

OBJECTIVE-C FOUNDATION CLASSES

REFERENCE CARD

Part 3: Wrappers

DatExit

Methods

+ add :(id) obj..... Add object to be freed during exit
+ remove :(id) obj Remove object from being freed during exit

DCRC32

Methods

- init..... Init to start crc
- init :(char *) cstring..... Init and update with cstring
- init :(uchar *) data :(ulong) length
 | Init and update with data
- update :(char *) cstring..... Calculate crc on cstring
- update :(uchar *) data :(ulong) length
 | Calculate crc on data
- (unsigned long) crc32..... Return the crc32 value

DDbm

Methods

- init..... Init without database
- init :(char *) name :(char *) mode.... Init with database
- free..... Close database and free object
- (BOOL) isOpen..... Check for open database
- (BOOL) isReadOnly..... Check for read only database
- (int) error..... Return last error
- (BOOL) open :(char *) name :(char *) mode Open database
- (BOOL) insert :(void*) key :(uint) klen :(void*) data
 |:(uint) dlen.... Insert (with replace) the data for the key
- (DData *) get :(void*) key :(uint) klen
 | Fetch data for key
- (BOOL) has :(void *) key :(uint) klen.... Check for key
- (BOOL) delete :(void *) key :(uint) klen.... Delete key
- (BOOL) reorganize..... Reorganize the database
- (DDbm *) close..... Close the database
- (DList *) keys..... Return list with all keys in database
- (DList *) objects..... Return list with all data in database

DDirectory

Classmethods

+ (BOOL) isDriveSeparator :(char) ch
 | Check for drive separator
+ (BOOL) isPathSeparator :(char) ch
 | Check for path separator
+ (BOOL) create :(char *) path..... Create directory
+ (BOOL) move :(char *) path :(char *) newPath
 | Move/Rename directory
+ (BOOL) delete :(char *) path..... Delete directory
+ (DDirectory *) current..... Return current working dir
+ (BOOL) current :(char *) path..... Set current dir
+ (DDirectory *) temp..... Return temp directory
+ (BOOL) exist :(char *) path..... Check if dir exists
+ (DList *) childs :(char *) path :(id) filter
 | Return names in directory
+ (int) error..... Return last error

Objectmethods

- init..... Init empty directory
- init :(char *) path..... Init with directory
- deepen..... Deepen copied object
- (BOOL) isAbsolute..... Check for absolute path
- (BOOL) isEmpty..... Check for empty path
- (char) drive..... Return drive letter or EOS
- path :(char *) path..... Set directory path
- (char *) path..... Get directory path
- (char *) name..... Get last directory name
- child :(char *) name..... Add subdirectory
- (BOOL) parent..... Move to parent directory
- (DList *) names..... Split path in list of names
- names :(DList *) names..... Build path from names

DBZipFile

Methods

- init..... Init to empty file object
- init :(char *) name :(char *) mode..... Open bz2 file
- init :(char *) name :(char *) mode :(int) small
 | Open bz2 file with memory usage indication
- free..... Free the object (close the file)
- (int) error..... Return the last error
- (BOOL) isOpen..... Check for open file
- (BOOL) open :(char *) name :(char *) mode.. Open bz2 file
- open :(char *) name :(char *) mode :(int) small
 | Open bz2 file with memory usage indication
- (BOOL) isEof..... Check for end-of-file
- (char) readChar..... Read a character

- (DText *) readLine..... Read a line
- (DText *) readText..... Read all text
- (DText *) readText :(long) len..... Read len text
- (BOOL) writeChar :(char) ch..... Write character
- (BOOL) writeLine :(char *) text..... Write line
- (BOOL) writeText :(char *) text..... Write text
- (uchar) readByte..... Read a byte
- (DData *) readData :(ulong) length
 | Read a data string
- (double) readDouble..... Read a double
- (long) readLong..... Read a long
- (short) readShort..... Read a short
- (BOOL) writeByte :(uchar) byte..... Write a byte
- (BOOL) writeData :(uchar *) text :(ulong) length
 | Write a data string
- (BOOL) writeDouble :(double) nr..... Write a double
- (BOOL) writeLong :(long) nr..... Write a long
- (BOOL) writeShort :(short) nr..... Write a short
- (DList *) readLines..... Read all lines in a list
- (BOOL) writeLines :(DList *) list..... Write list to file
- close..... Close the file

DGZipFile

Constants

DGZ_SEEK_SET..... Seek from start of file
DGZ_SEEK_CUR..... Seek from current position
DGZ_DEFAULT..... Default strategy
DGZ_FILTERED..... Filtered data strategy
DGZ_HUFFMAN..... Huffman compression strategy

Methods

- init..... Init to empty file object
- init :(char *) name :(char *) mode..... Open file
- init :(char *) name :(char *) mode :(int) level
 |:(int) strategy..... Open file with level and strategy
- free..... Free the object (close the file)
- (int) error..... Return the last error
- (BOOL) isOpen..... Check for open file
- (BOOL) open :(char *) name :(char *) mode.... Open file
- open :(char *) name :(char *) mode :(int) level
 |:(int) strategy..... Open file with level and strategy
- (BOOL) isEof..... Check for end-of-file
- (char) readChar..... Read a character
- (DText *) readLine..... Read a line
- (DText *) readText..... Read all text

- (DText *) readText :(long) len Read len text
- (BOOL) seek :(ulong) off :(int) org Move position
- (BOOL) skip :(ulong) off Skip forward
- (unsigned long) tell Return current position
- (BOOL) writeChar :(char) ch Write character
- (BOOL) writeLine :(char *) text Write line
- (BOOL) writeText :(char *) text Write text
- (uchar) readByte Read a byte
- (DData *) readData :(ulong) length
 - └ Read a data string
- (double) readDouble Read a double
- (long) readLong Read a long
- (short) readShort Read a short
- (BOOL) writeByte :(uchar) byte Write a byte
- (BOOL) writeData :(uchar *) text :(ulong) length
 - └ Write a data string
- (BOOL) writeDouble :(double) nr Write a double
- (BOOL) writeLong :(long) nr Write a long
- (BOOL) writeShort :(short) nr Write a short
- (DList *) readLines Read all lines in a list
- (BOOL) writeLines :(DList *) list Write list to file
- (BOOL) flush Flush the output buffers
- close Close the file

DInet6SocketAddress

Constants

DSA_AF_INET6 Inet6 socket family (IPv6)

Methods

- init Init empty inet socket address
- init :(ulong) a1 :(ulong) a2 :(ulong) a3 :(ulong) a4
 - └:(int) port :(ulong) flowInfo :(ulong) scopeId
 - └ Init with IPv6 address
- init :(uchar[16]) address :(int) port :(ulong)
 - └ flowInfo :(ulong) scopeId Init with IPv6 address
- (int) error Get the last error
- (int) family Return the family
- (void *) sockaddr Return the sockaddr struct
- (int) size Return the size of sockaddr
- (int) port Return the port of the address
- (DText *) host Return the host name
- set :(ulong) a1 :(ulong) a2 :(ulong) a3 :(ulong) a4
 - └:(int) port :(ulong) flowInfo :(ulong) scopeId
 - └ Set with IPv6 address
- init :(uchar[16]) address :(int) port :(ulong)

- └ flowInfo :(ulong) scopeId Set with IPv6 address
- └:(int) port Set with b1.b2.b3.b4
- (BOOL) host :(char *) name :(int) port :(ulong)
 - └ flowInfo :(ulong) scopeId Set with host
- (BOOL) sockaddr :(void *) addr :(int) size
 - └ Set with sockaddr struct
- loopback :(int) port :(ulong) flowInfo :(ulong)
 - └ scopeId Set with loopback
- any :(int) port :(ulong) flowInfo :(ulong) scopeId
 - └ Set with any address
- close Close the address

DInetSocketAddress

Constants

DSA_AF_INET Inet socket family

Methods

- init Init empty inet socket address
- init :(long) address :(int) port Init with address
- init :(uchar) b1 :(uchar) b2 :(uchar) b3 :(uchar) b4
 - └:(int) port Init with b1.b2.b3.b4
- (int) error Get the last error
- (int) family Return the family
- (void *) sockaddr Return the sockaddr struct
- (int) size Return the size of sockaddr
- (int) port Return the port of the address
- (DText *) host Return the host name
- set :(ulong) address :(int) port Set with address
- set :(uchar) b1 :(uchar) b2 :(uchar) b3 :(uchar) b4
 - └:(int) port Set with b1.b2.b3.b4
- (BOOL) host :(char *) name :(int) port ... Set with host
- (BOOL) sockaddr :(void *) addr :(int) size
 - └ Set with sockaddr struct
- loopback :(int) port Set with loopback
- any :(int) port Set with any address
- broadcast :(int) port Set with broadcast address
- close Close the address

DKey

Constants

DKEY_NULL ctrl-@ key
 DKEY_BACKSPACE Backspace key
 DKEY_ENTER Enter key
 DKEY_ESCAPE Escape key

DKEY_DELETE Delete key
 DKEY_F1 Function key 1
 DKEY_F2 Function key 2
 DKEY_F3 Function key 3
 DKEY_F4 Function key 4
 DKEY_F5 Function key 5
 DKEY_F6 Function key 6
 DKEY_F7 Function key 7
 DKEY_F8 Function key 8
 DKEY_F9 Function key 9
 DKEY_F10 Function key 10
 DKEY_F11 Function key 11
 DKEY_F12 Function key 12
 DKEY_F13 Function key 13
 DKEY_F14 Function key 14
 DKEY_F15 Function key 15
 DKEY_F16 Function key 16
 DKEY_F17 Function key 17
 DKEY_F18 Function key 18
 DKEY_F19 Function key 19
 DKEY_F20 Function key 20
 DKEY_NUMLOCK Numlock key
 DKEY_CAPSLOCK Capslock key
 DKEY_SCROLLLOCK Scroll key
 DKEY_SHIFT Shift key
 DKEY_CTRL Control key
 DKEY_ALT Alt key
 DKEY_UP Up arrow key
 DKEY_DOWN Down arrow key
 DKEY_RIGHT Right arrow key
 DKEY_LEFT Left arrow key
 DKEY_INSERT Insert key
 DKEY_HOME Home key
 DKEY_END End key
 DKEY_PAGEUP Page up key
 DKEY_PAGEDOWN Page down key
 DKEY_MOUSE_KEYS Mouse keys group bit
 DKEY_MOUSE_RIGHT Right mouse button
 DKEY_MOUSE_MIDDLE Middle mouse button
 DKEY_MOUSE_LEFT Left mouse button
 DKEY_MOD_SHIFT shift modifier
 DKEY_MOD_CTRL control modifier
 DKEY_MOD_ALT alt modifier
 DKEY_MOD_KP keypad modifier

Methods

- `init` Init to NULL key
- `init :(int) code` Init to key code
- `copy` Copy the object
- `free` Free the object
- `(BOOL) isCtrlKey` Check for ctrl key
- `(BOOL) isFunctionKey` Check for function key
- `(BOOL) isKeypadKey` Check for keypad key
- `(BOOL) isAltKey` Check for alt key
- `(BOOL) isShiftKey` Check for shift key
- `(BOOL) isMouseKey` Check for mouse key
- `(DKey *) set :(int) code` Set the code for the key
- `(int) get` Get the key code
- `(int) key` Get the key (without modifiers)
- `(int) mod` Get the key modifiers
- `(DText *) toText` Convert to text object
- `(int) fromString :(char **) cstr` Parse from string

DMD5

Methods

- `init` Init empty md5
- `init :(char *) cstr` Init with c-string
- `init :(uchar *) data :(ulong) len` Init with data
- `update :(char *) cstr` Update with c-string
- `update :(uchar *) data :(ulong) len` Update with data
- `(DData *) digest` Return digest
- `(DText *) hexdigest` Return digest in hex-ascii

DRegex

Syntax

- Match any char (incl. newline)
- * Match zero or more
- + Match one or more
- ? Match zero or one
- {c} Match exactly c times
- {min,max} Match min..max times
- | Match alternatives
- [] Match one in the list
- [^] Match any except in list
- [:] Match a class in a list
- () Group or subexpression
- ^ Match begin of line
- \$ Match end of line

Constants

- `DRE_NO_MATCH` No result for match or search
- `DRE_ERROR` Error for match or search

Methods

- `init` Init empty regex
- `init :(char *) pattern` Init with case sensitive pattern
- `free` Free the regex
- `(BOOL) ccompile :(char *) ptrn` Compile case sens. pattern
- `(BOOL) icompile :(char *) ptrn` Compile case insens. pattern
- `(int) match :(char *) str` Match for length
- `(int) match :(char *) str :(int) from` Match for length with offset
- `(int) match :(uchar *) data :(int) length :(int) from` Match for length with offset
- `(int) search :(char *) str` Search for start
- `(int) search :(char *) str :(int) from :(int) to` Search for start in range
- `(int) search :(uchar *) data :(int) len` Search for start
- `(int) search :(uchar *) str :(int) len :(int) fr :(int) to` Search for start in range
- `(DArray *) indices` Last matched indices
- `(DArray *) matches :(char *) str` Last matched texts
- `(DArray *) matches :(uchar *) data :(int) len` Last matched data

DSHA1

Methods

- `init` Init empty sha1
- `init :(char *) cstr` Init with c-string
- `init :(uchar *) data :(ulong) len` Init with data
- `update :(char *) cstr` Update with c-string
- `update :(uchar *) data :(ulong) len` Update with data
- `(DData *) digest` Return digest
- `(DText *) hexdigest` Return digest in hex-ascii

DSocket

Constants

- `DSK_STREAM` Stream socket type
- `DSK_DGRAM` Datagram socket type
- `DSK_MSG_OOB` Out of band message flag
- `DSK_MSG_DONTROUTE` Do not route the message flag
- `DSK_MSG_PEEK` Peek data message flag
- `DSK_MSG_WAITALL` Wait for the full message flag

- `DSK_SHUT_RD` Shutdown receive flag
- `DSK_SHUT_WR` Shutdown send flag
- `DSK_SHUT_RDWR` Shutdown both send and receive flag

Classmethods

- + `(int) protocol :(const char *) name` Init empty socket

Methods

- `init` Init empty socket
- `init :(int) fileno :(id) address :(int) type` Init socket with file descr.
- `init :(int) family :(int) type :(int) protocol` Init socket with address
- `free` Free socket
- `(int) fileno` Return file descriptor
- `(int) error` Return last error
- `(BOOL) setSocketOption :(int) level :(int) optname` Set socket option
- `(BOOL) getSocketOption :(int) level :(int) optname` Get socket option
- `(BOOL) blocking :(BOOL) block` Set blocking state
- `(BOOL) blocking` Return blocking state
- `(BOOL) reuseAddr :(BOOL) reuse` Set reuse state
- `(BOOL) reuseAddr` Get reuse state
- `(BOOL) sendBufferSize :(int) size` Set send buffer size
- `(int) sendBufferSize` Get send buffer size
- `(BOOL) receiveBufferSize :(int) size` Set receive buffer size
- `(int) receiveBufferSize` Get receive buffer size
- `(BOOL) keepAlive :(BOOL) keep` Set keep alive state
- `(BOOL) keepAlive` Get keep alive state
- `(BOOL) linger :(unsigned) secs` Set linger time
- `(unsigned) linger` Get linger time
- `(BOOL) open :(int) family :(int) type :(int) protocol` Open socket with address
- `(BOOL) bind :(id) address` Bind socket to address
- `(BOOL) listen :(int) backlog` Listen for connections
- `(DSocket *) accept` Accept a connection
- `(BOOL) connect :(id) address` Connect to address
- `(BOOL) close` Close socket
- `(BOOL) shutdown :(int) what` Shutdown connection
- `(int) sendto :(id) address :(void *) data` Send data connectionless
- `(DData *) recvfrom :(id) address :(int) length` Receive data connectionless
- `(int) send :(void *) data :(int) length :(int) flags` Send data via connection

- (DData *) recv :(int) length :(int) flags
 | Receive data via connection
- (int) sendto :(id) address :(char *) cstr :(int) flags
 | Send text connectionless
- (int) recvfrom :(Text *) dest :(id) address :(int) len
 |:(int) flags.....Receive text connectionless
- (int) send :(char *) cstring :(int) flags
 | Send text via connection
- (int) recv :(DText *) dest :(int) length :(int) flags
 | Receive text via connection

DSystemLogger

- init.....Init default system logger
- init :(char *) appName :(BOOL) toStdErr
 | Init system logger with application name
- (BOOL) doLog :(int) level :(char *) message
 | Log a message with a level
- (int) mask :(int) levels.....Set the level mask
- (int) mask :(int) high :(int) low.....Set the level range

Note: Only where available (unix)

DTextDrawable

- init.....Init text drawable
- free.....Free text drawable
- (unsigned) cursorX.....Get cursor x-position
- (unsigned) cursorY.....Get cursor y-position
- (BOOL) cursor :(unsigned) x :(unsigned) y
 | Set cursor position
- (int) cursor :(int) state.....Set cursor state
- (int) pointer :(int) state.....Set pointer state
- (int) error.....Get the last error
- (unsigned long) tell.....Tell current cursor position
- (BOOL) seek :(unsigned long) offset :(int) origin
 | Set the cursor position
- (BOOL) skip :(unsigned long) offset.Skip cursor positions
- (unsigned) maxX.....Get maximum x-position
- (unsigned) lines.....Get number of lines
- (unsigned) maxY.....Get maximum y-position
- (unsigned) columns.....Get number of columns
- drawable :(unsigned) columns :(unsigned) lines
 | Set the size of the drawable
- (BOOL) isValid :(unsigned) x :(unsigned) y
 | Check if position is on the drawable

- (BOOL) clip :(unsigned) minX :(unsigned) maxX
 |:(unsigned) minY :(unsigned) maxY.....Set clipping area
- (BOOL) clip.....Set clipping area full drawable
- (unsigned) clipMinY.....Get minimum clipping y-position
- (unsigned) clipMaxY.....Get maximum clipping y-position
- (unsigned) clipMinX.....Get minimum clipping x-position
- (unsigned) clipMaxX.....Get maximum clipping x-position
- (BOOL) color :(DColor *) fgc :(DColor *) bgc
 | Set foreground and background color
- (BOOL) foregroundColor :(DColor *) fgc
 | Set foreground color
- (DColor *) foregroundColor.....Get foreground color
- (BOOL) backgroundColor :(DColor *) bgc
 | Set background color
- (DColor *) backgroundColor.....Get background color
- (BOOL) startDrawing.....Start drawing on text screen
- (BOOL) startDrawing :(unsigned) minX :(unsigned) maxX
 |:(unsigned) minY :(unsigned) maxY
 | Start drawing in clipped area
- stopDrawing.....Stop drawing
- (BOOL) isDrawing.....Check for drawing mode
- (BOOL) clear.....Clear the drawable
- (BOOL) writeText :(char *) text...Write text on drawable
- (BOOL) writeChar :(char) ch..Write character on drawable
- (BOOL) writeLine :(char *) textWrite text line on drawable
- (BOOL) writeText :(unsigned) startX :(unsigned) startY
 |:(const char *) text.....Write text on drawable
- (BOOL) writeChar :(unsigned) startX :(unsigned) startY
 |:(char) ch.....Write character on drawable
- (int) readChar :(unsigned) startX :(unsigned) startY
 | Read a character from the drawable
- (BOOL) drawHLine :(unsigned) startX :(unsigned) endX
 |:(unsigned) startY :(int) lineType
 |:(unsigned) lineWidth..Draw horizontal line on drawable
- (BOOL) drawHLine :(unsigned) startX :(unsigned) endX
 |:(unsigned) startY.....Draw horizontal line on drawable
- (BOOL) drawHLine :(unsigned) endX...Draw horizontal line
- (BOOL) drawVLine :(unsigned) startX :(unsigned) startY
 |:(unsigned) endY :(int) lineType
 |:(unsigned) lineWidth....Draw vertical line on drawable
- (BOOL) drawVLine :(unsigned) startX :(unsigned) startY
 |:(unsigned) endY.....Draw vertical line on drawable
- (BOOL) drawVLine :(unsigned) endY.....Draw vertical line
- (BOOL) drawLine :(unsigned) startX :(unsigned) endX
 |:(unsigned) startY :(unsigned) endY :(int) lineType

- |:(unsigned) lineWidth....Draw vertical line on drawable
- (BOOL) drawLine :(unsigned) startX :(unsigned) endX
 |:(unsigned) startY :(unsigned) endY..Draw vertical line
- (BOOL) drawLine :(unsigned) endX :(unsigned) endY
 | Draw vertical line on drawable
- (BOOL) drawPoint :(unsigned) startX :(unsigned) startY
 | Draw point on drawable
- (BOOL) drawPoint.....Draw point on drawable
- (BOOL) blit :(unsigned) startX :(unsigned) startY
 |:(DTextDrawable *) other :(unsigned) oStartX
 |:(unsigned) oEndX :(unsigned) oStartY
 |:(unsigned) oEndY...Blit other drawable on this drawable

DTextScreen : DTextDrawable

- init.....Init text screen object
- init :(DColor *) fgc :(DColor *) bgc
 | Init and open text screen
- free.....Free the text screen
- (BOOL) isOpenen.....Check if text screen is open
- (BOOL) hasColors.....Check if text screen support colors
- (id) screenHeight :(id) handler.Set screen event handler
- (id) screenHeight.....Get current screen event handler
- (BOOL) open :(DColor *) fgc :(DColor *) bgc
 | Open text screen
- close.....Close text screen
- beep.....Generate beep
- (int) cursor :(int) state.....Set the state of the cursor
- (BOOL) startDrawing.....Start drawing on the text screen
- stopDrawing.....Stop drawing on the text screen
- (unsigned) waitEvents.....Wait and process events
- (unsigned) processEvents.....Processing waiting events
- clearEvents.....Clear any pending events

DTextSurface : DTextDrawable

- init.....Init text surface
- free.....Free text surface
- (BOOL) isOpenen.....Check if surface is open
- (BOOL) open :(unsigned) columns :(unsigned) lines
 |:(DColor *) fgc :(DColor *) bgc..Open the text surface
- close.....Close the text surface

DTimer

Methods

- + (void) delay :(long) msec.....Delay msec
- init.....Init default timer
- init :(long) timeOut.....Init with time-out value
- (long) timer.....Return current timer
- (long) timeOut.....Return current time out value
- timeOut :(long) timeOut.....Set time out value
- restart.....Restart the timer
- (BOOL) isExpired.....Test for expired timer, auto restart
- (BOOL) isExpired :(long) timeOut

└ Test for timed expiration, auto restart

Note: All times in milliseconds

DUnixSocketAddress

Constants

DSA_AF_UNIX.....Unix socket family

Methods

- init.....Init empty unix socket address
- init :(char *) filename.....Init with filename
- (int) error.....Get the last error (always 0)
- (int) family.....Return the family
- (void *) sockaddr.....Return the sockaddr struct
- (int) size.....Return the size of sockaddr
- (int) port.....Return the port
- (DText *) host.....Return the host name
- (BOOL) filename :(char *) name.....Set with filename
- (BOOL) sockaddr :(void *) addr :(int) size

└ Set with sockaddr struct

- close.....Close the address

Note: Only where available (unix)

DXMLReader

- init.....Init xml reader
- deepen.....Deepen copied object
- free.....Free xml reader
- bufferSize :(int) size.....Set parser buffer size
- (int) bufferSize.....Get parser buffer size
- encoding :(char *) encoding.....Set override encoding
- (char *) encoding.....Get override encoding
- (BOOL) parse :(id) source :(char *) name :(id) handler

└:(char) separator.....Parse the xml source with handler

- (int) lineNumber.....Return the parsed line number
- (int) columnNumber.....Return the parsed column number
- (const char *) name.....Return the name of the source

- + (char *) errorToString :(int) error.....Translate error