

## Abstract of the student research project

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<b>Title of the project</b>	<b>Conception &amp; realisation of a network analysis method</b>
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The interlaced structure of computer networks are becoming more complex. Due to the complexity a complete overview is hard to be achieved and emerging errors cannot be clearly attributed to the causes. The goal was to untangled this interlaced structure by tools and to solve problems in a more efficient way.

The project has been developed in several steps:

1. An overview about possible problems was considered. These problems then were classified into three categories named as Use Analysis, Property Requirements and Topology Design.
2. Some general methods of troubleshooting and the difficulty of how to handle problems when faced to them were discussed.
3. Different hard-/software tools were introduced. The network management tools HP OpenView, IBM Tivoli, the simulation tool Opnet and the hardware network supervisor Fluke OneTouch Network Assistant were described and a rating of their range of application was stated.
4. The mentioned tools were integrated in an extensive procedure to achieve an optimal functioning of the network. Some combinations of the tools were tested, in order to support problem repairing and enable actions like migrating to other network technologies.