Summary & conclusion for diploma thesis :
Jan Polnický , On-line databáze pro laboratorní odparku, 2001/2002

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Problems concerning real-time databases for collecting, storing and archiving the process data were worked out in the theoretical part of this thesis. Well-known solutions from not only Czech industry but especially from chemistry were also introduced. Products of Oracle corp. and ProjectSoft, which were used in this work, were briefly characterized. Furthermore technological–informational system including physical structure for measuring and controlling the evaporator was also described. Designed relational structure of database for archiving was tested under semi-plant scale conditions. Complex application for on-line calculation of an unknown quantity based on measured variables and tabulated quantities (stored in Oracle database) was created and tested as well.

I would like to emphasize this work has been of a significant technical nature. Besides designing and composition of computer components, Oracle database and application server was fully furnished with software system. Despite all the efforts – having taken advantage of theoretical knowledge as well as experience from Oracle corp. – this work was quite difficult. Several problems arose in the course of testing the communication between software TomPack and data sources. They were scrutinized with help of the author and effectually worked out. Created relational database structure for real-time storing of the process data was also successfully tested under semi-plant scale conditions and seems to be suitable. Possibilities of communication between Oracle database and Database Toolbox (Matlab) were also validated, therefore data can be arbitrarily mathematically processed. Stored data can be utilized for example as inputs for experimental system identification - evaporator (i.e. finding static and dynamic parameters of the mathematical models).