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The Automation System for TPS (Taiwan Photon Source) 31A PXM (Projection X-ray Microscopy) Endstation

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The control system used at the Taiwan Photon Source TPS31A PXM endstation is composed of an integrated system capable of achieving fully automated sample scanning and data retrieval. This system consists of six main subsystems (Figure 1):
(a) Central Control System: Integrated by a computer system, allowing remote control.
(b) Sample Alignment System: Used to measure and extract the scanning center of experimental samples.
(c) Tray Changing System: Loads samples into the robotic arm sample changing system.
(d) Robotic Arm Sample Changing System: Sends samples to the rotating platform for scanning.
(e) Scanning System: Executes sample alignment and rotation to collect projection images.
(f) Storage System: A one Petabyte-sized HDD cluster used for storing and backing up projection image data.
All subsystems have been integrated, and the PXM endstation is currently available for user experiments.

I plan to submit also conference proceedings

Yes

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