

EXHIBIT B

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Klaubry
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Docket No. 3048-7037

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Applicant(s):	Matheny, et al.	OTLC Docket:	P-010.60
Serial No.:	09/287,172	Group Art Unit:	2672
Filed:	April 1, 1999	Examiner:	M. Luu
For:	MENU STATE SYSTEM		

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AMENDMENT

Honorable Commissioner
of Patents and Trademarks
Washington, D.C. 20231

Sir:

In response to the Examiner's Office action of April 24, 2001, please amend the application as follows.

IN THE CLAIMS

Please add new claims 57 to 85, as follows:

~~57~~ 32 (NEW) A method for operating a computer-implemented event notification system for propagating, among a plurality of objects, events representing changes in the objects, the operating method comprising the steps of:

(a) creating, on behalf of a receiver object, connection information representing the receiver object's interest in, and an associated object method for, receiving notification of a change to a source object;

(b) registering the connection information using a connection object;

(c) creating an event representing a change in the source object, responsive to the change in the source object; and

(d) notifying the receiver object of the event by invoking the associated object method for receiving notification registered using the connection object only if the event information corresponds to an interest registered on behalf of the receiver object.

B1

~~58~~ 32. (NEW) The operating method of claim ~~57~~ 31, wherein the connection object is associated with status information, the operating method further comprising the step of:

(b.1) using the connection information in the connection object to configure the status information to represent whether the notifying step (d) is activated or inactivated.

~~59~~ 33. (NEW) The operating method of claim ~~57~~ 31, wherein the connection information is associated with a notification type corresponding to a connection object method, the operating method further comprising the step of:

B2

(c.1) invoking the connection object method corresponding to the notification type specified by the connection information in the connection object.

34. ~~60~~. (NEW) The operating method of claim 33 ~~59~~ wherein:

each of a notification type plurality corresponds to a unique connection object method different from the connection object method corresponding to another of the notification type plurality.

35. ~~61~~. (NEW) The operating method of claim 33 ~~59~~ further comprising the step of:

(c.1.1) invoking a connection object method responsible for using the connection information in the connection object to modify a name associated with the receiver object.

36. ~~62~~. (NEW) The operating method of claim 33 ~~59~~ further comprising the step of:

(c.1.1) invoking a connection object method responsible for using the connection information in the connection object to modify a graphic associated with the receiver object.

37. ~~63~~. (NEW) The operating method of claim 33 ~~59~~ further comprising the step of:

(c.1.1) invoking a connection object method responsible for using the connection information in the connection object to create or modify data associated with the receiver object.

B1 38 ~~64~~. (NEW) The operating method of claim 33 ~~59~~ further comprising the step of:

(c.1.1) invoking a connection object method responsible for using the connection information in the connection object to read data associated with the receiver object.

B1 40 ~~65~~. (NEW) The operating method of claim 38 ~~64~~ further comprising the step of:

(c.1.2) invoking a connection object method responsible for using the connection information in the connection object to execute an undo function associated with the receiver object.

40 39 ~~66~~. (NEW) The operating method of claim 38 ~~64~~ further comprising the step of:

(c.1.2) invoking a connection object method responsible for using the connection information in the connection object to execute a redo function associated with the receiver object.

41 ~~67~~. (NEW) A method for operating a computer-implemented event notification system for propagating, among a plurality of objects, events representing changes in the objects, the operating method comprising the steps of:

(a) creating, on behalf of a receiver object, connection information representing the receiver object's interest in, and an associated object method for, receiving notification of a change to a source object:

(b) registering the connection information using a connection object;

(c) creating an event representing a change in the source object, responsive to the change in the source object;

(d) notifying the receiver object of the event by invoking the associated object method for receiving notification registered using the connection object only if the event information corresponds to an interest registered on behalf of the receiver object; and

(e) using the connection information in the connection object to configure status information to enable the notifying step (d).

103

42. ~~68~~. (NEW) A method for operating a computer-implemented event notification system for propagating, among a plurality of objects, events representing changes in the objects, the operating method comprising the steps of:

(a) creating, on behalf of a receiver object, connection information representing the receiver object's interest in, and an associated object method for, receiving notification of a change to a source object;

(b) registering the connection information using a connection object;

(c) creating an event representing a change in the source object, responsive to the change in the source object;

(d) notifying the receiver object of the event by invoking the associated object method for receiving notification registered using the connection object only if the event information corresponds to an interest registered on behalf of the receiver object; and

(e) using the connection information in the connection object to configure status information to disable the notifying step (d).

43. ~~69~~. (NEW) A method for operating a computer-implemented event notification system for propagating, among a plurality of objects, events representing changes in the objects, the operating method comprising the steps of:

(a) creating, on behalf of a receiver object, connection information representing the receiver object's interest in, and an associated object method for, receiving notification of a change to a source object;

(b) registering the connection information using a connection object;

(c) creating an event representing a change in the source object, responsive to the change in the source object;

(d) notifying the receiver object of the event by invoking the associated object method for receiving notification registered using the connection object only if the event information corresponds to an interest registered on behalf of the receiver object;

said connection information being associated with a notification type corresponding to a connection object method;

(e) invoking the connection object method corresponding to the notification type specified by the connection information in the connection object;

each of a notification type plurality corresponding to the same single connection object method; and

(f) transferring notification type information between two objects.

44. ~~70~~. (NEW) The operating method of claim 43 ~~69~~ further comprising the step of:

(c.1.1) invoking a connection object method responsible for using the connection information in the connection object to modify a name associated with the receiver object.

45. ~~71~~. (NEW) The operating method of claim 43 ~~69~~ further comprising the step of:

(c.1.1) invoking a connection object method responsible for using the connection information in the connection object to modify a graphic icon associated with the receiver object.

46. ~~72~~. (NEW) The operating method of claim 43 ~~69~~ further comprising the step of:

(c.1.1) invoking a connection object method responsible for using the connection information in the connection object to read data associated with the receiver object.

104

47. ~~73~~. (NEW) The operating method of claim 43 ~~69~~ further comprising the step of:

(c.1.1) invoking a connection object method responsible for using the connection information in the connection object to create or modify data associated with the receiver object.

48. ~~74~~. (NEW) The operating method of claim 47 ~~73~~ wherein the data associated with the receiver object includes descriptive textual data.

49. ~~75~~. (NEW) The operating method of claim 47 ~~73~~ further comprising the step of:

(c.1.2) invoking a connection object method responsible for using the connection information in the connection object to execute an undo function associated with the receiver object.

50 ~~76~~. (NEW) The operating method of claim 47 ~~73~~ further comprising the step of:

(c.1.2) invoking a connection object method responsible for using the connection information in the connection object to execute a redo function associated with the receiver object.

51 ~~77~~. (NEW) A method for operating a computer-implemented event notification system for propagating, among a plurality of objects, events representing changes in the objects, the operating method comprising the steps of:

B1

(a) creating, on behalf of a receiver object, connection information representing the receiver object's interest in, and an associated object method for, receiving notification of a change to a source object;

(b) registering the connection information with a notifier object;

(c) creating an event representing a change in the source object, responsive to the change in the source object; and

(d) notifying the receiver object of the event by invoking the associated object method for receiving notification registered with the notifier object only if the event information corresponds to an interest registered on behalf of the receiver object.

52. ~~78~~. (NEW) The operating method of claim 51 ~~77~~, wherein the notifier object is associated with status information, the operating method further comprising the step of:

(b.1) using the connection information in the notifier object to configure the status information to make the notifying step (d) active or passive.

53. ~~79~~. (NEW) The operating method of claim 51 ~~77~~, wherein the connection information is associated with a notification type corresponding to a notifier object method, the operating method further comprising the step of:

(c.1) invoking the notifier object method corresponding to the notification type specified by the connection information in the notifier object.

54 ~~80~~. (NEW) The operating method of claim 53 ~~79~~, wherein a notification type plurality all correspond to the same single notifier object method, the operating method further comprising the step of:

transferring notification type information between two objects.

55. ~~81~~. (NEW) The operating method of claim 53 ~~79~~ further comprising the step of:

105

B

(c.1.1) invoking a notifier object method responsible for using the connection information in the notifier object to create or modify data associated with the receiver object.

56, ~~82~~. (NEW) The operating method of claim 53, ~~79~~ further comprising the step of:

(c.1.1) invoking a notifier object method responsible for using the connection information in the notifier object to read data associated with the receiver object.

57, ~~83~~. (NEW) The operating method of claim 53, ~~79~~ wherein the event has an associated type attribute.

58, ~~84~~. (NEW) The operating method of claim 57, ~~77~~ wherein the creating step (c) is initiated by the notifier object.

59, ~~85~~. (NEW) The operating method of claim 57, ~~77~~ wherein the creating step (c) is initiated by the source object.

REMARKS

I. STATUS OF THE CLAIMS

Claims 27 to 56 remain in the case and new claims 57 to 85 are added to the case.

II. THE EXAMINER'S REJECTION OF THE CLAIMS

Claims 27 to 56 are rejected under 35 U.S.C §112, first paragraph as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had posession of the claimed invention.

III. THE APPLICANT'S RESPONSE

The Applicant respectfully requests that the Examiner withdraw this rejection, in view of the full disclosure of the invention in the specification of the application, as filed.

[A] Rejection of claims 48 to 56

The Examiner has rejected claims 48 to 56 on the basis that the following limitations in the claims are not shown in the specification or the figures. Regarding claim 48, the Examiner specifically asks:

[1] What is "a consumer object"?
[2] What is "a supplier object"?
[3] What is "a channel object"?

106

[4] Where in the drawings does it show "notifying the consumer object of the event by invoking the associated object method for receiving notification registered with the channel object only if the event information corresponds to an interest registered on behalf of the consumer object"?

In response, the Applicant repeats Claim 48 here, which reads as follows:

48. A method for operating a computer-implemented event notification system for propagating among a plurality of objects, events representing changes in the objects, the operating method comprising the steps of:

(a) creating, on behalf of a **consumer object**, connection information representing the consumer object's interest in, and an associated object method for, receiving notification of a change to a **supplier object;**

(b) registering the connection information with a **channel object;**

(c) creating an event representing a change in the supplier object, responsive to the change in the supplier object; and

(d) notifying the consumer object of the event by invoking the associated object method for receiving notification registered with the channel object only if the event information corresponds to an interest registered on behalf of the consumer object.

The Applicant will point out where these elements may be found in the Applicant's specification.

The notification framework is disclosed at Page 2, line 1 to page 3, line 26; page 23, lines 11 - 24; and page 28, line 15 to page 31, line 8, and in Figure 18.

[1] The "consumer object" is "the receiver object" disclosed at page 28, lines 28-29 and 31.

[2] The "supplier object" is "source object" disclosed at page 28, line 24-25

[3] The "channel object" is "notifier object" disclosed at page 28, line 27. The "notifier objects" and "connection objects" in the specification on page 28, both relate to the "channel object" in Claim 48. Claim 48 also refers to "connection information" which is contained within "connection objects" disclosed at page 28, line 29.

[4] The "notifying the consumer object..." is disclosed in the specification at page 30, line 1 to page 31, line 8 and in Figure 18. They disclose that the connection object is registered with a notifier object signifying that the connection object has responsibility for one or more receiver objects which have a general interest in events generated by the source object. The connection objects, in turn, have more specialized information about which of the events generated by a source object are of particular interest to each of the receiver objects for which it is responsible. This is disclosed at in association with Figure 18.

The specification at page 30, line 1 to page 31, line 8 discloses that the invention is based on the concept of a notification framework that provides a mechanism for propagating change information between objects. The framework allows receiver objects to express interest in, and receive notification about changes to source objects in which they have an interest. A standard interface is provided for classes that provide notification to receiver objects. Notifier classes enable receiver objects to register their connection objects for receiving notification of events from a particular source object. The notifier objects (instantiated from the notifier classes) register a list of connection objects, each connection object corresponding to one or more receiver objects. The connection object dispatches the notification from the notifier objects to the specific receiver objects that have identified to the connection object an interest in specific events. These connection objects allow specialization of how notifications are delivered to different classes of receivers. This is disclosed in association with Figure 18.

[B] Rejection of claims 27 to 47

The Examiner has rejected claims 27 to 47 on the basis that the following limitations in the claims are not shown in the specification or the figures.

Regarding Claim 27

Regarding claim 27, the Examiner specifically asks:

[1] What is "a first object"?
[2] What is "an associated object"?
[3] What is "a second object"?
[4] What is "a connection object"?
[5] Where in the specification and drawings does it show " creating, on behalf of a first object, connection information representing the first object's interest in, and an associated object method for, receiving notification of a change to a second object"?
[6] Where in the specification and drawings does it show " notifying the first object of the event by invoking the associated object method for receiving notification registered with the connection object only if the event information corresponds to an interest registered on behalf of the first object"

In response, the Applicant repeats Claim 27 here, which reads as follows:

27. A method for operating a computer-implemented event notification system for propagating, among a plurality of objects, events representing changes in the objects, the operating method comprising the steps of:

(a) **creating, on behalf of a first object, connection information representing the first object's interest in, and an associated object method for, receiving notification of a change to a second object;**

(b) registering the connection information with a connection object;

(c) creating an event representing a change in the second object, responsive to the change in the second objection; and

(d) **notifying the first object of the event by invoking the associated object method for receiving notification registered with the connection object only if the event information corresponds to an interest registered on behalf of the first object.**

The Applicant will point out where these elements may be found in the Applicant's specification.

[1] "**a first object**" is "the receiver object" disclosed at page 28, lines 28-29 and 31.

[2] "**an associated object method**" is "the appropriate method of the notification receiver ... at the function block 1880, the notification receiver takes the appropriate action" disclosed at page 30, line 32 to page 31, line 1.

[3] "**a second object**" is the "source object" disclosed at page 28, line 24-25

[4] "**a connection object**" is the "connection object" disclosed at page 28, line 29.

[5] " **creating, on behalf of a first object, connection information representing the first object's interest in, and an associated object method for, receiving notification of a change to a second object**" is disclosed at Page 2, line 1 to page 3, line 26; page 23, lines 11 - 24; and page 28, line 15 to page 31, line 8, and in Figure 18. The "connection information" is contained within "connection objects" disclosed at page 28, line 29. The specification at page 30, line 1 to page 31, line 8 and Figure 18 disclose that the connection object is registered with a notifier object signifying that the connection object has responsibility for one or more receiver objects which have a general interest in events generated by the source object. The connection objects, in turn, have more specialized information about which of the events generated by a source object are of particular interest to each of the receiver objects for which it is responsible. This is disclosed at in association with Figure 18.

[6] " **notifying the first object of the event by invoking the associated object method for receiving notification registered with the connection object only if the event information corresponds to an interest registered on behalf of the first object**" is disclosed at Page 2, line 1 to page 3, line 26; page 23, lines 11 - 24; and page 28, line 15 to page 31, line 8, and in Figure 18. The specification at page 30, line 1 to page 31, line 8 discloses that the invention is based on the concept of a notification framework that provides a mechanism for propagating change information between objects. The framework allows receiver objects to express interest in, and receive notification about changes to source objects in which they have an interest. A standard interface is provided for classes that provide notification to receiver objects. Notifier classes enable receiver objects to register their connection objects for receiving notification of events from a particular source object. The notifier objects (instantiated from the notifier classes) register a list of connection objects, each connection object corresponding to one or more receiver objects. The connection object dispatches the notification from the notifier objects to the specific receiver objects that have identified to the connection object an interest in specific events. These connection objects allow specialization of how notifications are delivered to different classes of receivers. This is disclosed in association with Figure 18.

Regarding Claim 30

Regarding claim 30, the Examiner specifically asks: Where in the specification and drawings does it show " each of a notification type plurality corresponds to a unique connection

object method different from the connection object method corresponding to another of the notification type plurality"?

In response, the Applicant repeats Claim 30 here, which reads as follows:

30. The operating method of claim 29 wherein:
each of a notification type plurality corresponds to a unique connection object method different from the connection object method corresponding to another of the notification type plurality.

The Applicant will point out where this element may be found in the Applicant's specification.

Page 28, lines 24 to 34 describe the notifier classes providing notification source objects with the means to manage lists of clients and dispatch notifications to those clients. Connection objects provide the dispatch of notifications from the notifier to specific notification receiver objects. These objects allow specialization of how notifications are delivered to different classes of receivers. This is in conjunction with the disclosure in Figure 18. In addition, page 2, line 24 to page 3, line 4 discloses this feature.

Still further, page 59, lines 20 to 34 discloses that the connection dispatches the notification to the appropriate method of the notification receiver. This disclosed method performs the work, i.e., the connection object method associated with a particular function calls the corresponding method in the receiver object to do the work.

Regarding Claim 37

Regarding claim 37, the Examiner specifically asks: Where in the specification and drawings does it show:
[1] "an event listener object"?
[2] "an event source object"?
[3] "a connection object"?
[4] "notifying the event listener object of the event by invoking the associated object method for receiving notification registered with the connection object only if the event information corresponds to an interest registered on behalf of the event listener object"

In response, the Applicant repeats Claim 37 here, which reads as follows:

37. A method for operating a computer-implemented event notification system for propagating, among a plurality of objects, events representing changes in the objects, the operating method comprising the steps of:
(a) creating, on behalf of **an event listener object**, connection information representing the event listener object's interest in, and an associated object method for, receiving notification of a change to **an event source object**;
(b) registering the connection information with **a connection object**;
(c) creating an event representing a change in the event source object, responsive to the change in the event source object; and

(d) **notifying the event listener object of the event by invoking the associated object method for receiving notification registered with the connection object only if the event information corresponds to an interest registered on behalf of the event listener object.**

The Applicant will point out where this element may be found in the Applicant's specification.

[1] "an event listener object" is "the receiver object" disclosed at page 28, lines 28-29 and 31.
[2] "an event source object" is the "source object" disclosed at page 28, line 24-25.
[3] "a connection object" is the "connection object" disclosed at page 28, line 29.
[4] "notifying the event listener object of the event by invoking the associated object method for receiving notification registered with the connection object only if the event information corresponds to an interest registered on behalf of the event listener object" is disclosed in the specification at page 30, line 1 to page 31, line 8 and in Figure 18. They disclose that the connection object is registered with a notifier object signifying that the connection object has responsibility for one or more receiver objects which have a general interest in events generated by the source object. The connection objects, in turn, have more specialized information about which of the events generated by a source object are of particular interest to each of the receiver objects for which it is responsible. This is disclosed at in association with Figure 18.

The specification at page 30, line 1 to page 31, line 8 discloses that the invention is based on the concept of a notification framework that provides a mechanism for propagating change information between objects. The framework allows receiver objects to express interest in, and receive notification about changes to source objects in which they have an interest. A standard interface is provided for classes that provide notification to receiver objects. Notifier classes enable receiver objects to register their connection objects for receiving notification of events from a particular source object. The notifier objects (instantiated from the notifier classes) register a list of connection objects, each connection object corresponding to one or more receiver objects. The connection object dispatches the notification from the notifier objects to the specific receiver objects that have identified to the connection object an interest in specific events. These connection objects allow specialization of how notifications are delivered to different classes of receivers. This is disclosed in association with Figure 18.

By the above remarks, the Applicant believes all of the issues raise by the Examiner have been resolved. Accordingly, the Applicant respectfully requests the Examiner's reconsideration of the claims, allow the claims and pass the case to issue.

The Assistant Commissioner is hereby authorized to charge any additional fees which may be required for the timely consideration of this amendment under 37 C.F.R. §§ 1.16 , or credit any overpayment to Deposit Account No. 13-4503, Order No. 3048-7037.

Respectfully submitted,
MORGAN & FINNEGAN, L.L.P.

Dated: 8/15/01

By: _____

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