

Porting X Applications to PM with Everblue

Netlabs[®] Everblue

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What is Everblue?

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What is X11?

What is Everblue?

Example (Gimp)

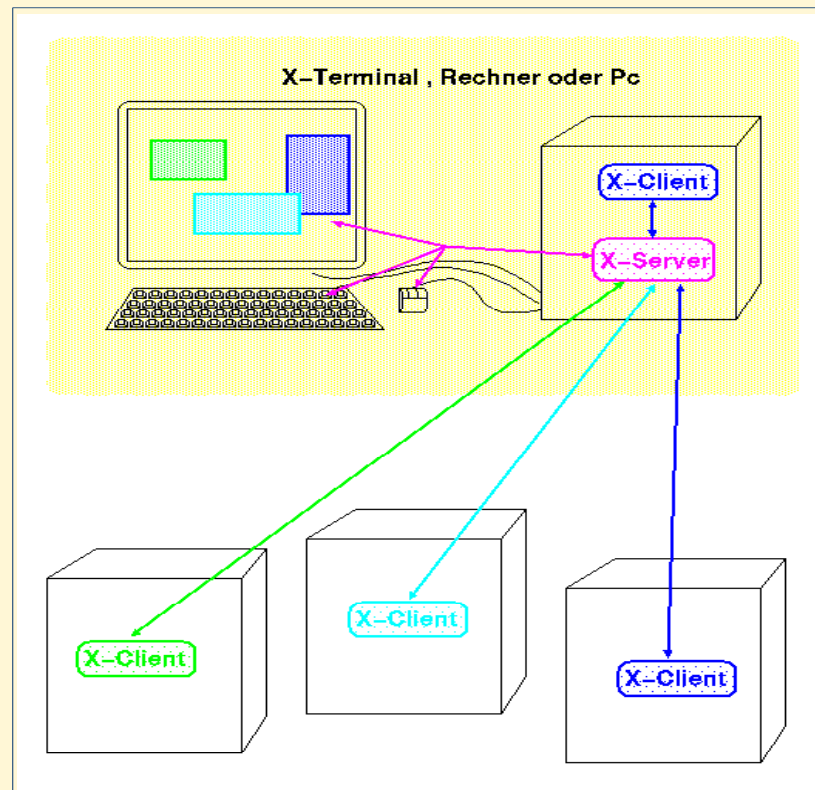
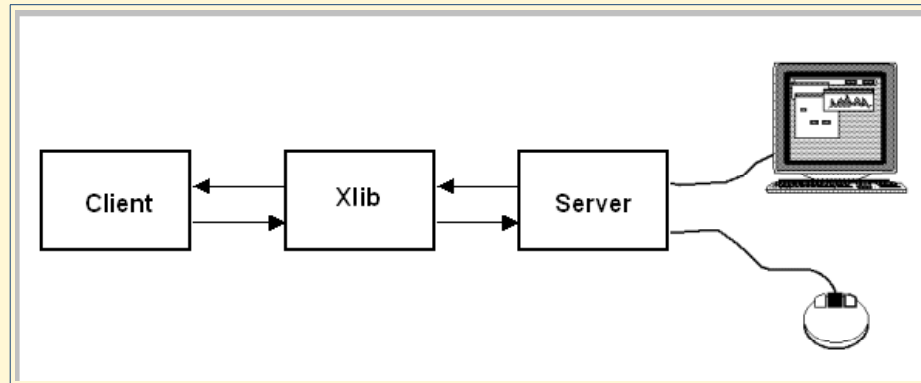
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What is Everblue?



- binarily compatible to XFree86/2, ...
- very fast, no connection overhead
- many open-source programs are based on X11
- managed by OS/2 community
- expandablable for integration with WPS/PM

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Example (Gimp)

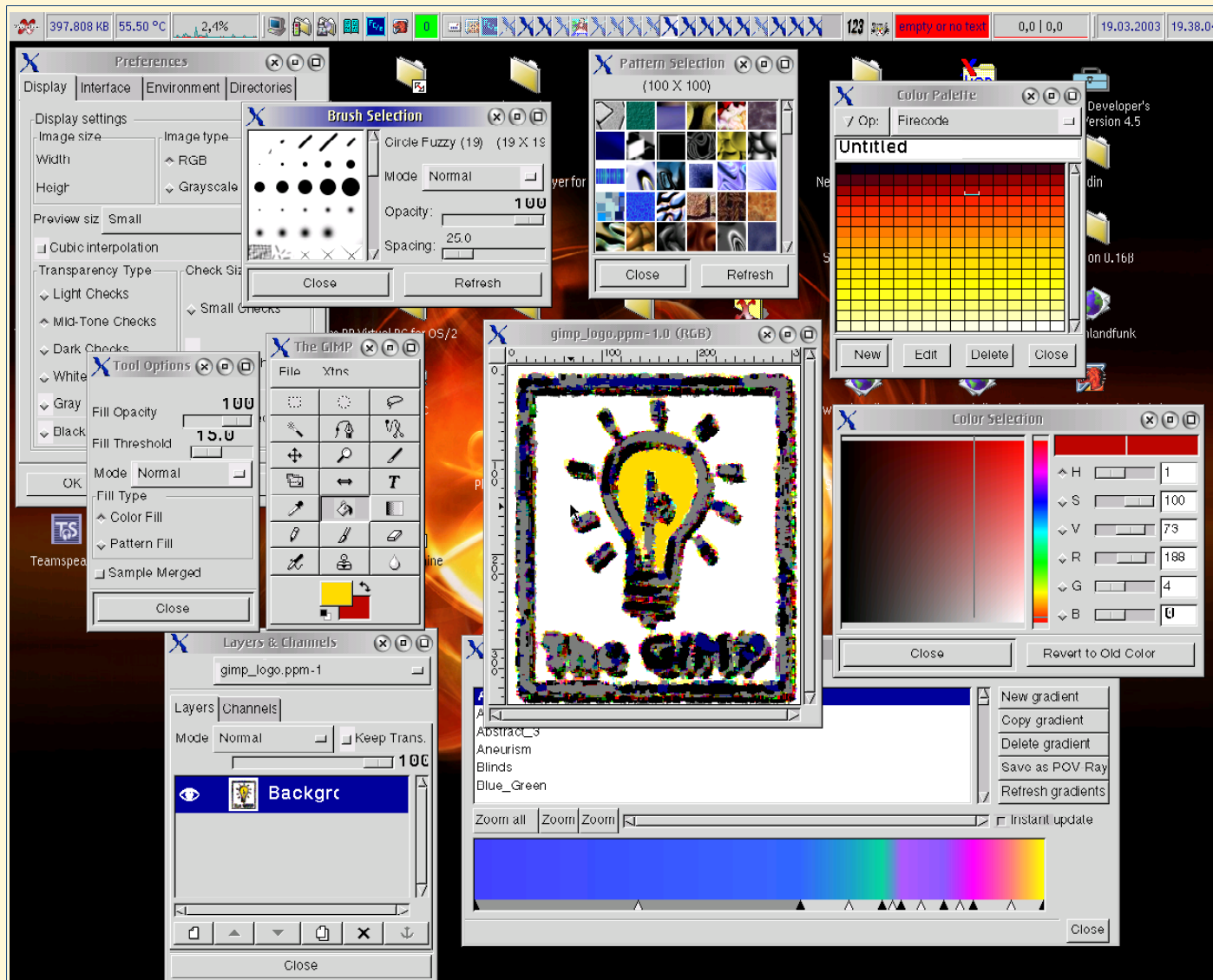
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look at the black board

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- drawing functions
- pixmap/cursor
- fonts
- keyboard
- event handling
- window
- properties / selections
- grabbing functions
- graphics context
- image manipulation
- locking
- color handling
- other
- XKB
- XIM

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What is implemented?

- daemon concept
- event system
- usage of unmodified XFree86 files for high-level functions
- resource concept
- window borders
- window properties
- font handling
- presentation spaces
- multi-process, multi-threading (partially)

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What is missing?

- complex graphics context functions
- locking
- clipboard support
- PM/WPS window manager emulation
- error handling
- input of special characters (e.g. Chinese)
- InputOnly windows

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Getting the environment

Compiling with gcc 2.8

Compiling with gcc 3.x

Compiling Everblue(1)

Compiling Everblue2

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Getting the environment

- get XFree86/OS2 for the include and DLL files
- get a compiler – gcc 2.8 or Innotek gcc (don't forget to have the runtime library in your path)
- get a working linker, e.g. ilink from IBM C++
- get Everblue by CVS (you can use NOSA!)
- get the GNU file utilities – the make files need `rm.exe`

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Compiling with gcc 2.8

```
@echo off
call I:\unixos2\lib\ux2_env.cmd
set library_path=%library_path%;.
set c_include_path=L:\xfree45\usr\X11R6\include;
    %c_include_path%
SET PATH=%PATH%
SET ENDLIBPATH=%ENDLIBPATH%
make
del zap_env.cmd
```

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Compiling with gcc 3.x

```
@echo off
call J:\Development\gcc3.3.5\bin\gccenv.cmd
set C_INCLUDE_PATH=%C_INCLUDE_PATH%;
    L:\xfree45\usr\X11R6\include
set library_path=%library_path%;.
SET CXXMAIN=J:\Ibmcxxo
SET PATH=%PATH%;%CXXMAIN%\BIN
SET ENDLIBPATH=%ENDLIBPATH%;%CXXMAIN%\DLL
make
```

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- put XFree86/OS2 include dir in C_INCLUDE_PATH
- choose .o/.obj suffix and proper defs in makefile (depends on emx / Innotek)
- run make in X11 directory
- if make is case sensitive, rename "xlib*.c" to "Xlib*.c"
- ignore the many warnings

resulting files: X11.dll and x11pmhk.dll

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it is recommended to use Innotek gcc for Everblue2

- put XFree86/OS2 include dir in C_INCLUDE_PATH
- compile emxhandl.dll with gcc 2.8
- run make in every directory in this order: ebhook.dll, xdaemon.dll, xdaemon.exe, X11.dll with sub-directories first; copy the lib files to later directories

resulting files: emxhandl.dll, ebhook.dll, xdaemon.dll, xdaemon.exe, X11.dll

put xdaemon.exe into PATH (current directory does not work!)

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URLs

- Ask per Email: Sebastian.Wittmeier@ginko.de
- Ask on the Everblue mailing list
- Talk to us after this session

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- Everblue Homepage

<http://everblue.netlabs.org>

- Everblue information on NikiWiki

- Everblue Mailing List

<http://groups.yahoo.com/group/everblue-dev>

- Netlabs Open Source Archive (NOSA)

<http://nosa.netlabs.org>

- Innotek GCC

<ftp://ftp.netlabs.org/pub/gcc>

- UX2 Build System (rsync server down for updates at the moment)

<http://unixos2.org/pages/ux2bs.html>

- XFree86/OS2 4.5.0 Download

<ftp://ftp.netlabs.org/pub/xfree86/4.5.0>

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