CAPI SNAP commands summary *(use **vi**, **gedit** or **nano** as editors)*

IBM Power Systems

Steps	Effect of the command	Files used	Working directory	Command used	Target
Setup the environment	***Clone snap*** ***Clone pslse*** ***Prepare environment setting*** ***Compile SNAP environment*** ***Clean SNAP environment*** ***Set SNAP environment***	- - snap_env.sh - - snap_env.sh	~ ~ ~/snap ~/snap ~/snap ~/snap	**git clone https://github.com/open-power/snap** **git clone https://github.com/ibm-capi/pslse** **cd ~/pslse && make && cd ~/snap** **edit snap_env.sh** **make software** **(make clean_config)** *(optional)* **make snap_config**	**X86**
Step 1 **Run sw action on CPU**	***compile all sw***	snap_helloworld.c + action_lowercase.c + /tmp/t1	~/snap/actions/hls_helloworld/sw	**make**	x86 or Power8
	execute all sw		~/snap/actions/hls_helloworld/sw	SNAP_CONFIG=CPU ./**snap_helloworld** -i/tmp/t1 -o/tmp/t2	
Step 2 **simulate hw action**	***convert C hw action to RTL***	action_uppercase.cpp	~/snap/actions/hls_helloworld/hw	**make** *(can be optional since done by make model and make sim)*	x86
	compile all hw design for simulation + run simulation	action_uppercase.cpp	~/snap	**make sim** *(= make model && cd hardware/sim && ./run_sim)*	
	simulate hw action	snap_helloworld.c + action_uppercase.cpp + /tmp/t1	*SIMU_xterm directory* – do not change this directory –	*(#SIMU_xterm$)* **script** *(optional : to save the screen log)* *(#SIMU_xterm$)* **snap_maint -vv** *(#SIMU_xterm$)* **snap_helloworld** -i/tmp/t1 -o/tmp/t2	
Run hw action on FPGA (x86)	***compile all hw design for FPGA***	snap_helloworld.c + action_uppercase.cpp	~/snap	**make image**	x86
	Copy the binary file generated by the make image to P8 + Flash the FPGA + connect to P8	fw_xxx_xx.bin	~snap/hardware/build/Images	***-- Environment dependent --***	x86
Step 3 **Run hw action on FPGA (Power8)**	**Clone the snap and compile it**		~ ~ ~/snap ~/snap	**git clone https://github.com/open-power/snap** **export ACTION_ROOT=${HOME}/snap/actions/hls_helloworld** **cd snap && source snap_path.sh** **make software apps**	Power8
	Localize slot of the card to be used Run discovery mode		~/snap	snap_find_card –v –A ALL **snap_maint –vv –Cx** *(x is the card slot found by snap_find_card)*	Power8
	Execute snap_helloworld program	/tmp/t1	~/snap	**snap_helloworld** –i/tmp/t1 –o/tmp/t2 **–Cx**	Power8