

Fundamental Architectures of the Digital Global Orbit Feedback System for SRRC Storage Ring,
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K.T. PAN, SRRC - In this paper, we would like to discuss software, hardware configurations of the Digital Global Orbit Feedback System for SRRC and how to incorporate it with the main control system. Three VME-based crates interconnected with high performance daisy-chained global reflective memory networks have been utilized to carry out the project. One crate is responsible for acquiring all Beam Position Monitoring signals into reflective memory; another is equipped with powerful Digital Signal Processor module to calculate orbit correction offsets and place results in memory networks; the other bases on calculated correction offsets in reflective memory to change orbit dynamically and communicates with the main control system for the necessity of those housekeeping works.

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