

# HP OpenView Connect-It

Software version: 3.70

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## Programmer's Reference

Build number: 311



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# I Introduction



# 1 Programming fundamentals

This chapter presents the fundamentals of programming using the Basic language available in Connect-It. If you already experience in programming and have used other languages, most of the information presented in this chapter will be familiar to you. However, we do recommend reading through this chapter because certain classic functions have been voluntarily left out of or limited in the implementation of Basic in Connect-It.

---

## Introduction to variables

Variables are used to store data during the execution of a program. They are identified by:

- Their name, used to reference the value contained by the variable.
- Their type, which determines which data can be stored in the variable.

In general, a distinction is made between two types of variables:

- Arrays,
- Scalar variables, which include all variables that are not arrays.

## Declaring a variable

Variables must be explicitly declared before being used. The syntax of the declaration is as follows:

```
Dim <Name of the variable> [As <Type of the variable>]
```

 **Note:**

The explicit declaration of variables in Connect-It Basic is the same as using the *Option Explicit* keyword in Microsoft Visual Basic.

Variable names must meet the following constraints:

- Start with an uppercase or lowercase letter,
- Must have no more than 40 characters,
- Can contain the letters A to Z and a to z, the numbers 0 to 9, and the underscore character ("\_").

 **Note:**

Accented characters are authorized but are advised against.

- Reserved keywords may not be used. For example, names of Basic functions and clauses are reserved keywords.

The optional *As* clause enables you to define the type of the defined variable. The type specifies the type of information stored in the variable. The available data types include: *String*, *Integer*, *Variant*, ...

If the *As* clause is omitted, the variable is considered as a *Variant* type.

### Single declaration

In the case of a single declaration, each declaration statement concerns a single variable, as shown in the following example:

```
Dim I As Integer
Dim strName As String
Dim dNumber As Double
```

### Combined declaration

In the case of a combined declaration, each declaration statement may concern any number of variables, as shown in the following example:

```
Dim I As Integer, strName As String, dNumber As Double
Dim A, B, C As Integer
```

 **Note:**

As already described, when the type of the variable is not specified, by default it is considered as a *Variant*. Thus, in the second line of the above example, the type of the variables *A* and *B* is *Variant* and *C* is an *Integer*.

## Data types

The following table summarizes the various types available for a function or a parameter:

Type	Description
Integer	Integer from -32,768 to +32,767.
Long	Integer from -2,147,483,647 to +2,147,483,646.
Single	4-byte floating-point number (single precision).
Double	8-byte floating-point number (double precision).
String	Text in which all characters are allowed.
Date	Date or Date+Time.
Variant	Generic type that can represent any type.

### Numerical types

The Basic language available in Connect-It offers several numerical types: Integer, Long, Single and Double. Numerical data types usually use less memory than a *Variant*.

If you are sure a variable will systematically store integers (such as 123) and not fractions (such as 3.14), it is better to declare it as an *Integer* or a *Long*. Operations performed on these data types are faster and required less memory than other data types. These data types are particularly well suited to counters used in loops.

If a variable must contain a fractional number, declare it as a *Single* or *Double*.



#### Note:

Floating point numbers (*Single* or *Double*) can be subject to rounding errors.

### The String type

If you are sure a variable will only store a character string, declare it as *String*:

```
Dim MyString As String
```

You will then be able to store character strings in this variable and manipulate its contents using the dedicated character string processing functions:

```
MyString = "This is a string"  
MyString = Right(MyString, 6)
```

By default, a *String* type variable is of variable size. The allotted size used to store character strings changes according to the size of the data assigned to the variable. However, it is possible to declare a *String* type variable using the following syntax:

```
Dim <Name of the variable> As String * <Size of the stored string>
```

The following example declares a variable containing 20 characters:

```
Dim MyString As String * 20
```

If you use this variable to store a string of less than 20 characters, spaces will be added to the end of the string as padding up until the intended size. On the other hand, if you store a string over 20 characters, the string will be truncated from the 21st character.

## The Variant type

The *Variant* type is a generic type that can substitute for all other types. You do not need to worry about conversion issues between the different data types and *Variant*. Conversion is performed automatically, as shown in the following example:

```
Dim MyVariant As Variant
MyVariant = "123"
MyVariant = MyVariant - 23
MyVariant = "Top " & MyVariant
```

Even though conversion is automatic, make sure you follow the following rules:

- If you perform arithmetic operations on a *Variant*, it must contain a number, even if it is represented by a character string.
- If a concatenation operation involves a *Variant*, use the `&` operator rather than the `+` operator.

A *Variant* can also contain two special values: The empty value and the *Null* value.

## The empty value

Before a value is assigned for the first time to a *Variant*, it contains the empty value. This value is a particular value and is not the same as 0, an empty string or the *Null* value. To test whether a *Variant* contains the empty value, use the Basic function **IsEmpty()**, as shown in the following example:

```
Dim MyFirstVariant As Variant
Dim MySecondVariant As Variant
If IsEmpty(MyFirstVariant) Then MyFirstVariant = 0
MySecondVariant = 0
If IsEmpty(MySecondVariant) Then MySecondVariant = 123
```

A *Variant* containing the empty value can be used in expressions. Depending on the situation, it will be processed as the value 0 or an empty string. To reassign the empty value to a *Variant*, use the keyword *Empty*, as shown in the following example:

```
Dim MyVariant As Variant
MyVariant = 123
MyVariant = Empty
```

## The Null value

The *Null* value is often used in databases to specify missing or unknown values. This value has special qualities:

- Expression that include the *Null* value always return the *Null* value. The *Null* value is said to be propagated in the expressions. If part of the expression is *Null*, then all of the expression is *Null*.
- As a general rule, if a function parameter is set to *Null*, the function returns the *Null* value.

## Data arrays

An array enables you to store and reference a set of variables under a single name and use a number (an index) to uniquely identify them. All array items must have the same data type. You cannot create an array containing both *String* and *Double* values. The *Variant* type can be used to work around this limitation.

### Declaring an array

An array is a set of variables.

By convention, the following notions are presented as follows:

- Lower limit of the array: Index of the first item.

 Note:

By default, the lower limit of an array is 0.

- Upper limit of the array: Index of the last item.

 Note:

The upper limit of an array may not exceed the size of a *Long* (2 147 483 646 items).

Declaring an array is similar to declaring a variable:

```
Dim <Name of the array>(<Upper limit of the array>) [As <Data type of the variables contained in the array>]
```

Examples:

```
Dim MyFirstArray(30) As String ' 31 elements  
Dim MySecondArray(9) As Double ' 10 elements
```

You can also specify the lower limit of the array by using the following declaration:

```
Dim <Name of the array>(<Lower limit of the array> To <Upper limit of the array>) [As <Data type of the variables contained in the array>]
```

Examples:

```
Dim MyFirstArray(1 To 30) As String ' 30 elements  
Dim MySecondArray(5 To 9) As Double ' 5 elements
```

### Limitations

The following limitations apply to arrays in Connect-It Basic:

- Variable size arrays are not supported. In particular, it is not possible to resize an array on the fly.
- Multi-dimensional arrays are not supported.

---

## Control structures

As their name suggests, control structures make it possible to control the execution of a program. There are two sorts of control structures:

- Decision structures: redirect and guide a program as a result of certain conditions,
- Loop structures: make it possible to repeat program sections depending on certain conditions.

### Decision structures

A decision structure conditionally executes instructions depending on the results of a test. The following decision structures are available:

- **If...Then**
- **If...Then...Else...End If**
- **Select Case**

#### If...Then

Use this structure to conditionally execute one or more instructions. The syntax of this structure allows for single line and multiple line statements. Single line statements may only execute one single instruction:

```
If <Condition> Then <Instruction>
```

```
If <Condition> Then  
<Instructions>  
End If
```



The condition is generally a comparison, however any expression that results in a numerical value can be used. This value is interpreted as **True** or **False** by the Basic code. **False** corresponds to 0; All other values are considered **True**. If the condition is evaluated as **True**, the instruction or instructions following the keyword **Then** will be executed.

### If...Then...Else...End If

Use this structure to define multiple conditional instruction blocks. Only the first of these blocks evaluated as **True** will be executed.

```
If <Condition1> Then
<Instructions1>
ElseIf <Condition2> Then
<Instructions2>
...
Else
<InstructionsN>
End If
```

The first condition is tested, if the result is evaluated as **False**, the second condition is tested and so on until one of them is evaluated as **True**. The instruction set after the keyword **Then** is executed.

The keyword **Else** is optional. It makes it possible to define an instruction set to be executed if all the conditions are evaluated as **False**.

#### Note:

You can nest as many **Elseif** instructions as you like in the decision structure. However, if you systematically compare the same expression with a different value, the syntax of the decision structure can become unnecessarily complex and difficult to read. In this case, we advise you to use a **Select...Case** type decision structure.

### Select...Case

This structure serves the same purpose as the previous decision structures, but in general, the resulting code is more readable. A **Select...Case** function performs a single test at the start of the structure and compares the test result with the values given by each **Case** in the structure. If there is a match, the instruction set associated with the **Case** is executed.

```
Select Case <Test>
[Case <List of values 1>
<Instructions1>]
[Case <List of values 2>
<Instructions2>]
...
[Case Else
```

```
<Instructionsn>]
End Select
```

Each list of values contains a list of values separated by commas. If several **Case** keywords have values matching the test results, only the instruction set associated with the first matching **Case** will be executed.

The instruction set associated with the **Case Else** keyword is executed if no match is found for the **Case** keywords.

## Loop structures

A loop structure enables you to repeat the execution of a series of instructions. The following loop structures are available:

- **Do...Loop**
- **For...Next**

### Do...Loop

Use this structure to execute a series of instructions an undefined number of times. The loop is exited when a condition is met or is not met. This condition is a value or an expression that is evaluated as **False** (0) or **True** (not 0).

#### Note:

It is possible to exit the loop by force by using the **Exit Do** keyword in the executed instructions.

There are several variations on this structure, but the most common one is the following:

```
Do While <Condition>
<Instructions>
Loop
```

In this case, the condition is evaluated first. If it is **True**, the instructions are executed and the program returns to the **Do While** keyword, test the condition again and so on. The loop is exited when the condition is evaluated as **False**.

The following example tests the value of a counter, incremented at each iteration of the loop. The loop is executed when the counter reaches 20.

```
Dim iCounter As Integer
iCounter = 0
Do While iCounter < 20
iCounter = iCounter +1
Loop
```

The following example is based on the previous one but exits the loop by force using the **Exit Do** keyword if the counter contains the value 10.

```
Dim iCounter As Integer
iCounter = 0
Do While iCounter < 20
iCounter = iCounter +1
If iCounter = 10 Then Exit Do
Loop
```

In this type of **Do...Loop** structure, the condition is evaluated before executing the instructions. If you wish to execute the instruction and then test the condition, use the following **Do...Loop** structure:

```
Do
<Instructions>
Loop While <Condition>
```

#### Note:

This type of structure guarantees that at least one of the instructions will be executed.

The two previous **Do...Loop** structures iterate for as long as the condition is **True**. If you wish to iterate while the condition is **False**, use one of the following structures:

```
Do Until <Condition>
<Instructions>
Loop

Do
<Instructions>
Loop Until <Condition>
```

Using this structure type, the previous example can be written:

```
Dim iCounter As Integer
iCounter = 0
Do Until iCounter = 20
iCounter = iCounter +1
Loop
```

## For...Next

Use this structure to execute a series of instructions an undefined number of times. Unlike **Do...Loop**, a **For...Next** loop uses a variable called a counter whose value is incremented or decremented at each iteration.

#### Note:

It is possible to exit the loop by force by using the **Exit For** keyword in the executed instructions.

```
For <Counter> = <Initial value> To <Final value> [Step <Increment>]  
<Instructions>  
Next [<Counter>]
```

 **Important:**

The arguments **Counter**, **Initial value**, **Final value** and **Increment** are all represented by numerical values.

 **Note:**

**Increment** may be a positive or negative value. If it is positive, the **Initial value** must be less than or equal to the **Final value** in order for the instructions to be executed. If it is negative, the **Initial value** must be greater than or equal to the **Final value** in order for the instructions to be executed. If the **Increment** is not specified, by default it is set to 1.

When a **For...Next** loop is executed, the following operations are performed:

- 1 The counter initializes and stores the initial value,
- 2 The Basic codes tests whether the value of the counter is greater than the final value. If this is the case, the program exits the loop.

 **Note:**

If the increment is negative, the Basic test whether the value of the counter is less than the final value.

- 3 The instructions are executed,
- 4 The counter incremented by 1 or the specified value,
- 5 Operations 2 through 4 are repeated.

The following operation sums all even number up to 1000:

```
Dim iCounter As Integer, lSum As Long  
For iCounter = 0 To 1000 Step 2  
lSum = lSum + iCounter  
Next
```

The following example is based on the previous one but exits the loop by force using the **Exit For** keyword if the counter contains the value 500.

```
Dim iCounter As Integer, lSum As Long  
For iCounter = 0 To 1000 Step 2  
lSum = lSum + iCounter  
If iCounter = 500 Then Exit For  
Next
```

---

## Operators

Operators are symbols that enable you to perform simple operations (addition, multiplication, etc.) on variables or compare them. There are several different types of operators:

- Assignment operators,
- Arithmetic operators,
- Relational operators (also called assignment operators),
- Logical operators.

### Assignment operators

This type of operator enables you to assign a value to a variable. Connect-It Basic uses one single assignment operator, the "=" sign. The assignment syntax is as follows:

```
<Variable> = <Value>
```

### Arithmetic operators

Arithmetic operators enable you to modify the value of a variable arithmetically, or to perform simple arithmetic operations between two expressions.

#### The + operator

This operator enables you to sum two values. The syntax is as follows:

```
<Result> = <Expression 1> + <Expression 2>
```

 **Note:**

This operator is used both to sum two numbers and to concatenate strings. To avoid any ambiguity, we recommend you use this operator just for sum operations and to use the & operator to concatenate strings.

#### The - operator

This operator enables you to differentiate between two values or to negatively sign (monadic operator) a value. The operator has two syntaxes:

```
<Result> = <Expression 1> - <Expression 2>
```

or

```
- <Expression>
```

## The \* operator

This operator enables you to multiply two values. The syntax is the following:

```
<Result> = <Expression 1> * <Expression 2>
```

## The / operator

This operator enables you to perform a division between two values. The syntax is as follows:

```
<Result> = <Expression 1> / <Expression 2>
```

## The ^ operator

This operator enables you to raise a value to the power of an exponent. The syntax is as follows:

```
<Result> = <Expression 1> ^ <Expression 2>
```

### Note:

In this syntax, expression 1 cannot be negative if expression 2 (the exponent) is an integer. When an expression performs several exponential operations in a series, they are interpreted logically from left to right.

## The Mod operator

This operator calculates the remainder of the eucliden division of two values. The syntax is as follows:

```
<Result> = <Expression 1> Mod <Expression 2>
```

### Note:

Floating-point numbers are automatically rounded to integers.

The following example returns 4 (6.8 is rounded to the nearest integer, 7):

```
Dim iValue As Integer  
iValue = 25 Mod 6.8
```

## Relational operators

Relational operators enable you to compare two values. The following table summarizes the relational operators:

Operator	Denomination	Description	Syntax
=	Equality operator	Compares two values and verifies their equality	<Expression 1> = <Expression 2>
<	Less-than operator	Tests whether a value is strictly less than another	<Expression 1> < <Expression 2>
<=	Less-than or equal to operator	Test whether a value is less than or equal to another	<Expression 1> <= <Expression 2>
>	Greater-than operator	Tests whether a value is strictly greater than another	<Expression 1> > <Expression 2>
>=	Greater-than or equal to operator	Tests whether a value is greater than or equal to another	<Expression 1> >= <Expression 2>
<>	Inequality operator	Tests whether a value is different from another	<Expression 1> <> <Expression 2>

## Logical operators

Logical operators enable you to evaluate several conditions.

### The And operator

This operator performs a logical AND (both conditions must be true) on two expressions. The syntax is as follows:

```
<Result> = <Expression 1> And <Expression 2>
```

If each expression (operand) is evaluated as *True*, the result is *True*. If either of the expressions is evaluated as *False*, the result is *False*.

### The Or operator

This operator performs a logical OR (either of the conditions must be true) on two expressions. The syntax is as follows:

```
<Result> = <Expression 1> Or <Expression 2>
```

If either expression is evaluated as *True*, the result is *True*.

### The Xor operator

This operator performs an eXclusive OR (only one of the two conditions must be true) on two expressions. The syntax is as follows:

```
<Result> = <Expression 1> Xor <Expression 2>
```

If only one of the expressions is evaluated as *True*, result is *True*.

### The Not operator

This operator is used to perform the logical negation on an expression. The syntax is as follows:

<Result> = Not <Expression 1>
-------------------------------

If the expression is evaluated as *True*, the result is *False*. If the expression is evaluated as *False*, the result is *True*.

## Priority of operators

When more than one operators are combined, the following order of priority is used when evaluating expressions. The operators are listed in decreasing order of priority:

- 1 ()
- 2 ^
- 3 -, +
- 4 /, \*
- 5 Mod
- 6 =, >, <, <=, >=
- 7 Not
- 8 And
- 9 Or
- 10 Xor

---

## File management

Connect-It Basic enables simplified file management. The most common operations (read, write, etc.) are available as standard.

### Reminder concerning files

A file is way in which a program sees and external object. It is a collection of logical records, that may or may not be structured, on which the program can execute a set of elementary operations (read, write, etc.). A logical record represents the minimum set of data that can be manipulated by a single elementary operation.

Connect-It can only handle so-called sequential files. In a sequential file, operations mainly concern reading the next record or appending a new record to the end of the file. It is not possible to simultaneously read and write records.

When read, cursor is placed on the first logical record of the sequential file. Each read operation transfers a record to an internal zone (generally a variable) of the program and places the cursor on the next record of the file. An operation



enables you to determine whether there are any remaining records to be read (**EOF** clause: End Of File).

When written to, the sequential file is either empty or the cursor is placed after the last record in the file. Each write operation transfers data stored in an internal zone (generally a variable) of the program, to a record in the file and then moves the cursor after this record.

 **Note:**

One of the main features of a sequential file is that the records are read in the order they are written.

## Opening and closing files

### The Open clause

This is the main clause used to manipulate files. It enables you to read, create and write to a files. The syntax is as follows:

```
Open <Path of the file> For <Mode> [Access <Access type>] As [#]<File number>
```

The parameters of this clause are detailed in the following table:

Parameter	Description
<b>&lt;Path of the file&gt;</b>	Character string specifying the file concerned by the operation. This string can contain the full path of the file.
<b>&lt;Mode&gt;</b>	Specifies the processing mode of the file. This parameter may contain one of the following values: <ul style="list-style-type: none"><li>■ <i>Input</i>: The file is open in read mode.</li><li>■ <i>Output</i>: The file is open in write mode. If the file already exists and has existing content, this is overwritten.</li><li>■ <i>Append</i>: The file is open in write mode. If the file already exists and has existing content, the new content is appended to the end of the file.</li></ul>
<b>&lt;Access type&gt;</b>	Specifies the operations than can be performed on an open file. If the file is opened by another process and the specified access is not authorized, the file open command fails. This parameter can be set to any of the following values: <ul style="list-style-type: none"><li>■ <i>Read</i>: The file is open for read-only access</li><li>■ <i>Write</i>: The file is open for write-only access</li><li>■ <i>Read Write</i>: The file is opened in read-write mode. This type of access is only available for <i>Append</i> mode.</li></ul>

Parameter	Description
<b>&lt;File number&gt;</b>	Identifies the file using a unique number between 1 and 511. The <b>FreeFile()</b> function enables you to determine the next available file number.

 **Note:**

Bear the following points in mind:

- Files must be opened using the **Open** clause before any read or write operations on the file.
- In *Append*, *Binary* or *Output* mode, if the referenced file does not exist, it is created.
- In *Binary* or *Input* mode, you can open a file using a different number without having to close the file first. In *Append* or *Output* mode, you must first close a file before opening it again with a different number.

### The Close clause

This clause enables you to close a file that was opened using a the **Open()**. The syntax is as follows:

```
Close [<List of files>]
```

The optional **<List of files>** argument can contain one or more file numbers. This syntax of this optional argument is as follows:

```
[[#]<File number>] [, [#]<File number>] ...
```

 **Note:**

If you omit this parameter from the clause, all active files opened by the **Open()** clause are closed.

### Reading data from file

Two clauses are available for reading data from a file. Using one or the other clause will depend on the specified access mode for the file. The two clauses are the following:

- **Input**
- **Line Input**

#### In Input clause

This clause is used to read a given number of characters from a file open in *Binary* or *Input* mode. The syntax of this clause is as follows:

```
Input (<Number characters to read>, [#]<File number>)
```

## The Line Input clause

This clause is used to read a line of data from a sequential file, and to store it in a *String* or *Variant* type variable. The syntax of this file is as follows:

```
Line Input #<File number>, <Name of the variable>
```

### Important:

The clause reads the characters one by one until a carriage return or carriage return - new line is reached.

## Writing data to a file

One single clause, **Print**, enables you to write data to a file. The syntax of this clause is as follows:

```
Print #<File number>, [<Data>]
```

### Note:

The **Print** clause writes data to the file on a single line until a linefeed character (ASCII code 10) is encountered. For example:

```
Open "c:\test.txt" For Output As #1
Print #1, "This is a test" & Chr(10)
Print #1, "And now we can close the file..." & Chr(10)
Close #1
```



---

## 2 Field of application

The functions described in this document can be used in all script windows in Connect-It.



---

## 3 Conventions

This chapter contains information on the notation used in this manual and on the format of some constants.

---

### Notation

The following notation is used in the examples in this manual:

- [] Square brackets denote an optional parameter. Do not type these brackets in your command.  
Exception: In Basic scripts, when the square brackets denote the path to data in the database with the form:  
`[Link.Link.Field]`
- <> Angle brackets denote a parameter in plain language. Do not type these brackets. Substitute the text with the appropriate information.
- { } Curly brackets surround the definition of a node or a multi-lined script block for a property.
- | A pipe is used to separate a series of possible parameters contained within curly brackets.

The following text styles have specific meanings:

Fixed width characters	DOS command, function parameter or data formatting.
Example	Example of code or command.

...	Code or command omitted.
<i>Object name</i>	The names of fields, tabs, menus and files are shown in bold.
<b>Note:</b>	Important note.
Note	

---

## Format of "Date+Time" constants in scripts

Dates referenced in scripts are expressed in international format, independently of the display options specified by the user:

yyyy/mm/dd hh:mm:ss

**Example:**

```
RetVal="1998/07/12 13:05:00"
```

 **Note:**

The hyphen ("-") can also be used as a date separator.

## Basic and Unix date

Dates are expressed differently in Basic and in Unix:

- In Basic, a date can be expressed in international format, or as a floating point number ("Double" type). In this case, the integer part of the number represents the number of days elapsed since 1899-12-30 at midnight, the decimal part represents the fraction of the current date. (The number of seconds elapsed since the start of the day divided by 86400.)
- In Unix, dates are expressed as a long integer ("Long" type) that represents the number of seconds elapsed since 01/01/1870 at midnight, independent of time zones (UTC time).

---

## Format of "Duration" type constants in scripts

In scripts, durations are stored and expressed in seconds. For example, to set the default value for a "Duration" type field to 3 days, use the following script:

```
RetVal=259200
```

Likewise, functions that calculate durations return a number in seconds.



---

 **Note:**

In financial calculations, Connect-It takes into account the most common simplifications used. In this case alone, a year is considered as being 12 months and 1 month as 30 days (thus: 1 year = 360 days).



---

## 4 Definitions

This chapter groups together the definitions of several essential terms.

---

### Definition of a function

A function is a program that performs operations and returns a value to the user. This value is called the "return value" or "return code".

Here is an example of the syntax used to call a function using the Connect-It internal Basic:

```
PifIgnoreDocumentMapping(strMsg As String) As Long
```

---

### Definition of an error code

When a function fails, it returns an error code.

The description of the last error and its code can be found using the **Err.Description** and **Err.Number**.

You can trigger an error message intentionally using the **Err.Raise** function. Its syntax is as follows:

```
Err.Raise (<Error number>, <Error message>)
```

The following table lists the most frequent error codes:

Error code	Meaning
12001	Undefined error
12002	Bad parameter for a function
12003	Invalid handle or object deleted
12004	No more data available. This error typically occurs when executing queries. When the query does not return data, this error is raised.
12006	Invalid value (incorrect type for a parameter, etc.)
12009	Obsolete or non implemented function

---

# 5 Function typing and parameters

---

## List of types

The following table summarizes the various types available for a function or a parameter:

Type	Description
Integer	Integer from -32,768 to +32,767.
Long	Integer from -2,147,483,647 to +2,147,483,646.
Single	4-byte floating-point number (single precision).
Double	8-byte floating-point number (double precision).
String	Text in which all characters are allowed.
Date	Date or Date+Time.
Variant	Generic type that can represent any type.

---

## Type of a function

The type of a function corresponds to the type of the value returned by the function. We recommend paying close attention to this piece of information since it can be at the origin of compilation and runtime errors in your programs.

---

## Type of a parameter

The parameters that can be used in functions also have a type that must be respected in order for the proper execution of the function. In the syntax of functions, parameters are prefixed according to their type. The following table resumes the various types and their associated prefixes:

Type	Prefix used in the Basic syntax
Integer	"i"
Long	"l"
Double	"d"
String	"str"
Date	"dt"
Variant	"v"

---

## II Reference





---

## 6 Alphabetic reference

---

### Abs()

Internal Basic syntax

**Function Abs(dValue As Double) As Double**

Description

Returns the absolute value of a number.

Input parameters

- ◆ **dValue:** Number for which you want to know the absolute value.

Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim iSeed as Integer
iSeed = Int((10*Rnd)-5)
RetVal = Abs(iSeed)
```

---

## AppendOperand()

### Internal Basic syntax

**Function AppendOperand(strExpr As String, strOperator As String, strOperand As String) As String**

### Description

Concatenates a string according to the parameters passed to the function. The results are given as follows:

```
strExpr strOperator strOperand
```

### Input parameters

- **strExpr**: Expression to be concatenated.
- **strOperator**: Operator to concatenate.
- **strOperand**: Operand to concatenate.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Notes

 Note:

If one of the **strExpr** or **strOperand** parameters is omitted, **strOperator** is not used in the concatenation.

---

## ApplyNewVals()

### Internal Basic syntax

**Function ApplyNewVals(strValues As String, strNewVals As String, strRows As String, strRowFormat As String) As String**

### Description

Assigns identical values to identical cells in a "ListBox" control.

### Input parameters

- **strValues:** Source string containing the values of a "ListBox" control to be processed.
- **strNewVals:** New value to assign to the cells concerned.
- **strRows:** Identifiers of lines to be processed. The identifiers are separated by commas.
- **strRowFormat:** Formatting instructions for the sublist. Instructions are separated by the "|" character. Each instruction represents the number of the column containing the **strNewVals** parameter.

### Output parameters

In case of error, a message is written to the Connect-It log.

---

## Asc()

### Internal Basic syntax

**Function Asc(strAsc As String) As Long**

### Description

Returns a numeric value that is the ASCII code for the first character in a string.

## Input parameters

- ◆ **strAsc**: Character string on which the function operates.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim iCount as Integer
Dim strString as String
For iCount=Asc("A") To Asc("Z")
strString = strString & Str(iCount)
Next iCount
RetVal=strString
```

---

## Atn()

### Internal Basic syntax

**Function Atn(dValue As Double) As Double**

### Description

Returns the arc tangent of a number, expressed in radians.

### Input parameters

- ◆ **dValue**: Number for which you want to know the arc tangent.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

```
Dim dPi as Double
Dim strString as String
dPi=4*Atn(1)
```

```
strString = Str(dPi)
RetVal=strString
```

---

## BasicToLocalDate()

### Internal Basic syntax

**Function BasicToLocalDate(strDateBasic As String) As String**

### Description

This function converts a Basic format date to a string format date (as displayed in Windows Control Panel).

### Input parameters

- ◆ **strDateBasic:** Date in Basic format to convert.

### Output parameters

In case of error, a message is written to the Connect-It log.

---

## BasicToLocalTime()

### Internal Basic syntax

**Function BasicToLocalTime(strTimeBasic As String) As String**

### Description

This function converts a Basic format time to a string format time (as displayed in Windows Control Panel).

### Input parameters

- ◆ **strTimeBasic:** Time in Basic format to convert.

## Output parameters

In case of error, a message is written to the Connect-It log.

---

# BasicToLocalTimeStamp()

## Internal Basic syntax

**Function BasicToLocalTimeStamp(strTSBasic As String) As String**

## Description

This function converts a Date+Time in Basic format to a Date+Time in string format (as displayed in Windows Control Panel).

## Input parameters

- ◆ **strTSBasic**: Date+Time in Basic format to convert.

## Output parameters

In case of error, a message is written to the Connect-It log.

---

# Beep()

## Internal Basic syntax

**Function Beep()**

## Description

Plays a beep on the machine.

## Output parameters

In case of error, a message is written to the Connect-It log.

---

## Cdbl()

### Internal Basic syntax

**Function Cdbl(dValue As Double) As Double**

### Description

Converts an expression to a "Double".

### Input parameters

◆ **dValue**: Expression to convert.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

```
Dim dNumber As Double
Dim iInteger as Integer
iInteger = 25
dNumber=Cdbl(iInteger)
RetVal=dNumber
```

---

## ChDir()

### Internal Basic syntax

**Function ChDir(strDirectory As String)**

### Description

Changes the current directory.

## Input parameters

- ◆ **strDirectory**: New current directory.

## Output parameters

In case of error, a message is written to the Connect-It log.

---

# ChDrive()

## Internal Basic syntax

**Function ChDrive(strDrive As String)**

## Description

Changes the current drive.

## Input parameters

- ◆ **strDrive**: New drivename.

## Output parameters

In case of error, a message is written to the Connect-It log.

---

# Chr()

## Internal Basic syntax

**Function Chr(iChr As Long) As String**

## Description

Returns a string corresponding to the ASCII passed by the **iChr** parameter.



## Input parameters

- ◆ **IChr**: ASCII code of the character.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim iCount as Integer
Dim iIteration as Integer
Dim strMessage as String
Dim strLF as String
strLF=Chr(10)
For iIteration=1 To 2
For iCount=Asc("A") To Asc("Z")
strMessage=strMessage+Chr(iCount)
Next iCount
strMessage=strMessage+strLF
Next iIteration
RetVal=strMessage
```

---

# CInt()

## Internal Basic syntax

**Function CInt(iValue As Long) As Long**

## Description

Converts any valid expression to an Integer.

## Input parameters

- ◆ **iValue**: Expression to convert.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim iNumber As Integer
Dim dDouble as Double
dDouble = 25.24589
iNumber=CInt(dDouble)
RetVal=iNumber
```

---

## CLng()

### Internal Basic syntax

**Function CLng(IValue As Long) As Long**

### Description

Converts any valid expression to a Long.

### Input parameters

- ◆ **IValue**: Expression to convert.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim lNumber As Long
Dim iInteger as Integer
iInteger = 25
lNumber=CLng(iInteger)
RetVal=lNumber
```

---

## Cos()

### Internal Basic syntax

**Function Cos(dValue As Double) As Double**

## Description

Returns the cosine of a number, expressed in radians.

## Input parameters

- ◆ **dValue:** Number whose cosine you want to know.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim dCalc as Double
dCalc=Cos(2.79)
RetVal=dCalc
```

## Notes

 **Note:**

The conversion formula for degrees to radians is the following:

```
angle in radians = (angle en degrees) * Pi / 180
```

---

## CountOccurrences()

### Internal Basic syntax

**Function CountOccurrences(strSearched As String, strPattern As String, strEscChar As String) As Long**

## Description

Counts the number of occurrences of a string inside another string.

## Input parameters

- **strSearched**: Character string in which to perform to the search.
- **strPattern**: Character string to find inside the **strSearched** parameter.
- **strEscChar**: Escape character. If the function encounters this character inside the **strSearched** string, the search stops.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim MyStr
MyStr=CountOccurences("you|me|you,me|you", "you", ",") : 'Returns "2"
MyStr=CountOccurences("you|me|you,me|you", "you", "|") : 'Returns "1"
```

---

## CountValues()

### Internal Basic syntax

**Function CountValues(strSearched As String, strSeparator As String, strEscChar As String) As Long**

### Description

Counts the number of elements in a string, taking into account a separator and an escape character.

### Input parameters

- **strSearched**: Character string to process.
- **strSeparator**: Separator used to delimit the elements.
- **strEscChar**: Escape character. If this character prefixes a separator, it will be ignored.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim MyStr
MyStr=CountValues("you|me|you\|me|you", "|", "\") : 'Returns 4
MyStr=CountValues("you|me|you\|me|you", "|", "") : 'Returns 5
```

---

## CStr()

### Internal Basic syntax

**Function CStr(fValue As Single) As Single**

### Description

Converts any valid expression to a floating point number ("Float").

### Input parameters

- ◆ **fValue:** Expression to convert.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim dNumber As Double
Dim iInteger as Integer
iInteger = 25
dNumber=CStr(iInteger)
RetVal=dNumber
```

---

## CStr()

### Internal Basic syntax

**Function CStr(strValue As String) As String**

## Description

Converts any valid expression to a String.

## Input parameters

- ◆ **strValue:** Expression to convert.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim dNumber As Double
Dim strMessage as String
dNumber = 2,452873
strMessage=CStr(dNumber)
RetVal=strMessage
```

---

## CurDir()

### Internal Basic syntax

**Function CurDir() As String**

## Description

Returns the current path.

## Output parameters

In case of error, a message is written to the Connect-It log.

---

## CVar()

### Internal Basic syntax

**Function CVar(vValue As Variant) As Variant**

### Description

Converts any valid expression to a Variant.

### Input parameters

◆ **vValue**: Expression to convert.

### Output parameters

In case of error, a message is written to the Connect-It log.

---

## Date()

### Internal Basic syntax

**Function Date() As Date**

### Description

Returns the current system date.

### Output parameters

In case of error, a message is written to the Connect-It log.

---

## DateAdd()

### Internal Basic syntax

**Function DateAdd(tmStart As Date, tsDuration As Long) As Date**

### Description

This function calculates a new date according to a start date to which a real duration is added.

### Input parameters

- **tmStart:** This parameter contains the date to which the duration is added.
- **tsDuration:** This parameter contains the duration (expressed in seconds) to be added to the date **tmStart**.

### Output parameters

In case of error, a message is written to the Connect-It log.

---

## DateAddLogical()

### Internal Basic syntax

**Function DateAddLogical(tmStart As Date, tsDuration As Long) As Date**

### Description

This function calculates a new date according to a start date to which a logical duration is added (1 month contains 30 days).

### Input parameters

- **tmStart:** This parameter contains the date to which the duration is added.
- **tsDuration:** This parameter contains the duration, expressed in seconds, to be added to the date **tmStart**.



## Output parameters

In case of error, a message is written to the Connect-It log.

---

# DateDiff()

## Internal Basic syntax

**Function DateDiff(tmEnd As Date, tmStart As Date) As Date**

## Description

This function calculates in the seconds the duration (or timespan) between two dates.

## Input parameters

- **tmEnd:** This parameter contains the end date of the period for which the calculation is carried out.
- **tmStart:** This parameter contains the start date of the period for which the calculation is carried out.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

The following example calculates the time elapsed between 01/01/98 and 01/01/99.

```
DateDiff("1998/01/01 00:00:00", "1999/01/01 00:00:00")
```

---

## DateSerial()

### Internal Basic syntax

**Function DateSerial(iYear As Long, iMonth As Long, iDay As Long) As Date**

### Description

This function returns a date formatted according to the **iYear**, **iMonth** and **iDay** parameters.

### Input parameters

- **iYear**: Year. If the value is between 0 and 99, this parameter describes the years from 1900 to 1999. For all other years, you must specify the four digits (e.g. 1800).
- **iMonth**: Month.
- **iDay**: Day.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

Each of these parameters can be set to a numeric expression representing a number of days, months or years. For example:

```
DateSerial(1999-10, 3-2, 15-8)
```

Returns the value:

```
1989/1/7
```

When the value of a parameter is out of the expected range (i.e. 1-31 for days, 1-12 for months, etc.), the function returns an empty date.

---

## DateValue()

### Internal Basic syntax

**Function DateValue(tmDate As Date) As Date**

### Description

This function returns the date portions of a "Date+Time" value.

### Input parameters

- ◆ **tmDate**: "Date+Time" format date.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

The following example:

```
DateValue ("1999/09/24 15:00:00")
```

Returns the value:

```
1999/09/24
```

---

## Day()

### Internal Basic syntax

**Function Day(tmDate As Date) As Long**

### Description

Returns the day contained in the **tmDate** parameter.

## Input parameters

- ◆ **tmDate**: Parameter in Date+Time format to be processed.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim strDay as String
strDay=Day(Date())
RetVal=strDay
```

---

## EscapeSeparators()

### Internal Basic syntax

**Function EscapeSeparators(strSource As String, strSeparators As String, strEscChar As String) As String**

### Description

Prefixes one or more separator characters with an escape character.

### Input parameters

- **strSource**: Character string to process.
- **strSeparators**: List of separators to be prefixed. If you want to declare several separators, you must separate them with the escape character (indicated in the **strEscChar** parameter).
- **strEscChar**: Escape character. It will be used to prefix all separators in **strSeparators**.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim MyStr
MyStr=EscapeSeparators("you|me|you,me|you", "|\", "\", "\") :Returns "you\|me
\|you\,me\|you"
```

---

## ExeDir()

### Internal Basic syntax

#### **Function ExeDir() As String**

### Description

This function returns the full path of the executable.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim strPath as string
strPath=ExeDir()
```

---

## Exp()

### Internal Basic syntax

#### **Function Exp(dValue As Double) As Double**

### Description

Returns the exponent of a number.

## Input parameters

- ◆ **dValue**: Number whose exponent you want to know.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim iSeed as Integer
iSeed = Int((10*Rnd)-5)
RetVal = Exp(iSeed)
```

---

## ExtractValue()

### Internal Basic syntax

**Function ExtractValue(pstrData As String, strSeparator As String, strEscChar As String) As String**

### Description

Extracts from a string the values delimited by a separator. The recovered value is deleted from the source string. This operation takes into account a possible escape character. If the separator is not found in the source string, the whole string is returned and the source string is deleted in full.

### Input parameters

- **pstrData**: Source string to be processed.
- **strSeparator**: Character used as separator in the source string.
- **strEscChar**: Escape character. If this character prefixes the separator, it will be ignored.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim MyStr
MyStr=ExtractValue("you,me", ",", "\") : 'Returns "you" and leaves "me" in
the source string
MyStr=ExtractValue(",you,me", ",", "\") : 'Returns "" and leaves "you,me" i
n the source string
MyStr=ExtractValue("you", ",", "\") : 'Returns "you" and leaves "" in the s
ource string
MyStr=ExtractValue("you\,me", ",", "\") : 'Returns "you\,me" and leaves ""
in the source string
MyStr=ExtractValue("you\,me", ",", "") : 'Returns "you\" and leaves "me" in
the source string
RetVal=""
```

---

## FileCopy()

### Internal Basic syntax

**Function FileCopy(strSource As String, strDest As String) As Long**

### Description

Copies a file or a folder.

### Input parameters

- **strSource**: Full path of the file or directory to copy.
- **strDest**: Full path of the target file or directory.

### Output parameters

- 0: Normal execution.
- Other than zero: Error code.

---

## FileDateTime()

### Internal Basic syntax

**Function FileDateTime(strFileName As String) As Date**

## Description

Returns the time and date of a file as a Long.

## Input parameters

- ◆ **strFileName**: Full path name of the file concerned by the operation.

## Output parameters

In case of error, a message is written to the Connect-It log.

---

# FileExists()

## Internal Basic syntax

**Function FileExists(strFileName As String) As Long**

## Description

This function tests for the existence of a file. The function returns the following values:

- 0: File not found.
- 1: File found.

## Input parameters

- ◆ **strFileName**: This parameter contains the full path of the file you want to test for.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
If FileExists("c:\tmp\myfile.log") Then  
strFileName = "c:\archive\" + FormatDate(Date, "dddd d mmm yyyy") + ".log"
```



```
FileCopy("c:\tmp\myfile.log", strFileName)
End if
```

---

## FileLen()

### Internal Basic syntax

**Function FileLen(strFileName As String) As Long**

### Description

Returns the size of a file.

### Input parameters

- ◆ **strFileName:** Full path name of the file concerned by the operation.

### Output parameters

In case of error, a message is written to the Connect-It log.

---

## Fix()

### Internal Basic syntax

**Function Fix(dValue As Double) As Long**

### Description

Returns the integer portion of a number (first greatest integer in the case of a negative number).

### Input parameters

- ◆ **dValue:** Number whose integer portion you want to know.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim dSeed as Double
dSeed = (10*Rnd)-5
RetVal = Fix(dSeed)
```

---

## FormatDate()

### Internal Basic syntax

**Function FormatDate(tmFormat As Date, strFormat As String) As String**

### Description

Formats a date according to the expression contained in the **strFormat** parameter.

### Input parameters

- **tmFormat**: Date to be formatted.
- **strFormat**: Expression containing the formatting instructions.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

The following example of code shows how to format a date:

```
Dim MyDate
MyDate="2000/03/14"
RetVal=FormatDate(MyDate, "dddd d mmmm yyyy") : 'Returns "Tuesday 14 March
2000"
```

---

## FormatResString()

### Internal Basic syntax

**Function FormatResString(strResString As String, strParamOne As String, strParamTwo As String, strParamThree As String, strParamFour As String, strParamFive As String) As String**

### Description

This function processes a source string, replacing the variable \$1, \$2, \$3, \$4, and \$5 with the strings passed in the **strParamOne**, **strParamTwo**, **strParamThree**, **strParamFour**, and **strParamFive** parameters.

### Input parameters

- **strResString**: Source string to be processed.
- **strParamOne**: Replacement string of variable \$1.
- **strParamTwo**: Replacement string of variable \$2.
- **strParamThree**: Replacement string of variable \$3.
- **strParamFour**: Replacement string of variable \$4.
- **strParamFive**: Replacement string of variable \$5.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

The following example:

```
FormatResString("I$1he$2you$3", "you", "we", "they")
```

returns "Iyouheweyouthey".

---

## FormatString()

### Internal Basic syntax

### Description

Formats a string according to the expression contained in the **strFormat** parameter.

### Example

The following example of code show how to format a character string:

```
Dim MyString
MyString="2000/03/14"
RetVal=FormatString(MyString, "dddd d mmmm yyyy") :Returns "Tuesday 14 Ma
rch 2000"
```

---

## FV()

### Internal Basic syntax

**Function FV(dblRate As Double, iNper As Long, dblPmt As Double, dblPV As Double, iType As Long) As Double**

### Description

This function returns the future amount of an annuity based on constant and periodic payments, with a set interest rate.

### Input parameters

- ◆ **dblRate**: This parameter indicates the interest rate per date of payment. For example, the rate per date of payment for a loan with a 6% annual interest rate, paid back by monthly dates of payment, would be:

```
0.06/12=0.005 or 0.5%
```

- **iNper**: This parameter contains the total number of dates of payment for the financial operation.

- **dblPmt**: This parameter indicates the amount of the payment to be made at each date of payment. The payment generally includes both principal and interest.
- **dblPV**: This parameter contains the actual value (or overall sum) for a series of payments to be made in the future.
- **iType**: This parameter indicates the payment deadline. It can have one of the following values:
  - **0** if the payments are due in arrears (i.e. at the end of the period)
  - **1** if the payments are due in advance (i.e. at the start of the period)

## Output parameters

In case of error, a message is written to the Connect-It log.

## Notes



### Note:

- The **Rate** and **Nper** parameters must be calculated using payments expressed in the same units.
- Amounts paid (expressed in particular by the **Pmt** parameter) are represented by negative numbers. Sums received are represented by positive numbers.

---

## GetEnvVar()

### Internal Basic syntax

**Function GetEnvVar(strVar As String, bExpand As Long) As String**

### Description

This function returns the value of an environment variable. An empty value is returned if the environment variable does not exist.

### Input parameters

- **strVar**: This parameter contains the name of the environment variable.

- **bExpand**: This Boolean parameter is useful when the environment variable references one or more environment variable. In this case, when this parameter is set to 1 (default value), each referenced variable is replaced by its value. Otherwise, it is left alone.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
RetVal = getEnvVar("PROMPT")
```

---

# GetListItem()

## Internal Basic syntax

**Function GetListItem(strFrom As String, strSep As String, INb As Long, strEscChar As String) As String**

## Description

Returns the **INb**th portion of a string delimited by separators.

## Input parameters

- **strFrom**: Source string to be processed.
- **strSep**: Character used as separator in the source string.
- **INb**: Position of the string to recover.
- **strEscChar**: Escape character. If this character prefixes a separator, it will be ignored.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

The following example:

```
GetListItem("this_is_a_test", "_", 2, "%")
```

returns "is".

```
GetListItem("this%_is_a_test", "_", 2, "%")
```

returns "a".

---

## GetXmlAttributeValue()

### Internal Basic syntax

**Function GetXmlAttributeValue(strVal As String) As String**

### Description

This function escapes the invalid characters for a given XML element value.

### Input parameters

This parameter contains the character to be escaped.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Example

For example, the following function transforms the single quote character into a valid character:

```
GetXmlAttributeValue("doesn't")
```

It has the following result:

```
"doesn&quote;t"
```

---

## GetXmlElementValue()

### Internal Basic syntax

**Function GetXmlElementValue(strElemContent As String) As String**

### Description

This function escapes the invalid characters for a given XML attribute value.

### Input parameters

This parameter contains the character to be escaped.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

You can use this function in a WHERE clause as described below:

```
strLayer = strLayer + "<Where Path='ItemsUsed'>" + GetXmlElementValue("AssetTag like 'A%'" ) + "</Where>"
```

See also the example with comments for the function:

[PifNewQueryFromFmtName\(\)](#) [page 126]

---

## Hex()

### Internal Basic syntax

**Function Hex(dValue As Double) As String**

### Description

Returns the hexadecimal value of a decimal parameter.



## Input parameters

- ◆ **dValue**: Decimal number whose hexadecimal value you want to know.

## Output parameters

In case of error, a message is written to the Connect-It log.

---

# Hour()

## Internal Basic syntax

**Function Hour(tmTime As Date) As Long**

## Description

Returns the hour value contained in the **tmTime** parameter.

## Input parameters

- ◆ **tmTime**: Parameter in Date+Time format to be processed.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim strHour as String
strHour=Hour(Date())
RetVal=strHour
```

---

## InStr()

### Internal Basic syntax

**Function InStr(*IPosition* As Long, *strSource* As String, *strPattern* As String, *bCaseSensitive* As Long) As Long**

### Description

Returns the character position of the first occurrence of a string within a string.

### Input parameters

- **IPosition**: Starting point of the search. This parameter is not optional and must be a valid positive integer no greater than 65,535.
- **strSource**: String in which the search is performed.
- **strPattern**: String to search.
- **bCaseSensitive**: Depending on this parameter, the search is case sensitive (=1) or not (=0).

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

```
Dim strSource as String
Dim strToSearch as String
Dim iPosition
strSource = "Good Bye"
strToSearch = "Bye"
iPosition = Instr(2, strSource, strToSearch)
RetVal=iPosition
```

### Notes

 Note:

The position of the first occurrence is always 1. The function returns 0 if the character string searched is not found.

---

## Int()

### Internal Basic syntax

**Function Int(dValue As Double) As Long**

### Description

Returns the integer portion of a number (first lesser than integer in the case of a negative number).

### Input parameters

- ◆ **dValue:** Number whose integer portion you want to know.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

```
Dim iSeed as Integer
iSeed = Int((10*Rnd)-5)
RetVal = Abs(iSeed)
```

---

## IPMT()

### Internal Basic syntax

**Function IPMT(dblRate As Double, iPer As Long, iNper As Long, dblPV As Double, dbIFV As Double, iType As Long) As Double**

### Description

This function returns the amount of interest for an given date of payment of an annuity.

## Input parameters

- ◆ **dblRate**: This parameter indicates the interest rate per date of payment. For example, the rate per date of payment for a loan with a 6% annual interest rate, paid back by monthly dates of payment, would be:

`0.06/12=0.005 or 0.5%`

- **iPer**: This parameter indicates the period for the calculation, between 1 and the value of the **Nper** parameter.
- **iNper**: This parameter contains the total number of dates of payment for the financial operation.
- **dblPV**: This parameter contains the actual value (or overall sum) for a series of payments to be made in the future.
- **dblFV**: This parameter contains the future value or the balance that you want to obtain after having paid the final date of payment. In general, and particularly when reimbursing a loan, this parameter is set to "0". In effect, once you have made all the dates of payment, the value of the loan is nil.
- **iType**: This parameter indicates the payment deadline. It can have one of the following values:
  - **0** if the payments are due in arrears (i.e. at the end of the period)
  - **1** if the payments are due in advance (i.e. at the start of the period)

## Output parameters

In case of error, a message is written to the Connect-It log.

## Notes

### Note:

- The **Rate** and **Nper** parameters must be calculated using payments expressed in the same units.
- Amounts paid (expressed in particular by the **Pmt** parameter) are represented by negative numbers. Sums received are represented by positive numbers.

---

## IsNumeric()

### Internal Basic syntax

**Function IsNumeric(strString As String) As Long**

### Description

This function enables you to determine whether a character string contains a numeric value.

### Input parameters

- ◆ **strString**: This parameter contains the character string to analyze.

### Output parameters

In case of error, a message is written to the Connect-It log.

---

## Kill()

### Internal Basic syntax

**Function Kill(strKilledFile As String) As Long**

### Description

Deletes a file.

### Input parameters

- ◆ **strKilledFile**: Full path of the file concerned by the operation.

### Output parameters

- 0: Normal execution.
- Other than zero: Error code.

---

## LCase()

### Internal Basic syntax

**Function LCase(strString As String) As String**

### Description

Returns a string in which all letters of the string parameter have been converted to lower case.

### Input parameters

- ◆ **strString**: Character string to convert to lowercase.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

```
' This example uses the LTrim and RTrim functions to strip leading ' and t
railing spaces, respectively, from a string variable.
' It uses the Trim function alone to strip both types of spaces.
' LCase and UCase are also shown in this example as well as the use
' of nested function calls

Dim strString as String
Dim strTrimString as String
strString = " <-Trim-> " : ' Initialize string.
strTrimString = LTrim(strString) : ' strTrimString = "<-Trim-> ".
strTrimString = LCase(RTrim(strString)) : ' strTrimString = " <-trim->".
strTrimString = LTrim(RTrim(strString)) : ' strTrimString = "<-Trim->".
' Using the Trim function alone achieves the same result.
strTrimString = UCase(Trim(strString)) : ' strTrimString = "<-TRIM->".
RetVal= "|" & strTrimString & "|"
```

---

## Left()

### Internal Basic syntax

**Function Left(strString As String, INumber As Long) As String**

### Description

Returns the left most iNumber characters of a string parameter.

### Input parameters

- **strString**: Character string to process.
- **INumber**: Number of characters to return.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

```
Dim lWord, strMsg, rWord, iPos : ' Declare variables.
strMsg = "Left() Test."
iPos = InStr(1, strMsg, " ") : ' Find space.
lWord = Left(strMsg, iPos - 1) : ' Get left word.
rWord = Right(strMsg, Len(strMsg) - iPos) : ' Get right word.
strMsg=rWord+lWord : ' And swap them
RetVal=strMsg
```

---

## LeftPart()

### Internal Basic syntax

**Function LeftPart(strFrom As String, strSep As String, bCaseSensitive As Long) As String**

## Description

Extracts the portion of a string to the left of the separator specified in the **strSep** parameter.

The search for the separator is performed from left to right.

The search can be made case sensitive using the **bCaseSensitive** parameter.

## Input parameters

- **strFrom**: Source string to be processed.
- **strSep**: Character used as separator in the source string.
- **bCaseSensitive**: Depending on this parameter, the search is case sensitive (=1) or not (=0).

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

These examples illustrate use of the **LeftPart**, **LeftPartFromRight**, **RightPart**, and **RightPartFromLeft** functions on the same string: "This\_is\_a\_test":

```
LeftPart("This_is_a_test","_",0)
```

Returns "This".

```
LeftPartFromRight("This_is_a_test","_",0)
```

Returns "This\_is\_a".

```
RightPart("This_is_a_test","_",0)
```

Returns "test".

```
RightPartFromLeft("This_is_a_test","_",0)
```

Returns "is\_a\_test".



---

## LeftPartFromRight()

### Internal Basic syntax

**Function LeftPartFromRight(strFrom As String, strSep As String, bCaseSensitive As Long) As String**

### Description

Extracts the portion of a string to the left of the separator specified in the **strSep** parameter.

The search for the separator is performed from right to left.

The search can be made case sensitive using the **bCaseSensitive** parameter.

### Input parameters

- **strFrom**: Source string to be processed.
- **strSep**: Character used as separator in the source string.
- **bCaseSensitive**: Depending on this parameter, the search is case sensitive (=1) or not (=0).

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

These examples illustrate use of the **LeftPart**, **LeftPartFromRight**, **RightPart**, and **RightPartFromLeft** functions on the same string: "This\_is\_a\_test":

```
LeftPart("This_is_a_test","_",0)
```

Returns "This".

```
LeftPartFromRight("This_is_a_test","_",0)
```

Returns "This\_is\_a".

```
RightPart("This_is_a_test","_",0)
```

Returns "test".

```
RightPartFromLeft("This_is_a_test","_",0)
```

Returns "is\_a\_test".

---

## Len()

### Internal Basic syntax

**Function Len(vValue As Variant) As Long**

### Description

Returns the number of characters in a string or a variant.

### Input parameters

- ◆ **vValue**: Variant concerned by the operation.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

```
Dim strTest as String
Dim iLength as Integer
strTest = "Peregrine Systems"
iLength = Len(strTest) : 'The value of iLength is 17
RetVal=iLength
```

---

## LocalToBasicDate()

### Internal Basic syntax

**Function LocalToBasicDate(strDateLocal As String) As String**

## Description

This function converts a string format date (as displayed in Windows Control Panel) to a Basic format date .

## Input parameters

- ◆ **strDateLocal**: Date as string to convert.

## Output parameters

In case of error, a message is written to the Connect-It log.

---

## LocalToBasicTime()

### Internal Basic syntax

**Function LocalToBasicTime(strTimeLocal As String) As String**

## Description

This function converts a string format time (as displayed in Windows Control Panel) to a Basic format time.

## Input parameters

- ◆ **strTimeLocal**: Time in string format to convert.

## Output parameters

In case of error, a message is written to the Connect-It log.

---

## LocalToBasicTimeStamp()

### Internal Basic syntax

**Function LocalToBasicTimeStamp(strTSLocal As String) As String**

## Description

This function converts a Date+Time in string format (as displayed in Windows Control Panel) to a Date+Time in Basic format.

## Input parameters

- ◆ **strTSLocal**: Date+Time in string format to convert.

## Output parameters

In case of error, a message is written to the Connect-It log.

---

## LocalToUTCDate()

### Internal Basic syntax

**Function LocalToUTCDate(tmLocal As Date) As Date**

## Description

This function converts a date in "Date+Time" format to a UTC format date (time-zone independent).

## Input parameters

- ◆ **tmLocal**: "Date+Time" format date.

## Output parameters

In case of error, a message is written to the Connect-It log.

---

## Log()

### Internal Basic syntax

**Function Log(dValue As Double) As Double**

## Description

Returns the natural log of a number.

## Input parameters

- ◆ **dValue**: Number whose logarithm you want to know.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim dSeed as Double
dSeed = Int((10*Rnd)-5)
RetVal = Log(dSeed)
```

---

## LTrim()

### Internal Basic syntax

**Function LTrim(strString As String) As String**

## Description

Removes all leading spaces in a string.

## Input parameters

- ◆ **strString**: Character string to process.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
' This example uses the LTrim and RTrim functions to strip leading ' and t
railing spaces, respectively, from a string variable.
' It uses the Trim function alone to strip both types of spaces.
' LCase and UCase are also shown in this example as well as the use
' of nested function calls

Dim strString as String
Dim strTrimString as String
strString = " <-Trim-> " :' Initialize string.
strTrimString = LTrim(strString) :' strTrimString = "<-Trim-> ".
strTrimString = LCase(RTrim(strString)) :' strTrimString = " <-trim->".
strTrimString = LTrim(RTrim(strString)) :' strTrimString = "<-Trim->".
' Using the Trim function alone achieves the same result.
strTrimString = UCase(Trim(strString)) :' strTrimString = "<-TRIM->".
RetVal= "|" & strTrimString & "|"
```

---

## MakeInvertBool()

### Internal Basic syntax

#### **Function MakeInvertBool(IValue As Long) As Long**

### Description

This function returns an inverse Boolean; (0 becomes 1, all other numbers become 0).

### Input parameters

- ◆ **IValue**: Number concerned by the operation.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim MyValue
MyValue=MakeInvertBool(0) :'Returns 1
MyValue=MakeInvertBool(1) :'Returns 0
MyValue=MakeInvertBool(254) :'Returns 0
```

---

## Mid()

### Internal Basic syntax

**Function Mid(strString As String, IStart As Long, ILen As Long) As String**

### Description

Returns a substring within a string.

### Input parameters

- **strString**: String concerned by the operation.
- **IStart**: Start position of the string to extract from within strString.
- **ILen**: Length of the string to extract.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

```
Dim strTest as String
strTest="One Two Three" :' Defines the test string
strTest=Mid(strTest,5,3) :' strTest="Two"
RetVal=strTest
```

---

## Minute()

### Internal Basic syntax

**Function Minute(tmTime As Date) As Long**

### Description

Returns the number of minutes contained in the time expressed in the **tmTime** parameter.

## Input parameters

- ◆ **tmTime**: Parameter in Date+Time format to be processed.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim strMinute
strMinute=Minute(Date())
RetVal=strMinute : 'Returns the number of minutes elapsed in the current ho
ur, for example "45" if the time is 15:45:30
```

---

## MkDir()

### Internal Basic syntax

**Function MkDir(strMkDirectory As String) As Long**

### Description

Creates a new directory.

### Input parameters

- ◆ **strMkDirectory**: Full path of the directory to create.

### Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Example

```
Dim lErr as Long
' Create the c:\tmp directory
lErr = MkDir("c:\tmp")
```



---

## Month()

### Internal Basic syntax

**Function Month(tmDate As Date) As Long**

### Description

Returns the month contained in the date expressed in the **tmDate** parameter.

### Input parameters

- ◆ **tmDate**: Parameter in Date+Time format to be processed.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

```
Dim lMonth as Long
lMonth=Month(Date())
RetVal=lMonth : 'Returns the current month
```

---

## Name()

### Internal Basic syntax

**Function Name(strSource As String, strDest As String)**

### Description

Changes the name of file.

### Input parameters

- **strSource**: Full path of the file to rename.

- **strDest**: New file name.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim lErr as Long
' Rename "C:\tmp\src.txt" as "D:\tmp\dst.txt"
lErr = Name("C:\tmp\src.txt", "D:\tmp\dst.txt")
```

---

## Now()

### Internal Basic syntax

**Function Now() As Date**

### Description

Returns the current date and time.

### Output parameters

In case of error, a message is written to the Connect-It log.

---

## NPER()

### Internal Basic syntax

**Function NPER(dblRate As Double, dblPmt As Double, dblPV As Double, dblFV As Double, iType As Long) As Double**

### Description

This function returns the number of payments of an annuity based on constant and periodic payments, and at a constant interest rate.

## Input parameters

- ◆ **dblRate**: This parameter indicates the interest rate per date of payment. For example, the rate per date of payment for a loan with a 6% annual interest rate, paid back by monthly dates of payment, would be:

$0.06/12=0.005$ or $0.5\%$
----------------------------

- **dblPmt**: This parameter indicates the amount of the payment to be made at each date of payment. The payment generally includes both principal and interest.
- **dblPV**: This parameter contains the actual value (or overall sum) for a series of payments to be made in the future.
- **dblFV**: This parameter contains the future value or the balance that you want to obtain after having paid the final date of payment. In general, and particularly when reimbursing a loan, this parameter is set to "0". In effect, once you have made all the dates of payment, the value of the loan is nil.
- **iType**: This parameter indicates the payment deadline. It can have one of the following values:
  - **0** if the payments are due in arrears (i.e. at the end of the period)
  - **1** if the payments are due in advance (i.e. at the start of the period)

## Output parameters

In case of error, a message is written to the Connect-It log.

## Notes

 **Note:**

Amounts paid (expressed in particular by the **Pmt** parameter) are represented by negative numbers. Sums received are represented by positive numbers.

---

## Oct()

### Internal Basic syntax

**Function Oct(dValue As Double) As String**

## Description

Returns the octal value of the decimal parameter.

## Input parameters

- ◆ **dValue:** Number whose octal value you want to know.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim dSeed as Double
dSeed = Int((10*Rnd)-5)
RetVal = Oct(dSeed)
```

---

## ParseDate()

### Internal Basic syntax

**Function ParseDate(strDate As String, strFormat As String, strStep As String) As Date**

## Description

This function converts a date expressed as a character string to a Basic date object.

## Input parameters

- **strDate:** Date in string format.
- **strFormat:** This parameter contains the format of the date contained in the character string. The possible values are the following:
  - DD/MM/YY
  - DD/MM/YYYY
  - MM/DD/YY
  - MM/DD/YYYY

- YYYY/MM/DD
- Date: date expressed according to the settings of the client computer.
- DateInter: date expressed in the international format
- **strStep**: This optional parameter contains the date separator used in the character string. The authorized separators are "\" and "-".

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim dDate as date
dDate=ParseDate("2001/05/01", "YYYY/MM/DD")
```

---

## ParseDMYDate()

### Internal Basic syntax

**Function ParseDMYDate(strDate As String) As Date**

### Description

This function returns a Date object (as understood in Basic) from a date formatted as follows:

```
dd/mm/yyyy
```

### Input parameters

- ◆ **strDate**: Date stored as a string.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim dDate as Date  
dDate = ParseDMYDate("31/02/2003")
```

---

## ParseMDYDate()

### Internal Basic syntax

**Function ParseMDYDate(strDate As String) As Date**

### Description

This function returns a Date object (as understood in Basic) from a date formatted as follows:

```
mm/dd/yyyy
```

### Input parameters

- ◆ **strDate**: Date stored as a string.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim dDate as Date  
dDate = ParseMDYDate("02/31/2003")
```

---

## ParseYMDDate()

### Internal Basic syntax

**Function ParseYMDDate(strDate As String) As Date**

## Description

This function returns a Date object (as understood in Basic) in yyyy/mm/dd format.

## Input parameters

- ◆ **strDate**: Date stored as a string.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim dDate as Date
dDate = ParseYMDDate("2003/02/31")
```

---

# PifCreateDynaMappableFromFmtName()

## Internal Basic syntax

**Function PifCreateDynaMappableFromFmtName(strCntrName As String, strFmtName As String, strLayer As String, strMappableName As String, strKeyName As String, bCreateOnce As Long) As Long**

## Description

This function is used to create a dynamic mappable when a session is started.

## Input parameters

- **strCntrName**: Connector name.
- **strFmtName**: Document type to produce that will define the contents of the mappable.
- **strLayer**: Where clause used for the document type.
- **strMappableName**: Name of the mappable to create.
- **strKeyName**: Column name that is used as key for the mappable to create.

If no column name is specified as key, the first attribute of the query used to create the mappable is used.

For example, to use the identifier of a portfolio item, the syntax will be as follows:

```
Portfolio.AssetTag
```

You do not need to specify the name of the document type in this syntax as the mappable is used for the current document type.

- **bCreateOnce:**
  - **0:** The mappable is created each time the function is called.
  - **1:** The mappable is created for the entire session.

## Output parameters

- **0:** Normal execution.
- **Other than zero:** Error code.

## Notes

See also:

- [PifMapValueEx\(\)](#) [page 124]
- [PifMapValueContainingEx\(\)](#) [page 122]

---

## PifDateToTimezone()

### Internal Basic syntax

**Function PifDateToTimezone(tmSrc As Date, strTmznSrc As String, bWithDayLightSavingSrc As Long, strTmznDst As String, bDayLightSavingDst As Long) As Date**

### Description

This function converts a date (as in date and time) expressed in a given time zone to another time zone taking into account, if necessary, daylight saving settings.

An error message is returned if the specified time zone does not exist.





#### Note:

The 'UTC' time zone (Universal Time Coordinated) can be used to specify a GMT 0 date without daylight savings.

## Input parameters

- **tmSrc:** This parameter contains the date to be converted.
- **strTmznSrc:** This parameter contains the name of the source time zone for the conversion.
- **bWithDayLightSavingSrc:** Depending on the value of this parameter, the function will take into account (=1) or not (=0) daylight savings settings for the source time zone.
- **strTmznDst:** This parameter contains the name of the target time zone for the conversion.
- **bDayLightSavingDst:** Depending on the value of this parameter, the function will take into account (=1) or not (=0) daylight savings settings for the target time zone.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
PifDateToTimezone("2002-08-29 12:00:00", "Romance Standard Time", 1, "UTC", 0)
```

returns:

```
2002-08-29 10:00:00
```

```
PifDateToTimezone("2002-08-29 12:00:00", "Romance Standard Time", 0, "UTC", 0)
```

returns:

```
2002-08-29 11:00:00
```

```
PifDateToTimezone("2002-12-25 12:00:00", "Romance Standard Time", 1, "UTC", 0)
```

returns:

```
2002-12-25 11:00:00
```

## Notes

List and description of time zones:

Nom	Description
Dateline Standard Time	(GMT-12:00) Eniwetok, Kwajalein
Samoa Standard Time	(GMT-11:00) Midway Island, Samoa
Hawaiian Standard Time	(GMT-10:00) Hawaii
Alaskan Standard Time	(GMT-09:00) Alaska
Pacific Standard Time	(GMT-08:00) Pacific Time (US & Canada); Tijuana
US Mountain Standard Time	(GMT-07:00) Arizona
Mountain Standard Time	(GMT-07:00) Mountain Time (US & Canada)
Central America Standard Time	(GMT-06:00) Central America
Central Standard Time	(GMT-06:00) Central Time (US & Canada)
Mexico Standard Time	(GMT-06:00) Mexico City
Canada Central Standard Time	(GMT-06:00) Saskatchewan
SA Pacific Standard Time	(GMT-05:00) Bogota, Lima, Quito
Eastern Standard Time	(GMT-05:00) Eastern Time (US & Canada)
US Eastern Standard Time	(GMT-05:00) Indiana (East)
Atlantic Standard Time	(GMT-04:00) Atlantic Time (Canada)
SA Western Standard Time	(GMT-04:00) Caracas, La Paz
Pacific SA Standard Time	(GMT-04:00) Santiago
Newfoundland Standard Time	(GMT-03:30) Newfoundland
E. South America Standard Time	(GMT-03:00) Brasilia
SA Eastern Standard Time	(GMT-03:00) Buenos Aires, Georgetown
Greenland Standard Time	(GMT-03:00) Greenland
Mid-Atlantic Standard Time	(GMT-02:00) Mid-Atlantic
Azores Standard Time	(GMT-01:00) Azores
Cape Verde Standard Time	(GMT-01:00) Cape Verde Is.
Greenwich Standard Time	(GMT) Casablanca, Monrovia
GMT Standard Time	(GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London
UTC	(GMT) Universal Coordinated Time
W. Europe Standard Time	(GMT+01:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna
Central Europe Standard Time	(GMT+01:00) Belgrade, Bratislava, Budapest, Ljubljana, Prague
Romance Standard Time	(GMT+01:00) Brussels, Copenhagen, Madrid, Paris
Central European Standard Time	(GMT+01:00) Sarajevo, Skopje, Sofija, Vilnius, Warsaw, Zagreb
W. Central Africa Standard Time	(GMT+01:00) West Central Africa
GTB Standard Time	(GMT+02:00) Athens, Istanbul, Minsk
E. Europe Standard Time	(GMT+02:00) Bucharest
Egypt Standard Time	(GMT+02:00) Cairo
South Africa Standard Time	(GMT+02:00) Harare, Pretoria
FLE Standard Time	(GMT+02:00) Helsinki, Riga, Tallinn
Jerusalem Standard Time	(GMT+02:00) Jerusalem
Arabic Standard Time	(GMT+03:00) Baghdad

Nom	Description
Arab Standard Time	(GMT+03:00) Kuwait, Riyadh
Russian Standard Time	(GMT+03:00) Moscow, St. Petersburg, Volgograd
E. Africa Standard Time	(GMT+03:00) Nairobi
Iran Standard Time	(GMT+03:30) Tehran
Arabian Standard Time	(GMT+04:00) Abu Dhabi, Muscat
Caucasus Standard Time	(GMT+04:00) Baku, Tbilisi, Yerevan
Afghanistan Standard Time	(GMT+04:30) Kabul
Ekaterinburg Standard Time	(GMT+05:00) Ekaterinburg
West Asia Standard Time	(GMT+05:00) Islamabad, Karachi, Tashkent
India Standard Time	(GMT+05:30) Calcutta, Chennai, Mumbai, New Delhi
Nepal Standard Time	(GMT+05:45) Kathmandu
N. Central Asia Standard Time	(GMT+06:00) Almaty, Novosibirsk
Central Asia Standard Time	(GMT+06:00) Astana, Dhaka
Sri Lanka Standard Time	(GMT+06:00) Sri Jayawardenepura
Myanmar Standard Time	(GMT+06:30) Rangoon
SE Asia Standard Time	(GMT+07:00) Bangkok, Hanoi, Jakarta
North Asia Standard Time	(GMT+07:00) Krasnoyarsk
China Standard Time	(GMT+08:00) Beijing, Chongqing, Hong Kong, Urumqi
North Asia East Standard Time	(GMT+08:00) Irkutsk, Ulaan Bataar
Malay Peninsula Standard Time	(GMT+08:00) Kuala Lumpur, Singapore
W. Australia Standard Time	(GMT+08:00) Perth
Taipei Standard Time	(GMT+08:00) Taipei
Tokyo Standard Time	(GMT+09:00) Osaka, Sapporo, Tokyo
Korea Standard Time	(GMT+09:00) Seoul
Yakutsk Standard Time	(GMT+09:00) Yakutsk
Cen. Australia Standard Time	(GMT+09:30) Adelaide
AUS Central Standard Time	(GMT+09:30) Darwin
E. Australia Standard Time	(GMT+10:00) Brisbane
AUS Eastern Standard Time	(GMT+10:00) Canberra, Melbourne, Sydney
West Pacific Standard Time	(GMT+10:00) Guam, Port Moresby
Tasmania Standard Time	(GMT+10:00) Hobart
Vladivostok Standard Time	(GMT+10:00) Vladivostok
Central Pacific Standard Time	(GMT+11:00) Magadan, Solomon Is., New Caledonia
New Zealand Standard Time	(GMT+12:00) Auckland, Wellington
Fiji Standard Time	(GMT+12:00) Fiji, Kamchatka, Marshall Is.
Tonga Standard Time	(GMT+13:00) Nuku'alofa

## PiffirstInCol()

### Internal Basic syntax

**Function PiffirstInCol(strPathCol As String, strChildCond As String, iStartCount As Long) As Long**

## Description

This function returns the number of the first item in a collection according to the condition specified in **strChildCond**.

## Input parameters

- **strPathCol**: Path of the collection being searched.
- **strChildCond**: Search condition on the element. The condition is in the following form:

```
<Chemin> = <Valeur>
```

where:

- *<Chemin>* is the path to an element in the collection
- *<Valeur>* is the value given as a character string in the same locale as Connect-It

-  **Note:**

If *n* is the number of elements in the collection, **iStartCount** must be between 0 and *n*-1.

**iStartCount**: Search start index.

## Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Example

```
Dim iToTal As Integer
Dim iIndex As Integer
iToTal = 0
iIndex = 0

Do
    iIndex = PifFirstInCol("Software", "Brand=Peregrine", 0)
    If iIndex <> 0 Then
        iToTal = iToTal + 1
    End If
Loop Until iIndex = 0
```

---

## PifGetBlobSize()

### Internal Basic syntax

**Function PifGetBlobSize(strPath As String) As Long**

### Description

This function returns the size of a blob object.

### Input parameters

- ◆ **strPath:** This parameter contains the full path of the blob object in the collection.

### Output parameters

The function returns the size of a blob object identified by its full path.

### Example

```
Dim iSize as Integer  
iSize = PifGetBlobSize("Description")
```

---

## PifGetElementChildName()

### Internal Basic syntax

**Function PifGetElementChildName(strPath As String, item As Long) As String**

### Description

This function returns the name of the nth sub-element of an identified node of a source document type.

## Input parameters

- **strPath:** This parameter contains the full path of the node concerned by the operation.
- **iltem:** This parameter contains the number of the sub-element whose name you want to recover.

## Output parameters

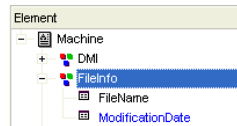
This function returns the name of the element.

### Note:

An error is logged in the tracking lines and an empty string is returned by the function if the parameter **iltem** is either negative or greater than the number of sub-elements of the node.

## Example

With the following source document type:



```
pifGetElementChildName ("FileInfo", 0)
```

returns "FileName"

```
pifGetElementChildName ("FileInfo", 1)
```

returns "ModificationDate"

```
pifGetElementChildName ("FileInfo", 2)
```

returns an empty string and logs an error in the tracking lines.

---

## PifGetElementCount()

### Internal Basic syntax

**Function PifGetElementCount(strPath As String) As Long**

## Description

This function returns the number of sub-elements of an identified node of a source document type.

## Input parameters

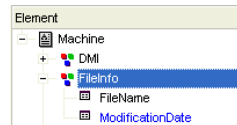
- ◆ **strPath**: This parameter contains the full path of the node concerned by the operation.

## Output parameters

The function returns the number of sub-items of the node whose path is specified by **strPath**.

## Example

With the following source document type:



The following script:

```
Dim iChildCount as Integer  
iChildCount = PifGetElementCount("FileInfo")
```

returns 2. The **FileInfo** element has 2 sub-elements: **FileName** and **ModificationDate**.

---

## PifGetHexStringFromBlob()

### Internal Basic syntax

**Function PifGetHexStringFromBlob(strPath As String, bCkeckNodeExists As Long) As Long**

## Description

This function enables you to store a binary long object (blob) of the source document inside an hexadecimal string. Each bit of the binary object is stored in its hexadecimal form (two characters) inside the string. For example, the hexadecimal representation of the decimal value "27" is "1B".

## Input parameters

- **strPath** : This parameter contains the full path of the binary element (blob) in the source document.
- **bCkeckNodeExists** : Depending on this parameter, an error is logged (=TRUE) or not (=FALSE) if the binary element cannot be found in the source document. FALSE is the default value for this parameter.

## Output parameters

The function returns the hexadecimal representation of the binary element.

## Example

On some LDAP servers, an entry is uniquely defined by the binary element "ObjectGUID". The script below imports this binary value inside a string of the destination connector and uses it as a reconciliation key.

```
RetVal = PifGetHexStringFromBlob("ObjectGUID", TRUE)
```

---

## PifGetInstance()

### Internal Basic syntax

**Function PifGetInstance() As String**

### Description

In a collection to collection mapping, this function returns the number of the element currently being processed in the collection. The first element processed is number "0".

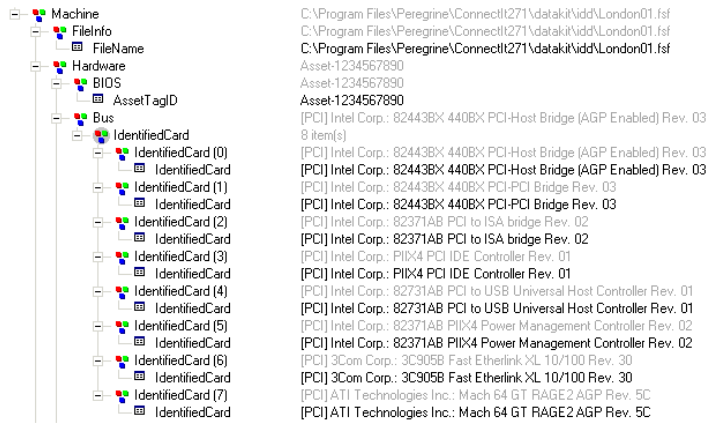


## Output parameters

The number of the element being processed is returned as a character string

## Example

With the following collection mapping (on **Hardware.Bus.IdentificationCard**) :



The screenshot shows a tree view on the left and a list of hardware components on the right. The tree view is expanded to show the 'Bus' folder, which contains an 'IdentificationCard' folder. This folder contains eight sub-items, each labeled 'IdentificationCard (0)' through 'IdentificationCard (7)'. The list on the right shows the details for these items, including their manufacturer, model, and revision. The first item is 'Intel Corp.: 82443BX 440BX PCI-Host Bridge (AGP Enabled) Rev. 03'.

the following script:

```
Dim strMyElement as String  
strMyElement= "Item #" & PifGetInstance
```

returns the following values: **Item #0**, **Item #1**, **Item #2**, etc.

---

## PifGetItemCount()

### Internal Basic syntax

**Function PifGetItemCount(strPath As String) As Long**

### Description

This function returns the number of elements in a fully identified collection.

## Input parameters

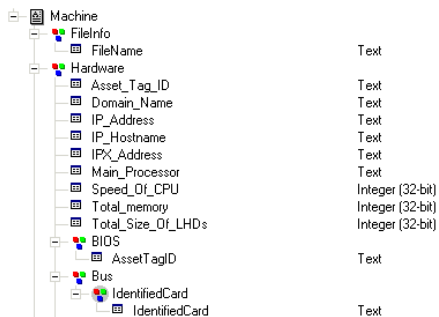
- ◆ **strPath**: Full path of the collection.

## Output parameters

The function returns the number of elements in the collection.  
If the collection does not exist the function will return "0".

## Example

With the following document type:

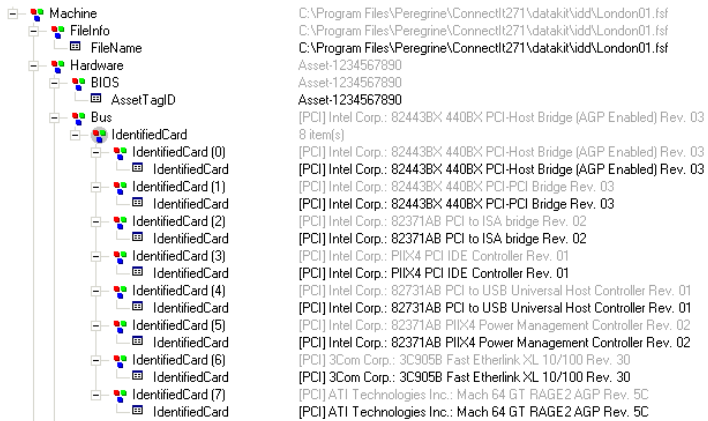


Machine	
FileInfo	
FileName	Text
Hardware	
Asset_Tag_ID	Text
Domain_Name	Text
IP_Address	Text
IP_Hostname	Text
IPX_Address	Text
Main_Processor	Text
Speed_Of_CPU	Integer (32-bit)
Total_memory	Integer (32-bit)
Total_Size_Of_LHDs	Integer (32-bit)
BIOS	
AssetTagID	Text
Bus	
IdentifiedCard	Text
IdentifiedCard	Text

The script:

```
Dim iCount As Integer
iCount = PifGetItemCount("Hardware.Bus.IdentifiedCard")
```

returns the number of sub-elements of the **Hardware.Bus.IdentifiedCard** collection. For example, on the document below, the script returns "8".



The screenshot shows a tree view on the left and a list of details on the right. The tree view is expanded to show the 'IdentifiedCard' collection under 'Hardware.Bus'. The list of details on the right contains 8 items, each representing a hardware component with its manufacturer, model, and revision information.

Manufacturer	Model	Revision
Intel Corp.	82443BX 440BX PCI-Host Bridge (AGP Enabled)	Rev. 03
Intel Corp.	82443BX 440BX PCI-Host Bridge (AGP Enabled)	Rev. 03
Intel Corp.	82443BX 440BX PCI-PCI Bridge	Rev. 03
Intel Corp.	82443BX 440BX PCI-PCI Bridge	Rev. 03
Intel Corp.	82371AB PCI to ISA bridge	Rev. 02
Intel Corp.	82371AB PCI to ISA bridge	Rev. 02
Intel Corp.	PIIX4 PCI IDE Controller	Rev. 01
Intel Corp.	PIIX4 PCI IDE Controller	Rev. 01
Intel Corp.	82731AB PCI to USB Universal Host Controller	Rev. 01
Intel Corp.	82731AB PCI to USB Universal Host Controller	Rev. 01
Intel Corp.	82371AB PIIX4 Power Management Controller	Rev. 02
Intel Corp.	82371AB PIIX4 Power Management Controller	Rev. 02
3Com Corp.	3C905B Fast Etherlink XL 10/100	Rev. 30
3Com Corp.	3C905B Fast Etherlink XL 10/100	Rev. 30
ATI Technologies Inc.	Mach 64 GT RAGE2 AGP	Rev. 5C
ATI Technologies Inc.	Mach 64 GT RAGE2 AGP	Rev. 5C

## PifGetOpenSessionTime()

### Internal Basic syntax

#### Function PifGetOpenSessionTime() As Date

### Description

This function returns the date and time of the start of the session.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

```
pifLogInfoMsg("Session start time is: '" & pifGetSessionStartTime & "'")
```

---

## PifIgnoreCollectionMapping()

### Internal Basic syntax

**Function PifIgnoreCollectionMapping(strMsg As String) As Long**

### Description

This function enables you to ignore a collection, *only in a collection-to-collection mapping*.

As a reminder, the **PifIgnoreNodeMapping()** function simply enables you to ignore the current element of a collection.

An information message, contained in the **strMsg** parameter can be sent to the log file.

### Input parameters

- ◆ **strMsg**: Optional parameter. Character string sent to the log.

### Output parameters

- 0: Normal execution.
- Other than zero: Error code.

### Example

In the following example, all the elements of the collection are ignored if one of the elements has a *quantity* node whose value is set to '0':

```
if [root.item(pifGetInstance).quantity] = 0 then
pifIgnoreCollectionMapping
end if
```

For comparison with the **PifIgnoreNodeMapping()** function, in the following example, only those elements of the collection with a *quantity* node whose value is set to '0' are ignored:

```
if [root.item(pifGetInstance).quantity] = 0 then
pifIgnoreNodeMapping
end if
```

---

## PifIgnoreDocumentMapping()

### Internal Basic syntax

**Function PifIgnoreDocumentMapping(strMsg As String) As Long**

### Description

This function enables you to ignore a document.

An information message, contained in the **strMsg** parameter, can be sent to the log.

The produced document is logged in the document log but is not transmitted to the next connector.

### Input parameters

- ◆ **strMsg**: Optional parameter. Character string sent to the log.

### Output parameters

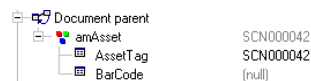
- 0: Normal execution.
- Other than zero: Error code.

### Example

For example, if you want to ignore documents for which the **BarCode** field is empty, but still want to log the value of the **AssetTag** field in the tracking lines, the following script can be used on the **BarCode** node:

```
If [BarCode] = "" Then
PifIgnoreDocumentMapping([AssetTag])
Else
RetVal = [BarCode]
End If
```

If this script is used on the document below:



the following document appears in the document log (it is not transmitted to the next connector) :



An information message is also logged in the tracking lines.

---

## PifIgnoreDocumentReconc()

### Internal Basic syntax

**Function PifIgnoreDocumentReconc(strMsg As String) As Long**

### Description

This function ignores a document during a reconciliation operation. No insertion or update is performed in AssetCenter. A message, stored in the **strMsg** parameter, can be displayed in the log.

 **Note:**

This function can only be used in non-parallelized mode.

### Input parameters

- ◆ **strMsg** : This parameter contains the message displayed in the log.

### Output parameters

- 0: Normal execution.
- Other than zero: Error code.

### Notes

 **Note:**

This function is only available in the reconciliation scripts.

---

## PifIgnoreNodeMapping()

### Internal Basic syntax

**Function PifIgnoreNodeMapping(strMsg As String) As Long**

### Description

This function enables you to skip a node in a document.

An information message, contained in the **strMsg** parameter, can be sent to the log.

#### Warning:

This function cannot be used on the root node of a document. To ignore a full document, use the **PifIgnoreDocumentMapping** function.

### Input parameters

- ◆ **strMsg**: Optional parameter. Character string sent to the log.

### Output parameters

- 0: Normal execution.
- Other than zero: Error code.

### Example

The following script ignores the current node and logs a message if the **[Comment]** field is empty.

```
If [Comment] = "" Then  
PifIgnoreNodeMapping("The current node was not processed")  
Else
```

```
RetVal = [Comment]
End If
```

Element	Mapping	Description
- amAsset		
AssetTag	[AssetTag]	
Comment	If [Comment] = "" Then pifIgnoreNodeMa...	

Mapping script:

```
If [Comment] = "" Then
  pifIgnoreNodeMapping("The current node has not been processed")
Else
  RetVal = [Comment]
End if
```

For example, if the mapping source document is the following:

amAsset	
AssetTag	Text
Comment	Long text field

If the **PifIgnoreNodeMapping()** function is not used, the following documents can be produced:

Element	Value
+ Parent document	
- amAsset	000008
AssetTag	000008
Comment	test

Message

Element	Value
+ Parent document	
- amAsset	000002
AssetTag	000002
Comment	(null)

Message



If the **PiflgnoreNodeMapping()** is used, the following documents will be produced instead:

Element	Value
+ Parent document	
- amAsset	000008
AssetTag	000008
Comment	test

Message

Element	Value
+ Parent document	
- amAsset	000002
AssetTag	000002

Message

! Element ignored ('The current node has not been processed'). (amAsset.Comment)

## Notes



### Note:

Since the node is not processed, the message sent to the log is written to the parent of the node that is skipped.

## PiflgnoreNodeReconc()

### Internal Basic syntax

**Function PiflgnoreNodeReconc(strMsg As String) As Long**

### Description

This function ignores a sub-document during a reconciliation operation. No insertion or update is performed in AssetCenter. A message, stored in the **strMsg** parameter, can be displayed in the log.

## Input parameters

- ◆ **strMsg** : This parameter contains the message displayed in the log.

## Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Notes



Note:

This function is only available in Connect-It reconciliation scripts.

---

## PiflgnoreSubDocumentReconc()

### Internal Basic syntax

**Function PiflgnoreSubDocumentReconc(strMsg As String) As Long**

### Description

This function ignores a sub-document during a reconciliation operation. No insertion or update is performed in AssetCenter. A message, stored in the **strMsg** parameter, can be displayed in the log.

### Input parameters

- ◆ **strMsg** : This parameter contains the message displayed in the log.

### Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Notes



### Note:

This function is only available in the reconciliation scripts.

---

## PifIsInMap()

### Internal Basic syntax

**Function PifIsInMap(strKey As String, strMappable As String, bCaseSensitive As Long) As Long**

### Description

This function tests if a keyword is in a mappable. The search can be made case sensitive.

### Input parameters

- **strKey:** Keyword.
  - **strMappable:** Name of the mappable being searched.
  - **0:** Case insensitive.
  - **1:** Case sensitive.
- bCaseSensitive:** This parameter specifies whether the search is case sensitive.

### Output parameters

- **0:** Keyword not found.
- **1:** Keyword found.

### Example

```
If PifIsInMap("CAT_PC", "MainAsset") Then
RetVal = 1
Else
RetVal = 0
End If
```

---

## PifLogInfoMsg()

### Internal Basic syntax

**Function PifLogInfoMsg(strMsg As String) As Long**

### Description

Sends an information message, contained in the **strMsg** parameter, to the log.

### Input parameters

- ◆ **strMsg**: Character string containing the message to be sent to the log.

### Output parameters

- 0: Normal execution.
- Other than zero: Error code.

### Example

```
Dim strBrand As String
strBrand = [DeviceBrand]
If strBrand = "" Then
PifLogInfoMsg(PifStrVal("BRAND_UNREGISTERED"))
RetVal = PifStrVal("BRAND_UNKNOWN")
Else
RetVal = strBrand
End If
```

---

## PifLogWarningMsg()

### Internal Basic syntax

**Function PifLogWarningMsg(strMsg As String) As Long**

## Description

Sends a warning message, contained in the **strMsg** parameter, to the log.

## Input parameters

- ◆ **strMsg**: Character string containing the warning message to be sent to the log.

## Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Example

```
If [Brand] = "" Then
PifLogWarningMsg("Unknown brand")
Else
RetVal = [Brand]
End if
```

---

## PifMapValue()

### Internal Basic syntax

**Function PifMapValue(strKey As String, strMappable As String, iPos As Long, strDefault As String, bCaseSensitive As Long, bLogErrIfOutOfRange As Long, bLogNewEntries As Long) As String**

## Description

Returns the value of an element in a mappable. The element is uniquely identified using the **strKey**, **strMapTable**, and **iPos** parameters.

The search can be made case sensitive.

## Input parameters

- **strKey**: Keyword identifying the line in the mappable containing the element.

- **strMappable**: Name of the mappable being searched.
- **iPos**: Number of the column containing the element whose value you want to recover.

---

 **Note:**

This parameter can be any positive number; 0 represents the first column.

---

- **strDefault**: Default value returned if the element is not found.
- **bCaseSensitive**: This parameter specifies whether the search is case sensitive or not.
  - **0**: Case insensitive.
  - **1**: Case sensitive (default value).
- **bLogErrIfOutOfRange**: Depending on this parameter, an error is logged (=TRUE) or not (=FALSE) in the event log when the column number (**iPos** parameter) is either negative or greater than the number of columns in the mappable.

---

 **Note:**

By default, this parameter is set to TRUE.

---

- **bLogNewEntries**: This parameter creates the mappable for keys found and not previously declared in a mappable in a new file adjoining the scenario. This file has the same name as the scenario but is prefixed by `_NewMapKeys.mpt`.

---

 **Note:**

Maptables concerning the scenario are not updated automatically. To update maptables, edit the file that was just created and copy/paste the new information in the mappable file.

---

- **0** (default value): The automatic creation of mappable files is disabled.
- **1**: The automatic creation of mappable files is enabled.

## Output parameters

The function returns the string found or the default string (which is contained in the **strDefault** parameter) if the element is not found.

## Example

For example, consider the following maptable:

```
Detail
File name: C:\Program Files\Peregrine\ConnectIt310\config\idd\mpt\idd.mpt
#-----
# List of Asset type and category association
#-----
{ Mappable TypeCategory
  PRINTER | CAT_PRINTER
  MODEM   | CAT_MODEM
  MONITOR | CAT_MONITOR
}
```

The following script:

```
pifMapValue("PRINTER", "TypeCategory", 1, "")
```

returns **CAT\_PRINTER**.

The following script:

```
pifMapValue("Printer", "TypeCategory", 1, "")
```

returns the default value. The search being case-sensitive, the searched element is not found.

The following script:

```
pifMapValueContaining("Print", "TypeCategory", 1, 1, 1, "")
```

returns the default value, saves an error to the event log, and creates a maptable file.

## Notes



### Note:

This function correctly handles the following wildcard characters:

- ? : replaces any character.
- \* : replaces any number of characters.

---

## PifMapValueContaining()

### Internal Basic syntax

**Function PifMapValueContaining(strKey As String, strMappable As String, iPos As Long, strDefault As String, bCaseSensitive As Long, bLogErrIfOutOfRange As Long, bLogNewEntries As Long) As String**

### Description

This function returns the value of an element in a mappable. The element is uniquely identified using the **strKey**, **strMapTable**, and **iPos** parameters.

The search can be made case sensitive.

The difference with the **PifMapValue** function is that the **strKey** parameter can be a subset of the keyword being searched.

For example, if **strKey** contains "Monitor", the element with keyword "Cat\_Monitor" will be found.

### Input parameters

- **strKey**: Keyword or subset of keyword identifying the line in the mappable containing the element.
- **strMappable**: Name of the mappable being searched.
- **iPos**: Number of the column containing the element whose value you want to recover.



#### Note:

This parameter can be any positive number; 0 represents the first column.

- **strDefault**: Default value returned if the element is not found.
  - **0**: Case insensitive.
  - **1**: Case sensitive (default value).
- **bCaseSensitive**: This parameter specifies whether the search is case sensitive.
- **bLogErrIfOutOfRange** : Depending on this parameter, an error is logged (=TRUE) or not (=FALSE) in the event log when the column number (**iPos** parameter) is either negative or greater than the number of columns in the mappable.





Note:

By default, this parameter is set to TRUE.

- **LogNewEntries**: This parameter creates the mappable for keys found and not previously declared in a mappable in a new file adjoining the scenario. This file has the same name as the scenario but is prefixed by `_NewMapKeys.mpt`.



Note:

Matables concerning the scenario are not updated automatically. To update matables, edit the file that was just created and copy/paste the new information in the mappable file.

- **0** (default value): The automatic creation of mappable files is disabled.
- **1**: The automatic creation of mappable files is enabled.

## Output parameters

The function returns the string found or the default string (which is contained in the **strDefault** parameter) if the element is not found.

## Example

For example, with the following mappable:

```
Detail
File name: C:\Program Files\Peregrine\Connectt310\config\dd\mpt\dd.mpt
#-----
# List of Asset type and category association
#-----
{ Mappable TypeCategory
  PRINTER | CAT_PRINTER
  MODEM   | CAT_MODEM
  MONITOR | CAT_MONITOR
}
```

The following script:

```
pifMapValueContaining("PRINT", "TypeCategory", 1, "")
```

returns **CAT\_PRINTER**.



Note:

If several keys in the mappable match the **StrKey** parameter, then the function will return first key encountered.

The following script:

```
pifMapValueContaining("Print", "TypeCategory", 1, "")
```

returns the default value. As the search is case-sensitive, the element is not found.

The following script:

```
pifMapValueContaining("Print", "TypeCategory", 1, 1, 1 "")
```

returns the default value, saves an error in the event log and creates a mappable file.

## Notes



Note:

This function correctly handles the following wildcard characters:

- ? : replaces any character.
- \* : replaces any number of characters.

---

## PifMapValueContainingEx()

### Internal Basic syntax

**Function PifMapValueContainingEx(strKey As String, strMappable As String, strColName As String, strDefault As String, bCaseSensitive As Long, bLogErrIfOutOfRange As Long, bLogNewEntries As Long) As String**

### Description

This function returns the value of an element in a mappable. The element is uniquely identified by these parameters: **strKey**, **strMapTable**, **strColName**.

The search for the element can be made case sensitive.

As opposed to the **PifMapContaining** function, the **strColName** parameter defines the column name instead of its position.

This function is useful when:

- The mappable was created from a format (the column names correspond to the element names of the format)
- The column names were defined manually in the maptables using the mappable editor.

## Input parameters

- **strKey**: Expression containing one of the keys defined in the mappable.
- **strMappable**: Name of the mappable being searched.
- **strColName**: Name of the column containing the element whose value you want to retrieve.
- **strDefault**: Default value returned if the element is not found.
- **0**: The search is not case sensitive.
- **1** (default value): The search is case sensitive.
- **bCaseSensitive**: This parameter specifies whether the search is case sensitive or not.
- **bLogErrIfOutOfRange**: Depending on this parameter, an error is logged (=TRUE) or not (=FALSE) in the event log when the column number (**iPos** parameter) is either negative or greater than the number of columns in the mappable.



Note:

By default, this parameter is set to TRUE.

- **bLogNewEntries**: This parameter creates the mappable for keys found and not previously declared in a mappable in a new file adjoining the scenario. This file has the same name as the scenario but is prefixed by `_NewMapKeys.mpt`.



Note:

Maptables concerning the scenario are not updated automatically. To update maptables, edit the file that was just created and copy/paste the new information in the mappable file.

- **0** (default value): The automatic creation of mappable files is disabled.
- **1**: The automatic creation of mappable files is enabled.

## Output parameters

The function returns the string found or the default string (which is contained in the **strDefault** parameter) if the element is not found.

## Notes

 Note:

This function correctly handles the following wildcard characters:

- `?` : Corresponds to any character.
- `*` : Corresponds to any number of characters.

If no mappable is created from a format or manually using the mappable editor, use the **PifMapValueContaining** or **PifMapValue** functions.

---

## PifMapValueEx()

### Internal Basic syntax

**Function PifMapValueEx(strKey As String, strMappable As String, strColName As String, strDefault As String, bCaseSensitive As Long, bLogErrIfOutOfRange As Long, bLogNewEntries As Long) As String**

### Description

This function returns the value of an element in a mappable. The element is uniquely identified by these parameters: **strKey**, **strMapTable**, **strColName**. The difference of this function as compared to the **PIFMAPVALUE** function is that the **strColName** parameter specifies the column name instead of its number.

The search for the element can be made case sensitive.

This function is useful when:

- The mappable was created from a format (the column names correspond to the element names of the format)
- The column names were defined manually in the mappables using the mappable editor.

## Input parameters

- **strKey**: Keyword that is used to identify the line in the mactable that contains the element.
- **strMactable**: Name of the mactable being searched.
- **strColName**: Name of the column containing the element whose value you want to retrieve.
- **strDefault**: Default value returned if the element is not found.
- **bCaseSensitive**: This parameter specifies whether the search is case sensitive or not.
  - **0**: The search is not case sensitive.
  - **1** (default value): The search is case sensitive.
- **bLogErrIfOutOfRange**: Depending on this parameter, an error is logged (=TRUE) or not (=FALSE) in the event log when the column number (**iPos** parameter) is either negative or greater than the number of columns in the mactable.



By default, this parameter is set to TRUE.

- **bLogNewEntries**: This parameter creates the mactable for keys found and not previously declared in a mactable in a new file adjoining the scenario. This file has the same name as the scenario but is prefixed by `_NewMapKeys.mpt`.



Maptables concerning the scenario are not updated automatically. To update maptables, edit the file that was just created and copy/paste the new information in the mactable file.

- **0** (default value): The automatic creation of mactable files is disabled.
- **1**: The automatic creation of mactable files is enabled.

## Output parameters

The function returns the string found or the default string (which is contained in the **strDefault** parameter) if the element is not found.

## Notes

### Note:

This function correctly handles the following wildcard characters:

- `?` : Corresponds to any character.
- `*` : Corresponds to any number of characters.

If no maptable is created from a format or manually using the maptable editor, use the **PifMapValueContaining** or **PifMapValue** functions.

---

## PifNewQueryFromFmtName()

### Internal Basic syntax

**Function PifNewQueryFromFmtName(strCntrName As String, strFmtName As String, strLayer As String) As Long**

### Description

This function creates a query on the document type defined beforehand in the list of documents produced by a resource.

### Input parameters

- **strCntrName**: This parameter contains the name of the resource (on which the query is performed).
- **strFmtName**: This parameter contains the identifier of the document type (defined beforehand as a produced document type).
- **strLayer**: This parameter is used to define a production directive for a produced document type.

The production directive can be:

- A WHERE clause that uses the correct syntax for the connector
- An XML description that defines production directives that are applied for the connector (for example, an Order By clause). The XML syntax of the production directives is described in the **PifNewQueryFromXML** documentation.



#### Note:

If the document type **strFmtName** already contains production directives, they will be merged with those provided in the **strLayer** parameter. In the event that the two parameters provide a different value for the same directive, the value defined in **strLayer** will prevail.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

The following example shows a simple Where clause for the **strLayer** parameter:

```
dim hQuery as long
dim iRc as long

hQuery = pifNewQueryFromFmtName("Asset Management", "amEmplDept", "Name li
ke 'A%'" )

Dim strValue as string

while (iRc = 0)
iRc = pifQueryNext(hQuery)
if iRc = 0 then
strValue = pifQueryGetStringVal(hQuery, "Name")
piflogInfoMsg strValue
end if
wend

iRc = pifQueryClose(hQuery)
```

## Notes

See also:

- [PifNewQueryFromXml\(\)](#) [page 128]
- [PifQueryClose\(\)](#) [page 131]
- [PifQueryNext\(\)](#) [page 137]
- [PifQueryGetDateVal\(\)](#) [page 132]
- [PifQueryGetDoubleVal\(\)](#) [page 133]
- [PifQueryGetIntVal\(\)](#) [page 134]
- [PifQueryGetLongVal\(\)](#) [page 135]
- [PifQueryGetStringVal\(\)](#) [page 136]

---

## PifNewQueryFromXml()

### Internal Basic syntax

**Function PifNewQueryFromXml(strCntrName As String, strQuery As String, strLayer As String) As Long**

### Description

This function creates a query for a resource. The document type must be fully defined in XML by the **strQuery** parameter. >The processing (AQL query clause) is defined in XML by the **strLayer** parameter.

### Input parameters

- **strCntrName:** This parameter contains the name of the resource (on which the query is performed).
- **strQuery:** This parameter contains an XML document that defines the document type (attributes, structures, collections) on which the query is performed.
- **strLayer:** This parameter contains an XML document that defines the production directives (Where clause, Order By clause, ...) for the query.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

```
strLayer = "<Directives>"
strLayer = strLayer + " <Where>Name = '" + GetXmlElementValue ([Name]) + "
'</Where>"
strLayer = strLayer + " <OrderBy>BarCode</OrderBy>"
strLayer = strLayer + " <Where Path='ItemsUsed'>AssetTag like 'A%'</Wh
ere>"
strLayer = strLayer + "</Directives>"
```



## Notes

In this example, we build an XML document that specifies both the document to produce and the clauses of the query executed. As for all XML documents, it must be valid. Reserved characters (for example <, &...) must be escaped using the `GetXmlElementValue()` [page 72] and `GetXmlAttributeValue()` [page 71] functions.

### Note:

When **strLayer** contains a simple AQL Where clause, it is not necessary to use `GetXmlElementValue()` [page 72].

The preceding description assumes that you know the type of document to be produced and that the query contains a simple WHERE clause. The example below shows how to use the function without knowing the type of document to produce. It also shows how to use other AQL clauses.

```
dim hQuery as long
dim strQuery as string
dim strLayer as string
dim iRc as long

strQuery = "<STRUCTURE Name='amEmplDept'>"
strQuery = strQuery + "<ATTRIBUTE Name='Name' />"
strQuery = strQuery + "<ATTRIBUTE Name='BarCode' />"
strQuery = strQuery + "<COLLECTION Name='ItemsUsed'>"
strQuery = strQuery + "<ATTRIBUTE Name='AssetTag' />"
strQuery = strQuery + "</COLLECTION>"
strQuery = strQuery + "</STRUCTURE>"

strLayer = "<Directives>"
strLayer = strLayer + "<Where>Name = 'Taltek'</Where>"
strLayer = strLayer + "<OrderBy>BarCode</OrderBy>"
strLayer = strLayer + "<Where Path='ItemsUsed'>AssetTag like 'A%'</Where>"
strLayer = strLayer + "</Directives>"

hQuery = pifNewQueryFromXml("Asset Management", strQuery, strLayer)

Dim strValue as string

while (iRc = 0)
iRc = pifQueryNext(hQuery)
if iRc = 0 then
strValue = pifQueryGetStringVal(hQuery, "Name")
piflogInfoMsg strValue
end if
wend

iRc = pifQueryClose(hQuery)
```

---

 **Note:**

In this example, we build an XML document that specifies both the document to produce and the clauses of the query executed. As for all XML documents, it must be valid. Reserved characters (for example <,&...) must be replaced with the corresponding entities (&lt;,&amp;...).

See also:

- [PifQueryClose\(\)](#) [page 131]
- [PifNewQueryFromFmtName\(\)](#) [page 126]
- [PifQueryNext\(\)](#) [page 137]
- [PifQueryGetDateVal\(\)](#) [page 132]
- [PifQueryGetDoubleVal\(\)](#) [page 133]
- [PifQueryGetIntVal\(\)](#) [page 134]
- [PifQueryGetLongVal\(\)](#) [page 135]
- [PifQueryGetStringVal\(\)](#) [page 136]

---

## PifNodeExists()

### Internal Basic syntax

**Function PifNodeExists(strPath As String) As Long**

### Description

Tests whether a node, identified by its full access path, exists in a produced document.

### Input parameters

- ◆ **strPath:** Full path of the node concerned by the operation.

### Output parameters

Returns either of the following values:

- **0:**if the node does not exist.
- **1:**if the node exists

## Example

```
If PifNodeExists("Hardware.Peripherals.Printer") = 0 Then  
PifIgnoreNodeMapping  
End If
```

---

## PifQueryClose()

### Internal Basic syntax

**Function PifQueryClose(IQueryHandle As Long) As Long**

### Description

This function closes the query and frees the internal resources used by the query.

### Input parameters

- ◆ **IQueryHandle**: This parameter contains a handle of the query created using the **PifNewQueryFromFmtName()** or **PifNewQueryFromXml()** functions.

### Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Example

```
dim hQuery as long  
dim iRc as long  
  
hQuery = pifNewQueryFromFmtName("Asset Management", "amEmplDept", "Name li  
ke 'A%'")  
  
Dim strValue as string  
  
while (iRc = 0)  
iRc = pifQueryNext(hQuery)  
if iRc = 0 then  
strValue = pifQueryGetStringVal(hQuery, "Name")
```

```
piflogInfoMsg strValue
end if
wend

iRc = pifQueryClose(hQuery)
```

## Notes

See also:

- [PifNewQueryFromXml\(\)](#) [page 128]
- [PifNewQueryFromFmtName\(\)](#) [page 126]
- [PifQueryNext\(\)](#) [page 137]
- [PifQueryGetDateVal\(\)](#) [page 132]
- [PifQueryGetDoubleVal\(\)](#) [page 133]
- [PifQueryGetIntVal\(\)](#) [page 134]
- [PifQueryGetLongVal\(\)](#) [page 135]
- [PifQueryGetStringVal\(\)](#) [page 136]

---

## PifQueryGetDateVal()

### Internal Basic syntax

**Function PifQueryGetDateVal(IQueryHandle As Long, strPath As String, bPathMustExist As Long) As Date**

### Description

This function returns the value (as a Date) of a node of the current document. The current document is the one on which the query cursor has been set using the **PifQueryNext()** function.

### Input parameters

- **IQueryHandle**: This parameter contains a handle of the query created using the **PifNewQueryFromFmtName()** or **PifNewQueryFromXml()** functions.
- **strPath**: This parameter contains the path of the node of the current document for which you want to recover the value.

- **bPathMustExist** : Depending on this parameter, an error is logged (=TRUE) or not (=FALSE) in the event log when no value can be retrieved for the path specified in the **strPath** parameter.

## Output parameters

Value of the identified node

## Notes

See also:

- [PifNewQueryFromXml\(\)](#) [page 128]
- [PifNewQueryFromFmtName\(\)](#) [page 126]
- [PifQueryNext\(\)](#) [page 137]
- [PifQueryClose\(\)](#) [page 131]
- [PifQueryGetDoubleVal\(\)](#) [page 133]
- [PifQueryGetIntVal\(\)](#) [page 134]
- [PifQueryGetLongVal\(\)](#) [page 135]
- [PifQueryGetStringVal\(\)](#) [page 136]

---

## PifQueryGetDoubleVal()

### Internal Basic syntax

**Function PifQueryGetDoubleVal(IQueryHandle As Long, strPath As String, bPathMustExist As Long) As Double**

### Description

This function returns the value (as a Double) of a node of the current document. The current document is the one on which the query cursor has been set using the **PifQueryNext()** function.

### Input parameters

- **IQueryHandle**: This parameter contains a handle of the query created using the **PifNewQueryFromFmtName()** or **PifNewQueryFromXml()** functions.

- **strPath**: This parameter contains the path of the node of the current document for which you want to recover the value.
- **bPathMustExist** : Depending on this parameter, an error is logged (=TRUE) or not (=FALSE) in the event log when no value can be retrieved for the path specified in the **strPath** parameter.

## Output parameters

Value of the identified node

## Notes

See also:

- [PifNewQueryFromXml\(\)](#) [page 128]
- [PifNewQueryFromFmtName\(\)](#) [page 126]
- [PifQueryNext\(\)](#) [page 137]
- [PifQueryGetDateVal\(\)](#) [page 132]
- [PifQueryClose\(\)](#) [page 131]
- [PifQueryGetIntVal\(\)](#) [page 134]
- [PifQueryGetLongVal\(\)](#) [page 135]
- [PifQueryGetStringVal\(\)](#) [page 136]

---

## PifQueryGetIntVal()

### Internal Basic syntax

**Function PifQueryGetIntVal(IQueryHandle As Long, strPath As String, bPathMustExist As Long) As Long**

### Description

This function returns the value (as an Integer) of a node of the current document. The current document is the one on which the query cursor has been set using the **PifQueryNext()** function.

## Input parameters

- **IQueryHandle**: This parameter contains a handle of the query created using the **PifNewQueryFromFmtName()** or **PifNewQueryFromXml()** functions.
- **strPath**: This parameter contains the path of the node of the current document for which you want to recover the value.
- **bPathMustExist**: Depending on this parameter, an error is logged (=TRUE) or not (=FALSE) in the event log when no value can be retrieved for the path specified in the **strPath** parameter.

## Output parameters

Value of the identified node

## Notes

See also:

- [PifNewQueryFromXml\(\)](#) [page 128]
- [PifNewQueryFromFmtName\(\)](#) [page 126]
- [PifQueryNext\(\)](#) [page 137]
- [PifQueryGetDateVal\(\)](#) [page 132]
- [PifQueryGetDoubleVal\(\)](#) [page 133]
- [PifQueryClose\(\)](#) [page 131]
- [PifQueryGetLongVal\(\)](#) [page 135]
- [PifQueryGetStringVal\(\)](#) [page 136]

---

## PifQueryGetLongVal()

### Internal Basic syntax

**Function PifQueryGetLongVal(IQueryHandle As Long, strPath As String, bPathMustExist As Long) As Long**

### Description

This function returns the value (as a Long) of a node of the current document. The current document is the one on which the query cursor has been set using the **PifQueryNext()** function.

## Input parameters

- **IQueryHandle**: This parameter contains a handle of the query created using the **PifNewQueryFromFmtName()** or **PifNewQueryFromXml()** functions.
- **strPath**: This parameter contains the path of the node of the current document for which you want to recover the value.
- **bPathMustExist**: Depending on this parameter, an error is logged (=TRUE) or not (=FALSE) in the event log when no value can be retrieved for the path specified in the **strPath** parameter.

## Output parameters

Value of the identified node

## Example

```
strValue = PifQueryGetLongVal(hQuery, "Name")
```

## Notes

See also:

- [PifNewQueryFromXml\(\)](#) [page 128]
- [PifNewQueryFromFmtName\(\)](#) [page 126]
- [PifQueryNext\(\)](#) [page 137]
- [PifQueryGetDateVal\(\)](#) [page 132]
- [PifQueryGetDoubleVal\(\)](#) [page 133]
- [PifQueryGetIntVal\(\)](#) [page 134]
- [PifQueryClose\(\)](#) [page 131]
- [PifQueryGetStringVal\(\)](#) [page 136]

---

## PifQueryGetStringVal()

### Internal Basic syntax

**Function PifQueryGetStringVal(IQueryHandle As Long, strPath As String, bPathMustExist As Long) As String**



## Description

This function returns the value (as a string) of a node of the current document. The current document is the one on which the query cursor has been set using the **PifQueryNext()** function.

## Input parameters

- **IQueryHandle**: This parameter contains a handle of the query created using the **PifNewQueryFromFmtName()** or **PifNewQueryFromXml()** functions.
- **strPath**: This parameter contains the path of the node of the current document for which you want to recover the value.
- **bPathMustExist**: Depending on this parameter, an error is logged (=TRUE) or not (=FALSE) in the event log when no value can be retrieved for the path specified in the **strPath** parameter.

## Output parameters

Value of the identified node

## Notes

See also:

- [PifNewQueryFromXml\(\)](#) [page 128]
- [PifNewQueryFromFmtName\(\)](#) [page 126]
- [PifQueryNext\(\)](#) [page 137]
- [PifQueryGetDateVal\(\)](#) [page 132]
- [PifQueryGetDoubleVal\(\)](#) [page 133]
- [PifQueryGetIntVal\(\)](#) [page 134]
- [PifQueryGetLongVal\(\)](#) [page 135]
- [PifQueryClose\(\)](#) [page 131]

---

## PifQueryNext()

### Internal Basic syntax

**Function PifQueryNext(IQueryHandle As Long) As Long**

## Description

This function set the query cursor on the next result. The cursor is not set on the first document after calling the **PifNewQueryFromFmtName()** or **PifNewQueryFromXml()** functions. The user must call the **PifQueryNext()** function to access the values of the current document with one of the following functions:

- **PifQueryGetStringVal()**
- **PifQueryGetDateVal()**
- **PifQueryGetDoubleVal()**
- **PifQueryGetLongVal()**
- **PifQueryGetIntVal()**

## Input parameters

- ◆ **IQueryHandle**: This parameter contains a handle of the query created using the **PifNewQueryFromFmtName()** or **PifNewQueryFromXml()** functions.

## Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Example

```
dim hQuery as long
dim iRc as long

hQuery = pifNewQueryFromFmtName("Asset Management", "amEmplDept", "Name li
ke 'A%'")

Dim strValue as string

while (iRc = 0)
iRc = pifQueryNext(hQuery)
if iRc = 0 then
strValue = pifQueryGetStringVal(hQuery, "Name")
piflogInfoMsg strValue
end if
wend

iRc = pifQueryClose(hQuery)
```

## Notes

The function returns an error when there is no more data to browse (error code -2003).

See also:

- [PifNewQueryFromXml\(\)](#) [page 128]
- [PifNewQueryFromFmtName\(\)](#) [page 126]
- [PifQueryClose\(\)](#) [page 131]
- [PifQueryGetDateVal\(\)](#) [page 132]
- [PifQueryGetDoubleVal\(\)](#) [page 133]
- [PifQueryGetIntVal\(\)](#) [page 134]
- [PifQueryGetLongVal\(\)](#) [page 135]
- [PifQueryGetStringVal\(\)](#) [page 136]

---

## PifRejectCollectionMapping()

### Internal Basic syntax

**Function PifRejectCollectionMapping(strMsg As String) As Long**

### Description

This function enables you to reject all the elements of a collection, *only in a collection-to-collection mapping*.

As a reminder, the **PifRejectNodeMapping()** function simply enables you to reject the current node of a collection.

A message, contained in the **strMsg** parameter is sent to the log file.



#### Note:

Using this function is equivalent to a partial rejection of the document. Partial rejections can be recovered in the process reports of the mapping box.

### Input parameters

- ◆ **strMsg**: This optional parameter contains the message to be written to the log file.

## Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Example

In the following example, all the elements of the collection are rejected if one of the elements has a *quantity* node whose value is set to '-1':

```
if [root.item(pifGetInstance).quantity] = -1 then
pifRejectCollectionMapping("invalid quantity")
end if
```

For comparison with the **PifRejectNodeMapping()** function, in the following example, only those elements of the collection with a *quantity* node whose value is set to '-1' are rejected:

```
if [root.item(pifGetInstance).quantity] = -1 then
pifRejectNodeMapping
end if
```

## Notes

See also:

- [PifRejectNodeMapping\(\)](#) [page 142]
- [PifRejectDocumentMapping\(\)](#) [page 140]

---

## PifRejectDocumentMapping()

### Internal Basic syntax

**Function PifRejectDocumentMapping(strMsg As String) As Long**

### Description

This function enables you to reject a document.

An information message, contained in the **strMsg** parameter, can be sent to the log.

The document is not transmitted to the next connector.

## Input parameters

- ◆ **strMsg**: Optional parameter. Character string sent to the log.

## Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Example

```
Dim strNetAddress As String
strNetAddress = [Hardware.TCPIP.PhysicalAddress]

If strNetAddress = "" Then
PifRejectDocumentMapping("Document rejected: missing MAC address")
Else
RetVal = strNetAddress
End If
```

---

# PifRejectDocumentReconc()

## Internal Basic syntax

**Function PifRejectDocumentReconc(strMsg As String) As Long**

## Description

This function rejects a document during a reconciliation operation. No insertion or update is performed in AssetCenter. A message, stored in the **strMsg** parameter, can be displayed in the log.



Note:

This function can only be used in non-parallelized mode.

## Input parameters

- ◆ **strMsg**: This parameter contains the message displayed in the log.

## Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Notes

 Note:

This function is only available in the Connect-It reconciliation scripts.

See also:

- [PifRejectNodeReconc\(\)](#) [page 143]
- [PifRejectSubDocumentReconc\(\)](#) [page 144]

---

## PifRejectNodeMapping()

### Internal Basic syntax

**Function PifRejectNodeMapping(strMsg As String) As Long**

### Description

This function enables you to reject the current node of a document.

An information message, contained in the **strMsg** parameter, can be sent to the log.

 Note:

Using this function is equivalent to a partial rejection of the document. Partial rejections can be recovered in the process reports of the mapping box.

### Input parameters

- ◆ **strMsg**: Optional parameter. Character string sent to the log.

### Output parameters

- 0: Normal execution.

- Other than zero: Error code.

## Example

```
If [Location.Name] = "" Then  
PifRejectNodeMapping(PifStrVal("UNKNOWN_LOCATION"))  
End If
```

## Notes



This function cannot be used on the root node of a document. To reject a full document, use the **PifRejectDocumentMapping** function.

---

## PifRejectNodeReconc()

### Internal Basic syntax

**Function PifRejectNodeReconc(strMsg As String) As Long**

### Description

This function ignores a sub-document during a reconciliation operation. No insertion or update is performed in AssetCenter. A message, stored in the **strMsg** parameter, can be displayed in the log.

### Input parameters

- ◆ **strMsg** : This parameter contains the message displayed in the log.

### Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Notes



This function is only available in Connect-It reconciliation scripts.

---

## PifRejectSubDocumentReconc()

### Internal Basic syntax

**Function PifRejectSubDocumentReconc(strMsg As String) As Long**

### Description

This function rejects a sub-document during a reconciliation operation. No insertion or update is performed in AssetCenter. A message, stored in the **strMsg** parameter, can be displayed in the log.

### Input parameters

- ◆ **strMsg** : This parameter contains the message displayed in the log.

### Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Notes



This function is only available in the reconciliation scripts.



---

## PifScenarioPath()

### Internal Basic syntax

**Function PifScenarioPath() As String**

### Description

This function returns the full path of a scenario file. If the scenario has not yet been saved the function returns an empty value.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

```
Dim strFile
strFile = pifScenarioPath & "Format.xml"

Open strFile For Output As #1
Print #1, pifXmlDump
Close #1
```

---

## PifSetDateVal()

### Internal Basic syntax

**Function PifSetDateVal(strPath As String, dtVal As Date) As Long**

### Description

This function enables you to set the value of a node in the target document. If the node does not exist, the function creates it.

## Input parameters

- **strPath:** This parameter contains the full path of the node concerned by the operation.
- **dtVal:** This parameter contains the value (date) that you want to assign to the node.

## Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Example

```
Dim dtCurrent as Date
Dim lRet as Long
dtCurrent = Date()
lRet = PifSetDateVal("ValueDate", dtCurrent)
```

## Notes

See also:

- [PifSetDoubleVal\(\)](#) [page 146]
- [PifSetLongVal\(\)](#) [page 147]
- [PifSetNullVal\(\)](#) [page 148]
- [PifSetStringVal\(\)](#) [page 150]

---

## PifSetDoubleVal()

### Internal Basic syntax

**Function PifSetDoubleVal(strPath As String, dVal As Double) As Long**

### Description

This function enables you to set the value of a node in the target document. If the node does not exist, the function creates it.

## Input parameters

- **strPath:** This parameter contains the full path of the node concerned by the operation.
- **dVal:** This parameter contains the value (double) that you want to assign to the node.

## Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Example

```
Dim d as Double
Dim lRet as Long
d = 2.5
lRet = PifSetDoubleVal("ValueDouble", d)
```

## Notes

See also:

- [PifSetDateVal\(\)](#) [page 145]
- [PifSetLongVal\(\)](#) [page 147]
- [PifSetNullVal\(\)](#) [page 148]
- [PifSetStringVal\(\)](#) [page 150]

---

## PifSetLongVal()

### Internal Basic syntax

**Function PifSetLongVal(strPath As String, lVal As Long) As Long**

### Description

This function enables you to set the value of a node in the target document. If the node does not exist, the function creates it.

## Input parameters

- **strPath:** This parameter contains the full path of the node concerned by the operation.
- **IVal:** This parameter contains the value (long integer) that you want to assign to the node.

## Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Example

```
Dim l as Long
Dim lRet as Long
l = 2
lRet = PifSetLongVal("ValueLong", l)
```

## Notes

See also:

- [PifSetDoubleVal\(\)](#) [page 146]
- [PifSetDateVal\(\)](#) [page 145]
- [PifSetNullVal\(\)](#) [page 148]
- [PifSetStringVal\(\)](#) [page 150]

---

## PifSetNullVal()

### Internal Basic syntax

**Function PifSetNullVal(strPath As String) As Long**

### Description

This function enables you to populate a node in the target document with the value 'NULL'. If the node does not exist, the function will create it.

## Input parameters

- ◆ **strPath**: This parameter contains the full name of the node concerned by the operation. If this parameter is omitted or empty, the current node is selected.

## Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Example

```
If [Name] = "" Then  
PifSetNullVal("FirstName")  
End if
```

## Notes

See also:

- [PifSetDoubleVal\(\)](#) [page 146]
- [PifSetLongVal\(\)](#) [page 147]
- [PifSetDateVal\(\)](#) [page 145]
- [PifSetStringVal\(\)](#) [page 150]

---

# PifSetPendingDocument()

## Internal Basic syntax

**Function PifSetPendingDocument(strMsg As String) As Long**

## Description

This function enables you to set a document as pending during a reconciliation operation. The document is neither inserted nor updated in AssetCenter. A message, stored in the **strMsg** parameter, can be displayed in the log.

 **Note:**

This function can only be used in non-parallelized mode.

## Input parameters

- ◆ **strMsg** : This parameter contains the message displayed in the log.

## Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Example

```
If vNewVal >= vOldVal Then
RetVal = vNewVal
Else
RetVal = vOld
PifSetPendingDocument (PifStrVal ("RECONC_PROPOSAL_NOT_VALIDATED"))
End If
```

## Notes



### Note:

This function is only available in the reconciliation scripts.

---

## PifSetStringVal()

### Internal Basic syntax

**Function PifSetStringVal(strPath As String, strVal As String) As Long**

### Description

This function enables you to set the value of a node in the target document. If the node does not exist, the function creates it.

### Input parameters

- **strPath**: This parameter contains the full path of the node concerned by the operation.

- **strVal**: This parameter contains the value (character string) that you want to assign to a node.

## Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Example

```
Dim str as String
Dim lRet as Long
str = "100.10.1.1"
lRet = PifSetStringVal("ipaddress", str)
```



### Note:

Assigning the return code to a variable is mandatory (not doing so will generate a compile error).

## Notes

See also:

- [PifSetDoubleVal\(\)](#) [page 146]
- [PifSetLongVal\(\)](#) [page 147]
- [PifSetNullVal\(\)](#) [page 148]
- [PifSetDateVal\(\)](#) [page 145]

---

## PifStrVal()

### Internal Basic syntax

**Function PifStrVal(strID As String) As String**

### Description

Returns the character string associated with the identifier contained in the **strID** parameter.

## Input parameters

- ◆ **strID**: Identifier of the character string to recover.

## Output parameters

If the identifier is not found, the function returns an empty string and writes an error in the Connect-It log. If the identifier is found, the function returns its associated character string.

## Example

```
If [DeviceType] = "" Then
RetVal = PifStrVal("BRAND_UNKNOWN")
End If
```

---

## PifUserFmtStrToVar()

### Internal Basic syntax

**Function PifUserFmtStrToVar(strData As String, strUserFmtName As String) As Variant**

### Description

This function processes a character string according to a format predefined using a wizard in the graphical interface of Connect-It, and returns a Date or Number type number according to the nature of the predefined format.

### Input parameters

- **strData**: This parameter contains the string to be processed.
- **strUserFmtName**: This parameter contains the name of the predefined format.

### Output parameters

In case of error, a message is written to the Connect-It log.



## Example

If we consider the following two predefined formats:

- `origin = "yyyy'-'mm'-'dd"`
- `destination = "dddd' 'dd' 'mmmm' 'yyyy"`

Then the script:

```
Dim dTmp as Variant
dTmp=PifUserFmtVarToStr([date_modified],"origin")
RetVal = PifUserFmtStrToVar(dTmp,"destination")
```

Returns for `[date_modified]= 2001-05-30` the value "Thursday, May 30, 2001"

## Notes



### Note:

For further information on the predefined formats, refer to the Connect-It User's Guide

See also :

- ◆ [PifUserFmtVarToStr\(\)](#) [page 153]

---

## PifUserFmtVarToStr()

### Internal Basic syntax

**Function PifUserFmtVarToStr(vData As Variant, strUserFmtName As String) As String**

### Description

This function processes a variant according to a predefined format and returns a character string.

### Input parameters

- **vData:** This parameter contains the variant processed by the function.
- **strUserFmtName:** This parameter contains the name of the predefined format.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

If we consider the following two predefined formats:

- `origin = "yyyy'-'mm'-'dd"`
- `destination = "'dddd' 'dd' 'mmmm' 'yyyy'"`

Then the script:

```
Dim dTmp as Variant
dTmp=PifUserFmtVarToStr([date_modified],"origin")
RetVal = PifUserFmtStrToVar(dTmp,"destination")
```

Returns for `[date_modified]= 2001-05-30` the value "Thursday, May 30, 2001"

## Notes



Note:

For further information on predefined formats, refer to the Connect-It User's Guide

See also :

- ◆ [PifUserFmtStrToVar\(\)](#) [page 152]

---

## PifWriteBlobInFile()

### Internal Basic syntax

**Function PifWriteBlobInFile(strPath As String, strFileName As String)  
As Long**

### Description

This function enables you to write a binary element (blob) to a file. If the file does not exist, it is created by the function. If the file already exists, it is overwritten by the function.

## Input parameters

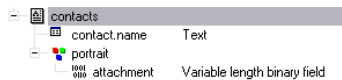
- **strPath** : This parameter contains the full path of the binary element (blob) in the source document.
- **strFileName**: This parameter contains the full path of the file in which the binary object is saved.

## Output parameters

- 0: Normal execution.
- Other than zero: Error code.

## Example

The screen capture below shows a source document containing the name and the picture of an employee:



The following script saves the picture of each employee in the c:\bitmap folder. The filename is the name of the employee.

```
Dim lErr As Long
Dim strFileName As String

strFileName = "C:\bitmap\" & ['contact.name'] & ".bmp"
lErr = PifWriteBlobInFile("portrait.attachment", strFileName)
```



### Note:

- The **contact.name** element contains a dot ("."). It is therefore mandatory to surround it by quotes to reference it (['contact.name']).
- When a function returns an error code, a variable should always be assigned to the function return code (as in : **lErr = PifWriteBlobInFile()**). If this is not the case, the script is not valid.

## Notes

The function returns an error in the following cases:

- the path of the file is not valid,

- the path of the source element does not exist in the source document,
- the source element is not a binary element.

---

## PifXMLDump()

### Internal Basic syntax

#### **Function PifXMLDump(strPath As String) As String**

### Description

This function enables you to dump the content of an element (and all its sub-elements) of the source document in XML format, inside a string.

### Input parameters

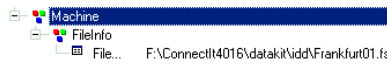
- ◆ **strPath:** This parameter contains the full path of the element of the source document concerned by the operation.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

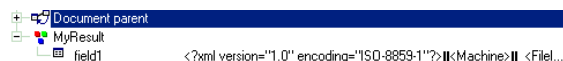
This first example describes how to save the content of the element below with the **PifXMLDump()** function.



The following script, associated to the "field1" field, is used:

```
RetVal = PifXMLDump (" ")
```

The screen capture below shows the result of the script execution.



"field1" contains the following XML document:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Machine>
<FileInfo>
<FileName>F:\ConnectIt4016\dataakit\idd\Frankfurt01.fsf</FileName>
</FileInfo>
</Machine>
```

To save only the structure of the FileInfo element, the following script can be used:

```
RetVal = PifXMLDump("FileInfo")
```

The XML document contained in the field will then be:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<FileInfo>
<FileName>F:\ConnectIt4016\dataakit\idd\Frankfurt01.fsf</FileName>
</FileInfo>
```

---

## PMT()

### Internal Basic syntax

**Function PMT(dblRate As Double, iNper As Long, dbIPV As Double, dbIFV As Double, iType As Long) As Double**

### Description

This function returns the amount of an annuity based on constant and periodic payments, and at a constant interest rate.

### Input parameters

- ◆ **dblRate:** This parameter indicates the interest rate per date of payment. For example, the rate per date of payment for a loan with a 6% annual interest rate, paid back by monthly dates of payment, would be:

```
0.06/12=0.005 or 0.5%
```

- **iNper:** This parameter contains the total number of dates of payment for the financial operation.
- **dbIPV:** This parameter contains the actual value (or overall sum) for a series of payments to be made in the future.

- **dblfv**: This parameter contains the future value or the balance that you want to obtain after having paid the final date of payment. In general, and particularly when reimbursing a loan, this parameter is set to "0". In effect, once you have made all the dates of payment, the value of the loan is nil.
- **iType**: This parameter indicates the payment deadline. It can have one of the following values:
  - **0** if the payments are due in arrears (i.e. at the end of the period)
  - **1** if the payments are due in advance (i.e. at the start of the period)

## Output parameters

In case of error, a message is written to the Connect-It log.

## Notes



### Note:

- The **Rate** and **Nper** parameters must be calculated using payments expressed in the same units.
- Amounts paid (expressed in particular by the **Pmt** parameter) are represented by negative numbers. Sums received are represented by positive numbers.

---

## PPMT()

### Internal Basic syntax

**Function PPMT(dblRate As Double, iPer As Long, iNper As Long, dbIPV As Double, dblFV As Double, iType As Long) As Double**

### Description

This function returns the amount of capital reimbursed for a given date of payment in an annuity based on constant and periodic payments and at a constant interest rate.

## Input parameters

- ◆ **dblRate**: This parameter indicates the interest rate per date of payment. For example, the rate per date of payment for a loan with a 6% annual interest rate, paid back by monthly dates of payment, would be:

$0.06/12=0.005$ or $0.5\%$
----------------------------

- **iPer**: This parameter indicates the period for the calculation, between 1 and the value of the **Nper** parameter.
- **iNper**: This parameter contains the total number of dates of payment for the financial operation.
- **dblPV**: This parameter contains the actual value (or overall sum) for a series of payments to be made in the future.
- **dblFV**: This parameter contains the future value or the balance that you want to obtain after having paid the final date of payment. In general, and particularly when reimbursing a loan, this parameter is set to "0". In effect, once you have made all the dates of payment, the value of the loan is nil.
- **iType**: This parameter indicates the payment deadline. It can have one of the following values:
  - **0** if the payments are due in arrears (i.e. at the end of the period)
  - **1** if the payments are due in advance (i.e. at the start of the period)

## Output parameters

In case of error, a message is written to the Connect-It log.

## Notes



### Note:

- The **Rate** and **Nper** parameters must be calculated using payments expressed in the same units.
- Amounts paid (expressed in particular by the **Pmt** parameter) are represented by negative numbers. Sums received are represented by positive numbers.

---

# PV()

## Internal Basic syntax

**Function PV(dblRate As Double, iNper As Long, dblPmt As Double, dblFV As Double, iType As Long) As Double**

## Description

This function returns the actual amount of an annuity based on constant and periodic future deadlines, and on a fixed interest rate.

## Input parameters

- ◆ **dblRate**: This parameter indicates the interest rate per date of payment. For example, the rate per date of payment for a loan with a 6% annual interest rate, paid back by monthly dates of payment, would be:

$0.06/12=0.005$ or $0.5\%$
----------------------------

- **iNper**: This parameter contains the total number of dates of payment for the financial operation.
- **dblPmt**: This parameter indicates the amount of the payment made at each date of payment. The payment generally includes both principal and interest.
- **dblFV**: This parameter contains the future value or the balance that you want to obtain after having paid the final date of payment. In general, and particularly when reimbursing a loan, this parameter is set to "0". In effect, once you have made all the dates of payment, the value of the loan is nil.
- **iType**: This parameter indicates the payment deadline. It can have one of the following values:
  - **0** if the payments are due in arrears (i.e. at the end of the period)
  - **1** if the payments are due in advance (i.e. at the start of the period)

## Output parameters

In case of error, a message is written to the Connect-It log.



## Notes



### Note:

- The **Rate** and **Nper** parameters must be calculated using payments expressed in the same units.
- Amounts paid (expressed in particular by the **Pmt** parameter) are represented by negative numbers. Sums received are represented by positive numbers.

---

## Randomize()

### Internal Basic syntax

#### **Function Randomize(IValue As Long)**

### Description

Initializes the random number generator.

### Input parameters

- ◆ **IValue**: Optional parameter used to initialize the random-number generator of the **Rnd** function by specifying a new initial value. If this parameter is omitted, the value returned by the system clock is used as the initial value.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

```
Dim MyNumber
Randomize
MyNumber= Int((10*Rnd)+1) : 'Returns a random value between 1 and 10.
RetVal=MyNumber
```

## Notes

See also:

## RATE()

### Internal Basic syntax

**Function RATE(iNper As Long, dbIPmt As Double, dbIFV As Double, dbIPV As Double, iType As Long, dbIGuess As Double) As Double**

### Description

This function returns the interest rate per date of payment for an annuity.

### Input parameters

- **iNper**: This parameter contains the total number of dates of payment for the financial operation.
- **dbIPmt**: This parameter indicates the amount of the payment to be made at each date of payment. The payment generally includes both principal and interest.
- **dbIFV**: This parameter contains the future value or the balance that you want to obtain after having paid the final date of payment. In general, and particularly when reimbursing a loan, this parameter is set to "0". In effect, once you have made all the dates of payment, the value of the loan is nil.
- **dbIPV**: This parameter contains the actual value (or overall sum) for a series of payments to be made in the future.
- **iType**: This parameter indicates the payment deadline. It can have one of the following values:
  - **0** if the payments are due in arrears (i.e. at the end of the period)
  - **1** if the payments are due in advance (i.e. at the start of the period)
- **dbIGuess**: This parameter contains the estimated value of the interest rate per date of payment.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Notes



### Note:

- Amounts paid (expressed in particular by the **Pmt** parameter) are represented by negative numbers. Sums received are represented by positive numbers.
- This function performs its calculation using iterations, starting with the value assigned in the **Guess** parameter. If no result is found after 20 iterations, the function fails.

---

## RemoveRows()

### Internal Basic syntax

**Function RemoveRows(strList As String, strRowNames As String) As String**

### Description

Performs a deletion in a list of lines identified by the **strRowNames** parameter. This function is useful when processing "ListBox" control type values. Values from this type of control are represented as arrays as described below:

- The "|" character is used as the column separator.
- The "," character is used as the line separator.
- Each line ends with a unique identifier at the right of the "=" sign.

### Input parameters

- **strList**: Source string containing the values of a "ListBox" control to be processed.
- **strRowNames**: Identifiers of lines to be deleted. The identifiers are separated by commas.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim MyStr
MyStr=RemoveRows("a1|a2=a0,b1|b2=b0", "a0,c0") : 'Returns "b1|b2=b0"
RetVal=MyStr
```

## Notes

See also:

- [SubList\(\)](#) [page 181]
- [SetSubList\(\)](#) [page 174]
- [ApplyNewVals\(\)](#) [page 43]

---

## Replace()

### Internal Basic syntax

**Function Replace(strData As String, strOldPattern As String, strNewPattern As String, bCaseSensitive As Long) As String**

### Description

Replaces all occurrences of the **strOldPattern** parameter with the **strNewPattern** parameter inside the character string contained in the **strData** parameter. The search for the **strOldPattern** parameter can be made case-sensitive using the value of the **bCaseSensitive** parameter.

### Input parameters

- **strData**: Character string containing the occurrences to be replaced.
- **strOldPattern**: Occurrence to find in the string contained in the **strData** parameter.
- **strNewPattern**: Text replacing each occurrence found.
- **bCaseSensitive**: Depending on this parameter, the search is case sensitive (=1) or not (=0). By default, this parameter is set to 1.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim MyStr
MyStr=Replace("youmeyoumeyou", "you", "me",0) : 'Returns "mememememe"
MyStr=Replace("youmeyoumeyou", "You", "me",1) : 'Returns "youmeyoumeyou"
MyStr=Replace("youmeYoumeyou", "You", "me",1) : 'Returns "youmememeyou"
```

---

## Right()

### Internal Basic syntax

**Function Right(strString As String, INumber As Long) As String**

### Description

Returns the rights most iNumber characters of the string parameter.

### Input parameters

- **strString**: Character string to process.
- **INumber**: Number of characters to return.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim lWord, strMsg, rWord, iPos : ' Declare variables.
strMsg = "Left() Test."
iPos = InStr(1, strMsg, " ") : ' Find space.
lWord = Left(strMsg, iPos - 1) : ' Get left word.
rWord = Right(strMsg, Len(strMsg) - iPos) : ' Get right word.
strMsg=rWord+lWord : ' And swap them
RetVal=strMsg
```

---

## RightPart()

### Internal Basic syntax

**Function RightPart(strFrom As String, strSep As String, bCaseSensitive As Long) As String**

### Description

Extracts the portion of a string to the right of the separator specified in the **strSep** parameter.

The search for the separator is performed from right to left.

The search can be made case sensitive using the **bCaseSensitive** parameter.

### Input parameters

- **strFrom**: Source string to be processed.
- **strSep**: Character used as separator in the source string.
- **bCaseSensitive**: Depending on this parameter, the search is case sensitive (=1) or not (=0).

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

These examples illustrate use of the **LeftPart**, **LeftPartFromRight**, **RightPart**, and **RightPartFromLeft** functions on the same string: "This\_is\_a\_test":

```
LeftPart("This_is_a_test","_",0)
```

Returns "This".

```
LeftPartFromRight("This_is_a_test","_",0)
```

Returns "This\_is\_a".

```
RightPart("This_is_a_test","_",0)
```

Returns "test".

```
RightPartFromLeft("This_is_a_test","_",0)
```

Returns "is\_a\_test".

---

## RightPartFromLeft()

### Internal Basic syntax

**Function RightPartFromLeft(strFrom As String, strSep As String, bCaseSensitive As Long) As String**

### Description

Extracts the portion of a string to the right of the separator specified in the **strSep** parameter.

The search for the separator is performed from left to right.

The search can be made case sensitive using the **bCaseSensitive** parameter.

### Input parameters

- **strFrom**: Source string to be processed.
- **strSep**: Character used as separator in the source string.
- **bCaseSensitive**: Depending on this parameter, the search is case sensitive (=1) or not (=0). By default, this parameter is set to 1.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

These examples illustrate use of the **LeftPart**, **LeftPartFromRight**, **RightPart**, and **RightPartFromLeft** functions on the same string: "This\_is\_a\_test":

```
LeftPart("This_is_a_test","_",0)
```

Returns "This".

```
LeftPartFromRight("This_is_a_test","_",0)
```

Returns "This\_is\_a".

```
RightPart("This_is_a_test","_",0)
```

Returns "test".

```
RightPartFromLeft("This_is_a_test","_",0)
```

Returns "is\_a\_test".

---

## RmAllInDir()

### Internal Basic syntax

**Function RmAllInDir(strRmDirectory As String, bStopIfError As Long) As Long**

### Description

This function deletes all items (files and folders) from a folder. The folder itself is not deleted.

### Input parameters

- **strRmDirectory:** This parameter contains the full path of the folder concerned by the operation.
- **bStopIfError:** If this parameter is set to 1, the delete operation is suspended if the a file or folder cannot be deleted. If this parameter is set to 0, the operation continues and moves on to the following file or folder.

### Output parameters

- 0: Normal execution.
- Other than zero: Error code.

### Example

```
RetVal = RmAllInDir("c:\files\test", 1)
```



---

## Rmdir()

### Internal Basic syntax

**Function Rmdir(strRmDirectory As String) As Long**

### Description

Removes an existing directory.

### Input parameters

- ◆ **strRmDirectory**: Full path of the directory to be removed.

### Output parameters

- 0: Normal execution.
- Other than zero: Error code.

### Example

```
RetVal = Rmdir("c: mp")
```

### Notes



Note:

The directory to be deleted must be empty. Otherwise, the function will not work.

---

## Rnd()

### Internal Basic syntax

**Function Rnd(dValue As Double) As Double**

## Description

Returns a value containing a random number.

## Input parameters

- ◆ **dValue**: Optional parameter whose value defines the mode of execution of the function:
  - Less than zero: The same number is generated each time.
  - Greater than zero: Next random number in the series.
  - Equal to zero: Last random number generated.
  - Omitted: Next random number in the series.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim MyNumber
Randomize
MyNumber= Int((10*Rnd)+1) : 'Returns a random value between 1 and 10.
RetVal=MyNumber
```

## Notes

### Note:

Before calling this function, you must use the **Randomize** function, without parameters, to initialize the random number generator.

See also:

- ◆ [Randomize\(\)](#) [page 161]

---

## RoundValue()

### Internal Basic syntax

**Function RoundValue(dValue As Double, iDigits As Long) As Double**

## Description

This function calculates the rounding value of a number to the number of digits after the decimal point as specified by the **iDigits** parameter.

## Input parameters

- **dValue**: This parameter contains the number to be rounded.
- **iDigits**: This parameter contains the number of decimal places to keep for the rounding operation.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

The following example:

```
RetVal = RoundValue(1.2568, 2)
```

returns the value:

```
1.26
```

The following example:

```
RetVal = RoundValue(1.2568, 0)
```

returns the value:

```
1
```

---

## RTrim()

### Internal Basic syntax

**Function RTrim(strString As String) As String**

## Description

Removes all trailing spaces in a string.

## Input parameters

- ◆ **strString**: String to process.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
' This example uses the LTrim and RTrim functions to strip leading ' and t
railing spaces, respectively, from a string variable.
' It uses the Trim function alone to strip both types of spaces.
' LCase and UCase are also shown in this example as well as the use
' of nested function calls

Dim strString as String
Dim strTrimString as String
strString = " <-Trim-> " :' Initialize string.
strTrimString = LTrim(strString) :' strTrimString = "<-Trim-> ".
strTrimString = LCase(RTrim(strString)) :' strTrimString = " <-trim->".
strTrimString = LTrim(RTrim(strString)) :' strTrimString = "<-Trim->".
' Using the Trim function alone achieves the same result.
strTrimString = UCase(Trim(strString)) :' strTrimString = "<-TRIM->".
RetVal= "|" & strTrimString & "|"
```

---

## Second()

### Internal Basic syntax

**Function Second(tmTime As Date) As Long**

### Description

Returns the number of seconds contained in the time expressed by the **tmTime** parameter.

### Input parameters

- ◆ **tmTime**: Parameter in Date+Time format to be processed.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim strSecond
strSecond=Second(Date())
RetVal=strSecond : 'Returns the number of seconds elapsed in the current hour, for example "30" if the time is 15:45:30
```

---

## SetMaxInst()

### Internal Basic syntax

**Function SetMaxInst(IMaxInst As Long) As Long**

### Description

This function enables you to set the maximum number of instructions that a Basic script can execute. By default, the number of instructions is limited to 10000.

### Input parameters

- ◆ **IMaxInst:** This parameter contains the maximum number of instructions that can be executed by a script.

### Output parameters

- 0: Normal execution.
- Other than zero: Error code.

### Notes

 **Note:**

If you set the **IMaxInst** parameter to "0", the number of instructions that a script can execute is unlimited.

---

## SetSubList()

### Internal Basic syntax

**Function SetSubList(strValues As String, strRows As String, strRowFormat As String) As String**

### Description

Defines the values of a sublist for a "ListBox" control.

### Input parameters

- **strValues:** Source string containing the values of a "ListBox" control to be processed.
- **strRows:** List of values to add to or replace the characters contained in the string in the **strValues** parameter. The values are separated by the "|" character. The lines that are processed are identified by their identifier, situated to the right of the "=" sign. Unknown lines are not processed.
- **strRowFormat:** Formatting instructions for the sublist. Instructions are separated by the "|" character. This parameter has the following characteristics:
  - "1" represents the information contained in the first column of the sublist.
  - "i-j" can be used to define a group of columns.
  - "-" takes all columns into account.
  - An unknown column does not return a value.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

```
Dim MyStr
MyStr=SetSubList("a1|a2|a3=a0,b1|b2|b3=b0,c1|c2|c3=c0", "A2|A1=a0, B2|B1=b0", "2|1") : 'Returns "A1|A2|a3=a0,B1|B2|b3=b0,c1|c2|c3=c0"
MyStr=SetSubList("a1|a2|a3=a0,b1|b2|b3=b0,c1|c2|c3=c0", "Z2=*,B2=b0", "2") : 'Returns "a1|Z2|a3=a0,b1|B2|b3=b0,c1|Z2|c3=c0"
MyStr=SetSubList("a1|a2|a3=a0,b1|b2|b3=b0,c1|c2|c3=c0", "B5|B6|B7=b0,C5|C6|C7=c0", "5-7") : 'Returns "a1|a2|a3=a0,b1|b2|b3|B5|B6|B7=b0,c1|c2|c3|C5|
```

```
C6|C7=c0"  
MyStr=SetSubList("a1|a2|a3=a0,b1|b2|b3=b0,c1|c2|c3=c0", "B1|B2|B3|B4=b0",  
"-") : 'Returns "a1|a2|a3=a0,B1|B2|B3|B4=b0,c1|c2|c3=c0"  
MyStr=SetSubList("A|B|C,D|E|F", "X=*", "2") : 'Returns "A|X|C,D|X|F"  
RetVal=""
```

---

## Sgn()

### Internal Basic syntax

#### **Function Sgn(dValue As Double) As Double**

### Description

Returns a value indicating the sign of a number.

### Input parameters

- ◆ **dValue**: Number whose sign you want know.

### Output parameters

The function can return one of the following values:

- 1: The number is greater than zero.
- 0: The number is equal to zero
- -1: The number is less than zero.

### Example

```
Dim dNumber as Double  
dNumber=-256  
RetVal=Sgn(dNumber)
```

---

## Shell()

### Internal Basic syntax

**Function Shell(strExec As String, bShowWindow As Long, bBackground As Long) As Long**

### Description

Launches an executable program.

### Input parameters

- **strExec**: Full path of the executable to be launched.
- **bShowWindow**: If this parameter is set to 1 (default value), the command box is displayed when the program is launched. If this parameter is set to 0, the command box is not displayed.
- **bBackground** : If this parameter is set to 1 (default value), the function waits for the end of execution of the program before giving you back control (synchronous execution). If this parameter is set to 0, the program is executed asynchronously.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

```
Dim MyId
MyId=Shell("C:\WinNT\explorer.exe")
RetVal=""
```

---

## Sin()

### Internal Basic syntax

**Function Sin(dValue As Double) As Double**



## Description

Returns the sine of an number that is expressed in radians.

## Input parameters

- ◆ **dValue:** Number whose sine you want to know.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim dCalc as Double
dCalc=Sin(2.79)
RetVal=dCalc
```

## Notes

 **Note:**

The conversion formula for degrees to radians is the following:

```
angle in radians = (angle en degrees) * Pi / 180
```

---

# Space()

## Internal Basic syntax

**Function Space(iCount As Long) As String**

## Description

Creates a string including the number of spaces indicated by the **iSpace** parameter.

## Input parameters

- ◆ **iCount**: Number of spaces to be inserted into the string.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim MyString
' Returns a string of 10 spaces.
MyString = Space(10)
' Inserts 10 spaces between two strings.
MyString = "Space" & Space(10) & "inserted"
RetVal=MyString
```

## Notes



This function can be used to format strings or to delete data in fixed length strings.

---

## Sqr()

### Internal Basic syntax

**Function Sqr(dValue As Double) As Double**

### Description

Returns the square root of a number.

### Input parameters

- ◆ **dValue**: Number whose square root you want to know.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim dCalc as Double
dCalc=Sqr(81)
RetVal=dCalc
```

---

## Str()

### Internal Basic syntax

**Function Str(strValue As String) As String**

### Description

Converts a number to a string.

### Input parameters

- ◆ **strValue:** Number to convert to a string.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim dNumber as Double
dNumber=Cos(2.79)
RetVal=Str(dCalc)
```

---

## StrComp()

### Internal Basic syntax

**Function StrComp(strString1 As String, strString2 As String, iOptionCompare As Long) As Long**

### Description

Compares two strings.

### Input parameters

- **strString1**: First string.
- **strString2**: Second string.
- **iOptionCompare**: Comparison type. This parameter can be set to "0" for a binary comparison, or "1" for a text comparison.

### Output parameters

- -1: **strString1** is greater than **strString2**.
- 0: **strString1** is equal to **strString2**.
- 1: **strString1** is less than **strString2**.

---

## String()

### Internal Basic syntax

**Function String(iCount As Long, strString As String) As String**

### Description

String returns a string consisting of the **strString** character repeated over and over **iCount** times.

## Input parameters

- **iCount**: Number of occurrences of the character **strString**.
- **strString**: Character used to compose the string.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim iCount as Integer
Dim strTest as String
strTest="T"
iCount=5
RetVal=String(iCount,strTest)
```

---

## SubList()

### Internal Basic syntax

**Function SubList(strValues As String, strRows As String, strRowFormat As String) As String**

### Description

Returns a sublist of a list of values contained in a string representing the values of a "ListBox" control.

### Input parameters

- **strValues**: Source string containing the values of a "ListBox" control to be processed.
- **strRows**: Identifiers of lines to be included in the sublist. The identifiers are separated by commas. Certain wildcard characters can be used:
  - "\*" includes all identifiers in the sublist.
  - An unknown identifier returns an empty value for the sublist.

- **strRowFormat:** Formatting instructions for the sublist. Instructions are separated by the "|" character. This parameter has the following characteristics:
  - "1" represents the information contained in the first column of the list from which we are extracting a sublist.
  - "0" represents the identifier of the line in the list from which we are extracting a sublist.
  - "\*" represents the information contained in all the columns (except the line identifier).
  - An unknown column does not return a value.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim MyStr
MyStr=SubList("a1|a2|a3=a0,b1|b2|b3=b0,c1|c2|c3=c0", "a0,b0,a0", "3|2|3")
:'Returns "a3|a2|a3,b3|b2|b3,a3|a2|a3"
MyStr=SubList("a1|a2|a3=a0,b1|b2|b3=b0,c1|c2|c3=c0", "*", "*|0") : 'Returns
"a1|a2|a3|a0,b1|b2|b3|b0,c1|c2|c3|c0"
MyStr=SubList("a1|a2|a3=a0,b1|b2|b3=b0,c1|c2|c3=c0", "*", "**=0") : 'Returns
"a1|a2|a3=a0,b1|b2|b3=b0,c1|c2|c3=c0"
MyStr=SubList("a1|a2|a3=a0,b1|b2|b3=b0,c1|c2|c3=c0", "*", "999=0") : 'Returns
"=a0,=b0,=c0"
MyStr=SubList("a1|a2|a3=a0,b1|b2|b3=b0,c1|c2|c3=c0", "z0", "**=0") : 'Returns
" "
MyStr=SubList("a1|a2|a3=a0,b1|b2|b3=b0,c1|c2|c3=c0", "*", "=1") : 'Returns
"=a1,=b1,=c1"
MyStr=SubList("A|B|C,D|E|F", "*", "2=0") : 'Returns "B,E"
RetVal=""
```

---

## Tan()

### Internal Basic syntax

#### **Function Tan(dValue As Double) As Double**

### Description

Returns the tangent of a number expressed in radians.

## Input parameters

- ◆ **dValue:** Number whose tangent you want to know.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim dCalc as Double
dCalc=Tan(2.79)
RetVal=dCalc
```

## Notes

 **Note:**

The conversion formula for degrees to radians is the following:

```
angle in radians = (angle en degrees) * Pi / 180
```

---

# Time()

## Internal Basic syntax

**Function Time() As Date**

## Description

Returns the current time.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
RetVal = Time()
```

---

## Timer()

### Internal Basic syntax

**Function Timer() As Double**

### Description

Returns the number of seconds elapsed since 12:00 AM.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

```
RetVal = Timer()
```

---

## TimeSerial()

### Internal Basic syntax

**Function TimeSerial(iHour As Long, iMinute As Long, iSecond As Long) As Date**

### Description

This function returns a time formatted according to the **iHour**, **iMinute** and **iSecond** parameters.

### Input parameters

- **iHour**: Hour.
- **iMinute**: Minutes.
- **iSecond**: Seconds.



## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

Each of these parameters can be set to a numeric expression representing a number of hours, minutes or seconds. Thus in the following example:

```
TimeSerial(12-8, -10, 0)
```

Returns the value:

```
3:50:00
```

When the value of a parameter is out of the expected range (i.e. 0-59 for minutes and seconds and 0-23 for hours), it is converted to the parameter the next up. Thus, if you enter "75" for the **iMinute** parameter, it will be interpreted as 1 hour and 15 minutes.

The following example:

```
TimeSerial(16, 50, 45)
```

Returns the value:

```
16:50:45
```

---

## TimeValue()

### Internal Basic syntax

**Function TimeValue(tmTime As Date) As Date**

### Description

This function returns the time portion of a "Date+Time" value.

### Input parameters

- ◆ **tmTime**: "Date+Time" format date.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Example

The following example:

```
TimeValue ("1999/09/24 15:00:00")
```

Returns the value:

```
15:00:00
```

---

## ToSmart()

### Internal Basic syntax

**Function ToSmart(strString As String) As String**

### Description

This function reformats a source string by capitalizing the first letter of each word.

### Input parameters

- ◆ **strString**: Source string to reformat.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Example

The following example:

```
RetVal = ToSmart ("hello world")
```

returns the value:

```
Hello World
```

---

## Trim()

### Internal Basic syntax

#### **Function Trim(strString As String) As String**

### Description

Returns a copy a string with the leading and trailing spaces removed.

### Input parameters

- ◆ **strString**: String to process.

### Output parameters

In case of error, a message is written to the Connect-It log.

### Example

```
' This example uses the LTrim and RTrim functions to strip leading ' and t
railing spaces, respectively, from a string variable.
' It uses the Trim function alone to strip both types of spaces.
' LCase and UCase are also shown in this example as well as the use
' of nested function calls

Dim strString as String
Dim strTrimString as String
strString = " <-Trim-> " :' Initialize string.
strTrimString = LTrim(strString) :' strTrimString = "<-Trim-> ".
strTrimString = LCase(RTrim(strString)) :' strTrimString = " <-trim->".
strTrimString = LTrim(RTrim(strString)) :' strTrimString = "<-Trim->".
' Using the Trim function alone achieves the same result.
strTrimString = UCase(Trim(strString)) :' strTrimString = "<-TRIM->".
RetVal= "|" & strTrimString & "|"
```

---

## UCase()

### Internal Basic syntax

#### **Function UCase(strString As String) As String**

## Description

Returns a copy of a string in which all lowercase characters are converted to uppercase.

## Input parameters

- ◆ **strString**: Character string to convert to uppercase.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
' This example uses the LTrim and RTrim functions to strip leading ' and t
railing spaces, respectively, from a string variable.
' It uses the Trim function alone to strip both types of spaces.
' LCase and UCase are also shown in this example as well as the use
' of nested function calls

Dim strString as String
Dim strTrimString as String
strString = " <-Trim-> " :' Initialize string.
strTrimString = LTrim(strString) :' strTrimString = "<-Trim-> ".
strTrimString = LCase(RTrim(strString)) :' strTrimString = " <-trim->".
strTrimString = LTrim(RTrim(strString)) :' strTrimString = "<-Trim->".
' Using the Trim function alone achieves the same result.
strTrimString = UCase(Trim(strString)) :' strTrimString = "<-TRIM->".
RetVal= "|" & strTrimString & "|"
```

---

## UnEscapeSeparators()

### Internal Basic syntax

**Function UnEscapeSeparators(strSource As String, strEscChar As String)  
As String**

## Description

Deletes all the escape characters from a string.

## Input parameters

- **strSource**: Character string to process.
- **strEscChar**: Escape character to be deleted.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim MyStr
MyStr=UnEscapeSeparators("you\|me\|you\|", "\") : 'Returns "you|me|you|"
RetVal=""
```

---

# Union()

## Internal Basic syntax

**Function Union(strListOne As String, strListTwo As String, strSeparator As String, strEscChar As String) As String**

## Description

Merges two strings delimited by separators. Duplicates are deleted.

## Input parameters

- **strListOne**: First string.
- **strListTwo**: Second string.
- **strSeparator**: Separator used to delimit the elements contained in the strings.
- **strEscChar**: Escape character. If this character prefixes the separator, it will be ignored.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim MyStr
MyStr=Union("a1|a2,b1|b2", "a1|a3,b1|b2", ",", "\") : 'Returns "a1|a2,b1|b2
,a1|a3"
MyStr=Union("a1|a2,b1|b2", "a1|a3\",b1|b2", ",", "\") : 'Returns "a1|a2,b1|b
2,a1|a3\",b1|b2"
RetVal=""
```

---

## UTCToLocalDate()

### Internal Basic syntax

**Function UTCToLocalDate(tmUTC As Date) As Date**

### Description

This function converts a date in UTC format (time-zone independent) to a "Date+Time" format date.

### Input parameters

- ◆ **tmUTC**: Date in UTC format.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
RetVal = UTCToLocaldate([DateTime])
```

---

## Val()

### Internal Basic syntax

**Function Val(strString As String) As Double**

## Description

Converts a string representing a number to a double.

## Input parameters

- ◆ **strString**: Character string to convert.

## Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim strYear
Dim dYear as Double
strYear=Year(Date())
dYear=Val(strYear)
RetVal=dYear : 'Returns the current year
```

---

## WeekDay()

### Internal Basic syntax

**Function WeekDay(tmDate As Date) As Long**

## Description

Returns the day of the week contained in the date expressed by the **tmDate** parameter.

## Input parameters

- ◆ **tmDate**: Parameter in Date+Time format to be processed.

## Output parameters

The number returned corresponds to a day of the week where "1" represents Sunday, "2" Tuesday, ..., "7" Saturday.

## Example

```
Dim strWeekDay
strWeekDay=WeekDay(Date())
RetVal=strWeekDay : 'Returns the day of the week
```

---

## Year()

### Internal Basic syntax

#### **Function Year(tmDate As Date) As Long**

### Description

Returns the year contained in the value expressed by the **tmDate** parameter.

### Input parameters

- ◆ **tmDate**: Parameter in Date+Time format to be processed.

### Output parameters

In case of error, a message is written to the Connect-It log.

## Example

```
Dim strYear
strYear=Year(Date())
RetVal=strYear : 'Returns the current year
```



---

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---

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- **Union**
- **UTCToLocalDate**
- **Val**
- **WeekDay**
- **Year**



# Available functions - Connect-It

- **GetXmlAttributeValue**
- **GetXmlElementValue**
- **PifCreateDynaMappableFromFmtName**
- **PifDateToTimezone**
- **PifFirstInCol**
- **PifGetBlobSize**
- **PifGetElementChildName**
- **PifGetElementCount**
- **PifGetHexStringFromBlob**
- **PifGetInstance**
- **PifGetItemCount**
- **PifGetOpenSessionTime**
- **PifIgnoreCollectionMapping**
- **PifIgnoreDocumentMapping**
- **PifIgnoreDocumentReconc**
- **PifIgnoreNodeMapping**
- **PifIgnoreNodeReconc**
- **PifIgnoreSubDocumentReconc**
- **PifIsInMap**
- **PifLogInfoMsg**
- **PifLogWarningMsg**
- **PifMapValue**
- **PifMapValueContaining**
- **PifMapValueContainingEx**
- **PifMapValueEx**
- **PifNewQueryFromFmtName**
- **PifNewQueryFromXml**
- **PifNodeExists**
- **PifQueryClose**
- **PifQueryGetDateVal**
- **PifQueryGetDoubleVal**
- **PifQueryGetIntVal**
- **PifQueryGetLongVal**
- **PifQueryGetStringVal**
- **PifQueryNext**
- **PifRejectCollectionMapping**
- **PifRejectDocumentMapping**
- **PifRejectDocumentReconc**
- **PifRejectNodeMapping**
- **PifRejectNodeReconc**

- **PifRejectSubDocumentReconc**
- **PifScenarioPath**
- **PifSetDateVal**
- **PifSetDoubleVal**
- **PifSetLongVal**
- **PifSetNullVal**
- **PifSetPendingDocument**
- **PifSetStringVal**
- **PifStrVal**
- **PifUserFmtStrToVar**
- **PifUserFmtVarToStr**
- **PifWriteBlobInFile**
- **PifXMLDump**



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# Available functions - Builtin

- **Abs**
- **AppendOperand**
- **ApplyNewVals**
- **Asc**
- **Atn**
- **BasicToLocalDate**
- **BasicToLocalTime**
- **BasicToLocalTimeStamp**
- **Beep**
- **CDbl**
- **ChDir**
- **ChDrive**
- **Chr**
- **Clnt**
- **CLng**
- **Cos**
- **CountOccurrences**
- **CountValues**
- **CSng**
- **CStr**
- **CurDir**
- **CVar**
- **Date**
- **DateAdd**
- **DateAddLogical**
- **DateDiff**
- **DateSerial**
- **DateValue**
- **Day**
- **EscapeSeparators**
- **ExeDir**
- **Exp**
- **ExtractValue**
- **FileCopy**
- **FileDateTime**
- **FileExists**
- **FileLen**
- **Fix**
- **FormatDate**
- **FormatResString**

- **FormatString**
- **FV**
- **GetEnvVar**
- **GetListItem**
- **Hex**
- **Hour**
- **InStr**
- **Int**
- **IPMT**
- **IsNumeric**
- **Kill**
- **LCase**
- **Left**
- **LeftPart**
- **LeftPartFromRight**
- **Len**
- **LocalToBasicDate**
- **LocalToBasicTime**
- **LocalToBasicTimeStamp**
- **LocalToUTCDate**
- **Log**
- **LTrim**
- **MakeInvertBool**
- **Mid**
- **Minute**
- **MkDir**
- **Month**
- **Name**
- **Now**
- **NPER**
- **Oct**
- **ParseDate**
- **ParseDMYDate**
- **ParseMDYDate**
- **ParseYMDDate**
- **PMT**
- **PPMT**
- **PV**
- **Randomize**
- **RATE**
- **RemoveRows**
- **Replace**
- **Right**
- **RightPart**
- **RightPartFromLeft**
- **RmAllInDir**
- **Rmdir**
- **Rnd**
- **RoundValue**
- **RTrim**
- **Second**
- **SetMaxInst**
- **SetSubList**
- **Sgn**
- **Shell**
- **Sin**
- **Space**
- **Sqr**
- **Str**
- **StrComp**
- **String**
- **SubList**
- **Tan**
- **Time**
- **Timer**
- **TimeSerial**
- **TimeValue**
- **ToSmart**
- **Trim**
- **UCase**

- **UnEscapeSeparators**
- **Union**
- **UTCToLocalDate**
- **Val**
- **WeekDay**
- **Year**

