

NuSMV Commands

Source: NuSMV 2.4 User Manual

● Model Reading and Building

read_model [-i model-file.smv] Reads a NuSMV file into NuSMV.

go Initializes the system for the verification. (Generates the boolean BDD variables, and compiles the model into a BDD.)

process_model Reads the model, compiles it into BDD and performs the model checking of all the specification contained in it.

● Commands for Checking Specifications

check_ctlspec Performs fair CTL model checking.

check_ctlspec -p "ctl-expr [IN context]" A CTL formula to be checked.

check_ltlspec Performs LTL model checking

check_ltlspec -p "ltl-expr [IN context]" An LTL formula to be checked.

go_bmc Initializes the system for the BMC verification.

check_ltlspec_bmc [-k max length][-l loopback]

● Simulation Commands

pick_state Picks a state from the set of initial states.

-r Randomly picks a state from the set of initial states.

-i Enables the user to interactively pick up an initial state.

-c "constraints" Uses constraints to restrict the set of initial state.

goto_state [state_label] Goes to a given state of a trace.

print_current_state Prints out the current state.

-v Prints the value of all the state variables of the current state.

simulate Performs a simulation from the current selected state.

-r steps Picks a state from a set of possible future states in a random way.

-i steps Enables the user to interactively choose every state of the trace.

show_traces Shows the traces generated in a NuSMV session.

-v Verbosely prints traces content. (all state variables)

-t Prints only the total number of currently stored traces.

-a Prints all the currently stored traces.

trace_umber The identifier number of the trace to be printed.