

EST

Evaluate Decision Model:

$$S_t(I) - H_t(I) \gg D_t$$

Yes

CHECK

Perform SW_{check} :

all direction vectors tested give negative results

No

No

Yes

EXE_{sw}

Perform computation using
original program binary

EXE_{hw}

Invoke Hardware
Accelerator

	Steps Taken	Performance Benefits
Best case	$EST \rightarrow CHECK \rightarrow EXE_{hw}$	$S_t(I) - H_t(I) - D_t - E_t$
Early abort	$EST \rightarrow EXE_{sw}$	$-E_t$
Worst case	$EST \rightarrow CHECK \rightarrow EXE_{sw}$	$-D_t - E_t$

E_t : Time for evaluating the decision model