

DIGITAL DUET

Tony Adams , Karen Martin Keighery,
&
[Don Herbison-Evans](mailto:donherbison-evans@yahoo.com) (donherbison-evans@yahoo.com)

Technical Report 89-338 (1989), Basser Department of Computer Science, University of Sydney, Australia

Early in 1983, one of the authors (DHE) was approached by the organisers of the 10th Australian Computer Conference (ACC10) to provide some suitable entertainment for the closing ceremony. It was decided to create a Pas-de-Deux between a computed figure and a live dancer. The Sydney firm "Datamatic Propriety Limited" provided a grant for one of us (KMK), an established dancer and teacher, to work with the Basser Department of Computer Science to create the work. Another of us on sabbatical from the University of Tasmania (TA) assisted with the work to gain experience in computer animation.



Karen and Fred

The work was choreographed to Chopin's Opus 70, No. 1 : a waltz lasting exactly 2 minutes. The animation was done on a 64KB DEC PDP 11/34. It had to be divided into 6 parts because of the limitations of memory, and the resulting film segments spliced together. The programming was done in the NUDES animation system using a figure composed of 22 ellipsoids (nicknamed Fred Fortran).

For the event, the film was rear-projected onto the screen at the back of the stage, a pianist played the Chopin piece in synchronism with the film, and the dancer (KMK) danced in synchronism with the piano music. Thus even though she could not see Fred, she was able to synchronize her movements with his, to the extent that some of the audience were under the impression that at one stage they walked around each other!

Subsequently a video was made of the Pas-de-Deux with the live part danced by Christine Norris, using matte techniques to superimpose the two figures.

(updated 22 December 2010)