

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

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 <a href="https://github.com/open-power/snap">https://github.com/open-power/snap</a> git clone <a href="https://github.com/ibm-capi/pslse">https://github.com/ibm-capi/pslse</a> 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)	x86
	compile all hw design for simulation	action_uppercase.cpp	~/snap	make model	
	simulate hw action	snap_helloworld.c + action_uppercase.cpp + /tmp/t1	~/snap/hardware/sim	cd hardware/sim && ./run_sim (#SIMU_terminal\$) snap_maint -vv (#SIMU_terminal\$) snap_helloworld -i/tmp/t1 -o/tmp/t2	
Step 3					
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
Run hw action on FPGA (Power8)	Clone the snap and compile it		~ ~ ~/snap ~/snap	git clone <a href="https://github.com/open-power/snap">https://github.com/open-power/snap</a> 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