

# MATLAB Mapping for Structures



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## Basic MATLAB Mapping for Structures

A Slice [structure](#) maps to a MATLAB value class containing a public property for each member of the structure. For example, here is our [Employee](#) structure once more:

### Slice

```
struct Employee
{
    long number;
    string firstName;
    string lastName;
}
```

The MATLAB mapping generates the following definition for this structure:

### MATLAB

```
classdef Employee
    properties
        number int64
        firstName char
        lastName char
    end
    methods
        function obj = Employee(number, firstName, lastName)
            ...
        end
    end
    ...
end
```

The class provides a constructor whose optional arguments correspond to the data members. This allows you to instantiate and initialize the class in a single statement (instead of having to first instantiate the class and then assign to its members). You must either call the constructor with no arguments or with arguments for all of the data members.

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## Default Property Values

Calling the generated constructor with no arguments assigns a default value appropriate for each member's type:

Data Member Type	Default Value
string	Empty string
enum	First enumerator in enumeration
struct	Default-constructed value
Numeric	Zero
bool	false

sequence	Empty array
dictionary	Instance of the mapped type
class	Empty array

You can also declare different [default values](#) for members of primitive and enumerated types.

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See Also

- [Structures](#)

