

Topic 5: System Software

EAL keyword sheet - Cambridge International AS & A Level Computer Science 9618. Write the word in your own language in the last column.

Keyword	Meaning	Example sentence	In my language
system software	Programs that manage and control the computer.	<i>The operating system is system software.</i>	
operating system (OS)	Software that manages hardware, memory, files and users.	<i>The OS manages all running programs.</i>	
utility program	A program that helps maintain the computer.	<i>Antivirus is a utility program.</i>	
library program	A collection of ready-made code that other programs can use.	<i>A maths library can calculate square roots.</i>	
DLL (dynamic link library)	A library file that is loaded only when a program needs it.	<i>Many programs share the same DLL.</i>	
device driver	Software that lets the OS control a hardware device.	<i>Install the printer driver.</i>	
user interface	The way a user interacts with the computer.	<i>A GUI uses windows and icons.</i>	
GUI	Graphical user interface: uses icons, windows and menus.	<i>A GUI is easy for beginners.</i>	
CLI	Command-line interface: the user types commands.	<i>A CLI gives more control to experts.</i>	
memory management	The OS job of sharing RAM between processes.	<i>Memory management avoids programs overwriting each other.</i>	
file management	The OS job of organising, naming and protecting files.	<i>File management includes creating folders.</i>	
security management	The OS job of protecting data using accounts and permissions.	<i>Security management uses passwords.</i>	
hardware management	The OS job of controlling devices and drivers.	<i>The OS manages keyboard input.</i>	
process management	Running and scheduling processes so the CPU is shared.	<i>Process management allows multitasking.</i>	
high-level language	A language close to human language, independent of the hardware.	<i>Python is a high-level language.</i>	

Keyword	Meaning	Example sentence	In my language
low-level language	A language close to machine code that is specific to a processor.	<i>Assembly is a low-level language.</i>	
source code	The program written by a programmer.	<i>The compiler reads the source code.</i>	
object code	The machine code produced by a compiler.	<i>The object code can be run by the CPU.</i>	
compiler	Translates the whole program into machine code before it runs.	<i>A compiler reports all errors at once.</i>	
interpreter	Translates and runs a program one statement at a time.	<i>An interpreter is useful when testing.</i>	
assembler	Translates assembly language into machine code.	<i>The assembler produced the machine code.</i>	
IDE	Integrated development environment: tools for writing and testing code.	<i>An IDE has a debugger and an editor.</i>	
debugger	A tool that helps find errors by stepping through code.	<i>I used the debugger to find the bug.</i>	
breakpoint	A point in a program where the debugger pauses.	<i>Set a breakpoint on line 10.</i>	
single-stepping	Running a program one line at a time.	<i>Single-stepping lets you see variable values.</i>	
syntax error	A mistake in the rules of the language.	<i>A missing bracket is a syntax error.</i>	
logic error	The program runs but gives the wrong result.	<i>Using + instead of - is a logic error.</i>	
run-time error	An error that happens while the program is running.	<i>Dividing by zero is a run-time error.</i>	