

Abstract

The growing of data communication network is a reason for telemedicine to become one of important area. One of interesting study is compression for medical image, so that this final project will present implementation of medical image compression technique using JPEG2000 standard in an adaptive manner.

Internet bandwidth is a scarce resource specially for country which doesn't have international Internet backbone such as Indonesia. As cost for Internet service is very expensive, idea of adaptive compression by using available bandwidth as efficient as possible is one of solution. The system will compress the data, which is corresponding to the rate connection between client and server.

The simulation on adaptive compression gave result less than 20 seconds for download and decompress the file. 5 type of connection that have been tested, this time is optimal compared to each network for 5 different compression rate. Main purpose of this final project is not just adaptive compression ratio but also high quality decompressed image because medical image has sensitive information. PSNR has value more than 30 decibels for average result.

Implementation has been done with java programming language because of its platform independent characteristics so it can be run in more operating system platform such as Windows, Linux, Macintosh.