Optimizing Complexity Report

# Used Tools:

NDepend Version 1.9

# Result of first Testrun:

26 Rules violated ( 25 Warnings and 1 Warning about a Critical Rule Violation).

See ReportBefore of NDepend

## The Critical Rule Violation:

Method “ValidateEMailAdress” is too complex. The violated Rule is that the nesting depth should be lower than 4. (Critical because nesting depth is > 8).

## Chosen Area to be changed:

ValidateEMailAdress: the high nesting depth leads to bad readability. The goal is to reduce the nesting depth for a better readability.

### Before:

8 If conditions are in a nested structure

### After:

The 8 If conditions are executed after each other. The error code is now changed by every condition and therefore now in case two conditions of errors are given together the one which is checked later is now the stronger one.

# Result checking measures:

The result shows that the nesting depth decreased to the number of 2. The cyclomatic complexity has decreased from 19 to 12.

# Further possible improvements:

The cyclomatic complexity of the method btnSearch\_Click in FrmMainWindow is 33, of EncryptCustomer in FrmMainWindow is 26 and of btnSave\_Click in FrmEdit it is 21. The complexity of the first two could be decreased by implementing sub methods. The method btnSave\_Click could be improved by adding some validating methods for the textboxes and enabling the save button only if all validations are successful.