#### Home > Projects & Results > FP5 >

Linear Access to Mathematics for Braille Device andAudio-synthesis

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# Linear Access to Mathematics for Braille Device andAudio-synthesis

## **Results in Brief**

# Managing maths text for the seeing impaired

A new system has been developed which provides linear access to mathematics for the seeing impaired.





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Mathematics text management can be problematic for seeing impaired users at secondary schools and universities as can scientific texts in digital format and Braille print. In light of this, the LAMBDA project has faced this challenge with the creation of a system based on a linear (textual and sequential) mathematical code known as MathML. Unlike previous codes, it relies on text formatting and representational markers which are easier for the seeing impaired to

read and manage through certain peripherals.

The project's structure was made up of two major areas which, although different, complement one another. One involved defining the maths code and the other was developing the editor. The code is made up of a linear mathematical syntax and an 8-dot representation as opposed to the 6-dot previously used. The editor offers instructive written support for solutions of mathematical expressions in 8-dot Braille.

The stages were implemented concurrently and independently. The focus was on software development to arrive at a complete product marketable in all countries involved and adaptable by common management environments of the seeing impaired in Europe.

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**Project Information** 

LAMBDA		<b>Funded under</b> Programme for research, technological
Grant agreement ID: IST-2001-37139		development and demonstration on a "User-friendly
		information society, 1998-2002"
Project website 🔀		
		Total cost
Project closed		€ 2 207 470,00
		EU contribution
Start date 1 September 2002	End date 31 December 2006	€ 1 596 000,00
		Coordinated by ARCA PROGETTI SRL Italy

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