Министерство образования и науки Украины
Севастопольский национальный технический университет

Новейшие компьютерные устройства и технологии = Advanced Computer Appliances and Technologies

Методические указания
к практическим занятиям № 1 – 5
по дисциплине «Английский язык»
для студентов II курса специальностей
8.091401 «Системы управления и автоматики»
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Новейшие компьютерные устройства и технологии = Advanced Computer Appliances and Technologies. Методические указания к практическим занятиям № 1 – 5 по дисциплине «Английский язык» для студентов II курса специальностей 8.091401 «Системы управления и автоматики», 8.091501 «Компьютерные системы и сети», 8.080401 «Информационные управляющие системы и технологии» дневной формы обучения / Сост. Е.С. Солодова. – Севастополь: Изд-во СевНТУ, 2010 – 40 с.

Методические указания предназначены для формирования у студентов умения и навыков чтения литературы по специальности на английском языке и ведения беседы, связанной с компьютерами и новейшими технологиями в компьютерной области, для развития навыков устной монологической речи, для обеспечения усвоения слоя общенаучной лексики.

Методические указания рассмотрены и утверждены на заседании кафедры ПРГЯ (протокол № 10 от 01.04.2010 г.).

Допущено учебно-методическим центром и научно-методическим Советом СевНТУ в качестве методических указаний.

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ВВЕДЕНИЕ

Методические указания предназначены для практических занятий студентов II курса технических вузов специальностей факультета «Автоматики и вычислительной техники».

Методические указания состоят из пяти уроков, каждый из которых включает предтекстовые упражнения, тексты для чтения, перевода и последующего пересказа, лексические упражнения, а также задания, связанные с активизацией устной речи.

Цель занятий – подготовить студентов к пониманию научно-технических текстов по специальности, систематизировать и обобщить лексический материал, обучить монологической речи, а также ведению бесед на тему современных компьютерных технологий.

Тексты уроков имеют познавательную ценность, информативную значимость и представляют интерес для данного этапа обучения не только в языковом, но и в содержательном отношении.

В процессе работы над текстами решаются задачи по овладению навыками речемыслительной деятельности, восприятию языковых средств и их точного понимания в тексте, моделированию речевых ситуаций, краткому изложению текстов. Данные задачи решаются на предтекстовом, текстовом и послетекстовом этапах работы с данными текстами.

UNIT 1

VOCABULARY EXERCISES

Exercise 1. Look through the words and word combinations, which will help you to understand the text.

to highlight – подчёркивать, выделять, отмечать в тексте маркером
to vary – менять(ся); изменять(ся); варьировать
power adapter – адаптер источника питания, силовой адаптер
to enable – давать возможность
to purchase – покупать
enhanced – улучшенный, усовершенствованный, с расширенными возможностями
ink – чернила
crisp = sharp – чёткий, резкий
glare – блики
font size – кегль, размер шрифта
margins – поля
exhaustive – полный, исчерпывающий
apps = applications – приложения

Exercise 2. Explain the following words and word combinations, translate them into Russian.

- graphic-rich books
- on the go
- easy-to-use
- ready to use
- wall charging
- re-download
- shades of gray
- readability
- portrait/landscape mode
- hands free

Exercise 3. Read and try to remember the following abbreviations.

PDF (Portable Document Format) – формат переносимого документа, PDF-формат
HTML (Hypertext Mark-up Language) – язык разметки гипертекста, язык HTML способ описания документов в WWW.
TXT (text) – текст
RTF (Rich Text Format) – (файловый) формат RTF, расширенный текстовый формат
JPEG (Joint Photography Experts Group) – 1) Объединенная группа экспертов в области фотографии 2) разработанный данной группой метод сжатия

изображений и соответствующий графический формат JPEG (формат хранения графических файлов, сжатых посредством алгоритма JPEG)
GIF (Graphics Interchange Format) – формат обмена графическими данными, формат GIF
PNG (Portable Network Graphics) – переносимая сетевая графика, графический формат PNG
BMP (от bitmap) – формат BMP стандартный формат растровых графических файлов

TEXT

Kindle DX Wireless Reading Device (9.7" Display, U.S. Wireless)

"Three years ago, we set out to design and build an entirely new class of device – a convenient, portable reading device with the ability to wirelessly download books, blogs, magazines, and newspapers. The result is Amazon Kindle". – *The Amazon Kindle Team*

Kindle DX Features

Advanced Design. Kindle DX is as thin as most magazines. Just over a third of an inch in profile, you'll find Kindle DX fits perfectly in your hands. Kindle DX's large display is ideal for a broad range of reading material, including graphic-rich books, PDFs, newspapers, magazines, and blogs. Whether you're reading the latest bestseller or a financial report, text and images are amazingly sharp on the 9.7" screen. By simply turning the device, you can immediately see full-width landscape views of maps, graphs, tables and Web pages. Native PDF support allows you to carry and read all of your personal and professional documents on the go. With Amazon's Whispernet service, you can send your documents directly to your Kindle DX and read them anytime, anywhere. Kindle DX has an easy-to-use 5-way controller, enabling precise on-screen navigation for selecting text to highlight or looking up words. Kindle DX is completely wireless and ready to use right out of the box – no setup, no cables, no computer required.

Long Battery Life. With Kindle DX's long battery life, you can read on a single charge for up to 4 days with wireless on. Turn wireless off and read for up to 2 weeks. Battery life will vary based on wireless usage, such as shopping the Kindle Store and downloading content. Kindle DX supports wall charging via the included Kindle DX power adapter, and charging from your computer via the included USB 2.0 cable. Kindle DX fully charges in approximately 4 hours.

Wireless Access with Whispernet. Whispernet utilizes Amazon's optimized technology plus Sprint's national high-speed (3G) data network to enable you to wirelessly search, discover, and download content on the go. Your books and periodicals are delivered via Whispernet in less than 60 seconds. Kindle DX's national coverage includes cities and areas in all 50 states.

Carry Your Library in a Profile As Thin As a Magazine. Kindle DX is as thin as a magazine and holds up to 3,500 books, newspapers, magazines, and

documents. Books you purchase from the Kindle Store are backed up online in your Kindle book library at Amazon.com. You can wirelessly re-download books available in your library for free.

Enhanced Reading. Utilizing the latest in *electronic-ink display* technology, Kindle DX provides a crisp black-and-white 9.7-inch diagonal screen with the same appearance and readability of printed paper. The screen works using ink, just like books and newspapers, but displays the ink particles electronically. And unlike a laptop or smart phone, Kindle DX never gets warm so you can comfortably read as long as you like. Kindle DX's high-resolution screen boasts 16 shades of gray, so images and photos are sharp and clear. Whether you prefer reading in portrait or landscape mode, images and photos display crisply on Kindle DX and can be zoomed to the full size of the 9.7" screen. Kindle DX's screen reflects light like ordinary paper and uses no backlighting, eliminating the glare associated with other electronic displays. Kindle DX has six adjustable font sizes to suit your reading preference.

With its Text-to-Speech feature, Kindle DX can read to you. Pages automatically turn while the content is being read, so you can listen hands-free. You can speed up or slow down the reading speeds or choose a male or female voice. By using the QWERTY keyboard, you can add annotations to text, just like you might write in the margins of a book. And because it is digital, you can edit, delete, and export your notes. Using the 5-way controller, you can highlight and clip key passages and bookmark pages for future use.

Kindle DX makes it easy to take your personal documents with you, eliminating the need to print. Each Kindle has a unique and customizable e-mail address. This allows you and your approved contacts to e-mail Word, PDF documents, and pictures wirelessly to your Kindle for a small fee. Kindle supports wireless delivery of unprotected Microsoft Word, PDF, HTML, TXT, RTF, JPEG, GIF, PNG, BMP, PRC and MOBI files. In addition, DOCX conversion is supported as an experimental feature.

Kindle DX includes The New Oxford American Dictionary with over 250,000 entries and definitions. Simply move the cursor to the word and the definition will automatically display at the bottom of the screen. Kindle DX also includes free built-in access to the world's most exhaustive and up-to-date encyclopedia – Wikipedia.org. Kindle DX makes it easy to search within a book, across your library, in the Kindle Store, or even the Web. To use the Search feature, simply type in a word or phrase you're looking for, and Kindle DX finds every instance in your book or across your Kindle library. With free Kindle for PC and Kindle for iPhone apps, you can read Kindle books even if you don’t have your Kindle with you.

Whispersync technology saves and synchronizes your reading location across your Kindle(s), iPhone and PC. With Kindle DX, you are able to download and enjoy more than 60,000 audio titles from Audible.com, including bestselling audio books, radio programs, audio newspapers and magazines.

Experimental Features. *Read-to-Me; Basic Web Browser; Listen to Music & Podcasts (*Transfer MP3 files to Kindle DX to play as background music while you

read. You can quickly and easily transfer MP3 files via USB by connecting Kindle DX to your computer)

EXERCISES

Exercise 1. Answer the following questions.

1) What is Kindle? (find the definition in the text)
2) What can you read on the 9.7" screen of Kindle DX?
3) Is Kindle DX's battery life long? In what way is it possible to charge Kindle?
4) What is the function of Whispernet?
5) What are the advantages of Kindle DX's screen?
6) Does Kindle support wireless delivery of files? Name the file-formats.
7) In what way can you search within a book, across your library or in the Web?
8) What is the function of Whispersynch technology?

Exercise 2. Say True or False.

1) The profile of Kindle DX is 1 inch.
2) Texts are very sharp on the screen, while the images are blurred.
3) Native PDF support allows you to read documents on the go.
4) Precise on-screen navigation is available due to 5-way controller.
5) Unfortunately, Kindle is not ready to use right out of the box.
6) You may charge Kindle DX from your computer via USB 2.0 cable.
7) Kindle DX's high-resolution screen boasts 16 shades of gray, but images and photos are not clear and sharp.
8) Kindle DX's screen doesn't use backlighting and reflects light like ordinary paper.
9) To suit your reading preference, Kindle has six adjustable font sizes.
10) Kindle DX includes free built-in access to Wikipedia.

Exercise 3. Match each word with its meaning.

1) out of the box	a) forming an integral part of a structure or device
2) wireless	b) far on or ahead in development or progress
3) crisp	c) able to be easily modified to respond to altered circumstances or conditions
4) available	d) describing a newly purchased product that works immediately, without any special assembly or training
5) built-in	e) suitable for one's purpose or needs
6) advanced	f) modern, current, or fashionable
7) adjustable	g) clear; sharp
8) up-to-date	h) able to be used or obtained
9) convenient	i) lacking or not requiring wires

Exercise 4. Give the Russian equivalents.

1) convenient portable device
2) wireless usage
3) readability of printed paper
4) enhanced reading
5) full-width landscape view
6) to download content
7) to type in a word
8) wall charging
9) power adapter
10) edit and delete
11) a broad range of
12) to transfer via smth
13) reading speed
14) wireless delivery

Exercise 5. Give the English equivalents.

1) высокое разрешение
2) отображать текст
3) высокоскоростная сеть
4) экспериментальные функции
5) внизу экрана
6) читать на ходу
7) загружать контент
8) впечатать слово
9) легкое в пользовании устройство
10) электронные чернила
11) доступный бесплатно
12) подсветка
11) редактировать и удалять
12) блики на дисплее
13) работа от батареи
14) вертикальная/горизонтальная ориентация
15) ускорять/замедлять
16) двигать курсор

Exercise 6. Answer the questions and discuss the following poin*ts*.

1) Advantages of portable reading devices.
   Can portable reading devices compete with printed books?
   What other features besides reading does Kindle have?

2) Advantages of the electronic-ink display technology.
   Have you ever read from LCD display in a sunny day out of doors?
   What disadvantages do electronic displays have?

Exercise 7. Translate from Russian into English.

1) Kindle DX – это удобное, портативное устройство для чтения с возможностью беспроводного доступа в Интернет. В Kindle можно загружать книги, блоги, журналы, газеты и различные документы.
2) Карты, графики, таблицы, веб-страницы отображаются в высоком качестве на сверхчётком черно-белом дисплее с диагональю 9,7 дюймов.
3) Kindle DX можно заряжать от сети и от компьютера через USB-порт. Зарядка занимает около 4 часов.

4) В Kindle DX применена технология электронных чернил. При этом не используется подсветка, экран отражает свет, как обычная бумага, блики не мешают читать.
5) Изображения отображаются очень чётко как в вертикальной, так и в горизонтальной ориентации. Также возможно менять масштаб изображения.
6) С портативными устройствами для чтения нет необходимости печатать, вы можете загружать документы прямо в само устройство, которое поддерживает большое количество различных форматов файлов.
7) Kindle DX позволяет слушать аудио-файлы. Вы можете слушать радиопрограммы, аудиогазеты, аудиокниги, при этом ваши руки не заняты.
8) Функция поиска позволяет найти необходимую информацию в книге, в библиотеке или даже в сети. Впечатайте ключевое слово или фразу, а ваше устройство найдет все совпадения.

Exercise 8. Sum up the text paying attention to the following points*:*

- the definition of Kindle DX;
- Kindle DX design;
- the advantages of the electronic-ink display technology;
- Kindle DX features.

UNIT 2

VOCABULARY EXERCISES

Exercise 1. Look through the words and word combinations, which will help you to understand the text.

tech = technology – техника; технология
hype – назойливая реклама
to recap – резюмировать, подводить итог
to blur – размывать, смазывать
to log – регистрировать, записывать, протоколировать
custom – пользовательский
to dub – (шутл.) окрестить
to stream video – смотреть потоковое видео
to browse – просматривать
to turn loose – 1) спускать (животное) с цепи 2) освобождать
to dump – сбрасывать (файлы на компьютер)
to blast – хвастаться
hotspot – «горячая» точка, хот-спот (общедоступная точка доступа в Интернет)

a rig – приспособление, устройство, механизм
to squeeze out of / from – выжимать
spreadsheet – крупноформатная (электронная) таблица
freezing – подвисание
crash – сбой
shrinking – сжатие, сокращение
to adjust to smth. – приспосабливаться, привыкать

Exercise 2. Read and learn the following abbreviations.

VPN (Virtual Private Network) – виртуальная частная сеть
RAM (Random Access Memory) – оперативная память
HDMI (High-Definition Multimedia Interface) – мультимедийный интерфейс высокой чёткости
OLPC (One Laptop per Child) – название программы американской некоммерческой организации, созданной с целью предоставить возможности получения образования детям из развивающихся и бедных стран.
CD (Compact Disk) – компакт-диск
DVD (Digital Video Disk) – цифровой видеодиск
USB (Universal Serial Bus) – универсальная последовательная шина

TEXT

What is a Netbook?

Today's netbooks offer miniaturized tech at a budget pricetag. So why all the hype, and what can you expect from these lightweight mobile PCs?

First, let's recap a brief history of netbooks: Derived from notebook, the term netbook refers to a miniature and lightweight notebook PC that relies on the use of wireless Internet – thus, netbook. The first mainstream netbook, Asus Corporation's Eee PC 701, was designed similarly to that of the earlier non-profit OLPC (One Laptop per Child), often referred to as the $100 laptop. The OLPC had a 7.5-inch screen, low-powered AMD Geode 433MHz processor, 1GB Flash-based hard disk drive, 256MB of RAM, wireless Internet access, and ran on a custom, Linux-based operating system. Its 2 cell battery lasted roughly 3 hours on a single charge and a 4 cell battery could last up to 5 hours. It is from this design that Asus built the Eee PC 701 and thus was born the ultra-mobile Internet notebook dubbed netbook.

Netbooks Today

Today new netbook models are released as often as what seems weekly, as this niche market continues to gain momentum and blur the lines between netbook and notebook. With growing screen sizes, more processing power and the capability of running more familiar operating systems such as Windows XP, Vista, even the latest build of Windows 7, netbook sales grew 30% last year, were up seven fold in May 2009, and currently make up nearly 20% of today's mobile computing market. So what are you waiting for?

Netbook Uses

Sure they're small, lightweight, inexpensive, portable – cute even, but who uses netbooks and why? After observing several netbook owners, here's a list of some possible uses:

Mobile office – Netbooks are capable of performing many of the same day-to-day tasks you perform on your workstation PC at the office: Access Company or web email, view PowerPoint presentations, images & videos, log into your VPN, and of course, browse the web.

Entertain a child – Stream full episodes of their favorite cartoons and movies from Hulu.com or turn them loose on their favorite flash-based Internet games.

Stay connected – Wasting time while commuting, waiting in line at the local coffee shop or watching television? Keep a netbook handy to multitask – browse the web, check your email, shop online or chat with friends while sipping your coffee at the local coffee shop or in the comfort of your couch instead of that stiff office chair.

Mobile storage and uploads – You're on vacation and you've filled the memory of your digital camera and camcorder, simply dump the photos and video onto your netbook and capture more memories. Also, find a local hotspot at your hotel or nearby restaurant and blast your photos and video to your friends via Facebook, Twitter, YouTube or otherwise.

Reduce risk – Perhaps you already have a performance notebook, but would you want to take your company notebook or portable gaming rig to the beach with you? How about flashing it around to the guys on the subway, bus or train?

Home theater PC – Believe it or not, some of the latest netbooks to market come equipped with HDMI ports. Pull down movies, music and games from your network and stream some high definition 1080p videos to your home theater – all in a silent, mobile netbook.

Budget college PC – Everyone needs a place to start and netbooks make owning your own PC easier than ever – without sacrificing the mobility demands of today's college students. With 12-inch netbook models now appearing it may be easier on the eyes for those late-night study groups.

Gaming companion –Search item databases, competitor profiles, cheats, hints, and boss strategies using a netbook. Free up your desktop's system resources to squeeze every possible ounce of performance out of your desktop gaming rig.

Netbook Considerations

Portability comes at a cost and this article wouldn't be complete if we didn't bring up some considerations when shopping for a netbook.

Disc Drive – Netbooks will not offer an internal CD, DVD or Blu-ray Disc drive. Instead, external drives may be purchased separately and connect via e-SATA, IEEE 1394 Firewire, or USB 2.0.

Screen size – Some applications are not meant to be displayed on such a small screen: spreadsheets, photo editing software such as Photoshop and Photoshop Elements are not able to display fully on such a small screen.

Performance – Typically, today's laptops operate on 1.3 to 1.66GHz processors and 1GB of RAM. While this is enough for general purpose office use – email, word processing, browsing the web or other light tasks – it is not recommended that you attempt running 3D games, rendering software, or run too many simultaneous operations. Doing so will likely degrade your performance to unbearable freezing, stutters, or crashes. As a general rule, refer to the minimum and recommended system requirements for each piece of software before installing.

Keyboard – Reducing the size of the screen also requires the shrinking of the keyboard. Some of the 7-inch netbooks utilize a keyboard that is roughly 82% the size of a desktop keyboard and have resized or relocated entirely some commonly used keys. As screen sizes increase, so do the keyboards – most 10-inch netbooks are approximately 92-97%% the size of a desktop keyboard.

Trackpad – Various manufacturers have toyed with the trackpad, elongating it and placing buttons to the left and right of the pad or shrinking the size to the point that you must make short, swift movements for your pointer to reach one end of the desktop to the other. This can be adjusted in the Windows control panel, as well as the disabling of the vertical page scroll when using the right-most area of the trackpad, but as with all things, a little time is required to adjust.

EXERCISES

Exercise 1. Answer the following questions.

1) What is a netbook? (find the term in the text)
2) What features did $100 laptop have?
3) Are netbooks popular in the market today?
4) What are the possible uses of netbooks? (8 uses)
5) What day-to-day tasks can you perform on your netbook?
6) What can you do with your netbook not to waste time while commuting or waiting?
7) How can you use a netbook to have a good time at home?
8) What features should you be aware of when buying a netbook?

Exercise 2. Say True or False.

1) Any application can be displayed on a netbook screen.
2) External drives can't be connected to a netbook, as it has no USB.
3) It is not recommended that you attempt running 3D games, rendering software or run too many simultaneous operations.
4) Netbook keyboard is very handy, as it is 82% the size of a desktop keyboard.
5) You should refer to system requirements for each piece of software before installing.
6) The manufacturers have never placed buttons to the trackpad.

Exercise 3. Match each word with its meaning.

1) battery	a) a panel of keys that operate a computer or typewriter
2) screen	b) flat pad on some computers that you slide your finger over in order to move the cursor
3) storage	c) memory that retains data in the absence of a power supply
4) performance	d) the surface on which images and data are displayed
5) keyboard	e) a panel of keys that operate a computer or typewriter
6) browser	f) a place where wireless broadband services are provided to users through a wireless local area network, such as in an airport, railway station, or library
7) trackpad	g) the capabilities of a machine
8) hotspot	h) a program with a graphical user interface for displaying HTML files, used to navigate the World Wide Web
9) flash memory	i) the act of storing or the state of being stored

Exercise 4. Give the Russian equivalents.

1) non-profit PC
2) ultra-mobile notebook
3) processing power
4) to log
5) to browse
6) multitask
7) gaming rig
8) mobility demands
9) to connect via smth.
10) spreadsheet
11) simultaneous operations
12) commonly used keys
13) to dump photos
14) photo editing software

Exercise 5. Give the English equivalents.

1) снижать производительность
2) системные требования
3) редактировать файлы
4) высокое разрешение
5) приложение
6) одновременные действия
7) 12-дюмовый монитор
8) уменьшенная клавиатура
9) курсор
10) беспроводной доступ
11) текстовое редактирование
12) проверить почту
13) найти «горячую» точку
14) устанавливать ПО

Exercise 6. Work in pairs. Make a dialogue.

One of you is going to buy a netbook. Tell him about important considerations he should be aware of before buying a netbook.

Exercise 7. Translate from Russian into English.

1) В прошлом году продажа нетбуков возросла на 30%. Все благодаря увеличению экрана, большей мощности процессора и возможности устанавливать такие операционные системы, как Windows XP, Vista, Windows 7.
2) Чем больше оперативная память нетбука и мощность процессора, тем быстрее он может выполнять различные операции.
3) С нетбуком вы всегда остаётесь на связи. В любом месте вы можете проверить почту, загрузить фото в социальную сеть, поболтать с друзьями и просто полазить по Интернету.
4) В нетбуке нет CD, DVD, Blu-ray дисковода, но вы всегда можете купить внешний диск и подключить его через USB.
5) Не все приложения могут отображаться в хорошем качестве на маленьком дисплее нетбука. Поэтому для работы с крупноформатными таблицами, программами-фоторедакторами удобнее использовать настольный компьютер или ноутбук с большим дисплеем.
6) Если вы одновременно выполняете много действий, то производительность снижается и нетбук начинает «тормозить» и «зависать». Также всегда смотрите системные требования, перед тем как загружать ПО.
7) Несмотря на маленький дисплей, уменьшенную клавиатуру и низкую мощность процессора, легкие портативные нетбуки очень удобны и популярны на компьютерном рынке сегодня.

Exercise 8. Sum up the text paying attention to the following points*:*

- definition of a netbook;
- netbook position on the computing market;
- possible uses of netbooks (advantages);
- features you should be aware of before purchasing a netbook (+ disadvantages).

UNIT 3

3.1.

VOCABULARY EXERCISES

Exercise 1. Look through the words and word combinations, which will help you to understand the text.

touchscreen – сенсорный экран
touch sensor – датчик касания, сенсор касания

responsive – реагирующий; восприимчивый, чувствительный
touch input – сенсорный ввод данных
to cause – вызывать, становиться причиной
add-on – приставка, дополнительное устройство
overlay – наложение, покрытие
thin client – тонкий клиент (в компьютерных технологиях — бездисковый компьютер-клиент в сетях с клиент-серверной или терминальной архитектурой, который переносит все или большую часть задач по обработке информации на сервер).

Exercise 2. Read and translate the synonyms.

monitor – display – screen
device – machine – mechanism – gear
placed – installed - housed
to translate – to interpret
data - information
to work – to act – to operate
to detect – to find – to determine

TEXT A

How Does a Touchscreen Work?

A basic touchscreen has three main components: a touch sensor, a controller, and a software driver. The touchscreen is an input device, so it needs to be combined with a display and a PC or other device to make a complete touch input system.

1. Touch Sensor

A touch screen sensor is a clear glass panel with a touch responsive surface. The touch sensor/panel is placed over a display screen so that the responsive area of the panel covers the viewable area of the video screen. There are several different touch sensor technologies on the market today, each using a different method to detect touch input. The sensor generally has an electrical current or signal going through it and touching the screen causes a voltage or signal change. This voltage change is used to determine the location of the touch to the screen.

2. Controller

The controller is a small PC card that connects between the touch sensor and the PC. It takes information from the touch sensor and translates it into information that PC can understand. The controller is usually installed inside the monitor for integrated monitors or it is housed in a plastic case for external touch add-ons/overlays. The controller determines what type of interface/connection you will need on the PC. Integrated touch monitors will have an extra cable connection on the back for the touchscreen. Controllers are available that can connect to a Serial/COM

port (PC) or to a USB port (PC or Macintosh). Specialized controllers are also available that work with DVD players and other devices.

3. Software Driver

The driver is a software update for the PC system that allows the touchscreen and computer to work together. It tells the computer's operating system how to interpret the touch event information that is sent from the controller. Most touch screen drivers today are a mouse-emulation type driver. This makes touching the screen the same as clicking your mouse at the same location on the screen. This allows the touchscreen to work with existing software and allows new applications to be developed without the need for touchscreen specific programming. Some equipment such as thin client terminals, DVD players, and specialized computer systems either do not use software drivers or they have their own built-in touch screen driver.

EXERCISES

Exercise 1. Answer the following questions.

1) What are the main components of a basic touchscreen?
2) What is a touch sensor?
3) What is the general touch sensor technology?
4) What is the function a touchscreen controller?
5) How is the touch event information interpreted?
6) Touching the screen is like mouse clicking you mouse, isn't it? Why?

Exercise 2. Say True or False.

1) A touchscreen is an input device, but it doesn't need to be combined with a display or PC.
2) There are several touch sensor technologies on the market today, each using the same method to detect touch input.
3) The controller is usually installed inside the monitor for external add-ons/overlays or it is housed in a plastic case for integrated monitors.
4) Integrated touch monitors have an extra cable connection on the back for the touchscreen.
5) Most touch screen drivers today are a mouse-emulation type driver.

Exercise 3. Match each word with its meaning.

1) software	a) the information fed into a computer or computer program
2) hardware	b) a device or program enabling a user to communicate with a computer
3) driver	c) the equipment concerned with controlling the operation of an electrical device
4) voltage	d) a container that is specially designed to hold or protect something.
5) input	e) the programs and other operating information used by a computer
6) output	f) an electromotive force or potential difference expressed in volts
7) interface	g) a program that controls the operation of a device
8) application	h) the information produced by a computer
9) controller	i) the programs and other operating information used by a computer
10) case	j) a program or piece of software designed and written to fulfill a particular purpose of the user

Exercise 3. Give the Russian equivalents.

1) software driver
2) touch input system
3) glass panel
4) viewable area (of the screen)
5) to detect touch input
6) to determine the location
7) to translate information
8) cable connection
9) software update
10) mouse-emulation type

Exercise 4. Give the English equivalents.

1) устройство ввода
2) видимая область (экрана)
3) сенсор касания
4) встроенный
5) электрический ток
6) вызывать изменение напряжения
7) чувствительная поверхность
8) кабельное соединение
9) программный драйвер
10) размещать в корпусе

3.2

VOCABULARY EXERCISES

Exercise 1. Look through the words and word combinations, which will help you to understand the text.

resistive – резистивный
capacitive – ёмкостный
surface acoustic wave – поверхностная акустическая волна
conductive layer – проводящий слой
spacer – разделитель, прокладка
exact – точный
to drag – перетаскивать
charge – заряд
transducer – преобразователь; датчик; приёмник
throughput – пропускная способность

Exercise 2. Make nouns from the following verbs and adverbs. Translate them into Russian.

1) resistive
2) capacitive
3) conductive
4) to transmit
5) to transfer
6) to distribute
7) operational
8) electrical
9) to calculate
10) to translate

TEXT B

How do touch-screen monitors know where you're touching?

Touch-screen monitors have become more and more commonplace as their price has steadily dropped over the past decade. There are three basic systems that are used to recognize a person's touch:

- Resistive
- Capacitive
- Surface acoustic wave

The resistive system consists of a normal glass panel that is covered with a conductive and a resistive metallic layer. These two layers are held apart by spacers,

and a scratch-resistant layer is placed on top of the whole setup. An electrical current runs through the two layers while the monitor is operational. When a user touches the screen, the two layers make contact in that exact spot. The change in the electrical field is noted and the coordinates of the point of contact are calculated by the computer. Once the coordinates are known, a special driver translates the touch into something that the operating system can understand, much as a computer mouse driver translates a mouse's movements into a click or a drag.

In the capacitive system, a layer that stores electrical charge is placed on the glass panel of the monitor. When a user touches the monitor with his or her finger, some of the charge is transferred to the user, so the charge on the capacitive layer decreases. This decrease is measured in circuits located at each corner of the monitor. The computer calculates, from the relative differences in charge at each corner, exactly where the touch event took place and then relays that information to the touch-screen driver software. One advantage that the capacitive system has over the resistive system is that it transmits almost 90 percent of the light from the monitor, whereas the resistive system only transmits about 75 percent. This gives the capacitive system a much clearer picture than the resistive system.

On the monitor of a surface acoustic wave system, two transducers (one receiving and one sending) are placed along the x and y axes of the monitor's glass plate. Also placed on the glass are reflectors – they reflect an electrical signal sent from one transducer to the other. The receiving transducer is able to tell if the wave has been disturbed by a touch event at any instant, and can locate it accordingly. The wave setup has no metallic layers on the screen, allowing for 100-percent light throughput and perfect image clarity. This makes the surface acoustic wave system best for displaying detailed graphics (both other systems have significant degradation in clarity).

Another area in which the systems differ is in which stimuli will register as a touch event. A resistive system registers a touch as long as the two layers make contact, which means that it doesn't matter if you touch it with your finger or a rubber ball. A capacitive system, on the other hand, must have a conductive input, usually your finger, in order to register a touch. The surface acoustic wave system works much like the resistive system, allowing a touch with almost any object – except hard and small objects like a pen tip.

As far as price, the resistive system is the cheapest; its clarity is the lowest of the three, and its layers can be damaged by sharp objects. The surface acoustic wave setup is usually the most expensive.

EXERCISES

Exercise 1. Answer the following questions.

1) How many basic systems for recognizing a person’s touch do you know? Name them.
2) Of what components does the resistive system consist?
3) What is the structure of the capacitive system?

4) Why does the charge on the capacitive layer decrease?
5) In what way are the transducers placed in the surface acoustic wave system?
6) In what other area do the systems differ?
7) What is the cheapest system? What is the most expensive system?

Exercise 2. Say True or False.

1) In the resistive system the electrical current runs through conductive and resistive metallic layers while the monitor is operational.
2) The coordinates of the point of contact are calculated by the computer because of change in the electric field.
3) In the capacitive system, a layer that stores electrical charge is placed under the glass panel of the monitor.
4) When a user touches the monitor with his or her finger the charge on the capacitive layer increases.
5) Resistive system transmits almost 90 percent of the light from the monitor, whereas the capacitive system only transmits 75 percent.
6) In the surface acoustic wave system, reflectors reflect light.
7) 100-percent light throughput and perfect image clarity make the surface acoustic wave system best for displaying detailed graphics.
8) The resistive system and surface acoustic wave system allow a touch with almost any object.

Exercise 3. Match each word with its meaning.

1) coordinate	a) the maximum amount that something can contain
2) capacity	b) a fixed reference line for the measurement of coordinates
3) throughput	c) any of a set of numbers that defines the location of a point in space
4) axis	d) a device that converts variations in a physical quantity, such as pressure or brightness, into an electrical signal, or vice versa
5) transducer	e) the quality of being easy to see or hear; sharpness of image or sound
6) clarity	f) the amount of material or items passing through a system or process

Exercise 4. Give the Russian equivalents.

1) scratch-resistant layer
2) in the exact spot
3) electrical field
4) point of contact
5) to decrease
6) x and y axes
7) to locate
8) perfect image clarity
9) detailed graphics
10) rubber ball

10) to make contact

10) image clarity

Exercise 5. Give the English equivalents.

1) поверхностная акустическая волна
2) заряд передаётся пользователю
3) проводящий слой
4) изменение в электрическом поле
5) расположенные в каждом углу
6) относительная разность
7) отражать электрический сигнал
8) снижение качества
9) чёткость изображения
10) замыкать контакт
11) ёмкостная система
12) датчик и отражатель

EXERCISES ON TEXT A AND TEXT B

Exercise 1. Work in pairs. Choose a topic and make up a short dialogue.

1) Touch sensor
2) Controller
3) Software driver
4) Resistive system
5) Capacitive system
6) Surface acoustic wave system

Exercise 2. Translate the following abstracts from Russian into English.

1) Сенсорный экран – это устройство ввода, которое представляет собой стеклянную или пластиковую панель с реагирующей на прикосновение поверхностью. Основные компоненты сенсорного экрана: сенсорный датчик, контроллер, программный драйвер.
2) Существует два типа сенсорных экранов: накладной и встроенный. Накладной сенсорный экран представляют собой панель, которая одевается на существующий монитор компьютера. Встроенные сенсорные экраны – это компьютерные дисплеи со встроенной сенсорной функцией. Оба типа экранов работают одинаково – как устройство ввода, т.е. как мышь или сенсорная панель ноутбука.
3) Все сенсорные экраны выполняют функции мыши. Установите программный драйвер для сенсорного экрана, и экран будет эмулировать функции мыши. Прикоснуться к экрану – это то же самое, что кликнуть мышкой в этом месте на экране. Вы прикасаетесь к сенсорному экрану пальцем или любым указывающим устройством, а курсор мышки пододвигается к этому месту и происходит щелчок мыши.
4) Существует три основных системы, которые используются для распознавания прикосновения: резистивная, ёмкостная и система поверхностных акустических волн.

Exercise 3. Sum up the information given in Text A and Text B.

UNIT 4

4.1

VOCABULARY EXERCISES

Exercise 1. Look through the words and word combinations, which will help you to understand the text.

graphics tablet – графический планшет
suited – подходящий, соответствующий
jerky – двигающийся рывками
repetitive strain injury – травма от повторяющихся нагрузок (различные повреждения мышц, вызванные многократным повторением одних и тех же движений)
carpal tunnel syndrome – кистевой туннельный синдром (болезненное ощущение в запястье после долгой работы на неэргономичной клавиатуре)
range – ряд, линия
to target –выбирать в качестве целевой аудитории, предназначать
to ramp up – расти, увеличивать(ся)
pressure sensitivity – чувствительность к давлению
attached – прикреплённый, присоединённый
tether – привязь
stylus (pl. styli) – стилус, перо

Exercise 2. Read and translate the synonyms.

a tablet – a pad
to utilize – to use
to manipulate – to move
attached – corded
to consist of – include – be composed (of)
a range of sizes – a size spectrum

TEXT A

What is a Graphics Tablet?

A graphics tablet is an input device used by artists which allows one to draw a picture onto a computer screen without having to utilize a mouse or keyboard. A graphics tablet consists of a flat tablet and some sort of drawing device, usually either

a pen or stylus. A graphics tablet may also be referred to as a drawing tablet or drawing pad. While the graphics tablet is most suited for artists and those who want the natural feel of a pen-like object to manipulate the cursor on their screen, non-artists may find them useful as well. The smooth flow of a graphics tablet can be refreshing for those who find the mouse to be a jerky input device, and repetitive stress injuries such as carpal tunnel syndrome are less likely when using a graphics tablet.

A graphics tablet may come in a range of sizes, from smaller 3" by 4" (7.6 by 10.2 cm) models to larger 7" by 9" (17.8 by 22.9 cm) ones. Even larger graphics tablets exist, up to enormous 14" by 14" (35.6 by 35.6 cm) tablets targeted towards professional designers and architects. Size is the major factor in determining cost for a graphics tablet, however, and one should expect prices to ramp up dramatically at the high end of the size spectrum. A good range of pressure sensitivity in the drawing surface of your graphics tablet is also something to look for. High pressure sensitivity, ideally at least 512 levels, allows you to control a number of aspects of your drawing, including color and line thickness, simply by pressing the stylus more or less heavily, mimicking drawing with an actual pen.

The stylus included with a graphics tablet is also an important consideration for the consumer. A stylus may be either attached to the tablet by a cord or tether-free. Corded tablets do not require batteries, but many people find the cord severely limiting to their range of motion. A good stylus will also have function buttons on the side, so that you can perform common actions, such as switching a tool in a drawing program from paint to erase, without having to use the mouse or keyboard.

EXERCISES

Exercise 1. Answer the following questions.

1) What is a graphics tablet?
2) Is it handy to draw with a mouse?
3) What are the standard sizes of graphics tablets?
4) Is pressure sensitivity an important consideration for consumers? Why?
5) What types of stylus do you know?

Exercise 2. Say True or False.

1) Graphics tablets are used to draw onto a computer screen without a mouse or a keyboard.
2) A graphics tablet can’t be referred to as a drawing pad.
3) Mouse is a jerky input device, but repetitive stress injuries are also likely when using a graphics tablet.
4) Graphics tablets 7" by 9" are targeted towards professional designers.
5) Color and line thickness can be controlled by pressing the stylus more or less heavily.
6) Stylus is always tether-free.

Exercise 3. Read the product descriptions A and B. What graphics tablet would you like to buy? What advantages and disadvantages does it have?

A. WACOM Wireless Pen Tablet graphics tablet
Price: £314.74

Product Description

The Wireless Pen Tablet from Wacom is ideal for graphic designers and photographers of all levels. Thanks to this graphics tablet's high resolution of 2,000 dpi, you can touch up photos, create illustrations, and even sign documents with incredible precision. Not only does the Wireless Pen Tablet offer 25 hours of battery life thanks to its lithium battery, it also works wirelessly for complete freedom of movement! Compatibility: - Windows 2000, XP, Vista - Mac OS X 10.3.9 - Bluetooth receivers and Bluetooth stacks compatible with the Bluetooth 1.1 standard (minimum) and HID profile (built-in Bluetooth support or external dongle). A Class 1 Bluetooth USB adapter is recommended for optimum use and range.

Words:
compatibility – совместимость
dongle – защитная заглушка (аппаратное средство защиты программного обеспечения и данных от несанкционированного доступа)
HID (human interface device) – устройство, удовлетворяющее требованиям, предъявляемым к устройствам для взаимодействия с компьютером.

B. Wacom Intuos4 Large A4 Graphics Tablet
Price: £386.70

Manufacturer's Description

Built for creative professionals, in four different sizes, S, M, L and XL, Intuos4 by Wacom delivers probably the most natural drawing experience you can imagine. The 2,048 levels of pressure sensitivity capture even the slightest nuance of pressure. Its ergonomic, ambidextrous design was developed for hours of hard work. It offers customisable ExpressKeys™ - including OLED-displays showing the current function setting of each key on M, L and XL tablet models. New radial menus enable fast access to shortcuts - with just a pen stroke. Scrolling, zooming and brush adjustments can be done with a fingertip thanks to the Touch Ring with toggle functionality. Try it. Discover for yourself where it all begins: Discover the world of Intuos4.

Words:
ambidextrous design – право-левый дизайн (для левшей и правшей)
customiz/sable – настраиваемый
OLED (organic light-emitting diode) органический светодиод

toggle – переключатель, тумблер

4.2

VOCABULARY EXERCISES

Exercise 1. Look through the words and word combinations, which will help you to understand the text.

coil - катушка; обмотка, катушка индуктивности
LC circuit – индуктивно-ёмкостная цепь
switch – переключатель
nib – остриё, кончик (пера)
bulky – большой, объёмистый, громоздкий
pattern matching – сопоставление образов
spark – искра
grid – решетка, сетка
proximity – близость
to hover – нависать
tilt – наклон, наклонное положение

Exercise 2. Explain the following words and word combinations, translate them into Russian.

- similar to
- to generate
- property
- to touch the surface
- to eliminate
- to be mounted in
- to detect the signal
- three dimensions
- high-performance tablet
- in proximity to
- in addition to
- to detect the position

Exercise 3. Make nouns from the following verbs and translate them.

- to generate
- to categorize
- to receive
- to transmit
- to use
- to permit
- to alternate
- to operate
- to detect
- to determine

TEXT B

Operation of Graphics Tablet

There have been many attempts to categorize the technologies that have been used for graphics tablets. Some of the one such categorization is as follows:

Passive tablets, most notably those by Wacom, make use of electromagnetic induction technology, where the horizontal and vertical wires of the tablet operate as both transmitting and receiving coils. The tablet generates an electromagnetic signal,

which is received by the LC circuit in the stylus. The wires in the tablet then change to a receiving mode and read the signal generated by the stylus. Modern arrangements also provide pressure sensitivity and one or more switches (similar to the buttons on a mouse), with the electronics for this information present in the stylus itself, not the tablet. On older tablets, changing the pressure on the stylus nib or pressing a switch changed the properties of the LC circuit, affecting the signal generated by the pen, which modern ones often encode into the signal as a digital data stream. By using electromagnetic signals, the tablet is able to sense the stylus position without the stylus having to even touch the surface, and powering the pen with this signal means that devices used with the tablet never need batteries. Wacom's patents don't permit their competitors to employ such techniques.

Active tablets differ in that the stylus used contains self-powered electronics that generate and transmit a signal to the tablet. These styli rely on an internal battery rather than the tablet for their power, resulting in a bulkier stylus. Eliminating the need to power the pen means that such tablets may listen for pen signals constantly, as they do not have to alternate between transmit and receive modes, which can result in less jitter.

Optical tablets operate by a very small digital camera in the stylus, and then doing pattern matching on the image of the paper. The most successful example is the technology developed by Anoto.

Acoustic tablets. Early models were described as spark tablets—a small sound generator was mounted in the stylus, and the acoustic signal picked up by two microphones placed near the writing surface. Some modern designs are able to read positions in three dimensions.

Electromagnetic tablets. Wacom's are one example of a graphics tablet that works by generating and detecting an electromagnetic signal: in the Wacom design, the signal is generated by the pen, and detected by a grid of wires in the tablet. Other designs such as those by Pencept generate a signal in the grid of wires in the tablet, and detect it in the pen.

Capacitive tablets have also been designed to use an electrostatic or capacitive signal. Scriptel's designs are one example of a high-performance tablet detecting an electrostatic signal. Unlike the type of capacitive design used for touchscreens, the Scriptel design is able to detect the position of the pen while it is in proximity to, or hovering above, the tablet. Many multi-touch tablets use capacitive sensing.

For all these technologies, the tablet can use the received signal to also determine the distance of the stylus from the surface of the tablet, the tilt (angle from vertical) of the stylus, and other information in addition to the horizontal and vertical positions.

Compared to touch-sensitive touchscreens, a graphics tablet generally offers much higher precision, the ability to track an object which is not touching the tablet, and can gather much more information about the stylus, but is typically more expensive, and can only be used with the special stylus or other accessories.

EXERCISES

Exercise 1. Answer the following questions.

1) What types of technologies used for graphics tablets do you know?
2) How do the wires operate in passive tablets?
3) What signal allows the tablet to sense the stylus position?
4) In what component do the active tablets differ from the passive tablets?
5) What is the main principle of the optical tablet?
6) What is the main feature of the acoustic tablet?
7) What tablet works by generating and detecting an electromagnetic signal?
8) What signal is used in the capacitive tablets?

Exercise 2. Say True or False.

1) The tablet can use the received signal to also determine the distance of the stylus from the surface of the tablet.
2) Compared to touch-sensitive touchscreens, a graphics tablet generally offers lower precision.
3) The passive tablet doesn't generate an electromagnetic signal, which is received by the LC circuit in the stylus.
4) Unfortunately, modern designs are not able to read position in three dimensions.
5) Acoustic tablets operate by a very small digital camera in the stylus.
6) A small sound generator is mounted in the optical acoustic tablet stylus.
7) The signal in the capacitive tablet is generated in the grid of wires.
8) Many multi-touch tablets use capacitive sensing.

Exercise 3. Match each word with its meaning.

1) grid	a) a complete path through which an electric current can flow
2) stylus	b) an electrical device consisting of a length of wire arranged in a coil for converting the level of a voltage, producing a magnetic field, or adding inductance to a circuit
3) wire	c) a slope or angle
4) coil	d) metal drawn out into the form of a thin flexible thread or rod
5) circuit	e) a penlike device used to input handwritten text or drawings directly into a computer or for input on a touch-sensitive monitor
6) tilt	f) a network of lines that cross each other to form a series of squares or rectangles

EXERCISES ON TEXT A AND TEXT B

Exercise 1. Give the Russian equivalents.

1) graphics tablet
2) to utilize a keyboard
3) to manipulate the cursor
4) jerky input device
5) range of sizes
6) pressure sensitivity
7) attached by a cord
8) to paint and to erase
9) to perform actions
10) transmitting and receiving coils
11) the stylus nib
12) digital data stream
13) pattern matching
14) to be mounted in smth.
15) grid of wires
16) capacitive sensing
17) tilt of the stylus
18) high precision

Exercise 2. Give the English equivalents.

1) выполнять действия
2) размерный ряд
3) генерировать электромагнитный сигнал
4) определять местоположение
5) положение в трех измерениях
6) сопоставление образцов
7) поверхность для рисования
8) индуктивно-ёмкостная цепь
9) внутренняя батарея
10) ёмкостный графический планшет
11) определять расстояние
12) горизонтальное и вертикальное положение
13) вмонтированный в стилус
14) угол наклона

Exercise 3. Work in pairs. Make a dialogue.

1) Your friend asks you to explain the difference between types of graphics tablets.
2) Your friend asks you about important considerations he should be aware of before buying a graphics tablet.

Exercise 4. Translate the following passages from Russian into English.

1) Графический планшет – это устройство ввода рисунков от руки непосредственно в компьютер. Состоит из пера и плоского планшета, чувствительного к нажатию или близости пера. Также может прилагаться специальная мышь.
2) Первые планшеты работали сложно: перо, касаясь поверхности, испускало искры, звук, которые улавливались микрофонами,

расположенными вблизи. Триангуляционным методом определялось положение пера в пространстве. Такая система была сложной, дорогой и при этом ненадёжной, поскольку внешние шумы мешали точно определить положение пера.

3) По принципу работы и технологии существуют различные типы планшетов. В электростатических планшетах регистрируется локальное изменение электрического потенциала сетки под пером. В электромагнитных - перо излучает электромагнитные волны, а сетка служит приёмником. В обоих случаях на перо должно быть подано питание.
4) Сегодняшние планшеты можно разделить на два типа по принципу работы — пассивные и активные. В первом случае планшет посылает сигналы перу. Сигналы принимаются и возвращаются обратно для определения положения пера. Этот способ позволяет избежать применения элементов питания в пере. В перьях активных планшетов для создания сигнала используется элемент питания – батарейка.

UNIT 5

VOCABULARY EXERCISES

Exercise 1. Look through the words and word combinations, which will help you to understand the text.

to glide – скользить
to flick – внезапный лёгкий удар, щелчок (действие и звук)
to tap – стучать, (амер.) выбирать
to flip – переворачивать, перекидывать (резким движением)
crisp – чёткий, резкий
app=application – приложение
podcast (от iPod+broadcast) – подкаст (цифровая запись радио- или телепрограммы, которую можно скачать из интернета)
iTunes U – раздел аудио- и видеоматериалов для учёбы
shuffle – перемешивание, воспроизведение в произвольном порядке
thumbnail – свёрнутое (в пиктограмму) изображение (обеспечивающее доступ к полному изображению)
to scroll – прокручивать
to arrange – размещать, располагать; классифицировать, приспосабливать
to customize – 1) удовлетворять требования заказчика 2) выбирать самостоятельно, настраивать самостоятельно (параметры или опции)
pinch – щипок, давление
compatibility – совместимость

Exercise 2. Read and translate the synonyms. Learn these words.

- pocket computer – handheld computer
- to adjust – to regulate – to control – to settle – to handle – to govern – to tune – to trim – to set
- feature – characteristic – quality – capability
- screen – display – monitor

TEXT

Apple iPod touch 32 GB (3rd Generation) NEWEST MODEL

Product Description

iPod touch is a great iPod, a great pocket computer, and a great portable game player. Listen to a mix of songs automatically put together by the new Genius Mixes feature. Watch a movie. Surf the web. View rich HTML email. Find your location and get directions with Google Maps. Discover games and apps you're sure to love with new Genius recommendations for apps. Read Kindle Books.

Next-Level Fun: The New iPod touch

Music. With iPod touch, it's more than just hearing your music. Turn iPod touch on its side and glide through your music by album art with the flick of your finger. Tap an album cover to flip it over and display a track list. Tap again to start the music. The Genius feature finds other songs on your iPod touch that sound great with the one you were listening to and makes a Genius playlist for you. iPod touch includes the iPhone 3.1 software, so you can pair Bluetooth stereo headphones with it.

Movies + TV shows. Carry hours of video with you and watch it on the crisp 3.5-inch color widescreen display. Shop the iTunes Store and choose from thousands of movies, TV shows, and video podcasts to load up your iPod touch. While watching your video, tap the display to bring up the onscreen controls. You can play or pause, view by chapter, and adjust the volume. Want to switch between widescreen and full screen? Simply tap the display twice.

App Store. There are tens of thousands of apps in the App Store, with more added every day. When you find an app you want, buy and download it wirelessly to your iPod touch from anywhere over Wi-Fi, and start using it right away. iPod touch tells you whenever an app update is available, so you'll always have the latest versions of your favorite apps.

iTunes. The built-in Wi-Fi capability in iPod touch gives you access to the iTunes Store, where you can choose from millions of high-quality iTunes Plus songs and thousands of movies, TV shows, audiobooks, and free podcasts and iTunes U lectures. Play a preview of any song or video, then tap once to buy it.

Voice Control. Voice Control on the new 32 GB and 64 GB iPod touch gives you the ability to control music playback with spoken commands. Say "Play artist Bob Dylan," and iPod touch does just that. Ask what song is playing and hear iPod touch answer. Speak simple commands such as "shuffle," "next song," and "pause."

iPod touch comes with the Apple Earphones with Remote and Mic. Voice Control features support more than 20 languages.

Photos. With storage for up to 90,000 of your favorite photos, iPod touch lets you flick through and share all those remember-that-day moments. Flick to scroll through thumbnails. Tap to view full screen. Play slideshows, complete with music and transitions.

Home Screen. Make iPod touch your own with customized Home screens. Arrange the icons on your Home screen any way you want right on iPod touch or from your computer using iTunes 9. Move an app one row up, two apps over, or even to another Home screen. Create up to 11 Home screens for quick access to the games and applications. Search the entire contents from your main Home screen. Once you start typing, Spotlight begins searching all of your music, videos, contacts, email, calendars, notes, and even your audiobooks and podcasts.

Safari. iPod touch features Safari, the most advanced web browser ever on a portable device. See the web in your hands the same way you see it on a computer. iPod touch is the only iPod with built-in wireless access to the web. It has Google and Yahoo! search built in, so it's easy to find what you're looking for on the web. Get a closer look at any web page by zooming in and out with a tap or a pinch of the Multi-Touch display.

Mail. Email on iPod touch looks and works just like email on your computer. And it works with the email accounts you already have. iPod touch supports rich HTML email, so images and photos appear alongside text. With its built-in dictionary,* the intelligent iPod touch keyboard predicts and suggests words as you type, making it fast and easy to write email. And when you rotate iPod touch on its side, the keyboard instantly switches from portrait to landscape for larger keys and more room to type.

Maps. iPod touch finds your location using known Wi-Fi hotspots. It also finds points of interest by keyword: Search for "coffee" and iPod touch shows you cafes nearby. Just type in an address and get directions from wherever you are. You can also mark specific locations and find the best route between them.

Nike + iPod Compatibility. Just slip the Nike + iPod Sensor (available separately) into your Nike shoe and start your run. The sensor communicates wirelessly with your iPod touch, tracking your time, distance, and calories burned.

Voice Memos. With Voice Memos, you can record little (and big) bits of information to your iPod touch. Voice Memos will record even when you're using your iPod touch to do things such as checking email or surfing the web. You can trim recorded memos right on iPod touch.

More Features. iPhone 3.1 Software Features:

Genius Mixes; Genius Recommendations for Apps; Peer-to-Peer Gaming; Buy Movies, TV Shows, and Audiobooks via Wi-Fi; Landscape Keyboard; Cut, Copy & Paste; Spotlight Search; Automatic Wi-Fi Login; Accessibility (for people with disabilities); Stereo Bluetooth; Shake to Shuffle; Parental Controls.

iPod touch also includes these useful apps:

Calendar, Contacts, Notes, Stocks, Weather, Calculator.

EXERCISES

Exercise 1. Answer the following questions.

1) What is the main advantage/feature of the new iPod?
2) What possibilities does the iPod touch give to the users?
3) What should you do to start the music?
4) Where can you buy movies and TV shows for the iPod touch?
5) Is it possible to download new applications to iPod? How should you do this?
6) In what way can you control the music playback?
7) Can you see web on iPod touch the same way you see it on a computer? How is it possible?
8) Is writing an e-mail fast and easy? Why?
9) Can you find points of interest with the help of iPod touch? With the help of what feature is it possible?
10) Does iPod touch have useful applications and interesting features? What are they?

Exercise 2. Say True or False.

1) It is impossible to pair Bluetooth stereo headphones with iPod touch.
2) To start the music you should only tap the track from the list.
3) Tap once to switch between widescreen and fullscreen.
4) New applications can't be downloaded wirelessly.
5) Before buying a song you may play a preview of it.
6) Voice Control gives you ability to control music playback in 15 languages.
7) For quick access to games and applications you may create up to 11 Home screens.
8) Built-in wireless access to the web allows you to search with Yahoo! and Google.
9) You should tap twice to switch keyboard between portrait to landscape.
10) Voice Memos will record even when you are surfing the web.

Exercise 3. Give the Russian equivalents.

1) to tap the display
2) available update
3) high-quality video
4) built-in Wi-Fi capability
5) music playback
6) to scroll though thumbnails
7) «shuffle» and «pause»
8) advanced web browser
9) intelligent keyboard
10) to switch from smth. to smth.
11) to find smth. by keywords
12) to communicate wirelessly
13) accessibility
14) useful applications
15) to adjust the volume
16) to arrange the icons

Exercise 4. Give the English equivalents.

1) карманный компьютер
2) просматривать сеть
3) загружать подкасты
4) давать доступ
5) возможность контролировать
6) воспроизведение музыки
7) прокручивать
8) расположить иконки
9) быстрый доступ
10) портативное устройство
11) ключевое слово
12) встроенный беспроводной доступ
13) проверять почту
14) записывать информацию
15) вырезать, копировать и вставить
16) совместимость

Exercise 5. Match each word with its meaning.

1) to scroll	a) permit small alterations or movements so as to allow a desired fit, appearance, or result to be achieved
2) to arrange	b) read or survey (data files), typically via a network
3) to adjust	c) transfer (a program or data) into memory
4) to browse	d) to put into a proper, systematic, or decorative order
5) to search	e) modify (something) to suit a particular individual or task
6) to customize	f) try to find something by looking or otherwise seeking carefully and thoroughly
7) to zoom in	g) move displayed text or graphics in a particular direction on a computer screen in order to view different parts of them
8) to rotate	h) to increase rapidly the magnification of the image of a distant object by means of a zoom lens
9) to load	i) move in a circle around an axis or center

Exercise 6. Compare the technical details of the 1st Generation iPod and the 2nd Generation iPod. What are the advantages of the second iPod.

Apple iPod touch 16 GB (1st Generation)

Price: $315.00
Capacity: 16 GB flash drive
Song capacity: Up to 3,500 (128-Kbps AAC format)
Photo capacity: Up to 20,000 iPod-viewable photos
Video playback: Up to 20 hours
Display: 3.5-inch widescreen multi-touch display, 480 x 320 pixels

Battery: Built-in rechargeable lithium-ion battery; charging via USB or power adapter (not included)
Battery life for audio playback: Up to 22 hours
Battery life for video playback: Up to 5 hours
Battery charging time: Fast-charge time: about 1.5 hours (charges up to 80% of battery capacity); full-charge time: about 3 hours
Interface: Dock connector, 3.5-millimeter earphone jack
Dimensions: 2.4 x 4.3 x 0.31 inches / 61.8 x 110.0 x 8.0 millimeters (W x H x D)
Weight: 4.2 ounces / 120 grams
Warranty: 1-year limited warranty, 90-day single-incident telephone support

Apple iPod touch 16 GB (2nd Generation)

Price: $233.97
Storage capacity: 16 GB
Drive type: Flash drive
Compatibility: Mac/Windows
Dimensions: 61.8 mm x 8.5 mm x 110 mm
Weight: 4.05 ounces (115 grams)
Song storage capacity: Up to 3,500 songs
Display size: 3.5 inches diagonal
Display type: Widescreen Multi-Touch display
Display resolution: 480-by-320-pixel resolution at 163 pixels per inch
Video storage capacity: Up to 20 hours of video
Image storage capacity: Holds up to 20,000 iPod-viewable photos
Battery: Built-in rechargeable lithium ion battery
Battery life: Music playback time: Up to 36 hours when fully charged; Video playback time: Up to 6 hours when fully charged
Battery charge time: Fast-charge time: about 2 hours (charges up to 80percent of battery capacity); Full-charge time: about 4 hours
Wireless standard: Wi-Fi (802.11b/g)
Internet browser: Safari for iPhone
Headphones: Earphones
Input: Dock connector
Output: 3.5-mm stereo headphone jack

Exercise 7. Translate the following sentences from Russian into English.

1) iPod touch — портативный мультимедийный проигрыватель из серии iPod компании Apple. От других плееров серии отличается наличием Wi-Fi и multitouch-экрана.
2) В отличие от других mp3-плееров, iPod требует для закачивания музыки установить специальную программу — iTunes.

3) iPod touch использует встроенную флеш-память. В РФ доступны три варианта плеера: с 8, 32 и с 64 Гб памяти. С плеером поставляется кабель USB 2.0 для соединения с компьютером (Mac или ПК), но iPod touch нельзя легально использовать в качестве переносного накопителя.
4) Для доступа в Интернет в iPod touch используется мобильная версия встроенного браузера Safari от Apple. Доступ происходит через Wi-Fi-сеть по протоколу 802.11b/g.
5) При просмотре сайтов можно выбрать как портретный, так и ландшафтный режим отображения. С помощью мультисенсорной системы можно приближать различные области страницы.
6) Время работы iPod touch от встроенной литий-ионовой батареи зависит от многих параметров: 22 часа при воспроизведении аудио и 5 часов при воспроизведении видео для iPod touch первого поколения. Соответствующие характеристики для iPod touch второго и третьего поколения – 36 часов музыки и 6 часов видео.
7) Набирать текст на iPod Touch 3G очень легко. Всё благодаря интеллектуальной клавиатуре, которая угадывает и предлагает слова во время ввода. Набираете длинный текст? Поверните iPod Touch 3G, и клавиатура переключится из вертикальной ориентации в горизонтальную. Клавиши увеличатся, а для текста станет больше места.

Exercise 8. Sum up the information given the text.

TESTS

1) … is portable reading device with the ability to wirelessly download books, blogs, magazines, and newspapers.
   a) iPod touch b) iPhone c) Kindle DX d) Wacom Intuos4
2) … is a computer input device in the form of a small panel containing different touch-sensitive areas.
   a) Kindle DX b) touchpad c) graphics tablet d) mouse
3) … is a rapidly evolving category of small, light and inexpensive laptop computers suited for general computing and accessing web-based applications.
   a) laptop b) notebook c) tablet PC d) netbook
4) While the … is most suited those who want the natural feel of a pen-like object to manipulate the cursor, non-artists may find them useful as well.
   a) touchpad b) graphics tablet c) tablet PC d) trackpad
5) In the … tablets a small sound generator was mounted in the stylus.
   a) acoustic b)optical c) capacitive d) passive
6) By using … signals passive tablet is able to sense the stylus position without the stylus having to touch the surface.

a) electromagnetic b) radio c) electrostatic d) acoustic

7) On the monitor of a … system, two transducers (one receiving and one sending) are placed along the x and y axes of the monitor's glass plate.
a) resistive b) capacitive c) electromagnetic d) surface acoustic wave

8) A touch screen sensor is a clear … panel with a touch responsive surface.
a) plastic b) metallic c) glass d) LCD

9) The resistive system of a touchscreen consists of a normal glass panel that is covered with a … and a resistive metallic layer.
a) capacitive b) conductive c) surface acoustic wave d)scratch-resistant

10) Today's laptops operate on … to … GHz processors and … GB of RAM.
a) 1.3, 1.66, 1 b) 1, 1.5, 2 c) 2, 2.66, 3 d) 1.3, 1.88, 2

11) External drives to the netbook may be purchased separately and connect via e-SATA, IEEE 1394 Firewire, or … .
a) Wi-fi b) HDMI-port c) USB d) AGP

12) iPod touch has crisp … -inch clour widescreen disolay.
a) 4.5 b) 3.5 c) 2.5 d) 5

13) … is memory that retains data in the absence of a power supply.
a) RAM b) ROM c) memory card d) flash memory

14) … a connection technology for attaching peripheral devices to a computer, providing fast data exchange.
a) USB b) Wi-fi c) SATA d) IrDA

15) Kindle DX has the … display.
a) LCD b) TFT c) CRT d) electronic-ink

16) … a device or program enabling a user to communicate with a computer.
a) interface b) hardware c) software d) OS

17) Many multi-touch tablets use …. sensing.
a) conductive b) inductive c) electromagnetic d) capacitive

18) Most 10-inch netbooks are approximately … the size of a desktop keyboard.
a) 92-97% b) 80-82% c) 97-99% d) 88-90%

19) … tablets operate by a very small digital camera in the stylus.
a) acoustic b) optical c) electromagnetic d) capacitive

20) … is an electronic visual display that can detect the presence and location of a touch within the display area.
a) trackpad b) iPhone c) touchscreen d) tablet PC

КЛЮЧИ К ТЕСТАМ

1) – c
2) – c
3) – d
4) – b
5) – a
6) – a
7) – d
8) – c
9) – b
10) – a
11) – c
12) – b
13) – d
14) – a
15) – d
16) – a
17) – d
18) – a
19) – b
20) – c

ПРИЛОЖЕНИЕ
Список аббревиатур

3-D (3-dimensional) – трёхмерный
3G (third generation) – третье поколение
AGP (Accelerated Graphics Port) – ускоренный графический порт, шина AGP
BIOS (Basic Input / Output System) – БИОС, базовая система ввода / вывода
BMP (bitmap) – формат BMP стандартный формат растровых графических файлов
CD (Compact Disk) – компакт-диск
CD-ROM (Compact Disk Read Only Memory) – компакт-диск без возможности перезаписи
CD-RW (Compact Disc Read-Write) [многократно] перезаписываемый компакт-диск
CPU (Central Processing Unit) – центральный процессор
CRT (Cathode-Ray Tube display) – дисплей на электронно-лучевой трубке, дисплей на ЭЛТ
DOC (Document или Documentation) – файл с текстом документа
dpi (dots per inch) – точки на дюйм
DVD (Digital Video Disk) – цифровой видеодиск
EXE (Executable) – перемещаемая выполняемая программа
FIR port (Fast Infrared Port) – быстрый инфракрасный порт, FIR -порт
GIF (Graphics Interchange Format) – формат обмена графическими данными, формат GIF
GUI (Graphical User Interface) – графический интерфейс пользователя
HD (Hard Disk) – жёсткий диск
HDMI (High-Definition Multimedia Interface) – мультимедийный интерфейс высокой чёткости
HTML (Hypertext Mark-up Language) – язык разметки гипертекста

IMG (Image) – графический файл в пакете GEM; сканированное с высоким разрешением изображение
IrDA = IRDA (Infrared Data Association) – 1) Ассоциация по средствам передачи данных в инфракрасном диапазоне 2) IrDA стандарт, описывающий набор протоколов на инфракрасную передачу файлов, вывод на печать и реализацию одноранговой сети, разработанный ассоциацией IrDA.
JPEG (Joint Photography Experts Group) – 1) Объединенная группа экспертов в области фотографии 2) разработанный данной группой метод сжатия изображений и соответствующий графический формат JPEG (формат хранения графических файлов, сжатых посредством алгоритма JPEG)
LAN (Local Area Network) – локальная сеть
LCD (Liquid-Crystal Display) – ЖКД, жидкокристаллический дисплей
MPEG (Moving Picture Experts Group) – 1) Группа экспертов по видео 2) разработанный Группой экспертов по видео международный стандарт сжатия видео- и аудиоданных, стандарт MPEG
OLPC (One Laptop per Child) – название программы американской некоммерческой организации, созданной с целью предоставить возможности получения образования детям из развивающихся и бедных стран.
OS (Operating System) – операционная система
PC (Personal Computer) – персональный компьютер
PCI (Peripheral Component Interconnect) – межсоединение периферийных компонентов, шина PCI
PDF (Portable Document Format) – формат переносимого документа, PDF-формат
PNG (Portable Network Graphics) – переносимая сетевая графика, графический формат PNG
RAM (Random Access Memory) – оперативная память
RAW (Raw Data) – файл содержит необработанное изображение
REF (Reference) – файл со ссылками
ROM (Read-Only Memory) – постоянное запоминающее устройство
RTF (Rich Text Format) – (файловый) формат RTF, расширенный текстовый формат
RTF (Rich Text Format) – формат RTF, расширенный текстовый формат
TFT (Thin-Film Transistor) – тонкопленочный транзистор
TXT (text) – текст
UPS (Uninterruptible Power Supply) – система бесперебойного электропитания
USB (Universal Serial Bus) – универсальная последовательная шина
VPN (Virtual Private Network) – виртуальная частная сеть
Wi-Fi (Wireless Fidelity) – ("беспроводная преданность") стандарт Wi-Fi на беспроводную связь

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