

PC -Based Control

PC -Based Control	PLC	(Processor, Operating System, I/O, Network)	SCADA	PC
1970 Relay				
PLC(Programmable Logic Controller)				
20 -30				
80 PC가		I/O		
	PC -Based	Hardware	Software	
Control(SoftLogic, Software PLC)				Upgrade
1986 Wizdom Controls(1996 Intellution)가 AB PLC2 Emulator				
“86 -Ladders”				
Based Control		PLC		
Software	PLC			PC -Based Control
Control	PC -based			
70%				IEC 1131 -3 PLC
3,000 \$	2001 3 \$			93
				IEC 61131 -3
ARC(Automation Research Corporation)			가	
2004	PLC CPU 50%가			
PC -Based Control		PLC		PLC
			SFC ()	Graphical
PLC				
PLC 25		IEC 61131 -3		
		가		97
		1	JIS	
		PLC		
		IEC 61131 -3		
PLC				

PC -Based Control

PC -Based Control

PLC

PC

PC

- PLC
- Open Architecture
- (IEC1131 -3)
-
-
- Engineering
-
- (Diagnostics)
- Performance
-

PC -Based Control
 Hardware 가
 SBC(Single Board Computer)
 PLC Rack -mount
 Space 가 가
 SBC
 PLC Rack PC Module
 AB, Siemens
 PC 가
 Hard Disk Flash Memory

PC -Based Control PC
 PLC

OS Single -tasking
 OS DOS Multi -tasking OS
 Windows 98, 2000, NT OS
 가
 Windows NT 가
 가

Redundancy

PC -Based Control PLC
 PLC

“Hard Real -
 Time” PC
 Sequence Logic User Application
 Network Traffic PLC
 Performance

PC

PC Hardware(Hard Disk, Power)
 OS
 Processor, OS, Memory 가
 PLC
 PC PC
 IBM Desktop PC PLC

“Deterministic” NT가 Down
 Sequence Logic
 “Blue Screen Handling”
 VenturCom RTX, Radisys InTime,
 Nematron Hyperkernel Hard Real -
 Time
 Intellution, Microsoft, Siemens, Rockwell,
 Schneider 80
 VenturCom RTX가

Windows CE . Windows
 NT(Windows 2000)
 Version Windows CE
 Plant Floor OS
 Hard Disk Flash
 Memory
 OS 50 micro -second Real -Time
 PC Power
 Failure Data
 Battery Backed -up RAM Board

Redundancy

PC Redundancy

- CPU Board CPU
 Chip SMP(Symmetric Multi
 Processing)
- Dual CPU Board
- NT Cluster

PC -Based Control OS,
 Network System, I/O Interface

가
 PC -Based Control
 , PLC