# 1 Computer memory

(1) motherboard
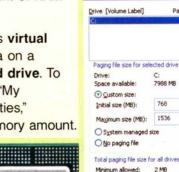
## ClearPic Troubleshooting Guide

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.

(2) RAM

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.

**Virtual Memory**

Drive [Volume Label]          Paging File Size (
C:                                      768 - 153t

Paging file size for selected drive
Drive:                  C:
Space available:    7988 MB
○ Custom size:
Initial size (MB):      768
Maximum size (MB):   1536
○ System managed size
○ No paging file

Total paging file size for all drives
Minimum allowed:       2 MB
Recommended:          766 MB
Currently allocated:   768 MB

                              OK

## Get ready!

① **Before you read the passage, talk about these questions.**

1   How has increased computer memory changed business?

2   When do people need to add more computer memory?

(6) DIMM

## Reading

② **Read the troubleshooting guide. Then, choose the correct answers.**

(5) hard drive

(3) virtual memory

(4) CPU

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 problem?
   **A** increase the amount of virtual memory
   **B** buy a new motherboard for the computer
   **C** reduce the number of programs running
   **D** increase the amount of available RAM

## Vocabulary

③ **Match the words (1-7) with the definitions (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 stored

**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 the hard drive

**E** the smallest unit of computer data

**F** an memory module that sends up to 32 bits of data to a CPU

**G** a memory module that sends up to 64 bits of data to a CPU

**4** **Fill in the blanks with the correct words and phrases from the word bank.**

hard drive    RAM    bit size
MB    bus speed

1   The computer has a _____ of 64 bits.
2   The computer's CPU has a _____ of 800 MHz.
3   Increase the virtual memory to store data on the _____ .
4   This computer comes with 900 _____ of RAM.
5   Install additional _____ into the motherboard.

**5** 🎧 **Listen and read the troubleshooting guide again. What happens when a computer's virtual memory is made bigger?**

## Listening

**6** 🎧 **Listen to a conversation between a customer and an employee of ClearPic. Mark the statements as true (T) or false (F).**

1   __ The customer's CPU is too slow to run the program.
2   __ The employee advises the customer to buy more RAM.
3   __ Increasing the virtual memory will increase the paging file size.

**7** 🎧 **Listen again and complete the conversation.**

| | |
|---|---|
| **Employee:** | Well, **1** ____ ____ ____ . To run ClearPic you really want to have at least 500 MB of memory. |
| **Customer:** | So how can I fix that? |
| **Employee:** | One easy way is to increase your computer's **2** ____ ____ . |
| **Customer:** | What will that do? |
| **Employee:** | It increases the paging file size. That way, your computer's **3** ____ ____ can store more data. |
| **Customer:** | I see. So **4** ____ ____ do I increase the memory? |
| **Employee:** | **5** ____ ____ on the "My Computer" icon. Under "Properties", increase the maximum memory amount **6** ____ ____ ____ half. |

## Speaking

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

**USE LANGUAGE SUCH AS:**

*How can I help you?*
*The program keeps freezing.*
*How can I fix that?*

**Student A:** Your computer program keeps freezing. Talk to Student B about:
● the problem
● solutions
● increasing virtual memory

**Student B:** You are a support center employee. Answer Student A's questions.

## Writing

**9** **Use the conversation from Task 8 to complete the receipt.**

# ClearPic
## Support Center Receipt

- - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Customer
Issue: _____

Does computer have enough memory? Y / N

Advice given: Increase _____

How to do this:

1   _____

2   _____