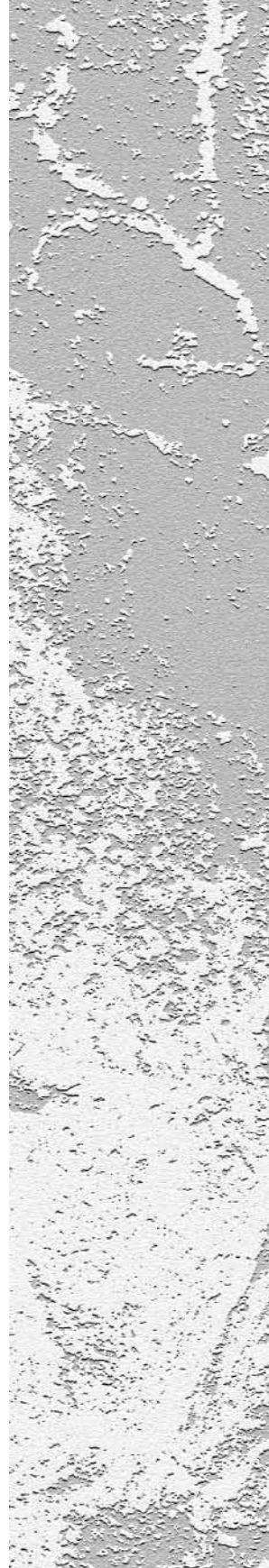


# **LINUX LIITTEET**



# LIITE 1

Xinen käännöksen esimerkkituloste. Aikaisemmin monet avoimen lähdekoodin ohjelmat käännettiin itse omaan järjestelmään. Koska järjestelmissä on eroavaisuuksia avuksi kehitettiin automaattiset skriptit jotka tutkivat esimerkiksi mitä käännöstyökaluja ja ohjelmakirjastoja järjestelmässä on ja generoivat sen pohjalta käännösohjeet (makefile). Käännösohjeet tuottavalle skriptille voidaan usein antaa myös optioita, jolloin luodaan käyttäjän tarpeiden mukainen käännösohje, eli esimerkiksi otetaan mukaan tai jätetään pois jokin ominaisuus. Tässä esimerkissä esitellään esimerkki Xinen käännösohjeet tuottavan skriptin tulosteesta. Xinen skripti tutkii mitä ohjelmakirjastoja järjestelmästä löytyy ja ottaa sen mukaan ominaisuuksia mukaan käännettävään ohjelmaan. Esimerkiksi jonkin koodekin (jollakin algoritmilla pakatun kuvan tai äänen purkaja) puuttuminen ei estä kääntämistä ja Xinen muut ominaisuudet kyseistä koodekkia lukuunottamatta toimii.

Alkuvaiheessa tarkastetaan yleiset työkalut, esimerkiksi kääntäjät. Tämä osuus on varsin samankaltainen myös useimmilla muilla käännettävillä ohjelmilla.

```
checking for a BSD-compatible install... /usr/bin/install -c
checking whether build environment is sane... yes
checking for gawk... gawk
checking whether make sets $(MAKE)... yes
checking for pkg-config... /usr/bin/pkg-config
checking pkg-config is at least version 0.9.0... yes
checking for style of include used by make... GNU
checking for gcc... gcc
checking for C compiler default output file name... a.out
checking whether the C compiler works... yes
checking whether we are cross compiling... no
checking for suffix of executables...
checking for suffix of object files... o
checking whether we are using the GNU C compiler... yes
checking whether gcc accepts -g... yes
checking for gcc option to accept ISO C89... none needed
checking dependency style of gcc... gcc3
checking for strerror in -lposix... no
checking for grep that handles long lines and -e... /bin/grep
checking for egrep... /bin/grep -E
checking for file... /usr/bin/file
checking for gcc... (cached) gcc
checking whether we are using the GNU C compiler... (cached) yes
checking whether gcc accepts -g... (cached) yes
checking for gcc option to accept ISO C89... (cached) none needed
checking dependency style of gcc... (cached) gcc3
checking how to run the C preprocessor... gcc -E
checking for ANSI C header files... yes
checking whether make sets $(MAKE)... (cached) yes
```

```

checking for a BSD-compatible install... /usr/bin/install -c
checking whether ln -s works... yes
checking for gawk... (cached) gawk
checking for inline... inline
checking build system type... i686-pc-linux-gnu
checking host system type... i686-pc-linux-gnu
checking for a sed that does not truncate output... /bin/sed
checking for ld used by gcc... /usr/bin/ld
checking if the linker (/usr/bin/ld) is GNU ld... yes
checking for /usr/bin/ld option to reload object files... -r
checking for BSD-compatible nm... /usr/bin/nm -B
checking how to recognise dependent libraries... pass_all
checking for sys/types.h... yes
checking for sys/stat.h... yes
checking for stdlib.h... yes
checking for string.h... yes
checking for memory.h... yes
checking for strings.h... yes
checking for inttypes.h... yes
checking for stdint.h... yes
checking for unistd.h... yes
checking dlfcn.h usability... yes
checking dlfcn.h presence... yes
checking for dlfcn.h... yes
checking for g++... g++
checking whether we are using the GNU C++ compiler... yes
checking whether g++ accepts -g... yes
checking dependency style of g++... gcc3
checking how to run the C++ preprocessor... g++ -E
checking the maximum length of command line arguments... 32768
checking command to parse /usr/bin/nm -B output from gcc object... ok
checking for objdir... .libs
checking for ar... ar
checking for ranlib... ranlib
checking for strip... strip
checking if gcc static flag works... yes
checking if gcc supports -fno-rtti -fno-exceptions... no
checking for gcc option to produce PIC... -fPIC
checking if gcc PIC flag -fPIC works... yes
checking if gcc supports -c -o file.o... yes
checking whether the gcc linker (/usr/bin/ld) supports shared
libraries... yes
checking whether -lc should be explicitly linked in... no
checking dynamic linker characteristics... GNU/Linux ld.so
checking how to hardcode library paths into programs... immediate
checking whether stripping libraries is possible... yes
checking for shl_load... no
checking for shl_load in -ldld... no
checking for dlopen... no
checking for dlopen in -ldl... yes
checking whether a program can dlopen itself... yes
checking whether a statically linked program can dlopen itself... yes
checking if libtool supports shared libraries... yes

```

```

checking whether to build shared libraries... yes
checking whether to build static libraries... no
configure: creating libtool
appending configuration tag "CXX" to libtool
checking for ld used by g++... /usr/bin/ld
checking if the linker (/usr/bin/ld) is GNU ld... yes
checking whether the g++ linker (/usr/bin/ld) supports shared
libraries... yes
checking for g++ option to produce PIC... -fPIC
checking if g++ PIC flag -fPIC works... yes
checking if g++ supports -c -o file.o... yes
checking whether the g++ linker (/usr/bin/ld) supports shared
libraries... yes
checking dynamic linker characteristics... GNU/Linux ld.so
checking how to hardcode library paths into programs... immediate
checking whether stripping libraries is possible... yes
checking for shl_load... (cached) no
checking for shl_load in -ldld... (cached) no
checking for dlopen... (cached) no
checking for dlopen in -ldl... (cached) yes
checking whether a program can dlopen itself... (cached) yes
checking whether a statically linked program can dlopen itself...
(cached) yes
appending configuration tag "F77" to libtool
checking for ld used by GCC... /usr/bin/ld
checking if the linker (/usr/bin/ld) is GNU ld... yes
checking for shared library run path origin... done
checking for iconv... yes
checking for iconv declaration...
    extern size_t iconv (iconv_t cd, char * *inbuf, size_t
*inbytesleft, ch
ar * *outbuf, size_t *outbytesleft);
checking whether NLS is requested... yes
checking for msgfmt... /usr/bin/msgfmt
checking for gmsgfmt... /usr/bin/msgfmt
checking for xgettext... /usr/bin/xgettext
checking for msgmerge... /usr/bin/msgmerge
checking for CFPReferencesCopyAppValue... no
checking for CFLocaleCopyCurrent... no
checking whether NLS is requested... yes
checking for GNU gettext in libc... yes
checking whether to use NLS... yes
checking where the gettext function comes from... libc
checking for plural forms in GNU msgfmt... yes
checking for nl_langinfo... yes
checking whether byte ordering is bigendian... no
checking for an ANSI C-conforming const... yes
checking for off_t... yes
checking for size_t... yes
checking for long... yes
checking size of long... 4
checking for inttypes.h... (cached) yes
checking for ssize_t... yes

```

```

checking for pthread_create in -lpthread... yes
checking for recursive mutex support in pthread... yes
checking for dlopen in -lc... no
checking for dlopen in -ldl... (cached) yes
checking libdir name... lib
using included ffmpeg
checking for int_fast8_t... yes
checking whether lrintf is declared... yes
checking whether rintf is declared... yes
checking for memalign... yes
checking for mlib_VideoAddBlock_U8_S16 in -lmlib... no

```

Seuraavaksi tutkitaan näytön käsittelyyn liittyvät kirjastot.

```

checking for X... libraries , headers
checking for X... yes
checking for socket in -lsocket... no
checking for gethostbyname in -lnsl... yes
checking for socklen_t... socklen_t
checking for gzsetparams in -lz... yes
checking zlib.h usability... yes
checking zlib.h presence... yes
checking for zlib.h... yes
checking for clock_getres in -lrt... yes
checking for glBegin in -lGL... yes
checking for tan in -lm... yes
checking GL/gl.h usability... yes
checking GL/gl.h presence... yes
checking for GL/gl.h... yes
checking for gluPerspective in -lGLU... no
checking linux/videodev.h usability... yes
checking linux/videodev.h presence... yes
checking for linux/videodev.h... yes
checking asm/types.h usability... yes
checking asm/types.h presence... yes
checking for asm/types.h... yes
checking for XV... yes

```

Skripti tarkastaa myös kiihdytetyyn MPEG-2 toistoon tarvittavan xvmc/xxmc laajennoksen olemassaolon. Erityisesti kirjan videotointin case-esimerkissä tämä ominaisuus on tärkeä, koska muutoin koko prosessoriaika kuluu MPEG-2 toistoon, jonka voi aivan hyvin jättää näytönohjaimen kontolle.

```

checking whether to enable the xxmc plugin with vld extensions...
checking for XvMCPutSlice in -lXvMCW... yes
checking X11/extensions/vldXvMC.h usability... yes
checking X11/extensions/vldXvMC.h presence... yes
checking for X11/extensions/vldXvMC.h... yes
checking X11/extensions/XvMC.h usability... yes
checking X11/extensions/XvMC.h presence... yes
checking for X11/extensions/XvMC.h... yes

```

```

*** Enabling xvmc plugin with vld extensions.
checking whether to enable the xvmc plugin...
checking for XvMCCreateContext in -lXvMCW... yes
checking for X11/extensions/XvMC.h... (cached) yes
*** Enabling old xvmc plugin.
checking for XINERAMA... yes

```

Xine on hyvin monipuolinen ohjelmisto. Esimerkiksi aalib kirjaston kanssa se osaa tarvittaessa näyttää tai ainakin yrittää näyttää videokuvaa ASCII merkeistä tekstipäätteellä. Käytännössä tämä ominaisuus ei kuitenkaan yleensä ole käyttökelpoinen, eikä aalib kirjastoa ole oletusarvoisesti asennettuna mihinkään järjestelmään. Sen vuoksi aalibin puutteesta ei kannata huolestua.

```

checking for aalib-config... no
checking for aainfo... /usr/bin/aainfo
checking for AALIB version >= 1.4... no
*** The aalib-config|aainfo program installed by AALIB could not be
found
*** If AALIB was installed in PREFIX, make sure PREFIX/bin is in
*** your path, or use --with-aalib-prefix to set the prefix
*** where AALIB is installed.
*** All of AALIB dependent parts will be disabled ***
checking for CACA... checking sys/fbio.h usability... no
checking sys/fbio.h presence... no
checking for sys/fbio.h... no
checking for XDgaGrabDrawable in -ldga... no
checking linux/fb.h usability... yes
checking linux/fb.h presence... yes
checking for linux/fb.h... yes
checking for SDL... checking for Libstk... no
*** All of Libstk dependent parts will be disabled ***
checking for PULSEAUDIO... checking for DirectX... no
*** All DirectX dependent parts will be disabled ***
*** checking for a supported mpeg encoder
checking for fame_open in -lfame... no
checking for rte_init in -lrte... no
*** no external mpeg encoder found
checking for vidix support... yes
checking for DHA linux kernel module build... no
checking for mknod... mknod
checking for depmod... depmod
checking for VORBIS... yes
checking for THEORA... yes
checking for SPEEX... yes
Use included a52dec support
Use included libmad support
Use included libmusepack
checking for mng_initialize in -lmng... no
*** All libmng dependent parts will be disabled ***
checking for WAND... checking for OSS audio support... yes
checking for ALSA... yes

```

```

checking for ESD... yes
checking for artsc-config... no
checking for ARTS artsc - version >= 0.9.5... no
*** The artsc-config script installed by ARTS could not be found
*** If ARTS was installed in PREFIX, make sure PREFIX/bin is in
*** your path, or set the ARTS_CONFIG environment variable to the
*** full path to artsc-config.
*** All of ARTS dependent parts will be disabled ***
checking for JACK... checking for GNOME_VFS... yes
checking for GDK_PIXBUF... *** All of the gdk-pixbuf dependent parts
will be disabled ***
checking for smbc_init in -lsmbclient... yes
checking libsmbclient.h usability... yes
checking libsmbclient.h presence... yes
checking for libsmbclient.h... yes
checking for Sun audio support... no
checking for IRIX libaudio support... checking dmedia/audio.h
usability... no
checking dmedia/audio.h presence... no
checking for dmedia/audio.h... no
no
*** All of IRIX AL dependent parts will be disabled ***
checking for kstat_open in -lkstat... no
checking sys/cdio.h usability... no
checking sys/cdio.h presence... no
checking for sys/cdio.h... no
checking linux/cdrom.h usability... yes
checking linux/cdrom.h presence... yes
checking for linux/cdrom.h... yes
checking if cdrom ioctls are available... yes
Use included DVDNAV support
checking how to create empty arrays... []
checking for libcdio... Use included libcdio/libvcdinfo support
checking for ANSI C header files... (cached) yes
checking for sys/stat.h... (cached) yes
checking for stdint.h... (cached) yes
checking glob.h usability... yes
checking glob.h presence... yes
checking for glob.h... yes
checking for inttypes.h... (cached) yes
checking stdbool.h usability... yes
checking stdbool.h presence... yes
checking for stdbool.h... yes
checking whether gcc supports ISO C99 _Pragma()... yes
checking bitfield ordering in structs... LSBF
checking errno.h usability... yes
checking errno.h presence... yes
checking for errno.h... yes
checking fcntl.h usability... yes
checking fcntl.h presence... yes
checking for fcntl.h... yes

```

```

checking for stdbool.h... (cached) yes
checking for stdlib.h... (cached) yes
checking for stdint.h... (cached) yes
checking stdio.h usability... yes
checking stdio.h presence... yes
checking for stdio.h... yes
checking for string.h... (cached) yes
checking for strings.h... (cached) yes
checking linux/version.h usability... yes
checking linux/version.h presence... yes
checking for linux/version.h... yes
checking for sys/cdio.h... (cached) no
checking for sys/stat.h... (cached) yes
checking for sys/types.h... (cached) yes
checking for linux/version.h... (cached) yes
checking for linux/cdrom.h... (cached) yes
checking for bzero... yes
checking for memcpy... yes
checking for struct tm.tm_gmtime... yes
Use included libdts support
checking for LIBMODPLUG... checking whether to enable Win32 DLL
support... yes
checking for ip_mreqn... yes
checking for restrict keyword restrict... no
checking for restrict keyword __restrict... yes
checking for special C compiler options needed for large files... no
checking for _FILE_OFFSET_BITS value needed for large files... 64
checking for _LARGE_FILES value needed for large files... no
checking for sched_get_priority_min in -lposix4... no
checking for vscanf... yes
checking for sigaction... yes
checking for sigset... yes
checking for getpwuid_r... yes
checking for nanosleep... yes
checking for lstat... yes
checking for memset... yes
checking for readlink... yes
checking for strchr... yes
checking for va_copy... no
checking for _snprintf... no
checking for snprintf... yes
checking for _vsnprintf... no
checking for vsnprintf... yes
checking for _stricmp... no
checking for strcasecmp... yes
checking for _strnicmp... no
checking for strncasecmp... yes
checking for _LARGEFILE_SOURCE value needed for large files... no
checking for fseeko... yes
checking assert.h usability... yes
checking assert.h presence... yes
checking for assert.h... yes

```



```

checking byteswap.h usability... yes
checking byteswap.h presence... yes
checking for byteswap.h... yes
checking malloc.h usability... yes
checking malloc.h presence... yes
checking for malloc.h... yes
checking execinfo.h usability... yes
checking execinfo.h presence... yes
checking for execinfo.h... yes
checking ucontext.h usability... yes
checking ucontext.h presence... yes
checking for ucontext.h... yes
checking sys/mman.h usability... yes
checking sys/mman.h presence... yes
checking for sys/mman.h... yes
checking sys/mixer.h usability... no
checking sys/mixer.h presence... no
checking for sys/mixer.h... no
checking libgen.h usability... yes
checking libgen.h presence... yes
checking for libgen.h... yes
checking netdb.h usability... yes
checking netdb.h presence... yes
checking for netdb.h... yes
checking dirent.h usability... yes
checking dirent.h presence... yes
checking for dirent.h... yes
checking sys/times.h usability... yes
checking sys/times.h presence... yes
checking for sys/times.h... yes
checking sys/ioctl.h usability... yes
checking sys/ioctl.h presence... yes
checking for sys/ioctl.h... yes
checking sys/param.h usability... yes
checking sys/param.h presence... yes
checking for sys/param.h... yes
checking for asprintf... yes
checking for basename... yes
checking for gettimeofday... yes
checking for setenv... yes
checking for strndup... yes
checking for strpbrk... yes
checking for strsep... yes
checking for strtok_r... yes
checking for timegm... yes
checking for unsetenv... yes
checking for hstrerror in -lresolv... yes
checking for opendir... yes
checking __attribute__((aligned ())) support... 64
checking if compiler supports __attribute__((visibility("...")))...
yes
checking if compiler supports -fvisibility=hidden... yes

```

```

checking if compiler supports __attribute__((sentinel))... yes
checking if gcc supports "-mpreferred-stack-boundary=2" flags... yes
checking if gcc supports "-fschedule-insns2" flags... yes
checking if gcc supports "-mwide-multiply" flags... no
checking if gcc supports "-falign-functions=4" flags... yes
checking if gcc supports "-falign-loops=4" flags... yes
checking if gcc supports "-falign-jumps=4" flags... yes
checking if gcc supports "-fno-omit-frame-pointer" flags... yes
checking if gcc supports "-fno-inline-functions" flags... yes
checking if gcc supports "-fno-rename-registers" flags... yes
checking if gcc supports "-fprofile-arcs" flags... yes
checking if gcc supports "-fbranch-probabilities" flags... yes
checking for sane -Wpointer-arith... no
checking for gcc 3.4.0 or later... yes
checking if gcc supports "-Wall" flags... yes
checking if gcc supports "-mtune=i386" flags... yes
checking if gcc supports "-mtune=athlon" flags... yes
checking for sgmltools... no
checking for fig2dev... no
checking dependency style of ... none
checking if gcc supports "-Wformat" flags... yes
checking if gcc supports "-Wformat=2" flags... yes
checking if gcc supports "-Wno-format-zero-length" flags... yes
checking if gcc supports "-Wmissing-format-attribute" flags... yes
checking if gcc supports "-Wstrict-aliasing" flags... yes
checking if gcc supports "-Wstrict-aliasing=2" flags... yes
configure: creating ./config.status

```

Kun järjestelmä on tutkittu, generoidaan käännösohjeet (Makefile). Xinen ollessa hyvin laaja kokonaisuus, käännösohjeita generoidaan itseasiassa varsin monta.

```

config.status: creating Makefile
config.status: creating doc/Makefile
config.status: creating doc/man/Makefile
config.status: creating doc/man/en/Makefile
config.status: creating doc/hackersguide/Makefile
config.status: creating doc/faq/Makefile
config.status: creating include/Makefile
config.status: creating include/xine.h
config.status: creating lib/Makefile
config.status: creating m4/Makefile
config.status: creating misc/Makefile
config.status: creating misc/SlackBuild
config.status: creating misc/build_rpms.sh
config.status: creating misc/fonts/Makefile
config.status: creating misc/libxine.pc
config.status: creating misc/relchk.sh
config.status: creating misc/xine-config
config.status: creating misc/xine-lib.spec
config.status: creating po/Makefile.in
config.status: creating src/Makefile
config.status: creating src/audio_out/Makefile

```

```
config.status: creating src/combined/Makefile
config.status: creating src/demuxers/Makefile
config.status: creating src/dxr3/Makefile
config.status: creating src/input/Makefile
config.status: creating src/input/libdvnav/Makefile
config.status: creating src/input/dvb/Makefile
config.status: creating src/input/librtsp/Makefile
config.status: creating src/input/libreal/Makefile
config.status: creating src/input/vcd/Makefile
config.status: creating src/input/vcd/libcdio/Makefile
config.status: creating src/input/vcd/libcdio/cdio/Makefile
config.status: creating src/input/vcd/libcdio/MSWindows/Makefile
config.status: creating src/input/vcd/libcdio/image/Makefile
config.status: creating src/input/vcd/libvcd/Makefile
config.status: creating src/input/vcd/libvcd/libvcd/Makefile
config.status: creating src/liba52/Makefile
config.status: creating src/libdts/Makefile
config.status: creating src/libfaad/Makefile
config.status: creating src/libfaad/codebook/Makefile
config.status: creating src/libffmpeg/Makefile
config.status: creating src/libffmpeg/libavcodec/Makefile
config.status: creating src/libffmpeg/libavcodec/armv4l/Makefile
config.status: creating src/libffmpeg/libavcodec/i386/Makefile
config.status: creating src/libffmpeg/libavcodec/mlib/Makefile
config.status: creating src/libffmpeg/libavcodec/alpha/Makefile
config.status: creating src/libffmpeg/libavcodec/ppc/Makefile
config.status: creating src/libffmpeg/libavcodec/sparc/Makefile
config.status: creating src/libffmpeg/libavcodec/libpostproc/Makefile
config.status: creating src/libffmpeg/libavutil/Makefile
config.status: creating src/libflac/Makefile
config.status: creating src/liblpcm/Makefile
config.status: creating src/libmad/Makefile
config.status: creating src/libmpeg2/Makefile
config.status: creating src/libmusepack/Makefile
config.status: creating src/libmusepack/musepack/Makefile
config.status: creating src/libspudec/Makefile
config.status: creating src/libspucc/Makefile
config.status: creating src/libspucmml/Makefile
config.status: creating src/libspudvb/Makefile
config.status: creating src/libsputext/Makefile
config.status: creating src/libvorbis/Makefile
config.status: creating src/libtheora/Makefile
config.status: creating src/libspeex/Makefile
config.status: creating src/libw32dll/Makefile
config.status: creating src/libw32dll/wine/Makefile
config.status: creating src/libw32dll/DirectShow/Makefile
config.status: creating src/libw32dll/dmo/Makefile
config.status: creating src/libw32dll/mtx/Makefile
config.status: creating src/libw32dll/mtx/qtxsdk/Makefile
config.status: creating src/libxine/Makefile
config.status: creating src/libxine/Makefile
config.status: creating src/libxine/Makefile
```

```

config.status: creating src/libxineadec/nosefart/Makefile
config.status: creating src/libreal/Makefile
config.status: creating src/post/Makefile
config.status: creating src/post/planar/Makefile
config.status: creating src/post/goom/Makefile
config.status: creating src/post/mosaico/Makefile
config.status: creating src/post/visualizations/Makefile
config.status: creating src/post/audio/Makefile
config.status: creating src/post/deinterlace/Makefile
config.status: creating src/post/deinterlace/plugins/Makefile
config.status: creating src/video_out/Makefile
config.status: creating src/video_out/libdha/Makefile
config.status: creating src/video_out/libdha/bin/Makefile
config.status: creating src/video_out/libdha/kernelhelper/Makefile
config.status: creating src/video_out/libdha/oth/Makefile
config.status: creating src/video_out/libdha/sysdep/Makefile
config.status: creating src/video_out/macosx/Makefile
config.status: creating src/video_out/vidix/Makefile
config.status: creating src/video_out/vidix/drivers/Makefile
config.status: creating src/xine-utils/Makefile
config.status: creating src/xine-engine/Makefile
config.status: creating win32/Makefile
config.status: creating win32/include/Makefile
config.status: creating config.h
config.status: executing depfiles commands
config.status: executing default-1 commands
config.status: creating po/POTFILES
config.status: creating po/Makefile
config.status: executing default commands

```

Lopuksi saadaan vielä yhteenveto käännetyn ohjelmiston ominaisuuksista. Tästä on helppo huomata esimerkiksi jonkin tarpeellisen koodekin puuttuminen, jolloin syitä siihen voidaan alkaa etsiä tulosteen alkupäästä.

xine-lib summary:

-----

\* input plugins:

- file - net
- stdin\_fifo - rtp
- http - mms
- pnm - rtsp
- dvb
- dvd (internal libs)
- vcd (internal libs)
- vcdo
- cdda
- gnome-vfs
- v4l
- smbclient

\* demultiplexer plugins:

- avi
  - mpeg\_block
  - mpeg\_elem
  - mpeg\_ts
  - film
  - fli
  - idcin
  - wc3 mve
  - vqa
  - cdda
  - yuv4mpeg2
  - ea wve
  - interplay mve
  - ws aud
  - vox
  - nsv
  - FLAC
  - iff
  - vmd
  - ogg
  - ac3 (internal library)
  - mpeg
  - mpeg\_audio
  - mpeg\_pes
  - qt/mpeg-4
  - roq
  - smjpeg
  - wav
  - voc
  - aiff
  - snd/au
  - real/realaudio
  - raw dv
  - psx str
  - pva
  - nsf
  - 4xm
  - aac
  - matroska
  - flv
- \* video decoder plugins:
- MPEG 1,2
  - Raw RGB
  - ffmpeg (internal library):
  - MPEG-4 (ISO, Microsoft, DivX\*, XviD)
  - Creative YUV
  - Cinepak
  - FLI/FLC
  - Id RoQ
  - Apple Graphics
  - Apple Animation
  - Westwood VQA
  - H.263
  - SVQ1
  - Real Video 1.0
  - 4X Video
  - Asus v1/v2
  - On2 VP3
  - 8BPS
  - ATI VCR1
  - ZLIB
  - dxr3\_video
  - w32dll
  - gdk-pixbuf
  - theora
  - Amiga Bitplane
  - Raw YUV
  - Motion JPEG
  - MS Video-1
  - MS RLE
  - Id Cin
  - Apple Video
  - Interplay Video
  - Origin Xan
  - Intel Indeo 3
  - SVQ3
  - Real Video 2.0
  - Sierra Video
  - HuffYUV
  - DV
  - Duck TrueMotion v1
  - Flash Video
  - MSZH
- \* audio decoder plugins:
- GSM 06.10
  - linear PCM
  - ffmpeg (internal library):
  - Nosefart (NSF)

- Windows Media Audio v1/v2
- DV - logarithmic PCM
- 14k4 - 28k8
- MS ADPCM - IMA ADPCM
- XA ADPCM - Game DPCM/ADPCM
- Mace 3:13 - Mace 6:1
- FLAC
- vorbis
- speex
- w32dll
- MAD (MPG 1/2/3) (internal library)
- DTS (internal library)
- A52/ra-dnet (internal library)
- MusePack (internal library)
- \* subtitle decoder plugins:
  - spu - spucc
  - spucmm1 - sputext
  - spudvb
  - dxr3\_spu
- \* post effect plugins:
  - \* planar video effects:
    - invert - expand
    - eq - eq2
    - boxblur - denoise3d
    - unsharp - tvtime
  - \* SFX:
    - goom - oscscope
    - fftscope - mosaico
- \* video driver plugins:
  - XShm (X11 shared memory)
  - SyncFB (for Matrox G200/G400 cards)
  - Xv (XVideo \*shared\*)
  - XxMC (XVideo extended motion compensation)
  - XvMC (XVideo motion compensation)
  - fb (Linux framebuffer device)
  - dxr3 (Hollywood+ and Creative dxr3, mpeg video only)
  - vidix (X11 and framebuffer support)
- \* audio driver plugins:
  - oss (Open Sound System)
  - alsa
  - esd (Enlightened Sound Daemon)

# LIITE 2

ASCII-taulukko. Ennen vanhaan ASCII-taulukko löytyi jokaisen ATK-kirjan liiteneä. Nykyisin taulukkoa ei tahdo löytää mistään, vaikka sitä aina välillä tarvitsisi. Siksi tässä kirjassa on liitteenä ASCII-taulukko (merkit 0-127) laajennettuna ISO 8859-1 -standardin (Latin 1) mukaisilla merkeillä (merkit 128-255).

0	NUL	null
1	SOH	start of heading
2	STX	start of text
3	ETX	end of text
4	EOT	end of transmission
5	ENQ	enquiry
6	ACK	acknowledge
7	BEL	bell
8	BS	backspace
9	TAB	horizontal tab
10	LF	line feed
11	VT	vertical tab
12	FF	form feed
13	CR	carriage return
14	SO	shift out
15	SI	shift in
16	DLE	data link escape
17	DC1	device control 1
18	DC2	device control 2
19	DC3	device control 3
20	DC4	device control 4
21	NAK	negative acknowledge
22	SYN	synchronous idle
23	ETB	end of trans. block
24	CAN	cancel
25	EM	end of medium
26	SUB	substitute
27	ESC	escape
28	FS	file separator
29	GS	group separator
30	RS	record separator
31	US	unit separator
32		tyhjä (space)
33	!	
34	"	
35	#	
36	\$	
37	%	
38	&	
39	'	
40	(	
41	)	

42 *	94 ^	147
43 +	95 _	148
44 ,	96 `	149
45 -	97 a	150
46 .	98 b	151
47 /	99 c	152
48 0	100 d	153
49 1	101 e	154
50 2	102 f	155
51 3	103 g	156
52 4	104 h	157
53 5	105 i	158
54 6	106 j	159
55 7	107 k	160
56 8	108 l	161 i
57 9	109 m	162 ¢
58 :	110 n	163 £
59 ;	111 o	164 □
60 <	112 p	165 ¥
61 =	113 q	166
62 >	114 r	167 §
63 ?	115 s	168 "
64 @	116 t	169 ©
65 A	117 u	170 °
66 B	118 v	171 «
67 C	119 w	172 ¬
68 D	120 x	173
69 E	121 y	174 ®
70 F	122 z	175 −
71 G	123 {	176 °
72 H	124	177 ±
73 I	125 }	178 ²
74 J	126 ~	179 ³
75 K	127	180 ´
76 L	128	181 µ
77 M	129	182 ¶
78 N	130	183 ·
79 O	131	184 ,
80 P	132	185 ¹
81 Q	133	186 °
82 R	134	187 »
83 S	135	188 ¼
84 T	136	189 ½
85 U	137	190 ¾
86 V	138	191 ¸
87 W	139	192 Å
88 X	140	193 Á
89 Y	142	194 Â
90 Z	143	195 Ã
91 [	144	196 Ä
92 \	145	197 Å
93 ]	146	198 Æ



199 Ç	218 Ú	237 Í
200 È	219 Û	238 Î
201 É	220 Ü	239 Ĩ
202 Ê	221 Ý	240 Ď
203 Ë	222 Þ	241 Ñ
204 Ì	223 ß	242 Ò
205 Í	224 à	243 Ó
206 Î	225 á	244 Ô
207 Ï	226 â	245 Õ
208 Ð	227 ã	246 Ö
209 Ñ	228 ä	247 ÷
210 Ò	229 å	248 Ø
211 Ó	230 æ	249 ù
212 Ô	231 ç	250 ú
213 Õ	232 è	251 û
214 Ö	233 é	252 ü
215 ×	234 ê	253 ý
216 Ø	235 ë	254 þ
217 Ù	236 ì	255 ÿ