

PATLITE®

WD SYSTEM

WIRELESS DATA ACQUISITION SYSTEM



Intelligent, Cost-efficient
Solution for Machine Data
Collection and Enhancing
Operational Visibility



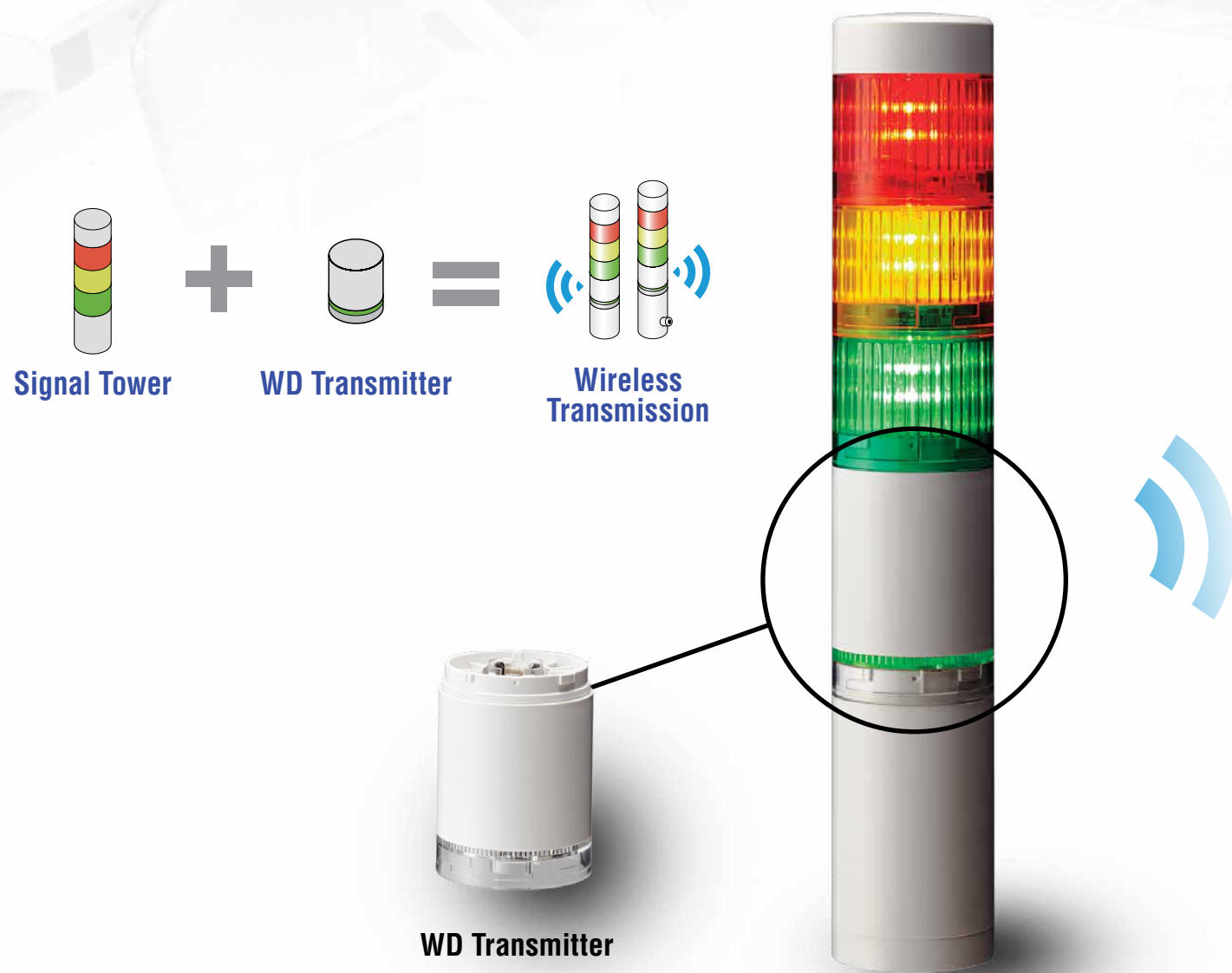
SMART FACTORY

IIOT, INDUSTRIAL INTERNET OF THINGS

A term that has become more than a buzzword but a way of the future.

IIoT provides businesses with the ability to access and monitor plant-wide manufacturing data for operational visibility, predictive maintenance and interconnectivity among machines, components and people.

The WD System enables wireless data acquisition of equipment statuses, regardless of the machine's age or model. Users can obtain real-time statuses and monitor their equipment remotely. This data can be collected and analyzed to improve predictive maintenance, identify bottlenecks, and maximize OEE.



NETWORK-ENABLE YOUR MACHINES

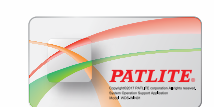
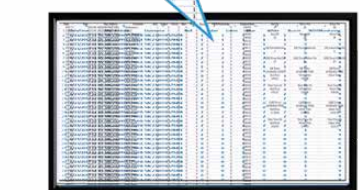
The WD System allows for seamless integration with your existing equipment. Simply attach a Transmitter to one of the compatible signal towers, and connect to a Receiver to start obtaining wireless data.



CSV Export

Equipment data collected by the Receiver can be output to a CSV file and analyzed to improve operational efficiency. Users can acquire machine status information from remote locations, so that analysis can be done by operators and managers outside of the plant floor.

File	Time	IP Address	Component	Ref	Order	Qty	Unit	Plant	Brand	Warranty/Status	Manufacturer
42111	12:54:04	192.168.1.100	Machine 1							OK	Patlite
42111	12:54:04	192.168.1.100	CNC 1							OK	Patlite
42111	12:54:04	192.168.1.100	Lathe Machine 1							OK	Patlite
42111	12:54:04	192.168.1.100	Sorter							OK	Patlite
42111	12:54:04	192.168.1.100	Lat 2							OK	Patlite
42111	12:54:04	192.168.1.100	Lat 3							OK	Patlite



WDS-WIN01*
WD System Setup Software

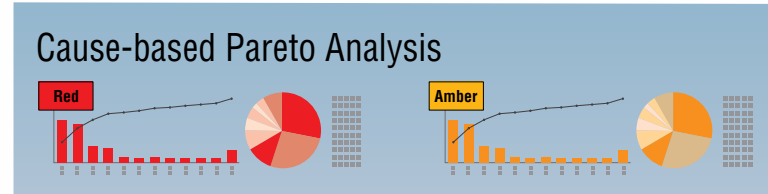
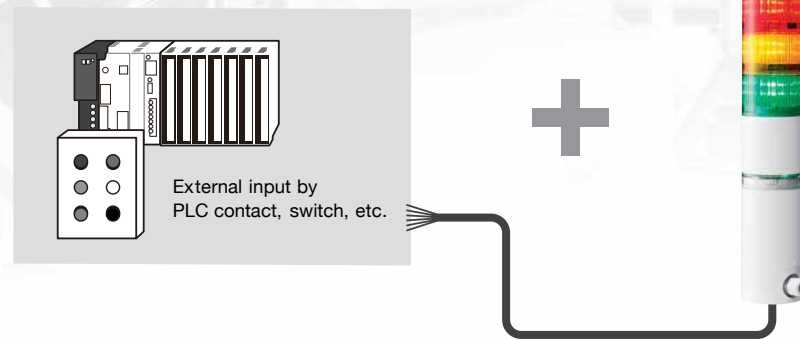
* WDS-WIN01 license purchase required for CSV file export.

ENHANCED FUNCTIONS WITH THE **WD PRO SERIES**

The WD PRO Series features additional data points and collaboration protocols for further visibility of devices within your network. It consists of an enhanced version of the Transmitter and Receiver, as well as a Base Unit for serial communication.

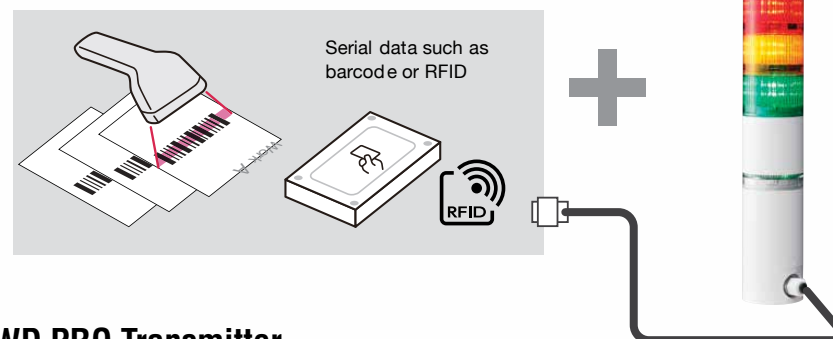
8 Points of Contact Input

Up to 765 data codes can be acquired, allowing users to identify specific conditions such as the exact cause and timing of equipment malfunctions.



Serial Cable

A barcode reader can be connected to the Base Unit, allowing users to trace specific operational data to gain greater control over their processes and resources.

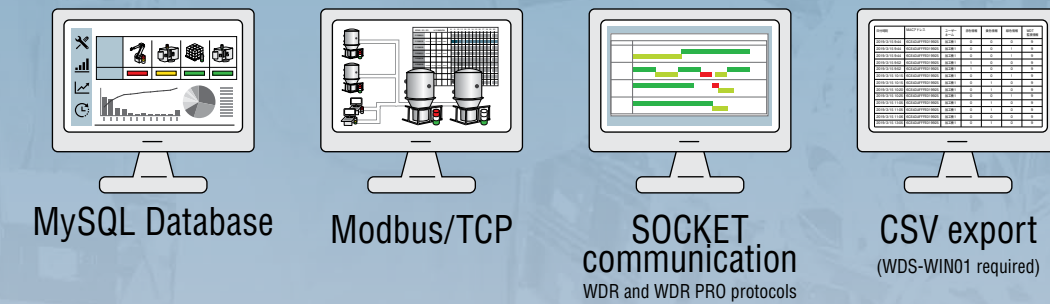


WD PRO Transmitter

WD PRO Base Unit

Run multiple applications simultaneously

Wide variety of collaboration protocols



* SOCKET communication (WDR protocol) and CSV export cannot be performed simultaneously.



PoE Capability

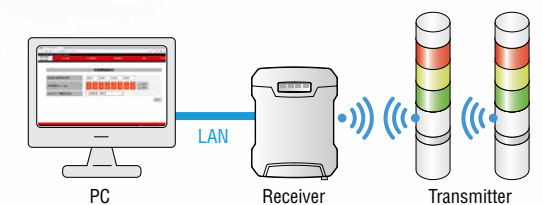
The WD PRO Receiver can access both power and data through a single Ethernet cable so that wiring space and costs can be minimized.



Device Setup Browser

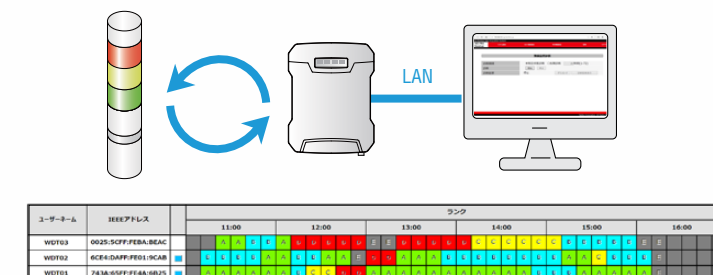
Connect the WD PRO Receiver to a PC via LAN cable to access the setup browser where various settings of the Receiver and Transmitter can be configured.

*Not compatible with WDR PRO Lite model or when connected via USB.



Wireless Quality Diagnostics

Displays the quality of wireless connection between the Receiver and Transmitter(s) using a 5-level evaluation system. Up to 72 hours of diagnosis data can be recorded so users can determine when and where the installation environment needs to be modified.

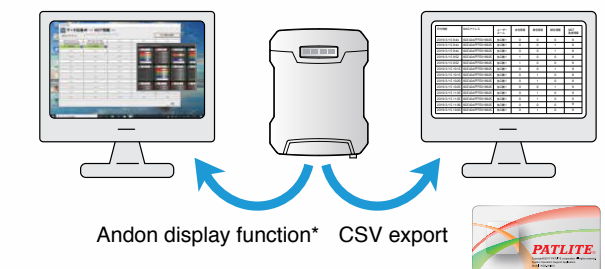


* Diagnostics occur every 10 minutes during long-period sessions.

* During diagnostics, a large amount of data is processed which may affect the data acquisition function.

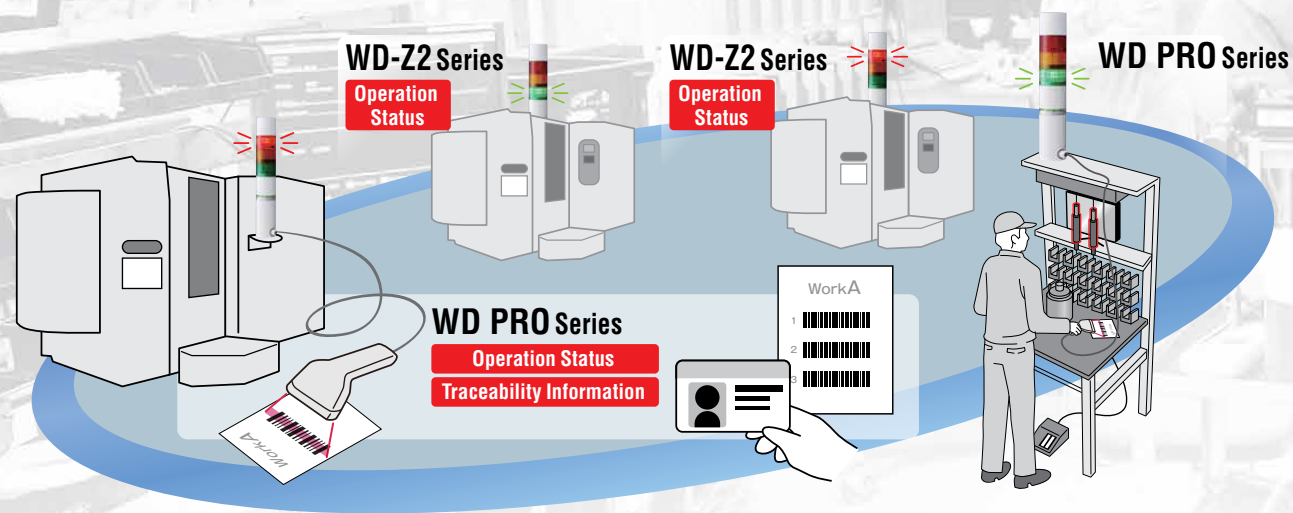
Andon Display

Real-time light and buzzer statuses of all connected signal towers can be displayed onto your computer screen. This can be done simultaneously with the CSV data collection.



* This function is not available for WDR PRO Lite models (WDR-LE-Z2-PRO-L).

STANDARDIZE OPERATIONAL MONITORING WITH THE **WD SYSTEM**



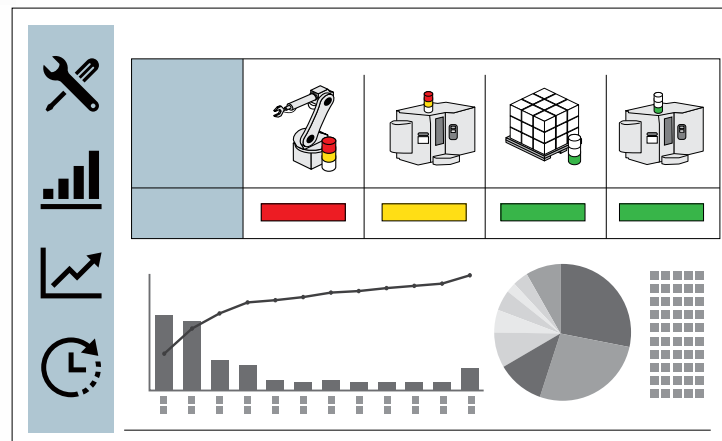
CASE STUDY 1

BEFORE

Production bottlenecks caused by machine down time and uneven production flow are constant obstacles within our daily operations. To address this issue, we are manually creating daily machine reports which are tedious and inaccurate.

AFTER

The WD system enables us to monitor our production line in real-time, quickly identify bottlenecks and address them. We can also determine the severity of machine issues for more effective predictive maintenance.



CASE STUDY 2



BEFORE

We operate several manufacturing facilities in different locations and have no system in place to remotely monitor machines in real-time. Our goal is to share information among our facilities to improve company-wide productivity.

AFTER

The WD System allows us to monitor all of our production lines in different locations remotely and in real-time. Analyzing equipment data from one location helped us to identify machine errors before they occurred in other locations.

WD Transmitters * All current Transmitters are compatible with all current Receivers

Transmitter **WDT-6M/5E-Z2** Transmitter **WDT-6LR-Z2** Transmitter **WDT-5LR-Z2** WD PRO Transmitter **WDT-6LR-Z2-PRO** Contact Input - Serial Communication Base **WDB-D80S-PRO**



Compatible models	LME/LE Signal Tower	LR6 Signal Tower	LR5 Signal Tower	WDB-D80S-PRO	WDT-6LR-Z2-PRO LR6 Signal Tower
Max separation of Transmitters	20m	20m	20m	20m	
Current consumption	Max 30mA	Max 55mA	Max 55mA	Max 110mA	
Contact input	—	—	—	8 points of contact	
Serial cable	—	—	—	✓	

WD Receivers * All current Receivers are compatible with all current Transmitters

Receiver **WDR-LE-Z2** Receiver **WDR-L-Z2-PRO** Receiver - Lite version **WDR-L-Z2-PRO-L**



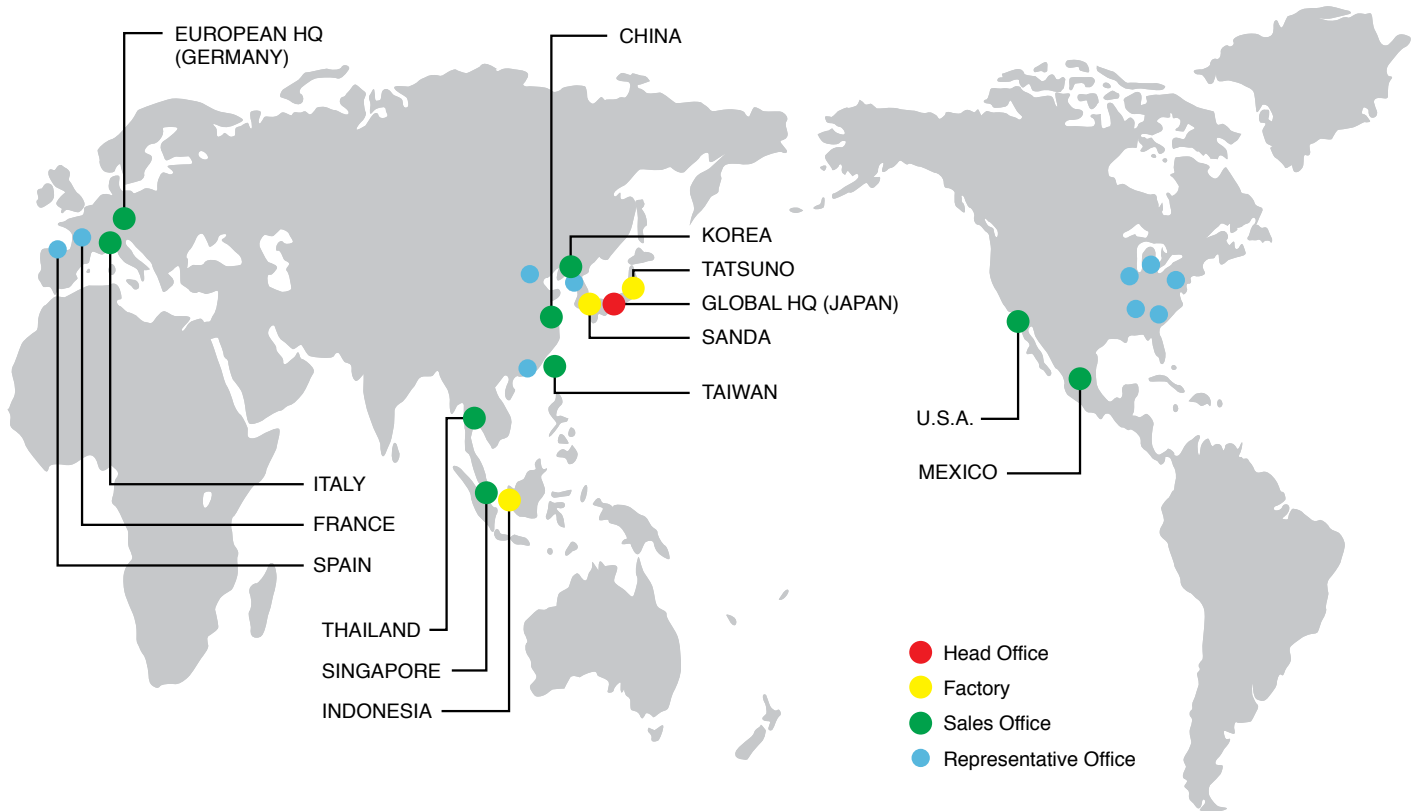
WD Software

WD System Setup Software **WDS-WIN01**



Transmitter connection	Max. 20 Transmitters	Max. 30 Transmitters	Max. 30 Transmitters	System Requirements
Communication distance	20m	30m	30m	Intel® Core™2 Duo 2.92 GHz or faster
Communication to application	Socket (WD-LR)	Socket (WD-LR) Socket (WDR-PRO) Data base Modbus / TCP	Socket (WD-LR)	Memory: 4 GB or more
Power	24V DC AC adapter USB BUS power	24V DC AC adapter USB BUS power PoE	24V DC AC adapter USB BUS power PoE	Display: XGA resolution (1024 x 768) or higher
Transmitter setting	WDS-WIN01	WDR (Browser) WDS-WIN01	WDS-WIN01	500 MB for installation *Separate capacity for CSV output
Wireless quality self-check	—	✓	—	Browser: Internet Explorer® 11
Simple ANDON web display	—	✓	—	Operating System: Windows® 7, 8, Server 2012 R2, Server 2016

PATLITE Global Network



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CAUTION

To ensure correct use of these products, read the "Instruction Manual" prior to use. Failure to follow all safeguards can result in fire, electric shock, or other accidents. Specifications are subject to change without notice.