

1. Create the *program* by concatenating the program prolog, program body, and the program epilog.
2. Print the program to the PCode file.

Grammar:

program → *program_head program_declarations program_body*

program_body → *compound_statement* .

The program prolog is the same as the subprogram prolog

Subprogram prolog:

- Create a list of expression trees.
- Make each of the following three a single PCode instruction.
- Insert the PCode instructions into the list.

entry:

ent sp *splabel*

ent ep *eplabel*

The labels *entry*, *splabel* and the *eplabel* were created when the program identifier was entered into the symbol table

Steps.

1. Obtain the symbol descriptor for the program identifier, *P*.
 - 1.1. Note that *program_head*, (\$1) is the symbol descriptor for the program identifier, *P*.
2. string *entry*=*P*->*ELabel*();
3. string *splabel*=*P*->*SPLabel*();
4. string *eplabel*=*P*->*EPLabel*();

Program body:

Append the list of statements (expression trees), referenced by *program_body* (\$3), to the list created above in the program prolog.

The program epilog is in two parts.

1. subprogram epilog
2. program epilog

Subprogram epilog:

- Append each of the following PCode instructions to the list created in the program prolog and extended in the program body.

rtn p

#define *splabel* *spvalue*

#define *eplabel* *epvalue*

Program epilog

mst 0

cup 0 *entry*

stp