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INTERNATIONAL SEARCH WHERE INTERNATIONAL APPLICATIONS  
CONTAIN A DISPROPORTIONATE NUMBER OF CLAIMS

*Proposal by the European Patent Office*

The Annex to this document contains proposals by the European Patent Office concerning problems related to international search where international applications claim a disproportionate number of claims, submitted for consideration at the sixth session of the Meeting of International Authorities under the PCT.

[Annex follows]

EUROPEAN PATENT OFFICE

8 February 1997

**DISPROPORTIONATE NUMBER OF CLAIMS SUBMITTED TO  
INTERNATIONAL SEARCH (MACRO-CLAIMS)**

**I. Problem**

1. A certain proportion of International applications received by the EPO as an ISA include a number of claims higher than 50, 100 or even more (see Annex 1 which is an excerpt of PCT/US96/02303 comprising 526 claims of which 525 are independent claims).

Also with a less drastic high number of claims, numerous independent claims in one and the same category makes the search effort disproportionately high.

A similar situation occurs with claims of which at least certain contain an extremely high number of alternatives (see Annex 2 which relates to PCT/JP 94/01916, the first claim of which contains more than 7.800 alternatives).

2. It is evident that these applications violate the requirement of conciseness of claims under Art. 6 and Rule 6 PCT and that a meaningful search cannot be carried out in a reasonable time space.
3. The examiner could in such cases apply Art. 17.2.(a)(ii) PCT and issue a declaration to the effect that a meaningful search cannot be carried out. This would be to the disadvantage of the applicant who would not even get any search report for at least a minimum number of claims, as it is the case where unity of invention is lacking.
4. Although it might be that after a lengthy study a lack of unity of invention could be raised, such a study and establishment of a reasoned statement under Rule 40.1 PCT would be prohibitive in time of the search examiner.

The annex is complemented by an invitation to pay additional fees because of lack of unity of invention that give a feeling of the work involved.

**II. Possible option to face the problem**

5. An option to limit the scope of the international search to a reasonable cost would be to provide for a claim fee that the ISA might impose on the applicant, as this is provided in a number of national and regional laws.

**6. Two scenarios may be envisaged:**

- a) **Payment of a claim fee for each claim above a certain ceiling (eg. above 10 claims);**
- b) **Payment of a claim fee for each independent claim in a specific category (method, product) above a certain ceiling.**

**7. If scenario a) would be chosen, the claim fees could be levied by the competent receiving Office and transferred to the ISA together with the search fee.**

**In case of scenario b), the task of inviting the applicant to pay claim fees, where necessary, would be incumbent upon the ISA. In that case the procedure could be quite similar to that of inviting the applicant to pay additional fees in case of lack of unity of invention (of course without any possibility of protest).**

**III. Exchange of views**

- 8. The EPO proposes that an exchange of views on the above subject matter takes place at the forthcoming MIA/VI.**
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**WE CLAIM:**

1. A method for secure content delivery including:
  - a) encapsulating digital information within one or more digital containers;
  - b) encrypting at least one portion of said digital information;
  - c) associating at least partially secure control information for managing interaction with said encrypted digital information and/or the digital container;
  - d) delivering one or more of said one or more digital containers to a digital information user;
  - e) employing a protected processing environment for securely controlling decryption of at least a portion of said digital information.
2. A system for secure content delivery including:
  - encrypting means for encrypting at least one portion of digital information;
  - container processing means for encapsulating digital information within one or more digital containers and for associating at least partially secure control information for managing interaction with said encrypted digital information;
3. A method for secure digital information delivery characterized by the steps of: (a) encrypting at least a portion of said digital information through the use of a first at least one VDE node, (b) creating and encrypting, through the use of said first at least one VDE node, control information to control use of at least a portion of said digital information by plural users, (c) securely providing said control information to said plural users, and (d) employing at least one VDE node different from said first at least one VDE node to process at least portions of said control information and to control use of said encrypted digital information by said users.
4. A system for secure digital information delivery characterized by:
  - a first at least one VDE node for encrypting at least a portion of said digital information,
  - means for creating and encrypting, through the use of said first at least one VDE node, control information to control use of at least a portion of said digital information by plural users,

delivery means for delivering one or more of said one or more digital containers to a digital information user; and

at least one protected processing environment for securely controlling decryption of at least a portion of said digital information.

3. A method for secure digital information delivery characterized by the steps of: (a) encrypting at least a portion of said digital information through the use of a first at least one VDE node, (b) creating and encrypting, through the use of said first at least one VDE node, control information to control use of at least a portion of said digital information by plural users, (c) securely providing said control information to said plural users, and (d) employing at least one VDE node different from said first at least one VDE node to process at least portions of said control information and to control use of said encrypted digital information by said users.

4. A system for secure digital information delivery characterized by:

a first at least one VDE node for encrypting at least a portion of said digital information,  
means for creating and encrypting, through the use of said first at least one VDE node, control information to control use of at least a portion of said digital information by plural users,

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means for securely providing said control information to said plural users, and at least one VDE node different from said first at least one VDE node for processing at least portions of said control information and to control use of said encrypted digital information by said users.

5. A method for secure content delivery wherein at least partially encrypted content is encapsulated within at least one digital container and the digital container is delivered to a digital information user, the method characterized by the steps of: associating, with the encapsulated content and/or the digital container, at least partially secure control information for managing interaction with the container and/or the content; and employing a protected processing environment for securely controlling decryption of at least a portion of the encrypted content based at least in part on the control information.

6. A system for secure content delivery wherein at least partially encrypted content is encapsulated within at least one digital container and the digital container is delivered to a digital information user, the system characterized by: a data structure that associates, with the encapsulated content and/or the digital container, at least partially secure

control information for managing interaction with the information; and a protected processing environment for securely controlling decryption of at least a portion of the encrypted content based at least in part on the control information.

7. A method for secure digital information delivery characterized by the steps of: (a) encrypting at least a portion of said digital information, (b) associating protected control information to at least a portion of said digital information, and (c) providing at least a portion of said encrypted digital information to a first user and at least in part controlling use of at least a portion of said encrypted digital information through the use of at least a portion of said protected control information, wherein said first user further provides at least one of (a) a copy of said at least a portion of said encrypted digital information, or (b) said encrypted digital information, to a second user, and wherein said second user associates further control information with said encrypted digital information for use in controlling use of said encrypted digital information by a third user.

8. A system for secure digital information delivery characterized by: means for encrypting at least a portion of said digital information,

means for associating protected control information to at least a portion of said digital information,

means for providing at least a portion of said encrypted digital information to a first user

means for at least in part controlling use of at least a portion of said encrypted digital information through the use of at least a portion of said protected control information,

means for allowing the first user to provide at least one of

(a) a copy of said at least a portion of said encrypted digital information, or (b) said encrypted digital information, to a second user, and

means for allowing said second user to associate further control information with said encrypted digital information for use in controlling use of said encrypted digital information by a third user.

9. A method for secure digital transaction management including:

- a) encrypting digital information at a first location;
- b) enabling a first party to securely associate at least one control with said information for use in ensuring at least one consequence of use of said information;

- c) enabling one or more additional parties to securely associate at least one further control with said

information for use in ensuring at least one consequence of use of said information,

- d) distributing at least a portion of said information to a party other than the first and additional parties at a location different from the locations of the first and additional locations; and

- f) decrypting at least a portion of said information at said third location, and ensuring said consequences of use of said information.

10. A system for secure digital transaction management including interconnected structures for performing the following functions:

- a) encrypting digital information;
- b) enabling a first party to securely associate at least one control with said information for use in ensuring at least one consequence of use of said information;

- c) enabling one or more additional parties to securely associate at least one further control with said information for use in ensuring at least one additional consequence of use of said information;
- d) distributing at least a portion of said information to a further party; and

- e) decrypting at least a portion of said information; and
- f) securely ensuring said consequences.

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11. A system for secure digital transaction management wherein digital information is encrypted by a first party at a first location and distributed, characterized by:
- a first protected processing environment for enabling the first party to securely associate at least a first control with said information,
  - a further protected processing environment for enabling the further party to securely associate at least a further control with said information, and
  - a still further protected processing environment for decrypting at least a portion of said information while controlling at least one consequence of use of the information based at least in part on the first and further controls.
12. A method for secure digital transaction management wherein digital information is encrypted by a first party at a first location and distributed, characterized by the following steps:
- enabling the first party to securely associate at least a first control with said information,
  - enabling a further party to securely associate at least a further control with said information, and
  - transmitting the first and further controls; and
  - decrypting at least a portion of said information while controlling at least one consequence at least in part on the transmitted controls.
13. A method for securely automating distributed electronic processes including:
- a) providing secure, interoperable, general purpose rights management processing means to multiple parties;
  - b) establishing secure process management controls for automatically, at least partially remotely, and securely supporting requirements related to electronic events;
  - c) securely distributing process management controls to party sites;
  - d) securely maintaining at least a portion of said process management controls under the control of party processing means at said party sites;
  - e) automatically managing electronic processes at said party sites to enforce interests related to said electronic content.
14. A system for securely automating distributed electronic processes including:
- interoperable rights management processing means disposed at multiple parties' sites;
  - control establishing means for establishing secure process management controls; for remotely, automatically, and securely supporting requirements related to electronic events; and for

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securely distributing process management controls to party sites;  
security means for securely maintaining at least a portion of said process management controls under the control of processing means at said party sites; and  
managing means for automatically managing electronic processes at plural party sites to enforce interests related to said electronic events.

15. A method for automating distributed electronic processes using interoperable processors at multiple sites, characterized by the following steps:  
securely distributing, to the processors, process management controls for automatically, and securely supporting requirements related to electronic events;  
securely maintaining at least a portion of said process management controls under the control of the processors; and  
automatically managing, in a distributed manner with the processors, electronic processes at the multiple sites to enforce interests related to electronic events.

16. A system for automating distributed electronic processes using interoperable processors at multiple sites, characterized by the following:

distributing means connected to the processors for securely distributing, to the processors, process management controls for remotely, automatically, and securely supporting requirements related to electronic events;  
process control means for securely maintaining at least a portion of said process management controls under the control of the processors; and  
management means for automatically managing, in a distributed manner with the processors, electronic processes at the multiple sites to enforce the interests related to the electronic events.

17. A method of securely enforcing a rights seniority system characterized by the steps of:  
allowing a first user to create at least one control over electronic content; and  
allowing a second user to contribute at least one further control over electronic content and/or alter the control in place, the second control being subject to the first control.

18. A system for securely enforcing a rights seniority system characterized by:  
a first secure environment for allowing a first user to contribute at least one control over electronic content; and



least in part securely storing, within the secure databases, at least a portion of such control instructions for use by said at least one secure processing unit.

233. A content distribution system comprising plural electronic appliances containing one or more interoperable secure processing units operatively connected to one or more databases for use with at least one of said secure processing units, said one or more databases containing (a) one or more decryption keys for use in decrypting distributed, encrypted digital information, and (b) encrypted audit information, said audit information reflecting at least one aspect of use of said distributed digital information.

234. A content distribution method comprising:  
 distributing plural electronic appliances containing one or more interoperable secure processing units  
 operatively connecting the appliances to one or more databases,  
 storing within said one or more databases one or more decryption keys,  
 using the decryption keys for decrypting distributed, encrypted digital information, and  
 storing within the one or more databases encrypted audit information, said audit information reflecting at least one aspect of use of said distributed digital information.

235. An electronic currency system comprising plural, electronic appliances containing (a) protected processing environments, (b) encrypted electronic currency and related secure control information configured so as to be useable by at least one of said protected processing environments, and (c) usage reporting means for securely communicating electronic currency usage related information from a first interoperable protected processing environment to a second interoperable protected processing environment.

236. An electronic currency method comprising:  
 distributing plural, electronic appliances containing (a) protected processing environments, (b) encrypted electronic currency and related secure control information configured so as to be useable by at least one of said protected processing environments, and  
 securely communicating electronic currency usage related information from a first interoperable protected processing environment to a second interoperable protected processing environment.

237. A method for electronic financial activities characterized by the steps of:

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communicating digital containers containing financial information from a first interoperable secure node to a second interoperable secure node, communicating modular, standard control information to said second secure node to, at least in part, set the conditions for use of at least a portion of said financial information, reporting information related to said use to said first interoperable secure node.

238. A system for electronic financial activities

characterized by:

means for communicating digital containers containing financial information from a first interoperable secure node to a second interoperable secure node, means for communicating modular, standard control information to said second secure node, means at the second node for, at least in part, setting the conditions for use of at least a portion of said financial information, and means for reporting information related to said use from the second secure node to said first interoperable secure node.

239. A method for electronic currency management including:

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communicating encrypted electronic currency from a first, interoperable secure user node to a second interoperable user node using at least one secure container, and providing secure control information for use with said at least one secure container, said secure control information, at least in part, maintaining conditionally anonymous currency usage information.

240. A system for electronic currency management

including:

means for communicating encrypted electronic currency from a first, interoperable secure user node to a second interoperable user node using at least one secure container, and means for providing secure control information for use with said at least one secure container, said secure control information, at least in part, maintaining conditionally anonymous currency usage information.

241. A method for electronic financial activities

management characterized by the steps of:

securely communicating from a first secure node to a second secure node financial information standardized control information for controlling the use of financial information used in a financial value chain,

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securely communicating from said first secure node to a third secure node said financial information standardized control information for controlling the use of financial information used in a financial value chain,

securely communicating encrypted financial information from said second secure node to said third secure node, including communicating secure control information,

processing said financial information at said third node at least in part through the use of secure control information supplied by said first and said second secure nodes, wherein said standardized control information is at least in part stored in a secure database contained within said third secure node.

242. A system for electronic financial activities

management characterized by the steps of:

means coupled to a first and a second secure node for securely communicating from said first secure node to said second secure node financial information standardized control information for controlling the use of financial information used in a financial value chain,

means coupled between the first secure node and a third secure node for securely communicating from said first secure node to said third secure node said financial information standardized control information for controlling the use of financial information used in a financial value chain,

means coupled between the second and third nodes for securely communicating encrypted financial information from said second secure node to said third secure node, including communicating secure control information, and

means at the third node for processing said financial information at said third node at least in part through the use of secure control information supplied by said first and said second secure nodes, and

a secure database at the third node for at least in part storing said standardized control information.

243. A method of information management characterized

by the steps of creating at least one smart object at a first location, protecting at least a portion of said smart object including protecting at least one rule and/or control assigned to said smart object, distributing said at least one smart object to at least one second location, securely processing at least a portion of the contents of said at least one smart object at said at least one second location in accordance with at least a portion of at least one said rule and/or control assigned to said smart object.

244. An information management system characterized

by:

means for creating at least one smart object at a first location,

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517. An electronic appliance containing one or more video controllers where at least one of the video controllers is integrated with at least one SPU.

518. An electronic appliance containing one or more network communications means where at least one of the network communications means is integrated with at least one SPU.

519. An electronic appliance containing one or more modems where at least one of the modems is integrated with at least one SPU.

520. An electronic appliance containing one or more CD-ROM devices where at least one of the CD-ROM devices is integrated with at least one SPU.

521. An electronic appliance containing one or more set-top controllers where at least one of the set-top controllers is integrated with at least one SPU.

522. An electronic appliance containing one or more game systems where at least one of the game systems is integrated with at least one SPU.

(b) supplying general purpose credit control information for providing credit for user usage of at least in part protected digital information; and

(c) providing, at least in part, protected digital information related control information for providing necessary information for employing credit through the use, at least in part, of said general purpose credit control information.

513. A document management system comprising one or more electronic appliances containing one or more SPUs and one or more secure databases operatively connected to at least one of the SPUs.

514. An electronic contract system comprising one or more electronic appliances containing one or more SPUs and one or more secure databases operatively connected to at least one of the SPUs.

515. An electronic appliance containing at least one SPU and at least one secure database operatively connected to at least one of the SPU(s).

516. An electronic appliance containing one or more CPUs where at least one of the CPUs is integrated with at least one SPU.