

Examrace

Translators, Assemblers, Compilers, Interpreters-Language Processors for Competitive Exams

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Machine Language

- Machine language or machine code is the native language directly understood by the computer's central processing unit or CPU.
- This type of computer language is not easy to understand, as it only uses a binary system, an element of notations containing only a series of numbers consisting of one and zero, to produce commands.

Assembly Level Language

- Assembly Level Language is a set of codes that can run directly on the computer's processor.
- This type of language is most appropriate in writing operating systems and maintaining desktop applications.
- With the assembly level language, it is easier for a programmer to define commands. It is easier to understand and use as compared to machine language.

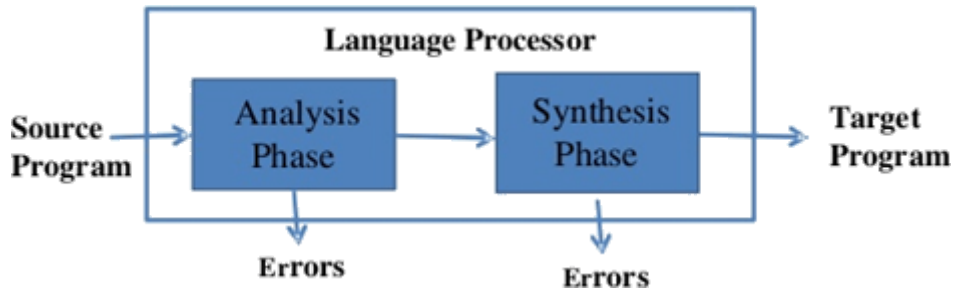
High Level Language

- High Level Languages are user-friendly languages, which are similar to English with vocabulary of words and symbols.
- These are easier to learn and require less time to write.
- Program written in a high-level language can be translated into many machine language and therefore can run on any computer for which there exists an appropriate translator.

A language processor is a software program designed or used to perform tasks, such as processing program code to machine code.

Language processors are found in languages such as FORTRAN and COBOL.

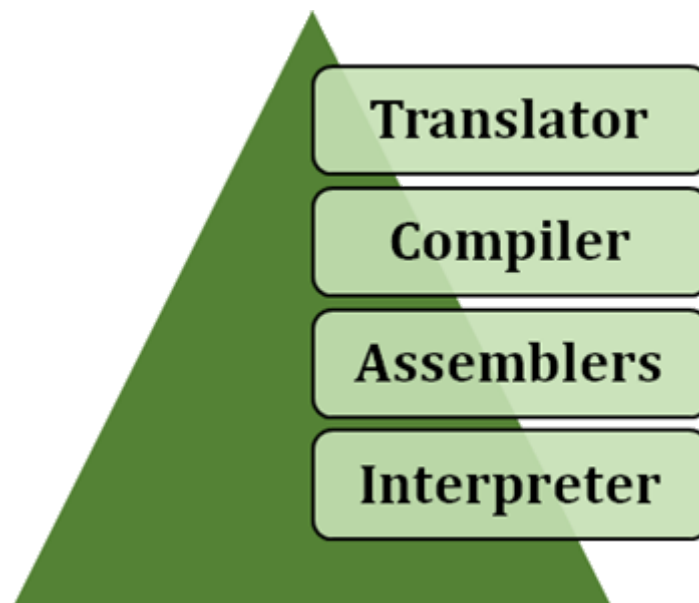
Language processors are programs that can read a program in one language and convert it to an equivalent program in another language



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Language Processors has mainly three purposes:

- Bridge gap between Application Domain and Execution Domain
- Translation from one language to another
- To detect error in source during translation



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Translator - takes a program's code and translates it into machine code, allowing the computer to read and understand what tasks the program needs to be done, in its own native code. An Assembler and a Compiler are examples of a translator.

Compiler: Compilers are used to convert high level languages (like C, C++) into machine code.

Example: gcc, Microsoft Visual Studio

Assemblers: Assembler are used to convert assembly language code into machine code

Interpreter: An interpreter is a computer program which executes a statement directly (at runtime) .

Examples: python, LISP, Ocaml

Developed by: [Mindsprite Solutions](#)