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## The Upgrade of Pulsed Magnet Control System Using PXIe Devices at KEK LINAC

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The pulsed magnet control system at KEK electron positron injector LINAC changes the magnetic field every 20 ms to realize the simultaneous injection for four target rings, 2.5 GeV PF, 6.5 GeV PF-AR, 4 GeV SuperKEKB LER and 7 GeV SuperKEKB HER. It receives the trigger signal from the event timing system which varies for different beam modes. Then the output of a PXIe DAC board responds to the trigger and sets the current of the pulsed magnet. The combination of Windows 8.1 and LabVIEW was utilized to implement the control system since 2017. However, the discontinued support of Windows 8.1 requires an upgrade of the current system. Linux is chosen to replace Windows and EPICS driver for PXIe devices is thus required. The development of the new Linux-based pulsed magnet control system is introduced in this work.

### Funding Agency

### Footnotes

### I have read and accept the Privacy Policy Statement

Yes

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