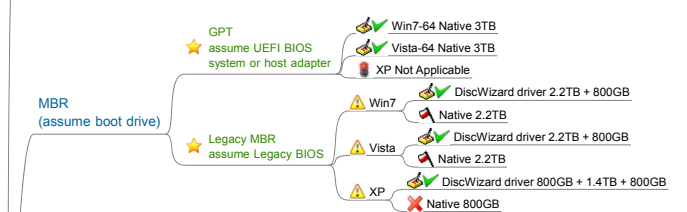
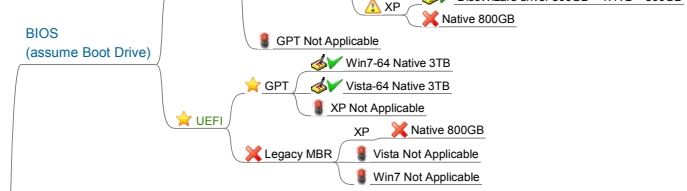
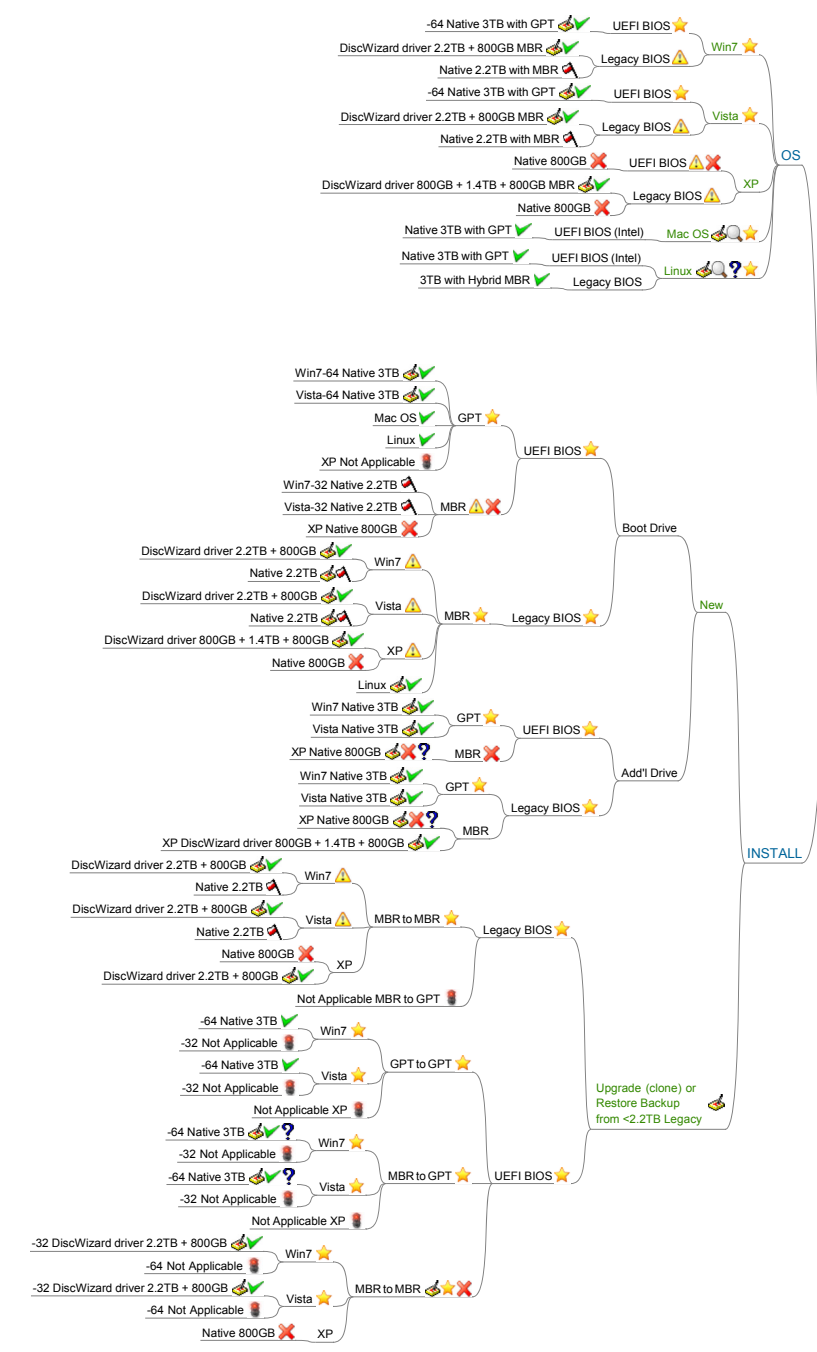


Seagate 3TB Hard Drive



Information about drive capacity

One gigabyte, or GB, equals one billion bytes when referring to hard drive capacity. DiscWizard software uses information provided by the operating system to display capacity and volume size. The Windows file system uses a binary calculation for gibibyte or GiB (2³⁰) which causes the abbreviated size to appear smaller. The total number of bytes on a disk drive divided by the decimal calculation for gigabyte or GB (10⁹) shows the expected abbreviated size.

TB means Terabyte or 10¹²
TiB means Tebibyte or 2⁴⁰

3TB By the Numbers

3TB = 3,000,000,000,000 bytes = 2.73TiB (divide total bytes by 2⁴⁰ to get TiB).

The maximum MBR size is:
2TiB = 2³² * 512 bytes per sector = 2,199,023,255,552 bytes or 2.2TB as used on this mind map.

The Seagate model ST33000651AS has 5,860,533,167 sectors of 512 bytes each = 3,000,592,981,504 bytes or 2.73TiB or 2,794.5GiB

The remainder capacity above 2.2TB for Seagate model ST33000651AS is:
3,000,592,981,504 bytes - 2,199,023,255,552 bytes = 801,569,725,952 bytes or 746.5GiB.

Seagate article: Storage Capacity Measurement Standards
<http://seagate.custkb.com/seagate/cm/selfservice/search.jsp?DocId=194563&NewLang=en>

NIST article: International System of Units
<http://physics.nist.gov/cuu/Units/binary.html>

- ★ Solution on this path
 - ⚠ Some solutions on this path
 - 📎 Note attached
 - ✅ Full capacity
 - ⚠ 2.2TB (2TiB) capacity
 - ❌ Worst case capacity
 - 🚫 Not applicable
 - 🔍 Needs discussion
 - 🔧 Needs development
 - ❓ Unsure, needs research
- Cloud means a solution in doubt

- GPT FAQ
http://www.microsoft.com/whdc/device/storage/GPT_FAQ.mspx
- GUID Partition Wiki
http://en.wikipedia.org/wiki/GUID_Partition_Table
- UEFI spec
<http://www.uefi.org/specs/>
- 2TiB Boundary Reporting
http://t13.org/Documents/UploadedDocuments/docs2010/f10106r1-32_TiB_Boundary_Reporting.pdf
- EDD-4 Hybrid MBR
http://t13.org/Documents/UploadedDocuments/docs2010/e09127r3-EDD-4_Hybrid_MBR_boot_code_annex.pdf

Mind map view of 3TB use cases and capacity outcomes for various hardware, boot record and OS types. See Help for icon descriptions.

document generated by FreeMind v0.8.1

Seagate Global SeaCare Solutions
1-800-SEAGATE
=====

© 2011 Seagate Technology LLC. All rights reserved.

History 2011-01-24 Initial public release

1. click and drag for better view
 2. see menu at top for options
 3. right click for more options
- Help and About (click to view)