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# Implementing a P4P-Based Serial Driver for Moxa TCP Communication with ISIS Serial Devices

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The ISIS Controls System transition to EPICS instersects with legacy hardware upgrades. This work presents the development of a robust EPICS-based (p4p) serial driver for interfacing with serial devices, mainly power supplies, via Moxa TCP terminal servers. The driver supports multiple serial device types, handling reads, writes, and instructions with redundant data restoration and alarm management. Key features include thread-safe PV monitoring, real-time serial communication, and automated recovery mechanisms. This implementation enhances reliability and scalability of Controls hardware, offering a flexible solution for integrating diverse serial-based systems into the ISIS EPICS Control System.

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