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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ANDREW SCOTT GAVIN

Appeal 2017-000799[1]
Application 13/548,791[2]
Technology Center 3700

Before MICHAEL C. ASTORINO, KENNETH G. SCHOPFER, and
BRADLEY B. BAYAT, *Administrative Patent Judges*.

BAYAT, *Administrative Patent Judge*.

DECISION ON APPEAL

Andrew Scott Gavin ("Appellant") appeals under 35 U.S.C. § 134(a)
from the decision rejecting claims 1–21, which are the only claims pending
in the application. We have jurisdiction under 35 U.S.C. § 6(b). An oral
hearing was held on January 15, 2019.

We REVERSE.

STATEMENT OF THE CASE

Claimed Subject Matter

Appellant's "invention relates generally to electronic entertainment devices and relates more particularly to a system and method for dynamically loading game software for smooth game play." Spec. ¶ 2.

Process claim 1, system claim 11, and manufacture (computer-readable storage medium) claim 21 are the independent claims on appeal, and recite substantially similar subject matter. Claim 1, reproduced below, is illustrative of the subject matter on appeal.

> 1.   A method for dynamically loading game software, the method comprising:
> storing information in memory regarding a plurality of game environments, wherein each environment is associated with one or more next environments; and
> executing instructions stored in memory, wherein execution of the instructions by a processor:
> renders a game environment in which a character is located,
> identifies a plurality of game environments that are next to the rendered game environment based on stored information, wherein each next game environment is associated with a load boundary located in the rendered game environment, wherein the rendered game environment includes a plurality of load boundaries each located at a different distance to a boundary of the rendered game environment;
> detects when the character crosses one of the plurality of load boundaries in the rendered game environment,
> identifies which of the plurality of next game environments is associated with the crossed load boundary, and
> loads instructions corresponding to the identified next game environment associated with the crossed load boundary into a memory, wherein the loading of instructions for the identified next game environment is complete and ready to render when the character reaches the identified next game environment.

Rejection[3]

Claims 1–21 are rejected under 35 U.S.C. § 103(a) as unpatentable over Ito[4] and Powers.[5]

ANALYSIS

In rejecting claim 1 as unpatentable over Ito and Powers, the Examiner finds "Ito suggests the claim limitation of the rendered game environment including a plurality of boundaries *each located at a different distance to a boundary of the rendered game environment.*" Non-Final Act. 7; Ans. 4.

> This is shown diagrammatically in Ito Figure 4 by the areas of
> varying complexity and their respective amounts of memory
> required. For instance, a relatively simple prairie environment
> only requires one block of memory, while a relatively complex
> city environment requires three blocks of memory. Such a
> feature demonstrates that not only does Ito teach areas with
> different storage requirements, it also indicates that different
> load times are required for different types of environments.

Non-Final Act. 18; Ans. 4–5. According to the Examiner, "Ito demonstrates in Figure 6 a Reading Start Line LN2 that triggers the loading of an adjacent boundary when LN2 crosses an actual boundary" such that "the distance between the avatar Vehicle VL and the reading start line LN2 relates to the same *distance* as the distance between the claimed 'load boundary' and the

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[3] "The rejection of claims 1-21 under 35 U.S.C. §101 as being drawn to non-statutory subject matter is hereby withdrawn." Ans. 13.
[4] US 6,999,094 B1, issued Feb. 14, 2006.
[5] WO 00/10130, published Feb. 24, 2000.

'next game environment.'" Non-Final Act. 8–9; Ans. 5–6. The Examiner explains that applying the rationale that

> "Ito necessarily determines the load time of the next game environment because the load time is necessary to achieve Ito's goal of uninterrupted video," one of ordinary skill in the art would recognize the need to allow differing amounts of time to load different amounts of data that represent differing game environments. This alone is a sufficient showing of obviousness of the claimed load boundaries being at different distances from the game environment boundaries.

Ans. 16.

> Alleging error in the rejection, Appellant contends

> *Ito* and *Powers* fail to teach at least the claimed ["]rendered game environment includes a **plurality of load boundaries** each being located at a **different distance** to a boundary of the rendered game environment["] and ["]**identifying which** of the plurality of next game environments is associated with the crossed load boundary.["]

Br. 10. Appellant argues "the claimed 'distance' is explicitly recited as being between a 'load boundary' and 'the boundary of the rendered game environment.' Such a distance cannot be taught by the purported distance 'between the Reading Start Line LN2 and the position of the vehicle VL.'" *Id.* at 12–13. According to Appellant, "[n]ot only is the 'position of the vehicle' not the same as the claimed 'boundary of the rendered game environment,' but *Ito* fails to teach any plurality of load boundaries that are at a different distances from the rendered boundary." *Id.* at 13. We are persuaded by Appellant's argument.

Ito discloses "a pre-reading unit for pre-reading background data from a recording medium when reading a start line (reference line) set at a distant

position in a specified distance away from the limit line of the visual field

direction of display is crossing a new area." Ito, Abstract. Figure 6 of Ito,

on which the Examines relies, shows a vehicle VL moving in village area

AR 6 along a traveling direction and a field of view with a specified angle of

visibility Θ.

> In a specified distance away from the visual field, a limit line of
> the visual field LN1, which is to be a clipping point upon
> display, is set. Furthermore, within this visual field, in a
> specified distance away from the limit line of the visual field
> LN1, a reading start line LN2 . . . is set.

Ito 6:16–21. When reading start line LN2, which is part of the pre-reading

function for detecting which area to start pre-reading landform data, crosses

or enters city area AR 10 and village area AR 11, the targeted "pre-reading

areas are both AR 10 and AR 11 since the reading start line LN2 is crossed

in both" areas. *Id.* at 6:26–32.

     Although we agree with the Examiner that differing amounts of time

may be required for loading differing amounts of data that represent the

different game environments, we disagree that this by itself suggests or is a

sufficient showing of the claimed load boundaries being at different

distances from a boundary of the rendered environment. Claim 1 requires

that "the rendered game environment includes a plurality of load boundaries

each located at a different distance to a boundary of the rendered game

environment." Br. 22 (Claims App.). "A load boundary is a threshold that,

when reached or crossed by the character, indicates to environment

management engine 204 that the next environment should be loaded to

memory segment 206 or memory segment 208." Spec. ¶ 21; *see id.* Fig. 5

(load boundary 502). The Examiner acknowledges that Ito's line LN2

"triggers the loading of an adjacent boundary when LN2 crosses an actual boundary." Non-Final Act. 8 (reproducing Ito, Fig. 6). As such, the Examiner ostensibly equates the actual boundary of the rendered game environment (boundary that divides AR6 and AR 10) as one load boundary, and the boundary that divides AR10 and AR 11 as the second load boundary, such that each functions as a threshold that, when crossed by line LN2 indicates the pre-reading of that environment. Because each of the plurality of load boundaries is required to be located in the rendered environment at a different distance to a boundary of the rendered game environment, Figure 6 of Ito cannot suggest the claimed subject matter. Ito's actual boundaries, as shown in Figure 6, are not both located in the rendered game environment, or at a different distance to a boundary of the rendered game environment.

The Examiner's reliance on Ito's disclosure of the different number of memory blocks for each environment does not cure this deficiency because the embodiment described as to Figure 6 of Ito fails to show such a distinction. In other words, even though city area (AR10) requires three memory blocks and village area (AR11) requires two memory blocks, Ito does not differentiate between pre-reading each area based on their differing amounts of time to load, i.e. Ito does not indicate that the load boundaries for these areas differ. We agree with Appellant that Ito fails to teach or suggest that "the rendered game environment includes a plurality of load boundaries each located at a different distance to a boundary of the rendered game environment," as required by independent claim 1. We also determine that

the Examiner has not adequately shown that Powers remedies this deficiency in Ito.

Accordingly, we do not sustain the rejection of independent claim 1, and independent claims 11 and 21, which recite a substantially similar limitation and are similarly rejected. For the same reasons, we also do not sustain the rejection of dependent claims 2–10 and 12–20. *Cf. In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992) ("dependent claims are nonobvious if the independent claims from which they depend are nonobvious").

DECISION

The rejection of claims 1–21 under 35 U.S.C. § 103(a) is reversed.

REVERSED