



# Open2Test Test Automation Framework for OpenScript – Coding Standards for Developers

Version 1.0

January 2010

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## 1. Purpose of the Document

The purpose of this document is to describe standards to be followed when designing and developing framework code. This document will help ensure consistency across the code, resulting in increased usability and maintainability of the developed code.

### 1.1. Scope

The scope of this document is to provide standards for designing and developing Open2Test Test Automation Framework code for various tools and technologies.

### 1.2. Overview

This document provides guidelines for:

- Naming standards
- Functions and procedures
- Comment standards
- General guidelines

## 2. Naming Standards

### 2.1. Naming Standards for Variables

Data Type	Prefix	Length	Example
Boolean	bln	Up to 20 characters	blnFlag
Integer	int	Up to 20 characters	intCount
Long	lng	Up to 20 characters	lngRowNumber
Double	dbl	Up to 20 characters	dblWeight
Object	obj	Up to 20 characters	objCurrent
Single	sng	Up to 20 characters	sngPosition
String	str	Up to 20 characters	strCurPage
Array	arr	Up to 20 characters	arrCellData
Variant	vnt	Up to 20 characters	vntPropValue
User-Defined Type	udt	Up to 20 characters	udtTransaction

Scope	Prefix	Length	Example
Global	g	Up to 20 characters	gStrAppPath
Module-Level	m	Up to 20 characters	mintRowCount
Static	s	Up to 20 characters	svntFlag
Variable Passed by Reference	r	Up to 20 characters	rintValue
Variables Passed by Values	v	Up to 20 characters	vintValue
Local to the Function	None	Up to 20 characters	strCurPage

### 2.2. Naming Standards for Constants

- The constant names should be initial-capped with underscores between words as shown in the following example.

**Example:** `gstrApplication_Path`

### 3. Function/Procedure

#### 3.1. Function Name

The function name should start with 'Func\_' followed by the name of the function.

When arguments are passed to the function, the variable naming standards should indicate whether it is passed by value or passed by reference.

**Example:** Func\_GetValue (strCurObject, intValue)

#### 3.2. Function Header

The function or procedure header should contain the following:

- Name of the function
- Description of the function/procedure
- List of input parameters with their description
- Return value of the function with its description (Not applicable for procedures)

**Example:**

```
*****  
  
'Function Name      : Func_StrSearch  
'Description       : This function is used to search for a sub string  
in the main string.  
'Input parameters :  strMainString - Main string that should be  
searched'  
  
strSubString - Sub string that should be searched for 'Return Value:  
True - sub string present in the main string'  
False - sub string not present in the main string  
  
@Throws - Exception  
  
*****
```

#### 3.3. Function Complexity

For reduced complexity and enhanced maintainability, framework code should be designed and developed with minimal possible loops and conditions.

#### 3.4. Function Structure

The following tips provide guidance for creating easy-to-read and easy-to-maintain code.

- Modularize the code for increased reusability and reduced redundancy.

- Code should be well-indented with tabs. (Tab width should be 4.)
- Values passed and returned to the functions should use simple variables.
- Reduce the use of global variables within the function. The scope of the variable should be decided based on the standards.

## 4. Comment Standards

### 4.1. Framework Code Header Comments

The framework code header should contain the following:

- The copyright and proprietary information
- Name of the framework code
- Date of creation
- Version number

Every change to the framework code should be documented in the modification history. A modification history should contain the following:

- Name of the person who changed the code
- Date of change
- Version
- Changed function/event
- Change description

**Example:**

```
'Project Name   : Web Framework
'Author        : VVKumar
'Version       : V1.0
'Date of Creation   : 16th July 2009
'#####
'#####
'Modified By
'Reviewed By
'#####
```

### 4.2. Line Comments

Significant lines in the code should be provided with inline comments to better explain the line of code's purpose and make it easier for subsequent developers to understand the code faster and more thoroughly.

**Example:**

```
//If the node is not specified - control should return to calling
function.
    If (objNode == null){
        Return 1;
    }
```

End If



## 5. General Guidelines

- Declare only one variable in a line.
- There should not be more than 80 characters per line.
- The code should be properly indented.
- Declare variables using appropriate data types.
- Comment the codes properly for better understanding.

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