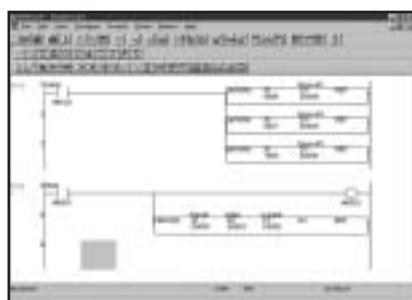
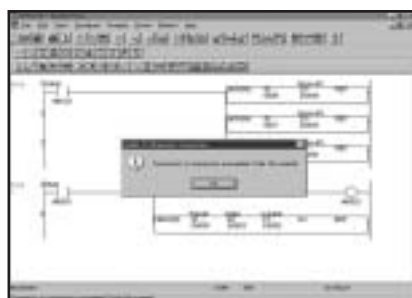


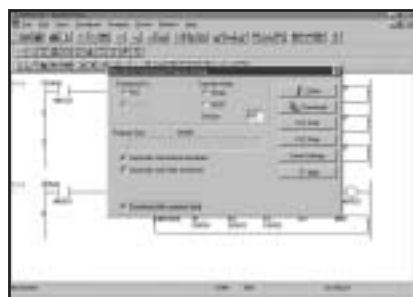
WindLDR Programming Software



Ladder Program Editor



Cache Function in Ladder to Mnemonic Conversion



Comment Download Function for MicroSmart & ONC

Where Logic and Intuition Converge

WindLDR, IDEC's Windows-based, Ladder programming tool successfully combines logic and intuition. IDEC's WindLDR includes a graphic interface, icon-driven tool bar, on-line help, and debugging tools. WindLDR programs the Micro-1, Micro², Micro³C, FA Series (except FA1J), ONC and MicroSmart.

WindLDR is your icon-driven, multi-window, all-inclusive tool.

Key features of the WindLDR software package include:

- Use the Tag Editor to access and edit all coil data in one convenient option
- Customize toolbars, ladder file characteristics, and more
- Imports/Exports Tag data as tab delimited file, editable in Microsoft Excel
- Access the most common commands with the context-sensitive right mouse button
- Open and use unlimited ladder files
- Shows user program size
- Monitor and de-bug PLC functionality on-line
- Edit ladders simply, with a drag and drop toolbar
- Supports AS-Interface module for MicroSmart 20Ry-I/O and 40 I/O type

General Specifications	Part Number	WindLDR (FC9Y-LP2CDW)
	Cut, Copy and Paste Function	Select one rung or multiple rungs
	Tag Editor	Access and edit all coil data in one convenient option
	Customization	For toolbars, ladder file characteristics, and many program features
	Right Mouse Button	Context-sensitive for convenient access to most commonly used commands
	On-Line Monitoring	De-bug and observe real-time PLC functionality, right from your PC. Write new values to counters, timers, and data registers.
	Multiple Ladder Files	Open unlimited ladder files to compare and reuse instantly, even if they are written for different PLCs
	Drag and Drop	User friendly toolbar makes ladder creation and editing simple
	Find String	Searches for text in various ways; large ladder files are easy to manage
	Multi-Level Undo	Limited only by available memory
	CLIP and CUBIQ	Fully compatible for upgrade
	On-Line Help	Context-sensitive; extensive coverage of WindLDR and PLC functionality
	Manuals	The <i>WindLDR Tutorial</i> provides a quick, simple way to get up and running; the comprehensive <i>WindLDR Reference Manual</i> answers basic through advanced questions
	Support	IDEC engineers maintain an excellent level of customer service and software support
	Platforms	Microsoft® Windows 95, 98, 2000, ME, NT 4.0, XP
	System Requirements	CPU: Pentium 75MHz or higher; 24MB available RAM on Win95 and Win98; 32MB available RAM on Win2000, NT 20MB free hard disk space
	Installation Software	CD-ROM

Programming Instruction Set

Instruction Set		ONC	MicroSmart
Basic Instruction List			
AND	And	•	•
ANDLDD	And load	•	•
ANDN	And Not	•	•
BPP	Bit Pop	•	•
BPS	Bit Push	•	•
BRD	Bit Read	•	•
CC=	Counter Comparison (=)	•	•
CC≥	Counter Comparison (≥)	•	•
CDP	Dual Pulse Reversible Counter	•	•
CNT	Counter	•	•
DC=	Data Register Comparison (=)	•	•
DC≥	Data Register Comparison (≥)	•	•
END	End	•	•
JEND	Jump End	•	•
JMP	Jump	•	•
LOD	Load	•	•
LODN	Load Not	•	•
MCR	Master Control Reset	•	•
MCS	Master Control Set	•	•
OR	Or	•	•
OR LOD	Or Load	•	•
ORN	Or Not	•	•
OUT	Output	•	•
OUTN	Output Not	•	•
RST	Reset	•	•
SET	Set	•	•
SFR	Shift Register	•	•
SFRN	Shift Register Not	•	•
SOTD	Single Output Down	•	•
SOTU	Single Output Up	•	•
TIM	Timer	•	•
Advanced Instruction List			
Group	Symbol	•	•
NOP	NOP	•	•
Move	MOV	•	•
	MOVN	•	•
	IMOV	•	•
	IMOVN	•	•
	BMOV	•	•
	IBMV	•	•
	IBMVN	•	•
Data Comparison	CMP=	•	•
	CMP<>	•	•
	CMP<	•	•
	CMP>	•	•
	CMP<=	•	•
	CMP>=	•	•
Binary Arithmetic	ICMP>=	•	•
	ADD	•	•
	SUB	•	•
	MUL	•	•
	DIV	•	•
Boolean Computation	ROOT	•	•
	ANDW	•	•
	ORW	•	•
	XORW	•	•
Shift and Rotate	SFTL	•	•
	SFTR	•	•
	BCDLS	•	•
	WSFT	•	•
	ROTL	•	•
	ROTR	•	•

Instruction Set		ONC	MicroSmart
Advanced Instruction List, continued			
HTOB	Hex to BCD	•	•
BTOH	BCD to Hex	•	•
HTOA	Hex to ASCII	•	•
ATOH	ASCII to Hex	•	•
BTOA	BCD to ASCII	•	•
ATOB	ASCII to BCD	•	•
ENCO	Encode	•	•
DECO	Decode	•	•
BCNT	Bit Count	•	•
ALT	Alternate Output	•	•
WKTIM	Week Timer	•	•
WKTBL	Week Table	•	•
DISP	Display	•	•
DGRD	Digital Read	•	•
TXD	Transmit	•	•
RXD	Receive	•	•
LABEL	Label	•	•
LJMP	Label Jump	•	•
LCAL	Label Call	•	•
LRET	Label Return	•	•
IOREF	I/O Refresh	•	•
DI	Disable Interrupt	•	•
EI	Enable Interrupt	•	•
XYFS	XY Format Set	•	•
CVXTY	Convert X to Y	•	•
CVYTX	Convert Y to X	•	•
PULS	Pulse Output	•	•
PWM	Pulse Width Modulation	•	•
RAMP	Ramp Pulse Output	•	•
ZRN1	Zero Return 1	•	•
ZRN2	Zero Return 2	•	•
PID	PID Control	•	•
DTML	1-sec Dual Timer	•	•
DTIM	100-msec Dual Timer	•	•
DTMH	10-msec Dual Timer	•	•
DTMS	1-msec Dual Timer	•	•
TTIM	Timer	•	•