Recent Developments in *Information Technology (IT)* and the Effective Use of Global IP Protection Systems
- From PCT perspective-

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Director, PCT International Cooperation Division
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Overview of IT in PCT

- Applicant
- ISA
- RO
- IB
- EDI
- E-dossier
- PCT-ROAD
- PCT-SAFE
- IPEA
- DO/EO
- PATENTSCOPE®
PCT-SAFE (1)

Secure Applications Filed Electronically

Types of filing

- Paper: all documents on paper accompanied by Form PCT/RO/101

- PCT-SAFE (PCT-EASY): all documents on paper accompanied by PCT-EASY request Form and diskette/physical medium

- PCT-SAFE fully electronic: request, text and drawings filed on-line or on physical media, no paper required
PCT-SAFE (2)

- PCT-SAFE fully electronic filings;
  - Currently accepted by 20 ROs
  - Possible with RO/IB since February 2004 for all PCT applicants

- PCT-EASY type filings accepted by more than 70 ROs

- PCT-EASY type and fully electronic filings accounted for approximately 78% of all PCT filings in 2009
  - At RO/IB(2009)
    PCT-EASY type filings 6.7%, fully electronic filings 63.6%, paper only filings 29.7%

ℹ️ http://www.wipo.int/pct-safe/en/
PCT Filing by type (2009)

160,000 Filings, 100,000 + Filings with XML from applicants
PCT-ROAD (1)

Receiving Office Administration

Applicant → RO → IB

PCT-SAFE

Paper

EDI

PATENTSCOPE®

- E-dossier
- Receive Record Copy

PCT-ROAD

Data Entry
Request & Application

Examination
Formality

Fee Calculation

Record copy

invitation

correction
PCT-ROAD (2)

- Basic functions

- Data Entry
  - Physical media (CD-ROM, FD)
  - Paper (manual entry)

- Examination
  - Ex-officio correction, formality check

- Fee calculation

- Creation of record copy to IB

PCT-EDI (1)

Electronic Data Interchange

- Internet based secure transmission by which Offices can send and receive documents to/from IB

- Initially (~2007) the service made available was upload to IB of certain documents

- Extended to upload and download of all PCT documents

- Still a large number of documents are sent on paper
  - Implication to PCT framework (PCT/WG/3/2 para90-93)

http://www.wipo.int/patentscope/en/pct-edi/
# PCT-EDI (2)

<table>
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<th>To IB</th>
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<td>Search copy</td>
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<td>EDI Request-XML</td>
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<td></td>
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<td>EDI (XML)</td>
<td>EDI (TIFF→XML)</td>
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Digitization (1)

- Advantages
  - Preservation of original documents
  - Provide formats for electronic data exchange
  - Enable cost effective processing
  - Enhance value added quality service
Digitization (2)

- Step by step depending on Office status

XML from ISA/IPEA for all PCT documents → goal (C.PCT 1160)
Digitization (3)

XML  eXtensible Markup Language

Text → XML (Structured text)

Computer recognizes the text logically according to its tagged attributes, e.g., “claim” “abstract.”

Facilitate administration, retrieval, translation

High quality service!
PATENTSCOPE® (1)

- WIPO’s patent information portal site

- Published international applications are available through this portal site (www.wipo.int/pctdb)

- PATENTSCOPE® is not just a site of international publication. It provides powerful search engine and analytical resources, etc.

ℹ️ http://www.wipo.int/patentscope/en/
PATENTSCOPE® (3)
An electric car is disclosed, which is basically configured to allow a plurality of driving motors driving motors can be driven when a driving load is small like on a flat ground, and all the driving road in which a vehicle speed is slow due to a large driving load. Namely, the driving force of such a manner that only a needed driving torque is outputted depending on a change of loads for a vehicle.

A drive system (11) for an electric car has four wheels (12, 13, 14, 15) to each of which is connected to a power supply (25) and are controlled by a supervisory control unit (20) and sensors (24) for each motor (18). Control of the torques delivered by the motors (18) is dependent upon instructions received from the driver of the car through the accelerator pedal (21), brake pedal (22) and steering wheel (23) and upon the temperatures of the motors (18) detected by the sensors (24) located on each motor (18). In this manner, the torques drawn from the motors may be maximized without damaging the motors thus improving the electric car's performance and permitting the use of smaller motors than those previously used thereby reducing the total weight of the car.

An electric car has a primary power system comprising at least one integrated generator and transformer, and a secondary power system comprising a contoured and streamlined solar panel roof. The integrated generator and transformer is a rotating field generator combined with a step-up transformer, and can be driven, for example, by a free wheeling front axle of the electric car. The primary supply coils and the primary and secondary transformer windings are triple coil stacked as a single unit on the stator body, and the flux pathway is optimized. Magnet keepers comprising male and female components are provided for the permanent rotor magnets.
create relevant terms in 5 languages
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<tr>
<th>No.</th>
<th>No.</th>
<th>Title</th>
<th>PubDate</th>
<th>Int.Class</th>
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<td><strong>SOLAR ENERGY POWER SUPPLY SYSTEM</strong></td>
<td>27.01.2009</td>
<td>F24J 2/00</td>
<td>MX/a/2007/000671</td>
<td>CHIA-TIEN WU</td>
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<td>A solar energy power supply system includes a solar battery (1), an electrolyte supply device (2), an electrolyte recycling device (3), a hydrogen recycling device (4), a fuel cell (5), a heating device (6) and a power management device (7). Electric power generation is accomplished by first activating the electrolyte supply device (2) to inject electrolyte (15) into the solar battery (1). The electrolyte (15) is a compound of water and a photo catalyst. The solar battery (1) receives light or heat to generate electric power. Water vapor (9) and hydrogen are generated and recycled through the electrolyte recycling device (3) and the hydrogen recycling device (4). When the light or heat is not available the recycled hydrogen gas is delivered to the fuel cell (5) to continuously generate electric power or the heating device (6) provides heat to the solar battery (1) to continuously generate electric power. Electric current generated by the solar battery (1) and fuel cell (5) is controlled by the power management device (7) to comply with electric power specification for final usage.</td>
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<td>2</td>
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<td><strong>SOLAR POWER GENERATION SYSTEM</strong></td>
<td>03.09.2009</td>
<td>E04D 13/18</td>
<td>PCT/JP2009/053633</td>
<td>KYOCERA CORPORATION</td>
<td>KANBARA, Tatsuji</td>
</tr>
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<td>Disclosed is a solar power generation system comprising a solar cell module (1), an installation mount (2) that supports a pair of the edges of the solar cell module (1), and at least one supporting member (3) arranged on the side of the non-light receiving surface (1B) of the solar cell module (1). The supporting member (3) is disposed so that is separated from but can come in contact with the non-light receiving surface (1B) of the solar cell module (1) due to the deformation of the solar cell module (1). The deformation of the solar cell module (1) increases in response to external force applied to the solar cell module (1).</td>
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<td>3</td>
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<td><strong>SOLAR POWERED ELECTRICAL GENERATING SYSTEM</strong></td>
<td>28.11.2003</td>
<td>B60K 16/00</td>
<td>PA/a/2000/012849</td>
<td>SCOTT SPARKMAN</td>
<td>SCOTT SPARKMAN</td>
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</table>
|     |     | A solar powered electrical generating system (10) includes a continuous hydraulic circuit (12) carrying a liquid (14) therethrough. A boiler (16) is fluidly connected to a first side of the continuous hydraulic circuit (12). A facility (15) is for heating the liquid (14) within the boiler (16). A condenser (20) is fluidly connected to a second side of the continuous hydraulic circuit (12). A facility (22) is for cooling the liquid (14) within the condenser (20). A hydraulic motor (24)
Possibilities for future developments (1)

network

PCT SAFE — PCT-ROAD — EDI — seamless

seamless and organic network
Possibilities for future developments (2)

- Intelligent coordination among international authorities and national offices
  - Collaborative search and examination
  - Feedback of national examination

- Prior art search in multilateral language [CLIR]
  - Need to enrich corpora in different languages
  - Machine translation is essential

High quality patents worldwide!!
Thank you!