



Q-SYS Networked Systems Technical Notes

Q-SYS Core Processors

Managing Q-SYS clock domains on large multiple-core systems

Some large Q-SYS networks use multiple systems, each with its own core processor, with a common AV infrastructure on LAN A. By default, these core processors will all elect a PTPv2 (clock) grandmaster to synchronize to, but in larger or newly expanded networks the PTPv2 latency may become difficult to keep within acceptable limits. This can be solved by putting the various systems into their own clock domains, as long as they don't need to stream to or from any of the other core processors.

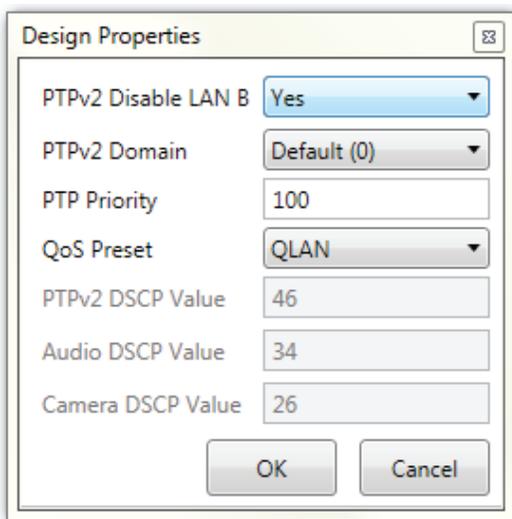
Setting clock domains

In Q-SYS the default clock domain is 0, but it can be set manually in the Q-SYS design to any one of the *Alt* domains 1 through 3 or the *User* domains 4 through 127.

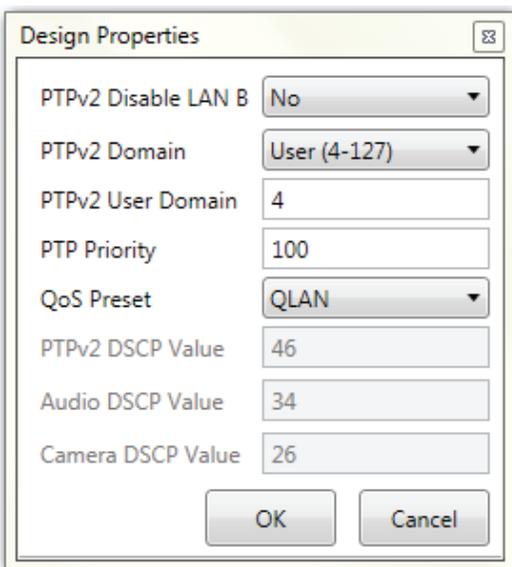
1. To set the clock domain in a system, open the design in **Q-SYS Designer Software**.
2. Select **File > Design Properties**.
3. Change the **PTPv2 Domain** value to something other than **Default (0)** (Figure 1). If you select a **User** domain, enter the number at **PTPv2 User Domain** (Figure 2). Use any number from 4 to 127. Use a unique designation for each clock domain you set up.

Please note that any core processors that share audio data—for example, in core-to-core streaming—must use the same clock domain values.

4. Click **OK**. Save the design and load it to the core processor.
5. Repeat this process for each system you wish to place on a separate clock domain.



– Figure 1 –



– Figure 2 –



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