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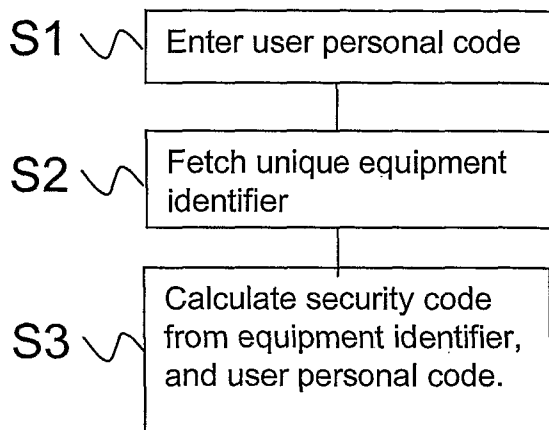
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SECURITY CODE PRODUCTION METHOD AND METHODS OF USING THE SAME, AND PROGRAMMABLE DEVICE THEREFOR



(57) Abstract: A method of producing a security code by means of a programmable user device is described. The security code produced represents in itself both the user and the user device. In one embodiment, a service provider code representing a service provider by whom the user is registered with his/her user name forms an addition to the basis, on which the security code is calculated. The security code is useful for several security applications, such as for user authentication, and for local storage of information, as well as for signing and encryption/decryption of information to be exchanged between the user and a service provider, or vice versa.

WO 2006/075917 A3

INTERNATIONAL SEARCH REPORT

International application No

PCT/NO2006/000012

A. CLASSIFICATION OF SUBJECT MATTER
INV. G06F21/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 5 657 388 A (WEISS ET AL) 12 August 1997 (1997-08-12) abstract; figures 1,2 column 1, line 13 - line 17 column 4, line 5 - line 12 column 4, line 27 - column 5, line 20 column 5, line 38 - line 59 -----	1,2,6,7, 18-20 12,13
A A	US 4 819 267 A (CARGILE ET AL) 4 April 1989 (1989-04-04) abstract; figures 8-13 column 2, line 18 - column 4, line 50 ----- -/--	1,2,6,7, 18-20 12,13

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

A document defining the general state of the art which is not considered to be of particular relevance

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O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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* & * document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>US 5 491 752 A (KAUFMAN ET AL) 13 February 1996 (1996-02-13)</p> <p>abstract; figures 5-7 column 5, line 45 - column 7, line 60 column 8, line 65 - column 12, line 65</p>	1,2,6,7, 12,13, 18-20
X	<p>US 5 485 519 A (WEISS ET AL) 16 January 1996 (1996-01-16)</p> <p>abstract; figures 1-4,7,8 column 1, line 1 - column 5, line 48 column 6, line 61 - column 8, line 41</p>	1,2,6,7, 12,13, 18-20
X	<p>WO 01/31840 A (NOKIA MOBILE PHONES LTD; ALLAHWERDI, NOURI; HIPPELAEINEN, LASSI) 3 May 2001 (2001-05-03) cited in the application abstract; figures 1-3 page 3, line 25 - page 5, line 18</p>	1,2,6,7, 12,13, 18-20
A	<p>EP 1 199 624 A (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD) 24 April 2002 (2002-04-24) abstract paragraph [0011]</p>	1,2,6,7, 12,13, 18-20

INTERNATIONAL SEARCH REPORT

International application No.
PCT/NO2006/000012

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☒ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
1, 2, 6, 7, 12, 13, 18-20
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☒ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-2, 6, 7, 18-20

user authentication by a programmable user device which calculates security code from equipment identifier of the programmable user device and a password provided by user; calculation of the security code from an equipment identifier, a user password and (further) a service provider code

2. claims: 3, 5

user authentication by a programmable user device which calculates security code from equipment identifier of the programmable user device and a password provided by user; configuration of the service provider code

3. claim: 4

user authentication by a programmable user device which calculates security code from equipment identifier of the programmable user device and a password provided by user; user authentication by biometrics

4. claims: 8-11

user authentication by a programmable user device which calculates security code from equipment identifier of the programmable user device and a password provided by user; service provider challenging the user device (Fig. 7)

5. claims: 12-13

user authentication by a programmable user device which calculates security code from equipment identifier of the programmable user device and a password provided by user; securely storing information on the programmable user device

6. claims: 14, 15

user authentication by a programmable user device which calculates security code from equipment identifier of the programmable user device and a password provided by user; signing of information elements by the user

7. claim: 16

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

user authentication by a programmable user device which calculates security code from equipment identifier of the programmable user device and a password provided by user; transmission of an information element from the user device to the service provider which has been encrypted with the security code

8. claim: 17

user authentication by a programmable user device which calculates security code from equipment identifier of the programmable user device and a password provided by user; distribution of encrypted information from the service provider to the user device which is decrypted with the security code (Fig. 6)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/N02006/000012

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5657388	A	12-08-1997	NONE	
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