

PL/0 Compiler Example Errors

Authors: Travis Le and Allysia Freeman

Table of Contents

TABLE OF CONTENTS.....	2
1: USING SEMICOLON INSTEAD OF PERIOD.....	3
2: USING : INSTEAD OF :=.....	4
3: VAR DECLARATION MISSING IDENTIFIER AFTER.....	5
4: VAR DECLARATION TWICE	6
5: CONSTANT DECLARATION WITHOUT NUMBER.....	7
6: VAR DECLARATION MISSING VARIABLE NAME	8
7: MISSING IDENTIFIER BEFORE :=	9
8: MISSING := AFTER VARIABLE.....	10
9: MISSING IF BEFORE CONDITION.....	11
10: CALL WITHOUT IDENTIFIER	12

1: Using semicolon instead of period

```
var z,a, b;  
begin  
  a := 0;  
  b:= 8;  
  z:=0;  
  while b > 0 do  
    begin  
      if odd b then  
        z := z + a;  
      a := 2*a;  
      b := b/2;  
    end  
  end;  
end;
```

Message generated:

Error: Line:0, Collumn:1 :: Invalid symbol

2: Using : instead of :=

```
var w,q, w, r, y;  
  
read x;  
read r;  
read y;  
  
begin  
  r := 0;  
  q := 1;  
  w : 1;  
  
  while w <= r do  
    w := 2*w;  
    while w > y do  
      begin  
        q := 2*q;  
        w := w/2;  
        if w =r then  
          begin  
            r := r-w;  
            q := q+1;  
          end  
        end  
      end  
    end  
  end  
end.
```

Message generated:

Error: Line:10, Collumn:2 :: Invalid symbol

3: Var declaration missing identifier after

```
const a = 1, c = 3;  
var ;  
begin  
  b := 2 + a;  
  write b;  
end.
```

Message generated:

Error: Line:3, Collumn:2 :: const, var, and procedure must be followed by an identifier

4: Var declaration twice

```
const a = 1;  
var b;  
var c;  
begin  
  b := 2 + a;  
  c := 2 + a;  
  write b;  
end.
```

Message generated:

Error: Line:4, Collumn:1 :: var detected more than once

5: Constant declaration without number

```
const n = ;  
var i,h;  
  procedure sub;  
    const k = 7;  
    var j,h;  
    begin  
      j:=n;  
      i:=1;  
      h:=k;  
    end;  
begin  
  i:=3;  
  h:=0;  
  call sub;  
end.
```

Message generated:

Error: Line:2, Collumn:4 :: Number expected after = with const

6: Var declaration missing variable name

```
const n = 8 ;  
var ,h;  
  procedure sub;  
    const k = 7;  
    var j,h;  
  begin  
    j:=n;  
    i:=1;  
    h:=k;  
  end;  
begin  
  i:=3;  
  h:=0;  
  call sub;  
end.
```

Message generated:

Error: Line:2, Collumn:2 :: const, var, and procedure must be followed by an identifier

7: Missing identifier before :=

```
var x, w;  
  
begin  
  := 4;  
  read w;  
  
    if w > x then  
      write w;  
    if x > w then  
      write x;  
end.
```

Message generated:

Error: Line:4, Collumn:1 :: Cannot begin statement with this symbol

8: Missing := after variable

```
var x, w;  
  
begin  
  x 4;  
  read w;  
  
    if w > x then  
      write w;  
    if x > w then  
      write x;  
end.
```

Message generated:

Error: Line:4, Collumn:2 :: := expected after identifier

9: Missing if before condition

```
var x, w;  
  
begin  
  x := 4;  
  read w;  
  
    w > x then  
      write w;  
    if x > w then  
      write x;  
end.
```

Message generated:

Error: Line:7, Collumn:2 :: := expected after identifier

10: Call without identifier

```
Const n = 13;  
var i,h;  
  procedure sub;  
    const k = 7;  
    var j,h;  
  begin  
    j:=n;  
    i:=1;  
    h:=k;  
  end;  
  begin  
    i:=3;  
    h:=0;  
    call ;  
  end.
```

Message generated:

Error: Line:14, Collumn:2 :: Ident expected after call