Fast collections

Collections in .NET
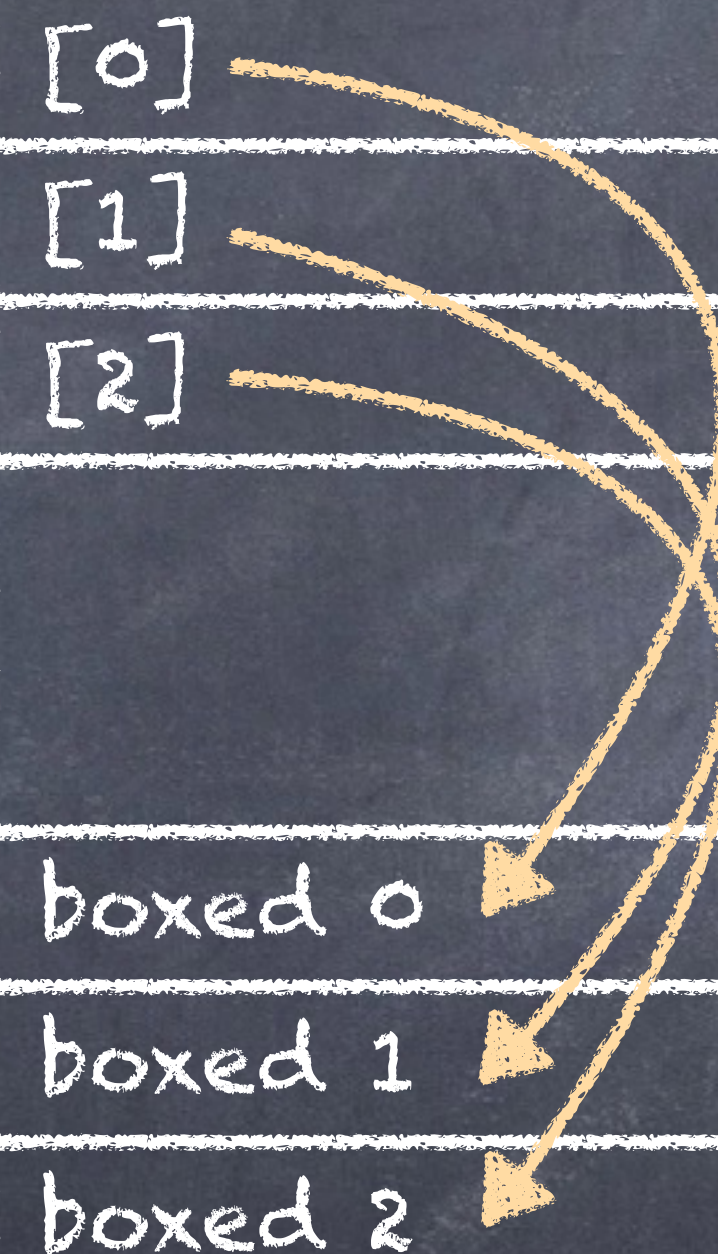
- Collection classes in System.Collections
- Generic collections in System.Collections.Generic
- Typed arrays

Stack

Heap

| list |
| Return address |
| MeasureA
<no params> |

ArrayList

[0]

[1]

[2]

boxed 0

boxed 1

boxed 2

Stack

Heap

List<int>

[0] : 0

[1] : 1

[2] : 2

list

Return address

MeasureB

Main takeaway

- Always use the generic collection classes from the System.Collections.Generic namespace in mission critical code
- Avoid the classes in the System.Collection namespace in mission critical code.

Fast collections

- If you have mission critical code, and the number of elements is known in advance, use an array.
- If you have mission critical code, and the number of elements is not known in advance, use a generic list

- Avoid the classes in System.Collections