

Advanced Integration Services Expressions

SQL Server 2008 R2 1 out of 1 rated this helpful

This section provides examples of advanced expressions that combine multiple operators and functions. If an expression is used in a precedence constraint or the Conditional Split transformation, it must evaluate to a Boolean. That restriction, however, does not apply to expressions used in property expressions, variables, the Derived Column transformation, or the For Loop container.

The following examples use the AdventureWorks2008R2 database. Each example identifies the tables it uses.

Boolean Expressions

- This example uses the Product table. The expression evaluates the month entry in the SellStartDate column and returns TRUE if the month is June or later.

```
DATEPART("mm",SellStartDate) > 6
```

- This example uses the Product table. The expression evaluates the rounded result of dividing the ListPrice column by the StandardCost column, and returns TRUE if the result is greater than 1.5.

```
ROUND(ListPrice / StandardCost,2) > 1.50
```

- This example uses the Product table. The expression returns TRUE if all three operations evaluate to TRUE. If the Size column and the BikeSize variable have incompatible data types, the expression requires an explicit cast as shown the second example. The cast to DT_WSTR includes the length of the string.

```
MakeFlag == TRUE && FinishedGoodsFlag == TRUE && Size != @BikeSize  
MakeFlag == TRUE && FinishedGoodsFlag == TRUE && Size != (DT_WSTR,10)@BikeSize
```

- This example uses the CurrencyRate table. The expression compares values in tables and variables. It returns TRUE if entries in the FromCurrencyCode or ToCurrencyCode columns are equal to variable values and if the value in AverageRate is greater than the value in

EndOfDayRate.

```
(FromCurrencyCode == @FromCur || ToCurrencyCode == @ToCur) && AverageRate
```

- This example uses the Currency table. The expression returns TRUE if the first character in the Name column is not a or A.

```
SUBSTRING(UPPER(Name),1,1) != "A"
```

The following expression provides the same results, but it is more efficient because only one character is converted to uppercase.

```
UPPER(SUBSTRING(Name,1,1)) != "A"
```

Non-Boolean Expressions

Non-Boolean expressions are used in the Derived Column transformation, property expressions, and the For Loop container.

- This example uses the Person table. The expression removes leading and trailing spaces from the FirstName, MiddleName, and LastName columns. It extracts the first letter of the MiddleName column if it is not null, concatenates the middle initial and the values in FirstName and LastName, and inserts appropriate spaces between values.

```
TRIM(FirstName) + " " + (!ISNULL(MiddleName) ? SUBSTRING(MiddleName,1,1)
```

- This example uses the Person table. The expression validates entries in the Title column. It returns a Title entry or an empty string.

```
(Title == "Sr." || Title == "Ms." || Title == "Sra." || Title == "Mr.") :
```

- This example uses the Product table. The expression converts the first character in the Color column to uppercase and converts remaining characters to lowercase.

```
UPPER(SUBSTRING(Color,1,1)) + LOWER(SUBSTRING(Color,2,15))
```

- This example uses the Product table. The expression calculates the number of months a product has been sold and returns the string "Unknown" if either the SellStartDate or the SellEndDate column contains NULL.

```
!(ISNULL(SellStartDate)) && !(ISNULL(SellEndDate)) ? (DT_WSTR,2)DATEDIFF(
```



- This example uses the Product table. The expression calculates the markup on the StandardCost column and rounds the result to a precision of two. The result is presented as a percentage.

```
ROUND(ListPrice / StandardCost,2) * 100
```

External Resources

Technical article, [SSIS Expression Cheat Sheet](#), on pragmaticworks.com

See Also

Tasks

[Using Expressions in Packages](#)

Other Resources

[Integration Services Expression Concepts](#)

[Operators \(SSIS Expression\)](#)

[String Functions and Other Functions \(SSIS Expression\)](#)

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