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 and make sim)*	x86
	compile all hw design for 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
	Flash the FPGA + connect to P8	$DCP_ROOT/JARVICENAE_xxx.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