

# Predictive Analytics

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## Introduction

It's well-known that power anomalies cause equipment malfunction, error-codes, and downtime that can drain a dealer's resources and cause customer dissatisfaction; and that power quality devices can help to alleviate these issues. What is not as well-known, is that devices with predictive analytics software offer an additional defense that is critical to a business' success.

Implementing predictive analytics can help dealers and integrators increase revenue, improve business processes, reduce risk and provide their customers with a true sense of security. In business, analytics help companies optimize processes internally and externally. This is the concept of predictive analytics, a data mining tool companies use to identify risks, opportunities, guide decision making and increase their bottom line. Businesses that are able to gather enough relevant data, develop the right type of response and monitor their assumptions carefully, will typically be a step ahead of the competition.

## What is Predictive Analytics?

First, let's discuss what predictive analytics is: Using innovative algorithms and predictive modeling, it discovers anomalies, patterns, and gives solutions to resolve electrical problems. It attempts to identify issues that can lead to connected equipment failure in advance. This enables technicians to proactively remedy issues rather than reacting to disruption or downtime.

By providing information that informs, instructs and educates, it offers the ability to change what dealers do, how they do it and presents new opportunities for growth.

Predictive analytics can provide:

- Analysis of a complex array of power-related data
- A detailed analysis of electrical events and conditions
- A probability of the cause of an electrical anomaly
- Alerts when an issue is detected
- Information on how to take immediate corrective action

## Why are Predictive Analytics Important?

The benefits are that equipment stays up and running without disruption, fewer service calls, business operations are optimized, reduced parts replacement costs and the opportunity to offer additional services to your clients. Predictive analytics is important to:

- Detect electrical issues
- Troubleshoot electrical issues
- Ensure faultless installs
- Identify preexisting power issues
- Eliminate the need for a pre- or post-install electrician
- Monitor problematic electrical environments
- Troubleshoot equipment malfunction and downtime
- Provide additional services to your clients

## Opportunities Available through Predictive Analytics

Improved Operations: The combination of granular visibility into the power infrastructure at an install, coupled with specific remedies and insights, enables dealers to increase operational efficiencies and reduce costs. For example, monitoring and analysis can identify the true cause of equipment malfunction which is often mistakenly classified as "no problem found" during a service call.

Advanced Failure Detection: When dealers monitor the power infrastructure and are aware of the dangers, it enables them to avoid unexpected failures of devices, equipment, and systems. Identifying unseen problems and predicting failures before they happen saves thousands of dollars in wasted resources, malfunction, and maintenance costs.

Interrelated Systems Performance: Before predictive analytics, dealers would not be able to discover electrical malfunctions that affect multiple systems. For example, if analytical monitoring shows us that a copier has malfunctioned, and at the same time we notice that an air conditioning unit is experiencing issues, we can tie these problems together and solve them more efficiently.

## Conclusion

Successful companies are increasingly those companies that excel at the task of extracting knowledge from data. Predictive Analytics is a cost-effective means to improve the performance of electronic equipment, systems, and business processes by means of collecting electrical data, constructing predictive models from that data, and making improved decisions based on the constructed data. It should be an important part of any dealer's business to increase revenue, customer satisfaction, and generate new growth opportunities.