

1.1.1 While loops

While loops are statement expressions that allow repeated code execution based on a specified logical condition. It can be thought of a repeated conditional statement.

The general syntax is of the following form:

```
while (condition) <statement>;
```

Example:

```
while ( prob(0.5) ) println("Success") ;  
println( "Failure " ) ;
```

The result is something similar:

```
Success  
Success  
Success  
Success  
Success  
Failure
```

It is also possible to perform a sequence of statements within a code block (as it is possible for startup sections, schedule event and for-each definitions).

```
while (condition) {  
    <statement1>;  
    <statement2>;  
    ...  
}
```

Local definitions may support a `while` statement with a perfect condition variable.

Example:

```
printSequence() =  
    while ( i > 0 ) {  
        println( i ) ;  
        dec( i ) ;  
    }  
    where ( i = 10 ) ;  
  
startUp() {  
    printSequence() ;  
} ;
```

The result is:

```
10  
9  
8  
7  
6  
5  
4  
3  
2  
1
```