

Fix size buffer

Fixed size buffers are used to declare **C style** in-line arrays as members of structs. Fixed size buffers are primarily useful for interfacing with unmanaged APIs. Fixed size buffers are an unsafe feature, and fixed size buffers can only be declared in unsafe contexts.

A fixed size buffer is a member that represents storage for a fixed length buffer of variables of a given type. A fixed size buffer declaration introduces one or more fixed size buffers of a given element type. Fixed size buffers are only permitted in struct declarations and can only occur in unsafe contexts.

A fixed size buffer declaration that declares multiple fixed size buffers is equivalent to multiple declarations of a single fixed sized buffer declaration with the same attributes, and element types.



This code:

```
unsafe struct A
{
    public fixed int x[5], y[10], z[100];
}
```

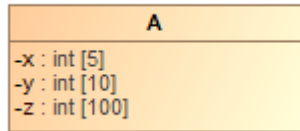
is equivalent to

```
unsafe struct A
{
    public fixed int x[5];

    public fixed int y[10];

    public fixed int z[100];
}
```

Reversed UML model:



Attribute x Element Properties:

Properties	
Element Language properties Tags Traceability	
Property	
Name	x
Is ID	<input type="checkbox"/> false
Qualified Name	A::x
Type	int [UML Standard Profile::MagicDraw Pro.]
Type Modifier	
Visibility	private
Default Value	
Owner	A
Applied Stereotype	«» C#Attribute [Property] [C# Profile]
Multiplicity	5
Is Read Only	<input type="checkbox"/> false
Is Static	<input type="checkbox"/> false
Aggregation	none
Is Derived	<input type="checkbox"/> false
Is Ordered	<input type="checkbox"/> false
Is Unique	<input checked="" type="checkbox"/> true
Subsetted Property	
Redefined Property	

To declare fix size buffer, you need in **C# Language Properties** set Property **Fixed** value to **true**:

