EXHIBIT D

UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/010,965	04/28/2010	5455854	2607.272REX0/RGS/RDC	8066

26111   7590   12/21/2010

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

ART UNIT	PAPER NUMBER

DATE MAILED: 12/21/2010

Please find below and/or attached an Office communication concerning this application or proceeding.

Ex Parte Reexamination Interview Summary	Control No.	Patent Under Reexamination
	90/010,965	5455854
	Examiner	Art Unit
	Deandra M. Hughes	3992

All participants (USPTO personnel, patent owner, patent owner's representative):

(1) _Deandra M. Hughes, Primary Examiner_   (3) _Christina Leung, Primary Examiner_

(2) _Eric Keasel, SPE_   (4) _Patent Owner's Representatives (see attached)_

Date of Interview: _14 December 2010_

Type: a)☐ Telephonic   b)☐ Video Conference
       c)☒ Personal

Exhibit shown or demonstration conducted: d)☐ Yes   e)☒ No.
   If Yes, brief description: _____

Agreement with respect to the claims f)☒ was reached.   g)☐ was not reached.   h)☐ N/A.
Any other agreement(s) are set forth below under "Description of the general nature of what was agreed to..."

Claim(s) discussed: _1-24_.

Identification of prior art discussed: _NextStepI, NextStepII_.

Description of the general nature of what was agreed to if an agreement was reached, or any other comments: (SEE ATTACHED)

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims patentable, if available, must be attached. Also, where no copy of the amendments that would render the claims patentable is available, a summary thereof must be attached.)

A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION MUST INCLUDE PATENT OWNER'S STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. (See MPEP § 2281). IF A RESPONSE TO THE LAST OFFICE ACTION HAS ALREADY BEEN FILED, THEN PATENT OWNER IS GIVEN **ONE MONTH** FROM THIS INTERVIEW DATE TO PROVIDE THE MANDATORY STATEMENT OF THE SUBSTANCE OF THE INTERVIEW (37 CFR 1.560(b)). THE REQUIREMENT FOR PATENT OWNER'S STATEMENT CAN NOT BE WAIVED. **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).**

/Deandra M Hughes/
Primary Examiner, Art Unit 3992

cc: Requester (if third party requester)

PO's Representatives were David A. Wilson, PhD (Technical Expert), Michael R. Dilts (Inventor), R. "Chip" Lutton (Reg. 39,756), Robert G. Sterne (Reg. No. 28,912), Glenn J. Perry (Reg. No. 28,458), Richard D. Coller III, (Reg. No. 60,390), Salvador M. Bezos (Reg. No. 60,889).

The following is a brief summary of PO's arguments which the Examiner indicated were likely to obviate the rejections of the non-final office action mailed Oct. 28, 2010.

(1) NeXTSTEP does not disclose or make obvious an "object-oriented operating system" because NeXTSTEP is object-oriented software operated on a procedural operating system.

(2) NeXTSTEP does not disclose or make obvious "storing status information in the data of the telephony object" because NeXTSTEPII at 13-16, 13-22, and 13-32 discloses that there are no instance variables for the telephony objects NXPhone, NXPhoneChannel, and NXPhoneCall.

(3) NeXTSTEP does not fairly suggest to one of ordinary skill in the art the claimed "object-oriented operating system" because NeXTSTEP does not inform a person of ordinary skill in the art how to make and use its Phone Server.

Further, PO noted that in the application (08/108,877), which became the '854 patent, PO agreed to further amend the claims to distinguish between the claimed 'object oriented operating system' and object-oriented programming. (Interview summary of June 27, 1995) As such, it was agreed that PO would reference the Jun. 27, 1995 interview in his remarks on the Non-Final Office Action of this Reexamination proceeding.

/Deandra M Hughes/
Primary Examiner, Art Unit 3992

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/010,967	04/28/2010	5315703	2607.271REX0/RGS/RDC	8070

26111	7590	02/08/2011

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

ART UNIT	PAPER NUMBER

DATE MAILED: 02/08/2011

Please find below and/or attached an Office communication concerning this application or proceeding.

Ex Parte Reexamination Interview Summary	Control No.	Patent Under Reexamination
	90/010,967	5315703
	Examiner	Art Unit	
	RACHNA S. DESAI	3992	

All participants (USPTO personnel, patent owner, patent owner's representative):

(1) *Rachna Desai*

(2) *Fred Ferris, Jessica Harrison*

(3) *David Wilson, Rob Sterne, Glenn Perry,*

(4) *Rich Coller, Sal Bezos*

Date of Interview: *08 February 2010*

Type: a)☒ Telephonic   b)☐ Video Conference
c)☐ Personal (copy given to: 1)☐ patent owner   2)☐ patent owner's representative)

Exhibit shown or demonstration conducted: d)☒ Yes   e)☐ No.
If Yes, brief description: *Patent Owner's representative presented a slide show presentation (see attachment)*

Agreement with respect to the claims f)☐ was reached. g)☒ was not reached. h)☐ N/A.
Any other agreement(s) are set forth below under "Description of the general nature of what was agreed to..."

Claim(s) discussed: *1 and 8.*

Identification of prior art discussed: *Cohen of record.*

Description of the general nature of what was agreed to if an agreement was reached, or any other comments:
Patent Owner's representative provided an overview of the invention and discussed differences between the Cohen reference and the instant invention. Particularly, Patent Owner's representative argued Cohen failed to teach a notification receiver object (e.g. "receiving the notification by the at least one of the plurality of objects") and a connection object. Examiner agreed to reconsider Cohen in light of Patent Owner's arguments.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims patentable, if available, must be attached. Also, where no copy of the amendments that would render the claims patentable is available, a summary thereof must be attached.)

A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION MUST INCLUDE PATENT OWNER'S STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. (See MPEP § 2281). IF A RESPONSE TO THE LAST OFFICE ACTION HAS ALREADY BEEN FILED, THEN PATENT OWNER IS GIVEN **ONE MONTH** FROM THIS INTERVIEW DATE TO PROVIDE THE MANDATORY STATEMENT OF THE SUBSTANCE OF THE INTERVIEW (37 CFR 1.560(b)). THE REQUIREMENT FOR PATENT OWNER'S STATEMENT CAN NOT BE WAIVED. **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).**

/Rachna S Desai/		
Primary Examiner, Art Unit 3992		

cc: Requester (if third party requester)

RICHARD D. COLLER III
ASSOCIATE
(202) 772-8764
RCOLLER@SKGF.COM

Fax
☐ Urgent   ☐ Return reply requested   ☐ Original will be sent as confirmation

To: **USPTO**

Attention: Examiner Rachna S. Desai

From: Richard D. Coller III

Date: February 3, 2011

Re: Control No. 90/010,967 ; Filed 04/28/10
For: **OBJECT-ORIENTED NOTIFICATION
FRAMEWORK SYSTEM**
Inventor: MATHENY , et al.

Pages (including cover sheet): 2

Fax No: 571-273-4099

Our Reference: 2607.271REX0

Message

Attached is the proposed Agenda for Examiner Interview.

Certification of Facsimile Transmission

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to the Patent and Trademark Office on the date shown below.

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Date: _____

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⌐ MIND + MUSCLE ¬

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re reexam of U.S. Patent No. 5,315,703	Confirmation No.: 8070
Reexam Control No. 90/010,967	Art Unit: 3992
Filed: April 28, 2010	Examiner: DESAI, Rachna S.
For: OBJECT-ORIENTED NOTIFICATION FRAMEWORK SYSTEM	Atty. Docket No.: 2607.271REX0

PROPOSED AGENDA FOR EXAMINER INTERVIEW

Date, Time, and Location:

Tuesday February 8th at 1:00 PM (EST) - Randolph Interview Room

Tentative Participants

David Wilson	Expert
Rob Sterne	Sterne, Kessler, Goldstein & Fox PLLC
Glenn Perry	Sterne, Kessler, Goldstein & Fox PLLC
Rich Coller	Sterne, Kessler, Goldstein & Fox PLLC
Sal Bezos	Sterne, Kessler, Goldstein & Fox PLLC

Tentative Agenda

I.   Introductions

II.   Status of Concurrent Litigation

III.   Overview of the '703 Patent

IV.   Story of the Invention

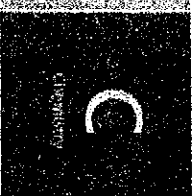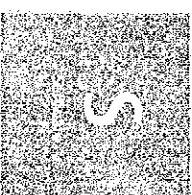V.   Discussion of the Office Action and Asserted References

VI.   Conclusion

1317003_1.DOC

Sterne Kessler
Goldstein Fox

Apple Inc.

Ex Parte Reexamination 90/010,967

U.S. Patent No. 5,315,703 to Matheny et al.

February 8, 2011

SKGF.COM
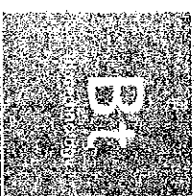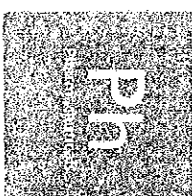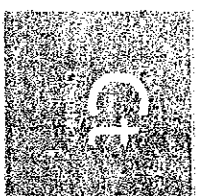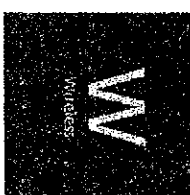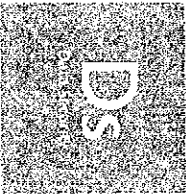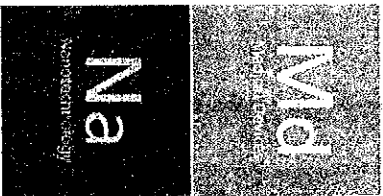
Agenda

I.   Introductions

II.   Status of the Litigation

III.   Overview of Patentability

IV.   Story of the Invention

V.   Technical Overview of '703 Patent

VI.   Overview of the Cohen Reference (Gypsy)

VII.   Discussion of the Office Action

Sterne Kessler
Goldstein Fox
ATTORNEYS AT LAW

Introductions

Technical Expert:

- David A. Wilson, Ph.D.

SKGF:

- Robert G. Sterne, Reg. No. 28,912
- Glenn J. Perry, Reg. No. 28,458
- Richard D. Coller III, Reg. No. 60,390
- Salvador M. Bezos, Reg. No. 60,889

David A. Wilson, Ph.D. (expert)

- Programming
  - 1966: IBM Federal Systems Division – 7094 mainframe in assembly language ...
  - 1983: self-employed
  - 1984: taught procedural Mac programming

- Object-Oriented Programming
  - 1987: taught MacApp for Apple (OOP, frameworks)
    - lead author on two Addison-Wesley books about MacApp
  - 1988: taught Smalltalk programming for Xerox ParcPlace
  - 1989: taught intro to NextStep programming in Objective-C
  - 1990: taught "Pink"/Taligent programming in C++
  - 1998: taught advanced Java programming for Sun Microsystems
  - 2008: began developing iPhone/iPad apps using Objective-C

Status of the Litigation

Nokia Corp. v. Apple Inc. (D. Del.)

The '703 Patent is in concurrent litigation (*Nokia v. Apple*, 1:09-cv-00791 (D. Del.)) before Chief Chief Judge Sleet

Apple's Business Model

Apple has adopted a business strategy based on the convergence of personal computers, mobile communications, and digital consumer electronics, and produced cutting-edge, technologically superior, and user-friendly devices.

See, *Nokia v. Apple*, 1:09-cv-00791, Apple Inc.'s First Amended Answer, p. 3 (Filed Feb. 19, 2010)

Sterne Kessler
Goldstein Fox

ATTORNEYS AT LAW

Overview of Patentability

Issued Claim 8

8. A method for implementing an object-oriented notification framework system, comprising the steps of:

connecting a plurality of objects to a notification source;

storing connection information for the plurality of objects in a connection object of an object-oriented operating system;

registering connection information, including registration information indicative of a notification status, in the connection object of the object-oriented operating system;

selectively dispatching notification to at least one of the plurality of objects based on the connection registration information stored in the connection object of the object-oriented operating system; and

receiving the notification by the at least one of the plurality of objects and taking action based on the notification.

All Claims Should Be Confirmed

Cohen does not anticipate or render obvious claims 1 and 8 because it does not teach, suggest, or disclose:

1. a **notification receiver object** (e.g. "receiving the notification by the at least one of the *plurality of objects*"); and

2. a "**connection object**".

Exemplary Use Case Case Comparison

'703 Patent Example

Move   Notes   Format   Font   Size   Style

Four Questions Intro

Picture
Bring to Front
Send to Back

Group
Ungroup
Lock
Unlock
Align...
Rotate

40
42
41
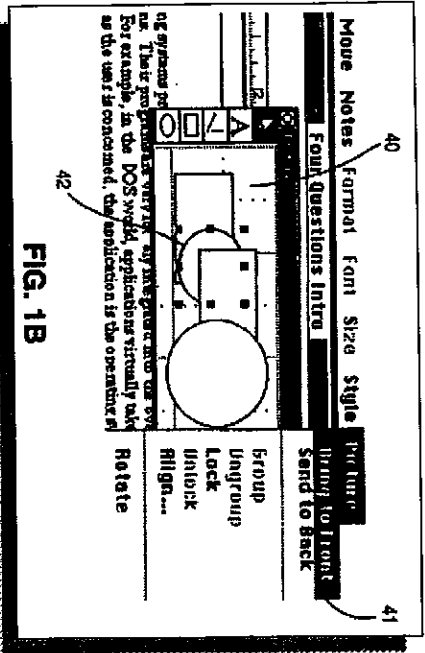
FIG. 1B

Category	Amount	
Home	$	(872.40)
Food	$	(226.00)
Gas	$	(137.50)
Credit Card	$	(850.00)
Entertainment	$	(245.00)
Total	$	(2,330.90)

50%
6% 10%
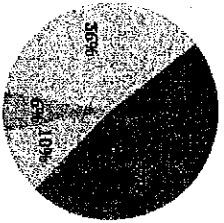
Object-Oriented Operating System

Cohen

"The Gypsy Programming
Support Environment provides
support for a team of developers
to produce and maintain systems
built from multiple components."
(Cohen, p. 201)

Gypsy

Shared
files
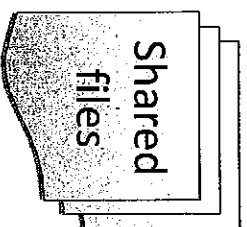
UNIX Operating System

Story of the Invention

The "Pink" Operating System

- During Apple's Macintosh operating system development discussions, a set of advanced ideas were written on index cards (blue and pink)

- "Blue" became Apple's "System 7" operating system, which remained a procedural operating system

- "Pink" was designed and built to be an object-oriented operating system implemented in C++

- The "Pink" development team was spun-off into Taligent

Object-Oriented Programming Benefits

- Managing complexity

- Reusing code

- Simpler program development

David R. Anderson (Co-Inventor)

- Education:
  - Purdue University: B.S.E.E. (1980)

- Relevant Employment:
  - Apple/Taligent:
  - Senior Software Engineer (1989-1992)
  - Software Development Manager (1992-1995)
  - Developed applications to run on top of the "Pink" OS
  - Designed and built the "Pink" **notification system**

- Named inventor on over 30 U.S. patents, approximately half of which resulted from work done at Apple/Taligent

Story of the Invention

- As part of the Pink project, Apple/Taligent sought to create an advanced event notification system

- Goal: to design and build a system with class hierarchies, **objects**, and other elements that could provide distinct advantages in an event notification system

- Leverage the aforementioned benefits of object-oriented programming

Problems with Existing Technology

Existing technology:

- Could not easily integrate notifications with the increasingly complex applications being developed

- Could not support the more pervasive use of notifications desired by application developers

Led to performance problems – notifications not sufficiently scaleable or reusable in different problem domains

Benefits of the Invention

- Apple/Taligent invented a new event notification system based on interactions among three types of elements:

  - notification sources

  - notification receiver objects

  - connection objects

Benefits of the Invention

- Use of the three-element system allows for *scaleable*, efficient, and *flexible* application development and notification distribution.

- Once designed and built, the notification system was *pervasively integrated* with the Pink user interface.

- Development of the new notification system was regarded internally as a significant technical accomplishment and one of the most important aspects of Pink.

Technical Overview
of the '703 Patent

Sterne Kessler
Goldstein Fox
ATTORNEYS AT LAW

'703 Patent Technical Overview

(plurality of objects)

Notification
Receiver Object

Notification
Receiver Object

Connection Object

Notification Source

8. A method for implementing an object-oriented notification framework system, comprising the steps of:

(a) connecting a plurality of objects to a notification source;

(b) storing connection information for the plurality of objects in a connection object of an object-oriented operating system;

(c) registering connection information, including registration information indicative of a notification status, in the connection object of the object-oriented operating system;

(d) selectively dispatching notification to at least one of the plurality of objects based on the connection registration information stored in the connection object of the object-oriented operating system; and

(e) receiving the notification by the at least one of the plurality of objects and taking action based on the notification.

Overview of the Cohen Reference (Gypsy)

Cohen's Narrow Problem Domain

'703 Patent Example
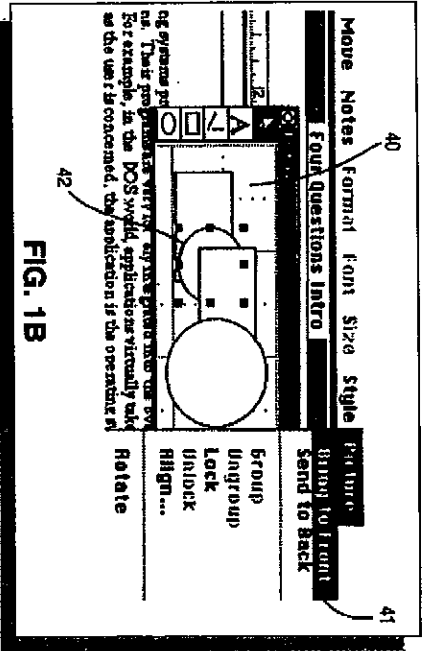
Move   Notes   Format   Font   Size   Style

Four Questions Intro

40

42

FIG. 1B

| Group |
| Ungroup |
| Lock |
| Unlock |
| Align... |

Send to Back
Bring to Front
Picture

Rotate

41

Category	Amount	
House	$	(873.40)
Food	$	(226.00)
Gas	$	(137.50)
Credit Card	$	(850.00)
Entertainment	$	(245.00)
Total	$	(2,330.90)

Cohen

"The Gypsy Programming
Support Environment
provides
support for a team of developers
to produce and maintain systems
built from multiple components."
(Cohen, p. 201)

Object-Oriented Operating System

UNIX Operating System

Gypsy

Shared
files
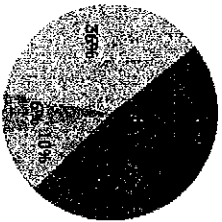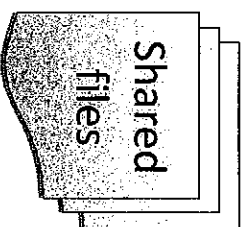
Cohen's Narrow Problem Domain

- Cohen was a narrowly-tailored solution to a very specific problem

  - "The Gypsy Programming Support Environment provides support for a team of developers to produce and maintain systems built from multiple components." (Cohen, p. 201)

  - requires a new type manager for each data type (**"each** type manager determines the sort of events it will monitor and interprets the condition accordingly") (Cohen, p. 211).

  - requires modification for each problem domain

Cohen System Diagram

aFile target object
[event source]
.doc Word files

a Type Manager
for .doc files

3. A type manager agrees to monitor events by supplying an EVENT attribute with two methods: a "subscription" method which takes the target object and the condition, and which returns a subscription, and a "cancel" method which takes the target object and the subscription, and cancels it.

aFile target object
[event source]
.c source files

a Type Manager
for c. files

subscription
- condition
- user action() or program

user action()

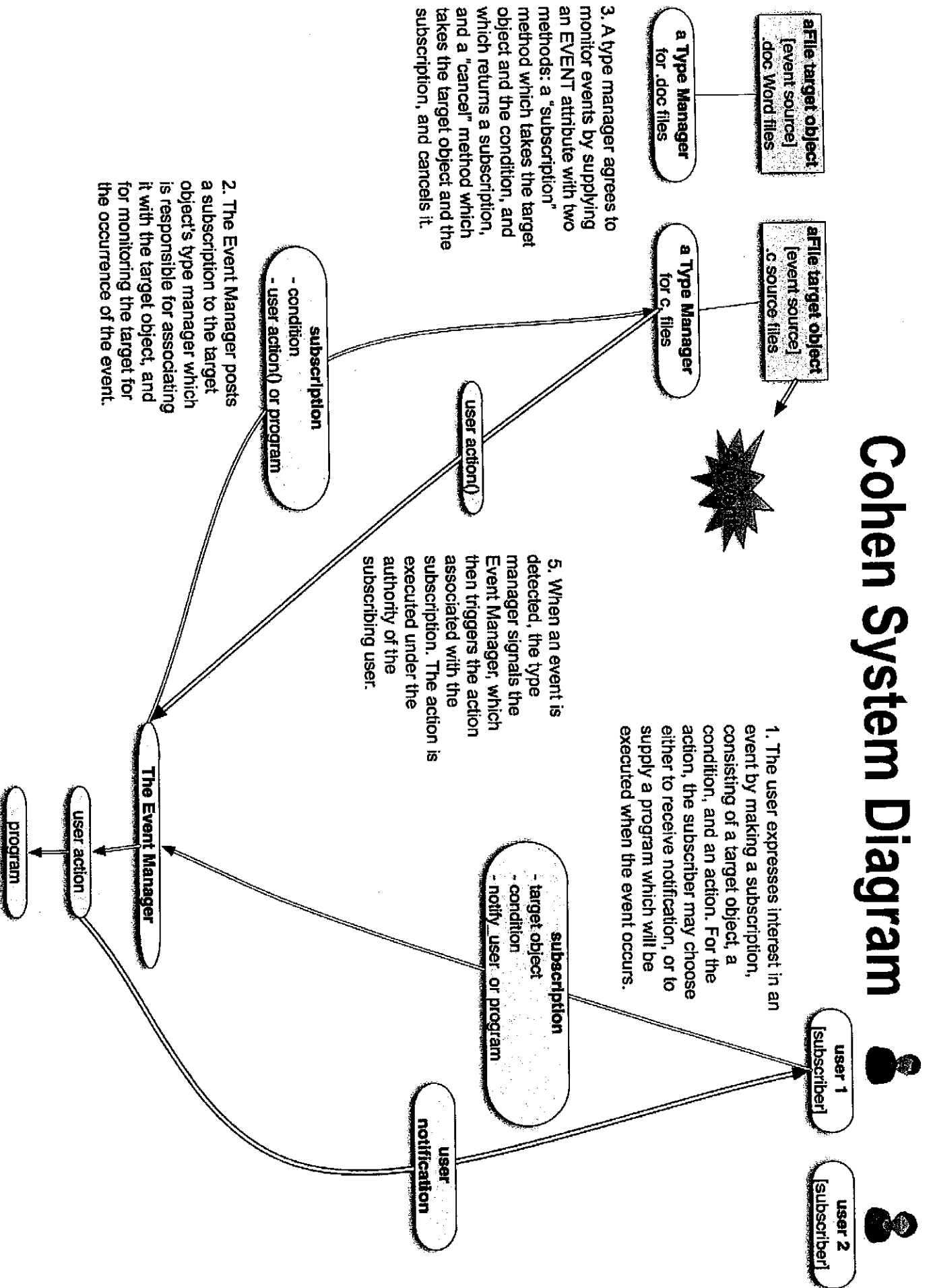2. The Event Manager posts a subscription to the target object's type manager which is responsible for associating it with the target object, and for monitoring the target for the occurrence of the event.

5. When an event is detected, the type manager signals the Event Manager, which then triggers the action associated with the subscription. The action is executed under the authority of the subscribing user.

1. The user expresses interest in an event by making a subscription, consisting of a target object, a condition, and an action. For the action, the subscriber may choose either to receive notification, or to supply a program which will be executed when the event occurs.

subscription
- target object
- condition
- notify_user or program

user 1
[subscriber]

user 2
[subscriber]

The Event Manager

user action

program

user
notification

Sterne Kessler Goldstein Fox

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Discussion of the Office Action

Rejections At Issue

- Independent claims 1 and 8 are rejected over Cohen
  - Claim 8 under § 102(b)
  - Claim 1 under § 103(a) (single reference)

- Several dependent claims rejected under § 103(a) over Cohen in view of Bernstein

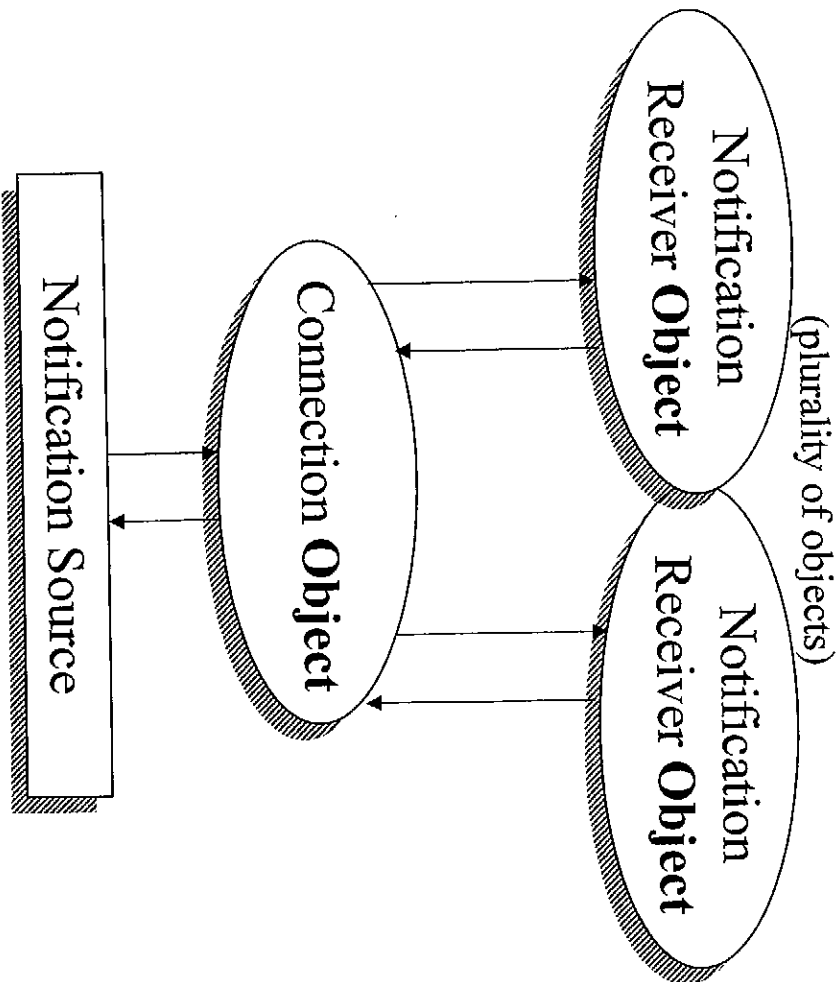- Rejections discussed in context of claim 8

All Claims Should Be Confirmed

Cohen does not anticipate or render obvious claims 1 and 8 because it does not teach, suggest, or disclose:

1. a **notification receiver object** (e.g. "receiving the notification by the at least one of the **plurality of objects**"); and

2. a "**connection object**".

The '703 Patent

Claim 8

(plurality of objects)

Notification Receiver Object

Notification Receiver Object

Connection Object

Notification Source

... vs. the Cohen System

aFile target object
[event source]
.doc Word files

a Type Manager
for .doc files

aFile target object
[event source]
.c source files

a Type Manager
for c. files

3. A type manager agrees to monitor events by supplying an EVENT attribute with two methods: a "subscription" method which takes the target object and the condition, and which returns a subscription, and a "cancel" method which takes the target object and the subscription, and cancels it.

subscription
- condition
- user action() or program

user action()

2. The Event Manager posts a subscription to the target object's type manager which is responsible for associating it with the target object, and for monitoring the target for the occurrence of the event.

5. When an event is detected, the type manager signals the Event Manager, which then triggers the action associated with the subscription. The action is executed under the authority of the subscribing user.
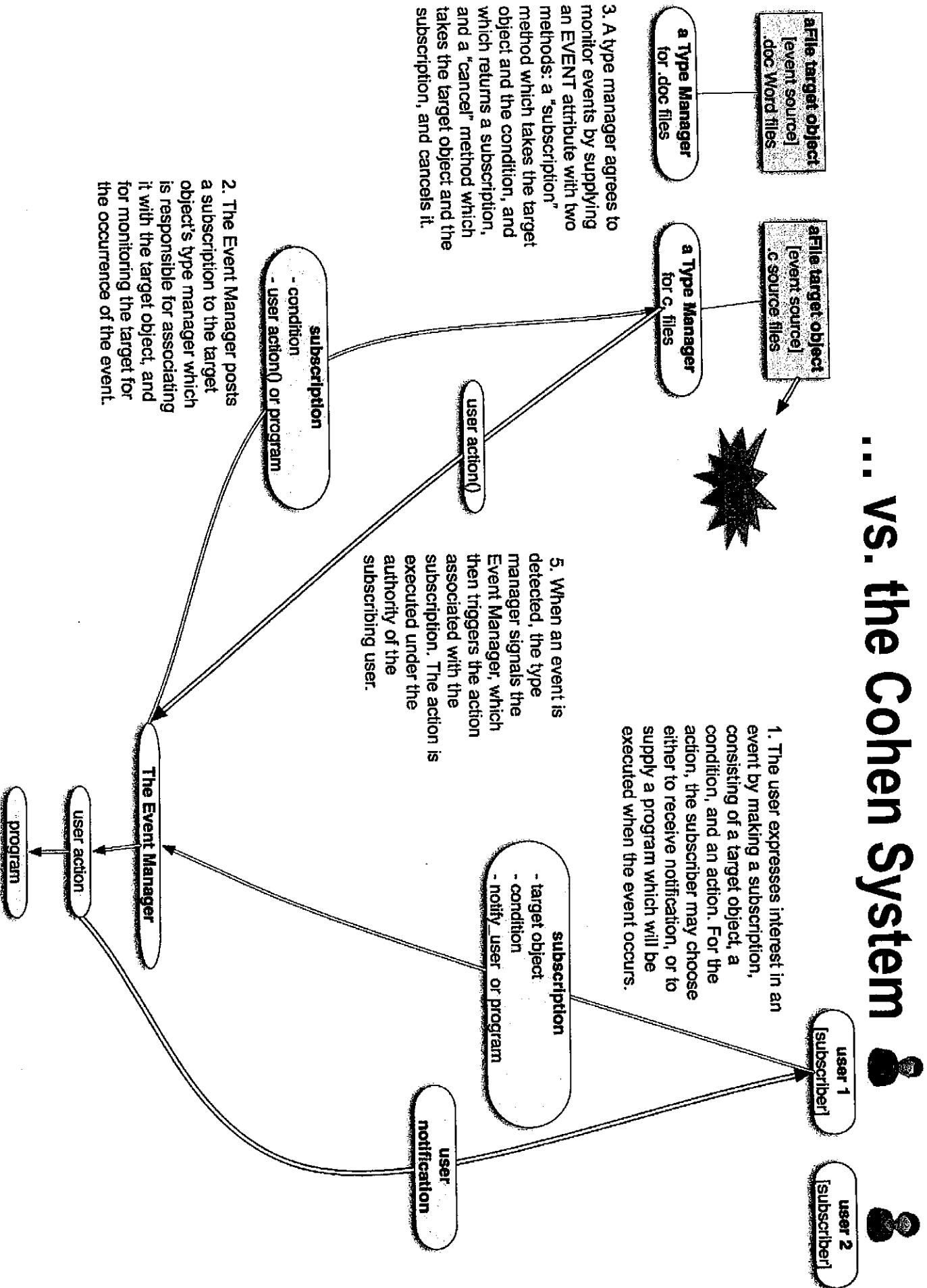
1. The user expresses interest in an event by making a subscription, consisting of a target object, a condition, and an action. For the action, the subscriber may choose either to receive notification, or to supply a program which will be executed when the event occurs.

The Event Manager

user action

program

subscription
- target object
- condition
- notify_user or program

user notification

user 1
[subscriber]

user 2
[subscriber]

... vs. the Cohen System

aFile target object
[event source]
.doc Word files

a Type Manager
for .doc files

3. A type manager agrees to monitor events by supplying an EVENT attribute with two methods: a "subscription" method which takes the target object and the condition, and which returns a subscription, and a "cancel" method which takes the target object and the subscription, and cancels it.

aFile target object
[event source]
.c source files

a Type Manager
for .c files

subscription
- condition
- user action() or program

2. The Event Manager posts a subscription to the target object's type manager which is responsible for associating it with the target object, and for monitoring the target for the occurrence of the event.

user action()

No connection object

5. When an event is detected, the type manager signals the Event Manager, which then triggers the action

Only "objects" are target objects

The user expresses interest in an event by making a subscription, consisting of a target object, a condition, and an action. For the action, the subscriber may choose either to receive notification, or to supply a program which will be executed when the event occurs.

The Event Manag...

user action

program

No objects as notification receivers

subscription
- target object
- condition
- notify_user or program

user notification

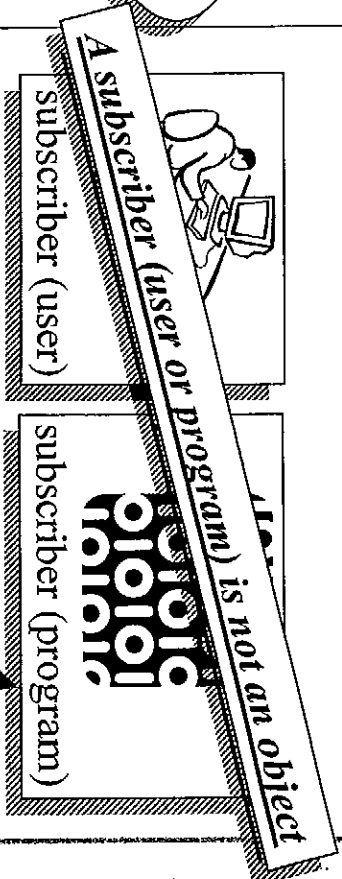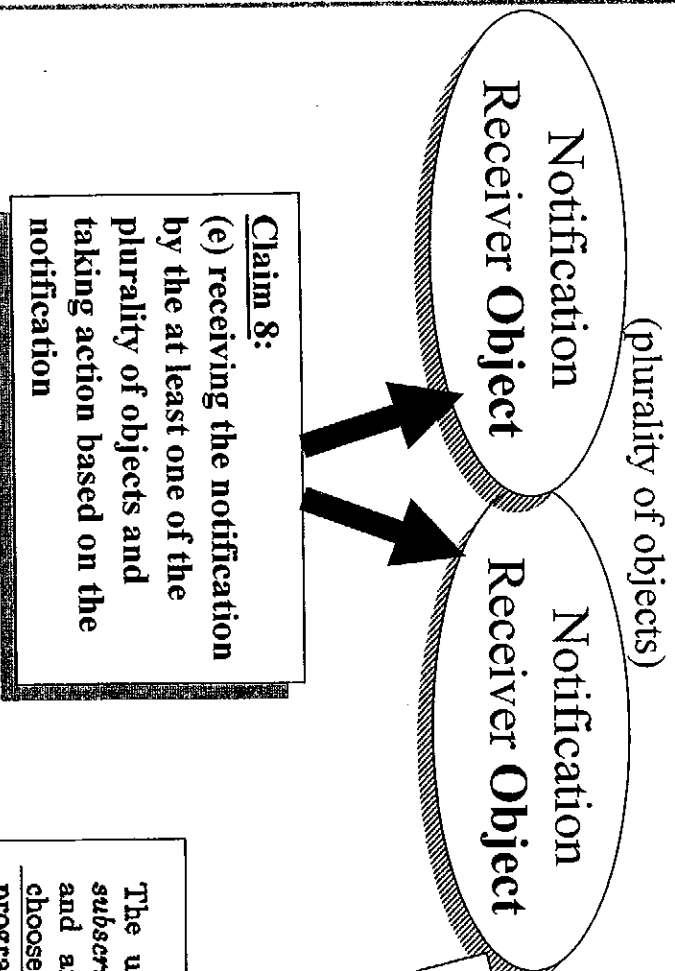user 1
[subscriber]

user 2
[subscriber]

1. Objects as Notification Receivers

- Claim 8 recites, *inter alia*, "connecting a plurality of objects to a notification source" and "receiving the notification by the at least one of the plurality of objects".

- The Office Action acknowledges that in Cohen, "the subscriber may choose either to receive notification, or to supply a program which will be executed when the event occurs". (Office Action, p. 5)

- Neither of these possible notification receivers in Cohen is an **object** as would be understood by one of ordinary skill in the art.

1. Objects as Notification Receivers

'703 Patent Claim 8

(plurality of objects)

Notification
Receiver Object

Notification
Receiver Object

Claim 8:
(e) receiving the notification by the at least one of the plurality of objects and taking action based on the notification

Cohen

subscriber (user)

subscriber (program)

A subscriber (user or program) is not an object

The user expresses interest in an event by making a *subscription,* consisting of a *target object,* a *condition,* and an *action.* For the action, the subscriber may choose either to receive *notification,* or to *supply a program* which will be executed when the event occurs.

1. Objects as Notification Receivers

- Cohen only describes receipt of a notification by a user or a program to be executed. (Cohen, p. 210)

- Therefore, Cohen fails to disclose at least, "receiving the notification by the at least one of the plurality of **objects**".

- Accordingly, the rejection of claims 1 and 8 is in error

2. Connection Object

- Claim 8 recites, *inter alia*, "a connection object of an object-oriented operating system."

- Citing to pp. 210-211 of Cohen, the Office Action apparently analogizes the "Event Manager" of Cohen to the connection object of claim 8. (Office Action, p. 4 (citing to section "9. Event Management")).

2. Connection Object: store and register

- The claimed connection object must be capable of having connection information *stored* and *registered* in it (claim 8, elements (b) and (c)).

- According to Cohen (p. 211):

  – Upon subscription, the Event Manager *passes along* connection information to a "Type Manager"

  – When an event is subsequently detected, the Type Manager signals the Event Manager, which triggers the action associated with the subscription (i.e. notifying a user or executing a program).

- Accordingly, nothing in Cohen indicates that connection information is *stored* or *registered* in the Event Manager

2. Connection Object: is an *object*

- Furthermore, the Event Manager is not even a connection **object** as claimed.

  – The Event Manager is not object-oriented

  – Furthermore, the type managers are not object-oriented

- Accordingly, the rejection of claims 1 and 8 is in error.

Cohen is a one-off product

- Gypsy is a narrowly-tailored solution to a very specific problem

  - requires a new type manager for each data type ("**each type manager determines the sort of events it will monitor and interprets the condition accordingly**") (Cohen, p. 211).
  - requires modification for each problem domain

- In contrast, the notification framework system of the '703 patent was designed to be **reusable without modification** in different problem domains.

Conclusion and Summary of Arguments

Conclusion and Summary

Cohen does not anticipate or render obvious claims 1 and 8 because it does not teach, suggest, or disclose:

1. a **notification receiver object** (e.g. "receiving the notification by the at least one of the **plurality of objects**"); and

2. a "**connection object**".

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Questions and Comments