

Enhancement of IP Wizard in Power and Thermal Calculator

Enrich the functionality of IP Wizard and improve the user experience

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Hierarchy Manager		
Design Hierarchy		IP Power Summary
IP Instance	Dynamic Power (W)	Entity Name
▼ Ethernet Media Access Controller Interface Signals (HPS I/O)	0.026	
a	0.013	
c	0.013	
▼ External Memory Interfaces Intel Stratix 10 FPGA IP: RLDRAM 3	1.969	
b	1.969	

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Edit in IP Wizard

PROJECT SUMMARY

The Intel® FPGA Power and Thermal Calculator (PTC) facilitates the assessment of power consumption and thermal specifications for Intel Agilex® 7 and Intel® Stratix® 10 devices within your design. Through the early analysis of key factors influencing FPGA power utilization, the Intel® FPGA PTC empowers the optimization of design elements to enhance both power and thermal efficiency. To further enhance the accuracy of thermal performance optimizations for specific components and simplify the process of reusing pre-designed circuits, we have exciting plans to expand the capabilities of the IP Wizard. This project is centered on the integration of the pre-existing hierarchical structure with Intellectual Properties (IPs) to enhance the precision of power consumption analysis for individual components. Additionally, it aims to streamline the process of incorporating additional IPs in future developments. In the latest iteration of our application, we have successfully delivered an enhanced IP wizard to our valued customers, specifically targeting hardware engineers. This updated version offers increased functionality and simplifies the introduction of new IPs, providing users with a more powerful and efficient experience. I conducted an independent and thorough code investigation, authored the project proposal, and engaged in extensive discussions with both the project manager and senior engineers to refine the project's objectives and approach. Moreover, I assumed the primary responsibility for the implementation of approximately 90% of the development work. Finally, I presented a comprehensive demonstration of the project's achievements to our marketing group.

REFERENCES

What is PTC. (2023, June 26). Retrieved from <https://www.intel.com/content/www/us/en/docs/programmable/683445/23-2/overview-of-the.html>

