



## **FIGLES Consulting, presents in FEINDEF, the ABACO Unique Innovative Health Toolkit to Maximize System Reliability, Mission Success**

- *Interrogates and reports on status of all system hardware components*
- *Delivers consistent, intuitive information to enable fast corrective action*
- *Provides application interface for in-mission adjustment*

Abaco Systems will be showing the Health Toolkit, a unique and innovative solution designed to maximize system reliability and success in mission critical environments such as electronic warfare, digital radar and flight control. Health Toolkit is a software/middleware tool, operating between the underlying hardware and the application software, that interrogates all aspects of the hardware's performance, optionally reports on its health via an intuitive GUI and enables corrective measures to be taken if necessary.

The [Health Toolkit](#) is unique in that it not only analyzes and reports on Abaco VPX hardware within the system, but also enables third party and custom hardware to be both integrated and interrogated, and does so in a unified manner that makes the gathering and interpretation of data substantially easier.

The Health Toolkit is a further extension of Abaco's growing [NodeWare](#) family of software solutions. NodeWare sees Abaco increasingly leveraging the power of data, allied with advanced software technologies including AI, deep learning and software-defined machines, and combining these to deliver actionable insights either via a GUI or an API. NodeWare also includes the [AXIS](#) integrated software development tool suite and the [OpenWare](#) switch management environment.

The granular data provided by the Health Toolkit can be used to identify patterns of behavior that can lead to hardware malfunction, enabling corrective action to be taken to prevent system failure. It also reports on resource utilization, allowing resources to be reassigned if necessary.

Information derived from the Health Toolkit is available to the application software, enabling the application to take appropriate programmatic action in the event of anticipated failure.

“Historically, the industry has taken somewhat of a piecemeal, siloed approach to ensuring system reliability and availability, with each piece of hardware reporting its status in its own way, and delivering output that could be challenging to interpret and thus to take action on,” said Peter Thompson, Vice President, Product Management at Abaco Systems. “The Health Toolkit is the first solution to take a holistic approach that includes all the constituent hardware elements of the system, from whatever source, and to provide consistent, integrated insight into their performance using a common format. We believe it can make a huge contribution to system reliability and mission success.”

The Health Toolkit comprises three key components:

- Health Monitoring Framework: includes an agent application to collect and publish system health information.
- Libraries and Templates: facilitate integration of health monitoring directly into the end application and provide extensibility to support custom and third party hardware modules.
- Health Monitor GUI: provides an integrated dashboard to display all the system health information being collected and published via the framework.

The core framework is built on the Data Distribution System (DDS) open standard middleware layer. This middleware is widely used in many industries and aligns with wider common system architecture standards such as FACE™ and SOSA™. The toolkit provides DDS publish and subscribe example source code. This, along with a fully documented data model, enables developers to integrate their own components into the framework.

In addition to the GUI application that provides a convenient and intuitive dashboard to display all the system health information being collected and published via the framework, a web server is provided that enables health data to be viewed via a standard web browser.

Operating system support is provided for Linux®, Windows® and VxWorks®.

More information:

[Health Toolkit](#)

[NodeWare](#)

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