

TOA4 Monitor Watch™

Feature Sheet



Advanced software diagnostics for online DGA monitor data from high-voltage apparatus.

TOA4 Monitor Watch extends TOA4 Online to process online DGA monitor data automatically, and to provide timely and high-quality diagnostic information to operations & maintenance teams and enterprise systems.

- Stores large quantities of raw monitor data
- Enables comparison of online DGA monitor data with laboratory data
- Receives data generated by any online DGA monitor
- Produces results within minutes of receipt of monitor data



After more than a decade of experimentation, the electric power industry is deploying online DGA monitors on a larger scale. An aging infrastructure, the need for full economic utilization of assets, stringent reliability requirements, rising labor costs, and the gradual loss of diagnostic expertise through retirement are driving the adoption of online DGA monitors.

Interpreting dissolved gas test data from annual oil sampling is complicated enough. Online DGA monitors deliver thousands of times more test data than traditional manual sampling, which makes manual analysis of raw dissolved gas data impractical.

TOA4 Monitor Watch automates the screening and initial interpretation of online DGA monitor data to present statistical and graphical summaries for high-voltage equipment experts. Using sophisticated

algorithms, **TOA4 Monitor Watch** also distills the high- and medium- frequency noise present in online DGA monitor data in order to provide the most accurate and timely apparatus condition assessment while avoiding disruptive and costly false alarms.

High-volume online DGA monitor data is automatically processed by **TOA4 Monitor Watch** automatically into high-quality status and diagnostic information. Apparatus condition assessments can then be promptly fed into asset and maintenance management systems so proper maintenance action can be planned and initiated.

With optional diagnostic alerts, key engineering & operations staff are notified about abnormal events within minutes.

With TOA4 Monitor Watch, utilities and heavy industry are better equipped to manage risk, reduce system losses, improve reliability and maximize return on investment of their high-value assets.

The Delta-X Advantage

Proven Foundation

TOA4 Online is the diagnostic tool most used by high-voltage equipment experts for dissolved gas analysis. TOA4 Monitor Watch extends TOA4 Online to manage and interpret the high volume of data produced by online DGA monitors. With a familiar user interface and the same sound scientific rigor at its core, you will be right at home using TOA4 Monitor Watch to oversee your online DGA monitor fleet.

On Watch 24 x 7

Within minutes of receiving data from online DGA monitors, TOA4 Monitor Watch produces high-quality status and diagnostic results. And with diagnostic alerts, key personnel are notified of equipment requiring additional or urgent attention. You can remain focused on your operations and maintenance program confident of being alerted when new critical events occur.

Monitor the Monitors

Online DGA monitors are another capital asset requiring regular condition assessment and maintenance. TOA4 Monitor Watch receives data from online DGA monitors made by any manufacturer and interprets the quality of each monitor's dissolved gas test results. With TOA4 Monitor Watch, you can assess the condition of your online DGA monitor fleet and optimize your maintenance plan accordingly.

Market Leadership

With over half of the largest utilities in the USA as TOA4 Online subscribers, you join a large community whose combined experience over two decades has been applied to create the most effective and recognized diagnostic tool for interpreting dissolved gas (DGA) test results. With TOA4 Online and TOA4 Monitor Watch, you are in good company.

Features

- **Stores and manages raw test data from online DGA \ monitors**
- **Automatically conducts dissolved gas analysis (DGA)**
- **Enables comparison of online DGA monitor data with laboratory data**
- **Assesses condition of online DGA monitors**
- **Suitable for online DGA monitors on power transformers, load tap changers and other liquid-filled electrical apparatus**
- **Applies state-of-the-art statistical and computational techniques**
 - Provides example analysis norms based on applicable industry standards
 - Includes Duval triangle diagnosis for transformers and load tap changers
 - Supports new diagnostic methods for tap changers, voltage regulators, and oil circuit breakers
 - Advanced interpretation of online DGA monitor data
- **User can modify or create analysis norms/criteria**
- **Diagnostic alerts (optional) automatically notify users according to user-configured rules**
- **Scales for large & small apparatus fleets**
- **Various and flexible reporting**
 - Fleet equipment comparisons & prioritization
 - Identifies equipment requiring further attention or testing
 - Preconfigured graphs to visualize data and results
 - User may add write-protected expert comments and recommendations
 - PDF exports for easy distribution
- **Open & published interfaces**
 - Easy, unrestricted data transfers
 - Easy data extraction to other tools (e.g. MS-Excel)
 - Easy integration with CMMS and other enterprise systems
- **Requires TOA4 Online**

Delta-X provides software diagnostic solutions to assess and track the condition of electrical apparatus used by utilities and heavy industry. Delta-X's Transformer Oil Analyst™ (TOA) is the market leading tool used by high-voltage equipment experts to manage and interpret insulating fluid test data, including dissolved gas analysis. Generation, transmission and distribution utilities as well as leading industrial operations around the world rely on Delta-X to provide accurate and timely insights into the condition of their high value assets.



Sales: sales@deltaresearch.com | 1-919-544-8191

Inquiries: info@deltaresearch.com

deltaresearch.com