

Ирина Борисова

**English for AVT specialists
Английский для специалистов
аудиовизуальных технологий**

Ирина Ивановна Борисова
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Английский для специалистов
в сфере аудиовизуальных
технологий. Сборник
текстов и упражнений
по английскому языку

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Аннотация

Предназначено для учебных заведений, готовящих специалистов в области аудиовизуальных технологий. Цели пособия – формирование иноязычной профессиональной коммуникативной компетенции специалиста, расширение лексического запаса в сфере профессиональной терминологии. Структура пособия также позволяет использовать его для самостоятельной работы. Материалы сборника прошли успешную апробацию в центре аудиовизуальных технологий одного из колледжей г. Москвы.

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Сборник текстов
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Создано в интеллектуальной издательской системе Ridero
Данное учебное пособие представляет собой сборник тек-

стов и упражнений по английскому языку для изучающих аудиовизуальные технологии. В задачи пособия входят расширение лексического запаса обучающихся в сфере профессиональной терминологии, формирование коммуникативной компетенции специалиста, обучение студентов иноязычной профессионально ориентированной устной и письменной речи.

Сборник предназначен для учебных заведений, готовящих специалистов в сфере аудиовизуальных технологий. Структура настоящего пособия, глоссарий и ключи к упражнениям позволяют использовать его для самостоятельной работы.

Материалы, включенные в сборник, прошли успешную апробацию в центре аудиовизуальных технологий одного из колледжей г. Москвы.

Предисловие

Предлагаемое учебное пособие предназначено для студентов учебных заведений, готовящих специалистов в области аудиовизуальных технологий. Работа выполнена в соответствии с современными требованиями, предъявляемыми к преподаванию иностранного языка с учётом профессиональной направленности обучения. Настоящее пособие является неотъемлемым компонентом учебно – методического комплекса по изучаемой дисциплине, обеспечивая преподавателей и обучающихся необходимыми материалами в части «Профессионально – ориентированный модуль».

Основными целями пособия являются формирование иноязычной профессиональной коммуникативной компетенции специалиста, овладение культурой устной и письменной речи, усвоение общих и профессиональных компетенций, предусмотренных Федеральными государственными образовательными стандартами по специальности.

Тематический подбор материалов обусловлен требованиями программы и задачами подготовки специалистов в области аудиовизуальных технологий. Тематика текстов охватывает факты из истории объёмного звука (от эпохи Ренессанса до наших дней), техническую эволюцию в области объёмного звучания и звукооператорского мастерства, информацию о знаменательных событиях и людях, которые внесли

весомый вклад в развитие новых технологий в данной сфере. К каждому тексту даны задания, разработанные в соответствии с отечественными и зарубежными методиками обучения чтению и другим видам речевой деятельности, а также упражнения на развитие определённых аспектов английского языка. В сборник также включены задания в формате ЕГЭ (Unified State Examination) и международного экзамена FCE (First Certificate in English) с использованием текстов пособия. Упражнения на совершенствование лексических и грамматических навыков сопровождаются справочными материалами, объяснениями, правилами и примерами. При создании заданий выдерживались принципы коммуникативности, преемственности и многоуровневости.

Содержание учебного пособия позволяет справляться с заданиями даже тем, кто ещё не достиг порогового (Threshold or Intermediate) уровня владения иностранным языком. В то же время, проблемно-коммуникативная методика, применённая при построении заданий, позволяет обучающимся, владеющим английским языком на продвинутом уровне (Upper intermediate, Advanced), совершенствовать монологическую речь и принимать участие в дискуссиях на заданные темы.

Многоуровневый личностно-деятельностный подход, лежащий в основе разработки предлагаемого сборника, способствует практическому овладению языком профессиональной деятельности, культурой устной и письменной ло-

гически осмысленной, грамматически правильной речи.

Занятия, проведённые с использованием данных материалов, подтвердили их актуальность и выявили большой интерес к ним со стороны студентов. Пособие разработано и составлено при содействии преподавателей специальных дисциплин центра аудиовизуальных технологий одного из колледжей г. Москвы, а также выпускника колледжа Гудкова Антона (выпуск 2013 г.), который являлся техническим консультантом и давал разъяснения по рассматриваемым темам.

Структура пособия

Данное пособие представляет собой сборник текстов и упражнений по специальностям в сфере аудиовизуальных технологий. Сборник включает в себя 10 разделов (Units), содержащих 16 текстов. На проработку каждого текста положительно отводится 2—4 академических часа.

В сборнике приведены тексты, представляющие определённую профессиональную ситуацию. В конце каждого текста имеется глоссарий новых слов и выражений (Essential glossary). Тексты сопровождаются различными упражнениями, включая задания в формате ЕГЭ (Unified State Examination) и международного экзамена FCE (First Certificate in English).

Изучение каждой части раздела (текста) начинается с предтекстовых заданий *Pre-reading*, которые выявляют объём словарного запаса и знания обучающихся о предмете изучаемой темы (brainstorming and predicting), определяют речевую задачу для прочтения текста, создают у студентов нужную мотивацию.

Далее следуют задания подраздела *Subject and language study* на развитие навыков просмотрового и поискового чтения (skimming and scanning), а также изучающего чтения (reading in detail). Здесь также присутствуют упражнения на повторение грамматики (grammar revision) и усвоение

лексики (vocabulary work), которые предваряются кратким изложением основных правил и примерами.

Речевые упражнения подраздела *Talking and discussing point* направлены на решение задач профессионально – ролевого общения в моделируемых ситуациях, формируя у обучающихся, помимо языковых, и профессиональные навыки специалиста.

Обучение письменной речи в подразделе *Writing* обеспечивается выполнением заданий на выработку навыков креативного письма (рассказ, эссе, комментарии к высказываниям известных людей и пр.), созданием электронных презентаций, написанием формального и неформального письма и других письменных работ. Основными форматами для заданий являются форматы ЕГЭ и FCE.

Подраздел *Check point* проверяет уровень усвоения тематического и лексического материала. Данные задания также подходят для выполнения студентами в качестве самопроверки. В конце учебного пособия приводятся ответы к упражнениям, что позволяет использовать пособие для самостоятельной работы.

Unit 1

From the history of sound production

Text 1. Part 1. The Renaissance — the 1940s

PRE-READING

- 1. Read the heading of the unit. Write down some words and phrases related to the subject.**
- 2. Can you guess the meaning of these words?**

Natural, mono, stereo, history, Renaissance, composer, compose, antiphonal, music, musician, cathedral, choir, organ, incorporate, sonic, effect, concert, hall, German, conductor, complex, orchestra, perform, foyer, audience, specialist, laboratory, telephone, experiment, multichannel, audio, format, system, idea, animated, film, soundtrack, concert, hall, record, technology, engineer, pioneer, reproduction, control, front, configuration, subwoofer, prototype, group, cinematic, commercial, stereophonic, dramatically, military, various, klaxon.

3. Tell the class what you already know on the topic.

4. a) Talk to your classmate. Give your own definition of that special period in the history of humankind called «the Renaissance».

b) Report your definitions back to the class. Discuss and compare your ideas.

c) Study some dictionary definitions of «the Renaissance». Do they differ from how you defined it?

5. You are going to read an article about the history of surround sound. Before you start reading, discuss the following points with the group.

1) What is surround sound? How does it work?

2) Can you name some examples of surround sound systems?

3) What kind of music did the Renaissance composers write?

4) What do you know about the European musicians Hector Berlioz and Richard Wagner?

5) How did Walt Disney and his engineers contribute to the surround sound appearance?

SUBJECT AND LANGUAGE STUDY

Reading

6. Skim the text to complete the following statements:

- a) This text considers the...
- b) It tells the readers how...
- c) Each paragraph gives us information about...

It is more natural for the human ear to listen in surround than to hear sounds in mono or stereo. If we go back to the history as far as the 14—16th centuries, we will see that the Renaissance composers who wrote antiphonal church music managed to fill vast cathedral spaces with the sound of the choir or organ incorporating side-to-side or front-to-rear sonic effects. In 1830, Hector Berlioz composed his *Symphonie Fantastique* whose score called for the horns to be placed at the back of the concert hall. The German composer and conductor Richard Wagner (1813—1883) created works so mighty and complex that they required large orchestras and the musicians to perform in the foyer, under the stage, and even among the people in the audience.

Throughout the 1930s specialists at Bell Laboratories (also called Bell Labs and formerly known as AT&T Bell Laboratories and Bell Telephone Laboratories) carried out experiments with different multichannel audio formats, including three-channel stereo or system 3.1 (left, center, right). In 1938, Walt Disney triggered off the idea of adding surround sound to his upcoming

animated film, *Fantasia*. The soundtrack was recorded using a technology called Fantasound developed by Disney engineers. Fantasound was a pioneering sound reproduction system, which stored three channels of audio (3.1) and a control track on the film itself. The sound was played back through five channels: three front speakers and two rear ones. This speaker configuration, sans subwoofer, was the prototype of the 5.1 arrangement, which is in common use today. Besides – amazingly – the same group of engineers invented multitrack recording, panning, and overdubbing! Thus, *Fantasia* became the first commercial cinematic release shown in stereophonic sound.

Unfortunately, war preparations dramatically curtailed further advance of surround sound technologies in entertainment. However, multichannel audio was used by the military for identifying the source of the sound: independent speakers were dedicated to various alarm sounds (for example, klaxon, bell, horn) aboard warships and it helped sailors in an emergency instantly locate the entering sound.

Essential glossary

- **antiphonal** – одноголосый, монофонический
- **to incorporate** – соединять (ся), объединять (ся)
- **sonic** – звуковой
- **score** – муз. оркестровать
- **horn** – рожок, рог, горн, труба, духовой инструмент
- **conductor** – дирижёр

- **surround sound system** – система объёмного звучания
- **store** – сохранять, запоминать
- **film** – плёнка
- **to playback** – воспроизводить, считывать
- **speaker** – динамик, громкоговоритель, акустическая система, колонка
- **subwoofer** – низкочастотный динамик, отдельная низкочастотная колонка
- **panning** – панорамирование
- **overdubbing** – накладывание одной (магнитофонной) записи на другую
- **entertainment** – сфера развлечений
- **alarm** – тревога
- **emergency** – чрезвычайные обстоятельства
- **to locate** – определять местонахождение

7. Scan the reading passage. What are the answers to the questions in exercise 5?

8. Read the text quickly. Put the names and the events mentioned in the text in the chronological order.

Richard Wagner; military preparations; the Renaissance composers; Walt Disney's Fantasia; Hector Berlioz and his Symphonie Fantastique, invention of multitrack recording, panning and overdubbing; Bell Laboratories.

9. Find the English equivalents for the following words and expressions in the passage.

Церковная музыка; заполнять огромные пространства храма звуком хора или органа; величественные и сложные; зрительный зал; в течение 30х; в прошлом известные как; провели эксперименты; инициировал идею; выходящий в прокат мультфильм; непосредственно на самой плёнке; три передних динамика и два задних; без низкочастотного динамика; который сегодня широко распространён; подготовка к войне; дальнейшее развитие технологий объёмного звучания; источник звука; различные сигналы тревоги; на борту военных судов; немедленно определить местонахождение.

10. Read the text in more detail and find the answers to the following questions.

- 1) What did the Renaissance composers try to do for listening church music in surround?
- 2) What was so special about Hector Berlioz's *Symphonie Fantastique* regarding surround sound?
- 3) How are Richard Wagner's works described in the article?
- 4) What kind of experiment did the Bell Laboratories specialists do with different audio formats?
- 5) What technology did Disney engineers develop in order

to record the soundtrack for the animated film Fantasia?

6) How did the military forces employ multichannel audio systems?

11. Match the people (1—7) with their achievements (a-g).

1) specialists at Bell Laboratories

2 Richard Wagner

3) the military

4) Walt Disney

5) the Renaissance composers

6) Hector Berlioz

7) Disney engineers

a) his music was performed by orchestras so big that the musicians had to play scattered around the concert hall: in the foyer, under the stage, and even in the audience;

b) the location of the sound was identified by the multichannel audio system;

c) they wrote music designed to achieve spatial effects in large cathedrals;

d) used his great idea in one of the upcoming animated films;

e) the score of his work required that the musicians playing the horns had to stand at the rear of the hall;

f) did experiments with various multichannel audio formats;

g) invented a new technology called Fantasound

12. All the terms in the left column below are mentioned

in text 1. Match the terms with their definitions in the right column.

- surround sound	- a standard and the most common speaker setup designed for surround sound playback. It consists of five main full-range speakers (left, right, center, rear left, rear right) and a low frequency effect device (subwoofer)
- audience	- a special kind of speaker used only for carrying low frequency information
- 3.1 system	- the people watching or listening to a television show, speech, performance, etc.
- subwoofer	- a multichannel audio format including three-channel stereo (left, center, right)
- 5.1 system	- a term describing any multichannel audio configuration with more than two speakers for playback.

Grammar revision: regular and irregular verbs

Regular verbs

The past simple and past participle of regular verbs end in —
ed.

Describe-described-described, include-included-included

Irregular verbs

Irregular verbs do not follow this rule. For some irregulars, all the three forms are the same.

Hit-hit-hit, let-let-let, put-put-put

For other irregular verbs, the past simple is the same as the past participle.

Tell-told-told, make-made-made, catch-caught-caught

With some other verbs, the three forms are different.

Write-wrote-written, do-did-done, show-showed-shown

There are some verbs that can be regular or irregular.

Burn-burned-burned or burn-burnt-burnt

Dream-dreamed-dreamed or dream-dreamt – dreamt

It is more usual to use the irregular forms in British English.

We use the past participle for making the perfect tenses and the passive forms.

The engineers have carried out numerous experiments with different audio formats recently. (present perfect)

The sound was played back through five channels: three front speakers and two rear ones. (past simple passive)

13. Some of these verbs are regular and some are irregular. Give their three forms. Work out the meaning of the words that you do not know from the context.

Example: hear-heard-heard

Go, see, be, write, manage, fill, incorporate, compose, call for, place, create, require, perform, know, carry out, trigger off, record, develop, store, playback, invent, become, show, curtail, use, dedicate, help, locate.

Use the verbs in your own sentences.

Vocabulary work

14. Look through the text and write a list of key words. Compare it with your classmate's list. Make up new sentences with them.

TALKING AND DISCUSSING POINT

15. Think of a plan to the article. Make a summary of the article according to your plan.

16. Explain these words and expressions from the text.

To hear sounds in mono or stereo, vast cathedral spaces, conductor, audience, pioneering sound reproduction system, sans

subwoofer, prototype, stereophonic sound, source of the sound, emergency, instantly.

17. What have you learnt from the text about the following?

- The Renaissance composers and their antiphonal church music
- Walt Disney's Fantasound
- Bell Labs experiments

18. Speak on music. Comment on the statements.

- *Music distracts us from daily routine.*
- *Can you imagine your day without music?*
- *A tuneful song barely heard out of the open window, a brass band playing somewhere at a distance, birds singing nicely in the garden... There is so much music around us that sometimes we do not even notice it.*

WRITING

19. Write a composition on the topic (120—180 words).

So what is music?

20. Make a report, an electronic presentation or do

a project on one of the following topics:

- The Renaissance music
- Hector Berlioz. His life and works
- Richard Wagner and his influence on music
- Bell Laboratories. Discoveries and developments
- Walt Disney's Fantasia

CHECK POINT

21. Complete the following statements basing on the information in the first part of Unit 1. You do not need more than three words, symbols or numbers for each gap.

1) Renaissance composers wrote their antiphonal music with the sound of the choir or organ incorporating side-to-side or front-to-rear sonic effects to be played in...

2) Hector Berlioz's *Symphonie Fantastique* was performed with the horns placed at the back of the...

3) Richard Wagner's works were so impressive and complicated that they needed large orchestras; the musicians stood in the foyer, under the stage, and even among the people in the...

4) In the 1930s, specialists at Bell Labs experimented with three-channel stereo or system..., as well as with other multichannel audio formats.

5) Fantasound was the first sound reproduction system, which stored three... (3.1) and a control track on the film itself.

6) The sound in Fantasound was played back through five channels: three front speakers and two...

7) This speaker configuration in Fantasound, sans subwoofer, became the prototype of the...

8) Besides, the same group of Disney engineers created multitrack recording, panning and...!

9) Further development of surround sound technologies in entertainment was curtailed by...

10) Multichannel audio was utilized by the... for identifying the source of the sound.

Text 2. Part 2. The 1950—1980s

PRE-READING

1. What do you know about the following things:

- the arrival of the television;
- gimmicks used to make film watching more entertaining;
- home «hi-fi» arrangements

2. Look at the statement: «In the 1950s, the rise of the television became a real threat to the cinema.» Why do you think it happened? Work in groups of three or four and discuss your ideas. Report them to the class.

3. What do you think these words and word combinations mean?

Dominant source, public entertainment, film studios, technological advance, 3D glasses, auditorium, limit, economic factors, professionals, frustration, numerous technical problems, vinyl medium, aesthetic problems, full-range front channels, minimum number of speakers.

4. Name some more words and phrases you know relating

to the subject.

SUBJECT AND LANGUAGE STUDY

Reading

5. Skim the reading passage to complete the statements.

The text considers...

It describes...

Each paragraph tells us...

6. Look through the passage and spot the answers to these questions.

1) What technological advances did the film studios introduce to fight the television?

2) Why did the idea of the four-channel configuration Quad fail?

3) When did the system 5.1 appear?

By the early 1950s, the movie certainly remained the dominant source of public entertainment. Nevertheless, the rise of the television became a real threat to the cinema. In fact, the growing popularity of the television influenced meaningfully the profits of the film industry. The film studios

fought back desperately introducing one technological advance after another. Though some of them were just gimmicks to attract viewers (things like 3D glasses), other ones, such as the wide-screen cinemascope, eventually developed into significant improvements. Another achievement worth mentioning was a four-channel stereo (three front speakers accompanied by a switchable «effects» speaker). Soon after that, 70 mm 6-track film was invented. It had five front channels (left, left/center, center, center/right, right) plus a dedicated effects channel placed in the auditorium. However, mastering these technologies was limited by certain economic factors.

Home audio systems were also evolving greatly. By the 1960s, home «hi-fi» arrangements were all the rage. Stereo sound replaced monaural as a standard. The stereo recordings of a ping – pong ball bouncing between speakers stimulated the rise of today's consumer surround sound.

In the early 1970s many professionals felt a kind of frustration at the scanty abilities of two speakers leading to research into the consumer surround sound which resulted in an analog four – channel configuration called Quad. It was a progressive idea going ahead of its time. It failed, however, beset by numerous technical (inability of the vinyl medium to carry four discrete signals without strong crosstalk and compromises in frequency response), economic (there were a lot of competing, non-compatible formats) and even aesthetic problems (the public did not completely understand the psychoacoustics of the four-

channel sound.)

However, by the late 1970s, the first digital audio sets made an appearance at the market. The film industry was pushing forward its positions, too. Dolby Laboratories started their work at a matrixing system «Dolby Stereo» where three front speakers and an array of rear speakers received information through four channels derived from two stereo channels that were printed optically onto film. Dolby professionals also made an introduction of a separate «boom» subwoofer channel, or so called the «LFE channel» (which stands for Low Frequency Effects). It effectively increased dynamic range (the difference between the softest sound and the loudest sound perceived) in cinematic installations.

By the mid – 1980s, the system 5.1 was supposed to be a standard for 70 mm cinematic releases. It was composed of three full-range front channels (left, center, right), two full-range rear channels, and a subwoofer. In the name «5.1» the «. 1» stands for the LFE channel because it carries only approximately one – tenth of the frequency range of the other channels. Researchers considered this as being the minimum number of speakers needed to supply the listener with an enveloping, immersive sound perception, as well as providing a sufficient level of localization (the capability to receive a sound as coming from a definite point in space). The 5.1 is still the most common configuration used for surround sound today.

Essential glossary

- **profit** – прибыль, выгода
- **advance** – продвижение, достижение
- **gimmick** – приём, трюк, уловка
- **viewer** – зритель
- **improvement** – улучшение, усовершенствование
- **achievement** – достижение
- **switchable** – переключаемый
- **dedicated channel** – выделенный канал
- **be all the rage** – достигать крайней степени, предела
- **monaural sound** – моноауральный, относящийся к одно-

му уху, монофонический

- **consumer** – потребитель
- **research** – научное исследование
- **vinyl medium** – виниловый носитель
- **crosstalk** – перекрёстные помехи, диафония
- **frequency response** – частотная характеристика
- **psychoacoustics** – психоакустика
- **range** – диапазон
- **installation** – установка, инсталляция
- **compose** – составлять, компоновать
- **approximately** – примерно, приблизительно
- **immersive** – многонаправленный, с одновременным воз-

действием на человека посредством нескольких каналов восприятия (зрение, слух, осязание, обоняние); иммерсивный,

создающий эффект присутствия

- **sufficient** – удовлетворительный
- **the most common** – наиболее употребляемый
- **capability** – способность

7. Scan the article and use the words in brackets to complete the statements.

1) By the early 1950s, the increasing popularity of the television became a... to the movies.

2) By the 1960s, home «hi-fi» schemes were all the rage. Stereo sound took the place of... as a standard.

3) In spite of being a progressive idea going ahead of its time, the usage of... failed, attacked by numerous technical, economic, and even aesthetic problems.

4) The 1970s featured intense development of both audio and...

5) By the mid – 1980s, ..., which still remains the most widely used surround sound configuration, became a standard for 70 mm cinematic releases.

(5.1 system, real threat, video technologies, monaural, Quad)

8. Read the text in more detail and answer the questions.

1) What source of public entertainment threatened the cinema in the early 50s?

- 2) What did the film studios do in what seemed to be a losing battle with television? What technological advances were offered by audio engineers?
- 3) What sound system was accepted as a standard instead of the old one in the early 1960s?
- 4) What caused the first exploration into the consumer surround sound? What was its result?
- 5) When did the early digital audio devices appear at the marketplace?
- 6) What does «Dolby Stereo» consist of?
- 7) What does the «1» stand for in the system 5.1?

9. Find the English equivalents for the following words and expressions in the text.

Основной источник в сфере развлечений; развитие (восхождение) телевидения; угроза кинематографу; прибыли в сфере киноиндустрии; одно техническое достижение за другим; уловки для привлечения зрителей; в конечном итоге преобразовались в значительные усовершенствования; достижение, которое стоит упомянуть; который располагался в зрительном зале; освоение этих технологий; скудные возможности систем с двумя динамиками; система объёмного звука для потребителя; идея, опережающая своё время; осаждённая многочисленными техническими, экономическими проблемами, и даже проблемами чувственного вос-

приятия; конкурирующие, несовместимые форматы; набор задних колонок; динамический диапазон; кинематографические установки; приблизительно одна десятая частотного диапазона других каналов; определённая точка пространства.

Grammar revision: active and passive voice

We use the active voice to say what the subject of the sentence does:

In the 1970s, Dolby professionals made an introduction of a separate «boom» subwoofer channel, or so called the «LFE channel».

We use the passive voice to say that something happens to the subject:

However, mastering these technologies was limited by certain economic factors.

Here is some more information about the passive voice.

We use a passive verb

1) when what or who causes the action is unimportant, unknown or obvious from the context:

Two new studios have been built recently.

2) to sound more formal or more polite:

The letter hasn't been sent. (Instead of: You haven't sent the mail.)

3) when the action itself is more important than who or what

does it (in technological processes, reports, newspaper headings, manuals, instructions, regulations etc.):

Dolby Stereo Digital was first encoded on the 1992 film Batman Returns.

4) to put more emphasis on the agent:

The new laboratory will be opened by the company president.

We form the passive voice with the verb *to be* and the *past participle* of the main verb:

be (is/was/have been etc.) + the past participle (made/washed/done etc.)

	Active	Passive
Present Simple	She chooses a song for the music video.	A song is chosen for the music video.
Past Simple	She chose a song.	A song was chosen .
Future Simple	She will choose a song.	A song will be chosen .
Present Perfect	She has chosen a song.	A song has been chosen .
Past Perfect	She had chosen a song.	A song had been chosen .
Present Continuous	She is choosing a song.	A song is being chosen .
Past Continuous	She was choosing a song.	A song was being chosen .
Modal +be+ the past participle	She must choose a song.	A song must be chosen .

10. Fill the gaps in the sentences with the verbs given. Use them in the correct tense either in the active or in passive voice.

Remain, influence, introduce, limit, evolve, fail, beset, receive, increase.

1) Some of these technological advances finally _____ into meaningful improvements.

2) The cinematic systems of that time were unable to produce loud low frequency signals without clipping, that's why a subwoofer channel (also called the «LFE channel») _____ by Dolby Laboratories.

3) Though the pioneering idea of the Quad installation _____, it led to further exploration into consumer surround sound.

4) The acceptance of new technologies, especially since the expansion of television was making serious inroads into the profit margins of the cinematograph, _____ by certain economic factors.

5) Until the early 1950s the dominance of the movie was obvious and it _____ the main source of public entertainment.

6) By the late 1970s, specialists at Dolby Laboratories started their development of the Dolby Stereo system, whereby information _____ by three front speakers and a few rear speakers.

7) The invention of the «boom» subwoofer channel had an added advantage: it effectively _____ the dynamic range of theatrical installations.

8) The growing popularity of television certainly _____ the development of the film industry.

9) The analog four-channel arrangement Quad turned out to _____ by a multitude of economic, technical, and aesthetic problems that eventually led to its failure.

Vocabulary work: adjectives and adverbs

A lot of adverbs are made from adjectives by adding —ly:

Quick-quickly, careful-carefully

Note that not all words, which end in —ly, are adverbs. There are some adjectives that have the —ly ending, too:

Friendly, lively, etc.

11. Transform the adjectives into adverbs using the pattern given below. Work out the meaning of the unknown words from the text.

Example: amazing – amazingly

Certain, real, meaningful, desperate, eventual, significant, great, progressive, complete, optical, separate, effective, approximate, sufficient, definite.

Use the words in sentences of your own.

TALKING AND DISCUSSING POINT

12. Make a plan to the article using your notes in exercise 5.

13. Write a key sentence for each point of your plan.

14. Make a summary of the article adding a few more sentences to each point of your plan. Use the key words.

15. Answer the «What do you think» questions.

1) Why did television threaten the cinema in the early 1950s?

2) Which of the two opponents —the movie or the television – has eventually won?

3) Why 3D glasses are called a gimmick in the text? What other «gimmicks» used to attract audience can you name?

4) Are there any economic, technical and aesthetic problems in the sphere of the sound production nowadays?

5) What technological advances in the surround sound will be achieved in the nearest future?

WRITING

16. Write a commentary that contains two arguments for and two arguments against the statement: «*Society cannot do without technologies.*» Write 120—180 words.

17. Write an essay commenting on the following statement (State Exam Writing).

Work is the most important thing in life.

Do you agree with the statement? What is your point of view?

Write 200—250 words.

Use the plan below:

- make an introduction (state the problem)
- express your personal opinion giving 2—3 reasons to support it
- express an opposing opinion giving 1—2 reasons for it
- explain why you do not agree with the opposing opinion
- write a conclusion restating your position

CHECK POINT

18. Complete the sentences choosing from the words in brackets. Use the information you have learnt from Unit 1, Part 2.

1) Though some advances introduced by the film studios in the 1950s were just ... (gimmicks, failures, digital schemes) to attract viewers, other ones eventually developed into significant improvements.

2) The stereo recordings of a ... (child, ping – pong ball,

football) bouncing between speakers encouraged the growth of the modern consumer surround sound.

3) In the early 1970s, the ... (research, experiment, record) into the consumer surround sound led to an analog four – channel configuration called Quad.

4) The «LFE channel» invented by Dolby specialists in the 1970s really (decreased, made, increased) dynamic range in cinematic configurations.

5) In the name «5.1» the». 1» stands for the LFE channel because it carries only approximately (one-third, one-fifth, one-tenth) of the frequency range of the other channels.

Text 3. Part 3. The 1990s – today

PRE-READING

1. Guess the meaning of the following words from the text.

Organization, information, communication, optimum, allocation, classical, material, effect, result, document, accompany, professional, standard, factual, industry, recommendation, modern, mix, method, equally, film, production, role, studio, number, laser, disc, encoded, industry, theater, mass, public, manufacturer, multitrack, component, console, monitor, integral, automobile, gadget, content, compromise.

2. Think of some more words or phrases to supplement the list above.

3. Think of some achievements in the sphere of sound production that have come in sight over the past 30 years. How have they influenced ordinary customers' lives?

SUBJECT AND LANGUAGE STUDY

Reading

4. Skim the text. Are the following statements true or false?

1) The ITU carried out research to determine the optimal position of the speaker in a 5.1 system.

2) The ITU document «Recommendation for Multichannel Stereophonic Sound System With and Without Accompanying Picture» came out in 1990.

3) In the 1990s, at least five major film digital surround sound encoding formats made appearance.

4) The DVD appeared in the middle 90s.

5) Using high definition formats to allocate content surround sound producers can do without clipping and sonic compromise.

In the early 1990s, the organization that is responsible for information and communication technologies throughout the world known as the ITU (International Telecommunications Union) conducted research aimed at determining the optimum speaker allocation in a 5.1 arrangement. The research was based mainly on the classical music as source material and the rear speakers were described only as «effects» or «ambience» speakers. As a result, a document entitled «Recommendation for Multichannel Stereophonic Sound System With and Without Accompanying Picture» was issued in 1994. Actually,

professionals widely accepted it as a factual industry standard. The ITU Recommendation, however, may not be considered to be perfectly suitable for many music applications, since it came out long before the appearance of modern surround sound mixing methods which treat all the five speakers as equally important.

The 1990s were featured by development and proliferation of digital audio systems. Employment of digital audio for film production was practically becoming a commonplace; the role of digital audio workstations (DAWs) in recording studios all over the world was getting more and more important. There were plans for creating a digital television broadcast system that gradually would mature into High Definition Television (HDTV). Researchers made a focus on embedding surround sound into the second-generation digital audio systems that were growing in number successfully. In that period, at least three major film digital surround sound encoding formats saw the light of the day. These were Sony SDDS TM, Dolby ^R Digital TM (technically called «AC-3»), and DTS TM. Moreover, the introduction of laser discs (with their ability to carry encoded surround sound) greatly encouraged advance of a nascent industry known as home theater. People began to add supplementary subwoofers and surround speakers to their home listening sets.

In the mid – 1990s, the DVD was released. It provided the mass public with a medium delivering surround sound

right into the comfort of their homes. Audio manufacturers started offering different surround sound tools that whetted the consumer's appetite for high quality digital multitrack systems and a variety of components such as surround – ready mixing consoles, monitoring units and effects devices have found their way into people's living rooms as well as into professional studios.

Today, surrounds sound is an integral part of home theater and has also made its appearance in the automobile. Multichannel audio is used in the digital television broadcast, gaming gadgets, and in the Internet (through streaming codecs). High definition formats (like SA – CD Multichannel and DVD – Audio) enable the surround sound producer to allocate content without clipping and sonic compromise. This makes their advent one of the most remarkable achievements in the history of the sound production.

Essential glossary

- **aimed at** – нацеленный на
- **allocation** – расположение, расстановка
- **source** – источник
- **ambience** – окружение, обстановка, среда
- **suitable** – подходящий, соответствующий
- **application** – приложение, (прикладная) система
- **proliferation** – распространение
- **employment** – использование

- **commonplace** – привычное явление, обычное дело
- **gradually** – постепенно
- **to encode** – кодировать, шифровать
- **nascent** – рождающийся, в стадии возникновения, появляющийся
- **supplementary** – дополнительный, добавочный
- **medium** (pl. **media**) – носитель
- **a variety of** – разнообразие
- **integral part** – (неотъемлемая) составляющая
- **codec** – кодек (компрессор-декомпрессор) данных
- **high definition format** – формат с высоким разрешением
- **allocate** – размещать, распределять
- **content** – содержание
- **clipping** – ограничение (сигнала), отсечение

5. Scan the article and use the words in brackets to complete the statements.

1) The document «Recommendation for Multichannel Stereophonic Sound System With and Without Accompanying Picture» was issued in 1994 as a result of the... conducted by the ITU.

2) The 1990s are characterized by development and proliferation of...

3) In the 1990s, at least three main film digital surround sound

encoding formats arrived on the scene: ..., Dolby^R DigitalTM (technically called «AC-3»), and DTSTM.

4) The DVD, which appeared in the mid – 1990s, provided the mass public with a... bringing surround sound right into their homes.

5) Today, high definition formats enable the surround sound producer to allocate content without clipping and...

(digital audio systems, Sony SDDSTM, sonic compromise, research, medium)

6. Read the article in detail to find the answers to the questions below.

1) What was the purpose of the ITU research done in the 1990s?

2) Why may the ITU recommendation not be ideal for many music applications?

3) What was one of the main characteristics of the 1990s regarding the sound production technologies?

4) What was the focus in the exploration into surround sound throughout the 1990s?

5) What event served as a springboard to a newly – born industry called home theater?

6) What fact may be considered as one of the most important achievements proving that surround sound has finally come

of age?

7. Find the English equivalents of the following words and expressions in the text.

Отвечающий, ответственный за; проводить научное исследование; главным образом; исходный материал; идеально подходящий; одинаково важные; использование цифрового аудио; по меньшей мере; появились на свет; способность нести закодированный объёмный звук; цифровое телевизионное вещание; их появление; одно из самых значительных достижений.

Grammar revision: comparative and superlative adjectives

The comparative form of adjectives is *—er* or *more...* The superlative form is *—est* or *the most*

We use *—er* and *—est* for one-syllable words (short adjectives).

High-higher-the highest, cheap-cheaper-the cheapest

We use *more...* and *the most...* for longer adjectives.

Difficult-more difficult-the most difficult, expensive-more expensive-the most expensive

Some words are irregular: *good-better-the best, bad-worse-the worst, and others.*

8. Use the adjectives given below in the comparative and superlative degrees. Mind the grammar rules. Some of the words are irregular.

Example: suitable – more suitable – the most suitable

Important, long, successful, little, high, good, remarkable, far, modern, popular, significant, short, meaningful, advanced.

Present continuous and present perfect (simple).

The present continuous is *be + verb + ing* (*am/is/are + verb + ing*)

We use the present continuous tense.

1) To talk about an action that is happening at the moment of speaking

Don't enter the studio. They are recording a song at the moment.

2) To describe a temporary situation

The engineers are working at the new audio scheme this month.

3) To talk about changes occurring around now

The role of this digital audio arrangement in recording studios all over the world is getting more and more important.

4) When we are irritated (with *always*)

He is always listening to loud music in the evenings.

5) When we talk about arrangements and plans
They are trying out the new device tomorrow.

The present perfect simple is *have + past participle*.

We use the present perfect tense.

1) To talk about actions and states that started in the past and continue up to the present

He has been a sound engineer for ten years.

2) When we see the result of a past action now

Look! They've left a terrible mess in the laboratory.

3) When we talk about repeated actions in the past continuing in the present

The company has taken part in every exhibition so far.

4) To talk about our life experience

I have never visited Disney Land.

5) To say how many times we have done something.

That is the second time they've won the award.

6) With superlatives

This is the worst film I have ever seen.

Note that we often use these adverbs with the present perfect:
yet, since, ever since, already, ever, never, still, before, this morning, this week, this month, this year.

9. In the following sentences, change the present continuous to the present perfect. Translate the sentences into Russian.

Example:

The scientists **are conducting** research to determine optimum speaker placement.

The scientists **have conducted** research to determine optimum speaker placement.

1) In the experiment, the researchers are describing the component as «effects» or «ambience» part only.

2) Gradually, manufacturers are accepting this recommendation as a de facto industry standard.

3) Usage of this audio digital format is becoming a commonplace.

4) Some of these technological advances are obviously maturing into meaningful improvements.

5) The laboratory engineers are making a focus on incorporating the invention into the digital audio systems.

6) The new generation audio systems are growing in number successfully.

7) Modern surround sound tools are certainly whetting the consumer's appetite for adding extra units to their home listening environments.

8) The new device is also finding its way into gaming consoles.

Vocabulary work

10. Write a list of key words for text 3. Compare your list with the classmates' key words. Use them in your own sentences.

TALKING AND DISCUSSING POINT

11. Explain these words and expressions from the text. Paraphrase them; give synonyms or/and antonyms to them where possible.

Conduct research, industry standard, equally important, proliferation of digital audio systems, become a commonplace, gradually, nascent industry, whet appetite, professional studio, integral part, enable.

12. Write a list of five questions to the text. Exchange your list with your classmate and answer their questions.

13. Think of a plan to the article. Make a summary of the article according to your plan.

14. What information about audio systems today would you add to the article?

15. Talk to your classmate. Express your attitude to the following quotation:

Technology is a useful servant but a dangerous master.

Christian Lous Lange

Report your idea to the class. Discuss, compare and contrast your points of view.

WRITING

16. You want to enter a short story competition. The rules say that your story must start or end with the words: «*There is music everywhere...*» The story should contain 120—180 words (FCE Writing).

17. Make a report, do an electronic presentation or a project on one of the topics:

- The International Telecommunications Union
- Development and usage of digital audio systems
- High Definition Television (HDTV)
- Home theater (home cinema). History and later development
- DVD format
- Audio systems today

CHECK POINT

18. What have you learnt from the text in Unit 1, Part 3 about the following?

- The document «Recommendation for Multichannel Stereophonic Sound System With and Without Accompanying Picture»
- Achievements in the audio and video practices throughout the 1990s
- Surround sound systems in common use today

Unit 2

The history of Dolby Laboratories

Text 4. Dolby Laboratories.

Historical events and personalities

PRE-READING

1. Name some words and expressions related to the subject.

2. What do you know about Dolby Laboratories? Can you answer these questions?

- 1) When and where was the company founded?
- 2) Who started it?
- 3) What does Dolby Labs do?
- 4) Name some of the company's most significant achievements.
- 5) What Dolby formats do you know and use?

Dolby Laboratories (often called Dolby Labs for short) is an American company which specializes in audio encoding/

compression and audio noise reduction. Dolby Labs was founded by an American Ray Dolby in London in 1965. In 1976, it was moved to San Francisco, the USA. The first issue it manufactured was a simple compander, Type A Dolby Noise Reduction. The compander was distinguished from the others of the kind by capability to process only the quiet sounds that would be veiled by tape noise. Henry Kloss (a prominent American engineer and businessman) persuaded Ray Dolby to produce a consumer version of his noise reduction. In 1968, Dolby Company made an introduction of a compounding system Type B.

Dolby also searched to develop film sound. The company's history writes:

Upon investigation, Dolby found that many of the limitations in optical sound stemmed directly from its significantly high background noise. To filter this noise, the high-frequency response of theater playback systems was deliberately curtailed... To make matters worse, to increase dialogue intelligibility over such systems, sound mixers were recording soundtracks with so much high-frequency pre-emphasis that high distortion resulted.

A Clockwork Orange (1971) was the first film with Dolby sound that utilized Dolby noise reduction on all pre-mixes and masters, but with traditional optical soundtrack on release prints. *Callan* (1974) became the first film with a Dolby encoded optical soundtrack. In 1975 Dolby introduced Dolby Stereo including

a noise reduction system as well as more audio channels (it could have additional center and surround channels matrixed from the left and right). The first film with A Dolby – encoded stereo optical soundtrack was *Lisztomania* (1975), but it was only made in an LCR (Left-Center-Right) encoding technique. The first movie containing the true LCRS (Left-Center-Right – Surround) encoded soundtrack was called *A Star is Born* in 1976. Having reworked the system a bit for home viewing, Dolby released Dolby Surround, which only extracted a surround channel, and the more advanced Dolby Pro Logic, which actually was the domestic counterpart of the theatrical Dolby Stereo.

Dolby engineers also developed a digital surround compression scheme for the movie. Dolby Stereo Digital (now simply known as Dolby Digital) was first encoded on the 1992 film *Batman Returns*. Another Dolby format, AC-3 (the film *Clear and Present Danger* was offered at the home theater market on a laserdisc in 1995) did not make much profit in the consumer market and eventually became part of the DVD specification. Dolby Digital was included in the High Definition Television (Advanced Television Systems Television, HDTV and ATSC respectively) standard of the USA, DVD-players, and a lot of satellite-TV and cable – TV receivers. TV series *The Simpsons* used the Dolby digital surround sound compression scheme.

In 2005, the corporation offered its shares on the New York Stock Exchange, claiming to become public under the symbol DLB. The same year it celebrated the 40-anniversary.

In 2007, the company presented Dolby Volume at the International Consumer Electronics Show. It provides users with an opportunity to keep up a steady volume while switching from one channel to another.

On June 18, 2010, Dolby announced the arrival of Dolby Surround 7.1, which became widespread in the world market. The first movie released with this format was Pixar's *Toy Story 3*. Later 50 more releases came out using the format. In April 2012, there were 3,600 Dolby Surround 7.1 movie theaters. In the same month a new cinematic technology, Dolby Atmos, was introduced by the company.

Essential glossary

- **reduction** – уменьшение, сокращение
- **found** – основать
- **companion** – компаньон, расширитель
- **capability** – способность
- **process** – обрабатывать (данные, информацию)
- **veil** – скрывать, маскировать
- **consumer** – потребитель
- **investigation** – исследование
- **frequency response** – частотная характеристика
- **intelligibility** – разборчивость, отчётливость, внятность
- **pre-emphasis** – предисказание, предварительная коррекция

- **distortion** – искажение, деформация
- **utilize** – использовать
- **pre-mix** – предварительное микширование
- **master** – первый оригинал
- **home viewing** – домашний просмотр
- **domestic** – домашний
- **counterpart** – аналог, копия, двойник
- **profit** – выгода, прибыль
- **satellite** – спутник
- **receiver** – приёмник, принимающее устройство
- **share** – акция
- **keep up** – поддерживать

SUBJECT AND LANGUAGE STUDY

Reading

3. Scan the text to finish the sentences.

1) The first issue produced by the company was...

2) A notable American engineer and businessperson Henry Kloss talked Ray Dolby into producing...

3) The first film with Dolby sound that used Dolby noise reduction on all pre-mixes and masters, although with traditional optical soundtrack on release prints was...

4 The film *A Star is Born* contained the true...

5) In 2010, Dolby announced the arrival of...

4. Read the text in more detail to answer the questions.

1) What does Dolby Labs specialize in?

2) Who established the company?

3) What was the main feature that set Dolby's compander, Type A Dolby Noise Reduction, apart from the others?

4) What conclusion was made by Dolby's analysts of the limitations in optical sound?

5) What was the first movie that used Dolby noise reduction, though not in the final version?

6) What film was the first real LCRS soundtrack encoded on?

7) Where was the digital surround sound compression scheme employed?

8) Which system enables consumers to maintain an invariable volume while switching through program elements or channels?

9) When was Dolby Surround 7.1 introduced?

5. Find the English equivalents of the following words and expressions in the text.

Обыкновенный компандер; выдающийся американский инженер и бизнесмен; сильный фоновый шум; немного переделав (изменив) систему; не принёс большой прибыли на потребительском рынке; соответственно; выставила свои акции на Нью-Йоркской фондовой бирже; 40-я годовщина

(со дня основания).

6. Match the films in the left column with the new techniques encoded on them.

<i>A Clockwork Orange</i> (1971)	was the first release with a Dolby-encoded optical soundtrack.
<i>Callan</i> (1974)	became the first movie with true LCRS soundtrack.
<i>Lisztomania</i> (1975)	contained Dolby AC-3, which wasn't much of a success at the market and was adopted as part of the DVD system.
<i>A Star Is Born</i> (1976)	appeared as the first film with a Dolby-encoded stereo optical soundtrack. However, it utilized only an LCR encoding technique.
<i>Batman Returns</i> (1992)	turned out to be featured as the first film which used Dolby Stereo Digital
<i>Clear and Present Danger</i> (1995)	was the first film to be released with Dolby Surround 7.1.
<i>The Simpsons</i>	used Dolby noise reduction in all pre-mixes and masters, but not on release prints.
<i>Toy Story 3</i> (2010)	was the first series which was used to develop a digital surround sound compression scheme for TV.

Grammar revision: the passive voice 2

We use the Passive Voice to say what happens to the subject:

1) when the agent of the action is unimportant, unknown or obvious from the context:

A few new studios have been built this year.

2) if we want to sound more formal or polite:

The document hasn't been sent. (Instead of: *You haven't sent the document.*)

3) when the action itself is more important than who or what does it (in technological processes, reports, newspaper headings, manuals, instructions, regulations etc.):

Dolby Stereo Digital was first encoded in 1992.

4) to put more emphasis on the agent:

The awarding ceremony will be opened by the company president.

We form the passive voice with the verb *to be* and the *past participle* of the main verb:

be (is/was/have been etc.) + the past participle (made/washed/done etc.)

In 2012, a new cinematic technology, Dolby Atmos, was introduced by the company. (past simple passive)

A new digital surround sound compression scheme is being developed by Dolby engineers for this movie. (present continuous passive)

See Unit 1 for more information about the passive voice.

7. Rewrite these sentences in the Passive Voice.

1) Ray Dolby founded the company in Great Britain in 1965.

2) In 1976, he moved it to the United States.

3) Henry Kloss of KLH persuaded Dolby to manufacture a consumer version of his noise reduction.

4) *A Clockwork Orange* was the first film that used Dolby noise reduction (though only on the pre – mixes and masters, not on release prints).

5) In 1975, Dolby Labs introduced Dolby Stereo.

6) Dolby specialists also developed a digital surround sound compression scheme for the cinema.

7) In 2010, Dolby announced the arrival of Dolby Surround 7.1.

8. Turn the sentences from Active into Passive. Omit the agent where it is possible.

1) The music company is producing a new video.

2) When did the company introduce the cinematic technology Dolby Atmos?

3) The company specialists have evolved an innovative sound scheme for the home theater.

4) The camera operator was shooting the video when the equipment failed to operate.

5) They had already built a stage for the gig in the square when we came there.

TALKING AND DISCUSSING POINT

9. Choose any two Dolby formats and compare them.

10. Prepare a report on the topic «Dolby Technologies».

Pick from the following options:

– Analog audio noise reduction: Dolby A/B/C/S-Type NR; Dolby FM; Dolby HX Pro.

– Audio encoding/ compression: Dolby Digital (AC-3); Dolby Digital EX; Dolby Digital Plus (E-AC-3); Dolby Digital Live; Dolby E; Dolby Stereo (Dolby Analog); Dolby TrueHD; AAC; aacPlus; Dolby Pulse.

– Audio processing: Dolby Headphone; Dolby Virtual Speaker; Dolby Surround, Dolby Pro Logic, Dolby Pro Logic II, Dolby Pro Logic IIx, Dolby Pro Logic IIz; Audistry; Dolby Volume; Dolby Mobile.

– Video processing: Dolby Contrast; Dolby Vision.

– Digital Cinema: Dolby Digital Cinema; Dolby 3D; Dolby Atmos.

– Live Sound: Dolby Live Processor.

11. Comment on the following quotation.

«People who are crazy enough to think they can change the world are the ones who do.»

Steve Jobs

WRITING

12. Write a report on the topic «Ray Milton Dolby. Biography and achievements.»

13. Write a review of one of the films mentioned in the text: *A Clockwork Orange, Callan, Lisztomania, A Star Is Born, Batman Returns, Clear and Present Danger, The Simpsons, Toy Story 3.*

Follow the plan:

- Introduction (thesis paragraph, short summary plot, overview of the review body)
- Body paragraphs/analysis (cinematography, setting, acting, soundtrack, accomplishments and fails, the critic's feelings)
- Recommendation (if the movie is worth watching)
- Conclusion (tied up with the thesis)

14. Write a letter to your friend (State Exam Writing).

This is part of the letter you have received from your English pen-friend Elizabeth:

In your next letter, please tell me about a film you like. What's it about? Who is starring in the film? Why do you like it?

Конец ознакомительного фрагмента.

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