



Advanced Technology for
Superior Solutions.



NormNet™

Prognostic System Health Management

Features

- *Accurately models complex, high performance systems*
- *Detects very small anomalies that forecast future failures*
- *Functions in both real-time and deferred mode*
- *Compatible with current operations*
- *Independent of system physical characteristics*
- *Interfaces with existing sensors*

Benefits

- *Detects abnormalities and identifies future malfunctions*
- *Increases availability*
- *Minimizes unscheduled outages*
- *Identifies most likely problem source*
- *Minimizes false alarms*
- *Limits repairs to failing components*
- *Reduces major failures*

*Do you know that one of your critical systems
is about to have a catastrophic failure?
You will with NormNet™.*

For the past eight years, Frontier Technology, Inc. (FTI), supported by the US Air Force, US Army, US Marine Corps and commercial ventures has been developing Prognostic Health Management (PHM) technology that provides you with the early warnings that lets you identify and respond to problems before they become catastrophic or impact your operations.

Today, the DoD, system integrators and operators and original equipment manufacturers, are focusing on Performance Based Logistics and Condition Based Maintenance to increase system availability, improve system reliability, and reduce the cost of system operations. These strategies represent efforts to shift maintenance to preventative and predictive approaches based on evidence of need. Their effective implementation requires technology that can continuously monitor the health of the system, providing early detection of abnormal conditions, identify failing components and recommend remedial action in time to avoid negative mission impact or catastrophic failure.

NormNet: Prognostic System Health Management

NormNet™ PHM from FTI provides early warning of future system failures – reducing unplanned outages, increasing availability and reducing maintenance cost. NormNet™ provides the early warning of degrading conditions and future failures needed for effective deployment of Condition Based Maintenance.

NormNet™ is based on FTI's patented "Pattern Recognition of Health (PRoH™)" technology. NormNet™ models normal system operations; it does not require physical models or lists of failure modes to detect and predict problems. NormNet™ makes use of data that you already have available to you; it does not require changes or upgrades to your sensors, data sources or operational procedures. Using information that is currently available, NormNet™ creates a statistical model of normal operations – a healthy system. System abnormal behaviors and future problems are identified by detecting small variances from expected system behavior. NormNet™ can process input from multiple sensors, sampled at rates as fast as 250 milliseconds while detecting variances from expected performance as small as 2%. Whether the system being monitored is a power plant, transmission lines or local facilities, PRoH™ technology enables NormNet™ to identify abnormal system behaviors and forecast future problems well in advance of current threshold-based or static diagnostic systems.

With NormNet™, your operations staff can

- Identify potential problems or unexpected events and permit a planned response before they can cause an unplanned shutdown or catastrophic failure,
- Improve availability and reduce support costs by minimizing unplanned outages,
- Reduce maintenance activities by permitting them to take place based on actual equipment performance characteristics (condition-based maintenance) rather than on an arbitrary elapsed time.

NormNet™ is designed to make your operations and maintenance more effective. It uses data from your existing sensors and data sources and easily integrates into your operations and maintenance procedures. No system hardware or software changes are required to what works today. And as you improve your systems, NormNet™ adapts to changes that you make in configuration, operations or maintenance procedures.

For more information, please contact NormNet@fti-net.com or call (800) 247-6937 x120



75 Aero Camino, Suite A Goleta, CA 93117 (805) 685-6672 FAX (805) 685-1107 <http://fti-net.com>