

Mobile Computing with the Tablet PC

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What is a Tablet PC?

It's essentially a lightweight notebook PC plus...

- **Windows XP Tablet PC Edition**

- A superset of Windows XP Professional
- Can run all Windows XP desktop programs
- Optimized for using a touch-sensitive screen, a tablet pen and a pen interface

- Microsoft and 3rd-party applications to take advantage of the new OS extensions and the new hardware

- **Physical keyboard is not required**

- Have integrated wireless networking

What is a Tablet PC?

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- **Built-in support for digital ink**
- Built-in support for multi-language handwriting recognition, gesture and voice recognition
- **Includes Windows Journal note-taking accessory**
- Other hardware requirements
 - Lightweight design, high-resolution display
 - Straight-forward screen rotation, longer battery life
 - Fast resume from StandBy and hibernation modes
 - Optional dock stations, hot docking and undocking

What is a Tablet PC?

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- **Tablet PC Input Panel (TIP) accessory**

- Allows for handwriting and voice input recognition
- Writing Pad for handwriting recognition into typed text
- Write Anywhere capabilities
- On-screen keyboard for typing text and making corrections
- Also Pocket PC Letter Recognizer and Pocket PC Block Recognizer (like Graffiti)

- **These days, Tablet PCs cost about 10% to 20% more than comparable sub-notebook computers**

Types of Tablet PCs

■ Convertible models

- Like conventional notebook computers
- With attached keyboards and screens that turn and flip to cover the keyboards and have the touch-sensitive screens face up for pen user interface
- One-spindle, and now: **two-spindle models**

■ Slate-style models

- More lightweight units
- Without integrated keyboards (use optional detachable USB-connected or wireless keyboards)
- Other external peripherals typically required

Current Tablet PC offerings

- Acer TravelMate C100/C110 Series (convertible)
- Toshiba Portege 3500 Tablet PC (convertible)
- Fujitsu Stylistic ST4000 (slate)
- ViewSonic V1100 Tablet PC (slate)
- Motion Computing M1400 (slate)
- Acer C300, Gateway M275 two-spindle models
- HP Compaq Tablet PC TC1100 Series (hybrid)
- Other models available; see
 - <http://www.tabletpctalk.com/faqs/hwcomparison.shtml>
 - **Best units to get: Intel Centrino-based models**

Uses of Tablet PCs

- Reading digital content: Web pages, Acrobat and Word documents, eBooks, etc.
- Taking notes at meetings, classrooms, hallways, anywhere, anytime, napkin--brainstorming
- Store working notes in searchable format
- **Comfortable computing:** walk-around, standing, reclining position, laying down, resting on lap, held with one hand
- Collaborative capabilities via integrated wireless networking and collaborative apps like Groove

Uses of Tablet PCs

- Taking notes, making drawings, annotating documents and giving presentations
- Incorporating digital ink into a new personal computing experience
- Easy note-taking in math, statistics, economics, chemistry, whenever drawings may be needed
- Vertical mobile applications in health care, business, research, engineering, higher ed.

Tablet PC applications

- They run all Windows XP desktop software
- New applications
 - **Tablet PC-specific Windows apps** — Windows Journal, Windows Snipping Tool, Sticky Notes
 - **Extensions to conventional desktop apps** — Microsoft Office XP Pack for Tablet PC, Groove WorkPlace
 - **New 3rd-party apps** — Corel Grafigo, Zinio Reader, Alias Sketchbook, FranklinCovey TabletPlanner, Mindjet MindManager, Ms-Office system 2003
- Demos...

Windows Journal

- A note-taking accessory that lets you create and organize handwritten notes
- Handles digital ink for notes, drawings and diagrams (pens, highlighter and eraser)
- Use it to take notes at meetings and in the classroom (insert space wherever needed)
- Supports text boxes for handwriting recognized typed text (can export typed text also)
- Search at later (w/o handwriting recognition)

MS-Office XP Pack for Tablet PC

- A free download to support digital ink and pen UI
- Jot down handwritten notes (and email them)
- Mark up PowerPoint presentation files (including live presentations)
- Annotate Word and Excel files
- Add handwritten comments in Word
- Quickly draft drawings and notes using your handwriting
- <http://www.microsoft.com/office/tabletpc>

Other Tablet PC applications

- **Corel Grafigo**

A graphics application that allows you to quickly visualize and communicate your ideas; great for making schematic diagrams (free download)

<http://www.corel.com/grafigo>

- **Zinio Magazine Reader**

Allows you to download and read digital copies of print magazine under a subscription service

<http://www.zinio.com/tablet>

- **Groove WorkPlace**

Desktop collaboration software for shared spaces, superior file sharing, real-time collaboration, flexible tools

<http://www.groove.net/microsoft/tabletpc>

Microsoft OneNote

- A new MS-Office component that allows you to capture, record, organize, search and reuse information, inc. digital ink (good edu price)
- Designed for desktop, laptop and Tablet PCs
- The OneNote interface is similar to a notebook with dividers, and supports typed text, hand-written notes, hyperlinks and multimedia
- Smart features handle bullet lists and content searching, organization and manipulation
- MS-OneNote interactive live Webcast: next Wednesday 10/27 at 12 pm

Microsoft OneNote

Biology - Microsoft OneNote

File Edit View Insert Format Tools Notes Window Help

Type a question for help

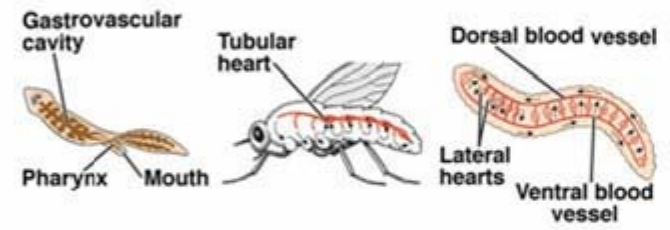
Student Biology Calculus English Spanish Lit Type text to find

Note Flag Su

Cardiovascular Systems

9/18/2002 Page Group: 11:11 AM 1 of 2

Circulatory System Variations




The diagrams illustrate three types of circulatory systems:

- Planaria:** gastrovascular cavity. Labels: Gastrovascular cavity, Pharynx, Mouth.
- Insect:** open circulation. Labels: Tubular heart.
- Earthworm:** closed circulation. Labels: Dorsal blood vessel, Lateral hearts, Ventral blood vessel.

This will be on the test!

Human Heart

- Primordium forms in cardiogenic plate at cranial end of embryo
- Angiogenic cell clusters lie in horseshoe shape
- Tube can be subdivided into



Spanish Lit Paper
Return chemistry text
Pay fall semester tuition
Call Mom

Show all notes flagged
In current notebo

Top Priority

Show only unchecked
Show text instead

Refresh res

Copy results to a

See also

Customize Note Fla


start Microsoft PowerPoint ... Biology - Microsoft Sc... 5:03 PM

Microsoft OneNote

The screenshot shows the Microsoft OneNote application window titled 'Tahiti'. The interface includes a menu bar (File, Edit, View, Insert, Format, Tools, Notes, Window, Help), a toolbar with various editing tools, and a ribbon with tabs for 'Journalist', 'Amalfi Coast', 'Cairo', 'Maldives', 'Tahiti', and 'New Notebook: 1'. A search box contains the text 'Type text to find'. The main content area is titled 'Tahitian Adventure' and contains the following text:

Handy Links <http://polynesiansislands.com/fp/>
<http://www.tahiti-tourisme.com/EN/menu-principal.html>
<http://www.traveluniversal.com/Vacation-Tahiti-Map.asp>

11/2/2002
2:27 AM



Open air market--*Marché du Rapata*
Unique holidays--*Week of the Fish* (last week in March)

Currency
The currency of French Polynesia is known as the French P CFP (or sometimes XPF). The rate of exchange for this cure the rate of 119.3317 CFP to 1 Euro. For exchange with the U CFP to \$1.

Top Resorts

- Bora Bora--Hotel Bora Bora
- Tahiti--Le Meridien Tahiti
- Moorea--Moorea Beachcomber Intercontinental

History
Just how the Polynesian peoples came to populate their islands of the Pacific is a subject of some debate. What is cle great sailors and navigators who traversed vast distances of open ocean to settle as far and wide as present-day French

Pasted from <http://www.tahiti.com/photos-chosen.html>

The Windows taskbar at the bottom shows the 'start' button, several icons, and open applications: 'Microsoft PowerPoint ...' and 'Tahiti - Microsoft Scri...'. The system clock shows '4:58 PM'.

Microsoft OneNote

The screenshot displays the Microsoft OneNote application interface. The title bar reads "Meetings". The menu bar includes "File", "Edit", "View", "Insert", "Format", "Tools", "Notes", "Window", and "Help". The toolbar shows various editing and navigation tools. The ribbon area includes "Manager" and tabs for "ChampionZone", "Meetings", "Acme", "B Co.", and "Z Ltd.". A search bar is present with the text "Type text to find".

The main content area is titled "Customer Advisory Council" and shows a date of "10/31/2002" and "Page Group: 1 of 4". A context menu is open over the title, with options: "Play from this page", "Play from the Beginning", "Stop", "Delete", and "Select Attached Notes".

The content includes a list of names: John, Jeff, Mike, Carol, and Kathy. A section titled "Customers" lists: Gerry--Champion Zone, Darryl--Acme Co., and Jennifer--Z Ltd.

An "Agenda" section is highlighted in red, containing a bulleted list:

- Minutes from last meeting
- Update on company status
- Discussion of new product line
- Customer thumbs-up and thumbs-down
- Wrap up

A "Customer Priorities" section is highlighted in cyan, containing a bulleted list:

- Faster phone response
- More visibility into inventory levels
- Tighter coordination of cross-promotion efforts
- Increased local advertising efforts

The Windows taskbar at the bottom shows the "start" button, several application icons, and the system tray with the time "4:36 PM".

Tablet PCs in higher education

- Both, students and teachers are mobile users
- Revolutionary digital note-taking in the classroom: take, keep, organize, search and manipulate digital notes in one's own handwriting, inc. diagrams and doodles
- Windows Journal provides unlimited anytime-editable sheets of paper to capture what is on the blackboard
- Students expected to be attracted by sleek designs, portable form factors and better ergonomics
- You cannot hold a laptop with one hand, while talking to a professor, in the hallway, and jotting down a note
- Teachers might be lured to mark-up live presentations

Tablet PCs in higher education

- Potential use of interactive whiteboards (pen control and application sharing by students from their seats)
- Teachers could accept digital assignments and use Tablet PCs to comfortably comment and grade papers, in digital ink, and email them back to the students
- Ad hoc collaboration and team learning possibilities
- Pen and paper has always been a comfortable medium at schools — Tablet PCs digitize this popular medium
- In-class access to class Web sites and other content
- One device to hold handwritten lecture notes and all sorts of faculty-provided educational materials

Tablet PC Issues

- Prices need to come down some more
- Battery life needs to improve (3-4 hours today)
 - new Intel Pentium M (Centrino) — 4 to 8 hours/charge
- Problems projecting in portrait mode
- Unproven ruggedness, So-so built-in voice recognition
- Hardware overheating problems
 - Resolved by new Intel Pentium M (Centrino)
- Awkward WriteAnywhere functionality
- Many Web sites not designed for portrait viewing
- Weight still needs to come down for extended comfortable tablet PC computing experience

Summary

- **Same functionality of laptops with more flexibility**
- **Designed for mobile computer users, walk-around computing, comfortable computing and note-taking**
- Intended to be carried and used throughout the day
- **Simplicity of pen and paper by letting you use the display as a writing tablet**
- Touch screen navigation more natural than mouse-based
- **Outstanding digital note-taking capabilities**
- Tablet PCs provide anytime-anywhere computing, communication and collaboration

Summary

- Tablet PC appeal is expected to quickly grow as new Tablet PC-intelligent applications become available
- Microsoft's new OneNote Office component will revolutionize note-taking and replace the yellow pad
- Mainstream notebook computers to evolve into Tablet PCs by 2005-2007
- Tablet PCs are not in direct competition with personal digital assistants as PDAs, although they will discourage pocket reading in favor of the much larger viewing screens
- Please email any questions to Ed Garay at itl@uic.edu

Related links

- Microsoft Tablet PC home
 - <http://www.tabletpc.com>
- Tablet PC Talk
 - <http://www.tabletpctalk.com>
- Tablet PC hardware
 - <http://www.microsoft.com/windowsxp/tabletpc/evaluation/tours/default.asp>
- 3rd-party applications
 - <http://www.tabletpctalk.com/faqs/apps.html>
- Microsoft Tablet PC newsgroup
 - <http://www.microsoft.com/windowsxp/tabletpc/using/newsgroups/default.asp>
- [TabletPCHome.com](http://www.tabletpchome.com) -- <http://www.tabletpchome.com>
- [TabletPCBuzz.com](http://www.tabletpcbuzz.com) -- <http://www.tabletpcbuzz.com>
- Book: *How To Do Everything With Your Tablet PC*, by Bill Mann, McGraw-Hill Osborne Media