

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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*Ex parte* I-SHIN ANDY WANG and JY-JINE JAMES LIN

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Appeal No. 2003-0513  
Application No. 08/655,879

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ON BRIEF

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Before HAIRSTON, BARRY, and SAADAT, *Administrative Patent Judges*.  
BARRY, *Administrative Patent Judge*.

DECISION ON APPEAL

A patent examiner rejected claims 10-13, 15-18, 20-22, and 25. The appellants appeal therefrom under 35 U.S.C. § 134(a). We reverse.

BACKGROUND

The invention at issue on appeal tracks and propagates updates in a "message-driven system." In a message-driven system, the state of a component may depend on the state of other components. (Spec. at 1.) More specifically, a component may be a "guardian" or a "dependent;" the state of a dependent depends on the state of a guardian. (*Id.* at 4.) A guardian, however, may not always propagate its state change

to its dependent. Because a component can be both a guardian and a dependent, upon receiving a notification that it should change state, a guardian evaluates the states of its guardians. Depending on the states of its guardians, the guardian may change state but delay notifying its dependents of the change. (*Id.* at 10.)

A further understanding of the invention can be achieved by reading the following claim.

10. A computer-implemented method for propagating state changes in a message-driven computer program comprising:

(a) receiving, in a computer, a first notification signal indicating that an event has occurred;

(b) transitioning a first component of an application program executing in the computer from a current state to a new state in response to the first notification signal;

(c) evaluating the state of a third component of the application program to determine if the transition of the first component to the new state should be propagated to a second component of the application program, wherein the second component is dependent on the first component;

(d) delaying propagating a second notification signal that indicates the state transition from the first component to the second component until the state of the third component indicates that the propagation should occur; and

(e) propagating the second notification signal from the first component to the second component by setting a flag in the second component, wherein the flag represents the state of the first component.

Claims 10-13, 15-18, 20-22, and 25 stand rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,499,364 ("Klein").

#### OPINION

Rather than reiterate the positions of the examiner or the appellants *in toto*, we focus on a point of contention therebetween. Based on a premise that "[i]t is the status of the sender event, including both local events and external events, instead of local events alone, that Klein uses to decide whether to send a notification," (Examiner's Answer at 7), the examiner makes the following assertion.

Appellant's first component as claimed is met by the local agent of Klein having the local event, the second component as claimed by the external agent having the external event that depends on the local event ("receiver event"), and the third component as claimed by the external sender agent triggering the final truth value for the TrueCondition or FalseCondition of the receiving external event ("receiver event").

(*Id.*) The appellants argue, "the only delay of Klein occurs based on local events within a sending agent and not the state of a third agent." (Appeal Br. at 8.)

In addressing the point of contention, the Board conducts a two-step analysis. First, we construe the independent claims at issue to determine their scope. Second, we determine whether the construed claims are anticipated.

## 1. CLAIM CONSTRUCTION

"Analysis begins with a key legal question -- *what* is the invention *claimed*?" *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1567, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987). In answering the question, "the Board must give claims their broadest reasonable construction. . . ." *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1668 (Fed. Cir. 2000).

Here, claim 10 recites in pertinent part the following limitations: "delaying propagating a second notification signal that indicates the state transition from the first component to the second component until the state of the third component indicates that the propagation should occur. . . ." Claims 15 and 20 include similar limitations. Giving claims 10, 15, and 20 their broadest, reasonable construction, the limitations require that a first component delay transfer of a notification to a second component based on the state of a third component.

## 2. ANTICIPATION DETERMINATION

"Having construed the claim limitations at issue, we now compare the claims to the prior art to determine if the prior art anticipates those claims." *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349, 64 USPQ2d 1202, 1206 (Fed. Cir. 2002). "A claim is anticipated only if each and every element as set forth in the claim is found, either

expressly or inherently described, in a single prior art reference." *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (citing *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 715, 223 USPQ 1264, 1270 (Fed. Cir. 1984); *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983); *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 771, 218 USPQ 781, 789 (Fed. Cir. 1983)). "[A]bsence from the reference of any claimed element negates anticipation." *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986).

Here, Klein "relates generally to distributed processing computer systems in which a distributed application is performed by multiple . . . agents that coordinate their computations by exchanging messages." Col. 1, ll. 5-8. "Agents receive notifications from other agents about the outcome of external events. Each agent processes those notifications not only to determine which local events are enabled by those notifications, but also to make inferences about external event states in other agents." Col. 11, ll. 45-50. "Before sending a notification to another agent . . . the sending agent checks the state of that external event and state of the conditions (i.e., the TrueCondition and FalseCondition) associated with external event." *Id.* at ll. 53-57. "If the locally known condition for the external event depends on a local event, all outgoing notifications for that external event are delayed." *Id.* at ll. 59-62. More specifically, "[n]otifications of

events that are known, based on knowledge available to the agent, to be insufficient to resolve an external event's truth value are delayed or withheld until all the local events required to resolve the external event's truth value have been assigned final truth values." Abs., ll. 22-27.

We are unpersuaded that a sending agent delays transfer of a notification to a receiving agent based on the state of a third agent. To the contrary, Klein explains that "**external events in other agents (herein called third party agents)** that are elements of an external event's condition **will not cause a message from the present agent to be delayed**, since those conditions elements are treated as 'Don't Care' values when evaluating the relevant condition." Col. 13, ll. 9-14 (emphases added).

The absence of a first component delaying transfer of a notification to a second component based on the state of a third component negates anticipation. Therefore, we reverse the rejection of claim 10; of claims 11-13, which depend therefrom; of claim 15; of claims 16-18, which depend therefrom; of claim 20; and of claims 21, 22, and 25, which depend therefrom.

CONCLUSION

In summary, the rejection of claims 10-13, 15-18, 20-22, and 25 under § 102(b) is reversed.

REVERSED

KENNETH W. HAIRSTON  
Administrative Patent Judge

LANCE LEONARD BARRY  
Administrative Patent Judge

MAHSHID D. SAADAT  
Administrative Patent Judge

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