These files will be
* backed up if you chose the backup option. Therefore, do not remove the
* patch release area if you installed any of the components from 6.1.1 via the
* link method! You will remove part of the release! If you installed parts
* of the release via symlinks, and part with actual files, you can safely
* remove subdirectories in the patch release directory that weren't installed
* via the symlink option.
*
*****
```

See Appendix B for a sample run of install-rts-patch.

4. Install the kernel patches.

On the Sun:

Rename the files /sys/sun4/cm.c and the associated header files in the same directory if you wish to save the previous versions.

Copy cm.c and the associated header files from the 6.1.2 patch release directory cm-runtime-6104/sys, into /sys/sun4/.

Rebuild the kernel as usual,

```
# cd /sys/sun4/conf
# config MACHINENAME
# cd ../MACHINENAME
# make depend
# make vmunix
```

then install it,

```
# cd /
# mv vmunix vmunix.old
# mv /sys/sun4/MACHINENAME/vmunix /.
```

then reboot the system at the next available opportunity.

If you are installing the release on a Sun 4/600MP series machine, install the 6.1 final tape, answering "no" to the "install driver" question. Install the 6.1.1 and 6.1.2 patch tape, then cd into the 6.1.2 patch release subdirectory "./cm-runtime-6104/install" and type

```
# ./install-sun4-driver <patch-directory>/cm-runtime-6104
```

and answer the questions following the instructions for installing the driver from the 6.1.2 tape.

On the Vax:

Rename the files /sys/vaxcm/cm.c and the associated header files in the same directory if you wish to save the previous versions.

Copy cm.c and the associated header files from the 6.1.2 patch release directory cm-runtime-6104/sys, into /sys/vaxcm/.

Rebuild the kernel as usual,

```
# cd /sys/conf
# config MACHINENAME
# cd ../MACHINENAME
# make depend
# make vmunix
```

then install it,

```
# cd /
# mv vmunix vmunix.old
# mv /sys/MACHINENAME/vmunix /.
```

then reboot the system at the next available opportunity.

5. Install the Lisp patches.

Change to the installation directory that contains 6.1.1 patch release software. To install the patches, do:

```
# cd cm-required
# tar cf - * | (cd ROOT/cm-required; tar xfv -)
```

Replace ROOT with the root of your CM software installation directory (which must already contain the cm-required subdirectory).

If you wish to install the optional software, you must have installed the optional software from the original 6.1 release tape. To install the update, to:

```
# cd ../cm-optional
# tar cf - * | (cd ROOT/cm-optional; tar xfv -)
```

We strongly recommend that you resave your bands, as loading the patches and relinking the CM2 microcode each time you start a Lisp band is time consuming. You will need about 45 MB to disk-save a new starlisp band, 33 MB to disk-save a new paris band, and 28 MB to disk-save a new starlisp-ts band. After the new bands are created you can remove or archive the old (6.1.1) versions.

To resave a band, bring up the 6.1.1 band, and then execute the following form (replace the directory with the appropriate one for your system, and replace "lisp-paris" with "starlisp" or "starlisp-ts" as appropriate):

```
(sys::disksave "/usr/local/lisp-paris-6-1+patches"
:dynamic-free-segments 75
:reserved-free-segments 75
:full-gc t
:verbose t)
```


74	Nov	4	1991	./cm-required/patch/paris/f6104/ts-ucode-patch.lisp
75	Nov	5	1991	./cm-required/patch/paris/f6104/cmloc-diag-patch.lisp
76	Nov	5	1991	./cm-required/patch/paris/f6104/cmloc-diag-patch.sbin4
79	Nov	22	1991	./cm-required/patch/paris/f6104/fb-ucode-patch.lisp
765	Nov	7	1991	./cm-required/patch/paris/f6104/normalize-patch.lisp
703	Nov	22	1991	./cm-required/patch/paris/f6104/send-to-queue-patch.lisp
943	Nov	7	1991	./cm-required/patch/paris/f6104/normalize-patch.sbin4
325	Nov	22	1991	./cm-required/patch/paris/f6104/send-to-queue-patch.sbin4
995	Nov	19	1991	./cm-required/patch/paris/f6104/cvpm-patch.lisp
598	Nov	4	1991	./cm-required/patch/paris/f6104/ts-ucode-patch.lisp
7015	Dec	4	1991	./cm-required/patch/paris/f6104/nexus-clock-patch.lisp
7434	Nov	4	1991	./cm-required/patch/paris/f6104/twuffle-patch-2.sbin4
4145	Nov	22	1991	./cm-required/patch/paris/f6104/sprint-delivery-setup-patch.lisp
5833	Dec	4	1991	./cm-required/patch/paris/f6104/nexus-clock-patch.sbin4
4583	Nov	22	1991	./cm-required/patch/paris/f6104/sprint-delivery-setup-patch.sbin4
1343	Nov	4	1991	./cm-required/patch/paris/f6104/cm200-warning-patch.lisp
1923	Nov	4	1991	./cm-required/patch/paris/f6104/cm200-warning-patch.sbin4
809	Nov	26	1991	./cm-required/patch/paris/f6104/relink-paris.sbin4
8021	Nov	19	1991	./cm-required/patch/paris/f6104/cvpm-patch.sbin4
7323	Nov	26	1991	./cm-required/patch/paris/f6104/sram-maddr-patch.lisp
1535	Nov	26	1991	./cm-required/patch/paris/f6104/sram-maddr-patch.sbin4
286	Nov	23	1991	./cm-required/patch/paris/f6104/relink-paris.lisp
5198	Nov	22	1991	./cm-required/patch/paris/f6104/fb-ucode-patch.sbin4
0380	Nov	4	1991	./cm-required/patch/paris/f6104/twuffle-patch-2.lisp
7190	Nov	26	1991	./cm-required/patch/paris/f6104/ucode-timing-patch.lisp
3537	Apr	24	14:10	./cm-required/patch/paris/f6104/rank-patch.sbin4
2780	Dec	5	1991	./cm-required/patch/paris/f6104/mfg-diag-patches.lisp
8956	Nov	26	1991	./cm-required/patch/paris/f6104/ucode-timing-patch.sbin4
717	Feb	26	12:59	./cm-required/patch/paris/f6104/features-patch.sbin4
4807	Dec	6	1991	./cm-required/patch/paris/f6104/mfg-diag-patches.sbin4
8909	Apr	24	11:49	./cm-required/patch/paris/f6104/rank-patch.lisp
2917	Apr	24	11:51	./cm-required/patch/paris/f6104/send-to-shared-queue-patch.lisp
839	Apr	28	16:55	./cm-required/patch/paris/f6104/sprint-error-mask.lisp
3503	Apr	24	14:10	./cm-required/patch/paris/f6104/send-to-shared-queue-patch.sbin4
204	Feb	26	12:45	./cm-required/patch/paris/f6104/features-patch.lisp
1041	Apr	28	16:56	./cm-required/patch/paris/f6104/sprint-error-mask.sbin4
5410	Jun	24	10:58	./cm-required/patch/paris/f6104/ts-timing-patch.sbin4
8897	Jun	23	16:30	./cm-required/patch/paris/f6104/skew-patch.lisp
3138	Jun	23	16:33	./cm-required/patch/paris/f6104/skew-patch.sbin4
2273	Jun	24	10:54	./cm-required/patch/paris/f6104/ts-timing-patch.lisp
5162	Jul	10	16:18	./cm-required/patch/paris/f6104/get-overlapped-patch.lisp
1960	Nov	19	1991	./cm-required/patch/paris/f6104/cvpm-patch.o
4807	Jul	10	16:18	./cm-required/patch/paris/f6104/get-overlapped-patch.sbin4
1217	Jul	21	12:54	./cm-required/patch/starlisp/f6101/def-file-set.lisp
1822	Jun	8	13:02	./cm-required/patch/starlisp/f6101/patch-tracker.sbin4
913	Jun	8	13:02	./cm-required/patch/starlisp/f6101/sideways-array.lisp
1298	Jun	8	13:02	./cm-required/patch/starlisp/f6101/patch-tracker.lisp
2229	Jun	8	13:02	./cm-required/patch/starlisp/f6101/sideways-array.sbin4
5197	Jun	8	13:02	./cm-required/patch/starlisp/f6101/equal-patch.sbin4
2013	Jun	8	13:02	./cm-required/patch/starlisp/f6101/cmfs-errno.sbin4
487	Apr	24	14:49	./cm-required/patch/starlisp/f6101/cmfs-ioctl.lisp
3229	Jun	8	13:02	./cm-required/patch/starlisp/f6101/cmfs-ioctl.sbin4
2402	Jun	8	13:02	./cm-required/patch/starlisp/f6101/v-is-zero-patch.sbin4
1505	Apr	24	15:08	./cm-required/patch/starlisp/f6101/cmfs-errno.lisp
1482	Jun	8	13:02	./cm-required/patch/starlisp/f6101/v-is-zero-patch.lisp
5690	Jun	8	13:02	./cm-required/patch/starlisp/f6101/twuffle-patch.lisp
3302	Jun	8	13:02	./cm-required/patch/starlisp/f6101/equal-patch.lisp
767	Apr	6	15:10	./cm-required/patch/starlisp/f6101/position-patch.lisp
679	Jun	9	12:40	./cm-required/patch/starlisp/f6101/char-type-patch.lisp
164	Feb	26	13:00	./cm-required/patch/starlisp/f6101/features-patch.lisp
5423	Jun	9	12:37	./cm-required/patch/starlisp/f6101/string-char-array-patch.lisp
8418	Oct	30	1991	./cm-required/patch/starlisp/f6101/vector-promotion-patch.lisp
5605	Jun	9	18:03	./cm-required/patch/starlisp/f6101/string-char-array-patch.sbin4
1397	Oct	30	1991	./cm-required/patch/starlisp/f6101/vector-promotion-patch.sbin4
2008	Dec	18	1991	./cm-required/patch/starlisp/f6101/realpart-imagpart-ftype-patch.lisp
711	Feb	26	13:01	./cm-required/patch/starlisp/f6101/features-patch.sbin4

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724 Dec 18 1991 ./cm-required/patch/starlisp/f6101/realpart-imagpart-ftype-pa
2769 Jun 9 18:03 ./cm-required/patch/starlisp/f6101/char-type-patch.sbin4
2364 Feb 26 16:43 ./cm-required/patch/starlisp/f6101/create-x-display-window-pa
18553 Jan 13 1992 ./cm-required/patch/starlisp/f6101/node-reference-with-wrappe
17767 Jan 13 1992 ./cm-required/patch/starlisp/f6101/node-reference-with-wrappe
1407 Feb 26 16:39 ./cm-required/patch/starlisp/f6101/create-x-display-window-pa
4794 Jun 8 13:02 ./cm-required/patch/starlisp/f6101/twuffle-patch.sbin4
1475 Jun 9 16:25 ./cm-required/patch/starlisp/f6101/ppp-css-patch.lisp
407 Jul 21 12:53 ./cm-required/patch/starlisp/f6101/load-cmfs-patch.lisp
2514 Feb 28 16:26 ./cm-required/patch/starlisp/f6101/slc-get-from-news-patch.li
2081 Feb 28 18:00 ./cm-required/patch/starlisp/f6101/slc-get-from-news-patch.sb
900 Apr 6 15:11 ./cm-required/patch/starlisp/f6101/position-patch.sbin4
3139 Apr 23 11:27 ./cm-required/patch/starlisp/f6101/pset-queue-patch.lisp
6622 Apr 23 18:59 ./cm-required/patch/starlisp/f6101/pset-queue-patch.sbin4
3021 Jun 9 18:03 ./cm-required/patch/starlisp/f6101/ppp-css-patch.sbin4
1686 Jun 1 17:33 ./cm-required/patch/starlisp/f6101/array-to-pvar-patch.lisp
4536 Jun 1 17:34 ./cm-required/patch/starlisp/f6101/array-to-pvar-patch.sbin4
475955 Aug 3 20:49 ./cm-required/patch/starlisp/f6101/libcmfs-lucid-sun4.o
810 Aug 4 17:33 ./cm-required/patch/starlisp/f6101/load-cmfs-patch.sbin4
492 Jul 10 10:23 ./cm-required/patch/starlisp/f6101/stack-trace-patch.lisp
728 Jul 10 10:27 ./cm-required/patch/starlisp/f6101/stack-trace-patch.sbin4
3478 Aug 4 17:33 ./cm-required/patch/starlisp/f6101/load-cmfs-library.sbin4
1191 Jul 21 12:54 ./cm-required/patch/starlisp/f6101/load-cmfs-library.lisp
368 Feb 26 12:37 ./cm-required/patch/c-paris/f6100/def-file-set.lisp
1193 Nov 4 1991 ./cm-required/patch/c-paris/f6100/patch-tracker.lisp
502 Nov 4 1991 ./cm-required/patch/c-paris/f6100/lispts-graphics-patch.lisp
1703 Nov 4 1991 ./cm-required/patch/c-paris/f6100/patch-tracker.sbin4
916 Nov 4 1991 ./cm-required/patch/c-paris/f6100/lispts-graphics-patch.sbin4
1516 Nov 5 1991 ./cm-required/patch/c-paris/f6100/monitor-location-patch.lisp
2192 Nov 5 1991 ./cm-required/patch/c-paris/f6100/monitor-location-patch.sbin
2161 Feb 18 12:25 ./cm-required/patch/c-paris/f6100/transpose-patch.lisp
203 Feb 26 12:44 ./cm-required/patch/c-paris/f6100/features-patch.lisp
4181 Feb 18 12:30 ./cm-required/patch/c-paris/f6100/transpose-patch.sbin4
721 Feb 26 14:17 ./cm-required/patch/c-paris/f6100/features-patch.sbin4
200561 Jul 31 17:00 ./cm-runtime-6104/sys/cm.c
28835 Sep 28 1991 ./cm-runtime-6104/sys/sun4-4.1.1/conf.c
7924 Jul 13 16:38 ./cm-runtime-6104/sys/sun4-4.1.1/kern_exit.o.sun4c
7924 Jun 26 1991 ./cm-runtime-6104/sys/sun4-4.1.1/kern_exit.o.sun4
28802 Nov 18 1991 ./cm-runtime-6104/sys/sun4-4.1.2/conf.c
7900 Jul 13 16:37 ./cm-runtime-6104/sys/sun4-4.1.2/kern_exit.o.sun4c
7900 Jul 13 16:37 ./cm-runtime-6104/sys/sun4-4.1.2/kern_exit.o.sun4m
7900 Jul 13 16:37 ./cm-runtime-6104/sys/sun4-4.1.2/kern_exit.o.sun4
1410 Jul 13 16:39 ./cm-runtime-6104/sys/MAKEDEV.cm
6928 Jul 13 16:42 ./cm-runtime-6104/sys/attach.h
7548 Jul 13 16:42 ./cm-runtime-6104/sys/cmssoft.h
11703 Jul 13 16:42 ./cm-runtime-6104/sys/cmreg.h
5060 Jul 13 16:42 ./cm-runtime-6104/sys/nexus-code.h
318 Jul 20 21:59 ./cm-runtime-6104/sys/cm.config.sun4
11454 Jun 22 22:34 ./cm-runtime-6104/sys/cmacct.h
15937 Jul 20 21:18 ./cm-runtime-6104/sys/cmioctl.h
458 Jul 20 21:59 ./cm-runtime-6104/sys/files.cm
1785820 Jun 24 19:07 ./cm-runtime-6104/microcode-cm200/paris-ucode.cs
308 Jun 24 19:07 ./cm-runtime-6104/microcode-cm200/cmss-imp-library-list
19012 Jun 24 19:07 ./cm-runtime-6104/microcode-cm200/cmssl.lib
30072 Jun 24 19:07 ./cm-runtime-6104/microcode-cm200/fpu-utility-imps.lib
310 Jun 24 19:07 ./cm-runtime-6104/microcode-cm200/leader-spread.lib
177112 Jun 24 19:07 ./cm-runtime-6104/microcode-cm200/math-library.lib
442667 Jun 24 19:07 ./cm-runtime-6104/microcode-cm200/paris-64-ucode.s
48191 Jun 24 19:07 ./cm-runtime-6104/microcode-cm200/paris-communication.lib
676062 Jun 24 19:07 ./cm-runtime-6104/microcode-cm200/paris-float-arithmetic.lib
473669 Jun 24 19:07 ./cm-runtime-6104/microcode-cm200/paris-ucode.mis
7343 Jun 24 19:07 ./cm-runtime-6104/microcode-cm200/shuffle.lib
4052 Jun 24 19:07 ./cm-runtime-6104/microcode-cm200/trap-table.traps
219387 Jun 24 19:07 ./cm-runtime-6104/microcode-cm200/twuffle.lib
486 Jun 24 19:07 ./cm-runtime-6104/microcode-cm200/utils.lib
308 Jun 24 14:37 ./cm-runtime-6104/microcode-cm2/cmss-imp-librarv-list

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19012	Jun	24	14:37	./cm-runtime-6104/microcode-cm2/cmssl.ilb
30072	Jun	24	14:37	./cm-runtime-6104/microcode-cm2/fpu-utility-imps.ilb
310	Jun	24	14:37	./cm-runtime-6104/microcode-cm2/leader-spread.ilb
177112	Jun	24	14:37	./cm-runtime-6104/microcode-cm2/math-library.ilb
442495	Jun	24	14:38	./cm-runtime-6104/microcode-cm2/paris-64-ucode.s
48191	Jun	24	14:38	./cm-runtime-6104/microcode-cm2/paris-communication.ilb
676062	Jun	24	14:39	./cm-runtime-6104/microcode-cm2/paris-float-arithmetic.ilb
1788796	Jun	24	14:41	./cm-runtime-6104/microcode-cm2/paris-ucode.cs
473529	Jun	24	14:41	./cm-runtime-6104/microcode-cm2/paris-ucode.mis
7343	Jun	24	14:41	./cm-runtime-6104/microcode-cm2/shuffle.ilb
4052	Jun	24	14:41	./cm-runtime-6104/microcode-cm2/trap-table.traps
219387	Jun	24	14:42	./cm-runtime-6104/microcode-cm2/twuffle.ilb
486	Jun	24	14:42	./cm-runtime-6104/microcode-cm2/utils.ilb
393216	Jul	31	16:30	./cm-runtime-6104/bin.sun4/cmattach
294912	Jul	31	16:30	./cm-runtime-6104/bin.sun4/cmcolboot
106496	Jun	29	11:58	./cm-runtime-6104/bin.sun4/cmtime
352256	Jul	31	16:30	./cm-runtime-6104/bin.sun4/cmdetach
1376256	Aug	3	20:21	./cm-runtime-6104/bin.sun4/cmtar
2105344	Aug	3	20:16	./cm-runtime-6104/bin.sun4/cmcmp
794624	Aug	3	20:19	./cm-runtime-6104/bin.sun4/cmtruncate
311296	Jul	31	16:30	./cm-runtime-6104/bin.sun4/cmfinger
344064	Jul	31	16:30	./cm-runtime-6104/bin.sun4/cmpowerup
1015808	Jul	20	20:50	./cm-runtime-6104/bin.sun4/cmverify
2162688	Aug	3	20:23	./cm-runtime-6104/bin.sun4/dvcp
1122304	Aug	3	20:25	./cm-runtime-6104/bin.sun4/cmcp
1048576	Aug	3	20:26	./cm-runtime-6104/bin.sun4/cmdd
950272	Aug	3	20:28	./cm-runtime-6104/bin.sun4/copyfromdv
1097728	Aug	3	20:28	./cm-runtime-6104/bin.sun4/copytodv
147456	Aug	4	11:14	./cm-runtime-6104/bin.sun4/pracct
270336	Jul	31	16:34	./cm-runtime-6104/etc.sun4/cmsa
229376	Jul	31	16:34	./cm-runtime-6104/etc.sun4/cm-acctd
245760	Jul	31	16:34	./cm-runtime-6104/etc.sun4/cmts-admin
10978	Jun	23	18:07	./cm-runtime-6104/etc.sun4/cmsa.awk
2098	Jun	23	18:07	./cm-runtime-6104/etc.sun4/cmacct.csh
884736	Jul	31	16:37	./cm-runtime-6104/etc.sun4/cmverify
2826240	Aug	3	20:12	./cm-runtime-6104/etc.sun4/dvtest2
1064960	Aug	3	20:22	./cm-runtime-6104/etc.sun4/dv_util_vmeio
2211840	Aug	3	20:22	./cm-runtime-6104/etc.sun4/dv_disk_util
1277952	Aug	5	14:54	./cm-runtime-6104/etc.sun4/fserver
2449408	Aug	3	20:07	./cm-runtime-6104/etc.sun4/fstest
278528	Jul	10	17:05	./cm-runtime-6104/etc.sun4/cminfo
630784	Jul	20	20:31	./cm-runtime-6104/etc.sun4/coldboot-paris-6104
3022848	Aug	4	11:10	./cm-runtime-6104/etc.sun4/ts-daemon-6104
9753464	Jul	30	11:57	./cm-runtime-6104/lib.sun4/libparis2-6104-pg.a
262420	Jul	31	16:26	./cm-runtime-6104/lib.sun4/libcmfe-6104.a
1906824	Jul	10	16:26	./cm-runtime-6104/lib.sun4/libcmrts-1.1-CM2-6104.a
6332864	Jul	30	11:57	./cm-runtime-6104/lib.sun4/libparis2-6104.a
279804	Jul	31	16:26	./cm-runtime-6104/lib.sun4/libcmfe-6104-pg.a
2167648	Jul	10	16:26	./cm-runtime-6104/lib.sun4/libcmrts-1.1-CM2-6104_p.a
1899348	Jul	10	16:26	./cm-runtime-6104/lib.sun4/libcmrts-1.1-CM200-6104.a
2160172	Jul	10	16:26	./cm-runtime-6104/lib.sun4/libcmrts-1.1-CM200-6104_p.a
1615230	Jul	1	22:59	./cm-runtime-6104/lib.sun4/libparisfort-6104.a
1862890	Jul	1	22:59	./cm-runtime-6104/lib.sun4/libparisfort-6104-pg.a
80824	Jul	31	16:26	./cm-runtime-6104/lib.sun4/libtoolkit-6104.a
250102	Jul	30	12:06	./cm-runtime-6104/lib.sun4/libparis2-6104.sa.6104.0
138194	Jul	31	16:26	./cm-runtime-6104/lib.sun4/libckpt-6104.a
142458	Jul	31	16:26	./cm-runtime-6104/lib.sun4/libckpt-6104-pg.a
17388	Jul	31	12:14	./cm-runtime-6104/lib.sun4/libcmfs-stubs.o
3014162	Aug	5	15:49	./cm-runtime-6104/lib.sun4/libcmfs-6104.a
3045958	Aug	5	15:49	./cm-runtime-6104/lib.sun4/libcmfs-6104-pg.a
3473408	Jul	30	12:05	./cm-runtime-6104/lib.sun4/libparis2-6104.so.6104.0
90412	Jul	31	16:26	./cm-runtime-6104/lib.sun4/libtoolkit-6104-pg.a
5936	Jul	13	16:36	./cm-runtime-6104/install/install-sun4-driver
163840	Jul	20	21:08	./cm-runtime-6104/nqsbin.sun4/nmapmgr
188416	Jul	20	21:08	./cm-runtime-6104/nqsbin.sun4/qdel
172032	Jul	20	21:08	./cm-runtime-6104/nqsbin.sun4/qdev


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163840 Jul 20 21:08 ./cm-runtime-6104/nqsbin.sun4/qlimit
327680 Jul 20 21:08 ./cm-runtime-6104/nqsbin.sun4/qmgr
212992 Jul 20 21:09 ./cm-runtime-6104/nqsbin.sun4/qpr
229376 Jul 20 21:10 ./cm-runtime-6104/nqsbin.sun4/qstat
237568 Jul 20 21:12 ./cm-runtime-6104/nqsbin.sun4/qsub
   33 Jul 20 21:12 ./cm-runtime-6104/nqsbin.sun4/shownqs
  113 Jul 20 21:12 ./cm-runtime-6104/nqsbin.sun4/startnqs
   17 Jul 20 21:12 ./cm-runtime-6104/nqsbin.sun4/stopnqs
122880 Jul 20 21:06 ./cm-runtime-6104/nqslib.sun4/logdaemon
180224 Jul 20 21:06 ./cm-runtime-6104/nqslib.sun4/lpserver
204800 Jul 20 21:06 ./cm-runtime-6104/nqslib.sun4/netclient
262144 Jul 20 21:06 ./cm-runtime-6104/nqslib.sun4/netdaemon
188416 Jul 20 21:06 ./cm-runtime-6104/nqslib.sun4/netserver
516096 Aug  2 16:18 ./cm-runtime-6104/nqslib.sun4/nqsdaemon
180224 Jul 20 21:07 ./cm-runtime-6104/nqslib.sun4/nqsmkdirs
180224 Jul 20 21:07 ./cm-runtime-6104/nqslib.sun4/nqsmktrans
212992 Jul 20 21:08 ./cm-runtime-6104/nqslib.sun4/pipeclient
 32768 Jul 20 21:08 ./cm-runtime-6104/nqslib.sun4/shlexefai
   17 Jul 20 21:08 ./cm-runtime-6104/nqslib.sun4/sitename
102120 Jul 20 21:08 ./cm-runtime-6104/nqslib.sun4/qmgr.hlp
  7610 Jul 20 21:08 ./cm-runtime-6104/nqslib.sun4/install-nqs
  5007 Jul 20 21:08 ./cm-runtime-6104/nqslib.sun4/build-nqs-dbase
   122 Jul 20 21:08 ./cm-runtime-6104/nqslib.sun4/qmkdir
 11454 Jun 23 19:08 ./cm-runtime-6104/include/cm/cmacct.h
 15466 Jun 23 19:08 ./cm-runtime-6104/include/cm/cmioctl.h
 16600 Jun 23 19:08 ./cm-runtime-6104/include/cm/paris-configuration-fort.h
 10410 Jun 23 19:08 ./cm-runtime-6104/include/cm/timeshare.h
   2168 Jun  9 17:26 ./cm-runtime-6104/include/cm/cm_conf.h
   1915 Jun 11 17:27 ./cm-runtime-6104/include/cm/cm_dir.h
 13947 Jun  9 17:24 ./cm-runtime-6104/include/cm/cm_errno.h
   5354 Jun  9 17:29 ./cm-runtime-6104/include/cm/cm_param.h
    78 Jun  9 17:40 ./cm-runtime-6104/include/cm/cm_rawdisk.h
   7507 Aug  3 21:11 ./cm-runtime-6104/lint/l-lib-cmfs.ln
1079296 Aug  5 14:56 ./cm-runtime-6104/microvax/fserver
1038336 Jul 14 10:53 ./cm-runtime-6104/microvax/unfsd
  1707 Feb  6 1992 ./cm-runtime-6104/microvax/unfsd.8
  2483 Feb  6 1992 ./cm-runtime-6104/microvax/unfsd_exports.5
 705536 Jul 14 10:55 ./cm-runtime-6104/microvax/unfsmntd
 18424 Aug  5 12:58 ./cm-runtime-6104/bugupdate/6.1.2-patch-release-notes
 33688 Aug  4 11:10 ./install-rts-patch
28434432 Aug  4 18:46 ./bands.sun4/starlisp-ts
 45990 Jul 13 16:43 ./6.1.2-installation-instructions
 18424 Aug  5 12:57 ./6.1.2-patch-release-notes

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Vax:

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21504 Jul 20 23:03 ./cm-runtime-6104/nqslib.vax/logdaemon
 94208 Jul 20 23:03 ./cm-runtime-6104/nqslib.vax/lpserver
106496 Jul 20 23:03 ./cm-runtime-6104/nqslib.vax/netclient
161792 Jul 20 23:03 ./cm-runtime-6104/nqslib.vax/netdaemon
 96256 Jul 20 23:03 ./cm-runtime-6104/nqslib.vax/netserver
332800 Aug  2 16:35 ./cm-runtime-6104/nqslib.vax/nqsdaemon
 71680 Jul 20 23:03 ./cm-runtime-6104/nqslib.vax/nqsmkdirs
 72704 Jul 20 23:03 ./cm-runtime-6104/nqslib.vax/nqsmktrans
113664 Jul 20 23:03 ./cm-runtime-6104/nqslib.vax/pipeclient
 4096 Jul 20 23:03 ./cm-runtime-6104/nqslib.vax/shlexefai
   17 Jul 20 23:03 ./cm-runtime-6104/nqslib.vax/sitename
102120 Jul 20 23:03 ./cm-runtime-6104/nqslib.vax/qmgr.hlp
  7610 Jul 20 23:03 ./cm-runtime-6104/nqslib.vax/install-nqs
  5007 Jul 20 23:03 ./cm-runtime-6104/nqslib.vax/build-nqs-dbase
   122 Jul 20 23:03 ./cm-runtime-6104/nqslib.vax/qmkdir
 64512 Jul 20 23:03 ./cm-runtime-6104/nqsbin.vax/nmapmgr
 91136 Jul 20 23:03 ./cm-runtime-6104/nqsbin.vax/qdel
 78848 Jul 20 23:03 ./cm-runtime-6104/nqsbin.vax/qdev
 61440 Jul 20 23:03 ./cm-runtime-6104/nqsbin.vax/qlimit

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210944 Jul 20 23:03 ./cm-runtime-6104/nqsbin.vax/qmgr
110592 Jul 20 23:04 ./cm-runtime-6104/nqsbin.vax/qpr
134144 Jul 20 23:04 ./cm-runtime-6104/nqsbin.vax/qstat
128000 Jul 20 23:04 ./cm-runtime-6104/nqsbin.vax/qsub
  33 Jul 20 23:04 ./cm-runtime-6104/nqsbin.vax/shownqs
 113 Jul 20 23:04 ./cm-runtime-6104/nqsbin.vax/startnqs
  17 Jul 20 23:04 ./cm-runtime-6104/nqsbin.vax/stopnqs
 308 Jun 25 11:24 ./cm-runtime-6104/microcode-cm2/cmss-imp-library-list
19012 Jun 25 11:24 ./cm-runtime-6104/microcode-cm2/cmssl.ilb
30072 Jun 25 11:24 ./cm-runtime-6104/microcode-cm2/fpu-utility-imps.ilb
 310 Jun 25 11:24 ./cm-runtime-6104/microcode-cm2/leader-spread.ilb
177112 Jun 25 11:24 ./cm-runtime-6104/microcode-cm2/math-library.ilb
442495 Jun 25 11:24 ./cm-runtime-6104/microcode-cm2/paris-64-ucode.s
48191 Jun 25 11:24 ./cm-runtime-6104/microcode-cm2/paris-communication.ilb
676062 Jun 25 11:25 ./cm-runtime-6104/microcode-cm2/paris-float-arithmetic.ilb
1788796 Jun 25 11:25 ./cm-runtime-6104/microcode-cm2/paris-ucode.cs
473529 Jun 25 11:25 ./cm-runtime-6104/microcode-cm2/paris-ucode.mis
 7343 Jun 25 11:25 ./cm-runtime-6104/microcode-cm2/shuffle.ilb
 4052 Jun 25 11:25 ./cm-runtime-6104/microcode-cm2/trap-table.traps
219387 Jun 25 11:25 ./cm-runtime-6104/microcode-cm2/twuffle.ilb
 486 Jun 25 11:25 ./cm-runtime-6104/microcode-cm2/utils.ilb
 308 Jun 25 11:26 ./cm-runtime-6104/microcode-cm200/cmss-imp-library-list
19012 Jun 25 11:26 ./cm-runtime-6104/microcode-cm200/cmssl.ilb
30072 Jun 25 11:26 ./cm-runtime-6104/microcode-cm200/fpu-utility-imps.ilb
 310 Jun 25 11:26 ./cm-runtime-6104/microcode-cm200/leader-spread.ilb
177112 Jun 25 11:26 ./cm-runtime-6104/microcode-cm200/math-library.ilb
442667 Jun 25 11:26 ./cm-runtime-6104/microcode-cm200/paris-64-ucode.s
48191 Jun 25 11:26 ./cm-runtime-6104/microcode-cm200/paris-communication.ilb
676062 Jun 25 11:27 ./cm-runtime-6104/microcode-cm200/paris-float-arithmetic.ilb
1785820 Jun 25 11:28 ./cm-runtime-6104/microcode-cm200/paris-ucode.cs
473669 Jun 25 11:28 ./cm-runtime-6104/microcode-cm200/paris-ucode.mis
 7343 Jun 25 11:28 ./cm-runtime-6104/microcode-cm200/shuffle.ilb
 4052 Jun 25 11:28 ./cm-runtime-6104/microcode-cm200/trap-table.traps
219387 Jun 25 11:28 ./cm-runtime-6104/microcode-cm200/twuffle.ilb
 486 Jun 25 11:28 ./cm-runtime-6104/microcode-cm200/utils.ilb
206848 Jul 31 16:36 ./cm-runtime-6104/bin.vax/cmattach
150528 Jul 31 16:36 ./cm-runtime-6104/bin.vax/cmoldboot
 15360 Jun 29 23:46 ./cm-runtime-6104/bin.vax/cmtime
192512 Jul 31 16:36 ./cm-runtime-6104/bin.vax/cmdetach
1105920 Aug 3 20:29 ./cm-runtime-6104/bin.vax/cmtar
1781760 Aug 3 20:21 ./cm-runtime-6104/bin.vax/cmcmp
 513024 Aug 3 20:27 ./cm-runtime-6104/bin.vax/cmpttruncate
1827840 Aug 3 20:32 ./cm-runtime-6104/bin.vax/dvcp
157696 Jul 31 16:37 ./cm-runtime-6104/bin.vax/cmfinger
178176 Jul 31 16:37 ./cm-runtime-6104/bin.vax/cmpowerup
840704 Aug 3 20:35 ./cm-runtime-6104/bin.vax/cmcp
783360 Aug 3 20:36 ./cm-runtime-6104/bin.vax/cmdd
657408 Aug 3 20:38 ./cm-runtime-6104/bin.vax/copyfromdv
813056 Aug 3 20:39 ./cm-runtime-6104/bin.vax/copytodv
 47104 Aug 4 11:20 ./cm-runtime-6104/bin.vax/pracct
 97402 Jul 31 14:41 ./cm-runtime-6104/lib.vax/libckpt-6104-pg.a
5935686 Jul 31 13:08 ./cm-runtime-6104/lib.vax/libparis2-6104.a
9064884 Jul 31 13:08 ./cm-runtime-6104/lib.vax/libparis2-6104-pg.a
 94920 Jul 31 14:41 ./cm-runtime-6104/lib.vax/libckpt-6104.a
168130 Jul 31 14:41 ./cm-runtime-6104/lib.vax/libcmfe-6104.a
 176146 Jul 31 14:41 ./cm-runtime-6104/lib.vax/libcmfe-6104-pg.a
1813000 Jul 21 17:41 ./cm-runtime-6104/lib.vax/libcmrts-1.1-CM2-6104.a
1957826 Jul 21 17:41 ./cm-runtime-6104/lib.vax/libcmrts-1.1-CM2-6104_p.a
1804716 Jul 21 17:41 ./cm-runtime-6104/lib.vax/libcmrts-1.1-CM200-6104.a
1949542 Jul 21 17:41 ./cm-runtime-6104/lib.vax/libcmrts-1.1-CM200-6104_p.a
1329124 Jul 1 23:39 ./cm-runtime-6104/lib.vax/libparisfort-6104-pg.a
1272350 Jul 1 23:39 ./cm-runtime-6104/lib.vax/libparisfort-6104.a
 13948 Jul 31 12:24 ./cm-runtime-6104/lib.vax/libcmfs-stubs.o
2249956 Aug 5 15:57 ./cm-runtime-6104/lib.vax/libcmfs-6104.a
2270552 Aug 5 15:57 ./cm-runtime-6104/lib.vax/libcmfs-6104-pg.a
 52968 Jul 31 14:41 ./cm-runtime-6104/lib.vax/libtoolkit-6104.a

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57438	Jul	31	14:41	./cm-runtime-6104/lib.vax/libtoolkit-6104-pg.a
165888	Jul	31	16:42	./cm-runtime-6104/etc.vax/cmsa
135168	Jul	31	16:42	./cm-runtime-6104/etc.vax/cm-acctd
112640	Jul	31	16:42	./cm-runtime-6104/etc.vax/cmts-admin
10978	Jun	25	11:39	./cm-runtime-6104/etc.vax/cmsa.awk
2098	Jun	25	11:39	./cm-runtime-6104/etc.vax/cmacct.csh
2644992	Aug	3	20:17	./cm-runtime-6104/etc.vax/dvtest2
1864704	Aug	3	20:31	./cm-runtime-6104/etc.vax/dv_disk_util
1079296	Aug	5	14:56	./cm-runtime-6104/etc.vax/fserver
131072	Jul	10	17:07	./cm-runtime-6104/etc.vax/cminfo
732160	Jul	31	16:42	./cm-runtime-6104/etc.vax/cmverify
401408	Jul	20	23:32	./cm-runtime-6104/etc.vax/coldboot-paris-6104
2251776	Aug	3	20:09	./cm-runtime-6104/etc.vax/fstest
2597888	Aug	4	11:15	./cm-runtime-6104/etc.vax/ts-daemon-6104
200561	Jul	31	17:06	./cm-runtime-6104/sys/cm.c
11454	Jun	25	11:40	./cm-runtime-6104/sys/cmacct.h
15937	Jul	20	21:20	./cm-runtime-6104/sys/cmioctl.h
7548	Jul	20	23:56	./cm-runtime-6104/sys/cmssoft.h
11454	Jun	25	11:54	./cm-runtime-6104/include/cm/cmacct.h
15466	Jun	25	11:54	./cm-runtime-6104/include/cm/cmioctl.h
16325	Jun	25	13:11	./cm-runtime-6104/include/cm/paris-configuration-fort.h
10410	Jun	25	11:54	./cm-runtime-6104/include/cm/timeshare.h
2168	Jun	9	17:26	./cm-runtime-6104/include/cm/cm_conf.h
1915	Jun	11	17:27	./cm-runtime-6104/include/cm/cm_dir.h
13947	Jun	9	17:24	./cm-runtime-6104/include/cm/cm_errno.h
5354	Jun	9	17:29	./cm-runtime-6104/include/cm/cm_param.h
78	Jun	9	17:40	./cm-runtime-6104/include/cm/cm_rawdisk.h
7507	Aug	3	21:27	./cm-runtime-6104/lint/l1ib-cmfs.ln
1079296	Aug	5	14:56	./cm-runtime-6104/microvax/fserver
1038336	Jul	14	10:53	./cm-runtime-6104/microvax/unfsd
1707	Feb	6	1992	./cm-runtime-6104/microvax/unfsd.8
2483	Feb	6	1992	./cm-runtime-6104/microvax/unfsd_exports.5
705536	Jul	14	10:55	./cm-runtime-6104/microvax/unfsmntd
18424	Aug	5	13:06	./cm-runtime-6104/bugupdate/6.1.2-patch-release-notes
33688	Aug	4	11:16	./install-rts-patch
1260	Jul	10	16:16	./cm-required/patch/paris/f6104/def-file-set.lisp
1291	Nov	23	1991	./cm-required/patch/paris/f6104/patch-tracker.lisp
2338	Nov	25	1991	./cm-required/patch/paris/f6104/patch-tracker.vbin2
5691	Nov	4	1991	./cm-required/patch/paris/f6104/twuffle-patch.lisp
5746	Nov	4	1991	./cm-required/patch/paris/f6104/twuffle-patch.vbin2
1624	Nov	4	1991	./cm-required/patch/paris/f6104/ts-ucode-patch.vbin2
4846	Nov	22	1991	./cm-required/patch/paris/f6104/sprint-delivery-setup-patch.vbin2
2284	Nov	4	1991	./cm-required/patch/paris/f6104/cm200-warning-patch.vbin2
8834	Nov	4	1991	./cm-required/patch/paris/f6104/twuffle-patch-2.vbin2
5556	Nov	22	1991	./cm-required/patch/paris/f6104/fb-ucode-patch.vbin2
2135	Nov	5	1991	./cm-required/patch/paris/f6104/cmioc-diag-patch.lisp
2892	Nov	5	1991	./cm-required/patch/paris/f6104/cmioc-diag-patch.vbin2
3291	Nov	22	1991	./cm-required/patch/paris/f6104/fb-ucode-patch.lisp
3765	Nov	7	1991	./cm-required/patch/paris/f6104/normalize-patch.lisp
10703	Nov	22	1991	./cm-required/patch/paris/f6104/send-to-queue-patch.lisp
5047	Nov	14	1991	./cm-required/patch/paris/f6104/normalize-patch.vbin2
4491	Nov	22	1991	./cm-required/patch/paris/f6104/send-to-queue-patch.vbin2
1995	Nov	19	1991	./cm-required/patch/paris/f6104/cvpm-patch.lisp
2598	Nov	4	1991	./cm-required/patch/paris/f6104/ts-ucode-patch.lisp
7015	Dec	4	1991	./cm-required/patch/paris/f6104/nexus-clock-patch.lisp
14145	Nov	22	1991	./cm-required/patch/paris/f6104/sprint-delivery-setup-patch.lisp
1343	Nov	4	1991	./cm-required/patch/paris/f6104/cm200-warning-patch.lisp
7323	Nov	26	1991	./cm-required/patch/paris/f6104/sram-maddr-patch.lisp
1120	Nov	25	1991	./cm-required/patch/paris/f6104/relink-paris.vbin2
286	Nov	23	1991	./cm-required/patch/paris/f6104/relink-paris.lisp
10380	Nov	4	1991	./cm-required/patch/paris/f6104/twuffle-patch-2.lisp
47190	Nov	26	1991	./cm-required/patch/paris/f6104/ucode-timing-patch.lisp
7244	Dec	19	1991	./cm-required/patch/paris/f6104/nexus-clock-patch.vbin2
3709	Nov	22	1991	./cm-required/patch/paris/f6104/cvpm-patch.vbin2
10527	Nov	26	1991	./cm-required/patch/paris/f6104/sram-maddr-patch.vbin2
12780	Dec	5	1991	./cm-required/patch/paris/f6104/mfg-diag-patches.lisp

45381	Nov	26	1991	./cm-required/patch/paris/f6104/ucode-timing-patch.vbin2
15920	Dec	19	1991	./cm-required/patch/paris/f6104/mfg-diag-patches.vbin2
3909	Apr	24	11:49	./cm-required/patch/paris/f6104/rank-patch.lisp
4259	May	5	14:30	./cm-required/patch/paris/f6104/rank-patch.vbin2
2917	Apr	24	11:51	./cm-required/patch/paris/f6104/send-to-shared-queue-patch.lisp
839	Apr	28	16:55	./cm-required/patch/paris/f6104/sprint-error-mask.lisp
4273	May	5	14:31	./cm-required/patch/paris/f6104/send-to-shared-queue-patch.vbin2
204	Feb	26	12:45	./cm-required/patch/paris/f6104/features-patch.lisp
849	May	5	14:31	./cm-required/patch/paris/f6104/features-patch.vbin2
1362	May	5	14:31	./cm-required/patch/paris/f6104/sprint-error-mask.vbin2
3897	Jun	23	16:30	./cm-required/patch/paris/f6104/skew-patch.lisp
4489	Jun	23	16:32	./cm-required/patch/paris/f6104/skew-patch.vbin2
12273	Jun	24	10:54	./cm-required/patch/paris/f6104/ts-timing-patch.lisp
6280	Jun	29	02:56	./cm-required/patch/paris/f6104/ts-timing-patch.vbin2
5162	Jul	10	16:18	./cm-required/patch/paris/f6104/get-overlapped-patch.lisp
5119	Jul	13	00:44	./cm-required/patch/paris/f6104/get-overlapped-patch.vbin2
1217	Jul	21	12:54	./cm-required/patch/starlisp/f6101/def-file-set.lisp
2360	Jun	23	16:33	./cm-required/patch/starlisp/f6101/patch-tracker.vbin2
913	Jun	8	13:02	./cm-required/patch/starlisp/f6101/sideways-array.lisp
1298	Jun	8	13:02	./cm-required/patch/starlisp/f6101/patch-tracker.lisp
671	Jun	23	16:33	./cm-required/patch/starlisp/f6101/sideways-array.vbin2
487	Apr	24	14:49	./cm-required/patch/starlisp/f6101/cmfs-ioctl.lisp
3815	May	7	10:17	./cm-required/patch/starlisp/f6101/cmfs-ioctl.vbin2
1505	Apr	24	15:08	./cm-required/patch/starlisp/f6101/cmfs-errno.lisp
3393	May	7	10:18	./cm-required/patch/starlisp/f6101/cmfs-errno.vbin2
1482	Jun	8	13:02	./cm-required/patch/starlisp/f6101/v-is-zero-patch.lisp
5690	Jun	8	13:02	./cm-required/patch/starlisp/f6101/twuffle-patch.lisp
3302	Jun	8	13:02	./cm-required/patch/starlisp/f6101/equal-patch.lisp
767	Apr	6	15:10	./cm-required/patch/starlisp/f6101/position-patch.lisp
6540	Jun	23	16:33	./cm-required/patch/starlisp/f6101/equal-patch.vbin2
679	Jun	9	12:40	./cm-required/patch/starlisp/f6101/char-type-patch.lisp
3071	Jun	23	16:33	./cm-required/patch/starlisp/f6101/v-is-zero-patch.vbin2
164	Feb	26	13:00	./cm-required/patch/starlisp/f6101/features-patch.lisp
6423	Jun	9	12:37	./cm-required/patch/starlisp/f6101/string-char-array-patch.lisp
3418	Oct	30	1991	./cm-required/patch/starlisp/f6101/vector-promotion-patch.lisp
5356	Nov	1	1991	./cm-required/patch/starlisp/f6101/vector-promotion-patch.vbin2
724	Dec	18	1991	./cm-required/patch/starlisp/f6101/realpart-imagpart-ftype-patch.lisp
2371	Dec	19	1991	./cm-required/patch/starlisp/f6101/realpart-imagpart-ftype-patch.vbin2
18553	Jan	13	1992	./cm-required/patch/starlisp/f6101/node-reference-with-wrapper.lisp
18665	Jan	16	1992	./cm-required/patch/starlisp/f6101/node-reference-with-wrapper.vbin2
1407	Feb	26	16:39	./cm-required/patch/starlisp/f6101/create-x-display-window-patch.lisp
1475	Jun	9	16:25	./cm-required/patch/starlisp/f6101/ppp-css-patch.lisp
407	Jul	21	12:53	./cm-required/patch/starlisp/f6101/load-cmfs-patch.lisp
2514	Feb	28	16:26	./cm-required/patch/starlisp/f6101/slc-get-from-news-patch.lisp
3139	Apr	23	11:27	./cm-required/patch/starlisp/f6101/pset-queue-patch.lisp
3253	Jun	23	16:34	./cm-required/patch/starlisp/f6101/char-type-patch.vbin2
760	May	7	10:18	./cm-required/patch/starlisp/f6101/features-patch.vbin2
2434	May	7	10:18	./cm-required/patch/starlisp/f6101/create-x-display-window-patch.lisp
2340	May	7	10:18	./cm-required/patch/starlisp/f6101/slc-get-from-news-patch.vbin2
1014	May	7	10:19	./cm-required/patch/starlisp/f6101/position-patch.vbin2
7210	May	7	10:19	./cm-required/patch/starlisp/f6101/pset-queue-patch.vbin2
1686	Jun	1	17:33	./cm-required/patch/starlisp/f6101/array-to-pvar-patch.lisp
5183	Jun	23	16:33	./cm-required/patch/starlisp/f6101/array-to-pvar-patch.vbin2
6142	Jun	23	16:34	./cm-required/patch/starlisp/f6101/string-char-array-patch.vbin2
3075	Jun	23	16:34	./cm-required/patch/starlisp/f6101/ppp-css-patch.vbin2
253089	Aug	3	20:56	./cm-required/patch/starlisp/f6101/libcmfs-lucid-vax.o
913	Aug	4	17:41	./cm-required/patch/starlisp/f6101/load-cmfs-patch.vbin2
492	Jul	10	10:23	./cm-required/patch/starlisp/f6101/stack-trace-patch.lisp
1191	Jul	21	12:54	./cm-required/patch/starlisp/f6101/load-cmfs-library.lisp
3598	Aug	4	17:41	./cm-required/patch/starlisp/f6101/load-cmfs-library.vbin2
368	Feb	26	12:37	./cm-required/patch/c-paris/f6100/def-file-set.lisp
1193	Nov	4	1991	./cm-required/patch/c-paris/f6100/patch-tracker.lisp
502	Nov	4	1991	./cm-required/patch/c-paris/f6100/lispts-graphics-patch.lisp
2233	Nov	4	1991	./cm-required/patch/c-paris/f6100/patch-tracker.vbin2
1059	Nov	4	1991	./cm-required/patch/c-paris/f6100/lispts-graphics-patch.vbin2
1516	Nov	5	1991	./cm-required/patch/c-paris/f6100/monitor-location-patch.lisp

```
2769 Nov 5 1991 ./cm-required/patch/c-paris/f6100/monitor-location-patch.vbin2
2161 Feb 18 12:25 ./cm-required/patch/c-paris/f6100/transpose-patch.lisp
203 Feb 26 12:44 ./cm-required/patch/c-paris/f6100/features-patch.lisp
5097 Feb 18 12:30 ./cm-required/patch/c-paris/f6100/transpose-patch.vbin2
845 May 7 12:25 ./cm-required/patch/c-paris/f6100/features-patch.vbin2
45990 Jul 13 16:45 ./6.1.2-installation-instructions
27919360 Aug 5 11:16 ./bands.vax/starlisp-ts
18424 Aug 5 13:05 ./6.1.2-patch-release-notes
```

Appendix B

Sample Run of install-rts-patch

This run is on a Sun. I opted not to save the previous versions of the libraries and commands.

```
contingency!sean# ./install-rts-patch
CM2 Base System Software Version 6.1.2 Installation Procedure
```

This procedure installs patches for the 6.1.1 CM2 Base System Software Release.

Back up old versions of executables and libraries? (yes or no) [no] :

Location to install the online bug update files (path,skip) [/usr/cm/doc] :

```
Updating User commands
User commands installed as files
```

```
Updating Administrator commands
Administrator commands installed as files
```

```
Updating Libraries
Libraries installed as files
```

```
Updating Header files
```

```
Updating CM2 microcode
```

```
Updating CM200 microcode
```

```
Updating NQS User commands
```

```
Updating NQS Administrator commands
```

```
Updating Manual pages
contingency!sean#
```

