Exercice 1

```
local P in
    local Z in
        Z=1
        proc {P X Y} Y=X+Z end
    end
    local B A in
        A=10
        {P A B}
        {Browse B}
    end
end
```

① $\left[\begin{pmatrix}\text{local } P \text{ in}\\ \vdots\\ \text{end}\end{pmatrix} \{\phi\}\right] \{\phi\}$

② $\left[\begin{matrix}\begin{pmatrix}\text{local } Z \text{ in}\\ \vdots\\ \text{end}\end{pmatrix} & \{P \to p\}\\ \begin{pmatrix}\text{local } A\ B \text{ in}\\ \vdots\\ \text{end}\end{pmatrix} & \{P \to p\}\end{matrix}\right] \{p\}$

③ $\left[\begin{matrix}(Z=1) & \{P\to p, Z\to z\}\\ (\text{proc } P\ldots) & \{P\to p, Z\to z\}\\ (A=10) & \{P\to p, B\to b, A\to a\}\\ (\{P\ A\ B\}) & \{P\to p, B\to b, A\to a\}\\ (\{\text{Browse } B\}) & \{P\to p, B\to b, A\to a\}\end{matrix}\right] \{p, z, b, a\}$

directement → split par facilité

④ ⑤ $\left[\begin{matrix}(A=10) & \{P\to p, A\to a, B\to b\}\\ (\{P\ A\ B\}) & //\\ (\{\text{Browse}\}) & //\end{matrix}\right] \{p=(\text{proc}\{\$\ X\ Y\}\ Y=X+Z\ \text{end}, \{Z\to z\}), z=1, a, b\}$

⑥ ⑦ $\left[\begin{matrix}(Y=X+Z, \{X\to a, Y\to b, Z\to z\})\\ (\{\text{Browse } B\}, \{P\to p, A\to a, B\to b\})\end{matrix}\right] \{p=(\text{proc}\{\$\ X\ Y\}\ Y=X+Z\ \text{end}, \{Z\to z\}), z=1, a=10, b\}$

⑨ $\left[\{\text{Browse } B\}, \{P\to p, A\to a, B\to b\}\right] \{p=(\text{proc}\{\$\ X\ Y\}\ Y=X+Z\ \text{end}, \{Z\to z\}), z=1, a=10, b=11\}$

on a par défaut
browse = (proc {$ ...} ... end, {})