



Paladin[®] Live[™]: A Sneak Preview for EDSA Users

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Imagine being able to read – and more importantly, to *retain* – the entire contents of the 20,000+ page Oxford English Dictionary in a single sitting: you would amass the world's most formidable vocabulary... with a mastery of more than 616,500 words made up of more than 350 million combinations of letters.

Now, armed with all of that letter-by-letter knowledge, imagine sitting down and participating in a competitive Scrabble[®] tournament... and the hundreds of millions of combinations of words you could play anytime, anywhere on the game board.

It's safe to say that you would *never lose at Scrabble[®] again*.

If that's the kind of competitive advantage you'd like to hold while managing your organization's electrical power system, you've just grasped the basic concept behind the new Paladin[®] Live[™] Power Analytics platform.

Although it's a simplistic example, think of the designbase you created using EDSA[®] Technical[™] software as being like the Oxford English Dictionary: it's a wealth of information about all of the equipment, components, and operating specifications designed into your entire electrical power infrastructure... down to the smallest detail and potential fault.

But as detailed as it is, your designbase is just *static knowledge*. Like the dictionary that never gets completely read and retained, your designbase becomes a competitive advantage that is never used: it remains stored as an electronic CAD/simulation file, long after the finished product, equipment, or facility is physically constructed.

Introducing Paladin[®] Live[™]

The new Paladin[®] Live[™] Power Analytics platform takes the robust knowledge of your designbase, and puts it to work *on-line*. So, like a Scrabble[®] player with a nearly-infinite vocabulary, Paladin[®] Live[™] uses all of the expert knowledge embedded into your designbase and applies it to your live, on-line operations.

It's safe to say that you will *never lose power again*.

Working together, your designbase and Paladin[®] Live[™] are in constant communication with one another, checking thousands of measurements throughout your electrical power infrastructure every second. But instead of looking for word combinations, they are searching for the slightest deviations between your live operations and the as-designed specifications contained in your designbase. As a result, longer-term electrical power

problems are identified and isolated the instant they become detectable... in almost every case, before any interruption in service can occur.

Predict, Prevent, Present

Paladin® Live™ uses a methodology dubbed “Predict, Prevent, Present” – in which the system maintains an uninterrupted, 360° view of your electrical power infrastructure. It is constantly examining, testing, validating, and learning about the integrity of all internal components, in order to accurately:

- **Predict** Learn to identify conditions that precede power failures
- **Prevent** Isolate impending point-of-failure
- **Present** Report potential problems and recommended actions to owner/operator

The term “learning” is not used lightly: once on-line, Paladin® Live™ uses a first-of-a-kind “neo-cortical pattern/sequence recognition technology” enabled by a new type of machine learning called “associative memory.” Or, in layman’s terms, it literally learns via “on-the-job-training,” amassing extremely broad and deep expert knowledge regarding everything it observes about your operations.

This enables the system to display “experiential learning” – in which future events become predictable by virtue of past Paladin® Live™ observations and aggregated knowledge. For example, after intelligently assimilating knowledge about alarms, it can ultimately master the pattern and sequencing of alarms, in order to accurately predict the location of impending failures, their context, and even their cause.

Summary

Users of EDSA® Technical™ software (which is being renamed Paladin® DesignBase™) who have invested hours and hours into the development of their designbases are on the verge of an exciting new era: the opportunity to see firsthand how their pristine electrical system designs are performing in the harsh, real-world environments.

And for non-EDSA customers who are undertaking important new electrical design projects, Paladin® Live™ creates an intriguing two-fold opportunity: the opportunity to design a “Perfect on Paper” project... and then, the chance to make that design the basis of a “living model” that protects the facility they worked so hard to create.

For additional information:

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