Arrays on the stack

Stack

Heap

pointer to stack memory

array on the stack

int* Return address

Method params

Stack

Heap

reference

int[] array on the heap, may be moved by the garbage collector

int[] Return address

Method params

Stack

Heap

fixed block of memory, ignored by the garbage collector

pointer

int*

Return address

Method params

Arrays on the stack

Don't use stack-based arrays to improve performance!

- Unreliable benefits, sometimes slower than native arrays Limited stack space available for data
- Results in unsafe code

Only use for interfacing with unmanaged code.