OPTO 22 PAC Project Basic & Professional Comparison Chart

1681-230208

The following table compares the features in version R10.3 of PAC Project Basic™ and PAC Project Professional™.

	Feature	Basic	Pro
Included software	PAC Control™ Basic	●	●
	PAC Control Professional		●
	PAC Display™ Basic	●	●
	PAC Display Professional		●
	PAC Manager™	●	●
	OptoOPCServer™		●
	OptoDataLink™		●
	SoftPAC™		●
Control software: PAC Control			
Compatible controllers	*groov* EPIC processor	●	●
	SNAP PAC controllers (S-series and R-series)	●	●
	SoftPAC software-based controller	●	●
Compatible I/O	Built-in I/O unit (in *groov* EPIC processors and SNAP PAC R-series controllers)	●	●
	groov RIO modules (with *groov* EPIC and SNAP PAC controllers)[1]	●	●
	SNAP PAC brains (obsolete)	●	●
	G4EB2 brains (with *groov* EPIC and SNAP PAC controllers)	●	●
	Ethernet I/O units—E1, E2, EIO, UIO (with *groov* EPIC and SNAP PAC controllers)	●	●
	Serial *mistic*™ brains/bricks: B3000-B, B3000, SNAP-BRS, B100, B200, G4D16R, G4D32RS, G4A8R (with SNAP PAC S-series controllers)[2]		●
Network	*Controller to PC: groov* EPIC and SNAP PAC—Ethernet	●	●
	Controller to I/O:		
	• *groov* EPIC—Ethernet only	●	●
	• SNAP PAC S-series:	●	●
	– Ethernet to R-series controllers and obsolete EB brains	●	●
	– Serial to obsolete SB brains	●	●
	– Serial to obsolete *mistic* brains		●
	• SNAP PAC R-series—Ethernet only	●	●
	Controller to third-party devices: Ethernet or serial[3]	●	●
	Support for Ethernet link redundancy or segmented control network		●
	[Obsolete as of 2022] Support for controller redundancy (SNAP PAC S-series only)[4]		●
Main features	Flowchart programming	●	●
	OptoScript programming	●	●
	Subroutines (debuggable)	●	●
	Graphical debugger	●	●
	Conversion utility for OptoControl 4.1 strategies		●
	Support for serial *mistic* I/O units[2]		●
	Ethernet link redundancy (with S-series controllers and R-series I/O units)		●

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	Feature	Basic	Pro
Maximum charts running at once	On *groov* EPIC (plus host task)	64	64
	On SoftPAC (plus host task)	64	64
	On SNAP PAC S-series (plus host task)	32	32
	On SNAP PAC R-series (plus host task)	16	16
Proportional-integral-derivative (PID) loops	PID algorithms for Ethernet I/O units	4	4
	PID algorithm for *mistic* serial units[2]	–	1
	Loops per SNAP PAC rack-mounted controller or brain	96	96
	Loops per *groov* RIO module	4	4
	Loops per *mistic* brain/brick[2]	–	8
	Graphical tuner for Ethernet PID loops	●	●
	Graphical tuner for *mistic*[2] PID loops		●
Ethernet link redundancy	Primary and secondary IP addresses on *groov* EPIC processors and SNAP PAC controllers		●
	PAC Control commands can be used to control redundancy algorithm		●
Controller redundancy[4] [Required hardware obsolete as of 2022.]	PAC Redundancy Manager utility		●
	Checkpoint blocks		●
Additional toolkits[5]	Modbus Integration Kit (serial and TCP)	●	●
	Controller Area Network (CAN) Integration Kit[6]	●	●
	Other Integration Kits (BACnet, TL1, DNP3, IEC60870-5, Allen-Bradley DF1)[6]	●	●
HMI software: PAC Display			
Main features	Alarming	●	●
	Trending	●	●
	Logging	●	●
	Operator authentication and login	●	●
	3000-graphic library	●	●
	Additional graphics tools for PID and embedding web pages		●
	Data logging to MySQL, Microsoft® SQL Server, and other ODBC databases		●
	Conversion utility for OptoDisplay projects		●
	Primary and secondary IP addresses for control engine		●
	Primary and secondary scanner		●
Controllers supported	*groov* EPIC processors[7]	●	●
	SNAP PAC controllers	●	●
	ioControl controllers	●	●
	OptoControl controllers with Ethernet interface		●
OPC server: OptoOPCServer[8]			
OPC version	OPC DA 2.0-compliant[8]		●
Database connectivity: OptoDataLink[9]			
Databases supported	Microsoft SQL Server, Microsoft Access, MySQL, and ODBC-compatible databases		●

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Feature		Basic	Pro
PC-based control: SoftPAC			
Compatible I/O	*groov* RIO modules	●	●
	groov I/O (EPIC processor)	●	●
	SNAP PAC (R-series and EB-series)	●	●
	Ethernet I/O units (E1, E2, UIO, EIO)	●	●
	G4EB2 brains	●	●

1 Requires SNAP PAC controller firmware 10.3a or higher or *groov* EPIC firmware 2.0.0 or higher.
2 Requires SNAP PAC S-series controller(s).
3 On a *groov* EPIC, serial connections from the processor require a USB-to-serial adapter.
4 The required SNAP-PAC-ROK Redundancy Option Kit is obsolete as of 2022.
5 For more information, see the *Communication Tools & Protocols for Opto 22 Products Technical Note* (form 1820).
6 Not recommended for use with *groov* EPIC processors running PAC Control.
7 PAC Display projects can include *groov* EPIC systems and *groov* RIO modules. PAC Display cannot run on an EPIC processor; it runs on a Microsoft Windows PC.
8 For an OPC UA-compliant server, use a *groov* EPIC processor.
9 Do not use OptoDataLink with a *groov* EPIC processor; use its included data communication options instead.

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