

**ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ БЮДЖЕТНОЕ ОБРАЗОВАТЕЛЬНОЕ
УЧРЕЖДЕНИЕ ВЫСШЕГО ОБРАЗОВАНИЯ
СТАВРОПОЛЬСКИЙ ГОСУДАРСТВЕННЫЙ АГРАРНЫЙ УНИВЕРСИТЕТ**

УТВЕРЖДАЮ

Директор института экономики, финансов
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« 28 »

Марта

2025 г.

**ФОНД ОЦЕНОЧНЫХ СРЕДСТВ
(ОЦЕНОЧНЫХ МАТЕРИАЛОВ)
учебной дисциплины**

2.3.1 Кандидатский экзамен «Иностранный язык»

наименование дисциплины

5.6 Исторические науки

Шифр и наименование группы научных специальностей

5.6.1 Отечественная история

Шифр и наименование научной специальности

Исследователь. Преподаватель-исследователь

Квалификация (степень) выпускника

Степень: кандидат исторических наук

Очная

Форма обучения

Ставрополь, 2025

1. Перечень планируемых результатов обучения по дисциплине, соотнесенных с планируемыми результатами освоения образовательной программы

Знать:

- межкультурные особенности ведения научной деятельности;
- правила коммуникативного поведения в ситуациях межкультурного научного общения;
- требования к оформлению научных трудов, принятых в международной практике.

Уметь:

- осуществлять устную коммуникацию в монологической и диалогической форме научной направленности (доклад, сообщение, презентация, дебаты, круглый стол);
- писать научные статьи, тезисы, рефераты;
- читать оригинальную литературу на иностранном языке в соответствующей отрасли знаний;
- оформлять извлеченную из иностранных источников информацию в виде перевода, реферата, аннотации;
- извлекать информацию из текстов, прослушиваемых в ситуациях межкультурного научного общения и профессионального (доклад, лекция, интервью, дебаты, и др.);
- использовать этикетные формы научно - профессионального общения;
- четко и ясно излагать свою точку зрения по научной проблеме на иностранном языке;
- производить различные логические операции (анализ, синтез, установление причинно-следственных связей, аргументирование, обобщение и вывод, комментирование);
- понимать и оценивать чужую точку зрения, стремиться к сотрудничеству, достижению согласия, выработке общей позиции в условиях различия взглядов и убеждений.

Владеть:

- обработкой большого объема иноязычной информации с целью подготовки реферата;
- оформлением заявок на участие в международной конференции;
- написанием работ на иностранном языке для публикации в зарубежных журналах.

2. Перечень оценочных средств по дисциплине

№	Разделы дисциплины и темы занятий	Семестр	Код индикатора достижения компетенций	Оценочное средство проверки результатов достижения индикатора компетенций
1	Раздел 1. Корректирующий курс грамматики Цель раздела – коррекция и совершенствование лингвистической компетенции аспирантов и соискателей, углубление знаний по грамматике иностранного языка в объеме, необходимом для работы с иноязычными текстами по научной тематике. Задачи раздела: -углубить знания аспирантов/соискателей в сфере грамматики изучаемого языка (морфологии, словообразования,	4	Знать: - межкультурные особенности ведения научной деятельности; - правила коммуникативного поведения в ситуациях межкультурного научного общения; - требования к оформлению научных трудов, принятых в международной практике. Уметь: - осуществлять устную коммуникацию в монологической и диалогической форме научной направленности (доклад, сообщение, презентация,	собеседование по теме научного исследования, реферат

	синтаксиса); -усовершенствовать навыки анализа грамматических конструкций в текстах научного дискурса; -сформировать навыки использования синонимичных грамматических конструкций, используемых в иноязычных текстах на научную тематику; -усовершенствовать навыки подбора и использования грамматических конструкций при переводе текстов с/на иностранный язык. Введение: Коррекция произношения. Интонационное оформление предложения, словесное ударение. Разговорная практика по теме: Передача актуальной информации - описание. Формирование словаря специальной лексики по теме: общенаучной лексики и терминов. Просмотровое чтение. Грамматика: Части речи: артикли, существительное, прилагательное, наречие, предлоги. Порядок слов в простом предложении. Модальные глаголы и их эквиваленты. Перевод научных текстов: особенности перевода изучаемых явлений. Письмо: план/конспект к прочитанному, описание-отчет.		дебаты, круглый стол); - писать научные статьи, тезисы, рефераты; - читать оригинальную литературу на иностранном языке в соответствующей отрасли знаний; - оформлять извлеченную из иностранных источников информацию в виде перевода, реферата, аннотации; - извлекать информацию из текстов, прослушиваемых в ситуациях межкультурного научного общения и профессионального (доклад, лекция, интервью, дебаты, и др.); - использовать этикетные формы научно - профессионального общения; - четко и ясно излагать свою точку зрения по научной проблеме на иностранном языке; - производить различные логические операции (анализ, синтез, установление причинно-следственных связей, аргументирование, обобщение и вывод, комментирование); - понимать и оценивать чужую точку зрения, стремиться к сотрудничеству, достижению согласия, выработке общей позиции в условиях различия взглядов и убеждений. Владеть: - обработкой большого объема иноязычной информации с целью подготовки реферата; - оформлением заявок на участие в международной конференции; - написанием работ на иностранном языке для публикации в зарубежных журналах.	
2	Раздел 2. Научная лексика и перевод научных текстов Цель раздела – совершенствование профессиональной компетенции аспиранта/соискателя в сфере чтения, аудирования и перевода научных текстов и развитие навыков самостоятельной научно-исследовательской работы с оригинальными	4	Знать: - межкультурные особенности ведения научной деятельности; - правила коммуникативного поведения в ситуациях межкультурного научного общения; - требования к оформлению научных трудов, принятых в международной практике. Уметь:	собеседование по теме научного исследования, реферат

научными источниками на иностранном языке. Задачи раздела: -расширить общий словарный запас аспиранта/соискателя и словарный запас по научному направлению исследований, включая общенаучные понятия и термины, узкоспециальную терминологию, наиболее активные глаголы, прилагательные и наречия; -углубить знания по функционированию лексико-грамматических единиц в текстах на научную тематику в иностранном языке и их лексико-грамматических аналогов в русском языке; -совершенствовать навыки устного и письменного перевода с иностранного языка на русский язык литературы по основной специальности различной степени сложности, а также перевода научных текстов по смежным специальностям; -совершенствовать навыки устного перевода с листа общенаучных и узкоспециальных текстов; -развить навыки письменного перевода с иностранного языка на русский язык узкоспециальных текстов; -сформировать навыки самостоятельной научно-исследовательской работы с языковым материалом по специальности (отбор и сжатие материалы по заданной тематике). Разговорная практика: подготовка презентации. Выступление с подготовленной презентацией (аргументация). Структурирование дискурса. Ознакомительное чтение: развитие темы и общая линия аргументации, не менее 70% понимания основной информации. Научная работа: структура темы, основные аспекты, которые необходимо раскрыть. Средства семантической и формальной когезии.	- осуществлять устную коммуникацию в монологической и диалогической форме научной направленности (доклад, сообщение, презентация, дебаты, круглый стол); - писать научные статьи, тезисы, рефераты; - читать оригинальную литературу на иностранном языке в соответствующей отрасли знаний; - оформлять извлеченную из иностранных источников информацию в виде перевода, реферата, аннотации; - извлекать информацию из текстов, прослушиваемых в ситуациях межкультурного научного общения и профессионального (доклад, лекция, интервью, дебаты, и др.); - использовать этикетные формы научно - профессионального общения; - четко и ясно излагать свою точку зрения по научной проблеме на иностранном языке; - производить различные логические операции (анализ, синтез, установление причинно-следственных связей, аргументирование, обобщение и вывод, комментирование); - понимать и оценивать чужую точку зрения, стремиться к сотрудничеству, достижению согласия, выработке общей позиции в условиях различия взглядов и убеждений. Владеть: - обработкой большого объема иноязычной информации с целью подготовки реферата; - оформлением заявок на участие в международной конференции; - написанием работ на иностранном языке для публикации в зарубежных журналах.	
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	Грамматика: активный и пассивный залогов. Перевод научных текстов: особенности перевода изучаемых явлений. Аудирование: общая и специальная информация.			
3	Раздел 3. Реферирование и аннотирование научных текстов Цель раздела: углубить у аспирантов/соискателей навыки чтения, анализа, реферирования и аннотирования текстов по основной научной специальности и по смежным научно-техническим дисциплинам. Задачи раздела: - углубить знания профессиональной терминологии по узкой научной тематике и по смежным научно-техническим темам; - расширить навыки последовательного поиска главной и второстепенной информации текста, а также способам сжатия (компрессии) исходного текста; - расширить выбор речевых моделей для реферативного изложения информации исходного текста; - усовершенствовать умения по составлению основных реферативных жанров текстов по специальности на иностранном и родном языках. Разговорная практика: участие в дискуссии/ полилоге. Структурирование дискурса: оформление введения в тему, развитие темы, смена темы, подведение итогов сообщения, инициирование и завершение разговора. Формирование словаря специальной лексики по теме: общенаучная лексика и термины. Грамматика: глагол, инфинитив, причастие. Изучающее чтение: полное и точное понимание содержания текста. Перевод научных текстов:	4	Знать: - межкультурные особенности ведения научной деятельности; - правила коммуникативного поведения в ситуациях межкультурного научного общения; - требования к оформлению научных трудов, принятых в международной практике. Уметь: - осуществлять устную коммуникацию в монологической и диалогической форме научной направленности (доклад, сообщение, презентация, дебаты, круглый стол); - писать научные статьи, тезисы, рефераты; - читать оригинальную литературу на иностранном языке в соответствующей отрасли знаний; - оформлять извлеченную из иностранных источников информацию в виде перевода, реферата, аннотации; - извлекать информацию из текстов, прослушиваемых в ситуациях межкультурного научного общения и профессионального (доклад, лекция, интервью, дебаты, и др.); - использовать этикетные формы научно - профессионального общения; - четко и ясно излагать свою точку зрения по научной проблеме на иностранном языке; - производить различные логические операции (анализ, синтез, установление причинно-следственных связей, аргументирование, обобщение и вывод, комментирование); - понимать и оценивать чужую точку зрения, стремиться к сотрудничеству, достижению согласия, выработке общей позиции в условиях	собеседование по теме научного исследования, реферат

	особенности перевода изучаемых явлений. Письмо: оформление заявки на конференцию, аннотация/тезисы.		различия взглядов и убеждений. Владеть: - обработкой большого объема иноязычной информации с целью подготовки реферата; - оформлением заявок на участие в международной конференции; - написанием работ на иностранном языке для публикации в зарубежных журналах.	
4	Раздел 4. Устная коммуникация на научную тематику (составление устного научного доклада) Цель раздела – сформировать у аспиранта/соискателя навыки аудирования и говорения, необходимые для успешного устного общения на научную тематику. Задачи раздела: -усовершенствовать навыки восприятия устной речи на научную тематику; -сформировать навыки вычленения в устной речи структуры научного дискурса; -обучить восприятию на слух главной мысли, ключевых высказываний, терминов, понятий в устной речи; -развить навыки ведения дискуссии (ответ на вопрос и формулировка вопроса); -сформировать навыки построения самостоятельного устного высказывания в жанрах научного сообщения и доклада. Разговорная практика: участие в дискуссии/ полилоге: передача эмоциональной оценки сообщения: средства выражения одобрения/неодобрения, удивления, предпочтения. Передача интеллектуальных отношений: средства выражения согласия/несогласия, способности/неспособности сделать что-либо, выяснение возможности /невозможности сделать что-либо, уверенности/неуверенности говорящего в сообщаемых им фактах. Формирование словаря	4	Знать: - межкультурные особенности ведения научной деятельности; - правила коммуникативного поведения в ситуациях межкультурного научного общения; - требования к оформлению научных трудов, принятых в международной практике. Уметь: - осуществлять устную коммуникацию в монологической и диалогической форме научной направленности (доклад, сообщение, презентация, дебаты, круглый стол); - писать научные статьи, тезисы, рефераты; - читать оригинальную литературу на иностранном языке в соответствующей отрасли знаний; - оформлять извлеченную из иностранных источников информацию в виде перевода, реферата, аннотации; - извлекать информацию из текстов, прослушиваемых в ситуациях межкультурного научного общения и профессионального (доклад, лекция, интервью, дебаты, и др.); - использовать этикетные формы научно - профессионального общения; - четко и ясно излагать свою точку зрения по научной проблеме на иностранном языке; - производить различные логические операции (анализ, синтез, установление причинно-следственных связей, аргументирование, обобщение и вывод, комментирование);	собеседование по теме научного исследования, реферат

	специальной лексики по теме: общенаучной лексики и терминов. Грамматика: условные предложения; словообразование. Перевод научных текстов: особенности перевода изучаемых явлений. Письмо: реферирование текста по специальности. Аудирование: подразумеваемая информация.		- понимать и оценивать чужую точку зрения, стремиться к сотрудничеству, достижению согласия, выработке общей позиции в условиях различия взглядов и убеждений. Владеть: - обработкой большого объема иноязычной информации с целью подготовки реферата; - оформлением заявок на участие в международной конференции; - написанием работ на иностранном языке для публикации в зарубежных журналах.	
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3. Оценочные средства (оценочные материалы)

Темы для собеседования

1. Исследование и выявление закономерностей химических процессов жизнедеятельности.
2. Распределение состава, структуры, функции, свойств и превращений веществ, присущих живым организмам.
3. Превращение обезвреживание ксенобиотиков и искусственных материалов, их влияния на живые организмы и на биосферу в целом.
4. Процессы, определяющие жизнь растений, особенности их метаболизма и системы их регуляции.
5. Мир растений, его разнообразие, генезис, распространение, строение и свойства растений и растительных сообществ, их связи со средой обитания и другими живыми организмами.
6. Разработка научных основ рационального использования и сохранения как необходимого условия устойчивого развития человечества.
7. Исследование генезиса и географии почв, их морфологических и аналитических свойств, минералого-гранулометрического состава, количества и состава живого и мертвого органического вещества, а также функционирования почв в современных естественных и агротехногенных ландшафтах.
8. Изучение функционирования организма животных и человека; использует поведение, физиологические, биохимические, генетические, молекулярно-биологические подходы для анализа функций организма.

Реферат

Продукт самостоятельной работы студента, представляющий собой краткое изложение в письменном виде полученных результатов теоретического анализа определенной научной (учебно-исследовательской) темы, где автор раскрывает суть исследуемой проблемы, приводит различные точки зрения, а также собственные взгляды на нее.

Темы рефератов

1. Научное отношение. Научные методы и методы науки.
2. Чистая и прикладная наука. Роль шанса в научном открытии.
3. Технология и инновации.
4. Технологии завтра родившегося сегодня.
5. Отношения между наукой и обществом.

6. Достижение науки и технической революции и нашей ежедневной жизни.

Темы рефератов

1. Düngung des Grünlandes
2. Bekämpfen von Schadpflanzen
3. Pflege des Getreides
4. Anbau von Sommergetreide
5. Allgemeine Grundlagen des Getreidebau
6. Anbau von Wintergetreide
7. Pflanzenschutz im Getreide
8. Ernte, Trocknung und Lagerung des Getreides
9. Maisanbau
10. Krankheiten und Schädlinge
11. Hackfruchtbau
12. Zucker- und Futterrüben
13. Fruchtfolge
14. Feldfutterbau
15. Kleergrasgemische
16. Zwischenfruchtbau
17. Zusammenhänge zwischen moderner Pflanzenproduction, Bodenfruchtbarkeit und Umwelt
18. Alternativer Landbau
19. Ertragssteigerung und Umwelt Leguminosen.

Тексты для реферирования и аннотирования по специальности

Реферирование оригинального текста по специальности.

COMPUTER CRIMES

More and more, the operations of our businesses, governments, and financial institutions are controlled by information that exists only inside computer memories. Anyone clever enough to modify this information for his own purposes can reap substantial rewards. Even worse, a number of people who have done this and been caught at it have managed to get away without punishment.

These facts have not been lost on criminals or would-be criminals. A recent Stanford Research Institute study of computer abuse was based on 160 case histories, which probably are just the proverbial tip of the iceberg. After all, we only know about the unsuccessful crimes. How many successful ones have gone undetected is anybody's guess?

Here are a few areas in which computer criminals have found the pickings all too easy.

Banking. All but the smallest banks now keep their accounts on computer files. Someone who knows how to change the numbers in the files can transfer funds at will. For instance, one programmer was caught having the computer transfer funds from other people's accounts to his wife's checking account. Often, traditionally trained auditors don't know enough about the workings of computers to catch what is taking place right under their noses.

Business. A company that uses computers extensively offers many opportunities to both dishonest employees and clever outsiders. For instance, a thief can have the computer ship the company's products to addresses of his own choosing. Or he can have it issue checks to him or his confederates for imaginary supplies or services. People have been caught doing both.

Credit Cards. There is a trend toward using cards similar to credit cards to gain access to funds through cash-dispensing terminals. Yet, in the past, organized crime has used stolen or counterfeit credit cards to finance its operations. Banks that offer after-hours or remote banking through cash-dispensing terminals may find themselves unwittingly subsidizing organized crime.

Theft of Information. Much personal information about individuals is now stored in computer files. An unauthorized person with access to this information could use it for blackmail. Also, confidential information about a company's products or operations can be stolen and sold to

unscrupulous competitors. (One attempt at the latter came to light when the competitor turned out to be scrupulous and turned in the people who were trying to sell him stolen information.)

Аннотирование текста по специальности COMPUTERS

Generally, any device that can perform numerical calculations, even an adding machine, may be called a computer but nowadays this term is used especially for digital computers. Computers that once weighed 30 tons now may weigh as little as 1.8 kilograms. Microchips and microprocessors have considerably reduced the cost of the electronic components required in a computer. Computers come in many sizes and shapes such as special-purpose, laptop, desktop, minicomputers, supercomputers.

Special-purpose computers can perform specific tasks and their operations are limited to the programmes built into their microchips. These computers are the basis for electronic calculators and can be found in thousands of electronic products, including digital watches and automobiles. Basically, these computers do the ordinary arithmetic operations such as addition, subtraction, multiplication and division.

General-purpose computers are much more powerful because they can accept new sets of instructions. The smallest fully functional computers are called laptop computers. Most of the general-purpose computers known as personal or desktop computers can perform almost 5 million operations per second.

Today's personal computers are known to be used for different purposes: for testing new theories or models that cannot be examined with experiments, as valuable educational tools due to various encyclopedias, dictionaries, educational programmes, in book-keeping, accounting and management. Proper application of computing equipment in different industries is likely to result in proper management, effective distribution of materials and resources, more efficient production and trade.

Minicomputers are high-speed computers that have greater data manipulating capabilities than personal computers do and that can be used simultaneously by many users. These machines are primarily used by larger businesses or by large research and university centers. The speed and power of supercomputers, the highest class of computers, are almost beyond comprehension, and their capabilities are continually being improved. The most complex of these machines can perform nearly 32 billion calculations per second and store 1 billion characters in memory at one time, and can do in one hour what a desktop computer would take 40 years to do. They are used commonly by government agencies and large research centers. Linking together networks of several small computer centers and programming them to use a common language has enabled engineers to create the supercomputer. The aim of this technology is to elaborate a machine that could perform a trillion calculations per second.

Реферирование оригинального текста по специальности Письменный перевод со словарем оригинального текста по специальности. A New Abstraction for Information Management

In this article we introduce data spaces as a new abstraction for data management and we propose the design and development of Data Space Support

Platforms (DSSPs) as a key agenda item for the data management field. In a nutshell, a DSSP offers a suite of interrelated services and guarantees that enables developers to focus on the specific challenges of their applications, rather than on the recurring challenges involved in dealing consistently and efficiently with large amounts of interrelated but disparately managed data. We begin our discussion of data spaces and DSSPs by placing them in the context of existing systems.

The distinguishing properties of data space systems are the following:

- A DSSP must deal with data and applications in a wide variety of formats accessible through many systems with different interfaces. A DSSP is required to support all the data in the data space rather than leaving some out, as with a Database Management System (DBMS).

- Although a DSSP offers an integrated means of searching, querying, updating, and administering the data space, often the same data may also be accessible and modifiable through an interface native to the system hosting the data. Thus, unlike a DBMS, a DSSP is not in full control of its data.
- Queries to a DSSP may offer varying levels of service, and in some cases may return best-effort or approximate answers. For example, when individual data sources are unavailable, a DSSP may be capable of producing the best results it can, using the data accessible to it at the time of the query.
- □ A DSSP must offer the tools to create tighter integration of data in the space as necessary.

Logical Components of Data spaces

A data space should contain all of the information relevant to a particular organization regardless of its format and location, and model a rich collection of relationships between data repositories. Hence, we model a data space as a set of participants and relationships.

The participants in a data space are the individual data sources: they can be relational databases, XML repositories, text databases, web services and software packages. They can be stored or streamed (managed locally by data stream systems), or even sensor deployments.

Some participants may support expressive query languages, while others are opaque and offer only limited interfaces for posing queries (e.g., structured files, web services, or other software packages). Participants vary from being very structured (e.g., relational databases) to semi-structured (XML, code collections) to completely unstructured. Some sources will support traditional updates, while others may be append-only (for archiving purposes), and still others may be immutable.

Аннотирование текста по специальности

Чтение без словаря оригинального текста по специальности и передача его содержания на английском языке.

THE NETWORKING

The term internetworking refers to linking individual LANs together to form a single internetwork. This internetwork is sometimes called an enterprise network because it interconnects all of the computer networks throughout the entire enterprise. There are three major types of devices used for internetworking: bridges, routers, and switches.

Bridges and routers are both special kinds of devices used for internetworking LANs that is, linking different LANs or LAN segments together. Many organizations have LANs located at sites that are geographically distant from each other. Routers were originally designed to allow users to connect these remote LANs across a wide area network, but bridges can also be used for this purpose. By placing routers or bridges on LANs at two distant sites and connecting them with a telecommunications link, a user on one of the LANs can access resources on the other LAN as if those resources were local.

Bridges and routers link adjacent LANs. Local bridges and routers were first used to extend the area a network could cover by allowing users to connect two adjacent LANs to maintain performance by reducing the number of users per segment. Both Ethernet and Token Ring specify limits on maximum distances between workstations and hubs, hubs and hubs, and a maximum number of stations that can be connected to a single LAN. To provide network connectivity for more people, or extend it to cover a larger area, it is sometimes necessary to link two different LANs or LAN segments. Bridges and routers can both provide this function.

Today, however, these internetworking devices are also increasingly used to segment LANs to maintain performance by reducing the number of users per segment. When users on a single LAN begin to experience slower response times, the culprit is often congestion: too much traffic on the LAN. One method users are employing to deal with this is to break large LANs with many users into smaller LANs, each with fewer users. Adding new network users may require the organization to create new LANs to accommodate them. Implementing new applications on an existing LAN can

create so much incremental traffic that the organization may need to break the LAN into smaller LANs segments to maintain acceptable performance levels.

Реферирование оригинального текста по специальности

Aphids Control

Broad beans can be protected by removing the tops of the plants before the aphids arrive, the broken off stem is not a very attractive site for incoming aphids and they fly away to seek a more favourable landing place. Broad beans, grown from greenhouse raised plants will be fruiting before the aphids arrive, the crop is then unaffected. Cabbage aphids can be controlled by keeping a sharp lookout for distorted leaves and then crushing the patches of aphids between finger and thumb. The use of fleece as a barrier to prevent flying aphids from landing is also an effective method of protecting brassicas. This latter method must not to be used on crops that require pollination as the pollinating insects will also be excluded.

Birds

The pigeon has a large appetite and will quickly destroy a row of brassica transplants; model hawks and scarecrows are effective for a very limited period. The only safe way is to cover the plants with fleece. House sparrows have a liking for germinating peas, lettuce seedlings and transplants. The only effective way of preventing damage is to cover with cloches, nets, black cotton or fleece. The covers must be positioned soon after transplanting as small plants disappear in a single visit. This problem is worse in early spring; protection is seldom necessary later in the year when other types of bird food are available.

Caterpillars

These are the larvae of butterflies and moths that feed on all parts of plants, they are most troublesome on brassica crops where they eat only the leaves. The plants are damaged by leaf loss and by frass (droppings) which is unsightly especially on the curds of cauliflowers. Large white butterfly caterpillars are usually present in groups on individual plants which they soon reduce to a skeleton, other plants nearby remaining undamaged. Small white butterfly caterpillars (the pale green ones) are found in ones or twos on most plants often feeding in the growing point. Cabbage moth caterpillars are darker in colour and feed at night.

Аннотирование текста по специальности

Чтение без словаря оригинального текста по специальности и передача его содержания на английском языке.

DATA SPACE SYSTEMS

We now outline one possible set of components and architecture for a data space system. As depicted in Figure 5, a DSSP offers several interrelated services on the data space, some of which are generalizations of components provided by a traditional DBMS. It is important to keep in mind that unlike a DBMS, a DSSP does not assume complete control over the data in the data space. Instead, a DSSP allows the data to be managed by the participant systems, but provides a new set of services over the aggregate of these systems, while remaining sensitive to the autonomy needs of the systems. Furthermore, we may have several DSSPs serving the same data space – in a sense, a DSSP can be a personal view on a particular data space.

- **Catalogue and Browse:** The catalogue contains information about all the participants in the data space and the relationships among them. The catalogue must be able to accommodate a large variety of sources and support differing levels of information about their structure and capabilities. Wherever possible, the catalogue should contain a basic inventory of the data elements at each participant: identifier, type, creation date and so forth.

- **Search and Query:** The component should offer the following capabilities: query everything, structured query, meta-data queries, monitoring.

- **Local store and index:** A DSSP will have a storage and indexing component for the following goals: (1) to create efficiently query able associations between data objects in different participants, (2) to improve accesses to data sources that have limited access patterns, (3) to enable

answering certain queries without accessing the actual data source, and (4) to support high availability and recovery.

- **The Discovery Component:** The goal of this component is to locate participants in a data space, create relationships between them, and help administrators to refine and tighten these relationships.

- **The Source Extension Component:** Certain participants may lack significant data management functions. A DSSP should be able to imbue such a participant with additional capabilities, such as a schema, a catalogue, keyword search and update monitoring.

Реферирование оригинального текста по специальности COMPUTER FOR WORK AND LEISURE

The computer is a device that processes information with surprising speed and accuracy. Computers process information. They create data, display and store it, reorganize and calculate with it, communicate it to other computers. Computers can process numbers, words, pictures, moving pictures, and sounds. The computer has changed the way we work, learn, communicate, and play. Students, teachers, and research scientists use the computer as a learning tool. Millions of individuals and organizations communicate with one another over a network of computers called the Internet.

Almost all computers are electronic digital computers.

The technology of computer hardware (the physical parts of computer systems) has advanced tremendously since 1946, when the first electronic digital computer was built. That machine filled a huge room. Today, a single microprocessor, a device the size of a fingernail, can do the same work.

The technology of software (programs, or sets of computer instructions and information) is also advancing rapidly. Early users of computers wrote their own software. Today, most users buy programs created by companies that specialize in writing software.

Because of advances in hardware and software, the price of computing has dropped sharply. As a result, the number of computers in operation has risen rapidly ever since the first commercial digital computers were manufactured in the 1950's. More than 10,000 computers were in operation worldwide by 1961. Ten years later, the number exceeded 100,000. By 1990, about 100 million computers were running. By the mid-1990's, the number had reached about 200 million.

Реферирование оригинального текста по специальности PEER-TO-PEER VERSUS A CLIENT-SERVER

Every network, regardless of whether it is "peer-to-peer" or "client – server" based requires some form of special software in order to control the flow of information between the users being networked. A Network Operating System, or "NOS", is installed on each computer requiring network access. The NOS monitors and at times controls the exchange and flow of files, email, and other network information.

Network Operating Systems are classified according to whether they are *peer-to-peer* or *client-server* Network Operating Systems. A Peer-to-peer capable network operating system, such as Windows 95, Windows 98 and Windows for Workgroups are usually the best choices for home and small office networks. They do an excellent job of sharing applications, data, printers, and other local resources across a handful of computers. Client-Server network operating systems, such as Windows NT and Novel NetWare are better for larger scale organizations that require fast network access for video, publishing, multimedia, spreadsheet, database, and accounting operations. However, with the recent decreases in hardware costs, don't shy away from a client-server installation in your home or home-office if you feel that faster network access for such things as streaming video, video and web page publishing and database operations would make life easier for you.

Peer-to-Peer Networks:

Peer-to-peer networks allow you to connect two or more computers in order to pool their resources. Individual resources such as disk drives, CD-ROM drives, scanners and even printers are transformed into shared resources that are accessible from each of the computers.

Unlike client-server networks, where network information is stored on a centralized file server computer and then made available to large groups of workstation computers, the information stored over a peer-to-peer network is stored locally on each individual computer. Since peer-to-peer computers have their own hard disk drives that are accessible and sometimes shared by all of the computers on the peer-to-peer network, each computer acts as both a client (or node) and a server (information storage). In the diagram below, three peer-to-peer workstations are shown (Fig.9). Although not capable of handling the same rate of information flow that a client-server network would, all three computers can communicate directly with each other and share each other's resources.

Аннотирование текста по специальности COMPUTERIZATION

“Computerization” refers to worldwide technology integration and adoption of computers and other electronic IT devices, along with the Internet, to support the activities that people do in the course of their daily lives. A person who uses a computer online exemplifies computerization.

Thus, computerization generally has to do with the integration of IT devices and computerized systems into communications, transportation, manufacturing, military weaponry, entertainment systems, and virtually all other technological areas of modern life.

The process of computerization began in the late 1940s with the invention of modern computers to provide missile guidance systems (системы наведения ракет) for the US military. However, it was not until 1969 with the invention of the Advanced Research Project Agency Network (AR- PANET) that computerization as we now understand it really began to expand. ARPANET laid the foundation for the Internet in 1983, its commercialization in 1988, and finally the World Wide Web in 1991. Over this period of time, extending half a century, what began as a small number of mainframe computers evolved into personal computers (PCs) that have been widely adopted for academic, government, business, non-profit organization, and individual user purposes.

Today approximately 2 billion computers exist on the Earth, with over 3 billion individual users of the Internet. Utilization of the Internet expanded nearly 275 % from 2000 to 2008. In 2015 in North America alone approximately 88 % of the domestic population (314 million out of 357 million people) used the Internet regularly. North America represents approximately 9.3 % of worldwide Internet users. And there are currently over 1 billion Web sites existing on the World Wide Web, with thousands of new Web sites created every day.

Today digital computers, IT devices, and plug-in media/components are increasingly smaller, portable, and much more affordable. They have faster processing speeds, greater memory, and increasingly more built-in functions. Several manufacturers integrate personal digital assistant (PDA) and cellular phone capabilities, and it is difficult to purchase a cell phone without a built-in digital camera.

Реферирование оригинального текста по специальности. CLASSES OF COMPUTERS

Supercomputer is the fastest type of computer. Supercomputers are very expensive and are employed for specialized applications that require immense amounts of mathematical calculations. Weather forecasting, animated graphics, fluid dynamic calculations, nuclear energy research, and petroleum exploration require a supercomputer.

Mainframe is a very large and expensive computer capable of supporting hundreds, or even thousands, of connected users simultaneously. In some ways, mainframes are more powerful than supercomputers because they support more simultaneous programs. But supercomputers can execute a single program faster than a mainframe.

Minicomputer is a midsized computer. In size and power, minicomputers lie between workstations and mainframes. But in general, a minicomputer is a multiprocessing system capable of supporting from 4 to about 200 users simultaneously.

The term microcomputer is generally synonymous with personal computer (PC), or a computer that depends on a microprocessor. Microcomputers are designed to be used by individuals, whether in the form of PCs, workstations or notebook computers. A microcomputer contains a central processing unit (CPU) on a microchip (the microprocessor), a memory system (typically read-only memory (ROM) and random access memory (RAM)), a bus system and I/O ports, typically housed in a motherboard.

Workstation is a computer intended for individual use that is faster and more capable than a personal computer. It's intended for business or professional use (rather than home or recreational use). Workstations and applications designed for them are used by small engineering companies, architects, graphic designers, and any organization, department, or individual that requires a faster microprocessor, a large amount of random access memory, and special features such as high-speed graphics adapters.

PDA is short for personal digital assistant, is a handheld device that combines computing, telephone/fax, Internet and networking features. A typical PDA can function as a cellular phone, fax sender, Web browser and personal organizer. PDAs may also be referred to as a palmtop, hand-held computer or pocket computer. Unlike portable computers, most PDAs began as pen-based, using a stylus rather than a keyboard for input. This means that they also incorporated.

Аннотирование текста по специальности.

MULTIPLE DOCUMENT INTERFACE

Multiple document interface is considered an advanced interface in computer sciences. Graphical computer applications with a Multiple Document Interface (MDI) are those whose windows reside under a single parent window (usually with the exception of modal windows), as opposed to all windows being separate from each other (single document interface). The initialism MDI is usually not expanded. In the usability community, there has been much debate over which interface type is preferable. Generally SDI is seen as more useful in cases where users work with more than one application. Companies have used both interfaces with mixed responses. For example, Microsoft has changed its Office applications from SDI to MDI mode and then back to SDI, although the degree of implementation varies from one component to another.

The disadvantage of MDI usually cited is the lack of information about the currently opened windows: In order to view a list of windows open in MDI applications, the user typically has to select a specific menu ("window list" or something similar), if this option is available at all. With an SDI application, the window manager's task bar or task manager displays the currently opened windows. In recent years, applications have increasingly added "task-bars" and "tabs" to show the currently opened windows in an MDI application, which has made this criticism somewhat obsolete. Some people use a different name for this interface, "tabbed document interface" (TDI). When tabs are used to manage windows, individual ones can usually not be resized.

Compared to single document interface we can point out the following advantages. With MDI (and also TDI), a single menu bar and/or toolbar is shared between all child windows, reducing clutter and increasing efficient use of screen space. An application's child windows can be hidden/shown/minimized/maximized as a whole. Features such as "Tile" and "Cascade" can be implemented for the child windows. Possibly faster and more memory efficient, since the application is shared, and only the document changes the speed of switching between the internal windows is usually faster than having the OS switch between external windows. Usually much faster to work with, from usability point of view, because you get a workspace of your own for this application to concentrate on, without other applications interfering, moreover, there are less mouse clicks to get things done, and less mental time for the user to seek the function (s)he needs.

Реферирование оригинального текста по специальности

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Аннотирование текста по специальности

INTERFACE IN PROGRAMMING

The concept of interface is the cornerstone of modular programming, a forerunner and a standard ingredient of object-oriented programming. In object oriented programming, an object's interface consists of a set of methods that the object must respond to. Note that the object does not make its instance variables a part of its interface - these are typically accessed by means of accessory methods. Some object-oriented programming languages mandate that the interface to the object be specified to the compiler separately from the implementation of that object, whilst others relax the requirement. For example, a class in a programming language such as Objective-C consists of its interface, specified in a header file, and the implementation in the source file. Because of the dynamically typed nature of Objective-C, one can send messages to any object, and the interface to the class becomes important as it specifies the methods the class responds to.

Interfaces were historically derived from the header files of the C making them a part of the language semantics (as opposed to a mere preprocessor feature).

The Java programming language takes a different approach to the concept of the interface normally existing in other object-oriented programming languages (i.e. that the interface specified is the interface to the class), in that an interface specifies a set of methods which implement some specific functionality, common to a set of classes. Some programming languages (e.g. D, Java, Logtalk) allows the definition of interface hierarchies. This allows easy definition of e.g. both minimal and extended versions of an interface. Some programming languages (e.g. Logtalk) support private and protected implementation of an interface. Thus, the (public) methods declared

in an interface can easily become private or protected methods of a class implementing the interface.

The Eiffel language includes in the interface of a class its invariants and the pre and post conditions of the methods of the class. This is essential to the methodology of design by contract, and may be regarded as an extension of the conditions imposed by the types of the arguments. These rules may be specified in the implementation of a class or in an ancestor which may leave the methods unimplemented. They are extracted by language processors to provide an interface view in the development environment and to generate run-time assertions (checks) in debug versions. The language also ensures that derived classes obey the contracts of their ancestors.