

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FRED V. RICHARD and RONALD J. NELSON

Appeal No. 95-4151
Application 08/158,342¹

ON BRIEF

Before JERRY SMITH, BARRETT and FLEMING, **Administrative Patent Judges**.

FLEMING, **Administrative Patent Judge**.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of
claims 1 through 21, all of the claims pending in the
application.

¹Application for patent filed November 29, 1993.

The invention relates to the generation of virtual images in portable communication receivers such as radios, cellular and cordless telephones, pagers and the like. Appellants disclose on page 2 of the specification that because of finger size and visual perception, the keyboard and its display are often the limiting factor in determining the size of the receiver. Appellants disclose on page 3 of the specification that the problem is at least partially solved by providing a virtual display which provides a virtual control panel image and a manually controllable cursor virtual image. Appellants disclose on pages 5, 15 and 16 of the specification that Figure 8 is a view in perspective illustrating a typical view, including a virtual image control panel, as seen by operator of the portable communication receiver.

The independent claim 1 is reproduced as follows:

1. In combination with portable electronics equipment including a virtual display, electronics coupled to the virtual display for producing a manually controllable virtual cursor image viewable in the virtual display when activated and a virtual control panel image including alpha-numeric keys viewable in the virtual display when activated, and the electronics being connected so that the alpha-numeric keys of the virtual control panel

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image are operable with the virtual cursor image and the electronics are further connected to operate the portable electronics equipment in response to operation of the alpha-numeric keys of the virtual control panel image with the virtual cursor image.

The Examiner relies on the following references:

Spooner et al. (Spooner)	4,340,878	Jul. 20, 1982
Wells	5,003,300	Mar. 26, 1991
Krakower 1992 (World Patent)	WO 92/11623	Jul. 09,

Jeff Wright, "Altered States", Computer Graphics World, issued Dec., 1989, pages 77, 78, 81-83.

Jakob Nielsen, "HyperText and Hypermedia", published 1990 by Academic Press, Inc., pages 5-8, 87-93, 120-121.

Claims 1 through 21 stand rejected under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Appellants regard as their invention. Claims 1 through 14 and 16 through 21 stand rejected under 35 U.S.C. § 103 as being unpatentable over Wright, Nielsen, Krakower and Wells. Claim 15 stands rejected under 35 U.S.C. § 103 as being unpatentable over Wright, Nielsen, Krakower and Wells further in view of Spooner.

Rather than reiterate the arguments of Appellants and the

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Examiner, reference is made to the briefs² and answer for the respective details thereof.

OPINION

We will not sustain the rejection of claims 1 through 21 under 35 U.S.C. §§ 103 or 112.

Analysis of 35 U.S.C. 112, second paragraph, should begin with the determination of whether claims set out and circumscribe a particular area with a reasonable degree of precision and particularity; it is here where definiteness of the language must be analyzed, not in a vacuum, but always in light of teachings of the disclosure as it would be interpreted by one possessing ordinary skill in the art. ***In re Johnson***, 558 F.2d 1008, 1015, 194 USPQ 187, 193 (CCPA 1977).

The Examiner argues that the language, "virtual display" as recited in Appellants' claims is vague and indefinite

²Appellants filed an appeal brief on February 24, 1995. We will refer to this appeal brief as simply the brief. Appellants filed a reply appeal brief on April 10, 1995. We will refer to this reply appeal brief as the reply brief. The Examiner stated in the Examiner's letter mailed May 2, 1995 that the reply brief has been entered and considered but no further response by the Examiner is deemed necessary.

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because the term "virtual" means that the display is not an actual display. The Examiner acknowledges that in the brief the Appellants have argued that the term virtual display is well recognized by those skilled in the art and is understood to be a display in which the image to be viewed is a virtual image. The Examiner argues that this argument should be dismissed on page 3 of the answer because the Appellants have not set forth in the claims how a virtual image can be controlled by a virtual control panel.

On pages 2 and 3 of the reply brief, Appellants argue that reading the claims as a whole and in light of the specification the term "virtual display" would be clear and concise to those skilled in the art. In particular, Appellants argue that the term clearly claims an electronic device and not a virtual image.

In view of the Appellants' arguments and in light of the teaching of Appellants' disclosure as it would be interpreted by one possessing ordinary skill in the art, we find that the language "virtual display" sets out and circumscribes a particular area with a reasonable degree of precision and

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particularity. Therefore, we will not sustain the rejection on the basis of 35 U.S.C. 112 second paragraph.

In regard to the 35 U.S.C. § 103 rejection, the Examiner has failed to set forth a **prima facie** case. It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the express teachings or suggestions found in the prior art, or by implications contained in such teachings or suggestions. **In re**

Sernaker, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983).

"Additionally, when determining obviousness, the claimed invention should be considered as a whole; there is no legally

recognizable 'heart' of the invention." **Para-Ordnance Mfg. v.**

SGS Importers Int'l, Inc., 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995), **cert. denied**, 117 S.Ct. 80 (1996)

citing W. L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1548, 220 USPQ 303, 309 (Fed. Cir. 1983), **cert. denied**, 469 U.S. 851 (1984).

The Examiner states on page 3 of the answer that Wright

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suggests on page 81 the use of a virtual display with telephone and hyper media means and suggests the use of a control means. The Examiner notes however that Wright does not give a full description of his display and control means. The Examiner cites Nielsen for the teaching of a cursor that controls a control panel, Wells for the teaching of a head-mounted unit and Krakower for the teaching of the interchangeability of a mouse, trackball and a touch screen.

Appellants argue in the brief and the reply brief that neither of these references teaches or suggests a portable apparatus incorporating a virtual display with a virtual control panel image including alpha-numeric keys and a virtual cursor image as recited in Appellants' claims. Appellants further argue

that Wright is simply surmising about the possibilities of virtual reality throughout the article and does not actually teach or suggest to one skilled in the art controlling a virtual control panel image with a virtual cursor image.

Upon reviewing Wright, we note that the subtitle of the

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article is "a software developer's vision of the future of virtual reality." On page 79, Wright states that the recent demonstrations of virtual reality only give a small glimpse of the potential of future developments of the technology.

Wright then proceeds to describe what he envisions as possible future developments using the technology. On page 81, Wright speculates that future development of the technology could be used to provide familiar tools such as a calendar, an appointment book, a journal, a thesaurus, a telephone book, a journal, a map or an instruction manual. Wright states only in one sentence that virtual reality could be used to control and present complex hyper media consisting of mixed text, graphics, videodisk images and sound. Wright further speculates that virtual realities could be use for simulating structure of the human body or virtual realities could be use to provide speaking articles that

provide you information to suit your learning style. Wright even speculates that virtual reality could be use for

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interspecies communication in which a virtual reality could translate body images and experiences between humans and dolphins. However, we note that Wright is only speculating on future possible research. Furthermore, Wright does not teach or suggest electronics coupled to a virtual display for producing a manually controllable virtual cursor image and a virtual control panel image including alpha-numeric keys which are operable with the virtual cursor image to operate the portable electronics equipment as recited in Appellants' claims.

We note that Nielsen discusses hypermedia and multimedia hypertext. Further, we note that Krakower teaches a conventional laptop computer having a display screen and a keyboard in which a cursor is used to allow the user to select computer functions.

Finally, we note that Wells teaches a head mounted display and Spooner teaches a visual display apparatus for ground based craft-flight simulators. However, we fail to find that any of these references cited by the Examiner teach or suggest electronics coupled to a virtual display for producing a manually

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controllable virtual cursor image and a virtual control panel image including alpha-numeric keys which are operable with the virtual cursor image to operate the portable electronics equipment as recited in Appellants' claims.

We have not sustained the rejection of claims 1 through 21 under 35 U.S.C. §§ 103 or 112. Accordingly, the Examiner's decision is reversed.

REVERSED

JERRY SMITH)	
Administrative Patent Judge)	
)	
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)	BOARD OF PATENT
LEE E. BARRETT)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
)	
)	
MICHAEL R. FLEMING)	
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