

Switch-Software

HiOS – Hirschmann Operating System

HiOS ist das Betriebssystem für die aktuelle Generation der Industrial-Ethernet-Geräte, das hohe Leistung mit großer Sicherheit kombiniert. Es bietet den Benutzern präzise Zeitsynchronisation sowie umfangreiche Redundanzverfahren und Diagnos-Tools. Die Redundanzverfahren PRP (Parallel Redundancy Protocol) und HSR (High-availability Seamless Redundancy) gewährleisten dank null Umschaltzeit reibungslose Produktionsprozesse. Umfangreiche Security-Mechanismen schützen das Netzwerk vor Angriffen und Bedienfehlern.

- Layer 2 Embedded (L2E): geeignet für die EES-Switches
- Layer 2 Standard (L2S): geeignet für die Switch-Familien RED, RSP, RSPS, RSPL, RSPE, GREYHOUND und OCTOPUS II
- Layer 2 Advanced (L2A): geeignet für die Switch-Familien MSP, RSP, RSPE, GREYHOUND 1040 und OCTOPUS II
- Layer 3 Standard (L3S): geeignet für die Switch-Familien RSP, RSPE und OCTOPUS II
- Layer 3 Advanced (L3A): geeignet für die MSP- und GREYHOUND1040 Switches



Classic Switch Software

Die Classic Switch Software bietet eine Reihe von Funktionen, die normalerweise nur Backbone-Systeme in Netzwerken des Office-Bereichs haben. Hierzu gehören umfangreiche Management-, Diagnose- und Filterfunktionen sowie verschiedene Redundanzverfahren, Security-Mechanismen und Echtzeit-Anwendungen.

- Layer 2 Basic (L2B): geeignet für die Switch-Familie RSB20
- Layer 2 Enhanced (L2E): geeignet für die RS20/RS30/RS40-, MS20/MS30- und die OCTOPUS-Switches
- Layer 2 Professional (L2P): geeignet für die Switch-Familien RS20/RS30/RS40, MS20/MS30, OCTOPUS, PowerMICE, RSR20/RSR30, MACH100, MACH1000 und MACH4000
- Layer 3 Enhanced (L3E): geeignet für die PowerMICE- und MACH4000-Switches
- Layer 3 Professional (L3P): geeignet für die Switch-Familien PowerMICE, MACH104, MACH1040 und MACH4000



Hinweis: Einen Überblick über die neueste Funktionalität der Software finden Sie unter: www.hirschmann.com/de/Software

Classic Switch Software v9.0

Classic Switch Software v9.0Classic Switch Software v9.0HiOS Hirschmann Operating System v7.0

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Konfiguration
Automatische Konfiguration rückgängig machen (roll-back)
Text-basierte Konfigurationsdatei (XML)
Konfigurationsfingerabdruck
BOOTP/DHCP Client mit Autokonfiguration
DHCP Server: pro Port
DHCP Server: Pools pro VLAN
DHCP Server: Option 43
DHCP Relay per interface
AutoConfiguration Adapter ACA31 (SD card)
AutoConfiguration Adapter ACA21/22 (USB)
HiDiscovery
DHCP Relay mit Option 82
Command Line Interface (CLI)
CLI Scripting
Full-featured MIB Support
Web-based Management
Contextsensitive Hilfe

Classic Switch Software v9.0				
L2B	L2E	L2P	L3E	L3P
●	●	●	●	●
	●	●	●	●
●	●	●	●	●
		●	●	●
		●	●	●
		●	●	●
			●	●
	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●

HiOS Hirschmann Operating System v7.0				
L2E	L2S	L2A	L3S	L3A
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
	●	●	●	●
	●	●	●	●
●*	●*	●	●	●
	●*	●*	●*	●
●	●	●	●	●
●*	●*	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●

Management
LLDP (802.1AB)
LLDP-MED
SSHv1
SSHv2
V.24
HTTP
HTTPS
SNMP v1/v2/v3
Traps
Telnet
TFTP
SFTP
SCP
DNS Client
Unterstützung von Dual-Software-Image
Out Of Band Management

Classic Switch Software v9.0				
L2B	L2E	L2P	L3E	L3P
●	●	●	●	●
		●	●	●
		●	●	●
●	●	●	●	●
●	●	●	●	●
		●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
		●	●	●

HiOS Hirschmann Operating System v7.0				
L2E	L2S	L2A	L3S	L3A
●	●	●	●	●
	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●*	●*	●	●	●
		●*		●*

Routing
Full Wire-Speed Routing
Loopback-Interface
ICMP-Filter
Net-directed Broadcasts
Statisches Unicast-Routing
Statisches Routen-Nachverfolgen
1:1 Network Address Translation
RIP v1/v2
OSPFv2
ICMP-Router-Discovery (IRDP)
Equal Cost Multiple Path (ECMP)
Proxy ARP
IP/UDP Helper

Classic Switch Software v9.0				
L2B	L2E	L2P	L3E	L3P
			●	●
			●	●
			●	●
				●
			●	●
			●	●
			●	●
			●	●
			●	●
			●	●
			●	●

HiOS Hirschmann Operating System v7.0				
L2E	L2S	L2A	L3S	L3A
			●	●
			●	●
			●	●
			●	●
			●	●
			●	●
			●	●
			●	●
			●	●
			●	●
			●	●
			●	●
			●	●
			●	●
			●	●

Multicast Routing
IGMP v1/v2/v3
IGMP-Proxy (Multicast-Routing)
DVMRP
PIM-DM (RFC3973)
PIM-SM/SSM (RFC4601)

Classic Switch Software v9.0				
L2B	L2E	L2P	L3E	L3P
				●
				●
				●
				●

HiOS Hirschmann Operating System v7.0				
L2E	L2S	L2A	L3S	L3A
			●	●
			●	●
				●*
				●*
				●*

* Abhängig von der Hardware

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Diagnose	Classic Switch Software v9.0					HiOS Hirschmann Operating System v7.0				
	L2B	L2E	L2P	L3E	L3P	L2E	L2S	L2A	L3S	L3A
Management-Adresskonflikterkennung			●	●	●	●	●	●	●	●
Adress-Relearn-Erkennung		●	●	●	●					
LEDs	●	●	●	●	●	●	●	●	●	●
MAC-Notification			●	●	●		●	●	●	●
Signalkontakt	●	●	●	●	●	●*	●	●	●	●
Gerätestatus-Indikation	●	●	●	●	●	●	●	●	●	●
TCPDump			●	●	●	●	●	●	●	●
E-Mail-Notification								●	●	●
Syslog		●	●	●	●	●	●	●	●	●
Dauerhaftes Logging auf ACA						●*	●	●	●	●
Portbeobachtung mit Auto-Ausschaltung			●	●	●	●	●	●	●	●
Link-Flap-Erkennung			●	●	●	●	●	●	●	●
Überlast-Erkennung			●	●	●	●	●	●	●	●
Duplex-Mismatch-Erkennung		●	●	●	●	●	●	●	●	●
Leitungsgeschwindigkeits- und Duplex-Beobachtung			●	●	●	●	●	●	●	●
RMON (1,2,3,9)	●	●	●	●	●	●	●	●	●	●
Port-Mirroring 1:1	●	●	●	●	●	●	●	●	●	●
Port-Mirroring 8:1		●	●	●	●	●	●	●	●	●
Port-Mirroring N:1			●*		●*	●	●	●	●	●
Port-Mirroring N:2						●*	●*	●*		●*
VLAN-Mirroring								●	●	●
RSPAN								●	●	●
SFLOW								●	●	●
Kupferkabeltest			●	●	●	●*	●*	●	●	●
Systeminformation	●	●	●	●	●	●	●	●	●	●
Selbsttests bei Kaltstart	●	●	●	●	●	●	●	●	●	●
SFP-Management	●	●	●	●	●	●	●	●	●	●
Konfigurationsprüfungsdialog			●	●	●	●	●	●	●	●
Switch Dump		●	●	●	●	●	●	●	●	●
Schnappschuss-Konfigurationseigenschaft						●	●	●	●	●

Diverses	Classic Switch Software v9.0					HiOS Hirschmann Operating System v7.0				
	L2B	L2E	L2P	L3E	L3P	L2E	L2S	L2A	L3S	L3A
Digitales-IO-Management	●*	●*	●*	●*	●*			●*		●*
PoE (802.3AF)			●*	●	●*		●*	●*	●*	●*
PoE+ (802.3AT)			●*		●*		●*	●*	●*	●*
PoE+ Manuelles Leistungs-Budget-Management			●*		●*		●*	●*	●*	●*
PoE Fast-Startup			●*				●*	●*	●*	●*
Port Leistungsabschaltung						●	●	●	●	●
Manuelles Kabelkreuzen	●	●	●	●	●	●	●	●	●	●

* Abhängig von der Hardware