RDI
TECHNOLOGIES™

PREMIUM
PROACTIVE
ENGINEERING

AUTHORIZED DISTRIBUTOR

CONTACT

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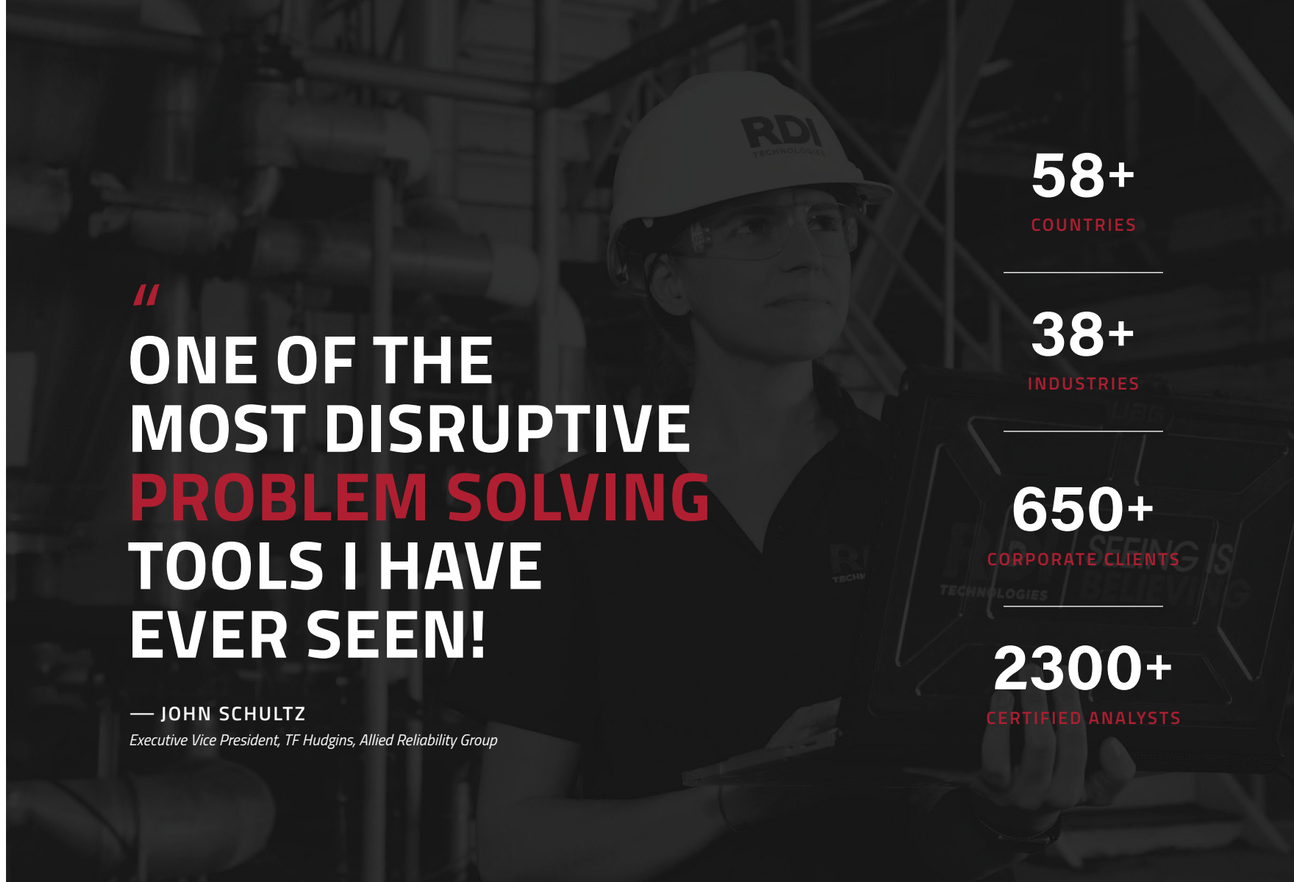
VISUALIZING MOTION. FINDING SOLUTIONS.

RDI Technologies is pioneering the camera as the sensor of the future because visualization is faster, safer, and makes the complex more simple. Our proprietary technology powered by Motion Amplification® enables users to see and measure motion invisible to the human eye that could previously be measured only by contacting sensors.

Our products combine the power of modern cameras with our software to turn what used to be complex charts and graphs into easy-to-understand video data that enables our users to quickly and safely solve their toughest problems and communicate the results.



"ONE OF THE MOST DISRUPTIVE PROBLEM SOLVING TOOLS I HAVE EVER SEEN!

— JOHN SCHULTZ
Executive Vice President, TF Hudgins, Allied Reliability Group

58+
COUNTRIES

38+
INDUSTRIES

650+
CORPORATE CLIENTS

2300+
CERTIFIED ANALYSTS

What Is Motion Amplification®?

RDI's patented technology measures movement, deflection, displacement, and vibration not visible to the human eye. Our total industrial solution utilizes video camera technology in conjunction with our one-of-a-kind software and processing algorithms to extract meaningful data that solves problems.

This technology turns every pixel in the camera's view into a sensor capable of measuring vibration or motion with unparalleled levels of accuracy.

VISUALIZE

Detect subtle displacement with RDI's propriety video processing software, which converts movement to a level visible to the naked eye.

MEASURE

Measure and quantify mechanical or structural assets that a camera can see with the same accuracy as a contacting displacement sensor.

COMMUNICATE

Enhance your understanding through helpful videos, providing a communication tool between technical and nontechnical resources.

TROUBLESHOOT

Filter data and visualize motion at specific or overall frequencies to find the real source of a problem and position your team to fix it.

PRIORITIZE

Today's companies have "analysis paralysis" because they have too much data and information to process. RDI's products help you prioritize by quickly and easily visualizing what is happening with your assets.

COMPLEMENT

Complementary tools for your current testing toolkit, RDI's products can be used to identify, validate, or specify the source of reliability problems. It will enhance the root cause analysis program and allow you to see problems that other tools can't detect.

VISUALIZE THE ROOT-CAUSE

You won't just see a problem, you will see the solution. By visualizing the root cause, we allow you to move beyond data collection to true problem-solving.

IRIS M™
Enhancing Vision

The World's First Non-Contact Motion Amplification® Software Platform

Iris M™ from RDI Technologies is the first device of its kind that allows users to instantly see movement that is invisible to the human eye. The Motion Amplification® software quickly identifies the root cause of your problem. Iris M is used in a wide range of industrial markets and plant applications.

The Iris M platform monitors critical manufacturing machinery, operations, process lines, structural components, quality control, and other factors that affect plant reliability and productivity. By turning every pixel in the camera into a sensor, Iris M takes millions of measurements in a fraction of a second. It does this with no physical connection or disruption to your operations, machinery, or plant assets.

The Iris M™ technology platform delivers real-time video, enabling you to make instant decisions about manufacturing operations based on real data. It also gives you the ability to visualize the entire process while retaining component-level analysis. All of this makes Iris M the perfect tool for screening assets, fault finding, commissioning new assets, and pre/post repairs or retrofits. Every step of the way, Iris M provides specific information about the process or issues at the root of a quality problem.

Iris M's Motion Amplification® software produces an easy-to-understand video of actual movement across your equipment and machinery enabling far more effective communication between technical and nontechnical personnel. This is guaranteed to enhance your decision-making process. Videos from the Iris M platform are produced within seconds of data collection. In other words, Iris M saves you time and money.

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IT'S NOT OFTEN YOU CAN USE THE TERM 'GAME-CHANGING TECHNOLOGY.'

— STUART WALKER
Senior Reliability Engineer, Reliability Maintenance Solutions

IRIS M™
Enhancing Vision

Enhancing Vision. Improving Problem-Solving.

The Iris M™ is the first tool of its kind to bring video-based monitoring and Motion Amplification® to the industrial market. It is different from traditional tools because it simultaneously monitors all points of your process and machinery, and it does this with absolutely no contact during normal operating conditions.

The Iris M provides a visualization of your equipment backed up by a comprehensive analysis tool that includes displacement measurements, phase analysis, orbit plots, and much more. With Iris M, you move well beyond data collection to problem-solving.

FEATURES

LIVE MOTION AMPLIFICATION®
Apply amplification and scan assets instantly to see motion in real time

MOTION MAPS
Colorized image overlays of individual frequencies or overall motion

WAVEFORMS, SPECTRA, ORBITS
Draw unlimited regions and measure displacement simultaneously

TRANSIENT AMPLIFICATION
See Motion Amplification® of small motions as an object moves through the scene

STABILIZATION
Entire frame and region-based image stabilization

TRANSIENT PATH PLOT
Show the path of an object in the video as well as in the plot

FREQUENCY FILTERING
Bandpass, Bandstop, Lawpass, Highpass Filtering of Time Waveform

SHAFT INSPECTION
Inspect rotating shafts and measure their displacement while under operation

TOP FREQUENCY FILTERING
Automatically determine frequencies of interest and create multiple filtered data sets with a single click

VIDEO SIDE-BY-SIDE
Side-by-side video playback of original and Motion Amplification® with image zoom capabilities

DATA EXPORT
Export waveform, spectra, orbits, and object paths to .csv file

VIDEO ANNOTATIONS
Overlay custom logo, text, shapes, and annotations with export to video

SPECIFICATIONS

LENSES	6mm, 12mm, 25mm, 50mm, 100mm
AQUISITION SYSTEM	i7 processor, 32GB RAM, 1TB SSD, dual batteries, MIL-STD-810G standard drop protection, 3-year accidental damage protection
SAMPLE RATE	180 fps in HD, up to 1,300 fps at reduced resolution
FREQUENCY RANGE	Up to 5,400 CPM at 180 fps Maximum: 39,000 CPM at 1,300 fps with reduced resolution
MINIMUM DISPLACEMENT	0.01 mil (0.25 µm) at 3.3 ft (1m) with 50mm lens, 0.005 mils (0.125 µm) at close focus
AMPLIFICATION FACTOR	1-500x
TRIPODS & MOUNTS	Professional grade with pistol grip, clamp mounts, magnetic mounts
OPTIONAL ACCESSORY KIT	LED light: 23,000 Lux @ 1 m, Li-ion light battery, light stand, extra vibration pads, computer stand

IRIS MX™
Enhancing Vision

Visualize and Measure a Full Spectrum of Faults

The Iris MX™ from RDI Technologies expands upon its revolutionary Iris M™ product to open up the world of Motion Amplification® to high-speed applications. Like the Iris M, the Iris MX utilizes the millions of pixels in today's modern cameras to measure deflection, displacement, movement, and vibration not visible to the human eye.

The MX shoots at an impressive thousands of frames per second. The Iris M covers a wide range of faults in machine condition monitoring, but with the addition of the Iris MX, we have you covered no matter what the speed of your machine.

FEATURES

The Iris MX™ maintains all of the features of the Iris M™ (see page 9) with the added features below.

EXTENDED FREQUENCY RANGE

The Iris MX's extended frequency range allows you to capture higher frequency content at 700 hz in high definition with a larger field of view.

HIGH-SPEED CAPTURE

The Iris MX can be used as a high-speed camera shooting at 1,400 frames per second in high definition and up to 29,000 frames per second at reduced resolutions.

SPECIFICATIONS

LENSES	6mm, 12mm, 25mm, 50mm, 100mm
AQUISITION SYSTEM	i7 processor, 32GB RAM, 1TB SSD, dual batteries, MIL-STD-810G standard drop protection, 3-year accidental damage protection
SAMPLE RATE	1,400 fps in HD, up to 29,000 fps at reduced resolution
FREQUENCY RANGE	Up to 42,000 CPM at 1,400 fps Maximum: 870,000 CPM at 29,000 fps with reduced resolution
MINIMUM DISPLACEMENT	<0.01 mil (0.25 µm) at 3.3 ft (1m) with 50mm lens, 0.005 mils (o.125 µm) at close focus
AMPLIFICATION FACTOR	1-500x
TRIPODS & MOUNTS	Professional grade with pistol grip, clamp mounts, magnetic mounts
OPTIONAL ACCESSORY KIT	LED light: 23,000 Lux @ 1 m, Li-ion light battery, light stand, extra vibration pads, computer stand

IRIS CM
Enhancing Vision

The Power of Continuous Monitoring

With the Iris CM™, Motion Amplification® is no longer just a point-in-time troubleshooting tool. It is a multi-camera solution that continuously monitors your equipment while you are away. This tool connects traditional accelerometers and RDI's patented video-based vibration measurement to ensure that you never miss anything in your plant.

All three cameras are simultaneous to offer multiple views of a process or piece of machinery and can store up to 90 minutes of HD data per camera. Users can trigger video and data recordings based on external inputs, virtual camera-based regions of interest, and thresholds for movement.

FEATURES

The Iris CM™ maintains all of the features of the Iris M™ (see page 9) with the added features below.

CONTINUOUS MONITORING

The Iris CM uses three high definition cameras for a multi-camera solution that continuously monitors your equipment from multiple angles.

TRIGGERS

Trigger recordings based on physical or virtual camera-based sensors. Store video pre- and post- triggers for analysis before and after events.

STORAGE

Each camera can store up to 90 minutes worth of HD video. You can extract video from any time in the last 90 minutes.

SPECIFICATIONS

LENSES	6mm, 12mm, 25mm, 50mm, 100mm
SERVER	Intel i9 processor, 3 TB Samsung SSD for persistent storage, 32 GB RAM
AQUISITION SYSTEM	Intel i7 processor, 32GB RAM, 1TB SSD, dual batteries, MIL-STD-810G standard drop protection, 3-year accidental damage protection
SAMPLE RATE	180 fps in HD, up to 1,300 fps at reduced resolution
FREQUENCY RANGE	Up to 5,400 CPM at 180 fps Maximum: 39,000 CPM at 1,300 fps with reduced resolution
MINIMUM DISPLACEMENT	<0.01 mil (0.25 µm) at 3.3 ft (1m) with 50mm lens, 0.005 mils (o.125 µm) at close focus
AMPLIFICATION FACTOR	1-500x
TRIPODS & MOUNTS	Professional grade with pistol grip, clamp mounts, magnetic mounts
LIGHTING KIT	(2) LED lights: 23,000 Lux @ 1 meter, Li-ion light battery, light stand

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For 15 years, I gave vibration analysis reports to clients and am not sure what they have been doing with them all those years. Now, I give them a video, and the look on their face is priceless, and actions get taken right away.

— FREDERICK ROBINETTE

Owner, Machinery Reliability Solutions

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This has proven to be of great assistance in rectifying a long-term plant issue. After only a short setup time, it confirmed our vibration and phase measurements without physically touching the plant.

— PETER FANNING

Condition Monitoring Team Leader, AGL Loy Yang

OUR COMPREHENSIVE SOLUTIONS

Reduce the number of cycles for a decision

Increase uptime by solving the root cause

Quick and simple user interface accessible by all technical levels

Simply visualize, amplify, and measure everything in the scene in seconds

Instant results enable instant decision making

Closes the communication gap between all technical levels

DISCOVER WHICH MODEL IS RIGHT FOR YOU

For more information, to request a live demo, or to obtain a customized quote, contact us.

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