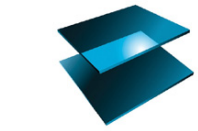
CyanIDE 2 Release Notes

Version 1.5

Cyan Technology

CyanIDE 2 Release Notes

Confidential and Proprietary Information



Revision History

Version	Date	Notes
V1.0	05/09/2008	First release.
V1.1	08/10/2008	Updated for CyanIDE 2.0.3.
V1.2	09/12/2008	Updated for CyanIDE 2.1.0.
V1.3	12/01/2009	Updated for CyanIDE 2.1.1.
V1.4	10/12/2009	Updated for CyanIDE 2.2.0.
V1.5	15/12/2009	Updated for CyanIDE 2.2.1.

Introduction

This document briefly describes changes introduced in the CyanIDE 2 development environment. Please also refer to the CyanIDE 2 Known Issues document.

For issues related to debug interface support for Windows 7, please contact Cyan support.

CyanIDE 2.2.1 Release Notes

Corrected a minor problem in packaging the CyanIDE 2.2.0 installer.

CyanIDE 2.2.0 Release Notes

IDE

- Upgraded Eclipse to version 3.4.2, and the CDT to version 5.0.2.
  See “What’s new in Eclipse 3.4” at
  <http://help.eclipse.org/ganymede/index.jsp?topic=/org.eclipse.platform.doc.user/whatsNew/platform_whatsnew.html>
  and “What’s new in CDT 5.0” at <http://wiki.eclipse.org/CDT/User/NewIn50>.
- Improved memory set up in the Configurator.
- Perl is now available from makefiles to aid automation.
  (Perl version perl-5.6.1-MSYS-1.0.11-1)
- Improved code download speed for eCOG16E01 targets.
- New utility program to flatten ELF object files to raw binary format.
- Debug Attach and Detach functions now available.

Wireless Networking Support

- CyNet3 eCOG16E01 support.
- CyNet3 data packet routing.
- CyNet3 time synchronisation and link management.
- Support for external RF power amplifier with Micrel MICRFXXX devices.
- Improved stability, robustness and latencies with Micrel MICRFXXX devices.

Note: The version of the CyNet3 stack provided in this CyanIDE release is suitable for customer network evaluation of 20 to 30 nodes. For configurations suitable for larger networks, please contact Cyan support.

Wireless Networking Templates

- New *CyNet3 AT Command Template*. Available for the *mCOG-RF-1X – 1X RF Node* and *mCOG-RF-16E01 – 16E01 RF Node* targets in the *CyNet3 Wireless Templates* category.
- New GPRS example. Available for the *mCOG-UPEG-1X-MB-B1 – GPRS Gateway board* in the *Other* category.
- Removed Ember ZigBee and Radiocrafts Wireless M-Bus templates.

Virtual Port Templates

- New *CyNet3 Micrel Gateway Virtual Port Template*. Available for the *mCOG-UPEG-1X-MB-B1 – GPRS Gateway* and the *mCOG-UPE-1X-MB-B1 – RF Gateway* targets in the *CyNet3 Wireless Templates* category.
- New *Telegesis ZigBee Gateway Virtual Port Template*. Available for the *mCOG-UPEG-1X-MB-B1 – GPRS Gateway* and the *mCOG-UPE-1X-MB-B1 – RF Gateway* targets in the *ZigBee Templates* category.
- New *Radiocrafts1180 Gateway Virtual Port Template*. Available for the *mCOG-UPEG-1X-MB-B1 – GPRS Gateway* and the *mCOG-UPE-1X-MB-B1 – RF Gateway* targets in the *Wireless M-Bus Templates* category.

Device Drivers

- Numerous improvements to USB/FAT file system support. Available as *CYDF USB* and *CYDF FAT* peripherals in the Configurator.
- AT command set driver. Available as *CYDF AT Command Parser* peripheral in the Configurator.
- Internal flash memory. Available as *CYDF Internal Flash* peripheral in the Configurator.
- Non-volatile storage of application preferences, using the internal flash memory driver. Available as *CYDF Preferences* peripheral in the Configurator.
- Improved stability and robustness of FreeRTOS and lwIP implementations. Available as *FreeRTOS* and *lwIP* peripherals in the Configurator.
- Improved interface and efficiency of the CYDF Timers, added syscalls alarm capability. Available in the *Timers and Counters Software* category in the Configurator.
- NAND Flash Interface: driver for Samsung K9G8G08 device with a flash translation layer (FTL) for the FAT File System. Available as *CYDF NAND Flash* peripheral in the Configurator.
- Read-only data storage in flash memory, access via filesystem-like interface. Available as CYDF RODATA peripheral in the Configurator.

Bugs Fixed

- Fixed errors with branches to global labels in eCOG16 toolchain.
- Fixed MCPWM peripheral setup in configurator.
- Fixed LTMR peripheral setup in configurator.
- Fixed configurator errors when switching chip from eCOG1X to eCOG16E01.
- Fixed errors in the eCOG16E01 configurator where the CYDF Timer peripheral is only set up correctly if it is named “timer”, and the CYDF Watchdog peripheral is only set up correctly if it is named “wdog”.

CyanIDE 2.1.1 Release Notes

Wireless Networking Support

- Support for USB Ethernet Gateway board.
- Support for Micrel MICRF6XX, Radiocrafts1180 and Ember EZSP EM260 modules for use with above board.
- CYDF drivers for Radiocrafts1180 and Ember EZSP EM260 modules.
- CyNet3 network stack for use with Micrel MICRF6XX module.
- Examples demonstrating the use of all three modules in metering and gateway applications.

Drivers

- CYDF Flash Translation Layer driver.

Documentation

- eCOG16E01 User Manual added to online help.
- Changes to the FAQ numbering.

Bugs Fixed

- Changed getchar() to return EOF when read() returns 0 characters.
- Fixed bug caused when invalid paths are added to the include path.
- Fixed bug preventing undo of changes to the memory settings.

CyanIDE 2.1.0 Release Notes

New Device Support

- Added support for new eCOG16E01A6H, eCOG16E01F6H, eCOG16E01A6L and eCOG16E01A6H devices.
- New eCOG16E01 toolchain to support new devices.
- Added eCOG16E01-specific example project templates and documentation.

Debug Interface

- Improved debug interface firmware to support both eCOG1X and eCOG16E01 devices.
- Introduced ability to reprogram debug interface serial number and identifier from the Debug Interface Manager.

Drivers

- Added driver for Microchip MCP492x DAC (12-bit resolution, low power consumption, SPI attached).
- New CYDF interface for NAND FLASH devices and added driver for Samsung K9G8G08 NAND FLASH (1G x 8-bit / 2G x 8-bit NAND FLASH memory).
- Improved external USB ULPI support.
- Improved USB library handling of slow devices.

Configurator

- Disabled EMI peripheral in 68-pin packages, where it is not usable.
- Improved port sharing between GPIO and other peripherals.
- Removed limit on maximum number of GPIO peripherals.

Debugger

- Fixed infinite recursion bug when viewing global variables in variables view.

Build System

- Stale Derived/ project files are now automatically deleted.

C Standard Library

- Performance improvements to memcpy().

CyanIDE 2.0.3 Release Notes

The following changes have been made to the Cy-Net 2 examples and projects included with CyanIDE 2.

- Adjusted the RSSI calculations in the eCOG1X version of the code to match those in the eCOG1k version.
- Moved configuration information from TROM FLASH sector into main FLASH sector.
- Fixed SYSTEM_reset() and the ATZ command to work reliably.
- The "Modem Busy" indicator LED is now used as a status LED, user controlled through the AT command channel.

CyanIDE 2.0.2 Release Notes

- Modified the standard project template for the eCOG1X radio board (EVALKIT-RF-1X-M1) Cy-Net examples to reduce the power supply current drawn in standby.
- Fixed an error in the CYDF SPI driver.
- Fixed an error in Eclipse with library project build dependencies.

CyanIDE 2.0.1 Release Notes

- Added support for the USB/Ethernet development kit.
- Added support for the eCOG1X-based RF-*Solved* evaluation kit.
- Added drag and drop and simple configuration support for the FreeRTOS open-source real-time operating system.
- Added drag and drop and simple configuration support for the uIP open-source TCP/IP Ethernet stack.
- Added project templates for examples using a number of Ethernet protocols including DNS, DHCP, HTTP and FTP.
- Added many other new project templates.