Development of Local Orbit Feedback for Taiwan Light Source, J.R. CHEN, G.Y. HSIUNG, K.T. HSU, <u>C.H. KUO</u>, T.F. LIN, SRRC - A highly-effective local orbit feedback system (LOFB) in the Taiwan Light Source (TLS) has been developed to control closed-orbit error and orbit disturbances at the source point of a photon beamline. This system consists of a local orbit bump whose strength is dynamically controlled to preserve the beam trajectory. The measured bump ratio is used in this feedback system, and a control algorithm and digital filter are embedded in the digital signal processor based on VME system. The control algorithm is used to reduce the effects of noise and disturbance, improve stability and extend feedback bandwidth in this system. Digital filtering is used to reduce the noise in photon beam position monitor (PBPM) readings. The hardware of local feedback system is combined with the global feedback system of operation type.