High CPU usage when when runni[..]

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FAQ Article Print

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State:	public (all)		

Problem (public)

An application uses OpenMP API to improve performance on a computer with multiple cores/processors.
High CPU usage may occur when starting and running the application. This problem occurs because of the behavior of waiting threads. The behavior of waiting threads is adjusted by the system environment variable OMP_WAIT_POLICY.

The value of this environment variable takes the form: ACTIVE | PASSIVE

-    The ACTIVE value specifies that waiting threads should mostly be active, i.e., consume processor cycles, while waiting.
-    The PASSIVE value specifies that waiting threads should mostly be passive, i.e., not consume processor cycles, while waiting.
-    The system variable OMP_WAIT_POLICY is ACTIVE by default.

For correct work of the application, the system variable OMP_WAIT_POLICY should be set to PASSIVE.
When you install the application automatically, the Renga Architecture installer creates a variable name OMP_WAIT_POLICY and assigns it a PASSIVE value.

Solution (public)

-    If the system variable OMP_WAIT_POLICY is not listed of the system variables, please create it with the PASSIVE value
-    If the system variable OMP_WAIT_POLICY is listed of the system variables and described the problem still occurs, please check the correct value (should be PASSIVE) and the correct name of the system variable (spelled correctly, there are no spaces, etc.)