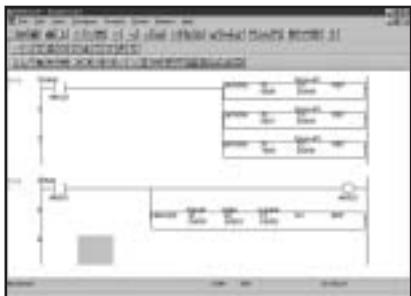
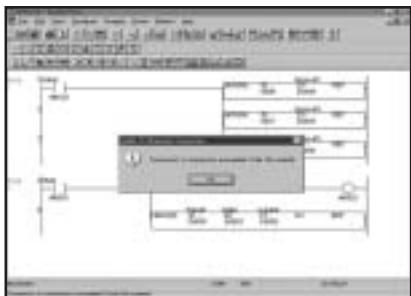
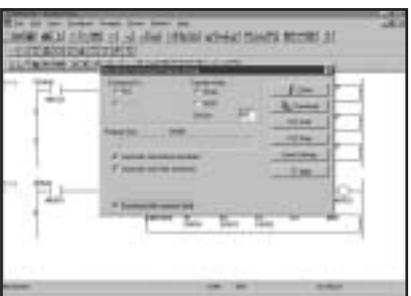


**WindLDR Programming Software**

Ladder Program Editor



Cache Function in Ladder to Mnemonic Conversion



Comment Download Function for MicroSmart &amp; 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, Micro<sup>3</sup>, Micro<sup>3C</sup>, 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	IDEK 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

<b>Instruction Set</b>		<b>ONC</b>	<b>MicroSmart</b>
<b>Basic Instruction List</b>			
AND	And	•	•
ANDLOD	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	•	•
<b>Advanced Instruction List</b>			
<b>Group</b>	<b>Symbol</b>	•	•
NOP	NOP	•	•
<b>Move</b>	MOV	•	•
	MOVN	•	•
	IMOV	•	•
	IMOVN	•	•
	BMOV	•	•
	IBMV	•	•
	IBMVN	•	•
<b>Data Comparison</b>	CMP=	•	•
	CMP<>	•	•
	CMP<	•	•
	CMP>	•	•
	CMP<=	•	•
	CMP>=	•	•
	ICMP>=	•	•
<b>Binary Arithmetic</b>	ADD	•	•
	SUB	•	•
	MUL	•	•
	DIV	•	•
	ROOT	•	•
<b>Boolean Computation</b>	ANDW	•	•
	ORW	•	•
	XORW	•	•
<b>Shift and Rotate</b>	SFTL	•	•
	SFTR	•	•
	BCDLS	•	•
	WSFT	•	•
	ROTL	•	•
	ROTR	•	•

<b>Instruction Set</b>	<b>ONC</b>	<b>MicroSmart</b>
<b>Advanced Instruction List, continued</b>		
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	•