

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS B. HAWKINS

Appeal No. 2006-1151
Application No. 09/407,381

ON BRIEF

Before HAIRSTON, JERRY SMITH, and SAADAT, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 3 through 18, 20, 21 and 23 through 42. Claims 19 and 22 have been allowed.

The disclosed invention relates to a method and apparatus for compressing font information in a collection of fonts.

Claims 3, 41 and 42 are illustrative of the claimed invention, and they read as follows :

3. A method in a system that uses font information, comprising:

for a collection of fonts, each font having a set of characters with unique letterform features linked via skeletal associations, storing a respective factored collection-wide subset of skeletal associations, wherein the collection-wide subset of associations are stored in a generic

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font core data store;

for a subset of the characters in a subset of the fonts, storing respective factored character-wide data for each skeletal association in a subset of skeletal associations, wherein the factored character-wide data are stored in a generic character association database; and

for a subset of the characters for a subset of the typefaces, storing typeface-specific skeletal association data.

41. A method for compressing font information in a collection of fonts, comprising:

creating a library of models for letterforms for multiple typefaces in which multiple models are used for the same letterform of different typefaces in the collection of fonts; and

creating core models comprising a subset of skeletal nodes that are common to the multiple models of the same letterform for different typefaces.

42. A method for compressing font information, comprising:

factoring skeletal association information by extracting a common base value from hints for each letterform in each typeface; and

storing the common base value in a model letterform for multiple typefaces.

The reference relied on by the examiner is:

Asai et al. (Asai)

US 2002/0070938

June 13, 2002
(filed May 25, 1999)

Claims 3 through 18, 20, 21 and 23 through 42 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Asai.

Reference is made to the brief and the answer for the respective positions of the appellant and the examiner.

OPINION

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We have carefully considered the entire record before us, and we will reverse the anticipation rejection of claims 3 through 18, 20, 21 and 23 through 42.

Anticipation is established when a single prior art reference discloses expressly or under the principles of inherency each and every limitation of the claims invention. Atlas Powder Co. v. Ireco Inc., 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1946 (Fed. Cir. 1999); In re Paulsen, 30 F.3d 1475, 1478-79, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

Asai describes a character font generation method and apparatus that outputs an easily recognizable character regardless of resolution limitations of character output media. If a font of a desired resolution (e.g., Figure 12A) can not be produced as an output because of the limited predetermined resolution of the output media, then strokes of the character are omitted to reduce the size of the character to form an output (e.g., Figure 12G) according to the predetermined resolution of the output media. According to Asai, “[t]he stroke omission is performed with reference to contents of a DB (database) memory storing various information necessary for the character font generation and a priority determination rule indicating various information for determining the priority of stroke omission, so as to maintain the balance of the character such as center and centroid thereof and to preserve the shape (contour) of the character” (Abstract). The database memory DB includes a rule base skeleton database 1 (Figures 1 and 2; paragraphs 0062 through 0064). An excerpt from paragraph 0062 states “[r]ule base skeleton DB 1 shown in Fig. 2 is prepared individually for each character code and includes a character code 30, a number of typefaces 31, a number of elements (a total number of strokes) 32, element attachment

information for each element, a number of skeleton points for one character 36, and skeleton point coordinate data 37 for each element” (paragraph 0062). An excerpt from paragraph 0063 states “the database includes element attachment information consisting of an element code 33, a number of skeleton points 34, and a pointer 35 to a corresponding skeleton point coordinate data 37 for each strokes, that is, for each of N elements in each of M typefaces (M is indicated by number of typefaces 31).” Paragraph 0064 reads as follows:

Number of skeleton points 34 indicates the number of coordinate points required for forming a character using corresponding elements as skeletons. Pointer 35 to skeleton point coordinate data 37 is a pointer value for coordinate data 37 for uniquely identifying each coordinate point of the number indicated by number of skeleton points 34. Element code 33 identifies unique element (modeling) information of a corresponding typeface attached to a skeleton of each element.

Although the rule base skeleton database 1 in Asai is prepared for a number of typefaces, and uses skeleton point coordinate data 36 and 37 for each element/stroke of a character, the database is only used to determine which stroke or strokes of an individual character should be eliminated so that the character can be displayed on a particular display. Turning to the broadest claims on appeal (i.e., claims 41 and 42), we find that Asai does not use any of the rule base skeleton database for “compressing font information” via any of the steps set forth in these claims. Turning next to one of the specific claims on appeal (e.g., claim 3), we agree with the appellant’s argument (brief, page 6) that Asai fails to disclose “in a subset of characters in a subset of fonts, the storage of respective factored character-wide data for each skeletal association in a subset of skeletal associations.” The stroke elimination teachings of Asai are

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never used for “a core set of associations” (claims 4 and 6), to generate models (claims 6 through 10), storage of “font-specific character-wide character-specific association information” (claims 11 through 14), font-specific skeletal association storage for each of multiple fonts, and storage of subsets thereof (claims 15 and 16), combining two different sets of skeletal association information (claims 17, 18, 20 and 21), storage size reduction for the collection of fonts (claims 23 through 25), font-wide character dimension information including a base value and a range of deviation values (claims 26 through 28), and dimension information for fonts (claims 29 through 40). In summary, we do not agree with the examiner’s findings (answer, pages 11 through 34) that the stroke elimination teachings of Asai anticipate the claimed invention.

DECISION

The decision of the examiner rejecting claims 3 through 18, 20, 21 and 23 through 42

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under 35 U.S.C. § 102(b) is reversed.

REVERSED

KENNETH W. HAIRSTON Administrative Patent Judge)))))) BOARD OF PATENT
JERRY SMITH Administrative Patent Judge))) APPEALS AND)
MAHSHID D. SAADAT Administrative Patent Judge))) INTERFERENCES)

KWH/rwk

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