Diskman v4-02 User Manual

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Prerequisites



Download Diskman

- From SWRLib: http://www.asmpt.com/
 - Software Part No: 10-300954
 - Download the updated version
- Unzip it under root directory (e.g. C:\)
- - WinPE
 - Windows10 64bit

Key Verification

- Get key from: https://ias-sg.asmpt.com/SecurityKeyGen/
- For Detail refer to here:

■ Run Diskman in "Administrator mode"

- Run diskman without argument, it will provide normal functions
- Run diskman with argument "\e", enhance functions will be enable in "Other Functions"



Outline



- Quick view
- Overview
 - Environment
 - Key Verification
 - Menu Hierarchy
- Diskman Step By Step
- □ Format of config.xml for custom backup
- **□** BIOS Setting When Booting From USB Thumb
- □ Procedure to change default config file

Quick View



To restore OS image ("10-M" in wim format) to harddisk:

Restore Harddisk

*(OS images were made to have minimum WES partition to suit all the products(partition1:100000MB; partition2:10000MB). Product teams should determine and fix the partition sizes to fit their need before OS image restoration)

To backup a harddisk to an wim image:

Backup Harddisk

To restore partition from an wim image:

Restore Partition

*(partition can be select if the image contain more than one partitions.)

To backup a partition to an wim image:

Backup Partition

Overview



Environment

- Install Diskman
 - How to make WinPE bootable USB thumb
 - How to Install WinPE to Windows HDD for Dual Boot
- How to run DiskMan under WinPE
- How to run DiskMan under Windows 10 64bit

Key Verification

■ Menu Hierarchy

- Main Menu
- Edit Partition
- Other Function
- Custom Function

Environment – Install Diskman



How to make WinPE bootable USB thumb

- Start a command prompt
- Go to the DiskMan directory
- Type in diskman.exe /e and [Enter] to start
- Follow the steps to make bootable USB thumb

How to Install WinPE to Windows HDD for Dual Boot

- Start a command prompt, go to DiskMan directory and type in diskman.exe /e then [Enter]
- Follow the steps to make Dual Boot
- *Most Release wim Image("10-M") already include Dual Boot drive (D:\)

Environment – Run Diskman under WinPE



How to run DiskMan under WinPE

Boot WinPE

☐ From bootable USB thumb

- Insert bootable USB thumb
- Select boot from USB/USB HDD in BIOS
- AT Boot Menu, select "Boot up using WinPE" (Press down arrow in 10 seconds)
- *If bootable USB thumb is inserted to pc, Windows 10 64bit cannot be boot in a normal way

□ OR From D:\ drive

- Support if Harddisk has installed Dual boot
- AT Boot Menu, select "Boot up using WinPE" (Press down arrow in 3 seconds)

Run Diskman

- □ Click on DiskMan from Start menu or Start a command prompt, go to DiskMan directory (under USB thumb or D:\)
- type in "diskman.exe /e" then [Enter]



Environment - Run Diskman under Windows10 64bit



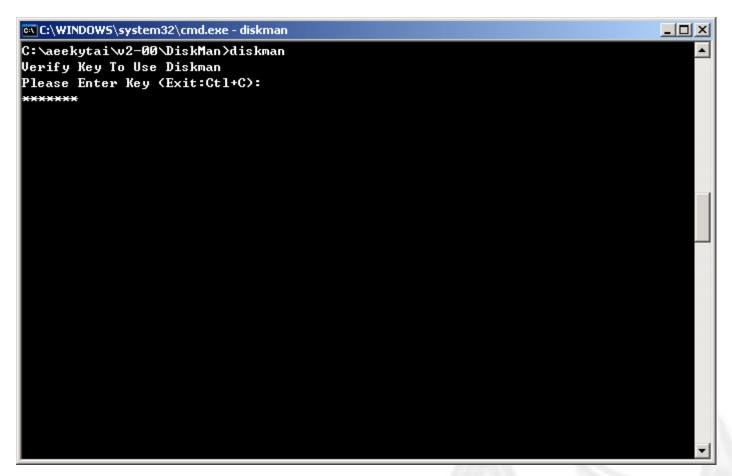
How to run DiskMan under Windows10 64bit

- Boot up Windows10 64bit
- unzip downloaded DiskMan under root directory
 Suggestion: Unzip under system partition(usually C:\)
- Start a command prompt, go to DiskMan directory and type in "diskman.exe /e" then [Enter]



Overview (Key Verification)





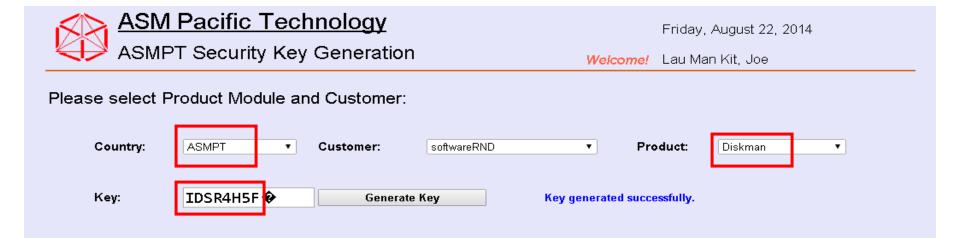
Type in key obtained from web:

https://service-sg.asmpt.com/securitykeygen/Default.aspx

and press ENTER to verify

Overview (Key Verification)







Overview (Menu Hierarchy)



- □ [1] Restore Partition
- □ [2] Restore Harddisk
- □ [3] Quick Restore Harddisk
- □ [4] Quick Backup Harddisk
- [5] Edit Partition...
- □ [6] Other Function...
 - [1] Backup Partition
 - [2] Backup Harddisk
 - [3] Restore MBR
 - [4] Clean Harddisk(Delete All Partitions From A Harddisk)
 - [5] Make Bootable USB Thumb
 - **.**.
- [7] Custom Function...
 - [1] Change Config File
 - ... (Custom Function configured by Config File
- [8] Mass Production
- [9] Shutdown Computer

Available when type "diskman.exe /e" to start diskman

Main Menu



```
DiskMan V4-01 Compiled on Mar 5 2020
Copyright (C) 2019 ASM Assembly Automation Ltd. All rights reserved.
Verify Key To Use Diskman
Please Enter Key (Exit:Ctl+C):
*****
ver > currentos.txt
Disk 0 is System Disk.
 Diskman Main Menu
[1] Restore Partition
[2] Restore Harddisk
[3] Quick Restore Harddisk
[4] Ouick Backup Harddisk
[5] Edit Partition...
                                     Sub Menu
[6] Other Function...
[7] Custom Function...
[8] Mass Production
[9] Shutdown Computer
Enter 0 to return to previous menu.
DiskMan (Select 0 - 9): _
```

Edit Partition (Sub Menu 1)



```
Edit Partition |

I Edit Partition |

Ill Create Partition

Ill Format Partition

Ill Check P
```

Other Function (Sub Menu 2)



```
Other Function |

[1] Backup Partition
[2] Backup Harddisk
[3] Restore MBR
[4] Clean Harddisk(Delete All Partitions From A Harddisk)
[5] Make Bootable USB Thumb
[6] Install WinPE to Windows HDD for Dual Boot
[7] Update WinPE
[8] BCDBoot

Enter 0 to return to previous menu.
DiskMan (Select 0 - 8):
```

Custom Function (Sub Menu 3)



by xml file

```
Custom Function !
             [1] Change Config File
             [2] Conf Restore
Configured [31 Create WireBond HDD layout
             [4] EagleXtreme Backup
             [5] Machine_A restore with data backup
             [6] Machine_B Version Conntrol
              Enter 0 to return to previous menu.
             DiskMan (Select 0 - 6): _
```

Diskman Step By Step



- □ [1] Restore Partition
- □ [2] Restore Harddisk
- □ [3] Quick Restore Harddisk
- [4] Quick Backup Harddisk
- □ [5] Edit Partition...
- □ [6] Other Function...
 - [1] Backup Partition
 - [2] Backup Harddisk
 - [3] Restore MBR
 - [4] Clean Harddisk(Delete All Partitions From A Harddisk)
 - [5] Make Bootable USB Thumb
 - **.**.
- [7] Custom Function...
 - [1] Change Config File
 - ... (Custom Function configured by Config File)
- □ [8] Mass Production
- [9] Shutdown Computer

Available when type "diskman.exe /e" to start diskman

Restore Partition



```
¦ Diskman Main Menu ¦
[1] Restore Partition
[2] Restore Harddisk
[3] Quick Restore Harddisk
[4] Quick Backup Harddisk
[5] Edit Partition...
[6] Other Function...
[7] Custom Function...
Enter 0 to return to previous menu. Select Restore Partition
DiskMan (Select 0 - 7): 1
```

Remind: Please select the original image to do "Restore Partition"

Restore Partition



```
*Restricted for image named
                                                                                       as *.part.wim to avoid
   DL Disk
                     TYPE
                                SIZE
              \mathbf{FS}
                                          SN
[1] C: (hd0,1) NTFS
                     FIXED
                                 76314
                                       MB [
                                                  PUF804Z31PD12N1
                                                                                       potential error
[2] D: (hd1,1) FAT32
                     REMOVABLE
                                2041
                                        MB []
Please select a partition to choose image from.
                                                          Select partition that store *.wim
Enter 0 to return to previous menu.
DiskMan (Select 0 - 2): 1
                                   -Available *.wim
[1]: C:\data1.part.wim
Please select an image.
                                                            Select *.wim
Enter 0 to return to pr<u>evi</u>ous menu.
DiskMan (Select 0 - 1): 1
   DL Disk
                                SIZE
                                          SN
              FS
                     TYPE
[1] C: (hd0,1) NTFS
                     FIXED
                                76314
                                       MB [
                                                  PUF804Z31PD12N1
[2] D: (hd1,1) FAT32
                     REMOVABLE
                                2041
                                        MB []
Please select a partition to be restored.
                                                          Select partition to do restore
Enter 0 to return to previous menu.
DiskMan (Select 0 - 2): 2
You are going to
 RESTORE partition from C:\data1.part.wim
                                                           Confirm
   D: (hd1,1) FAT32 2041MB []
Press Y to confirm. y
```

Remind: Please read Q&A.doc: Q2, if have problem in boot up the OS after restore.



Restore Harddisk – Demo



Resize Harddisk layout



```
[1] Restore Partition
[2] Restore Harddisk
[3] Quick Restore Harddisk
[4] Quick Backup Harddisk
[5] Edit Partition...
[6] Other Function...
[7] Custom Function...
                                                   Select Restore Harddisk
Enter 0 to return to previous menu.
DiskMan (Select 0 - 7): 2
 Restore Harddisk -- Step 1 |
   DL Disk
              FS
                     TYPE
                                 SIZE
                                           Vo 1Name
                                                    SN
[1] C: (hd0,1) NTFS
                     FIXED
                                 220000 MB NIL
                                                    [101019PBN238DSD378BM]
                                       MB New_Volu [101019PBN238DSD378BM]
[2] D: (hd0,2) NTFS
                     FIXED
                                 10000
Please select the partition to choose image(*.hdd.wim) from.
Enter 0 to return to previous menu.
                                                       Select partition that store *.wim
DiskMan (Select 0 - 2): 1_
```



```
Restore Harddisk -- Step 2 !
[1]: E:\win-20140603-0949.hdd.wim
[2]: E:\wes7_h67a-20140812-1205.hdd.wim
[3]: E:\wesXP-20140815-1707.hdd.wim
Please select an image.
                                                               Select wim
Enter 0 to return to previous menu.
DiskMan (Select 0 - 3): 2
 Restore Harddisk -- Step 3 !
[1] (hd1) [100513PBN2003SD5B0DT] 238475 MB FIXED 7 (68472~68474 MB Unallocated)
    Partition 1:
                     C: NTFS
                               150000 MB NIL
    Partition 2:
                               20000 MB New_Volume
                      D: NTFS
Please select the harddisk to be restored.
                                               Select Harddisk to restore
Enter 0 to return to previous menu.
DiskMan (Select 0 - 1): 1
```

Restricted for image named as *.hdd.wim to avoid potential error



```
Restore Harddisk -- Step 4
mkdir J:∖tmp
rmdir J:\tmp /s /q
Select New Harddisk Layout:
[1] Use original harddisk layout
   Partition 1: 97 GB
   Partition 2: 9 GB
[2] Use proportional harddisk layout
   Partition 1: 97 GB
   Partition 2: 9 GB
[3] Use original harddisk layout while last partition using left over space
   Partition 1: 97 GB
   Partition 2: 14 GB
[4] Use customize harddisk lavout
Please select the way to create harddisk layout.
                                                               Select the harddisk layouts
Enter 0 to return to previous menu.
DiskMan (Select 0 - 4): 4
mkdir J:∖tmp
dism.exe /Apply-Image /ImageFile:I:\10-M00297V1-00-00-COMPLETED-2019021-0847.hdd.wim /ApplyDir:J:\tmp /Name:"PT.sav" /Verify
Deployment Image Servicing and Management tool
Version: 10.0.14393.0
Applying image
The operation completed successfully.
```

Remind: There have four harddisk layouts to choose, this demo is showing one the selection.



```
The Rest of New Harddisk size: 238475MB
Original Size of Partition[1]: 250000MB.
Please Input New Size for partition[1] (in MB<0 to exit>): 150000
                                                             Input partition size!!!
The Rest of New Harddisk size: 88475MB
Original Size of Partition[2]: 100000MB.
Please Input New Size for partition[2] (in MB(0 to exit)): 20000
 Restore Harddisk -- Step 5
You have chosen:
You are going to
  RESTORE harddisk from I:\10-M00297V1-00-00-20190128-0855.hdd.wim
    (hd0) [CVCV22500401120BGN] 114473MB
 using original harddisk layout
                                                          Confirm
Input Y to confirm. y
```



Quick Backup Harddisk & Restore



□ Aim

Less steps/input to process backup/restore Harddisk

■ Requirement:

- Can only process under WinPE
- Need USB thumb with enough space (Min: 16GB)
 - □ Backed up Harddisk image will store at USB thumb as "quick.hdd.wim"
 - Restore Harddisk will search USB thumb with image name "quick.hdd.wim"
- The quick Functions only support ONE Harddisk on the pc, otherwise it will stop and it is suggest to use normal backup and restore more than one Harddisk on the pc.

Quick Backup Harddisk



```
| Diskman Main Menu |
[1] Restore Partition
[2] Restore Harddisk
[3] Ouick Restore Harddisk
[4] Quick Backup Harddisk
[5] Edit Partition...
[6] Other Function...
[7] Custom Function...
Enter 0 to return to previous menu.
DiskMan (Select 0 - 7): 4
:Select Quick Backup Harddisk:
| Quick Backup Harddisk |
Quick Backup Harddisk will backup the harddisk and name it as
"quick.hdd.wim", then store the quick.hdd.wim at USB thumb.
                                                                     Quick Backup Harddisk message
Current "quick.hdd.wim" will be remove.
Do you want to START Quick Backup Harddisk NOW?
You are goint to
   Quick Backup Harddisk
Input Y to Confirm.
```

:Input Y to start backup:

Quick Backup Harddisk



```
| --- Start Quick Backup Harddisk --- |
Available USB Thumb:
   DL Disk FS TYPE SIZE VolName SN
[1] E: (hd1,1) FAT32 REMOVABLE 29569 MB FLASH_DR [] ◀

    Display excess USB thumb

Harddisk to be BACKUP:
(hd0) [101019PBN238DSD378BM] 238475MB
Image Name: quick.hdd.wim
                                                         Choose first USB thumb
The Image will store at USB Thumb: "E:\"
                                                          and store wim at there
  ______
====Diskman: Backup Harddisk... Start
                                                          Start of Backup Harddisk
Start Time and Date: Thu Apr 02 16:42:16 2015
Finish Time and Date: Thu Apr 02 17:10:57 2015
                                                          End of Backup Harddisk
====Diskman: Backup Harddisk... Done Successfully
```

Quick Restore Harddisk



```
Diskman Main Menu |
[1] Restore Partition
[2] Restore Harddisk
[3] Ouick Restore Harddisk
[4] Quick Backup Harddisk
[5] Edit Partition...
[6] Other Function...
[7] Custom Function...
Enter 0 to return to previous menu.
DiskMan (Select 0 - 7): 3
:Select Quick Backup Harddisk:
| Quick Restore Harddisk |
Remind:
1. Make sure USB thumb use in restore contain "quick.hdd.wim" image.
                                                                          Quick Restore Harddisk message
2. Harddisk 1 (First harddisk recognize by Explorer) will do restore.
You are goint to
   Ouick Restore Harddisk
Input Y to Confirm.
:Input Y to start :
```

Quick Restore Harddisk



```
| Quick Restore Harddisk Harddisk -- Step 1 |
Available USB Thumb:
   DL Disk FS TYPE SIZE VolName SN
[1] E: (hd1,1) FAT32 REMOVABLE 29569 MB FLASH DR []
USB Thumb select: "E:\"
Available IMAGE file(s):
[1]: E:\quick.hdd.wim
  ______
Select E:\quick.hdd.wim
 ______
| Quick Restore Harddisk Harddisk -- Step 2 |
Harddisk layout info of the image: E:\quick.hdd.wim
Harddisk total size = 238475MB
```

Quick Restore Harddisk



```
| Quick Restore Harddisk Harddisk -- Step 3 |
Warning: All data in the harddisk will be lost
                                                                     Harddisk to be restore
You are going to
  RESTORE harddisk from E:\quick.hdd.wim
    (hd0) [101019PBN238DSD378BM] 238475MB
  using original harddisk layout
====Diskman: Restore Harddisk Start
Start Time and Date: Thu Apr 02 17:17:40 2015
                                                                    Start of Restore Harddisk
Clean selected hard disk:
Bootcode was successfully updated on all targeted volumes.
Finish Time and Date: Thu Apr 02 17:23:02 2015
                                                                    End of Restore Harddisk
====Diskman: Restore Harddisk Done Successfully
```



Edit Partition

Create Partition



```
Diskman Main Menu |
[1] Restore Partition
[2] Restore Harddisk
[3] Quick Restore Harddisk
[4] Quick Backup Harddisk
[5] Edit Partition...
[6] Other Function...
[7] Custom Function...
Enter 0 to return to previous menu.
DiskMan (Select 0 - 7): 5
:Select Edit Partitiion:
| Edit Partition |
[1] Create Partition
[2] Format Partition
[3] Check Partition
[4] Delete Partition
Enter 0 to return to previous menu.
DiskMan (Select 0 - 4):1
:Select Create Partition:
```

Create Partition



```
[1] (hd0) [PUF804Z31PD12N] 76319 MB (2~4 MB Unallocated)
    Partition 1:
                     C: NTFS
                               76314 113
                                                Max partition size
[2] (hd1) [NA] 2041 MB (0~1 MB Unallocated)
    Partition 1:
                      D: FAT32
                               2041
                                      МΗ
Please select the disk to create partition.
Enter 0 to return to previous menu.
DiskMan (Select 0 - 2): 1
Please Input Partition Size (2~4MB): 2 Consult Max partition Size
[1] NTFS
[2] FAT32
[3] FAT
Please select file system.
Enter 0 to return to previous menu.
DiskMan (Select Ø - 3): 1
                            Select File system
You are going to
  Create partition on following hardisk
    (hd0) [PUF804Z31PD12N1_76319MB
Press Y to confirm. n_
```

Format Partition



Format Partition



```
DL Disk
               FS
                      TYPE
                                 SIZE
                                           SN
[1] C: (hd0,1) NTFS
                      FIXED
                                 76314 MB [
                                                  PUF804Z31PD12N1
[2] D: (hd1,1) FAT32
                      REMOVABLE
                                 2041
                                        MB []
Please select one partition to format.
Enter 0 to return to pr<u>evio</u>us menu.
DiskMan (Select 0 - 2): 2
                             Select Partition
[1] NTFS
[21 FAT32
[3] FAT
Please select file system.
Enter 0 to return to previous menu.
DiskMan (Select 0 - 3): 2
                             Select file system
You are going to
  FORMAT this partition into FAT32
    D: (hd1,1) FAT32 2041MB []
```

Check Partition



Check Partition



```
DL Disk
                FS
                       TYPE
                                   SIZE
                                              SN
[1] C: (hd0,1) NTFS FIXED
                                   76314 MB [
                                                      PUF804Z31PD12N1
[2] D: (hd1,1) FAT32 REMOVABLE
                                   2041
                                           MB []
Please select one partition to check.
Enter 0 to return to pr<u>evi</u>ous menu.
DiskMan (Select 0 - 2): 1 Select Partition
You are going to
  CHECK this partition
C: (hd0,1) NTFS 76314MB [
Press Y to confirm.y Confirm
                                      PUF804Z31PD12N1
```

Delete partition



```
| Edit Partition |

[1] Create Partition
[2] Format Partition
[3] Check Partition
[4] Delete Partition

Enter 0 to return to previous menu.

DiskMan (Select 0 - 4):4

:Select Delete Partition:
```

Delete partition



```
DL Disk
               FS
                      TYPE
                                 SIZE
                                           SN
[1] C: (hd0,1) NTFS
                      FIXED
                                 76314 MB [
                                                  PUF804Z31PD12N1
[2] D: (hd1,1) FAT32 REMOVABLE
                                        MB []
                                 2041
Please select one partition to be deleted.
Enter 0 to return to pr<u>evi</u>ous menu.
DiskMan (Select 0 - 2): 1 Select Partition
You are going to
  Delete this partition
    C: (hd0,1) NTFS 76314MB [
                                   PUF804Z31PD12N1
Press Y to confirm. y Confirm
```



Other Function

Backup Partition



```
| Diskman Main Menu |
[1] Restore Partition
[2] Restore Harddisk
[3] Ouick Restore Harddisk
[4] Quick Backup Harddisk
[5] Edit Partition...
[6] Other Function...
[7] Custom Function...
Enter 0 to return to previous menu.
DiskMan (Select 0 - 7): 6
:Select Other Function:
| Other Function |
[1] Backup Partition
[2] Backup Harddisk
[3] Restore MBR
[4] Clean Harddisk (Delete All Partitions From A Harddisk)
[5] Make Bootable USB Thumb
[6] Install WinPE to Windows HDD for Dual Boot
[7] Update WinPE
[8] BCDBoot
Enter 0 to return to previous menu.
DiskMan (Select 0 - 8): 1
:Select Backup Partition:
```

Backup Partition



```
DL Disk
               FS
                      TYPE
                                 SIZE
                                            SN
[1] C: (hd0,1) NTFS
                      FIXED
                                 76314
                                        MB [
                                                   PUF804Z31PD12N1
[2] D: (hd1,1) FAT32
                      REMOVABLE
                                 2041
                                        MB []
Please select the partiton to be backuped.
Enter 0 to return to pr<u>evi</u>ous menu.
                                                    Select partition to backup
DiskMan (Select 0 - 2): 2
    DL Disk
               FS
                      TYPE
                                 SIZE
                                           SN
[1] C: (hd0,1) NTFS
                      FIXED
                                 76314
                                        MB [
                                                   PUF804Z31PD12N1
[2] D: (hd1,1) FAT32
                      REMOVABLE
                                 2041
                                        MB []
Please select the partition to store the .wim image.
Enter 0 to return to previous menu.
                                              Select partition that store *.wim
DiskMan (Select 0 - 2): 1
 part.wim that already exist in the partition
[1]: C:\data1.part.wim
Please key in image file name, press [ENTER] to use default name "win-yyyymmdd-hhmm.
part.wim"
                                                    Input prefix
name
```



Backup Harddisk



```
[1] Backup Partition
[2] Backup Harddisk
[3] Restore MBR
[4] Clean Harddisk(Delete All Partitions From A Harddisk)
[5] Make Bootable USB Thumb
[6] Install WinPE to Windows HDD for Dual Boot
[7] Update WinPE
[8] BCDBoot

Enter 0 to return to previous menu.
DiskMan (Select 0 - 8): 2
:Select Backup Harddisk:
```

Backup Harddisk



```
[1] (hd0) [PVF804Z31PD12N] 76319 MB (2~4 MB Unallocated)
    Partition 1:
                                76314 MB
[2] (hd1) [NA] 2041 MB (0~1 MB Unallocated)
    Partition 1:
                      D: FAT32 2041
                                       MΒ
Please select the harddisk to be backuped.
Enter 0 to return to previous menu.
                                                     Select Harddisk to backup
DiskMan (Select 0 - 2): 2
    DL Disk
                      TYPE
                                 SIZE
                                           SN
               \mathbf{F}\mathbf{S}
[1] C: (hd0.1) NTFS
                      FIXED
                                 76314
                                       MB [
                                                  PVF804Z31PD12N1
[2] D: (hd1,1) FAT32 REMOVABLE
                                 2041
                                        MB []
Please select the partition to store the .wim image.
Enter 0 to return to previous menu.
                                                     Select partition that store *.wim
DiskMan (Select 0 - 2): 1
  *.hdd.wim that already exist in the partition
[1]: C:\a.hdd.wim
[2]: C:\machineA.hdd.wim
Please key in image file name, press IENTERI to use default name "win-yyyymmdd-hhmm.
hdd.wim"
                                                 Input prefix
name
```

Backup Harddisk



- On Windows XP, can backup the harddisk with OS:
 - WindowsXP
- On Windows 7, can backup the harddisk with OS:
 - WindowsXP
 - Windows 7
- On Windows PE, can backup the harddisk with OS:
 - WindowsXP
 - Windows 7



Restore MBR



Restore MBR



[1] (hd0) [PVF804Z31PD12N] 76319 MB (2~4 MB l Partition 1: C: NTFS 76314 MB [2] (hd1) [NA] 2041 MB (0~1 MB Unallocated) Partition 1: D: FAT32 2041 MB	Jnallocated>
Please select harddisk to install MBR. Enter 0 to return to previous menu. DiskMan (Select 0 - 2): 1	Select Harddisk
[1] install MBR for grub4dos [2] install MBR for windows	
Enter 0 to return to previous menu. DiskMan (Select 0 - 2): 1	Select MBR for grub4dos
You are going to Install MBR to harddisk (hd0) [PVF804Z31PD12N] 76319MB Press Y to confirm. y	Confirm

Clean Harddisk



Clean Harddisk



```
[1] (hd0) [PUF804Z31PD12N] 76319 MB (2~4 MB Unallocated)
    Partition 1:
                      C: NTFS
                                76314 MB
[2] (hd1) [NA] 2041 MB (0~1 MB Unallocated)
    Partition 1:
                      D: FAT32 2041
                                       ^{
m MB}
Please select one Harddisk to be cleaned.
Enter 0 to return to previous menu.
                                                 Select Harddisk
DiskMan (Select 0 - 2): 1
You are going to
  Clean this Harddisk
    (hd0) [PVF804Z31PD12N] 76319MB
                                              Confirm?
Press Y to confirm. n_
```

Make Bootable USB Thumb



Make Bootable USB Thumb



```
DL Disk
              FS
                     TYPE
                                SIZE
                                          SN
[1] D: (hd1,1) FAT32
                     REMOVABLE
                                2041
                                       MB []
Please select a USB thumb(size>=512MB) to install.
Enter 0 to return to previous menu.
                                              Select USB thumb
DiskMan (Select 0 - 1): 1
You are going to
 Make bootable USB thumb
   D: (hd1,1) FAT32 2041MB []
                                           Confirm
Press Y to confirm. y
```

Install WinPE to Windows HDD for Dual Boot



:Select Install WinPE to Windows HDD for Dual Boot:

Install WinPE to Windows HDD for Dual Boot



```
[1] (hd0) [PUF804Z31PD12N] 76319 MB (2~4 MB Unallocated)
Partition 1: C: NTFS 76314 MB

[2] (hd1) [NA] 2041 MB (0~1 MB Unallocated)
Partition 1: D: FAT32 2041 MB

Please select the Windows harddisk to install.

Please select the Windows harddisk to install.

Enter 0 to return to previous menu.

DiskMan (Select 0 - 2): 1

Please Input Partition Size In MB(greater than 512MB):512_____
```

Enter Size of the partition

BCDboot



BCDboot



```
| BCDboot -- Step 1 |
   DL Disk FS TYPE SIZE VolName SN
[1] C: (hd0,1) NTFS FIXED 220000 MB NIL [101019PBN238DSD378BM]
[2] D: (hd0,2) NTFS FIXED 10000 MB New_Volu [101019PBN238DSD378BM]
Please select the partition to do bcdboot:
Enter 0 to return to previous menu.
DiskMan (Select 0 - 2): 1
:Select drive C:
Delete boot: del /Q /F /AH C:\boot
Delete bootmgr: del /Q /F /AH C:\bootmgr
Config boot: bcdboot C:\Windows /s C:
bcdboot Done!
```



Custom Function

Change Config File



- Select [7],[1]
- □ Select config file *1

*1 Only *.xml under [Drive]\Diskman\Config\ will be listed for selection



```
Custom Function !
[1] Change Config File
[2] Conf Restore
[3] Create WireBond HDD layout
[4] EagleXtreme Backup
[5] Machine_A restore with data backup
[6] Machine_B Version Conntrol
Enter 0 to return to previous menu.
DiskMan (Select 0 - 6): 1
[1]: D: \Diskman \config \config.xml
[2]: D:\Diskman\config\config2.xml
Please select a config file.
Enter 0 to return to previous menu.
DiskMan (Select 0 - 2): 1
conf file: D:\Diskman\config\config.xml
 Custom Function !
[1] Change Config File
[2] Conf Restore
[3] Create WireBond HDD layout
[4] EagleXtreme Backup
[5] Machine_A restore with data backup
[6] Machine_B Version Conntrol
Enter 0 to return to previous menu.
DiskMan (Select 0 - 6):
```

Format of config.xml for custom backup



```
<?xml version="1.0" encoding="UTF-8"?>
<?proc-inst-1 'foo' ?>
                                                        [2] D: (hd1,1) FAT32
                                                                           REMOVABLE
<config xmlns:xsi="http://www.w3.org/2001/XMLSchema</pre>
 <menultem title="Conf Restore" fun="Restore">
                                                        Diskman> Ø
 </menultem>
 <menultem title="EagleXtreme Backup" fun="Backup">
                                                         Custom Function
  <comment>this is a commment</comment>
                                                        [1] Change Config File
  <path>
                                                        [2] Conf Restore
                                                        [3] EagleXtreme Backup
          <item value="path A"></item>
                                                        [4] Machine_A restore with data backup
          <item value="path B"></item>
                                                        [5] Machine B Version Conntrol
                                                        [0] Return To Main Menu
  </path>
                                                        Diskman>
 </menultem>
 <menultem title="Machine A restore with data backup" fun="Part Restore With Data Backup">
     <path>
          <item value="prog \ data_A"></item>
          <item value="data B"></item>
          <item value="data C"></item>
  </path>
 </menultem>
 <menultem title="Machine B Version Conntrol" fun="Version Control">
     <default file="bp.txt"></default>
     <path>
          <item value="BP\sys A.zip"></item>
          <item value="BP\data B.zip"></item>
     </path>
 </menultem>
</config>
```

Format of config.xml for custom backup



- Each <menultem> represents a function in Custom Function
- <menultem> has two attributes
 - Title
 - Fun

Only Title will be displayed in diskman

```
Custom Function :

Custom Function :

Config File

Conf Restore

Conf EagleXtreme Backup

Conf Machine_A restore with data backup

Conf Machine_B Version Conntrol

Config Return To Main Menu
```

- <item> under <path> are the target paths
 - The path is stored in attribute "value" of <item>
 - For example

Fun in config file



- □ There are 4 supported functions,
 - Backup
 - Restore
 - Part_Restore_With_Data_Backup
 - Version_Control

Fun in config file (Backup)



- Description:To backup specified paths
- Example:

□ Note:

The paths must exist, if one of the paths doesn't exist Diskman will not carry on the backup

Fun in config file (Backup)



- □ Select [8]
- Select an item whose function is "Backup"
- Select the partition to be backuped *1
- Select the partition to store the image (*.conf.wim)
- Enter a name for the image
- Enter 'y' or 'Y' to confirm

*1 Make sure the partition contains the paths, i.e.

```
🗫 Local Disk (C:)
onfig xmlns:xsi="http://www.w3.org/2001/XMLSchema-i
<menuItem title="Conf Restore" fun="Restore">
                                                                 Edit View
                                                                           Favorites Tools
</menuItem>
                                                            Call Back ▼
                                                                                      Search
                                                                                                Folders
<menuItem title="EagleXtreme Backup" fun="Backup">
  <comment>this is a comment</comment>
                                                            Address Section C:\
  <path>
                                                            Name -
                                                                                                Size | Type
      <item value="path A"></item>
                                                            🛅 path_A
                                                                                                    File Folder
      <item value="path B"></item>
                                                            ipath_B
                                                                                                    File Folder
  </path>
</menuItem>
```

Fun in config file (Backup)



```
C:\WINDOWS\system32\cmd.exe - run
  Custom Function !
[1] Change Config File
[2] Conf Restore
[3] EagleXtreme Backup
[4] Machine_A restore with data backup
[5] Machine_B Version Conntrol
[0] Return To Main Menu
Diskman> 3
    DL Disk
               FS
                      TYPE
                                 SIZE
                                           SN
[1] C: (hd0,1) NTFS
                      FIXED
                                 76314 MB [
                                                  PVF804Z31PD12N1
Please select the partition to be backuped
Diskman> 1
    DL Disk
               FS
                      TYPE
                                 SIZE
                                           SN
[1] C: (hd0.1) NTFS
                      FIXED
                                 76314 MB [
                                                  PVF804Z31PD12N1
Please select the partition to store the image.
Diskman> 1
Please key in image file name, press [ENTER] to use default name "win-yyyymmdd-h
hmm.conf.wim"
You are going to
  Backup specific paths in partition
    C: (hd0,1) NTFS 76314MB [
                                   PUF804Z31PD12N1
  Paths To Be Backuped
    path_A
    path_B
Press Y to confirm.
```

Fun in config file (Restore)



- Description:
 - To restore a partition from *.conf.wim backuped from "Backup" function
- Example:
 - <menuItem title="Conf Restore" fun="Restore">
 - </menultem>

Fun in config file (Restore)



- □ Select [8]
- Select an item whose function is "Restore"
- Select the partition choose image from
- □ Select the a image (*.conf.wim)
- Select the partition to be restored
- Enter 'y' or 'Y' to confirm

Fun in config file (Restore)



```
C:\WINDOWS\system32\cmd.exe - run
                                                                      ====Diskman: Conf Backup Done Successfully
------
 Custom Function !
[1] Change Config File
[2] Conf Restore
[3] EagleXtreme Backup
[4] Machine_A restore with data backup
[5] Machine_B Version Conntrol
[0] Return To Main Menu
Diskman> 2
   DL Disk
             FS
                    TYPE
                              SIZE
                                        SN
[1] C: (hd0,1) NTFS
                    FIXED
                              76314 MB [
                                              PUF804Z31PD12N1
Please select the partition to choose image from.
Diskman> 1
[1]: C:\data1.conf.wim
Please select an image.
Diskman> 1
   DL Disk
                              SIZE
              FS
                    TYPE
                                        SN
[1] C: (hd0,1) NTFS
                    FIXED
                               76314 MB [
                                              PVF804Z31PD12N1
Please select the partition to be restored.
Diskman> 1
You are going to
 RESTORE harddisk from C:\data1.conf.wim
   C: (hd0,1) NTFS 76314MB [
                                PUF804Z31PD12N1
Press Y to confirm.y
```

Fun in config file (Part_Restore_With_Data_Backup)



Description:

To backup specified paths, restore a partition, then restore backuped paths

Example:

```
<menultem title="Machine_A restore with data backup"</pre>
fun="Part_Restore_With_Data_Backup">
<path>
   <item value="prog\data_A"></item>
```

<item value="data_B"></item>

<item value="data_C"></item>

</path>

</menultem>

Fun in config file (Part_Restore_With_Data_Backup)



- □ Select [8]
- Select an item whose function is "Part_Restore_With_Data_Backup"
- Select the partition to choose image from (*.part.wim)
- Select an image
- Select the partition to be restored *1
- Select the partition to store the backup image
- □ Enter 'y' or 'Y' to confirm
- *1 Make sure the partition contains the specified paths

Fun in config file (Part_Restore_With_Data_Backup)



```
C:\WINDOWS\system32\cmd.exe - diskman /E
[0] Return To Main Menu
Diskman> 4
    DL Disk
                      TYPE
               FS
                                 SIZE
                                            SN
[1] C: (hd0,1) NTFS
                      FIXED
                                 76314 MB [
                                                   PUF804Z31PD12N1
Please select a partition to choose image from.
Diskman> 1
[1]: C:\data1.part.wim
Please select an image.
Diskman> 1
    DL Disk
               FS
                      TYPE
                                 SIZE
                                            SN
[1] C: (hd0,1) NTFS
                                 76314 MB [
                                                   PUF804Z31PD12N1
                      FIXED
Please select a partition to be restored.
Diskman> 1
    DL Disk
               FS
                      TYPE
                                 SIZE
                                            SN
[1] C: (hd0,1) NTFS
                      FIXED
                                 76314 MB [
                                                   PVF804Z31PD12N1
Please select the partition to backup data.
Diskman> 1
You are going to
  Restore Partition With Data Backup
    C: (hd0,1) NTFS 76314MB [
                                   PUF804Z31PD12N1
  Data To Be Backuped
    prog\data_A
    data_B
    data_C
Press Y to confirm.y
```

Fun in config file (Version_Control)



- Description: To extract specified *.zip files to a partition
- Example:

```
<menultem title="Machine_B Version Conntrol"</pre>
fun="Version_Control">
<default file="bp.txt"></default>
<path>
   <item value="BP\sys A.zip"></item>
   <item value="BP\data_B.zip"></item>
</path>
</menultem>
```

Fun in config file (Version_Control)



- □ Select [8]
- Select an item whose function is "Version_Control"
- Select the partition, p1, to perform the function
- Select the partition to get specified *.zip from
- If version control config file exists in p1
 - *.zip stored in the file will be extracted
- □ Else *1
 - default *.zip will be extracted
- Enter 'y' or 'Y' to confirm
- *1 Warning will be displayed in this case

Fun in config file (Version_Control)



■ Version control config file

- File Name: version.conf
- Content and format:

```
File1.zip
File2.zip
File3.zip
```

■ Location: [Drive]:\, e.g. C:\, D:\

Fun in config file (Version_Control)



```
🙉 C:\WINDOW5\system32\cmd.exe - diskman /E
    data_C
Press Y to confirm.n
 Custom Function !
[1] Change Config File
[2] Conf Restore
[3] EagleXtreme Backup
[4] Machine_A restore with data backup
[5] Machine_B Version Conntrol
[0] Return To Main Menu
Diskman> 5
    DL Disk
               FS
                      TYPE
                                            SN
                                  SIZE
[1] C: (hd0,1) NTFS
                      FIXED
                                  76314 MB [
                                                   PVF804Z31PD12N1
Please select the partition to do version correction.
Diskman> 1
    DL Disk
                      TYPE
               \mathbf{FS}
                                  SIZE
                                            SN
[1] C: (hd0.1) NTFS
                      FIXED
                                  76314 MB [
                                                   PVF804Z31PD12N1
Please select the partition to get zips from.
Diskman> 1
 arning: Config File Does Not Exist, Default Version Is Restored.
You are going to
  Machine_B Version Conntrol
    C: (hd0.1) NTFS 76314MB [
                                    PUF804Z31PD12N1
  zips to be extracted
    BP\sys_A.zip
    BP\data_B.zip
Press Y to confirm.n
```

Procedure to change default config file



Prerequisite

- OS is Windows XP/Windows Embedded 7
- Have wimfltr.inf installed OR have Windows AIK installed
- Have wimmount.inf installed

Install wimfltr.inf and wimmount.inf tutorial*

- Download wimfltr.inf, wimfltr.sys, wimmount.inf and wimmount.sys from SWR DiskMan
- Right click on wimfltr.inf, wimmount.inf
- Install

*Once installed no need to install after restart

Procedure to change default config file

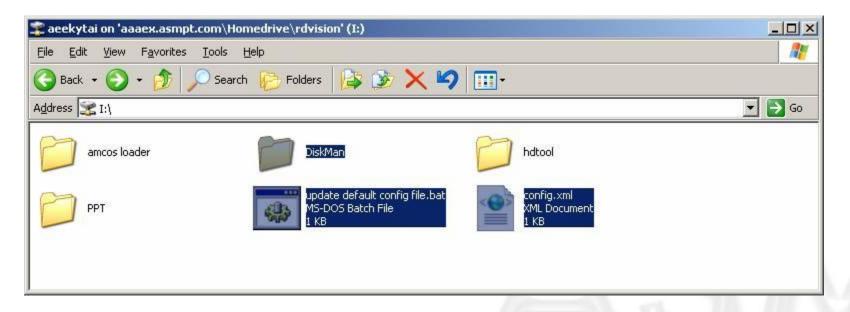


Setup the following environment

- Download DiskMan and "update default config file.bat"
- Make your own config file, name it as config.xml
- Put these file/folder under the same depth

□ To update/change,

Double click "update default config file.bat"





Mass Production

Select the Mass Production function



□ Enter "8" and Press Enter to select Mass Production.

```
Diskman Main Menu |

[1] Restore Partition
[2] Restore Harddisk
[3] Quick Restore Harddisk
[4] Quick Backup Harddisk
[5] Edit Partition...
[6] Other Function...
[7] Custom Function...
[8] Mass Production
[9] Shutdown Computer

Enter 0 to return to previous menu.
DiskMan (Select 0 - 9): 8
```

Select the partition to choose image



- □ Choose image from partition I:\
- □ Enter "2" and Press Enter to select <u>partition 4</u>.

```
VolName
    DL Disk
                                     SIZE
                        TYPE
                                                                               SN
                        FIXED
                                                (52.77GB) NI
                                                                                [CVCV22500401120BGN]
    I: (hd0,4) NTAS
                        FIXED
                                    56322
                                                 (55.00GB)
                                                           OTHER
                                                                                [CVCV22500401120BGN]
                                                 (48.82GB) WESXP IQ77
   F: (hd1,1) NTF
                        FIXED
                                    50000
                                                                                       RBF50A1N26W31P
                                                 (9.765GB) WINPE IQ77
    G: (hd1,2) NTFS
                        FIXED
                                     10000
                                                                                       RBF50A1N26W31P
    D: (hd2,1) NTFS
                        FIXED
                                    50000
                                                 (48.82GB) WESXP IQ77
                                                                                       E2X32X1L02GRJP
   E: (hd2,2) NTFS
                                                 (9.765GB) WINPE IQ77
                        FIXED
                                     10000
                                                                                       E2X32X1L02GRJP]
Please select the partoldsymbol{i}tion to choose oldsymbol{\mathsf{image}}(*.\mathsf{hdd.wim}) from.
Enter 0 to return to previous menu.
DiskMan (Select 0 - 6):[2]
```

Select image



- □ In this case, we used 10-M00227V1-00-08.hdd.wim
- □ Enter "1" and Press Enter to select image 1.

```
Restore Harddisk -- Step 2 |

Existing wim:

[1]: I:\18-M00227V1-00-08.hdd.wim

[2]: I:\10-M00298V1-00-02.hdd.wim

[3]: I:\10-M00201V1-00-02.hdd.wim

Please select an image.

Enter 0 to return to revious menu.

DiskMan (Select 0 - 3): 1
```

Select the harddisk to be restored



- Reminder selecting the first harddisk.
- Enter "1" and
 Press Enter to
 select harddisk
 1.
- After that, the selected harddisk shows here.
- Enter "n" to select the next harddisk.

```
(hd1) [RBF50A1N26W31P] 476940MB (465.7GB) FIXED 7 (416937MB (407.1 GB) Unallocated)
Partition 1: F: NTFS 50000 MB (48.82GB) WESXP_IQ77
Partition 2: G: NTFS 10000 MB (9.765GB) WINPE_IQ77
```

```
Do you finish? Y/N
n
```

Select the harddisk to be restored



- Reminder _____ selecting the second harddisk.
- Enter "2" andPress Enter toselectharddisk 2.
- The selected harddisk shows here.
- Enter "y" to finish selection.

```
Restore Harddisk -- Step 3 |

2 HardDisk

[1] (hd1) [RBF50A1N26W31P] 476940MB (465.7GB) FIXED 7 (416937MB (407.1 GB) Unallocated)
Partition 1: F: NTFS 50000 MB (48.82GB) WESXP_IQ77
Partition 2: G: NTES 10000 MB (9.765GB) WINPE_IQ77

[2] (hd2) [E2X32X1L02GRJP] 305245MB (298.0GB) FIXED 7 (245242MB (239.4 GB) Unallocated)
Partition 1: D: NTFS 50000 MB (48.82GB) WESXP_IQ77
Partition 2: E: NTFS 10000 MB (9.765GB) WINPE_IQ77

Please select the harddisk to be restored.
Enter 0 to return to previous menu.
DiskMan (Select 0 - 2): 2
```

Reset size of the new harddisk



□ Input new size of partition 1 (60000MB) and 2 (10000MB).

```
Rest size of New Harddisk: 476940MB (465.7GB)

Original Size of Partition[1]: 46000MB (44.92GB)

Please Input New Size for partition[1] (in MB <0 to exit> ): 60000

Rest size of New Harddisk: 476940MB (465.7GB)

Original Size of Partition[2]: 10001MB (9.766GB)

Please Input New Size for partition[2] (in MB <0 to exit> ): 10000
```

Confirmation



Last confirmation for

- The selected Image from harddisk I.
- There are two harddsik are going to be restored (hd1, hd2).
- Using customer layout.
 60000MB for partition 1 and 10000MB for partition 2.
- Input "y" to confirm.

```
Restore Harddisk -- Step 4 |

You have chosen:

Warning: All data will be lost in the harddisk

You are going to

RESTORE harddisk from I:\10-M00227V1-00-08.hdd.wim

(hd1) [RBF50A1N26W31P] 476940MB (465.7GB)

(hd2) [E2X32X1L02GRJP] 305245MB (298.0GB)

using Customer layout

Input Y to confirm. y
```

Processing



- Disk 1 started to restore.
- Disk 1
 successfully
 formatted and
 assigned the
 new layout.
- Disk 1 was restored and disk 2 started.
- Disk 2 formatted and assigned the same layout
- Disk 2 was restored.
- Restorations finished.

```
===Diskman: Restore Harddisk 1/2 Harddisk Start
Disk 1 is now the selected disk.
DiskPart succeeded in cleaning the disk.
New Harddisk Layout:
Partition 1
                   NTFS
                              60000
                                              (58.59GB)
Partition 2
                                              (9.765GB)
                   NTFS
                              10000
====Diskman: Restore Harddisk 1/2 Harddisk Done Successfully
====Diskman: Restore Harddisk 2/2 Harddisk Start
====Diskman: Restore Harddisk 2/2 Harddisk Done Successfull
```



Shutdown Computer

Shutdown Computer



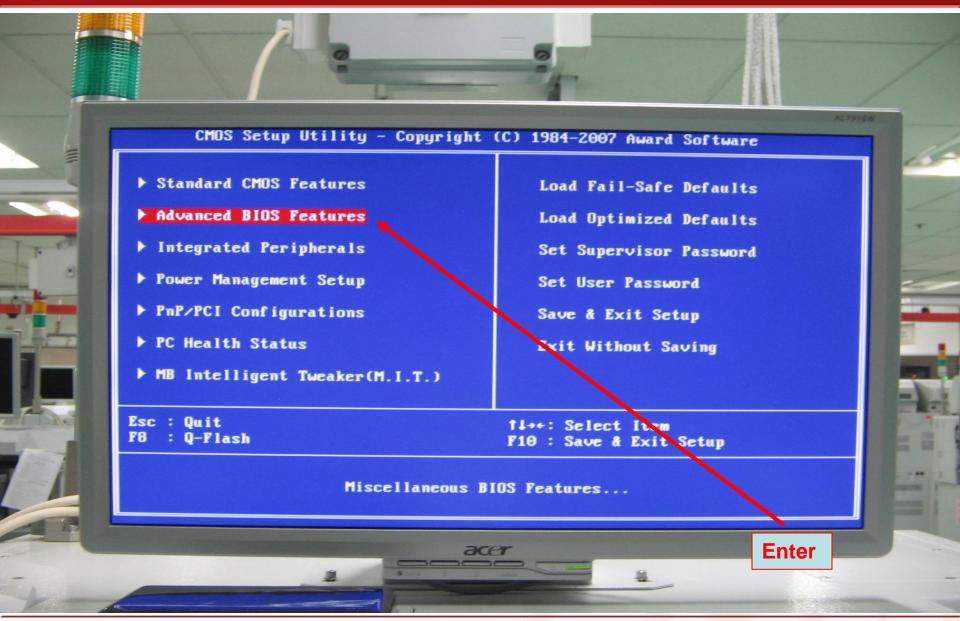
```
DiskMan V4-01 Compiled on Mar 5 2020
Copyright (C) 2019 ASM Assembly Automation Ltd. All rights reserved.
Verify Key To Use Diskman
Please Enter Key (Exit:Ctl+C):
                                                 Input 9 and press enter, the PC
ver > currentos.txt
Disk 0 is System Disk.
                                                 Will be shutdown
 Diskman Main Menu
[1] Restore Partition
[2] Restore Harddisk
[3] Quick Restore Harddisk
[4] Quick Backup Harddisk
[5] Edit Partition...
[6] Other Function...
[7] Custom Function...
[8] Mass Production
[9] Shutdown Computer
Enter 0 to return to previous menu.
DiskMan (Select 0 - 9): 9
```

Boot From USB: Power on machine. Press DEL to enter into BIOS setting panel

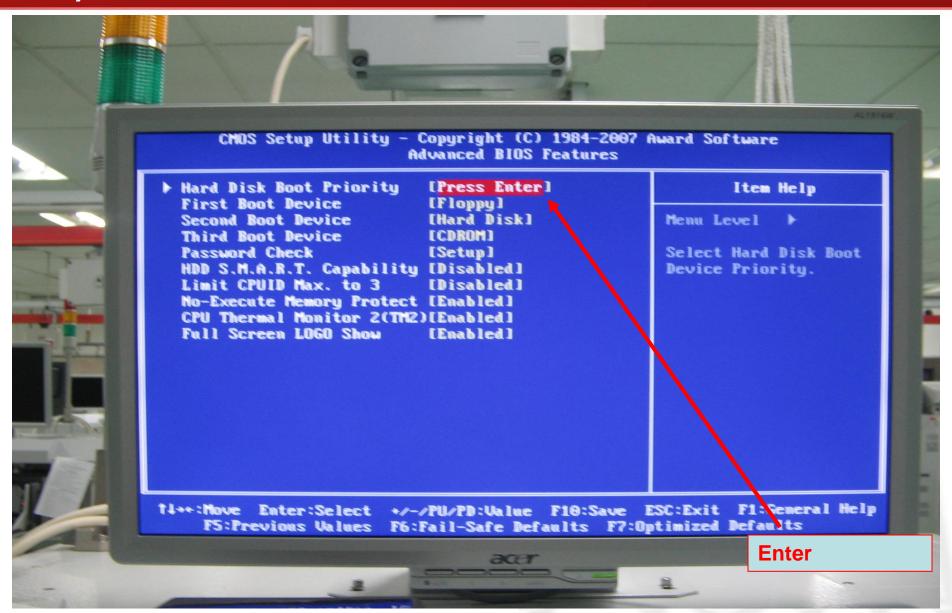








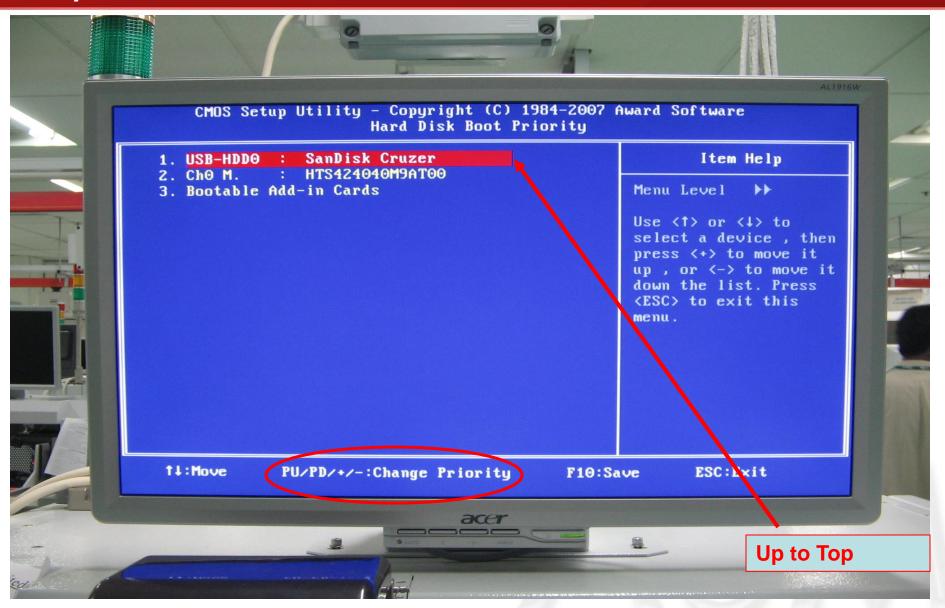




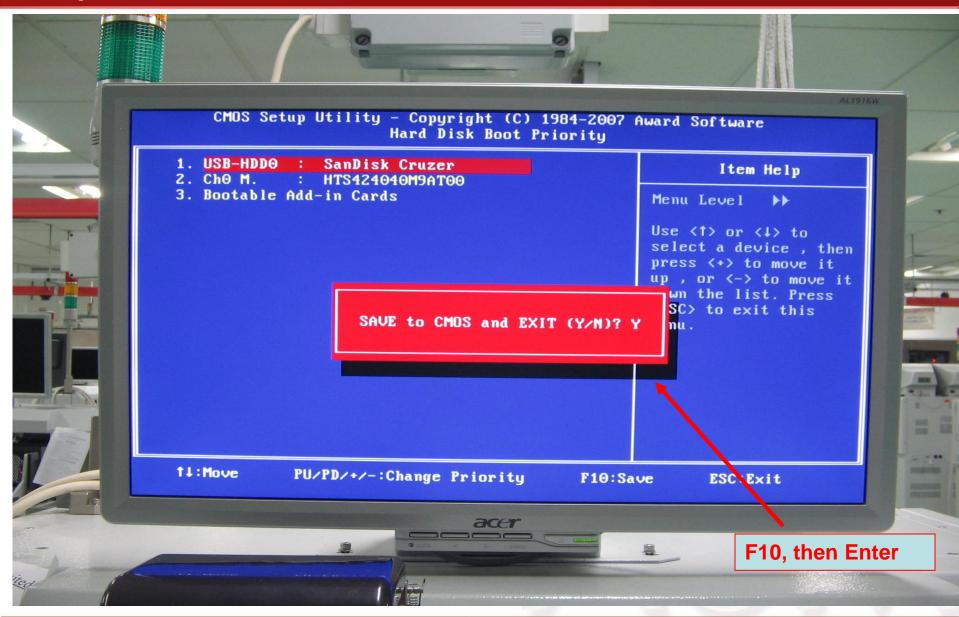














□ End

