$$\begin{array}{c} texto_1 & Z_1 = 0; \\ = \cdot^{\mathrm{obf}} & \\ JUMP & \\ *^{:i} & \\ texto_1 & \\ \dots & \\ \hline \end{array}$$
 **Ejemplo**

 $Z_{.obf} = 0 > 0 | | Y_3 == 0;$ 

**←:143** 

 $Z_1 = 0;$ 

=.obf

JUMP

\*:143

←:**i** 

 $if(\langle exp\_b_1 \rangle) \{ \Rightarrow | Z_{obf} == \langle exp\_b_1 \rangle;$ 

 $F_{13} = F_{34};$ 

}

}

 $Y_{21} = 16;$ 

 $Y_{11} /= 87;$ 

 $if(0 > 0 | | Y_3 == 0)$ {

$$| Y_{21} = 16;$$

$$| Y_{11} /= 87;$$

$$| F_{13} = F_{34};$$

$$| if(\langle exp\_b_1 \rangle) \{ \}$$

$$| texto_1 \rangle$$

$$| texto_2 \rangle$$

texto<sub>2</sub>

. . .

 $Z_{.obf} = 0 > 0 | | Y_3 == 0;$ 

texto<sub>1</sub>

}

 $Z_1 = 0;$ 

\_.obf

**←:211** 

JUMP

\*:212

$$Y_{21} = 16;$$
 $Y_{11} /= 87;$ 

\*:211

 $Y_{21} = 0;$ 
 $F_{13} = F_{34};$ 

-:211

while  $(\langle exp\_b_1 \rangle) \{ \rightarrow | if(\langle exp\_b_1 \rangle) \{ \leftarrow : i \}$ 

}

texto<sub>1</sub>

\*:i

```
while (Y_3 < 7) {
Y_1 *= 2;
Y_3 ++;
}

if (Y_3 < 7) {
Y_1 *= 2;
Y_3 ++;
}

*:387
```

$$\begin{array}{ccc} \operatorname{do} \{ & & & & \operatorname{texto_1} \\ & \operatorname{texto_1} & & & \operatorname{if} (\langle \operatorname{exp\_b_1} \rangle) \, \{ \\ \} & \operatorname{while} (\langle \operatorname{exp\_b_1} \rangle) \, ; & & & & \\ \} & & & & \\ \end{array}$$

# Ejemplo

 $Y_1 *= 2;$ 

 $Y_3 ++;$ 

do{

 $Y_1 *= 2;$ 

Y<sub>3</sub> ++;

 $if(Y_3 < 7){$ 

**←:387** 

texto,

}

```
for(Y<sub>3</sub> = 0; Y<sub>33</sub>[Y<sub>3</sub>] != 'c'; Y<sub>3</sub>++){
    Y<sub>21</sub>++;
}

Y<sub>3</sub> = 0;
while(Y<sub>33</sub>[Y<sub>3</sub>] != 'c'){
    Y<sub>21</sub>++;
    Y<sub>3</sub>++;
}
```

$$\langle casd \rangle \rightarrow case \mid default$$
  
 $\langle fin\_case \rangle \rightarrow $ \mid \langle casd \rangle$ 

```
 \begin{array}{c} \text{switch}(\alpha_1) \{ \hspace{0.1cm} \Rightarrow \hspace{0.1cm} Z_{.\text{brk}} = Z_{:i}; \\ texto_1 \hspace{0.1cm} F_{.\text{sw}} = \alpha_1; \\ : \text{swc} : \{ \$ \\ texto_1 \\ \$ \} \\ \text{JUMP} \\ 1^{:j} \hspace{0.1cm} \leftarrow :i \\ \dots \end{array}
```

```
switch(Y_{29}){
                                        Z_{.brk} = Z_{:58};
case '0':
                                        F_{.sw} = Y_{29};
                                        :swc:{$
   Y_{21}[0]++;
                                           case '0':
    break;
case '1':
                                                Y_{21}[0]++;
    Y<sub>25</sub>++;
                                                break;
    break;
                                           case '1':
}
                                                Y<sub>25</sub>++;
                                                break;
                                        $}
                                        JUMP
                                        1:59
                                                                    ←:58
                                                                    ←:59
                                        . . .
```

break; 
$$\rightarrow$$
  $Z_{:i} = Z_{.brk}$ ;  $*$ 

break; 
$$Z_{:47} = Z_{.brk};$$
  $X_{:47} = Z_{.brk};$   $X_{:47} = Z_{$ 

#### :SWC:

(texto\_swc) representa textoc que no empieza por (fin\_case).

```
:swc:{
                                       F_{.case} = \alpha_1;
                                       Z_1 = Z_{.case};
     \langle texto_1 \rangle
                                       _.sw
     case \alpha_1:
                                       JUMP
                                       *^{:i}
        \langle texto\_swc_1 \rangle
     ⟨fin_case₁⟩
                                       :swc:{
                                           \langle texto_1 \rangle
                                           ⟨texto_swc<sub>1</sub>⟩ ←:i
                                           \langle fin\_case_1 \rangle
```

```
F_{.case} = 48;
:swc:{$
                                       :swc:{$
   case '0':
                                          case 48:
                                                                             Z_1 = Z_{.case};
                                                                             _.case
       Y_{21}[0]++;
                                              Y_{21}[0]++;
       break;
                                              break;
                                                                             JUMP
   case '1':
                                          case '1':
                                                                             *:65
       Y<sub>25</sub>++;
                                              Y<sub>25</sub>++;
                                                                             :swc:{
       break;
                                             break;
                                                                                     Y_{21}[0]++;
                                                                                                        ←:65
                                                                                     break;
$}
                                      $}
                                                                                 case '1':
                                                                                    Y<sub>25</sub>++;
                                                                                    break;
                                                                             $}
```

```
\langle texto_1 \rangle
⟨fin_case<sub>1</sub>⟩ ←:i
break;
case Y<sub>.sw</sub>:
    *^{:i}
```

:swc:{

\$

\$}

## Ejemplo

:swc:{

\$

\$}

 $\langle texto_1 \rangle$ 

default:

 $\langle fin\_case_1 \rangle$ 

 $\langle texto\_swc_1 \rangle$ 

```
:swc:{$
                                        :swc:{$
    default:
                                               Y<sub>36</sub>++;
                                                                   ←:127
      Y<sub>36</sub>++;
                                            case '1':
    case '1':
                                              Y<sub>25</sub>++;
      Y<sub>25</sub>++;
                                               break;
      break;
                                               break;
                                            case Y<sub>.sw</sub>:
$}
                                                *:127
                                        $}
```

```
:swc:{
                                      :swc:{
     \langle texto_1 \rangle
                                            \langle texto_1 \rangle
     case \alpha_1:
                                            case \alpha_1:
     \langle fin\_case_1 \rangle
                                            NADA
                                            \langle fin\_case_1 \rangle
```

```
:swc:{$
                           :swc:{
  . . .
                             . . .
  case 49:
                             $
  case '9':
                             case 49:
   Y<sub>25</sub>++;
                           NADA
                             case '9':
     break;
                               Y<sub>25</sub>++;
$}
                                break;
                           $}
```