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METHOD OF FORMING, SEARCHING, OR GENERATING QUASI-MINIMUM TREE PROVIDING OPTIMUM NETWORK CONFIGURATION, AND INFORMATION RECORDING MEDIUM WHICH STORES PROGRAM THEREOF

ABSTRACT

A method for forming, searching, or generating a quasi-minimum tree providing an optimum network configuration, which provides an approximate solution to the Steiner problem. This method is a method for forming, searching, or generating a quasi-minimum tree providing an optimum network configuration connecting Steiner points v1 to v5 which are a plurality of vertexes defined by selecting vertexes and edges on an undirected graph which is a geometrical structure consisting of vertexes and weighted edges, wherein, a plurality of trees which do not share said vertexes and edges with one another are created or searched by connecting vertexes to one another beginning from those with which the distance, which provides the total sum of the weights for the edges included in a single path connecting between any two provisional points, is the shortest, while creating or searching a tree providing a path which includes no closed path and is tolerated to be branched; and then, said plurality of trees are connected to one another to provide a tree (a quasi-minimum tree) with which all of said plurality of vertexes defined, v1 to v5, are connected to one another, and the total sum of the weights for said edges included is at a quasi-minimum.