The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WILLIAM F. BERG and EDWARD J. ROWLANCE

Appeal No. 99-1563
Application 08/509,619[1]

ON BRIEF

Before JERRY SMITH, FLEMING and RUGGIERO, ***Administrative Patent Judges.***

FLEMING, ***Administrative Patent Judge***.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of

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[1] Application for patent filed July 31, 1995.

claims 2-31, all the claims pending in the present application. Claim 1 has been canceled.

The invention relates generally to an object oriented I/O device interface framework[2]. The mechanism is used to attach a variety of I/O devices[3] to a computer system[4]. The I/O framework mechanism comprises core functions and extensible functions[5]. The core functions are designed not to be subject to modification by a consumer of said framework mechanism, and the extensible functions are designed so that they can be customized and extended by the consumer.[6]

Independent claim 2 is reproduced as follows:

2. A computer system, said computer system comprising:

a bus;

a central processing unit;

main memory connected to said central processing unit via

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[2] Specification, page 3, lines 8-9.

[3] Figure 8, devices 878, 880, 882, and 884; specification page 21, line 1 through page 22, line 20.

[4] Figure 8, item 800.

[5] Specification, page 3, lines 10-14.

[6] Specification, page 7, lines 15-22.

said bus;

at least one I/O device;

at least one application program, said application program residing in said main memory for execution on said central processing unit, said application program using facilities provided by said I/O device; and

an I/O framework mechanism, said I/O framework mechanism residing in said main memory for execution on said central processing unit, said I/O framework mechanism being used to manage and control said I/O device, said I/O framework mechanism further comprising core function and extensible function, said core function being designed such that said core function is not to be subject to modification by a consumer of said framework mechanism, said extensible function being designed such that said extensible function can be customized and extended by said consumer.

The Examiner relies on the following reference:

Maeurer et al (Maeurer)	5,301,323	Apr. 5, 1994
Lemon et al (Lemon)	5,379,431	Jan. 3, 1995
Shing et al (Shing)	5,495,610	Feb. 27, 1996
Nguyen	5,544,302	Aug. 6, 1996

Claims 2, 3, 5, 6, 8, 9, 11, 12, 14, 15, 17, 18, 26, 27, 29, and 30 are rejected under 35 U.S.C. § 103 as unpatentable over Lemon.

Claim 4, 10, 16 and 28 are rejected under 35 U.S.C. § 103 as being unpatentable over Lemon when taken with Nguyen.

Claims 7, 13, 19 and 31 are rejected under 35 U.S.C. § 103 as being unpatentable over Lemon when taken with Maeurer.

Claims 20, 21, 23 and 24 are rejected under 35 U.S.C. § 103 as being unpatentable over Lemon when taken with Shing.

Claim 22 is rejected under 35 U.S.C. § 103 as being unpatentable over Lemon when taken with Shing and Nguyen.

Claim 25 is rejected under 35 U.S.C. § 103 as being unpatentable over Lemon when taken with Shing and Maeurer.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Brief[7] and Examiner's Answer[8], for the respective details thereof.

OPINION

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[7] The Brief was received October 9, 1998.

[8] Mailed October 27, 1998.

After careful review of the evidence before us, we will not sustain the rejections.

Appellants assert[9] that in regard to all the independent claims[10] the examiner has failed to establish that certain given claim elements and limitations correspond to particular aspects of Lemon. In particular, Appellants point to the language in the last subparagraph of claim 2 which reads:

> "said core function being designed such that said core function is not to be subject to modification by a consumer of said framework mechanism, said extensible function being designed such that said extensible function can be customized and extended by said consumer".

In general, Appellants then argue that the passages of Lemon cited by the Examiner show that Lemon teaches only extensible functions and does not describe functions that are designed not to be subject to change.

Specifically, Appellants then argue that column 15, line 59 through column 16, line 9 of Lemon simply describe how a

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[9] Brief, page 5.

[10] Claims 2, 8, 14, 20 and 26.

card can be added to Lemon and that other pieces are provided by others, while there is no teaching regarding what aspects of the Lemon mechanism are specifically designed not to be changed. In regard to column 16, lines 50-54, of Lemon, Appellants argue that this is a mere statement of goals, indicating that part of a boot framework should be provided to the customer and part of the boot framework should be capable of being extended, but there is no teaching that either of these parts are specifically designed not to be changed. In regard to column 20, lines 15-29, of Lemon, Appellants argue that this section of the reference points out that modification of extensible function may occur at two different times in the customization process, but that there is no mention of what functions are not changed.

Appellants then point[11] to the Examiner's reliance on certain explanatory remarks made by Appellants during prosecution, taken in conjunction with column 4, lines 50-55 of Lemon. Appellants acknowledge their statement defining

[11] Brief, page 7.

core function as "aspects of the framework mechanism that are present to provide/ensure consistent behavior of the framework as a whole". As to the Lemon passage, Appellants assert that it describes how public interfaces are well defined, and as they make up extensible functions, they should be well defined (Appellants' emphasis). The passage, it is asserted, does not teach core function that is designed not to be changed. In addition, Appellants point to Lemon's statement that "frameworks may decompose into sub-frameworks . . ." to show that their frameworks can be extended and can be broken apart.

In response to Appellants' arguments the Examiner first points[12] to column 16, lines 50-51, of Lemon which states "The booting framework must provide a set of base system functions". The Examiner interprets "base" system functions to correspond to "core" system functions not subject to modification by the framework customer. Then[13] the Examiner interprets Lemon's terminology of "existing ensembles" to correspond to "core" software functions not subject to

[12] Answer, page 8.

[13] Answer, page 9.

modification by the framework customer. Finally, the Examiner asserts that Lemon's statement
at column 4, lines 50-55, is a disclosure of core functions as "aspects of the framework mechanism [that] are present to provide/ensure consistent behavior of the framework as a whole".

As pointed out by our reviewing court, we must first determine the scope of the claim. "[T]he name of the game is the claim." ***In re Hiniker Co.***, 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998).

Turning first to Appellants' claim 2, we find that the final subparagraph of this claim provides[14] "said I/O framework mechanism further comprising core function and extensible function, <u>said core function being designed such that said core function is not to be subject to modification by a consumer of said framework mechanism</u>" (emphasis added). We have carefully reviewed each section of Lemon relied upon by the Examiner as disclosing this limitation, and find no such disclosure.

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[14] Lines 11-14.

As regards Lemon's disclosure at column 4, lines 50-55, that public interfaces and inter-relationships are well defined and frameworks are the unit of design reuse, being well defined and the unit of design reuse does not mandate frameworks with core function specifically designed not to be subject to modification by a consumer of the framework.

Column 15, line 59 through column 16, line 9, of Lemon teach that a developer need not write much software, as most software is supplied by existing ensembles. There is no basis for the Examiner's interpretation of "existing ensembles" as "core" software function not subject to modification by a consumer of the framework mechanism. While this section of Lemon's specification provides that third party developers would have to write very little software since most of the software to control the card is supplied by existing ensembles, it does not teach that the existing ensembles are designed not to be subject to modification by a consumer of the framework mechanism.

Column 16, lines 50-54, of Lemon include the statement, “The booting framework must provide a set of base system functions”. The Examiner interprets “base system function”

as “core system

function not subject to modification by a consumer of said framework”. This section of Lemon does not provide an adequate basis for such an interpretation.

Column 20, lines 25-28, of Lemon include the statement “in fact, some of the more primitive characteristics will only be set at build time, while some of the more user-customizable characteristics might be set in the workplace”. The Examiner’s
reliance on this section of Lemon is not well placed as, ***inter alia***, it is directed to “characteristics” specific to booting and not to “functions” as claimed.

The Examiner has therefore failed to set forth a ***prima facie*** case. It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the express teachings or suggestions found
in the prior art, or by implications contained in such

teachings or suggestions. ***In re Sernaker***, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983).

Therefore, we will not sustain the rejection of claims 2, 3, 5, 6, 8, 9, 11, 12, 14, 15, 17, 18, 26, 27, 29, and 30 under 35 U.S.C. § 103 as unpatentable over Lemon[15].

Our analysis of claims 8, 14, 20 and 26, all of the other independent claims, reveals that each of these claims recites

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[15] In regard to Appellants' pivotal claim limitation of a "core function being designed such that said core function is not subject to modification by a consumer . . .", we note the art recognized terminology of "black box" and "glass box".

The Microsoft Press Computer Dictionary, second edition, (1994), at page 47 defines "black box" as "A unit whose internal structure is unknown but whose function is documented. . . . software designers use this term to refer to . . . program code that performs a certain function. The internal mechanics of the function don't matter to a designer who uses a black box to obtain the function." (Emphasis added).

In addition, we note the IBM developerWorks article by Eric E. Allen, at page 3, defines "black box systems" as those in which "the outside programmer has neither the ability to view or modify the underlying code". This article also states that for a "glass box" the outside programmer "can view the source in order to craft extensions', and cannot modify the underlying code (emphasis added).

Although these terms *per se* do not read upon the core function claim limitations recited in the final paragraph of each of Appellants' independent claims, they may be relevant to the claimed invention. As "black box" and "glass box" were not used in the Examiner's EAST and IEEE/IEE text searches of record, the Examiner should consider whether to use these terms for an additional search of the prior art.

the same limitation of claim 2 analyzed above and found lacking in Lemon. The Nguyen, Maeurer and Shing references are relied upon by the Examiner in the five additional rejections before us solely for their disclosure of specific limitations presented in the dependent claims, and not for a core function being designed such that the core function is not to be subject to modification by a consumer of the framework mechanism.

Therefore, we will not sustain the following rejections:

1. The rejection of claims 4, 10, 16 and 28 under 35 U.S.C. § 103 as unpatentable over Lemon when taken with Nguyen;

2. The rejection of claims 7, 13, 19 and 31 under 35 U.S.C. § 103 as unpatentable over Lemon when taken with Maeurer;

3. The rejection of claims 20, 21, 23 and 24 under 35 U.S.C. § 103 as unpatentable over Lemon when taken with Shing;

4. The rejection of claim 22 under 35 U.S.C. § 103 as unpatentable over Lemon when taken with Shing and Nguyen;

5. The rejection of claim 25 under 35 U.S.C. § 103 as unpatentable over Lemon when taken with Shing and Maeurer.

We have not sustained the rejection of claims 2-31 under 35 U.S.C. § 103. Accordingly, the Examiner's decision is reversed.

REVERSED

JERRY SMITH Administrative Patent Judge	)	
MICHAEL R. FLEMING Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JOSEPH F. RUGGIERO Administrative Patent Judge	)	

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