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

Paper No. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TSUNEO HORIGUCHI and RICHARD KIRCHHOFER

Appeal No. 1998-1111
Application 08/539,513

ON BRIEF

Before HAIRSTON, FLEMING, and RUGGIERO, ***Administrative Patent Judges.***

FLEMING, ***Administrative Patent Judge***.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-15, the only claims pending in the application.

The invention relates to a method and apparatus for improved record processing protocols for COBOL SORT and MERGE functions using input and output procedures in an object program. The method includes activating a data processing

function in a computer to control the processing of data (specification, page 11, line 25 to page 12, line 14); transferring control to an input function in the computer for retrieving all input data into the computer's memory prior to performing the data processing function (page 12, lines 14-22); performing the data processing function on the input data stored in memory after receiving control from the input function, including generating output data and storing it in memory (page 12, line 23 to page 13, line 8); transferring control to an output function in the computer for retrieving all output data from memory and storing it prior to terminating the data processing function (page 13, lines 8-11); and terminating the data processing function after receiving control from the output function (page 13, lines 20-22).

Independent claim 1 is reproduced as follows:

1. A method of processing input data to produce output data in a computer having a memory and coupled to a data storage device, the method comprising the steps of:

activating a data processing function in the computer for controlling the processing of data;

the data processing function transferring control to an

input function in the computer for retrieving all input data into the memory of the computer prior to performing the data processing function;

performing the data processing function on the input data in the memory of the computer after receiving control from the input fuction when it has completed, wherein the performing step further comprises the steps of generating output data and storing the output data in the memory of the computer;

the data processing function transferring control to an output function in the computer for retrieving all of the output data from the memory of the computer and storing the output data prior to terminating the data processing function; and

terminating the data processing function after receiving control from the output function when it has completed.

The Examiner relies on the following references:

Ferguson	5,121,493	Jun. 9, 1992
Ferguson et al.	5,274,805	Dec. 28, 1993

Claims 1-3 and 5-15 stand rejected under 35 U.S.C. § 102 as being anticipated by Ferguson. Claims 4 stands rejected under 35 U.S.C. § 103 as being unpatentable over Ferguson in view of Ferguson et al.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the brief and the answer for the details thereof.

OPINION

We will not sustain the rejection of claims 1-3 and 5-15

under 35 U.S.C. § 102, nor the rejection of claim 4 under 35 U.S.C. § 103.

It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. ***See In re King***, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and ***Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co***., 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984). "Anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention." ***RCA Corp. v. Applied Digital Data Sys, Inc.***, 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.), *cert. dismissed,* 468 U.S. 1228 (1984), *citing* ***Kalman v. Kimberly-Clark Corp.***, 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983).

On page 12 of the Brief, Appellants argue that Ferguson does not teach transferring control between a data processing function and an input function; nor an input function for retrieving all input data into memory prior to performing the data processing function; nor an output function for

retrieving all output data from memory and storing it prior to terminating the data processing function. Appellants further assert that the Examiner has not shown that the structure described in Ferguson is the same as or equivalent to the structure described in the instant application corresponding to the claimed means or step plus function elements.

In the answer, the Examiner asserts that Ferguson teaches transferring control from a data processing function to an input function, for retrieving input data into memory prior to performing the data processing function (column 5, lines 30-49); an output function for retrieving all output data from memory and storing it prior to terminating the data processing function (column 4, lines 1-7; column 7, lines 13-16 and 37-39); and terminating the data processing function after receiving control from the output function once the output function has terminated (column 7, lines 61-66; column 8, lines 47-66; column 9, lines 48-57).

Our reviewing court has stated in ***In re Donaldson Co. Inc.***, 16 F.3d 1189, 1193, 29 USPQ2d 1845, 1848 (Fed. Cir. 1994) that the "plain and unambiguous meaning of paragraph six is that one construing means-plus-function language in a claim must look to the specification and interpret that language in light of the corresponding structure, material, or acts described therein, and equivalents thereof, to the extent that the specification provides such disclosure." Moreover, when interpreting a claim, words of the claim are generally given their ordinary and accustomed meaning, unless it appears from the specification or the file history that they were used differently by the inventor. ***Carroll Touch, Inc. v. Electro Mechanical Sys., Inc.*** 15 F.3d 1573, 1577, 27 USPQ2d 1836, 1840 (Fed. Cir. 1993).

As pointed out by our reviewing court, we must first determine the scope of the claim. "[T]he name of the game is the claim." ***In re Hiniker Co.***, 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998). To determine the scope of means or step plus function limitations, we must perform the two steps set forth in ***Globetrotter Software, Inc. v. Elan***

Computer Group, Inc., 236 F.3d 1363, 57 USPQ2d 1542 (Fed. Cir. 2001). The first step is a determination of the function of the means-plus-function limitation. ***Id.***, 236 F.3d at 1367, 57 USPQ2d at 1545. Having identified the function of the limitation, the second step is to determine the corresponding structure described in the specification and equivalents thereof. ***Id.***

Appellants' claim 1 recites a method of processing input data, comprising several step plus function limitations. Claim 1 includes, *inter alia*, the step of "the data processing function transferring control to an input function in the computer for retrieving all input data into the memory of the computer prior to performing the data processing function." Applying the first

step of the ***Globetrotter*** analysis, we find that the function of this limitation is for the computer to pass instruction execution control to an input function, which retrieves all input data into memory, before executing the main data processing function. Applying ***Globetrotter*** prong two, the

corresponding "structure" is described at page 12, lines 6-25 of the specification. Object library 26 invokes INPUT procedure P1, which may be invoked as a labeled block within the object program, where control is transferred using a branch or "perform" statement. Control remains in INPUT procedure P1 until all input records are retrieved and stored in memory 14. Excess records may be stored in an overflow file on a data storage device 20a-c. Control is then transferred from INPUT procedure P1 to SORT function 30.

We find that Ferguson (column 5, lines 29-31) teaches only a pre-sort buffer space in a computer memory for storage of enough key records to fill the pre-sort buffer. Ferguson does not teach passing control to an input function, nor returning control to the main data processing function (or a discrete SORT function) after all input data are retrieved.

Claim 1 further recites the step of "the data processing function transferring control to an output function in the computer for retrieving all of the output data from the memory of the computer and storing the output data prior to terminating the data processing function." We find that the

"function" in this step is the transfer of program control to an output function which will retrieve all output data and store it, and then return control to the main data processing function. The corresponding structure may be found at page 13, lines 8-22 of the specification: the SORT function invokes OUTPUT procedure P2, control being transferred by a branch or "perform" statement. Control remains in the OUTPUT procedure P2 until all of the output records are retrieved from memory, and optionally an overflow file, and stored in an output file. Control then passes to the instruction immediately following the call of the SORT function 30 in object program 24.

We find that Ferguson teaches storing output records in the output buffer, which is written out to one of the available substring slots when it becomes full (column 4, lines 4-7); updating a slot table to indicate which substring slots are available for storage of output data (column 7, lines 15-16); and writing a buffer full of output data to a particular substring slot, as a result of the contents of the slot table (column 7, lines 37-42). Ferguson contains no teaching that a data processing function (i.e., the main

program) transfers control to an output procedure, via a branch or "perform" statement or any other means; or that control remains with the output procedure until all output records are retrieved from memory and stored in an output file.

Thus, because we find that Ferguson does not teach transferring control to an input function to retrieve all input data into memory prior to processing said data, and because we find that Ferguson does not teach transferring control to an output function for retrieving all output data from memory subsequent to processing said data, we will not sustain the rejection of claim 1 under 35 U.S.C. § 102 as being anticipated by Ferguson.

Independent claim 6, like claim 1, recites "means for transferring control to an input function in the computer for retrieving all input data into the memory of the computer prior to performing the data processing function," and "means for transferring control to an output function in the computer for retrieving all of the output data from the memory of the computer and storing the output data prior to terminating the

data processing function" (emphasis added). For the reasons expressed

supra with regard to claim 1, we will not sustain the rejection of claim 6 under 35 U.S.C. § 102 as being anticipated by Ferguson.

Independent claim 11, like claim 1, recites the steps of "transferring control to an input function in the computer for retrieving all input data into the memory of the computer prior to performing the data processing function," and "transferring control to an output function in the computer for retrieving all of the output data from the memory of the computer and storing the output data prior to terminating the data processing function." For the reasons expressed ***supra*** with regard to claim 1, we will not sustain the rejection of claim 11 under 35 U.S.C. § 102 as being anticipated by Ferguson.

Claims 2, 3, and 5 depend from independent claim 1; claims 7-10 depend from independent claim 6; and claims 12-15

depend from independent claim 11. Because a reference that fails to anticipate a claim cannot anticipate a claim dependent therefrom, we will not sustain the rejection of claims 2, 3, 5, 7-10, and 12-15 under 35 U.S.C. § 102 as being anticipated by Ferguson.

Claim 4, which stands rejected under 35 U.S.C. § 103, depends from independent claim 1. The Examiner does not assert that Ferguson et al. suggests the subject matter we find lacking in Ferguson, i.e., transferring control to an input function for retrieving all input data into memory prior to performing the data processing function and transferring control to an output function for retrieving all output data from memory prior to terminating the data processing function. Because we find that Ferguson does not teach every element of independent claim 1 from which claim 4 depends, and because the Examiner does not advance Ferguson et al. as supplying the elements missing from Ferguson, we will not sustain the rejection of claim 4 under 35 U.S.C. § 103 as being unpatentable over Ferguson in view of Ferguson et al.

In view of the foregoing, the decision of the Examiner rejecting claims 1-3 and 5-15 under 35 U.S.C. § 102, and rejecting claim 4 under 35 U.S.C. § 103, is reversed.

REVERSED

KENNETH W. HAIRSTON)
Administrative Patent Judge)
)
)

Appeal No. 1998-1111
Application 08/539,513

	) BOARD OF PATENT
MICHAEL R. FLEMING	)
Administrative Patent Judge	) APPEALS AND
	)
	) INTERFERENCES
	)
JOSEPH F. RUGGIERO	)
Administrative Patent Judge	)

MRF:pgg
Gates & Cooper
Howard Hughes Center
6701 Center Drive West
Suite 1050
Los Angeles, CA 90045