Preface

Quis leget haec?

Persius, Satires, 1:2

Many people have contributed to the development of the system being described in this thesis. The project was conceived by Prof. Dr. Raúl Rojas, who accompanied its development and provided many ideas.

The first prototype of the board software was written by Wolf-Ulrich Raffel. The entire audio part is authored by Gerald Friedland, on the basis of the WWR system by Gerald Friedland and Tobias Lasser and its successor WWR2 by Gerald Friedland and Bernhard Frötschl. Gerald Friedland also designed the multimedia editor called Exymen and the video part of the E-Chalk system.

Kristian Jantz assisted in the video software development. He implemented the SID plug-in for Exymen, the Maple connection for the board, and a number of tools: one for converting lecture recordings to AVI and QuickTime movies, another for generating board snapshots, one for updating the audio format, and a tool for restoring damaged recordings.

Ernesto Tapia developed the mathematical handwriting recognition integrated in the board component. Mary Ann Brennan wrote the first version of the PDF generator and the JMF audio plug-in for Exymen. Stephan Lehmann implemented the program to convert E-Chalk recordings to Windows ASF files. Dr. Peter Rüßman added capabilities for function definition and function plotting for the small built-in computer algebra system. Sebastian Frielitz and Robert Günzler realized the connection with an Oracle database, and Thomas Reimann implemented the tool for automatic upload to a BlackBoard LMS. The handwriting synthesis is the work of Yark Schroeder and the PowerPoint importer was done by Shirzad Kamawall and Alexandar Rakovski. Florian Theimer has to be credited for the extraction of keywords by means of handwriting recognition on recorded board data.

The logic-recognition chalklet is the work of Marcus Liwicki. The TicTacToe chalklet was realized by him, too. Chalklets described on algorithmic animations are developed by Dr. Margarita Esponda. Olga Krupina authored the chalklet on Neural Network simulations. Henrik Steffien and Brendan O'Connor developed the Python-interpreting chalklet.

The FU data wall was designed by Prof. Dr. Raúl Rojas. The laser pen tracking used by the data wall is founded on the work of Michael Diener. The bluetooth extension possibilities were tested by Jörg Rebenstorf. Most of the actual work in setting up the data wall is to be credited to Christian Zick. He also was of great practical assistance to all project members on numerous occasions.

Joachim Schulte conducted the extensive user evaluations on the system in university teaching. Stefanie Eule evaluated the usage in K-12 schools.

For valuable feedbacks, I would like to give thanks to many users, especially to the MOSES team of Prof. Dr. Ruedi Seiler and Dr. Sabina Jeschke, including Erhard Zorn, Sven Grottke, Robert Luce, and others. Special compliments should also go to Dr. Ulrich Kernbach of the Deutsches Museum in Munich and to the Himmel5 team.

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