

ChipWriter

The Data I/O® ChipWriter™ is a low-cost, 48-pin universal programmer supporting a full range of popular and leading-edge memory, microcontroller, and programmable logic devices. A PC-based system, ChipWriter interfaces to a standard parallel port, and features easy-to-install, full-featured software with an intuitive, menu-driven user interface.

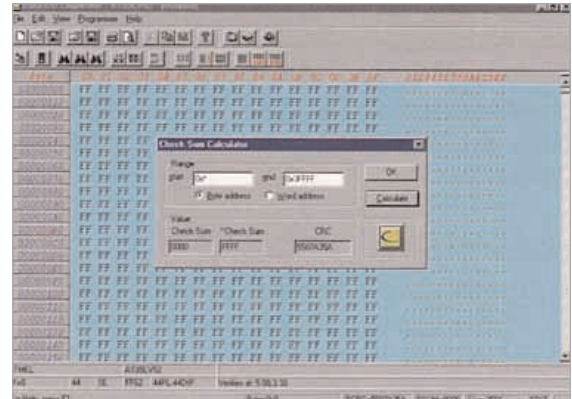
Designed to support tomorrow's as well as today's device technology, ChipWriter is ready for the future with true low-voltage device support — as low as 1.8 volts. And, free on-line operating software and algorithm updates are available. Just download the very latest system software and device support from Data I/O's BBS or Worldwide Web site at any time — and at absolutely no charge.

Device and Package Support

A single-socket, universal programmer, ChipWriter delivers broad device support and full-featured programming capabilities. Its comprehensive support includes:

- *Memory devices:* PROMs, EPROMs, EEPROMs, Flash devices, and NVRAMs
- *Logic devices:* PALs, GALs, PEELs, PALCEs, PLDs, EPLDs, EEPLDs, and CPLDs, including the AMD®/Vantis MACH®, Altera® MAX, and Xilinx® EPLDs
- *Microcontrollers:* Nearly 200 microcontrollers, including the Motorola® MC68HC705/711 family, Intel®, Philips, Microchip Technology PICs, Dallas, Atmel® 89XXX, WSI PSDs, and many more

What's more, the ChipWriter's pindriver technology eliminates the need for adapters, family-specific modules or special software for most DIP devices up to 48 pins. Adapters are available for non-DIP packages, including PLCCs, SOICs, TSOPs, and QFPs up to 84 pins.



Support for Low-Voltage Devices

While most other low-cost programmers can only program and verify devices at 5 volts, ChipWriter provides full program and verify support for today's 3V and 5V devices, as well as for future devices requiring programming voltages as low as 1.8 volts. With ChipWriter, you can be sure your low-voltage parts program and verify correctly at their nominal operating voltages.

Windows or DOS User Interface

ChipWriter includes easy-to-use software that runs under Windows® 95 or MS-DOS®. The intuitive, menu-driven interface provides comprehensive file handling and programming capabilities — including on-the-fly data editing, so you can conveniently edit data without going back to your development software.

Battery Power Option at No Extra Charge

In addition to running from line voltage, ChipWriter is also battery operable. This gives you the flexibility to use the compact, lightweight (2 lb./9 kg) system with a laptop in the field — or wherever you need a powerful, portable programming tool. Running from 8 AA

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batteries, the expected battery life is upwards of 4,000 programming cycles (depending on device type). And when it's time to recharge, ChipWriter's software lets you conveniently recharge the batteries from your PC. Or, recharge using ChipWriter's external power supply, available in four voltages (100, 110, 220, 240 volts).

A Full-Function System

In addition to programming, ChipWriter also offers optional built-in 8-bit or 16-bit wide EPROM and RAM/ROM emulators for fast and efficient "in-system" development, real-time editing on the fly, and code emulation. A built-in IC tester for 74-series, 4000-series, and SRAM/DRAM devices is also provided, as a standard feature.

Worldwide Service and Support

Because ChipWriter is from Data I/O, you're ensured the industry's highest quality and most comprehensive service and support programs for programmers in this class. All ChipWriter programmers are covered under a full, one-year warranty for parts and labor. For technical support or service, contact one of our worldwide sales offices listed on the Data I/O BBS or Web site.

Ordering Information

Description	
ChipWriter with user software (3.5" disk), parallel cable, manual, and:	
	Order Code
110V power supply/recharger	CWRITER-110
100V power supply/recharger	CWRITER-100
220V power supply/recharger	CWRITER-220
240V power supply/recharger	CWRITER-240
128K × 8-bit emulator and manual	CW128X8EMUL *
128K × 16-bit emulator and manual	CW128X16EMUL *
512K × 8-bit emulator and manual	CW512X8EMUL *
512K × 16-bit emulator and manual	CW512X16EMUL *

*Emulators sold separately

Specifications

Device Support

- 8- and 16-bit EPROMs up to 8 Mb
- Paged EPROMs
- EEPROMs and serial EEPROMs (including 8-pin)
- Flash devices and NVRAMs
- Bi-polar PROMs
- PALs, GALs, PEELs, PALCEs, EPLDs
- AMD/Vantis MACH, Altera MAX 5000/7000, and Xilinx XC 7XXX EPLDs
- Nearly 200 micro-controllers, including the Motorola MC68HC705/711 family, Intel, Philips, MCT PIC micros, Dallas, Atmel 89XXX, WSI PSDs, and many more

Package Support

- DIPs up to 48 pins (standard)
- PLCCs, SOICs, TSOPs, and QFPs up to 84 pins (with optional adapters)

System Operations

- File load, edit, and save

Device Operations

- Read/load, dual pass verify, verify signature, illegal bit test, blank check, program, erase, ID test
- Device insertion/continuity test
- Checksum (of the entire memory buffer or just the device)

Memory Editing Features

- Basic RAM editing
- Fill RAM
- Copy RAM
- Search for a particular string in RAM
- Goto RAM (go to a specific address in RAM)
- Byte SWAP
- Set Buffer Size (set the buffer for larger or smaller devices)
- Device Serialization

Logic Editing Features

- View fusemap
- Basic fuse editing
- Fusemap fill with all 0's, 1's
- PAL to GAL fusemap conversion
- Edit UES (User Electronic Signature)
- Test vector generation/edit
- Security fuse status, program, auto secure

Input/Output

- Parallel port

File Formats

- Unformatted (raw) binary
- ASCII-SPACE-HEX
- ASCII-OCTAL
- Standard HEX (auto recognition)
- Motorola HEX (S1, S2, S3 records)
- Intel MCS 86 HEX
- Tektronix HEX
- Extended Tektronix HEX
- Texas Instruments HEX
- Xilinx HEX
- Altera POF
- Altera JAM
- Standard JEDEC

Standard Accessories

- 48-pin DIP socket
- Parallel cable
- User software and manual
- IC tester
- External power supply/recharger
- Built-in battery recharging circuit
- Fault diagnosis software

Options

- Universal adapters for 44-pin PLCC, 44-pin PSOP, and 48-pin TSOP
- Custom adapters for PLCC, TSOP, SOIC, and QFP packages up to 84 pins
- Built-in EPROM and RAM/ROM emulators (128K and 512K by 8 or 16 bits)
- Power supply/recharger for other standard voltages

Minimum System Requirements

- Any XT or later PC or compatible
- Windows 95 or MS-DOS 3.0 or higher
- Hard disk drive
- Parallel port
- Recommended available disk space: 2 MB

Operating Voltages

- 100/110/220/240 VAC

Physical/Environmental Specifications

Dimensions

- 9.5 × 6 × 2.5 in (24 × 15 × 6 cm)

Weight

- Programmer: 2.0 lb (0.9 kg)
- Power supply/recharger: 0.5 lb (0.23 kg)
- Shipping weight: 6.0 lb (2.7 kg)

Temperature

- Line supply: +32°F to +158°F (+0°C to +70°C)
- Battery supply: +50°F to +95°F (+10°C to +35°C)

Humidity

- 20% to 80% RH noncondensing



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Data I/O Corporation 10525 Willows Road NE, P.O. Box 97046, Redmond WA 98073-9746, USA
(425) 881-6444 • <http://www.data-io.com> • BBS (425) 882-3211

Data I/O GmbH Lochhamer Schlag 5, 82166 Graefelfing, Germany • 089 858580 • <http://www.dataio.de>

Data I/O Japan Osaki CN Building 2F, 5-10-10, Osaki Shinagawa-ku, Tokyo 141, Japan • 03 3779-2151

Data I/O Canada 6725 Airport Road, Suite 102, Mississauga, Ontario L4V 1V2 • (905) 678-0761

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