

MEMOREX

**MEMOREX 6880
SOLID STATE DISC
STORAGE SUBSYSTEM**

INFORMATION DISTRIBUTION



MANAGEMENT ISSUES

Productivity?

Hardware Cost?

Response Time?

Performance?

Managing Growth?

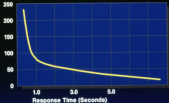
PEOPLE COST vs HARDWARE COST

- 50 Programmers at \$40,000 = \$2,000,000
- 200 Outside Users at \$25,000 = \$5,000,000
- Total Annual People Cost = \$7,000,000
- 5% Productivity Improvement = \$350,000

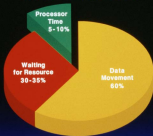


PRODUCTIVITY AS A FUNCTION OF RESPONSE TIME

Productivity (Transactions per Hour)



ON-LINE TRANSACTION



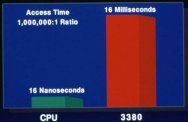
TRADITIONAL SOLUTIONS

- **Maximize Existing Hardware**
 - Systems Tuning
 - Restrict Usage
 - Reschedule Workload
- **Add Additional Hardware**
 - Additional CPU
 - Faster CPU
 - More Memory, Channels, Disk

RULES OF THUMB

- CPU Utilization Below 80%
- Channel Utilization Below 35%
- Add Memory to Reduce Paging
- Do Not Utilize All Disk Space

THE REAL PROBLEM



THE REAL PROBLEM

A Millisecond -
Dallas to Houston



A Microsecond -
3 Football Fields

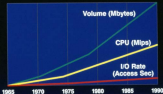


A Nanosecond -
Only 11.8 Inches



TECHNOLOGY TRENDS

- DASD Capacity, 60x Larger
- CPU Speed, 30x Faster
- DASD Performance, 4x Faster

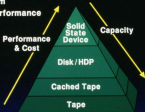


PERFORMANCE CHARACTERISTICS BY TYPE OF DATA

- **What is the Time-Value of the Data?**
 - Who Uses It?**
 - How Frequently?**
 - How Quickly?**
- **How Much Data Is It?**
- **How Does It Impact Corporate Profitability?**
 - Does It Impact People Productivity?**

STORAGE SUBSYSTEM FAMILY

- Address Real Problem
- Provide Improved Performance
- Reduce Costs



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THE MEMOREX 6880

**A New Generation of
Solid State Technology**



6880 SOLID STATE DISC

- The Highest Performance I/O Device
- Solid State Technology
 - No Seek
 - No Latency
 - No RPS Miss
 - .3 ms Access Time
 - 3 MB/Sec Data Transfer
- 32 MB to 512 MB Capacity
- Non-Volatile

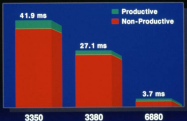
APPLICATIONS

- Demand and Swap Paging
- On-Line System Load Libraries
- On-Line Terminal Work Space/Queues
- Data Base Indices
- Security
- Catalogs
- CAD/CAM Roll Files
- Critical Batch Files
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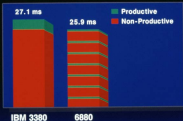
BENEFITS

- Improve On-Line Response Consistency
- Improve System Performance
- Reduce On-Line Response Time
- Increase Transactions
- Increase Number of Users
- Improve Hardware Utilization
CPU, Channels, Disk, Memory
- Enhance Batch Throughput
- Simplify Tuning Efforts

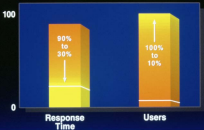
DATA MOVEMENT COMPARISON



PERFORMANCE COMPARISON



ON-LINE SYSTEM IMPROVEMENT



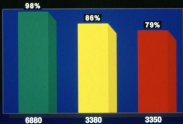
INCREASED RESOURCE UTILIZATION

- Improve CPU Utilization
- Improve Channel Utilization
- Improve Disk Utilization
- Improve Memory Utilization

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IMPROVED CPU ACCESS FOR CICS AND IMS

%
Availability



IMPROVED DISK UTILIZATION

- Increase Useable Space on Existing Devices
- Free Up Dedicated Volumes

50 MB per Actuator

\$750 per MB

IMPROVED CHANNEL UTILIZATION

- 200% Improvement with 6880

Disk Channel Utilization: 25-35%

6880 Channel Utilization: 50-70%

- 3081 Channel Group Cost: \$100,000

SUMMARY OF 6880

Benefits

- Improve System Performance
- Increased Productivity
- Improve Current Hardware Utilization
- Enhance Future Hardware Utilization

SUMMARY OF 6880

End Result

- Reduce Cost of Doing Business
- Increase Profits

Can the Memorex 6880 Help Solve Your Problems?

- **Conduct Needs Analysis**
- **Report Results**