

# PSEUDOCODE EXAMPLES FOR CONTROL STRUCTURES\*

Kenneth Leroy Busbee

This work is produced by OpenStax-CNX and licensed under the Creative Commons Attribution License 3.0<sup>†</sup>

## Abstract

Pseudocode conventions and control structure examples of: if then else, case, while, for, do while and repeat until.

## 1 Overview

No standard for pseudocode syntax exists. However, there are some commonly followed conventions to help make pseudocode written by one programmer easily understood by another programmer. Most of these conventions follow two concepts:

- Use indentation to show the action part of a control structure
- Use an ending **phrase word** to end a control structure

The sequence control structure simply lists the lines of pseudocode. The concern is not with the sequence category but with selection and two of the iteration control structures. The following are commonly used ending phrase-words:

Control Structure	Ending Phrase Word
If then Else	Endif
Case	Endcase
While	Endwhile
For	Endfor

Table 1

The **Do While** and **Repeat Until** iteration control structures don't need an ending phrase-word. We simply use the first word, then the action part, followed by the second word with the test expression. Here are some examples:

---

\*Version 1.14: Mar 5, 2012 5:52 am -0600

<sup>†</sup><http://creativecommons.org/licenses/by/3.0/>

## 2 Selection Control Structures

### Example 1: pseudocode: If then Else

```
If age > 17
    Display a message indicating you can vote.
Else
    Display a message indicating you can't vote.
Endif
```

### Example 2: pseudocode: Case

```
Case of age
    0 to 17   Display "You can't vote."
    18 to 64 Display "You're in your working years."
    65 +     Display "You should be retired."
Endcase
```

## 3 Iteration (Repetition) Control Structures

### Example 3: pseudocode: While

```
count assigned zero
While count < 5
    Display "I love computers!"
    Increment count
Endwhile
```

### Example 4: pseudocode: For

```
For x starts at 0, x < 5, increment x
    Display "Are we having fun?"
Endfor
```

### Example 5: pseudocode: Do While

```
count assigned five
Do
  Display "Blast off is soon!"
  Decrement count
While count > zero
```

### **Example 6: pseudocode: Repeat Until**

```
count assigned five
Repeat
  Display "Blast off is soon!"
  Decrement count
Until count < one
```