# ITWorks xaml and C#.NET Coding Standards

The following ITWorks standards must be followed when writing C#.NET code. These standards will ensure that we are developing maintainable, understandable and efficient code in a consistent fashion across developers.

The standards to be used are built on the Microsoft C# Coding Conventions, refer to these here:

<https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/inside-a-program/coding-conventions>

The following contains some emphasised aspects from each section of the Coding conventions and ITWorks specific additions. For more information and examples re the aspects from Microsoft refer to the Microsoft documentation.

# Naming Conventions

## ITWorks Additions

* Variable names – lowerCamelCase

xaml use lowerCamelCase incorportating the control name at the end   
eg nameTextBox

* Constants – CONSTANT\_CASE - all uppercase letters, with each word separated from the next by a single underscore

Also refer to <https://docs.microsoft.com/en-us/dotnet/standard/design-guidelines/capitalization-conventions>

# Layout Conventions

## Emphasised Aspects

* Use the default Code Editor settings (smart indenting, four-character indents, tabs saved as spaces).
* Write only one statement per line

## ITWorks Additions

* None

# Commenting Conventions

## Emphasised Aspects

* Use // for single line comments
* Place the comment on a separate line, not at the end of a line of code.
* xaml use standard <!-- …--> commenting

## ITWorks Additions

* Use block commenting /\* \*/ for several lines of commenting

# XML documentation tool for comments

* At the top of a method type /// in C#
* In the <summary> enter a brief description of the method
* In the <return> add a comment to explain what is being returned

Refer to [XML documentation comments - document APIs using /// comments | Microsoft Docs](https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/xmldoc/)

# Language Guidelines

## ITWorks Additions

* None

# xaml Language Guidelines

* ITWorks recommends the use of StackPanels for layout.
* Each TextBlock/TextBox pair should be in a horizontal StackPanel
* Margins should only be used for adding spacing around controls, recommended use of Margin = “10”

# Testing Guidelines

* Use the ITWorks MAP document to create test data and calculate the results.
* Use the test data to run code to check results are correct.