MacTcl/TkAqua BOF Tips & Tricks

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Daniel A. Steffen
das@users.sf.net

Possible Topics

- Application bundles, single file executables

- Info.plist

- Universal binaries, MachO binaries, codesign/thinning issues

- Deployment target, weak linking, SDKs

- CoreFoundation notifier, CFRunLoop

- Xcode projects for Tcl & Tk

- TclTkAquaBI

TkAqua Topics

- System colors, system fonts

- Ttk frames

- `::tk::unsupported::MacWindowStyle style`

- `wm attributes`

- `wm overrideredirect, wm transient`

Application Bundles

- .app directory structure

  - Info.plist, Icon

- embbedded libraries

  - `@executable_path/../Frameworks`

  - `install_name_tool`

- embedded scripts/resources

- single file executables

  - `-sectcreate __TEXT __tk_rsrc Tk.rsrc`

Info.plist

- Bundle identifier

- Icon, Display name

- Localizations

- Document Types

- Min OS Version

- single file executables:

  - `-sectcreate __TEXT __info_plist Info.plist`

Universal MachO binaries

- Universal binaries:

  - multiple `-arch` options: `CFLAGS='-arch i386 -arch x86_64 -arch ppc -arch ppc64'`

  - configure overrides

  - or use lipo

- *kits, codesign/thinning issues

  - tcl as arch: build universal MachO binary in pure tcl

  - `-sectcreate __TEXT __tcl` ?

Deployment Target

- `MACOSX_DEPLOYMENT_TARGET`

- `-mmacosx-version-min=`

- Default changed in Leopard

- `-DMAC_OS_X_VERSION_MIN_REQUIRED`

- `-DMAC_OS_X_VERSION_MAX_ALLOWED`

- `__attribute__((weak_import))`

- `-isysroot /Developer/SDKs/MacOSX10.4u.sdk`

CoreFoundation Notifier

- `--enable-corefoundation`

  - required for TkAqua

- always uses notifier thread

  - atfork handlers

- Custom runloop sources, observers

- Cocoa embedding

  - upcoming CF notifier changes

Xcode projects

- tcl/macosx/README, tk/macosx/README

- Tcl.xcode, Wish.xcode for Xcode 2.4/2.5 on 10.4/10.5

- Tcl.xcodeproj, Wish.xcodeproj for Xcode 3.1 on 10.5

- Targets

  - Tcl, tcltest, tests

  - Tk, tktest, tktest-X11

- Configurations

System Colors

- colors.n

  - `systemDialogBackgroundActive`

- patterns not colors

- Appearance.h

- `systemTransparent`

- Ttk frames

- `button -highlightbackground`

System Fonts

- named fonts

- font.n

  - `systemSmallSystemFont`

- Appearance.h

MacWindowStyle

- `::tk::unsupported::MacWindowStyle style`

- document {standardDocument inWindowMenu liveResize}

  - utility {closeBox sideTitlebar}

- MacWindows.h

- ideally set before window creation

TkAqua wm attributes

- -alpha

- -fullscreen

- -modified

- -notify

- -titlepath

- -topmost

- -transparent

overrideredirect, transient

- `wm overrideredirect`

  - simple window class, no activates

  - set before window creation

- `wm transient`

  - parent becomes window group owner

  - no window class changes

  - wm attr -topmost if also overrideredirect

Thanks

http://categorifiedcoder.info/