AnswerModule®
Sag Direction

Intelligent Answer Modules

Answer Modules are proprietary algorithms that convert raw power quality event data into precise answers to determine the source and cause of disturbances. Answer Modules characterize data recorded by Dranetz power quality instruments, storing the results of the analysis as part of the data recorded in the Encore Series Software database. These unique software tools are only available from Dranetz, and enable users to save time and improve accuracy when troubleshooting power quality problems.

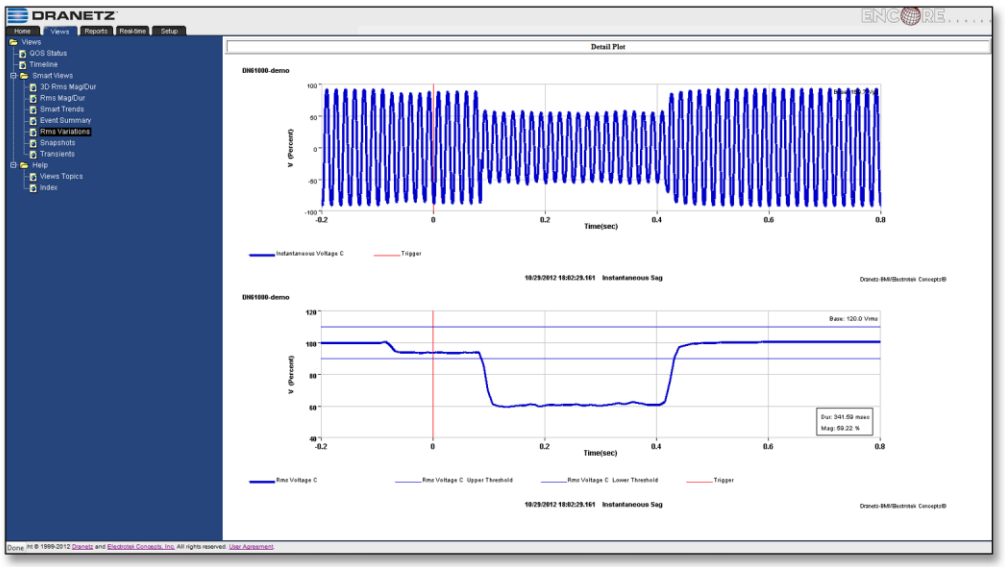
Diagnose and Locate the Source of Voltage Sags

Voltage Sags have traditionally been a power quality manager's biggest headache, with even a small Sag capable of causing hours of downtime and a substantial loss of production. The headache has grown even larger today with computers integrated into virtually all energy-dependent operations.

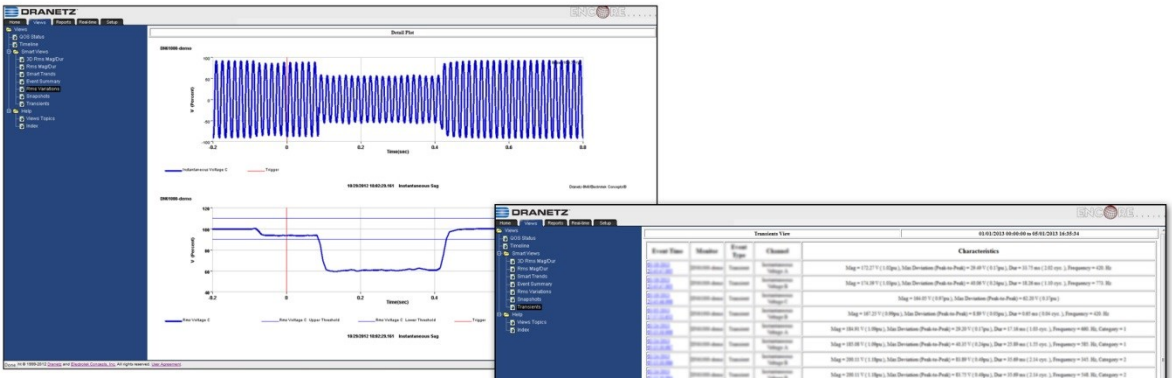
Voltage Sags can be caused by faults on the utility power system or by internal events, such as the start-up of large loads and other devices. Knowing the location of the fault as originating inside the facility or on the power grid is the first step in resolving the problem and protecting your operation. The Encore Series® Sag Directivity Answer Module® helps you do this quickly, easily and cost-effectively.

Quickly Detect, Identify and Locate Sags

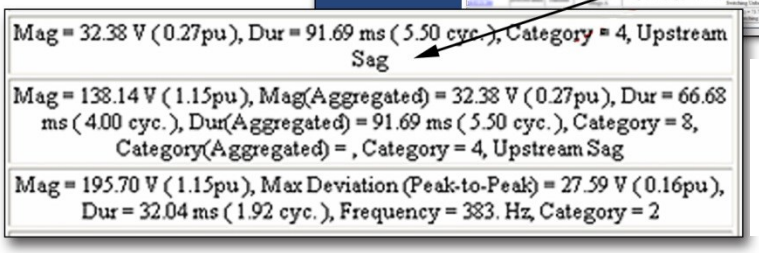
The Sag Directivity Answer Module arms you with the ability to automatically identify and locate Sags, without any prior or specialized power quality knowledge. The Sag Directivity Answer Module analyzes RMS voltage events recorded by your Dranetz PQ instrument, identifies its characteristics, and determines the source as originating upstream or downstream from the monitoring point. Armed with this information, any user can easily determine the source of the Sag and quickly determine corrective actions or next steps.



The Sag Directivity Answer Module uses the voltage and current waveshapes recorded during the RMS voltage event, along with proprietary algorithms and techniques developed by Dranetz and Electrotek Concepts, our power system consulting company. Analysis results are stored along with the Sag event data in the Encore Series Software database.



Use your internet browser to examine the detail of each RMS Voltage Sag and share the graphs in real time with colleagues and customers.



The RMS Voltage Sag Directivity Answer Module provides information about the severity and characteristics of the sag, and indicates the direction of the sag relative to the monitoring point.

Specifications for the Sag Directivity Answer Module Software

Operating Environment:
Optionally available in any InfoNode® or Encore Series Software.

Input Data:
Accepts waveform data from any Dranetz DataNode that provides greater than 64 samples/cycle for 3-phase voltage and current. RMS data must also be present.

Output Information:
Voltage sag event identified. Direction (upstream, downstream) to the sag source identified relative to the monitored point.

Applications:
Nearly any monitoring application where the source of the sag needs to be identified to determine the cause, and to prevent future occurrence.

Algorithms:
Proprietary algorithms utilizing voltage and current sequence phase angle information and expert knowledge.

DRANETZ™

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ISO9001 CERTIFIED c UL us CE Made In the U.S.A.

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