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Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER	
LAUGHLIN, NATHAN L	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte STANLEY W. SUDERMAN

Appeal 2010-008143
Application 11/223,453
Technology Center 2100

Before ROBERT E. NAPPI, LYNNE E. PETTIGREW, and GEORGIANNA W. BRADEN, *Administrative Patent Judges*.

BRADEN, *Administrative Patent Judge*

DECISION ON APPEAL

This is an appeal[1] under 35 U.S.C. § 134(a) from the Final Rejection of claims 1-21. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

STATEMENT OF THE CASE

Appellant's invention relates to a method for developing numerically-controlled machine programs. (Abstract.)

Claim 1 is exemplary, and is reproduced below with disputed limitations in italics:

> 1. A method for developing numerically-controlled machine programs, comprising:
>
> receiving program paths for a plurality of machine tools;
>
> performing post processing on the program paths to produce post-processed data;
>
> displaying a simulation of the operation of at least one machine tool according to the post-processed data;
>
> receiving synchronization data corresponding to the program paths; and
>
> *storing the synchronization data separate from the program paths, wherein the synchronization data is automatically re-applied to the program path when the program path is edited or regenerated.*

REJECTIONS

Claims 1-21 stand rejected under 35 U.S.C. § 103(a) as being obvious over Fishman I (US 6,112,133) in view of Fishman II (US 6,741,905 B1).

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[1] The Real Party in Interest is Siemens Product Lifecycle Management Software, Inc.

ISSUE 1

Rejection of claims: 1, 8, 15

Appellant argues that neither Fishman I nor Fishman II, alone or in combination, teach or suggest storing the synchronization data separate from the program paths, as claimed. (App. Br. 18; Reply Br. 12.)

Issue 1: Has the Examiner erred in finding the combination of Fishman I and Fishman II teaches or at least suggests "storing the synchronization data separate from the program paths" as recited in claim 1?

ANALYSIS

We are unpersuaded by Appellant's argument that Fishman II, either alone or in combination with Fishman I, fails to teach or suggest storing the synchronization data separate from the program paths. (App. Br. 15-18; Reply Br. 12-17.)

The Examiner finds that Fishman II meets the recited claim limitation "storing the synchronization data separate from the program paths" because Fishman II teaches that the "synchronized data is inserted into the CNC code that is created from the desired operations, which include the program path." (Ans. 5; Fishman II col. 4, lines 21-29.) The Examiner also finds that Fishman II meets the recited claim limitation because Fishman II teaches that "[t]he system and method are universal since a postprocessor processes the synchronization modes and synchronization groups, and translates them for use with computer programs understood by a particular CNC lathe." (Ans. 4; Fishman II Abstract.) We agree with the Examiner.

We emphasize that Fishman II relates to "storing the synchronization data separate from the program paths." (Fishman II col. 10, lines 5-67 and col. 11, lines 1-32.) Fishman II specifically teaches:

> The user of the CAM system may input further changes to a synchronous mode for one or more individual lathe processes via the set modes dialog windows after the CAM system creates Sync Groups to evaluate the effects of further altering synchronous lathe processes. (Fishman II, col. 10, lines 5-9.)
>
> Once an acceptable arrangement of Sync Groups has been obtained, the user of the CAM system can input an appropriate input command to have the CAM system's postprocessor automatically convert the lathe processes, as visually indicated and synchronized in the process table, into CNC G-code for execution by a lathe specific CNC controller to fabricate at least one part from stock. Lathe operations making up a Sync Group are processed to achieve synchronous execution of the operations by the specific CNC controller. (Fishman II col. 10, lines 19-28.)
>
> As illustrated in process table 40*b,* all lathe processes or operations are initially assigned, by default, one of the two pseudo-synchronous modes, MIS0 or MOS1. (Fishman II col. 10, lines 43-45.)
>
> Using the method of the present invention, the user of the CAM system can change the synchronous mode for each operation by displaying the set modes dialog window for each operation and changing the mode as further described above. (Fishman II col. 10, lines 54-58.)

Contrary to Appellant's argument (Reply Br. 14-17) that Fishman II at col. 11, lines 13-33 indicates the synchronization G-codes are stored together with the process pathway, this section of Fishman II shows the codes must be stored separately from the process pathway. At col. 11, lines

13-33, Fishman II compares the application of the same process pathway to two different lathe machines. As illustrated in Fishman II, Figures 19 and 20, the end processes for two different lathe machines are different, thereby indicating the synchronization data must be pulled from a stored location and put into the process pathway in the correct order. Therefore, in order to accomplish synchronized machining, the same synchronization modes or groups (i.e., G-codes) have to be applied in different ways. As the Examiner finds, Fishman II teaches the "synchronized data is inserted into the CNC code that is created from the desired operations, which include the program path." (Ans. 5.)

Thus, Appellant has not persuaded us the Examiner erred in finding Fishman II discloses "storing the synchronization data separate from the program paths" as recited in claim 1.

ISSUE 2

Rejection of claims: 1, 8, and 15

Appellant argues that neither Fishman I or Fishman II, alone or in combination, teach or suggest the synchronization data is automatically re-applied to the program path when the program path is edited or regenerated. (App. Br. 18; Reply Br. 17.)

Issue 2: Has the Examiner erred in finding the combination of Fishman I and Fishman II teaches or at least suggests "the synchronization data is automatically re-applied to the program path when the program path is edited or regenerated" as recited in claim 1?

ANALYSIS

We are unpersuaded by Appellant's argument (App. Br. 18-20; Reply Br. 17-19) that Fishman II, either alone or in combination with Fishman I, fails to teach or suggest "the synchronization data is automatically re-applied to the program path when the program path is edited or regenerated." Under the broadest reasonable interpretation consistent with the Specification, we agree with the Examiner that Fishman II discloses the recited claim limitation at issue. As noted by the Examiner, Fishman II teaches that every time a program path is edited and corresponding CNC code is generated, a new set of Sync groups (synchronization data) are automatically updated for insertion into the new CNC code that reflects to changes made to the program path. (Ans. 6; Fishman II col. 5, lines 12-18, col. 9, lines 51-54, col 10, lines 19-28.)

As the first and second issues are the only issues presented with respect to independent claim 1, commensurately recited independent claims 8 and 15, and dependent claims 3, 4, 6, 7, 10, 11, 13-17, 20 and 21, we sustain the Examiner's rejection of these claims.

ISSUE 3

Rejection of claims: 2, 9, and 18

Appellant argues Fishman I and Fishman II do not disclose "at least two of the steps including performing, displaying, and receiving synchronization data are performed substantially simultaneously." (App. Br. 21-22; Reply Br. 19-20.) The Examiner finds Fishman I teaches that the simulator executes the line as it receives it and this teaching meets the claimed displaying and receiving of synchronization data substantially simultaneously. (Ans.7, relying on Fishman I column 8, lines 21-23.) We

concur, and are not persuaded the Examiner erred in finding the combined teachings of Fishman I and Fishman II discloses the invention as recited in dependent claims 2, 9, and 18. Thus, we sustain the rejection of claims 2, 9, and 18 under 35 U.S.C. § 103(a).

ISSUE 4

Rejection of claims: 5, 12, and 19

Appellant argues Fishman I and Fishman II do not disclose "the simulation is displayed in real-time as the synchronization data is received." (App. Br. 22-23; Reply Br. 20-21.) The Examiner's response to this argument is similar to that discussed above with respect to claim 2. Further, the Examiner finds that simultaneous displaying and receiving is considered real time. (Ans. 8.) As discussed above we concur with the Examiner's finding regarding substantially simultaneous reading and displaying. Therefore, we are not persuaded the Examiner erred in finding the combined teachings of Fishman I and Fishman II disclose the invention as recited in dependent claims 5, 12, and 19. Thus, we sustain the rejection of claims 5, 12, and 19 under 35 U.S.C. § 103(a).

DECISION

The Examiner's decision to reject claims 1-21 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

ELD