Paper No. 30

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT GENTILE and TRAVIS SCHAFF

Appeal No. 2002-2259
Application No. 09/083,959[1]

HEARD: APRIL 3, 2003

Before BARRETT, FLEMING and SAADAT, Administrative Patent Judges.
SAADAT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the Examiner's final rejection of claims 1 and 4-10, 12-17, 19-21, 23-28 and 30-33. Claims 2, 3, 11, 18, 22 and 29 have been cancelled.

We reverse.

BACKGROUND

Appellants' invention is directed to a method and system for using processor compatibility information to select compatible processors to add to a multiprocessor system. According to Appellants, determining the compatibility of the processors to be

[1] Application for patent filed May 22, 1998.

added to a system using the information affixed to the processor is difficult and sometimes impossible due to the placement of other components such as heat sinks and cooling fans (specification page 2). To facilitate the selection of compatible processors, a software program is executed on the multiprocessor system to determine and compare the revision number of current processors in the system with processor compatibility information in order to present to a user the processors that are compatible with all current processors (Specification, pages 3 & 4).

Representative independent claim 1 is reproduced below:

1. A method in a computer system for using processor compatibility information to select a compatible processor for addition to a multiprocessor computer, the multiprocessor computer having at least one current processor in a CPU slot and having at least one additional CPU slot in which the new processor can be added, a processor having a revision number, the method comprising:

obtaining processor compatibility information stored in an electronic memory having a plurality of processor models and revisions and the various model and revisions of processors that are compatible with each of plurality of processor models and revisions;

executing a computer program on the multiprocessor computer directing each processor in the multiprocessor computer to execute at least one instruction that allows the model and revision number of the processor to be determined and comparing the model and revision numbers of the current processors in the multiprocessor computer with the processor compatibility

information to determine the revision numbers of processors that are compatible with all current processors; and

displaying the revision numbers of the processors that are determined to be compatible with all current processors on a compatibility list.

The Examiner relies on the following references in rejecting the claims:

Kinoshita	5,574,899	Nov. 12, 1996
Alpert	5,671,435	Sep. 23, 1997
Hamilton	5,852,722 (effectively filed	Dec. 22, 1998 Feb. 29, 1996)

Jay Milne (Milne), "Making your server system scale," Network Computing, volume 8, page 140, Mar. 15, 1997.[2]

Appellants' admitted prior art, specification, page 2, lines 1-7.

Claims 1, 4-10, 12-14, 17, 19-21, 23, 24, 26-28[3] and 30-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Appellants' admitted prior art in view of Milne, Alpert and Kinoshita.

Claims 15, 16 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Appellants' admitted prior art, Milne, Alpert and Kinoshita in view of Hamilton.

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[2] The Examiner has provided a downloaded copy of the article which has pages 1 through 5.

[3] Claim 26 appears to have been inadvertently omitted from the statement of the rejection.

Rather than reiterate the viewpoints of the Examiner and Appellants regarding the above-noted rejections, we make reference to the answer (Paper No. 23, mailed March 12, 2002) for the Examiner's reasoning, and to the appeal brief (Paper No. 22, filed January 9, 2002) and the reply brief (Paper No. 24, filed May 30, 2002) for Appellants' arguments thereagainst.

OPINION

With respect to the rejection of claims 1, 4-10, 12-14, 17, 19-21, 23, 24, 26-28 and 30-33, the Examiner relies on Appellants' admitted prior art and asserts that the manual method of determining the model and revision number of the existing CPUs is well known (answer, page 4). The Examiner further relies on Milne for manual addition of CPUs in a symmetric multiprocessing (SMP) system and on Alpert for disclosing a technique for identifying processor features using software (answer, page 5) and reasons that an automated determination would reduce user intervention and compatibility problems (answer, page 6). Finally, the Examiner adds teachings from Kinoshita related to a method for adjusting and managing the generation numbers of processors for determining compatibility (answer, page 6) that permits the user to determine the modification or addition of processors in a system (answer, page 7).

Appellants argue that Kinoshita merely determines whether a new processor is compatible with the existing system and differs from the claimed method of providing additional processors that are compatible with an existing multiprocessor system (brief, page 6). Additionally, Appellants assert that the tables described in Kinoshita store only information regarding the processors currently present in the system and are used to compare the compatibility of a new version and/or revision number to the existing processors (brief, pages 6 &7 and oral hearing). Appellants add that Kinoshita can determine the compatibility of an updated processor only after the processor to be updated has been added to the system (brief, page 7). Appellant assert that even if Kinoshita's disclosure is added to Appellants' admitted prior art, Milne and Alpert, the combination could not result in the claimed comparison with compatibility information to determine the processors that can be added (brief, page 7 and reply brief, page 2). Appellants further urge that the Examiner cites each of the cited references for describing one aspect of the claimed subject matter and makes the combination merely based on Appellants' solution for determining compatible processors (brief, page 11).

In response to Appellants' arguments, the Examiner asserts that Alpert teaches using a computer software for identifying the current processors where Kinoshita discloses the use of compatibility tables for determining whether an additional processor is compatible with the current processors (answer, page 9). The Examiner further argues that the differences between the claims and updating and maintaining compatibility tables of Kinoshita "do not contradict the teachings that one of ordinary skill in the art would take from the reference: that by maintaining a compatibility table on a computer system, the process of adding or replacing a processor can be significantly automated" (answer, page 10). The Examiner points out that the reason to combine the references is taken from the nature of the problem of determining the type of processor in a system and handling compatibility issues (answer, page 11). Additionally, the Examiner cites the teachings of the prior art related to microprocessor compatibility and the knowledge of the skilled artisan of the need for adding a compatible CPU to a system, as the reasons for combining the prior art teachings (id.).

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d

1955, 1956 (Fed. Cir. 1993). The conclusion that the claimed subject matter is obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Furthermore, the Examiner must produce a factual basis supported by teaching in a prior art reference or shown to be common knowledge of unquestionable demonstration, consistent with the holding in Graham v. John Deere Co., 383 U.S. 1 (1966). Our reviewing court requires this evidence in order to establish a prima facie case. In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984); In re Cofer, 354 F.2d 664, 668, 148 USPQ 268, 271-72 (CCPA 1966).

Independent claims 1, 4, 17, 26 and 32 recite comparing the types of current processors with a compatibility table and determining the types of the processors that are compatible with all current processors. While Kinoshita does disclose generation number managing for checking the compatibility of generation numbers among existing processors or files, the reference offers no teaching or suggestion of determining compatible processors

before they are added to the system. Kinoshita determines compatibility of processors in a multiprocessor system by comparing their generation numbers which are included in a compatibility table (col. 1, lines 32-44). Kinoshita further updates a current generation number managing table into a spare table which is used for determining the compatibility of generation numbers among the processors after the update (col. 4, lines 21-24). However, as stated by Appellants (brief, page 7), the compatibility table of Kinoshita is used to compare the updated generation number of the processors to those already present in the multiprocessor system. There is no comparison in Kinoshita for determining the revision numbers of processors that are compatible with all current processors before the updated processor has been added.

In fact, none of the references recognize the importance of presenting to a user the model and revision numbers of the compatible processors so that the user can select which processor to add when upgrading the multiprocessor system. Therefore, contrary to the Examiner's position, comparing the types of current processors with a compatibility table and determining the types of the processors that are compatible with all current

processors, as recited in independent claims 1, 4, 17, 26 and 32, cannot be derived from the combination of the references.

We also disagree with the Examiner's stated reasons for combining Appellants' admitted prior art with Milne, Alpert and Kinoshita. Notwithstanding the Examiner's arguments that the combination is based on the need for identifying the existing processors, microprocessor compatibility in a multiprocessor system and reducing user intervention, we agree with Appellants that such combination is made in terms of the problems and solutions disclosed by Appellants (brief, page 11). The "Background" section of Alpert merely discusses the need for identifying the type of a processor (col. 1, lines 13-15) while Kinoshita is concerned with checking the compatibility of generation numbers among existing processors before starting to use a multiprocessor system (col. 1, lines 21-24). Thus, the only possible suggestion to combine these separate teachings must have come not from the references themselves, but from the Appellants' disclosure based on impermissible hindsight. Whereas, our reviewing court requires that particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected and modified the prior art teachings for combination in the manner

claimed. In re Kotzab, 217 F.3d 1365, 1369-70, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000).

In view of our analysis above, we find that the Examiner has failed to set forth a prima facie case of obviousness with respect to claims 1, 4, 17, 26 and 32 because the necessary teachings and suggestions related to the claimed comparing the types of current processors with a compatibility table and determining the types of the processors that are compatible with all current processors are not shown. Accordingly, we do not sustain the 35 U.S.C. § 103 rejection of independent claims 1, 4, 17, 26 and 32, nor of claims 5-10, 12-14, 19-21, 23, 24, 27, 28, 30, 31 and 33 dependent thereon.

With respect to the rejection of claims 15, 16 and 25, the Examiner further relies on Hamilton for teaching automatically configuring home computers by an "autoconfiguration" server connected to the network home client computers via the Internet (answer, page 7). However, Hamilton does not overcome the deficiencies of the combination of the references as discussed above as it fails to teach the claimed comparison of the types of current processors with a compatibility table and determining the types of the compatible processors. Therefore, the 35 U.S.C. § 103 rejection of claims 15, 16 and 25 cannot be sustained.

CONCLUSION

In view of the foregoing, the decision of the Examiner rejecting claims 1 and 4-10, 12-17, 19-21, 23-28 and 30-33 under 35 U.S.C. § 103 is reversed.

REVERSED

LEE E. BARRETT Administrative Patent Judge	)
MICHAEL R. FLEMING Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
MAHSHID D. SAADAT Administrative Patent Judge	)

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