



TELECOMMUNICATION



POWER UTILITY



WATER & WASTEWATER

Mirador



Large Site Management System

The Mirador is a large site management system that brings a new level of monitoring capability allowing distributed architectures with improved performance. The latest CPU III enhancement offers flexible I/O card positioning for increased polling rates, embedded TCP/IP protocol for better performance, and decreased power and heat consumption. The CPU III can be retrofitted in earlier Miradors as a drop-in upgrade for CPU I and II versions with no backplane replacements. Offered with or without an LCD viewing screen, the Mirador provides complete on-site and Web-based monitoring capabilities.

Easy to Use

- Embedded Ethernet port allows many users, at once, on the same port
- Eliminates the need for secondary communication links (modems, etc.)
- User profile management
- Three password levels for increased rights management
- User configurable Web content

Boost Site Revenues, Cut Operating Costs

Miradors have proven to optimize collocation management and boost revenues through facility-wide monitoring of usage rates and resources such as power plants, backup power, site access and security, environmental parameters and equipment performance.

Leading Telecoms and Utilities deploy Miradors to drive down operating expenses in remote site monitoring and control area such as:

Maintenance

- Reduce travel expenses
- Increase maintenance efficiency
- Reduce spare parts inventory

Surveillance

- Optimize crew intervention
- Increase network reliability
- Provide proactive fault detection

Engineering & Provisioning

- Cut down on provisioning costs
- Improve collocation management
- Optimize site to application requirements

Mirador Features

- Field-expandable design
- Flexible configuration
- Cross-functional workflow
- Optional LCD displays
- Manages up to 30 I/O cards
- 10/100 Mbps Ethernet (Audio MDIX)
- On-board coexistence of Ethernet and modem

CPU III Advantages

- Increased capacity and flexibility
- 3x faster serial ports (up to 115 Kbps)
- Multiple IP protocols (Web, SNMP, SMTP)
- CPU I and II shelf compatibility
- Increased performance
- 25x more data logging memory
- Automatic analog and binary data logging



Mirador Applications

The Mirador system is a powerful, modular, multi-processor site monitoring system. Built-in system flexibility enables retrofits and wide configuration choices for several monitoring and control applications:

- AC, DC, and auxiliary power plants
- Generator
- UPS
- Ground systems
- Alarm
- Environmental
- Site security and access

With a main controller card and up to 30 function cards (analog, event and output), Mirador can report any trouble condition either locally or remotely, using discrete alarms or alarm notification messages via email or through a management software application. Full capacity configuration consists of a main unit and multiple expansion units with one CPU card and any combination of function cards.

Mirador Enhances Site Visualization

- Embedded Web server
- User configurable hyperlinks (ex. Webcam)
- Faster Web-based troubleshooting
- Email capability for instant status updates (SMTP)
- Visualization of alarms, I/Os, configured views, communication ports and site related equipment
- Ability to download individual data logging stats, histories and configurations
- Ability to remotely upload firmware and system configurations

Mirador Features

Environment

Ambient temperature
Humidity
HVAC
Pressure

Access & Safety

Door open
Tower lights
Movement
Smoke and gas
Equipment failure

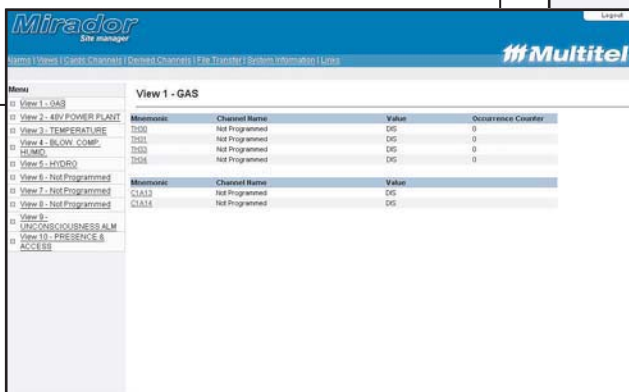
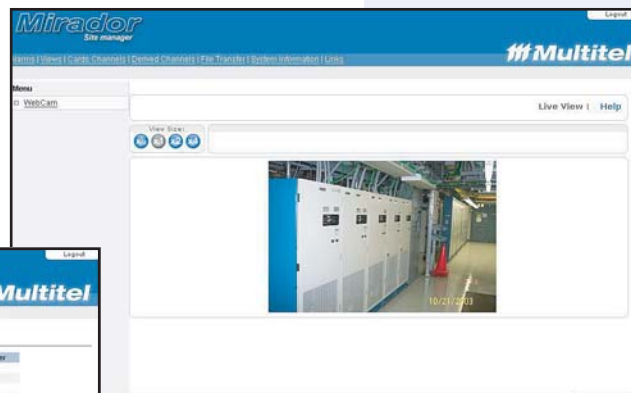
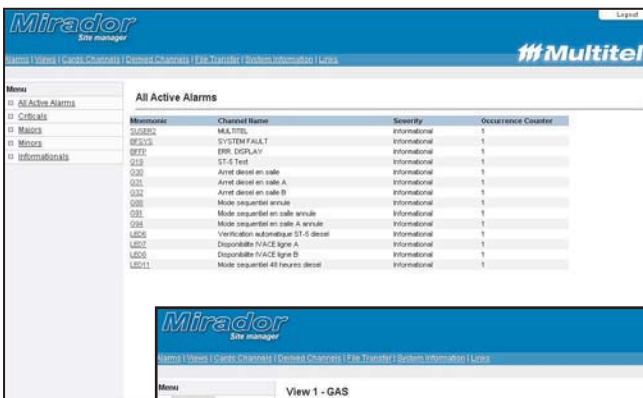
DC Power Plant

Load current
Battery current
Battery temperature
Battery midpoint voltage
Individual RFA
BDFB/BDCBBs - individual current
Individual cell voltage
Battery float current **
DC-DC converters

AC Supply

Generator
AC voltage
AC current

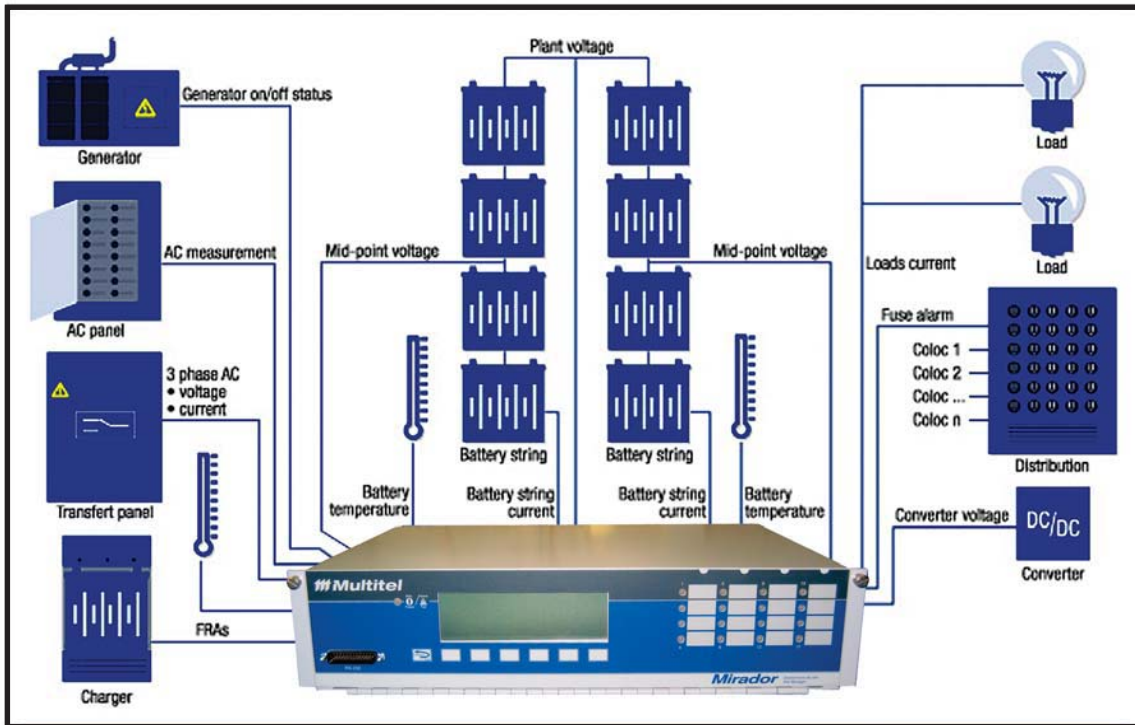
** With the M-5600 Float Charging Current Probe



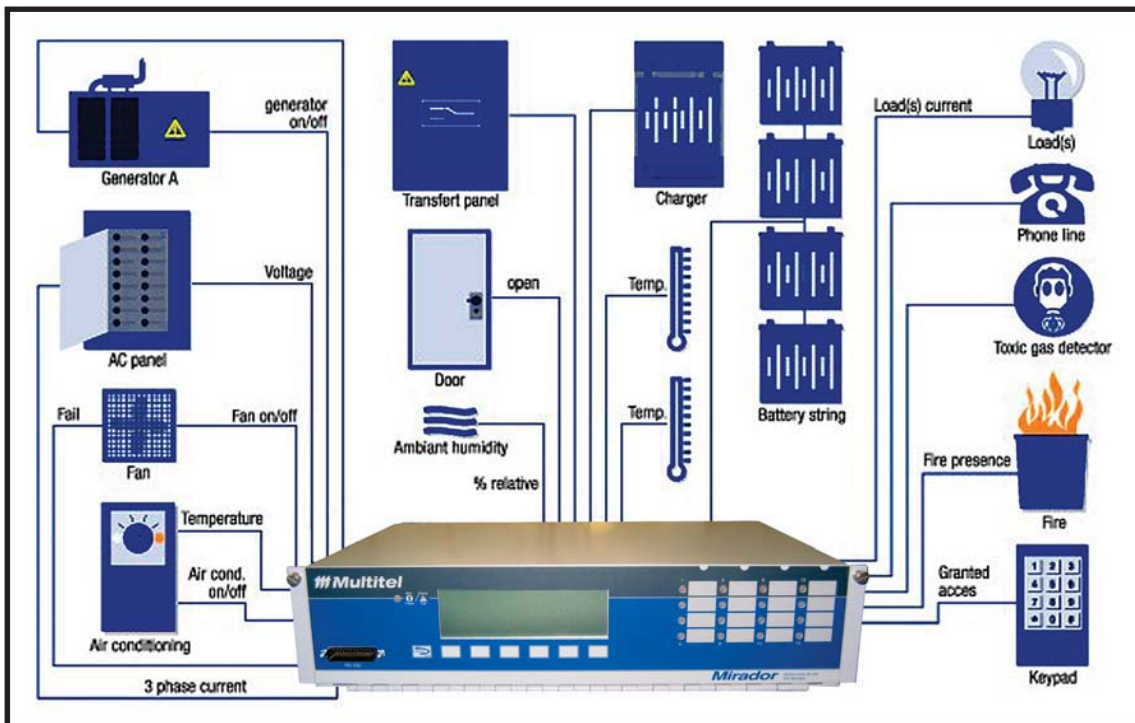


Sample Application Architectures

DC Power Monitoring



Site Management





Specifications

Main Unit	
CPU	32 bit, 63 MHz Power PC
Display	240 X 64 dot matrix LCD (Optional)
Effective Viewing Area	13.3 cm X 3.9 cm (5.2 in. X 1.5 in.)
Power (V)	24 or 48
Dimensions ¹	10.1 cm X 43.2 cm X 30.5 cm (4 in. X 17 in. X 12 in.)
Weight	7.7 Kg (17 lb)
Expansion Unit	
Interface	Local RS-485
Power (V)	24 or 48
Dimensions ¹	10.1 cm X 43.2 cm X 30.5 cm (4 in. X 17 in. X 12 in.)
Weight	6.4 Kg (14 lb)
Output Card	
Output Channels	32
Relay Type	Form-A
Analog Card	
Real I/O Channels	18
Single Cell Monitoring	36
Virtual Channels	18
Event Card	
Binary Inputs	48
Sampling Rate ² (Hz)	10
General Specifications	
Storage Temperature	-40 °C to 70 °C (-40 °F to 158 °F)
Operating Temperature	0 °C to 45 °C (32 °F to 113 °F)
Relative Humidity	5% to 90% non-condensing
Communication	
Serial Ports ³	3
Serial Ports Max Baud Rate	115 Kbps
Modem (Optional)	56 Kbps
Ethernet Included, 10/100 Mbps	(Auto MDIX)
Telnet	Multiple
Built-in IP Protocols	HTTP, SMTP, SNMP
LCD Display	Optional
Firmware	
I/O Cards ⁴	30
Periodic Data Logging	Daily (for 1 month)
Data Logging Detailed	Yes
History (battery backed-up records)	6000
User Names and User Preferences	Yes
Thresholds	1500
Channel Name Length	40
Arithmetic and Summation	Yes

¹ Mechanical dimensions do not include mounting bracket and back panel extension accessory.

² Effective rate: 1 down to 0.1 Hz.

³ Limited to 1 in the CPU I shelf in the case of CPU III retrofits.

⁴ Limited to 15 with CPU I shelf in case of CPU III retrofits.

Multitel reserves the right to change characteristics without notice.

Order Information

Monitors, Shelves and Upgrade Kits

M-5800-AA-BB-CC=Basic Mirador/Site Manager with CPU III (with Ethernet)

AA, 00 = no Communication options, 01 = Modem 56 Kbps

BB, 24 = 24 volts, 48 = 48 volts

CC, 01 = LED display, 02 = LED & LCD display

M-5880-AA =Expansion Shelf for CPU III

AA, 01 = Expansion 1 – for Cards 06 to 10

AA, 02 = Expansion 2 – for Cards 11 to 15

AA, 03 = Expansion 3 – for Cards 16 to 20

AA, 04 = Expansion 4 – for Cards 21 to 25

AA, 05 = Expansion 5 – for Cards 26 to 30

M-5810-AA-BB= CPU I to CPU III Upgrade Kit (with Ethernet)

AA, 00 = no communication options, 01 = Modem 56 Kbps

BB, 24 = 24 volts, 48 = 48 volts

M-5815-AA-BB= CPU II to CPU III Upgrade Kit

(with Ethernet)

AA, 00 = no communication option, 01 = Modem 56 Kbps

BB, 24 = 24 volts, 48 = 48 volts

Intelligent Cards

M-3410-48-G = MIRADOR 32-channel output card

M-3420-48-G = MIRADOR 48-channel binary card

M-3430-48-G = MIRADOR 18-channel analog card

M-5232 = MIRADOR 18-channel shunt card

Analog Input Channel Modules

M-3611V = 3 x 50mV

M-3612V = 3 x 2V

M-3613V = 3 x 20V

M-3614V = 3 x 200V

M-3615V = 3 x 5V

M-3616V = 200V/40V/200V

M-3617V = 200V/50mV/50mV

M-3618V = 200V/50mV/40V

M-3619V = 3 x 60V

M-3631V = 3 x TEMP

M-3641V = 3 x 4-20mA

M-3651V = 3 x OSI

M-3661V = 3 x SDTA

M-3662V = 3 x 5VAC NON-ISOLATED for ACCI-01

M-3671V = 200V/50mV/TEMP

M-3672V = 5V/50mV/TEMP

M-3674V = 200V/40V/TEMP

M-3675V = 3 x CT

M-3684V = 6 x 3V single cell

Standard Accessories

Instruction manual

Optional Accessories

K-EAR523-G = MIRADOR 23 in. flush mounting bracket

K-EAR530-G = MIRADOR 30 in. flush mounting bracket



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IC CS-03

ICES-003, Class B