

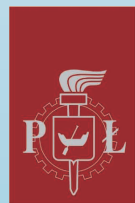
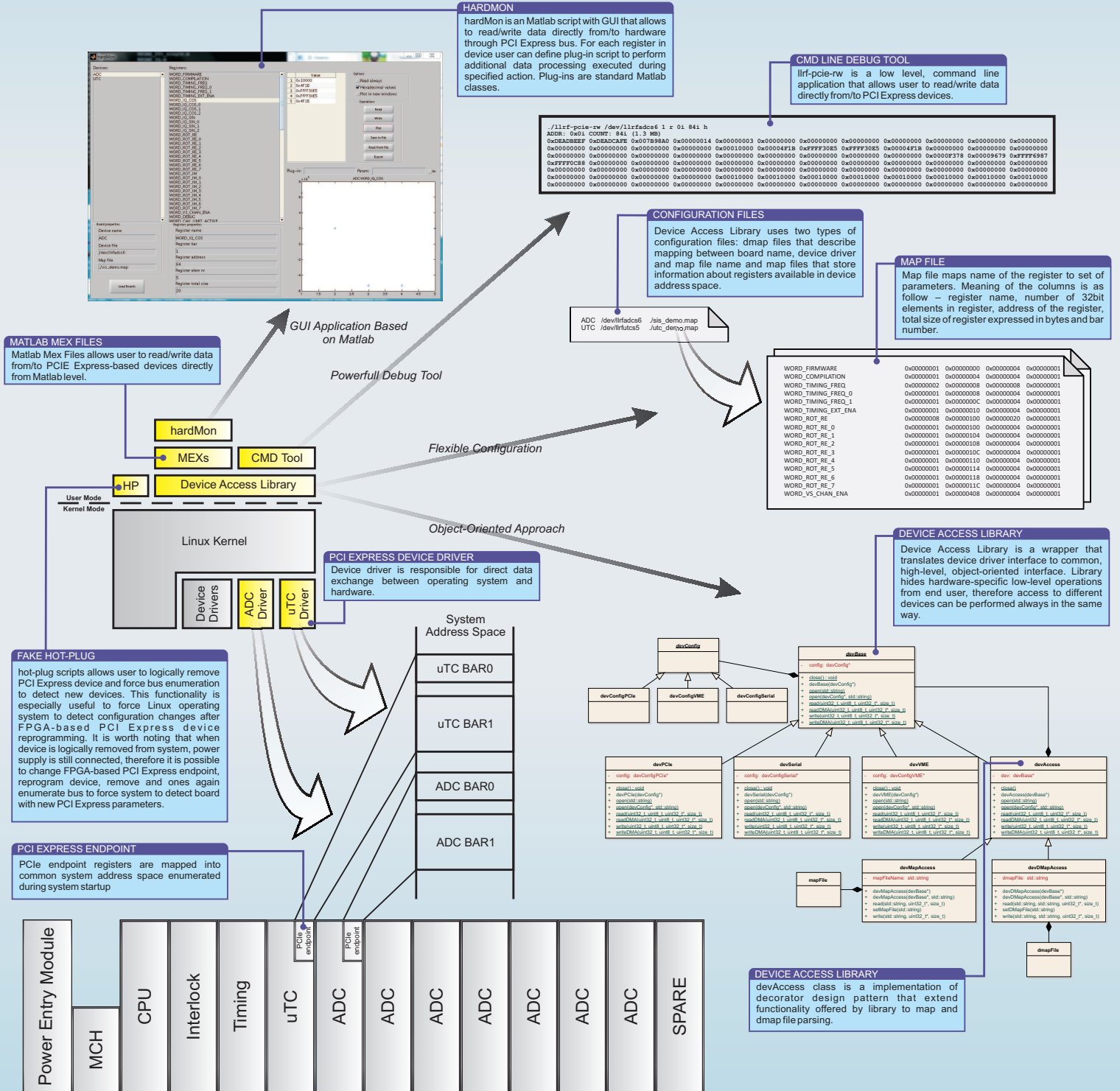


# SOFTWARE SUPPORT FOR PCIEXPRESS BUS FOR UTCA-BASED LLRF CONTROL SYSTEM



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**ABSTRACT:** PCIExpress architecture is a widely used communication bus designed for industrial application. Additionally it is also part of an uTCA standard available as one of the communication interfaces between AMC modules. Due to high efficiency of data transfer PCIExpress bus was used in uTCA-based LLRF control system for FLASH accelerator (DESY, Hamburg) for data exchange between hardware modules and DOOS control servers. In this poster author presents general overview of software components for Linux operating system designed to achieved maximum efficiency of data transfer. Elements like PCIExpress device drivers, support for hot-plug functionality and access to hardware directly from tool like Matlab are described.



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