Syntax der Assemblersprache A

Programm `((register` R `...)` `(marken` M `...)` C `...)`

$C ::= B \mid M$

Register $R ::= \langle \text{Symbol} \rangle$

Marke $M ::= \langle \text{Symbol} \rangle$

Befehl

$$
\begin{array}{rcl}
B & ::= & \texttt{(assign } L\ A\texttt{)} \\
& \mid & \texttt{(goto } Z\texttt{)} \\
& \mid & \texttt{(branch (}T\ D_1\ D_2\texttt{)}\ \ Z\texttt{)} \\
& \mid & \texttt{(push } A\texttt{)} \\
& \mid & \texttt{(pop } L\texttt{)}
\end{array}
$$

Ausdruck

$$
\begin{array}{rcl}
A & ::= & M \\
& \mid & \langle \text{Integer} \rangle \\
& \mid & \texttt{(fetch } R\texttt{)} \\
& \mid & \texttt{(}F\ D_1\ D_2\texttt{)} \\
& \mid & \texttt{(new-vector } D\texttt{)}
\end{array}
$$

Lokation $L ::= R \mid$ `(fetch` R`)`

Ziel $Z ::= M \mid$ `(fetch` R`)`

Datum $D ::= \langle \text{Integer} \rangle \mid$ `(fetch` R`)`

Test $T ::=$ `=` $\mid$ `<`

Funktion $F ::=$ `+` $\mid$ `-` $\mid$ `*`