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diff -r d0c4fde41a48 .cvsignore
--- a/.cvsignore      Tue Jul 22 20:55:26 2008 +0000
+++ b/.cvsignore      Wed Jul 23 16:36:24 2008 +0200
@@ -15,3 +15,4 @@
 lock
 site-lisp
 update.log
+Emacs.app
diff -r d0c4fde41a48 Makefile.in
--- a/Makefile.in     Tue Jul 22 20:55:26 2008 +0000
+++ b/Makefile.in     Wed Jul 23 16:36:24 2008 +0200
@@ -92,6 +92,9 @@
 ### for, like `mips-dec-ultrix' or `sparc-sun-sunos'.
 configuration=@configuration@

#### the window system to use
+window_system=@window_system@
+
# ===== Where To Install Things =====

# The default location for installation.  Everything is placed in
@@ -164,13 +167,12 @@
# Where to find the application default.
x_default_search_path=@x_default_search_path@

-# Location to install Emacs.app on Mac OS X
-carbon_appdir=@carbon_appdir@
+# Location to install Emacs.app on GNUstep & Mac OS X

-# Location to install Emacs.app under NeXT/Open/GNUstep / Cocoa
-ns_appdir=@ns_appdir@
-ns_appbindir=@ns_appbindir@
-ns_appresdir=@ns_appresdir@
+# Location to install Emacs.app under NeXT/Open/GNUstep / Mac OS X
+appdir=@appdir@
+appbindir=@appbindir@
+appresdir=@appresdir@

# Where the etc/emacs.desktop file is to be installed.
desktopdir=$(datarootdir)/applications
@@ -410,19 +412,21 @@
    ${INSTALL_DATA} lib-src/$$f $(DESTDIR){archlibdir}/$$f; \
    else true; fi ; \
done
- if test "${carbon_appdir}" != ""; then \
-   umask 022; mkdir -p $(DESTDIR){carbon_appdir}/Emacs.app; \
-   (cd mac/Emacs.app; (tar -chf - . | \
-    (cd $(DESTDIR){carbon_appdir}/Emacs.app; umask 022; tar -xvf -
\
-    && cat > /dev/null))) || exit 1; \
+ if test "${appdir}" != "" && test "${window_system}" = "mac"; then \
+   umask 022; \
+   mkdir -p ${DESTDIR}{appdir} ${DESTDIR}{datadir}/${EMACSFULL} && \
+   cp -Rpp mac/Emacs.app ${DESTDIR}{appdir}; \
+   if test -d site-lisp; then \
+     cp -Rpp site-lisp ${DESTDIR}{datadir}/${EMACSFULL}; \
+   fi; \
+ fi
- if test "${ns_appdir}" != ""; then \
-   ( cd ${ns_appresdir} ; \
+ if test "${appdir}" != "" && test "${window_system}" = "nextstep"; then \
\
+   ( cd ${appresdir} ; \
     if test -d share/emacs ; then mv -f share/emacs/*/* . ; fi ; \
     if test -d info ; then mv -f share/info . ; fi ; \
     rm -fr share ) ; \

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-      ( cd ${ns_appbindir}/libexec ; mv -f emacs/*/*/* . ; rm -fr emacs ) ;
\
-      ( cd ${ns_appbindir}/bin ; rm -f emacs emacs-23* ; \
+      ( cd ${appbindir}/libexec ; mv -f emacs/*/*/* . ; rm -fr emacs ) ; \
+      ( cd ${appbindir}/bin ; rm -f emacs emacs-23* ; \
        ln -sf ../libexec/* . ) ; \
    else true ; fi
@@ -471,7 +475,7 @@
    && ( echo "Copying ${dir} to ${dest}..." ; \
        (cd ${dir}; tar -chf - . ) \
        | (cd ${dest}; umask 022; \
-         tar -xvf - && cat > /dev/null) || exit 1; \
+         tar -xf - && cat > /dev/null) || exit 1; \
        find ${dest} -exec chown ${installuser} {} ';' ;\
        for subdir in `find ${dest} -type d ! -name RCS ! -name CVS -prin
t` ; do \
            chmod a+rx ${subdir} ; \
@@ -519,7 +523,7 @@
    fi ; \
    echo "Copying etc/${docfile} to $(DESTDIR){docdir} ..." ; \
    (cd ./etc; tar -chf - ${docfile}) \
-    |(cd $(DESTDIR){docdir}; umask 022; tar -xvf - && cat > /dev/null)
+    |(cd $(DESTDIR){docdir}; umask 022; tar -xf - && cat > /dev/null)
|| exit 1; \
+    |(cd $(DESTDIR){docdir}; umask 022; tar -xf - && cat > /dev/null)
|| exit 1; \
    (cd $(DESTDIR){docdir}; \
    $(set_installuser); \
    chown ${installuser} DOC*; chmod a+r DOC*; \
@@ -533,7 +537,7 @@
    then \
        echo "Copying lisp/*.el and lisp/*.elc to $(DESTDIR){lispdir} ..." ;
\
        (cd lisp; tar -chf - *.el *.elc) \
-        |(cd $(DESTDIR){lispdir}; umask 022; tar -xvf - && cat > /dev/null
) || exit 1; \
+        |(cd $(DESTDIR){lispdir}; umask 022; tar -xf - && cat > /dev/null)
|| exit 1; \
        (cd $(DESTDIR){lispdir}; \
        $(set_installuser); \
        find . -exec chown ${installuser} {} ';' ) ; \
diff -r d0c4fde41a48 configure.in
--- a/configure.in      Tue Jul 22 20:55:26 2008 +0000
+++ b/configure.in      Wed Jul 23 16:36:25 2008 +0200
@@ -142,7 +142,7 @@
    OPTION_DEFAULT_ON([xaw3d],[don't use Xaw3d])
    OPTION_DEFAULT_ON([xim],[don't use X11 XIM])
    OPTION_DEFAULT_OFF([carbon],[use Carbon GUI on Mac OS X.  This is unsupported!])
)
-OPTION_DEFAULT_OFF([ns],[use nextstep (Cocoa or GNUstep) windowing system])
+OPTION_DEFAULT_ON([ns],[don't use Cocoa or GNUstep GUI, if available])

    OPTION_DEFAULT_ON([gpm],[don't use -lgpm for mouse support on a GNU/Linux conso
le])
    OPTION_DEFAULT_ON([dbus],[don't compile with D-Bus support])
@@ -151,7 +151,7 @@
## a suitable makeinfo, and can live without the manuals.
dnl http://lists.gnu.org/archive/html/emacs-devel/2008-04/msg01844.html
OPTION_DEFAULT_ON([makeinfo],[don't require makeinfo for building manuals])
-
+
dnl Can remove these in Emacs 24.
AC_ARG_WITH([gtk],,
    AC_MSG_ERROR([--with-gtk has been removed.  Use --with-x-toolkit to
@@ -160,6 +160,12 @@
AC_ARG_WITH([gcc],,

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AC_MSG_ERROR([--with-gcc has been removed.  Set the 'CC' environment
variable to specify a compiler.] , ,)
+
+AC_ARG_ENABLE([ns-app], ,
+ AC_MSG_ERROR([--enable-ns-app has been removed.  Use --enable-app instead.] ,
+ ,)
+
+AC_ARG_ENABLE([carbon-app], ,
+ AC_MSG_ERROR([--enable-carbon-app has been removed.  Use --enable-app instead
.]) , ,)

AC_ARG_WITH([pkg-config-prog], dnl
[AS_HELP_STRING([--with-pkg-config-prog=PATH],
@@ -170,21 +176,25 @@
fi
fi

-AC_ARG_ENABLE(carbon-app,
-[AS_HELP_STRING([--enable-carbon-app@<:=DIR@:>@],
- [specify install directory for Emacs.app on Mac OS X
- [DIR=/Application]])],
-[ carbon_appdir_x=${enableval}])
-
AC_ARG_ENABLE(cocoa-experimental-ctrl-g,
[ --enable-cocoa-experimental-ctrl-g          enable experimental improved ctrl-
g recognition],
EN_COCOA_EXPERIMENTAL_CTRL_G=yes,
EN_COCOA_EXPERIMENTAL_CTRL_G=no)

-AC_ARG_ENABLE(ns-self-contained,
-[ --disable-ns-self-contained          disable self contained build under NS],
- EN_NS_SELF_CONTAINED=no,
- EN_NS_SELF_CONTAINED=yes)
+AC_ARG_ENABLE(app,
+[AS_HELP_STRING([--enable-app@<:=DIR@:>@],
+ [enable application bundle for GNUstep/Mac OS X]),
+ [ if test "x${enableval}" = xyes; then
+   appdir=/Applications
+   elif test "x${enableval}" != xno; then
+   appdir="${enableval}"
+   fi ])
+
+AC_ARG_ENABLE(self-contained-app,
+[AS_HELP_STRING([--disable-self-contained-app],
+ [do not use self contained application bundle]),
+ EN_SELF_CONTAINED=no,
+ EN_SELF_CONTAINED=yes)

AC_ARG_ENABLE(asserts,
[AS_HELP_STRING([--enable-asserts], [compile code with asserts enabled])],
@@ -382,14 +392,6 @@
* )
unported=yes ;;
esac
opsys=darwin
- # Define CPP as follows to make autoconf work correctly.
- CPP="${CC-cc} -E -no-cpp-precomp"
- # Use fink packages if available.
- if test -d /sw/include && test -d /sw/lib; then
-   GCC_TEST_OPTIONS="-I/sw/include -L/sw/lib"
-   CPP="${CPP} ${GCC_TEST_OPTIONS}"
-   NON_GCC_TEST_OPTIONS=${GCC_TEST_OPTIONS}
- fi
;;

## HP 9000 series 700 and 800, running HP/UX
@@ -514,9 +516,7 @@

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machine=intel386
case "${canonical}" in
  *-cygwin )                opsys=cygwin ;;
-   *-darwin* )            opsys=darwin
-                           CPP="${CC-cc} -E -no-cpp-precomp"
-                           ;;
+   *-darwin* )            opsys=darwin ;;
+   *-linux-gnu* )         opsys=gnu-linux ;;
+   *-sysv4.2uw* )         opsys=unixware; NON_GNU_CPP=/lib/cpp ;;
+   *-sysv5uw* )          opsys=unixware; NON_GNU_CPP=/lib/cpp ;;
@@ -625,6 +625,14 @@
  fi
fi

+# Check for an LLVM-based compiler
+AC_MSG_CHECKING(whether we are using an LLVM compiler)
+AC_TRY_LINK([], [
+  #ifndef __llvm__
+  #error no.
+  #endif
+], [ LLVM=yes; AC_MSG_RESULT(yes) ], [ AC_MSG_RESULT(no) ])
+
##### Some systems specify a CPP to use unless we are using GCC.
##### Now that we know whether we are using GCC, we can decide whether
##### to use that one.
@@ -655,18 +663,68 @@
  dnl checks for Unix variants
  AC_USE_SYSTEM_EXTENSIONS

-### Use -Wno-pointer-sign if the compiler supports it
-AC_MSG_CHECKING([whether gcc understands -Wno-pointer-sign])
+### Use -Wno-pointer-sign, etc. if the compiler supports it
+for flag in -Wno-pointer-sign -Wimplicit -Wformat -Wuninitialized; do
+AC_MSG_CHECKING([whether $flag works])
+  SAVE_CFLAGS="$CFLAGS"
- CFLAGS="$CFLAGS -Wno-pointer-sign"
+ CFLAGS="$CFLAGS $flag"
+  AC_TRY_COMPILE([], [], has_option=yes, has_option=no,)
+  if test $has_option = yes; then
-   C_WARNINGS_SWITCH="-Wno-pointer-sign $C_WARNINGS_SWITCH"
+   C_WARNINGS_SWITCH="$flag $C_WARNINGS_SWITCH"
+  fi
+  AC_MSG_RESULT($has_option)
+  CFLAGS="$SAVE_CFLAGS"
+  unset has_option
+  unset SAVE_CFLAGS
+done
+
+AC_MSG_CHECKING([whether to optimize harder])
+AC_ARG_ENABLE(extra-optimizations,
+  [AS_HELP_STRING([--enable-extra-optimizations],
+  [enable risky compiler optimizations])],
+  extra_opts=$enableval, extra_opts=no)
+AC_MSG_RESULT($extra_opts)
+
+# -O, -O2 or -O4
+AC_MSG_CHECKING([for base optimization flag])
+if test x$LLVM = xyes -a x$extra_opts = xyes; then
+  SAVE_CFLAGS="$CFLAGS"
+  CFLAGS="$CFLAGS -O4"
+  AC_LINK_IFELSE([ main () { printf("hello\n"); } ],
+  [C_OPTIMIZE_SWITCH=-O4],
+  [C_OPTIMIZE_SWITCH=-O2])
+  CFLAGS="$SAVE_CFLAGS"
+elif test x$GCC = xyes -o x$NON_GNU_CC != x; then
+  C_OPTIMIZE_SWITCH=-O2

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+else
+  C_OPTIMIZE_SWITCH=-O
+fi
+AC_MSG_RESULT($C_OPTIMIZE_SWITCH)
+
+# Apple disabled these flags; sometimes, they won't work
+if test x$extra_opts = xyes && $CC -v 2>&1 | tail -n 1 | grep -q Apple; then
+  SAVE_CC="$CC"
+  CC="$CC -x objective-c"
+
+# TODO: delay this until _after_ we have checked if carbon or ns is enabled
+  for flag in -ftree-vectorize -fstrict-aliasing -freorder-blocks -fsched-inter
block; do
+    AC_MSG_CHECKING([whether $flag works])
+    SAVE_CFLAGS="$CFLAGS"
+    CFLAGS="$CFLAGS $flag"
+    AC_PREPROC_IFELSE([
+// historically -fstrict-aliasing has been incompatible with Objective-C
+// and/or CoreFoundation (before 10.5, that is)
+#include <Cocoa/Cocoa.h>
+#include <Carbon/Carbon.h>
+    ],
+    [ AC_MSG_RESULT(yes); C_OPTIMIZE_SWITCH="$C_OPTIMIZE_SWITCH $flag" ],
+    [ AC_MSG_RESULT(no); ])
+    CFLAGS="$SAVE_CFLAGS"
+    unset SAVE_CFLAGS
+  done
+
+  CC="$SAVE_CC"
+fi

#### Some other nice autoconf tests.

@@ -816,11 +874,7 @@
#endif

#ifdef C_OPTIMIZE_SWITCH
-#ifdef __GNUC__
-#define C_OPTIMIZE_SWITCH -O2
-#else
-#define C_OPTIMIZE_SWITCH -O
-#endif
+#define C_OPTIMIZE_SWITCH ${C_OPTIMIZE_SWITCH}
#endif

#ifdef C_WARNINGS_SWITCH
@@ -891,6 +945,16 @@

dnl Do this early because it can frob feature test macros for Unix-98 &c.
AC_SYS_LARGEFILE
+
+### Apple GCC 3.1 used a bad form of precompiled headers, newer are fine
+AC_MSG_CHECKING([whether -no-cpp-precomp is needed])
+AC_PREPROC_IFELSE([
+#if defined(__APPLE_CC__) && __APPLE_CC__ < 1500
+#error Apple GCC prior to GCC 3.3!
+#endif
+],
+[ AC_MSG_RESULT(no) ],
+[ AC_MSG_RESULT(yes); CPPFLAGS="$CPPFLAGS -no-cpp-precomp" ])

### The standard library on x86-64 and s390x GNU/Linux distributions can
@@ -1214,10 +1278,31 @@
fi
fi

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+# check for unsupported carbon backend
HAVE_CARBON=no
if test "${with_carbon}" != no; then
  AC_CHECK_HEADER(Carbon/Carbon.h, HAVE_CARBON=yes)
- test "${HAVE_CARBON}" = yes && window_system=mac
+ if test "${HAVE_CARBON}" = yes; then
+   window_system=mac
+   with_ns=no
+   appdir=${srcdir}/src/Emacs.app
+   appbindir=${appdir}/Contents/MacOS
+   appresdir=${appdir}/Contents/Resources
+   appsrc=${srcdir}/mac/Emacs.app
+ fi
+fi
+
+# presedence: (--with-x overrides nextstep)
+if test "${window_system}" = x11; then
+ if test "${with_ns+set}" != set -o "${appdir+set}" != set; then
+   for var in with_x with_x_toolkit; do
+     if eval test \"x\${$var}\" = xyes; then
+       with_ns=no
+       appdir=
+       break
+     fi
+   done
+ fi
+ fi

HAVE_NS=no
@@ -1228,19 +1313,26 @@
CPPFLAGS="$CPPFLAGS -x objective-c"
CFLAGS="$CFLAGS -x objective-c"
if test "${with_ns}" != no; then
- if test "${opsys}" = darwin; then
-   NS_IMPL_COCOA=yes
-   ns_appdir=`pwd`/nextstep/Emacs.app
-   ns_appbindir=`pwd`/nextstep/Emacs.app/Contents/MacOS
-   ns_appresdir=`pwd`/nextstep/Emacs.app/Contents/Resources
-   ns_appsrc=${srcdir}/nextstep/Cocoa/Emacs.base
- elif test -f /etc/GNUstep/GNUstep.conf; then
+ if test "${opsys}" = darwin
+ then
+   AC_CHECK_HEADER(Cocoa/Cocoa.h, NS_IMPL_COCOA=yes)
+ fi
+ if test -f /etc/GNUstep/GNUstep.conf; then
+   # FIXME: do not hardcode GNUstep path, use env. variables instead
+   NS_IMPL_GNUSTEP=yes
-   ns_appdir=`pwd`/nextstep/Emacs.app
-   ns_appbindir=`pwd`/nextstep/Emacs.app
-   ns_appresdir=`pwd`/nextstep/Emacs.app/Resources
-   ns_appsrc=${srcdir}/nextstep/GNUstep/Emacs.base
-   GNUSTEP_MAKEFILES="$(source /etc/GNUstep/GNUstep.conf; echo $GNUSTEP_MAKEFI
ILES)"
+ fi
+
+ if test x${NS_IMPL_COCOA} = xyes; then
+   appdir=${srcdir}/Emacs.app
+   appbindir=${appdir}/Contents/MacOS
+   appresdir=${appdir}/Contents/Resources
+   appsrc=${srcdir}/nextstep/Cocoa/Emacs.base
+ elif test x${NS_IMPL_GNUSTEP} = xyes; then
+   appdir=${srcdir}/Emacs.app
+   appbindir=${appdir}
+   appresdir=${appdir}/Resources
+   appsrc=${srcdir}/nextstep/GNUstep/Emacs.base

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+   GNUSTEP_MAKEFILES="$(source /etc/GNUstep/GNUstep.conf; echo $GNUSTEP_SYSTE
M_MAKEFILES)"
+   GNUSTEP_SYSTEM_HEADERS="$(source /etc/GNUstep/GNUstep.conf; echo $GNUSTEP_
SYSTEM_HEADERS)"
+   GNUSTEP_SYSTEM_LIBRARIES="$(source /etc/GNUstep/GNUstep.conf; echo $GNUSTE
P_SYSTEM_LIBRARIES)"
+   CPPFLAGS="$CPPFLAGS -I${GNUSTEP_SYSTEM_HEADERS}"
@@ -1248,22 +1340,40 @@
+   REAL_CFLAGS="$REAL_CFLAGS -I${GNUSTEP_SYSTEM_HEADERS}"
+   LDFLAGS="$LDFLAGS -L${GNUSTEP_SYSTEM_LIBRARIES}"
+   fi
+
+   AC_CHECK_HEADER(AppKit/AppKit.h, HAVE_NS=yes)
+   fi
+
+   if test "${HAVE_NS}" = yes; then
+     test "${window_system}" = mac && HAVE_CARBON=no
+     window_system=nextstep
+     with_xft=no
+     with_freetype=no
-   # set up packaging dirs
-   exec_prefix=${ns_appbindir}
-   libexecdir=${ns_appbindir}/libexec
-   if test "${EN_NS_SELF_CONTAINED}" = yes; then
-     prefix=${ns_appresdir}
-   fi
+   fi
+   CFLAGS="$tmp_CFLAGS"
+   CPPFLAGS="$tmp_CPPFLAGS"
+
+## check if application bundle should be created
+AC_MSG_CHECKING([whether to install an application bundle])
+if test "x${appdir}" != "x"; then
+  if test "${window_system}" != "nextstep" -a "${window_system}" != "mac"; then
+    AC_MSG_ERROR([ Application bundles are incompatible with
+                  ${window_system} window system!])
+  else
+    AC_MSG_RESULT([yes, ${appdir}])
+  fi
+else
+  AC_MSG_RESULT(no)
+fi
+
+## set up self-contained application bundle
+if test "${window_system}" = mac -o "${window_system}" = nextstep; then
+  if test "${EN_SELF_CONTAINED}" = yes; then
+    prefix=${appresdir}
+    exec_prefix=${appbindir}
+    libexecdir=${appbindir}/libexec
+  fi
+fi
+
+case "${window_system}" in
+  x11 )
@@ -2055,17 +2165,10 @@
+  if test "${HAVE_CARBON}" = "yes"; then
+    AC_DEFINE(HAVE_CARBON, 1, [Define to 1 if you are using the Carbon API on Mac
OS X.])
+    AC_CHECK_HEADERS(AvailabilityMacros.h)
-   ## Specify the install directory
-   carbon_appdir=
-   if test "${carbon_appdir_x}" != ""; then
-     case ${carbon_appdir_x} in
-       y | ye | yes) carbon_appdir=/Applications ;;
-       * ) carbon_appdir=${carbon_appdir_x} ;;
-     esac

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- fi
  # We also have mouse menus.
  HAVE_MENUS=yes
fi
+
### Use NeXTstep API to implement GUI.
if test "${HAVE_NS}" = "yes"; then
  AC_DEFINE(HAVE_NS, 1, [Define to 1 if you are using the NeXTstep API, either
GNUstep or Cocoa on Mac OS X.])
@@ -2476,11 +2579,11 @@
  AC_SUBST(machfile)
  AC_SUBST(opsysfile)
  AC_SUBST(GETLOADAVG_LIBS)
-AC_SUBST(carbon_appdir)
-AC_SUBST(ns_appdir)
-AC_SUBST(ns_appbindir)
-AC_SUBST(ns_appresdir)
-AC_SUBST(ns_appsrc)
+AC_SUBST(window_system)
+AC_SUBST(appdir)
+AC_SUBST(appbindir)
+AC_SUBST(appresdir)
+AC_SUBST(appsrc)
  AC_SUBST(GNUSTEP_MAKEFILES)

  AC_DEFINE_UNQUOTED(EMACS_CONFIGURATION, "${canonical}",
@@ -2576,6 +2679,7 @@
  #define HAVE_WINDOW_SYSTEM
  #define MULTI_KBOARD
  #define HAVE_MOUSE
+#define OTHER_FILES app-bundle
  #endif

  /* Multi-tty support relies on MULTI_KBOARD. It seems safe to turn it
@@ -2647,14 +2751,12 @@
  # define C_SWITCH_X_SYSTEM -MMD -MP -D_REENTRANT -fPIC -fno-strict-aliasing
  # define LD_SWITCH_SITE -lgnustep-gui -lgnustep-base -lobjc $(CONFIG_SYSTEM_LI
BS) -lpthread
  # define GNU_OBJC_CFLAGS -fgnu-runtime -Wno-import -fconstant-string-class=NSC
onstantString -DGNUSTEP_BASE_LIBRARY=1 -DGNU_GUI_LIBRARY=1 -DGNU_RUNTIME=1 -DGSW
ARN -DGSDIAGNOSE
-# define OTHER_FILES ns-app
  # else /* NS_IMPL_COCOA */
  # define C_SWITCH_X_SYSTEM
  # define GNU_OBJC_CFLAGS
  # endif /* NS_IMPL_COCOA */
+# define OTHER_FILES app-bundle
  #endif /* HAVE_NS */
-
-

  /* If no remapping takes place, static variables cannot be dumped as
pure, so don't worry about the 'static' keyword. */
@@ -2860,7 +2962,13 @@
  Should Emacs use mmap(2) for buffer allocation?           $use_mmap_for_buffers
  What window system should Emacs use?                     ${window_system}
  What toolkit should Emacs use?                           ${USE_X_TOOLKIT}"
-
+if test "${window_system}" = mac -o "${window_system}" = nextstep; then
+ if test "x${appdir}" = x; then
+echo " Should we install an Emacs.app bundle?           no"
+ else
+echo " Should we install an Emacs.app bundle?           yes, ${appdir}"
+ fi
+fi
  if test -n "${x_includes}"; then

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echo " Where do we find X Windows header files?                ${x_includes}"
else
@@ -2915,6 +3023,17 @@
The NeXTstep port (--with-ns) is an alternative.
Read the emacs-devel archives for more information."
echo
+ echo "You must run \"make install\" in order to test the built application.
+The installed application will go to nextstep/Emacs.app and can be
+run or moved from there."
+ if test "$EN_SELF_CONTAINED" = "yes"; then
+   echo "The application will be fully self-contained."
+ else
+   echo "The lisp resources for the application will be installed under ${pr
efix}.
+You may need to run \"make install\" with sudo. The application will fail
+to run if these resources are not installed."
+ fi
+ echo
fi

if test "$HAVE_NS" = "yes"; then
@@ -2922,7 +3041,7 @@
echo "You must run \"make install\" in order to test the built application.
The installed application will go to nextstep/Emacs.app and can be
run or moved from there."
- if test "$EN_NS_SELF_CONTAINED" = "yes"; then
+ if test "$EN_SELF_CONTAINED" = "yes"; then
echo "The application will be fully self-contained."
else
echo "The lisp resources for the application will be installed under ${pr
efix}.
diff -r d0c4fde41a48 etc/.cvsignore
--- a/etc/.cvsignore      Tue Jul 22 20:55:26 2008 +0000
+++ b/etc/.cvsignore      Wed Jul 23 16:36:25 2008 +0200
@@ -3,5 +3,6 @@
*.ps
*.log
*.dvi
-DOC DOC-*
+DOC
+DOC-*
*.pyc
\ No newline at end of file
diff -r d0c4fde41a48 leim/Makefile.in
--- a/leim/Makefile.in   Tue Jul 22 20:55:26 2008 +0000
+++ b/leim/Makefile.in   Wed Jul 23 16:36:25 2008 +0200
@@ -33,7 +33,7 @@
datarootdir=@datarootdir@
datadir=@datadir@
srcdir=@srcdir@
-ns_appresdir=@ns_appresdir@
+appresdir=@appresdir@

# Where to install LEIM files.
INSTALLDIR=$(DESTDIR){datadir}/emacs/${version}/leim
@@ -260,8 +260,8 @@
[ -n "${installuser}" ] && break ; \
done ; \
find ${INSTALLDIR} -exec chown ${installuser} '{}' ';'
- if [ "${ns_appresdir}" != "" ]; then \
-   ( cd ${ns_appresdir} ; \
+ if [ "${appresdir}" != "" ]; then \
+   ( cd ${appresdir} ; \
if test -d share/emacs ; then mv -f share/emacs/*/* . ; fi ; \
rm -fr share ) ; \
else true ; fi

```

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diff -r d0c4fde41a48 lisp/shal.el
--- a/lisp/shal.el      Tue Jul 22 20:55:26 2008 +0000
+++ b/lisp/shal.el      Wed Jul 23 16:36:25 2008 +0200
@@ -71,7 +71,9 @@
   :type 'integer
   :group 'shal)

-(defcustom shal-program '("shalsum")
+(defcustom shal-program
+  (if (memq system-type '(gnu gnu/linux))
+      '("shalsum") '("openssl" "shal" "-binary"))
+      "*Name of program to compute SHA1.
+  It must be a string \(\program name\) or list of strings \(\name and its args\).\"
+      :type '(repeat string)
@@ -88,8 +90,12 @@
  (defun shal-string-external (string &optional binary)
    (let (prog args digest)
      (if (consp shal-program)
-        (setq prog (car shal-program)
-                args (cdr shal-program))
+        (if (and (string= (file-name-nondirectory (car shal-program)) "openssl"
+                        )
+                (<= 2 (length shal-program)))
+            (setq prog (car shal-program) (cadr shal-program)
+                    args (caddr shal-program))
+            (setq prog (car shal-program)
+                    args (cdr shal-program)))
        (setq prog shal-program
              args nil))
      (with-temp-buffer
@@ -98,11 +104,14 @@
        (apply (function call-process-region)
              (point-min) (point-max)
              prog t t nil args)
-        ;; SHA1 is 40 bytes long in hexadecimal form.
-        (setq digest (buffer-substring (point-min)(+ (point-min) 40))))
-        (if binary
-            (decode-hex-string digest)
-            digest)))
+        ;; SHA1 is 40 bytes long in hexadecimal form, 20 in binary.
+        (if (memq "-binary" prog)
+            (setq digest (buffer-substring (point-min)(+ (point-min) 20)))
+            (setq digest (buffer-substring (point-min)(+ (point-min) 40))))))
+        (cond
+          ((eq (not binary) (not (memq "-binary" prog))) digest)
+          (binary (encode-hex-string digest))
+          (t (decode-hex-string digest))))))

  (defun shal-region-external (beg end &optional binary)
    (shal-string-external (buffer-substring-no-properties beg end) binary))
diff -r d0c4fde41a48 src/Makefile.in
--- a/src/Makefile.in  Tue Jul 22 20:55:26 2008 +0000
+++ b/src/Makefile.in  Wed Jul 23 16:36:25 2008 +0200
@@ -525,21 +525,21 @@
 #endif

 #ifdef HAVE_CARBON
-mac = ../mac/
+MAC_OBJ = mac.o macterm.o macfns.o macmenu.o macselect.o fontset.o fringe.o ima
+ge.o mactoolbox.o
+emacsapp = $(PWD)/$(mac)Emacs.app/
+emacsappsrc = ${srcdir}/../mac/Emacs.app/
 #endif

 #ifdef HAVE_NS
-ns_appdir=@ns_appdir@/

```

```

-ns_appbindir=@ns_appbindir@/
-ns_appresdir=@ns_appresdir@/
-ns_appsrc=@ns_appsrc@
/* Object files for NeXTstep */
NS_OBJ= nsterm.o nsfns.o nsmenu.o nsselect.o nsimage.o nsfont.o \
fontset.o fringe.o image.o
#endif /* HAVE_NS */
+
+#if defined(HAVE_CARBON) || defined(HAVE_NS)
+appdir=@appdir@/
+appbindir=@appbindir@/
+appresdir=@appresdir@/
+appsrc=@appsrc@
+#endif

#ifdef HAVE_WINDOW_SYSTEM
#ifdef HAVE_X_WINDOWS
@@ -1287,31 +1287,38 @@
mactoolbox.o: blockinput.h atimer.h systime.h macterm.h macgui.h frame.h \
charset.h coding.h ccl.h dispextern.h fontset.h termhooks.h buffer.h \
window.h keyboard.h $(config_h)
#endif

-$(emacsapp)Contents/Resources/English.lproj:
+#if defined(HAVE_NS) || defined(HAVE_CARBON)
+ifneq ($(emacsapp),$(emacsappsrc))
+.PHONY: $(emacsapp) app-bundle app
+
+$(emacsapp): $(emacsappsrc)
+    rm -rf $@
+    mkdir -p $@
+    ( cd $< ; tar cfh - . ) | ( cd $@ ; tar xf - )

-ifneq ($(emacsapp),$(emacsappsrc))
-$(emacsapp)Contents/Info.plist: $(emacsappsrc)Contents/Info.plist
-    cp $< $@
-$(emacsapp)Contents/PkgInfo: $(emacsappsrc)Contents/PkgInfo
-    cp $< $@
-$(emacsapp)Contents/Resources/Emacs.icns: $(emacsappsrc)Contents/Resources/Emacs.icns
-    mkdir -p $(emacsapp)Contents/Resources
-    cp $< $@
-$(emacsapp)Contents/Resources/English.lproj/InfoPlist.strings: $(emacsappsrc)Contents/Resources/English.lproj/InfoPlist.strings
-    cp $< $@
+dnl $(emacsapp)Contents/Resources/English.lproj:
+
+$(emacsbindir)/Emacs: emacs${EXEEXT}
+    mkdir -p $(emacsbindir)
+    cp -Lf $< $@
+
+$(emacsapp)/Contents/%: $(emacsappsrc)/Contents/%
+    mkdir -p $(emacsres)
+    cp -Lp $< $@
+
+$(emacsres)/%: $(emacsappsrc)/Contents/Resources/%
+    mkdir -p $(emacsres)
+    cp -LRp $< $@
+
+app-bundle: $(emacsapp) $(emacsbindir)/Emacs \
+    $(emacsapp)/Contents/Info.plist $(emacsapp)/Contents/PkgInfo \
+    $(emacsres)/Emacs.icns
+
+app: app-bundle
endif
-

```

```

-macosx-bundle: ${emacsapp}Contents/Resources/English.lproj \
-   ${emacsapp}Contents/Info.plist ${emacsapp}Contents/PkgInfo \
-   ${emacsapp}Contents/Resources/Emacs.icns \
-   ${emacsapp}Contents/Resources/English.lproj/InfoPlist.strings
-macosx-app: macosx-bundle ${emacsapp}Contents/MacOS/Emacs
-${emacsapp}Contents/MacOS/Emacs: emacs${EXEEXT}
-   mkdir -p ${emacsapp}Contents/MacOS/;
-   cd ${emacsapp}Contents/MacOS/; cp ../../../../src/emacs${EXEEXT} Emacs${
EXEEXT}
-#endif /* HAVE_CARBON */
+#endif /* HAVE_CARBON || HAVE_NS */

#ifdef HAVE_NS
buffer.o callint.o cmds.o dispnew.o editfns.o fileio.o frame.o \
@@ -1330,23 +1337,22 @@
nsselect.o: nsselect.m blockinput.h nsterm.h nsgui.h frame.h $(config_h)
nsimage.o: nsimage.m nsterm.h
nsfont.o: nsterm.h dispextern.h frame.h lisp.h $(config_h)
+#endif /* HAVE_NS */

-${ns_appdir}: ${ns_appsrc}
-   rm -fr ${ns_appdir}
-   mkdir -p ${ns_appdir}
-   ( cd ${ns_appsrc} ; tar cfh - . ) | ( cd ${ns_appdir} ; tar xf - )
-   ( cd ${ns_appdir} ; for subdir in `find . -type d ! -name CVS -print` ;
do \
+${appdir}: ${appsrc}
+   rm -fr ${appdir}
+   mkdir -p ${appdir}
+   ( cd ${appsrc} ; tar cfh - . ) | ( cd ${appdir} ; tar xf - )
+   ( cd ${appdir} ; for subdir in `find . -type d ! -name CVS -print` ; do
\
                chmod a+rx $$subdir ; \
                rm -rf $$subdir/ CVS ; \
                rm -f $$subdir/.cvsignore ; done ; )

-${ns_appbindir}Emacs: emacs${EXEEXT}
-   mkdir -p ${ns_appbindir}
-   cp -f emacs${EXEEXT} ${ns_appbindir}Emacs
+${appbindir}Emacs: emacs${EXEEXT}
+   mkdir -p ${appbindir}
+   cp -f emacs${EXEEXT} ${appbindir}Emacs

-ns-app: ${ns_appdir} ${ns_appbindir}Emacs
-
-#endif /* HAVE_NS */
+app-bundle: ${appdir} ${appbindir}Emacs

mostlyclean:
rm -f temacs${EXEEXT} prefix-args${EXEEXT} core *.core \#* *.o libXMenu1
1.a liblw.a
@@ -1355,8 +1361,8 @@
rm -f buildobj.lst
clean: mostlyclean
rm -f emacs-*.${EXEEXT} emacs${EXEEXT}
-#ifdef HAVE_NS
-   rm -fr ${ns_appdir}
+#if defined(HAVE_NS) || defined(HAVE_CARBON)
+   rm -fr ${appdir}
+   #ifdef NS_IMPL_GNUSTEP
+       rm -f *.d
+   #endif
diff -r d0c4fde41a48 src/cm.c
--- a/src/cm.c   Tue Jul 22 20:55:26 2008 +0000
+++ b/src/cm.c   Wed Jul 23 16:36:25 2008 +0200
@@ -61,7 +61,7 @@

```

```

int
cputc (c)
-   char c;
+   int c;
{
  if (current_tty->termscript)
    putc (c & 0177, current_tty->termscript);
diff -r d0c4fde41a48 src/config.in
--- a/src/config.in      Tue Jul 22 20:55:26 2008 +0000
+++ b/src/config.in      Wed Jul 23 16:36:26 2008 +0200
@@ -896,20 +896,8 @@
  XPointer or XPointer*. */
  #undef XRegisterIMInstantiateCallback_arg6

-/* Define to 1 if on AIX 3.
-   System headers sometimes define this.
-   We just want to avoid a redefinition error message.  */
-#ifndef _ALL_SOURCE
-# undef _ALL_SOURCE
-#endif
-
-/* Number of bits in a file offset, on hosts where this is settable. */
-#undef _FILE_OFFSET_BITS
-
-/* Enable GNU extensions on systems that have them.  */
-#ifndef _GNU_SOURCE
-# undef _GNU_SOURCE
-#endif

-/* Define to 1 to make fseeko visible on some hosts (e.g. glibc 2.2). */
-#undef _LARGEFILE_SOURCE
@@ -927,16 +915,27 @@
-/* Define to 1 if you need to in order for 'stat' and other things to work. */
-#undef _POSIX_SOURCE

-/* Enable extensions on Solaris.  */
+/* Enable extensions on AIX 3, Interix.  */
+#ifndef _ALL_SOURCE
+# undef _ALL_SOURCE
+#endif
+/* Enable GNU extensions on systems that have them.  */
+#ifndef _GNU_SOURCE
+# undef _GNU_SOURCE
+#endif
+/* Enable threading extensions on Solaris.  */
+#ifndef _POSIX_PTHREAD_SEMANTICS
+# undef _POSIX_PTHREAD_SEMANTICS
+#endif
+/* Enable extensions on HP NonStop.  */
+#ifndef _TANDEM_SOURCE
+# undef _TANDEM_SOURCE
+#endif
+/* Enable general extensions on Solaris.  */
+  #ifndef __EXTENSIONS__
+  # undef __EXTENSIONS__
+  #endif
-#ifndef _POSIX_PTHREAD_SEMANTICS
-# undef _POSIX_PTHREAD_SEMANTICS
-#endif
-#ifndef _TANDEM_SOURCE
-# undef _TANDEM_SOURCE
-#endif
+
+
+/* Define to rpl_ if the getopt replacement functions and variables should be

```

```

    used. */
@@ -984,6 +983,7 @@
    #define HAVE_WINDOW_SYSTEM
    #define MULTI_KBOARD
    #define HAVE_MOUSE
+#define OTHER_FILES app-bundle
    #endif

    /* Multi-tty support relies on MULTI_KBOARD.  It seems safe to turn it
@@ -997,7 +997,7 @@
    #define CANNOT_DUMP
    #endif

-/* TODO: These are used for the Carbon port only. */
+/* PENDING: These are used for the Carbon port only. */
    #undef MAC_OS
    #undef MAC_OSX

@@ -1055,14 +1055,12 @@
    # define C_SWITCH_X_SYSTEM -MMD -MP -D_REENTRANT -fPIC -fno-strict-aliasing
    # define LD_SWITCH_SITE -lgnustep-gui -lgnustep-base -lobjc $(CONFIG_SYSTEM_LI
BS) -lpthread
    # define GNU_OBJS_CFLAGS -fgnu-runtime -Wno-import -fconstant-string-class=NSC
onstantString -DGNUSTEP_BASE_LIBRARY=1 -DGNU_GUI_LIBRARY=1 -DGNU_RUNTIME=1 -DGSW
ARN -DGSDIAGNOSE
-# define OTHER_FILES ns-app
    # else /* NS_IMPL_COCOA */
    # define C_SWITCH_X_SYSTEM
    # define GNU_OBJS_CFLAGS
    # endif /* NS_IMPL_COCOA */
+# define OTHER_FILES app-bundle
    #endif /* HAVE_NS */
-
-

    /* If no remapping takes place, static variables cannot be dumped as
    pure, so don't worry about the 'static' keyword. */
diff -r d0c4fde41a48 src/emacs.c
--- a/src/emacs.c      Tue Jul 22 20:55:26 2008 +0000
+++ b/src/emacs.c      Wed Jul 23 16:36:26 2008 +0200
@@ -49,6 +49,12 @@
    #ifdef NS_IMPL_GNUSTEP
    /* At least under Debian, GSConfig is in a subdirectory.  --Stef */
    #include <GNUstepBase/GSConfig.h>
+#endif
+
+#if defined(NS_IMPL_COCOA) || defined(MAC_OSX)
+#define Cursor Mac_Cursor_not_to_be_used
+#include <ApplicationServices/ApplicationServices.h>
+#undef Cursor
    #endif

    #include "lisp.h"
@@ -1434,6 +1440,16 @@
        display_arg = 4;
    }
    #endif /* HAVE_NS */
+
+#if defined (MAC_OSX) || defined (NS_IMPL_COCOA)
+ // ensure foreground process type, and bring to front
+ if (!noninteractive && !inhibit_window_system)
+ {
+     ProcessSerialNumber psn = { 0, kCurrentProcess };
+     TransformProcessType( &psn, kProcessTransformToForegroundApplication );
+     SetFrontProcess( &psn );
+ }

```

```
+#endif

#ifdef HAVE_X_WINDOWS
  /* Stupid kludge to catch command-line display spec.  We can't
diff -r d0c4fde41a48 src/keyboard.c
--- a/src/keyboard.c      Tue Jul 22 20:55:26 2008 +0000
+++ b/src/keyboard.c      Wed Jul 23 16:36:27 2008 +0200
@@ -1317,9 +1317,9 @@
     Vsignaling_function = Qnil;
  }
```

```

-Lisp_Object command_loop_1 ();
-Lisp_Object command_loop_2 ();
-Lisp_Object top_level_1 ();
+Lisp_Object command_loop_1 (Lisp_Object);
+Lisp_Object command_loop_2 (Lisp_Object);
+Lisp_Object top_level_1 (Lisp_Object);

/* Entry to editor-command-loop.
   This level has the catches for exiting/returning to editor command loop.
@@ -1361,8 +1361,9 @@
   returned due to end of file (or end of kbd macro). */

Lisp_Object
-command_loop_2 ()
- {
+command_loop_2 (Lisp_Object ignored)
+ {
+   (void)ignored;
+   register Lisp_Object val;

do
@@ -1379,8 +1380,10 @@
}

Lisp_Object
-top_level_1 ()
- {
+top_level_1 (Lisp_Object ignored)
+ {
+   (void)ignored;
+
+   /* On entry to the outer level, run the startup file */
+   if (!NILP (Vtop_level))
+     internal_condition_case (top_level_2, Qerror, cmd_error);
@@ -1529,8 +1532,9 @@
#endif

Lisp_Object
-command_loop_1 ()
- {
+command_loop_1 (Lisp_Object ignored)
+ {
+   (void)ignored;
+   Lisp_Object cmd;
+   int lose;
+   int nonundocount;
diff -r d0c4fde41a48 src/lisp.h
--- a/src/lisp.h      Tue Jul 22 20:55:26 2008 +0000
+++ b/src/lisp.h      Wed Jul 23 16:36:27 2008 +0200
@@ -3036,7 +3036,7 @@
extern int detect_input_pending_run_timers P_ ((int));
extern void safe_run_hooks P_ ((Lisp_Object));
extern void cmd_error_internal P_ ((Lisp_Object, char *));
-extern Lisp_Object command_loop_1 P_ ((void));
+extern Lisp_Object command_loop_1 P_ ((Lisp_Object));
extern Lisp_Object recursive_edit_1 P_ ((void));
extern void record_auto_save P_ ((void));
extern void init_keyboard P_ ((void));
diff -r d0c4fde41a48 src/macros.c
--- a/src/macros.c    Tue Jul 22 20:55:26 2008 +0000
+++ b/src/macros.c    Wed Jul 23 16:36:27 2008 +0200
@@ -348,7 +348,7 @@
break;
}

-   command_loop_1 ();

```

```

+   command_loop_1 (NULL);

   executing_kbd_macro_iterations = ++success_count;

diff -r d0c4fde41a48 src/nsfns.m
--- a/src/nsfns.m      Tue Jul 22 20:55:26 2008 +0000
+++ b/src/nsfns.m      Wed Jul 23 16:36:27 2008 +0200
@@ -281,7 +281,7 @@
----- *
/
{
  int i, count;
- id<NSMenuItem> item;
+ NSMenuItem *item;
  const char *name;
  Lisp_Object nameStr;
  unsigned short key;
@@ -1773,7 +1773,7 @@
   Lisp_Object display;
  {
    check_ns ();
-#ifdef NS_IMPL_COCOA
+#if defined(NS_IMPL_COCOA) && !defined(_DARWIN_FEATURE_UNIX_CONFORMANCE)
  PFlush ();
  #endif
  /*ns_delete_terminal (dpyinfo->terminal); */
@@ -2160,15 +2160,6 @@
  {
    return FRAME_NS_DISPLAY_INFO (f)->n_planes;
  }
-
-
-void
-x_sync (Lisp_Object frame)
- {
-   /* XXX Not implemented XXX */
-   return;
- }
-

  /* =====
@@ -2294,12 +2285,12 @@
   if (ns_lisp_to_color (color, &col))
     return Qnil;

-   [[col colorUsingColorSpaceName: NSCalibratedRGBColorSpace]
-    getRed: &red green: &green blue: &blue alpha: &alpha];
-   rgba[0] = make_number (lrint (red*65280));
-   rgba[1] = make_number (lrint (green*65280));
-   rgba[2] = make_number (lrint (blue*65280));
-   rgba[3] = make_number (lrint (alpha*65280));
+   col = [col colorUsingColorSpaceName: NSCalibratedRGBColorSpace];
+
+   rgba[0] = make_number (lrint ([col redComponent]*65280));
+   rgba[1] = make_number (lrint ([col greenComponent]*65280));
+   rgba[2] = make_number (lrint ([col blueComponent]*65280));
+   rgba[3] = make_number (lrint ([col alphaComponent]*65280));

   return Flist (4, rgba);
}
diff -r d0c4fde41a48 src/nsfont.m
--- a/src/nsfont.m     Tue Jul 22 20:55:26 2008 +0000
+++ b/src/nsfont.m     Wed Jul 23 16:36:28 2008 +0200
@@ -63,13 +63,22 @@

```

```

/* Replace spaces w/another character so emacs core font parsing routines
   aren't thrown off. */
-static void
-nsfont_escape_name (char *name)
+static Lisp_Object
+ns_make_string (const NSString *name, const BOOL escaped)
{
- int i =0, len =strlen (name);
- for ( ; i<len; i++)
-   if (name[i] == ' ')
-     name[i] = '_';
+ unsigned len = [name length];
+ unsigned size = [name lengthOfBytesUsingEncoding: NSUTF8StringEncoding];
+ Lisp_Object string = make_string_from_bytes( [name UTF8String ], len, size );
+ unsigned char *p = SDATA (string);
+ int l;
+
+ while (escaped && p < SDATA(string) + size) {
+   if (string_char(p, nil, &l) == ' ')
+     char_string('_', p);
+   p += l;
+ }
+
+ return string;
}

@@ -150,15 +159,14 @@
unsigned int traits = [[famMember objectAtIndex: 3] unsignedIntValue];
/* NSString *psName = [famMember objectAtIndex: 0]; */
NSMutableString *suffix = [[famMember objectAtIndex: 1] mutableCopy];
- char *escapedFamily = strdup ([family UTF8String]);

- nsfont_escape_name (escapedFamily);
[suffix replaceOccurrencesOfString: @" " withString: @" " options: 0
                          range: NSRange (0, [suffix length])];

ASET (font_entity, FONT_TYPE_INDEX, Qns);
ASET (font_entity, FONT_FOUNDRY_INDEX, Qapple);
- ASET (font_entity, FONT_FAMILY_INDEX, intern (escapedFamily));
+ ASET (font_entity, FONT_FAMILY_INDEX,
+       Fintern ( ns_make_string (family, YES), Qnil ) );
ASET (font_entity, FONT_ADSTYLE_INDEX, intern ([suffix UTF8String]));
ASET (font_entity, FONT_REGISTRY_INDEX, Qisol10646_1);

@@ -181,7 +189,6 @@
}

[suffix release];
- free (escapedFamily);
return font_entity;
}

@@ -462,13 +469,20 @@
return list;
}

-
/* utility: get width of a char c in screen font sfont */
-static float
+float
nsfont_char_width (NSFont *sfont, int c)
{
+ NSString *cstr = [NSString stringWithFormat::@"%c", c];
+ return nsfont_string_width (sfont, cstr);
+}

```

```

+
+
+/* utility: get width of a string cstr in screen font sfont */
+float
+nsfont_string_width (NSFont *sfont, NSString *cstr)
+{
+    float w;
-    NSString *cstr = [NSString stringWithFormat::@"%c", c];
#ifdef NS_IMPL_COCOA
    NSGlyph glyph = [sfont glyphWithName: cstr];
    if (glyph)
@@ -477,8 +491,15 @@
        if (w >= 1.5)
            return w;
    }
+    else
+    {
+        NSDictionary *attrs =
+            [NSDictionary dictionaryWithObject:sfont forKey:NSFontAttributeName];
+        w = [cstr sizeWithAttributes:attrs].width;
+    }
+#else
+    w = [sfont widthOfString: cstr];
#endif
-    w = [sfont widthOfString: cstr];
    return max (w, 2.0);
}

@@ -540,7 +561,7 @@
    family = nsfont_get_family (font_entity);
    if (NSFONT_TRACE)
    {
-        fprintf (stderr, "family: '%s'\ttraits = %ld\tbold = %d\n",
+        fprintf (stderr, "family: '%s'\ttraits = %d\tbold = %d\n",
                [family UTF8String], traits, traits & NSBoldFontMask);
    }

@@ -597,9 +618,9 @@
}
#endif

-    font_info->glyphs = (unsigned short *)
+    font_info->glyphs = (unsigned short **)
+        xmalloc (0x100 * sizeof (unsigned short *));
-    font_info->metrics = (struct font_metrics *)
+    font_info->metrics = (struct font_metrics **)
+        xmalloc (0x100 * sizeof (struct font_metrics *));
    if (!font_info->glyphs || !font_info->metrics)
        return Qnil;
@@ -723,7 +744,7 @@
    /* set up metrics portion of font struct */
    font->ascent = [sfont ascender];
    font->descent = -[sfont descender];
-    font->min_width = [sfont widthOfString: @"|"]; /* FIXME */
+    font->min_width = lrint (nsfont_char_width (sfont, '|'));
+    font->space_width = lrint (nsfont_char_width (sfont, ' '));
    font->average_width = lrint (font_info->width);
    font->max_width = lrint (font_info->max_bounds.width);
@@ -984,7 +1005,7 @@
    /* set up for character rendering */
    r.origin.y += font->voffset + (s->height - font->height)/2;

-    col = (NS_FACE_FOREGROUND (face) != nil
+    col = (NS_FACE_FOREGROUND (face) != 0
            ? ns_lookup_indexed_color (NS_FACE_FOREGROUND (face), s->f)
            : FRAME_FOREGROUND_COLOR (s->f));

```

```

/* FIXME: find another way to pass this */
@@ -1077,7 +1098,7 @@

    if (face->underline_p)
        {
-         if (face->underline_color != nil)
+         if (face->underline_color != 0)
            [ns_lookup_indexed_color (face->underline_color, s->f) set];
        else
            [col set];
@@ -1087,7 +1108,7 @@
        CGContextAddLineToPoint (gcontext, r.origin.x + r.size.width,
                                r.origin.y + font->underpos);
        CGContextStrokePath (gcontext);
-         if (face->underline_color != nil)
+         if (face->underline_color != 0)
            [col set];
        }
    else
@@ -1227,19 +1248,15 @@

        if (cfont != nil)
            {
-             char *family = strdup([[cfont familyName] UTF8String]);
-             Lisp_Object famAndReg;
-
-             nsfont_escape_name (family);
-             famAndReg = Fcons (build_string (family), regString);
+             Lisp_Object family = ns_make_string ( [cfont familyName], YES );
+             Lisp_Object famAndReg = Fcons (family, regString);

                if (NSFONT_TRACE)
                    fprintf (stderr, "%s fontset: use '%s' for script '%s'\n",
-                             font_info->name, family,
+                             font_info->name, SDATA (family),
                                SDATA (SYMBOL_NAME (scripts[i])));

                    Fset_fontset_font (name, scripts[i], famAndReg, Qnil, Qnil);
-                 free (family);
            }
        else
            {
diff -r d0c4fde41a48 src/nsgui.h
--- a/src/nsgui.h      Tue Jul 22 20:55:26 2008 +0000
+++ b/src/nsgui.h      Wed Jul 23 16:36:28 2008 +0200
@@ -138,7 +138,7 @@
    typedef struct _NSRect { NSPoint origin; NSSize size; } NSRect;
    #endif

-#define NativeRectangle struct _NSRect
+#define NativeRectangle NSRect

    #define CONVERT_TO_XRECT(xr, nr) \
        ((xr).x = (nr).origin.x, \
diff -r d0c4fde41a48 src/nsmenu.m
--- a/src/nsmenu.m    Tue Jul 22 20:55:26 2008 +0000
+++ b/src/nsmenu.m    Wed Jul 23 16:36:28 2008 +0200
@@ -1409,7 +1409,8 @@
    {
        NSString *str = [NSString stringWithUTF8String: text];
        NSRect r = [textField frame];
-        r.size.width = [[[textField font] screenFont] widthOfString: str] + 8;
+        r.size.width = 8 +
+        nsfont_string_width([[textField font] screenFont], str);
        [textField setFrame: r];
        [textField setStringValue: str];
    }

```

```

}
diff -r d0c4fde41a48 src/nsselect.m
--- a/src/nsselect.m      Tue Jul 22 20:55:26 2008 +0000
+++ b/src/nsselect.m      Wed Jul 23 16:36:28 2008 +0200
@@ -344,8 +344,10 @@
        options: NSLiteralSearch range: NSMakeRange (0, [mstr length]);

        utfStr = [mstr UTF8String];
+#ifndef NS_IMPL_COCOA
        if (!utfStr)
            utfStr = [mstr cString];
+#endif
    }
    NS_HANDLER
    {
diff -r d0c4fde41a48 src/nsterm.h
--- a/src/nsterm.h      Tue Jul 22 20:55:26 2008 +0000
+++ b/src/nsterm.h      Wed Jul 23 16:36:28 2008 +0200
@@ -38,8 +38,25 @@
    }
    - (void)sendEvent: (NSEvent *)theEvent;
    - (void)showPreferencesWindow: (id)sender;
+
+- (void)logNotification: (NSNotification *)notification;
+- (BOOL)openFile: (NSString *)fileName;
+
+
+- (BOOL)fulfillService: (NSString *)name withArg: (NSString *)arg;
+- (void)requestService: (NSPasteboard *)pboard
+         userData: (NSString *)userData
+         error: (NSString **)error;
    @end

+@interface NSApplication (EmacsApp)
+/* Apple removed the declaration, but kept the implementation */
+#if defined (NS_IMPL_COCOA) && MAC_OS_X_VERSION_MIN_REQUIRED >= MAC_OS_X_VERSION_10_4
+- (void)setAppleMenu: (NSMenu *)menu;
+#endif
+
++ (EmacsApp *)sharedApplication;
+@end

    /* =====

@@ -77,6 +94,9 @@
    - (void) setWindowClosing: (BOOL)closing;
    - (EmacsToolbar *) toolbar;
    - (void) deleteWorkingText;
+
+/* utility */
+- (long)conversationIdentifier;
    @end

@@ -350,13 +370,6 @@

    extern NSArray *ns_send_types, *ns_return_types;
    extern EmacsMenu *mainMenu, *svcsMenu;
-
-/* Apple removed the declaration, but kept the implementation */
-#if defined (NS_IMPL_COCOA) && MAC_OS_X_VERSION_MIN_REQUIRED >= MAC_OS_X_VERSION_10_4
-@interface NSApplication (EmacsApp)
-- (void)setAppleMenu: (NSMenu *)menu;
-@end

```

```

-#endif

#endif /* __OBJC__ */

@@ -528,6 +541,9 @@
    struct frame *x_highlight_frame;
    struct frame *x_focus_frame;
};
+
+// no-op
+#define x_sync(x) ((void)NULL)

/* This is a chain of structures for all the NS displays currently in use. */
extern struct ns_display_info *x_display_list;
@@ -717,6 +733,12 @@
extern void nsfont_make_fontset_for_font (Lisp_Object name,
                                           Lisp_Object font_object);

+/* In nsfont, called from nsterm.m */
+#ifdef __OBJC__
+extern float nsfont_char_width(NSFont *sfont, int c);
+extern float nsfont_string_width(NSFont *sfont, NSString *str);
+#endif
+
+/* In nsfont, for debugging */
+struct glyph_string;
+void dump_glyphstring (struct glyph_string *s);
@@ -751,6 +773,7 @@
#ifdef __OBJC__
extern Lisp_Object ns_color_to_lisp (NSColor *col);
extern int ns_lisp_to_color (Lisp_Object color, NSColor **col);
+extern Lisp_Object ns_color_to_lisp (NSColor *col);
extern NSColor *ns_lookup_indexed_color (unsigned long idx, struct frame *f);
extern unsigned long ns_index_color (NSColor *color, struct frame *f);
extern void ns_free_indexed_color (unsigned long idx, struct frame *f);
@@ -765,6 +788,7 @@
/* in nsmenu */
extern void update_frame_tool_bar (FRAME_PTR f);
extern void free_frame_tool_bar (FRAME_PTR f);
+extern void free_frame_menubar P_ ((struct frame *));
extern void find_and_call_menu_selection (FRAME_PTR f,
                                           EMACS_INT menu_bar_items_used, Lisp_Object vector, void *client_data);
extern Lisp_Object find_and_return_menu_selection (FRAME_PTR f,
@@ -823,5 +847,11 @@

#endif /* HAVE_NS */

+/*
+ Local Variables:
+ mode: objc
+ End:
+*/
+
+/* arch-tag: 0a28b142-4ac1-4a81-a243-abcd82d9c4e5
+ (do not change this comment) */
diff -r d0c4fde41a48 src/nsterm.m
--- a/src/nsterm.m      Tue Jul 22 20:55:26 2008 +0000
+++ b/src/nsterm.m      Wed Jul 23 16:36:28 2008 +0200
@@ -58,7 +58,6 @@
    #else
    #define NSTRACE(x)
    #endif
-
-
+/* =====

```

```

@@ -1548,13 +1547,13 @@
    {
      [[col colorUsingColorSpaceName: NSCalibratedWhiteColorSpace]
        getWhite: &gray alpha: &alpha];
-     snprintf (buf, sizeof (buf), "GRAY%02.2lx%02.2lx",
+     snprintf (buf, sizeof (buf), "GRAY%2.2lx%2.2lx",
        lrint (gray * 0xff), lrint (alpha * 0xff));
      UNBLOCK_INPUT;
      return build_string (buf);
    }

-     snprintf (buf, sizeof (buf), "ARGB%02.2lx%02.2lx%02.2lx%02.2lx",
+     snprintf (buf, sizeof (buf), "ARGB%2.2lx%2.2lx%2.2lx%2.2lx",
        lrint (alpha*0xff),
        lrint (red*0xff), lrint (green*0xff), lrint (blue*0xff));

@@ -2217,7 +2216,7 @@
    row->visible_height = oldVH;
  }
  else
-   ns_clip_to_row (w, row, -1, YES);
+   ns_clip_to_row (w, row, -1, (void *)YES);

  if (p->bx >= 0 && !p->overlay_p)
  {
@@ -2941,8 +2940,8 @@
        (s->for_overlaps ? NS_DUMPGLYPH_FOREGROUND :
         NS_DUMPGLYPH_NORMAL));
    ns_tmp_font = (struct nsfont_info *)s->face->font;
-   if (ns_tmp_font == ~0 || ns_tmp_font == NULL)
-     ns_tmp_font = FRAME_FONT (s->f);
+   if (ns_tmp_font == (void *)~0 || ns_tmp_font == NULL)
+     ns_tmp_font = (struct nsfont_info *)FRAME_FONT (s->f);

    ns_tmp_font->font.driver->draw
      (s, 0, s->nchars, s->x, s->y,
@@ -3038,6 +3037,7 @@
  23: Now we have to manage the event buffer ourselves.
  ----- *
/
{
+ EmacsApp *app = (id)NSApp;
  struct input_event ev;
  int nevents;
  static NSDate *lastCheck = nil;
@@ -3070,14 +3070,14 @@

  /* If have pending open-file requests, attend to the next one of those. */
  if (ns_pending_files && [ns_pending_files count] != 0
-     && [NSApp openFile: [ns_pending_files objectAtIndex: 0]])
+     && [app openFile: [ns_pending_files objectAtIndex: 0]])
  {
    [ns_pending_files removeObjectAtIndex: 0];
  }
  /* Deal with pending service requests. */
  else if (ns_pending_service_names && [ns_pending_service_names count] != 0
-     && [NSApp fulfillService: [ns_pending_service_names objectAtIndex: 0]
-       withArg: [ns_pending_service_args objectAtIndex: 0]])
+     && [app fulfillService: [ns_pending_service_names objectAtIndex: 0]
+       withArg: [ns_pending_service_args objectAtIndex: 0]])
  {
    [ns_pending_service_names removeObjectAtIndex: 0];
    [ns_pending_service_args removeObjectAtIndex: 0];
@@ -3874,7 +3874,7 @@
#ifdef NS_IMPL_COCOA
  {

```

```

    NSMenu *appMenu;
-   id<NSMenuItem> item;
+   NSMenuItem *item;
    /* set up the application menu */
    svcsMenu = [[EmacsMenu alloc] initWithTitle: @"Services"];
    [svcsMenu setAutoenablesItems: NO];
@@ -4129,7 +4129,7 @@
    NSString *file;
    while ((file = [files nextObject]) != nil)
        [ns_pending_files addObject: file];
-   return YES;
+   return;
}

/* TODO: these may help w/IO switching btwn terminal and NSApp */
@@ -4158,8 +4158,6 @@
    /*NSTRACE (timeout_handler); */
    ns_send_appdefined (-2);
}
-
-extern void update_window_cursor (struct window *w, int on);

- (void)cursor_blink_handler: (NSTimer *)cursorEntry
/* -----
@@ -4181,8 +4179,8 @@
    {
        f->output_data.ns->desired_cursor = no_highlight;
    }
-   update_window_cursor (XWINDOW (FRAME_SELECTED_WINDOW (f)), 1);
-   /*x_update_cursor (f, 1); */
+   x_update_cursor (f, 1);
}

@@ -4246,7 +4244,6 @@
    return YES;
}
-
@end /* EmacsApp */

@@ -4358,7 +4355,7 @@
    NSView most recently updated (I guess), which is not the correct one.
    UPDATE: After multi-TTY merge this happens even w/o NO_SOCKET_SIGIO */
    if ([[theEvent window] isKindOfClass: [EmacsWindow class]])
-       [[(EmacsView *)[theEvent window] delegate] keyDown: theEvent];
+       [(EmacsView *)[[theEvent window] delegate] keyDown: theEvent];
    return;
}
/*#endif */
@@ -6353,7 +6350,7 @@
    char *slantStr = [mgr fontNamed: sname hasTraits: NSItalicFontMask] ?
        "i" : "r";
    int size = [nsfont pointSize];
-   int aWidth = lrint (10.0 * [nsfont widthOfString: @"a"]);
+   int aWidth = lrint (10.0 * nsfont_char_width(nsfont, 'a'));
    const char *xlfid;
    int i, len;

diff -r d0c4fde41a48 src/s/darwin.h
--- a/src/s/darwin.h      Tue Jul 22 20:55:26 2008 +0000
+++ b/src/s/darwin.h      Wed Jul 23 16:36:28 2008 +0200
@@ -174,8 +174,6 @@

```

```
/* Link in the Carbon or AppKit lib. */
#ifdef HAVE_NS
-/* PENDING: can this target be specified in a clearer way? */
-#define OTHER_FILES ns-app
/* XXX: lresolv is here because configure when testing #undefs res_init,
   a macro in /usr/include/resolv.h for res_9_init, not in stdc lib. */
#define LIBS_MACGUI -framework AppKit -lresolv
@@ -184,11 +182,8 @@
#else /* !HAVE_NS */
#define HEADERPAD_EXTRA 690

-/* This is for the Carbon port. Under the NeXTstep port, this is still picked
- up during preprocessing, but is undone in config.in. */
+#ifdef HAVE_CARBON
#define C_SWITCH_SYSTEM -fpascal-strings -DMAC_OSX
-
-#ifdef HAVE_CARBON

/* We need a little extra space, see ../../lisp/loadup.el. */
#define SYSTEM_PURESIZE_EXTRA 30000
@@ -199,9 +194,6 @@
#ifdef HAVE_AVAILABILITYMACROS_H
#include <AvailabilityMacros.h>
#endif
-/* Tell src/Makefile.in to create files in the Mac OS X application
- bundle mac/Emacs.app. */
-#define OTHER_FILES macosx-app

/* Whether to use the Image I/O framework for reading images. */
#ifdef USE_MAC_IMAGE_IO
```