Universal Driver 7.0.0

for Linux
May 2015

Welcome to Universal Driver version 7.0.0 for Linux. Universal Driver provides a comprehensive programming toolkit to enable you to take full advantage of the data acquisition circuitry on Diamond Systems products.

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Version 7.0.0 is known to be compatible with the following Linux kernel versions. Only 32-bit versions of these kernels are supported:

- 2.6.23
- 2.6.29
- 3.2.0

Universal Driver 7.0.0 is backward compatible with programs designed for earlier versions of the driver, making it possible for you to recompile existing applications to use the new driver without making any changes to your code. Version 7.0.0 adds functionality for the newest single-board computers and add-on boards from Diamond Systems which have Data Acquisition (DAQ) circuitry.

This release package includes the following accompanying documents:
1. Universal Driver 7.0.0 Installation Instructions
   - Includes instructions on how to install the driver in Windows and add or configure a PC/104 (ISA) device.
2. Universal Driver Documentation, in Additional Documents folder
   - HTML link to online wiki manual providing comprehensive information and usage instructions

The driver consists of the following files:

"dscud-7.00.tar.gz":
1. libdscud-7.00.a   GCC static library file with Universal Driver interface functions.
2. dscudkp.c   C Kernel module only needed for interrupt functionality and PCI boards
3. dscudkp.h   H file for kernel module
4. dscud.h   Header file with all the declarations for the Universal Driver API functions.
5. Makefile   File used to help the compiler suite program 'make' create programs
6. compile.sh   cript to assist in compiling the driver
7. install.sh   Script to assist installing the compiled driver
8. uninstall.sh   Script to remove the driver
9. README.TXT   File describing all included documents
10. Documents   Universal Driver 7.0.0 for Linux Installation Instructions.pdf

System Requirements:
- A Diamond Systems board which is listed as supported in file DSCUD.H or in the list below.
- Linux operating system with one of the above listed kernels and the GCC compiler

Supported Diamond Systems products

I/O boards
DMM / DMM-XT
DMM-16-AT
DMM-32-AT
DMM-32X-AT
DMM32-DX-AT
EMM-8M-XT
EMM-8P-XT
EMM-DIO-XT
EMM-OPT4-XT
GPIO-MM-XT / GPIO-MM-12-XT / GPIO-MM-21- XT
IR104 / IR104-PBF
MRC-100-XT/ MRC-224-XT
OMM-XT
OMM-DIO-XT
OPMM-XT
OPMM-1616-XT
PMM-P / PMM-S
RMM-412-XT / RMM-812-XT / RMM-1612-XT
RMM-416-XT
RMM-1616A-XT / RMM-1616AP-XT
OPMM-1616-XT
FP-DAQ-1616 / P104-DAQ1616
FP-GPIO-96/ P104-GPIO96
DS-MPE-GPIO
DS-MPE-DAQ0804
EMM-DIO4M-XT

Single-board computers
Athena I: ATH400-128/ATH660-128
Athena II: ATHM500-256A/ATHM800-256A/ATHM800-256ALP
Athena III (all models)
Altair: ALT1600-1G-XT / ALT1600-2G-XT
Helios: HLV800-256AV / HLV800-256DV / HLV1000-256AV / HLV1000-256DV
Hercules I with analog I/O: HRC400-5A128/HRC550-5A128
Hercules II with analog I/O: HRC800-5A512 / E
Hercules III (all models)
Neptune (all models)
Poseidon: PSDC20-xxxA / PSDE10-xxxA
Vega

See DSCUD.H for initialization constants to pass to the driver for each board type.

Uninstalling older versions of Universal Driver

Previous versions of Universal Driver version do not need to be uninstalled in order to use version 7.0.0. However you must ensure that any start-up scripts do not load any prior versions of the driver.

Installing Universal Driver 7.0.0

An easy to way to install the driver from the location it was uncompressed is to use the two important included scripts 'compile.sh' and 'install.sh'. See the Linux installation instructions for their specific use.

Uninstalling Universal Driver 7.0.0

Simply run the included script 'uninstall.sh' to uninstall Universal Driver 7.0.0.

More Information

For more information, please visit www.diamondsystems.com.

Technical Support requests can be directed to:

http://www.diamondsystems.com/support/request
or support@diamondsystems.com

Thank you for choosing Diamond Systems.