

PAC (Picture Archiving and Communication) systems enable for storage and management of digital picture data produced by various modalities on radiological and other hospital departments. An effective implementation of a PAC system has to face number of challenges – how the picture data and corresponding metadata are represented, how are they communicated, how the system integrates with other department or hospital subsystems, how the workflow and basic tasks are managed or how scalability, robustness and reliability is achieved. There are several industrial standards affecting this area – and all of them are quite complex. The aim of this work was to design and implement a PAC system that would be capable of long-term production use at PET center of Na Homolce hospital under existing requirements an limitations and that would be very standardized in respect to the existing industrial standards.