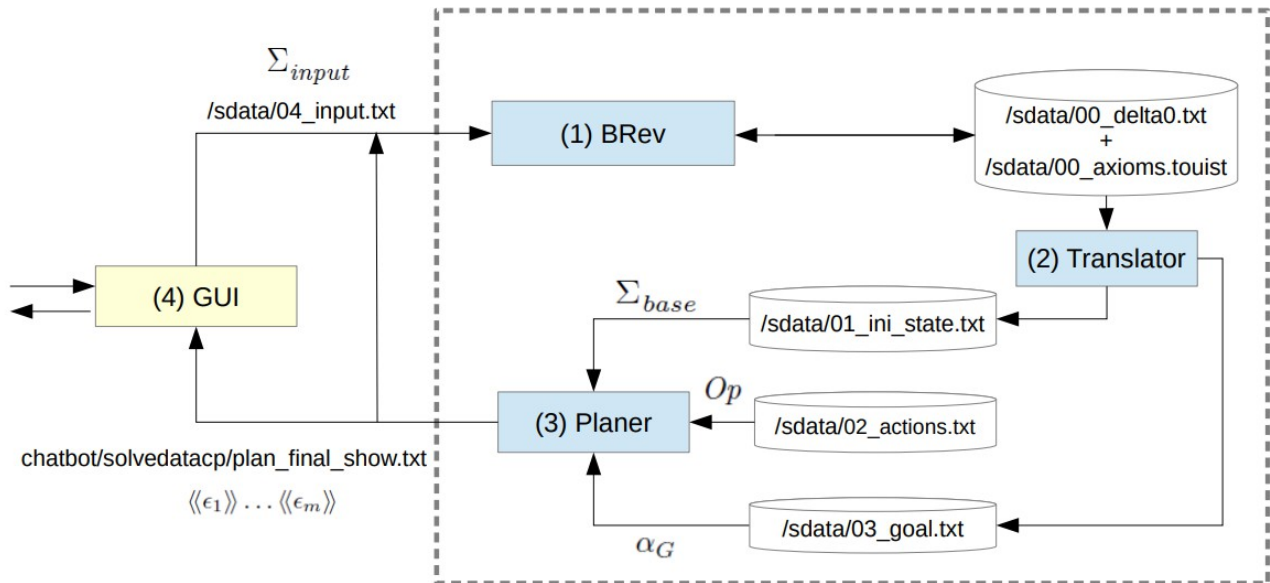# EXPERIMENTS GUIDE

The input files Σ_{input} represent the human's preferences. For example 04_input11.txt which contains the data : x_env_land_x , represents the human desire to choose a sport in which the environment to practice is land. Similarly, the file 04_input14.txt which contains : x_cost_high_x => x_soc_mixed_x, captures the human preference toward choosing a sport in which if the cost is high then the sociability level should be mixed (i.e. it should be possible to practice both in team and single mode).

SYSTEM ARCHITECTURE

Distribution of modules in chatbot_master.zip file :

* /sdata is a shared directory used by the modules to exchange data.

CASE 01 : The ideal sport for the human is tennis.

1. The next input files are in /chatbot_master/sdata/ :

> 04_input11.txt
> 04_input12.txt
> 04_input13.txt
> 04_input14.txt

2. Calling the modules using the input files: In order to generate a plan we call the core modules following the next sequence of commands:

> 2.1. Calling the *Belief Revision* module: Open a terminal window in /chatbot_master/chatbot/ and type:
>
> ~/chatbot_master/chatbot$ ../brev/brev -e s score.txt 00_delta0_base.txt 04_input11.txt
> ~/chatbot_master/chatbot$ ../brev/brev -e s score.txt 00_delta0_base.txt 04_input12.txt
> ~/chatbot_master/chatbot$ ../brev/brev -e s score.txt 00_delta0_base.txt 04_input13.txt
> ~/chatbot_master/chatbot$ ../brev/brev -e s score.txt 00_delta0_base.txt 04_input14.txt
>
> If the four previous commands had a correct execution, the contain of the file: ~/chatbot_master/sdata/00_delta0.txt should be:
>
>> "ass(env,land)"
>> "ass(intens,med)"
>> "not ass(loc,indoor)"
>> "ass(cost,high) => ass(soc,mixed)"
>
> 2.2. Calling the *Translator* module :
> In the terminal window type the next command to generate the 01_ini_state.txt and 03_goal.txt files in /sdata/:
>
> ~/chatbot_master/chatbot$ ./translator.exe --solve ../sdata/00_delta0.txt
>
> 2.3. Calling the *Planer* module :
> In the terminal window type :
>
> ~/chatbot_master/chatbot$ ../planer/planer -e sat 01_ini_state.txt 02_actions.txt 03_goal.txt te

3. Output file *plan_final_show.txt* with the plan is located in */chatbot_master/chatbot/solvedatacp/*:

> plusa({h}(val_te_ass_danger_med)
> plusa({h}(val_te_ass_intens_med)
> plusa({h}(val_te_ass_soc_mixed)
> plusa({h}(val_te_ass_loc_mixed)
> plusa({h}(val_te_ass_env_land)
> plusa({h}(ideal_h_te_)
>
> I found that tennis has a med dangerousness level.
> In addition, it satisfies your desires because:
> intensity is med, sociality is mixed, location is mixed, environment is land
> For all these reasons, I recommend tennis as the ideal sport for you

CASE 02 : The ideal sport for the human is diving.

1. Input files in /chatbot_master/sdata/:

> 04_input21.txt
> 04_input22.txt
> 04_input23.txt

2. Calling the modules using the input files: In order to generate a plan we call the core modules following the next sequence of commands:

2.1. Calling the *Belief Revision* module:
Open a terminal window in /chatbot_master/chatbot/ and type:

~/chatbot_master/chatbot$ ../brev/brev -e s score.txt 00_delta0_base.txt 04_input21.txt
~/chatbot_master/chatbot$ ../brev/brev -e s score.txt 00_delta0_base.txt 04_input22.txt
~/chatbot_master/chatbot$ ../brev/brev -e s score.txt 00_delta0_base.txt 04_input23.txt

If the three previous commands had a correct execution, the contain of the file :
~/chatbot_master/sdata/00_delta0.txt should be:

> "ass(env,water)"
> "ass(intens,low)"
> "ass(cost,high) => ass(soc,single)"

2.2. Calling the *Translator* module:
In the terminal window type the next command to generate the 01_ini_state.txt and 03_goal.txt files in /sdata/:

~/chatbot_master/chatbot$ ./translator.exe --solve ../sdata/00_delta0.txt

2.3. Calling the *Planer* module:
In the terminal window type :

~/chatbot_master/chatbot$ ../planer/planer -e sat 01_ini_state.txt 02_actions.txt 03_goal.txt di

3. Output file *plan_final_show.txt* with the plan is located in */chatbot_master/chatbot/solvedatacp/*:

> plusa({h}(val_di_ass_danger_high)
> plusa({h}(val_di_ass_intens_low)
> plusa({h}(val_di_ass_soc_single)
> plusa({h}(val_di_ass_env_water)
> plusa({h}(ideal_h_di_)
>
> I found that diving has a high dangerousness level.
> In addition, it satisfies your desires because:
> intensity is low, sociality is single, environment is water
> For all these reasons, I recommend diving as the ideal sport for you

CASE 03 : The ideal sport for the human is swimming.

1. Input files in /chatbot_master/sdata/:

> 04_input31.txt
> 04_input32.txt
> 04_input33.txt
> 04_input34.txt

2. Calling the modules using the input files : In order to generate a plan we call the core modules following the next sequence of commands:

2.1. Calling the *Belief Revision* module:
Open a terminal window in /chatbot_master/chatbot/ and type:

~/chatbot_master/chatbot$ ../brev/brev -e s score.txt 00_delta0_base.txt 04_input31.txt
~/chatbot_master/chatbot$ ../brev/brev -e s score.txt 00_delta0_base.txt 04_input32.txt
~/chatbot_master/chatbot$ ../brev/brev -e s score.txt 00_delta0_base.txt 04_input33.txt
~/chatbot_master/chatbot$ ../brev/brev -e s score.txt 00_delta0_base.txt 04_input34.txt

If the three previous commands had a correct execution, the contain of the file:
~/chatbot_master/sdata/00_delta0.txt should be :

> "ass(env,water)"
> "not ass(loc,indoor)"
> "not ass(soc,team)"
> "ass(cost,med) => ass(intens,high)"

2.2. Calling the *Translator* module:
In the terminal window type the next command to generate the 01_ini_state.txt and 03_goal.txt files in /sdata/:

~/chatbot_master/chatbot$ ./translator.exe --solve ../sdata/00_delta0.txt

2.3. Calling the *Planer* module:
In the terminal window type:

~/chatbot_master/chatbot$ ../planer/planer -e sat 01_ini_state.txt 02_actions.txt 03_goal.txt sw

3. Output file *plan_final_show.txt* with the plan is located in */chatbot_master/chatbot/solvedatacp/*:

> plusa({h}(val_sw_ass_danger_low)
> plusa({h}(val_sw_ass_intens_high)
> plusa({h}(val_sw_ass_soc_single)
> plusa({h}(val_sw_ass_loc_mixed)
> plusa({h}(val_sw_ass_env_water)
> plusa({h}(ideal_h_sw_)
>
> I found that swimming has a low dangerousness level.
> In addition, it satisfies your desires because:
> intensity is high, sociality is single, location is mixed, environment is water
> For all these reasons, I recommend swimming as the ideal sport for you