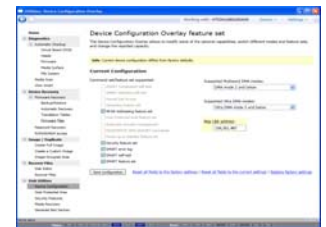


# Atola Insight

## ATOLA INSIGHT

### *A New Standard In Data Recovery Technology*

The Atola Insight is a brand new data recovery product from **Atola Technology**, creators of *AFF Repair Station* and *HDD Unlock Wizard*. It is a full 360 degree solution made by data recovery professionals to address common needs that are not being fulfilled by current data recovery software or hardware products.



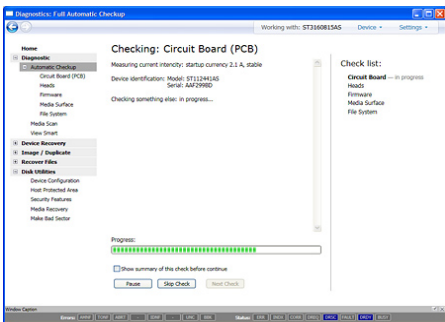
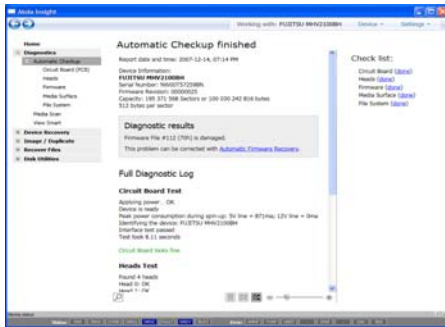
## Manages All 4 Stages of Data Recovery

- 1 *Hard Drive Diagnosis*
- 2 *Firmware Repair and Recovery*
- 3 *Hard Drive Imaging / Duplication*
- 4 *File Recovery & Extraction*



Atola Technology

# Diagnostic Functions



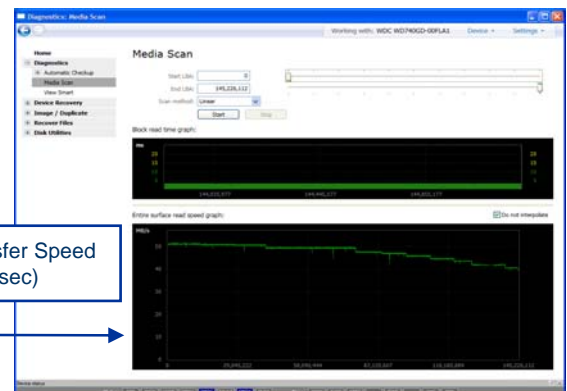
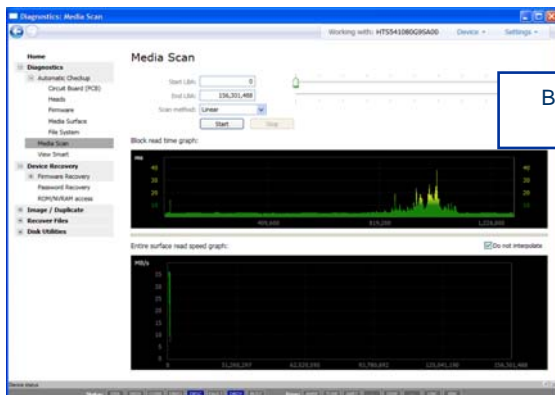
- Fully automatic disk checkup
- Media scan
- SMART Operations
- Firmware Area (System Area) Checkup
- Partitions and File Systems Checkup
- Head Checkup
- PCB Checkup
- **Automatic Reporting System**  
**For All Diagnostic Functions**

## Fully Automated Diagnosis:

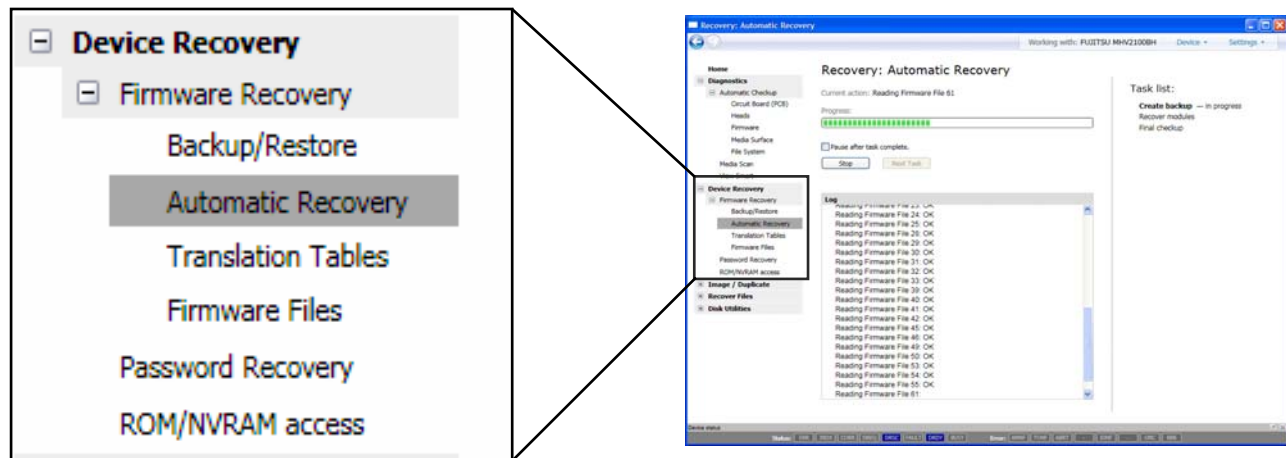
Atola Insight automatically diagnoses all components of a hard drive and reports specific problems to the operator along with recommendations for completing data recovery. It also automatically repairs HDD firmware and identifies/removes ATA passwords (User or Master setting at any security level). All automatic functions can be performed manually according to the operators preference.

## Media Scan:

Media Scan reveals errors such as read delays (bad sectors). Two graphs are created displaying HDD Transfer Speed and Block Read Time. This function identifies surface and head damage on the hard drive.



# Firmware Recovery



- Firmware Backup
- Firmware Editing
- Firmware Restoration
- Automatic Firmware Recovery
- Translation Table Recovery
- Universal Firmware Archive

## **Automatic Recovery Mode:**

Automatically assesses firmware issues and repairs/recovers most common types of firmware damage. Backup and Restore functions can be executed with just one click of a button.

## **Firmware Backup & Restore:**

Atola Insight takes the pain out of backing up firmware modules by allowing the user to save all firmware modules and ROM/EEPROM/NVRAM images. This reliable and convenient feature is achieved with just two clicks of a mouse.

## **Firmware Editing Capability:**

Full access to ROM, EEPROM/NVRAM Firmware modules is implemented for the seasoned recovery professional. Read, write, modify and erase any firmware module or structure and switch a hard drive's internal flags and features.

***Insight supports all firmware formats including PC300, Salvation Data and HRT***

# Case Management

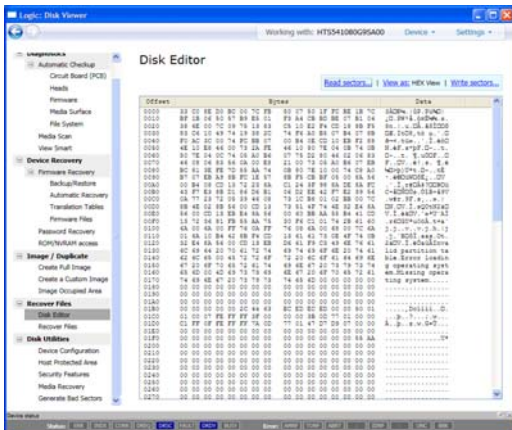
The Atola Insight is the world's only data recovery solution with embedded SQL software for reliable case management. Full operation logs are automatically stored for every hard drive providing a manageable case record for every job, every time.

## HDD Duplication

The Atola Insight's Disk Duplication function enables the user to create precise copies of hard drives with plenty of options for flexibility in various data recovery applications.

- Create A Full or Partial HDD Image
- "Data Only Copy" Option
- Create a Sector-by-Sector HDD Copy
- 'Media Map Support' Option

## NTFS File Recovery

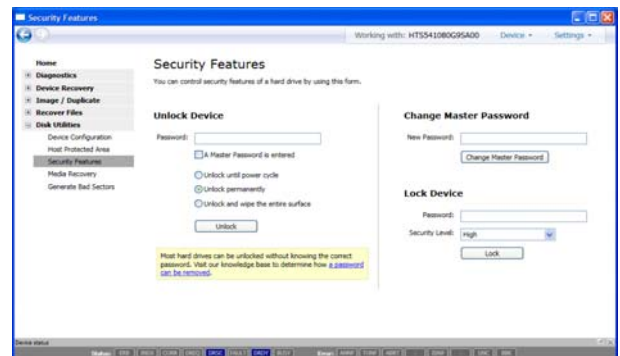


The Atola Insight File Recovery Engine extracts files from badly damaged hard drives, even in cases where all partitions are lost. It does this by scanning a hard drive's entire platter area to identify possible system file structures (such as MFT) and then recovering the original file and folder structures. Operation automatically applies identification methods such as file signature scanning.

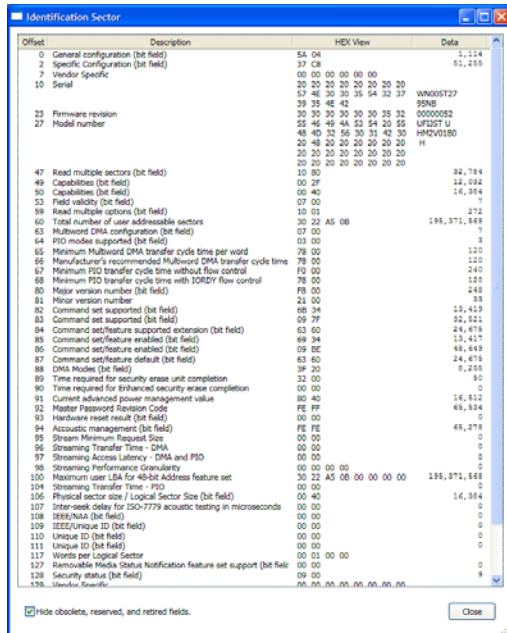
## Password Recovery

Identify and/or Remove unknown passwords regardless of setting (Master or User) or security level (High or Maximum).

Operation is fast, easy and automatic. Brute Force and Dictionary Attack are available when needed.

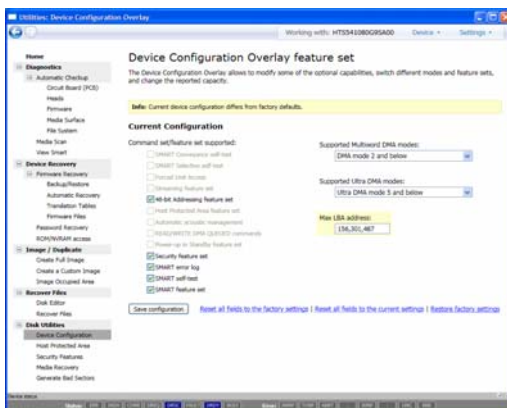
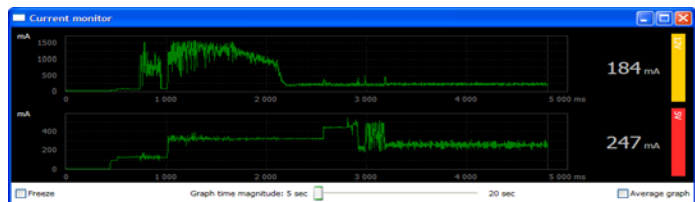


# Disk Utilities

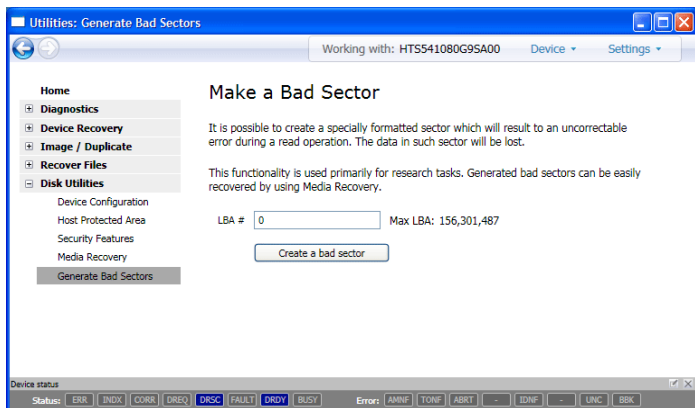


Offset	Description	HEX View	Data
0	General configuration (bit field)	5A 04	1,114
2	Specific Configuration (bit field)	3F C8	61,205
7	Vendor Specific	00 00 00 00 00 00	
10	Serial	20 20 20 20 20 20 20 20	
13	Firmware revision	39 35 4E 42	WN005T27
27	Model number	55 -46 -49 -4A -53 -54 -20 -55	95N6
47	Read multiple sectors (bit field)	10 00	32,784
49	Capabilities (bit field)	00 2F	14,094
50	Field validity (bit field)	00 40	16,384
53	Field validity (bit field)	07 00	7
59	Read multiple options (bit field)	10 01	272
60	Total number of user-addressable sectors	30 22 A5 08	189,871,868
63	Multword DMA configuration (bit field)	07 00	8
64	PID modes supported (bit field)	03 00	3
65	Minimum Multword DMA transfer cycle time per word	78 00	120
66	Manufacturer's recommended Multword DMA transfer cycle time	78 00	120
67	Minimum PIO transfer cycle time without flow control	72 00	240
68	Minimum PIO transfer cycle time with IORDY flow control	78 00	120
80	Major version number (bit field)	FE 00	249
81	Minor version number	21 00	83
82	Command set supported (bit field)	88 34	22,429
83	Command set supported (bit field)	09 7F	32,521
84	Command set/feature supported extension (bit field)	63 60	24,878
85	Command set/feature enabled (bit field)	69 34	13,407
86	Command set/feature enabled (bit field)	09 0E	48,649
87	Command set/feature default (bit field)	63 60	24,878
88	DMA Modes (bit field)	3F 20	8,205
89	Time required for security erase unit completion	32 00	80
90	Time required for enhanced security erase completion	00 00	0
91	Current advanced power management value	80 40	16,512
92	Master Password Revision Code	FE FF	65,534
93	Hardware reset result (bit field)	FE FE	65,534
94	Acoustic management (bit field)	FE FE	65,534
95	Stream Minimum Request Size	00 00	0
96	Streaming Transfer Time - DMA	00 00	0
97	Streaming Access Latency - DMA and PIO	00 00	0
98	Streaming Performance Granularity	00 00 00 00	0
100	Maximum user LBA for 48-bit Address Feature set	30 22 A5 08 00 00 00 00	189,871,868
104	Streaming Transfer Time - PIO	00 00	0
105	Physical sector size / Logical Sector Size (bit field)	00 40	16,384
107	Inter-seek delay for ISO-7779 acoustic testing in microseconds	00 00	0
108	IEEE1394 (bit field)	00 00	0
109	IEEE/Unique ID (bit field)	00 00	0
110	Unique ID (bit field)	00 00	0
111	Unique ID (bit field)	00 00	0
117	Words per Logical Sector	00 01 00 00	0
127	Removable Media Status Notification Feature set support (bit field)	00 00	0
128	Security status (bit field)	09 00	8
129	User-defined	00 00 00 00 00 00 00 00	

- Device Configuration
- Host Protected Area
- Security Features
- Media Recovery
- Create Bad Sectors
- Disk Editor
- Device Configuration
- Current Monitor (Oscilloscope)



The screenshot shows the 'Utilities: Device Configuration Overlay' window. It features a sidebar with categories like 'Home', 'Diagnostics', 'Device Recovery', 'Image / Duplicate', 'Recover Files', and 'Disk Utilities'. The main area is titled 'Device Configuration Overlay feature set' and contains sections for 'Current Configuration' and 'Device Recovery'. The 'Current Configuration' section includes options for 'Command set/feature set supported', 'Supported Multword DMA modes', and 'Supported Ultra DMA modes'. The 'Device Recovery' section includes options for 'SMART self-test', 'SMART error log', and 'SMART feature set'.



The screenshot shows the 'Utilities: Generate Bad Sectors' window. It has a sidebar with 'Home', 'Diagnostics', 'Device Recovery', 'Image / Duplicate', 'Recover Files', and 'Disk Utilities'. The main area is titled 'Make a Bad Sector' and contains a description: 'It is possible to create a specially formatted sector which will result to an uncorrectable error during a read operation. The data in such sector will be lost.' Below this, there are input fields for 'LBA #' (set to 0) and 'Max LBA: 156,301,487'. A 'Create a bad sector' button is present. At the bottom, there is a 'Device status' bar with various indicators like 'Status', 'ERR', 'INDX', 'CONS', 'ERRC', 'DRSC', 'FAULT', 'DRDY', 'BUSY', 'Error', 'AMRE', 'TONE', 'ABRT', 'EDNF', 'UNC', and 'BCK'.

## Media Recovery:

Extract data from damaged or unstable sectors to maximize recovered data.

## Disk Editor:

Allows the user to view or modify any hard drive sector.

## DCO & HPA:

Set, remove and adjust DCO and HPA for full hard drive access and control.

## Create Bad Sectors:

Used primarily for research purposes, this function allows the user to generate "soft errors" by altering ECC fields of chosen sectors. These sectors then act like real bad sectors; and can be easily removed by erasing the entire surface.



# Atola DiskSense

Atola DiskSense is a USB hardware unit that maximizes the speed, flexibility and potential of the Atola Insight suite. It offers the following features...

## **Mobility:**

Can be used on any computer equipped with a USB port, allowing the user to perform on-site diagnosis or recovery. Standard 5/12v Molex DC connector is included to power the unit via PC power supply.

## **UDMA Data Transfer:**

Enhances Atola Insight's functions by enabling the hard drive to run in UDMA transfer mode. *Save time by increasing transfer speed.*

## **Case Management:**

Embedded SQL software provides simple and reliable case management for all jobs.

## **Current Monitor:**

Protects the connected hard drive from short-circuits in conjunction with the Insight's Current Monitor/Oscilloscope. It also enhances the Insight's HDD diagnostic capabilities. 5v and 12v currents are monitored separately.

## **Power Control:**

Provides full control over HDD power. It allows the user to terminate HDD power by pushing two buttons or instantly abort an operation entirely if necessary.

## **RS232-C Port:**

Equipped with an on-board RS232C (com) port for specialized tasks including accessing Seagate hard drives.



Please contact **Ji2 Inc** for further product information:



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