

Connection Machine System Software Release 6.1.1
Installation Instructions for Sun and Vax Front Ends
February 1991

Overview:

This is a patch release to be installed on top of CMSS 6.1, 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) 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,

6.1.1-installation-instructions	- this document.
install-rts-patch*	- installation script.
README	- description of bug fixes.
cm-runtime-6104/	- runtime system patches.
cm-optional/	- optional lisp components
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
```

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 cm-runtime-6104 hierarchy on this front end.

It will ask if you want to save the previous (6.1) 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 6.1.1 patch release software into the appropriate locations or make the appropriate symlinks.

If you respond "no", the script will copy the 6.1.1 libraries, user executables, system executables, and microcode files, header files, and NQS executables into the appropriate subdirectories of the 6.1 cm-runtime-6104 hierarchy on this front end, replacing the 6.1 versions.

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 files (i.e. via copy or  
* symlink). If you installed any of the 6.1 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 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/suncm/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 6.1.1 patch release directory cm-runtime-6104/sys, into /sys/suncm/.

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 patch tape, then cd into the 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 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 6.1.1 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 xfvp -)
```

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 xfvp -)
```

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 final) versions.

To re-save a band, bring up the 6.1 final 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)
```

This will take about 5 minutes on a Sun, longer on a Vax. The output looks like this:

After this is finished, exit from lisp, then bring up the new band to make sure it was disksaved successfully.

Remember, after the new bands are built, you can remove or archive the 6.1 final bands to reclaim disk space.

6. The 6.1.1 patch release also includes software for the Microvax installed in the Datavault. This software resides in the cm-runtime-6104/microvax directory in the location the tape was extracted. The Microvax software includes patches to the fsserver which normally runs on the Microvax, and a daemon which makes the Datavault filesystem available over NFS. For more information on installing this software, please see the 6.1.1 release notes, and the README file in the above directory.

7. After you have installed and tested all the 6.1.1 patch release software, you may remove the installation directory into which you extracted the contents of the tape, to reclaim disk space, *IF* you did not originally install any 6.1 components with the link option. If you did install some of the components of 6.1 with the link option, the links have been moved to point into the area you extracted the patch tape. You can (carefully) remove any components you didn't install with the link option.

Appendix A

Tape Contents

Sun:

236	Jan	31	15:34	./cm-runtime-6104/include/ckpt-fort.h
31021	Jan	23	22:32	./cm-runtime-6104/include/cmrt.h
8886	Jan	31	15:34	./cm-runtime-6104/include/attach-fort.h
7574	Jan	31	15:34	./cm-runtime-6104/include/cmsoft.h
10265	Jan	31	15:34	./cm-runtime-6104/include/cmacct.h
223684	Jan	31	15:34	./cm-runtime-6104/include/paris.h
6331	Jan	31	15:34	./cm-runtime-6104/include/cmtypes.h
15291	Jan	31	15:34	./cm-runtime-6104/include/cmioctl.h
13157	Jan	31	15:34	./cm-runtime-6104/include/paris-internal.h
20719	Jan	31	15:34	./cm-runtime-6104/include/imptcl.h
10376	Jan	31	15:34	./cm-runtime-6104/include/timeshare.h
3780	Jan	31	15:34	./cm-runtime-6104/include/ckpt.h
2569	Jan	31	15:34	./cm-runtime-6104/include/cm-errors.h
344064	Feb	5	17:07	./cm-runtime-6104/bin.sun4/cmpowerup
229376	Feb	5	17:07	./cm-runtime-6104/bin.sun4/cmclist
393216	Feb	5	17:07	./cm-runtime-6104/bin.sun4/cmattach
745	Jan	31	14:19	./cm-runtime-6104/bin.sun4/cmman
1343488	Feb	7	17:11	./cm-runtime-6104/bin.sun4/cmtar
1081344	Feb	7	17:11	./cm-runtime-6104/bin.sun4/cmcp
1040384	Feb	7	17:11	./cm-runtime-6104/bin.sun4/cmdd
942080	Feb	7	17:12	./cm-runtime-6104/bin.sun4/copyfromdv
1056768	Feb	7	17:12	./cm-runtime-6104/bin.sun4/copytodv
1602032	Feb	21	14:09	./cm-runtime-6104/lib.sun4/libparisfort-6104.a
250248	Feb	19	14:55	./cm-runtime-6104/lib.sun4/libparis.sa.6104.0
3465216	Feb	5	17:15	./cm-runtime-6104/lib.sun4/libparis.so.6104.0
1888048	Feb	21	14:09	./cm-runtime-6104/lib.sun4/libcmrts-1.1-CM2-6104.a
2082920	Feb	21	14:09	./cm-runtime-6104/lib.sun4/libcmrts-1.1-CM2-6104_p.a
1829908	Feb	21	14:09	./cm-runtime-6104/lib.sun4/libcmrts-1.1-CM200-6104.a
2075652	Feb	21	14:09	./cm-runtime-6104/lib.sun4/libcmrts-1.1-CM200-6104_p.a

142298 Feb 21 14:09 ./cm-runtime-6104/lib.sun4/libckpt.a
235728 Feb 21 14:09 ./cm-runtime-6104/lib.sun4/libcomfe.a
2735736 Feb 21 14:09 ./cm-runtime-6104/lib.sun4/libcmfs-6104.a
2676286 Feb 21 14:09 ./cm-runtime-6104/lib.sun4/libcmfs-6104-pg.a
6325296 Feb 21 14:09 ./cm-runtime-6104/lib.sun4/libparis2-6104.a
6743112 Feb 21 14:09 ./cm-runtime-6104/lib.sun4/libparis2-6104-pg.a
1849900 Feb 21 14:09 ./cm-runtime-6104/lib.sun4/libparisfort-6104-pg.a
70248 Feb 21 14:09 ./cm-runtime-6104/lib.sun4/libtoolkit.a
76692 Feb 21 14:09 ./cm-runtime-6104/lib.sun4/libtoolkit-pg.a
142302 Feb 21 14:09 ./cm-runtime-6104/lib.sun4/libckpt-pg.a
247120 Feb 21 14:09 ./cm-runtime-6104/lib.sun4/libcmfe-pg.a
9879240 Feb 25 11:52 ./cm-runtime-6104/lib.sun4/libparis-pg.a
245760 Feb 5 17:02 ./cm-runtime-6104/etc.sun4/cmsa
221184 Feb 5 17:02 ./cm-runtime-6104/etc.sun4/cm-acctd
196608 Feb 5 17:02 ./cm-runtime-6104/etc.sun4/cmacl
139264 Feb 5 17:03 ./cm-runtime-6104/etc.sun4/pracct
253952 Feb 5 17:03 ./cm-runtime-6104/etc.sun4/cmrenice
1015808 Feb 5 17:03 ./cm-runtime-6104/etc.sun4/cmverify
245760 Feb 5 17:03 ./cm-runtime-6104/etc.sun4/cmts-admin
630784 Feb 5 17:03 ./cm-runtime-6104/etc.sun4/coldboot-paris
172032 Feb 5 17:03 ./cm-runtime-6104/etc.sun4/cmcountdown
237568 Feb 5 17:03 ./cm-runtime-6104/etc.sun4/cmts-shutdown
245760 Feb 5 17:09 ./cm-runtime-6104/etc.sun4/cm-logger
245760 Feb 5 17:08 ./cm-runtime-6104/etc.sun4/cm-update-config
2801664 Feb 24 15:22 ./cm-runtime-6104/etc.sun4/ts-daemon
81920 Feb 7 14:13 ./cm-runtime-6104/etc.sun4/vbutil
2883584 Feb 7 17:09 ./cm-runtime-6104/etc.sun4/dvtest2
2260992 Feb 7 17:10 ./cm-runtime-6104/etc.sun4/dv_disk_util
1187840 Feb 7 17:11 ./cm-runtime-6104/etc.sun4/fsserver
1024000 Feb 7 17:10 ./cm-runtime-6104/etc.sun4/dv_util_vmeio
10793 Feb 21 15:07 ./cm-runtime-6104/etc.sun4/cmsa.awk
8704 Feb 25 15:33 ./cm-runtime-6104/etc.sun4/newcmlog
19012 Jan 21 17:53 ./cm-runtime-6104/microcode-cm2/cmssl.ilb
30072 Jan 21 17:53 ./cm-runtime-6104/microcode-cm2/fpu-utility-imps.ilb
310 Jan 21 17:53 ./cm-runtime-6104/microcode-cm2/leader-spread.ilb
177112 Jan 21 17:53 ./cm-runtime-6104/microcode-cm2/math-library.ilb
48191 Jan 21 17:53 ./cm-runtime-6104/microcode-cm2/paris-communication.ilb
676062 Jan 21 17:53 ./cm-runtime-6104/microcode-cm2/paris-float-arithmetic.ilb
7343 Jan 21 17:53 ./cm-runtime-6104/microcode-cm2/shuffle.ilb
219387 Jan 21 17:53 ./cm-runtime-6104/microcode-cm2/twuffle.ilb
486 Jan 21 17:53 ./cm-runtime-6104/microcode-cm2/utils.ilb
4052 Jan 21 17:54 ./cm-runtime-6104/microcode-cm2/trap-table.traps
308 Jan 21 17:54 ./cm-runtime-6104/microcode-cm2/cmss-imp-library-list
1788796 Jan 21 17:54 ./cm-runtime-6104/microcode-cm2/paris-ucode.cs
473522 Jan 21 17:54 ./cm-runtime-6104/microcode-cm2/paris-ucode.mis
442495 Jan 21 17:55 ./cm-runtime-6104/microcode-cm2/paris-64-ucode.s
19012 Jan 21 17:55 ./cm-runtime-6104/microcode-cm200/cmssl.ilb
30072 Jan 21 17:55 ./cm-runtime-6104/microcode-cm200/fpu-utility-imps.ilb
310 Jan 21 17:55 ./cm-runtime-6104/microcode-cm200/leader-spread.ilb
177112 Jan 21 17:55 ./cm-runtime-6104/microcode-cm200/math-library.ilb
48191 Jan 21 17:55 ./cm-runtime-6104/microcode-cm200/paris-communication.ilb
676062 Jan 21 17:55 ./cm-runtime-6104/microcode-cm200/paris-float-arithmetic.ilb
7343 Jan 21 17:55 ./cm-runtime-6104/microcode-cm200/shuffle.ilb
219387 Jan 21 17:55 ./cm-runtime-6104/microcode-cm200/twuffle.ilb
486 Jan 21 17:55 ./cm-runtime-6104/microcode-cm200/utils.ilb
4052 Jan 21 17:55 ./cm-runtime-6104/microcode-cm200/trap-table.traps
308 Jan 21 17:55 ./cm-runtime-6104/microcode-cm200/cmss-imp-library-list
1785820 Jan 21 17:56 ./cm-runtime-6104/microcode-cm200/paris-ucode.cs
473662 Jan 21 17:56 ./cm-runtime-6104/microcode-cm200/paris-ucode.mis
442667 Jan 21 17:56 ./cm-runtime-6104/microcode-cm200/paris-64-ucode.s
194754 Jan 31 15:37 ./cm-runtime-6104/sys/cm.c
1217 Jan 31 15:37 ./cm-runtime-6104/sys/cm_acct.c
11703 Jan 31 15:38 ./cm-runtime-6104/sys/cmreg.h
7574 Jan 31 15:38 ./cm-runtime-6104/sys/cmssoft.h
10265 Jan 31 15:38 ./cm-runtime-6104/sys/cmacct.h
15291 Jan 31 15:38 ./cm-runtime-6104/sys/cmiocctl.h

5060	Jan	31	15:38	./cm-runtime-6104/sys/nexus-code.h
6928	Jan	31	15:38	./cm-runtime-6104/sys/attach.h
139264	Feb	6	12:33	./cm-runtime-6104/nqslib.sun4/logdaemon
245760	Feb	6	12:33	./cm-runtime-6104/nqslib.sun4/lpserver
303104	Feb	6	12:33	./cm-runtime-6104/nqslib.sun4/netclient
434176	Feb	6	12:33	./cm-runtime-6104/nqslib.sun4/netdaemon
270336	Feb	6	12:33	./cm-runtime-6104/nqslib.sun4/netserver
884736	Feb	6	12:33	./cm-runtime-6104/nqslib.sun4/nqsdaemon
180224	Feb	6	12:33	./cm-runtime-6104/nqslib.sun4/nqsmkdirs
188416	Feb	6	12:33	./cm-runtime-6104/nqslib.sun4/nqsmktrans
319488	Feb	6	12:33	./cm-runtime-6104/nqslib.sun4/pipeclient
32768	Feb	6	12:33	./cm-runtime-6104/nqslib.sun4/shlexefai
17	Feb	6	12:33	./cm-runtime-6104/nqslib.sun4/sitename
101783	Feb	6	12:33	./cm-runtime-6104/nqslib.sun4/qmgr.hlp
7610	Feb	6	12:33	./cm-runtime-6104/nqslib.sun4/install-nqs
5007	Feb	6	12:33	./cm-runtime-6104/nqslib.sun4/build-nqs-dbase
122	Feb	6	12:33	./cm-runtime-6104/nqslib.sun4/qmkdir
196608	Feb	6	12:33	./cm-runtime-6104/nqsbin.sun4/nmapmgr
262144	Feb	6	12:33	./cm-runtime-6104/nqsbin.sun4/qdel
237568	Feb	6	12:33	./cm-runtime-6104/nqsbin.sun4/qdev
204800	Feb	6	12:33	./cm-runtime-6104/nqsbin.sun4/qlimit
606208	Feb	6	12:34	./cm-runtime-6104/nqsbin.sun4/qmgr
303104	Feb	6	12:34	./cm-runtime-6104/nqsbin.sun4/qpr
368640	Feb	6	12:34	./cm-runtime-6104/nqsbin.sun4/qstat
360448	Feb	6	12:34	./cm-runtime-6104/nqsbin.sun4/qsub
33	Feb	6	12:34	./cm-runtime-6104/nqsbin.sun4/shownqs
113	Feb	6	12:34	./cm-runtime-6104/nqsbin.sun4/startnqs
17	Feb	6	12:34	./cm-runtime-6104/nqsbin.sun4/stopnqs
1004544	Feb	21	11:20	./cm-runtime-6104/microvax/fsserver
1008640	Feb	21	11:24	./cm-runtime-6104/microvax/unfsd
716800	Feb	21	11:24	./cm-runtime-6104/microvax/unfsmntd
2421	Feb	21	11:24	./cm-runtime-6104/microvax/unfsd_exports.5
1653	Feb	21	11:24	./cm-runtime-6104/microvax/unfsd.8
164	Feb	21	11:33	./cm-runtime-6104/microvax(exports.example
1554	Feb	21	14:19	./cm-runtime-6104/microvax/README
1040	Jan	17	14:36	./cm-required/patch/paris/f6104/def-file-set.lisp
1803	Nov	24	01:05	./cm-required/patch/paris/f6104/patch-tracker.sbin4
1291	Nov	23	13:24	./cm-required/patch/paris/f6104/patch-tracker.lisp
5691	Nov	4	14:11	./cm-required/patch/paris/f6104/twuffle-patch.lisp
4795	Nov	4	14:17	./cm-required/patch/paris/f6104/twuffle-patch.sbin4
1374	Nov	4	14:20	./cm-required/patch/paris/f6104/ts-ucode-patch.sbin4
2135	Nov	5	10:51	./cm-required/patch/paris/f6104/cmioc-diag-patch.lisp
2406	Nov	5	12:23	./cm-required/patch/paris/f6104/cmioc-diag-patch.sbin4
3291	Nov	22	11:29	./cm-required/patch/paris/f6104/fb-ucode-patch.lisp
3765	Nov	7	13:59	./cm-required/patch/paris/f6104/normalize-patch.lisp
10703	Nov	22	11:30	./cm-required/patch/paris/f6104/send-to-queue-patch.lisp
3943	Nov	7	14:10	./cm-required/patch/paris/f6104/normalize-patch.sbin4
4325	Nov	22	11:30	./cm-required/patch/paris/f6104/send-to-queue-patch.sbin4
1995	Nov	19	13:42	./cm-required/patch/paris/f6104/cvpm-patch.lisp
7015	Dec	4	11:02	./cm-required/patch/paris/f6104/nexus-clock-patch.lisp
2598	Nov	4	14:19	./cm-required/patch/paris/f6104/ts-ucode-patch.lisp
14145	Nov	22	11:28	./cm-required/patch/paris/f6104/sprint-delivery-setup-patch.li
7434	Nov	4	14:18	./cm-required/patch/paris/f6104/twuffle-patch-2.sbin4
6833	Dec	4	11:05	./cm-required/patch/paris/f6104/nexus-clock-patch.sbin4
4583	Nov	22	11:29	./cm-required/patch/paris/f6104/sprint-delivery-setup-patch.sb
1343	Nov	4	14:14	./cm-required/patch/paris/f6104/cm200-warning-patch.lisp
1923	Nov	4	14:18	./cm-required/patch/paris/f6104/cm200-warning-patch.sbin4
809	Nov	26	14:12	./cm-required/patch/paris/f6104/relink-paris.sbin4
3021	Nov	19	17:35	./cm-required/patch/paris/f6104/cvpm-patch.sbin4
7323	Nov	26	15:49	./cm-required/patch/paris/f6104/sram-maddr-patch.lisp
286	Nov	23	13:26	./cm-required/patch/paris/f6104/relink-paris.lisp
11535	Nov	26	15:50	./cm-required/patch/paris/f6104/sram-maddr-patch.sbin4
5198	Nov	22	11:30	./cm-required/patch/paris/f6104/fb-ucode-patch.sbin4
10380	Nov	4	14:13	./cm-required/patch/paris/f6104/twuffle-patch-2.lisp
47190	Nov	26	15:48	./cm-required/patch/paris/f6104/ucode-timing-patch.lisp
12780	Dec	5	16:00	./cm-required/patch/paris/f6104/mfg-diag-patches.lisp

3541 Jan 15 14:39 ./cm-required/patch/paris/f6104/rank-patch.sbin4
43956 Nov 26 15:50 ./cm-required/patch/paris/f6104/ucode-timing-patch.sbin4
14807 Dec 6 01:05 ./cm-required/patch/paris/f6104/mfg-diag-patches.sbin4
3823 Jan 15 14:38 ./cm-required/patch/paris/f6104/rank-patch.lisp
2143 Jan 17 14:36 ./cm-required/patch/paris/f6104/send-to-shared-queue-patch.lis
3028 Jan 17 16:06 ./cm-required/patch/paris/f6104/send-to-shared-queue-patch.sbi
359 Jan 10 02:10 ./cm-required/patch/paris/f6105/def-file-set.lisp
1291 Nov 23 13:24 ./cm-required/patch/paris/f6105/patch-tracker.lisp
286 Nov 23 13:26 ./cm-required/patch/paris/f6105/relink-paris.lisp
452 Jan 13 16:53 ./cm-required/patch/starlisp/f6101/def-file-set.lisp
1822 Sep 29 21:14 ./cm-required/patch/starlisp/f6101/patch-tracker.sbin4
913 Sep 30 16:27 ./cm-required/patch/starlisp/f6101/sideways-array.lisp
1298 Oct 22 1990 ./cm-required/patch/starlisp/f6101/patch-tracker.lisp
2229 Sep 30 16:30 ./cm-required/patch/starlisp/f6101/sideways-array.sbin4
5197 Oct 11 12:17 ./cm-required/patch/starlisp/f6101/equal-patch.sbin4
2013 Oct 4 16:39 ./cm-required/patch/starlisp/f6101/cmfs-errno.sbin4
476 Oct 3 18:13 ./cm-required/patch/starlisp/f6101/cmfs-ioctl.lisp
3229 Oct 3 18:15 ./cm-required/patch/starlisp/f6101/cmfs-ioctl.sbin4
2402 Oct 16 18:42 ./cm-required/patch/starlisp/f6101/v-is-zero-patch.sbin4
1451 Oct 4 16:39 ./cm-required/patch/starlisp/f6101/cmfs-errno.lisp
1482 Oct 16 18:35 ./cm-required/patch/starlisp/f6101/v-is-zero-patch.lisp
3302 Oct 11 12:15 ./cm-required/patch/starlisp/f6101/equal-patch.lisp
3418 Oct 30 15:26 ./cm-required/patch/starlisp/f6101/vector-promotion-patch.lisp
4397 Oct 30 15:28 ./cm-required/patch/starlisp/f6101/vector-promotion-patch.sbin
724 Dec 18 17:59 ./cm-required/patch/starlisp/f6101/realpart-imagpart-ftype-pat
2008 Dec 18 18:28 ./cm-required/patch/starlisp/f6101/realpart-imagpart-ftype-pat
18553 Jan 13 17:51 ./cm-required/patch/starlisp/f6101/node-reference-with-wrapper
17767 Jan 13 20:15 ./cm-required/patch/starlisp/f6101/node-reference-with-wrapper
338 Feb 18 12:29 ./cm-required/patch/c-paris/f6100/def-file-set.lisp
2161 Feb 18 12:25 ./cm-required/patch/c-paris/f6100/transpose-patch.lisp
4181 Feb 18 12:30 ./cm-required/patch/c-paris/f6100/transpose-patch.sbin4
10452 Jan 31 16:06 ./cm-required/lcmw/6-1/database-release.lisp
58542 Jan 31 16:06 ./cm-required/lcmw/6-1/saved-selections-release.lisp
193 Jan 31 16:13 ./cm-required/dfs/site/uc-assembler-beta-f6101.dfs
175 Jan 31 16:14 ./cm-required/dfs/site/mop-beta-f5300.dfs
173 Jan 31 16:14 ./cm-required/dfs/site/min-mic-f6102.dfs
3374 Oct 12 1990 ./cm-optional/starlisp/interpreter/f6101/bitblt-example.lisp
3787 Jun 19 1991 ./cm-optional/starlisp/interpreter/f6101/canon-matrix-multiply
7333 Apr 8 1991 ./cm-optional/starlisp/interpreter/f6101/cellular-automata-exa
7076 Oct 12 1990 ./cm-optional/starlisp/interpreter/f6101/combinations-example.
6964 Jun 25 1991 ./cm-optional/starlisp/interpreter/f6101/determinants-examples
51860 Oct 12 1990 ./cm-optional/starlisp/interpreter/f6101/dictionary-examples.1
5338 Oct 12 1990 ./cm-optional/starlisp/interpreter/f6101/example-batch-job.lis
526 Jan 23 00:27 ./cm-optional/starlisp/interpreter/f6101/examples-def-file-set
2444 Oct 12 1990 ./cm-optional/starlisp/interpreter/f6101/primes-example.lisp
2205 Apr 5 1991 ./cm-optional/starlisp/interpreter/f6101/run-examples.lisp
10346 Oct 12 1990 ./cm-optional/starlisp/interpreter/f6101/text-processing-examp
3335 Oct 12 1990 ./cm-optional/starlisp/interpreter/f6101/timing-example.lisp
5883 Oct 12 1990 ./cm-optional/starlisp/interpreter/f6101/very-long-addition-ex
13025 Apr 17 1991 ./cm-optional/starlisp/interpreter/f6101/starlisp-sampler.lisp
981 Jul 1 1991 ./cm-optional/uc-assembler/beta/f6101/def-file-set.lisp
18042 Jul 1 1991 ./cm-optional/uc-assembler/beta/f6101/assem.sbin4
1473 Jul 1 1991 ./cm-optional/uc-assembler/beta/f6101/calling.sbin4
32548 Jul 17 1991 ./cm-optional/uc-assembler/beta/f6101/cm-asm.sbin4
5083 Jul 1 1991 ./cm-optional/uc-assembler/beta/f6101/compute-length-of-cycle.
5080 Jul 1 1991 ./cm-optional/uc-assembler/beta/f6101/defucode.sbin4
4948 Jul 1 1991 ./cm-optional/uc-assembler/beta/f6101/entrypoints.sbin4
562 Jul 1 1991 ./cm-optional/uc-assembler/beta/f6101/full-assembler-init.sbin
12525 Jul 1 1991 ./cm-optional/uc-assembler/beta/f6101/gmacs-hacks.sbin4
8545 Jul 1 1991 ./cm-optional/uc-assembler/beta/f6101/lucid-printer.sbin4
5291 Jul 17 1991 ./cm-optional/uc-assembler/beta/f6101/rev-4-macros.sbin4
49320 Jul 1 1991 ./cm-optional/uc-assembler/beta/f6101/rev-4-uwdefs-ram.sbin4
5613 Jul 1 1991 ./cm-optional/uc-assembler/beta/f6101/uc-macroexpand.sbin4
18194 Jul 1 1991 ./cm-optional/uc-assembler/beta/f6101/uwdef.sbin4
410 Feb 3 1990 ./cm-optional/mop/beta/f5300/def-file-set.lisp
12532 Mar 19 1991 ./cm-optional/mop/beta/f5300/beta-instr.sbin4

```

10771 Mar 19 1991 ./cm-optional/mop/beta/f5300/combined-sprint-beta-macros.sbin4
  1521 Mar 19 1991 ./cm-optional/mop/beta/f5300/macro-constructors.sbin4
  32290 Mar 19 1991 ./cm-optional/mop/beta/f5300/mop-macros.sbin4
  32057 Mar 19 1991 ./cm-optional/mop/beta/f5300/mop.sbin4
  53621 Mar 19 1991 ./cm-optional/mop/beta/f5300/pvo.sbin4
   6947 Mar 19 1991 ./cm-optional/mop/beta/f5300/sprint-macros.sbin4
  2470 Mar 19 1991 ./cm-optional/mop/beta/f5300/wassem-macros.sbin4
  3461 Mar 19 1991 ./cm-optional/mop/beta/f5300/wtl3132-macros.sbin4
  3388 Mar 19 1991 ./cm-optional/mop/beta/f5300/wtl3164-macros.sbin4
   389 Jul 30 1991 ./cm-optional/min-mic/f6102/def-file-set.lisp
 34182 Jul 30 1991 ./cm-optional/min-mic/f6102/allocation.sbin4
   446 Jul 30 1991 ./cm-optional/min-mic/f6102/flag-ops.sbin4
 13905 Jul 30 1991 ./cm-optional/min-mic/f6102/loop-macros.sbin4
  55917 Jul 30 1991 ./cm-optional/min-mic/f6102/macros.sbin4
 20606 Jul 30 1991 ./cm-optional/min-mic/f6102/min-mic-instr-macros.sbin4
 47427 Jul 30 1991 ./cm-optional/min-mic/f6102/min-mic-macros.sbin4
 26961 Jul 30 1991 ./cm-optional/min-mic/f6102/min-mic.sbin4
   8079 Jul 30 1991 ./cm-optional/min-mic/f6102/scratch-ram-uc.sbin4
   7135 Jan 31 15:56 ./cm-optional/installation/6-1/file-set-translations.lisp
 28633 Feb 24 15:03 ./install-rts-patch
 31952 Feb 24 15:15 ./6.1.1-installation-instructions

```

Vax:

```

  236 Feb  1 20:45 ./cm-runtime-6104/include/ckpt-fort.h
 31021 Feb  1 20:45 ./cm-runtime-6104/include/cmrt.h
   8886 Feb  1 20:45 ./cm-runtime-6104/include/attach-fort.h
   3780 Feb  1 20:45 ./cm-runtime-6104/include/ckpt.h
   2569 Feb  1 20:45 ./cm-runtime-6104/include/cm-errors.h
 10265 Feb  1 20:45 ./cm-runtime-6104/include/cmacct.h
 15291 Feb  1 20:45 ./cm-runtime-6104/include/cmioctl.h
   7574 Feb  1 20:45 ./cm-runtime-6104/include/cmsoft.h
   6331 Feb  1 20:45 ./cm-runtime-6104/include/cmtypes.h
 20719 Feb  1 20:45 ./cm-runtime-6104/include/impctl.h
 13157 Feb  1 20:45 ./cm-runtime-6104/include/paris-internal.h
 223684 Feb  1 20:45 ./cm-runtime-6104/include/paris.h
   10376 Feb  1 20:45 ./cm-runtime-6104/include/timeshare.h
 148480 Feb  5 16:44 ./cm-runtime-6104/etc.vax/cmsa
 221184 Feb 25 15:37 ./cm-runtime-6104/etc.vax/cm-acctd
   91136 Feb  5 16:44 ./cm-runtime-6104/etc.vax/cmacl
   41984 Feb  5 16:44 ./cm-runtime-6104/etc.vax/pracct
 112640 Feb  5 16:44 ./cm-runtime-6104/etc.vax/cmrenice
 733184 Feb  5 16:45 ./cm-runtime-6104/etc.vax/cmverify
 111616 Feb  5 16:45 ./cm-runtime-6104/etc.vax/cmts-admin
 402432 Feb  5 16:45 ./cm-runtime-6104/etc.vax/coldboot-paris
   78848 Feb  5 16:45 ./cm-runtime-6104/etc.vax/cmcountdown
 104448 Feb  5 16:45 ./cm-runtime-6104/etc.vax/cmts-shutdown
 162816 Feb  5 16:47 ./cm-runtime-6104/etc.vax/cm-logger
 154624 Feb  5 16:52 ./cm-runtime-6104/etc.vax/cm-update-config
 2421760 Feb 25 11:05 ./cm-runtime-6104/etc.vax/ts-daemon
 2486272 Feb  7 17:05 ./cm-runtime-6104/etc.vax/dvttest2
 1713152 Feb  7 17:06 ./cm-runtime-6104/etc.vax/dv_disk_util
 1004544 Feb  7 17:07 ./cm-runtime-6104/etc.vax/fsserver
   10793 Feb 21 15:04 ./cm-runtime-6104/etc.vax/cmsa.awk
   21504 Feb  6 12:36 ./cm-runtime-6104/nqslib.vax/logdaemon
   94208 Feb  6 12:36 ./cm-runtime-6104/nqslib.vax/lpserver
 106496 Feb  6 12:36 ./cm-runtime-6104/nqslib.vax/netclient
 161792 Feb  6 12:36 ./cm-runtime-6104/nqslib.vax/netdaemon
   96256 Feb  6 12:36 ./cm-runtime-6104/nqslib.vax/netserver
 336896 Feb  6 12:36 ./cm-runtime-6104/nqslib.vax/nqsdaemon
   71680 Feb  6 12:36 ./cm-runtime-6104/nqslib.vax/nqsmkdirs
   72704 Feb  6 12:36 ./cm-runtime-6104/nqslib.vax/nqsmktrans
 112640 Feb  6 12:36 ./cm-runtime-6104/nqslib.vax/pipeclient
   4096 Feb  6 12:36 ./cm-runtime-6104/nqslib.vax/shlexefai
    17 Feb  6 12:36 ./cm-runtime-6104/nqslib.vax/sitename

```

101783 Feb 6 12:36 ./cm-runtime-6104/nqslib.vax/qmgr.hlp
7610 Feb 6 12:36 ./cm-runtime-6104/nqslib.vax/install-nqs
5007 Feb 6 12:36 ./cm-runtime-6104/nqslib.vax/build-nqs-dbase
122 Feb 6 12:36 ./cm-runtime-6104/nqslib.vax/qmkdir
1271208 Feb 19 23:06 ./cm-runtime-6104/lib.vax/libparisfort-6104.a
1795960 Feb 20 19:51 ./cm-runtime-6104/lib.vax/libcmrts-1.1-CM2-6104.a
1892646 Feb 20 19:51 ./cm-runtime-6104/lib.vax/libcmrts-1.1-CM2-6104_p.a
1787884 Feb 20 19:51 ./cm-runtime-6104/lib.vax/libcmrts-1.1-CM200-6104.a
1884570 Feb 20 19:51 ./cm-runtime-6104/lib.vax/libcmrts-1.1-CM200-6104_p.a
94554 Feb 21 13:54 ./cm-runtime-6104/lib.vax/libckpt-pg.a
92088 Feb 21 13:54 ./cm-runtime-6104/lib.vax/libckpt.a
2018114 Feb 19 23:06 ./cm-runtime-6104/lib.vax/libcmfs-6104.a
1991034 Feb 19 23:06 ./cm-runtime-6104/lib.vax/libcmfs-6104-pg.a
5933242 Feb 19 23:06 ./cm-runtime-6104/lib.vax/libparis2-6104.a
6253510 Feb 19 23:06 ./cm-runtime-6104/lib.vax/libparis2-6104-pg.a
1318320 Feb 19 23:06 ./cm-runtime-6104/lib.vax/libparisfort-6104-pg.a
176752 Feb 21 13:54 ./cm-runtime-6104/lib.vax/libcmfe-pg.a
168926 Feb 21 13:54 ./cm-runtime-6104/lib.vax/libcmfe.a
57438 Feb 21 13:54 ./cm-runtime-6104/lib.vax/libtoolkit-pg.a
52968 Feb 21 13:54 ./cm-runtime-6104/lib.vax/libtoolkit.a
9346474 Feb 25 11:43 ./cm-runtime-6104/lib.vax/libparis-pg.a
308 Feb 1 20:27 ./cm-runtime-6104/microcode-cm2/cmss-imp-library-list
19012 Feb 1 20:27 ./cm-runtime-6104/microcode-cm2/cmssl.ilb
30072 Feb 1 20:27 ./cm-runtime-6104/microcode-cm2/fpu-utility-imps.ilb
310 Feb 1 20:27 ./cm-runtime-6104/microcode-cm2/leader-spread.ilb
177112 Feb 1 20:27 ./cm-runtime-6104/microcode-cm2/math-library.ilb
442495 Feb 1 20:27 ./cm-runtime-6104/microcode-cm2/paris-64-ucode.s
48191 Feb 1 20:27 ./cm-runtime-6104/microcode-cm2/paris-communication.ilb
676062 Feb 1 20:28 ./cm-runtime-6104/microcode-cm2/paris-float-arithmetic.ilb
1788796 Feb 1 20:28 ./cm-runtime-6104/microcode-cm2/paris-ucode.cs
473522 Feb 1 20:29 ./cm-runtime-6104/microcode-cm2/paris-ucode.mis
7343 Feb 1 20:29 ./cm-runtime-6104/microcode-cm2/shuffle.ilb
4052 Feb 1 20:29 ./cm-runtime-6104/microcode-cm2/trap-table.traps
219387 Feb 1 20:29 ./cm-runtime-6104/microcode-cm2/twuffle.ilb
486 Feb 1 20:29 ./cm-runtime-6104/microcode-cm2/utils.ilb
308 Feb 1 20:30 ./cm-runtime-6104/microcode-cm200/cmss-imp-library-list
19012 Feb 1 20:30 ./cm-runtime-6104/microcode-cm200/cmssl.ilb
30072 Feb 1 20:30 ./cm-runtime-6104/microcode-cm200/fpu-utility-imps.ilb
310 Feb 1 20:30 ./cm-runtime-6104/microcode-cm200/leader-spread.ilb
177112 Feb 1 20:30 ./cm-runtime-6104/microcode-cm200/math-library.ilb
442667 Feb 1 20:30 ./cm-runtime-6104/microcode-cm200/paris-64-ucode.s
48191 Feb 1 20:30 ./cm-runtime-6104/microcode-cm200/paris-communication.ilb
676062 Feb 1 20:30 ./cm-runtime-6104/microcode-cm200/paris-float-arithmetic.ilb
1785820 Feb 1 20:31 ./cm-runtime-6104/microcode-cm200/paris-ucode.cs
473662 Feb 1 20:32 ./cm-runtime-6104/microcode-cm200/paris-ucode.mis
7343 Feb 1 20:32 ./cm-runtime-6104/microcode-cm200/shuffle.ilb
4052 Feb 1 20:32 ./cm-runtime-6104/microcode-cm200/trap-table.traps
219387 Feb 1 20:32 ./cm-runtime-6104/microcode-cm200/twuffle.ilb
486 Feb 1 20:32 ./cm-runtime-6104/microcode-cm200/utils.ilb
6928 Jan 31 15:38 ./cm-runtime-6104/sys/attach.h
194754 Jan 31 15:37 ./cm-runtime-6104/sys/cm.c
1217 Jan 31 15:37 ./cm-runtime-6104/sys/cm_acct.c
10265 Jan 31 15:38 ./cm-runtime-6104/sys/cmacct.h
15291 Jan 31 15:38 ./cm-runtime-6104/sys/cmiocctl.h
11703 Jan 31 15:38 ./cm-runtime-6104/sys/cmreg.h
7574 Jan 31 15:38 ./cm-runtime-6104/sys/cmsoft.h
5060 Jan 31 15:38 ./cm-runtime-6104/sys/nexus-code.h
203776 Feb 5 16:44 ./cm-runtime-6104/bin.vax/cmpowerup
99328 Feb 5 16:44 ./cm-runtime-6104/bin.vax/cmclist
237568 Feb 5 16:44 ./cm-runtime-6104/bin.vax/cmattach
1089536 Feb 7 17:07 ./cm-runtime-6104/bin.vax/cmtar
818176 Feb 7 17:08 ./cm-runtime-6104/bin.vax/cmcp
769024 Feb 7 17:08 ./cm-runtime-6104/bin.vax/cmdd
667648 Feb 7 17:09 ./cm-runtime-6104/bin.vax/copyfromdv
792576 Feb 7 17:09 ./cm-runtime-6104/bin.vax/copytodv
64512 Feb 6 12:36 ./cm-runtime-6104/nqsbin.vax/nmapmgr

91136	Feb	6	12:36	./cm-runtime-6104/nqsbin.vax/qdel
78848	Feb	6	12:36	./cm-runtime-6104/nqsbin.vax/qdev
61440	Feb	6	12:37	./cm-runtime-6104/nqsbin.vax/qlimit
209920	Feb	6	12:37	./cm-runtime-6104/nqsbin.vax/qmgr
110592	Feb	6	12:37	./cm-runtime-6104/nqsbin.vax/qpr
134144	Feb	6	12:37	./cm-runtime-6104/nqsbin.vax/qstat
126976	Feb	6	12:37	./cm-runtime-6104/nqsbin.vax/qsub
33	Feb	6	12:37	./cm-runtime-6104/nqsbin.vax/shownqs
113	Feb	6	12:37	./cm-runtime-6104/nqsbin.vax/startnqs
17	Feb	6	12:37	./cm-runtime-6104/nqsbin.vax/stopnqs
004544	Feb	21	11:17	./cm-runtime-6104/microvax/fsserver
1008640	Feb	21	11:19	./cm-runtime-6104/microvax/unfsd
716800	Feb	21	11:20	./cm-runtime-6104/microvax/unfsmntd
2421	Feb	21	11:20	./cm-runtime-6104/microvax/unfsd_exports.5
1653	Feb	21	11:20	./cm-runtime-6104/microvax/unfsd.8
164	Feb	21	11:31	./cm-runtime-6104/microvax(exports.example
1554	Feb	21	14:16	./cm-runtime-6104/microvax/README
14042	Feb	4	18:48	./cm-runtime-6104/man/CMFS/man1/cmdd.1
7696	Feb	3	13:45	./cm-runtime-6104/man/CMFS/man3/CMFS_open.3
9362	Jan	29	14:19	./cm-runtime-6104/man/CMFS/man8/fsserver.8
1403	Feb	4	17:32	./cm-runtime-6104/man/CMFS/man8/unfsd.8
889	Feb	4	17:27	./cm-runtime-6104/man/CMFS/man8/ugidd.8
2632	Feb	6	19:59	./cm-runtime-6104/man/CMFS/man5/unfsd_exports.5
4108	Feb	3	22:37	./cm-runtime-6104/man/CMOST/man8/cm-acctd.8
841	Feb	3	14:57	./cm-runtime-6104/man/CMOST/man8/pracct.8
2802	Feb	7	17:07	./cm-runtime-6104/man/CMOST/man8/cmcoundown.8
5348	Feb	7	17:31	./cm-runtime-6104/man/CMOST/man8/cmacl.8
5170	Feb	7	15:17	./cm-runtime-6104/man/CMOST/man8/cmverify.8
130048	Feb	25	15:37	./cm-runtime-6104/etc.sun4
1040	Jan	17	14:36	./cm-required/patch/paris/f6104/def-file-set.lisp
1291	Nov	23	13:24	./cm-required/patch/paris/f6104/patch-tracker.lisp
2338	Nov	25	10:49	./cm-required/patch/paris/f6104/patch-tracker.vbin2
5691	Nov	4	14:11	./cm-required/patch/paris/f6104/twuffle-patch.lisp
5746	Nov	4	14:32	./cm-required/patch/paris/f6104/twuffle-patch.vbin2
1624	Nov	4	14:32	./cm-required/patch/paris/f6104/ts-ucode-patch.vbin2
4846	Nov	22	11:29	./cm-required/patch/paris/f6104/sprint-delivery-setup-patch.vb
2284	Nov	4	14:33	./cm-required/patch/paris/f6104/cm200-warning-patch.vbin2
8834	Nov	4	14:33	./cm-required/patch/paris/f6104/twuffle-patch-2.vbin2
2135	Nov	5	10:51	./cm-required/patch/paris/f6104/cmioc-diag-patch.lisp
5556	Nov	22	11:30	./cm-required/patch/paris/f6104/fb-ucode-patch.vbin2
2892	Nov	5	10:52	./cm-required/patch/paris/f6104/cmioc-diag-patch.vbin2
3291	Nov	22	11:29	./cm-required/patch/paris/f6104/fb-ucode-patch.lisp
3765	Nov	7	13:59	./cm-required/patch/paris/f6104/normalize-patch.lisp
10703	Nov	22	11:30	./cm-required/patch/paris/f6104/send-to-queue-patch.lisp
5047	Nov	14	06:03	./cm-required/patch/paris/f6104/normalize-patch.vbin2
1995	Nov	19	13:42	./cm-required/patch/paris/f6104/cvpm-patch.lisp
7015	Dec	4	11:02	./cm-required/patch/paris/f6104/nexus-clock-patch.lisp
4491	Nov	22	11:30	./cm-required/patch/paris/f6104/send-to-queue-patch.vbin2
2598	Nov	4	14:19	./cm-required/patch/paris/f6104/ts-ucode-patch.lisp
14145	Nov	22	11:28	./cm-required/patch/paris/f6104/sprint-delivery-setup-patch.li
1343	Nov	4	14:14	./cm-required/patch/paris/f6104/cm200-warning-patch.lisp
7323	Nov	26	15:49	./cm-required/patch/paris/f6104/sram-maddr-patch.lisp
1120	Nov	25	10:50	./cm-required/patch/paris/f6104/relink-paris.vbin2
286	Nov	23	13:26	./cm-required/patch/paris/f6104/relink-paris.lisp
10380	Nov	4	14:13	./cm-required/patch/paris/f6104/twuffle-patch-2.lisp
47190	Nov	26	15:48	./cm-required/patch/paris/f6104/ucode-timing-patch.lisp
7244	Dec	19	10:31	./cm-required/patch/paris/f6104/nexus-clock-patch.vbin2
3709	Nov	22	22:02	./cm-required/patch/paris/f6104/cvpm-patch.vbin2
10527	Nov	26	15:50	./cm-required/patch/paris/f6104/sram-maddr-patch.vbin2
12780	Dec	5	16:00	./cm-required/patch/paris/f6104/mfg-diag-patches.lisp
45381	Nov	26	15:51	./cm-required/patch/paris/f6104/ucode-timing-patch.vbin2
15920	Dec	19	10:32	./cm-required/patch/paris/f6104/mfg-diag-patches.vbin2
3823	Jan	15	14:38	./cm-required/patch/paris/f6104/rank-patch.lisp
4256	Jan	16	10:12	./cm-required/patch/paris/f6104/rank-patch.vbin2
2143	Jan	17	14:36	./cm-required/patch/paris/f6104/send-to-shared-queue-patch.lis
452	Jan	13	16:53	./cm-required/patch/starlisp/f6101/def-file-set.lisp

2360 Sep 30 14:21 ./cm-required/patch/starlisp/f6101/patch-tracker.vbin2
913 Sep 30 16:27 ./cm-required/patch/starlisp/f6101/sideways-array.lisp
1298 Oct 22 1990 ./cm-required/patch/starlisp/f6101/patch-tracker.lisp
671 Sep 30 16:37 ./cm-required/patch/starlisp/f6101/sideways-array.vbin2
476 Oct 3 18:13 ./cm-required/patch/starlisp/f6101/cmfs-ioctl.lisp
3818 Oct 3 18:16 ./cm-required/patch/starlisp/f6101/cmfs-ioctl.vbin2
1451 Oct 4 16:39 ./cm-required/patch/starlisp/f6101/cmfs-errno.lisp
3396 Oct 4 16:44 ./cm-required/patch/starlisp/f6101/cmfs-errno.vbin2
1482 Oct 16 18:35 ./cm-required/patch/starlisp/f6101/v-is-zero-patch.lisp
3302 Oct 11 12:15 ./cm-required/patch/starlisp/f6101/equal-patch.lisp
6541 Oct 11 13:31 ./cm-required/patch/starlisp/f6101/equal-patch.vbin2
3071 Oct 16 18:42 ./cm-required/patch/starlisp/f6101/v-is-zero-patch.vbin2
3418 Oct 30 15:26 ./cm-required/patch/starlisp/f6101/vector-promotion-patch.lisp
5356 Nov 1 07:38 ./cm-required/patch/starlisp/f6101/vector-promotion-patch.vbin
724 Dec 18 17:59 ./cm-required/patch/starlisp/f6101/realpart-imagpart-ftype-pat
2371 Dec 19 10:32 ./cm-required/patch/starlisp/f6101/realpart-imagpart-ftype-pat
18553 Jan 13 17:51 ./cm-required/patch/starlisp/f6101/node-reference-with-wrapper
18665 Jan 16 10:13 ./cm-required/patch/starlisp/f6101/node-reference-with-wrapper
338 Feb 18 12:29 ./cm-required/patch/c-paris/f6100/def-file-set.lisp
2161 Feb 18 12:25 ./cm-required/patch/c-paris/f6100/transpose-patch.lisp
5097 Feb 18 12:30 ./cm-required/patch/c-paris/f6100/transpose-patch.vbin2
10452 Jan 31 16:06 ./cm-required/lcmw/6-1/database-release.lisp
58542 Jan 31 16:06 ./cm-required/lcmw/6-1/saved-selections-release.lisp
173 Jan 31 16:14 ./cm-required/dfs/site/min-mic-f6102.dfs
175 Jan 31 16:14 ./cm-required/dfs/site/mop-beta-f5300.dfs
193 Jan 31 16:13 ./cm-required/dfs/site/uc-assembler-beta-f6101.dfs
3374 Oct 12 1990 ./cm-optional/starlisp/interpreter/f6101/bitblt-example.lisp
3787 Jun 19 1991 ./cm-optional/starlisp/interpreter/f6101/canon-matrix-multiply
7333 Apr 8 1991 ./cm-optional/starlisp/interpreter/f6101/cellular-automata-exa
7076 Oct 12 1990 ./cm-optional/starlisp/interpreter/f6101/combinations-example.
6964 Jun 25 1991 ./cm-optional/starlisp/interpreter/f6101/determinants-examples
51860 Oct 12 1990 ./cm-optional/starlisp/interpreter/f6101/dictionary-examples.l
5338 Oct 12 1990 ./cm-optional/starlisp/interpreter/f6101/example-batch-job.lis
526 Jan 23 00:25 ./cm-optional/starlisp/interpreter/f6101/examples-def-file-set
2444 Oct 12 1990 ./cm-optional/starlisp/interpreter/f6101/primes-example.lisp
2205 Apr 5 1991 ./cm-optional/starlisp/interpreter/f6101/run-examples.lisp
10346 Oct 12 1990 ./cm-optional/starlisp/interpreter/f6101/text-processing-examp
3335 Oct 12 1990 ./cm-optional/starlisp/interpreter/f6101/timing-example.lisp
5883 Oct 12 1990 ./cm-optional/starlisp/interpreter/f6101/very-long-addition-ex
13025 Apr 17 1991 ./cm-optional/starlisp/interpreter/f6101/starlisp-sampler.lisp
981 Jul 1 1991 ./cm-optional/uc-assembler/beta/f6101/def-file-set.lisp
21052 Aug 7 1991 ./cm-optional/uc-assembler/beta/f6101/assem.vbin2
1701 Aug 7 1991 ./cm-optional/uc-assembler/beta/f6101/calling.vbin2
36964 Aug 7 1991 ./cm-optional/uc-assembler/beta/f6101/cm-asm.vbin2
5914 Aug 7 1991 ./cm-optional/uc-assembler/beta/f6101/compute-length-of-cycle.
4732 Aug 7 1991 ./cm-optional/uc-assembler/beta/f6101/defucode.vbin2
5404 Aug 7 1991 ./cm-optional/uc-assembler/beta/f6101/entrypoints.vbin2
657 Aug 7 1991 ./cm-optional/uc-assembler/beta/f6101/full-assembler-init.vbin
12560 Aug 7 1991 ./cm-optional/uc-assembler/beta/f6101/gmacs-hacks.vbin2
9472 Aug 7 1991 ./cm-optional/uc-assembler/beta/f6101/lucid-printer.vbin2
7580 Aug 7 1991 ./cm-optional/uc-assembler/beta/f6101/rev-4-macros.vbin2
51141 Aug 7 1991 ./cm-optional/uc-assembler/beta/f6101/rev-4-uwdefs-ram.vbin2
6517 Aug 7 1991 ./cm-optional/uc-assembler/beta/f6101/uc-macroexpand.vbin2
20503 Aug 7 1991 ./cm-optional/uc-assembler/beta/f6101/uwdef.vbin2
410 Feb 3 1990 ./cm-optional/mop/beta/f5300/def-file-set.lisp
15431 Feb 5 1990 ./cm-optional/mop/beta/f5300/beta-instr.vbin2
13483 Oct 10 1989 ./cm-optional/mop/beta/f5300/combined-sprint-beta-macros.vbin2
2012 Feb 1 1990 ./cm-optional/mop/beta/f5300/macro-constructors.vbin2
32744 Feb 1 1990 ./cm-optional/mop/beta/f5300/mop-macros.vbin2
35674 Mar 19 1990 ./cm-optional/mop/beta/f5300/mop.vbin2
61979 Feb 4 1990 ./cm-optional/mop/beta/f5300/pvo.vbin2
8439 Feb 5 1990 ./cm-optional/mop/beta/f5300/sprint-macros.vbin2
2831 Oct 10 1989 ./cm-optional/mop/beta/f5300/wassem-macros.vbin2
4278 Oct 10 1989 ./cm-optional/mop/beta/f5300/wtl3132-macros.vbin2
4076 Feb 5 1990 ./cm-optional/mop/beta/f5300/wtl3164-macros.vbin2
389 Jul 30 1991 ./cm-optional/min-mic/f6102/def-file-set.lisp

```
45679 Aug 7 1991 ./cm-optional/min-mic/f6102/allocation.vbin2
 548 Aug 7 1991 ./cm-optional/min-mic/f6102/flag-ops.vbin2
15030 Aug 7 1991 ./cm-optional/min-mic/f6102/lloop-macros.vbin2
59521 Aug 7 1991 ./cm-optional/min-mic/f6102/macros.vbin2
20734 Aug 7 1991 ./cm-optional/min-mic/f6102/min-mic-instr-macros.vbin2
49289 Aug 7 1991 ./cm-optional/min-mic/f6102/min-mic-macros.vbin2
27712 Aug 7 1991 ./cm-optional/min-mic/f6102/min-mic.vbin2
 8776 Aug 7 1991 ./cm-optional/min-mic/f6102/scratch-ram-uc.vbin2
 7135 Jan 31 15:56 ./cm-optional/installation/6-1/file-set-translations.lisp
28633 Feb 24 14:57 ./install-rts-patch
31952 Feb 24 15:10 ./6.1.1-installation-instructions
```

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 6.1.1 Installation Procedure
```

This procedure installs patches for the 6.1 Final CM2 Base System Software Release.

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

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#

