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:

<table>
<thead>
<tr>
<th>Control Structure</th>
<th>Ending Phrase Word</th>
</tr>
</thead>
<tbody>
<tr>
<td>If then Else</td>
<td>Endif</td>
</tr>
<tr>
<td>Case</td>
<td>Endcase</td>
</tr>
<tr>
<td>While</td>
<td>Endwhile</td>
</tr>
<tr>
<td>For</td>
<td>Endfor</td>
</tr>
</tbody>
</table>

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:
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 "Your 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