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| PS2Win |
| Coding Standards |
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| Rui Ganhoto  07-04-2013 |

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Table 1: List of Contribuitors

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Revision History** | | | | | |
| **Date** | **Description** | **Author** | **Version** | **Approvers** | **State** |
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|  |  |  |  |  |  |

Table 2: Version history

# 1. Classes

Classes should have the first character of all words is upper case and the others are lower case. Classes must be complete names without abbreviations.

A Class name must start with a Letter and only contains Letters and Numbers, any other chars will not be allowed and will give origin to a technical unconformity.

Classes will have a XML Comment with the summary of the class and this XML should have the identification of the class creator.

**Example:**

/// <summary>

///Contains Message Methods and Events

/// </summary>

///<remarks>CREATED BY Rui Ganhoto</remarks>

Public class Messages { }

# 2. Variable Names

Variables should have the first character of all words in upper case and the others in lower case. With exception of the prefix that should be written all in lower case.

A Variable name must start with a prefix identifying its type, see notation in Table 3, followed by letters and numbers only exceptionally underscore (“\_”) can be used.

Variables should be initialized with mentioned default values, if otherwise, the value must be well documented (follow comments section).

|  |  |  |
| --- | --- | --- |
| Type | Prefix | Initialization Values |
| Int | int | 0 |
| Bool | bln | False |
| String | str | “” |
| Float | flt | 0 |
| Char | chr | ‘’ |
| Double | dbl | 0 |
|  |  |  |

Table 3: Variable prefix and Initialization Values

**Example:**

bool blnCanDoSomething = false;

private intSecondsCounter = 0;

# 3. Public Properties

Properties should have the first character of all words in upper case and the others in lower case. Properties must have complete names without abbreviations.

**Example:**

public int NumberOfTasks {get;set;}

# 4. Methods

Method Names should have the first character of all words in upper case and the others in lower case. Methods must have complete names without abbreviations.

Methods must not contain any special Characters, only letters and numbers are allowed.

Methods should be simple and small doing only a simple task. If needed, a method should have comments to divide it by sections.

Every method must have a XML header with a small description of the method and arguments, GhostDoc will be used to help creating XML headers.

Method creator must be identified in the XML header using “remarks” node.

**Example:**

/// <summary>

///Sends a Message

/// </summary>

///<remarks>CREATED BY Rui Ganhoto</remarks>

void SendMessage() { }

# 5. Arguments

Arguments should have the first character of all words in upper case and the others in lower case. Arguments must have complete names without abbreviations.

Every method must have XML header with a small description of the method and arguments, GhostDoc will be used to help creating XML headers.

**Example:**

/// <summary>

///Sends a Message

/// </summary>

/// <param name=" Message">Message to be sent</param>

///<remarks>CREATED BY Rui Ganhoto</remarks>

void SendMessage(string Message) { }

# 6. Components

Components should have the first character of all words in upper case and the others in lower case, except for the first word that is all in lower case.

Components should begin by identifying its type using the prefix on the Table 4.

|  |  |
| --- | --- |
| Component | Prefix |
| Textbox | Txt |
| Label | Lbl |
| Image | img |
| CheckBox | chk |
| Spin | spn |
| Panel | pnl |
| SplitContainer | spc |
| Button | btn |
| GroupBox | grp |
|  |  |
|  |  |

Table 4: Component Naming Prefix

**Example:**

chkShowResults

# 7. Enumerations

Enumerations must be used like Classes (for enumeration type) and Properties (for values).

The first value of the enumeration, at least, must be set as a constant. This will reduce errors.

Enumerations must identify who is the creator using remarks tag.

**Example:**

/// <summary>

/// Enumeration for Short Week Day Name

/// </summary>

///<remarks>CREATED BY Rui Ganhoto</remarks>

enum Days {Sat=0, Sun, Mon, Tue, Wed, Thu, Fri};

# 8. Exception Handling

Exception handling is mandatory on every method.

Exception messages should be readable and friendly to the user and a complete exception report should be provided so the user can send the exception to the system provider.

A log file should be recorded with any exceptions.

To handle exceptions a class will be created to easily manage exceptions and current method status.

The class will contain:

* Exception Message
* Status {Success; Cancel; Exception; …}
* Stack Trace
* Query
* Affected Lines (used for SQL queries)
* (Any other needed values)

If there is any method that returns a status that differs from Success a dialog or any other type of message will be shown to the user to inform about the error found.

# 9. Comments

A simple code will require very few comments.

Comments will be mandatory in the following cases:

1. XML comment on Classes and Methods
2. If any complex or weird logic is needed (What? Or Why?)
   * Ex.: //this section is converting seconds to hours, minutes and seconds (Answering to “What this section does?” or “Why am I writing this section?”)
3. If any initialization differs from the default initialization values (Why?)
   * Ex.: int intHourCountdownInSeconds = 3600; //There are 3600 seconds in one hour (Answering to “why am I using this initialization?”)
4. If any weird variable name is declared or not understandable at first sight (What?)
   * Ex.: object aux; //Auxiliary value for multiple visual objects (Answering to “What is this variable?”)
5. If there is any change on the other person’s code identifying who made the change, when and what was wrong or what was improved.
   * Ex.: //Rui Ganhoto 2013/04/20– This method was throwing an unexpected exception.