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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARIE-CATHERINE FRITSCH, ALFRED GLEISSNER,
RONALD LANGE, SOEREN MORITZ, and AMO SCHONHALS

Appeal 2010-007238¹
Application 10/538,152
Technology Center 2600

Before JEAN R. HOMERE, BRYAN F. MOORE, and JOHN G. NEW,
Administrative Patent Judges.

HOMERE, *Administrative Patent Judge.*

DECISION ON APPEAL

¹ The real party in interest is Siemens Aktiengesellschaft. (App. Br. 1.)

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 13, 17, 19, 23, 26, 31, and 33-35. Claims 1-12, 14-16, 18, 20-22, 24, 25, 27-30, and 32 have been canceled. (App. Br. 2.) We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Appellants' Invention

Appellants invented a method and a code generator for automatically generating automation code for a manufacturing/processing plant. (Spec. 1, ll. 5-7.) In particular, upon obtaining from a computerized drawing relevant plant descriptions information previously entered therein including predecessor/successor relationships between the different plant components, as well as know-how information to control the material flow of the plant, the code generator generates automation code to control the operation of the plant. (Spec. 7, l. 21- Spec. 8, l. 12.)

Illustrative Claim

Independent claim 13 further illustrates the invention as follows:

13. A system for generating automation code for a manufacturing and/or processing plant from a description enriched with control-relevant information, the system comprising:

a description comprising a drawing showing a layout of components of the plant based on a material flow in the manufacturing and/or processing plant, wherein the drawing shows ports with control-relevant information for each component, and the drawing shows at least one functional module for each component, wherein

input/output information is mapped to the ports, wherein the

input/output information stems from directed relationships between the components, wherein the input/output information comprising predecessor/successor relationships among the components is included in the description, wherein

signals provided for a transmission via the ports of the components are associated with each functional module and further comprising:

a first mechanism for defining metainformation for the signals;
and

a code generator for generating automation code by interconnecting the signals, wherein the automation code is generated on the basis of a structure of the plant and know-how, including the predecessor/successor relationships, previously input into the description.

Prior Art Relied Upon

The Examiner relies on the following prior art as evidence of unpatentability:

Burgess	US 5,805,896	Sep. 8, 1998
Leisten	US 6,023,702	Feb. 8, 2000
Sakurai	US 6,334,076 B1	Dec. 25, 2001
Juras	US 2002/0165744 A1	Nov. 7, 2002

Elmqvist, "A Uniform Architecture for Distributed Automation"
Advances in Instrumentation and Control, Research Triangle, NC US,
Vol. 46, Part 2 (1991)

Rejections on Appeal²

The Examiner rejects the claims on appeal as follows:

² The Examiner withdrew the indefiniteness rejection previously entered against claims 13, 17, 19, 23, 26, 31, and 33-35. (Ans. 24.)

1. Claims 13, 26, and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Burgess, Sakurai, Juras, and Elmqvist.
2. Claims 13, 17, 19, 23, 26, 31, 33, and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Burgess, Sakurai, Elmqvist, and Leisten.

ANALYSIS

We consider Appellants' arguments *seriatim* as they are presented in the principal Brief, pages 8-13 and the Reply Brief, pages 2-4.

Dispositive Issue: Have Appellants shown that the Examiner erred in finding that the combination of Burgess and Sakurai teaches or suggests *automatically generating automation code on the basis of a structure of a plant and know-how, including predecessor/successor relationships among the components previously input into the description*, as recited claim 13?

Appellants argue that neither Burgess nor Sakurai teaches or suggests the disputed limitations emphasized above. In particular, Appellants argue that while Burgess discloses a plurality of software components interconnected through their ports, a developer has to configure the directed relationships, which are not already contained in the description of each component. (App. Br. 8-9, Reply Br. 2.) Similarly, Appellants argue that Sakurai requires an operator to select appropriate program modules using module identification code, and the operator must also specify their execution order and interconnections. (App. Br. 10-11, Reply Br. 3.)

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In response, the Examiner finds that because Appellants' drawings including the descriptions have to be entered into CAD by a user, Sakurai's disclosure of an operator inputting in a computer system a drawing of a plant including a plant operating procedure teaches the disputed limitations. (Ans. 25-26.)

On the record before us, we agree with the Examiner's findings and ultimate conclusion of obviousness. Burgess discloses a programmer selecting components from an extendable list to connect them with one another through their respective ports before generating a visual program therefor. (Col. 3, ll. 20-31.) Next, Sakurai discloses an operator entering ahead of time in a drawing description the relationships between the components thereof to thereby generate a customized module (program) for a plant. (Col. 4, ll. 2-22.) We find that while both Burgess and Sakurai require a programmer's intervention to enter relationship descriptions between the different components of the drawing, such disclosure does not disqualify the references from teaching the disputed limitations. That is, because the predecessor/successor relationships recited in the claims are previously entered in the description by an operator/programmer ahead of time, the recited limitations do not preclude a user to define the relationships. It suffices that such intervention take place in advance. In this case, we find that Sakurai discloses the operator having such early intervention with the drawing description by entering therein the relationships between the components. Therefore, similarly to the claimed invention, we find that the Burgess-Sakurai combination would predictably

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result in generating a customized program for the drawings based on previously entered definitions associated therewith.

In considering the general form of Appellants' arguments in the principal Brief, they appear to have attacked the individual teachings of Burgess, Sakurai, Juras, and Elmquist separately, as opposed to the combined disclosures proffered by the Examiner. We note that one cannot show nonobviousness by attacking the references individually where the rejections are based on combinations of references. *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). Here, the respective references relied on by the Examiner must be read, not in isolation, but for what the combination teaches or suggests when considered as a whole. We find nonetheless that the cumulative weight and the totality of the evidence on this record favor the Examiner's position that the combined disclosures of Burgess, Sakurai, Juras, and Elmquist teach or suggest the disputed limitations as detailed above.

Because the Examiner's response as set forth in the Answer has rebutted by a preponderance of the evidence Appellants' arguments, we find that Appellants have not shown error in the Examiner's conclusion that the proffered combination renders claim 13 unpatentable.

Because Appellants have not argued claims 17, 19, 23, 26, 31, and 33-35, those claims fall together with claim 13 for the same reasons set forth above. *See* 37 C.F.R. § 1.37(c)(1)(vii).

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DECISION

We affirm the Examiner's rejections of claims 13, 17, 19, 23, 26, 31, and 33-35 as set forth above.

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

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