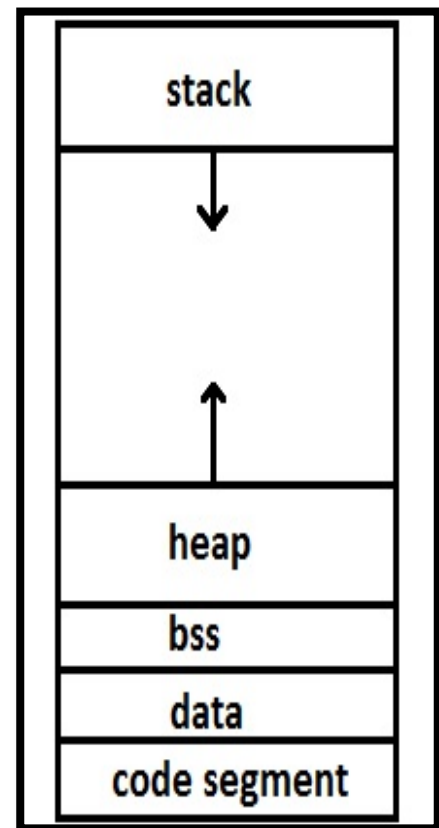
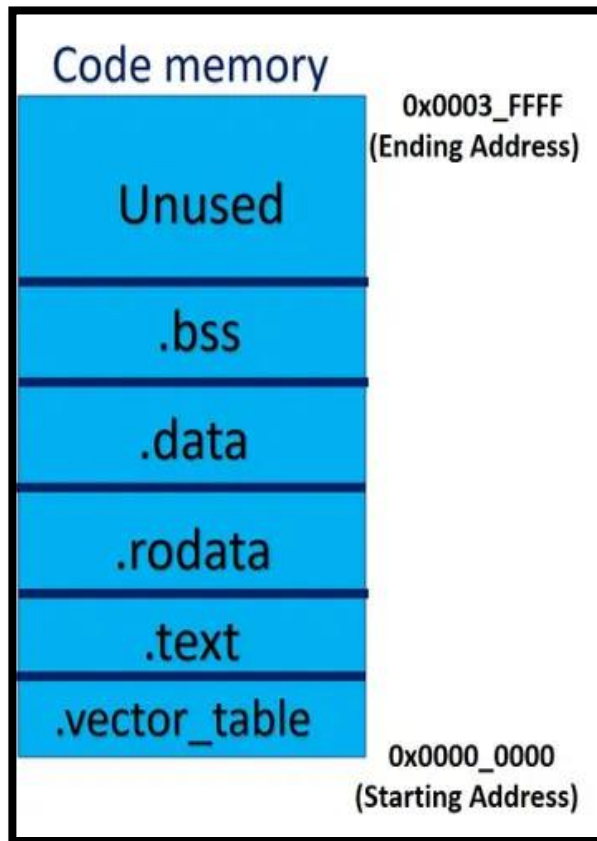


Variables in C



ROM (flash)

RAM

Notes on the following table:

- ALL global variables are initialized by zero or initial value. NEVER garbage.
- ALL local variables are initialized by garbage or initial value. EXCEPT static local variables are initialized by zero.
- Static keyword affects scope in global variables, and affects life-time in local variables.
- You can change values of any variable even "const local". EXCEPT for: "const global", because it is stored in (. rodata) "read only memory".
- "Const local variables" are stored in "stack".

Variable type:	Storage location	Scope	Life-time	Default Value
Global variables:				
Global var (not Init, or by zero)	RAM: (.bss)	Program/SW scope	Program/SW life-time	0
Global variable (Init by non-zero)	ROM: (.data) RAM: (.data)	Program/SW scope	Program/SW life-time	Initialized value
Static global var (not Init, or Init by zero)	RAM: (.bss)	File scope	Program/SW life-time	0
Static global var (Init by non-zero)	ROM: (.data) RAM: (.data)	File scope	Program/SW life-time	Initialized value
Const global var (Initialized or not)	ROM:(.rodata)	Program/SW scope	Program/SW life-time	Initialized value / 0
Local variables:				
Function pass parameter (argument list)	RAM: (stack)	(Function/Block) scope	Function life-time	garbage
Local variable (Init or not)	RAM: (stack)	(Function/Block) scope	(Function/Block) life-time	garbage
Const local var (Initialized or not)	RAM: (stack)	(Function/Block) scope	(Function/Block) life-time	garbage
Static local (Init by zero, or not Init)	RAM: (.bss)	(Function/Block) scope	Program/SW life-time	0
Static local (Init by non-zero)	ROM: (.data) RAM: (.data)	(Function/Block) scope	Program/SW life-time	Initialized value