

### Working Cygwin VLC Compile Environment (WinXP/Win2K):

This document's purpose is to provide a working Cygwin environment under Windows (Win2K/WinXP).

#### \*\*\* Initial Setup \*\*\*

-- Install Cygwin.  
    <http://www.cygwin.com/setup.exe>

When you run the Cygwin setup program there are options on components to install. For compiler items, make sure that you select all of the things starting "mingw", plus the "make" item. Do NOT select any C compilers other than the mingw ones. (when you select one of the mingw components, the Cygwin Setup app will automatically add one non-mingw C item -- that's OK, let it, just don't select any of them yourself).

Make sure that you select the two "gettext" items. Make sure to select "libiconv"

The Appendix shows the Cygwin installation that I use. It absolutely contains extra (not needed for VLC compilation) files, but does work.

Launch Cygwin. It will create a home directory for you. In my case it was c:\cygwin\home\mfm

Download:

<http://download.videolan.org/pub/testing/win32/contrib-20040520-win32-bin-gcc3.3.1-only.tar.bz2>  
into your cygwin home directory.

In your Cygwin shell, enter:

```
tar xjvf contrib-20040902-win32-bin-gcc3.3.1-only.tar.bz2 -C /
```

NOTE: For maintenance purposes, periodically check

<http://download.videolan.org/pub/testing/win32/> to see if a new "contrib" package (date newer than 20040520) is called out. If it is, download the newer file and install it. Also, if you use Internet Explorer, check the filename after downloading - IE will tend to rename the file extension to .tar.tar - you need to change it back to .tar.bz2

Install the subversion tool, from:

<http://subversion.tigris.org/servlets/ProjectDocumentList?folderID=91>

Still in your Cygwin home directory, create a little batch file, get\_svn.bat. It only needs one line:

```
c:\program files\subversion\bin\svn" co  
svn://svn.videolan.org/vlc/trunk vlc-trunk
```

Put the above little batch file in your Cygwin home directory.

Create one other little file, in whatever text editor you like, containing:

```
./bootstrap && \  
CPPFLAGS="-I/usr/win32/include -I/usr/win32/include/ebml" \  
LDFLAGS="-L/usr/win32/lib \  
CC="gcc -mno-cygwin" CXX="g++ -mno-cygwin" \  
./configure \  
--disable-sdl --disable-gtk \  

```

```
--enable-nls \  
--disable-skins \  
--disable-skins2 \  
--enable-ffmpeg --with-ffmpeg-zlib --with-ffmpeg-mp3lame --with-ffmpeg-faac \  
--enable-faad \  
--enable-flac \  
--enable-theora \  
--with-wx-config-path=/usr/win32/bin \  
--with-freetype-config-path=/usr/win32/bin \  
--with-fribidi-config-path=/usr/win32/bin \  
--enable-livedotcom --with-livedotcom-tree=/usr/win32/live.com \  
--enable-caca --with-caca-config-path=/usr/win32/bin \  
--with-xml2-config-path=/usr/win32/bin \  
--disable-dvd \  
--disable-dvnav \  
--disable-dvdplay \  
--disable-dvdread \  
--without-dvdread \  
--with-dvnav-config-path=/usr/win32/bin \  
--disable-cddax --disable-vcdx \  
--enable-quicktime \  
--enable-optimizations \  
--enable-release  
Make
```

{Instead of the line "--enable-release", "--enable-debug" will generate additional debugger information.}

Save the above little file -- I called mine "config\_setup", in your home directory.

The above gets to a basic compiling environment.

### **\*\*\* Day-to-Day Builds \*\*\***

run get\_svn.bat (double click on it from a normal Windows Explorer window) -- this will do a pull of the current subversion trunk into your home directory, into the directory vlc-trunk.

For instance, in my environment, my home directory is c:\cygwin\home\mfm. I have get\_svn.bat located there. When I run get\_svn.bat there is now a directory c:\cygwin\home\mfm\vlc-trunk.

(vlc-trunk will get over-written the next time you run the batch file. If you want to save a snapshot of the existing vlc-trunk, rename the "vlc-trunk" directory to something else.)

In your Cygwin bash shell: cd vlc-trunk

In your shell, run: ../config\_setup

to have the little script run. (You don't have to run it as a script, it's just easier than cutting and pasting all the lines)

Go out and take a walk, play with your dog, whatever -- the above script does take time, even on a fast PC. Just let it run until it returns you to a bash shell prompt.

If you're really bored, choose to sit and watch the compilation, expect to see warnings at various times. Unless you see an ERROR, and things stop, don't worry.

NOTE: If during the "make", it generates an error and stops when it is compiling the "po" directory, it is a gettext problem. Run the Cygwin Setup app to deinstall your libiconv and gettext (both of the gettext options), then select to do a reinstall from the Internet of those items, FROM A DIFFERENT MIRROR. I spent over a week with this problem, it turned out the Cygwin mirror I first used had "bad" files.

You should now have a working vlc.exe file. From an Explorer window in Windows, you should see vlc.exe in the vlc-trunk directory.

Copying the necessary executable files:  
You now have a compiled, working vlc.

To save off just the necessary executable and library files, into a unique directory:

At a Cygwin shell, in the vlc-trunk directory, type:

```
make package-win32-base
```

will create a subdirectory named vlc-x.x.x with all the binaries 'stripped' (ie. without any debugging symbols).

or

```
make package-win32-zip
```



Same as above but will package the directory in a zip file.

### Appendix - A Working Cygwin Environment














































The following are snapshots of the Cygwin packages that I use, a fresh installation on 9 September 2004. Please note – these are not all available Cygwin packages, just the ones I use – if you install additional Devel packages you may get a build error.

+ Admin	Default	1.0-1	Keep	n/a	n/a	cygrunsrv: NT/W2K service initiator
+ Base	Default	20040127-1	Keep	n/a	n/a	ash: A Bourne Shell (/bin/sh) workalike
		3.0-3	Keep	n/a	n/a	base-files: A set of important system configuration and setup files
		2.0-1	Keep	n/a	n/a	base-passwd
		2.05b-16	Keep	n/a	n/a	bash: The GNU Bourne Again SHell
		1.5.11-1	Keep	n/a	n/a	cygwin: The UNIX emulation engine
		2.8.7-1	Keep	n/a	n/a	diffutils: A GNU collection of diff utilities
		1.01-1	Keep	n/a	n/a	editrights: Alter user rights and privileges
		4.1-2	Keep	n/a	n/a	fileutils: GNU file management utilities
		4.1.7-4	Keep	n/a	n/a	findutils: Utilities for finding files--find, xargs, and locate
		3.1.4-3	Keep	n/a	n/a	gawk: GNU awk, a pattern scanning and processing language
		1.8.3-7	Keep	n/a	n/a	gdbm: GNU dbm database routines (utilities)
		2.5-1	Keep	n/a	n/a	grep: Search and print textual input for lines which match a specified pat
		1.3.5-1	Keep	n/a	n/a	gzip: The GNU compression utility
		1.8.0-5	Keep	n/a	n/a	libgdbm: GNU dbm database routines (runtime)
		1.8.3-7	Keep	n/a	n/a	libgdbm-devel: GNU dbm database routines (development)
		1.8.3-3	Keep	n/a	n/a	libgdbm3: GNU dbm database routines (runtime)
		1.8.3-7	Keep	n/a	n/a	libgdbm4: GNU dbm database routines (runtime)
		5.2-1	Keep	n/a	n/a	libncurses5: Compatibility libraries for terminal handling (runtime)
		5.2-8	Keep	n/a	n/a	libncurses6: Current libraries for terminal handling (runtime)
		5.3-4	Keep	n/a	n/a	libncurses7: Libraries for terminal handling (runtime)
		4.1-2	Keep	n/a	n/a	libreadline4: GNU readline and history libraries (runtime)
		4.3-5	Keep	n/a	n/a	libreadline5: GNU readline and history libraries (runtime)
		1.9-7	Keep	n/a	n/a	login: Sign on to a system
		1.5k-3	Keep	n/a	n/a	man: Man, apropos and whatis
		5.3-4	Keep	n/a	n/a	ncurses: Libraries for terminal handling (main package)
		4.3-5	Keep	n/a	n/a	readline: GNU readline and history libraries
		4.1.2-1	Keep	n/a	n/a	sed: The GNU sed stream editor
		2.0.15-4	Keep	n/a	n/a	sh-utils: A set of GNU utilities commonly used in shell scripts
		1.13.25-5	Keep	n/a	n/a	tar: A GNU file archiving program
		20021106-2	Keep	n/a	n/a	termcap: Compatibility package for old termcap-based programs
		5.3_20030726-1	Keep	n/a	n/a	terminfo: Database for ncurses-style terminal handling
		2.0.21-1	Keep	n/a	n/a	textutils: The GNU text file processing utilities
		1.5-2	Keep	n/a	n/a	which: Displays where a particular program in your path is located
		1.2.1-1	Keep	n/a	n/a	zlib: The zlib compression and decompression library
+ Database	Default	4.2.52-1	Keep	n/a	n/a	libdb4.2: The Sleepycat Berkeley DB Library v4.1 - runtime
+ Devel	Default	2.59-1	Keep	n/a	n/a	autoconf: Wrapper scripts for autoconf-devel and autoconf-stable
		2.59-1	Keep	n/a	n/a	autoconf-devel: Development version of the automatic configure script b
		2.13-5	Keep	n/a	n/a	autoconf-stable: Stable version of the automatic configure script builder

	1.7.9-1	Keep	n/a	n/a	automake: Wrapper scripts for automake-devel and automake-stable
	1.8.5-1	Keep	n/a	n/a	automake-devel: Development version of a tool for generating GNU-co
	1.4p6-2	Keep	n/a	n/a	automake-stable: Stable version of a tool for generating GNU-compliant
	20040725-2	Keep	n/a	n/a	binutils: The GNU assembler, linker and binary utilities
	0.8.4-1	Keep	n/a	n/a	check: A unit test framework for C
	1.9.14-1	Keep	n/a	n/a	cppunit: A C++ unit testing framework. It started its life as a port of JUnit
	5.5-4	Keep	n/a	n/a	ctags: A C programming language indexing and/or cross-reference tool
	1.11.6-3	Keep	n/a	n/a	cvs: Concurrent Version System
	1.2.18-1	Keep	n/a	n/a	doxygen: A documentation system for C++, C, Java, IDL (Corba, Micros
	1.10.4-2	Keep	n/a	n/a	dpkg: A package management system.
	1.95.7-1	Keep	n/a	n/a	expat: XML parser library written in C
	3.3.3-3	Keep	n/a	n/a	gcc: C compiler upgrade helper
	3.3.3-3	Keep	n/a	n/a	gcc-core: C compiler
	3.3.3-3	Keep	n/a	n/a	gcc-g++: C++ compiler
	20040810-1	Keep	n/a	n/a	gcc-mingw: Mingw32 support headers and libraries for GCC
	20040810-1	Keep	n/a	n/a	gcc-mingw-core: Mingw32 support headers and libraries for GCC
	20040810-1	Keep	n/a	n/a	gcc-mingw-g++: Mingw32 support headers and libraries for GCC C++
	0.14.1-1	Keep	n/a	n/a	gettext: GNU Internationalization library and core utilities (PLUS LINK LI
	0.14.1-1	Keep	n/a	n/a	gettext-devel: GNU Internationalization development utilities (but NOT L
	1.33.1-1	Keep	n/a	n/a	help2man: Creates man pages from program output
	0.8.3-2	Keep	n/a	n/a	libIDL: CORBA Interface Definition Language file library
	2.1.6-1	Keep	n/a	n/a	libXft-devel: Provides a client-side font API for X applications. (developr
	2.2.2-1	Keep	n/a	n/a	libfontconfig-devel: Font configuration and customization library. (develc
	2.1.5-1	Keep	n/a	n/a	libfreetype2-devel: A Free, High-Quality, and Portable Font Engine. (dev
	1.9.2-1	Keep	n/a	n/a	libiconv: GNU character set conversion library and utilities'
	2.6.11-1	Keep	n/a	n/a	libxml2: The XML C parser and toolkit.
	3.80-1	Keep	n/a	n/a	make: The GNU version of the 'make' utility
	3.5-1	Keep	n/a	n/a	mingw-runtime: MinGW Runtime
	1.5-3	Keep	n/a	n/a	mktemp: Allows safe temp file/dir creation from shell scripts
	4.5-1	Keep	n/a	n/a	pcre: Perl-Compatible Regular Expressions programs
	0.15.0-4	Keep	n/a	n/a	pkgconfig: A utility used to retrieve information about installed libraries
+ Doc 🐞 Default					
	1.95.7-1	Keep	n/a	n/a	expat: XML parser library written in C
	2.6.11-1	Keep	n/a	n/a	libxml2: The XML C parser and toolkit.
	1.5k-3	Keep	n/a	n/a	man: Man, apropos and whatis
	4.5-1	Keep	n/a	n/a	pcre-doc: Documentation for Perl-Compatible Regular Expressions
	4.2-4	Keep	n/a	n/a	texinfo: Documentation system for on-line information and printed output
+ Games 🐞 Default					
+ Graphics 🐞 Default					
	2.2.0-1	Keep	n/a	n/a	freeglut: OpenSourced alternative to the OpenGL Utility Toolkit (GLUT)
	1.701.0-1	Keep	n/a	n/a	jasper: JPEG-2000 Library
	1.5-3	Keep	n/a	n/a	jbigkit: Lossless image compression library
	6b-11	Keep	n/a	n/a	jpeg: A library for manipulating JPEG image format files

	1.13-1	Keep	n/a	n/a	lcms: A small-footprint, speed optimized color management engine
	1.2.0.9-1	Keep	n/a	n/a	libfpx: Flashpix OpenSource Toolkit
	6b-11	Keep	n/a	n/a	libjpeg62: A library for manipulating JPEG image format files (runtime)
	6b-8	Keep	n/a	n/a	libjpeg6b: A library for manipulating JPEG image format files (runtime)
	1.2.5-4	Keep	n/a	n/a	libpng12: PNG library - 1.2.x runtime
	1.2.5-4	Keep	n/a	n/a	libpng12-devel: PNG library - 1.2.x development libraries and headers
	3.6.0-5	Keep	n/a	n/a	libtiff-devel: A library for manipulating TIFF format image files (devel)
	3.6.0-2	Keep	n/a	n/a	libtiff3: A library for manipulating TIFF format image files (runtime)
	3.6.0-5	Keep	n/a	n/a	libtiff4: A library for manipulating TIFF format image files (runtime)
+ Interpreters  Default					
	1.95.7-1	Keep	n/a	n/a	expat: XML parser library written in C
	20030128-1	Keep	n/a	n/a	expect: A program that 'talks' to other programs
	3.1.4-3	Keep	n/a	n/a	gawk: GNU awk, a pattern scanning and processing language
	1.6.4-12	Keep	n/a	n/a	guile: The GNU extension language and Scheme interpreter (execut.
	2.6.11-1	Keep	n/a	n/a	libxml2: The XML C parser and toolkit.
	1.4-1	Keep	n/a	n/a	m4: A macro processing language
	5.8.5-3	Keep	n/a	n/a	perl: Larry Wall's Practical Extracting and Report Language
+ Libs  Default					
	2.10.3-1	Keep	n/a	n/a	ORBit2: CORBA 2.4 Object Request Broker library (executables, runt
	1.9.14-1	Keep	n/a	n/a	cppunit: A C++ unit testing framework. It started its life as a port of JL
	1.1-1	Keep	n/a	n/a	crypt: Encryption/Decryption utility and library
	7.11.1-1	Keep	n/a	n/a	curl: A client that groks URLs
	1.95.7-1	Keep	n/a	n/a	expat: XML parser library written in C
	2.2.2-1	Keep	n/a	n/a	fontconfig: Font configuration and customization library. (main packag
	2.2.0-1	Keep	n/a	n/a	freelut: OpenSourced alternative to the OpenGL Utility Toolkit (GLU
	2.1.5-1	Keep	n/a	n/a	freetype2: A Free, High-Quality, and Portable Font Engine. (main pac
	0.14.1-1	Keep	n/a	n/a	gettext: GNU Internationalization library and core utilities (PLUS LINK
	2.4.5-1	Keep	n/a	n/a	glib2: Low-level core library - runtime libraries and executables
	2.4.5-1	Keep	n/a	n/a	glib2-devel: Headers and import libraries for glib
	2.4.5-1	Keep	n/a	n/a	glib2-runtime: Low-level core library - runtime libraries and executable
	1.701.0-1	Keep	n/a	n/a	jasper: JPEG-2000 Library
	1.5-3	Keep	n/a	n/a	jbigkit: Lossless image compression library
	6b-11	Keep	n/a	n/a	jpeg: A library for manipulating JPEG image format files
	1.13-1	Keep	n/a	n/a	lcms: A small-footprint, speed optimized color management engine
	1.0.6-1	Keep	n/a	n/a	libGraphicsMagick0: GraphicsMagick. (runtime)
	0.8.3-2	Keep	n/a	n/a	libIDL: CORBA Interface Definition Language file library
	6.0.4-1	Keep	n/a	n/a	libMagick6: ImageMagick. (runtime)
	2.1.6-1	Keep	n/a	n/a	libXft: Provides a client-side font API for X applications. (main packag
	2.1.6-1	Keep	n/a	n/a	libXft-devel: Provides a client-side font API for X applications. (devel
	1.0.0-1	Keep	n/a	n/a	libXft1: Provides a client-side font API for X applications. (runtime)
	2.1.6-1	Keep	n/a	n/a	libXft2: Provides a client-side font API for X applications. (runtime)
	0.9.5pre20040608-1	Keep	n/a	n/a	libapr0: The Apache Portable Runtime (runtime package)
	0.9.5pre20040608-1	Keep	n/a	n/a	libaprutil0: Additional utility library for use with the Apache Portable R

1.0.2-5	Keep	n/a	n/a	libbz2_1: Shared libraries for bzip2 (runtime)
1.9.2-1	Keep	n/a	n/a	libcharset1: GNU character set conversion library and utilities - runtime
2.2.2-1	Keep	n/a	n/a	libfontconfig-devel: Font configuration and customization library. (dev)
2.2.2-1	Keep	n/a	n/a	libfontconfig1: Font configuration and customization library. (runtime)
1.2.0.9-1	Keep	n/a	n/a	libfpx: Flashpix OpenSource Toolkit
2.1.5-1	Keep	n/a	n/a	libfreetype2-devel: A Free, High-Quality, and Portable Font Engine. (c
2.1.5-1	Keep	n/a	n/a	libfreetype26: A Free, High-Quality, and Portable Font Engine. (runtime
0.14.1-1	Keep	n/a	n/a	libgettextpo0: GNU Internationalization runtime library (2)
1.6.4-12	Keep	n/a	n/a	libguile12: The GNU extension language and Scheme interpreter (rur
1.6.4-2	Keep	n/a	n/a	libguile12abi13: The GNU extension language and Scheme interpret
1.9.2-1	Keep	n/a	n/a	libiconv: GNU character set conversion library and utilities'
1.9.2-1	Keep	n/a	n/a	libiconv2: GNU character set conversion library and utilities - runtime
0.10.38-3	Keep	n/a	n/a	libintl: GNU Internationalization runtime library
0.10.40-1	Keep	n/a	n/a	libintl1: GNU Internationalization runtime library
0.12.1-3	Keep	n/a	n/a	libintl2: GNU Internationalization runtime library
0.14.1-1	Keep	n/a	n/a	libintl3: GNU Internationalization runtime library
6b-11	Keep	n/a	n/a	libjpeg62: A library for manipulating JPEG image format files (runtime)
6b-8	Keep	n/a	n/a	libjpeg6b: A library for manipulating JPEG image format files (runtime)
2.0.2-13	Keep	n/a	n/a	libkpathsea3: The TeX text formatting system (runtime libraries).
2.0.2-2	Keep	n/a	n/a	libkpathsea3abi13: The TeX text formatting system (runtime libraries).
1.5.6-3	Keep	n/a	n/a	libltdl3: Libtool's dynamic loader (runtime)
5.2-1	Keep	n/a	n/a	libncurses5: Compatibility libraries for terminal handling (runtime)
5.2-8	Keep	n/a	n/a	libncurses6: Current libraries for terminal handling (runtime)
5.3-4	Keep	n/a	n/a	libncurses7: Libraries for terminal handling (runtime)
0.24.7-1	Keep	n/a	n/a	libneon24: Runtime library component of Neon - an HTTP and WebC
4.1-1	Keep	n/a	n/a	libpcre: Perl-Compatible Regular Expressions library - pre-libtool versic
4.5-1	Keep	n/a	n/a	libpcre0: Perl-Compatible Regular Expressions library
1.2.5-4	Keep	n/a	n/a	libpng12: PNG library - 1.2.x runtime
1.2.5-4	Keep	n/a	n/a	libpng12-devel: PNG library - 1.2.x development libraries and headers
1.6.4-4	Keep	n/a	n/a	libpopt0: Library for parsing cmdline parameters - runtime
3.6.0-5	Keep	n/a	n/a	libtiff-devel: A library for manipulating TIFF format image files (devel)
3.6.0-2	Keep	n/a	n/a	libtiff3: A library for manipulating TIFF format image files (runtime)
3.6.0-5	Keep	n/a	n/a	libtiff4: A library for manipulating TIFF format image files (runtime)
2.6.11-1	Keep	n/a	n/a	libxml2: The XML C parser and toolkit.
3.5-1	Keep	n/a	n/a	mingw-runtime: MinGW Runtime
5.3-4	Keep	n/a	n/a	ncurses: Libraries for terminal handling (main package)
0.9.7d-1	Keep	n/a	n/a	openssl: The OpenSSL runtime environment
1.6.4-4	Keep	n/a	n/a	popt: Library for parsing cmdline parameters - docs and development
20030901-1	Keep	n/a	n/a	tk: TCL/Tk libraries
20021106-2	Keep	n/a	n/a	termcap: Compatibility package for old termcap-based programs
3.1-1	Keep	n/a	n/a	w32api: Win32 API header and library import files
1.2.1-1	Keep	n/a	n/a	zlib: The zlib compression and decompression library

+ Mail  Default					
	2002e-3	 Keep	n/a	n/a	uw-imap: UW IMAP Toolkit
+ Mingw  Default					
	1.2.1-1	 Keep	n/a	n/a	mingw-zlib: (mingw version) of the zlib compression and deco
+ Net  Default					
	0.9.7d-1	 Keep	n/a	n/a	openssl: The OpenSSL runtime environment
+ Publishing  Default					
	2.0.2-13	 Keep	n/a	n/a	libkpathsea3: The TeX text formatting system (runtime librarie
	2.0.2-2	 Keep	n/a	n/a	libkpathsea3abi13: The TeX text formatting system (runtime li
+ Shells  Default					
	20040127-1	 Keep	n/a	n/a	ash: A Bourne Shell (/bin/sh) workalike
	2.05b-16	 Keep	n/a	n/a	bash: The GNU Bourne Again SHell
	2.0.15-4	 Keep	n/a	n/a	sh-utils: A set of GNU utilities commonly used in shell scripts
+ System  Default					
	1.5k-3	 Keep	n/a	n/a	man: Man, apropos and whatis
+ Text  Default					
	1.95.7-1	 Keep	n/a	n/a	expat: XML parser library written in C
	1.18.1-2	 Keep	n/a	n/a	groff: GNU troff text-formatting system
	381-1	 Keep	n/a	n/a	less: A file pager program, similar to more(1)
	2.0.2-13	 Keep	n/a	n/a	libkpathsea3: The TeX text formatting system (runtime librarie
	2.0.2-2	 Keep	n/a	n/a	libkpathsea3abi13: The TeX text formatting system (runtime li
	2.6.11-1	 Keep	n/a	n/a	libxml2: The XML C parser and toolkit.
	4.2-4	 Keep	n/a	n/a	texinfo: Documentation system for on-line information and pri
+ Utils  Default					
	1.0.2-5	 Keep	n/a	n/a	bzip2: A high-quality block-sorting file compressor - utilities
	1.2.5-1	 Keep	n/a	n/a	cygutils: A collection of simple utilities
	4.10-1	 Keep	n/a	n/a	file: Determines file type using 'magic' numbers
	2.5.8-8	 Keep	n/a	n/a	patch: Apply a diff file to an original
	4.5-1	 Keep	n/a	n/a	pcre: Perl-Compatible Regular Expressions programs
+ Web  Default					
	7.11.1-1	 Keep	n/a	n/a	curl: A client that groks URLs
+ X11  Default					
	0.93.94-2	 Keep	n/a	n/a	lesstif: Lesstif
	6.8.0.0-1	 Keep	n/a	n/a	xorg-x11-base: Cygwin/X base
	6.8.0.0-1	 Keep	n/a	n/a	xorg-x11-bin: Cygwin/X bin
	6.8.0.0-1	 Keep	n/a	n/a	xorg-x11-bin-dlls: Cygwin/X bin dlls
	6.8.0.0-1	 Keep	n/a	n/a	xorg-x11-bin-lndir: Cygwin/X bin
	6.8.0.0-1	 Keep	n/a	n/a	xorg-x11-devel: Cygwin/X headers and import libraries
	6.8.0.0-1	 Keep	n/a	n/a	xorg-x11-etc: Cygwin/X etc
	6.8.0.0-1	 Keep	n/a	n/a	xorg-x11-fenc: Cygwin/X font encodings
	6.8.0.0-1	 Keep	n/a	n/a	xorg-x11-fnts: Cygwin/X 75 dpi, misc, and util fonts
	6.8.0.0-1	 Keep	n/a	n/a	xorg-x11-libs-data: Cygwin/X shared files
	6.8.0.0-1	 Keep	n/a	n/a	xorg-x11-xwin: Cygwin/X X server
+ _PostInstallLast  Default					
	00227-1	 Keep	n/a	n/a	_update-info-dir: Generate info/dir file automatically