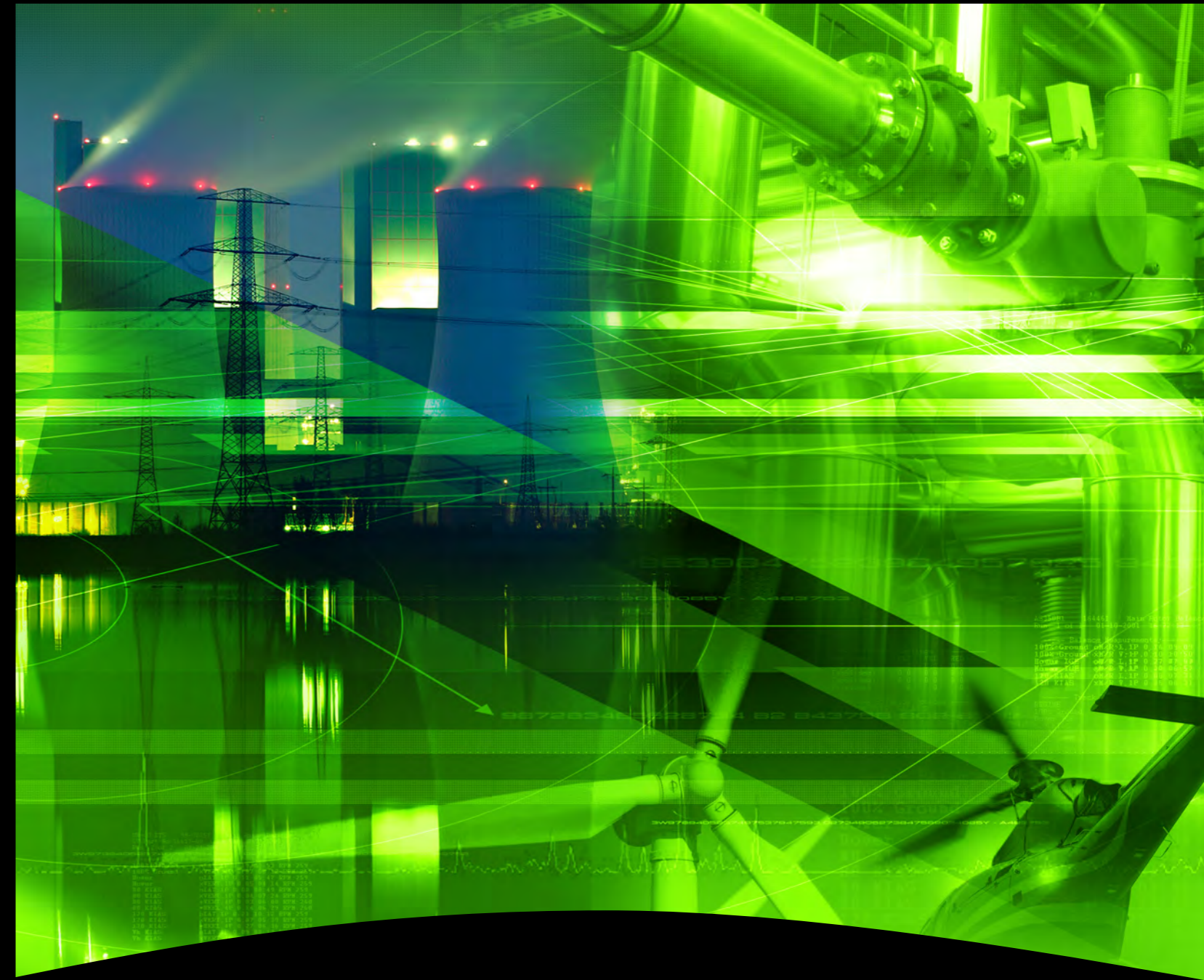


Zing™ Intelligent Machinery Diagnostic System



**Delivers the most capable real-time
machinery diagnostic system**

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Delivers the most capable real-time machinery diagnostic system.

Zing™ Ware 1044 Intelligent Machinery Diagnostic System (iMDS)

Specifically designed for use in harsh industrial environments. The 1044 is part of a growing family of adaptable and interchangeable hardware and software machinery diagnostic products offered by Honeywell. The Windows®-compatible iMDS-PC analysis software is included with your purchase of the 1044. Available options include the 1047 iMDS-Server, the iMDS Database Setup Tool and the iMDS Matlab® Development Toolbox.

The fully programmable 1044 includes a robust library of machinery fault detection algorithms for general purpose machinery diagnostics and specialized prognostic tools for gas turbine health monitoring. A web server is included allowing users to connect with the 1044 from anywhere in the world using a standard web browser. The 1044 is currently used in turbine engine test cells, remote monitoring for co-generation power plants and general purpose machinery diagnostic applications. 1044 diagnostic algorithms automatically analyze acquired data and provide a comprehensive indication of machine health including engines, drive shafts, gearboxes, bearings, pumps and generators.

The easy-to-use and easy-to-understand iMDS-PC analysis software is used to display data analysis and corrective actions to the user. Load iMDS-PC software on any portable PC and connect directly to the 1044 for

at-machine diagnostics and data analysis. Connect to other 1044 systems over the internet to remotely diagnose and manage multiple machines. Machine and component status, recommended maintenance actions, machine-to-machine or factory-to-factory trending and many more powerful analysis-tools are included with the MDS-PC software.

Zing's advanced anomaly detection processing, available with the optional iMDS Server, helps the 1044 to "learn" new machine fault modes over time by automatically screening incoming data for new or never seen before events. This enables the development and deployment of new algorithms to detect these new events.

Data Channels		
Channel Type	QTY	Comment
Accelerometer Channels	32	1.5 to 96kHz Bandwidth (8 simultaneous) *32 ch of analog inputs are available as accelerometer or general purpose analog
Tachometer Channels	8	High Speed A/D based adaptive tachometer
General Purpose Analog or Discrete	32	General purpose analog/discrete interface samples rates up to 125k/sec (voltage or current inputs) *32 ch of analog inputs are available as accelerometer or general purpose analog
Discrete Output	16	High current drive capability
Blade Tracker	1	Configured for Blade Tracker

Busses Supported — Number and Type

The IAC 1044 supports one Ethernet interface, two USB interfaces, one Firewire interface, one RS-232 interface, and one RS-232/422/485 interface.



Benefits

- Reduces the maintenance burden
- Reduces unscheduled maintenance
- Reduces over-maintenance
- Reduces operation and support costs
- Maintenance actions are correlated to specific health indicators and clearly communicated so that maintenance action can be scheduled
- Remote software upgrades

Features

- Extensive use of open architecture hardware and software standards yield a low cost, easily upgradeable core system
- Automatically acquires data and continuously checks for pre-programmed exceedances
- Demonstrated advanced diagnostics for rotor smoothing, drive train, turbine engines and gearboxes
- Open architecture software allows for maximum design reuse and future insertion
- Unique software setup and configuration control methodology allows both the iMDS software and host software to be updated remotely
- Novel software configurable database driven setup – allow measurement and diagnostic processing configuration changes without the need to upload new object codes
- Companion web-based tool allows for remote software and diagnostic upgrades, configuration management of iMDS application software
- State of the art signal processing and diagnostic algorithms

iMDS-PC Analysis Software Application (included)

The iMDS-PC Windows®-compatible analysis software program receives measured data from the 1044, stores this data into a database, then analyzes this data to produce easy-to-understand corrective actions for maintenance personnel. The iMDS-PC software can also act as a simple mechanism to collect and transfer data from the field to a centralized web server.

This provides users with remote monitoring, trending, data analysis and automatic software upgrades for the 1044.

Web Server Interface

The built-in web server capability allows real-time display of selected vibration data and machine conditions indicators. The 1044 can be configured to be a part of your local area network or as a remote network accessed over the web.

Technical Specifications	
Dimensions	19" rack mount, 1U
Weight	7.5 lbs
Temperature Range	-41°C to 71 °C
Input Power	120VAC 50/60Hz
Power Consumption	< 15W
Interconnection	Terminal Blocks
Enclosure	Aluminum Light Weight
Processors	(1) 533 mHz Geode (2) 450 mHz PowerPC 405 DSP processing, Virtex4 FPGA
RAM	(1) 256Mbyte SDRAM, Geode (2) 128MByte SDRAM, PowerPC
Flash Memory	Compact Flash IDE, 8G max
Compatibility	PC/AT compatibility
Input / Outputs	(1) Ethernet, (2) USB, (1) Firewire, (1) RS-232, (1) RS-232/422/485