The U-70 Machine Continuous Beam Loss Monitoring, D.A. DEMIKHOVSKY, V.V. GOTSEV, Beam Loss V.V. KOMAROV, <u>V.I. TEREKHOV</u>, V.N. GRES, V.N. GRES, , V.V. KOMAROV, <u>V.I. TEREKHOV</u>, E.F. TROYANOV, V.Ya. UGLEKOV, IHEP Protvino -A new beam monitor system for continuous measuring radiation levels around the U-70 accelerator is being developed. That system consists of 120 monitors mounted close to the median plane and providing complete coverage of the U-70 ring. Each monitor is a small chamber operating in both ionization and proportional modes in dependance on supplied voltage. Chamber's currents are digitized by a current-to-frequency converters with individual 16 bit counters. The data acqusition part is done in the frame of the built U-70 control system. This presentation gives description of all main components of monitoring system.