

IFunction

Introduced in build 9.1

Description

The IFunction interface is used to implement custom Excel functions in .NET to be passed in to ExcelWriter Application. You can register your custom logic to a specific Excel Function by using the [Workbook.RegisterCustomFunction](#) method.

C#

```
public interface IFunction
{
    FunctionValue Calculate(IList<FunctionValue> args, Cell currentCell);
}
```

vb.net

```
Public Interface IFunction
    Function Calculate(args As IList(Of FunctionValue), currentCell As Cell) As
FunctionValue
End Interface
```

Examples

C#

```
class Concat : IFunction
{
    //Your custom function should be called Calculate and have the same signature as the
    sample function below
    public FunctionValue Calculate(ICollection<FunctionValue> args, Cell currentCell)
    {
        //Implement the custom logic you want to calculate your custom/overridden Excel
        function
        StringBuilder result = new StringBuilder("");
        foreach (FunctionValue arg in args)
        {
            result.Append(',');
            switch (arg.Type)
            {
                case FunctionValueType.BOOLEAN:
                    result.Append((bool)arg.Value ? "True" : "False");
                    break;
                case FunctionValueType.STRING:
                    result.Append(arg.Value);
                    break;
                case FunctionValueType.NUMBER:
                    result.Append(((double)arg.Value).ToString("0.#####"));
                    break;
                case FunctionValueType.NULL:
                    result.Append(' ');
                    break;
                case FunctionValueType.RANGE:
                    result.Append(arg.Value.ToString());
                    break;
            }
        }

        //Must return a FunctionValue object
        return new FunctionValue(result.ToString());
    }
}
```

vb.net

```
Class Concat
    Implements IFunction

    //Your custom function should be called Calculate and have the same signature as the
    sample function below
    Public Function Calculate(args As IList(Of FunctionValue), currentCell As Cell) As
    FunctionValue
        //Implement the custom logic you want to calculate your custom/overridden
    Excel function
        Dim result As New StringBuilder("")
    For Each arg As FunctionValue In args
        result.Append(",")

        Select Case arg.Type
            Case FunctionValueType.[BOOLEAN]
                result.Append(If(CBool(arg.Value), "True", "False"))
            Exit Select
            Case FunctionValueType.[STRING]
                result.Append(arg.Value)
            Exit Select
            Case FunctionValueType.NUMBER
                result.Append(CDbl(arg.Value).ToString("0.#####"))
            Exit Select
            Case FunctionValueType.NULL
                result.Append(" ")
            Exit Select
            Case FunctionValueType.RANGE
                result.Append(arg.Value.ToString())
            Exit Select
        End Select
    Next

    //Must return a FunctionValue object
    Return New FunctionValue(result.ToString())
End Function
End Class
```

Methods

Name	Description
Calculate(IList<FunctionValue>,Cell)	Calculates a custom function returning a FunctionValue given a list of FunctionValue arguments and the function's current Cell for context.