

Spin2Core design proposal

Here are some guidelines for the design:

Steps of Translating:

1. Preprocessing the file:
 - 1.1. Replacing all c-macros with appropriate values:
 - 1.1.1. `#include "filename"`
 - 1.1.2. `#define, #ifdef, #ifndef, #else, #endif`
 - 1.2. Replacing all labels with appropriate program counter value.
2. Building a data structure as followed, in order to keep all relevant information.
3. Translation according to the data structure and the file.

Data Structures:

1. Root:

Root
Process* proc_list Channel* chan_list Variable* glbl_var_list

2. Variables:

Variable
char* name int scope /* the pid of the process */ char* type int init_val

3. Channel:

Channel
char* name int cid /* channel is always global */ int max_size Variable msg[msg_size] int xr_pid /* exclusive receive */ int xs_pid /* exclusive send */

4. Process:

Process
char* name int pid int priority boolean provided

Variable*	var_list
Process*	child_procs
Channel*	snd_list
Channel*	rcv_list
Char**	inline_list

Data Tree:

