

Solid State Hybrid

Improving the User Experience

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Congratulations: 30 Years!

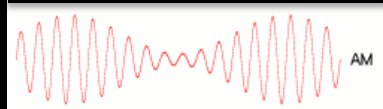


“Video Killed The Radio Star”

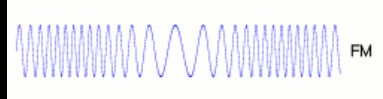
Radio: Then and Now

1981

AM



FM



2011

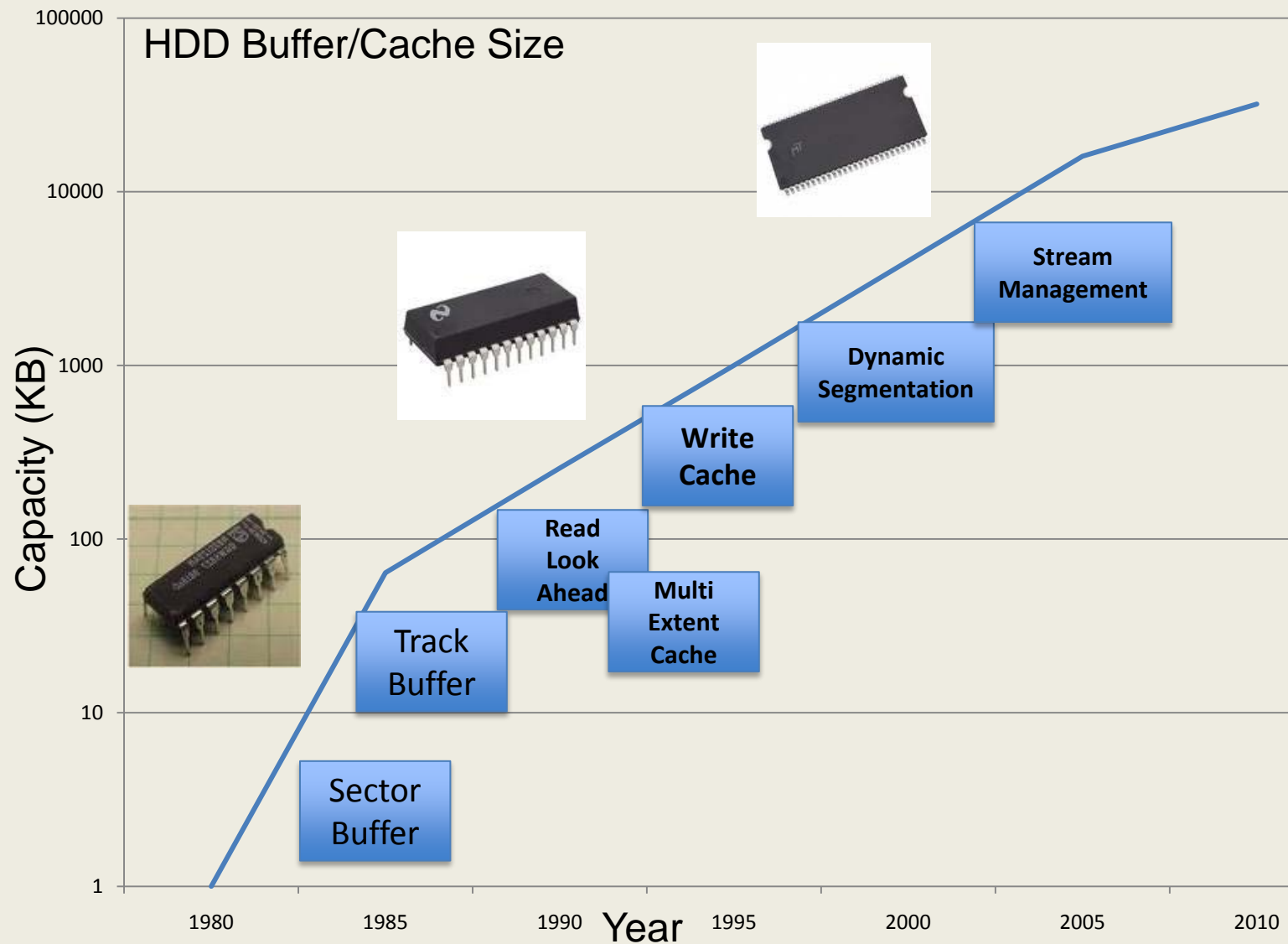
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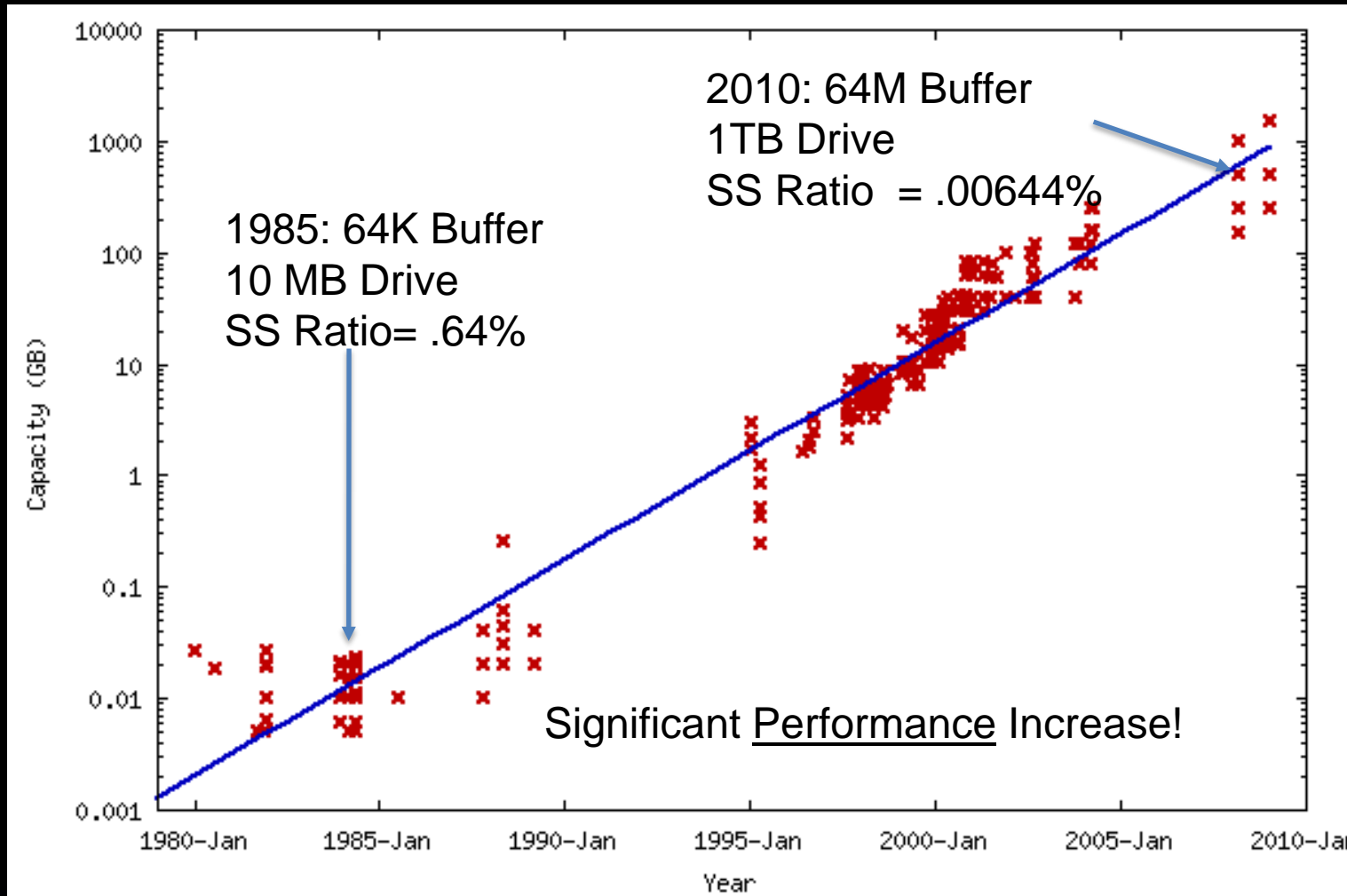
FM



Solid State Memory in HDD



HDD Capacity



A Little Goes A Long Way

- Capacity vs Usage
- Data Management
 - High Value/Cost Targets
 - Storage Geometry/ Mapping

Two Perennial Requests...

1. Need Solid State Non Volatile Memory
2. Bigger Cache

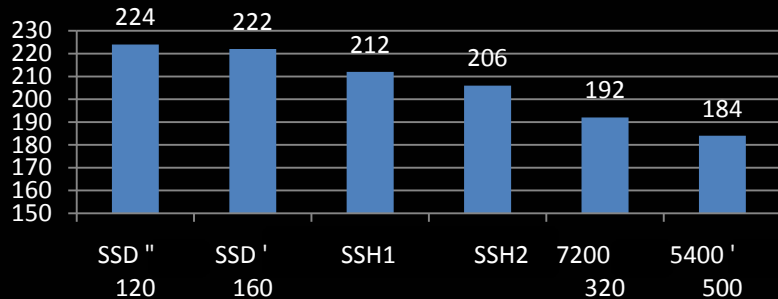
The technology is here...FLASH!!!

Natural Progression... FLASH CACHE = SSH:

- Performance/Capacity
- Affordable
- Simple

SSH - Benchmark Performance Comparison

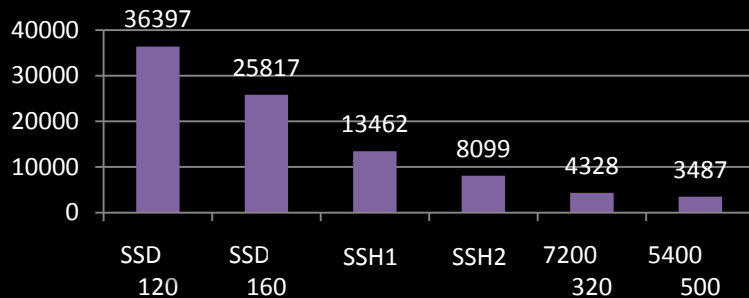
SYSmark® 2007 Preview Rating



OEM Notebook
Intel i5 2.6 GHz, 6 GB RAM

- >10% improvement in Sysmark over 7200 RPM HDD
- Within 5% of Sysmark score of SSD

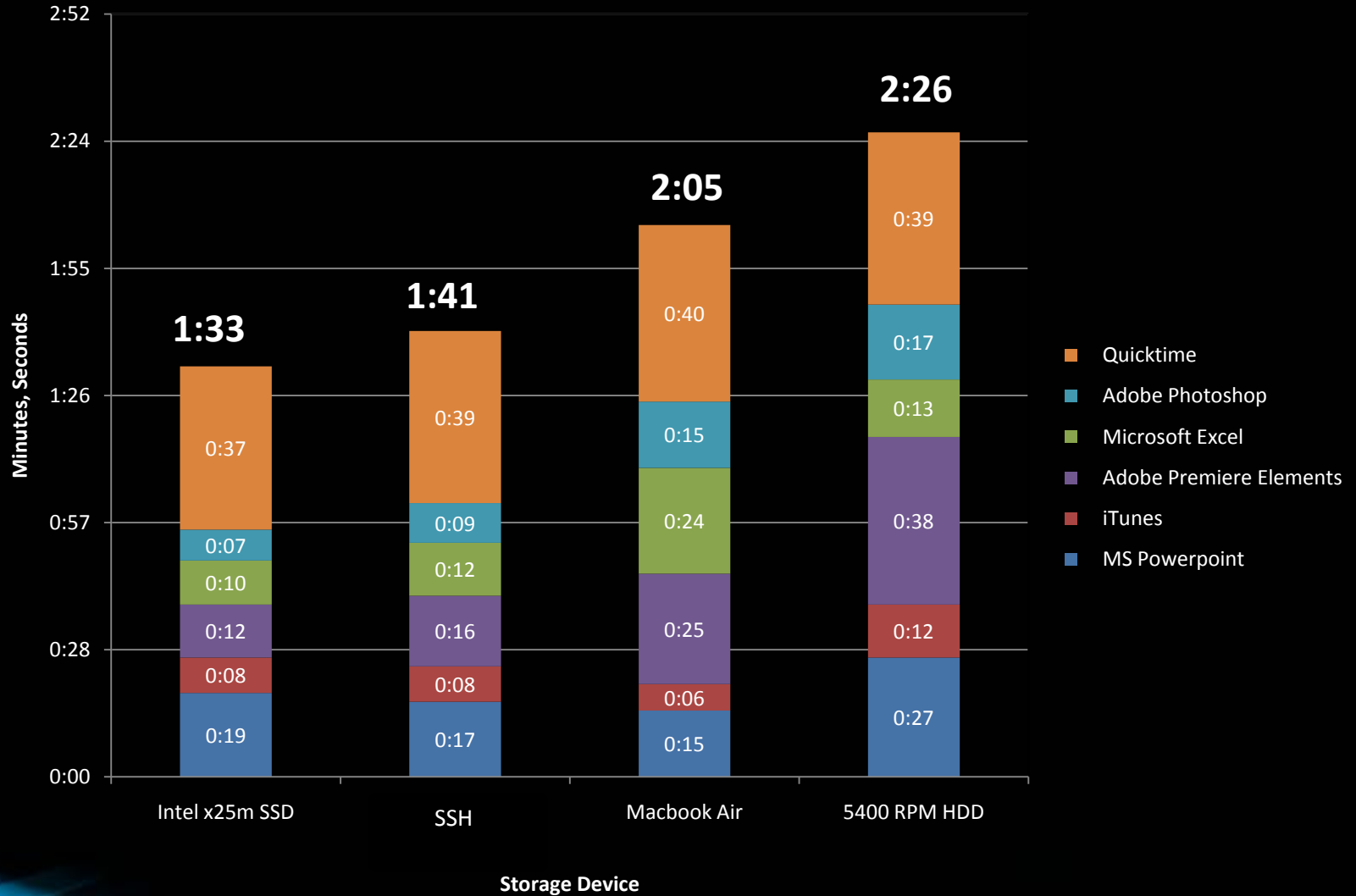
PCMark Vantage - HDD Score



OEM Notebook
Intel i5 2.6 GHz, 6 GB RAM

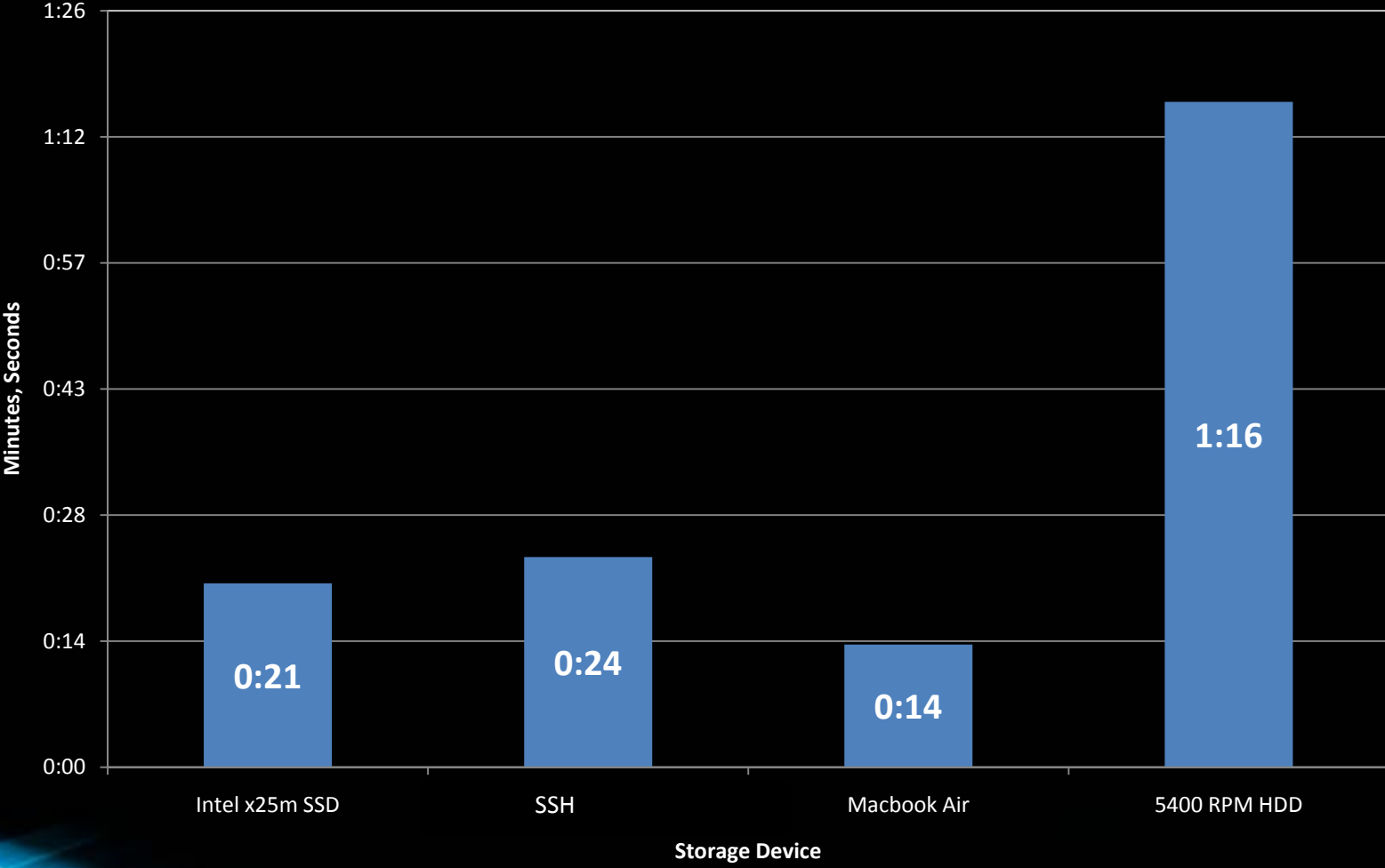
- Over 3 X improvement in PCMark Vantage score over 7200 RPM HDD

SSH - Application Launch Performance:



SSH Boot Performance:

Boot Time



Capacity and Cost

SSD



Highest Performance
Highest Cost/GB (~\$2)
Lower Capacity

SSH



High Performance
Lower Cost/GB (~\$.17)
Full Capacity

HDD



Lowest Performance
Lowest Cost/GB (~\$.12)
Full Capacity

FLASH on the HDD

Cost

- Component Reuse/Amortization
- Connector, PCBA, Controller

Efficiency/Performance

- Data Management
 - High value/cost targets
 - Drive Geometry/Format
- Data Migration
- Data Coherency (No Separation of Data issues)

System Impact - Simplicity

- Single Device
- No Software, BIOS change or Drivers Needed
- No Chassis or Mother Board Changes

Integration – Ease of Use

- No change to Device Qualification
- Single Part Number

Solid State Hybrid



- Performance/Capacity
- Affordable
- Simple



By the Way... Check out our SSH Commercial at:
<http://youtu.be/vh7u4N8u9Vg>

Video is clearly alive and well...