

Porting Software to *BSD

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pkgsrc Specialties

- ▶ bootstrap
- ▶ tools
- ▶ buildlink3



pkgsrc example – overview

```
/usr/pkgsrc/audio/esound
|-- DESCR
|-- MESSAGE.Interix
|-- Makefile
|-- PLIST.FreeBSD
|-- PLIST.Linux
|-- PLIST.common
|-- buildlink3.mk
|-- distinfo
|-- options.mk
'-- patches
    |-- patch-aa
    |-- patch-ab
    '-- patch-ac
1 directory, 12 files
```



pkgsrc example – Makefile

```
# $NetBSD: Makefile,v 1.74 2011/09/09 15:19:44 wiz Exp $

DISTNAME= esound-0.2.41
CATEGORIES= audio
MASTER_SITES= ${MASTER_SITE_GNOME:=sources/esound/0.2/}
EXTRACT_SUFX= .tar.bz2

MAINTAINER= pkgsrc-users@NetBSD.org
HOMEPAGE= http://www.tux.org/~ricdude/Esound.html
COMMENT= The Enlightened sound daemon
LICENSE= gnu-lgpl-v2

PKG_INSTALLATION_TYPES= overwrite pkgviews
PKG_DESTDIR_SUPPORT= user-destdir
```



pkgsrc example – Makefile [2]

```
USE_LIBTOOL= YES
USE_TOOLS+= pkg-config
PKGCONFIG_OVERRIDE= esound.pc.in

GNU_CONFIGURE= YES
CONFIGURE_ARGS+= --sysconfdir=${PKG_SYSCONFDIR:Q}
CONFIGURE_ENV+= ac_cv_prog_JW=false

EGDIR= ${PREFIX}/share/examples/esound
CONF_FILES= ${EGDIR}/esd.conf ${PKG_SYSCONFDIR}/esd.conf

...
.include "../../audio/libaudiofile/buildlink3.mk"
.include "../../mk/bsd.pkg.mk"
```



pkgsrc example – options

```
# $NetBSD: options.mk,v 1.1 2005/06/08 13:20:04 wiz Exp $

PKG_OPTIONS_VAR= PKG_OPTIONS.esound
PKG_SUPPORTED_OPTIONS= inet6

.include "../../mk/bsd.options.mk"

.if !empty(PKG_OPTIONS:Minet6)
CONFIGURE_ARGS+= --enable-ipv6
.else
CONFIGURE_ARGS+= --disable-ipv6
.endif
```



pkgsrc example – patch

```
$NetBSD: patch-aa,v 1.9 2011/09/09 15:20:59 wiz Exp $
```

Install configuration into examples directory, and use CONF_FILES for installation.

```
--- Makefile.in.orig 2005-06-07 03:04:14.000000000 +0200  
+++ Makefile.in  
@@ -425,7 +425,7 @@ LDADD = libesd.la $(AUDIOFILE_LIBS)  
  esd_LDADD = $(WRAP_LIB) $(LDADD)  
  m4datadir = $(datadir)/aclocal  
  m4data_DATA = esd.m4  
-esdconfdir = $(sysconfdir)  
+esdconfdir = $(datadir)/examples/@PACKAGE@  
  esdconf_DATA = esd.conf  
  pkgconfigdir = $(libdir)/pkgconfig  
  pkgconfig_DATA = esound.pc
```



pkgsrsrc example – distinfo

```
$NetBSD: distinfo,v 1.31 2011/09/09 15:20:59 wiz Exp $
```

```
SHA1 (esound-0.2.41.tar.bz2) = 6c343483b3789f439277935eaad7
```

```
RMD160 (esound-0.2.41.tar.bz2) = 72597ea46e507008e3a43efaa7
```

```
Size (esound-0.2.41.tar.bz2) = 396474 bytes
```

```
SHA1 (patch-aa) = fa6d1bf07ceec181c01d57afe69a978d0a8ec401
```

```
SHA1 (patch-ab) = 907078a1b00e26f131aa149bd89490fddfd405c6
```

```
SHA1 (patch-ac) = e1e75d036c66221307ab1e9100a5c10a56f4145f
```



pkgsrc example – PLIST*

```
@comment $NetBSD: PLIST.common,v 1.8 2009/06/14 17:32:05 j
bin/esd
bin/esd-config
...
bin/esdsample
include/esd.h
lib/libesd.la
lib/pkgconfig/esound.pc
man/man1/esd-config.1
...
share/examples/esound/esd.conf
```



Porting Software to *BSD

- ▶ code issues
- ▶ upstream
- ▶ cooperation across packaging systems



Code Issues

- ▶ simple: missing headers
- ▶ unpackaged dependencies
- ▶ complex: operating system specific APIs
- ▶ kernel support



Cooperation Across Packaging Systems

- ▶ security fixes
- ▶ portability



Upstream Behaviour

Reaction to...

- ▶ problem reports
- ▶ support (questions, access)
- ▶ patches



Special Programs

- ▶ GNOME
- ▶ KDE
- ▶ Mozilla



Discussion

Let's discuss :)



You Know

- ▶ <http://www.pkgsrc.org/>
- ▶ <http://www.NetBSD.org/>



