## Computer memory



Certain memory requirements are necessary to install and run ClearPic. Check that the computer has at least 500 MB of RAM available. For optimal performance, make sure the computer's CPU has a bit size of at least 32 bits. It should run at a bus speed of 800 MHz.

There are several options to fix problems with limited memory. One, is to limit the number of programs running at the same time.

Another, is to increase the amount of RAM. First, determine whether your computer uses SIMMs or DIMMs. Make sure that the memory's bus speed matches that of the computer. Purchase the appropriate amount of RAM and attach it to the motherboard.

You can also increase your computer's virtual memory. This temporarily stores data on a paging file on the computer's hard drive. To add virtual memory, click on the "My Computer" icon. Under "Properties," increase the maximum memory amount.



Before you read the passage, talk about these questions.

motherboard

- 1 How has increased computer memory changed business?
- 2 When do people need to add more computer memory?



Read the troubleshooting



hard drive



# virtual

ive [Volume Label]

#### guide. Then, choose the correct answers.

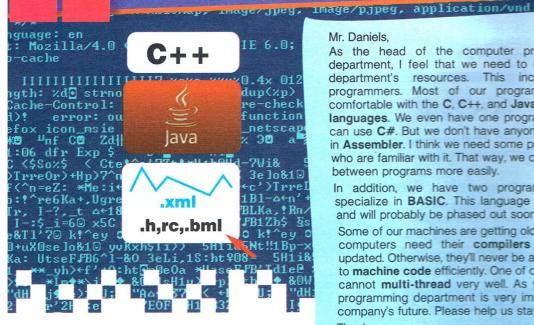
- 1 What is the passage mainly about?
  - A the main function of the CPU
  - B where to install the ClearPic file
  - C how to add or modify computer memory
  - D speeds of RAM attached to the motherboard
- 2 What should people do first when increasing available RAM?
  - A check to see if they need SIMMs or DIMMs
  - B increase the amount of virtual memory
  - C temporarily store their data on a paging file
  - D make sure the CPU runs at a speed of 800 MHz
- 3 What is NOT a way to fix a limited memory
  - A increase the amount of virtual memory
  - B buy a new motherboard for the computer
  - C reduce the number of programs running

### Vocabulary

- Match the words (1-7) with the definition (A-G).
  - 1 \_\_ MHz
- 5 \_\_ virtual memory
- 2 \_\_SIMM
- 6 \_ paging file
- 3 \_ motherboard
- 7 \_ bit
- 4 \_\_ DIMM
- A where data that doesn't fit in the RAM is sto
- B the main circuit board in a computer
- C a unit of measurement that measures the speed of a CPU
- D a data storage method that stores data on hard drive
- E the smallest unit of computer data
- F an memory module that sends up to 32 bits data to a CPU

Fill in the blanks with the correct words and phrases from the word bank.	Speaking
ord BANK	With a partner, act out the roles below based on Task 7. Then, switch roles.
hard drive RAM bit size	USE LANGUAGE SUCH AS:
MB bus speed	How can I help you?
1 The computer has a of 64 bits.	The program keeps freezing.
The computer's CPU has a of 800 MHz.	How can I fix that?
3 Increase the virtual memory to store data on	
the  4 This computer comes with 900	Student A: Your computer program keeps freezing. Talk to Student B about:
of RAM.	the problem
5 Install additional into the	• solutions
motherboard.	increasing virtual memory
⑤ ⋒ Listen and read the troubleshooting	
guide again. What happens when a	Student B: You are a support center employee. Answer Student A's questions.
computer's virtual memory is made bigger?	employee. Answer Student As questions.
Listening	Writing
Listen to a conversation between a customer and an employee of ClearPic. Mark the statements as true (T) or false (F).	Use the conversation from Task 8 to complete the receipt.
1 _ The customer's CPU is too slow to run the	。
program.  2 The employee advises the customer to buy more RAM.	ClearPic
3 Increasing the virtual memory will increase the paging file size.	Support Center Receipt
O History and assumbte the	
	Customer
Conversation	Issue:
Employee: Well, 1 To run	ISSUE:
ClearPic you really want to have at least 500 MB of memory.	Does computer have enough memory? Y / N
Customer: So how can I fix that?	PROPERTY OF THE PROPERTY OF TH
Employee: One easy way is to increase your computer's 2	Advice given: Increase
Customer: What will that do?	How to do this:
Employee: It increases the paging file size. That way, your computer's 3 can store more data.	1
Customer: I see. So 4 do I increase the memory?	2
Employee: 5 on the "My Computer"	
icon. Under "Properties", increase the	Thursday St.

# **Programming languages**



Get ready!

- Before you read the passage, talk about these questions.
  - 1 How does computer programming affect business?
  - 2 Why is computer programming becoming more important?

#### Reading

- Read the letter from the head of a computer programming department to her boss. Then, choose the correct answers.
  - 1 What is the letter mainly about?
    - A purchasing more CPUs
    - B writing better computer programs
    - C learning new computer languages
    - D requesting updated resources
  - 2 Which of these programming languages do the programmers NOT know?
    - A C#
- C BASIC
- **B** Assembler
- D C++
- 3 What can be inferred about BASIC?
  - A It is used in Assembler.
  - B It is used less frequently than C++.
  - C It cannot be used by compilers.
  - D It is the most difficult to learn.

Mr. Daniels,

As the head of the computer programming department, I feel that we need to update the department's resources. This includes our programmers. Most of our programmers are comfortable with the C, C++, and Java computer languages. We even have one programmer who can use C#. But we don't have anyone proficient in Assembler. I think we need some programmers who are familiar with it. That way, we can translate between programs more easily.

In addition, we have two programmers who specialize in BASIC. This language is in decline and will probably be phased out soon.

i; Ct e 0

Some of our machines are getting older, too. A few computers need their compilers and linkers updated. Otherwise, they'll never be able to convert to machine code efficiently. One of our older CPUs cannot multi-thread very well. As you know, the programming department is very important to this company's future. Please help us stay updated.

Thanks. Sarah Jennings

#### Vocabulary

- Write a word that is similar in meaning to the underlined part.
  - 1 He's writing a new language that computers can process.
    - C\_\_\_\_\_r \_\_\_u\_\_\_
  - 2 An object-oriented programming language is used often.
    - \_ \_ V \_
  - 3 I'd use a programming language that translates between programs. \_ss\_\_\_\_\_
  - 4 Many of the first PCs used an early programming language that is not widely used anymore.
    - \_\_S\_C
  - 5 Harold often used a competitor to Java instead of Java. \_\_\_
  - 6 Do you know a programming language that adds capabilities to C? \_\_+
  - 7 Linux® is created with a programming language that programs operating systems. \_
  - 8 The central processing unit is a computer's most important part. \_ P \_
  - 9 A computer part that changes source code into machine code is essential to programming. \_\_\_\_er

# 2 Programming languages

- Check (/) the sentence that uses the underlined parts correctly.
  - 1 \_ A Linkers\_allow programmers to control computers.
    - B CPU was the first programming language.
  - 2 \_\_ A A new <u>Java</u> can make your computer run faster.
    - \_\_ B Machine code makes programming possible.
  - 3 \_ A Added memory allows computers to multithread.
    - B I'm learning <u>compiler</u>, a new programming language.
- ⑤ Listen and read the letter from the head of a computer programming department to her boss. Why will a few of the old computers need their linkers and compilers updated?

#### Listening

- 6 Solution Listen to a conversation between a programmer and her manager. Mark the following statements as true (T) or false (F).
  - 1 \_\_ The manager intends to hire more programmers.
  - 2 \_\_ The woman is going to learn Assembler.
  - 3 The manager denied the request to upgrade the CPUs.
- Solution Listen again and complete the conversation.

Programmer:	Well, without someone who knows Assembler we can't efficiently 1
Manager:	
Programmer:	I'm up for that. But I'm worried that I'll get behind on the 2 programs I'm writing.
Manager:	We can shift some of your workload to other 3, then.
Programmer:	Okay. What do you think about our 4?
Manager:	How pressing would you say those needs are?
Programmer:	If we had some updated CPUs, we could finish our projects in a 5
Manager:	All right. Let me 6 at the budget and see what I can do.

Mr. Daniels.

As the head of the computer programming department, I feel that we need to update the department's resources. This includes our programmers. Most of our programmers are comfortable with the C. C++, and Java computer

ımage/pjpeg, application/vnd.ms

#### Speaking

With a partner, act out the roles below based on Task 7. Then switch roles.

#### **USE LANGUAGE SUCH AS:**

I don't think we can afford more programmers. What do you think about our CPU needs? How pressing would you say those needs are?

Student A: You are talking to a programmer. Ask Student B about:

- · department's needs
- · importance of needs
- possible solutions

Student B: You are a programming employee.

Answer Student A's questions.

#### Writing

Use the conversation from task 8 to write an email to your manager to ask for updated resources. Create names for the employee and his/her manager.

	To:
	From:
	Subject:
	Dear
	Thanks,
He-2	FBLVo:!^re&Il'7G kyles text/css image/yif Co 18 - FBLYo:!^re60u5 @ Dz.reL '*DUJ*DJ*DJ*DJ*DJ*DJ*DJ*DJ*DJ*DJ*DJ*DJ*DJ*DJ
S:F	d-7_w!!Ohre@pBe@pBe(6@t60y\$ &/BHIah>+c')Irref0x }_r>!Bu;o<08=+08=+06')Irref0x!!f.~*b>&Pg:*Nn,hXo\$ u!908= 5H1&5Nt!!BZ:\$,Ukde§m+N >oH;,Oe_e0 +*W
"Due	; We+''d*67h\$ _lb>a+t;SUsR\$InRI < Cta*^c^77tf*# M/ad;h86@E0=/;1Bln:!^reBII'7@ k!^ev Q k!^ev Q k! Pla\$6^;E06@>\$1 >&0fo:!^re60y\$ @ ;*Wi_eHo\$_ ;*Wi_
40	92:hgie. Te:eht)1H0hre_DuBe_DuBe_DuBe_DuB^6_DB5Zd, Ug H10j6Maji4a; Z/t5408=+08=+08=+08= FB85_DEORN80 
	#11#50###1BP=XRa;6L0:## 3eL1;1 #6Zb5 _lb>ec'/1Prefd-***/ #6-/:1B1-(6Ot6Xr50 \$\$Ug-5
	dH10j@Z
	1.X + 2/15X1.X + 114



You'll also have access to WebSurf hotspots. You can find them at selected airports,

restaurants and coffee shops. All you need is a

valid WebSurf account.
We look forward to providing

you with the world's best

Internet service.

Customer Relations, Websurf Internet

Sincerely,

Gina Matson

#### Get ready!

- Before you read the passage, talk about these questions.
  - 1 How do people access the Internet?
  - 2 What type of Internet connection is best for businesses?

#### Reading

- Read the notification from an Internet service provider. Then, choose the correct answers.
  - 1 What is this notice about?
    - A Mindeye's plan to buy WebSurf
    - B what WebSurf offers to new customers
    - C WebSpot offering free wireless routers
    - D troubleshooting Internet access issues
  - 2 Which service does WebSurf NOT offer?
    - A tech support
    - B dial-up Internet
    - C hotspot access
    - D broadband Internet access
  - 3 What can you infer from the notice?
    - A Anyone can use WebSurf hotspots.
    - B More people use T-1 than broadband.
    - C WebSurf expects to retain Mindeye customers.
    - D Mindeye offers its customers more services.

#### Vocabulary

- Match the words (1-5) with the definitions (A-E).
  - 1 \_T-1
- 4 \_ modem
- 2 \_\_ Wi-Fi

6 dial-up

- 5 \_\_ broadband
- 3 \_\_ dial-up
- A an Internet connection using wireless signals
- B an Internet connection using regular phone lines
- C a device that sends information over phone lines
- D lines that allow many users to connect to the Internet
- E a system allowing the transfer of large amounts of data

USE LANGUAGE SUCH AS:  What service do you have?  It allows for greater bandwidth.  You can log into hotspots.  Student A: You are calling customer service. Ask Student A about:  • a bill increase • causes • benefits  Student B: You work in customer service. Answer Student B's questions.
It allows for greater bandwidth. You can log into hotspots.  Student A: You are calling customer service. Ask Student A about:  • a bill increase • causes • benefits  Student B: You work in customer service. Answer Student B's questions.
customer service. Ask Student A about:  a bill increase causes benefits  Student B: You work in customer service. Answer Student B's questions.
Student B's questions.
Writing
Use the conversation from Task 8 to fill in the customer survey.
websurf.
Dear Customer, Thank you for calling WebSurf customer service! In order to help improve the quality of our service, we'd like to ask you a few questions. What was your call concerning?  Was our Customer Rep able to help you with your problem? How?