The aim of this thesis is to study and develop a set of computer programs that runs on AutoCAD to perform some essential operations in spatial database management for utility systems emphasising on the systems of simple telephone cable networks.

The development of this computer program package is aimed at the enhancement to the capability of AutoCAD in such a way that graphic entities can have attribute data attached conforming to user specified data structure, especially, the data structure that supports network of lines which can be applied to the cases of utility database management. The development of application programs to undertake the management of telephone network is also included.

The results of the development includes programs package written in AutoLISP, user interface programs and the procedures for the use of the package. The performance of this program package is at a level that works well for simple utility networks. It is a first stage development that needs further enhancements if full function performance is required.