

while — while (exp) stmt

[Description](#)[Syntax](#)[Remarks and examples](#)[Also see](#)

## Description

`while` executes *stmt* or *stmts* zero or more times. The loop continues as long as *exp* is not equal to zero.

## Syntax

```
while (exp) stmt
```

```
while (exp) {  
    stmts  
}
```

where *exp* must evaluate to a real scalar.

## Remarks and examples

stata.com

To understand `while`, enter the following program

```
function example(n)  
{  
    i = 1  
    while (i<=n) {  
        printf("i=%g\n", i)  
        i++  
    }  
    printf("done\n")  
}
```

and run `example(3)`, `example(2)`, `example(1)`, `example(0)`, and `example(-1)`.

One common use of `while` is to loop until convergence:

```
while (mreldif(a, lasta)>1e-10) {  
    lasta = a  
    a = ...  
}
```

## Also see

[M-2] **semicolons** — Use of semicolons

[M-2] **do** — do ... while (exp)

[M-2] **for** — for (exp1; exp2; exp3) stmt

[M-2] **break** — Break out of for, while, or do loop

[M-2] **continue** — Continue with next iteration of for, while, or do loop

[M-2] **intro** — Language definition