Buffalo State College

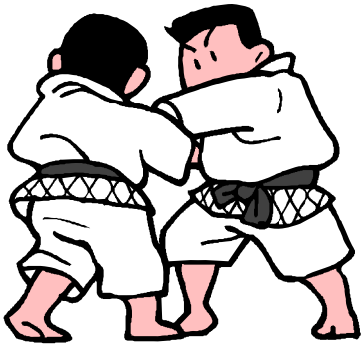
November 2003

Volume 1, Issue 7

EDC-Newsletter

Advancing Education Through Technology

Feature articles this issue:



Other articles:

PC versus Mac - Prologue

Ask most people which operating system they prefer Windows or a Macintosh and they will have no problem giving you an answer. Most would go on to say that their OS is the best. If you asked *why* their system is better they may have to think a while.

If you asked the following question in a crowded room, "which hardware is better, PC or Macintosh", what may ensue could be raised voices and perhaps hot tempers. After all, no one wants to admit that they use an inferior hardware product.

There have been countless articles and arguments revolving around the age-old question, which is better, Mac or PC. The answer is simple.
There is no concrete evidence which platform is actually better. Let's repeat that, there is no concrete evidence that clearly states which is better.

However, under certain controlled conditions, there is evidence, which may shed light on the discussion; those facts will be discussed in a moment.

There are several key concepts that should be kept in mind in order to better understand this debate. One is that these platforms are innately different. Applications with the same names and version number will not behave the same way on both systems.
So in any attempt to compare the two is like comparing apples to oranges-err, PCs right?

Second, EDC students should have the flexibility and leverage to be comfortable on either platform. In today's job market, having cross platform proficiency can only benefit you. So the challenge is really for you. PC users - go try out a Mac and visa versa. The next time the question is asked, "which is better PC or Mac", you can have the educated answer that you are skilled on both, so it doesn't matter. Let's get on with the testing.

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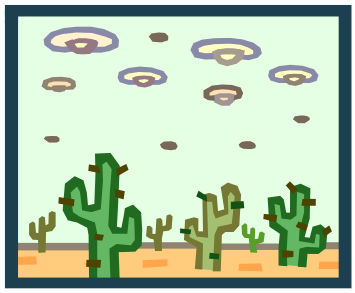

Processor Profiles:

Apple Power Mac
G4: dual-1.4GHz PowerPC G4
G5: dual-2GHz PowerPC G5

Alienware
Area-51: 3.2GHz Pentium 4

Aurora: 2.2GHz Athlon 64 FX-51

Polywell
Poly Station: dual-2GHz Opteron

The most recent challenge - PC vs. Mac

Pictured above: Alienware's Aurora

In the December, 2003 issue of Macworld, software developers pitted the top of the line Alienware **Aurora** and **Area –51**, and the Polywell **Polystation** 2020A against the Power Mac **G4** and **G5**.

The tests main premise: both users of Mac and PC will want to run the same software, why not run the same version of the same software compatible on each platform, and compare results. Here is a brief summary of the tests that Macworld ran and the results.

The Photoshop Test:
Both platforms run a series of tasks on a 150MB file.

The dual processor of the G5 ousted the Alienware but not the Polystation. It should be noted that the Polystation is $400 dollars more than the G5. It goes to show that speed has it's price.

The Word Test:
Each machine was tested for how long it took to find and replace a word repeated 17,448 times in a document, then perform Word's AutoSummarize function on a 255 – page document.

Both Alienware and Polystation pummeled the Mac G5 by taking nearly half as long as the G5's time.

The Quake Test:
This test was designed primarily to measure frame rates, which is important for gaming.

Macintosh has made great strides to close this gap, but the bragging rights go to the PC. The combination of processors and video cards give the gamer the best play on the PC.

The Premiere Test:
Adobe's Premiere is a popular video editing software amongst PC users, while Final Cut Pro is the choice of Mac users. This test involved the timed export of a movie created using Premiere 6.5 to QuickTime format.

This test illustrated how the same application runs differently on different platforms. The PC version ran twice as fast.

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The MP3-Encoding Test:
This test questions which system can take an audio CD that is 45 minutes long and encode it as MP3 files, the fastest.

Alienware's Aurora soundly beat everyone, converting the CD to WAV files in a swift 38 seconds.

The MPEG-2 Test:
While the MP3 test was designed for compressing audio, the MPEG-2 test was designed for compressing digital video. This test featured a 6 - minute movie.

The dual-processor of the Mac G5 won this competition by nearly 2 full minutes.

SYNOPSIS:
As you can see the PC beat the Mac in 4 out of the 6 tests. Does this mean that PC's are better? The final analysis given by Macworld points out that the answer lies not in the question of which is better, but rather in what are you planning to do with your computer? Each platform will offer unique strengths as well as weaknesses as you push them to there respective limits. You make the decision, which is right for you.

Some final notes: If you are interested in purchasing any of these systems, here is the price list on the units that were tested.

Apple Power Mac G5: $3,549

Alienware Area-51: $3,143

Alieware Aurora: $3,445

Polywell Poly Station: $3,995

Be sure to visit your local newsstand for a more in-depth look at these tests in Macworld's December edition.

Apple's Power Mac G5

Google says:

MP3:
Coding standard for compression of audio data.

MPEG-2:
A video compression algorithm that is part of the DVD-Video. This algorithm, developed by the Motion Pictures Experts Group, compresses the video by 1/40 of its original size.

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E-Defining Education:

A closer look at the contemporary challenges surrounding Virtual Education at the K-12 level.

Did you know?
By the end of 2002 there was 32 states that sponsored e-learning initiatives and 13 states, which regulated private e-learning initiatives that are not operated by the state.

SOURCE: Education Week survey of state departments of education, 2002.

Most EDC students have experienced the benefits of online learning. Through the use of the SUNY ONLINE LEARNING NETWORK and others, they understand the unique challenges and rewards that online learning has to offer the college student. This form of "Virtual Education" has been prolific at the college as well as complete degree programs offered by colleges. Today, students can graduate without ever setting foot on a brick and mortar campus. Few students who have taken online courses will disagree with all the benefits that accompany it. However - is this the best way for students at the K-12 level to learn?

The virtual school movement has now shifted its focus to include K-12 education and some educators, policymakers, administrators, and educational researchers are skeptical at the exaggerated claims for online learning. Is virtual learning appropriate for the K-12 student?

In the Fall 2003 Newsletter, "Virtual School Report", published by Connections Academy, the article "Challenges to Online Learning and Teaching", addresses 6 key challenges facing K-12 virtual education.

KEY CHALLENGES:

Weak content and curricula:
Online learning classes shouldn't be "page turning lectures", devoid of any activities that are research or inquiry based. Does the content meet state/national content standards?

Weak online pedagogy:
Online learning promotes little interaction with classmates and the teacher. Is there reason to believe that this will hamper a deep understanding of knowledge, concepts and principles?

Limited forms of online assessment:
Are the course activities designed without accompanying rubrics? Is there a clear understanding of the accountability criteria?

Lack of technology standards:
Are course materials capitalizing on the multiple representations possible with technology? Are multimedia, virtual reality, and simulations used in a superficial ways?

Instructor not prepared to be a virtual instructor:
Is the instructor familiar with the logistics of homework, discussions and grading of online courses?

Not all learners are prepared for online learning:
Not all students are sufficiently motivated or have the learning strategies needed to be online learners.

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Acronym Alley:
Here are the answers to October's Acronym Alley:

1. API- Applications Programming Interface
2. ARPANET - Advanced Research Projects Agency Network
3. ASCII – American Standard Code for Information Interchange
4. GB – Gigabytes
5. EPROM - Erasable Programmable Read Only Memory
6. HPPI – High Performance Parallel Interface
7. POTS – Plain Old Telephone Service
8. VIC-Video Conferencing
9. JPEG – Joint Photographics Expert Group
10. ID10T- idiot error (term used by techs everywhere)

About the EDC Newsletter

This newsletter is a graduate study independent project. Your feedback will be instrumental in making it a better resource for everyone. Since this is a graduate project, its current life expectancy is for the Fall, 2003 semester. If you are interested in continuing this newsletter in the Spring, 2004 semester as your own project, contact Russ Latour, current EDC Newsletter editor at: 99rlatour@jamestown.wnyric.org,

or Dr. John Thompson, the EDC Program Coordinator, at: thompsjt@bscmail.buffalostate.edu

for more information.

This month's Acronym Alley:
Try to see how many of these technology acronyms you know.

1. **FIFO**
2. **B-ISDN**
3. **BOM**
4. **GUI**
5. **IPI**
6. **MTTR**
7. **LOS**
8. **UPS**
9. **VDT**
10. **WAN**

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Microsoft Office in the Classroom

Part 1: What is a Compound Document?

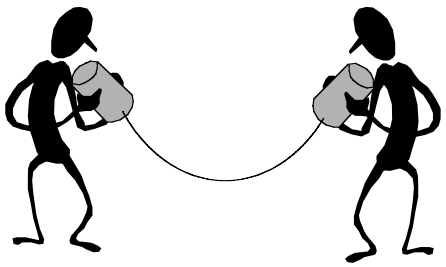
It is commonplace for teachers to use Microsoft Office in the classroom for a variety of reasons. You may see a teacher using PowerPoint to present a lecture, another giving handouts or a test created with Word. Excel is used to collect and analyze data in classes. There are distinct educational benefits that can be found for each software application in the Office Suite. Why not combine these resources to create a compound document that will enrich the learning experience and facilitate a deeper understanding of the information that is being presented? Part One of this article is designed to give the novice user an insight on what a compound document is and it's possible educational applications.

What it is:
A compound document is an entity comprised of elements from other applications. Information from one or more sources is shared with the destination document. OLE pronounced "Olay" is the acronym for Object Linking and Embedding, the process of combining multiple sources

To better explain by example:
Your Science class collects, records and charts data using Excel. The results of the project are summerized using Word. Text from the Word document and the chart from the Excel spreadsheet are included in a PowerPoint presentation that is delivered to the class.

In this case the PowerPoint Presentation is the *destination* file, Word and Excel provide *source* information.

To link or not to link:
If the source information is *linked* to the destination file, any changes made to the source file will be automatically updated in the destination file. Information *embedded* into the destination file will not be updated.



UPCOMING ARTICLES AND FEATURES

Part 2:
Microsoft office in the classroom:
Creating a compound document.

Gadgets

Integrating Technology

Answers to Acronym Alley and more…