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77351	7590	12/07/2016	EXAMINER	
IBM CORP. (AUS) C/O THE LAW OFFICE OF JAMES BAUDINO, PLLC 2313 ROOSEVELT DRIVE SUITE A ARLINGTON, TX 76016			WOOD, WILLIAM C	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte THOMAS W. AARTS, STEPHAN O. BROYLES, and
WILLIAM G. HOFFA

Appeal 2015-003699
Application 13/775,201
Technology Center 2100

Before CARL W. WHITEHEAD JR., KEVIN C. TROCK, and
NABEEL U. KHAN, *Administrative Patent Judges*.

KHAN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants¹ appeal under 35 U.S.C. § 134(a) from the Final Rejection of claims 1–12. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

¹ Appellants identify International Business Machines Corporation as the real party in interest. App. Br. 2.

THE INVENTION

Appellants' invention relates to a method and technique for a hybrid platform-dependent simulation interface. Abstract. According to the Specification, a software application may sometimes be run in a simulation environment for purposes of verification and testing. Spec. ¶ 1. The simulation environment simulates a particular target operating system or hardware platform on which the software application is intended to run so that program related operations can be tested to see if they perform as expected. Spec. ¶ 1. Appellants' invention enables utilization of hardware elements from a target platform such that the selected hardware element, if similarly utilized in a non-simulation environment, would not impact or adversely affect the non-simulation environment or software application. Spec. ¶ 8. This is done by encoding an application with a library having a platform-independent application programming interface (API) for interacting with a simulation engine and encoding the library with a platform-dependent API providing an interface to the simulation engine using a platform-dependent hardware element, where the platform-dependent hardware element does not affect the non-simulation environment. Spec. ¶ 8.

Exemplary independent claim 1 is reproduced below.

1. A method, comprising:

encoding an application with a library having a platform-independent application programming interface (API) for interacting with a simulation engine, the simulation engine providing a simulated environment for hosting the application; and

encoding the library with a platform-dependent API providing an interface to the simulation engine using a platform-

dependent hardware element, the platform-dependent hardware element unaffected a non-simulation environment when the application is running in the non-simulation environment.

REFERENCES and REJECTIONS

1. Claims 1–6 stand provisionally rejected on grounds of non-statutory obviousness-type double patenting over claims 7–12 of co-pending Application No. 13/690,993. Final Act. 3–4.

2. Claims 7–12 stand provisionally rejected on grounds of non-statutory obviousness-type double patenting over claims 7–12 of co-pending Application No. 13/690,993. Final Act. 4–5.

3. Claims 1 and 7 stand rejected under 35 U.S.C. § 102(b) as anticipated by Sakamoto (US 2009/0024381 A1, published Jan. 22, 2009). Final Act. 6–8.

4. Claims 2 and 8 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Sakamoto and Watkins (US 6,735,747 B2, issued May 11, 2004). Final Act. 9–10.

5. Claims 3 and 9 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Sakamoto and Agarwala (US 7,720,670 B2, issued May 18, 2010). Final Act. 10–11.

6. Claims 4 and 10 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Sakamoto and Fisher (US 2012/0131269 A1, May 24, 2012). Final Act. 11–12.

7. Claims 5 and 11 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Sakamoto and Nguyen (US 6,195,593 B1, issued Feb. 27, 2001). Final Act. 12–13.

8. Claims 6 and 12 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Sakamoto and Ark (US 2012/0265516 A1, published Oct. 18, 2012). Final Act. 13.

ANALYSIS

The Examiner finds Sakamoto discloses “encoding an application with a library having a platform-independent application programming interface (API) for interacting with a simulation engine,” as recited in claim 1. Final Act. 6 (citing Sakamoto ¶¶ 27–28). Specifically, the Examiner finds Sakamoto discloses “a simulator to verify hardware and software running on a target processor (software under test), includes a virtual OS . . . [that] communicates with the software under test through a platform-independent API that may be changed . . . without requiring a change to the software under test.” Final Act. 6.

Appellants argue:

the **software (SW) under test in Sakamoto does not have both a platform-independent API and a platform-dependent API** as recited by Claim 1. Thus, the SW under test in Sakamoto does not meet the limitations of the “application” in Claim 1. To the contrary, the API 11a and communication interface 13 of Sakamoto are **provided by the simulator framework 10 of Sakamoto**. Thus, Sakamoto does not appear to disclose an application hosted by a simulation engine that includes a library having platform-independent and platform-dependent APIs for interfacing with the simulation engine.

App. Br. 5. In other words, Appellants argue that the APIs identified by the Examiner belong to the simulator framework (i.e. the claimed “simulation engine”) and not the software under test (i.e. the claimed “application”) as required by claim 1.

We agree with Appellants. Claim 1 is explicit that the application programming interface is encoded in the application. Appellants' Specification also describes that the API is encoded in the application. The Specification explains that:

The simulation library enabling the use of such repurposed/extended hardware elements for simulation functions *is coded as part of the application itself*, thereby resulting in the application being executable in simulation or non-simulation environments without an indication to the application that it may be running in a simulation environment. Thus, *the simulation library that is encoded as part of the application* effectively hides from the application the particular environment (simulation or non-simulation) the application is running in.

Spec. ¶ 8 (emphasis added).

The API identified by the Examiner, API 11a of Sakamoto, is “provided by the framework” of Sakamoto, not the software under test. Sakamoto ¶ 28. Although API 11a serves to facilitate communication in such a way as to hide the execution environment from the software under test, which, as the Examiner points out, is similar to what the claimed platform-independent API does (*see* Ans. 15, 16), we do not find such similarity between the purpose of claim 1 and that of Sakomoto as sufficient to support an anticipation rejection.

Thus, constrained by the record at hand, we do not sustain the Examiner's rejection of independent claim 1. We also do not sustain the Examiner's rejection of independent claim 7, which contains substantially the same limitation (“incorporating the simulation library in the application”) and was rejected for substantially the same reasons. *See* Final Act. 7–8. Finally, and for the same reasons, we do not sustain the

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Examiner's rejection of claims 2–6 and 8–12 which depend from claims 1 and 7 respectively.

DECISION

The Examiner's rejection of claims 1–12 is reversed.

REVERSED