Chapter 13

A Model of a Computer Salary Calculation System in Poland

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The model of a salary calculation system in Poland is introduced. Great complexity of the process of salary calculation caused by bureaucracy and many difficult law acts requires special attention to application designers. In order to calculate salary for different enterprises in Poland, a special model must be implemented. The chapter is divided into four sections in which we characterize the specificity of Polish salary calculation process and propose the model that has been successfully implemented in a commercial system. The model comprises of two components: data structures and methods.

INTRODUCTION

Political reforms had a great effect on labor law of many Eastern European countries. Inability to withstand constantly growing expenses of the state caused erection or change of many law acts. Poland, where all the political changes in the region begun was no exception. Since 1989 many corrections of tax and labor acts have been made, causing confusion in the existing computer systems. One of the most important computer applications that is run in almost all companies employing 10 or more workers is salary calculation program - SCP. SCP’s have been provided by many suppliers, but almost none of the implementations could be labeled as “fully compliant with polish labor law.”

The reason of inability of computer systems to solve all the problems encountered in the process of a salary calculation is the complexity of polish law and improper model underlying existing implementations of SCP’s. This chapter pre-
sent discussion of especially difficult aspects of a salary calculation process proposing a model, which can serve as a basis for constructing efficient salary computing applications.

SPECIFICITY OF POLISH SALARY CALCULATION PROCESS

To understand why salary calculation is so difficult, we have to look back at the history of Poland. After World War II Poland had been proclaimed a communist state, which caused revolution in politics and law. The idea of “social equity,” announced by communist state leaders resulted in labor law obligating businesses to pay salaries with no direct relationship to the work done. Consecutive bureaucratic governments produced hundreds and hundreds of official salary calculation regulations. This, along with expanded social security system caused that wages were based on calculation of many (even 200 per person) so called salary constituents –SC’s. Salary constituents evaluation on the other hand was based on many factors, for example: sum of other salary constituents over a certain period of time, or value of officially published constants. In 1989, when an iron curtain fell, growing inflation resulted in an abrupt decrease of the state’s income. Necessity of cutting social expenses was resolved by further increasing number of salary constituents and dividing them into two groups: those paid by government and those paid by businesses. Government’s constituents applied mainly to sick-leaves and other social allowances, and were calculated according to complicated formulas involving 3 or 6 month sum of certain constituents. Experiments in tax systems, performed almost each year threw information technology staff in confusion, forcing substantial modifications to existing SCP software. Recent social security institution (called ZUS) reform obliged human resource personnel to prepare monthly employee salary constituents reports increasing number of different information bound with a particular constituent.

All this put together makes the process of salary calculation process extremely difficult. Almost none of existing SCP applications in Poland meet the criteria of complete and accurate calculation of all salary constituents, forcing users to make less or more corrections to the electronically estimated values. The reason of inability of commercial SCP’s to calculate all salary constituents is improper model underlying these applications.

The model which an application uses must cope with following difficulties:
- large number of different salary constituents (in some cases 500) existing in an enterprise
- necessity to calculate some constituents on the basis of a sum of other constituents over a variable period of time (3,6 or even 12 months)
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