



RESEARCH ARTICLE

Effect of Twisted Pair Cable Arrangement on Manual Termination with RJ 45 and the Quality of Communication in Auto-Sensing Port Devices

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Abstract— Current Network devices have been implemented with sensors that automatically detect and accordingly manage the various functional cables of a twisted pair cable. This paper research into the effect of randomly arranging twisted pair cables on communication and the complications associated with manual termination with RJ 45 connectors. Different sets of unshielded twisted pair cables were randomly terminated. These cables were used to set up communication channel between homogeneous and heterogeneous network devices. With the help of communication detection mechanism and a Java desktop application implemented with Java SE, the quality of communication was analyzed. The manual termination processes were also closely monitored and analyzed.

Key Terms: - Cable Arrangement, Colour Coding Scheme, Ethernet, LAN, MDI, MDIX, RJ 45, Twisted Pair.

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