XLine X10 / X10i / X15 - Driver Release History

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1   INTRODUCTION

This document summarises the changes to each release of the X-line drivers.

2   RELEASE HISTORY

2.1   Windows 32-bit package (81-19923 Issue 11) released 12th June 2014

- Range of bug-fixes plus addition of API function StopHopperCoinReleaseSafe. 32-bit driver components are now signed.

2.2   Windows 64-bit package (81-21584 Issue 2) released 12th June 2014

- Range of bug-fixes plus addition of API function StopHopperCoinReleaseSafe.

2.3   Linux 32-bit package (81-19932 Issue 8) released 12th June 2014

- Updated driver code to compile on kernels up to 3.13 and beyond. Range of bug-fixes plus addition of API function StopHopperCoinReleaseSafe.

2.4   Linux 64-bit package (81-21585 Issue 2) released 12th June 2014

- Updated driver code to compile on kernels up to 3.13 and beyond. Range of bug-fixes plus addition of API function StopHopperCoinReleaseSafe.

2.5   Linux 32-bit package (81-19932 Issue 7) released 2nd May 2012

- Maintenance release of package bringing this 32-bit code-base back in sync with 64-bit code-base. A range of bug fixes applied, particularly to c-api samples.

2.6   Linux 64-bit package (81-21585 Issue 1) released 10th April 2012

- First release of Development kit package for 64-bit Linux. Structure of package mirrors that of the 32-bit package (81-19932-6) with '_x64' added to filenames that are 64-bit specific. Device driver installation matches that of Linux 32-bit package.

2.7   Windows 64-bit package (81-21584 Issue 1) released 14th March 2012

- First release of Development kit package for Win7-64. Structure of package mirrors that of the 32-bit package (81-19923-10) with '_x64' added to filenames that are 64-bit specific. Device driver installation matches that of Win7-32 package.

2.8   Linux package (81-19932 Issue 6) released 11th May 2011

- Release 6 of this package brings Windows and Linux distributions back into line, by incorporating Changed Input Line Callback, isolation of Serial Port source code components, and numerous other small changes. Tested up to Linux Kernel 2.6.38.

2.9   Windows package (81-19923 Issue 10) released 9th December 2010

- Release 9 of this package included a Vista/Win7 compatible version of the XLine device drivers, this release updates the driver installation method to make the process Vista/Win7 compatible, using the Driver Package Installer (dpinst) method. Changes to the installation method are reflected in the Quick Start Guide. In addition the Linux portion of the Quick Start manual received a much needed update..

2.10 Windows package (81-19923 Issue 9) released 14th June 2010

- Substantial rewrite of 'fflyio.sys' device driver to convert to a WDM driver able to handle Vista and windows 7. As a consequence API InitPort process now uses GUIDs rather than device-names to identify/select particular devices/boards, although these changes are transparent to users. For completeness, the final elements of code-split to isolate serial-port code for separate compilation tidied-up.

2.11 Windows package (81-19923 Issue 8) released 8th January 2010

- Update User Manual with details of Changed Inputs Callback mechanism. Add clarifications on operation of Output brightness control and multiplexed inputs. Added error numbers to Error Return Code table. General user manual format tidy-up.

2.12 Windows package (81-19923 Issue 7) released 15th December 2009

- InputChangeCallback mechanism now fully implemented. Fixed Unhandled Exception triggered when developing in Debug mode.

2.13 Windows package (81-19923 Issue 6) released 9th October 2009

- Further implementation of Money Handler support.

2.14 Windows package (81-19923 Issue 5) released 6th October 2009

- X10i loader (but not X15 loader) was updated to force firmware reload in the event of USB disconnect being detected. This is especially important for N500 and N1000 products.

2.15 Linux package (81-19932 Issue 5) released 3rd July 2009

- Switched the included Linux kernel driver to the generic X-Line version. This driver has been updated for use with newer kernels tested up to 2.6.30.

2.16 Windows package (81-19923 Issue 4) and Linux package (81-19932 Issue 4) released 1st April 2008

- Fixed SRAM memory corruption bug on the X10i at address 0x6ff95.

2.17 Windows package (81-19923 Issue 3) and Linux package (81-19932 Issue 3) released 6th March 2008

- Added C wrapper API.
- C version of unlockio included.
- Created versions of fflyusb.so and unlockio.o compiled against gcc 2.95.
- Bug fix for X15 ccTalk driver serial port selection.
- Enhanced SRAM access on X10i and X15

2.18 Windows package (81-19923 Issue 2) and Linux package (81-19932 Issue 2) released 9th January 2008

- Random number functions on X10i now supported on X15.
- Bug fixed to allow full 1MByte address space on X15 to be accessed.
- Improved error checking applied to X15 Authentication process.
- SendSEC() function modified to allow messages with zero length packets to be sent.

2.19 Windows package (81-19923 Issue 1) and Linux package (81-19932 Issue 1) released 6th November 2007

- New "X-line" drivers. Driver now supports X15 in addition to X10 and X10i boards.
- Improved range and null pointer checking on API function calls.

2.20 Windows package (81-18358 Issue 11) and Linux package (81-18367 Issue 7) released 25th June 2007

- During parallel hopper coin release, coin jam detection has been added.
- Added ability to stop payout midway during parallel hopper coin release.
- Added four new parallel I/O API functions:
  - ConfigurePulsedInputEx()
  - GetPulsedInputStatus()
  - ReleaseParallelHopperCoinsEx()
  - StopHopperCoinRelease()

2.21 Windows package (81-18358 Issue 10) and Linux package (81-18367 Issue 6) released 30th January 2007

- Fixed a bug where the outputs would briefly flash (for approximately 1ms) during initialisation.
- Fixed a bug where a call to ReadAndResetSecuritySwitchFlags() would lose switch information during power-down.
- Added new functionality to ReleaseParallelHopperCoins() for use with very sensitive hoppers.
- ReleaseParallelHopperCoins() now continues to count coins even after the required payout.

2.22 Linux package (81-18367 Issue 5) released 12th October 2006

- Add SAS protocol enhancements so that a "time window" can be defined for the PC to respond before the X10i intervenes by sending a busy message in response to a poll.
- Corrects an error introduced in the previous release that disabled the SAS protocol and power down battery monitoring functions.
- Corrects an error in the EEPROM memory driver that could cause the EEPROM memory pipe to time-out.
- Performance and reliability improvements.
- Fix a bug in the SPI / SEC driver (shared outputs OP0-OP2 could become corrupted only relevant if the SPI driver is enabled).
- 1200 Baud now supported on serial port A.
- Fixed bug in functions ReadSRAM and ReadEEPROM where a receive length of exactly 59 or a further multiple of 60 (e.g. 119, 179) caused a crash.

2.23 Windows package (81-18358 Issue 9) released 10th October 2006

- Add SAS protocol enhancements so that a "time window" can be defined for the PC to respond before the X10i intervenes by sending a busy message in response to a poll.
- Corrects an error introduced in the previous release that disabled the SAS protocol and power down battery monitoring functions.
- Corrects an error in the EEPROM memory driver that could cause the EEPROM memory pipe to time-out.

2.24 Windows package (81-18358 Issue 8) released 3rd October 2006

- Improved speed, particularly when communicating with more than 2 pipes simultaneously.
- Fix a bug in the SPI / SEC driver (shared outputs OP0-OP2 could become corrupted – only relevant if the SPI driver is enabled).

2.25 Windows package (81-18358 Issue 7) released 6th September 2006

- Removes an occasional communications time out problem (USB_MESSAGE_EXECUTION_TIMEOUT, error code 14).

2.26 Windows package (81-18358 Issue 6) released 16th June 2006

- Improved stability (particularly when communicating with several pipes or X10i's simultaneously).
- Fixed a bug whereby calls to init() would occasionally fail.

2.27 Windows package (81-18358 Issue 5) released 1st June 2006

- 1200 Baud now supported on serial port A.
- Significantly improved USB communication performance.
- Fixed bug in functions ReadSRAM and ReadEEPROM where a receive length of exactly 59 or a further multiple of 60 (e.g. 119, 179) caused a crash.

2.28 Windows package (81-18358 Issue 4) and Linux package (81-18367 Issue 4) released 5th April 2006

- Removed the 300 byte buffer maximum limit in the function Receive9BitData(). The buffer as passed by the user now determines the function byte limitation.
- Implemented SAS (Slot Accounting System). Two new functions have been added: SetSASMachineAddress() and SetSASBusy().

2.29 Windows package (81-18358 Issue 3) and Linux package (81-18367 Issue 3) released 24th February 2006

- Fixed a flaw in the API function Send9BitData(). This function was not correctly enhanced to utilise USB 2. This change will improve performance on an X10i when sending large chunks of serial data.

2.30 Windows package (81-18358 Issue 2) and Linux package (81-18367 Issue 2) released 2nd February 2006

- Added serial host activity timeout function SetPolledHostTimeout().

2.31 Windows package (81-18358 Issue 1) and Linux package (81-18367 Issue 1) released 21st December 2005

- Based on X10 Windows package (81-16671 Issue 29) and Linux package (81-17206 Issue 14).
- Supports both Firefly X10 and Firefly X10i boards.