Dolphin OS and Development System 2.7

Release Notes

Wednesday, July 21, 1999

Hand Held Products Confidential
For Internal Use Only

Dolphin OS and Development System 2.7
Release Notes

Dolphin OS and Development System 2.7 is expected to be one of the final major OS releases for the Dolphin terminal. A substantial number of changes have been made to the BIOS, Operating System and Development API. HHP recommends all Developers review the changes and implement the new OS and API where feasible.

Operating System

The following features and issues have been implemented or corrected in Dolphin OS 2.7:

- Added support for Dolphin with Image Capture.
- Implemented a common BIOS/Xilinx for Batch, RF, Non-Scanning and iButton Dolphins. A separate BIOS/Xilinx/OS package is still required to support the numeric keyboard under the DOS shell (command.com). Dolphin with Image Capture still requires a separate BIOS/Xilinx. Only four BIOS/Xilinx/OS packages are required to support all current Dolphin products:

    1. ALL276.PKG - Alphanumeric Batch, RF, Non-Scanning and iButton Dolphin terminals
    2. NALL267.PKG - Numeric Batch, RF, Non-Scanning and iButton Dolphin terminals.
    3. SALL267.PKG - Alphanumeric Dolphin with Image Capture. Scanning and Non-Scanning.
    4. NSALL267.PKG - Numeric Dolphin with Image Capture. Scanning and Non-Scanning.

- The Boot Loader now supports ymodem. This can increase system upgrades time by up to 2X.
- The '/C' option was removed from the DOS FORMAT.EXE command.
- Code 93 now supports the space, dash and period characters correctly.
- The Code 128 zero-divide error has been corrected.
- Removed the CONTACT.HLP, DOLPHOS.HLP, HOMEBASE.HLP and DOLPHIN.HLP help files. Refer to the electronic documentation supplied with your terminal.

Development API

A number of functions have been modified or added to the Development System API. Refer to the sample applications and the DOLPHIN.H header/include file for additional information on these functions.

New Functions:

- ngetch() - The function ngetch() gets a character from the Numeric Dolphin keyboard.. Ngetch() behaves very much like the standard getch(). The getch() functionn is used in conjunction with is_numeric() . This will allow developers to create a single application that can run on either Alphanumeric or Numeric terminals.
- is_numeric() - This function is used to determine if an application is running on a Numeric terminal.
- get_shift_lock() - The function get_shift_lock() returns the current shift lock(or numlock) state.
- get_cursor() - This function is used to return the current cursor state.

- bios_ticks() - Returns unsigned long containing the number of bios ticks. This function does not roll-over at midnight. Instead, it rolls over after 0xFFFFFFFF ticks. If more than 24 hours elapses between calls to bios_ticks, it will lose n days worth of ticks; where n is an integer <= the elapsed time between the calls to bios_ticks().
- laser_aim() – This function will cause the laser to go into aim mode for a specified time period or until the user releases the ON key. It will only work on terminals that support the aim mode(i.e. terminal with Long Range scan engine).
- Added register_11()/unregister_11() - Register and unregister Code 11 decoding. These functions were documented but left out of the previous release.

Modified Functions:

- shift_lock() - Updated shift_lock() to work on alphanumeric or numeric terminals.
- RF_GetLinkStatus() - Corrected an issue with RF_GetLinkStatus() returning incorrect value.
- lpstop() - Updated lpstop() to return when an interrupt occurs. Previously, it only returned in response to a BIOS tick.
- RF_IsUnitRF() - RF_IsUnitRF() now returns true if the Proxim driver is loaded and false if the driver is not loaded. RF_IsUnitRF() behaves identically to RF_AreDriversLoaded().
- evWriteCharAbs() – The function evWriteCharAbs () now works on non-Dolphin products(PC).
- evWriteStringAbs () - The function evWriteStringAbs() now works on non-Dolphin products(PC).

Removed Functions:

- sleep() - Removed sleep() to resolve a conflict with the FTP Software TCP/IP SDK. Developers should use the dsleep() function which is identical to sleep().

Other Changes:

- Applications using fty_send() and fty_receive() now link properly with Borland Turbo C.
- Updated the DOLPHAPI.HLP help file.

EVS and Powermon

- The battery gauge now displays a check mark when the battery has been fully charged.
- The battery gauge now uses a fixed correction factor. The fixed correction factor compensates for the wear on the battery pack without requiring the customer to calibrate their batteries. The correction factor is set to 82% of full capacity.
- Powermon has been updated to support Dolphin /w Image capture.

Terminal Utilities and Samples

- All utilities and samples have been recompiled and linked with the new Dolphin OS and Development System 2.7 libraries (API).
- Utilities default to 57600 baud.
- Most utilities and samples now work on either Alphanumeric or Numeric terminals.
- The CHKKEY.EXE /S option has been removed. The terminal will automatically sleep if the keyboard is inactive for 5 minutes while CHKKEY is waiting for keyboard input. CHKKEY can now set the light, cursor and status line state. CHKKEY can now test for Numeric and RF.

PC Utilities

- All Windows Utilities have been recompiled as 32 bit applications.
- Utilities default to 57600 baud.
- Dcomm modified to support retry after a communication setting is changed.
- DWizard modified to support 57600 baud. Added Ymodem support for BIOS/Xilinx upgrades. References to the 'FORMAT /C' option were removed. References to the 'B:' drive were removed.

Add-on Products and APIs

The following Dolphin TCP/IP tools and Development API's have been updated or recompiled and linked to the new Dolphin OS and Development System API.

RF Stack

- Corrected an issue with RF_GetLinkStatus() returning incorrect values.
- Renamed LD.BAT to LDEBUG.BAT. LDEBUG.BAT can be used to load the RF Stack and log debug information to RFLOAD.TXT.
- Added Connect LD.BAT. LD.BAT is used to load Connect software.
- RFSETUP.EXE compiled and linked with the new libraries. No Changes.

iButton API

- Recompiled and linked with new Dolphin OS and Development System 2.7 libraries.

Softfont API

- Recompiled and linked with new Dolphin OS and Development System 2.7 libraries.
- Official Release. No changes from previous beta.

IrDA API

- Recompiled and linked with new Dolphin OS and Development System 2.7 libraries.
- Added support for the Oneil and Extech magstrip readers. Added the following functions, IrDA_read_ExtechM2000_mag_card() and IrDA_read_Oneil2TCR_mag_card().
- Increased maximum negotiated speed to 38.4kb
- New sample IRDATEST.EXE included. Demonstrates print support for Oneil, Extech, Eltron and Comtech. Demonstrates magstripe functions.