

Praktikum Programmierung II

Folie trans AM₀

- $\underline{\text{trans}}(\text{\#include } \langle \text{stdio.h} \rangle \text{ int main } () \text{ **block**}) := \underline{\text{blocktrans}}(\text{**block**})$
- $\underline{\text{blocktrans}}(\{ \text{decl statseq return 0;} \}) := \underline{\text{stseqtrans}}(\text{**statseq**, \underline{\text{update}}(\text{**decl**, \text{tab}_0), 1)$
- $\underline{\text{sttrans}}(\text{id = exp}, \text{tab}, \text{a}) :=$
 if (tab(id) = (var, n)) then
 $\underline{\text{simpleexptrans}}(\text{exp}, \text{tab})$
 STORE n;
- $\underline{\text{sttrans}}(\text{if (exp) stat}_1 \text{ [else stat}_2\text{]}, \text{tab}, \text{a}) :=$
 $\underline{\text{boolexptrans}}(\text{exp}, \text{tab})$
 JMC a.2;
 $\underline{\text{sttrans}}(\text{stat}_1, \text{tab}, \text{a.1})$
 [JMP a.4;
 a.2: $\underline{\text{sttrans}}(\text{stat}_2, \text{tab}, \text{a.3})]$
 a.4:
- $\underline{\text{stseqtrans}}(\text{stat}_1 \dots \text{stat}_n, \text{tab}, \text{a}) :=$
 $\underline{\text{sttrans}}(\text{stat}_1, \text{tab}, \text{a.1})$
 ...
 $\underline{\text{sttrans}}(\text{stat}_n, \text{tab}, \text{a.n})$
- $\underline{\text{boolexptrans}}(\text{exp}_1 \text{ OP exp}_2, \text{tab}) :=$
 $\underline{\text{simpleexptrans}}(\text{exp}_1, \text{tab})$
 $\underline{\text{simpleexptrans}}(\text{exp}_2, \text{tab})$
 OP;
- $\underline{\text{sttrans}}(\text{scanf}(\text{"\%i"}, \&\text{id}), \text{tab}, \text{a}) :=$
 if (tab(id) = (var n)) then
 READ n;
- $\underline{\text{sttrans}}(\text{printf}(\text{"\%d"}, \text{id}), \text{tab}, \text{a}) :=$
 if (tab(id) = (var n)) then
 WRITE n;