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11 December 2009

David J. Kappos
Under Secretary of Commerce for Intellectual Property and
Director of the United States Patent and Trademark Office

Dear Mr Kappos

Re: Comments on Work Sharing for Patent Applications

This proposal is responsive to FR Doc. E9-25262 Filed 10-20-09.
The proposal is filed as text (below) and as a PDF document, attached.

Summary

What: New innovative approach and technology facilitates Work Sharing not only between patent offices, but also between examiners at the same patent office. Results of one examiner's understanding of an invention are made available to other examiners in a easily comprehensible manner.
New patents search: Search for inventions rather than keywords.

Why: Several examiners may analyze the same prior art patent, each for himself, thus duplicating efforts. An examiner may forget his analysis of a patent made a year ago. It is difficult to remember the understanding of a complex patent, even for a short period, more so to compare several complex patents.

How: New method presents Inventions in a clear, concise and precise way, easily comprehensible. Useful for an examiner to refresh his memory fast, or to share it with other examiners; also readable by computer, so the computer can process Inventions rather than words and drawings.

Who: Marc Zuta and Idan Zuta are both patent attorneys, electronics engineers and inventors with 8 US patents granted to; Israelis; father and son.
Marc is expert consultant to the Nazareth District Court.

When: Parts of the method are now used at our Patent Attorney Office in Israel. When we learn what is required at USPTO, we can propose a detailed plan for

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the implementation of the new method at USPTO. Alternately, USPTO and our office can work together to define, develop and implement the method at USPTO.

Whose: This new technology and IP belong to the present proponents.

Detailed description

What: New innovative approach and technology facilitates Work Sharing not only between patent offices, but also between examiners at the same patent office.

Examiners dedicate much time and effort to understanding inventions.
By "invention" we refer here to a patentable entity, such as a patent claim, a mechanism or procedure described in the text or drawing of a patent, etc.

The "understanding" includes all the aspects relating to the patentability of the invention, such as:
* the meaning of the terms used. Applicant may be own lexicographer, etc.
* what applicant has invented?
* technical implementation, utility. Does it work?
* legal aspects: is the description clear? What would say a person skilled in the art? Define that person. Is it obvious? Is it patentable subject matter?

The present invention allows examiners to put their **Invention Understanding** in a tangible form, a concise description easily comprehensible by other examiners, or by the same examiner at a later time.
This allows Work Sharing between examiners - sharing of analyzed inventions.

Results of one examiner's understanding of an invention are made available to other examiners in a easily comprehensible manner.
Just like E=mc2 is understood by professionals the world over, like all physics equations; like any research of a physicist can be replicated exactly, anywhere, by another physicist, based on a published research report:
so Invention Equations InvEq will be; Patentics is the beginning of an attempt to make patenting into a science, to use a scientific approach rather than storytelling to communicate and process inventions.

An examiner's Invention Understanding can be written down, in such a way as to present it clearly and concisely - according to our new Patentics(SM) method; this presentation of the invention can be then easily understood at a later time by the same examiner (to refresh his memory) or by other examiners.

New patents search: Search for inventions rather than keywords.
The Invention Understanding is in such a format InvEq, as can also be read and processed in a computer; then the computer can process inventions descriptions rather than meaningless words and pixels of drawings.
An invention description can be compared with other inventions, very fast.

Why: At present, several examiners may analyze the same prior art patent, each for himself, thus duplicating efforts.
After spending the time and effort to understand an invention, the Invention Understanding stays in examiner's mind for some time, then it is forgotten - I myself would forget it soon.
Why? Because a patent may include many "inventions" - many claims, many embodiments of the invention there and prior art; each patent may use different language and terms; the examiner has to deal with many patents each month - both applications under examination and prior art cited against them.
How long lasting is the short term memory?
An examiner may forget his analysis of a patent made a year ago, for example.

There are landmark, important patents which appear as cited prior art in many patents. Each examiner, when encountering such a patent, has to analyze it anew to reach an understanding of it. An examiner who has already analyzed that patent some time ago, may have forgotten it, so he also will spend time again.

It is difficult to remember the understanding of a complex patent, even for a short period, more so to compare several complex patents.
At present, inventions tend to be more complex - in computers, software, microelectronics, biotechnology, Internet, communications, etc.
For a complex invention, one may expect that the cited prior art would also be complex; thus increasing manifold the difficulty in examination.

How: New method presents Inventions in a clear, concise and precise way, easily comprehensible. Useful for an examiner to refresh his memory fast, or to share it with other examiners; also readable by computer, so the computer can process Inventions rather than words and drawings. This to help examiners in the substantive examination, not just in writing text and drafting drawings.

Example 1 - New description of a patent claim (Before vs. After)

The three claims A, B, C below present the same invention in different forms.

<u>A. Presently used claims structure - adapted from an issued US patent</u>

1. A smart card comprising:

(A) Input means for receiving an interrogational signal or a data signal using a noncontact communication medium in digital, bit-serial form, wherein said input means converts received signals to electrical digital input signals;

(B) Output means for transmitting an identification code or a data message using a noncontact communication medium in digital, bit-serial form, wherein said output means accepts electrical digital output signals at its input and converts said output signals to said identification code and data message;

(C) Control and logic means connected to said input and output means and comprising:

(1) Means for accepting said electrical digital input signals from said input

means;

(2) Means for recognizing said interrogational signal according to a predefined algorithm, for responding by generating said electrical digital output signals containing said identification code and for transferring said electrical digital output signals to said output means;

(3) Writable memory means for storing digital data;

(4) Control means for implementing an automatic data transfer process according to a predefined algorithm, wherein said control means includes means for reading data stored in said writable memory, for generating therefrom said electrical digital output signals containing said data message and for transferring said output signals to said output means, means for extracting data signals from said electrical digital input signals and means for writing said data signals into said writable memory means; and

(D) Wristwatch casing means for containing, protecting and concealing said input means, said output means and said control and logic means therein;

further including timing circuits for
generating electrical signals indicative of time and date, wherein said timing circuits are connected to said control and logic means to transfer said electrical signals thereto, and wherein said control and logic means further includes means for limiting the identification function to a predefined period or expiration date;

wherein said input means include
photodetector means for converting optical signals to said electrical digital input signals, and said output means include liquid crystal device means for generating modulated light in accordance to said electrical digital output signals.
****

B. The claim structure as it is usually drafted in patents

They usually don't indicate relationships with indexing, indentation, spaces.

1. A smart card comprising:
Input means for receiving an interrogational signal or a data signal using a noncontact communication medium in digital, bit-serial form, wherein said input means converts received signals to electrical digital input signals;
Output means for transmitting an identification code or a data message using a noncontact communication medium in digital, bit-serial form, wherein said output means accepts electrical digital output signals at its input and converts said output signals to said identification code and data message;
Control and logic means connected to said input and output means and comprising:
Means for accepting said electrical digital input signals from said input means;
Means for recognizing said interrogational signal according to a predefined

algorithm, for responding by generating said electrical digital output signals containing said identification code and for transferring said electrical digital output signals to said output means;
Writable memory means for storing digital data;
Control means for implementing an automatic data transfer process according to a predefined algorithm, wherein said control means includes means for reading data stored in said writable memory, for generating therefrom said electrical digital output signals containing said data message and for transferring said output signals to said output means, means for extracting data signals from said electrical digital input signals and means for writing said data signals into said writable memory means; and
Wristwatch casing means for containing, protecting and concealing said input means, said output means and said control and logic means therein;
further including timing circuits for
generating electrical signals indicative of time and date, wherein said timing circuits are connected to said control and logic means to transfer said electrical signals thereto, and wherein said control and logic means further includes means for limiting the identification function to a predefined period or expiration date;
wherein said input means include
photodetector means for converting optical signals to said electrical digital input signals, and said output means include liquid crystal device means for generating modulated light in accordance to said electrical digital output signals.
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C. New claim structure in Patentics

1. A smart card comprising:
a. Input means for /component 1/5
receiving an interrogational signal or a data signal /function 1
converts received signals to electrical digital input signals/function 2
noncontact communication medium in digital, bit-serial form /component
Photodetector means for converting optical signals to said /component
electrical digital input signals

b. Output means for /component 2/5
transmitting an identification code or a data message /function 1
accepts electrical digital output signals at its input and /function 2
converts said output signals to said identification code and data message
noncontact communication medium in digital, bit-serial form /component
liquid crystal device means for generating modulated light /component
in accordance to said electrical digital output signals.

c. Control and logic means /component 3/5
connected to said input and output means /connectivity

Means for /component 31
accepting said electrical digital input signals /function
from said input means

Means for /component 32
recognizing said interrogational signal according to a /function 1
predefined algorithm
responding by generating said electrical digital output /function 2
signals containing said identification code
transferring said electrical digital output signals to /function 3
said output means

Writable memory means for storing digital data /component 33

Control means /component 34
implementing an automatic data transfer process according /function
to a predefined algorithm
means for /component
reading data stored in said writable memory /function 1
generating therefrom said electrical digital output /function 2
signals containing said data message
transferring said output signals to said output means /function 3
means for /component
extracting data signals from said electrical digital input signals /fun
means for /component
writing said data signals into said writable memory means /function

Means for /component 35
limiting the identification function to a predefined period /function
or expiration date

d. Timing circuits /component 4/5
generating electrical signals indicative of time and date /function
connected to said control and logic means /connectivity
to transfer said electrical signals thereto /function

e. Wristwatch casing means for /component 5/5
containing, protecting and concealing said input means, said /function
output means, said control and logic means and said timing circuits therein.
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Comments:

a. Presently, claims are verbose and unclear, terms are repeated many times, such as "said output means" ;
sometimes the meaning is ambiguous despite all efforts at drafting.

b. Different inventors or patent attorneys use various literary styles, so claims are written differently in each patent.

c. Applicant is own lexicographer or they simply don't know the standard terminology in that field; thus patents for similar inventions may use completely different terms.

d. Many applications are translated from another language; there are

ambiguities because of peculiarities in each language, sometimes foreign applicants simply don't have the feeling for the English language.
Thus, translations can be unclear.

e. Examiners waste extra time and effort to overcome the above hindrances, in order to understand inventions and compare them.

f. Inventions cannot be processed by computer, because of (a) - (d) above. Computers only process text, words, pixels. But the understanding, comparison of inventions is completely manual - hard, tedious work.

i. The new claim structure (actually it is an invention description) uses each term just once.

j. The variuos parts of the description are each in a fixed location, so the examiner will seek it only there; the parts are in a predefined order, useful at examination: first the function, then structure (components) then connectivity, etc.

Example 2 - Description of invention in a drawing

Patentics can describe inventions contained in either text or drawings, machines or processes, new inventions or prior art, etc.

In a block diagram or flow chart, for example, both the text and the topology are important in describing the invention there; accordingly, a bi-dimensional description is used. It allows an effective comparison of drawings by computer, where text in each drawing is compared with text in a similar location in another drawing - just comparing text is meaningless, we propose to compare structured text, also taking into account the location of each text portion.

We believe that understanding inventions can only be done by humans, experts; that is, patent examiners. An automatic method may make gross errors; the error rate may be low, but the applicants involved will be unfairly treated.

In our new method, humans process applications, and write their understanding, conclusions and results in our new format; these can then be processed by computer and compared with a multitude of others.
These results can be shared with other examiners and patent offices.
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Example 3 - Using well defined terms

In physics and any science, the foundation is a standard definition of terms - the equation E= mc2 is meaningless until Energy, mass, velocity are precisely defined.

We believe that in patents, as well, precise standard terms should be used.
In a patent disclosure or an invention description, the significant terms should be well defined.
This can't be done later, because it may add new matter.

The applicant should be required, as part of his duty of candor and to properly disclose the invention, to define the terms used there, based on some accepted standard.

In analyzing the results of a patent search or when comparing patents, the first step should be to "Level the field" by bringing all the possibly relevant patents to use common terms.
This is an important aspect of Patentics, which can be used with the above Examples 1 and 2.

For more details: See US Patent Application No. 20090063427
Zuta Marc et al., March 5, 2009
Communications System and Method.

We shall be glad to provide more details.

Who: Marc Zuta and Idan Zuta are both patent attorneys, electronics engineers and inventors with 8 US patents granted to; Israelis; father and son.

Marc is expert consultant to the Nazareth District Court.
Marc is examiner of patent attorneys at the Israel Patent and Trademark Office, an appointment of the Minister of Justice, Prof. Daniel Friedmann.

Of counsel: Hon. Michael Ophir, former Commissioner of the Israel Patents, Trademarks and Designs Office.

Letter of recommendation from Hon. Michael Ophir - available on request.

We have experience in industry as electronics engineers, also as developers of software for PC and the Internet.
Marc was the manager of a high tech small business.

When: Parts of the method are now used at our Patent Attorney Office in Israel. When we learn what is required at USPTO, we can present a detailed plan for the implementation of the new method at USPTO. Alternately, USPTO and our office can work together to define, develop and implement the method at USPTO.

Patentics can be used on a small scale, just between two examiners or by one examiner to be reminded of an analysis done before; or by the whole USPTO.
It can be used with a computer, or just a manual aid during examination.

Respectfully submitted,

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