

## DriveMaster 2010 vs DriveMaster 2008

	<b>Features</b>	<b>DM 2010</b>	<b>DM 2008</b>
<b>OS</b>	Windows XP, 2003, VISTA, Windows 7, Windows Server 2008	X	X
	Above Oses with x64 support	X	
<b>SATA HBA</b>	Generic AHCI support	X	X
	Intel ICH5, ICH6, ICH7, ICH8, ICH9, ICH10	X	X
	Sil3124, 3132, 3531	X	X
	Marvell 6081	X	X
	Marvell 61xx series (6121, 6141, 6145)	X	X
	Generic IDE/PATA support	X	X
	HBAs compliant with Sil31xx, Marvell 6081, Marvell 61xx	X	X
	VIA 5324	X	X
<b>SAS HBA</b>	LSI SAS 1064, 1064E, 1068, 1068E	X	X
	Marvell 6320, 6340, 6440, 6445, 6480, 6485	X	X
	Adaptec 3405	X	X
	LSI SAS 1078, 2008, 2108, 9260	X	
	Marvell 9480, 9485	X	
	ATTO SAS H680	X	
<b>FC HBA</b>	LSI FC 929X, 919X, 949X, 939X, 949E	X	
	QLOGIC 2432	X	
<b>SATA</b>	NCQ New features <ul style="list-style-type: none"> <li>• NCQ Priority update to be compliant with the latest spec.</li> <li>• NCQ Streaming <ul style="list-style-type: none"> <li>◦ ICC, NCQ_ICC</li> </ul> </li> <li>• NCQ Queue Management <ul style="list-style-type: none"> <li>◦ NCQ_QMGMT</li> <li>◦ NCQ_ABORT</li> <li>◦ NCQ_ABORT_ALL</li> <li>◦ NCQ_ABORT_STRM</li> <li>◦ NCQ_ABORT_NSTRM</li> <li>◦ NCQ_ABORT_SEL</li> <li>◦ NCQ_DEADLINE</li> </ul> </li> <li>• NCQ Protocol Extension to Support Fixed 512 Byte Block Transfer DMA Commands <ul style="list-style-type: none"> <li>◦ AUX, NCQ_AUX</li> <li>◦ NCQ_SEND</li> <li>◦ NCQ_RECEIVE/NCQ_RCV</li> <li>◦ NCQ_DSM</li> </ul> </li> <li>• Support Read Log DMA Ext to clear NCQ error</li> </ul>	X	
	Auto Partial to Slumber Transition <ul style="list-style-type: none"> <li>• PM_APST_EN</li> <li>• PM_APST_OFF</li> </ul>	X	
	SATA Interface Signaling Speed <ul style="list-style-type: none"> <li>• SetSATASpd: set SATA Signaling Speed to the expected value</li> <li>• DEVSPD: retrieve SATA Signaling Speed from the device</li> <li>• HSTSPD: retrieve SATA Signaling Speed from the HBA</li> </ul>	X	
	For ICH8 and above w/IDE mode, support to access SCRs (SSTATUS, SCONTROL, SERROR) via SATA IDP feature	X	
	New Memory handling algorithm to dramatically reduce the overhead between the commands issued	X	



	<b>Features</b>	<b>DM 2010</b>	<b>DM 2008</b>
ATA/ATAPI	ATA Data Set Management <ul style="list-style-type: none"> <li>• DSM/ATA_DSM</li> </ul>		
	Request Sense for ATA <ul style="list-style-type: none"> <li>• REQS_ATA</li> </ul>		
	DMA equivalents for all PIO commands <ul style="list-style-type: none"> <li>• DNLD_DMA</li> <li>• DCOS_DMA/DCFS_DMA/DEVCFGSET_DMA</li> <li>• DCOI_DMA/DCFI_DMA/DEVCFGIDFY_DMA</li> <li>• DNLDMCODE_DMA</li> <li>• RBUF_DMA/RDBUF_DMA</li> <li>• WBUF_DMA/WRBUF_DMA</li> <li>• SMUN_DMA/SETMAXUNLOCK_DMA</li> <li>• SMSP_DMA/SETMAXSETPSWD_DMA</li> </ul>		
	Sanitize Device Feature Set <ul style="list-style-type: none"> <li>• SNTZ_STATUS</li> <li>• SNTZ_CRYPTO</li> <li>• SNTZ_ERASE</li> <li>• SNTZ_OVWR</li> <li>• SNTZ_FRZLOCK</li> </ul>		
	Trusted Non-Data <ul style="list-style-type: none"> <li>• TCG_SEND_NDATA</li> <li>• TCG_RECEIVE_NDATA</li> <li>• TCG_RCV_NDATA</li> </ul>	X	
	Profile for ATA Device <ul style="list-style-type: none"> <li>➤ Command Profile: Total number of commands, Percentage of each command issued</li> <li>➤ Performance Profile: IOPS, MBPS, Total Transferred Bytes, Total Command Execution Time, Total Running Time <ul style="list-style-type: none"> <li>• PROFILE ON/OFF</li> <li>• RESETPROFILE/RSTPRFL</li> <li>• DISPLAYPROFILE/DISPPRFL</li> <li>• PRFL_IOPS, PRFL_MBPS, PRFL_NUMCMD, PRFL_BYTECNT</li> <li>• PRFL_CMDEXECTM, PRFL_RUNTM</li> </ul> </li> </ul>	X	
	Enhance ATAPI commands <ul style="list-style-type: none"> <li>• StartStopUnit</li> </ul>	X	



	<b>Features</b>	<b>DM 2010</b>	<b>DM 2008</b>
SCSI	New Commands <ul style="list-style-type: none"> <li>• SECURITY_PTC_IN</li> <li>• SECURITY_PTC_OUT</li> <li>• XDRD10/XDREAD10</li> <li>• XDWR10/XDWRITE10</li> <li>• XPWR10/XPWRITE10</li> <li>• ORWR/ORWRITE</li> </ul>	X	
	New Variables <ul style="list-style-type: none"> <li>• INC512</li> <li>• DEVLUN, LUN/CURLUN</li> <li>• DWR, ORPROTECT, XORPROTECT</li> </ul>	X	
	Non-512 bytes' block length for user data	X	
	Software T10 DIF Feature <ul style="list-style-type: none"> <li>• T10_LBGSPT/T10_LBGEN to retrieve T10 LBG Support/Enable</li> <li>• Extend T10_SWLBG and the related functions to SCSI IF</li> </ul>	X	
	R/W command queuing <ul style="list-style-type: none"> <li>• DRV_OL ON/OFF</li> <li>• DRV_OL_READ/DRV_OL_RD</li> <li>• DRV_OL_Write/DRV_OL_WR</li> <li>• DRV_OLS0,DRV_OLS1,DRV_OLS2,DRV_OLS3</li> </ul>	X	
	Commands' Enhancement <ul style="list-style-type: none"> <li>• SYNCHRONIZE CACHE 10/16</li> <li>• VERIFY 10/12/16</li> <li>• PRE-FETCH 10/16</li> </ul>	X	



	<b>Features</b>	<b>DM 2010</b>	<b>DM 2008</b>
<b>GUI</b>	New Command Trace <ul style="list-style-type: none"> <li>• One command in one line for easy reading and comparison</li> <li>• Time stamp, Command Name String</li> <li>• Tag number</li> </ul>	X	
	Command Control Panel <ul style="list-style-type: none"> <li>• Add Phy Event Counter in SATA PHY Tab</li> </ul>	X	
	Display degree C in two's Complement format for SCT HDA Temperature Table and SCT Status Response	X	
	Enhance the information displayed for the buttons in the tool of "PCI and AHCI registers" <ul style="list-style-type: none"> <li>• CAP, CMD, IS, IE, SERROR</li> </ul>	X	
<b>Scripting</b>	Enhance WTF48 to support NCQ_NODATA protocol	X	
	New String Operation support: <ul style="list-style-type: none"> <li>• STR_STR</li> <li>• ATOI</li> <li>• GetASCII_R/GetASCIIInt</li> <li>• GetASCIIChar equivalent to GetASCII</li> <li>• CASE_SENSITIVE</li> <li>• String Comparison/String Search in both case sensitive and case insensitive mode</li> <li>• STR_UPCASE</li> <li>• STR_LOWCASE</li> <li>• PRNS/PRNSR to support formatted string output</li> </ul>	X	
	DriveMaster Settings retrieval <ul style="list-style-type: none"> <li>• PRFLMode</li> <li>• TRACEMode</li> <li>• PFMMode</li> </ul>	X	
	DriveMaster Features' control <ul style="list-style-type: none"> <li>• CmdTrace ON/OFF</li> <li>• Profile ON/OFF</li> <li>• FullSpd ON/OFF</li> </ul>	X	
	New Performance Mode to reduce the overhead between the commands issued	X	
	Enhance PATD for address overlay in the buffer <ul style="list-style-type: none"> <li>• Support 64-bit address padding</li> <li>• Support the customized size of the segment to be padded</li> </ul>	X	



	<b>Features</b>	<b>DM 2010</b>	<b>DM 2008</b>
<b>TCG</b> <b>(Transparent over ATA, ATAPI, and SCSI)</b>	OPAL SSC and Enterprise SSC <ul style="list-style-type: none"> <li>• GET_COMID</li> <li>• HANDLE_COMID_REQUEST</li> <li>• GET_COMID_RESPONSE</li> <li>• VERIFY_COMID_VALID</li> <li>• STACK_RESET</li>   <li>• LEVEL 0 DISCOVERY</li> <li>• PROPERTIES</li>   <li>• START SESSION/SYNC SESSION</li> <li>• START TRUSTED SESSION/SYNC TRUSTED SESSION</li> <li>• ENDSSESSION/CLOSESESSION</li> <li>• GET ACL</li> <li>• NEXT</li> <li>• AUTHENTICATE</li> <li>• GENKEY</li> <li>• GET</li> <li>• SET</li>   <li>• ACTIVATE</li> <li>• REVERT</li> <li>• REVERTSP</li>   <li>• ERASE</li> <li>• RANDOM</li>   <li>• START TRANSACTION</li> <li>• END TRANSACTION</li> </ul>	X	



	<b>Features</b>	<b>DM 2010</b>	<b>DM 2008</b>
<b>TCG</b>	Direct Payload Manipulation <ul style="list-style-type: none"> <li>• TCG_START_LIST_TOKEN</li> <li>• TCG_END_LIST_TOKEN</li> <li>• TCG_START_NAME_TOKEN</li> <li>• TCG_END_NAME_TOKEN</li> <li>• TCG_END_DATA_TOKEN</li> <li>• TCG_STATUS_LIST</li> <li>• TCG_END_SESSION_TOKEN</li> <li>• TCG_START_TRANSACTION_TOKEN</li> <li>• TCG_END_TRANSACTION_TOKEN</li> <li>• TCG_STARTTRANS_STATUS</li> <li>• TCG_ENDTRANS_STATUS</li>   <li>• TCG_PREPARE_BUFHEADER</li> <li>• TCG_APPEND_NAME_VALUE</li> <li>• TCG_APPEND_VALUE</li> <li>• TCG_APPEND_UID</li> <li>• TCG_UPDATE_LENGTH</li>   <li>• TCG_DECODE</li>   <li>• TCG_PAYLOADLEN</li>   <li>• TCG_PLDATA_CNT</li> <li>• TCG_PLDATA_OFFSET</li>   <li>• TCG_TOKENTYPE</li> </ul>	X	



	<b>Features</b>	<b>DM 2010</b>	<b>DM 2008</b>
TCG	Universal Interface Commands <ul style="list-style-type: none"> <li>• TCG_IF_SEND</li> <li>• TCG_IF_RECV</li>   <li>• TCG_PTCONE_SEND</li> <li>• TCG_PTCONE_RECV</li>   <li>• TCG_PTCSPT_LIST</li> <li>• TCG_CERTIFICATE/TCG_CERT</li>   <li>• TCG_CHKSPT</li> </ul>	X	
	User friendly Interpretation on the returned data <ul style="list-style-type: none"> <li>• Level 0 Discovery               <ul style="list-style-type: none"> <li>○ TPER Feature</li> <li>○ Locking Feature</li> <li>○ OPAL/ENTERPRISE SSC Feature</li> <li>○ OPTICAL SSC Feature</li> </ul> </li> <li>• GET_COMID_RESPONSE               <ul style="list-style-type: none"> <li>○ No Response Available</li> <li>○ VERIFY_COMID_VALID</li> <li>○ STACK_RESET</li> </ul> </li> </ul>	X	
	Flexible control <ul style="list-style-type: none"> <li>• TCG_AUTO_IFCMD</li> <li>• TCG_SSC_SPEC</li> </ul>	X	



	<b>Features</b>	<b>DM 2010</b>	<b>DM 2008</b>
<b>DM Control</b>	Flexibly control the following settings in DMControl.xls and/or its derivatives via DMCtrl.ini and the corresponding .ini which has the same filename as the derivate. <ul style="list-style-type: none"> <li>• DMPATHValid, DMVer, DMRev</li> <li>• GSrtPath, GCsvPath, GLogPath</li> <li>• SrtPathValid, SrtPathType, SrtPath</li> <li>• CsvPathValid, CsvPathType, CsvPath</li> <li>• LogPathValid, LogPathType, LogPath</li> </ul>	X	
	Update DMPerformance_HDD.xls with new plots <ul style="list-style-type: none"> <li>• SATA Transfer Rate to support Gen-3</li> <li>• Random DMA command time distribution to support fine resolution for the speedy device, e.g. SSD</li> </ul>	X	
	Update the scripts under HDD Performance <ul style="list-style-type: none"> <li>• SATAn_XferRate.srt to support Gen-3</li> <li>• Update the algorithm to take care of the different devices (e.g. HDD, SSD) <ul style="list-style-type: none"> <li>○ RandomDMACmdTime_distribution.srt</li> <li>○ SeekTimeRW_Bufferfly.srt</li> <li>○ SeekTimeRW_OneThird.srt</li> </ul> </li> </ul>	X	
<b>Scripts</b>	Update all the scripts to correctly display total number of LBA for the HDD whose capacity is larger than 1TB	X	
	Add the display of MBPS additional to IOPS in most scripts <ul style="list-style-type: none"> <li>•</li> </ul>	X	
	New Sample TCG Script set for Enterprise SSC and OPAL SSC	X	

