

Arithmetic Operations

In action script operations, the Designer supports the following basic arithmetic operations: multiplication, division, subtraction, and addition. Also, it is allowed to use parentheses like e.g. in $3 * (4 + 2)$ instead of $3 * 4 + 3 * 2$.



The variables and literals involved in an arithmetic expression must all be of the same type. You cannot mix integers and floats.

Example Arithmetics

The following notations are valid arithmetics expressions:

```
set resultInteger1 = integer1 + 3 * 4;
set resultInteger2 = integer2 + 5 / 3;
set resultInteger3 = integer3 - (3 - 4);
set resultInteger4 = integer4-6;

set resultFloat1 = float1 + 5.0 / 3.0;
set resultFloat2 = float1 + float2;
set resultFloat3 = float1 * float3;
set resultFloat4 = float1 / float4;
```

Some remarks:

- If you provide the value **1** for `integer2`, the value of `resultInteger2` will be **2**. The calculated result of **2.66** will be cut after the decimal point because the result value is of type integer. However, if you provide the value **1.0** for `float1`, the result will be **2.66**.
- The expression `set resultFloat1 = 1 + 5 / 3` would cause a compilation error because **1**, **5**, and **3** are of type integer. If you want the result to be a float, you must specify the integers in float notation, thus appending `'0'`.

DateTime Arithmetics

Besides doing arithmetic with plain numbers it is also possible to do **DateTime** arithmetic. It is allowed to add/subtract durations to/from a given **DateTime** object.

The following action script sample shows how to add one month to a given **DateTime** object:

```
set resultDateTime = dateTime + convertDurationToDateTime("P1M");
```

This is calculated e.g. as follows:

1. **31.01.2017** + 1 month = **31.02.2017**
2. The resulting date **31.02.2017** is normalized to **03.03.2017**.

In fact, these objects are represented as `DateTime` types but they are actually handled as durations. For the exact lexical definition of duration, refer to [convertDurationToDateTime\(\) Operation](#).

You can also use dedicated `DateTime` operations for these arithmetics (see [DateTime Operations](#)), e.g. a [add\(\) / subtract\(\) Operation](#) using a duration structure as a parameter:

```
create duration;
set duration.months = 1;

set resultDateTime = dateTime.add(duration);
set resultDateTime = dateTime.subtract(duration);
```



It is not allowed to add up two dates.

On this Page:

- [Example Arithmetics](#)
- [DateTime Arithmetics](#)

ActionScript_Calculations_Example



Click the icon to download a simple example model that shows how to use Action Script to perform simple **Integer**, **Float** and **DateTime** calculations with **Scheer PAS Designer**.

Related Pages:

- [convertDurationToDateTime\(\) Operation](#)
- [add\(\) / subtract\(\) Operation](#)
- [difference\(\) Operation](#)



To find out the duration between two dates better use the `difference()` operation instead of subtracting them.