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***	-	~	**git clone https://github.com/open-power/snap**	**X86**
	Clone pslse	-	~	**git clone https://github.com/ibm-capi/pslse**	
	Prepare environment setting	snap_env.sh	~/snap	**edit snap_env.sh**	
	Compile SNAP environment	-	~/snap	**make software**	
	Clean SNAP environment	-	~/snap	**(make clean_config)** *(optional)*	
	Set SNAP environment	snap_env.sh	~/snap	**make snap_config**	
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	
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

CAPI SNAP commands summary for Nimbix *(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***	-	~	**git clone https://github.com/open-power/snap**	**X86**
	Checkout cloud support release	-	~	**cd snap && git checkout $CLOUD_BRANCH**	
	Prepare environment	snap_env.sh	~/snap	**cp $HOME/snap_env.sh . && source snap_env.sh**	
	Compile SNAP environment	-	~/snap	**make software**	
	Clean SNAP environment	-	~/snap	**(make clean_config)** *(optional)*	
	Set SNAP environment	snap_env.sh	~/snap	**make snap_config** ***(select cloud build option for Nimbix)***	
Step 1 Run sw action on CPU	***compile all sw***	snap_helloworld.c + action_lowercase.c + /tmp/t1	~/snap/actions/hls_helloworld/sw	**make**	x86 or Power8
	execute all sw		~/snap/actions/hls_helloworld/sw	SNAP_CONFIG=CPU ./**snap_helloworld** -i/tmp/t1 -o/tmp/t2	
Step 2 simulate hw action	***convert C hw action to RTL***	action_uppercase.cpp	~/snap/actions/hls_helloworld/hw	**make** *(can be optional since done by make model)*	x86
	compile all hw design for simulation	action_uppercase.cpp	~/snap	**make model**	
	simulate hw action	snap_helloworld.c + action_uppercase.cpp + /tmp/t1	~/snap/hardware/sim	**cd hardware/sim && ./run_sim** *(#SIMU_terminal$)* **snap_maint -vv** *(#SIMU_terminal$)* **snap_helloworld** -i/tmp/t1 -o/tmp/t2	
Run hw action on FPGA (x86)	***compile all hw design for FPGA***	snap_helloworld.c + action_uppercase.cpp	~/snap	**make image**	x86
	Flash the FPGA + connect to P8	$DCP_ROOT/JARVICENAE_xx x.tar.gz	~/snap	**deployToPower.sh** ***(Nimbix only)***	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** **cd snap && git checkout $CLOUD_BRANCH** **export ACTION_ROOT=${HOME}/snap/actions/hls_helloworld** **source snap_path.sh** **make software apps**	Power8
	Localize available cards **Run discovery mode**		~/snap	(snap_find_card –v –A ALL) *(optional)* **snap_maint –vv**	Power8
	Execute snap_helloworld program	/tmp/t1	~/snap	**snap_helloworld** –i/tmp/t1 –o/tmp/t2	Power8