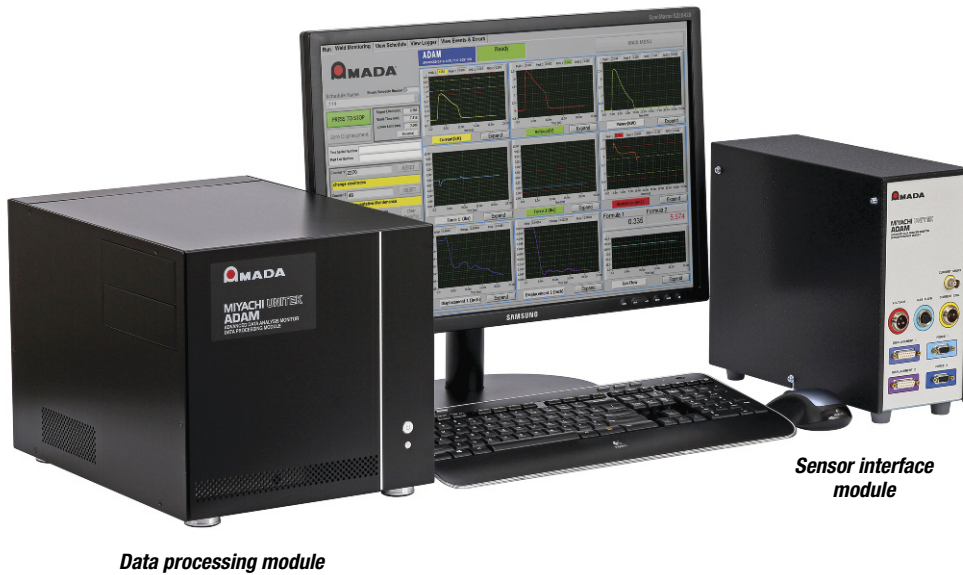


# ADAM

## Advanced Data Analysis Monitor



With an ever-increasing emphasis on process accountability, Amada Miyachi's Advanced Data Analysis Monitor (ADAM) offers more of the information you need to support your ISO, GMP and TQM requirements. Not only will it monitor what happens during the weld, but also before weld monitoring is triggered, giving you a true 360-degree view of your process!

### KEY FEATURES

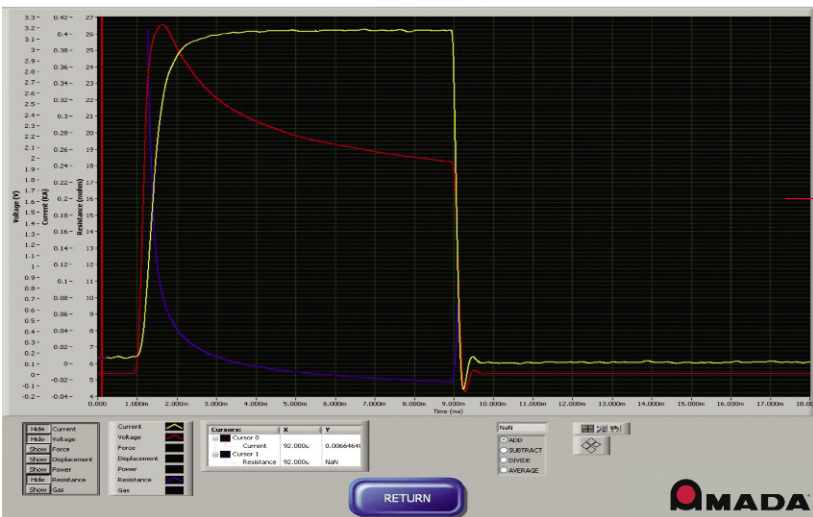
- 360° view of your weld including pre- and post- weld trigger data
- Measure current, voltage, force, displacement and cover gas flow/auxiliary input
- Production run screen with run charts, histogram and process results
- High resolution sensors
- Simple user-interface includes large color display
- Monitor ANY Resistance Welder
- TCP/IP Communications Enabled
- Integrated database and Minitab® 15 statistical software\*

Feature	Benefit
<b>Current, voltage, power, resistance monitoring</b>	Detects shifts in welding process
<b>High resolution displacement monitor with part detection</b>	Improved process control
<b>Force or pressure monitor</b>	Ensures welding at proper electrode force
<b>Cover gas flow monitor</b>	Confirms displacement of oxygen from weld area
<b>Pretrigger viewing</b>	Captures important pre-weld data
<b>Envelope limits</b>	Catches slight changes in waveform shapes
<b>Numeric limits</b>	Evaluates peak and RMS data
<b>Graphical waveforms with cursors</b>	Interrogates waveforms for better understanding of process
<b>Multi Level security screens</b>	Protects settings from unauthorized changes
<b>Comprehensive I/O for automation</b>	Easily integrated into automated systems
<b>Wide screen color display</b>	Easy to view settings and process results
<b>Multiple schedules with schedule naming</b>	Customized schedules for ease of use
<b>Traceability to NIST standards</b>	Meets regulatory guidelines
<b>Ethernet communications</b>	Remote reading of database
<b>Weld to displacement</b>	Improves process control



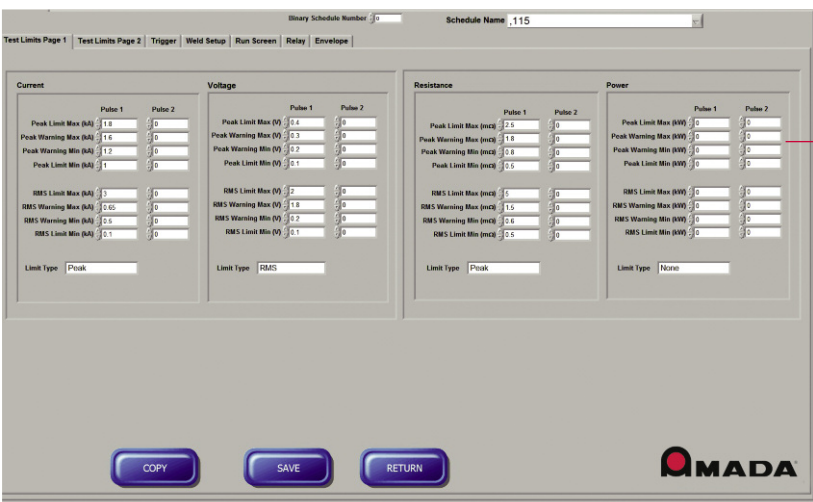
### RUN SCREEN:

Comprehensive production screen provides graphical and numeric viewing of the present weld as well as trend data. Two run charts with limits, histogram, event logger and alarm indications. Programmable weld counter with easy to view process monitor shows ratio of In/Out of limits welds.



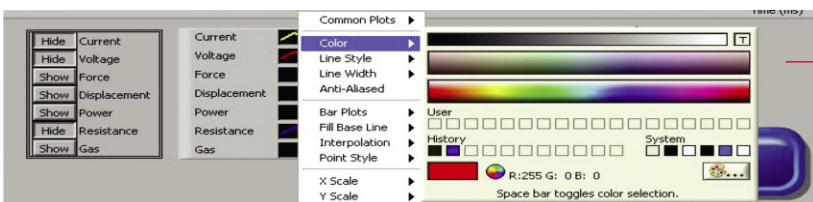
### EXPANDED MONITOR SCREEN:

Expandable graphic data windows allow user to overlap multiple graphs to analyze the dynamic relationships between the variables. Waveform cursors with advanced measurement tools allow precise interrogation of the welding sequence.



### LIMITS SETUP SCREEN:

Programmable limits screen for setting upper and lower numeric limits on peak and RMS data. Envelope limits can be placed around waveforms to detect slight changes in process stability. Part thickness and displacement limits measure the mechanical aspects of the welding process.

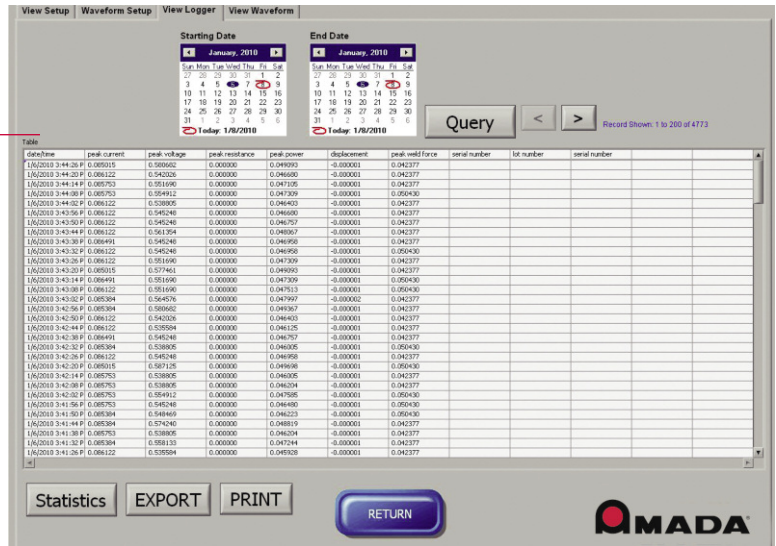


### SCREEN FORMATS:

Very flexible formatting capabilities allows user to customize data, colors, and styles on graph displays for easy viewing and emphasis of key parameters.

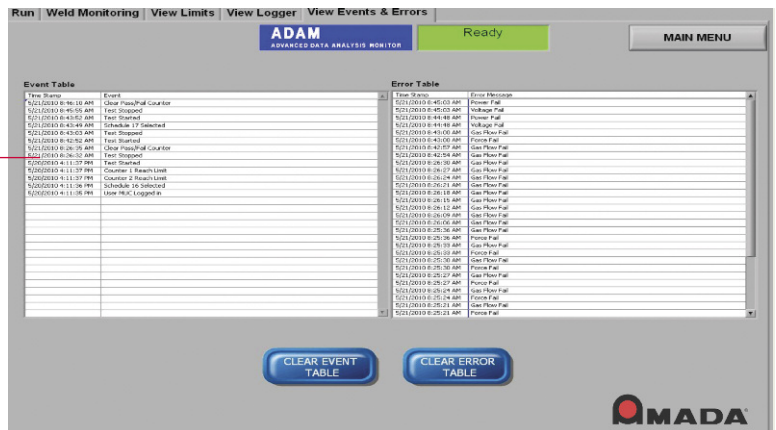
## LOGGER SCREEN:

Monitored results with time and date stamps are updated in real time. Data is stored on large internal hard disk and is integrated to Minitab Statistical Software package for process analysis and quality improvement.



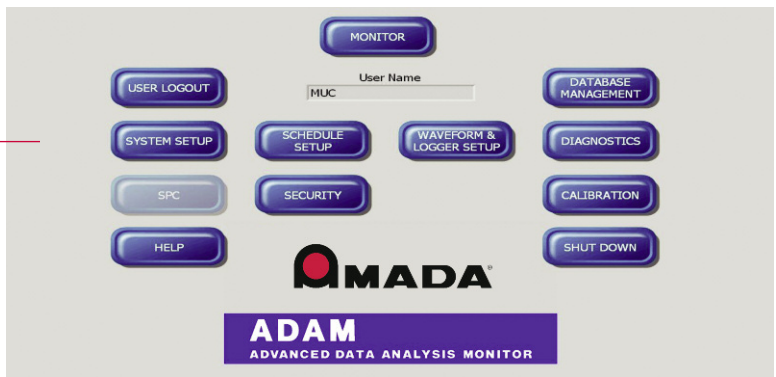
## EVENT AND ERROR TABLE SCREEN:

Errors and Events are captured with time and date stamps for record keeping and process analysis. User can also log events such as a change of electrodes so these actions are readily available when analyzing data.



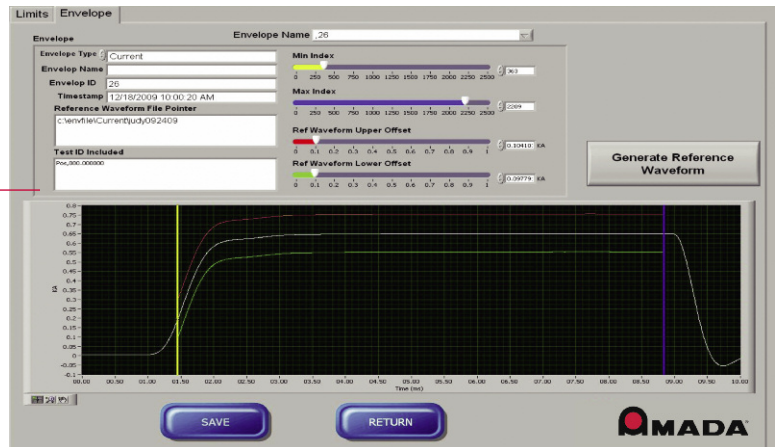
## MAIN MENU SCREEN:

Simple menu access to setup and view screens with multiple levels of security to protect against unauthorized program changes.



## ENVELOPE SETUP SCREEN:

An easy to use graphic interface provides quick setup of envelope limits and allows user to target a specific section of the waveform to evaluate process results.



## TECHNICAL SPECIFICATIONS

<b>Measurement capability</b>	Single channel current, voltage, and gas flow/auxiliary 0-10 volt input. two channels each of force and displacement. (displacement, force, and cover gas flow sensors are optional)	
<b>Parameter</b>	<b>Ranges</b>	<b>Displayed resolution</b>
<b>Current</b>	2, 6, 20, 60, 200 kA	3 significant digits
<b>Voltage</b>	0-15 V	3 significant digits
<b>Displacement</b>	12, 25, 30 mm	0.0001 in or 0.01 mm
<b>Force</b>	0-10 V	3 significant digits
<b>Gas flow/auxiliary 0-10 volt</b>	0-10 V	3 significant digits
<b>Derived parameters</b>	Power and resistance	
<b>Measurement time</b>	2 seconds maximum	
<b>Sampling rates</b>	125 K samples per second	
<b>Repetition rate</b>	1 per second for 100 milli second measurement period	
<b>Limits</b>	Numeric peak and RMS; min/max; graphical envelope, weld time, counter	
<b>Displayed resolution</b>	Approximately 1000 data points per waveform	
<b>Triggering</b>	Current, voltage, force with adjustable threshold or external signal	
<b>Digital inputs</b>	External Trigger, Reset, Tare Displacement, Reset Counter, Inhibit Measurement, Start Part Measurement, Initial Thickness Measurement	
<b>Digital outputs</b>	Ready to Measure, In Progress, In Limits, Out of Limits, In Warning, Out of Warning, Counter Limit, Force Fire, Thickness Pass, Thickness Fail	
<b>Relay outputs</b>	4 user configurable relays rated: 30 VDC and up to 1 A	
<b>Weld counter</b>	User programmable counter limit	
<b>Power supply cutoff</b>	Weld to displacement based on electrode position	
<b>Number of schedules</b>	Unlimited	
<b>Communications</b>	RS-232 (output of weld data after each weld only) Ethernet TCP/IP (remote reading of database)	
<b>Memory</b>	1 TB hard disc	
<b>Electrical requirements</b>	115 V/230 V 50/60 Hz (Note: processing module, sensor interface module and display will require power.)	

## WEIGHT &amp; DIMENSIONS

	<b>Data Processing Module</b>	<b>Sensor Interface Module</b>	<b>Monitor</b>
<b>Dimensions (L x W x H)</b>	14.8 in x 11.3 in x 9 in (375 mm x 286 mm x 230 mm)	13 in x 4.9 in x 10.75 in (330 mm x 125 mm x 273 mm)	9 in x 21 in x 17 in (229 mm x 533 mm x 432 mm)*
<b>Weight</b>	17.5 lbs (8 kg)	11.5 lbs (5.3 kg)	10 lbs (4.5 kg)

\*Size of the monitor may vary



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