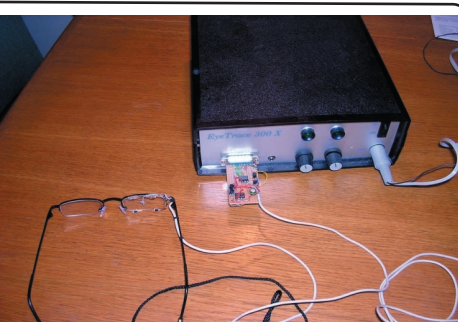


External Function Steering By Eyemovement

BACKGROUND

In 1984, Dr. Per Uddén, the founder of the wheel chair company Permobil AB started a new company, Permobil Meditech, to develop systems that could answer the questions as to why people had reading deficiencies. With him in this project was Dr. Jan Ober, Polish Academy of Science and later also Jan Ober's brother Professor Jozef Ober from the University of Selisia, Poland.



The EyeTrace 300x with prototype EFSEM

The first systems were developed with the Infra Red technique and was named "ober2" a result of having the 2 Ober brothers on the project.

Ober2 became a system mainly for researcher in the areas of Neurology, Psychology, Neuroophthalmology and Optometry. The sampling frequency was 1200 Hz in 4 axis.

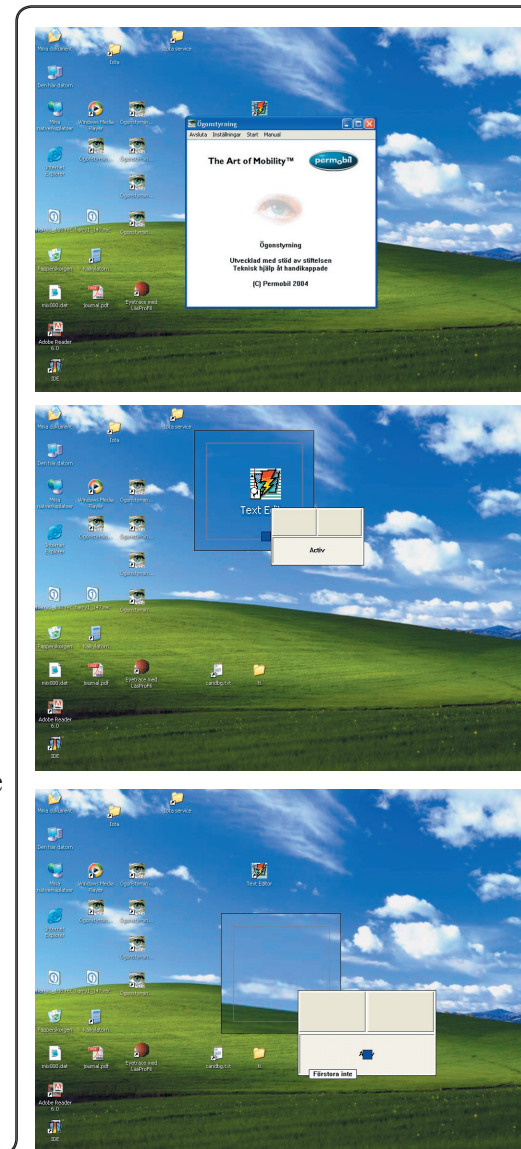
The development to understand the reading process led to the development of a system called the ReadProFile and had a sampling frequency of 120 Hz in the 2 axis.

In year 2000, Permobil Meditech was renamed IOTA AB and the systems were named EyeTrace + function.

Later IR developments includes: EyeTrace 300X, EyeTrace XY 1000, Auditory Biofeedback and EyeTrace Video Superimposer.

In May 2003 Applied Science Laboratories acquired the rights to sell and manufacture the EyeTrace line of products.

The "know how" of Eyemovement development still remains in the company and so the old "dream" of somehow using the eye movement as another supporting system to operate the external functions of the wheel chair could be realized.



Screendumps from the current version of the EFSEM system

PHILOSOPHY FOR THE FUTURE

This is how Permobil's philosophy has been expressed since 1967:“

Every disabled person has the right to have his or her handicap compensated as far as possible by aids with the same technical standards as those we all use in our everyday lives.”

THE SPECIAL PROJECT RESEARCH GROUP

Project name:

*External function steering by eyemovement.
(EFSEM)*

Sponsor:

Technical Aid for Handicapped



Project engineer:

*Gunnar Farm
Elfarm Engineering
Permobil Design*



Project leader and contact person:

*Consultant Anette D. Martins
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Lab technician:

*Tommy Löfman
IOTA AB
Permobil Design*

