

ADVENTURES WITH CROSS-PLATFORM SOFTWARE DEVELOPMENT

by

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The latest upgrade of NotationMan's adventures contains nine cards with clickable buttons, text fields, graphics, and images. These objects contain scripts that make things happen. In August 1999, MetaCard,¹ Inc., through its president, Scott Raney, offered Danscores a grant of license to create an introduction to Labanotation in MetaCard. Its cross-platform development software provides native color as well as multimedia capabilities, and its scripting language is similar to HyperTalk².

There were obstacles. SpacePlaceGuide 3.0 had to be built for Windows as well as Mac users. The most difficult challenge became learning how Macintosh, Windows, and Virtual PC make things work³. While MetaCard can import HyperCard stacks and translate them to Windows and Unix formats, the formats have significant differences. PCs, like Macs, have data forks, but as Macs also have resource forks, scripts that work in a Macintosh often won't work in Windows. Scripted instructions used in earlier HyperCard versions of "SpacePlaceGuide" could not be carried out in a cross-platform environment. To develop the software created for beginning Labanotation students (or any novices), the stack had to be built from scratch.

After many unsuccessful attempts, a stack was created that utilized screen pictures of selected cards from the earlier HyperCard versions. These were imported to Photoshop where they were saved as gif files which were then imported to the MetaCard stack called spg3.mc. Lacking HyperCard's soundChannels and the Mac's voices, MetaCard relies on audio files such as QuickTime and WAV. Live voices and other sounds that had been created in HyperCard were copied to QuickTime and then exported to WAV. The stack, from which both applications were built, was developed in a Macintosh. Its icon was dragged across the screen to the green, Virtual PC window that resided in the Macintosh. In the PC emulator, it became a Windows document. The same stack, in the Macintosh, had already been built into the spg3ppc application with MetaCard's PPC

¹ Company and product names mentioned herein are trademarks of their respective companies.

² HyperTalk is the scripting language used in HyperCard. MetaTalk is similar to it.

³ Virtual PC is a PC emulator for the Macintosh. The Windows system functions inside VPC software which is able to "fool Windows into thinking it's in hardware."

engine⁴. The application, spg3.exe, was built with MetaCard's PC engine in Virtual PC. Each spg3 application can open other MetaCard stacks.

Problems were bound to occur and they were numerous. Inside the Macintosh, Windows 95 was slow, slow, slow. The same software in a real Windows machine played much faster. Although 'waits" in MetaCard scripts may be constant, words like "hide" and visual effects run at different speeds on different systems. (Actually the effects themselves should run at the same speed, but there will be differences in setup time on different platforms). Several volunteers agreed to test the software. I am especially grateful to Lucy Venable who also edited its HyperCard source, "Adventures of NotationMan."

After building a stand-alone application in Windows, one must learn how to compress it for uploading to a web site or emailing as an attachment. WinZip is the standard for compression on Windows, just as StuffIt⁵ is the standard on Macs and almost every Windows owner has an unzipping utility. One can do all compressions directly within VPC, so after downloading a copy of WinZip from the Internet and installing it in VPC, the Windows version of the application was compressed and uploaded to its web site. Soon, NotationMan, the SpacePlaceGuide born in LabanWriter and developed in HyperCard, was featured on MetaCard's applications website. Each application is currently distributed by download from its FTP site or by CD shipment.

SOURCES

Personal email from computer experts such as MetaCard's president, Scott Raney, and HyperTalk expert, Jacqueline Landman Gay

ABBREVIATIONS

ftp: File Transfer Protocol

PC: Personal Computer (as opposed to Macintosh)

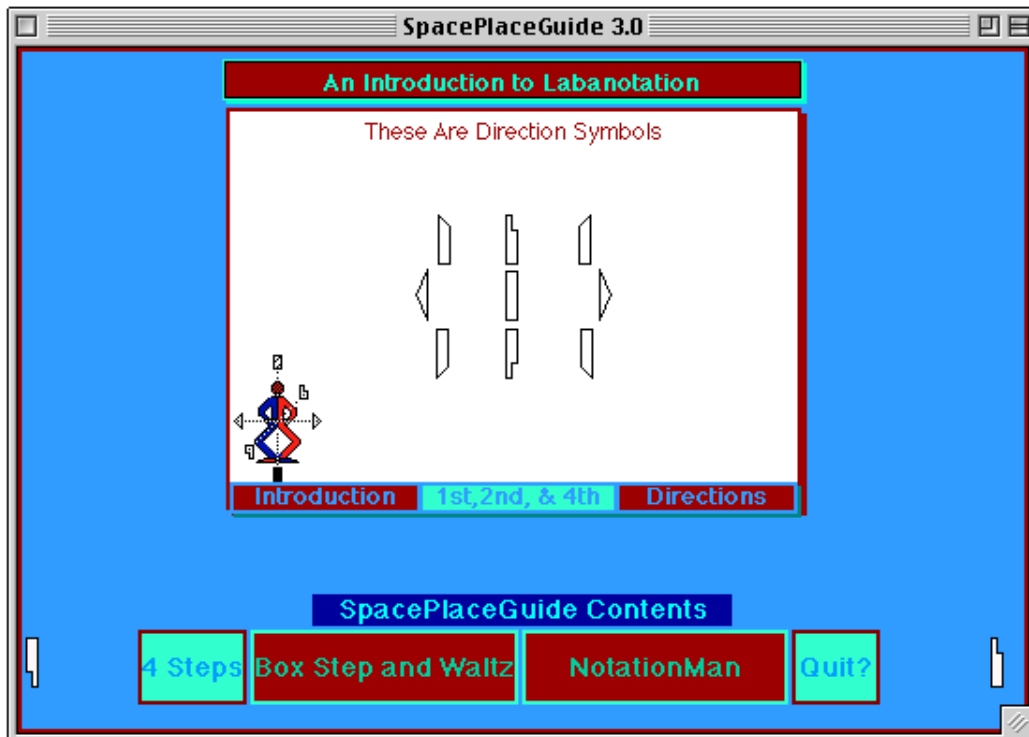
VPC: Virtual PC by Connectix Corporation

⁴ A specific MetaCard engine is required for each platform.

⁵ Compressed with Aladdin's StuffIt, spg3ppc has its own ftp website.

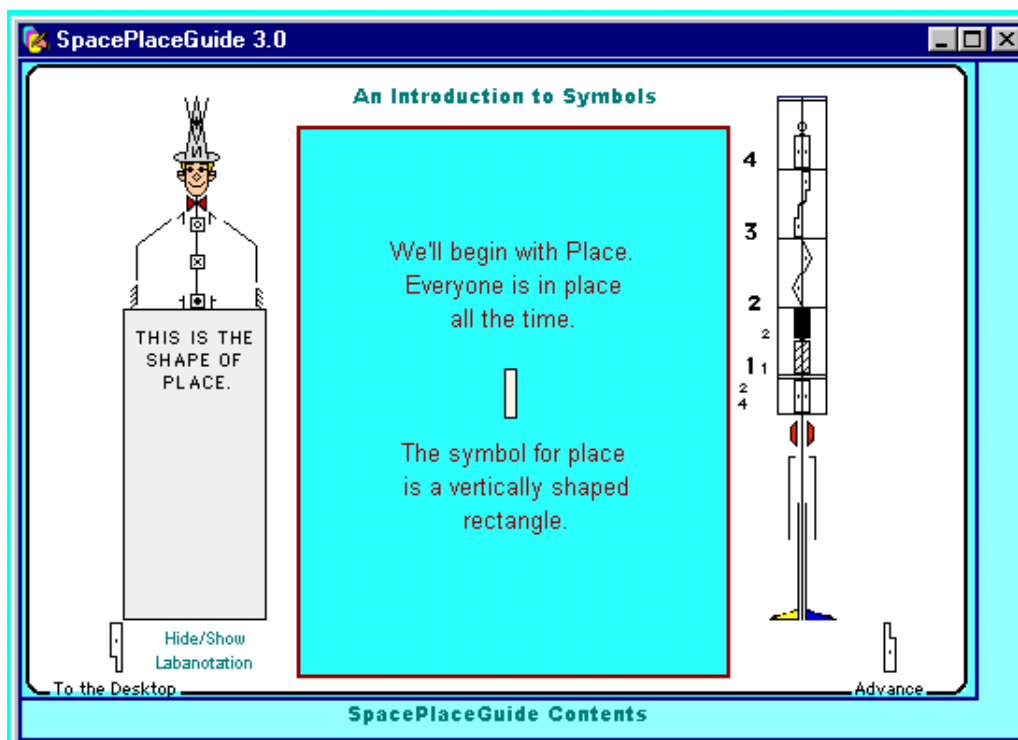
ILLUSTRATIONS

Card 3 of spg3ppc



NotationMan's assistant is surrounded by six primary directions. When words or objects are clicked, animated information is presented.

Card 4 of spg3.exe



During a sequence in spg3ppc

SpacePlaceGuide 3.0

An Introduction to Symbols

THIS IS THE SYMBOL CALLED "PLACE".

THIS IS THE SHAPE OF PLACE.

THE STAFF

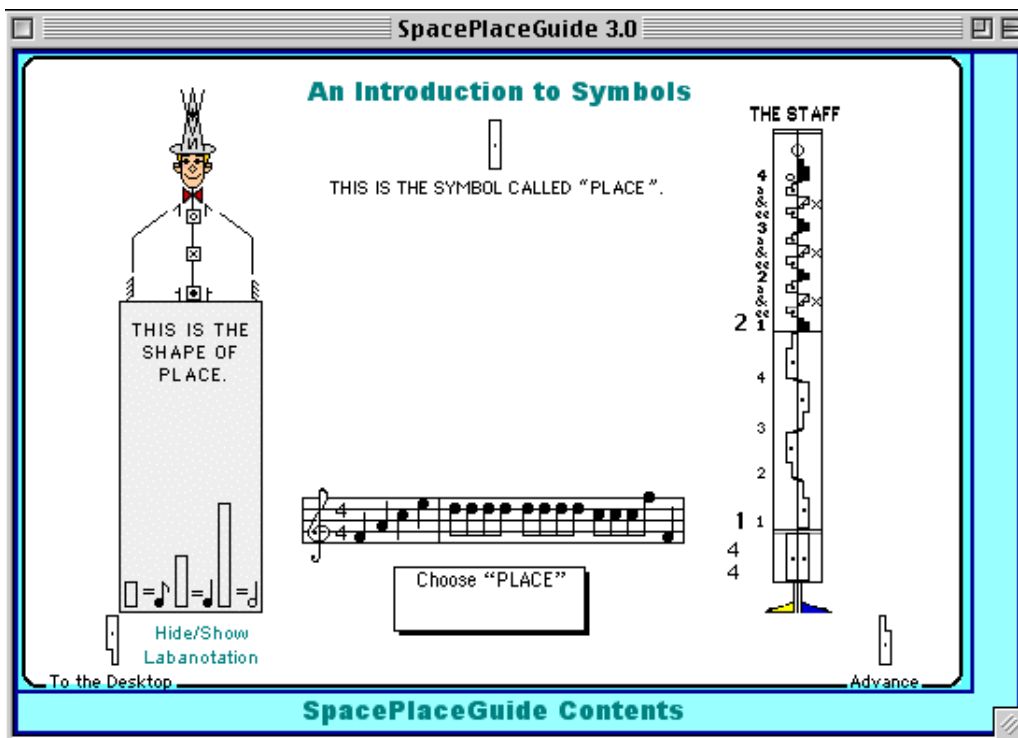
Hide/Show Labanotation

To the Desktop

Choose "PLACE"

Advance

SpacePlaceGuide Contents

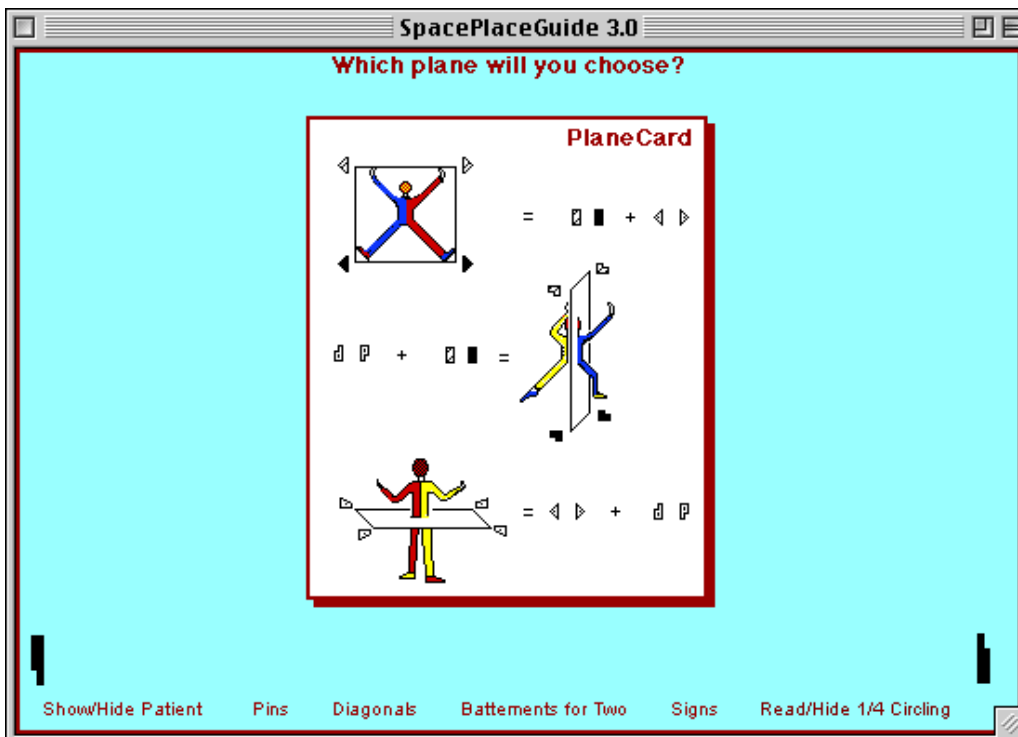


SpacePlaceGuide 3.0

Which plane will you choose?

PlaneCard

Show/Hide Patient Pins Diagonals Battements for Two Signs Read/Hide 1/4 Circling



Animated information is presented when words or planes are clicked.